

Statewide Parcel Database

SUMMARY OF CONSUMER SURVEY

Survey objectives

In order to best design a statewide parcel database, it is necessary to understand the needs, limitations, and interest of the organizations, groups, and individuals who may be using the data now and in the future. The results from a web-based survey of potential users and consumers of the database are presented in this summary report. The objectives of the survey were to qualify and understand the need for parcel data; quantify current efforts by state, private, and federal organizations; and assess and build interest in a statewide parcel database.

Survey development

The survey was constructed to collect both quantitative and qualitative observations and data about current parcel data use, as well as desires and needs for a statewide parcel database. Personnel from state and federal agencies were the main participants of the survey, since it is presumed that they will be the most active participants in the development and use of the database. Representatives from local government (county and city) and the private sector were also surveyed, but on a smaller scale. Electronic mail solicitations were sent to geographic information-related list-serves, including University of Washington GIS, Washington State Geographic Information Council, Washington Geospatial Framework Management Group, and Central Puget Sound GIS User Group.

This summary is based on responses from the following organizations and number of surveys:

- Federal (8)
- State (16)
- County (2)
- City (5)
- Educational institution (2)
- Other public (2)
- Private - for profit (5)
- Private - not for profit (2)

Why is parcel data collected?

The reasons for collecting parcel data vary widely among the different organizations which responded to the survey. Some organizations collect parcel data to update existing parcel-related data, such as property tax information, while other organizations use the parcel data to derive additional analyses, reports, and maps that either rely on the geographic location of the parcel or the tabular information stored with the parcel. General themes, however, can be pulled from the survey results and reasons for collecting and using parcel data can be summarized that will help design the most efficient and useful type of statewide parcel database.

Of the responses, it appears that collecting and reporting ownership information and patterns is the most frequently cited use of parcel data. Land use planning efforts was the second most cited use of parcel data, following by the aid of parcel data in analyzing policies and programs and making future decisions regarding a new law, incentive, or other program. The comments from the surveys were coded into the following similar themes and frequencies:

- Ownership information - 24%
- Land use planning - 18%

- Policy/program analysis and decision making - 13%
- Contact landowners - 10%
- Tax information - 7%
- Agency management - 7%
- Natural resource planning and management - 7%
- Infrastructure planning and management - 7%
- Emergency planning and response - 4%
- Conservation planning - 3%

In addition to the many benefits and uses of parcel data, a majority of the public organizations surveyed (74%) have a direct legal mandate to fulfill, requiring available and updated parcel-level information. For some organizations, the lack of easily accessible parcel data makes fulfilling the respective mandates or regulations quite difficult.

Current parcel data collection

This survey focused on federal and state organizations, since it is assumed that they would be the primary users of a statewide database. Thus, the wide geographic area covered by current parcel data needs is not surprising. Approximately 70% of survey respondents reported that they collect (or need to collect) parcel data for all of Washington State. A smaller percentage (19%) reported a need for portions of the state and multiple counties. The remaining organizations (12%) reported a need for county or city data only. Survey respondents reported that they collect parcel data from 1 to 39 different counties in Washington State, averaging approximately 12 counties.

The collection of parcel data can be a difficult process, especially if an organization needs multiple counties or regions. With the advent of web-based geographic data distribution, however, many organizations (more than 80% of the survey respondents) are able to download the desired data directly from county assessor or GIS department websites. This method depends on the region of interest. Approximately 30% of the survey respondents reported that they employ other methods of acquiring the data in addition to direct contact with county departments, while close to 30% also acquire the data through a hired contractor or purchase the data from a consultant or commercial business.

The frequency of parcel data collection varies depending on the organizations' needs and responsibilities, ranging from weekly (7% of the survey respondents) to an as-needed basis (45% of the survey respondents). The as-needed basis collection of data depends on the specific project timelines and needs. Additional survey respondents have annual (21%), quarterly (12%), and monthly (14%) collection needs. When asked how frequently a statewide parcel database would need to be updated for accurate and useful analysis and information, close to half (47%) of the survey respondents stated that quarterly updates would be necessary. Approximately one quarter (26%) of the respondents would only need annual updates, followed closely by monthly update needs (18%). Less than 10% of the respondents felt that weekly updates would be desired.

All respondents stated that feature geometry (the actual spatial representation of the parcels) was important to their work. Producing maps and performing spatial analyses were the most frequently cited needs (95% and 88%, respectively) of feature geometry.

In addition to the feature geometry, the information associated with each parcel is also important to accomplish the goals or needs of the organizations. Fortunately, and unfortunately, there is a wealth

of data collected by numerous county departments that is often compiled in the assessors' data; deciding which data to bring together in a statewide database is an important consideration. For the 93% of the respondents who stated that the assessor attribute information for each parcel is important, the following attributes were selected, ranked in order from most frequently needed to least needed (no attributes garnered interest from less than 30% of the respondents).

- Parcel ID
- Owner name
- Land use
- Site address, city, and zip; zoning; parcel acres
- Owner address, city, state, and zip; building value
- Land value
- Total value; legal description; building sq. ft.
- Timber acres
- Residence status
- Timber expectation value
- Other

Data sharing

One of the most challenging aspects of accessing and using parcel data is the necessary protection Washington landowners' personal information. Parcel data often includes contact information, land and building values, and other legal descriptions. Often it is possible to sign either license or data sharing agreements with the data producers (most often a county department) to acquire the data. Much of the proprietary information, however, is frequently not made available to users in order to protect the privacy of the landowners.

The number of different license and data sharing agreements currently held by the surveyed organizations ranges from none to as many as sixty-one. On average, however, the organizations hold approximately five license agreements and three sharing agreements with outside data providers (mainly county government agencies). Obviously, as an agency increases its geographic extent of parcels, the more license and data sharing agreements are necessary. One of the primary goals of a statewide database would be to streamline the license agreement process, freeing up valuable time in the numerous organizations which would utilize the data.

Derivative products

Survey respondents reported numerous derivative maps, analyses, and reports currently produced from parcel data. A majority of the organizations (67%) responded that they produced derivative products, while the remaining respondents either do not or the respondent was unsure. It is clear from the wealth of products listed below that parcel data is both relevant and necessary for a variety of fields.

- at-risk parcel layers
- build-out scenarios
- city annexation analysis
- community services maps
- comprehensive real estate ownership layers
- conservation planning priorities
- county annexation maps
- crime analysis
- cumulative values of building clusters by fire spread probability zones
- damage assessment maps
- demographic analysis
- development risk models

- elections summaries
- fire district jurisdiction maps
- fire response maps
- forest fire protection assessment maps
- forest patrol assessments
- georeferenced water and sewer features
- historical land cover maps
- housing density summaries
- impervious surface analysis
- infrastructure management reports
- land surveys
- land use maps
- large woody debris reduction reports
- legal uses on parcels analysis
- new housing and group quarter layers
- new housing development layers
- ownership maps
- potential development areas analysis
- property access maps
- rapid assessment of values at risk reports
- recreation maps
- road maintenance cost sharing agreements
- school district maps
- service area boundary maps
- sewer basin maps
- small forest landowners
- suspected onsite septic systems
- zoning maps

One of the challenges of using parcel data to produce derivative products can be the subsequent distribution and sharing of the product given the proprietary data associated with the parcels. Approximately 52% of the organizations which produce derivative products make those products available publicly. The remaining organizations either do not make the products available publicly or were unsure of the distribution practices. Fortunately, all but four of the organizations which produce derivative products reported that they would be able to share the data back with the counties which provided the parcel data originally, allowing for potential collaboration and analyses. The four organizations which do not share their derivative products with the counties, provided the following reasons: the processes or applications are not in place to provide access via a website; the products or metadata have not been tested or completed; there is a lack of interest from the counties; there is a business advantage to not sharing data; and issues with network security.

Costs

The costs associated with parcel data collection and management is difficult to pinpoint within organizations since much of the work is done in conjunction with related projects and analyses. Respondents reported estimated costs of parcel data acquisition, preparation (normalization and manipulation), and management (distribution and updates) to range from less than \$1000 to anywhere from \$60,000 to \$180,000. On average, organizations reported that they spend approximately \$11,000 on data collection, \$16,000 on data preparation, and \$6,500 on data management. It should be pointed out, however, that there is a wide variability in the reported costs and many organizations commented that their answers were only estimates at best.

When asked about the value of a statewide parcel database, the general theme appears to be that a normalized, centrally-located database would save time and resources, although most groups would want to be able to download specific regions, counties, or cities. Some organizations reported that it is fairly easy for them to acquire the data from many websites, but that the time and resources it takes to bring multiple data sets together can be costly and time-consuming. Most groups reported that the value in dollars of a statewide database would be similar to their current costs of collection and normalization. However, many of the public organizations reported that there are not additional funds available to purchase data. The dollar value associated with a future normalized statewide database ranged from \$0 to \$500,000, with a median value of \$1,700.

Summary

Assistance to counties to upgrade to a web-based system would be a very good thing.

We would like to coordinate data with the State/counties to insure consistency of data and eventually have a "one place" location to acquire data related to all federal and state ownership and legal use restriction data.

A web-based mechanism for accessing the parcel data for a certain radius around toxic cleanup sites would be very useful. Public notice often needs to happen on a short timeline, which sometimes is too short for county assessors offices. As a result, we end up using old data and getting returns of our mailings.

Having this information available with the needed information would create a big savings to the tax payers and provide a valuable tool for DNR fire response within the State of Washington. This would also help in our relationship with our fire district partners by providing a tool to help understand jurisdictions.

It would be nice to be able to download a normalized database rather than downloading individual tables and putting them together once a month. Although a state-wide database is not what I need I would also want a process whereby I could easily extract out only my City so that I don't have to download the entire state.

...just have concerns about file size of a state wide GIS database.

...I would be interested in a database update for subareas or zones, versus receiving the entire statewide database each time.

Current assessor records, in addition to the digital orthophotos, legals, and the other attribute data, are all crucial because it may be necessary to mitigate concerns and / or sensitivities to a particular operation. Having daily updates would ensure that the most accurate and up-to-date information is available, and provides me the tools needed to perform my job, and helps ensure effective and efficient trust land management.

Development of a state-wide parcel data set would be a key building block to the performance of regional-wide investigations that involve spatial analysis and mapping.

If there was a central collection of the parcel level data with the attribute about the UGA we could produce the map annually and better track changes.

We are very interested in supporting such a program. Although county parcel data is not currently widely used in our analyses, there is a great potential to use it if good data was consistently available.

It would be extremely valuable to have, at a minimum, a list of contacts for sources of electronic parcel records in the state.

The next phase of this project is to implement a survey focused on County parcel data producers, both geographic and tabular data specialists and departments. The results of this survey will provide much needed information for designing efficient and useful methods and needs of collecting and compiling parcel data from Washington's 39 counties into one seamless, statewide database.