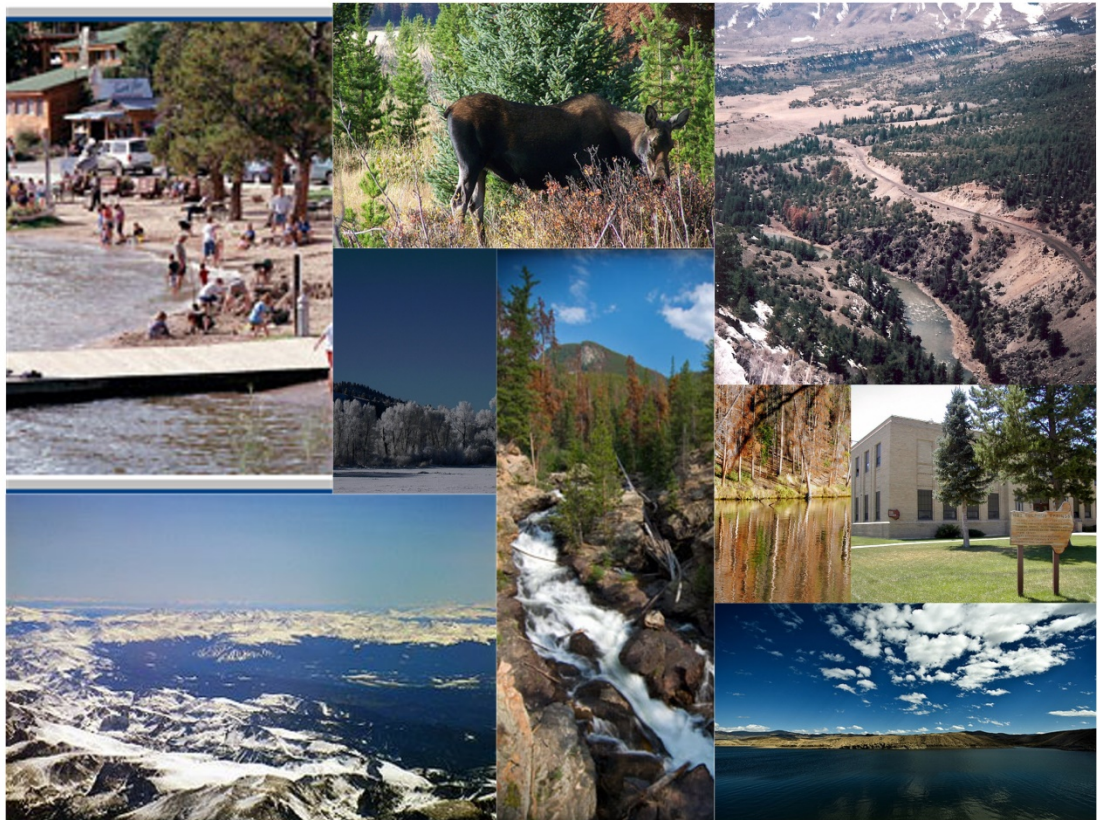




2021  
GRAND COUNTY  
PROPERTY ASSESSMENT  
STUDY

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**WILDROSE**  
APPRAISAL, INCORPORATED  
Audit Division



September 15, 2021

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

**RE: Final Report for the 2021 Colorado Property Assessment Study**

Dear Ms. Mullis:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2021 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 black ink that reads "Harry J. Fuller". The signature is written in a cursive, flowing style.

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.

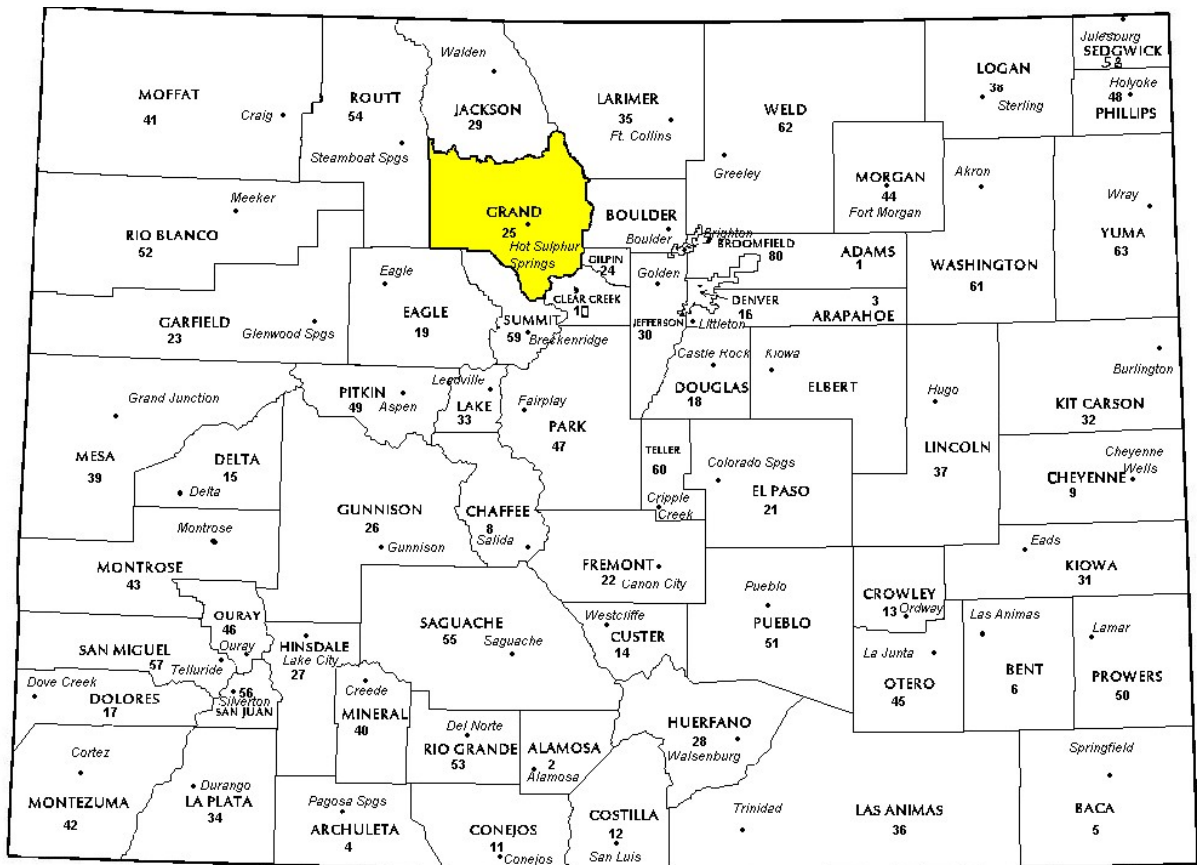
Wildrose Audit has completed the Property Assessment Study for 2021 and is pleased to report its findings for Grand County in the following report.

# 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 has approximately 1,846.3 square miles and an estimated population of approximately 15,734 people with 8.0 people per square mile, according to the U.S. Census Bureau's 2020 estimated census data. This represents a 6.0 percent change from April 1, 2010 to July 1, 2019.

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.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, 2019 through June 30th, 2020. 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
Residential Condominium	Between .95-1.05	Less than 15.99
Residential	Between .95-1.05	Less than 15.99
Vacant Land	Between .95-1.05	Less than 20.99

The results for Grand County are:

<b>Grand County Ratio Grid</b>					
<b>Property Class</b>	<b>Number of Qualified Sales</b>	<b>Unweighted Median Ratio</b>	<b>Price Related Differential</b>	<b>Coefficient of Dispersion</b>	<b>Time Trend Analysis</b>
Commercial/Industrial	48	0.970	1.002	9.7	Compliant
Residential Condo	782	0.998	1.003	4.7	Compliant
Residential	1,179	0.991	1.005	8.7	Compliant
Vacant Land	511	0.997	1.045	13.7	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.

<b>Sold/Unsold Results</b>	
<b>Property Class</b>	<b>Results</b>
Commercial/Industrial	Compliant
Residential Condos	Compliant
Residential	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**

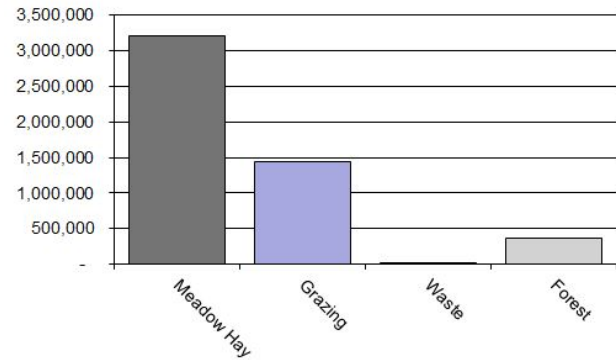
None

# 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:

<b>Grand County Agricultural Land Ratio Grid</b>						
<b>Abstract Code</b>	<b>Land Class</b>	<b>Number Of Acres</b>	<b>County Value Per Acre</b>	<b>County Assessed Total Value</b>	<b>WRA Total Value</b>	<b>Ratio</b>
4137	Meadow Hay	36,445	87.00	3,201,050	3,170,739	1.01
4147	Grazing	195,659	7.37	1,441,175	1,441,175	1.00
4177	Forest	17,917	20.28	363,370	363,370	1.00
4167	Waste	8,068	2.42	19,510	19,510	1.00
<b>Total/Avg</b>		<b>258,089</b>	<b>19.47</b>	<b>5,025,104</b>	<b>4,994,793</b>	<b>1.01</b>

### 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.

Property Taxation for the valuation of agricultural outbuildings.

### Recommendations

None

### Conclusions

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

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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.

### 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
- Questionnaires
- 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 2021 for Grand County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 31 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 an adequate 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

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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 2021 in Grand County. The review showed that subdivisions were discounted pursuant to the Colorado Revised Statutes in Article 39-1-103 (14). Discounting procedures were applied to all subdivisions where less than 80 percent of all sites were sold using the present worth method. The market approach was applied where 80 percent or more of the subdivision sites were sold. An absorption period was estimated for each subdivision that was discounted. An appropriate discount rate was

developed using the summation method. Subdivision land with structures was appraised at full market value.

### **Conclusions**

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 2021 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 \$7,900 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*

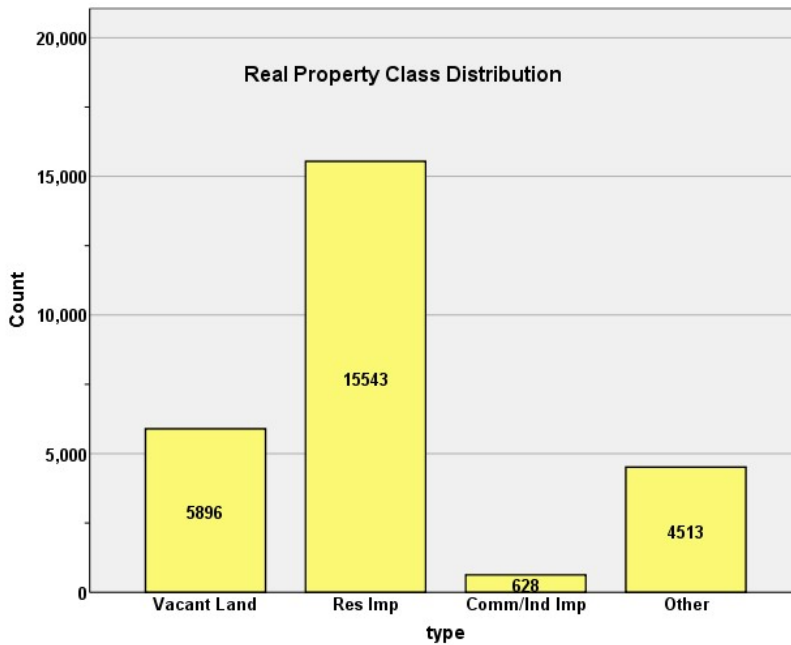
**J. Andrew Rodriguez**, *Field Analyst*

# STATISTICAL APPENDIX

## STATISTICAL COMPLIANCE REPORT FOR GRAND COUNTY 2021

### I. OVERVIEW

Grand County is a mountain resort located in western Colorado. The county has a total of 26,580 real property parcels, according to data submitted by the county assessor’s office in 2021. 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 73.3% of all vacant land parcels.

For residential improved properties, single family properties accounted for 66.0% of all residential properties. Residential condominiums accounted for 32.1% 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 sales accounted for 2.4% of all such properties in this county.

### II. DATA FILES

The following sales analyses were based on the requirements of the 2021 Colorado Property Assessment Study. Information was provided by the Grand Assessor’s Office in April 2021. The data included all 5 property record files as specified by the Auditor.

### III. RESIDENTIAL SALES RESULTS

There were 1,961 qualified residential sales in the 24-month sale period ending June 30, 2020. The following analysis separated residential condominiums from other residential property types:

#### Residential Non-Condominiums (1,179 Sales)

Median	0.991
Price Related Differential	1.005
Coefficient of Dispersion	8.7

#### Residential Condominiums (782 Sales)

Median	0.998
Price Related Differential	1.003
Coefficient of Dispersion	5.7

We next stratified the sale ratio analysis by economic area and neighborhood. The minimum count for the neighborhood analysis was 15 sales. The following are the results of this stratification analysis:

#### Economic Area – Non Res Condos Case Processing Summary

		Count	Percent
ECONAREA	1.00	485	41.1%
	2.00	201	17.0%
	3.00	118	10.0%
	4.00	245	20.8%
	5.00	25	2.1%
	6.00	105	8.9%
Overall		1179	100.0%
Excluded		0	
Total		1179	

#### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
1.00	.985	1.008	.072
2.00	.989	.998	.071
3.00	.989	1.019	.115
4.00	.998	.988	.097
5.00	.997	1.001	.120
6.00	.996	1.023	.124
Overall	.991	1.005	.087

#### Neighborhood – Non Res Condos

#### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion
132240.0	.994	1.004	.085
134450.1	.995	1.003	.064
149025.0	.989	1.002	.060
149027.0	1.000	1.005	.060



149102.0	.987	1.008	.080
224044.0	.986	.993	.082
247033.0	.996	1.006	.110
248325.0	.989	.994	.065
248326.0	.987	.996	.086
341010.0	.967	1.010	.090
453101.0	.998	.992	.123
456052.0	.986	.997	.146
615144.0	.990	1.001	.146
615145.0	1.006	.999	.091
Overall	.991	.999	.090

**Economic Area – Res Condos  
Case Processing Summary**

	Count	Percent
Economic Area	483	67.6%
	170	23.8%
	4	0.6%
	57	8.0%
Overall	714	100.0%
Excluded	68	
Total	782	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.998	1.003	.057
2	.995	1.007	.060
3	.997	1.028	.046
4	1.000	1.008	.063
Overall	.998	1.003	.058

**NBHD – Res Condos**

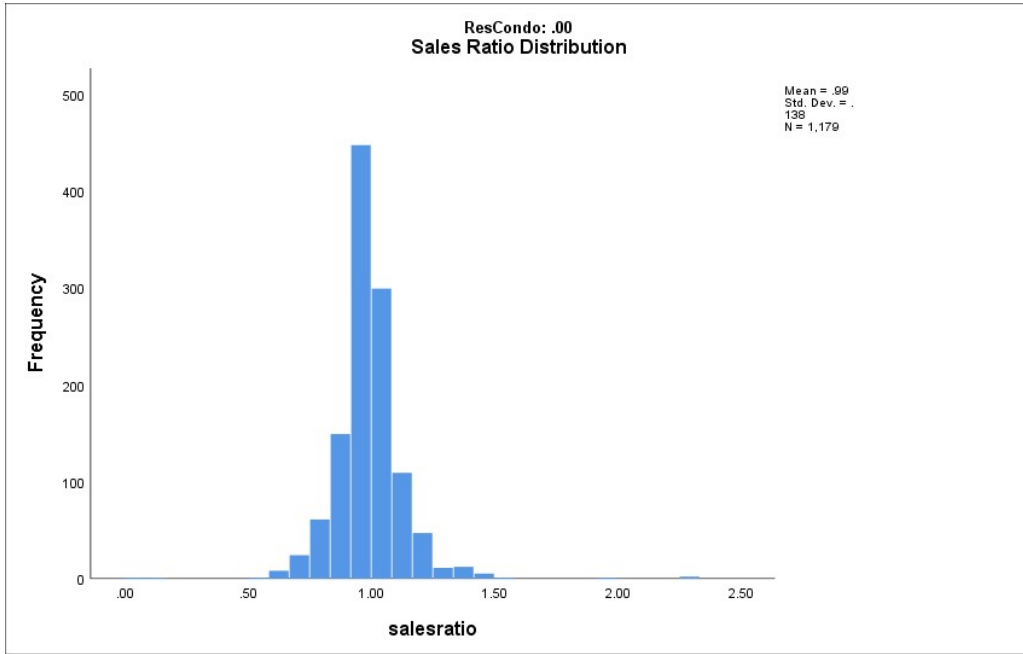
**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion
132800.00	.977	1.000	.059
133502.00	1.001	1.005	.088
133521.00	1.008	1.006	.070
134590.00	1.007	1.007	.069
160622.00	.999	1.004	.050
168571.00	.986	1.008	.054
248534.00	.993	1.006	.059
268651.13	.991	1.002	.047
284510.00	.991	1.005	.039
Overall	.995	1.003	.060

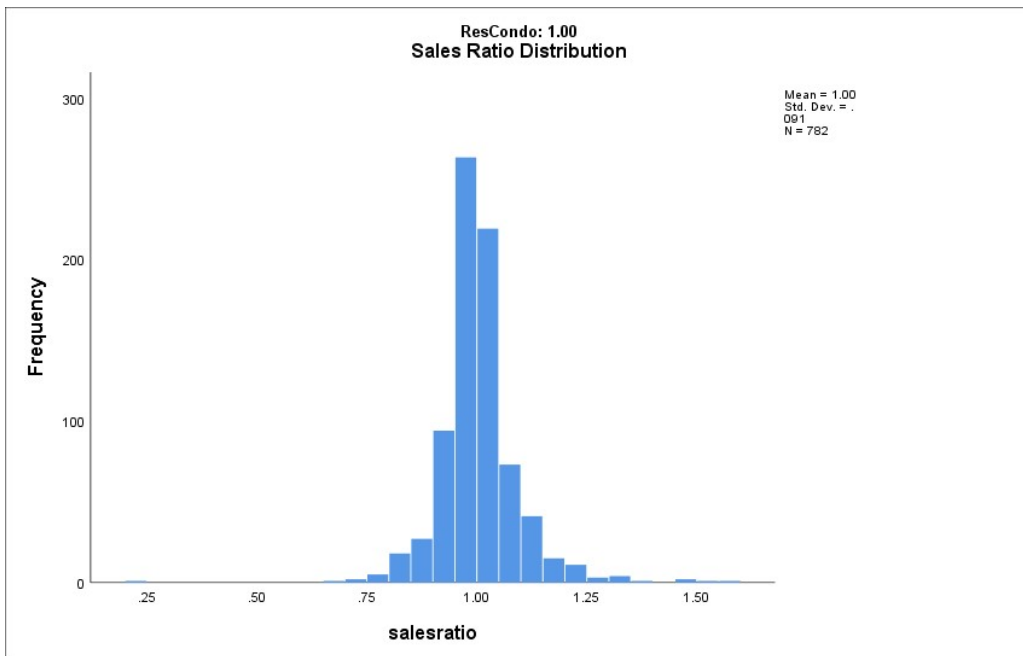
Overall, all economic areas and neighborhoods were in compliance.

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

### Residential Non-Condominiums



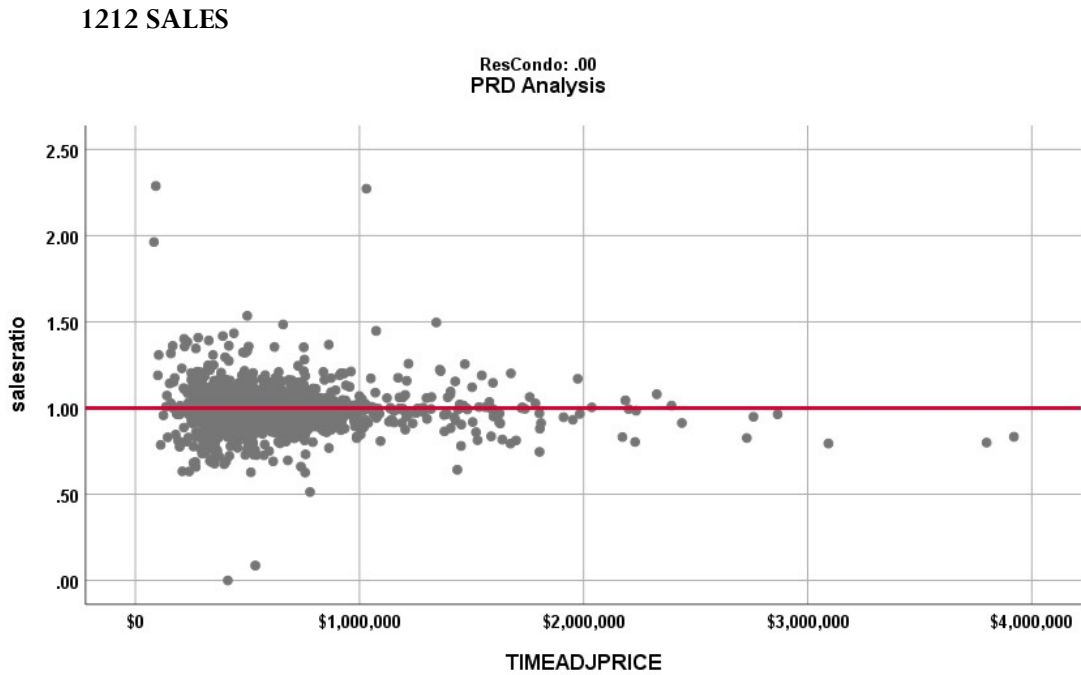
### Residential Condominiums



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

### Subclass 1212 PRD Analysis

We next analyzed residential properties identified as 1212 using the state abstract code system. These include single family residences, town homes and purged manufactured homes. The following indicates the distribution of sales ratios across the sale price spectrum:



The Price-Related Differential (PRD) for 1212 sales is 1.005, which is within IAAO standards for the PRD. We also performed a regression analysis between the sales ratio and the assessor’s current value to further test for regressivity or progressivity in the residential sales valuation, as follows:

#### Coefficients<sup>a</sup>

ResCondo	Model		Unstandardized Coefficients	Standardized Coefficients			
			B	Std. Error	Beta	t	Sig.
.00	1	(Constant)	.958	.008		120.304	.000
		CURRTOT	.000000050	.000	.139	4.787	.000

a. Dependent Variable: salesratio

The slope of the line at 0.0000005 indicates that there is virtually no slope in the regression line, which indicates that sales ratios are similar across the entire sale price array. This indicates no regressivity or progressivity in the residential values assigned by the assessor.

We also stratified the sales ratio analysis by the sale price range, as follows:

### Case Processing Summary

ResCondo		Count	Percent
.00	SPRec		
	LT \$200K	25	2.1%
	\$200K to \$300K	84	7.2%
	\$300K to \$400K	162	13.9%
	\$400K to \$500K	143	12.3%
	\$500K to \$600K	165	14.2%
	\$600K to \$700K	171	14.7%
	\$700K to \$800K	131	11.3%
	\$800K to \$900K	97	8.3%
	\$900K to \$1,000K	50	4.3%
	Over \$1,000K	135	11.6%
	Overall	1163	100.0%
	Excluded	0	
	Total	1163	

### Ratio Statistics for CURRTOT / TASP

ResCondo	Group	Median	Price Related Differential	Coefficient of Dispersion
.00	LT \$200K	1.008	1.044	.203
	\$200K to \$300K	1.017	1.001	.123
	\$300K to \$400K	.986	1.000	.097
	\$400K to \$500K	.988	.998	.096
	\$500K to \$600K	.995	1.000	.079
	\$600K to \$700K	.993	1.000	.071
	\$700K to \$800K	.986	1.000	.077
	\$800K to \$900K	.985	1.000	.054
	\$900K to \$1,000K	.980	1.000	.066
	Over \$1,000K	.992	1.013	.090
	Overall	.990	1.005	.087

The above table indicates no regressivity in the sales ratios across sale price categories.

### Residential Market Trend Analysis

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

#### Coefficients<sup>a</sup>

ResCondo	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
.00	1	(Constant)	.991	.008		118.510	.000
		SalePeriod	-2.350E-5	.001	-.001	-.039	.969
1.00	1	(Constant)	.993	.007		148.105	.000
		SalePeriod	.001	.000	.059	1.654	.098

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 0.1 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 median change in value between taxable years 2018 and 2020 between each group, as follows:

#### Report

DIFF			
sold	N	Median	Mean
UNSOLD	13176	1.2140	1.2277
SOLD	1936	1.2408	1.2513

#### NON-RESIDENTIAL CONDOMINIUMS

##### 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	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .00.

#### RESIDENTIAL CONDOMINIUMS

##### 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	.001	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .00.

The above results indicate that sold and unsold residential condominium properties were valued in a consistent manner. Although the Mann-Whitney Test for each group indicated a statistically significant difference, the actual magnitude of the difference between sold and unsold properties was not significant.

We next stratified the sold unsold analysis by economic area for residential non-condominiums, as follows:

**Report**

DIFF

ECONAREA	ResCondo	sold	N	Median	Mean
1.00	.00	UNSOLD	2924	1.2151	1.2351
		SOLD	477	1.2290	1.2398
2.00	.00	UNSOLD	1165	1.2237	1.2406
		SOLD	199	1.2666	1.2942
3.00	.00	UNSOLD	702	1.2588	1.2566
		SOLD	117	1.3123	1.3172
4.00	.00	UNSOLD	2834	1.2284	1.2549
		SOLD	235	1.2520	1.2971
5.00	.00	UNSOLD	289	1.2053	1.1918
		SOLD	24	1.2262	1.2409
6.00	.00	UNSOLD	1073	1.1249	1.1350
		SOLD	105	1.1568	1.1817

We next stratified the sold unsold analysis by economic area for residential condo sales, as follows:

**Report**

DIFF

Economic Area	sold	N	Median	Mean
1	UNSOLD	3000	1.2220	1.2188
	SOLD	483	1.2254	1.2194
2	UNSOLD	620	1.2794	1.3083
	SOLD	170	1.2573	1.2981
3	UNSOLD	101	1.1437	1.1572
	SOLD	4	1.2432	1.2222
4	UNSOLD	378	1.1109	1.1326
	SOLD	57	1.1109	1.1255

We next analyzed sold and unsold residential condominiums by economic area and by neighborhoods with at least 15 sales, as follows:

**Report**

DIFF

NBHDCONDO	sold	N	Median	Mean
132800.00	UNSOLD	66	1.2720	1.2720
	SOLD	16	1.2719	1.2720
133502.00	UNSOLD	43	1.1809	1.1870
	SOLD	15	1.1809	1.1797
133521.00	UNSOLD	93	1.1144	1.1152
	SOLD	18	1.1149	1.1162
134590.00	UNSOLD	69	1.2543	1.2435
	SOLD	27	1.2543	1.2471
160622.00	UNSOLD	121	1.2193	1.2144
	SOLD	16	1.2213	1.2237
168571.00	UNSOLD	55	1.2725	1.2731
	SOLD	21	1.2725	1.2715
248534.00	UNSOLD	81	1.5075	1.5073
	SOLD	25	1.5075	1.5075
268651.13	UNSOLD	33	1.2132	1.2181
	SOLD	20	1.2132	1.2177
	Total	53	1.2132	1.2179
284510.00	UNSOLD	70	1.1156	1.1342
	SOLD	19	1.1149	1.1194

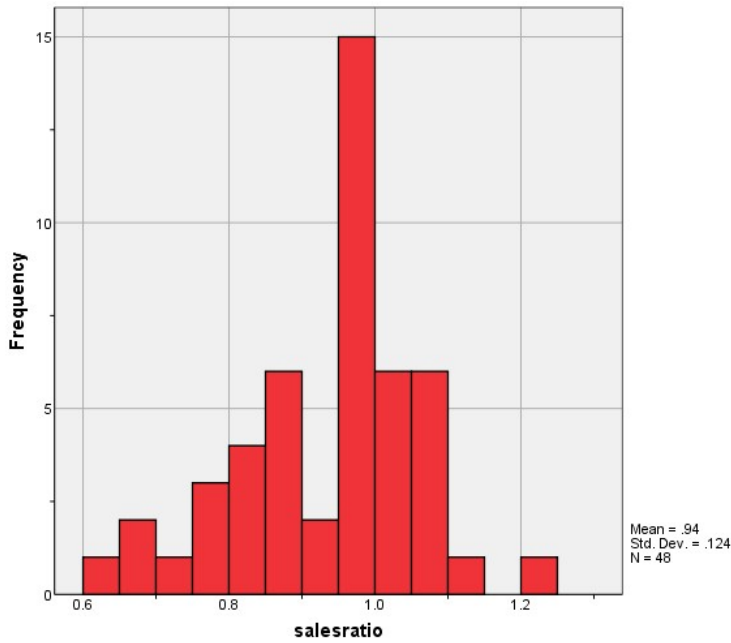
Based on the above analysis, the Grand County assessor has valued sold and unsold residential properties consistently.

#### IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 48 qualified commercial and industrial sales in the 24 month sale period ending June 30, 2020.

Median	<b>0.970</b>
Price Related Differential	<b>1.002</b>
Coefficient of Dispersion	<b>9.7</b>

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

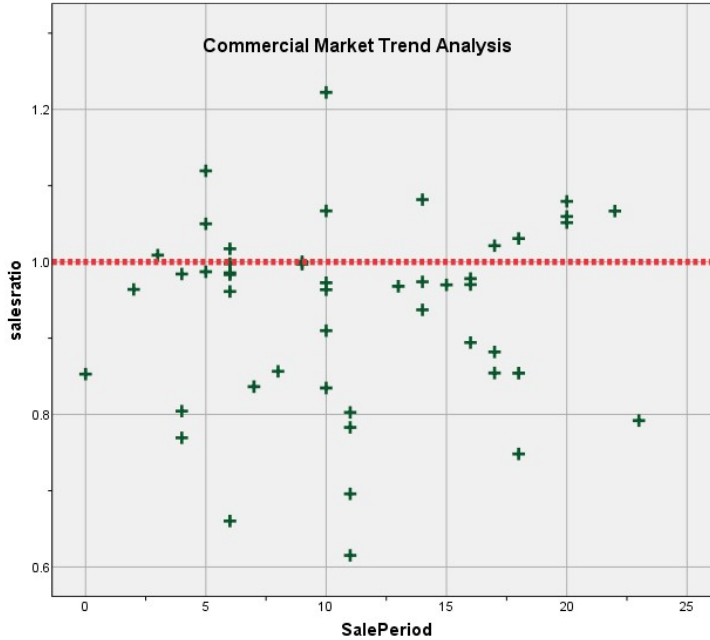
The assessor did not apply any market trend adjustment to the commercial dataset. The commercial sales were analyzed, examining the sale ratios across the 24 month sale period with the following results:

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.919	.039		23.445	.000
	SalePeriod	.001	.003	.070	.476	.636

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 mean and median actual value per square foot for 2021 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

VALSF			
sold	N	Median	Mean
UNSOLD	573	\$110	\$144
SOLD	47	\$105	\$150

#### 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	.897	Retain the null hypothesis.

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

### Report

VALSF

ABSTRIMP	sold	N	Median	Mean
2212.00	UNSOLD	92	\$140	\$165
	SOLD	11	\$84	\$109
2220.00	UNSOLD	47	\$131	\$170
	SOLD	3	\$113	\$111
2230.00	UNSOLD	160	\$85	\$133
	SOLD	11	\$129	\$252
2235.00	UNSOLD	49	\$46	\$70
	SOLD	5	\$67	\$72
2240.00	UNSOLD	40	\$110	\$110
	SOLD	2	\$134	\$134
2245.00	UNSOLD	83	\$193	\$175
	SOLD	6	\$122	\$136

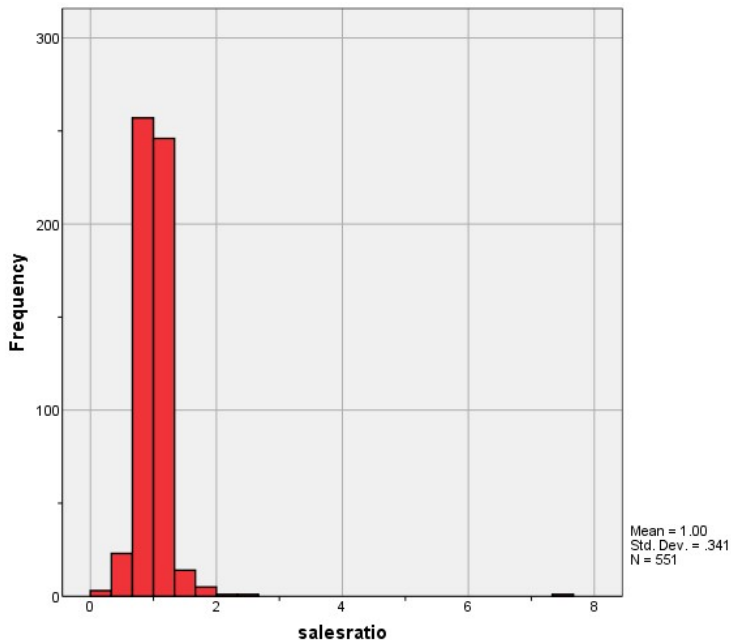
There was no pattern of consistently valuing sold commercial properties by a greater amount than unsold commercial properties when stratified by subclass.

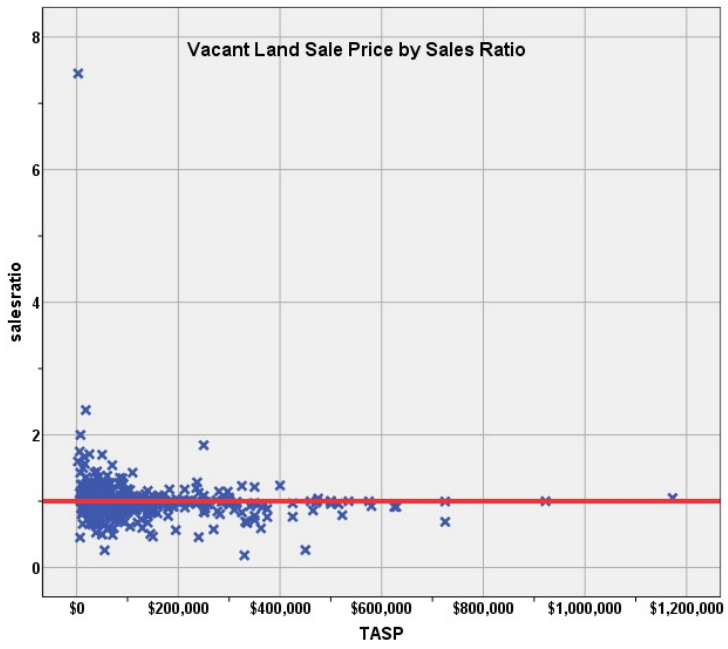
### V. VACANT LAND SALE RESULTS

There were 511 qualified vacant land sales in the 24 month sale period ending June 30, 2020. The following analysis analyzed qualified vacant land sales as follows

Median	<b>0.997</b>
Price Related Differential	<b>1.045</b>
Coefficient of Dispersion	<b>13.7</b>

The above table indicates 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:





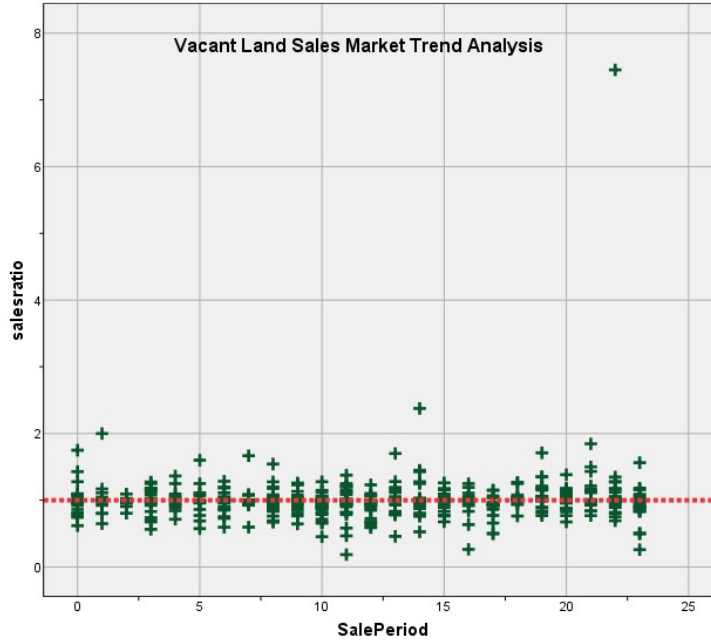
**Vacant Land Market Trend Analysis**

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

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

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.958	.031		31.208	.000
	SalePeriod	.003	.002	.065	1.537	.125

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 2020 for vacant land properties to determine if sold and unsold properties were valued consistently, as follows:

#### Report

DIFF			
	N	Median	Mean
UNSOLD	5053	1.0727	1.1356
SOLD	482	1.1154	1.1779

### 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	.004	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .00.

We also stratified the analysis by subdivisions with at least 5 sales, as follows:

## Report

DIFF

SUBDIVNO	sold	N	Median	Mean
258	UNSOLD	38	1.1496	1.0890
	SOLD	5	1.1496	1.0988
300	UNSOLD	66	1.2500	1.2560
	SOLD	7	1.2500	1.3533
520	UNSOLD	54	.8529	.9090
	SOLD	9	.8525	.8443
1115	UNSOLD	38	.7624	.7624
	SOLD	5	.7624	.7624
1120	UNSOLD	36	1.1543	1.1263
	SOLD	11	1.1625	1.1936
1130	UNSOLD	22	1.0000	1.0000
	SOLD	8	1.0000	1.0000
1250	UNSOLD	45	1.0000	1.0376
	SOLD	8	1.0250	1.1390
1280	UNSOLD	109	1.1927	1.2042
	SOLD	8	1.2294	1.3350
1496	UNSOLD	49	1.4000	1.2776
	SOLD	13	1.3996	1.2402
1511	UNSOLD	14	1.1000	1.0948
	SOLD	5	1.1000	1.0175
1773	UNSOLD	246	1.7241	1.6862
	SOLD	27	1.7241	1.6822
1853	UNSOLD	22	1.2315	1.2186
	SOLD	8	1.1914	1.2309
1854	UNSOLD	52	1.0186	1.1153
	SOLD	9	1.0186	1.1922
	Total	61	1.0186	1.1266
1870	UNSOLD	18	1.0540	1.0540
	SOLD	6	1.0540	1.0450
2141	UNSOLD	37	.7976	.7986
	SOLD	5	.7976	.7976
2215	UNSOLD	21	1.1591	1.1591
	SOLD	11	1.1591	1.2197
2226	UNSOLD	22	1.0870	1.0870
	SOLD	8	1.0870	1.0530
2229	UNSOLD	22	1.1429	1.1368
	SOLD	5	1.1429	1.0971
2230	UNSOLD	92	.8800	.8800
	SOLD	11	.8800	.9960
2237	UNSOLD	29	1.1556	1.0554
	SOLD	6	.9915	1.0424
2238	UNSOLD	35	1.6667	1.5622
	SOLD	8	1.6667	1.4345
2380	UNSOLD	5	1.2062	1.2062
	SOLD	5	1.2062	1.2062
2546	UNSOLD	35	1.0000	1.0009
	SOLD	7	1.0000	1.0023
2554	UNSOLD	24	.7087	.7451
	SOLD	9	.7087	.7087
2562	UNSOLD	13	1.0000	1.0000
	SOLD	14	1.0000	1.0000
2745	UNSOLD	21	1.3409	1.2009

	SOLD	17	1.0727	1.1421
2750	UNSOLD	17	1.1154	1.1154
	SOLD	5	1.1154	1.1154
2755	UNSOLD	43	1.1154	1.1234
	SOLD	16	1.1154	1.0661
2870	UNSOLD	27	1.0976	1.0996
	SOLD	5	1.0976	1.1534

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													
ResCondo	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 Mean Centered
		Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			
.00	.991	.983	.999	.991	.986	.994	95.2%	.986	.977	.994	1.005	.087	13.9%
1.00	1.003	.996	1.009	.998	.995	1.001	95.1%	1.000	.994	1.006	1.003	.057	9.1%

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

### Commercial/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 Mean Centered	
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound				
.936	.900	.972	.970	.894	.987	97.1%	.934	.902	.966	1.002	.097	13.3%	

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

### Vacant Land

Ratio Statistics for CURRLND / 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 Mean Centered	
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound				
.999	.971	1.028	.997	.988	1.000	95.0%	.957	.936	.978	1.045	.137	34.1%	

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



**Residential Median Ratio Stratification**

**Subclass**

**Case Processing Summary**

ResCondo			Count	Percent
.00	ABSTRIMP	1212.00	1163	98.6%
		1213.00	1	0.1%
		1215.00	11	0.9%
		1220.00	1	0.1%
		1225.00	3	0.3%
	Overall		1179	100.0%
	Excluded		0	
	Total		1179	
1.00	ABSTRIMP	1230.00	782	100.0%
	Overall		782	100.0%
	Excluded		0	
	Total		782	

**Ratio Statistics for CURRTOT / TASP**

ResCondo	Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	1212.00	.990	1.005	.087	13.9%
	1213.00	.621	1.000	.000	.
	1215.00	.996	1.003	.070	10.0%
	1220.00	.695	1.000	.000	.
	1225.00	1.015	1.025	.023	3.6%
	Overall	.991	1.005	.087	13.9%
1.00	1230.00	.998	1.003	.057	9.2%
	Overall	.998	1.003	.057	9.2%

**Improvement Age**

**Case Processing Summary**

ResCondo			Count	Percent
.00	AgeRec	Over 100	5	0.4%
		75 to 100	29	2.5%
		50 to 75	71	6.0%
		25 to 50	232	19.7%
		5 to 25	609	51.7%
		5 or Newer	233	19.8%
	Overall		1179	100.0%
	Excluded		0	
	Total		1179	
1.00	AgeRec	50 to 75	34	4.3%
		25 to 50	417	53.3%
		5 to 25	254	32.5%
		5 or Newer	77	9.8%
	Overall		782	100.0%
	Excluded		0	
	Total		782	



### Ratio Statistics for CURRTOT / TASP

ResCondo	Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	Over 100	1.083	.947	.265	34.2%
	75 to 100	.964	1.029	.167	26.8%
	50 to 75	.986	1.020	.119	16.9%
	25 to 50	.983	.990	.104	15.2%
	5 to 25	.992	1.010	.079	13.2%
	5 or Newer	.995	1.004	.069	10.3%
	Overall	.991	1.005	.087	13.9%
1.00	50 to 75	1.016	1.006	.068	11.2%
	25 to 50	.995	1.006	.063	10.4%
	5 to 25	1.000	1.000	.049	6.9%
	5 or Newer	.998	1.003	.046	7.3%
	Overall	.998	1.003	.057	9.2%

### Improved Area

#### Case Processing Summary

ResCondo			Count	Percent
.00	ImpSFRRec	LE 500 sf	8	0.7%
		500 to 1,000 sf	116	9.8%
		1,000 to 1,500 sf	432	36.6%
		1,500 to 2,000 sf	314	26.6%
		2,000 to 3,000 sf	241	20.4%
		3,000 sf or Higher	68	5.8%
	Overall		1179	100.0%
	Excluded		0	
	Total		1179	
	1.00	ImpSFRRec	LE 500 sf	110
500 to 1,000 sf			375	48.0%
1,000 to 1,500 sf			258	33.0%
1,500 to 2,000 sf			29	3.7%
2,000 to 3,000 sf			9	1.2%
3,000 sf or Higher			1	0.1%
Overall			782	100.0%
Excluded			0	
Total			782	

### Ratio Statistics for CURRTOT / TASP

ResCondo	Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	LE 500 sf	.955	1.027	.153	18.1%
	500 to 1,000 sf	.943	.999	.124	19.9%
	1,000 to 1,500 sf	.986	1.008	.083	11.6%
	1,500 to 2,000 sf	.994	1.011	.078	12.2%
	2,000 to 3,000 sf	.996	1.009	.074	13.4%
	3,000 sf or Higher	1.004	1.048	.121	21.3%
	Overall	.991	1.005	.087	13.9%
1.00	LE 500 sf	1.001	1.004	.063	9.2%
	500 to 1,000 sf	.996	1.005	.060	9.8%

1,000 to 1,500 sf	1.001	1.004	.052	8.4%
1,500 to 2,000 sf	1.002	1.007	.048	7.9%
2,000 to 3,000 sf	.998	.992	.046	7.3%
3,000 sf or Higher	.945	1.000	.000	.
Overall	.998	1.003	.057	9.2%

## Improvement Quality

### Case Processing Summary

ResCondo	Count	Percent
.00	QUALITY	
	1 - POOR	3 0.3%
	2 - LOW QUAL.	5 0.4%
	3 - FAIR QUAL.	36 3.1%
	4 - AVERAGE	716 60.7%
	5 - GOOD QUAL.	397 33.7%
	6 - VERY GOOD	22 1.9%
	Overall	1179 100.0%
	Excluded	0
	Total	1179
1.00	QUALITY	
	3 - FAIR QUAL.	16 2.0%
	4 - AVERAGE	409 52.3%
	5 - GOOD QUAL.	274 35.0%
	6 - VERY GOOD	83 10.6%
	Overall	782 100.0%
	Excluded	0
	Total	782

### Ratio Statistics for CURRTOT / TASP

ResCondo	Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00	1 - POOR	1.086	1.057	.093	15.4%
	2 - LOW QUAL.	1.072	1.090	.258	44.2%
	3 - FAIR QUAL.	1.044	1.030	.125	16.2%
	4 - AVERAGE	.989	.999	.095	14.6%
	5 - GOOD QUAL.	.989	1.003	.067	11.1%
	6 - VERY GOOD	.990	1.020	.079	12.6%
	Overall	.991	1.005	.087	13.9%
1.00	3 - FAIR QUAL.	.997	1.011	.076	10.9%
	4 - AVERAGE	.997	1.002	.056	8.8%
	5 - GOOD QUAL.	1.001	1.004	.052	8.1%
	6 - VERY GOOD	.993	1.009	.078	13.1%
	Overall	.998	1.003	.057	9.2%

## Improvement Condition

### Case Processing Summary

ResCondo	Count	Percent
.00	CONDITION	
	0 - POOR	5 0.4%
	1 - FAIR	2 0.2%
	2 - AVERAGE	591 50.1%
	3 - GOOD	539 45.7%

	Overall	1179	100.0%
	Excluded	0	
	Total	1179	
1.00	CONDITION	3	0.4%
	2 - AVERAGE	588	75.2%
	3 - GOOD	191	24.4%
	Overall	782	100.0%
	Excluded	0	
	Total	782	

### Ratio Statistics for CURRTOT / TASP

ResCondo	Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
.00		.992	1.033	.082	12.8%
	0 - POOR	.987	.981	.151	22.1%
	1 - FAIR	.940	.952	.056	7.9%
	2 - AVERAGE	.987	1.000	.101	15.0%
	3 - GOOD	.992	1.008	.073	12.8%
	Overall	.991	1.005	.087	13.9%
1.00		1.035	.996	.025	4.0%
	2 - AVERAGE	.997	1.003	.060	9.8%
	3 - GOOD	.999	1.001	.049	7.0%
	Overall	.998	1.003	.057	9.2%

### Commercial Median Ratio Stratification

#### Sale Price

#### Case Processing Summary

		Count	Percent
SPRec	\$25K to \$50K	1	2.1%
	\$50K to \$100K	3	6.3%
	\$100K to \$150K	4	8.3%
	\$150K to \$200K	7	14.6%
	\$200K to \$300K	6	12.5%
	\$300K to \$500K	10	20.8%
	\$500K to \$750K	6	12.5%
	\$750K to \$1,000K	4	8.3%
	Over \$1,000K	7	14.6%
Overall		48	100.0%
Excluded		0	
Total		48	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
\$25K to \$50K	1.000	1.000	.000	.
\$50K to \$100K	.803	.993	.179	37.0%
\$100K to \$150K	.994	.993	.065	9.2%
\$150K to \$200K	.997	.995	.115	18.5%

\$200K to \$300K	1.003	.998	.051	6.8%
\$300K to \$500K	.931	1.006	.089	10.4%
\$500K to \$750K	.836	.992	.125	16.8%
\$750K to \$1,000K	.829	.992	.082	11.7%
Over \$1,000K	.974	1.001	.031	4.8%
Overall	.970	1.002	.097	13.3%

## Subclass

### Case Processing Summary

		Count	Percent
ABSTRIMP	1415.00	1	2.1%
	1713.50	1	2.1%
	1721.00	2	4.2%
	1723.50	1	2.1%
	2047.83	1	2.1%
	2212.00	11	22.9%
	2215.00	1	2.1%
	2220.00	3	6.3%
	2225.00	1	2.1%
	2230.00	11	22.9%
	2235.00	6	12.5%
	2240.00	2	4.2%
	2245.00	6	12.5%
	2555.00	1	2.1%
Overall		48	100.0%
Excluded		0	
Total		48	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1415.00	.937	1.000	.000	.
1713.50	.983	1.000	.000	.
1721.00	.841	1.086	.215	30.4%
1723.50	.835	1.000	.000	.
2047.83	.973	1.000	.000	.
2212.00	.978	1.015	.067	8.4%
2215.00	.974	1.000	.000	.
2220.00	.970	1.031	.051	9.8%
2225.00	.615	1.000	.000	.
2230.00	.854	.996	.122	14.9%
2235.00	.909	1.066	.133	16.1%
2240.00	1.023	.979	.036	5.1%
2245.00	.984	1.002	.093	13.8%
2555.00	.910	1.000	.000	.
Overall	.970	1.002	.097	13.3%

## Improvement Age

### Case Processing Summary

		Count	Percent
AgeRec	Over 100	1	2.1%
	75 to 100	9	18.8%
	50 to 75	11	22.9%
	25 to 50	13	27.1%
	5 to 25	13	27.1%
	5 or Newer	1	2.1%
Overall		48	100.0%
Excluded		0	
Total		48	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	1.017	1.000	.000	.
75 to 100	.970	1.001	.072	10.0%
50 to 75	.974	.991	.099	15.0%
25 to 50	.970	.994	.101	14.6%
5 to 25	.910	1.033	.118	15.2%
5 or Newer	.978	1.000	.000	.
Overall	.970	1.002	.097	13.3%

## Improved Area

### Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	4	8.3%
	500 to 1,000 sf	2	4.2%
	1,000 to 1,500 sf	5	10.4%
	1,500 to 2,000 sf	7	14.6%
	2,000 to 3,000 sf	5	10.4%
	3,000 sf or Higher	25	52.1%
	Overall		48
Excluded		0	
Total		48	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	.967	1.004	.066	11.6%
500 to 1,000 sf	.919	1.115	.330	46.7%
1,000 to 1,500 sf	1.000	.999	.053	8.2%
1,500 to 2,000 sf	.970	.972	.084	11.7%
2,000 to 3,000 sf	1.050	1.012	.044	5.7%
3,000 sf or Higher	.937	.982	.100	12.7%
Overall	.970	1.002	.097	13.3%

## Improvement Quality

### Case Processing Summary

		Count	Percent
QUALITY	2 - LOW	5	10.4%
	3 - FAIR	8	16.7%
	3 - FAIR QUAL.	1	2.1%
	4 - AVG	29	60.4%
	5 - GOOD	4	8.3%
	6 - VERY GOOD	1	2.1%
Overall		48	100.0%
Excluded		0	
Total		48	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
2 - LOW	1.052	1.027	.030	4.0%
3 - FAIR	.992	.967	.113	17.5%
3 - FAIR QUAL.	.835	1.000	.000	.
4 - AVG	.968	1.002	.093	12.8%
5 - GOOD	.884	.998	.121	15.2%
6 - VERY GOOD	.970	1.000	.000	.
Overall	.970	1.002	.097	13.3%

## Improvement Condition

### Case Processing Summary

		Count	Percent
CONDITION		1	2.1%
	1 - FAIR	1	2.1%
	2 - AVERAGE	42	87.5%
	3 - GOOD	4	8.3%
Overall		48	100.0%
Excluded		0	
Total		48	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
	.835	1.000	.000	.
1 - FAIR	1.009	1.000	.000	.
2 - AVERAGE	.972	1.004	.094	12.9%
3 - GOOD	.884	.929	.135	17.5%
Overall	.970	1.002	.097	13.3%

## Vacant Land Median Ratio Stratification

### Sale Price

#### Case Processing Summary

		Count	Percent
SPRec	LT \$25K	68	12.3%
	\$25K to \$50K	130	23.6%
	\$50K to \$100K	140	25.4%
	\$100K to \$150K	87	15.8%
	\$150K to \$200K	35	6.4%
	\$200K to \$300K	46	8.3%
	\$300K to \$500K	33	6.0%
	\$500K to \$750K	10	1.8%
	\$750K to \$1,000K	1	0.2%
	Over \$1,000K	1	0.2%
Overall		551	100.0%
Excluded		0	
Total		551	

#### Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$25K	1.001	1.086	.284	85.0%
\$25K to \$50K	1.000	.999	.132	18.9%
\$50K to \$100K	1.000	.998	.126	18.0%
\$100K to \$150K	.978	1.005	.089	14.3%
\$150K to \$200K	.988	1.002	.067	10.6%
\$200K to \$300K	.999	1.001	.096	18.7%
\$300K to \$500K	.955	.992	.163	25.4%
\$500K to \$750K	.944	1.004	.072	11.2%
\$750K to \$1,000K	1.000	1.000	.000	.
Over \$1,000K	1.048	1.000	.000	.
Overall	.997	1.045	.137	34.2%

### Subclass

#### Case Processing Summary

		Count	Percent
ABSTRLND	100.00	403	73.1%
	200.00	13	2.4%
	510.00	4	0.7%
	520.00	5	0.9%
	540.00	1	0.2%
	550.00	6	1.1%
	1112.00	73	13.2%
	1113.00	36	6.5%
	1115.00	1	0.2%
	1135.00	2	0.4%
	1811.00	4	0.7%
	2130.00	1	0.2%
	2135.00	1	0.2%

	2140.00	1	0.2%
Overall		551	100.0%
Excluded		0	
Total		551	

### Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100.00	.998	1.055	.143	38.1%
200.00	.980	.984	.086	14.3%
510.00	.634	.945	.386	46.8%
520.00	.969	.998	.032	4.3%
540.00	.890	1.000	.000	.
550.00	.991	1.034	.118	14.3%
1112.00	1.000	1.010	.108	17.7%
1113.00	.998	1.036	.129	21.6%
1115.00	.575	1.000	.000	.
1135.00	1.034	1.036	.052	7.4%
1811.00	.988	1.022	.064	10.3%
2130.00	1.199	1.000	.000	.
2135.00	.906	1.000	.000	.
2140.00	.590	1.000	.000	.
Overall	.997	1.045	.137	34.2%