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## **Parcel Data Sharing for Wildland Fire**

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For  
Wildland Fire Management  
And  
Cadastral Survey - Bureau of Land Management

# Parcel Data Sharing for Wildland Fire May 2012

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### Introduction

This report provides a high level summary of the status of parcel data acquired for the Wildland Fire Community and more detailed profile of associated agreements and limitations on that data. The parcel data collection project began as a pilot in 2006 with the Rocky Mountain Research Station in Missoula, Montana and has progressed from a research project into operations making consistent progress each year in the number of parcels as well as the establishment of sustainable procedures for its acquisition. The long-term strategy of the project is to improve the efficiency of parcel data acquisition by moving away from county acquisition by supporting state efforts to acquire and standardize the data and then to create a sustainable system by which parcel data is served from the state to the wildland fire community on an annual basis.

The parcel data content that is requested from the data producers is known as “core data”. This is a set of prescribed geometry and attributes that has been defined by the FGDC Subcommittee for Cadastral Data (Subcommittee). This core data set was created to be and is generally accepted as standard for parcel data exchange between governments. The three primary attributes in the *parcel core data standard* that are of principle interest for the Wildland Fire Decision Support System (WFDSS) are the following.

*Structure* - Is there a parcel on the structure? (Indicated by multiple attributes)

*Land Use* - What is the general use of the parcel? (Commercial, industrial, single residential, multi residential, agricultural or vacant)

*Owner Type* - Is the land publicly or privately held? (Often indicated by real estate tax exempt code or owner name)

Where parcel data is not available structure locations and site address points can be used as an alternative, which is the case in New Mexico where digital parcels are not universally available.

The process of acquiring, standardizing and providing parcel data is the “parcel spatial data infrastructure” and this process must be nurtured so it can develop into a mature and sustainable system. The states are a key factor in this effort because states have a wide variety of applications for parcel data. The long-term strategy is for the states to assume responsibility of the acquisition and the standardization of local government parcel data into a statewide coverage that addresses their internal business needs as well as those of the wildland fire community.

A factor often overlooked in the acquisition of parcel data is the importance of the familiarity and trust that is established between the wildland fire community and the parcel data providers. Respecting the wishes of the data providers as laid out in the various agreements, both formal and informal, are essential for current and future request and lays the foundation for the possible extension of the use of parcel data by other federal agencies.

## 1. Project Background

Parcel data collection to support the wildland fire community has been ongoing since 2006. This project involved contacting the *authoritative sources* of the data, typically counties, and where it was available working with states to acquire access to aggregated and standardized parcel data that can be used in WFDSS.

The original scope of project was limited to the assembly data specifically for wildland fire applications. There were two reasons; first it was necessary to keep the task within a workable schedule and budget; and secondly by limiting the use of the data to wildland fire applications the project team was able to provide a strong argument to local governments to share the data because it was apparent that their communities would received benefits by providing the data, particularly those that had recently experienced fires.

The long-term strategy of the project is to establish standard operating procedures within the states where county data is aggregated by the state, standardized and made available to the wildland fire program in a seamless operation. Ultimately once this “parcel data infrastructure” has been developed and matured such an operation will need minimal assistance to maintain the flow of the data to WFDSS. This strategy has already seen significant success where the wildland fire project team has been involved. Since 2006 when the project began only one western state had established a state level parcel data infrastructure that could regularly provide data to WFDSS. Today there are 8 of 11 states (including Montana) that have a sustainability rating of 3 or better on a scale of 5 and all 11 states have made some effort at gathering and compiling parcel data for WFDSS.

Where issues have arisen it is in states that have begun compiling parcel data for their internal application but have not considered the broader use of the data particularly the needs of wildland fire. In these cases it takes significant effort to “revisit” agreements or to develop less than ideal alternative strategies. This emphasizes the need to engage states in the establishment of state parcel data acquisition programs so problems of this nature can be avoided.

## 2. Agreements Summary

The agreements with the producers of parcel data are wide ranging. In the earliest stages of the project relatively few counties published parcel data on the Internet with the noted exception of Montana. Collecting the data required that the wildland fire project team contact each county and make a parcel data request. An introductory letter was signed and mailed to the local County Assessor with a follow up phone call. Included in the requesting letter was a description of how the information was to be used, its value to the wildland fire community and to the data provider. A statement of self-imposed limitations of use and distribution policies stating that the data would be used solely within the wildland fire community and that it would not be distributed without the expressed consent of the data provider. Many counties accepted the conditions stated in the letter, some requested a more detailed letter of request and a few required a formal agreement with signatures on the document from both parties.

There are two major components that characterize an agreement: first is levels of government between whom the agreement is made; and secondly the attributes that characterize the types of agreements.

### 2.1 Level of Agreement

#### 2.1.1 States

These agreements develop as the state assumes the data-publishing role (trusted source) for the county produced data. With these types of agreements the state typically has a direct agreement with each county laying out the terms and conditions for the state to share the data with federal agencies and other data requesters. In many cases the wildland fire parcel contact is with the state contact and the specific terms with each county are not known, but the terms for data use by the wildland fire community are provided by the state when the data is provided and applies to all counties.

There are three levels of permission for data sharing that are found in most state arrangements with the counties.

*State Decision on Distribution* - In this case the state has already clarified the terms of data sharing with each county and the state makes the decision for all counties. The relationship for data sharing is between wildland fire and the state.

*Permission upon request* - In this case the state must obtain approval from each county before the data held by the state can be transmitted to the data requested. The states typically have two ways of handling the contacts with each county for each data request.

State permission request - In these cases, notably Wyoming and Utah, the state contacts each county with the data request and compiles the results of the request for data. In Wyoming this takes the form of an email polling of each county.

Requested permission - In these cases, notably Oregon, the data requester must contact each county and ask if the data held by the state can be released for the intended data use.

*Pass through* - In this case each county has specified in its agreement with the state whether the data can be shared beyond the state agency. Colorado is a typical example of this situation. When ever possible the state includes the wildland fire in its request and is then able to pass the data through to wildland fire. The level of sharing is established in each individual county to state arrangement.

The level of permission may be contained in the agreement notes. This is an indication of the level of effort to obtain updates rather than a reflection of the terms of use or limitations on use.

Seven states (Arizona, California, Nevada, New Mexico, Utah, Washington and Wyoming) have an explicit or implied agreement for state level coordination. In these states a single point of contact or coordination team has been established and the project has worked with these cadastral contacts to obtain the parcel data. In some cases the project team continues to support data standardization but the state coordinators are handling the work involved in contacting and coordinating with the counties.

Idaho and Colorado are two emerging states. In these states the most recent collection is being coordinated with the state contacts with the project team is providing support.

Oregon is an example of state with internal parcel collection but the data sharing with wildland fire has not been a part of the state's agreement with the counties.

### ***2.1.2 Counties***

These are cases where the wildland fire community has a direct agreement with the counties and the data is directly received from the county without any state involvement. These are also the most problematic to track and monitor. Each county has individualized terms and conditions. These relationships are gradually being replaced as the states assume the coordination and data collection roles. There is still data in the WFDSS system that falls under these individual agreements, notably in Idaho, Oregon and Colorado. As data updates are developed through the states these agreements will be replaced with the state data share arrangements.

## 2.2 Agreement Attributes

Agreements are characterized by the attributes that are tracked by county in the agreements database. The values may be the same of all counties in a state due to state policies, for example if the state provides the data the source would be the state, but the attributes are managed and tracked at the county level which is the smallest unit of government that is a source for parcel data. Even where the states are trusted data sources there can be important nuances between counties that should be noted. Over time it is expected that the states will develop uniform agreements and terms with each of their counties and this detailed tracking will not be required.

The six attributes that characterize the agreements include the following:

1. Level of Organization: The different combinations of the levels of government involved in the agreements and the general characteristics of those agreements.
2. Types: degree of formality
3. Origination Date: Date of agreement
4. Signator: USFS authorizing signature
5. Terms: Degree of limitations
6. Notes: Specific terms of agreement.

### 2.2.1 Level of Organization

The Levels of Organization (that enter into agreements) attributes identify the level of government or organization that participates in an agreement. The values for this attribute are:

- S – State level agency
- R - Regional level organizations
- C - County or local government
- V - Vendor private or non-profit sector firm
- O - Other mechanism or agency.
- P – Publicly available and there is no need for an agreement
- U - Unverified or status not known

### 2.2.2 Types

This characterizes the agreement's level of formality. The domains for the type of agreement are as follows.

**Formal** - Formal Agreement - This is an agreement that is in writing and is in a structured form such as a Memorandum of Understanding (MOU), Memorandum of Agreement (MOA) Data Sharing Agreement. All parties sign these documents. These agreements are also dated and the conditions and



terms of use are explicitly described. This is by definition written. The final document may be electronically transmitted.

**License** - License Agreement - This is by far more common and is a "term of use" agreement where the user accepts the license agreement by accepting the data. These are often distributed with the data as a readme file (digital) or a license file or may be an accompanying letter. The receiving party does not sign a license agreement but accepts the terms by accepting the data. These are similar to the license agreements that accompany many software packages. These are notifications of limitations of use or agreements.

**Letter** - Data Request Letter - This is an agreement signed by the data requestor that describes the intended use and is signed and dated. In some cases the data provider requires the formal letters of request. The letters of request are in a letter format.

**Electronic** - Electronic Communication - This is an email or other electronic correspondence that is less formal than a data request letter and it may also be a data request poll from the state to the counties that has identified parties and a known date. The email communication may include a description of terms or limitations to subsequent use of the data. This is more formal than a verbal agreement and there is an "electronic trail" to the communication.

**Verbal** - Verbal Agreement - These are agreements where the terms of use are implied in the data request and there is no written or electronic trail. The verbal agreement is typically based on a fabric of trust. In many of these cases the data producer may have a standing policy that data is provided at no charge for agencies serving public health and safety. This is typically a telephone conversation or may be a verbal exchange onsite of a fire event.

**Purchase** - Data Purchase - This is an agreement to pay a price for the data. Any limitations or constraints are defined in a purchase agreement. There are no agreements of this type in the current wildland fire data acquisition.

**None** - Data is Public and No Agreement is needed. These are data sets that are freely available and do not require any agreement.

### ***2.2.3 Origination Date***

The date the agreement is signed and any limitations on the term of the agreement.

#### **2.2.4 Signator**

This is the person who signed the agreement for the wildland fire community. This agreement may be between wildland fire and the state or wildland fire and the county.

#### **2.2.5 Terms**

The terms of the agreement provides a general indication of the limitations or constraints on the subsequent data use. There are so many terms and possible variations in individual agreements that this is just a high level indication. The domain for this attribute is as follows.

**None** - This means there are no limitations on the subsequent use of the data. It is possible to have an agreement that does not have limitations on the use of the data. In these cases the agreements are often to acknowledge the source and possible irregularities in the data and often may also describe currency and have a no-liability or hold harmless clause.

**All** - This means all subsequent uses for the data are restricted and the data, including the derivative products, cannot be used outside of the original intent, which is the wildland fire community.

**Source** - This means that only the source data is constrained and derived data sets, generalizations or information built from or derived from the source data, can be distributed and used in subsequent applications. The wildland fire building clusters are an example of a derived data set.

**Attributes** - This means that selected attributes have limitations on subsequent use or re-distribution. Typically this will apply to information identifying an owner or a mailing address.

#### **2.2.6 Notes**

This is a general comment field to capture specific items of note in an agreement.

### 3. Parcel Data Summary

The Wildland Fire Project has focused on building standardized parcel data sets from counties that can be consumed by the wildland fire decision support system (WFDSS) to support response, mitigation and recovery efforts. Several other papers have been written reporting on the results and processes for this project. All of these reports can be found in the Subcommittee's publication website (<http://www.nationalcad.org>) under the Wildland Fire Business Application page.

Parcels and Wildland Fire - 2007 Report  
Parcel Data and Wildland Fire Management  
State of Washington Wildland Fire Tutorial  
Using Parcel Data to Predict and Manage Response to Wildland Fire

The use of parcel data in response to wildland fire was also featured in the 2008 Federal Geographic Data Committee (FGDC) Annual report (<http://www.fgdc.gov/fgdc-news/2008-fgdc-annual-report>).

The larger goal of the parcel collection for wildland fire is to assist states in establishing sustainable systems or programs that can continue to provide updated parcel information for all phases of wildland management including planning, mitigation, response and recovery and other programs that can use this information including federal land management, Census, and state land management to name a few. A state sustainable program consists of an annual update of parcel data from the primary or authoritative data sources, typically counties, standardizing that data and then providing access to the standardized data for use in WFDSS.

#### 3.1 Background

Over the five years that the Bureau of Land Management (BLM) Cadastral Survey and the Cadastral Subcommittee have been assisting wildland fire in collecting and standardizing parcel information to support WFDSS some trends and patterns have emerged. Obviously every state and every situation is unique but in general these are some of the trends and patterns that the past five years have shown.

1. *State Leadership is Essential*: State Leadership involves institutional commitment to a parcel acquisition program by establishing a state contact person actively engaged in coordinating, contacting and collecting data from the counties. This is the cornerstone of any program that has a claim to be sustainable.
2. *Communication on status and progress keeps the project moving*: Parcel data aggregation and standardization involves more than one person and has several tasks and many jurisdictions over several months timeframe. Having a web based or easily distributed method of

communicating status and progress and allowing for multiple participants to update this progress greatly improves communication.

3. *Contacts are ever changing:* Maintaining a good tracking system for local jurisdiction contacts is an ongoing task. The system needs to relate the contacts to their local jurisdiction, be able to easily accommodate multiple contacts per jurisdiction and be easily updated. It should also track communications including agreements, payments and prior discussions with the local jurisdictions for continuity. Maintaining the status of collection and contacts is almost as important as tracking the status of the data itself.
4. *There will always be exceptions:* In general the experiences to date have found that as many as 80% of the parcel data sources have special needs for initial data acquisition, data processing or provisioning of the data. The special needs include accommodating individual redacting requests, locally customized data sharing agreements, challenges in exporting attribute related information and the need to relate multiple files to develop a single standardized data set. This also means that about 20% of the local jurisdictions will be relatively easily acquired. If there is a consistent annual request and a relationship with the local jurisdictions, over time the number of special needs decreases and more of the data is more easily acquired.
5. *Combine data requests as much as possible:* The parcel data acquisition should be bundled with as many other projects needing information from the local jurisdictions as possible. Making one request per year for data sets makes it easier for the local jurisdiction to package their response and provide the data for all requests in one effort. Repeated requests for the same data increase the local jurisdiction workload.
6. *Simplified access to standardized data increases data use:* The goal of developing the standardized parcel data is to make the data consistent across jurisdiction boundaries, reducing the time spent interpreting local formats and codes and to provide the data to as many users as possible through a state service rather than having each request have to re-acquire and re-process the data. If the state sustained program is to be effective then access to the data needs to be well publicized and not difficult.

A more detailed discussion of these trends and patterns follows in the next sections.

### ***3.1.1 State Leadership***

State leadership and institutional commitment is the single most important factor for a successful state sustainable system. Establishing a state “Cadastral Coordinator” who is dedicated to communicating with the counties, coordinating data requests and receiving data sets is a critical success factor for a sustainable state program. An assigned person has to “own” the program and be recognized by the local parcel producers as the lead person. The lead can come from a department or an identified group, such as a state digital parcel team, but the cadastral coordination activity has to be recognized as an official ongoing function within an organization

One recent example of this is in California. The Digital Land Record Inventory (DLRI) Project was designed to construct a single, statewide dataset with standardized attributes that is available to county, state and federal agencies. The purpose of the DLRI is to reduce the cost, inefficiencies and redundant efforts of state and federal agencies, as each independently and periodically contacts parcel data originators for current data sets. The DLRI was a significant factor in successfully completing the standardization of data for 57 of 58 counties in California.

The DLRI met as a group at least once a month and is the forum where policy, standards and interagency communications were discussed and resolved. A single point of contact was established for county contacts and data aggregation. The consistent and persistent pursuit of data by one person acting for the DLRI built a strong relationship between the counties and the state. The state and federal wildland fire community participated on the DLRI and were able to stay informed about progress and access to California parcel data.

Establishing policy and building interagency support among the data consumers is an important activity in the DLRI that has many benefits. When it comes to the work of coordinating with the counties the success came down to one person to contact and build a relationship with each county. This is a full time job during the data collection phase of the project.

Similarly successful programs in other states have these same characteristics. Montana has an established parcel program with identified leadership and commitment. New Mexico has successfully coordinated with local governments and has a known established program. Nevada and Florida have parcel programs that collect data through the state agencies (Department of Revenue in Florida and the State Demographer in Nevada). The University of Washington Rural Technology Initiative manages Washington’s parcel collection. Utah’s State GIS Program has an established and ongoing relationship with all of Utah’s counties on a variety of programs including parcels and survey control.

### ***3.1.2 Communications and Contacts***

As with any coordination activity, communication is an ongoing and essential activity. Very few counties provide the data with one call or one contact. In most cases there are at least two departments that manage the parcel data. Typically two different groups in the county manage the spatial data (GIS) and attribute information. On average it requires about three contacts (telephone call, letter or email) to complete the delivery of a data set.

Tracking the names, telephone and email information for each person and also tracking the content and decisions associated with each contact improves the overall success rate of parcel collection. If there are multiple people contacting the counties it is even more important to track the communications and contacts to assure the same information is not requested twice and that the current contact information is available to everyone on the team. For example in one county at least six people were involved with the data request and collection over a two-month period and at least 12-15 separate communications. A sample of the communication strings is as follows.

- Feb 1 – initial communication
- Feb 2 – Follow up communication
- Feb 3 – Communication with a second department
- Feb 15 - Received a geodatabase. It contained roads, zip codes and structure points (911) feature classes. The structure points had a parsed site address but no parcel polygons or parcel number reference.
- March 30 - The State Department of Revenue (DOR) files were provided after the state coordinator pre-processed three separate data files into a single data set.
- April 12 - A geodatabase of parcel polygons was provided with no attributes
- April 13 - County uploaded a zipped personal geodatabase that would not open.
- April 14 – Geodatabase re-uploaded. This database had attributes but there were no column names, just generic number references. No data dictionary was included.
- April 22 – Follow up telephone call to for determine database content.

### ***3.1.3 Exceptions and Evolving Data Sets***

The exceptions seem to drive the rules for parcel data. This is what makes standardizing the parcel data so challenging. As examples

- In California 57 of the 58 counties have been standardized. 45 of the 57 counties required a join between two or more attribute data sets before the attributes could be connected to the geometry.
- In nearly every case the format or structure of the parcel identifier had to be modified to facilitate the joins.
- Fifteen percent (8 of the 57) of the California data sets required manipulating values in the attribute fields so the data could be imported into a database prior to joining attributes to the geometry.

- In Arizona 10 of the 14 processed counties had multiple files. One county provided the data in five (5) sections (both polygon and attribute data) which needed to be appended together.
- One county provided data in formats that would not import to a database and had no data dictionary.

The evolving nature of local parcel production systems creates a dynamic condition. Over the past five years approximately 15 to 20 % of the source data sets from the counties change from year to year. This means that crosswalks from the previous year have to be updated to facilitate standardizing the data. However, having a baseline crosswalk for each county has minimized the impact of the changes and has increased the efficiency of standardization.

One solution to the evolving nature of local data sets is to request standardized data from the county. However this only works in situations where an authority, such as the state Department of Revenue, can specify a standard or where the county has a committed staff that is willing standardize the local data sets. A third option would be to have the standardized data exported as a routine part of local GIS operations and this is emerging as base functionality in GIS software.

#### ***3.1.4 Combined Requests***

A relatively recent development is the emerging need for states to have other data such as site address information from the counties. This is an opportunity for parcel collection since the request for parcel data and address information could be made at the same time. Even though this information may come from different departments it is easier for the county to fulfill all of the data requests in one request than to have separate requests over the year.

A single request could be designed to meet the needs of the broadband mapping program, the state Department of Revenue, wildland fire and even Housing and Urban Development (HUD) data needs. Fulfilling a single data request once or twice each year could be more easily institutionalized in the both the state and counties.

The flip side of the single request is to avoid having various representatives from the wildland fire community ask for the same data repeatedly. In several states as the aggregated collection has been developing, counties will receive requests for the parcel data from state fire coordinators, local forests or other representatives of the wildland fire community. It is confusing to the data producers to have multiple agencies and programs request the same information, presumably for the same purpose. In several cases the local data was not provided for the state aggregated data sets because the county had already provided information to another agency for wildland fire support.

An example of a successful data request was in Arizona where the parcel and site address request was combined. One letter was sent from the State asking for both data sets. Even though the custodial responsibilities for this data was in multiple

departments in the counties having one person at the state shepherd both data sets and follow up on requests was more efficient than in prior years.

Similarly in Oregon there is already a process for the counties to provide data sets to the Department of Revenue. With a relatively small additional investment, the use codes and identifying features to ascertain which parcels have structures on them, could be added to the current Oregon Department of Revenue data request and the parcel data could be obtained annually from a single source without requesting permission from each county each year to obtain the data.

### ***3.1.5 Ease of Data Access***

The goal of developing the standardized parcel data is to provide the data to as many users as possible through a state service, eliminating the need for multiple requests for the same data from each county. If this is to be effective than the access to the data needs to be well publicized and not difficult. Several states have led the way in making this realty.

***Arkansas*** also provides annually updated standardized parcel data by county that by easily accessed through an FTP site.

***California*** serves publically available data through their CalAtlas site. Only data sets that have been approved by the county for distribution are published. The county data is standardized. Users must pass through a permission request process to gain access to the data and the navigation and technology requirements for download are moderately more challenging than other states.

***Florida*** provides an FTP download site for all of the parcel data collected from the counties each year. This data on this site has been standardized and can be accessed through the web.

***Montana*** has both data download and a data service that allows users to add data to a GIS canvas directly from the Montana servers. The parcel data in Montana is updated continuously.

***Utah*** provides FTP access to download the parcel geometry, but the access to the attributes is limited.

***Washington*** provides a DVD of parcel data to cooperators who must sign a data share agreement to gain access to the data sets. The data are standardized and the DVD includes data from state, federal and local sources. County data is standardized.

***Wyoming*** Department of Revenue receives annual updates of the county assessment information in a standardized form. This system is capable of



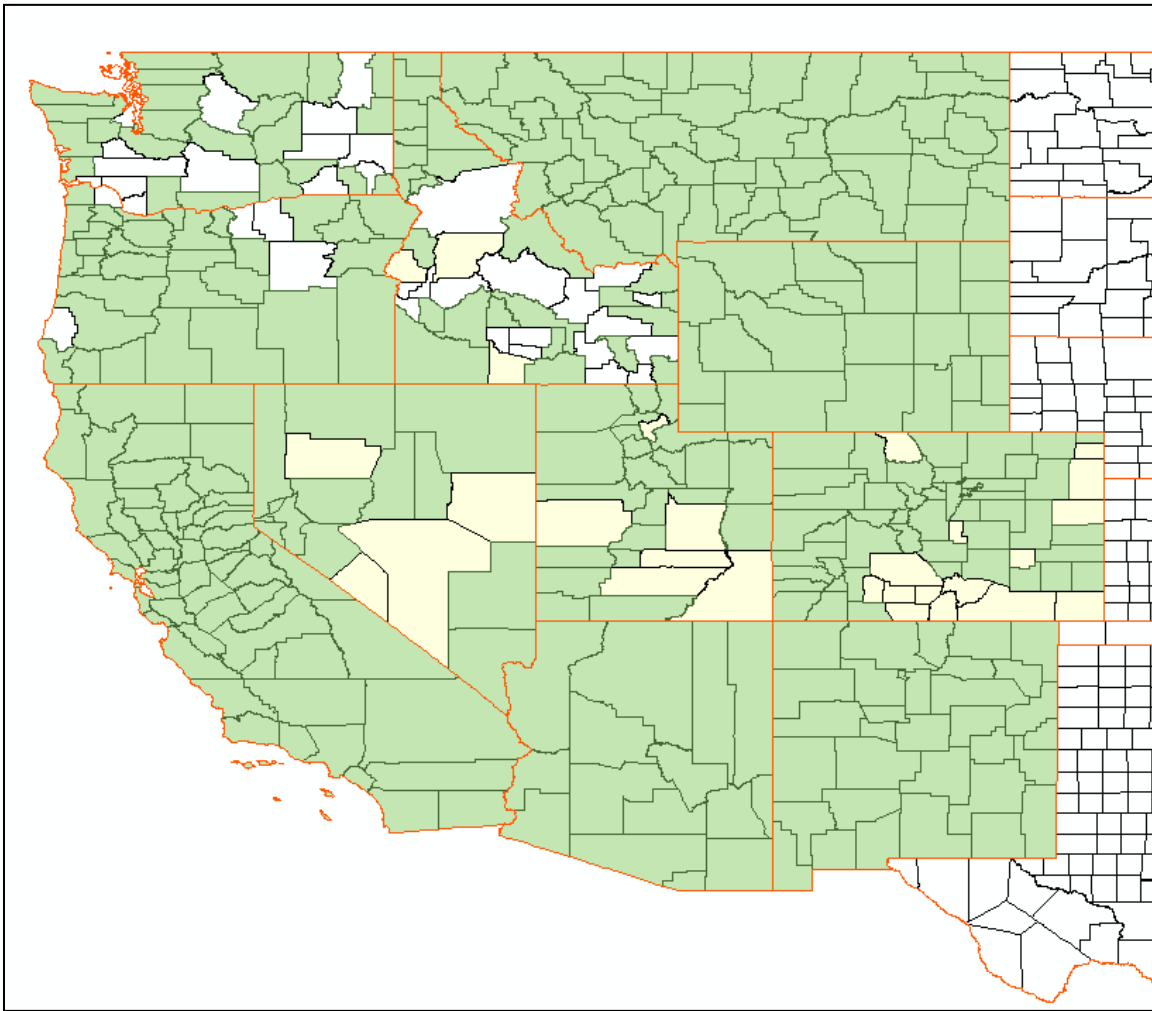
generating a shape file with associated attributes describing the parcel function and tax classification use. There are separate files for each code classification that need to be combined for the standardized data and each county must be specifically asked each year to share the data. But the Department of Revenue does the inquiry and sends the resulting responses. In recent years most of the counties have been very willing to have the Department of Revenue share the data for wildland fire uses.

## 3.2 Data Status

The following images and descriptions summarize the parcel data collected through May 31, 2012.

### 3.2.1 Western States Data Collection

The Western States have been the point of emphasis for the parcel data collection.

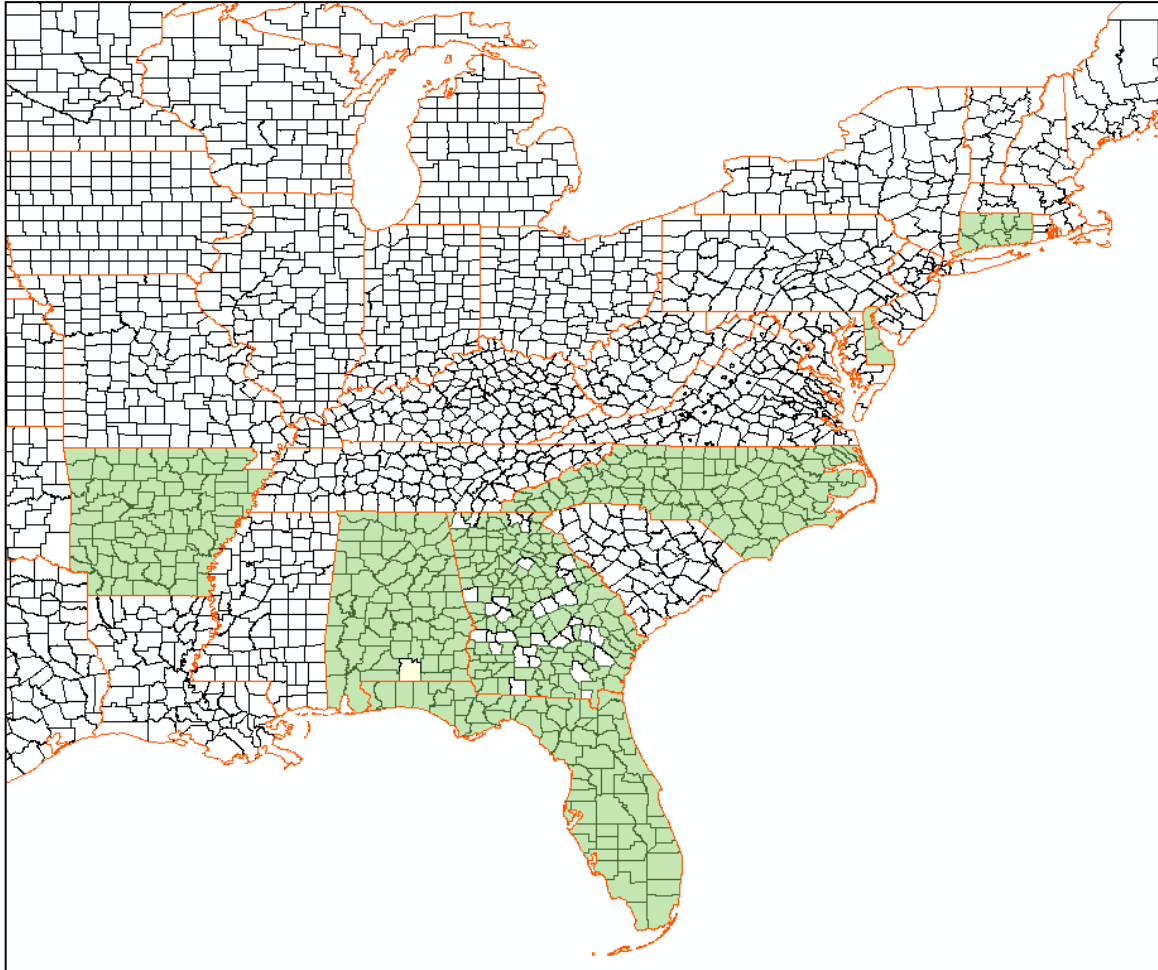


**Figure 1 Western states data collection status**

Most of the counties that have automated parcel data or site address points have provided data at least once for the WFDSS system. Not all of the data is at the same level of currency, but compared to the starting point this coverage has been successful.

### ***3.2.2 Eastern States Data Collection***

The parcel data collection in the Eastern States focused on those states where information can be gathered from state coordinators or through state portals. Contacting individual counties is only done on a case-by-case or as needed basis.

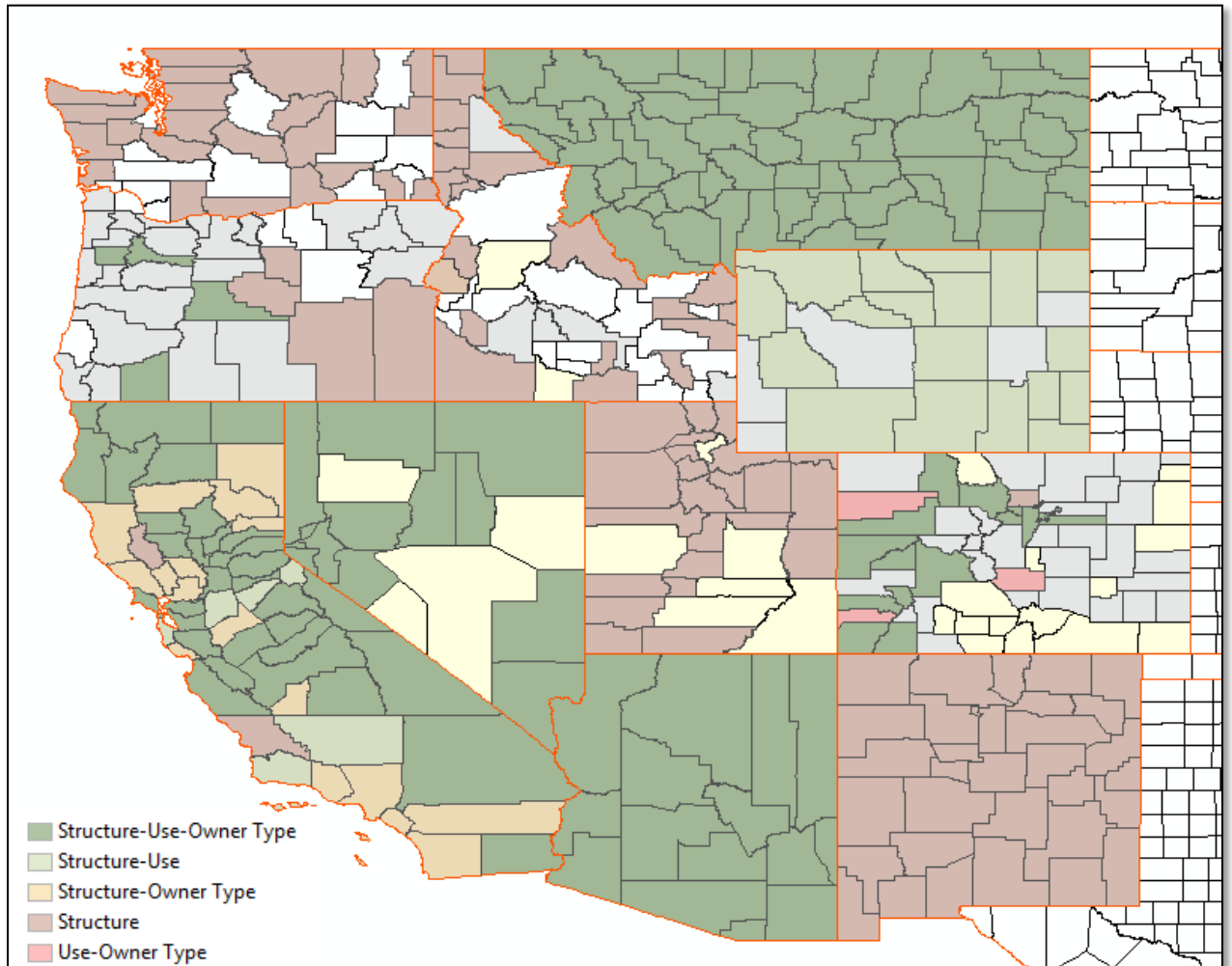


**Figure 2 Eastern states data collection**

In addition to the counties shown in Figure 2, a special event collection was completed for Hurricane Ike that included selected counties in Texas, Kentucky and Tennessee.

### 3.2.3 Standardized Data

The process of standardizing the parcel data began in 2010. Appendix B describes a summary of the process for standardization. In the figure below the three critical attributes for WFDSS (structure, land use and owner type) are indicated by the color of the county. This information was extracted from the results of the parcel data standardization and is being continuously updated as the data are updated.



**Figure 3 Standardized data**

The three attributes – structure present (structure), land use type (Use) and Owner type are three of the critical attributes that are included for the WFDSS data.

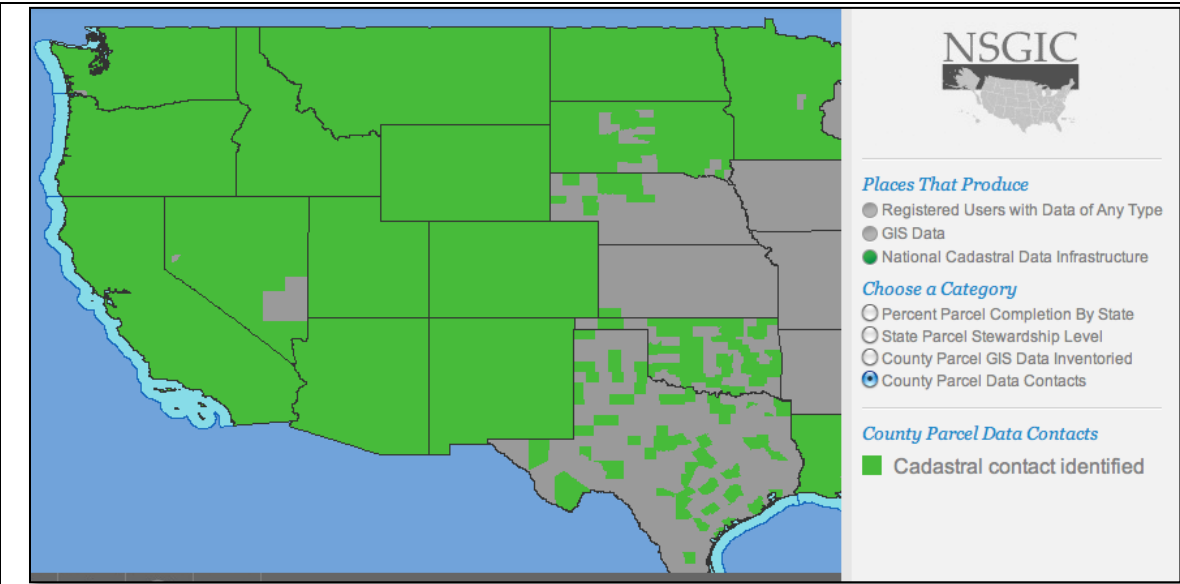
## 4. GIS Inventory

The Federal Geographic Data Committee (FGDC) Subcommittee for Cadastral Data (Subcommittee) began working with the US Forest Service in 2006 to acquire local government parcel data for WFDSS. The Subcommittee's web based inventory of parcel data was used as a tracking and status tool to manage the workflow for the collection of parcels from year to year. In 2010 this Nationalcad inventory was brought into the GIS Inventory as a module that focused solely on parcels.

The Nationalcad module of the GIS Inventory is now an integral part of the process of acquiring annual updates for WFDSS. Five tools that are used extensively for the tracking and reporting of parcel acquisition by county and by state are: (1) the parcel profile, (2) contacts, (3) websites for data download or data services (URLs), (4) document uploads and (5) spreadsheet downloads. The state and county profiles provide maps of the availability and currency of parcels in the thirteen western states of concern. This is used each year to develop a data acquisition strategy for the coming year.

Contacting the counties and acquiring the data is done in coordination with the State Coordinating Offices (state cadastral coordinators). As counties are contacted changes are posted to the Nationalcad. The local government parcel profiles are updated to reflect changes in the availability of parcels for government-to-government data sharing. Contacts are reviewed and updated for key personnel, this is particularly important because parcel geometry, attributes and permissions to use the data are often the responsibility of three different persons in a county. Relevant websites are documented and public download or data REST service sites are noted. Once the data is acquired it is processed into a standard format and a crosswalk table is developed and uploaded to the county documents section for future reference. If a county requires a signed agreement that too is documented and a copy is uploaded for future reference. All of this information is available to WFDSS managers via web based maps and exported spreadsheets by county and state that can be used for more detailed analysis.

During a fire event the wildland fire manager now can look to the Nationalcad module of the GIS Inventory to determine the availability and currency of parcel data in the area of concern. If updates are required or the county has yet to provide data, then the key contacts are available for those counties that have been inventoried. Currently over 400 counties have been contacted over thirteen western states since the Subcommittee has been working with the US Forest Service. Since the system has been brought in as a module to the GIS Inventory the additional capabilities of the system have greatly enhanced the functionality of the Nationalcad for wildland fire.



**Figure 4 GIS Inventory - county parcel data contacts**

## Appendix A - State Agreements Summary

### Western States

#### Arizona

##### *Trusted Data Source*

**Is the state a Trusted Data Source?** Yes

**If so what agency:** State Lands

**Is the data provided with conditions?** Yes

##### *State Data Share Agreement: Yes*

**Agreement Type:** Letter

**Description:** Letter written from the state to the counties that included the use by the US Forest Service for wildland fire.

**Link:**

[http://gisinventory.net/public\\_resources/az\\_state\\_cartographers\\_ofiicee\\_data\\_share\\_agreement.pdf](http://gisinventory.net/public_resources/az_state_cartographers_ofiicee_data_share_agreement.pdf)

**USFS Signator:** None

**State Signator:** Gene Trobia

**Agreement Date:** November 10, 2010

**Agreement Terms:** Source data cannot be redistributed.

Agreement between the state and the county includes a mechanism for providing data to the FS for wildland fire with limitations on use.

**State Contacts:** (Primary - P; GIS Inventory Y/N)

Gene Trobia - (P, Y)

602-542-3190

[gtrobia@land.az.gov](mailto:gtrobia@land.az.gov)

1616 W. Adams Street

Phoenix Arizona 85007

United States of America

Tim Colman MAS-GIS - (Y)

Assistant State Cartographer

1616 W. Adams St.

Phoenix Az., 85007

(602) 542-3249

[www.land.state.az.us](http://www.land.state.az.us)

Fax (602) 542-2600

##### *Data Collected Under this Agreement*

Data Collected: 13

Date Range of Collection: 2009-2011

## Arizona

### *Counties:*

**Counties in State:** 15

**Counties included in State Agreement:** 14

**Counties requiring their own agreement:** 1

**Counties without data:** 1

### *Background on State Agreement:*

5/8/2012 - Arizona worked with D Stage representing Wildland Fire in 2011 to acquire parcel data. A state agreement was used that was acceptable to most counties but Maricopa required individual county agreements. The state agreement regarding WF states that the data will be used solely for Wildland fire. The limitations are on the source data.

Maricopa County is not included in the state agreement and Greely County is the county not collected in 2011

### *General Procedures for Acquiring Statewide Data:*

Data was provided to AZ State Cartographer's Office and then uploaded to the Wildland Fire ftp site.

### *State Sustainability of Infrastructure:*

**Sustainability:** Scored from 1 to 5 (1 poor; 3 current system is operational for the near term; 5 long term viability)

**Sustainability Rating:** 2

**Stewardship Level (1 – 7 See Appendix):** 2

**Description:** Due to a shortage of resources it does not appear that Arizona will continue the acquisition of parcel data with out assistance from outside of the state. AZ DOR may have some data including geometry and this should be explored.

### *General Notes on Parcel:*

Greenlee was the only county that did not have data although they are in the process of acquiring it. They do have older data that was collected in 2009.



**California**

*Trusted Data Source:*

**Is the State Government a Trusted Source of data?** Yes

**If so what agency?** Board of Equalization

**Is the data provided with conditions?** Yes

*State Data Share Agreement: Yes*

**Agreement Type:** Verbal

**Description:** Verbal agreement between the State and Wildland Fire.

**Link:** none

**USFS Signator:** None

**State Signator:** None

**Agreement Date:**

**Agreement Terms:** Source data cannot be redistributed.

*State Contacts: (Primary - P; GIS Inventory Y/N)*

*Data Collected Under this Agreement*

**Counties Collected:** 57/58

**Currency Range of Data:** 2011

*Counties:*

**Counties in State:** 58

**Counties included in State Agreement:** 57

**Counties requiring their own agreement:** 1

**Counties without data:** 0

*Background on State Agreement:*

California is in the process of establishing procedures for collecting and sharing parcel data acquired from the counties.

*General Procedures for Acquiring Statewide Data:*

*Sustainability of State Infrastructure:*

**Sustainability:** Scored from 1 to 5 (1 poor; 3 current system is operational for the near term; 5 long term viability)

**Sustainability Rating:** 4

**Stewardship Level (1 – 7) see appendix:** 5

**Description:**

*General Notes on Parcel Data:*

## Colorado

### *Colorado*

#### *Trusted Data Source:*

**Is the State Government a Trusted Source of data?** Yes

**If so what agency?** Department of Natural Resource

**Are there limitations on use?** Yes

#### *State Data Share Agreement: Yes*

**Agreement Type:** Letter

**Description:**

**Link:**

**USFS Signator:** None

**State Signator:**

**Agreement Date**

**Agreement Terms:** Source data cannot be redistributed.

#### *State Contacts: (Primary P; GIS Inventory Y/N)*

Bill Martin – (P, Y)

Real Estate GIS Planner

Colorado State Land Board

1127 Sherman St., Suite 300

Denver, CO 80203-2206

303-866-3454 x3317

william.martin@state.co.us

<http://trustlands.state.co.us/Pages/SLB.aspx>

Jon Gottsegen - (Y)

State GIS Coordinator

Governor's Office of Information Technology

601 E. 18th Ave., Suite 250

Denver, CO 80203

phone: 303-764-7712

cell: 303-514-0166

jon.gottsegen@state.co.us

[www.colorado.gov/oit](http://www.colorado.gov/oit)

#### *Data Collected Under this Agreement*

Data Collected: 10

Date Range of Collection: 2011 - 2012

#### *Counties:*

**Counties in State:** 64

**Counties included in State Agreement:** 10

## Colorado

**Counties requiring their own agreement: 28**

**Counties without data: UK**

*Background on State Agreement:*

*General Procedures for Acquiring Statewide Data:*

The state is in the process of collecting data that is then passed on to Wildland fire.

*Sustainability of State Infrastructure:*

**Sustainability:** Scored from 1 to 5 (1 poor; 3 current system is operational for the near term; 5 long term viability)

**Sustainability Rating: 3**

**Stewardship Level (1 – 7 See Appendix): 1**

**Description:**

*General Notes on Parcel Data:*

Data is primarily pursued in the western part of the state. In the east there are mostly grasslands and the fires are not as dangerous.

## Idaho

### *Idaho*

#### *Trusted Data Source:*

**Is the State Government a Trusted Source of data?** Yes

**If so what agency?** CIO Office

**Is the data provided with conditions?** Unknown at this time (6/1/2012) the process is emerging

#### *State Data Share Agreement: Yes*

**Agreement Type:** Letter

**Description:**

**Link:** [http://gisinventory.net/public\\_resources/id-clearwater-agreement-r.pdf](http://gisinventory.net/public_resources/id-clearwater-agreement-r.pdf)

**USFS Signator:** None

**State Signator:** None

**Agreement Date**

**Agreement Terms:** TBD

#### *State Contacts: (Primary - P; GIS Inventory Y/N)*

Bill Farnsworth – (P, N)

Idaho GIO

[bill.farnsworth@cio.idaho.gov](mailto:bill.farnsworth@cio.idaho.gov)

208 332-1878 (w)

208 863-9039 (c)

Paul Reyes – (N)

(208) 332 1850

[Paul.Reyes@cio.idaho.gov](mailto:Paul.Reyes@cio.idaho.gov)

Robert Smith – (N)

[Robert.Smith@cio.idaho.gov](mailto:Robert.Smith@cio.idaho.gov)

#### *Data Collected Under this Agreement*

**Data Collected:** 0

**Date Range of Collection:** NA

#### *Counties:*

**Counties in State:** 44

**Counties included in State Agreement:** 0

**Counties requiring their own agreement:** 31

**Counties without data:** 13

## Idaho

### *Background on State Agreement:*

The State is in the process of meeting with the counties and developing a portal for access to the collected information. The goal is to have the parcel data assembled by the end of the year (2012). The GIO is in the process of developing agreements with the counties.

### *General Procedures for Acquiring Statewide Data:*

### *Sustainability of State Infrastructure:*

**Sustainability:** Scored from 1 to 5 (1 poor; 3 current system is operational for the near term; 5 long term viability)

### **Sustainability Rating:**

**Stewardship Level (1 – 7 See Appendix):** 1

**Description:** Process for collecting parcel data is under development and it is anticipated that once the details are worked out the level will be adjusted.

### *General Notes on Parcel Data:*

Idaho has updated the contact information for the GIS Inventory and they are talking about having a webinar beginning of June 2012 to get the Wildland Fire Team up to speed in the administration training. The state is finalizing the details of the MOU with counties and beefing up the infrastructure to collect/serve the data.

Idaho has PLSS for private lands in Idaho and they are in the initial stages of generating positive conversations with BLM to figure out a way forward in developing a statewide dataset.

Montana

**Montana**

*Trusted Data Source:*

**Is the State Government a Trusted Source of data?** Yes

**If so what agency?** Department of Administration

**Is the data provided with conditions?** No

*State Data Share Agreement: No*

**Agreement Type: Public**

**Description:**

**Link:**

**USFS Signator:** None

**State Signator:**

**Agreement Date**

**Agreement Terms: None**

Data is freely available as RST Service, no agreements needed

*State Contacts: (Primary - P; GIS Inventory Y/N)*

**Theme Steward**

Stu Kirkpatrick - (P, Y)

Department of Administration

ITSD Base Map Service Center

1515 East 6th Avenue Montana State Library Building

Helena, MT 59620

Fax: 406-444-0266

Phone: 406-444-9013

E-mail: [skirkpatrick@mt.gov](mailto:skirkpatrick@mt.gov)

**Cadastral Coordinator**

Keith Blount - (Y)

Department of Administration

ITSD GIS Bureau 1515 East 6th Avenue Montana State Library Building

Helena, MT 59620

Fax: 406-444-0266

Phone: 406-444-9891

E-mail: [kblount@mt.gov](mailto:kblount@mt.gov)Counties:

*Data Collected Under this Agreement*

**Data Collected :** 56

**Date Range of Collection:** 2012

*Counties:*

**Counties in State:** 56

**Counties included in State Agreement:** 56

**Counties requiring their own agreement:** 0

**Counties without data:** 0

## Montana

### *Background on State Agreement:*

Montana has arrangements with the counties to maintain and publish the parcel data.

### *General Procedures for Acquiring Statewide Data:*

### *Sustainability of State Infrastructure:*

**Sustainability:** Scored from 1 to 5 (1 poor; 3 current system is operational for the near term; 5 long term viability)

**Sustainability Rating:** 5

**Stewardship Level (1 – 7 See Appendix):** 7

### **Description:**

Montana is a model for states providing REST point services for access to data including the integration of federally managed lands with locally generated content.

### *General Notes on Parcel Data:*

The state maintains the parcel data for the counties and the County Assessor uses this data for assessment purposes for all counties that desire the services. This service is used by all but 7 counties. The County Assessor, an appointed position, provides appraisal data for managing the digital parcel mapping of the counties. Because the development and publication of digital parcels is an integrated part of the State's business process it is considered a highly sustainable system.

When processing the Montana data the 57<sup>th</sup> county is Yellowstone Park and these structures need to be added to their correct county when processing

## Nevada

### *Nevada*

#### *Trusted Data Source:*

**Is the State Government a Trusted Source of data?** Yes

**If so what agency?** State Lands Office is transitioning to the State Demographer's Office

**Is the data provided with conditions?** Yes

#### *State Data Share Agreement: Yes*

**Agreement Type:** Verbal

**Description:**

**Link:**

**USFS Signator:** None

**State Signator:**

**Agreement Date:** NA

**Agreement Terms:** Source data cannot be redistributed.

#### *State Contacts: (Primary - P; GIS Inventory Y/N)*

Holly C. Smith, hsmith@lands.nv.gov - (P, Y)

(775) 684-2727

[hsmith@lands.nv](mailto:hsmith@lands.nv).

Division of State Lands

901 Stewart Suites 5003

Carson City, NV 89701-5246

Jeff Hardcastle – (P, N)

State Demographer

NV Small Business Development Center

College of Business

University of Nevada, Reno

Mailstop 0032

Reno, Nevada 89557

775-784-6353

jhardcas@unr.edu

#### *Data Collected Under this Agreement*

**Data Collected:** 14

**Date Range of Collection:** 2011

#### *Counties:*

**Counties in State:** 17

**Counties included in State Agreement:** 12

**Counties requiring their own agreement:** 2

**Counties without data:** 3



## Nevada

### *Background on State Agreement:*

#### *General Procedures for Acquiring Statewide Data:*

A data request is made to the State Demographer who then determines if the proposed use of the data provides value.

#### *Sustainability of State Infrastructure:*

**Sustainability:** Scored from 1 to 5 (1 poor; 3 current system is operational for the near term; 5 long term viability)

**Sustainability Rating:** 3

**Stewardship Level (1 – 7 See Appendix):** 6

#### **Description:**

Nevada has been providing data to wildland fire with a verbal agreement that it is to be used solely for wildland fire. It appears that it includes anything that has to do with wildland fire. This needs to be verified. In 2011 the NV legislature passed a bill that requires the counties to provide parcel data to the state demographer (SD). The data can be shared provided that there is benefit to the state. It is up to the SD to make that determination. The SD is currently sorting out the process and parameters for acquiring parcels. NV received a FGDC grant for a cadastral business plan. Information available on the nationalcad web site has been provided to the state to support their efforts.

### *General Notes on Parcel Data:*

*New Mexico*

*Trusted Data Source:*

**Is the State Government a Trusted Source of data?** Yes

**If so what agency?** Department of Finance and Administration

**Are there limitations on use?** UK

*State Data Share Agreement: No*

**Agreement Type:** Verbal

**Description:** See "Background on State Agreement"

**Link:**

**USFS Signator:** None

**State Signator:**

**Agreement Date**

**Agreement Terms:** None

*State Contacts: (Primary - P; GIS Inventory Y/N)*

Larry Brotman – (P, Y)

State Cadastral Coordinator

New Mexico Taxation and Revenue Department

Information Systems Bureau

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Room 3040

Santa Fe, NM 87504

505-827-2318

<http://www.state.nm.us/tax/>

Glenn Condon - (Y)

NM E-911 GIS Program Manager

Dept of Finance and Administration

Local Government Division

Bataan Memorial Building Office 202B

407 Galisteo St

Santa Fe, NM 87501

505-827-4977 w

[glenn.condon@state.nm.us](mailto:glenn.condon@state.nm.us)

*Data Collected Under this Agreement*

**Data Collected:** 27

**Date Range of Collection:** 2009 – 2011

*Counties:*

**No of Counties in State:** 33

**Counties in State Agreement:** 33

**Counties requiring their own agreement: 0**

**Counties without data: 6**

*Background on State Agreement:*

The State Cadastral Coordinator made the initial contacts with the counties. The parcel data was assembled and standardized for several years. In the past two years New Mexico has replaced the parcel data with the statewide address points. These points place a point on every structure and meet the needs of the fire response better than the parcel data did because it provides the entire states and every structure is accounted for. The loss is the owner type and the land use codes that could have been collected from the parcel data for the trade off to get state wide updated information on every addressable structure.

*General Procedures for Acquiring Statewide Data:*

The State contact reaches out each year and provides the data without prompting

*Sustainability of State Infrastructure:*

**Sustainability:** Scored from 1 to 5 (1 poor; 3 current system is operational for the near term; 5 long term viability)

**Sustainability Rating: 5**

**State Stewardship Level:** There are seven levels of stewardship (See Appendix) that describes the state infrastructure for making parcel data available. Levels range from 1 (an inventory of local government data sources) to 7 (the compilation, integrations and publication of statewide parcel data by the state.

**Stewardship Level: 5**

**Description:** Address points for all structures and road centerline have been provided each year without prompting. Follow up required to determine public availability.

*General Notes on Parcel Data:*

## Oregon

### *Oregon*

#### *Trusted Data Source:*

**Is the State Government a Trusted Source of data?** Yes

**If so what agency?** Oregon Department of Revenue

**Are there limitations on use?** Yes

#### *State Data Share Agreement: Yes*

**Agreement Type:** Letter

**Description:** Counties must be contacted by WF to acquire permission to use the data that DOR has.

**Link:** [http://gisinventory.net/public\\_resources/or-deschutes-agreement-r.pdf](http://gisinventory.net/public_resources/or-deschutes-agreement-r.pdf)

**USFS Signator:** None

**State Signator:**

**Agreement Date:**

**Agreement Terms:** Source data cannot be redistributed.

#### *State Contacts: (Primary - P; GIS Inventory Y/N)*

Cy Smith - (Y)

Statewide GIS Coordinator

Oregon Dept. of Admin. Services

cy.smith@state.or.us

955 Center St NE

Room 470

Salem, OR 97302

503-378-6066

503-378-5200

Philip McClellan - (P, Y)

ORMAP Project Coordinator

Oregon Dept. of Revenue

Property Tax Division

philip.l.mcclellan@state.or.us

Oregon Dept. of Revenue

955 Center Street NE

Salem, OR 97301

(503) 945-8493

(503) 945-8737

www.ormap.org

#### *Data Collected Under this Agreement*

**Data Collected:** 0

**Date Range of Collection:**

## Oregon

### *Counties:*

**Counties in State:** 36

**Counties included in State Agreement:** NA

**Counties requiring their own agreement:** 33

**Counties without data:** 3

### *Background on State Agreement:*

The state has an agreement with the counties on the acquisition and use of parcel data for the state but it does not include the use of this data with organizations or agencies outside of the state.

### *General Procedures for Acquiring Statewide Data:*

In order to obtain the data from the State Department of Revenue each county has to be contacted individually and asked if the data available in the Department of Revenue can be shared with wildland fire. The State will not contact the counties for wildland fire. The timing and format and structure of the data that would be provided are not clear.

### *Sustainability of State Infrastructure:*

**Sustainability:** Scored from 1 to 5 (1 poor; 3 current system is operational for the near term; 5 long term viability)

**Sustainability Rating:** 2

**Stewardship Level (1 -7 See Appendix):** 3

### **Description:**

### *General Notes on Parcel Data:*

Parcel data has been obtained from several counties under a license agreement provided with the data that prevents any subsequent or derivative data use and does not allow for sharing beyond wildland fire. Many counties in Oregon have parcel data but it is a very limiting state in terms of the data sharing and subsequent uses.

## *Utah*

### *Trusted Data Source:*

**Is the State Government a Trusted Source of data?** Yes

**If so what agency?** State of Utah Automated Geo-reference Center (AGRC)

**Are there limitations on use?** No

### *State Data Share Agreement: Yes*

**Agreement Type:** Letter

**Description:**

**Link:**

**USFS Signator:** None

**State Signator:** Sean Fernandez

**Agreement Date**

**Agreement Terms:** Source data cannot be redistributed.

Annual agreement and annual data sharing arrangements between the state and the counties.

### *State Contacts: (Primary - P; GIS Inventory Y/N)*

Sean Fernandez – (P, Y)

Cadastral Manager

State of Utah AGRC

Cadastral

sfernandez@utah.gov

State Office Building, Room 5130

Salt Lake City, UT 84114

801-209-9359

801-538-3317

801-209-9359

<http://gis.utah.gov/agrc>

### *Data Collected Under this Agreement*

**Data Collected:** 18

**Collection Period:** 2012

### *Counties:*

**Counties in State:** 29

**Counties included in State Agreement:** 18

**Counties requiring their own agreement:** 10

Counties with no data: 1

### *Background on State Agreement:*

The State of Utah has a long history of providing funding to the counties for specific projects and activities related to GIS and cadastral data. As part of the annual agreements and funding specific data requests can be made. The State has kept these requests to a minimum, asking only for the critically needed information. The

## Utah

State is also encouraging and fosters the counties to develop parcel and survey control data stewardship providing tools and funding as possible. The State has a sophisticated and mature data hosting services organization.

### *General Procedures for Acquiring Statewide Data:*

#### *Sustainability of State Infrastructure:*

**Sustainability:** Scored from 1 to 5 (1 poor; 3 current system is operational for the near term; 5 long term viability)

**Sustainability Rating:** 3

**Stewardship Level:** 4

#### **Description:**

#### *General Notes on Parcel Data:*

The parcel data obtained for the 2011 season was limited to an indication of the parcels with structures. The parcel centroid was used to place a structure location. Utah also has an active address inventory in progress and potentially moving to a statewide address point for locating structures may be a good way to proceed in the future. Similar to Oregon, there is a reluctance to share the parcel data without clearly defined uses and subsequent uses.

## Washington

### *Washington*

#### *Trusted Data Source:*

**Is the State Government a Trusted Source of data?** Yes

**If so what agency?** University of Washington Rural Development

**Is the data provided with conditions?** Yes

#### *State Data Share Agreement: Yes*

**Agreement Type:** Formal

**Description:**

**Link:**

**USFS Signator:** David Calkin

**State Signator:** Luke Rogers

**Agreement Date:** 1/5/2009

*Agreement Terms: Source data cannot be redistributed.*

#### *State Contacts: (Primary - P; GIS Inventory Y/N)*

Luke Rogers - N

Research Scientist and Forest Engineer GIS

Remote Sensing & Forest Engineering Rural Technology Initiative

School of Forest Resources

Box 352100

Seattle WA, 98195

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[lwrogers@u.washington.edu](mailto:lwrogers@u.washington.edu)

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Jeff Holm - (Y)

WAGIC Coordinator

Department of Information Services

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P.O. Box 42445

Olympia, WA 98504-2445

(360) 902-3447

Frank Fischer (Y)

State Survey Office

State of Washington

Department of Natural Resources

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1111 Washington St. SE.

P.O. Box 47060

Olympia, WA 98504-7060

(360) 902-1206



## Washington

### *Data Collected Under this Agreement*

**Counties Collected:** 33

**Currency Range of Data:** 2009

### *Counties:*

**Counties in State:** 39

**Counties included in State Agreement:** 38

**Counties requiring their own agreement:** 1

**Counties without data:** 5

### *Background on State Agreement:*

This is an agreement signed by the USFS as a participant in the Washington parcel project.

### *General Procedures for Acquiring Statewide Data:*

### *Sustainability of State Infrastructure:*

**Sustainability:** Scored from 1 to 5 (1 poor; 3 current system is operational for the near term; 5 long term viability)

**Sustainability Rating:** 3

**Stewardship Level (1 -7 See Appendix):** 4

**Description:**

### *General Notes on Parcel Data:*

## Wyoming

### *Wyoming*

#### *Trusted Data Source:*

**Is the State Government a Trusted Source of data?** Yes

**If so what agency?** Department of Revenue

**Is the data provided with conditions?** Yes

#### *State Data Share Agreement: Yes*

**Agreement Type:** Electronic

**Description:**

**Link:**

**USFS Signator:** None

**State Signator:**

**Agreement Date**

**Agreement Terms: Source data cannot be redistributed.**

#### *State Contacts: (Primary - P; GIS Inventory Y/N)*

Jacob (Jake) Mundt - N

Enterprise GIS Program Coordinator

Wyoming Office of the Chief Information Officer

GIS Division

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2001 Capitol Avenue

Emerson Building Room 237

Cheyenne, WY 82002

307-777-8252

307-777-3696

<http://cio.state.wy.us>

David Chapman – (P, N)

Wyoming Department of Revenue

Property Tax Division

Technical Services Group

[dave.chapman@wyo.gov](mailto:dave.chapman@wyo.gov)

(307) 777-5289

Robert Eicher (N)

Senior CT Business Applications Analyst

Property Tax Division

122 W 25th St

Cheyenne, WY 82002-0110

307-777-5240

#### *Data Collected Under this Agreement*

**Counties Collected: 23**

## Wyoming

**Currency Range of Data:** 2007 - 2011

*Counties:*

**Counties in State:** 23

**Counties included in State Agreement:** 23

**Counties requiring their own agreement:** 0

**Counties without data:** 1

*Background on State Agreement:*

*General Procedures for Acquiring Statewide Data:*

Contact the State Department of Revue with a data request from the Data Mart along with a statement regarding how the data will be used and who will be able to access it.

*Sustainability of State Infrastructure:*

**Sustainability:** Scored from 1 to 5 (1 poor; 3 current system is operational for the near term; 5 long term viability)

**Sustainability Rating:** 4

**Stewardship Level (1 to 7 See Appendix):** 4

**Description:** State DOR collects CAMA data every year. Permission to obtain and use the data is obtained by polling the counties. The DR does this for Wildland Fire. If the counties say yes the data can be provided. All but 2 counties that had GIS parcel data in WY agreed to share their data. The two that did not agree said they had provided the data to USFS already through a different request made locally.

State GIS is in the process of developing statewide standardized parcels that will most likely be available in this same manner

*General Notes on Parcel Data:*

The parcel information originates with the local assessor and is compiled by each local county jurisdiction and they control the release of that information. There are some that publish that to their website, while others charge for the data. Fortunately, all 23 Wyoming Counties have GIS parcel information. Some of the attribute information with the parcel GIS data came from DOR's aggregated DataMart. According to Chapter 1 of our agency rules that information also belongs to the Assessor. The ability to release that information is dependent entirely on the Assessors approval.

The Department of Revenue puts a survey out to all the Assessor's asking for their approval to release the data. In 2010 20 of the Assessors said yes, two said yes with conditions placed on the release of the information and one refused. In 2012 1 asked for direct follow up and 2 refused. Base don follow up conversations the two

## Wyoming

refusals came because the counties indicated that the local Forest Service had already made the data request and they were not going to duplicate providing the data.

There is a new effort that was initiated by the State GIO to build a statewide parcel data set from the GIS rather than the CAMA. This effort is in progress and the State Department of Revenue is in cooperation with this effort.

**Eastern States**

***Alabama***

*Trusted Data Source:*

**Is the State Government a Trusted Source of data?** Yes

**If so what agency?** Alabama Emergency Management Agency (AEMA)

**Are there limitations on use?** Yes

*State Data Share Agreement:* No

**Agreement Type:** Electronic - This was a one-time acquisitions

**Link:**

**USFS Signator:** None

**State Signator:**

**Agreement Date**

**Agreement Terms:** Source data cannot be redistributed.

The data for Alabama was provided by FEMA. Because of the many destructive tornados in Alabama in 2011 FEMA identified a resource to compile and standardize the parcel data for the state. All but one county could be standardized. The data was provided in exchange for support on standardization and technical support. The DVD with the statewide parcel data includes all of the crosswalks for the data. We managed to gather 66 out the 67 counties. if you have any trouble with the data you can contact Melissa Mayo with Alabama EMA. I'm glad we were able to get this finished and I appreciate all of your help." Stephen Fields 9/20/2011

*State Contacts: (Primary - P; GIS Inventory Y/N)*

Melissa Mayo - N

AEMA GIS Specialist

State GIS Unit Lead

205-259-0340

[melissam@ema.alabama.gov](mailto:melissam@ema.alabama.gov)

Stephen Fields - N

Geospatial Information Specialist

FEMA DR-1971-AL

[Stephen.Fields@fema.gov](mailto:Stephen.Fields@fema.gov)

571-208-8990

*Data Collected Under this Agreement*

**Counties Collected:** 58

**Currency Range of Data:** 2011

*Counties:*

**Counties in State:** 67

**Counties included in State Agreement (one time data sharing):** 58

## Alabama

**Counties requiring their own agreement: 0**

**Counties without data: 9**

*Background on State Agreement:*

This data was provided through FEMA as a one-time data delivery, future deliveries or standardization efforts or plans for collection and standardization are unknown. Data was provided with the understanding it would not be publically published but can be provided to all wildland fire participants.

*General Procedures for Acquiring Statewide Data:*

NA

*Sustainability of State Infrastructure:*

**Sustainability:** Scored from 1 to 5 (1 poor; 3 current system is operational for the near term; 5 long term viability)

**Sustainability Rating: 1**

**Stewardship Level (1 – 7 See Appendix): 1**

**Description:**

*General Notes on Parcel Data:*

The full dataset (each county feature class and appended statewide feature class) is a little over 5 gb. The statewide data set is only 1.5 gb.

**Florida**

*Trusted Data Source:*

**Is the State Government a Trusted Source of data? Y**  
**If so what agency?** Florida Department of Revenue  
**Is the data provided with conditions?** No

*State Data Share Agreement: No*

**Agreement Type:** Public  
**Description:** Public Access is available  
**Link:**  
**USFS Signator:** None  
**State Signator:**  
**Agreement Date**  
**Agreement Terms:** None

*State Contacts: (Primary - P; GIS Inventory Y/N)*

Tom Canter MCF, CFE (P,Y)  
Florida Dept of Revenue  
Property Tax Oversight Program  
P.O. Box 3000  
Tallahassee, FL 32315-3000  
[www.myflorida.com/dor/property/gis/](http://www.myflorida.com/dor/property/gis/)  
(850) 617-8872  
fax (850) 488-9482  
[cantert@dor.state.fl.us](mailto:cantert@dor.state.fl.us)

*Data Collected Under this Agreement*

**Counties Collected:** 67  
**Currency Range of Data:** 2011

*Counties:*

**Counties in State:** 67  
**Counties included in State Agreement:** 67  
**Counties requiring their own agreement:** 0  
**Counties without data:** 0

*Background on State Agreement:*

Florida has a strong public records law. The Florida Department of Revenue publishes parcel data from their ftp site that is accessible without a password.

*General Procedures for Acquiring Statewide Data:*

Link to Public Site: Home > Property Tax > Florida Property Valuation and Tax Data – Florida Property Tax Data Portal

NAL files – Name- Address-Legal

## Florida

SDF Files: Sales Data File

Note: The SDF is designed to list only the parcels that have transferred during the year immediately preceding the January 1 assessment date and the sales that have occurred subsequent to the January 1 assessment date up to the required submission date.

<ftp://sdrftp03.dor.state.fl.us/Tax%20Roll%20Data%20Files/2011%20Final%20NAL%20-%20SDF%20Files/>

GIS Data: By county

<ftp://sdrftp03.dor.state.fl.us/Map%20Data/>

### *Sustainability of State Infrastructure:*

**Sustainability:** Scored from 1 to 5 (1 poor; 3 current system is operational for the near term; 5 long term viability)

**Sustainability Rating:** 5

**Stewardship Level (1 to 7 See Appendix):** 5

**Description:** Publication of the parcel data is institutionalized within the Florida Department of Revenue. Florida has a strong public records law that ensures access to the data. More current data (yet to be certified) is available from the county. Some counties provide Internet access to their data.

### *General Notes on Parcel Data:*

The Florida Department of Revenue publishes their data on an annual basis with the certified roll that is published in October. The lag time for this data may be as much as 2 years out before it is refreshed. This data can be down loaded at any time. It contains all of the necessary information in two files (name files and describe



***North Carolina***

*Trusted Data Source:*

**Is the State Government a Trusted Source of data? Yes**  
**If so what agency? Secretary of State**  
**Are there limitations on use? No**

*State Data Share Agreement: No*

**Agreement Type: Public**  
**Description:** Public access  
**Link:**  
**USFS Signator:** None  
**State Signator:**  
**Agreement Date**  
**Agreement Terms:** None

*State Contacts: (Primary - P; GIS Inventory Y/N)*

Thomas W. Morgan (Y)  
Land Records Manager  
N. C. Department of the Secretary of State  
Certification and Filing Division  
P. O. Box 29626  
Raleigh, NC 27626-0626  
Voice: 919-807-2268  
Fax: 919-807-2285

*Data Collected Under this Agreement*

**Counties Collected: 100**  
**Currency Range of Data: 2010**

*Counties:*

**Counties in State: 100**  
**Counties included in State Agreement: 100**  
**Counties requiring their own agreement: 0**  
**Counties without data: 0**

*Background on State Agreement:*

*General Procedures for Acquiring Statewide Data:*

North Carolina is an open records state and provides open access to all data hosted by the State. The data sets for the wildland fire are the statewide address points that place a point on every structure in the state. These data are divided into five regions and are available for download.

*Sustainability of State Infrastructure:*

**Sustainability:** Scored from 1 to 5 (1 poor; 3 current system is operational for the near term; 5 long term viability)

## North Carolina

**Sustainability Rating:** 5

**Stewardship Level:** 2 – should be re-evaluated

**Description:**

*General Notes on Parcel Data:*

North Carolina is currently exploring the use of a web base portal that will provide access to standardized data statewide. This project is dependent on a grant from EPA that is still pending release of funding.

## **Appendix B - Parcel Data Standardization Processing Summary**

1. Receive county source data. This data may be in multiple files including GIS files and related tables.
2. Review source data. Identify primary identifier fields (parcel identifiers) in all files, review any documentation including codes and look up tables. Verify that all data files can be read and that the content in all files for the needed standardization attributes are present and documented
3. If the data has been previously standardized - Compare new source data to that documented in crosswalk document
  - 3.1. Identify what has stayed the same and what has changed noting the number of parcels, table and files names, attribute names and attribute content.
  - 3.2 Note all changes in new version of crosswalk document.
  - 3.3 Populate a working geodatabase with the source data following the crosswalk document processes.
4. If the data has not been previously standardized - Develop a crosswalk and source data metadata. Run queries and attribute analysis to develop the standardized output.
  - 4.1 Review of source data and pull the data into a working geodatabase.
  - 4.2 Using joins and relationships as well as SQL statements for selecting and analyzing the data populate the working geodatabase with the source data.
  - 4.3 Develop the source data metadata noting any geographic projections and any particular nuances for the source data processing.
5. Review and finalize the working geodatabase - check to see if any of the fields need to be populated again, has the owner type been harvested correctly and the fullest extent possible? Check a small area against recent imagery to verify that structures have been located.
6. Export working Geodatabase into Standardized Geodatabase
7. Final check on the crosswalk document, metadata and national inventory contacts and data set status.

## Parcel Data Standardization Processing Summary

8. Make data available for wildland fire and state coordinators - This process currently involves posting the data to the wildlandfire.us FTP site and sending out notification emails. In the future this process may also include appending county data to a state data set and delivering the data as one state file.
  - 8.1 Compact database
  - 8.2 Zip database
  - 8.3 Upload Data personal geodatabase to FTP site
  - 8.4 Upload Crosswalk to FTP site
9. Update status-tracking database.

## Appendix C - Glossary

### Agreement Types:

**Formal:** An MOU, MOA or other agreement form that is signed by all parties. These are few in number.

**Letter:** A document in the form of a letter or email signed by the data requestor that describes the intended use (see terms of use). It is signed and dated and is something a selected set of counties have requested. These letters will need to be reviewed and refreshed new data is requested. In some cases the original letters have been replaced by state level data sharing.

**License agreement:** The license is the most common form of agreement that is in the form of a "terms of use". It is an agreement that the user accepts by accepting the data, these are often distributed with the data as a readme file or a license file or maybe an accompanying letter, the receiving party does not sign this but seems to accept the terms by accepting the data. This is a common procedure for deploying conditions of use in the data-sharing world.

**Limitations of Use:** The *limitations of use* or *conditions of use* are those that are implied in the data request. This is a common procedure in the approach to a county or state. The request is made with the expressed statement that the parcel data will be used solely in the WFDSS for wildland fire? There is no explicit exclusion of other uses and with these types of "agreements". This approach avoids the difficulties of written formal agreements.

It will be necessary to return to the counties to acquire permission of used beyond the terms or conditions identified in the data request. Some of "agreements" have been verbal, i.e. we explain over the phone how the data will be used and the provided agrees.

**No Agreement:** *Trusted Data Sources* that make data publicly available and include - Florida, Arkansas, and Montana to name three. Georgia and North Carolina are also no agreement situations but it is necessary to request the data but there is no limitation on subsequent use.

### Other Terms:

**Authoritative Source or Data:** *Authoritative data* comes directly from the creator or the *authoritative source*. It is the most current and accurate and is often vetted according to official rules and policy. The data has a known accuracy and lineage and in some cases it is certified. For some the "authoritative data" is referred to as

## Glossary

the “primary” data source. Often an *authoritative source* has statutory *authority* or requirements in rule to collect and maintain the data. The term *Data Steward* is often used interchangeably with Authoritative Source. The distinction is that the *authoritative source* is the organization that has the assigned authority and the *data steward* is the entity in that organization that is responsible for creating, maintaining and providing the data, which in smaller organizations can be one in the same but in larger organizations it can be one of an organization’s many specialty offices.

*Trusted data* is published data that is available from a *trusted source*. Trusted data is typically accessible through the Internet for viewing and/or downloading or as a web service. The authoritative source has an agreement with the trusted source for publication. In some cases the trusted source may be the same as the authoritative source. In other cases a third party, such as state or regional agency, may assemble data from many authoritative sources aggregating their data and serving as the trusted source for publication in that region.

## Appendix D - State Stewardship Levels

The levels of State Stewardship define the degree to which the parcel data from the various producers in the state have been combined and reconciled into a singled data set. <sup>1</sup>

There are seven levels of stewardship that are cumulative and summarized below.

There are several qualifications

- Emphasis is on infrastructure to support the activities; it does not mean that all counties are participating.
- This is for government to government data sharing
- There may be limitations on use or redistribution

<b>Level</b>	<b>Description</b>
0	No activity
1	Inventory of local government parcel data
2	Parcel data provided to a central location
3	Parcel attributes are standardized in some form
4	Parcel geometry has been standardized and combined with attributes
5	Parcel data includes core attributes and is accessible
6	Parcel data is available through “portal”, REST Point or Data Service
7	Parcel data tied to a common reference (typically standardized PLSS)

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<sup>1</sup> State Parcel Data Stewardship, FGDC Subcommittee for Cadastral Data, Internet, 2012, <http://www.nationalcad.org/showdocs.asp?docid=1013&navsrc=Search&navsrc2=>