



2019  
MORGAN COUNTY  
PROPERTY ASSESSMENT  
STUDY

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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.

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 2019 and is pleased to report its findings for Morgan County in the following report.



## Historical Information

Morgan County had an estimated population of approximately 28,274 people with 22.1 people per square mile, according to the U.S. Census Bureau's 2016 estimated census data. This represents a 0.4 percent change from April 1, 2010 to July 1, 2016.

Morgan County was formed in 1889 from part of Weld County. The county was named for its seat, Fort Morgan, which was named for Colonel Christopher A. Morgan of the U.S. Volunteers. The town was first known as Camp Tyler, but in 1865 was renamed Fort Wardwell. The following year, the name was changed to its present one.

Morgan County is primarily a rural entity located on the high plains of northeastern Colorado. Measuring 36 miles long and 36 miles wide, the county encompasses 1,296 square miles. Morgan County is abundantly rich agriculturally with many irrigated and dry land farms as well as beef, sheep and dairy ranches.

Fort Morgan is the home of the Fort Morgan Museum which offers a wonderful view into life in Morgan County and across the Northeast Plains. With exhibits featuring Native American artifacts, as well as exhibits celebrating the county's agricultural roots, the Museum serves as a testimony to the varied history of the community. An exhibit on Glenn Miller, Fort Morgan's most popular alumni, contains photos of Glenn as a young man and teenager. Miller graduated from Fort Morgan High School in 1921. T

The US Military Historical Museum honors the men and women who have served the Country and features items from every American war.

Morgan county is also home to Riverside Park and the Fort Morgan Golf Course. At the I-76 Speedway one can see Late Models, Midgets, Modifieds, Street Stocks, Econos, 1200 Outlaws, Dwarfs, Mini Stocks, Mini Sprints and Trucks race this 1/4 mile high-banked dirt track.

Jackson Lake State Park has become one of Colorado's finest outdoor recreation and water sports sites. A wide variety of activities such as boating, waterskiing, fishing and swimming can all be enjoyed on the 2,700 surface-acre lake. The park is also known for its warm-water, with sandy bottom and shore. During the winter the park offers camping, wildlife observation, photography, ice fishing, ice skating and hunting.

Rainbow Bridge built in 1922 – 1923 was placed on the National Register of Historic Places in 1984. It was designated a Colorado Civil Engineering Landmark in 1992. This bridge has survived major floods and in 1935 braced a 10 foot wall of water virtually undamaged. Today it is used for foot traffic and offers a beautiful view of the South Platte River.

Pawnee National Grassland & Pawnee Buttes extends across the plains from Fort Morgan to the Northeast section of Weld County. The endless horizon along the route is breathtaking. The landscape has it's own distinct and fragile beauty. The Pawnee Buttes are a stark contrast to the vast openness of the surrounding landscape. Rising over 250 feet above the plains, the eroded columns of sandstone have resisted eons of natural forces that have eroded the surrounding area.

*([www.co.morgan.co.us](http://www.co.morgan.co.us), [www.fortmorganchamber.org](http://www.fortmorganchamber.org))*

# 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 Morgan County are:

<b>Morgan 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	46	0.985	1.030	9.8	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	600	0.992	1.003	7.1	Compliant
Vacant Land	152	0.984	1.023	10.1	Compliant

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

Morgan 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
Condominium	N/A
Single Family	Compliant
Vacant Land	Compliant

**Conclusions**

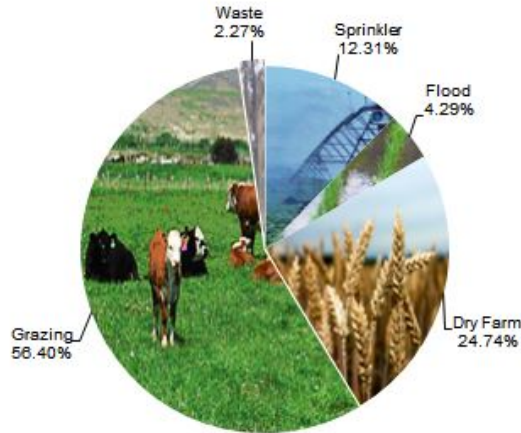
After applying the above described methodologies, it is concluded that Morgan County is reasonably treating its sold and unsold properties in the same manner.

**Recommendations**

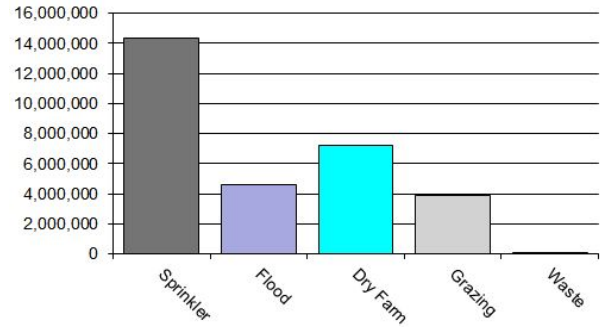
None

# 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>Morgan 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>
4107	Sprinkler	90,176	159.04	14,341,982	14,931,809	0.96
4117	Flood	31,410	146.06	4,587,789	4,845,822	0.95
4127	Dry Farm	181,252	40.03	7,255,622	7,587,940	0.96
4147	Grazing	413,250	9.50	3,926,594	3,926,594	1.00
4167	Waste	16,604	2.39	39,614	39,614	1.00
<b>Total/Avg</b>		<b>732,691</b>	<b>41.15</b>	<b>30,151,601</b>	<b>31,331,780</b>	<b>0.96</b>

### 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.

Property Taxation for the valuation of agricultural outbuildings.

### Recommendations

None

### Conclusions

Morgan 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

Morgan 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.:

- Phone Interviews
- In-Person Interviews with Owners/Tenants
- Personal Knowledge of Occupants at Assessment Date
- Aerial Photography/Pictometry

Morgan 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
- In-Person Interviews with Owners/Tenants
- Personal Knowledge of Occupants at Assessment Date

Morgan 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 Morgan County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 96 sales listed as unqualified.

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

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.

The following subclasses were analyzed for Morgan County:

- 0100 Residential Lots
- 0200 Commercial Lots

### **Conclusions**

Morgan County appears to be doing a good job of verifying their sales.

### **Recommendations**

None



# ECONOMIC AREA REVIEW AND EVALUATION

## **Methodology**

Morgan County has submitted a written narrative describing the economic areas that make up the county's market areas. Morgan 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 Morgan 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 Oil and Gas

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### Methodology

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

### STATUTORY REFERENCES

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

### Actual value determined - when.

(2) The valuation for assessment of leaseholds and lands producing oil or gas shall be determined as provided in article 7 of this title.

### § 39-1-103, C.R.S.

Article 7 covers the listing, valuation, and assessment of producing oil and gas leaseholds and lands.

### Valuation:

#### Valuation for assessment.

(1) Except as provided in subsection (2) of this section, on the basis of the information contained in such statement, the assessor shall value such oil and gas leaseholds and lands for assessment, as real property, at an amount equal to eighty-seven and one-half percent of:

(a) The selling price of the oil or gas sold there from during the preceding calendar year, after excluding the selling price of all oil or gas delivered to the United States government or any agency thereof, the state of Colorado or any agency thereof, or any political subdivision of the state as royalty during the preceding calendar year;

(b) The selling price of oil or gas sold in the same field area for oil or gas transported from the premises which is not sold during the preceding calendar year, after excluding the selling price of all oil or gas delivered to the United States government or any agency thereof, the state of Colorado or any agency thereof, or any political subdivision of the state as royalty during the preceding calendar year.

### § 39-7-102, C.R.S.

### Conclusions

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

### Recommendations

None

## VACANT LAND

### **Subdivision Discounting**

Subdivisions were reviewed in 2019 in Morgan 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**

Morgan 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.

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

commercial possessory interest properties. The county has also been queried as to their confidence that the possessory interest properties have been discovered and placed on the tax rolls.

## Conclusions

Morgan 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

Morgan 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.

Morgan 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.

Morgan 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**

Morgan 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*

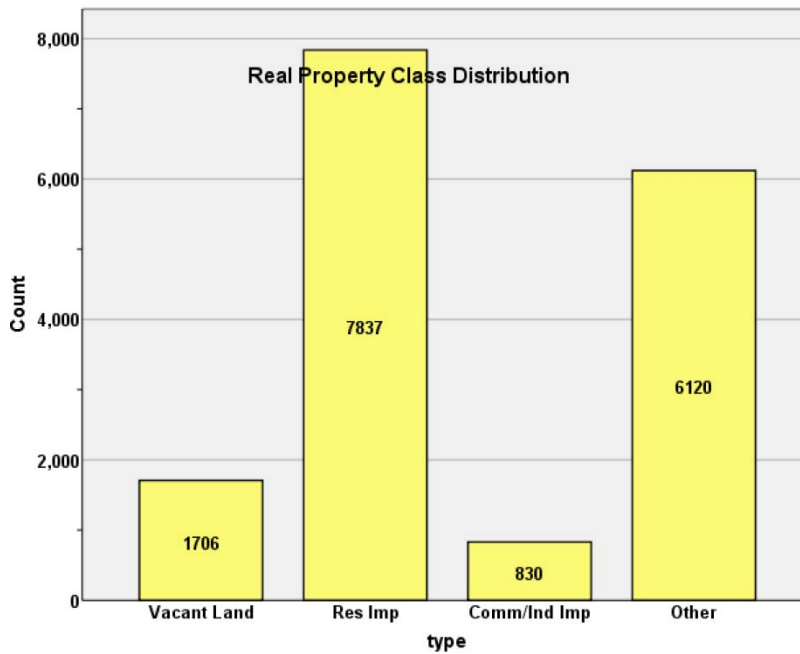
# STATISTICAL APPENDIX



## STATISTICAL COMPLIANCE REPORT FOR MORGAN COUNTY 2019

### I. OVERVIEW

Morgan County is located in northeastern Colorado. The county has a total of 16,493 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 and 1112) accounted for 64.4% of all vacant land parcels.

For residential improved properties, single family properties accounted for 94.4% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 5.1% of all real property in this county.

Based on the Audit questionnaire filled out by the assessor (see below), the following geographic levels were used by the assessor to value residential, commercial and vacant land properties:

<b>Geo Area</b>	<b>Residential</b>	<b>Comm/Ind</b>	<b>Vacant Land</b>
Economic Area	V	V	V
Neighborhood	V	V	V
Subdivision	V		V

*Codes*

*V=Valid Geographic Level – used for modeling*

*N = Not used as Geographic Level for modeling*

*Note: Subdivisions used only for rural residential properties in Morgan County\_\_\_\_\_*

## II. DATA FILES

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

## III. RESIDENTIAL SALES RESULTS

There were 600 qualified residential sales for the 18-month period prior to June 30, 2018. The sales ratio analysis results were as follows:

Median	<b>0.992</b>
Price Related Differential	<b>1.003</b>
Coefficient of Dispersion	<b>7.1</b>

We next stratified the sale ratio analysis by economic area and by neighborhoods with at least 10 sales, as follows:

### Economic Area Case Processing Summary

		Count	Percent
ECONAREA	1.00	92	15.7%
	2.00	134	22.8%
	3.00	32	5.5%
	4.00	80	13.6%
	5.00	11	1.9%
	6.00	207	35.3%
	7.00	29	4.9%
	8.00	2	0.3%
Overall		587	100.0%
Excluded		13	
Total		600	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion
1.00	1.002	1.009	.076
2.00	.981	1.005	.064
3.00	.997	1.005	.071
4.00	.991	1.010	.067
5.00	.980	.998	.108
6.00	.993	1.003	.067
7.00	.982	.992	.092
8.00	.958	1.036	.144
Overall	.992	1.003	.071

**Neighborhoods with at least 10 sales:  
Case Processing Summary**

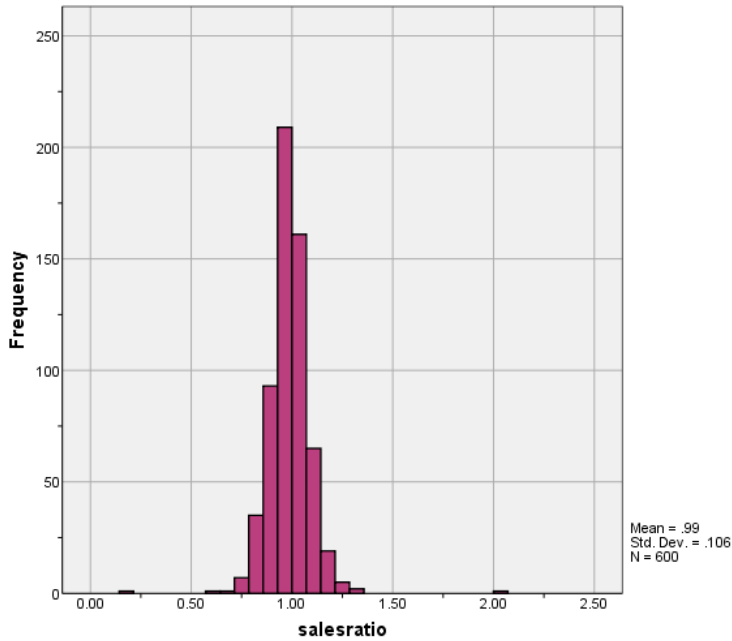
	Count	Percent
NBHD 1	41	9.2%
2	14	3.2%
102	11	2.5%
103	11	2.5%
104	21	4.7%
105	43	9.7%
106	25	5.6%
107	24	5.4%
108	25	5.6%
110	41	9.2%
201	29	6.5%
204	11	2.5%
205	11	2.5%
206	25	5.6%
207	31	7.0%
301	15	3.4%
302	10	2.3%
305	44	9.9%
310	12	2.7%
Overall	444	100.0%
Excluded	13	
Total	457	

**Ratio Statistics for CURRTOT / TASP**

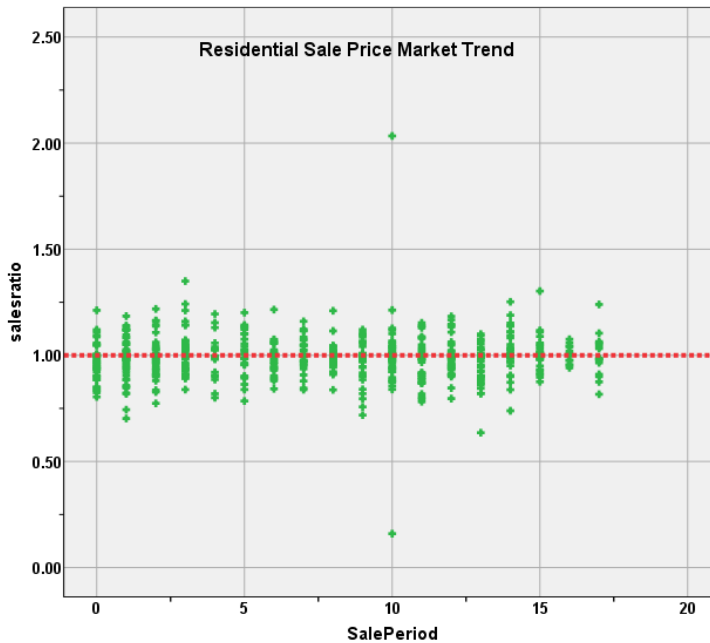
Group	Median	Price Related Differential	Coefficient of Dispersion
1	.979	1.011	.106
2	.981	.985	.102
102	.980	1.005	.068
103	.997	.999	.044
104	1.000	1.005	.069
105	.981	1.005	.070
106	1.000	1.000	.066
107	.968	1.006	.056
108	.986	1.006	.061
110	1.002	1.009	.065
201	1.001	1.005	.069
204	.984	1.003	.043

205	.980	.998	.108
206	.992	1.012	.081
207	.997	1.013	.070
301	.999	.998	.089
302	.956	.994	.052
305	.998	1.001	.056
310	.995	1.001	.050
<b>Overall</b>	<b>.991</b>	<b>1.002</b>	<b>.072</b>

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







There was no residual trending in the sales ratios. This supports our conclusion that the assessor has adequately addressed market trending in the valuation of residential properties.

### Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold residential properties, we compared the median actual value per square foot for 2019 between each group, as follows:

#### Report

VALSF			
sold	N	Median	Mean
UNSOLD	7190	\$149	\$150
SOLD	599	\$168	\$166

#### 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.

The value per square foot comparison indicates a significant difference between sold and unsold residential properties. We next compared the median change in value between taxable years 2018 and 2019 for sold and unsold residential properties, stratified by class, economic area and by neighborhoods with at least 10 sales, as follows:

**Class Level**

**Report**

DIFF				
DIFF	sold	N	Median	Mean
UNSOLD		7116	1.28	1.29
SOLD		573	1.32	1.36

**Economic Area**

**Report**

DIFF				
ECONAREA	sold	N	Median	Mean
1.00	UNSOLD	1164	1.26	1.26
	SOLD	92	1.29	1.31
2.00	UNSOLD	1694	1.35	1.34
	SOLD	134	1.38	1.42
3.00	UNSOLD	307	1.18	1.20
	SOLD	32	1.19	1.22
4.00	UNSOLD	966	1.28	1.28
	SOLD	80	1.37	1.40
5.00	UNSOLD	135	1.42	1.44
	SOLD	10	1.45	1.55
6.00	UNSOLD	2213	1.27	1.28
	SOLD	182	1.31	1.34
7.00	UNSOLD	450	1.26	1.25
	SOLD	28	1.34	1.36

**Neighborhoods with at least 10 sales**

**Report**

DIFF				
NBHD	sold	N	Median	Mean
1	UNSOLD	966	1.26	1.25
	SOLD	41	1.30	1.29
2	UNSOLD	195	1.34	1.32
	SOLD	14	1.37	1.40
102	UNSOLD	154	1.29	1.30
	SOLD	11	1.28	1.27
103	UNSOLD	132	1.25	1.25
	SOLD	11	1.25	1.28
104	UNSOLD	344	1.40	1.38
	SOLD	21	1.46	1.50
105	UNSOLD	450	1.34	1.33
	SOLD	43	1.34	1.42
106	UNSOLD	325	1.24	1.25
	SOLD	25	1.26	1.27
107	UNSOLD	274	1.36	1.35
	SOLD	24	1.45	1.47
108	UNSOLD	228	1.33	1.31
	SOLD	25	1.35	1.36

110	UNSOLD	520	1.28	1.29
	SOLD	41	1.31	1.36
201	UNSOLD	273	1.18	1.18
	SOLD	29	1.19	1.19
204	UNSOLD	190	1.26	1.25
	SOLD	11	1.29	1.30
205	UNSOLD	135	1.42	1.44
	SOLD	10	1.45	1.55
206	UNSOLD	343	1.29	1.28
	SOLD	25	1.33	1.41
207	UNSOLD	210	1.35	1.34
	SOLD	31	1.42	1.45
301	UNSOLD	127	1.33	1.32
	SOLD	15	1.41	1.44
302	UNSOLD	89	1.30	1.29
	SOLD	10	1.30	1.40
305	SOLD	26	1.42	1.51

Based on the above results, we concluded that the assessor valued sold and unsold residential properties consistently in 2019.

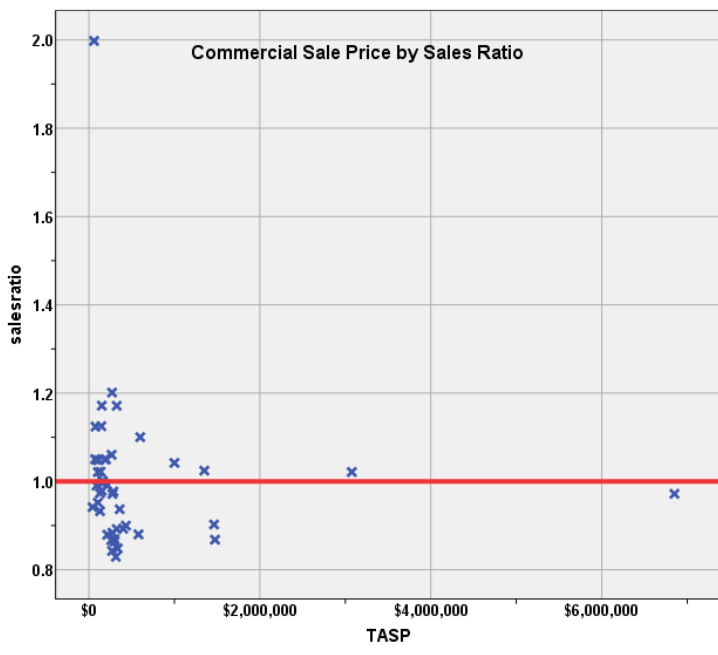
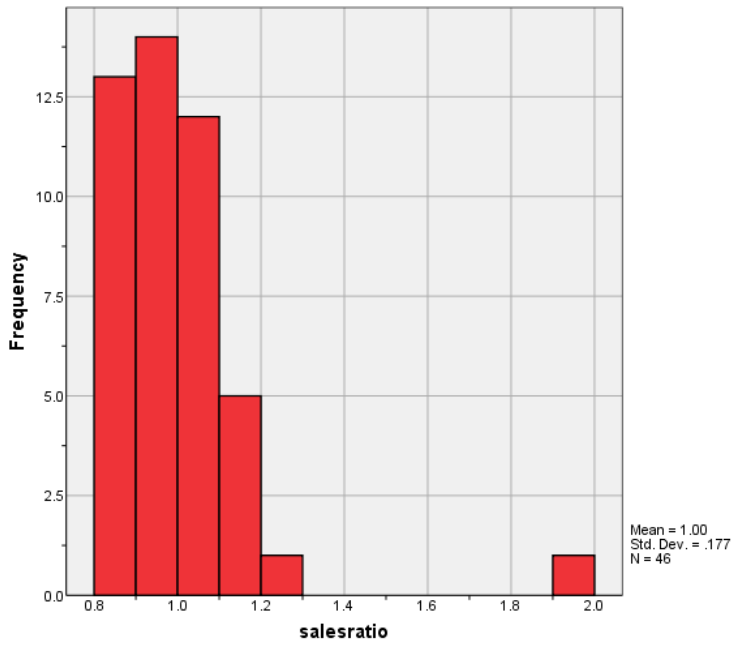
#### IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 46 qualified commercial and industrial sales for the 24-month period prior to June 30, 2018. The sales ratio analysis was analyzed as follows:

Median	<b>0.985</b>
Price Related Differential	<b>1.030</b>
Coefficient of Dispersion	<b>9.8</b>

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





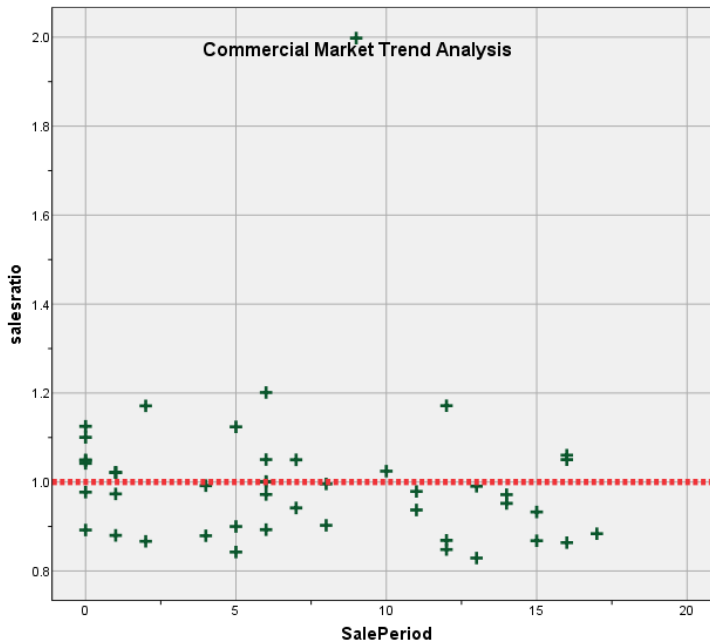
### Commercial Market Trend Analysis

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

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

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	1.026	.043		23.965	.000
	SalePeriod	-.003	.005	-.099	-.658	.514

a. Dependent Variable: salesratio



The market trend results indicated no statistically significant trend. We concluded that the assessor has adequately addressed market trending in the commercial valuation of Morgan County.

**Sold/Unsold Analysis**

We compared the median actual value per square foot between sold and unsold commercial properties to determine if the assessor was valuing each group consistently, as follows

<b>Report</b>			
VALSF			
	N	Median	Mean
UNSOLD	770	\$41	\$61
SOLD	46	\$52	\$69

### 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	.005	Reject the null hypothesis.

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

Based on the statistically significant difference using the first comparison test, we next used the second comparison which compares the median change in actual value between taxable years 2018 and 2019 for unsold and sold residential properties. We stratified this analysis by class and by sub-class, as follows:

#### Report

DIFF	N	Median	Mean
UNSOLD	779	1.08	1.10
SOLD	46	1.10	1.20

### 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	.036	Retain the null hypothesis.

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

**Report**

DIFF	ABSTRIMP	sold	N	Median	Mean
2212.00	UNSOLD		157	1.08	1.09
	SOLD		14	1.08	1.17
2215.00	UNSOLD		8	1.12	1.12
	SOLD		4	1.14	1.12
2220.00	UNSOLD		88	1.10	1.09
	SOLD		8	1.07	1.09
2225.00	UNSOLD		12	1.29	1.30
	SOLD		2	1.33	1.33
2230.00	UNSOLD		280	1.07	1.08
	SOLD		12	1.11	1.22
2235.00	UNSOLD		138	1.07	1.09
	SOLD		3	1.70	1.68
2245.00	UNSOLD		3	1.13	1.09
	SOLD		1	1.13	1.13
3215.00	UNSOLD		27	1.07	1.08
	SOLD		1	.74	.74

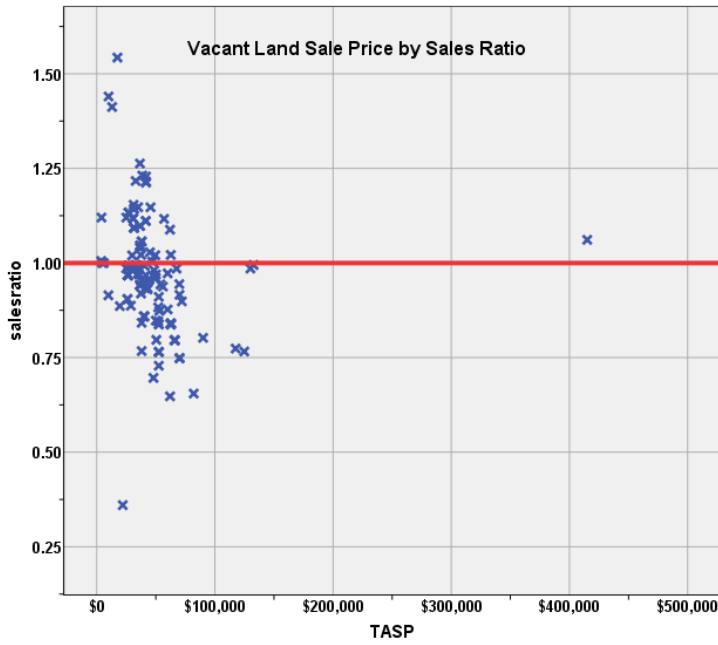
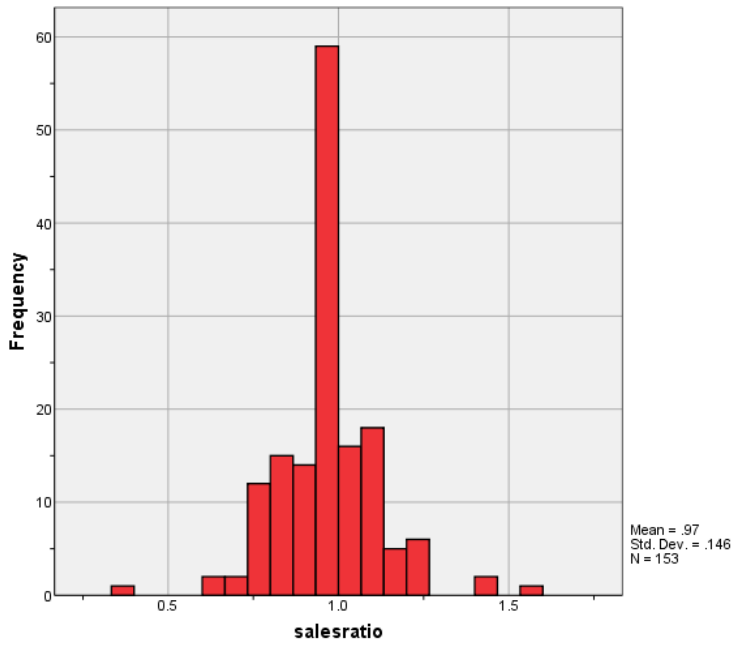
Based on the above results, we concluded that the assessor was valuing sold and unsold commercial/industrial properties consistently.

**V. VACANT LAND SALE RESULTS**

There were 152 qualified vacant land sales for the 18 month sale period ending June 30, 2018. The overall sales ratio analysis results were as follows:

Median	<b>0.984</b>
Price Related Differential	<b>1.023</b>
Coefficient of Dispersion	<b>10.1</b>

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



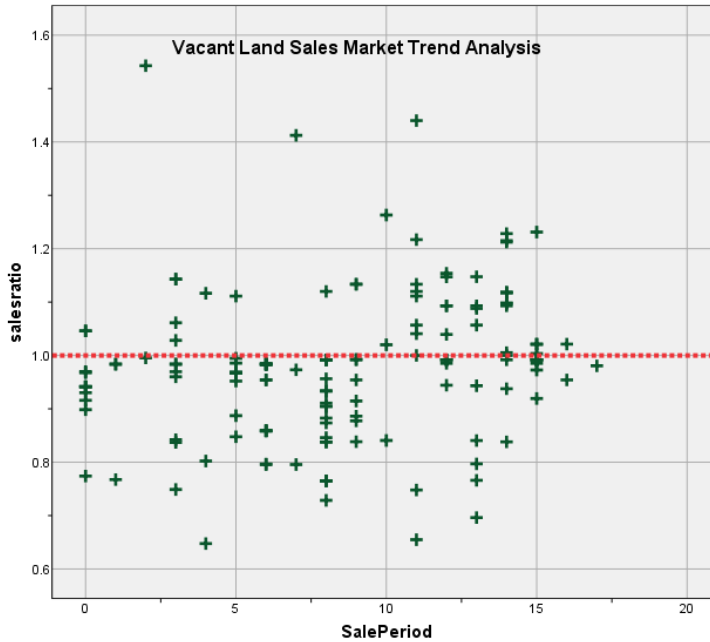
### Vacant Land Market Trend Analysis

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

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

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.929	.023		41.214	.000
	SalePeriod	.006	.002	.201	2.508	.013

a. Dependent Variable: salesratio



The market trend results indicated no statistically significant trend; we concluded that the assessor has adequately addressed market trending for vacant land sales in Morgan County.

**Sold/Unsold Analysis**

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

<b>Report</b>			
DIFF			
	N	Median	Mean
UNSOLD	1324	1.06	1.16
SOLD	135	1.25	1.23

We next stratified the analysis by subdivisions with 3 or more sales, as follows:

<b>Report</b>				
DIFF				
SUBDIVNO	sold	N	Median	Mean
192	UNSOLD	45	1.00	1.01
	SOLD	3	1.00	.87
311	UNSOLD	1	1.00	1.00
	SOLD	3	1.00	1.00
576	UNSOLD	23	1.21	1.21
	SOLD	3	1.21	1.21
622	UNSOLD	11	1.67	1.57
	SOLD	10	1.00	1.19
726	UNSOLD	1	1.00	1.00
	SOLD	3	1.00	1.00
747	UNSOLD	63	1.37	1.42
	SOLD	58	1.37	1.37
756	SOLD	16	1.10	1.10

Overall, the group subdivisions with 3 or more sales did indicate that unsold and sold properties were valued consistently.

## V. CONCLUSIONS

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

**STATISTICAL ABSTRACT**

**Residential**

**Ratio Statistics for CURRTOT / TASP**

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Mean Centered
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			
.989	.981	.998	.992	.984	.996	95.5%	.987	.978	.995	1.003	.071	10.7%

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

**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			
1.004	.951	1.056	.985	.937	1.022	97.4%	.974	.947	1.001	1.030	.098	17.6%

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

**Vacant Land**

**Ratio Statistics for CURRLND / 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			
.974	.951	.997	.984	.968	.992	96.5%	.952	.925	.978	1.023	.101	15.0%

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



**Residential Median Ratio Stratification**

**Sale Price**

**Case Processing Summary**

		Count	Percent
SPRec	\$25K to \$50K	3	0.5%
	\$50K to \$100K	28	4.7%
	\$100K to \$150K	75	12.5%
	\$150K to \$200K	140	23.3%
	\$200K to \$300K	201	33.5%
	\$300K to \$500K	140	23.3%
	\$500K to \$750K	13	2.2%
Overall		600	100.0%
Excluded		0	
Total		600	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
\$25K to \$50K	1.074	1.006	.055	10.9%
\$50K to \$100K	1.001	.995	.076	10.8%
\$100K to \$150K	1.001	.999	.085	15.6%
\$150K to \$200K	.984	1.001	.070	9.3%
\$200K to \$300K	.994	.999	.073	11.0%
\$300K to \$500K	.992	1.000	.062	8.4%
\$500K to \$750K	.976	1.000	.045	6.3%
Overall	.992	1.003	.071	10.7%

**Subclass**

**Case Processing Summary**

		Count	Percent
ABSTRIMP	1212.00	575	95.8%
	1213.50	1	0.2%
	1215.00	8	1.3%
	1217.50	2	0.3%
	1220.00	1	0.2%
	1230.00	13	2.2%
	Overall		600
Excluded		0	
Total		600	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1212.00	.992	1.003	.070	10.6%
1213.50	.965	1.000	.000	.
1215.00	.952	1.018	.104	13.6%
1217.50	.849	1.015	.063	9.0%
1220.00	1.136	1.000	.000	.
1230.00	.979	1.003	.088	11.3%
Overall	.992	1.003	.071	10.7%

### Improvement Age

#### Case Processing Summary

AgeRec	Count	Percent
Over 100	56	9.3%
75 to 100	74	12.3%
50 to 75	144	24.0%
25 to 50	128	21.3%
5 to 25	119	19.8%
5 or Newer	79	13.2%
Overall	600	100.0%
Excluded	0	
Total	600	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.972	1.010	.082	11.3%
75 to 100	.972	1.011	.079	10.0%
50 to 75	.975	1.008	.068	8.6%
25 to 50	.996	1.010	.078	14.8%
5 to 25	.998	1.006	.068	9.2%
5 or Newer	1.000	1.002	.051	7.3%
Overall	.992	1.003	.071	10.7%

### Improved Area

#### Case Processing Summary

ImpSFRec	Count	Percent
LE 500 sf	2	0.3%
500 to 1,000 sf	123	20.5%
1,000 to 1,500 sf	229	38.2%
1,500 to 2,000 sf	172	28.7%
2,000 to 3,000 sf	65	10.8%
3,000 sf or Higher	9	1.5%
Overall	600	100.0%
Excluded	0	
Total	600	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	1.063	1.007	.021	3.0%
500 to 1,000 sf	.980	1.005	.078	9.8%
1,000 to 1,500 sf	.983	1.009	.061	8.5%
1,500 to 2,000 sf	.998	1.003	.075	11.5%
2,000 to 3,000 sf	.998	1.014	.082	15.9%
3,000 sf or Higher	1.003	1.000	.049	8.4%
Overall	.992	1.003	.071	10.7%

### Improvement Quality

#### Case Processing Summary

		Count	Percent
QUALITY	2 - BELOW AVERAGE	20	3.3%
	3 - AVERAGE	568	94.7%
	4 - ABOVE AVERAGE	12	2.0%
Overall		600	100.0%
Excluded		0	
Total		600	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
2 - BELOW AVERAGE	.988	1.066	.161	32.9%
3 - AVERAGE	.992	1.000	.068	9.1%
4 - ABOVE AVERAGE	.976	1.017	.063	10.0%
Overall	.992	1.003	.071	10.7%

### Improvement Condition

#### Case Processing Summary

		Count	Percent
CONDITION	2 - BELOW AVG COND	16	2.7%
	3 - AVERAGE COND	535	89.2%
	4 - ABOVE AVG COND	48	8.0%
	5 - V GOOD COND	1	0.2%
Overall		600	100.0%
Excluded		0	
Total		600	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
2 - BELOW AVG COND	.964	.977	.137	30.1%
3 - AVERAGE COND	.993	1.002	.071	10.0%
4 - ABOVE AVG COND	.986	1.006	.055	7.4%
5 - V GOOD COND	.875	1.000	.000	.
Overall	.992	1.003	.071	10.7%

### Commercial Median Ratio Stratification

#### Sale Price

### Case Processing Summary

		Count	Percent
SPRec	\$25K to \$50K	1	2.2%
	\$50K to \$100K	5	10.9%
	\$100K to \$150K	9	19.6%
	\$150K to \$200K	5	10.9%
	\$200K to \$300K	11	23.9%
	\$300K to \$500K	7	15.2%
	\$500K to \$750K	2	4.3%
	\$750K to \$1,000K	1	2.2%
	Over \$1,000K	5	10.9%
Overall		46	100.0%
Excluded		0	
Total		46	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
\$25K to \$50K	.942	1.000	.000	.
\$50K to \$100K	1.050	1.034	.206	45.3%
\$100K to \$150K	1.021	.996	.058	7.8%
\$150K to \$200K	1.001	.998	.021	3.5%
\$200K to \$300K	.884	1.001	.091	14.4%
\$300K to \$500K	.893	1.002	.070	13.4%
\$500K to \$750K	.990	.998	.111	15.7%
\$750K to \$1,000K	1.042	1.000	.000	.
Over \$1,000K	.972	.988	.057	7.4%
Overall	.985	1.030	.098	18.1%

**Subclass**

**Case Processing Summary**

		Count	Percent
ABSTRIMP	1712.00	1	2.2%
	2212.00	14	30.4%
	2215.00	4	8.7%
	2220.00	8	17.4%
	2225.00	2	4.3%
	2230.00	12	26.1%
	2235.00	3	6.5%
	2245.00	1	2.2%
	3215.00	1	2.2%
Overall		46	100.0%
Excluded		0	
Total		46	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1712.00	.829	1.000	.000	.
2212.00	.991	1.001	.054	6.9%
2215.00	.926	.967	.066	8.0%
2220.00	1.023	1.023	.102	12.7%
2225.00	.922	1.017	.032	4.6%
2230.00	.989	1.004	.062	8.7%
2235.00	.884	1.249	.422	89.1%
2245.00	1.124	1.000	.000	.
3215.00	1.172	1.000	.000	.
Overall	.985	1.030	.098	18.1%

**Improvement Age**

**Case Processing Summary**

		Count	Percent
AgeRec	Over 100	10	21.7%
	75 to 100	2	4.3%
	50 to 75	9	19.6%
	25 to 50	10	21.7%
	5 to 25	14	30.4%
	5 or Newer	1	2.2%
Overall		46	100.0%
Excluded		0	
Total		46	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	.985	1.026	.068	9.6%
75 to 100	1.052	1.001	.070	9.8%
50 to 75	1.001	1.006	.062	9.4%
25 to 50	.901	.996	.082	12.9%
5 to 25	.981	1.050	.151	30.2%
5 or Newer	.972	1.000	.000	.
Overall	.985	1.030	.098	18.1%

### Improved Area

#### Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	1	2.2%
	1,000 to 1,500 sf	5	10.9%
	1,500 to 2,000 sf	5	10.9%
	2,000 to 3,000 sf	10	21.7%
	3,000 sf or Higher	25	54.3%
Overall		46	100.0%
Excluded		0	
Total		46	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	.942	1.000	.000	.
1,000 to 1,500 sf	1.021	1.012	.035	5.5%
1,500 to 2,000 sf	1.000	1.037	.060	8.5%
2,000 to 3,000 sf	.964	1.102	.175	36.7%
3,000 sf or Higher	.972	1.002	.087	10.9%
Overall	.985	1.030	.098	18.1%

### Improvement Quality

#### Case Processing Summary

		Count	Percent
QUALITY	2 - FAIR	2	4.3%
	3 - AVERAGE	42	91.3%
	4 - GOOD	2	4.3%
Overall		46	100.0%
Excluded		0	
Total		46	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
2 - FAIR	1.026	.952	.072	10.2%
3 - AVERAGE	.991	1.035	.100	18.5%
4 - GOOD	.910	.942	.068	9.6%
Overall	.985	1.030	.098	18.1%

### Vacant Land Median Ratio Stratification

#### Sale Price

### Case Processing Summary

		Count	Percent
SPRec	LT \$25K	12	7.8%
	\$25K to \$50K	101	66.0%
	\$50K to \$100K	35	22.9%
	\$100K to \$150K	4	2.6%
	\$300K to \$500K	1	0.7%
Overall		153	100.0%
Excluded		0	
Total		153	

### Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT \$25K	1.003	1.032	.207	31.7%
\$25K to \$50K	.992	1.002	.070	10.1%
\$50K to \$100K	.838	1.002	.093	12.7%
\$100K to \$150K	.880	.995	.125	14.5%
\$300K to \$500K	1.061	1.000	.000	.
Overall	.984	1.023	.101	14.8%

#### Subclass

### Case Processing Summary

		Count	Percent
ABSTRLND	100.00	33	21.6%
	110.00	4	2.6%
	200.00	3	2.0%
	550.00	2	1.3%
	1112.00	98	64.1%
	1135.00	12	7.8%
	2130.00	1	0.7%
Overall		153	100.0%
Excluded		0	
Total		153	

### Ratio Statistics for CURRLND / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100.00	.960	1.044	.151	22.9%
110.00	.965	.985	.184	22.4%
200.00	.985	.949	.062	9.5%
550.00	.735	.978	.053	7.5%
1112.00	.984	1.024	.085	11.7%
1135.00	.968	1.005	.041	10.4%
2130.00	.766	1.000	.000	.
Overall	.984	1.023	.101	14.8%