

## 4.0 The User Environment

### 4.1 Information in the User Environment

The user environment includes a mix of manual and automated business processes that involve information in many formats and systems (some decentralized). Users need to be able to link this information together into a common solution to manage their particular business process. Spatial data and record information (alpha/numeric, text, etc.) need to be able to be linked. Accurate, timely, consistent information is necessary to manage land in an efficient, cost effective manner.

The volume of data and records involved in land management is enormous. For example:

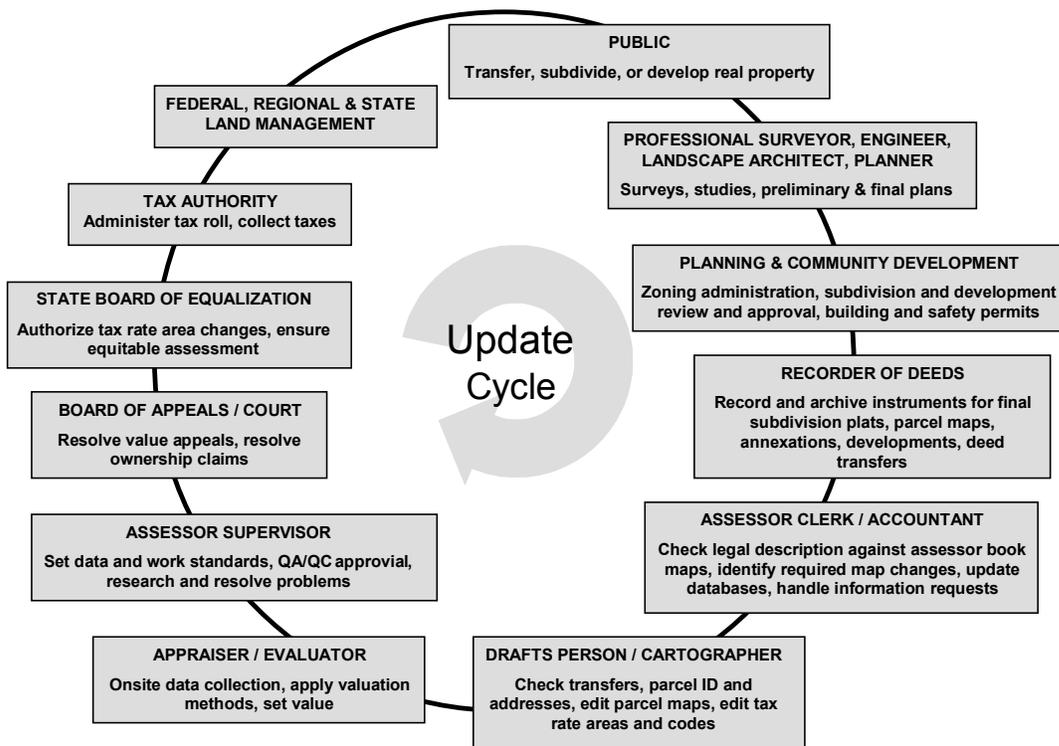
- ❑ State, county and local governments manage thousands of cadastral and subdivision plats. Most states have agencies that manage the state's land holdings. These holdings can be parks, lands for facilities, roads, resource areas, set asides, or development rights. In most states, local governments (typically counties) are responsible for recording land ownership information, records of surveys, and, in some cases, conducting surveys. State and local governments approve or review developments, land plans, and surveys.
- ❑ The U.S. Forest Service is responsible for managing 192 million acres of forest and grasslands. In addition, a majority of America's forests are privately owned (393 million acres). The USFS updates road and stream inventories, participates in land exchanges, fulfills cartographic requests, and monitors rangeland.
- ❑ The BLM is responsible for keeping and maintaining the documents related to land ownership for the United States, surveying and maintaining the public lands surveys system, and maintaining the Master Title Plats for close to 50,000 townships. It maintains over 140,000 plats, including survey plats, supplemental plats, and oil and gas plats. The BLM manages approximately 46 million parcels of land.

### 4.2 Users and Cadastral and Land Records Transactions

Each day across the United States, persons involved in land records manage and make decisions affecting millions of acres of land. These decisions are often based on both manual and automated transactions entered into a variety of systems that frequently produce other required events to take place within the business process. The various transactions are often interrelated and can trigger an update cycle that effects various cadastral databases.

Figure 4.1 depicts the users involved in land record management activities and the events that affect cadastral land records.

**Figure 4.1. Users Involved in Land Record Management Activities**



### 4.3 User Roles

Federal, state, county, and local government staff and private land and resource managers, professional surveyors and others with requirements for cadastral land records participated in the initial business process analysis. As a result of this participation the organizations were able to envision a return on their investment that included such goals as increased staff productivity and elimination of process and data redundancy.

Teams were formed representing the entire spectrum of this user community to describe the business processes, define the supporting scenarios for each process and provide steps that might occur within a scenario. The combination of these business processes, scenarios and steps is what makes up the requirements and use cases described in Sections 7.0 through 11.0.

Other user groups, such as BLM’s GCDB Technical Advisory Group, the National Association of Counties’ GIS Committee, the National States Geographic Information Council, the Intertribal GIS Council, and other state and local organizations from across the United States have been provided briefings on the NILS Project. Great interest in the project has resulted from these briefings.

The NILS is promoting partnerships for the development of a common data model that meets the needs of all who wish to cooperatively collect, maintain and store parcel-based data.

#### **4.4 Benefits**

A Return on Investment (ROI) will be prepared for NILS prior to the design and development phases of the project. This ROI will be compliant with the Clinger/Cohen Act. The other NILS partners may have similar requirements for preparing investment analysis.

The following are some of the qualitative benefits which would result from the implementation of NILS.

- Integration of positional and descriptive parcel-based land information for all boundary information (surveyed and non-surveyed)
- Users would be able to relate information to a specific parcel on the landscape
- Provide the ability to link the display of parcel-based land status and ownership with other resource information
- Facilitates analysis of potential land uses, opportunities, and conflicts for planning and environmental analysis and other decision making processes
- Consistent methods of creating and editing parcels
- Resolves problems with associating or aggregating legal description(s) from the legal description fabric.