2019
GRAND COUNTY
PROPERTY ASSESSMENT
STUDY

WILDROSE
APPRAISAL, INCORPORATED
Audit Division

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APPRAISAL, INCORPORATED
Audit Division

September 15, 2019

Ms. Natalie Mullis
Director of Research
Colorado Legislative Council
Room 029, State Capitol Building
Denver, Colorado 80203

RE: Final Report for the 2019 Colorado Property Assessment Study

Dear Ms. Mullis:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2019 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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INTRODUCTION

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.

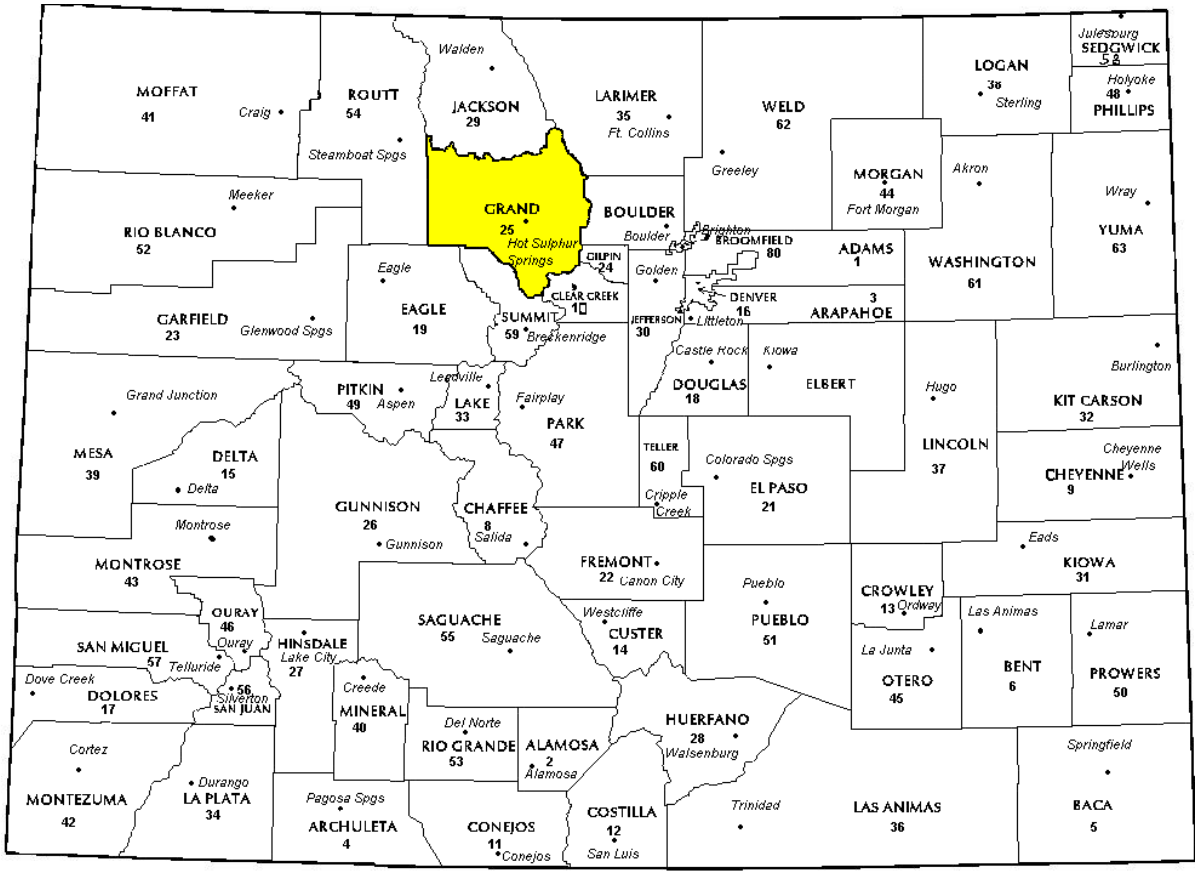
Statistical analysis is performed on vacant land, residential properties, commercial industrial properties, agricultural land, and personal property. The statistical study results are compared with State Board of Equalization compliance requirements and the manuals published by the State Property Tax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

Wildrose Audit has completed the Property Assessment Study for 2019 and is pleased to report its findings for Grand County in the following report.

REGIONAL / HISTORICAL SKETCH OF GRAND COUNTY

Regional Information

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



Historical Information

Grand County had an estimated population of approximately 15,008 people with 8.1 people per square mile, according to the U.S. Census Bureau's 2016 estimated census data. This represents a 1.1 percent change from April 1, 2010 to July 1, 2016.

When Grand County was created on February 2, 1874 it was carved out of Summit County and contained land to the western and northern borders of the state, which is now in present day Moffat County and Routt County. It was named after Grand Lake and the Grand River, an old name for the Colorado River, which has its headwaters in the county. On January 29, 1877 Routt County was created and Grand County shrunk down to its current western boundary. When valuable minerals were found in North Park, Grand County claimed the area as part of its county, a claim Larimer County also held. It took a decision by the Colorado Supreme Court in 1886 to declare North Park part of Larimer County, setting Grand County's northern boundary.

Grand Lake is the deepest and largest natural lake in Colorado and the area attracts an impressive diversity of wildlife. Prehistoric peoples, and later Native American Ute, Arapaho and Cheyenne tribes made annual pilgrimages to the area each summer to fish, hunt and reap the bounty of nature's harvest. It wasn't long before trappers, traders and explorers followed.

In the mid-1800s, European hunting parties discovered Grand Lake. Some hunters constructed summer lodges and hired local mountain men as guides. The area was permanently settled in 1867. Grand Lake Village's first full-time, year-round residents were an intriguing mix of miners (who participated in a brief mining boom) and hunting guides. In the late 1870s, silver was discovered in the rivers and mountains near Grand Lake. Prospectors bought supplies in local stores and established small mountain mining communities. Almost overnight, the town of Grand Lake transformed into a bustling economy.

Winter Park Resort is Colorado's longest continually operated ski resort featuring over 3,000 acres of award-winning terrain including groomers, terrain parks, bumps, steeps, trees, and most definitely deeps. Winter Park Resort averages 329 inches of snow, much in part to its ideal location amidst the Rocky Mountains. Just 67 miles northwest of Denver, Winter Park Resort is the closest major destination resort to Denver International Airport.
(Wikipedia.org, www.grandlakechamber.com & http://www.winterparkresort.com/)

RATIO ANALYSIS

Methodology

All significant classes of property were analyzed. Sales were collected for each property class over the eighteen month period from January 1, 2017 through June 30, 2018. Property classes with less than thirty sales had the sales period extended in six month increments up to an additional forty-two months. If this extended sales period did not produce the minimum thirty qualified sales, the Audit performed supplemental appraisals to reach the minimum.

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.

All sixty-four counties were examined for compliance on the economic area level. Where there were sufficient sales data, the neighborhood and subdivision levels were tested for compliance. Although counties are determined to be in or out of compliance at the class level, non-compliant economic areas, neighborhoods and subdivisions (where applicable) were discussed with the Assessor.

Data on the individual economic areas, neighborhoods and subdivisions are found in the STATISTICAL APPENDIX.

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 Grand County are:

Grand County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	41	0.978	1.016	12.1	Compliant
Condominium	847	0.997	1.011	7	Compliant
Single Family	1,316	0.986	1.013	9.7	Compliant
Vacant Land	627	0.983	1.042	14.6	Compliant

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

Grand 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.

We test the hypothesis that the assessor has valued unsold properties consistent with what is observed with the sold properties based on several units of comparison and tests. The units of comparison include the actual value per square foot and the change in value from the previous base year period to the current base year. The first test compares the actual value per square foot between sold and unsold properties by class. The median and mean value per square foot is compared and tested for any significant difference. This is tested using non-parametric methods, such as the Mann-Whitney test for differences in the distributions or medians between sold and unsold groups. It is also examined graphically and from an appraisal perspective. Data can be stratified based on location and subclass. The second test compares the difference in the median change in value from the previous base year to the current base year between sold and unsold properties by class. The same combination of non-parametric and appraisal testing is used as with the first test. A third test employing a valuation model testing a sold/unsold binary variable while controlling for property attributes such as location, size, age and other attributes. The model determines if the sold/unsold variable is statistically and empirically significant. If all three tests indicate a significant difference between sold and unsold properties for a given class, the Auditor may meet with the county to determine if sale chasing is actually occurring, or if there are other explanations for the observed difference.

If the unsold properties have a higher median value per square foot than the sold properties, or if the median change in value is greater for the unsold properties than the sold properties, the analysis is stopped and the county is concluded to be in compliance with sold and unsold guidelines. All sold and unsold properties in a given class are first tested, although properties with extreme unit values or percent changes can be trimmed to stabilize the analysis. The median is the primary comparison metric, although the mean can also be used as a comparison metric if the distribution supports that type of measure of central tendency.

The first test (unit value method) is applied to both residential and commercial/industrial sold and unsold properties. The second test is applied to sold and unsold vacant land properties. The second test (change in value method) is also applied to residential or commercial sold and unsold properties if the first test results in a significant difference observed and/or tested between sold and unsold properties. The third test (valuation modeling) is used in instances where the results from the first two tests indicate a significant difference between sold and unsold properties. It can also be used when the number of sold and unsold properties is so large that the non-parametric testing is indicating a false rejection of the hypothesis that there is no difference between the sold and unsold property values.

These tests were supported by both tabular and graphics presentations, along with written documentation explaining the methodology used.

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

Conclusions

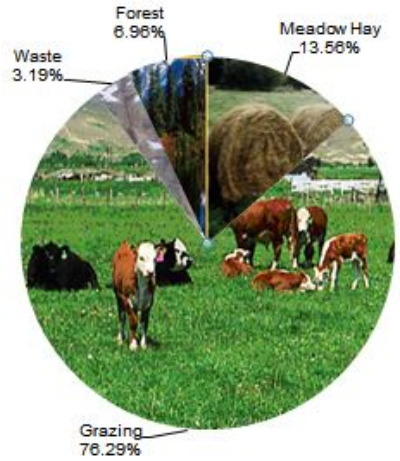
After applying the above described methodologies, it is concluded that Grand County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

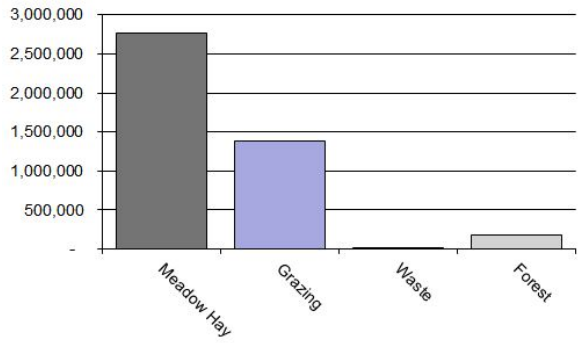
None

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. 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:

Grand 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	34,315	80.72	2,770,067	2,770,067	1.00
4147	Grazing	193,059	7.13	1,376,668	1,376,668	1.00
4177	Forest	17,604	10.32	181,707	181,707	1.00
4167	Waste	8,068	2.39	19,249	19,249	1.00
Total/Avg		**253,046**	**17.18**	**4,347,691**	**4,347,691**	**1.00**

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

Grand 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.

Conclusions

Grand County has used the following methods to discover land under a residential improvement on a farm or ranch that is determined to be not integral under 39-1-102, C.R.S.:

- Questionnaires
- Field Inspections
- Phone Interviews
- In-Person Interviews with Owners/Tenants
- Written Correspondence other than Questionnaire
- Personal Knowledge of Occupants at Assessment Date
- Aerial Photography/Pictometry

Grand County has used the following methods to discover the land area under a residential improvement that is determined to be not integral under 39-1-102, C.R.S.:

- Property Record Card Analysis
- Field Inspections
- Personal Knowledge of Occupants at Assessment Date
- Aerial Photography/Pictometry

Grand 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

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 2019 for Grand County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 30 sales listed as unqualified.

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

For residential, commercial, and vacant land sales with considerations over $100,000, 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.

Grand County did not qualify for in-depth subclass analysis.

Conclusions

Grand County appears to be doing a good 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

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

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 2019 in Grand 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 can be accomplished by reducing the absorption period by one year.

Conclusions

Grand 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.

Grand 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

Grand 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

Grand 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.

Grand 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.

Grand County submitted their personal property written audit plan and was current for the 2019 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 $7,700 actual value exemption status
- Lowest or highest quartile of value per square foot
- Accounts protested with substantial disagreement

Conclusions

Grand 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*

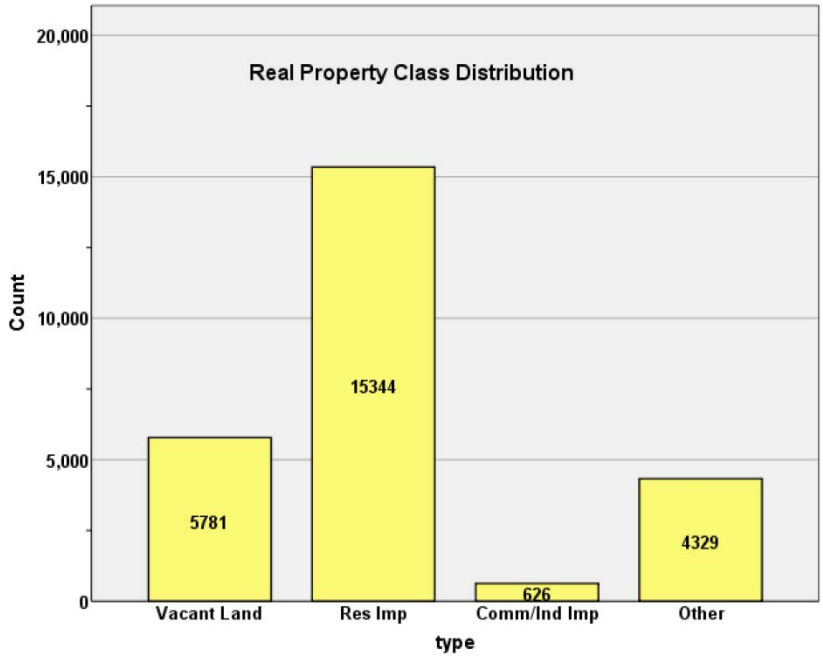
J. Andrew Rodriguez, *Field Analyst*

STATISTICAL APPENDIX

STATISTICAL COMPLIANCE REPORT
FOR GRAND COUNTY
2019

I. OVERVIEW

Grand County is a mountain resort located in western Colorado. The county has a total of 26,080 real property parcels, according to data submitted by the county assessor's office in 2019. 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) accounted for 85.2% of all vacant land parcels.

For residential improved properties, single family properties accounted for 66.3% of all residential properties. Residential condominiums accounted for 32.8% of all residential improved properties. Based on the guidelines for the state audit statistical compliance analysis, we will analyze residential condominiums separately.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 2.4% of all such properties in this county.

Based on the Audit questionnaire, the following geographic levels were used by the assessor to value residential, commercial and vacant land properties:

Geo Area	Residential	Comm/Ind	Vacant Land
Economic Area	*V*	*V*	*V*
Neighborhood	*V*	*N*	*V*
Subdivision	*N*	*N*	*N*

Codes
***V**=Valid Geographic Level – used for modeling*
***N** = Not used as Geographic Level for modeling*

Note: Each economic area has specific groups of neighborhoods that are evaluated for similar market influences and time trending. **See attached "Time Adjustment write ups" for detailed stratifications for each type of property.

II. DATA FILES

The following sales analyses were based on the requirements of the 2019 Colorado Property Assessment Study. Information was provided by the Grand Assessor's Office in April 2019. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

There were 1,791 qualified residential sales in the 24-month sale period ending June 30, 2018. The following analysis separated residential condominiums from other residential property types:

Residential Non-Condominiums (1,316 Sales)

Median	**0.986**
Price Related Differential	**1.013**
Coefficient of Dispersion	**9.7**

Residential Condominiums (847 Sales)

Median	**0.997**
Price Related Differential	**1.011**
Coefficient of Dispersion	**7.0**

We next stratified the sale ratio analysis by economic area and neighborhood. The minimum count for the neighborhood analysis was 10 sales. The following are the results of this stratification analysis:

Economic Area – Non Res Condos

Case Processing Summary

ResCondo			Count	Percent
0	ECONAREA	1.00	527	40.0%
		2.00	199	15.1%
		3.00	95	7.2%
		4.00	299	22.7%
		5.00	41	3.1%
		6.00	155	11.8%
	Overall		1316	100.0%
	Excluded		0	
	Total		1316	

Ratio Statistics for CURRTOT / TASP

ResCondo	Group	Median	Price Related Differential	Coefficient of Dispersion
0	1.00	.985	1.019	.080
	2.00	.978	.996	.084
	3.00	.970	1.008	.087
	4.00	.991	1.008	.119
	5.00	1.000	1.002	.109
	6.00	1.000	1.006	.131
	Overall	.986	1.013	.097

Neighborhood – Non Res Condos

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
119400.00	.984	.999	.060
119450.00	.999	1.002	.075
132240.00	.987	1.006	.049
132405.00	.992	1.002	.061
133113.00	.998	1.004	.109
149025.00	1.002	.999	.044
149027.00	.971	1.005	.065
149040.00	.990	1.006	.042
149101.00	.986	1.015	.086
149102.00	1.000	1.010	.076
227005.00	.997	1.005	.057
247030.00	.957	1.002	.145
247033.00	.968	1.015	.110
248325.00	.994	.997	.072
248326.00	.982	.998	.080
340002.00	.980	.989	.123
340004.00	.974	1.012	.072
341010.00	.964	1.008	.110
453101.00	1.011	.995	.100
456052.00	.970	1.037	.155
570256.00	1.005	1.021	.135
610132.00	1.027	.998	.119
612131.00	.996	1.015	.108
614130.00	.961	.971	.139
615144.00	.993	.998	.154
615145.00	1.000	1.000	.087
Overall	.991	1.001	.096

Economic Area – Res Condos

Case Processing Summary

		Count	Percent
Ecomonic Area	1	574	67.8%
	2	191	22.6%
	3	8	0.9%
	4	74	8.7%
Overall		847	100.0%
Excluded		0	
Total		847	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.997	1.005	.055
2	.997	1.026	.118
3	1.000	1.000	.010
4	.999	1.006	.060
Overall	.997	1.010	.069

NBHD – Res Condos

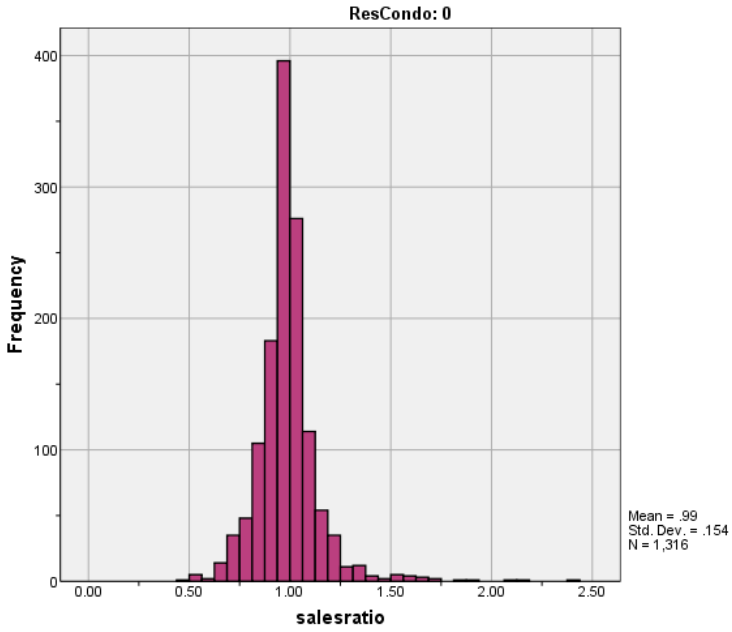
Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
130804.00	.991	1.010	.072
132114.13	.973	1.002	.059
132800.00	.995	1.008	.077
132801.00	.999	1.003	.048
133500.00	.997	1.004	.054
133502.00	.978	1.006	.100
133521.00	.995	1.007	.069
134511.00	.998	1.002	.054
134512.00	.998	1.004	.052
134590.00	.996	1.011	.082
160622.00	.997	1.011	.069
168571.00	1.000	1.003	.039
248534.00	**.901**	**1.141**	**.368**
268650.13	1.011	1.004	.043
268651.13	1.000	1.010	.081
268652.13	.997	1.003	.039
284510.00	.987	1.012	.073
284610.00	1.000	1.008	.064
451595.00	1.016	1.005	.068
457564.00	.999	1.010	.092
Overall	.996	1.014	.087

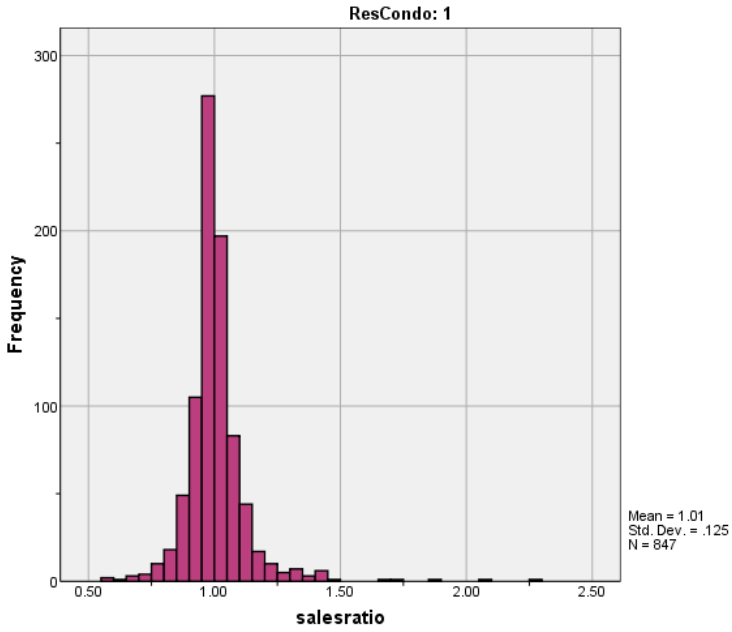
Overall, all economic areas and neighborhoods were in compliance with the exception of one neighborhood (248534). We have contacted the assessor's office to inform them of this one neighborhood, which represents a former lodging property that was converted to a condominium project (The Inn at Silvercreek). Sales in this affordable project reportedly have been volatile.

The following graphs describe further the sales ratio distribution for these properties:

Residential Non-Condominiums



Residential Condominiums



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

Residential Market Trend Analysis

We next analyzed the residential dataset using the 24-month sale period for any residual market trending, as follows:

Coefficients[a]

ResCondo	Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
0	1	(Constant)	.997	.008		122.629	.000
		SalePeriod	-.001	.001	-.030	-1.098	.272
1	1	(Constant)	.988	.008		116.459	.000
		SalePeriod	.002	.001	.088	2.556	.011

a. Dependent Variable: salesratio

The above statistical results indicate that residential non-condominiums had no significant trend in their sales ratios; while residential condominiums had a marginal statistical trend, the magnitude of that trend at 0.2 percent per month was not significant. 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 2019 median actual value per square foot between each group, stratified by subdivision, as follows:

Report
VALSF

ResCondo	SOLD	N	Median	Mean
NON-CONDO	UNSOLD	9086	$260	$293
	SOLD	1316	$280	$322
CONDO	UNSOLD	3831	$318	$325
	SOLD	847	$313	$324

NON-RESIDENTIAL CONDOMINIUMS

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of VALSF is the same across categories of SOLD.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .01.

RESIDENTIAL CONDOMINIUMS

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of VALSF is the same across categories of SOLD.	Independent-Samples Mann-Whitney U Test	.841	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .01.

The above results indicate that sold and unsold residential condominium properties were valued in a consistent manner. Due to the statistically significant difference with residential non-condominiums, we next examined the median percent change in value from taxable years 2018 and 2019, as follows:

Report
DIFF

SOLD	N	Median	Mean
UNSOLD	8808	1.24	1.26
SOLD	1303	1.27	1.31

We next stratified the sold unsold analysis by economic area, as follows:

Report
DIFF

ECONAREA	SOLD	N	Median	Mean
1.00	UNSOLD	2649	1.25	1.27
	SOLD	517	1.27	1.31
2.00	UNSOLD	1100	1.22	1.24
	SOLD	198	1.28	1.30
3.00	UNSOLD	710	1.23	1.22
	SOLD	94	1.26	1.28
4.00	UNSOLD	3004	1.23	1.25
	SOLD	298	1.24	1.28
5.00	UNSOLD	305	1.14	1.15
	SOLD	41	1.11	1.17
6.00	UNSOLD	999	1.34	1.34
	SOLD	155	1.40	1.40

We next stratified the sold unsold analysis by neighborhoods with at least 10 non-residential condo sales, as follows:

Report

DIFF

NBHD	SOLD	N	Median	Mean
119400.00		69	1.36	1.40
		16	1.37	1.39
119450.00		42	1.28	1.29
		12	1.28	1.28
132240.00		8	1.30	1.29
		13	1.27	1.36
132405.00		44	1.24	1.24
		16	1.25	1.24
133113.00		100	1.24	1.25
		14	1.25	1.26
149025.00		25	1.27	1.28
		24	1.29	1.28
149027.00		1	1.06	1.06
		25	1.06	1.18
149040.00		11	1.11	1.48
		15	1.11	1.25
227005.00		26	1.23	1.23
		10	1.24	1.27
247030.00		90	1.20	1.21
		13	1.24	1.25
247033.00		222	1.19	1.20
		14	1.20	1.24
248325.00		69	1.24	1.25
		25	1.28	1.32
340002.00		23	1.23	1.23
		10	1.26	1.29
340004.00		59	1.25	1.26
		12	1.30	1.32
341010.00		59	1.23	1.24
		15	1.24	1.24
453101.00		345	1.25	1.26
		47	1.27	1.29
456052.00		98	1.13	1.16
		17	1.14	1.17
570256.00		69	1.03	1.05
		13	1.03	1.03
610132.00		65	1.60	1.60
		10	1.68	1.70
612131.00		96	1.31	1.34
		16	1.30	1.32

614130.00		166	1.24	1.27
		14	1.25	1.27
615144.00		255	1.44	1.45
		54	1.43	1.45
615145.00		68	1.44	1.44
		18	1.44	1.46
Total		508	1.28	1.33
		2587	1.26	1.30

We next analyzed sold and unsold residential condominiums by economic area and by neighborhoods with at least 10 sales, as follows:

Report
DIFF

Ecomonic Area	SOLD	N	Median	Mean
1	UNSOLD	2898	1.40	1.44
	SOLD	574	1.44	1.48
2	UNSOLD	549	1.38	1.62
	SOLD	182	1.27	1.53
3	UNSOLD	97	1.31	1.48
	SOLD	8	1.49	1.45
4	UNSOLD	354	1.39	1.40
	SOLD	73	1.38	1.38
5	UNSOLD	9	1.30	1.34
	SOLD	1	1.29	1.29

Report
DIFF

NBHD	SOLD	N	Median	Mean
130804.00	UNSOLD	22	2.22	2.22
	SOLD	13	2.22	2.22
132114.13	UNSOLD	46	1.40	1.41
	SOLD	13	1.40	1.41
132800.00	UNSOLD	63	1.38	1.38
	SOLD	19	1.38	1.37
132801.00	UNSOLD	51	1.21	1.23
	SOLD	15	1.25	1.23
133500.00	UNSOLD	24	1.66	1.67
	SOLD	10	1.66	1.66
133502.00	UNSOLD	48	1.65	1.67
	SOLD	10	1.65	1.67
133521.00	UNSOLD	83	1.69	1.69
	SOLD	28	1.69	1.69
134511.00	UNSOLD	25	1.36	1.35
	SOLD	23	1.32	1.33
134512.00	UNSOLD	14	1.42	1.42
	SOLD	10	1.35	1.38
134590.00	UNSOLD	74	1.56	1.55
	SOLD	22	1.55	1.55
160622.00	UNSOLD	120	1.53	1.54
	SOLD	16	1.53	1.53
168571.00	UNSOLD	58	1.38	1.38
	SOLD	18	1.38	1.38

248534.00	**UNSOLD**	**82**	**2.44**	**2.44**
	SOLD	**24**	**2.44**	**2.44**
268650.13	UNSOLD	12	1.26	1.26
	SOLD	11	1.26	1.26
268651.13	UNSOLD	36	1.27	1.28
	SOLD	17	1.27	1.27
268652.13	UNSOLD	28	1.25	1.25
	SOLD	11	1.25	1.25
284510.00	UNSOLD	62	1.21	1.21
	SOLD	27	1.20	1.20
284610.00	UNSOLD	24	1.27	1.26
	SOLD	12	1.27	1.27
451595.00	UNSOLD	43	1.31	1.31
	SOLD	11	1.31	1.31
457564.00	UNSOLD	25	1.56	1.56
	SOLD	10	1.56	1.56
Total	SOLD	320	1.38	1.52
	Total	1260	1.41	1.54

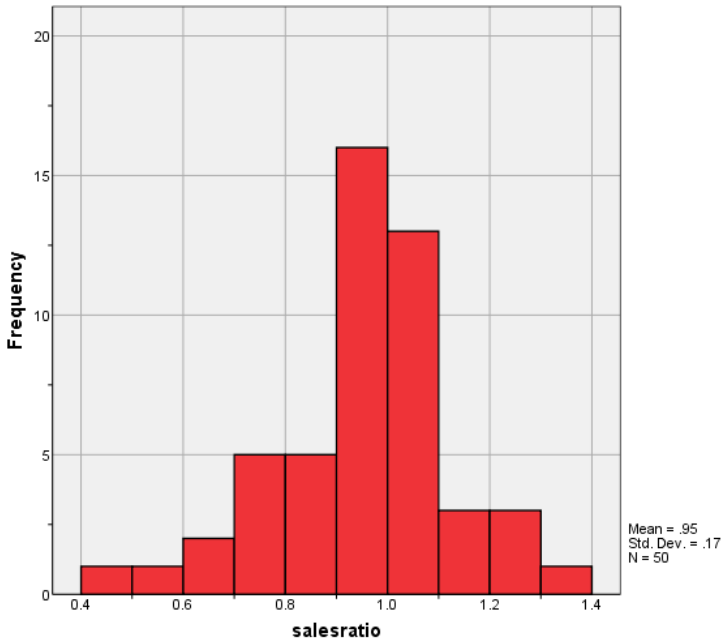
As with the sales ratio analysis, Neighborhood 248534 has experienced significant variation in terms of sale prices. The assessor was contacted regarding this condominium project. Based on the above results, the Grand County assessor has consistently valued sold and unsold residential properties in 2019.

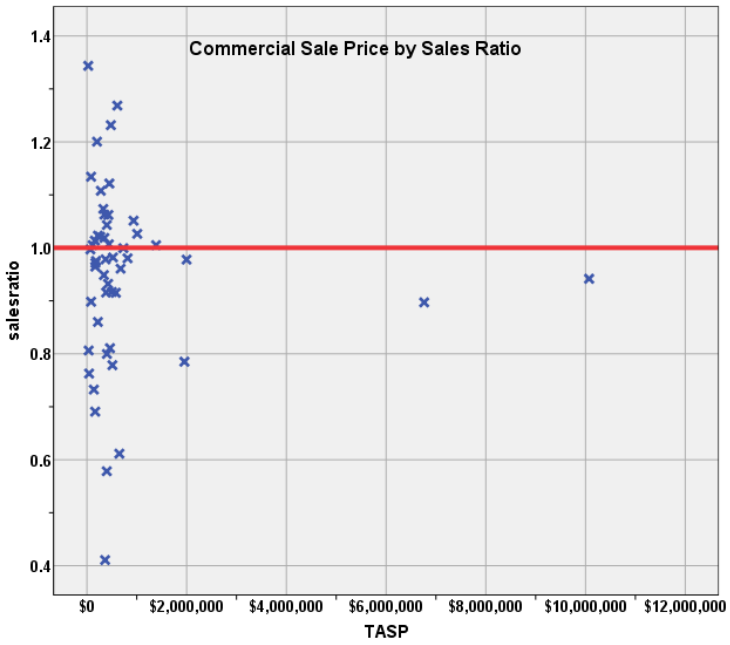
IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 41 qualified commercial and industrial sales in the 24 month sale period ending June 30, 2018. The following analysis separated residential condominiums from other residential property types:

Median	**0.978**
Price Related Differential	**1.016**
Coefficient of Dispersion	**12.1**

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





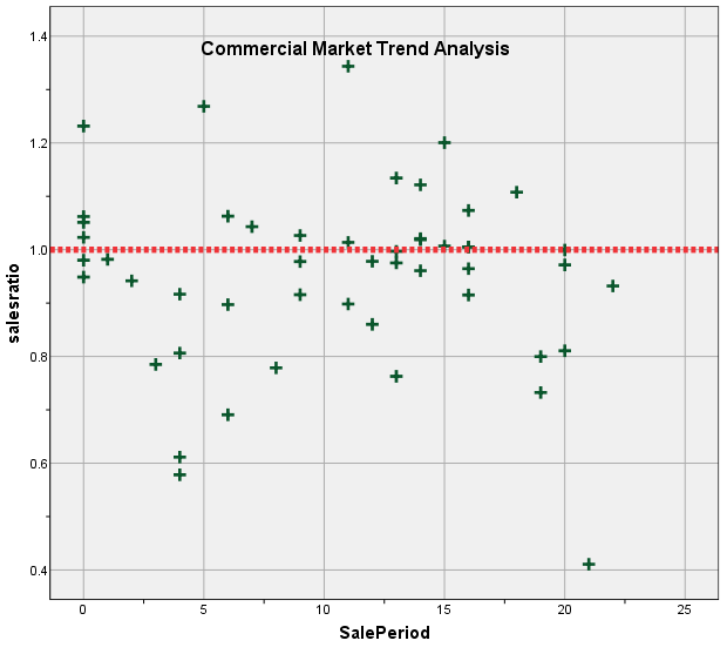
Commercial Market Trend Analysis

The assessor did not apply any market trend adjustment to the commercial dataset. The commercial sales were analyzed, examining the sale ratios across the 24 month sale period with the following results:

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.975	.045		21.445	.000
	SalePeriod	-.002	.004	-.088	-.610	.545

a. Dependent Variable: salesratio



The market trend results indicated no statistically significant trend. We concur that no market trend adjustments were warranted for properties in this class for Grand County.

Sold/Unsold Analysis

We compared the median and median change in value for taxable years 2018 and 2019 between sold and unsold commercial properties to determine if the assessor was valuing each group consistently. While this is a challenge to prove in this county, given the small number of sales and the overall diversity of commercial/industrial properties across six economic areas, the following results indicate that based on the median and mean actual values, both groups were valued overall in a consistent manner at the class level:

Report

DIFF

sold	N	Median	Mean
UNSOLD	575	1.16	1.25
SOLD	50	1.20	1.30

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of DIFF is the same across categories of sold.	Independent-Samples Mann-Whitney U Test	.090	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Report

DIFF

ABSTRIMP	sold	N	Median	Mean
2212.00	**0**	**91**	**1.17**	**1.19**
	1	**9**	**1.46**	**1.63**
2215.00	0	40	1.14	1.16
	1	4	1.18	1.20
2230.00	**0**	**173**	**1.17**	**1.22**
	1	**14**	**1.32**	**1.28**
2240.00	0	38	1.13	1.44
	1	5	1.16	1.12
2245.00	0	76	1.08	1.11
	1	5	1.09	1.14

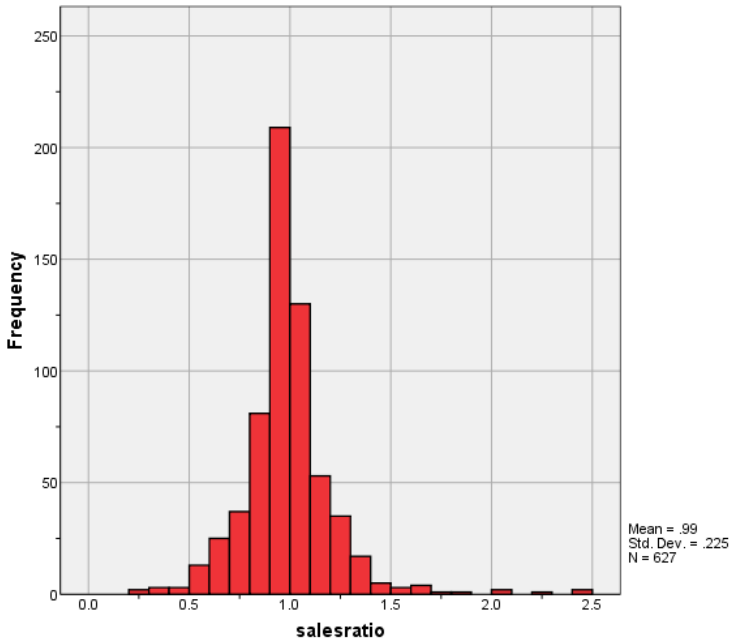
The significant difference for Subclass 2212 was likely due to the smaller average size of the sold properties versus unsold properties (2,352 sf vs 3,836 sf) and were of higher quality. The significant difference for Subclass 2230 was likely due to the higher rated quality of the sold properties versus unsold properties. The assessor was advised of both differences.

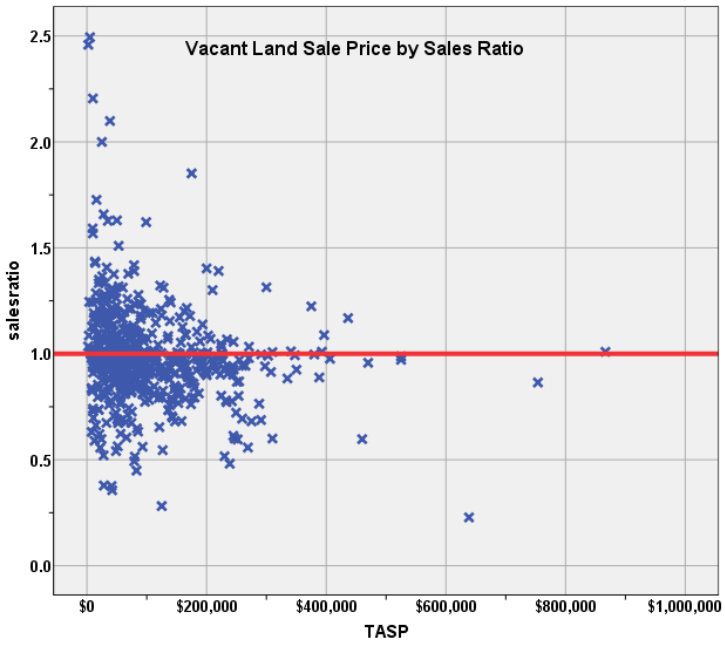
V. VACANT LAND SALE RESULTS

There were 627 qualified vacant land sales in the 24 month sale period ending June 30, 2018. The following analysis analyzed qualified vacant land sales as follows

Median	**0.983**
Price Related Differential	**1.042**
Coefficient of Dispersion	**14.6**

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





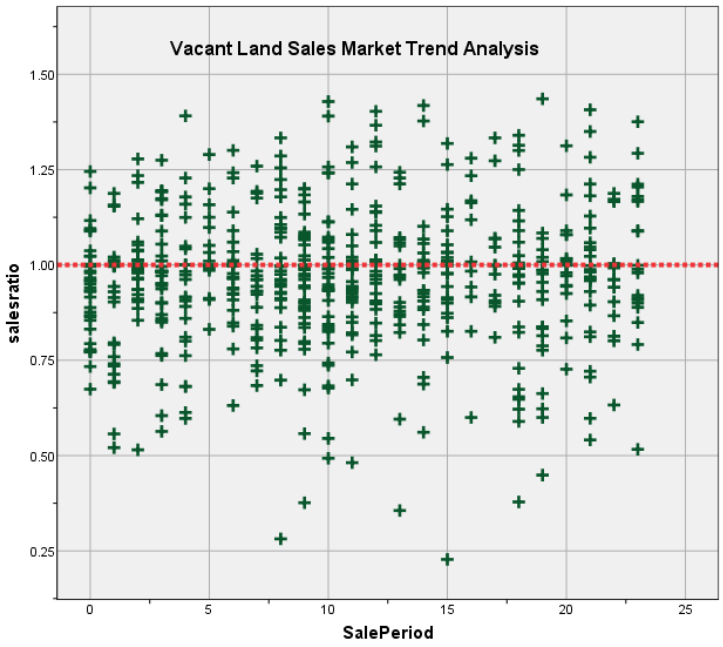
Vacant Land Market Trend Analysis

The vacant land sales were analyzed, examining the sale ratios across the 24-month sale period with the following results:

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.955	.013		72.049	.000
	SalePeriod	.001	.001	.044	1.094	.275

a. Dependent Variable: salesratio



The market trend results indicated no statistically significant trend. We concur that no market trend adjustments were warranted for properties in this class for Grand County.

Sold/Unsold Analysis

We compared the median and mean change in actual value between taxable years 2018 and 2019 for vacant land properties to determine if sold and unsold properties were valued consistently, as follows:

Report

DIFF

sold	N	Median	Mean
UNSOLD	5201	1.14	1.41
SOLD	626	1.19	1.30

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of DIFF is the same across categories of sold.	Independent-Samples Mann-Whitney U Test	.031	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .01.

We also stratified the analysis by subdivisions with at least 6 sales, as follows:

Report
DIFF

SUBDIVNO	sold	N	Median	Mean
300	UNSOLD	72	1.07	1.07
	SOLD	10	1.07	1.07
1095	UNSOLD	4	.76	.76
	SOLD	6	.76	.76
1120	UNSOLD	42	1.04	1.05
	SOLD	6	1.05	1.32
1130	UNSOLD	22	1.70	1.70
	SOLD	13	1.70	1.72
1250	UNSOLD	44	1.43	1.47
	SOLD	13	1.43	1.44
1262	UNSOLD	85	1.64	1.64
	SOLD	7	1.64	2.44
1280	UNSOLD	84	1.60	1.50
	SOLD	9	1.60	1.49
1496	UNSOLD	53	.83	1.04
	SOLD	13	1.04	1.09
1773	UNSOLD	257	1.33	1.28
	SOLD	35	1.38	1.40
1853	UNSOLD	19	1.35	1.39
	SOLD	19	1.35	1.34
1854	UNSOLD	49	1.25	1.17
	SOLD	15	1.10	1.13
2130	UNSOLD	15	1.20	1.20
	SOLD	7	1.20	1.12
2160	UNSOLD	32	1.10	1.10
	SOLD	8	1.10	1.05
2169	UNSOLD	12	1.00	.97
	SOLD	7	1.00	1.04
2170	UNSOLD	14	1.19	1.19
	SOLD	7	1.19	1.13
2190	UNSOLD	21	1.00	1.01
	SOLD	6	.88	.91
2220	UNSOLD	11	1.12	1.19
	SOLD	7	1.12	1.07

2226	UNSOLD	26	1.44	1.44
	SOLD	7	1.44	1.46
2230	UNSOLD	85	1.14	1.15
	SOLD	22	1.14	1.11
2234	UNSOLD	14	1.67	1.55
	SOLD	9	1.40	1.30
2237	UNSOLD	32	1.77	1.83
	SOLD	6	1.86	1.89
2546	UNSOLD	32	1.00	1.06
	SOLD	12	1.15	1.10
2562	UNSOLD	25	1.42	1.42
	SOLD	6	1.42	1.42
2745	UNSOLD	24	1.29	1.30
	SOLD	16	1.08	1.14
2755	UNSOLD	69	1.39	1.39
	SOLD	11	1.39	1.25
2870	UNSOLD	32	1.37	1.37
	SOLD	8	1.37	1.50

The above results at the class and subdivision level indicate that sold and unsold vacant land properties were valued consistently.

V. CONCLUSION

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

STATISTICAL ABSTRACT

Residential

Ratio Statistics for CURRTOT / TASP

Res/ Cnd	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
0	.989	.981	.998	.986	.983	.991	95.6%	.977	.968	.985	1.013	.097	15.6%
1	1.01	.999	1.016	.997	.995	.999	95.4%	.997	.991	1.002	1.011	.070	12.4%

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.

Commercial/Industrial

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
.952	.904	1.000	.978	.932	1.007	96.7%	.937	.904	.970	1.016	.121	17.9%

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 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
1.763	1.549	1.976	1.002	.998	1.013	95.4%	1.526	1.396	1.656	1.155	.887	154.5%

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

ResCondo			Count	Percent
0	SPRec	LT $25K	1	0.1%
		$25K to $50K	1	0.1%
		$50K to $100K	5	0.4%
		$100K to $150K	20	1.5%
		$150K to $200K	37	2.8%
		$200K to $300K	204	15.5%
		$300K to $500K	442	33.6%
		$500K to $750K	400	30.4%
		$750K to $1,000K	108	8.2%
		Over $1,000K	98	7.4%
	Overall		1316	100.0%
	Excluded		0	
	Total		1316	
1	SPRec	$25K to $50K	9	1.1%
		$50K to $100K	42	5.0%
		$100K to $150K	41	4.8%
		$150K to $200K	126	14.9%
		$200K to $300K	261	30.8%
		$300K to $500K	283	33.4%
		$500K to $750K	78	9.2%
		$750K to $1,000K	3	0.4%
		Over $1,000K	4	0.5%
	Overall		847	100.0%
	Excluded		0	
	Total		847	

Ratio Statistics for CURRTOT / TASP

ResCondo	Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	LT $25K	1.511	1.000	.000	.
	$25K to $50K	2.389	1.000	.000	.
	$50K to $100K	1.426	1.023	.163	22.9%
	$100K to $150K	1.032	.992	.235	34.5%
	$150K to $200K	.999	1.000	.170	21.8%
	$200K to $300K	.976	1.001	.123	18.5%
	$300K to $500K	.987	.999	.095	14.4%
	$500K to $750K	.987	1.000	.076	11.6%
	$750K to $1,000K	.994	.999	.059	8.8%
	Over $1,000K	.954	1.019	.082	12.6%
	Overall	.986	1.013	.097	15.6%
1	$25K to $50K	1.390	1.036	.150	26.3%
	$50K to $100K	1.035	1.019	.207	29.1%
	$100K to $150K	.995	.990	.121	18.6%
	$150K to $200K	1.000	1.002	.054	7.7%
	$200K to $300K	.999	1.001	.058	8.6%
	$300K to $500K	.995	1.000	.052	7.3%

	$500K to $750K	.993	1.000	.050	7.2%
	$750K to $1,000K	1.036	1.000	.040	6.3%
	Over $1,000K	.998	.997	.021	4.8%
	Overall	.997	1.011	.070	12.5%

Subclass

Case Processing Summary

ResCondo			Count	Percent
0	ABSTRIMP	1212.00	1298	98.6%
		1213.50	3	0.2%
		1215.00	9	0.7%
		1216.00	2	0.2%
		1220.00	3	0.2%
		1225.00	1	0.1%
	Overall		1316	100.0%
	Excluded		0	
	Total		1316	
1	ABSTRIMP	1230.00	847	100.0%
	Overall		847	100.0%
	Excluded		0	
	Total		847	

Ratio Statistics for CURRTOT / TASP

ResCondo	Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	1212.00	.987	1.012	.097	15.6%
	1213.50	.941	1.006	.116	20.4%
	1215.00	.927	.997	.093	13.8%
	1216.00	.911	1.000	.103	14.5%
	1220.00	.826	1.042	.187	29.8%
	1225.00	.805	1.000	.000	.
	Overall	.986	1.013	.097	15.6%
1	1230.00	.997	1.011	.070	12.5%
	Overall	.997	1.011	.070	12.5%

Improvement Age

Case Processing Summary

ResCondo			Count	Percent
0	AgeRec	Over 100	6	0.5%
		75 to 100	29	2.2%
		50 to 75	85	6.5%
		25 to 50	305	23.2%
		5 to 25	677	51.4%
		5 or Newer	214	16.3%
	Overall		1316	100.0%
	Excluded		0	
	Total		1316	
1	AgeRec	50 to 75	17	2.0%
		25 to 50	496	58.6%
		5 to 25	283	33.4%
		5 or Newer	51	6.0%
	Overall		847	100.0%
	Excluded		0	
	Total		847	

Ratio Statistics for CURRTOT / TASP

ResCondo	Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	Over 100	.744	1.122	.288	51.3%
	75 to 100	.927	1.014	.251	33.3%
	50 to 75	.964	1.021	.150	23.9%
	25 to 50	.971	1.007	.121	19.3%
	5 to 25	.991	1.013	.076	11.4%
	5 or Newer	.995	1.027	.084	13.7%
	Overall	.986	1.013	.097	15.6%
1	50 to 75	.998	1.027	.079	15.3%
	25 to 50	.997	1.013	.078	14.0%
	5 to 25	.999	1.008	.058	10.1%
	5 or Newer	.964	.998	.063	7.7%
	Overall	.997	1.011	.070	12.5%

Improved Area

Case Processing Summary

ResCondo			Count	Percent
0	ImpSFRec	LE 500 sf	14	1.1%
		500 to 1,000 sf	146	11.1%
		1,000 to 1,500 sf	438	33.3%
		1,500 to 2,000 sf	365	27.7%
		2,000 to 3,000 sf	288	21.9%
		3,000 sf or Higher	65	4.9%
	Overall		1316	100.0%
	Excluded		0	
	Total		1316	
1	ImpSFRec	LE 500 sf	101	11.9%
		500 to 1,000 sf	430	50.8%

		1,000 to 1,500 sf	263	31.1%
		1,500 to 2,000 sf	40	4.7%
		2,000 to 3,000 sf	11	1.3%
		3,000 sf or Higher	2	0.2%
	Overall		847	100.0%
	Excluded		0	
	Total		847	

Ratio Statistics for CURRTOT / TASP

ResCondo	Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	LE 500 sf	1.018	1.059	.184	24.8%
	500 to 1,000 sf	.970	.999	.138	22.5%
	1,000 to 1,500 sf	.979	1.008	.091	13.8%
	1,500 to 2,000 sf	.992	1.015	.084	13.6%
	2,000 to 3,000 sf	.995	1.022	.089	13.5%
	3,000 sf or Higher	1.000	1.070	.135	22.4%
	Overall	.986	1.013	.097	15.6%
1	LE 500 sf	.997	1.031	.134	23.0%
	500 to 1,000 sf	.996	1.012	.070	12.0%
	1,000 to 1,500 sf	.998	1.005	.055	8.0%
	1,500 to 2,000 sf	.998	1.004	.027	4.2%
	2,000 to 3,000 sf	1.004	1.003	.049	7.9%
	3,000 sf or Higher	.957	.995	.044	6.2%
	Overall	.997	1.011	.070	12.5%

Improvement Quality

Case Processing Summary

ResCondo			Count	Percent
0	QUALITY	2 - LOW QUAL.	6	0.5%
		3 - FAIR QUAL.	73	5.5%
		4 - AVERAGE	827	62.8%
		5 - GOOD QUAL.	385	29.3%
		6 - VERY GOOD	24	1.8%
		7 - EXCELLENT	1	0.1%
	Overall		1316	100.0%
	Excluded		0	
	Total		1316	
1	QUALITY	3 - FAIR QUAL.	66	7.8%
		4 - AVERAGE	445	52.5%
		5 - GOOD QUAL.	243	28.7%
		6 - VERY GOOD	93	11.0%
	Overall		847	100.0%
	Excluded		0	
	Total		847	

Ratio Statistics for CURRTOT / TASP

ResCondo	Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0	2 - LOW QUAL.	1.279	1.049	.274	33.2%
	3 - FAIR QUAL.	.993	1.018	.177	26.0%
	4 - AVERAGE	.987	1.005	.101	16.0%
	5 - GOOD QUAL.	.985	1.008	.070	10.7%
	6 - VERY GOOD	.967	1.062	.068	9.4%
	7 - EXCELLENT	.986	1.000	.000	.
	Overall	.986	1.013	.097	15.6%
1	3 - FAIR QUAL.	.996	1.020	.082	13.1%
	4 - AVERAGE	.997	1.014	.081	15.0%
	5 - GOOD QUAL.	.996	1.006	.055	8.0%
	6 - VERY GOOD	.998	1.004	.051	8.3%
	Overall	.997	1.011	.070	12.5%

Improvement Condition

Case Processing Summary

ResCondo			Count	Percent
0	CONDITION		42	3.2%
		0 - POOR	4	0.3%
		1 - FAIR	9	0.7%
		2 - AVERAGE	769	58.4%
		3 - GOOD	492	37.4%
	Overall		1316	100.0%
	Excluded		0	
	Total		1316	
1	CONDITION		2	0.2%
		2 - AVERAGE	641	75.7%
		3 - GOOD	204	24.1%
	Overall		847	100.0%
	Excluded		0	
	Total		847	

Ratio Statistics for CURRTOT / TASP

ResCondo	Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
0		.988	1.037	.111	17.3%
	0 - POOR	1.175	.938	.176	22.4%
	1 - FAIR	.938	1.120	.128	20.4%
	2 - AVERAGE	.984	1.010	.107	17.2%
	3 - GOOD	.991	1.013	.078	12.3%
	Overall	.986	1.013	.097	15.6%
1		.989	1.004	.016	2.2%
	2 - AVERAGE	.997	1.013	.075	13.7%
	3 - GOOD	.999	1.005	.058	7.8%
	Overall	.997	1.011	.070	12.5%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	1	2.0%
	$25K to $50K	2	4.0%
	$50K to $100K	3	6.0%
	$100K to $150K	2	4.0%
	$150K to $200K	5	10.0%
	$200K to $300K	5	10.0%
	$300K to $500K	17	34.0%
	$500K to $750K	7	14.0%
	$750K to $1,000K	2	4.0%
	Over $1,000K	6	12.0%
Overall		50	100.0%
Excluded		0	
Total		50	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT $25K	1.344	1.000	.000	.
$25K to $50K	.785	1.003	.028	3.9%
$50K to $100K	.997	.999	.079	12.0%
$100K to $150K	.869	1.015	.157	22.2%
$150K to $200K	.971	.999	.069	14.6%
$200K to $300K	1.023	1.000	.084	12.5%
$300K to $500K	.978	.996	.139	20.9%
$500K to $750K	.961	.998	.140	21.4%
$750K to $1,000K	1.016	.998	.035	4.9%
Over $1,000K	.960	1.014	.067	9.5%
Overall	.978	1.016	.121	17.6%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1712.00	1	2.0%
	1713.50	2	4.0%
	1718.50	1	2.0%
	1721.00	2	4.0%
	1837.25	1	2.0%
	2103.56	1	2.0%
	2212.00	9	18.0%
	2215.00	4	8.0%
	2219.67	1	2.0%
	2220.00	2	4.0%
	2225.00	1	2.0%
	2230.00	14	28.0%
	2235.00	1	2.0%
	2240.00	5	10.0%
	2245.00	5	10.0%
Overall		50	100.0%
Excluded		0	
Total		50	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1712.00	1.005	1.000	.000	.
1713.50	.998	1.015	.021	2.9%
1718.50	1.232	1.000	.000	.
1721.00	.678	.982	.148	20.9%
1837.25	.897	1.000	.000	.
2103.56	1.051	1.000	.000	.
2212.00	.942	.985	.183	25.6%
2215.00	.886	.976	.099	11.6%
2219.67	.932	1.000	.000	.
2220.00	1.109	.961	.144	20.4%
2225.00	1.108	1.000	.000	.
2230.00	.976	.988	.100	15.3%
2235.00	.860	1.000	.000	.
2240.00	1.043	1.066	.128	22.2%
2245.00	.978	.994	.030	4.7%
Overall	.978	1.016	.121	17.6%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	75 to 100	11	22.0%
	50 to 75	10	20.0%
	25 to 50	17	34.0%
	5 to 25	11	22.0%
	5 or Newer	1	2.0%
Overall		50	100.0%
Excluded		0	
Total		50	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
75 to 100	.897	1.001	.205	24.8%
50 to 75	1.036	.984	.139	23.3%
25 to 50	.978	1.009	.070	11.8%
5 to 25	.975	.996	.086	12.5%
5 or Newer	.785	1.000	.000	.
Overall	.978	1.016	.121	17.6%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	4	8.0%
	500 to 1,000 sf	2	4.0%
	1,000 to 1,500 sf	3	6.0%
	1,500 to 2,000 sf	6	12.0%
	2,000 to 3,000 sf	16	32.0%
	3,000 sf or Higher	19	38.0%
Overall		50	100.0%
Excluded		0	
Total		50	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	.815	1.160	.223	31.8%
500 to 1,000 sf	.848	1.035	.185	26.2%
1,000 to 1,500 sf	.806	1.058	.240	47.3%
1,500 to 2,000 sf	1.018	1.022	.051	7.3%
2,000 to 3,000 sf	.963	.998	.117	17.5%
3,000 sf or Higher	.999	1.053	.090	12.7%
Overall	.978	1.016	.121	17.6%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	1 - POOR	1	2.0%
	2 - LOW	2	4.0%
	3 - FAIR	9	18.0%
	3 - FAIR QUAL.	1	2.0%
	4 - AVERAGE	3	6.0%
	4 - AVG	26	52.0%
	5 - GOOD	5	10.0%
	6 - VERY GOOD	3	6.0%
Overall		50	100.0%
Excluded		0	
Total		50	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1 - POOR	1.073	1.000	.000	.
2 - LOW	1.147	.996	.074	10.5%
3 - FAIR	1.019	.971	.141	19.0%
3 - FAIR QUAL.	1.108	1.000	.000	.
4 - AVERAGE	.961	.967	.037	5.6%
4 - AVG	.973	1.002	.095	14.2%
5 - GOOD	.980	1.075	.090	13.8%
6 - VERY GOOD	.611	1.005	.275	42.1%
Overall	.978	1.016	.121	17.6%

Improvement Condition

Case Processing Summary

		Count	Percent
CONDITION	2 - AVERAGE	47	94.0%
	3 - GOOD	3	6.0%
Overall		50	100.0%
Excluded		0	
Total		50	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
2 - AVERAGE	.980	1.017	.117	17.5%
3 - GOOD	.785	1.013	.041	7.1%
Overall	.978	1.016	.121	17.6%

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	87	13.9%
	$25K to $50K	129	20.6%
	$50K to $100K	191	30.5%
	$100K to $150K	73	11.6%
	$150K to $200K	72	11.5%
	$200K to $300K	53	8.5%
	$300K to $500K	17	2.7%
	$500K to $750K	3	0.5%
	$750K to $1,000K	2	0.3%
Overall		627	100.0%
Excluded		0	
Total		627	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT $25K	1.013	1.018	.212	35.1%
$25K to $50K	1.011	1.001	.154	23.1%
$50K to $100K	.978	.998	.122	17.6%
$100K to $150K	.918	1.004	.140	19.1%
$150K to $200K	.949	.999	.103	16.9%
$200K to $300K	.936	1.005	.142	20.2%
$300K to $500K	.991	.999	.104	16.7%
$500K to $750K	.971	1.048	.261	54.1%
$750K to $1,000K	.937	.995	.077	10.9%
Overall	.983	1.042	.146	22.9%

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	100.00	488	77.8%
	200.00	7	1.1%
	510.00	1	0.2%
	520.00	7	1.1%
	530.00	4	0.6%
	540.00	3	0.5%
	550.00	6	1.0%
	1112.00	103	16.4%
	1120.00	1	0.2%
	1140.00	1	0.2%
	1811.00	2	0.3%
	2112.00	1	0.2%
	2130.00	1	0.2%
	2135.00	1	0.2%
	2140.00	1	0.2%
Overall		627	100.0%
Excluded		0	
Total		627	

Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100.00	.987	1.034	.140	21.9%
200.00	.840	1.261	.246	32.8%
510.00	.763	1.000	.000	.
520.00	.973	1.077	.156	31.5%
530.00	.989	1.056	.085	11.8%
540.00	.959	1.034	.118	21.3%
550.00	.974	1.033	.100	15.1%
1112.00	.974	1.021	.150	24.7%
1120.00	1.314	1.000	.000	.
1140.00	.597	1.000	.000	.
1811.00	.759	.909	.139	19.6%
2112.00	.228	1.000	.000	.
2130.00	.600	1.000	.000	.
2135.00	.683	1.000	.000	.
2140.00	.449	1.000	.000	.
Overall	.983	1.042	.146	22.9%