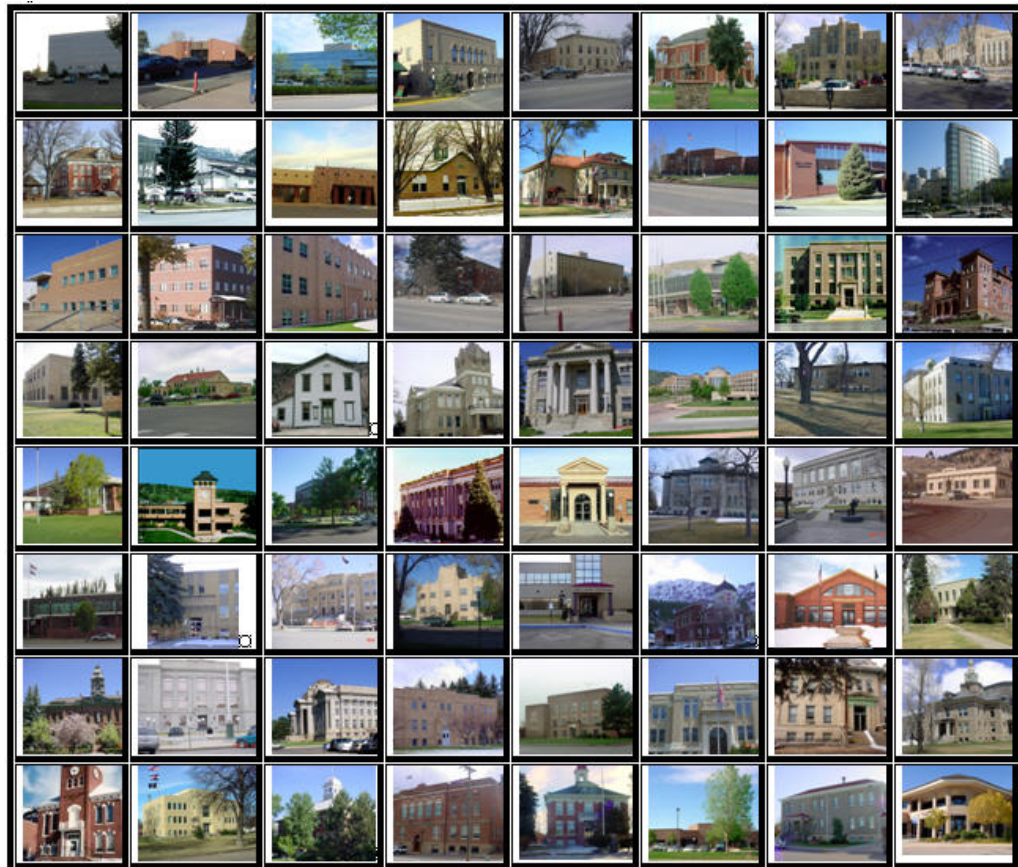




2014

# LAKE COUNTY PROPERTY ASSESSMENT STUDY

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



September 15, 2014

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

**RE: Final Report for the 2014 Colorado Property Assessment Study**

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2014 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.

A handwritten signature in dark ink, reading "Harry J. Fuller". The signature is fluid and cursive, with the first and last names being more prominent.

Harry J. Fuller  
Project Manager  
Wildrose Appraisal Inc. – Audit Division

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## INTRODUCTION

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### Colorado

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.

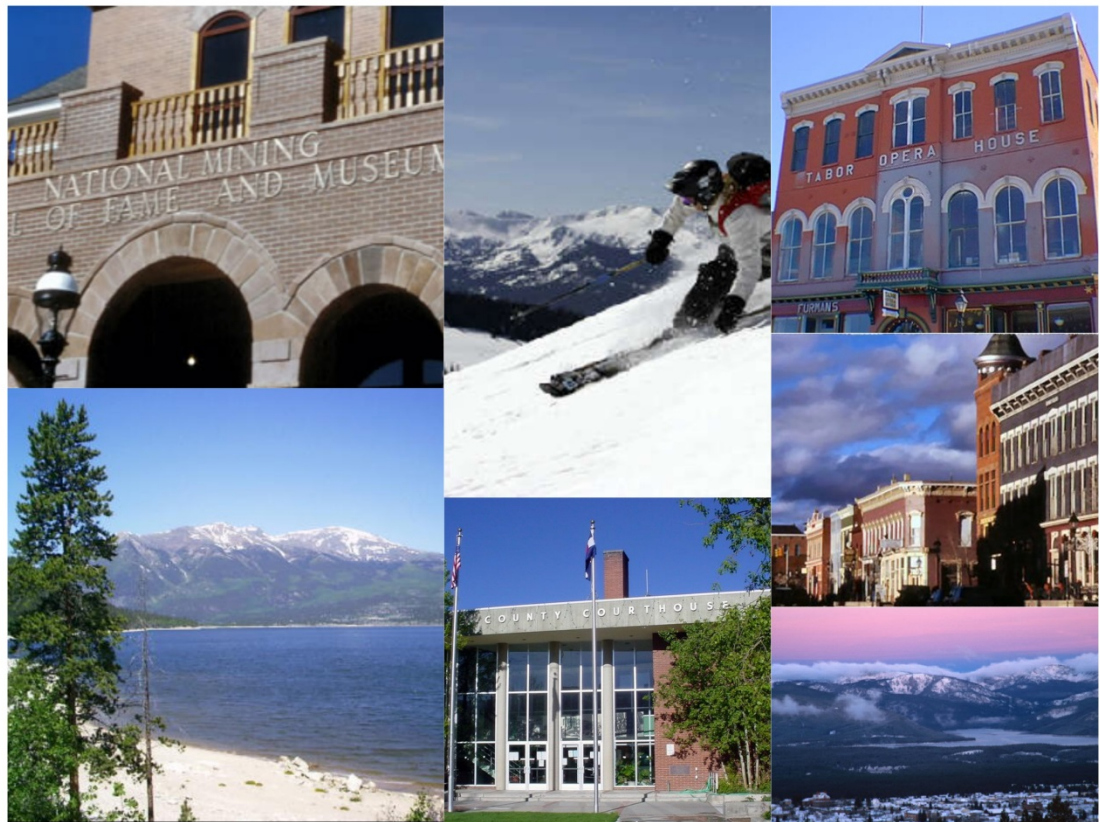
Wildrose Audit has completed the Property Assessment Study for 2014 and is pleased to report its findings for Lake County in the following report.

## REGIONAL/HISTORICAL SKETCH OF LAKE COUNTY

### Regional Information

Lake County is located in the Central Mountains region of Colorado. The Central Mountains Region is in the central portion of Colorado. It extends from the northern Gilpin county boundary approximately 210 miles

southeasterly to the southern boundary of Colorado, including Chaffee, Clear Creek, Custer, Fremont, Gilpin, Huerfano, Lake, Las Animas, Park, and Teller counties.







## Historical Information

Lake County has a population of approximately 7,310 people with 19.39 people per square mile, according to the U.S. Census Bureau's 2010 census data. This represents a -6.43 percent change from the 2000 Census.

Lake County was one of the original 17 counties created by the Colorado legislature on November 1, 1861. As originally defined, Lake County included a large portion of western Colorado to the south and west of its present boundaries. It was named for the Twin Lakes in the area.

Lake County slowly lost territory over the succeeding decades, losing to Saguache County in 1866, Hinsdale County in 1874, La Plata County in 1874, San Juan County in 1876 and to Ouray and Gunnison counties in 1877.

With its many reductions in size, Lake County's designated county seat also changed multiple times within just a few years, residing successively in Oro City (from 1861), Lourette (from 1863), Dayton (from 1866), and Granite (from 1868).

By 1878, Lake County had been reduced to an area including only present-day Lake and Chaffee counties. On February 8, 1879, the Colorado legislature renamed Lake County as Carbonate County, although this designation name only lasted for two days, until Chaffee County was split off from Carbonate's southern section on February 10 and the remaining northern portion was redesignated Lake County with its current county seat of Leadville.

Leadville sits in a high mountain valley surrounded by snow-capped peaks. It is North America's highest incorporated city at a lofty perch of 10,430 feet. With 310 days of sunshine each year and summer temperatures seldom over 80 degrees, Leadville, Twin Lakes, and Lake County have been a mountain retreat for over 100 years. The local ski area, Ski Cooper, is the place where the men of the 10th Mountain Division trained. Also located in Leadville is the National Mining Hall of Fame & Museum which is the only federally-chartered non-profit national mining museum.

*([Wikipedia.org](http://Wikipedia.org), [mininghalloffame.org](http://mininghalloffame.org), [Lakecountyco.com](http://Lakecountyco.com) & [leadville.com](http://leadville.com))*

## 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 Lake County are:

Lake County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
*Commercial/Industrial	N/A	N/A	N/A	N/A	N/A
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	96	0.991	1.028	11.3	Compliant
Vacant Land	42	0.994	1.048	20.4	Compliant

*\*Due to the small number of sales, a procedural audit was performed.*

After applying the above described methodologies, it is concluded from the sales ratios that Lake 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 Lake County has complied with the statutory requirements to analyze the effects of time on value in their county. Lake 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

Lake 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 2014 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	N/A
Condominium	N/A
Single Family	Compliant
Vacant Land	Compliant

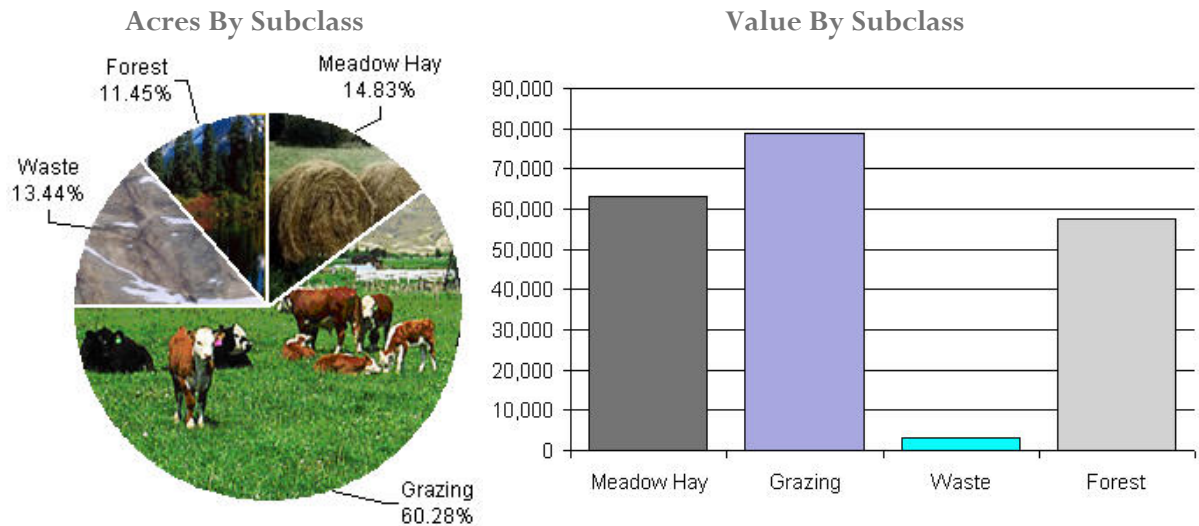
### Conclusions

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

### Recommendations

None

## 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: 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. 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:



Lake County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4137	Meadow Hay	1,968	32.00	63,068	63,068	1.00
4147	Grazing	7,998	10.00	78,726	78,726	1.00
4177	Forest	1,519	38.00	57,631	57,631	1.00
4167	Waste	1,784	2.00	3,114	3,114	1.00
Total/Avg		13,269	15.00	202,539	202,539	1.00

## Recommendations

None

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## Agricultural Outbuildings

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### 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

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

### Recommendations

None

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## Agricultural Land Under Improvements

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### 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.

Property Taxation for the valuation of land under residential improvements that may or may not be integral to an agricultural operation.

### Recommendations

None

### Conclusions

Lake County has substantially complied with the procedures provided by the Division of

## 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 2014 for Lake County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 37 sales listed as unqualified.

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

### Conclusions

Lake County appears to be doing an excellent job of verifying their sales. WRA agreed with the county's reason for disqualifying each of the sales selected in the sample. There are no recommendations or suggestions.

### Recommendations

None



# ECONOMIC AREA REVIEW AND EVALUATION

## **Methodology**

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

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### Earth and Stone Products

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#### 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

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### Producing Mines

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#### Methodology

Colorado Revised Statutes (CRS) Article 39, Section 6, and the Assessor's Reference Library (ARL), Volume 3 are the basis for valuing producing mine property. The gross value of the ore extracted during the preceding year is determined. All costs of treatment, reduction, transportation and sale are deducted to estimate gross proceeds. The costs of extraction are deducted from the gross proceeds to estimate net proceeds.

The current value for assessment is determined by determining if 25% of the gross proceeds or 100% of the net proceeds is greater, then applying that number as the valuation for assessment.

#### Conclusions

The County valued the producing mine production using acceptable appraisal procedures.

#### Recommendations

None

## VACANT LAND

### **Subdivision Discounting**

Subdivisions were reviewed in 2014 in Lake 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**

Lake 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.

Lake County has been reviewed for their procedures and adherence to guidelines when assessing and valuing agricultural and

commercial 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

Lake 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

Lake 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.

Lake 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
- Local Telephone Directories, Newspapers or Other Local Publications
- Personal Observation, Physical Canvassing or Word of Mouth

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.

Lake County submitted their personal property written audit plan and was current for the 2014 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
- 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
- Accounts protested with substantial disagreement



### **Conclusions**

Lake 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*

**Suzanne Howard**, *Audit Administrative Manager*

**Steve Kane**, *Audit Statistician*

**Carl W. Ross**, *Agricultural/Natural Resource Analyst*

**J. Andrew Rodriguez**, *Field Analyst*

## APPENDICES

## STATISTICAL COMPLIANCE REPORT FOR LAKE COUNTY 2014

### I. OVERVIEW

Lake County is located in the central mountain region of Colorado. The county has a total of 8,898 real property parcels, according to data submitted by the county assessor's office in 2014. 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 and 1112) accounted for 63.4% of all vacant land parcels.

For residential improved properties, single family properties accounted for 93.5% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 1.6% of all such properties in this county.

## II. DATA FILES

The following sales analyses were based on the requirements of the 2014 Colorado Property Assessment Study. Information was provided by the Lake Assessor's Office in April 2014. The data included all 5 property record files as specified by the Auditor.

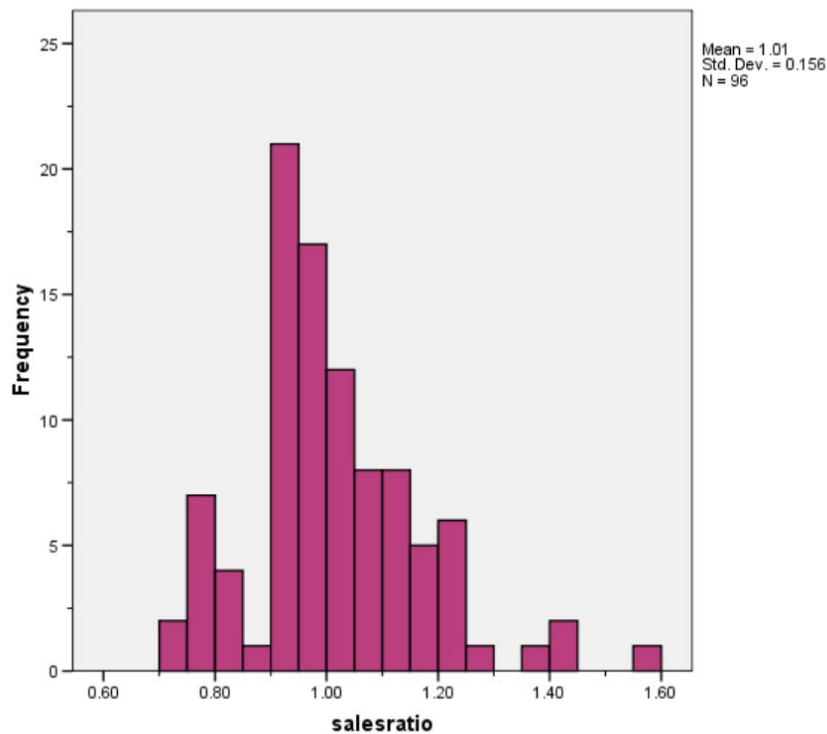
**Please note that we only included qualified and confirmed sales in this analysis, coded as a "C". Qualified sales not confirmed (coded as a "Q") were not included in this analysis.**

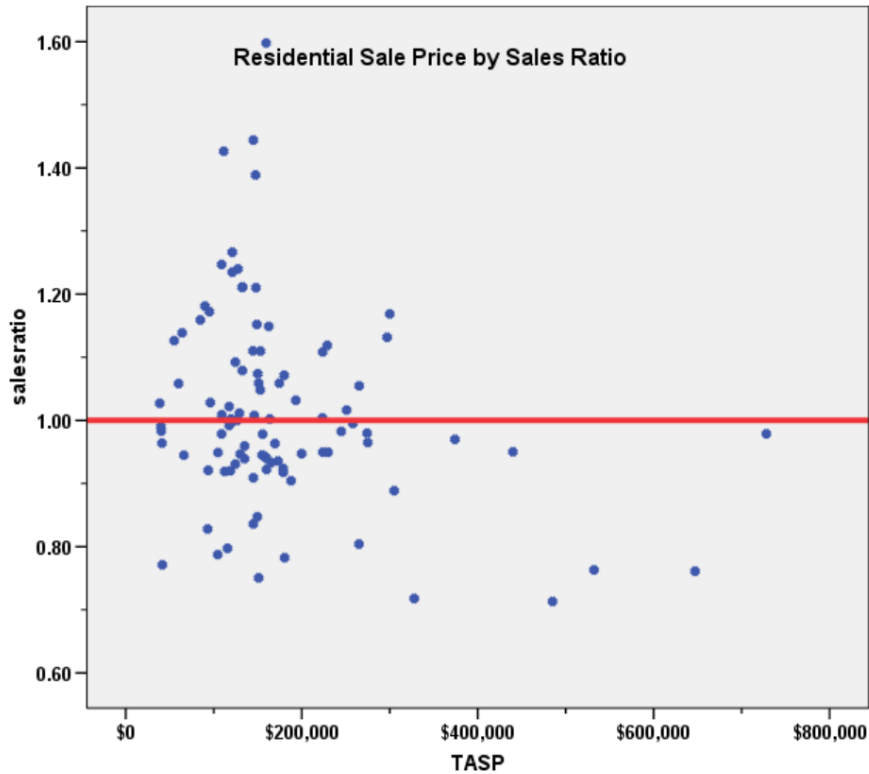
## III. RESIDENTIAL SALES RESULTS

A total of 96 qualified residential sales were used in this analysis. They occurred between January 2011 and June 2012. The sales ratio analysis was analyzed as follows:

Median	<b>0.991</b>
Price Related Differential	<b>1.028</b>
Coefficient of Dispersion	<b>.113</b>

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:





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

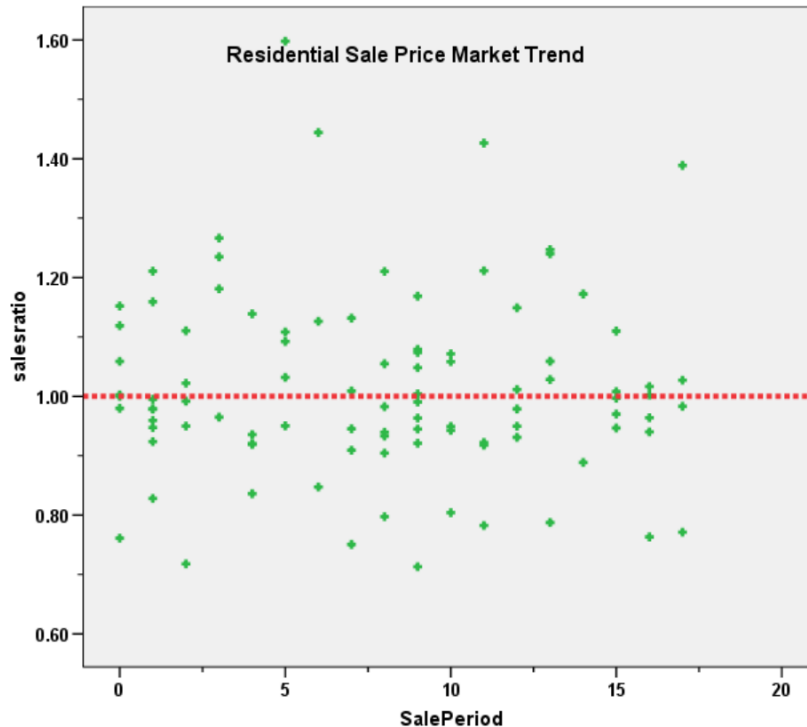
### Residential Market Trend Analysis

We next analyzed the residential dataset using the 18-month sale period for any residual market trending, as follows:

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.021	.029		34.901	.000
SalePeriod	-.001	.003	-.031	-.298	.766

a. Dependent Variable: salesratio



There was no residual market trending present in the sale ratio data. 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 2014 between each group, as follows:

Group	N	Median Val/SF	Mean Val/SF
Unsold	3,247	\$125	\$136
Sold	96	\$129	\$128

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

## IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

Due to the fact that there were less than 10 commercial/industrial sales in this County between July 2007 and June 2012, this class of properties was not analyzed for sales ratio compliance.

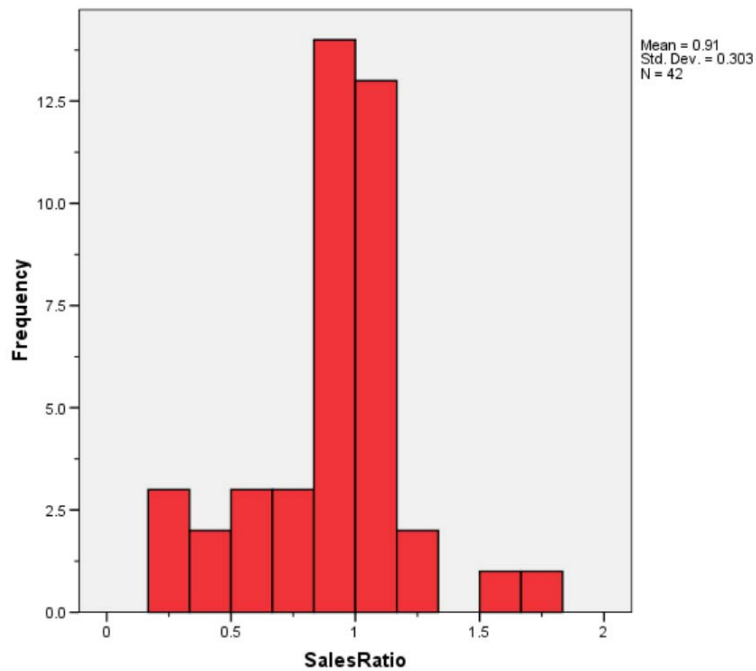
## V. VACANT LAND SALE RESULTS

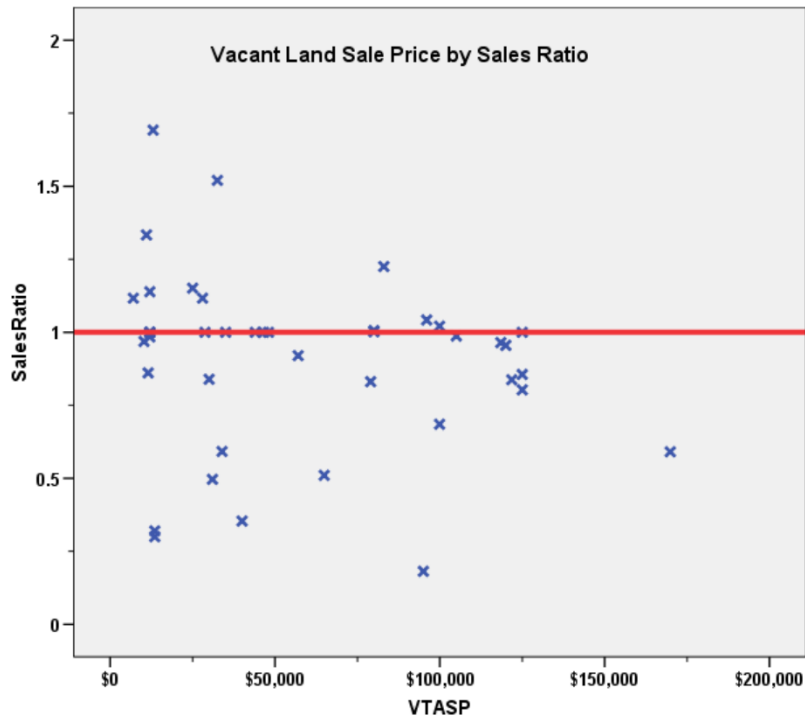
A total of 42 qualified residential were used in this analysis. They occurred between January 2011 and June 2012. Three sales were trimmed based on their extreme ratio values. The remaining 40 sales were analyzed, with the following results:



Median	<b>0.994</b>
Price Related Differential	<b>1.048</b>
Coefficient of Dispersion	<b>.204</b>

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





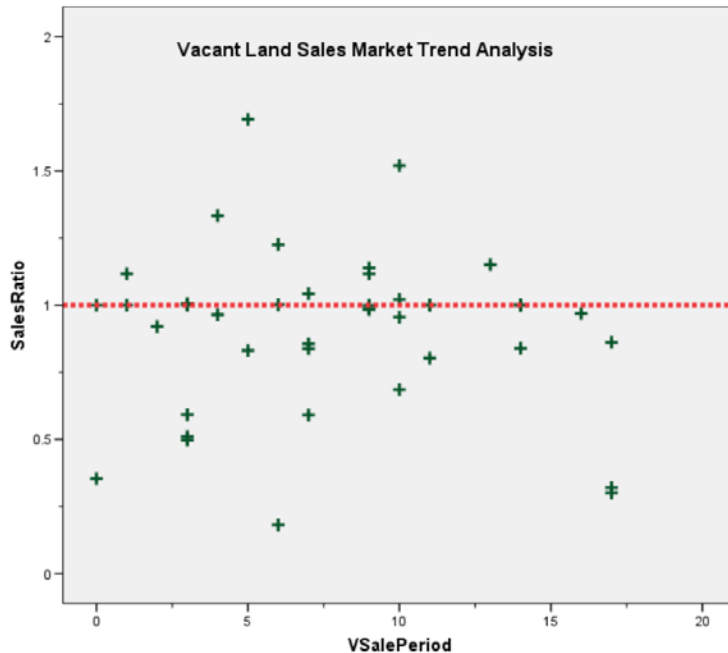
### Vacant Land Market Trend Analysis

The assessor did apply market trend adjustments to the vacant land dataset. The 32 vacant land sales were analyzed, examining the sale ratios across the 18 month sale period with the following results:

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.935	.092		10.177	.000
	VSalePeriod	-.003	.010	-.052	-.326	.746

a. Dependent Variable: SalesRatio



There was no residual market trending present in the vacant land sale ratios. We concluded that the assessor has adequately considered market trending adjustments as part of the vacant land valuation.

### Sold/Unsold Analysis

We compared the median change in actual value between 2010 and 2014 for vacant land properties to determine if sold and unsold properties were valued consistently, as follows:

Group	N	Median Val/SF	Mean Val/SF
Unsold	2,175	1.000	1.025
Sold	42	0.846	0.789

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

## V. AGRICULTURAL IMPROVEMENTS ANALYSIS

Based on the parameters of the state audit analysis, this county was exempt from this analysis for 2014.

## VI. CONCLUSIONS

Based on this 2014 audit statistical analysis, residential and vacant land properties were found to be in compliance with state guidelines. There were insufficient commercial sales to perform a compliance analysis; a procedural audit was performed in 2013 for commercial properties instead.

## STATISTICAL ABSTRACT

### Residential

**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
1.014	.982	1.046	.991	.963	1.016	96.8%	.986	.947	1.025	1.028	.113	15.4%

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.

### 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
.910	.815	1.004	.994	.861	1.000	95.6%	.868	.777	.958	1.048	.204	33.4%

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	5.2%
\$50K to \$100K	10	10.4%
\$100K to \$150K	36	37.5%
\$150K to \$200K	23	24.0%
\$200K to \$300K	14	14.6%
\$300K to \$500K	5	5.2%
\$500K to \$750K	3	3.1%
Overall	96	100.0%
Excluded	0	
Total	96	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
\$25K to \$50K	.983	1.002	.057	11.1%
\$50K to \$100K	1.092	1.004	.091	11.8%
\$100K to \$150K	1.009	.997	.130	17.6%
\$150K to \$200K	.947	1.002	.100	17.8%
\$200K to \$300K	1.000	.998	.070	9.6%
\$300K to \$500K	.889	1.003	.110	14.9%
\$500K to \$750K	.763	.988	.095	20.0%
Overall	.991	1.028	.113	15.9%

## Subclass

### Case Processing Summary

	Count	Percent
ABSTRIMP 1212	89	92.7%
1215	1	1.0%
1220	1	1.0%
1230	5	5.2%
Overall	96	100.0%
Excluded	0	
Total	96	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
1212	.992	1.028	.111	15.0%
1215	1.139	1.000	.000	.%
1220	1.598	1.000	.000	.%
1230	.983	1.047	.044	7.9%
Overall	.991	1.028	.113	15.9%



## Age

### Case Processing Summary

		Count	Percent
AgeRec	Over 100	32	33.3%
	75 to 100	2	2.1%
	50 to 75	9	9.4%
	25 to 50	27	28.1%
	5 to 25	22	22.9%
	5 or Newer	4	4.2%
Overall		96	100.0%
Excluded		0	
Total		96	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
Over 100	.979	1.007	.121	17.5%
75 to 100	1.018	1.001	.014	1.9%
50 to 75	1.002	1.017	.091	11.6%
25 to 50	.992	1.014	.095	14.4%
5 to 25	.998	1.063	.140	18.7%
5 or Newer	.949	1.045	.095	15.3%
Overall	.991	1.028	.113	15.9%

## Improved Area

### Case Processing Summary

	Count	Percent
ImpSFRec LE 500 sf	4	4.2%
500 to 1,000 sf	27	28.1%
1,000 to 1,500 sf	32	33.3%
1,500 to 2,000 sf	19	19.8%
2,000 to 3,000 sf	12	12.5%
3,000 sf or Higher	2	2.1%
Overall	96	100.0%
Excluded	0	
Total	96	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LE 500 sf	.987	1.001	.018	2.7%
500 to 1,000 sf	.979	1.004	.103	13.4%
1,000 to 1,500 sf	1.002	1.022	.115	15.5%
1,500 to 2,000 sf	.983	1.003	.078	10.5%
2,000 to 3,000 sf	.989	1.099	.178	23.5%
3,000 sf or Higher	1.288	1.182	.240	34.0%
Overall	.991	1.028	.113	15.9%

## Quality

### Case Processing Summary

		Count	Percent
Quality	ABOVE AV	13	13.5%
	AVERAGE	74	77.1%
	BELOW AVG	1	1.0%
	FAIR	1	1.0%
	GOOD	5	5.2%
	POOR	1	1.0%
	VERY GOOD	1	1.0%
Overall		96	100.0%
Excluded		0	
Total		96	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
ABOVE AV	.950	1.002	.095	13.8%
AVERAGE	1.003	1.009	.110	15.8%
BELOW AVG	1.008	1.000	.000	.%
FAIR	.949	1.000	.000	.%
GOOD	.909	1.064	.111	15.2%
POOR	.771	1.000	.000	.%
VERY GOOD	.761	1.000	.000	.%
Overall	.991	1.028	.113	15.9%

## Condition

**Case Processing Summary**

	Count	Percent
Condition - AVERAGE	11	11.5%
+ AVERAGE	24	25.0%
AVERAGE	44	45.8%
FAIR	3	3.1%
GOOD	9	9.4%
POOR	5	5.2%
Overall	96	100.0%
Excluded	0	
Total	96	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
- AVERAGE	1.028	1.002	.119	16.1%
+ AVERAGE	.938	1.034	.122	16.3%
AVERAGE	1.014	1.008	.087	12.9%
FAIR	1.008	1.019	.073	11.1%
GOOD	.947	1.057	.148	27.0%
POOR	.945	1.001	.095	13.8%
Overall	.991	1.028	.113	15.9%

## Vacant Land Median Ratio Stratification

### Subclass

#### Case Processing Summary

	Count	Percent
ABSTR/LND 100	31	73.8%
540	1	2.4%
1112	9	21.4%
2135	1	2.4%
Overall	42	100.0%
Excluded	0	
Total	42	

#### Ratio Statistics for CURRLND /VTASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
100	.987	1.031	.211	31.0%
540	.831	1.000	.000	.%
1112	1.000	1.126	.208	38.6%
2135	1.002	1.000	.000	.%
Overall	.994	1.048	.204	31.7%

## Sale Price

### Case Processing Summary

	Count	Percent
SPRec LT \$25K	13	31.0%
\$25K to \$50K	11	26.2%
\$50K to \$100K	10	23.8%
\$100K to \$150K	7	16.7%
\$150K to \$200K	1	2.4%
Overall	42	100.0%
Excluded	0	
Total	42	

### Ratio Statistics for CURRLND / VTASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LT \$25K	1.000	1.001	.231	36.7%
\$25K to \$50K	1.000	1.002	.214	33.9%
\$50K to \$100K	.961	1.003	.226	34.5%
\$100K to \$150K	.955	1.002	.068	9.6%
\$150K to \$200K	.591	1.000	.000	.%
Overall	.994	1.048	.204	31.7%