Boulder County Colorado

2013
BOULDER COUNTY
PROPERTY ASSESSMENT
STUDY

WILDROSE
APPRAISAL, INCORPORATED
Audit Division
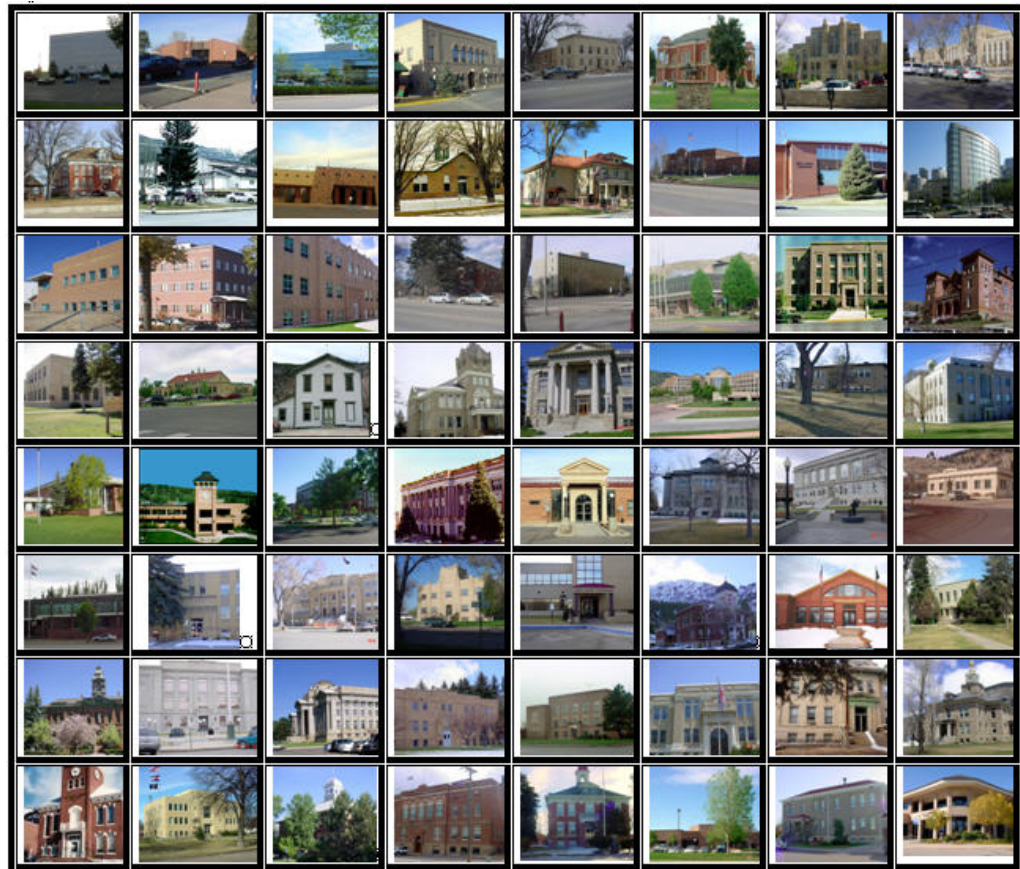
WILDROSE
APPRAISAL, INCORPORATED
Audit Division

September 15, 2013

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

RE: Final Report for the 2013 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2013 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
Wildrose Appraisal Inc. — Audit Division

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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 and subdivision discounting procedures. Valuation methodology for vacant land, improved residential properties and commercial 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 2013 and is pleased to report its findings for Boulder County in the following report.

REGIONAL/HISTORICAL SKETCH OF BOULDER COUNTY

Regional Information

Boulder County is located in the Front Range region of Colorado. The Colorado Front Range is a colloquial geographic term for the populated areas of the State that are just east of the foothills of the Front Range. It includes Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, El Paso, Jefferson, Larimer, Pueblo, and Weld counties.

Historical Information

Boulder County has a population of approximately 294,567 people with 396.46 people per square mile, according to the U.S. Census Bureau's 2010 census data. This represents a 1.12 percent change from the 2000 Census.

Boulder County was one of the original 17 counties created by the Territory of Colorado on January 11,1861. The county was named for Boulder City and Boulder Creek, so named because of the abundance of boulders in the area. Boulder County retains essentially the same borders as in 1861, although a small portion of its southeastern corner became part of the City and County of Broomfield in 2001.

In the early to mid 1800s, the nomadic Southern Arapaho Native American tribe frequently wintered at the base of the foothills in the Boulder area. Chief Niwot and his band called the site their home. Other nomadic tribes included the Utes, Cheyennes, Comanches, and Sioux.

The first recorded European settlers in the area were gold prospectors who arrived in 1858, when Boulder was part of the Nebraska Territory (The former boundary between Nebraska and Kansas territories is the present Baseline Road in Boulder). The "Boulder City Town Company" was founded on February 10, 1859. Boulder's first school house was built in 1860, followed by the creation of the Colorado Territory in 1861. In 1871 'Boulder City' was incorporated. In 1873 the railroad was extended to Boulder and, in 1890, the Boulder Railroad Depot was constructed to serve as a station for the Union Pacific Railroad. In 1876 Colorado was granted statehood, and in that same year the University of Colorado at Boulder opened.

Mining gold, silver, and coal continued to be a prominent part of the local economy until the mid 1900s. A coal miners strike lasted from 1910 to 1915, causing a military presence in nearby Louisville. Mining's relevance in the local economy declined in the 1940s, when the city began actively recruiting clean industry, such as the National Bureau of Standards, which today is the National Institute of Standards and Technology, home of the atomic clock. *(Wikipedia.org)*

RATIO ANALYSIS

Methodology

All significant classes of properties were analyzed. Sales were collected for each property class over the appropriate sale period, which was typically defined as the 18-month period between January 2011 and June 2012. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2012 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 price-related 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:

ALLOWABLE STANDARDS RATIO GRID		
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 Boulder County are:

Boulder County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	184	0.981	1.032	8.1	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	7,707	1.001	1.015	7.9	Compliant
Vacant Land	155	1.007	1.189	19.3	Compliant

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1	1.001	1.009	.068
2	.996	1.022	.110
3	1.000	1.015	.101
4	1.002	1.008	.063
5	1.009	1.020	.097
30	1.000	1.009	.061
31	.989	1.024	.081
32	.986	1.012	.069
33	1.007	1.011	.086
40	.982	1.020	.073
Overall	1.001	1.015	.079

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

Recommendations

None

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 Boulder County has complied with the statutory requirements to analyze the effects of time on value in their county. Boulder County has also satisfactorily applied the results of their time trending analysis to arrive at the time adjusted sales price (TASP).

Recommendations

None

SOLD/UNSOLD ANALYSIS

Methodology

Boulder 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 2012 and 2013 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. Once the 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 non-parametric 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 multi-variate 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 Results	
Property Class	**Results**
Commercial/Industrial	Compliant
Condominium	N/A
Single Family	Compliant
Vacant Land	Compliant

Conclusions

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

Recommendations

None

AGRICULTURAL LAND STUDY

Acres By Subclass

Value By Subclass
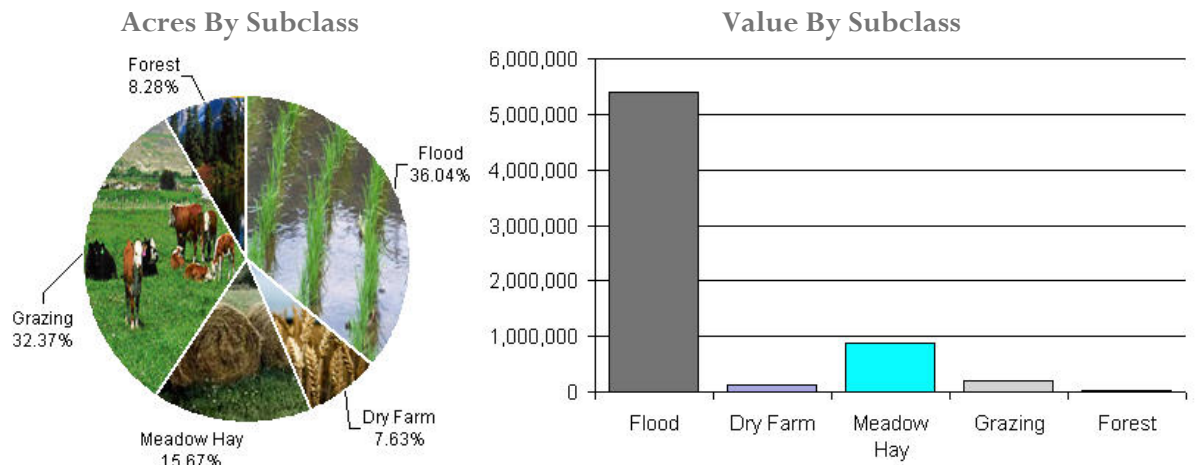
Agricultural Land

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: Aerial 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 any locally developed yields, carrying 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. 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:

Boulder 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	23,284	231.00	5,388,025	5,695,655	0.95
4127	Dry Farm	4,932	26.00	126,169	132,767	0.95
4137	Meadow Hay	10,125	86.00	868,078	868,078	1.00
4147	Grazing	20,914	9.00	189,377	188,155	1.01
4177	Forest	5,348	3.00	16,044	15,934	1.01
Total/Avg		64,603	102.00	6,587,693	6,900,589	0.95

Recommendations

None

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

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

Recommendations

None

Agricultural Land Under Improvements

Methodology

Data was collected and reviewed to determine if the guidelines found in the Assessor's Reference Library (ARL) Volume 3, pages 5.19 and 5.20 were being followed.

Boulder County utilized the following discovery method(s):

- Questionnaires
- Phone Interviews
- In-Person Interviews

- Personal Knowledge of Owners and Tenants

Conclusions

Boulder County has substantially complied with the procedures provided by the Division of Property Taxation for the valuation of land under residential improvements that may or may not be integral to an agricultural operation.

Recommendations

None

S A L E S   V E R I F I C A T I O N

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 2013 for Boulder County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 69 sales listed as unqualified.

All but two of the sales selected in the sample gave reasons that were clear and supportable. Two sales had insufficient reason for disqualification.

For residential, commercial, and vacant land sales with considerations over $500, the contractor has examined and reported the ratio of qualified sales to total sales by class and performed the following analyses of unqualified sales:

> The contractor has examined the manner in which sales have been classified as qualified or unqualified, including a listing of each step in the sales verification process, any adjustment procedures, and the county official responsible for making the final decision on qualification.
>
> When less than 50 percent of sales are qualified in any of the three property classes (residential, commercial, and vacant land), the contractor analyzed the reasons for disqualifying sales in any subclass that constitutes at least 20 percent of the class, either by number

of properties or by value, from the prior year. The contractor has reviewed with the assessor any analysis indicating that sales data are inadequate, fail to reflect typical properties, or have been disqualified for insufficient cause. In addition, the contractor has reviewed the disqualified sales by assigned code. If there appears to be any inconsistency in the coding, the contractor has conducted further analysis to determine if the sales included in that code have been assigned appropriately.

If 50 percent or more of the sales are qualified, the contractor has reviewed a statistically significant sample of unqualified sales, excluding sales that were disqualified for obvious reasons.

The following subclasses were analyzed for Boulder County:

- 0100 Residential Lots
- 0200 Commercial Lots

Conclusions

Boulder County appears to be doing a good job of verifying their sales. There are no recommendations.

Recommendations

None

ECONOMIC AREA REVIEW AND EVALUATION

Methodology

Boulder County has submitted a written narrative describing the economic areas that make up the county's market areas. Boulder 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 Boulder 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

None

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

None

Producing Oil and Gas

Methodology

Assessors Reference Library (ARL) Volume 3, Chapter 6: Valuation of Natural Resources

STATUTORY REFERENCES
Section § 39-1-103, C.R.S., specifies that producing oil or gas leaseholds and lands are valued according to article 7 of title 39, C.R.S.

Actual value determined – when.
(2) The valuation for assessment of leaseholds and lands producing oil or gas shall be determined as provided in article 7 of this title.
§ 39-1-103, C.R.S.
Article 7 covers the listing, valuation, and assessment of producing oil and gas leaseholds and lands.

Valuation:
Valuation for assessment.
(1) Except as provided in subsection (2) of this section, on the basis of the information contained in such statement, the assessor shall value such oil and gas leaseholds and lands for assessment, as real property, at an amount equal to eighty-seven and one-half percent of:
(a) The selling price of the oil or gas sold there from during the preceding calendar year, after excluding the selling price of all oil or gas delivered to the United States government or any agency thereof, the state of Colorado or any agency thereof, or any political subdivision of the state as royalty during the preceding calendar year;
(b) The selling price of oil or gas sold in the same field area for oil or gas transported from the premises which is not sold during the preceding calendar year, after excluding the selling price of all oil or gas delivered to the United States government or any agency thereof, the state of Colorado or any agency thereof, or any political subdivision of the state as royalty during the preceding calendar year.
§ 39-7-102, C.R.S.

Conclusions

The county applied approved appraisal procedures in the valuation of oil and gas.

Recommendations

None

VACANT LAND

Subdivision Discounting

Subdivisions were reviewed in 2013 in Boulder County. The review showed that subdivisions were discounted pursuant to the Colorado Revised Statutes in Article 39-1-103 (14). Discounting procedures were applied to all subdivisions where less than 80 percent of all sites were sold using the present worth method. The market approach was applied where 80 percent or more of the subdivision sites were sold. An absorption period was estimated for each subdivision that was discounted. An appropriate discount rate was developed using the summation method. Subdivision land with structures was appraised at full market value.

Conclusions

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

Recommendations

None

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 Chapter 39-1-103 (17)(a) (II) C.R.S. 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, license, concession, contract, or other agreement.

Boulder 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

Boulder 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

None

PERSONAL PROPERTY AUDIT

Boulder 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.

Boulder 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
- MLS Listing and/or Sold Books
- 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.

Boulder County submitted their personal property written audit plan and was current for the 2013 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:

- Businesses in a selected area
- Accounts with obvious discrepancies
- New businesses filing for the first time
- Accounts with greater than 10% change
- Incomplete or inconsistent declarations
- Accounts with omitted property
- Same business type or use

- Businesses with no deletions or additions for 2 or more years
- Non-filing Accounts - Best Information Available
- Accounts close to the $7,000 actual value exemption status
- Lowest or highest quartile of value per square foot
- Accounts protested with substantial disagreement
- As requested by taxpayer
- Accounts filed in summary format without details

Boulder County's median ratio is 1.00. This is in compliance with the State Board of Equalization (SBOE) compliance requirements which range from .90 to 1.10 with no COD requirements.

Conclusions

Boulder 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

None

WILDROSE AUDITOR STAFF

Harry J. Fuller, *Audit Project Manager*

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STATISTICAL COMPLIANCE REPORT
FOR BOULDER COUNTY
2013

I. OVERVIEW

Boulder County is an urban county located along Colorado's Front Range. The county has a total of 120,059 real property parcels, according to data submitted by the county assessor's office in 2013. The following provides a breakdown of property classes for this county:
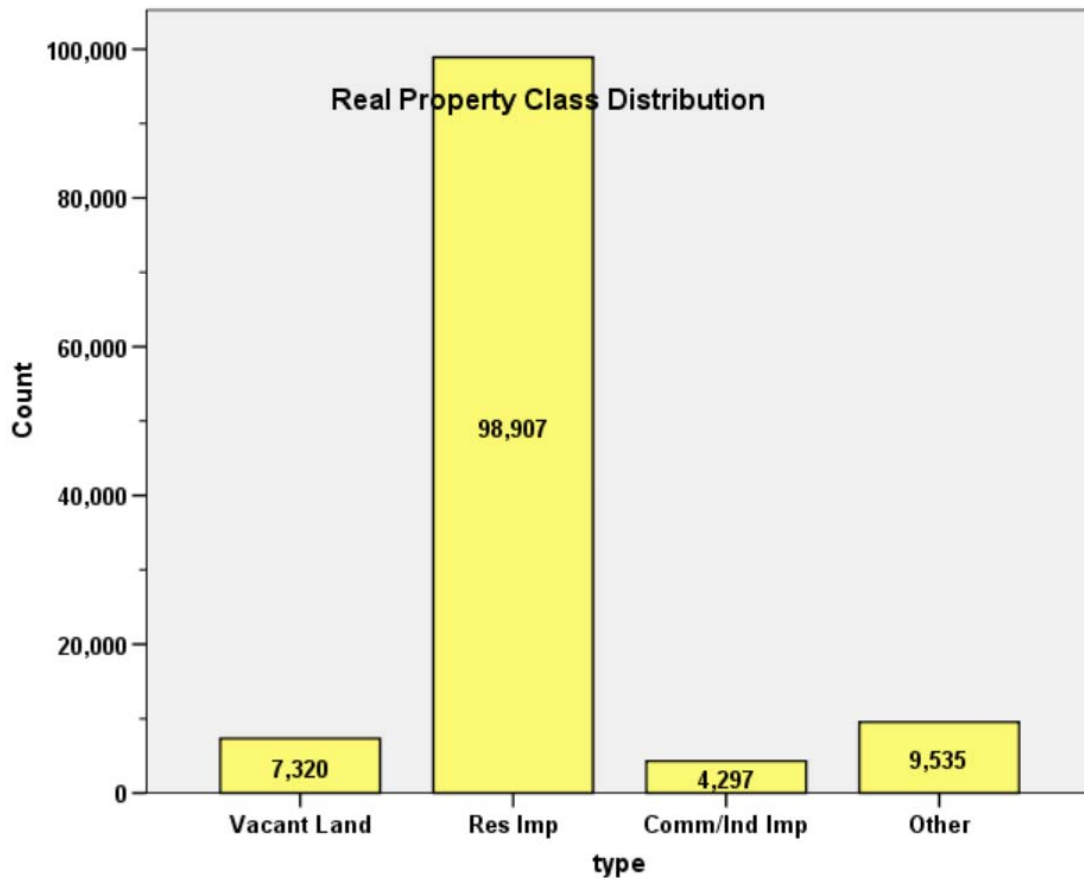
The vacant land class of properties was dominated by residential land. Residential lots (coded 100, 1100 and 1112) accounted for 72.5% of all vacant land parcels.

For residential improved properties, single family properties accounted for 82.6% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 3.6% of all such properties in this county.

II. DATA FILES

The following sales analyses were based on the requirements of the 2013 Colorado Property Assessment Study. Information was provided by the Boulder Assessor's Office in April 2013. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

There were 7,707 qualified residential sales in the 24 month sale period prior to June 30, 2012. The sales ratio analysis was analyzed as follows:

Case Processing Summary

		Count	Percent
ECONAREA	1	1454	18.9%
	2	434	5.6%
	3	330	4.3%
	4	2048	26.6%
	5	1994	25.9%
	30	530	6.9%
	31	355	4.6%
	32	327	4.2%
	33	196	2.5%
	40	39	.5%
Overall		7707	100.0%
Excluded		0	
Total		7707	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1	1.001	1.009	.068
2	.996	1.022	.110
3	1.000	1.015	.101
4	1.002	1.008	.063
5	1.009	1.020	.097
30	1.000	1.009	.061
31	.989	1.024	.081
32	.986	1.012	.069
33	1.007	1.011	.086
40	.982	1.020	.073
Overall	1.001	1.015	.079

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:

Mean = 1.02
Std. Dev. = 0.123
N = 7,707
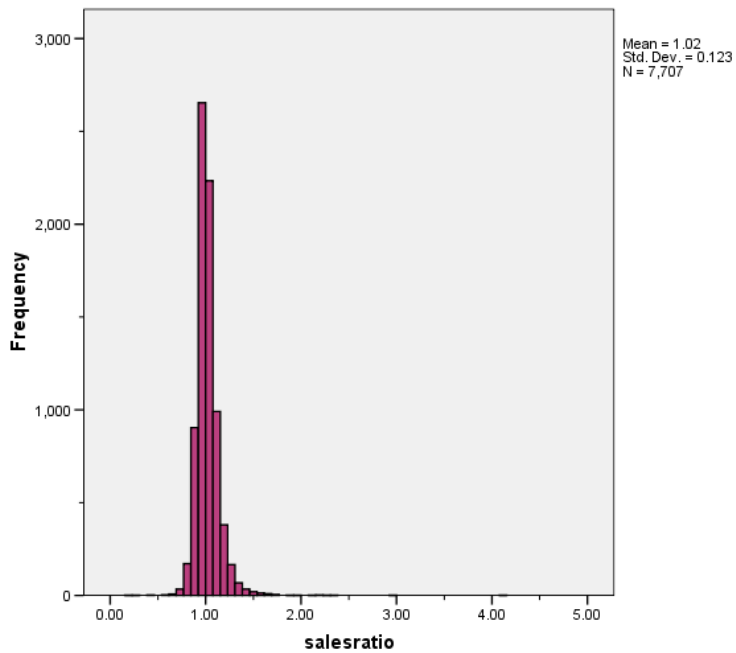
NOTE: Extreme values omitted for clarity of XY chart

The above graphs indicate that the distribution of the sale ratios was within state mandated limits.

Residential Market Trend Analysis

We next analyzed the residential dataset using the 24-month sale period for any residual market trending and broken down by economic area, as follows:

Coefficients[a]

ECONAREA	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
1	1	(Constant)	1.008	.005		210.410	.000
		SalePeriod	.001	.000	.049	1.857	.064
2	1	(Constant)	1.013	.014		72.826	.000
		SalePeriod	.001	.001	.036	.739	.460
3	1	(Constant)	1.035	.013		78.535	.000
		SalePeriod	-.001	.001	-.040	-.726	.468
4	1	(Constant)	1.008	.003		289.978	.000
		SalePeriod	.001	.000	.050	2.285	.022
5	1	(Constant)	1.019	.006		160.313	.000
		SalePeriod	.001	.001	.054	2.425	.015
30	1	(Constant)	.997	.007		152.696	.000
		SalePeriod	.001	.001	.095	2.184	.029
31	1	(Constant)	1.001	.011		94.310	.000
		SalePeriod	-.001	.001	-.048	-.904	.367
32	1	(Constant)	1.001	.009		110.351	.000
		SalePeriod	$-3.184E{-}5$	.001	-.003	-.046	.964
33	1	(Constant)	1.046	.016		66.164	.000
		SalePeriod	-.001	.001	-.071	-.988	.324
40	1	(Constant)	1.001	.026		37.790	.000
		SalePeriod	-.003	.002	-.225	-1.407	.168

a. Dependent Variable: salesratio

There was no significant residual market trending present in the sale ratio data for most economic areas; the three economic areas with statistically significant residual trends were not significant in terms of the magnitude of those trends. We therefore concluded that the assessor has adequately addressed market trending in the valuation of residential properties.

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 2013 between each group. The data was analyzed both as a whole and broken down by economic area, as follows:

Group	N	Median	Mean
Unsold	90780	$198	$358
Sold	7707	$203	$233

ECONAREA	Group	N	Median Val/SF	Mean Val/SF
1	Unsold	19,106	$329	$463
	Sold	1,454	$342	$359
2	Unsold	7,902	$213	$496
	Sold	434	$224	$239
3	Unsold	4,945	$244	$569
	Sold	330	$253	$274
4	Unsold	20,907	$196	$280
	Sold	2,048	$197	$205
5	Unsold	24,383	$146	$193
	Sold	1,994	$148	$159
30	Unsold	4,765	$207	$221
	Sold	530	$215	$228
31	Unsold	2,556	$287	$293
	Sold	355	$314	$362
32	Unsold	3,371	$161	$162
	Sold	327	$169	$171
33	Unsold	1,789	$117	$120
	Sold	196	$127	$130
40	Unsold	971	$191	$217
	Sold	39	$206	$228

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

IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 184 qualified commercial and industrial sales in the 24 month sale period prior to June 30, 2012. The sales ratio analysis was analyzed as follows:

Median	0.981
Price Related Differential	1.032
Coefficient of Dispersion	.081

The above table indicates that the Boulder County vacant land 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
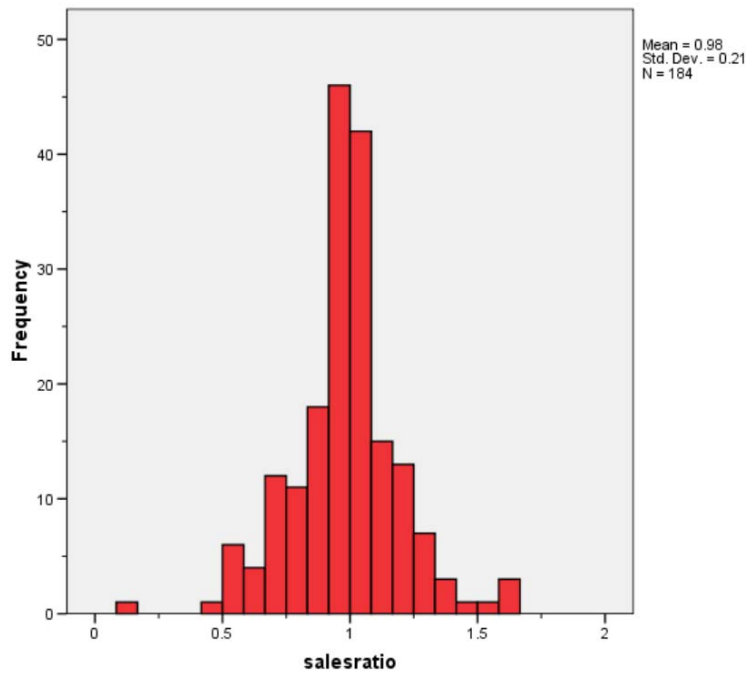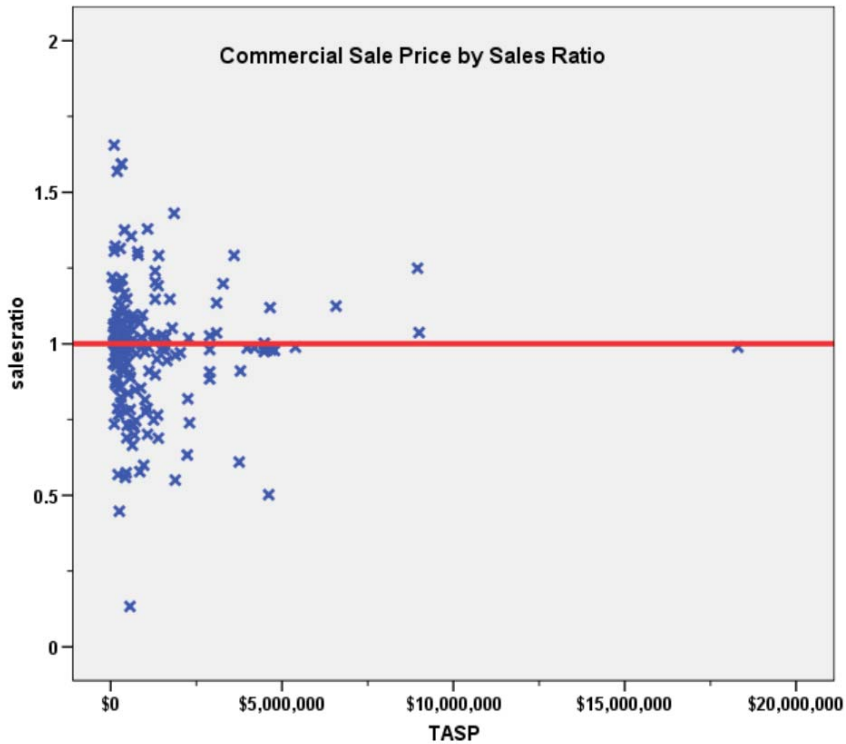
Commercial/Industrial Market Trend Analysis

The 184 commercial/industrial sales were analyzed, examining the sale ratios across the 24 month sale period with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.941	.028		33.134	.000
	SalePeriod	.004	.002	.132	1.797	.074

a. Dependent Variable: salesratio
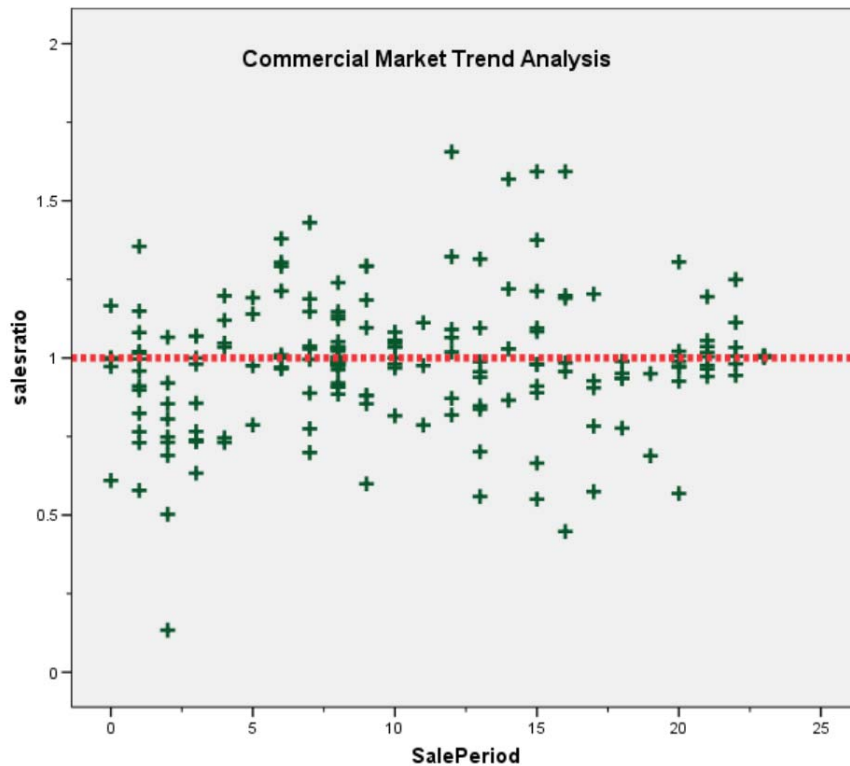
There was no residual market trending present in the commercial sale ratios. We concluded that the assessor has adequately considered market trending adjustments as part of the commercial/industrial valuation.

Sold/Unsold Analysis

We compared the median and mean change in value between 2012 and 2013 for sold and unsold commercial properties, as follows:

Group	No. Sales	Median	Mean
Unsold	4,088	1.000	1.0430
Sold	184	1.000	1.0469

Overall, we concluded that sold and unsold commercial/industrial properties were valued consistently.

V. VACANT LAND SALE RESULTS

There were 155 qualified vacant land sales in the 24 month sale period prior to June 30, 2012. The sales ratio analysis was analyzed as follows:

Median	1.007
Price Related Differential	1.189
Coefficient of Dispersion	0.193

The above ratio statistics were in compliance overall with the standards set forth by the Colorado State Board of Equalization (SBOE) for the overall vacant land sales. The following graphs describe further the sales ratio distribution for all of these properties:
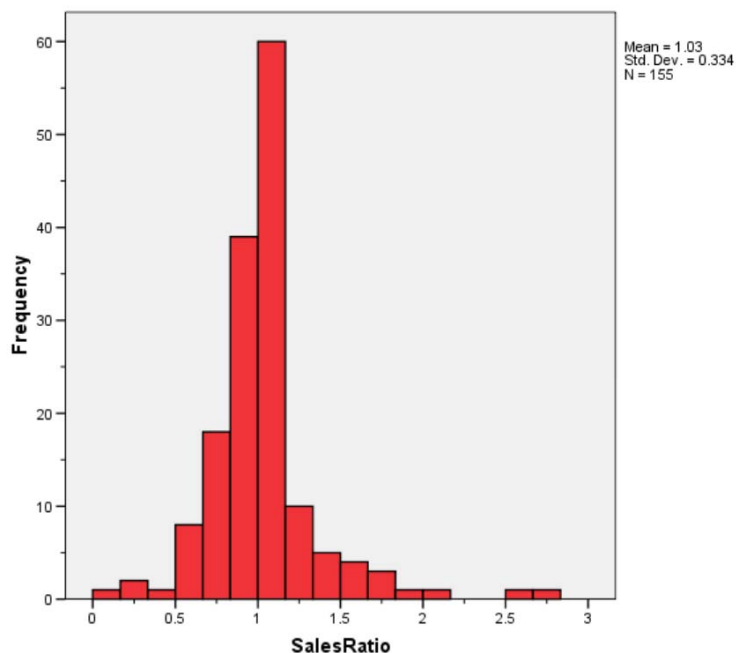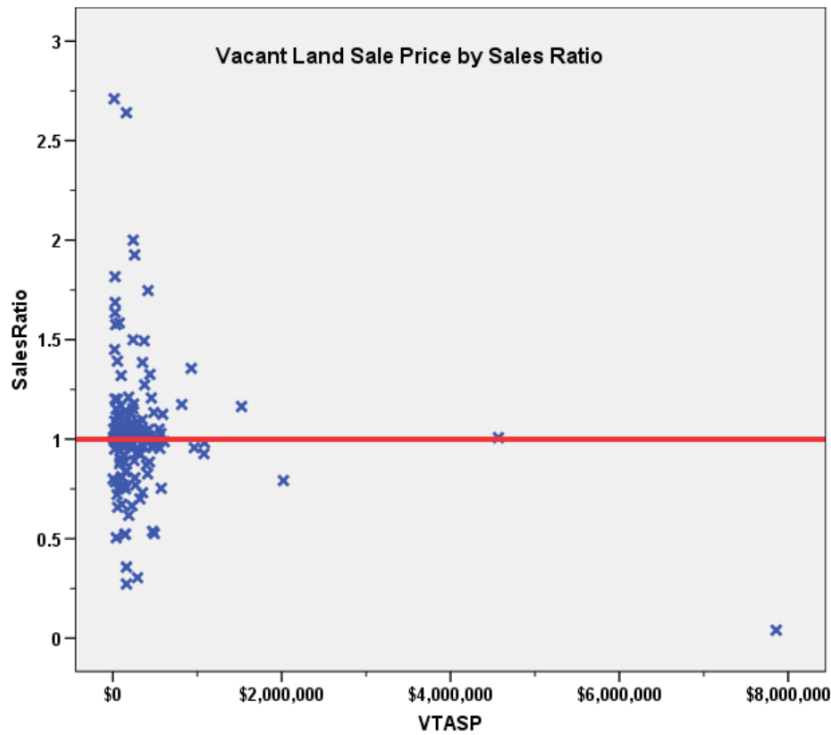
The above histogram indicates that the distribution of the vacant land sale ratios was within state mandated limits.

Vacant Land Market Trend Analysis

We next analyzed the vacant land dataset using the 24 -month sale period, with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.046	.049		21.334	.000
	VSalePeriod	-.002	.004	-.034	-.425	.672

a. Dependent Variable: SalesRatio
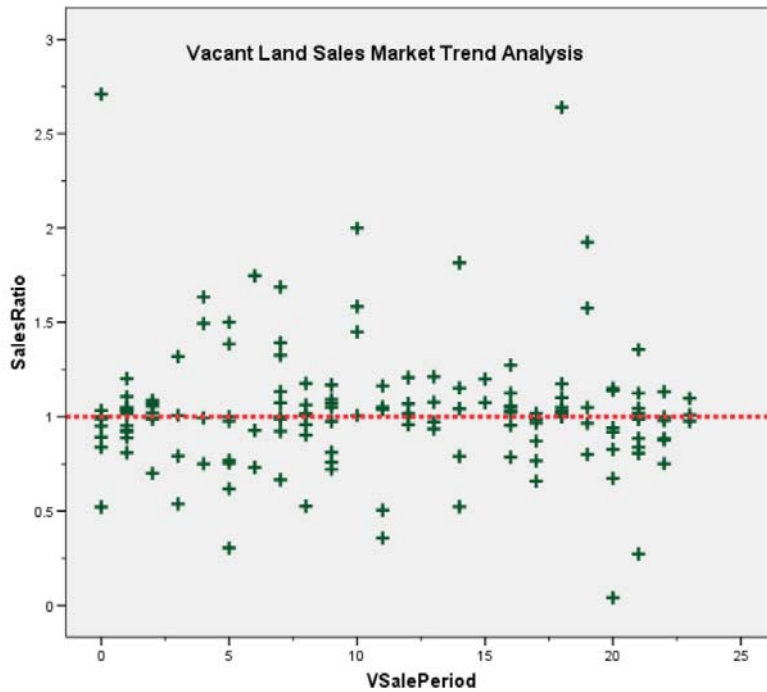
The above analysis indicated that no significant market trending was present in the vacant land sale data. We concluded that the assessor has adequately dealt with market trending for vacant land properties.

Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold vacant land properties, we compared the median change in value for 2008 and 2013 between each group. We stratified the vacant land properties by subdivision and found overall consistency. The following results present the comparison results by subdivision for sold and unsold properties for subdivision with at least 2 sales:

Group	No. Sales	Median	Mean
Unsold	5,190	1.0000	1.2292
Sold	155	1.0000	1.3475

Overall, we concluded that the county assessor valued sold and unsold vacant properties consistently.

V. AGRICULTURAL IMPROVEMENTS ANALYSIS

Based on the parameters of the state audit analysis, this county was exempt from this analysis for 2013.

VI. CONCLUSIONS

Based on this 2013 audit statistical analysis, residential, commercial and vacant land properties were found to be in compliance with state guidelines.

STATISTICAL ABSTRACT
Residential

Ratio Statistics for CURRTOT / TASP

ECONAREA	Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
		Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			Mean Centered
1	1.015	1.009	1.020	1.001	.999	1.005	95.1%	1.006	1.000	1.012	1.009	.068	10.5%
2	1.021	1.006	1.036	.996	.988	1.006	95.1%	.999	.987	1.012	1.022	.110	15.6%
3	1.028	1.012	1.043	1.000	.989	1.011	95.8%	1.013	.997	1.028	1.015	.101	13.9%
4	1.014	1.010	1.018	1.002	.999	1.006	95.1%	1.006	1.002	1.010	1.008	.063	9.1%
5	1.032	1.025	1.039	1.009	1.003	1.016	95.4%	1.011	.995	1.028	1.020	.097	15.3%
30	1.009	1.002	1.016	1.000	.994	1.008	95.9%	1.001	.993	1.008	1.009	.061	8.2%
31	.993	.981	1.005	.989	.977	.996	95.6%	.970	.954	.986	1.024	.081	11.4%
32	1.001	.991	1.011	.986	.979	.996	95.4%	.989	.979	.998	1.012	.069	9.3%
33	1.033	1.015	1.050	1.007	.994	1.025	96.2%	1.021	1.004	1.039	1.011	.086	12.0%
40	.970	.938	1.002	.982	.945	1.027	97.6%	.951	.917	.986	1.020	.073	10.1%

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 Land

Ratio Statistics for CURRTOT / TASP

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			Mean Centered
.984	.953	1.014	.988	.976	1.003	95.4%	.985	.944	1.026	.999	.146	21.3%

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	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			Mean Centered
1.029	.976	1.082	1.007	.993	1.025	96.4%	.866	.611	1.120	1.189	.193	32.4%

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	$25K to $50K	5	.1%
	$50K to $100K	105	1.4%
	$100K to $150K	549	7.1%
	$150K to $200K	908	11.8%
	$200K to $300K	1871	24.3%
	$300K to $500K	2559	33.2%
	$500K to $750K	1061	13.8%
	$750K to $1,000K	328	4.3%
	Over $1,000K	321	4.2%
Overall		7707	100.0%
Excluded		0	
Total		7707	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
$25K to $50K	1.180	1.016	.356	76.1%
$50K to $100K	1.143	1.003	.152	20.6%
$100K to $150K	1.057	1.002	.107	15.1%
$150K to $200K	1.006	1.001	.087	12.3%
$200K to $300K	1.009	1.000	.073	12.7%
$300K to $500K	.996	1.000	.068	10.0%
$500K to $750K	.991	1.000	.069	9.8%
$750K to $1,000K	.989	1.000	.076	11.0%
Over $1,000K	.978	1.009	.084	11.3%
Overall	1.001	1.015	.079	12.4%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1212	6182	80.2%
	1213	2	.0%
	1214	3	.0%
	1215	70	.9%
	1220	24	.3%
	1225	15	.2%
	1230	1408	18.3%
	1240	2	.0%
	1246	1	.0%
Overall		7707	100.0%
Excluded		0	
Total		7707	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1212	1.003	1.012	.080	12.8%
1213	1.125	1.071	.105	14.9%
1214	1.017	1.053	.092	16.5%
1215	1.013	1.021	.106	15.1%
1220	.986	1.013	.068	10.0%
1225	.972	1.008	.080	10.5%
1230	.995	1.021	.072	10.2%
1240	1.017	1.216	.211	29.8%
1246	.979	1.000	.000	.%
Overall	1.001	1.015	.079	12.4%

Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	169	2.2%
	75 to 100	175	2.3%
	50 to 75	639	8.3%
	25 to 50	2897	37.6%
	5 to 25	3055	39.6%
	5 or Newer	772	10.0%
Overall		7707	100.0%
Excluded		0	
Total		7707	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.999	1.037	.125	18.7%
75 to 100	.993	1.020	.106	15.5%
50 to 75	1.001	1.024	.090	16.3%
25 to 50	1.002	1.019	.082	11.8%
5 to 25	1.001	1.007	.069	9.6%
5 or Newer	1.001	1.019	.083	17.3%
Overall	1.001	1.015	.079	12.4%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	51	.7%
	500 to 1,000 sf	1237	16.1%
	1,000 to 1,500 sf	2314	30.0%
	1,500 to 2,000 sf	1717	22.3%
	2,000 to 3,000 sf	1737	22.5%
	3,000 sf or Higher	651	8.4%
Overall		7707	100.0%
Excluded		0	
Total		7707	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation / Median Centered
LE 500 sf	1.000	1.027	.097	19.4%
500 to 1,000 sf	1.003	1.016	.085	12.7%
1,000 to 1,500 sf	1.001	1.012	.077	11.0%
1,500 to 2,000 sf	1.001	1.012	.077	12.5%
2,000 to 3,000 sf	.997	1.013	.072	10.7%
3,000 sf or Higher	1.016	1.027	.094	18.1%
Overall	1.001	1.015	.079	12.4%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	1	11	.1%
	2	105	1.4%
	3	3519	45.7%
	4	3116	40.4%
	5	772	10.0%
	6	184	2.4%
Overall		7707	100.0%
Excluded		0	
Total		7707	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1	.933	1.029	.191	24.2%
2	1.007	1.046	.174	31.7%
3	1.003	1.022	.082	11.9%
4	.999	1.009	.069	10.3%
5	1.008	1.007	.081	11.9%
6	1.001	1.030	.115	26.2%
Overall	1.001	1.015	.079	12.4%

Improvement Condition

Case Processing Summary

		Count	Percent
QUALITY	1	11	.1%
	2	105	1.4%
	3	3519	45.7%
	4	3116	40.4%
	5	772	10.0%
	6	184	2.4%
Overall		7707	100.0%
Excluded		0	
Total		7707	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation — Median Centered
1	.933	1.029	.191	24.2%
2	1.007	1.046	.174	31.7%
3	1.003	1.022	.082	11.9%
4	.999	1.009	.069	10.3%
5	1.008	1.007	.081	11.9%
6	1.001	1.030	.115	26.2%
Overall	1.001	1.015	.079	12.4%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$25K to $50K	1	.5%
	$50K to $100K	6	3.3%
	$100K to $150K	17	9.2%
	$150K to $200K	13	7.1%
	$200K to $300K	22	12.0%
	$300K to $500K	33	17.9%
	$500K to $750K	22	12.0%
	$750K to $1,000K	11	6.0%
	Over $1,000K	59	32.1%
Overall		184	100.0%
Excluded		0	
Total		184	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
$25K to $50K	1.220	1.000	.000	.%
$50K to $100K	1.033	.984	.134	27.4%
$100K to $150K	1.000	1.003	.093	14.8%
$150K to $200K	1.004	1.000	.129	19.9%
$200K to $300K	.970	.996	.146	20.5%
$300K to $500K	1.000	1.015	.151	22.7%
$500K to $750K	.888	1.000	.188	26.7%
$750K to $1,000K	.999	1.009	.178	24.2%
Over $1,000K	.987	.988	.136	19.4%
Overall	.988	.999	.146	21.2%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1712	1	.5%
	1714	1	.5%
	2212	23	12.5%
	2220	26	14.1%
	2221	1	.5%
	2222	1	.5%
	2225	1	.5%
	2228	1	.5%
	2230	4	2.2%
	2234	12	6.5%
	2235	11	6.0%
	2237	3	1.6%
	2238	1	.5%
	2238	1	.5%
	2239	1	.5%
	2245	51	27.7%
	2724	1	.5%
	3210	11	6.0%
	3213	1	.5%
	3215	12	6.5%
	3230	14	7.6%
	3235	3	1.6%
	6220	1	.5%
	9249	1	.5%
	9259	1	.5%
Overall		184	100.0%
Excluded		0	
Total		184	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1712	.854	1.000	.000	.%
1714	1.166	1.000	.000	.%
2212	.818	1.121	.252	36.0%
2220	.991	.974	.123	17.8%
2221	.997	1.000	.000	.%
2222	.956	1.000	.000	.%
2225	.944	1.000	.000	.%
2228	.731	1.000	.000	.%
2230	1.042	1.000	.033	3.8%
2234	.815	1.051	.166	20.4%
2235	.927	1.007	.152	21.9%
2237	.989	.974	.172	28.7%
2238	1.034	1.000	.000	.%
2238	.690	1.000	.000	.%
2239	1.037	1.000	.000	.%
2245	1.006	1.035	.142	20.6%
2724	1.036	1.000	.000	.%
3210	1.034	1.002	.091	12.8%
3213	1.124	1.000	.000	.%
3215	1.087	1.036	.145	16.9%
3230	1.008	.984	.048	7.1%
3235	1.020	.996	.047	7.1%
6220	.989	1.000	.000	.%
9249	.599	1.000	.000	.%
9259	.973	1.000	.000	.%
Overall	.988	.999	.146	21.2%

Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	14	7.6%
	75 to 100	4	2.2%
	50 to 75	14	7.6%
	25 to 50	77	41.8%
	5 to 25	62	33.7%
	5 or Newer	13	7.1%
Overall		184	100.0%
Excluded		0	
Total		184	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.951	1.050	.082	10.3%
75 to 100	.803	1.011	.206	29.1%
50 to 75	.807	1.099	.225	29.7%
25 to 50	.995	.985	.151	22.7%
5 to 25	1.004	1.019	.138	19.3%
5 or Newer	1.007	1.481	.071	15.2%
Overall	.988	.999	.146	21.2%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	182	98.9%
	500 to 1,000 sf	1	.5%
	2,000 to 3,000 sf	1	.5%
Overall		184	100.0%
Excluded		0	
Total		184	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	.988	.999	.146	21.3%
500 to 1,000 sf	.854	1.000	.000	.%
2,000 to 3,000 sf	1.166	1.000	.000	.%
Overall	.988	.999	.146	21.2%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	1	11	6.0%
	2	4	2.2%
	3	130	70.7%
	4	39	21.2%
Overall		184	100.0%
Excluded		0	
Total		184	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1	.730	1.067	.243	30.2%
2	.973	1.016	.183	26.8%
3	.991	.995	.126	19.1%
4	1.015	1.053	.167	23.0%
Overall	.988	.999	.146	21.2%

Improvement Condition

Case Processing Summary

		Count	Percent
CONDITION	1	5	2.8%
	2	8	4.4%
	3	96	53.3%
	4	71	39.4%
Overall		180	100.0%
Excluded		4	
Total		184	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1	1.036	.959	.162	27.9%
2	.880	1.140	.275	42.4%
3	.985	.966	.125	18.8%
4	1.007	1.051	.155	21.3%
Overall	.989	.999	.148	21.4%

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	9	5.8%
	$25K to $50K	13	8.4%
	$50K to $100K	26	16.8%
	$100K to $150K	19	12.3%
	$150K to $200K	16	10.3%
	$200K to $300K	21	13.5%
	$300K to $500K	35	22.6%
	$500K to $750K	7	4.5%
	$750K to $1,000K	3	1.9%
	Over $1,000K	6	3.9%
Overall		155	100.0%
Excluded		0	
Total		155	

Ratio Statistics for CURRLND / VTASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT $25K	1.091	.953	.344	59.8%
$25K to $50K	1.032	1.037	.236	34.8%
$50K to $100K	1.022	1.002	.139	19.7%
$100K to $150K	.919	1.002	.146	19.3%
$150K to $200K	1.034	1.002	.252	49.2%
$200K to $300K	1.022	1.008	.225	36.9%
$300K to $500K	1.008	1.003	.146	23.4%
$500K to $750K	1.000	1.000	.073	11.7%
$750K to $1,000K	1.175	1.003	.113	17.0%
Over $1,000K	.955	1.434	.243	44.7%
Overall	1.007	1.189	.193	33.2%

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	100	49	31.6%
	200	5	3.2%
	300	4	2.6%
	400	1	.6%
	520	12	7.7%
	530	10	6.5%
	540	7	4.5%
	550	1	.6%
	600	2	1.3%
	1112	52	33.5%
	1120	1	.6%
	1125	1	.6%
	2112	1	.6%
	2130	2	1.3%
	2134	2	1.3%
	2135	1	.6%
	2137	1	.6%
	2138	1	.6%
	3110	1	.6%
	3115	1	.6%
Overall		155	100.0%
Excluded		0	
Total		155	

Ratio Statistics for CURRLND / VTASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100	1.000	1.019	.141	22.3%
200	1.022	.972	.083	11.0%
300	1.384	1.017	.123	16.5%
400	1.021	1.000	.000	.%
520	.953	1.196	.337	61.4%
530	.910	1.088	.225	33.3%
540	.964	.993	.280	42.6%
550	.974	1.000	.000	.%
600	.893	.911	.120	17.0%
1112	1.030	1.566	.204	37.8%
1120	.957	1.000	.000	.%
1125	1.164	1.000	.000	.%
2112	1.017	1.000	.000	.%
2130	.757	.993	.290	41.0%
2134	.951	1.001	.069	9.7%
2135	.792	1.000	.000	.%
2137	1.385	1.000	.000	.%
2138	1.320	1.000	.000	.%
3110	.982	1.000	.000	.%
3115	1.125	1.000	.000	.%
Overall	1.007	1.189	.193	33.2%