

2010 EAGLE COUNTY PROPERTY ASSESSMENT STUDY







September 15, 2010

Mr. Mike Mauer Director of Research Colorado Legislative Council Room 029, State Capitol Building Denver, Colorado 80203

RE: Final Report for the 2010 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2010 Colorado Property Assessment Study.

These reports are the result of two analyses: A procedural audit and a statistical audit.

The procedural audit examines all classes of property. It specifically looks at how the assessor develops economic areas, confirms and qualifies sales, develops time adjustments and performs periodic physical property inspections. The audit reviews the procedures for determining subdivision absorption and subdivision discounting. Valuation methodology is examined for residential properties and commercial properties. Procedures are reviewed for producing mines, oil and gas leaseholds and lands producing, producing coal mines, producing earth and stone products, severed mineral interests, and non-producing patented mining claims.

Statistical audits are performed on vacant land, residential properties, commercial/industrial properties and agricultural land. A statistical analysis is performed for personal property compliance on the eleven largest counties: Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo and Weld. The remaining counties receive a personal property procedural study.

Wildrose Appraisal Inc. – Audit Division appreciates the opportunity to be of service to the State of Colorado. Please contact us with any questions or concerns.

Harry J. Fuller Project Manager

Harry J. Zulla

Wildrose Appraisal Inc. – Audit Division



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INTRODUCTION



The State Board of Equalization (SBOE) reviews assessments for conformance to the Constitution. The SBOE will order revaluations for counties whose valuations do not reflect the proper valuation period level of value.

The statutory basis for the audit is found in C.R.S. 39-1-104 (16)(a)(b) and (c).

The legislative council sets forth two criteria that are the focus of the audit group:

To determine whether each county assessor is applying correctly the constitutional and statutory provisions, compliance requirements of the State Board of Equalization, and the manuals published by the State Property Tax Administrator to arrive at the actual value of each class of property.

To determine if each assessor is applying correctly the provisions of law to the actual values when arriving at valuations for assessment of all locally valued properties subject to the property tax.

The property assessment audit conducts a two-part analysis: A procedural analysis and a statistical analysis.

The procedural analysis includes all classes of property and specifically looks at how the assessor develops economic areas, confirms and qualifies sales, and develops time adjustments. The audit also examines the procedures for adequately discovering, classifying and valuing agricultural outbuildings, discovering subdivision build-out subdivision and discounting procedures. Valuation methodology for vacant land, improved properties commercial residential and properties is examined. Procedures for producing mines, oil and gas leaseholds and lands producing, producing coal mines, producing earth and stone products, severed mineral interests and non-producing patented mining claims are also reviewed.

Statistical analysis is performed on vacant land, residential properties, commercial industrial properties, agricultural land, and personal property. The statistical study results are compared with State Board of Equalization compliance requirements and the manuals published by the State Property Tax Administrator.

Wildrose Audit has completed the Property Assessment Study for 2010 and is pleased to report its findings for Eagle County in the following report.



REGIONAL/HISTORICAL SKETCH OF EAGLE COUNTY

Regional Information

Eagle County is located in the Western Slope region of Colorado. The Western Slope of Colorado refers to the region west of the Rocky Mountains. It includes Archuleta, Delta, Dolores, Eagle, Garfield, Grand, Gunnison, Hinsdale, Jackson, La Plata, Mesa, Moffat, Montezuma, Montrose, Ouray, Pitkin, Rio Blanco, Routt, San Juan, San Miguel, and Summit counties.





Historical Information

Eagle County has a population of approximately 53,653 people with 24.7 people per square mile, according to the U.S. Census Bureau's 2009 estimated population data.

Eagle County was created by the Colorado legislature on February 11, 1883, from portions of Summit County. It was named after the Eagle River, which runs through the county. The county seat was originally set in Red Cliff, Colorado, but was moved to the town of Eagle in 1921. The Vail and Beaver Creek ski areas are located in Eagle County.

Much of the county is taken up by White River National Forest, and much of the rest is managed by the Bureau of Land Management. Interstate 70 crosses the county from east to west. The Eagle River rises in the southeastern part of the county. It receives Gore Creek at Dowds Junction, and joins the Colorado River in the west. Fryingpan River and the Roaring Fork River intersect the southwest corner of the county.

The town of Vail was established in 1966 at the base of Vail Ski Resort, which opened in December 1962. The town is famous for having the second largest single ski mountain in North America and other winter sports in addition to being a year round destination for outdoor activities.

The ski area was founded by Pete Seibert and the local rancher Earl Eaton in 1962, between the town of Eagle and Vail Pass. The pass was named after Charles Vail, the highway engineer that routed U.S. Highway 6 through the valley in 1940. Seibert, a New England native, served in the U.S. Army's 10th Mountain Division during World War II, which trained at Camp Hale, just southeast of Vail. He was seriously wounded in Italy and was told he should become a professional skier when he recovered. He was recognized as the best skier the world for short time. a (www.wikipedia.org)



RATIO ANALYSIS

Methodology

All significant classes of properties were Sales were collected for each analyzed. property class over the appropriate sale period, which was typically defined as the 18-month period between January 2007 and June 2008. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2008 in 6-month increments. If there were still fewer than 30 sales, supplemental appraisals were performed and treated as proxy sales. Residential sales for all counties using this method totaled at least 30 per county. For commercial sales, the total number analyzed was allowed, in some cases, to fall below 30. There were no sale quantity issues for counties requiring vacant land analysis or condominium analysis. Although it was required that we examine the median and coefficient of dispersion for all counties, we also calculated the weighted mean and pricerelated differential for each class of property. Counties were not passed or failed by these

latter measures, but were counseled if there were anomalies noted during our analysis. Qualified sales were based on the qualification code used by each county, which were typically coded as either "Q" or "C." The ratio analysis included all sales. The data was trimmed for counties with obvious outliers using IAAO standards for data analysis. In every case, we examined the loss in data from trimming to ensure that only true outliers were excluded. Any county with a significant portion of sales excluded by this trimming method was examined further. No county was allowed to pass the audit if more than 5% of the sales were "lost" because of trimming. For the largest 11 counties, the residential ratio statistics were broken down by economic area as well.

Conclusions

For this final analysis report, the minimum acceptable statistical standards allowed by the State Board of Equalization are:

ALLOWABLI	RID	
Property Class	Unweighted Median Ratio	Coefficient of Dispersion
Commercial/Industrial	Between .95-1.05	Less than 20.99
Condominium	Between .95-1.05	Less than 15.99
Single Family	Between .95-1.05	Less than 15.99
Vacant Land	Between .95-1.05	Less than 20.99



The results for Eagle County are:

Eagle County Ratio Grid						
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis	
Commercial/Industrial	266	0.988	1.167	10.5	Compliant	
Condominium	957	0.994	1.007	4.6	Compliant	
Single Family	1,396	0.992	1.014	6.2	Compliant	
Vacant Land	474	1.020	1.020	14.3	Compliant	

After applying the above described methodologies, it is concluded from the sales ratios that Eagle County is in compliance with SBOE, DPT, and Colorado State Statute valuation guidelines.

Recommendations

None

Random Deed Analysis

An additional analysis was performed as part of the Ratio Analysis. Ten randomly selected deeds with documentary fees were obtained from the Clerk and Recorder. These deeds were for sales that occurred from January 1, 2007 through June 30, 2008. These sales were then checked for inclusion on the Assessor's qualified or unqualified database.

Conclusions

After comparing the list of randomly selected deeds with the Assessor's database, Eagle County has accurately transferred sales data from the recorded deeds to the qualified or unqualified database.

Recommendations



TIME TRENDING VERIFICATION

Methodology

While we recommend that counties use the inverted ratio regression analysis method to account for market (time) trending, some counties have used other IAAO-approved methods, such as the weighted monthly median approach. We are not auditing the methods used, but rather the results of the methods used. Given this range of methodologies used to account for market trending, we concluded that the best validation method was to examine the sale ratios for each class across the appropriate sale period. To be specific, if a county has considered and adjusted correctly for market trending, then the sale ratios should remain stable (i.e. flat) across the sale period. If a residual market trend is detected, then the county may or may not have addressed market

trending adequately, and a further examination is warranted. This validation methodology also considers the number of sales and the length of the sale period. Counties with few sales across the sale period were carefully examined to determine if the statistical results were valid.

Conclusions

After verification and analysis, it has been determined that Eagle County has complied with the statutory requirements to analyze the effects of time on value in their county. Eagle County has also satisfactorily applied the results of their time trending analysis to arrive at the time adjusted sales price (TASP).

Recommendations



SOLD/UNSOLD ANALYSIS

Methodology

Eagle County was tested for the equal treatment of sold and unsold properties to ensure that "sales chasing" has not occurred. The auditors employed a multi-step process to determine if sold and unsold properties were valued in a consistent manner.

All qualified residential and commercial class properties were examined using the unit value method, where the actual value per square foot was compared between sold and unsold properties. A class was considered qualified if it met the criteria for the ratio analysis. The median value per square foot for both groups was compared from an appraisal and statistical perspective. If no significant difference was indicated, then we concluded that no further testing was warranted and that the county was in compliance in terms of sold/unsold consistency.

If either residential or commercial differences were significant using the unit value method, or if data limitations made the comparison invalid, then the next step was to perform a ratio analysis comparing the 2009 and 2010 actual values for each qualified class of property. All qualified vacant land classes were tested using this method. The sale property ratios were arrayed using a range of 0.8 to 1.5, which theoretically excluded changes between years that were due to other unrelated changes in the property. These ratios were also stratified at the appropriate level of analysis. percent change was determined for each appropriate class and sub-class, the next step was to select the unsold sample. This sample

was at least 1% of the total population of unsold properties and excluded any sale properties. The unsold sample was filtered based on the attributes of the sold dataset to closely correlate both groups. The ratio analysis was then performed on the unsold properties and stratified. The median and mean ratio distribution was then compared between the sold and unsold group. A nonparametric test such as the Mann-Whitney test for differences between independent samples was undertaken to determine whether any observed differential was significant. If this test determined that the unsold properties were treated in a manner similar to the sold properties, it was concluded that no further testing was warranted and that the county was in compliance.

If a class or sub-class of property was determined to be significantly different by this method, the final step was to perform a multivariate mass appraisal model that developed ratio statistics from the sold properties that were then applied to the unsold sample. This test compared the measures of central tendency and confidence intervals for the sold properties with the unsold property sample. If this comparison was also determined to be significantly different, then the conclusion was that the county had treated the unsold properties in a different manner than sold properties.

These tests were supported by both tabular and chart presentations, along with saved sold and unsold sample files.



Sold/Unsold Re	esults
Property Class	Results
Commercial/Industrial	Compliant
Condominium	Compliant
Single Family	Compliant
Vacant Land	Compliant

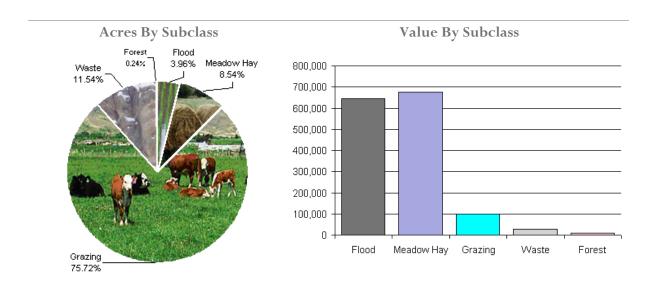
Conclusions

After applying the above described methodologies, it is concluded that Eagle County is reasonably treating its sold and unsold properties in the same manner.

Recommendations



AGRICULTURAL LAND STUDY



Agricultural Land

County records were reviewed to determine major land categories such as irrigated farm, dry farm, meadow hay, grazing and other lands. In addition, county records were reviewed in order to determine if: photographs are available and are being used; soil conservation guidelines have been used to classify lands based on productivity; crop rotations have been documented; typical commodities and yields have been determined; orchard lands have been properly classified and valued; expenses reflect a ten year average and are typical landlord expenses; grazing lands have been properly classified and valued; the number of acres in each class and subclass have been determined; the capitalization rate was properly applied. Also, documentation was required for the valuation methods used and locally developed yields, capacities, and expenses. Records were also checked to ensure that the commodity prices and expenses, furnished by the Property Tax Administrator (PTA), were applied properly.

(See Assessor Reference Library Volume 3 Chapter 5.)

Conclusions

An analysis of the agricultural land data indicates an acceptable appraisal of this property type. Directives, commodity prices and expenses provided by the PTA were properly applied. County yields compared favorably to those published by Colorado Agricultural Statistics. Expenses used by the county were allowable expenses and were in an acceptable range. Grazing lands carrying capacities were in an acceptable range. The data analyzed resulted in the following ratios:



	Eagle County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio	
4117	Flood	5,870	110.07	646,088	631,215	1.02	
4137	Meadow Hay	12,673	52.82	675,336	675,336	1.00	
4147	Grazing	112,320	7.22	99,587	99,587	1.00	
4177	Forest	355	28.86	10,237	10,237	1.00	
4167	Waste	17,120	1.62	27,649	27,649	1.00	
Total/Avg		148,337	9.84	1,458,898	1,444,025	1.01	

Recommendations



Agricultural Outbuildings

Methodology

Data was collected and reviewed to determine if the guidelines found in the Assessor's Reference Library (ARL) Volume 3, pages 5.74 through 5.77 were being followed.

Conclusions

Eagle County has substantially complied with the procedures provided by the Division of Property Taxation for the valuation of agricultural outbuildings.

Recommendations



SALES VERIFICATION

According to Colorado Revised Statutes:

A representative body of sales is required when considering the market approach to appraisal.

(8) In any case in which sales prices of comparable properties within any class or subclass are utilized when considering the market approach to appraisal in the determination of actual value of any taxable property, the following limitations and conditions shall apply:

(a)(I) Use of the market approach shall require a representative body of sales, including sales by a lender or government, sufficient to set a pattern, and appraisals shall reflect due consideration of the degree of comparability of sales, including the extent of similarities and dissimilarities among properties that are compared for assessment purposes. In order to obtain a reasonable sample and to reduce sudden price changes or fluctuations, all sales shall be included in the sample that reasonably reflect a true or typical sales price during the period specified in section 39-1-104 (10.2). Sales of personal property exempt pursuant to the provisions of sections 39-3-102, 39-3-103, and 39-3-119 to 39-3-122 shall not be included in any such sample.

(b) Each such sale included in the sample shall be coded to indicate a typical, negotiated sale, as screened and verified by the assessor. (39-1-103, C.R.S.)

The assessor is required to use sales of real property only in the valuation process.

(8)(f) Such true and typical sales shall include only those sales which have been determined on an individual basis to reflect the selling price of the real property only or which have been adjusted on an individual basis to reflect the selling price of the real property only. (39-1-103, C.R.S.)

Part of the Property Assessment Study is the sales verification analysis. WRA has used the above-cited statutes as a guide in our study of the county's procedures and practices for verifying sales.

WRA reviewed the sales verification procedures in 2010 for Eagle County. This study was conducted by checking selected sales from the master sales list for the Jan 1, 2007 - June 30, 2008 valuation period. Specifically WRA selected 30 sales listed as unqualified.

All of the sales in the unqualified sales sample had reasons that were clear and supportable.

Conclusions

Eagle County appears to be doing an excellent job of verifying their sales. There are no recommendations.

Recommendations



ECONOMIC AREA REVIEW AND EVALUATION

Methodology

Eagle County has submitted a written narrative describing the economic areas that make up the county's market areas. Eagle County has also submitted a map illustrating these areas. Each of these narratives have been read and analyzed for logic and appraisal sensibility. The maps were also compared to the narrative for consistency between the written description and the map.

Conclusions

After review and analysis, it has been determined that Eagle County has adequately

identified homogeneous economic areas comprised of smaller neighborhoods. Each economic area defined is equally subject to a set of economic forces that impact the value of the properties within that geographic area and this has been adequately addressed. Each economic area defined adequately delineates an area that will give "similar values for similar properties in similar areas."

Recommendations



NATURAL RESOURCES

Earth and Stone Products

Methodology

Under the guidelines of the Assessor's Reference Library (ARL), Volume 3, Natural Resource Valuation Procedures, the income approach was applied to determine value for production of earth and stone products. The number of tons was multiplied by an economic royalty rate determined by the Division of Property Taxation to determine income. The income was multiplied by a recommended Hoskold factor to determine the actual value. The Hoskold factor is determined by the life of

the reserves or the lease. Value is based on two variables: life and tonnage. The operator determines these since there is no other means to obtain production data through any state or private agency.

Conclusions

The County has applied the correct formulas and state guidelines to earth and stone production.

Recommendations



VACANT LAND

Subdivision Discounting

Subdivisions were reviewed in 2010 in Eagle County. The review showed that subdivisions were discounted pursuant to the Colorado Revised Statutes in Article 39-1-103 (14) and by applying the recommended methodology in ARL Vol 3, Chap 4. Subdivision Discounting in the intervening year was accomplished by reducing the absorption period by one year. In instances where the number of sales within an approved plat was less than the absorption rate

per year calculated for the plat, the absorption period was left unchanged.

Conclusions

Eagle County has implemented proper procedures to adequately estimate absorption periods, discount rates, and lot values for qualifying subdivisions.

Recommendations



POSSESSORY INTEREST PROPERTIES

Possessory Interest

Possessory interest property discovery and valuation is described in the Assessor's Reference Library (ARL) Volume 3 section 7 in accordance with the requirements of C.R.S. Chapter 39-1-103 (17)(a)(II)Possessory Interest is defined by the Property Tax Administrator's Publication ARL Volume 3, Chapter 7: A private property interest in government-owned property or the right to the occupancy and use of any benefit in government-owned property that has been granted under lease, permit, concession, contract, or other agreement.

Eagle County has been reviewed for their procedures and adherence to guidelines when assessing and valuing agricultural, commercial and ski area possessory interest properties. The county has also been queried as to their confidence that the possessory interest properties have been discovered and placed on the tax rolls.

Conclusions

Eagle County has implemented a discovery process to place possessory interest properties on the roll. They have also correctly and consistently applied the correct procedures and valuation methods in the valuation of possessory interest properties.

Recommendations



PERSONAL PROPERTY AUDIT

Eagle County was studied for its procedural compliance with the personal property assessment outlined in the Assessor's Reference Library (ARL) Volume 5, and in the State Board of Equalization (SBOE) requirements for the assessment of personal property. The SBOE requires that counties use ARL Volume 5, including current discovery, classification, documentation procedures, current economic lives table, cost factor tables, depreciation table, and level of value adjustment factor table.

The personal property audit standards narrative must be in place and current. A listing of businesses that have been audited by the assessor within the twelve-month period reflected in the plan is given to the auditor. The audited businesses must be in conformity with those described in the plan.

Aggregate ratio will be determined solely from the personal property accounts that have been physically inspected. The minimum assessment sample is one percent or ten schedules, whichever is greater, and the maximum assessment audit sample is 100 schedules.

For the counties having over 100,000 population, WRA selected a sample of all personal property schedules to determine whether the assessor is correctly applying the provisions of law and manuals of the Property Tax Administrator in arriving at the assessment levels of such property. This sample was selected from the personal property schedules audited by the assessor. In no event was the sample selected by the contractor less than 30 schedules. The counties to be included in this study are Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo, and Weld. All other counties received a procedural study.

Eagle County is compliant with the guidelines set forth in ARL Volume 5 regarding discovery procedures, using the following methods to discover personal property accounts in the county:

- Public Record Documents
- Chamber of Commerce/Economic Development Contacts
- Local Telephone Directories, Newspapers or Other Local Publications
- Personal Observation, Physical Canvassing or Word of Mouth
- Questionnaires, Letters and/or Phone Calls to Buyer, Seller and/or Realtor

The county uses the Division of Property Taxation (DPT) recommended classification and documentation procedures. The DPT's recommended cost factor tables, depreciation tables and level of value adjustment factor tables are also used.

Eagle County submitted their personal property written audit plan and was current for the 2010 valuation period. The number and listing of businesses audited was also submitted and was in conformance with the written audit plan. The following audit triggers were used by the county to select accounts to be audited:

- Accounts with obvious discrepancies
- New businesses filing for the first time
- Incomplete or inconsistent declarations
- Accounts with omitted property
- Businesses with no deletions or additions for 2 or more years
- Non-filing Accounts Best Information Available



Accounts protested with substantial disagreement

Conclusions

Eagle County has employed adequate discovery, classification, documentation,

valuation, and auditing procedures for their personal property assessment and is in statistical compliance with SBOE requirements.

Recommendations



WILDROSE AUDITOR STAFF

Harry J. Fuller, Audit Project Manager

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J. Andrew Rodriguez, Field Analyst



APPENDICES

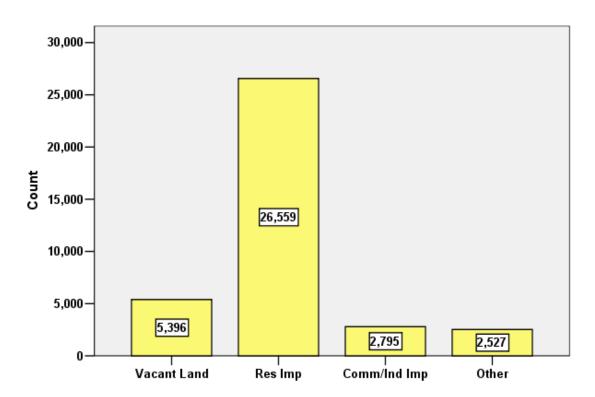


STATISTICAL RESULTS FOR EAGLE COUNTY 2010

I. OVERVIEW

Eagle County is a mountain resort county located in western Colorado. The county has a total of 37,277 real property parcels, according to data submitted by the county assessor's office in 2010. The following provides a breakdown of property classes for this county:

Real Property Class Distribution



The vacant land class of properties was dominated by residential land. Residential lots (coded 100 and 400) accounted for 51% of all vacant land parcels.

For residential improved properties, single family properties accounted for 54% of all residential properties. Residential condominiums accounted for 45% of all residential improved properties. Based on the large number of residential condominiums in this county, they will be analyzed separately from single family residences in the residential ratio analysis section.



Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial sales accounted for 7.5% of all such properties in this county.

II. DATA FILES

The following sales analyses were based on the requirements of the 2010 Colorado Property Assessment Study. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

The following steps were taken to analyze the residential sales:

1. Total sales	5,847
2. Selected qualified sales	4,551
3. Select improved sales (non-duplicate)	3,767
4. Select residential sales only	3,450
5. Sales between January 1, 2007 and June 30, 2008	2,353

We stratified our sales ratio analysis by residential non-condominiums and condominiums. The sales ratio analysis results were as follows:

Residential Non-Condo = 1,396

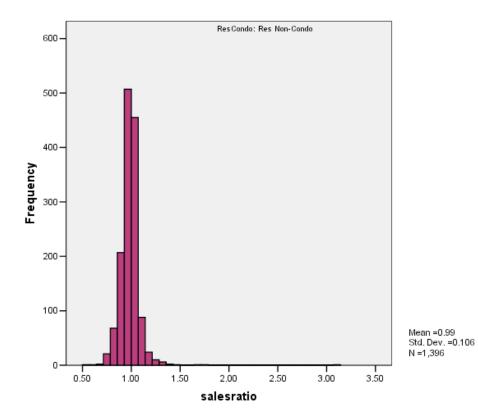
Median	0.992
Price Related Differential	1.014
Coefficient of Dispersion	.062

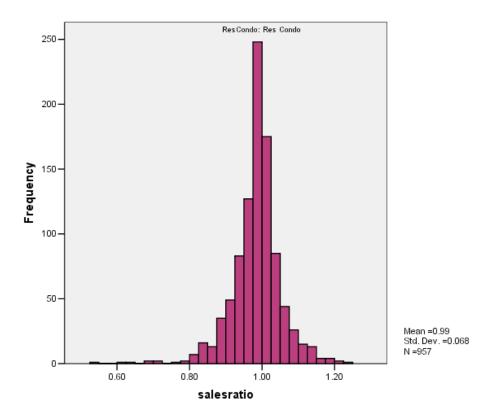
Residential Condo = 957

Median	0.994
Price Related Differential	1.007
Coefficient of Dispersion	.046

The above ratio statistics were in compliance with the standards set forth by the Colorado State Board of Equalization (SBOE) for the overall residential sales. The following graphs describe further the sales ratio distribution for these properties:

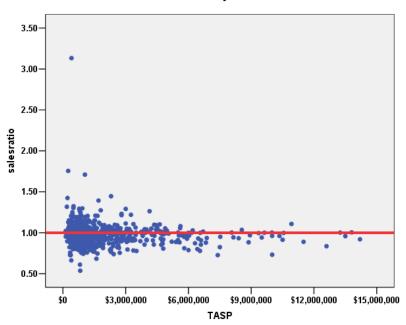




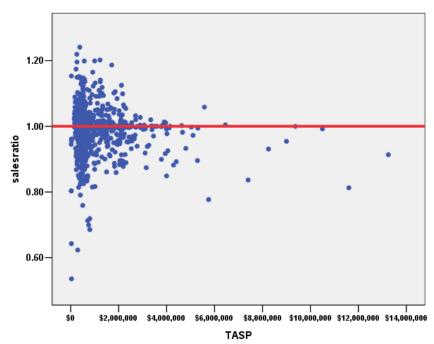




ResCondo: Res Non-Condo Residential Sale Price by Sales Ratio







The above graphs indicate that the distribution of the sale ratios was within state mandated limits. No sales were trimmed.



Residential Market Trend Analysis

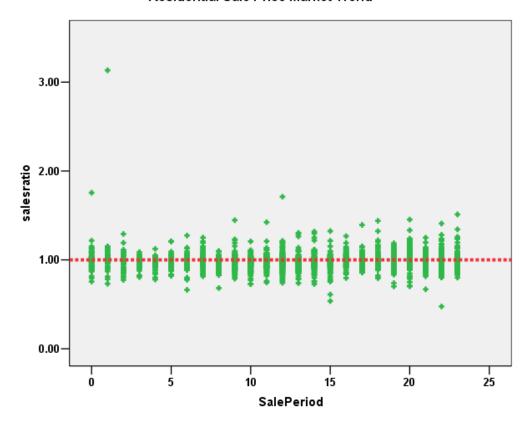
We next analyzed the residential dataset using the 24-month sale period for any residual market trending. We again stratified the analysis between residential non-condominiums and condominiums, with the following results:

Coefficientsa

			Unstandardized Coefficients		Standardized Coefficients		
ResCondo	Model		В	Std. Error	Beta	t	Sig.
Res Non-Condo	1	(Constant)	.982	.005		191.666	.000
		SalePeriod	.001	.000	.038	1.715	.087
Res Condo	1	(Constant)	.982	.004		221.359	.000
		SalePeriod	.001	.000	.057	2.143	.032

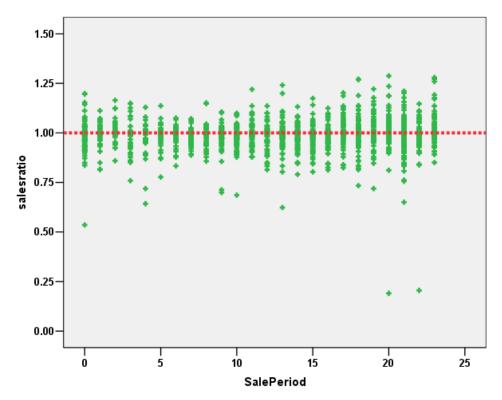
a. Dependent Variable: salesratio

ResCondo: Res Non-Condo
Residential Sale Price Market Trend





ResCondo: Res Condo
Residential Sale Price Market Trend



The residential non-condominium analysis indicated no significant market trending across the 24-month period used by the assessor. For the residential condominium market trend analysis, while there was a marginal trend statistically, the magnitude of the trend (at 0.00065464 per month) was not significant.

Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold residential properties, we compared the median actual value per square foot for 2010 between each group stratified by residential non-condominiums and condominiums, as follows:

Residential Type	Group	N	Median	Mean
Residential Non-Condo	Unsold	13,246	\$401	\$508
	Sold	1,396	\$378	\$508
Residential Condo	Unsold	10,818	\$520	\$700
	Sold	947	\$516	\$671

The above results indicate that sold and unsold residential properties were valued in a consistent manner.



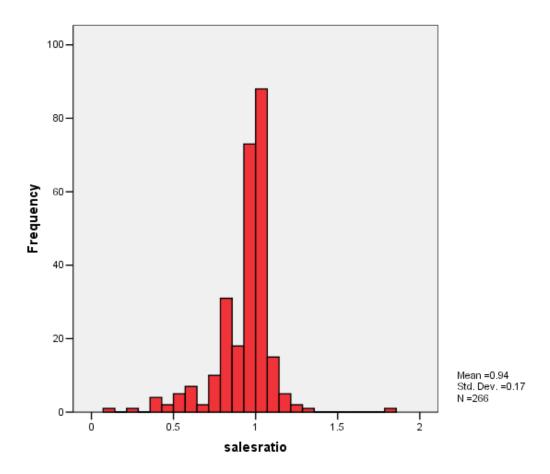
IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

1. Total sales	5,847
2. Selected qualified sales	4,551
3. Select improved sales (non-duplicate)	3,767
4. Select commercial/industrial sales	266

The sales ratio analysis resulted in the following ratio statistics:

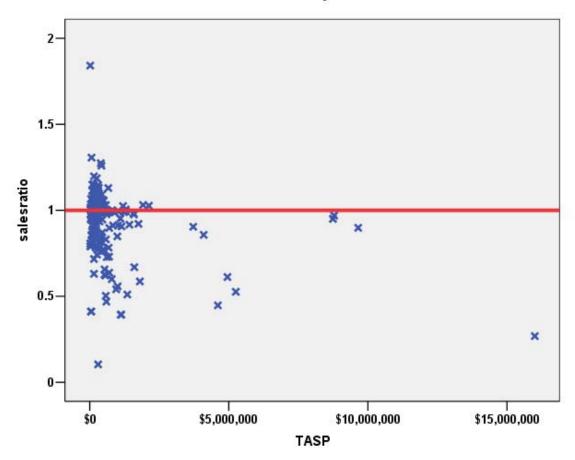
Median	0.988
Price Related Differential	1.167
Coefficient of Dispersion	.105

The above tables indicate that the Eagle County commercial/industrial sale ratios were in compliance with the SBOE standards. The following histogram and scatter plot describe the sales ratio distribution further:





Commercial Sale Price by Sales Ratio



Commercial Market Trend Analysis

The 266 commercial/industrial sales were next analyzed by subclass for any residual market trending, examining the sale ratios across the 18-month sale period with the following results:

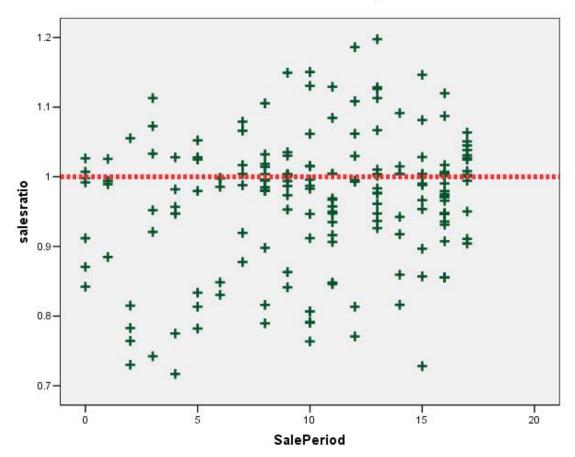
Coefficientsa

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.935	.014		65.367	.000
	SalePeriod	.003	.001	.160	2.501	.013

a. Dependent Variable: salesratio



Commercial Market Trend Analysis



The market trend results indicated a marginally significant statistical trend, but the magnitude of the trend was not significant. We concluded that the assessor adequately considered market trending in their valuation of commercial/industrial properties.

Sold/Unsold Analysis

For the sold/unsold analysis of commercial properties, we compared the median actual value per square foot between sold and unsold commercial properties to determine if the assessor was valuing each group consistently, as follows:

Subclass	Group	No.	Median	Mean
Total	Unsold	2,442	\$237	\$309
	Sold	237	\$198	\$356

Based on the results of these comparisons, we concluded that the Eagle County assessor was valuing sold and unsold commercial properties consistently.



V. VACANT LAND SALE RESULTS

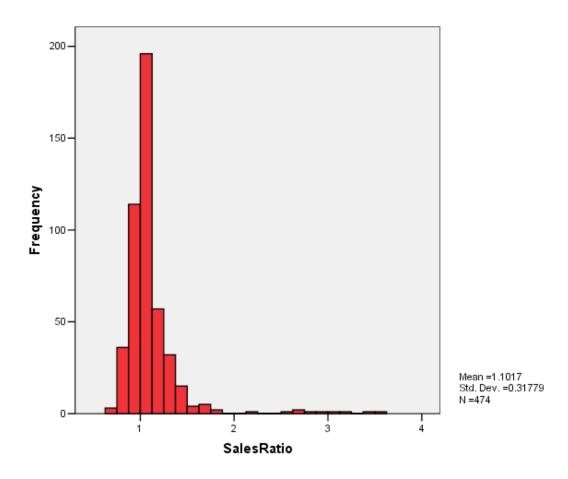
The following steps were taken to analyze vacant land sales:

1. Total sales	5,847
2. Selected qualified sales	4,551
3. Select vacant land sales (non-duplicate, non-ag)	483
4. Exclude extreme ratios	474

The sales ratio analysis resulted in the following ratio statistics:

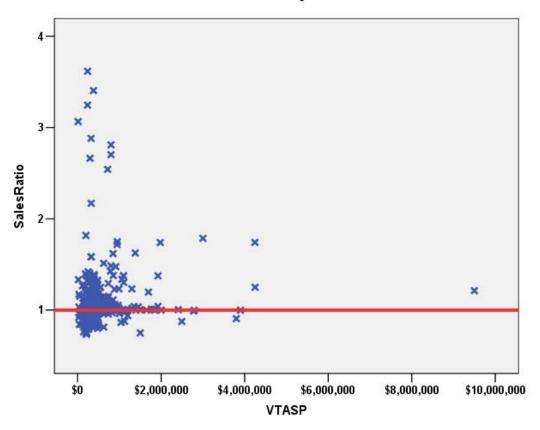
Median	1.020
Price Related Differential	1.020
Coefficient of Dispersion	.143

The above tables indicate that the Eagle County vacant land sale ratios were in compliance with the SBOE standards. The following histogram and scatter plot describe the sales ratio distribution further:





Vacant Land Sale Price by Sales Ratio



Vacant Land Market Trend Analysis

The assessor did not apply any market trend adjustments to the vacant land dataset. The 474 vacant land sales were analyzed, examining the sale ratios across the 18 month sale period with the following results:

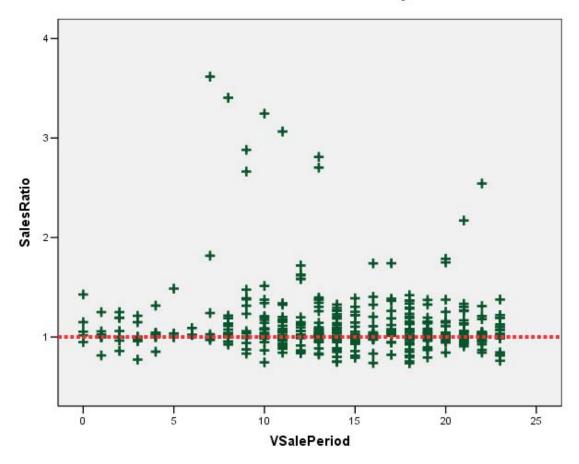
Coefficientsa

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	1.157	.038		30.181	.000
	VSalePeriod	004	.002	071	-1.551	.122

a. Dependent Variable: SalesRatio



Vacant Land Sales Market Trend Analysis



The market trend results indicated no statistically significant trend. We concluded that the assessor has adequately considered market tending in Eagle County's vacant land valuation for 2010.

Sold/Unsold Analysis

We compared the median change in actual value between 2008 and 2010 for vacant land properties to determine if sold and unsold properties were valued consistently (stratified by economic area), as follows:



ECONAREA	Group	N	Median	Mean
260	Sold	7	1.33	1.73
	Unsold	84	1.35	1.74
300	Sold	4	2.37	2.22
	Unsold	85	2.85	2.92
400	Sold	16	1.30	1.48
	Unsold	83	1.23	1.23
425	Sold	6	1.30	1.38
	Unsold	49	1.13	1.09
450	Sold	11	1.37	1.29
	Unsold	108	1.04	1.13
500	Sold	35	1.12	1.17
	Unsold	206	1.10	1.17
550	Sold	83	1.18	1.26
	Unsold	277	1.16	1.15
700	Sold	32	1.33	1.75
	Unsold	567	1.31	1.63
800	Sold	115	1.43	1.38
	Unsold	460	1.00	.91

The above results indicated that sold and unsold vacant land properties were valued consistently overall.

V. AGRICULTURAL IMPROVEMENTS ANALYSIS

The final statistical verification concerned the assigned actual values for agricultural residential improvements; based on the parameters developed for the 2010 audit. Eagle County was exempt from this analysis.

VI. Conclusions

Based on this statistical analysis, there were no significant compliance issues concluded for Eagle County as of the date of this report.



STATISTICAL ABSTRACT

Residential

Ratio Statistics for CURRTOT / TASP

Mean		.990
95% Confidence Interval	Lower Bound	.987
for Mean	Upper Bound	.993
Median		.995
95% Confidence Interval	Lower Bound	.994
for Median	Upper Bound	.997
	Actual Coverage	95.4%
Weighted Mean		.977
95% Confidence Interval	Lower Bound	.972
for Weighted Mean	Upper Bound	.982
Price Related Differential		1.013
Coefficient of Dispersion		.059
Coefficient of Variation	Mean Centered	9.6%

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level. Other confidence intervals are constructed by assuming a Normal distribution for the ratios.

Commercial/Industrial

Ratio Statistics for CURRTOT / TASP

Mean		.986
95% Confidence Interval	Lower Bound	.983
for Mean	Upper Bound	.990
Median		.995
95% Confidence Interval	Lower Bound	.993
for Median	Upper Bound	.996
	Actual Coverage	95.3%
Weighted Mean		.967
95% Confidence Interval	Lower Bound	.958
for Weighted Mean	Upper Bound	.977
Price Related Differential		1.019
Coefficient of Dispersion		.063
Coefficient of Variation	Mean Centered	10.6%

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level. Other confidence intervals are constructed by assuming a Normal distribution for the ratios.



Vacant Land

Ratio Statistics for CURRLND / VTASP

Mean		.948
95% Confidence Interval	Lower Bound	.934
for Mean	Upper Bound	.962
Median		.981
95% Confidence Interval	Lower Bound	.969
for Median	Upper Bound	.988
	Actual Coverage	95.2%
Weighted Mean		.926
95% Confidence Interval	Lower Bound	.901
for Weighted Mean	Upper Bound	.950
Price Related Differential		1.024
Coefficient of Dispersion		.107
Coefficient of Variation	Mean Centered	16.7%

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level. Other confidence intervals are constructed by assuming a Normal distribution for the ratios.

Residential Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT \$25K	5	.1%
	\$25K to \$50K	4	.1%
	\$100K to \$150K	10	.3%
	\$150K to \$200K	43	1.2%
	\$200K to \$300K	184	5.3%
	\$300K to \$500K	928	26.9%
	\$500K to \$750K	898	26.0%
	\$750K to \$1,000K	401	11.6%
	Over \$1,000K	977	28.3%
Overall		3450	100.0%
Excluded		0	
Total		3450	



Ratio Statistics for CURRTOT / TASP

				Coefficient of Variation
		Price Related	Coefficient of	Median
Group	Median	Differential	Dispersion	Centered
LT \$25K	.804	.999	.162	25.5%
\$25K to \$50K	.959	1.000	.112	25.5%
\$100K to \$150K	.999	.999	.028	4.1%
\$150K to \$200K	1.029	1.000	.040	6.8%
\$200K to \$300K	1.017	1.002	.057	9.9%
\$300K to \$500K	.996	1.000	.051	10.2%
\$500K to \$750K	.990	1.001	.054	7.6%
\$750K to \$1,000K	.994	1.000	.071	10.3%
Over \$1,000K	.994	1.010	.063	9.9%
Overall	.995	1.013	.059	9.6%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	0	5	.1%
	LE 500 sf	93	2.7%
	500 to 1,000 sf	517	15.0%
	1,000 to 1,500 sf	900	26.1%
	1,500 to 2,000 sf	812	23.5%
	2,000 to 3,000 sf	785	22.8%
	3,000 sf or Higher	338	9.8%
Overall		3450	100.0%
Excluded		0	
Total		3450	



Ratio Statistics for CURRTOT / TASP

				Coefficient of Variation
		Price Related	Coefficient of	Median
Group	Median	Differential	Dispersion	Centered
0	.804	1.040	.142	21.3%
LE 500 sf	.963	1.010	.067	8.3%
500 to 1,000 sf	.997	1.006	.051	7.6%
1,000 to 1,500 sf	.996	1.004	.052	8.0%
1,500 to 2,000 sf	.997	1.011	.053	8.4%
2,000 to 3,000 sf	.991	1.013	.066	9.9%
3,000 sf or Higher	.996	1.019	.076	15.7%
Overall	.995	1.013	.059	9.6%

Age

Case Processing Summary

		Count	Percent
AgeRec	0	5	.1%
	Over 100	17	.5%
	75 to 100	12	.3%
	50 to 75	13	.4%
	25 to 50	801	23.2%
	5 to 25	1550	44.9%
	5 or Newer	1052	30.5%
Overall		3450	100.0%
Excluded		0	
Total		3450	

Ratio Statistics for CURRTOT / TASP

				Coefficient of Variation
		Price Related	Coefficient of	Median
Group	Median	Differential	Dispersion	Centered
0	.804	1.040	.142	21.3%
Over 100	.991	1.052	.086	12.0%
75 to 100	.935	.996	.047	5.9%
50 to 75	.953	1.009	.068	9.8%
25 to 50	.994	1.011	.054	8.9%
5 to 25	.998	1.011	.055	8.4%
5 or Newer	.992	1.018	.066	11.3%
Overall	.995	1.013	.059	9.6%



Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT \$25K	12	.3%
	\$25K to \$50K	51	1.4%
	\$50K to \$100K	48	1.3%
	\$100K to \$150K	36	1.0%
	\$150K to \$200K	61	1.6%
	\$200K to \$300K	226	6.0%
	\$300K to \$500K	970	25.7%
	\$500K to \$750K	933	24.8%
	\$750K to \$1,000K	415	11.0%
	Over \$1,000K	1015	26.9%
Overall		3767	100.0%
Excluded		33510	
Total		37277	

Ratio Statistics for CURRTOT / TASP

				Coefficient of Variation
		Price Related	Coefficient of	Median
Group	Median	Differential	Dispersion	Centered
LT \$25K	.805	1.032	.202	42.5%
\$25K to \$50K	1.004	.995	.038	13.6%
\$50K to \$100K	.947	.994	.087	14.7%
\$100K to \$150K	1.001	1.000	.076	11.6%
\$150K to \$200K	1.032	1.000	.045	6.9%
\$200K to \$300K	1.015	1.001	.066	12.1%
\$300K to \$500K	.996	1.000	.053	10.3%
\$500K to \$750K	.990	1.001	.057	8.4%
\$750K to \$1,000K	.992	1.001	.075	11.1%
Over \$1,000K	.993	1.019	.068	11.1%
Overall	.995	1.019	.063	10.6%



Subclass

Case Processing Summary

		Count	Percent
PredUse	100	1	.0%
	550	1	.0%
	600	2	.1%
	1212	2030	53.9%
	1215	5	.1%
	1220	2	.1%
	1230	1413	37.5%
	1235	3	.1%
	2212	10	.3%
	2215	5	.1%
	2220	1	.0%
	2230	49	1.3%
	2235	4	.1%
	2240	1	.0%
	2245	235	6.2%
	3215	1	.0%
	9240	2	.1%
	9250	1	.0%
	9259	1	.0%
Overall		3767	100.0%
Excluded		33510	
Total		37277	



Ratio Statistics for CURRTOT / TASP

				Coefficient
				of
				Variation
		Price Related	Coefficient of	Median
Group	Median	Differential	Dispersion	Centered
100	1.082	1.000	.000	
550	1.002	1.000	.000	
600	1.227	1.104	.295	41.8%
1212	.994	1.014	.064	10.5%
1215	.923	1.070	.131	17.1%
1220	.950	1.014	.043	6.1%
1230	.996	1.012	.051	8.0%
1235	1.126	.996	.041	6.9%
2212	.998	1.182	.098	21.0%
2215	.612	1.207	.302	40.7%
2220	1.014	1.000	.000	
2230	.962	.981	.118	17.0%
2235	.788	1.085	.152	22.0%
2240	.269	1.000	.000	
2245	.996	1.054	.096	16.9%
3215	.897	1.000	.000	
9240	.977	1.004	.016	2.3%
9250	.892	1.000	.000	
9259	1.111	1.000	.000	
Overall	.995	1.019	.063	10.6%



Vacant Land Median Ratio Stratification

Case Processing Summary

		Count	Percent
VPredUse	100	144	30.4%
	200	18	3.8%
	400	109	23.0%
	520	2	.4%
	530	4	.8%
	540	1	.2%
	550	8	1.7%
	560	1	.2%
	600	1	.2%
	1112	6	1.3%
	1212	171	36.1%
	1215	1	.2%
	2130	1	.2%
	2212	1	.2%
	2220	1	.2%
	2230	1	.2%
	2235	4	.8%
Overall		474	100.0%
Excluded		0	
Total		474	