Improving Controls Over the Property Reappraisal Process

Department of Revenue

SEPTEMBER 2010

Performance Audits

Performance audits conducted by the Legislative Audit Division are designed to assess state government operations. From the audit work, a determination is made as to whether agencies and programs are accomplishing their purposes, and whether they can do so with greater efficiency and economy.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Members of the performance audit staff hold degrees in disciplines appropriate to the audit process. Areas of expertise include business and public administration, journalism, accounting, economics, sociology, finance, political science, english, anthropology, computer science, international relations/security, and chemistry.

Performance audits are performed at the request of the Legislative Audit Committee which is a bicameral and bipartisan standing committee of the Montana Legislature. The committee consists of six members of the Senate and six members of the House of Representatives.

LEGISLATIVE AUDIT DIVISION

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September 2010

The Legislative Audit Committee
of the Montana State Legislature:

This is our performance audit of the property reappraisal process managed by the Department of Revenue.

This report provides the Legislature information about the property reappraisal process and includes recommendations to improve controls over reappraisal activities. Recommendations relate to strengthening documentation of property appraisals, defining expectations for the minimum number of properties to be inspected, improving documentation of supervisory reviews, and improving controls over the department's computer system to ensure accuracy and integrity of data related to property valuation.

We wish to express our appreciation to the department director and staff for their cooperation and assistance during the audit.

Respectfully submitted,

/s/ Tori Hunthausen

Tori Hunthausen, CPA
Legislative Auditor

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MONTANA LEGISLATIVE AUDIT DIVISION

PERFORMANCE AUDIT

Improving Controls Over The Property Reappraisal Process
Department of Revenue
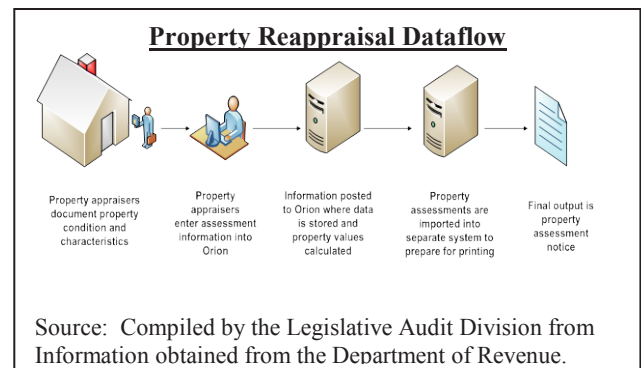
SEPTEMBER 2010   10P-11   REPORT SUMMARY

Bolstering property appraisal documentation, regularly inspecting the state's 950,000 properties and protecting the integrity of appraisal data will enhance the Department of Revenue's property reappraisal process – a process which helps generate more than $200 million annually for the state's general fund.

Context

Montana is only one of two states that are a "mass appraisal" state. Mass appraisal is the process of valuing a group of properties as of a given date using common data and standardized methods. A mass appraisal system gathers data using various methods such as physical inspection of properties, computer models, and aerial photography. The Department of Revenue is responsible for reappraising all real property for tax purposes on a six-year cycle. Because of the complexity of the department's reappraisal process, it is governed by a number of state laws, administrative rules, department policies and procedures, and professional appraisal standards.

The department's property reappraisal responsibilities are performed by staff located in Helena's Property Assessment Division and four geographic regions around the state. Every county in the state has a local department office which is located in the county seat. The department is required to appraise residential properties, including the land and any improvements. Appraisers review and document the physical characteristics, condition, desirability, and utility of the property. Ideally, an internal or external physical inspection of the property is desired. The value of the property is calculated using either a sales approach or a cost approach. The department is currently responsible for reappraising more than 950,000 parcels of property statewide.

Property Reappraisal Dataflow

Property appraisers document property condition and characteristics → Property appraisers enter assessment information into Orion → Information posted to Orion where data is stored and property values calculated → Property assessments are imported into separate system to prepare for printing → Final output is property assessment notice

Source: Compiled by the Legislative Audit Division from Information obtained from the Department of Revenue.

In the event a property owner is dissatisfied with the appraised value or classification of their land or improvements, state law allows for taxpayers to appeal the department's appraisal. Appeals can be made to the department, to the County Tax Appeal Board, or State Tax Appeal Board.

We had two objectives for this audit. One was to determine if the property reappraisal process was consistently followed statewide. The other was to determine if controls existed to ensure the integrity and accuracy of reappraisal data. Audit work included an evaluation of the department's procedures for appraising and documenting property values. We also examined the department's methods to conduct department reviews when property owner's dispute the department's appraised value of their property. The controls over the department's computer system (Orion) which maintains and calculates property value information were analyzed to assess the accuracy of data maintained by the system. Audit work generally focused on the six-year property reappraisal cycle beginning January 1 2002, and ending July 1, 2008, (these reappraisal values were used for property tax purposes in tax year 2009). To meet our objectives, we

examined documentation for a random sample of 200 property appraisal files for residential, commercial, agricultural, and forestland properties located in five counties. Counties visited included Flathead, Gallatin, Lewis and Clark, Treasure, and Yellowstone. We queried Orion data and compared this data to property appraisal documentation maintained by local department offices. We also interviewed department management and staff located in local offices and in Helena. We used provisions identified in statute, administrative rule, department policies and procedures, and professional appraisal standards as criteria in which to evaluate the department's reappraisal process.

Results

Audit work noted appraisers follow similar processes to appraise property, but controls over the process should be improved. It was not always possible to verify the accuracy of information used to calculate property values due to inconsistencies in file documentation maintained in the department's local property record files. For example, information related to property characteristics (square footage, condition and utility of property, etc.) or why the department used a property value override was not always documented. We also noted approximately 26 percent of properties were not physically inspected during the last six-year reappraisal cycle with property inspections ranging from 19 percent to 99 percent. Orion (the department's computer system) maintains and calculates property values for the department. However, audit work noted several control weakness related to the system which could result in processing or valuation errors related to property values.

To address these concerns, our audit made several recommendations to improve management of the property reappraisal process. Recommendations issued are related to:

▶ Better documenting property appraisals
▶ Defining expectations for the number of property inspections conducted during each reappraisal cycle
▶ Complying with department review procedures of disputed appraisals
▶ Standardizing documentation of supervisory reviews of appraisals
▶ Limiting uncontrolled employee access to Orion data used to calculate property values
▶ Developing procedures to ensure department staff receive management authorization to override property values maintained in Orion
▶ Establishing controls to ensure property value data entered in Orion is complete and accurate

Recommendation Concurrence	
Concur	9
Partially Concur	0
Do Not Concur	0
Source: Agency audit response included in final report.	

Chapter I – Introduction

Introduction

The Montana Constitution and state law require periodic reappraisal of property in the interest of equal taxation. The State of Montana, through the Department of Revenue, is responsible for valuing all taxable real and personal property. According to §15-7-131, MCA, it is the policy of the state to provide for equitable assessment of taxable property in the state and to provide for periodic revaluation of taxable property in a manner that is fair to all taxpayers. Section 15-7-111, MCA, requires the department to conduct a cyclical revaluation of residential, commercial, industrial, agricultural and forestland property in the state. The Legislative Audit Committee requested a performance audit of the department's process to periodically reappraise property.

Audit Objectives

Based on our initial assessment of the property reappraisal process, we developed two audit objectives. To determine:

1. If the department's property reappraisal process is consistently followed statewide.
2. If controls exist to ensure integrity and accuracy of reappraisal data.

Audit Scope

The scope of this audit focused on the department's reappraisal process for four property classes: residential, commercial, agricultural and forestland property. Audit work included an evaluation of the department's procedures for assessing and documenting property values. Our analysis included an examination of the department's methods for processing requests by property owners for department reviews to dispute appraised property values. We also analyzed controls over the department computer system (Orion) which maintains and calculates property valuation information. Controls tested included those related to data input, access to the system, and accuracy of property appraisal data. The scope of our audit generally focused on the six-year property reappraisal cycle beginning January 1, 2002, and ending July 1, 2008. These reappraisal values were used for property tax purposes in tax year 2009.

Our audit did not include a review of industrial or personal property classes. We also did not evaluate the accuracy of individual appraisals or review the property tax mitigation strategy implemented by the 2009 Legislature to help lessen the impact of the most recent property reappraisal. Audit scope also excluded the processes related to property tax billing, collection, and reconciliation.

Audit Methodologies

To address the audit objectives we conducted the following work:

- Reviewed applicable statutes, administrative rules, and department policies and procedures to identify guidance available to department staff.

- Reviewed appraisal standards from the International Association of Assessing Officers (IAAO), which are the professional standards followed by the department when conducting appraisals.

- Reviewed current certifications of appraisal staff.

- Examined documentation for a random sample of 200 property appraisal files for residential (67 files), commercial (53 files), agricultural (44 files), and forestland (36 files) properties located in five Montana counties. Counties visited included Flathead, Gallatin, Lewis and Clark, Treasure, and Yellowstone.

- Queried Orion data and compared data to property appraisal documentation maintained by local department offices.

- Reviewed system documentation for Orion related to processing, data input, system access, and the integrity of property data.

- Reviewed documentation related to informal review requests filed for the 2009 tax year in the five counties identified above.

- Observed local department staff conduct informal reviews with property owners.

- Attended and observed County Tax Appeal Board and State Tax Appeal Board hearings.

- Interviewed department staff and management located in both local offices and in Helena.

- Contacted other states to obtain information regarding the property appraisal processes in those states.

Management Memorandum

A management memorandum is a verbal or written notification to the agency of issues that should be considered by management, but do not require a formal agency response. We discussed an issue with the department regarding steps needed to further improve its appraiser certification process. We also discussed the need for the department to consistently follow its established controls to verify department staff are not appraising their own property or property of immediate family members.

Report Contents

The remainder of this report includes a background chapter followed by chapters detailing our findings, conclusions, and recommendations in the following areas:

- ◆ Chapter III presents recommendations for improving controls over the property reappraisal process.

- ◆ Chapter IV discusses needed improvement of controls over the integrity of property data maintained in the department's property reappraisal computer system.

Chapter II – Background

Introduction

In 1975, the Legislature enacted statute requiring the Department of Revenue to administer and supervise a program for the revaluation of all real taxable property in Montana. The legislature first established cyclical reappraisal of real property on a five-year schedule. This has since been changed to a six-year cycle and there have been six reappraisals completed in Montana since 1975. Reappraisal cycles are designed to ensure all property is taxed on current structural and market information. The department's role in the cyclical reappraisal process is to supervise the property reappraisal process, conduct property appraisal, oversee the input of property characteristics into Orion, and ensure all classes of property in the state are valued uniformly. This chapter describes the department's organizational structure and its property valuation responsibilities.

Reappraisal of Property

Montana is one of only two states that are a "mass appraisal" state. Mass appraisal is the process of valuing a group of properties as of a given date by using common data, standardized methods, and statistical testing. A mass appraisal system gathers data using various methods such as physical inspection of individual properties, computer models, aerial photography, etc. Because of the complexity of the reappraisal process, it is governed by a number of state laws, administrative rules, professional appraisal standards, and department policies and procedures. According to department information, the number of parcels of property in Montana increased almost 9 percent over the last six years, increasing from approximately 875,000 parcels in 2003 to more than 950,000 parcels in 2009. The following sections provide information regarding the department's property reappraisal responsibilities and describe its process to appraise residential, commercial, agricultural, and forestland properties. The following sections also discuss the appeals process to dispute appraised property values and the department's computer system used to administer the property reappraisal process.

Department Property Reappraisal Responsibilities

The department is responsible for administering Montana's property tax laws, including the valuation and assessment of all real and personal property in Montana for property tax purposes. According to the department's biennial report, the department is responsible for ensuring all classes of property (residential, commercial, agricultural, etc.) are valued uniformly and equally throughout the state. Department responsibilities are performed by staff located in Helena's Property Assessment Division and four geographic regions around the state. The following figure illustrates the department's property appraisal organizational structure.

Figure 1
Property Appraisal Organizational Structure

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                    ┌──────────────────────┐
                    │      Property        │
                    │ Assessment Division  │
                    │    Administrator     │
                    └──────────┬───────────┘
                               │
                    ┌──────────┴───────────┐     ┌──────────────┐
                    │   Deputy Division    ├─────┤  Management  │
                    │    Administrator     │     │   Officer    │
                    └──────────┬───────────┘     └──────────────┘
        ┌──────────┬──────────┼──────────┬──────────────────────┐
  ┌─────────┐ ┌─────────┐ ┌─────────┐ ┌─────────┐        ┌──────────────┐
  │ Region 1│ │ Region 2│ │ Region 3│ │ Region 4│        │  Management  │
  │ Manager │ │ Manager │ │ Manager │ │ Manager │        │   Analyst    │
  └────┬────┘ └────┬────┘ └────┬────┘ └────┬────┘        │    Bureau    │
       │           │           │           │             └──────┬───────┘
  ┌─────────┐ ┌─────────┐ ┌─────────┐ ┌─────────┐               │
  │  Area   │ │  Area   │ │  Area   │ │  Area   │        ┌──────────────┐
  │ Manager │ │ Manager │ │ Manager │ │ Manager │        │  Management  │
  └────┬────┘ └────┬────┘ └────┬────┘ └────┬────┘        │   Analysts   │
       │           │           │           │             └──────────────┘
  ┌─────────┐ ┌─────────┐ ┌─────────┐ ┌─────────┐
  │Appraisal│ │Appraisal│ │Appraisal│ │Appraisal│
  │  Staff  │ │  Staff  │ │  Staff  │ │  Staff  │
  └─────────┘ └─────────┘ └─────────┘ └─────────┘
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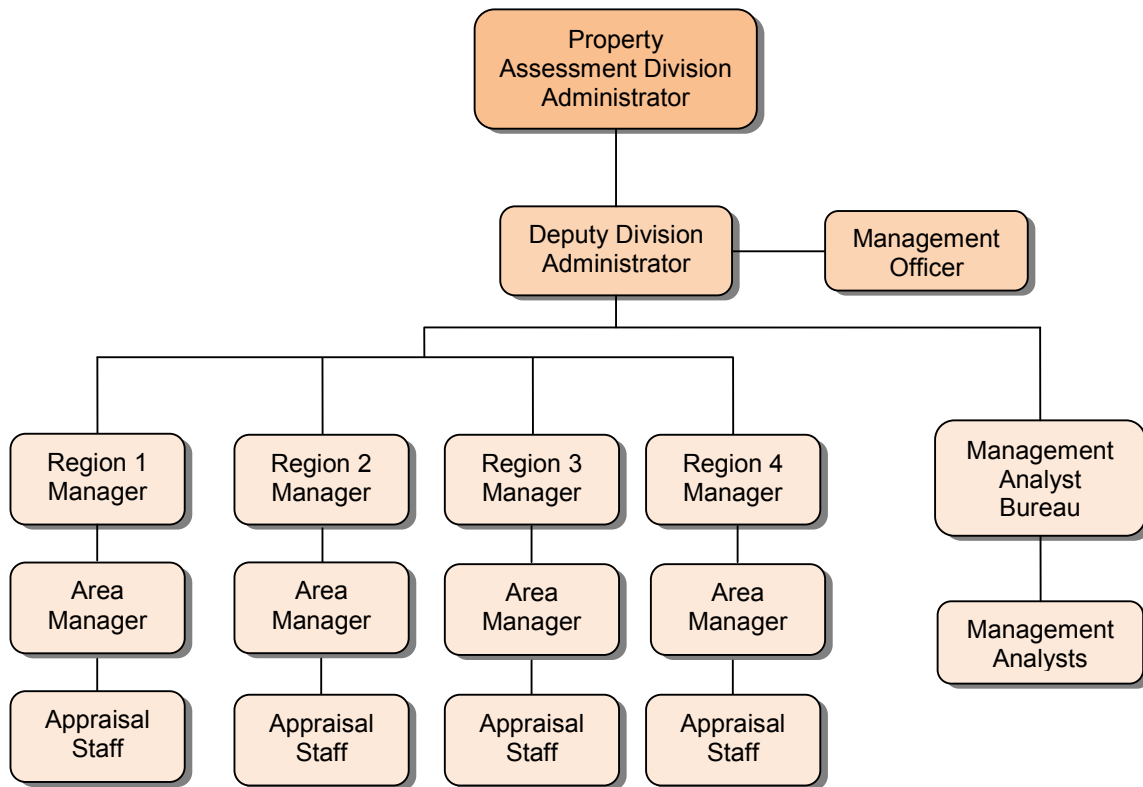
Source: Compiled by the Legislative Audit Division from department records.

Regional Managers are responsible for administering operations in each region. In June 2010, the department consolidated the number of regions from six to four. The department is authorized approximately 315 FTE for property appraisal duties. Most of these positions are located in local field offices in the four regions around the state. The central office in Helena has a total of 20 FTE with the remaining assigned to local offices. The following figure illustrates the department's geographic regions related to its property reappraisal process and counties visited during the audit.

Figure 2

Department of Revenue Property Tax Regions

PAD Regions

Region 1
Region 2
Region 3
Region 4

★ Regional Offices

Counties Visited During Audit
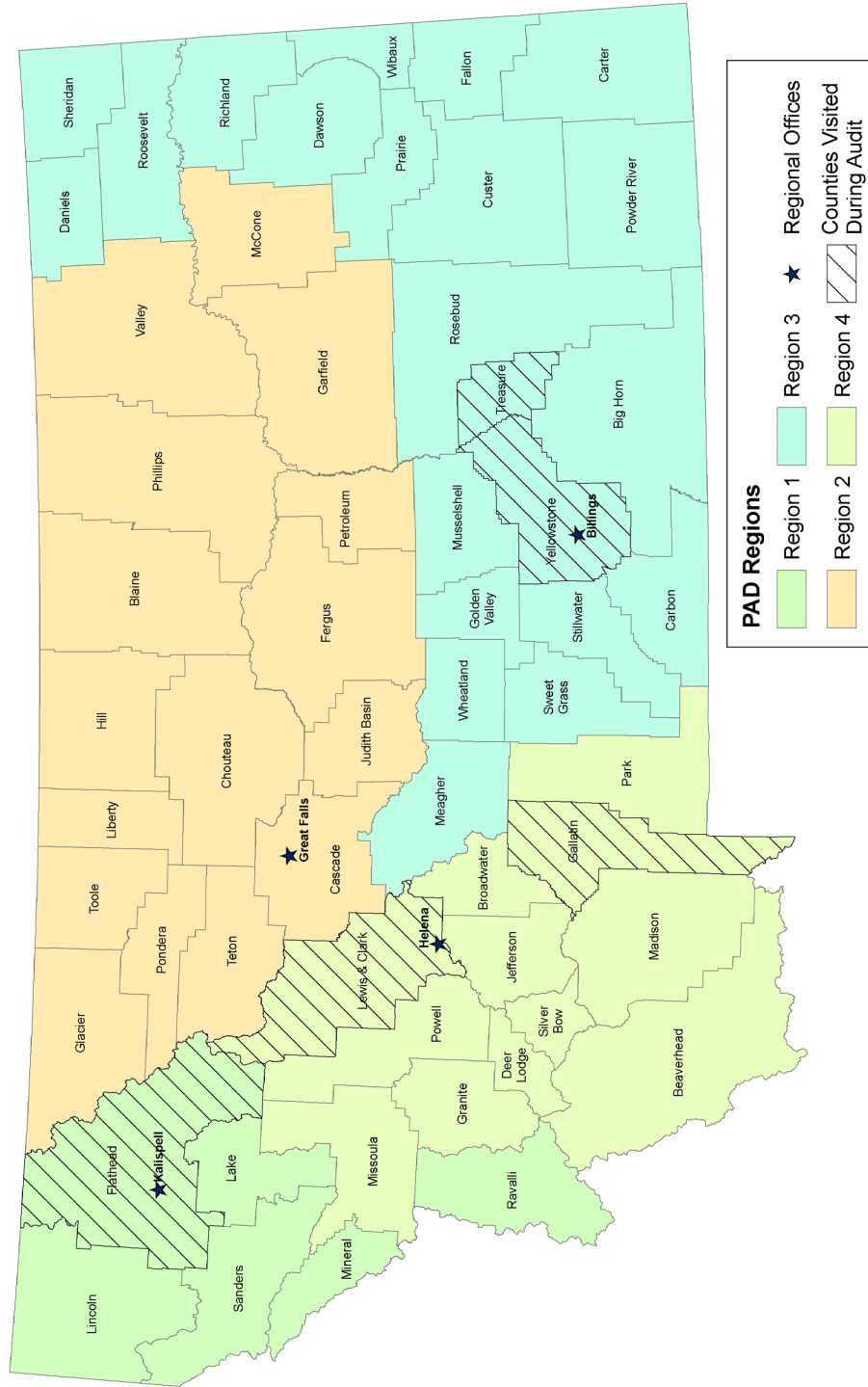
Source: Compiled by the Legislative Audit Division from department information.

Every county in the state has a local department office which is located in the county seat. County offices are grouped together geographically to form areas. For example, Flathead and Lake Counties are considered an area within Region One in northwest Montana. Area Managers provide day-to-day oversight of reappraisal activities within their assigned area.

Residential Property Appraisals

The department is required to appraise residential properties, including the land and any improvements. As part of the review, appraisers consider the physical characteristics of the property (e.g., square footage, materials, additions, etc.) as well as the condition, desirability, and utility of the property. Ideally, a physical internal inspection of the property is desired; however, an external inspection will suffice. Property characteristics are documented by the appraiser that visited the property.

Using the updated information, a new property value is calculated using one of two approaches. For the sales comparison approach, models are used to compare specific property to other similar properties in a given geographic area sold within a specific timeframe. The property's value is adjusted based on the sales prices of the other properties and any differences between the properties. This approach is the preferred method for determining value, but may not be applicable in all situations, in which case the cost approach is used. The cost approach values a property based on the current replacement cost of the improvements, minus depreciation, plus land value. After calculating the property's total value using both valuation methods, an appraiser decides the final value of the property by determining which valuation approach is most appropriate. Appraisers use their judgment, training, and department resources to conclude which approach will be used. The department contracted with a private firm to conduct a market price trend and sales ratio study of the department's 2009 residential property reappraisal. The study indicated the department met an IAAO standard of having a sample appraisal level within 10 percent of market value. The report also indicated appraisal uniformity was generally good.

Commercial Property Appraisals

When conducting commercial property appraisals, the appraiser conducts a field inspection (an internal or external observation of the property) and records the property's characteristics. Characteristics of commercial property include, but are not limited to: structure type, year built, number of units per building (e.g. storage units or apartment complexes will have multiple units per building), square footage of building, etc. Using this information the value of the property is calculated.

When determining the value of a property, commercial appraisers generally use one of two methods-cost approach or income approach. When determining the property's value using the cost approach, the value is based on a cost approach model developed by the department for commercial property. The cost approach model is developed using cost tables which provide estimates of the cost of building similar improvements. In general, the cost approach uses the current replacement cost of improvements, less depreciation, plus land value.

The income approach is used to value commercial properties when income and expense information is available. To obtain this information, the department sends income-expense report forms to all commercial property owners. When property owners return these forms, the information is compiled into models used to value commercial properties. Similar to residential properties, the appraiser determines which property value, that calculated using the cost approach or the income approach, is most appropriate. It should be noted the information returned by property owners may not necessarily be used to value their property. The department prefers to value commercial property using the income approach when possible. However, according to department staff, the return rate of income-expense report forms is approximately 15 percent. The department's contracted study indicated commercial properties for the 2009 reappraisal cycle were also close to market value.

Agricultural Land Property Appraisals

Until this year, the method used for determining agricultural land values had not changed since the early 1960s. When the department assumed statewide responsibility for determining land values, the department assimilated existing county land-use determinations into its process. In the intervening years, those county-determined valuations were only changed to reflect the increased value of the commodities being produced by the land. However, with this reappraisal cycle, the department attempted to equalize agricultural land values across the state. The goal of this equalization was to ensure agricultural lands with the same productive capacity and used for the same purposes will be taxed the same, regardless of the county in which they are located.

Determining agricultural land value is based on three variables: size of the parcel, the agricultural classification of the parcel, and the soil's productive capacity. Parcels larger than 160 acres are automatically classified as agricultural, unless they were previously classified as another property type. Any parcel of land that is smaller than 160 acres must pass certain use and income tests before it can be classified as agricultural. Once it has been determined the land qualifies for agricultural valuation, its use is classified as one of five land-use classifications. Different use classifications result in different productive value. For example, lands that are tillable are valued higher than those used

for grazing. The last part of the process is to determine how productive the land is across the state. Through coordination between the department, several federal agencies, and the Governor's Agricultural Land Valuation Advisory Committee, the department now relies on soil surveys from the USDA Natural Resource Conservation Service (NRCS). NRCS has developed a database of soil quality across the state. Depending on the land use classification, soil quality can identify how much of a given commodity can be produced. To further standardize the process, the department, through the Governor's Agricultural Land Valuation Advisory Committee, has established certain commodity crops as the default crops when determining land values, regardless of whether the landowner is producing that crop.

Based on the 2009 reappraisal, the department has identified some methods for potentially improving its new agricultural reappraisal process. Staff indicated there are plans to consider topography and buildup of salinity due to irrigation practices and the resulting effects on productivity in future reappraisals.

Forestland Property Appraisals

In order for land to be classified as forestland, it must consist of at least 15 contiguous acres of land capable of producing a minimum of 25 cubic feet of timber per acre per year. In order to equalize the taxed value of all forestlands throughout the state, the department sought assistance from the University of Montana's School of Forestry to determine productivity levels of the state's forested lands. The School of Forestry developed a model based on 12 different variables (land slope, average solar coverage, rainfall, etc.) to determine how productive the forest soils are, and therefore how much timber could be produced on the property. According to the department, the work completed by the School of Forestry resulted in the development of soil productivity levels for each 30 square meters of forested property in the state. To determine the land value, the amount of timber that can be produced by the property per acre, based on its productivity level, is multiplied by the number of acres.

The Appeals Process

In the event a property owner is dissatisfied with the appraised value or classification of their land or improvements, §15-7-102, MCA, allows for the taxpayer to appeal the department's appraisal. Appeals can be made to the department or formally to the County Tax Appeal Board (CTAB) or State Tax Appeal Board (STAB). Per state law, department staff conducts a department review of a property's value and classification upon request by the property owner. The taxpayer must submit a request to the local field office within 30 days of the date of the property assessment notice. Upon receipt of the request by the department, the information is then assigned to an appraiser for review. In the case of an appeal of productivity levels for agricultural or

forestland, the request is forwarded to the department's central office for review. There were approximately 40,000 department review requests filed in response to the 2009 reappraisal cycle.

If the taxpayer is unsatisfied with the results of the department review, they may appeal to the local CTAB. Taxpayers may also appeal directly to the CTAB without first requesting a department review. If either party (the department or the taxpayer) is unsatisfied with the results of a CTAB hearing, an appeal can be made to STAB within 30 days of the CTAB decision.

Orion Maintains and Calculates Property Value Information

To assist in the administration of property reappraisal, the Department of Revenue purchased a commercial off-the-shelf property appraisal computer system called Orion. Orion maintains and calculates property value information for the department. The system was first implemented in 2007, one year before property valuation was completed. The system, originally designed to be used by counties and smaller municipalities to value properties, has been customized by the department to be used for statewide property reappraisal. Department field staff in each county is responsible for entering property characteristics into the system, which will determine the value of the property. The following figure illustrates the dataflow of property reappraisal information.

Figure 3
Property Reappraisal Dataflow

| Property appraisers document property condition and characteristics | Property appraisers enter assessment information into Orion | Information posted to Orion where data is stored and property values calculated | Property assessments are imported into separate system to prepare for printing | Final output is property assessment notice |

Source: Compiled by the Legislative Audit Division from information obtained from the Department of Revenue.

Initially, Orion was managed by the department's Property Assessment Division. Currently, management responsibilities are shared by the division and the department's Information Technology & Processing Division. The Property Assessment Division

handles the maintenance and change management of the system, while Information Technology & Processing is responsible for the security elements.

Conclusion: Reappraisal Process Is Consistent But Management Controls Could Be Strengthened

Our primary objective was to examine the consistency of the property reappraisal process across the state. We found appraisers in the counties we visited followed similar processes to appraise property. The department's process for appraising agricultural and forestland property without improvements, such as a home, was conducted in a consistent manner. However, audit work concluded that the department could strengthen management controls over the property reappraisal process for other property classes, such as for residential and commercial property. Examples of issues identified included appraisals that were either not documented or inconsistently documented, selection of properties for physical visitation during the reappraisal cycle, and methods to perform department reviews when property values are questioned. In addition, we identified limited controls over the integrity and accuracy of reappraisal data maintained in Orion. The following chapters discuss these issues in more detail and present recommendations to improve controls over the reappraisal process.

Chapter III – Controls Over The Property Reappraisal Process

Introduction

Consistent and accurate valuation of property requires correct, complete, and up-to-date property information. Organizations responsible for valuing property must establish effective procedures for collecting and maintaining property information (e.g. location, size, physical characteristics, income, costs, etc.). Based on our audit work, we identified areas where the department can enhance its controls for appraising and valuing real property. Audit findings and recommendations relate to the following areas:

- Strengthen documentation to support property appraisal
- Standardize identification of property inspections
- Processing department review requests
- Document supervisory review of appraisal activities
- Improve management information for future decision-making in the appraisal process

Strengthening the Documentation Behind Property Appraisal

IAAO standards require a property appraisal process be well documented to help ensure accountability and transparency of the process. The standards recommend an assessing organization collect property characteristics data in the field sufficient for classification, valuation, and other purposes and facilitate its entry into an information system. In addition, department policy outlines procedures for ensuring physical characteristics recorded in the field are retained and input into the department's information system. As part of audit work, we examined the process used by department staff to document information regarding the valuation of property. We selected five counties and reviewed a sample of property record files for parcels in four property classes—residential, commercial, agricultural, and forestland. As part of our review, we compared information contained in the department's computer system (Orion) to the physical documentation in the files related to the appraisal of the properties within our sample. We noted inconsistencies in various types of file documentation throughout the sample, primarily related to appraisals of residential and commercial property. Consequently, it was not always possible to verify the accuracy of the information in Orion, which was used to calculate the values of the sampled properties. The following examples discuss documentation inconsistencies identified:

 ◆ **Property Characteristics** – We noted approximately 30 percent (35 out of 120 files) of residential and commercial property records, located at department county offices, contained property characteristic information which did not match data contained in Orion.

 ◆ **Valuation Approach Selection** – While we were able to determine which valuation approach was used for all sampled properties, none of the property record files or Orion contained documentation as to why the selected valuation approach was chosen to calculate the property's final value.

 ◆ **Qualification as Agricultural Land** – We found the department accepts various forms of proof of income from taxpayers to qualify land less than 160 acres as agriculture land. In addition, the presence of documentation of income in property record files was inconsistent.

 ◆ **Value Overrides in Orion** – We identified over 2,400 instances where property value overrides were used and designated only as "other" or "miscellaneous" with no other supporting documentation provided.

 ◆ **Department Review Process** – When property owners were dissatisfied with their appraised value and requested a department review, there was limited documentation indicating a property inspection occurred during the review process for nearly 13 percent of the closed department reviews.

 ◆ **Property Value Adjustments** – There was limited documentation why property value adjustments were made during the department review process. In over half of the property record files associated with the department reviews selected for our sample, we found no such documentation in Orion.

Conclusion: Overall Documentation Could Be Improved

The inconsistency of documentation regarding the issues noted was observed in all counties we visited. Not documenting key actions or decisions employed in the valuation of property may potentially impact the department's ability to ensure its property assessment activities result in fair and equitable taxation across the state. This decreases the transparency of the appraisal process for taxpayers and during appeal situations. The department should strengthen controls for documenting property information during the reappraisal process.

RECOMMENDATION #1

*We recommend the Department of Revenue strengthen controls for documenting reappraisal activities.*

Department Identification of Properties for Physical Inspection

We found department staff generally conducts the physical inspection of properties in a similar manner; however, we noted variances across the state in how many properties are inspected in each county. We extracted data from Orion related to all properties and their most recent physical inspection. According to this data 26 percent of all properties in Montana were not physically inspected during the last six-year reappraisal cycle. In addition, the number of properties not physically inspected varied significantly between counties. For example, department data shows physical inspection of property ranged from 19 percent of properties in one county to 99 percent in another. We also noted 41 properties which had not been inspected during the last three reappraisal cycles. The following map illustrates the percentages of properties physically visited by the department for each county during the last reappraisal cycle.

Figure 4
Properties Physically Inspected By Department Staff

0% - 20.00%		60.01% - 80.00%	
20.01% - 40.00%		80.01% - 100%	
40.01% - 60.00%			
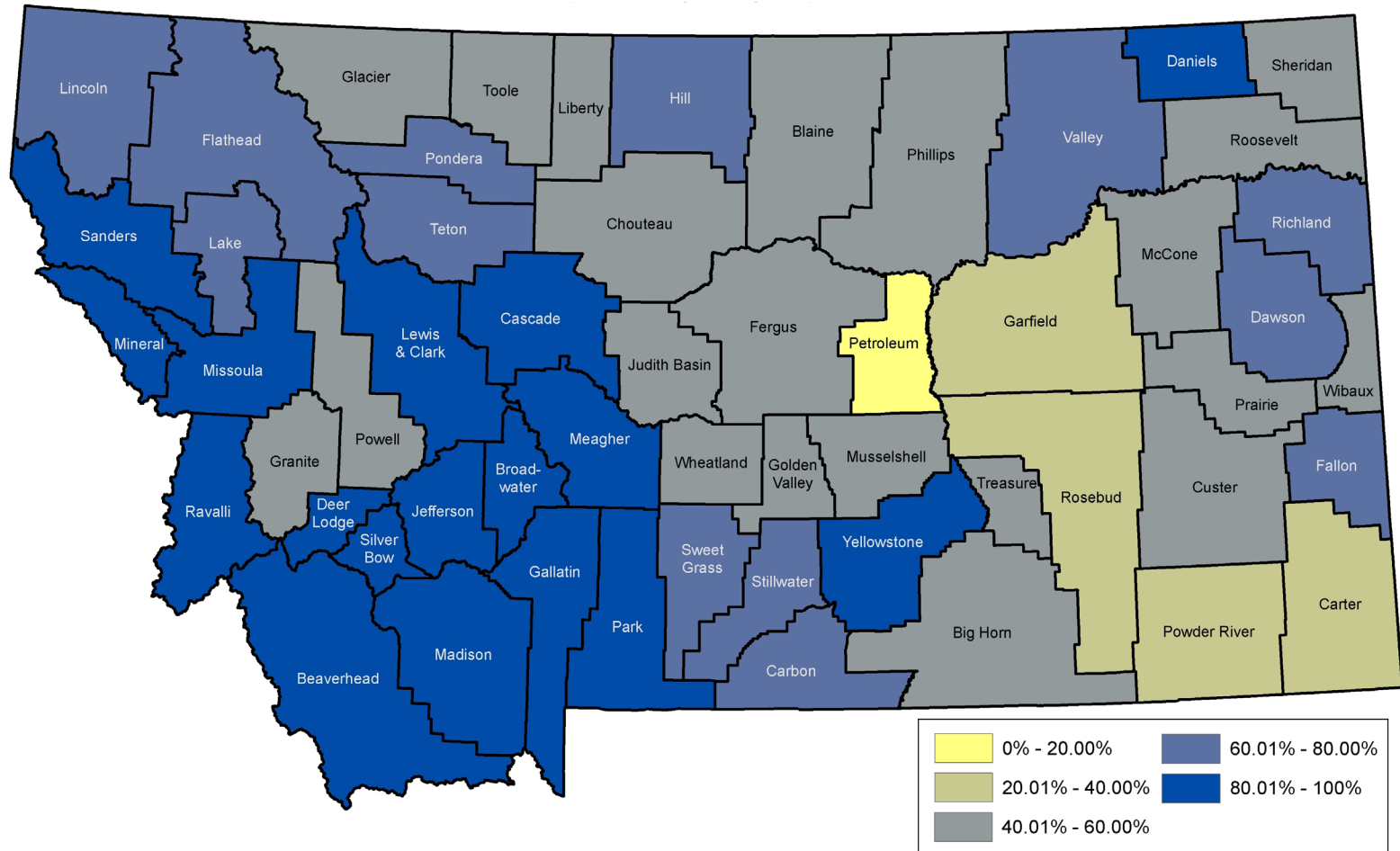
Source: Compiled by the Legislative Audit Division from department data.

Physical Inspection is an Important Aspect of Determining Value

The department is not required by statute to physically inspect all properties during each reappraisal cycle. However, IAAO standards on mass appraisal emphasize the importance of timely physical inspection:

> "…An accurate valuation of real property by any method requires description of land and building characteristics. The primary way to obtain property characteristics is to physically inspect the property…properties should be physically reviewed and individually reappraised at least every four to six years…"

The majority of department staff interviewed indicated it is the department's duty to physically inspect all property during each reappraisal cycle; however, most noted that it was not likely all properties in Montana were physically visited. A variety of reasons were offered by staff. It was indicated that, because of the centralized methods of valuing agricultural and forestland, those properties are not generally visited unless an improvement is located on the property.

Not physically inspecting property increases the risk that property characteristics used to calculate a property's final value are not complete and current. IAAO standards indicate a system should be developed for identifying properties for physical inspection to ensure recorded property characteristics are complete and accurate. Currently, the department has not clearly defined expectations for the minimum number of property inspections to be conducted. Expectations could be developed for different property classes or regions of the state.

The department should balance the need for physical inspection of property and the resources available to determine how it can most effectively carry out its duties. The importance for determining the minimum number of properties to be inspected and where property inspections should occur is even more important when resources are limited. The department may determine that physical inspection of every property is not necessary during each reappraisal cycle; in that case, a strategy for equalizing the likelihood of property inspection should be implemented. If the department determines inspection of every property is essential, other methods of inspection, such as the use of contracted appraisers or data collectors, may need to be considered.

Processing Department Review Requests

The department review process is an important part of the reappraisal of property as it allows taxpayers an opportunity to protest property values. As part of our audit work, we examined the timeliness with which the department issued decisions as a result of these reviews. We found the average time between the date the department review request was filed by the taxpayer and the issuance of a final decision by the department was approximately 128 days. Timeframes varied between residential and commercial property; however, these variances may be explained by the nature of the appraisal of each property type, as commercial property tends to present a higher level of complexity than residential property. The length of processing time for department reviews of agricultural properties was longer, with one case reviewed taking 335 days for resolution. The increased timeframe is in part due to the department's decision to process all agricultural review requests related to land productivity in Helena. The lengthy time period for processing department review requests increases the likelihood that property owners may not be getting timely resolution of appeals.

Department Procedures Should be Followed

IAAO standards provide some guidance on the timeliness of property tax appeal processes and state that sufficient time should be provided for property owners to protest assessments and for assessing entities to render a decision. The standard also notes, however, the time period provided for appeals should not be so long as to delay tax collections unreasonably. In Montana, statute does not delineate a timeframe for the processing of department review requests. Department procedure requires the department to respond to all requests for a department review within 30 days. The procedure further states extensions to the thirty-day requirement may be granted if agreed upon by all parties; however, we found no documentation indicating the thirty-day response timelines or extension requirements were met.

We recommend the Department of Revenue comply with current procedure for department reviews.

Document Supervisory Review

IAAO standards recommends supervisory review of appraisal work. However, department policy does not refer to documenting supervisory review during the property reappraisal process. In our review of the property record files selected for our sample, we found limited existence of documentation substantiating supervisory review of appraised values. Within our sample of 200 property record files, less than five percent exhibited documentation of supervisory review of property reappraisal activities. In addition, for our sample of 74 department review files, we found the extent of documentation of supervisory review varied in the counties we visited. Due to the decentralized nature of the property reappraisal process, documenting supervisory oversight is needed to ensure accountability in the process.

We recommend the Department of Revenue establish standardized methods for documenting supervisory review.

Management Information Needed for Future Decision-Making

During the course of our audit, we noted the department has been limited in their capability to compile management information related to the property reappraisal process due to data system limitations. Examples of management information which could help the department improve management of the reappraisal process include:

- Identification of properties which were not visited.
- Identification of properties affected by natural disasters in order to ensure appropriate adjustments to neighboring properties.
- The percentage of change for each property value adjusted and the overall percentage of change for all property values adjusted during department reviews and appeals.
- Whether property values increased or decreased as the result of department reviews and appeals.

◆ The reasons for adjustment of property values as the result of department reviews and appeals.

◆ Identification of extreme property value adjustments as the result of an department review.

The ability to access and analyze program information is a vital tool to be used by agency management for making key decisions regarding budgeting, staffing, and program direction. Although department staff noted difficulties extracting standardized reports from Orion, management relies on this information for reporting on agency and program activities to the Legislature, cooperative organizations, and the public.

In addition, appraisal information can be used to identify program weaknesses. Failure to make use of this information increases the potential the department is missing opportunities to identify problem areas and improve the appraisal process based on management information. For example, lack of property visitation, failure to properly certify appraisers, or inconsistency of documentation practices during the initial appraisal of a property may contribute to property value adjustments during the informal review or appeal processes. Management information about the reasons for property value adjustments may help the department identify these types of trends. In addition, identification of properties not recently inspected aids managers in prioritizing those properties for inspection. Management information regarding property appraisal and the outcome and trends associated with department reviews and appeals should be used by the department to better manage the overall appraisal process and identify "problem areas" requiring attention.

RECOMMENDATION #5

We recommend the Department of Revenue identify, compile, and analyze management information to improve the property reappraisal process.

Chapter IV – Integrity of Orion Property Reappraisal Data

Introduction

Orion, the department's computer system, plays a key role in the maintenance of property tax records and the calculation of property assessments. As the primary administrative tool in the property reappraisal process, the integrity of Orion processing and data is critical to accurate assessment values. It is imperative the system is accurately processing and calculating tax-related transactions and maintaining the integrity of property tax data. According to department staff, information in Orion is considered the official record for property values. Therefore strong system controls are required in the areas of change control, user access, data input, and data output. Overall, we found the Department of Revenue has implemented controls to maintain data integrity. For example, the department had an understanding of the system and ensured it was working as expected prior to implementation. In addition, in the area of data output, the department has implemented a new system (Oasis) to generate property assessment notices. Audit testing indicates this process ensures a complete transfer of Orion data to Oasis. However, we identified control weaknesses that present a risk to the accurate processing of property values. This chapter addresses our objective regarding the integrity and accuracy of reappraisal data. It discusses controls currently in place, as well as identified weaknesses, including inconsistent change management, uncontrolled system access, and limited data input control.

Identified Control Weaknesses Impact Orion Processing

If the delivered system does not meet the needs of the department, enhancements can be made to provide more customization. The department has made a number of modifications to Orion since implementation. These modifications are primarily the result of changing requirements for calculating values of the various property types and additional customization of Orion to better suit the needs of the agency. A number of modifications have been made to the system to address the added complexities of property assessment performed on a statewide basis as opposed to a county-wide basis. Information Technology (IT) standards indicate a change control process needs to be established, which includes request, development, testing, and approval of all changes prior to implementation into production.

Inconsistent Change Control Process

The department created a standard document to use when Orion requires a modification or change. After reviewing a sample of these documents, we identified areas of the change control process that were either not completed or performed

incorrectly according to IT standards. After reviewing ten random change tracking documents, we identified only one with management approval and zero that had signatures denoting agency management acceptance of the change. The vendor was responsible for the development of changes, but it was the responsibility of the agency to test new changes to ensure the change met expectations and did not negatively impact the system.
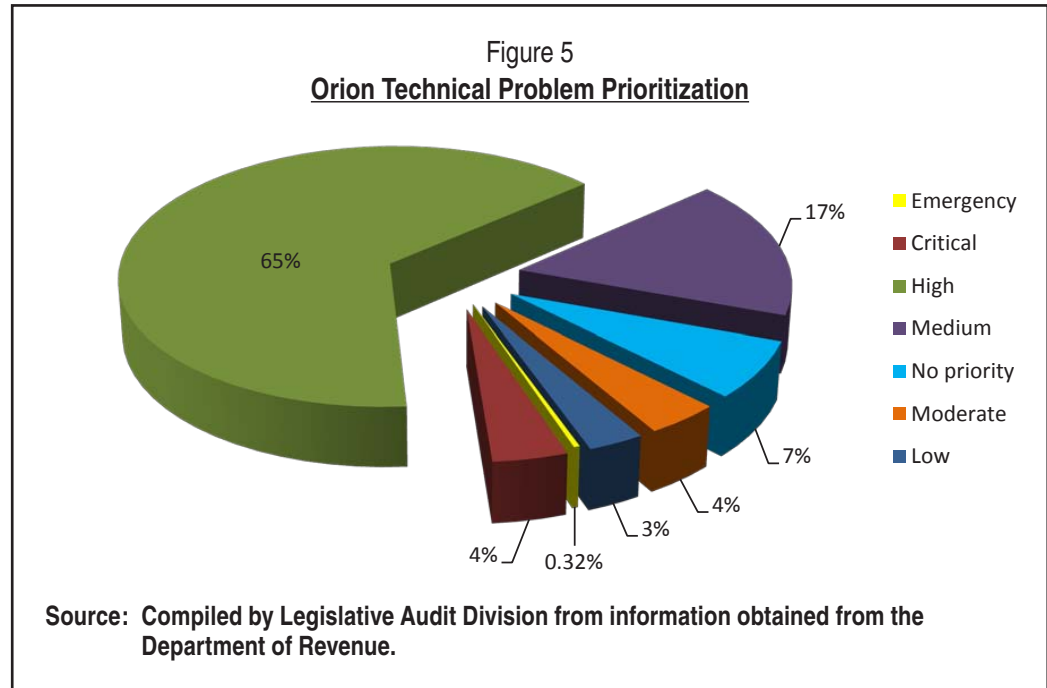
Although all of the changes we reviewed were tested, only half were tested in a test environment as suggested by industry standards. Even in these instances, we noted the test environment was months behind the production environment. For a test environment to be effective, it should mirror the production environment. As of July 2010, the test environment had not been updated since March 2010, which does not meet IT standards. Data changes were made to a number of properties between those months, so testing may not identify all anomalies prior to acceptance.

The other half of the changes we reviewed were tested directly in the working version of the system. The issue with this is the new change could negatively impact the system, leaving Orion nonoperational. In fact, division staff notified us of an earlier incident where staff tested a change directly in the production environment and it crashed the system and took a week to completely recover. These type of issues could be prevented by implementing industry approved practices for change control, including request, management approval, system development, testing, and acceptance.

Orion Experiences Technical Problems

After identifying control weaknesses that could affect system and data integrity, we performed additional work to identify any potential impact. After reviewing documentation detailing the changes made to Orion since implementation, we found there have been over 620 technical system problems including calculation and data handling errors. Of the more than 620 technical problems identified, about 69 percent were rated as high or critical priority by the agency (See Figure 5).

Figure 5
Orion Technical Problem Prioritization

- Emergency
- Critical
- High
- Medium
- No priority
- Moderate
- Low

65%

17%

7%

4%

3%

4%

0.32%

Source: Compiled by Legislative Audit Division from information obtained from the Department of Revenue.

In addition, our review noted 21 problems relating specifically to calculating issues. In fact, during the annual assessment period for 2010, two additional calculation errors were identified including the unexpected rounding of .5 acres to whole acres. For example, if a property was 9.5 acres, the system was rounding the acreage to 10. The department has recognized the issue and is in the process of fixing it. Another ongoing issue that is occurring during the current assessment period is erroneous Value Before Reappraisal (VBR) during the process to output condominium values. At this time, the department has not been able to resolve the problem and is manually calculating VBRs for residential condominium properties.

Although we cannot point to the specific incidents that have caused each problem, we noted the issues are ongoing. The number of problems per month has gone down slightly but still remains fairly steady at about 10 per month. Department staff are also aware of the ongoing possibility of miscalculation, which forces them to manually review thousands of assessment notices for irregularities before they are mailed out.

We recommend the Department of Revenue:

A.   *Implement and follow a complete change control process that meets industry standards.*

B.   *Ensure the test environment reflects the current Orion production environment.*

Uncontrolled Access Presents Risk to Integrity of Orion Data

Users of Orion must request access to the system through the Information Technology and Processing Division. At the time of the audit, there were over 400 users of the Orion database throughout the state. During our review of user access to Orion, we found the department has controls in place limiting access through management approval. However, we identified two areas where uncontrolled user access presents a risk to Orion data integrity. The first area of uncontrolled access we identified is the assignment of "user configurable" access to department personnel. The vendor programmed in this access allowing users the ability to modify fields, processes, and core system calculations. Although there are instances where this access is necessary, it is equivalent to making changes to the internal coding of the system and should be controlled through both limited access and change control. We did not identify any controls limiting this access according to business need or how the access should be used. Additionally, system changes made using "user configurable" access do not go through the normal change control process. The end result is users with ability to make unauthorized changes to Orion, which can result in processing errors or favorable results for the user.

Another area of uncontrolled access we identified is the assignment of "override" capabilities to all field appraisers, managers and division staff. Override allows varying levels of access, but essentially allows the user to override property assessment data after the data has been entered and processed. After reviewing the access list, at least 325 out of 426 users have some level of override access. When an appraisal is appealed and the original appraisal is overturned, a new value has to be added to the record. Since the new value is not based on the internal calculations of the system, it cannot be recalculated, so a manual override has to be used to update the final assessment. As a result, the original calculated value is overwritten and not maintained in the system.

There are fields in Orion that let the user denote if the override is associated with an appeal. Audit work identified approximately 53,000 overrides of property assessment record information occurred since Orion was implemented. Further work noted many of these were justified because they were associated with an appeal. However, we identified over 2,400 overrides only defined as "other" and "miscellaneous." Based on Orion information, we could not verify the appropriateness of these overrides. Department management is also not retroactively reviewing overrides for correctness and authorization. The high number of users with this access and lack of documentation of reasons for overrides present a risk to data integrity. This access is not controlled and could cause data errors or be used to create favorable results for the user.

RECOMMENDATION #7

We recommend the Department of Revenue:

A.   *Limit system user access for "user configurability" and "override" capabilities.*

B.   *Require all system changes to go through established change control procedures.*

C.   *Develop and implement management procedures to review instances of "overrides" for correctness and authorization.*

Orion Integrity Would be Strengthened by Input Controls

One feature of the Orion system is it allows for input edits to be set for data entry fields. Input edits are system controls that will not allow data to be saved if critical elements are missing or not in the correct format. During the audit, we noted the majority of available field edits have not been activated. Through review of Orion data, we identified 105 property records with missing data required to calculate assessments. We also identified over 62,000 current residential properties with missing addresses and over 6,100 property records with inspection dates that are in the future or precede 1980. Finally, we identified 25 property records with negative final values, which were identified to us as the result of data entry omissions and errors. These data errors could have been avoided with effective input edits.

According to the department, the primary reason for not triggering the edits is because there are limited system resources and the edits will use even more. While the resource issue is a legitimate concern, as discussed in the next section, standards still expect controls to be in place to ensure data validity, which includes completeness, accuracy, and consistency. In addition, the implementation of input edits will help improve the documentation inconsistencies discussed in Chapter III.

RECOMMENDATION #8

We recommend the Department of Revenue activate input controls to ensure complete and accurate entry of data into Orion.

Improved Hardware Capabilities will Increase Orion Performance

As mentioned in the previous section, Orion users expressed concern with system resources. Limited system resources results in downtime and slow processing due to system stoppages. IAAO standards suggest hardware should be powerful enough to permit computerization of appropriate application. During a two-month period of our audit, there were 19 instances where Orion had technical difficulties, such as slow or frozen systems. We noted staff workload was affected by Orion technical problems including lost data. As discussed in Chapter III, Orion data does not always match hardcopy reappraisal data located in field offices, so these instances could impact the accuracy of property records.

After speaking with agency staff and reviewing the IT architecture, we noted all major components of Orion, including the test, production, and reporting databases, are stored on a single server, which is not able to adequately handle all usage. As a result, Orion experiences downtime and other technical issues.

RECOMMENDATION #9

We recommend the Department of Revenue review hardware capabilities to determine if Orion can more appropriately handle processing.

Department Response

Department of Revenue

Montana Department of Revenue

Dan Bucks
Director

Brian Schweitzer
Governor

September 10, 2010

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LEGISLATIVE AUDIT DIV.

Dear Ms. Hunthausen:

Thank you for the opportunity to respond to the recommendations in the Property Reappraisal Process Performance Audit of the Montana Department of Revenue. Our response to the recommendations raised in the report is as follows:

Recommendation #1

We recommend the Department of Revenue strengthen controls for documenting reappraisal activities.

Concur. The department agrees that there is always room for improvement with regard to documenting decisions. To help strengthen controls for documentation of reappraisal activities, the department is:

- developing an administrative procedure to bolster the documentation of valuation approach selection,
- starting to utilize mobile, field tablet computers to improve appraiser efficiency and documentation by completing the transition from paper to electronic property records, and
- improving Orion computer system controls (see responses to recommendations 6, 7, 8 and 9).

Recommendation #2

We recommend the Department of Revenue define expectations for each minimum number for property inspections to be conducted during each reappraisal cycle.

Concur. The department agrees that it can better focus staff attention on physical inspections by clarifying expectations for this critical work. However, varying rates of parcel growth relative to staff during an appraisal cycle will result in some variance in the level of physical inspections. Historically, the primary obstacle to inspecting all properties is staffing levels in the face of large growth in the number of parcels across Montana. The department will continue to work diligently to conduct regular physical inspections of property as consistently as possible across the state.

Recommendation #3

We recommend the Department of Revenue comply with current procedure for department reviews.

Concur. The department will rewrite its current policy to reflect the realities of staff levels in relation to workload and the number of informal reviews and appeals. The department will implement steps to improve communication with taxpayers on the timing of review processes. The department will also take steps to attain the level of review performance required in the revised policies.

Tori Hunthausen
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Recommendation #4
We recommend the Department of Revenue establish standardized methods for documenting supervisory review.

Concur. The department will improve and standardize the current process of documentation. These improvements will begin with centralizing and standardizing the several existing electronic and paper processes that are used in the current supervisory review process. The department is also investigating computer software options to formalize this documentation process.

Recommendation #5
We recommend the Department of Revenue identify, compile, and analyze management information to improve the property reappraisal process.

Concur. The department has set as a priority the development of analytical and management information systems to improve the guidance of all its functions, including property assessment. The department recognizes the limitations of the current Orion computer system and is in the process of utilizing other tools to increase data management.

Recommendation #6
We recommend the Department of Revenue:
    A. Implement and follow a complete change control process that meets industry standards.

    B. Ensure the test environment reflects the current Orion production environment.

Concur. The department is currently implementing a formalized change control process that complies with the accepted system life cycle development practices, with adherence to the Software Engineering Institute's Capability Maturity Model (SEI CMM) guidelines. In addition, the department recognizes the need for a viable test environment and has created a test environment that closely resembles our production hardware configuration but not a current version of the data. In addition, the department is actively pursuing an automated overlay process that will copy production data to that test environment.

Recommendation #7
We recommend the Department of Revenue:
    A. Limit system user access for "user configurability" and "override" capabilities.

    B. Require all system changes to go through established change control procedures.

    C. Develop and implement management procedures to review instances of 'overrides' for correctness and authorization.

Concur. The Orion application was developed to be user configurable; however, this option does not conform to industry change control standards. The department is currently pursuing a course of action that will limit user configurable options and follow an approved change control process.

There are multiple levels of override capabilities in Orion. Based on business needs, various security controls can be implemented in Orion that support a statewide business plan for override methods and standards. Additionally, reports can be developed to support a formal review and control process. The department is actively pursuing these controls.

Tori Hunthausen
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Recommendation #8
We recommend the Department of Revenue activate input controls to ensure complete and accurate entry of data into Orion.
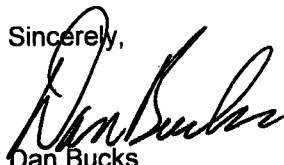
Concur. The department recognizes a need for in-system data entry constraints in Orion and is currently working on implementing a solution. Since the Orion application is commercial off-the-shelf software, most data entry edits are configured on a site by site basis. In addition, stronger data entry rules should improve efficiency of department staff and reduce costs while increasing the confidence in the quality of data that exists in Orion.

Recommendation #9
We recommend the Department of Revenue review hardware capabilities to determine if Orion can more appropriately handle processing.

Concur. Montana is one of two states performing property reappraisal at a statewide level. Montana has had to implement numerous customizations in order to run the Orion commercial off-the-shelf application statewide. The department is committed to continuous improvements to the Orion application and undertaking several tasks to accomplish this objective. First, the department is initiating a third party architectural review of the Orion system. Second, the reporting database is being migrated to a separate database server from the operational database. Third, an automated job scheduling functionality based on job dependency is being developed for the Orion application. Finally, the department is requesting that the vendor for Orion, Tyler Technologies, modify Orion to work on sixty-four bit architecture. The current thirty-two bit configuration limits our ability to appropriately scale the hardware.

Sincerely,

Dan Bucks
Director
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