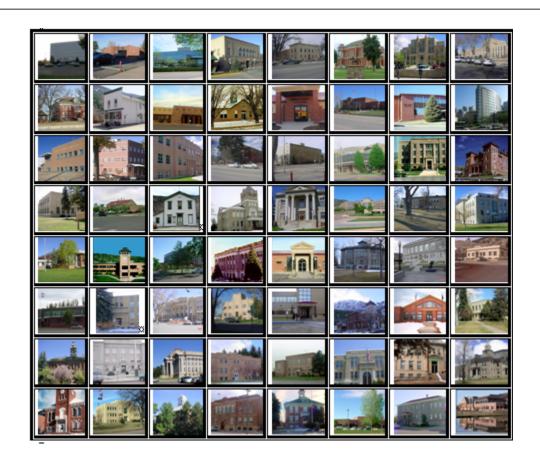


# 2009 LINCOLN COUNTY PROPERTY ASSESSMENT STUDY







September 15, 2009

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

RE: Final Report for the 2009 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2009 Colorado Property Assessment Study.

These reports are the result of two analyses: A procedural audit and a statistical audit.

The procedural audit examines all classes of property. It specifically looks at how the assessor develops economic areas, confirms and qualifies sales, develops time adjustments and performs periodic physical property inspections. The audit reviews the procedures for determining subdivision absorption and subdivision discounting. Valuation methodology is examined for residential properties and commercial properties. Procedures are reviewed for producing mines, oil and gas leaseholds and lands producing, producing coal mines, producing earth and stone products, severed mineral interests, and non-producing patented mining claims.

Statistical audits are performed on vacant land, residential properties, commercial/industrial properties and agricultural land. A statistical analysis is performed for personal property compliance on the eleven largest counties: Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo and Weld. The remaining counties receive a personal property procedural study.

Wildrose Appraisal Inc. – Audit Division appreciates the opportunity to be of service to the State of Colorado. Please contact us with any questions or concerns.

Harry J. Fuller Project Manager

Harry J. Zulla

Wildrose Appraisal Inc. – Audit Division



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# INTRODUCTION



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 subdivision and discounting procedures. Valuation methodology for vacant land, improved properties commercial residential and 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 2009 and is pleased to report its findings for Lincoln County in the following report.



# REGIONAL/HISTORICAL SKETCH OF LINCOLN COUNTY

# **Regional Information**

Lincoln County is located in the Eastern Plains region of Colorado. The Eastern Plains of Colorado refer to the region on the east side of the Rocky Mountain. It is east of the population centers of the Front Range,

including Baca, Bent, Cheyenne, Crowley, Elbert, Kiowa, Kit Carson, Lincoln, Logan, Morgan, Otero, Phillips, Prowers, Sedgwick, Washington, and Yuma counties.





#### **Historical Information**

Lincoln County has a population of approximately 5,458 people with 2.4 people per square mile, according to the U.S. Census Bureau's 2006 estimated population data.

Lincoln County lies in the Great Plains section of East Central Colorado and includes a part of the area known as the Arkansas Divide.

The main watersheds in the county include the Arickaree and Republican Rivers in the northern part of the county, and the Big Sandy and Rush and Horse Creeks in the south. The latter Creeks ultimately drain into the Arkansas River.

Aside from nomadic Indian tribes and rare Spanish incursions, the first human visitors to this area were hopeful prospectors, crossing by the thousands en route to the gold strikes in the Pikes Peak region. The old Smoky Hill Trail runs just north of Hugo, and wagon ruts remain visible in some places.

Cattlemen came to the area in the late 1860s, and later were followed by sheep ranchers as late as 1900. The earliest homesteads were claimed in the 1880s, with land seekers continuing to moving onto government lands in this area over the next several decades. The county's population was just under 1,000 in 1900, but by 1920 it had reached an all time high of 8,273. Since then, the population has declined until, since the 1970s, it has stabilized at around 5,000. With the closing of the open

range, the cattle industry gradually changed from Texas longhorn stock to purebred stock. Lincoln County has been home to the famous Heart Rock Bison Ranch since January 2000.

Hugo is the primary community in Lincoln County and the county seat. Named for Hugo Richards, a railroad official who later was influential in California financial circles, the town sprang out of the prairie soon after the Kansas Pacific (Union Pacific) Railway construction arrived at the site of a former stage coach station known as Willow Springs on July 5, 1870. In 1889, a second railroad, the Rock Island, was built across northern Lincoln County, crossing the Union Pacific at Limon.

In the early homestead days, land seekers arrived in Lincoln County by covered wagon or any immigrant cars on the railroad. Dry land wheat, feed crops and cattle remain the primary agricultural products in this area, with corn and sunflowers also grown in parts of the county which have since come under irrigation.

As the 20th Century dawned in Lincoln County, agriculture was the backbone of the local economy. And as the 21st Century dawns, agriculture continues to hold that prominent place in the lives and in the hearts of the county's citizens.

(Wikipedia.org, Terry W. Blevins, Lincolncountyco.us, http:Heartrockbison.com)



# RATIO ANALYSIS

# Methodology

All significant classes of properties were Sales were collected for each analyzed. property class over the appropriate sale period, which was typically defined as the 18-month period between January 2007 and June 2008. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2008 in 6-month increments. If there were still fewer than 30 sales, supplemental appraisals were performed and treated as proxy sales. Residential sales for all counties using this method totaled at least 30 per county. For commercial sales, the total number analyzed was allowed, in some cases, to fall below 30. There were no sale quantity issues for counties requiring vacant land analysis or condominium analysis. Although it was required that we examine the median and coefficient of dispersion for all counties, we also calculated the weighted mean and pricerelated differential for each class of property. Counties were not passed or failed by these

latter measures, but were counseled if there were anomalies noted during our analysis. Qualified sales were based on the qualification code used by each county, which were typically coded as either "Q" or "C." The ratio analysis included all sales. The data was trimmed for counties with obvious outliers using IAAO standards for data analysis. In every case, we examined the loss in data from trimming to ensure that only true outliers were excluded. Any county with a significant portion of sales excluded by this trimming method was examined further. No county was allowed to pass the audit if more than 5% of the sales were "lost" because of trimming. For the largest 11 counties, the residential ratio statistics were broken down by economic area as well.

#### **Conclusions**

For this final analysis report, the minimum acceptable statistical standards allowed by the State Board of Equalization are:

ALLOWABLE STANDARDS RATIO GRID					
Property Class	Unweighted Median Ratio	Coefficient of Dispersion			
Commercial/Industrial	Between .95-1.05	Less than 20.99			
Condominium	Between .95-1.05	Less than 15.99			
Single Family	Between .95-1.05	Less than 15.99			
Vacant Land	Between .95-1.05	Less than 20.99			



The results for Lincoln County are:

Lincoln County Ratio Grid						
Number of Unweighted Price Coefficient Qualified Median Related of Time Tr Property Class Sales Ratio Differential Dispersion Anal						
Commercial/Industrial	30	0.978	0.996	10.2	Compliant	
Condominium	N/A	N/A	N/A	N/A	N/A	
Single Family	44	0.980	1.022	7.1	Compliant	
Vacant Land	N/A	N/A	N/A	N/A	N/A	

After applying the above described methodologies, it is concluded from the sales ratios that Lincoln County is in compliance

with SBOE, DPT, and Colorado State Statute valuation guidelines.

#### Recommendations

None

# **Random Deed Analysis**

An additional analysis was performed as part of the Ratio Analysis. Ten randomly selected deeds with documentary fees were obtained from the Clerk and Recorder. These deeds were for sales that occurred from January 1, 2007 through June 30, 2008. These sales were then checked for inclusion on the Assessor's qualified or unqualified database.

#### **Conclusions**

After comparing the list of randomly selected deeds with the Assessor's database, Lincoln County has accurately transferred sales data from the recorded deeds to the qualified or unqualified database.

#### Recommendations



# TIME TRENDING VERIFICATION

## Methodology

While we recommend that counties use the inverted ratio regression analysis method to account for market (time) trending, some counties have used other IAAO-approved methods, such as the weighted monthly median approach. We are not auditing the methods used, but rather the results of the methods used. Given this range of methodologies used to account for market trending, we concluded that the best validation method was to examine the sale ratios for each class across the appropriate sale period. To be specific, if a county has considered and adjusted correctly for market trending, then the sale ratios should remain stable (i.e. flat) across the sale period. If a residual market trend is detected, then the county may or may not have addressed market

trending adequately, and a further examination is warranted. This validation methodology also considers the number of sales and the length of the sale period. Counties with few sales across the sale period were carefully examined to determine if the statistical results were valid.

#### Conclusions

After verification and analysis, it has been determined that Lincoln County has complied with the statutory requirements to analyze the effects of time on value in their county. Lincoln County has also satisfactorily applied the results of their time trending analysis to arrive at the time adjusted sales price (TASP).

#### Recommendations



# SOLD/UNSOLD ANALYSIS

## Methodology

Lincoln County was tested for the equal treatment of sold and unsold properties to ensure that "sales chasing" has not occurred. The auditors employed a multi-step process to determine if sold and unsold properties were valued in a consistent manner.

All qualified residential and commercial class properties were examined using the unit value method, where the actual value per square foot was compared between sold and unsold properties. A class was considered qualified if it met the criteria for the ratio analysis. The median value per square foot for both groups was compared from an appraisal and statistical perspective. If no significant difference was indicated, then we concluded that no further testing was warranted and that the county was in compliance in terms of sold/unsold consistency.

If either residential or commercial differences were significant using the unit value method, or if data limitations made the comparison invalid, then the next step was to perform a ratio analysis comparing the 2008 and 2009 actual values for each qualified class of property. All qualified vacant land classes were tested using this method. The sale property ratios were arrayed using a range of 0.8 to 1.5, which theoretically excluded changes between years that were due to other unrelated changes in the property. These ratios were also stratified at the appropriate level of analysis. percent change was determined for each appropriate class and sub-class, the next step was to select the unsold sample. This sample

was at least 1% of the total population of unsold properties and excluded any sale properties. The unsold sample was filtered based on the attributes of the sold dataset to closely correlate both groups. The ratio analysis was then performed on the unsold properties and stratified. The median and mean ratio distribution was then compared between the sold and unsold group. A nonparametric test such as the Mann-Whitney test for differences between independent samples was undertaken to determine whether any observed differential was significant. If this test determined that the unsold properties were treated in a manner similar to the sold properties, it was concluded that no further testing was warranted and that the county was in compliance.

If a class or sub-class of property was determined to be significantly different by this method, the final step was to perform a multivariate mass appraisal model that developed ratio statistics from the sold properties that were then applied to the unsold sample. This test compared the measures of central tendency and confidence intervals for the sold properties with the unsold property sample. If this comparison was also determined to be significantly different, then the conclusion was that the county had treated the unsold properties in a different manner than sold properties.

These tests were supported by both tabular and chart presentations, along with saved sold and unsold sample files.



Sold/Unsold Re	sults
Property Class	Results
Commercial/Industrial	Compliant
Condominium	N/A
Single Family	Compliant
Vacant Land	N/A

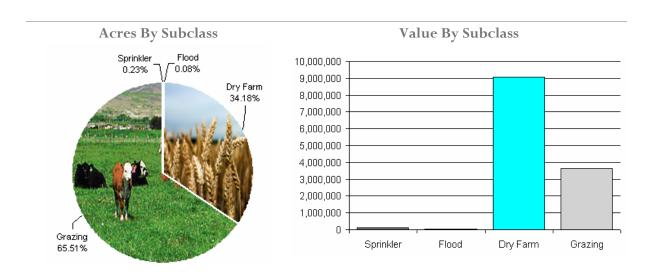
#### Conclusions

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

#### Recommendations



# AGRICULTURAL LAND STUDY



# **Agricultural Land**

County records were reviewed to determine major land categories such as irrigated farm, dry farm, meadow hay, grazing and other In addition, county records were reviewed in order to determine if: 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 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:



	Lincoln County Agricultural Land Ratio Grid							
Number County County WRA Abstract Of Value Assessed Total Code Land Class Acres Per Acre Total Value Ratio								
4107	Sprinkler	3,362	31.40	105,581	109,718	0.96		
4117	Flood	1,248	40.70	50,798	52,408	0.97		
4127	Dry Farm	503,945	17.99	9,066,738	9,101,673	1.00		
4147	Grazing	965,922	3.79	3,660,961	4,089,063	0.90		
Total/Avg		1,474,477	8.74	12,884,078	13,352,861	0.96		

# Recommendations



# **Agricultural Outbuildings**

# Methodology

Data was collected and reviewed to determine if the guidelines found in the Assessor's Reference Library (ARL) Volume 3, pages 5.74 through 5.77 were being followed.

#### **Conclusions**

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

#### Recommendations



# 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 2009 for Lincoln County. This study was conducted by checking selected sales from the master sales list for the Jan 1, 2007 - June 30, 2008 valuation period. Specifically WRA selected 30 sales listed as unqualified. All of the sales in the unqualified sales sample had reasons that were clear and supportable.

#### **Conclusions**

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

#### Recommendations



# ECONOMIC AREA REVIEW AND EVALUATION

# Methodology

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



# NATURAL RESOURCES

#### **Earth and Stone Products**

## Methodology

Under the guidelines of the Assessor's Reference Library (ARL), Volume 3, Natural Resource Valuation Procedures, the income approach was applied to determine value for production of earth and stone products. The number of tons was multiplied by an economic royalty rate determined by the Division of Property Taxation to determine income. The income was multiplied by a recommended Hoskold factor to determine the actual value. The Hoskold factor is determined by the life of the reserves or the lease. Value is based on two variables: life and tonnage. The operator determines these since there is no other means to obtain production data through any state or private agency.

#### **Conclusions**

The County has applied the correct formulas and state guidelines to earth and stone production.

#### Recommendations

None

# Producing Oil and Gas Procedures

# 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:**



# VACANT LAND

## **Subdivision Discounting**

Subdivisions were reviewed in 2009 in Lincoln 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

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

#### Recommendations



# 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 39-1-103 (17)(a) (II) C.R.S. Possessory Interest is defined by the Property Tax Administrator's Publication ARL Volume 3, Section 7: 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 agreement.

Lincoln 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

Lincoln 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



# PERSONAL PROPERTY AUDIT

Lincoln 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.

Lincoln 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
- 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.

Lincoln County submitted their personal property written audit plan and was current for the 2009 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 \$4,000 actual value exemption status

#### **Conclusions**

Lincoln 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



# WILDROSE AUDITOR STAFF

Harry J. Fuller, Audit Project Manager

Suzanne Howard, Audit Administrative Manager

Steve Kane, Audit Statistician/Field Analyst

Carl W. Ross, Agricultural/Natural Resource Analyst

Andy Rodriguez, Field Analyst



# APPENDICES

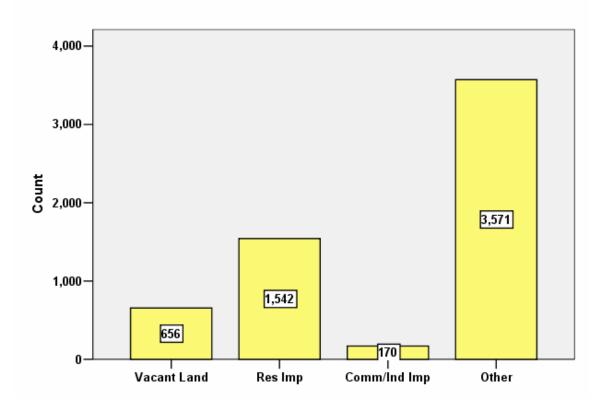


# STATISTICAL COMPLIANCE REPORT FOR LINCOLN COUNTY 2009

#### I. OVERVIEW

Lincoln County is an agricultural county located in eastern Colorado. The county has a total of 5,393 real property parcels, according to data submitted by the county assessor's office in 2009. The following provides a breakdown of property classes for this county:

#### Real Property Class Distribution



The vacant land class of properties was dominated by residential land. Residential lots (coded 100) accounted for 28% of all vacant land parcels. Based on the number of vacant land parcels in Lincoln County, we were not required to analyze this class of property for audit compliance.

For residential improved properties, single family properties accounted for 80% of all residential properties. Properties classified as mobile homes (1235) accounted for 16% of all properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial sales accounted for 3% of all such properties in this county.



#### II. DATA FILES

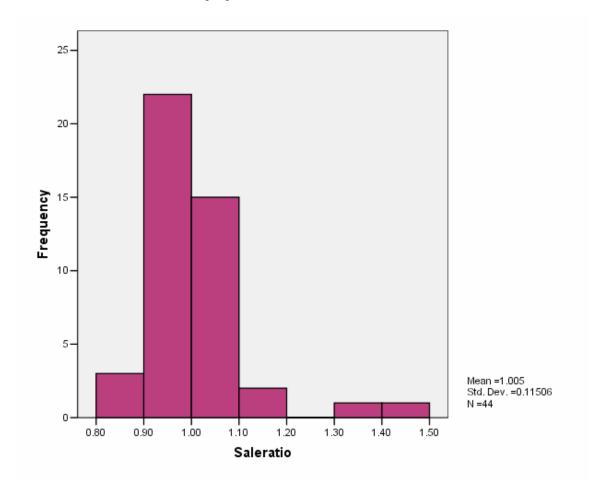
The following sales analyses were based on the requirements of the 2009 Colorado Property Assessment Study. Information was provided by the Lincoln Assessor's Office on April 8, 2009. The data included all 5 property record files as specified by the Auditor.

#### III. RESIDENTIAL SALES RESULTS

For the residential sales ratio analysis, a total of **44 qualified residential sales** were analyzed. These sales spanned the period from January 2007 to June 2008. The sales ratio analysis resulted in the following:

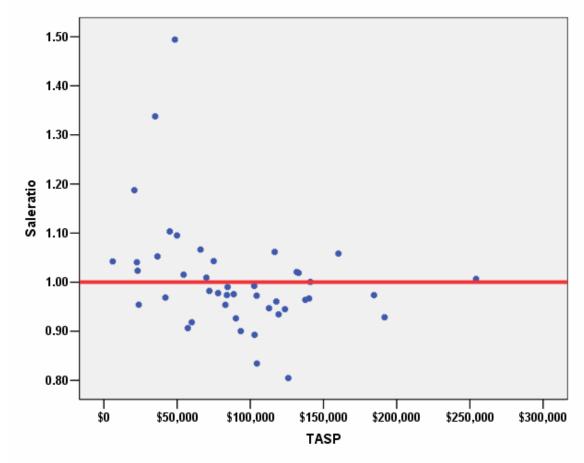
Median	0.980
Price Related Differential	1.022
Coefficient of Dispersion	.071

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









The above graphs indicate that the distribution of the sale ratios was within state mandated limits, and that there were no significant price-related differential issues. No sales were trimmed.

#### **Residential Market Trend Analysis**

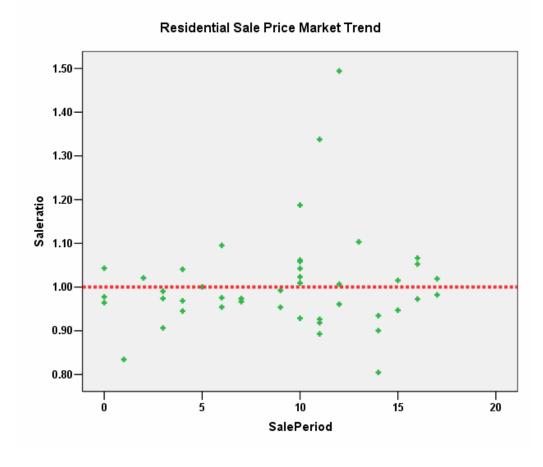
We next analyzed the residential dataset using the 18-month sale period, with the following results:

#### Coefficientsa

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	91038.718	16149.310		5.637	.000
	SalePeriod	20.812	1572.272	.002	.013	.990

a. Dependent Variable: TASP





The above analysis indicated that no significant residential market trend was present in the sale data. We concur with the assessor that no market trend adjustments were warranted.

#### 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 2009 between each group. We stratified the residential properties by economic area, comparing the sold and unsold groups of properties as follows:

<b>Econ Area</b>	Group	No.	Median	Mean
1	Unsold	503	\$73	\$74
	Sold	27	\$74	\$80
2	Unsold	393	\$53	\$55
	Sold	10	\$71	\$67
3	Unsold	246	\$40	\$44
	Sold	6	\$32	\$37

While the overall comparison indicated some degree of difference between sold and unsold residential properties, when broken down by neighborhood the differences were insignificant overall.



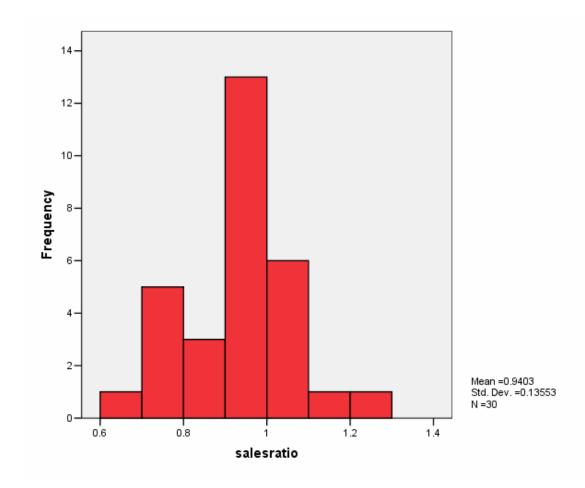
#### IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

As with the residential sales, we used the 2009 sales for the commercial and industrial ratio analysis. A total of **27 valid and qualified sales** were identified in the five year period prior to June 30, 2008. These sales were augmented with 3 supplemental appraisals. The combined 30 commercial properties were used to perform the following sales ratio analysis; the market trending and sold/unsold analyses use only the 27 sold properties.

The analysis of the 30 commercial/industrial properties concluded the following median sales ratio and coefficient of dispersion (as well as the PRD statistic):

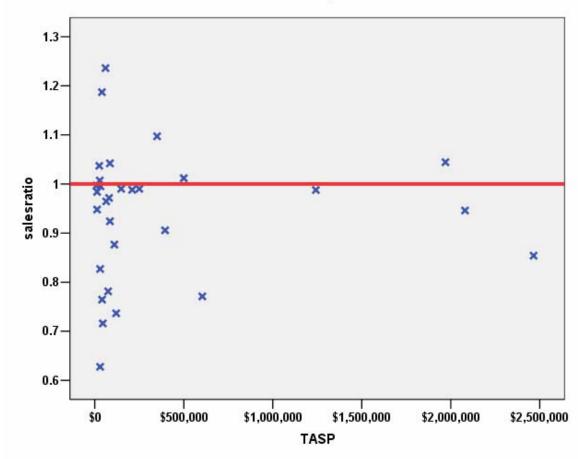
Median	0.978
Price Related Differential	0.996
Coefficient of Dispersion	.102

The above tables indicate that the Lincoln County commercial/industrial sale ratios were in compliance with the SBOE standards, both overall and by relevant subclass (none in this case due to the small number of sales). The following histogram and scatter plot describe the sales ratio distribution further:









# **Commercial Market Trend Analysis**

We next analyzed the 27 commercial/industrial sales to determine if there was any residual market trending in the sales ratios, as follows:

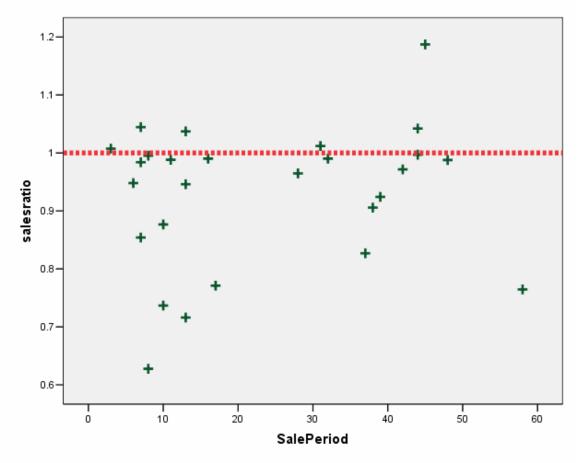
#### Coefficientsa

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.898	.042		21.597	.000
	SalePeriod	.001	.001	.179	.910	.372

a. Dependent Variable: salesratio







The above results indicate that there was no significant residual market trending in the commercial/industrial sale ratios.

#### 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. While this is a challenge to prove in this county, given the small number of sales and the overall small number and diversity of commercial/industrial properties in general, the following results indicate that based on the median actual value, both groups were valued in a consistent manner:

Group	No.	Median	Mean
Unsold	149	\$22	\$38
Sold	21	\$26	\$39

Please note that the total improved area, which was used to calculate the assessor's actual value per square foot, was available for 21 of the 27 sold commercial/industrial properties.



#### V. AGRICULTURAL IMPROVEMENTS ANALYSIS

The final statistical verification concerned the assigned actual values for agricultural residential improvements. We compared the actual value per square foot rate for this group and compared it to rates assigned to residential single family improvements in Lincoln County.

The following indicates that agricultural residential improvements were valued in a manner similar to the single family residential improvements in this county:

		Descr	riptives		
	Abstr			Statistic	Std. Error
ImpVa1	1212	Mean		\$55	.738
SF		95% Confidence	Lower Bound	\$53	
		Interval for Mean	Upper Bound	\$56	
		5% Trimmed Mean		\$54	
		Median		\$51	
		Variance		\$659	
		Std. Deviation		\$26	
		Minimum		\$2	
		Maximum		\$167	
		Range		\$164	
		Interquartile Range		\$35	
		Skewness		.648	.070
		Kurtosis		.247	.141
	4277	Mean		\$51	1.123
		95% Confidence	Lower Bound	\$49	
		Interval for Mean	Upper Bound	\$53	
		5% Trimmed Mean		\$50	
		Median		\$47	
		Variance		\$559	
		Std. Deviation		\$24	
		Minimum		\$3	
		Maximum		\$196	
		Range		\$193	
		Interquartile Range		\$29	
		Skewness		1.167	.116
		Kurtosis		3.446	.231



#### VI. CONCLUSIONS

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



#### **STATISTICAL ABSTRACT**

#### **Residential**

#### Ratio Statistics for CurrTot / TASP

Mean		1.005
95% Confidence Interval	Lower Bound	.970
for Mean	Upper Bound	1.040
Median		.980
95% Confidence Interval	Lower Bound	.967
for Median	Upper Bound	1.015
	Actual Coverage	95.1%
Weighted Mean		.984
95% Confidence Interval	Lower Bound	.959
for Weighted Mean	Upper Bound	1.009
Price Related Differential		1.022
Coefficient of Dispersion		.071
Coefficient of Variation	Mean Centered	11.4%

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

#### Commercial/Industrial

#### Ratio Statistics for CurrTot / TASP

Mean		.940
95% Confidence Interval	Lower Bound	.890
for Mean	Upper Bound	.991
Median		.978
95% Confidence Interval	Lower Bound	.906
for Median	Upper Bound	.995
	Actual Coverage	95.7%
Weighted Mean		.944
95% Confidence Interval	Lower Bound	.883
for Weighted Mean	Upper Bound	1.005
Price Related Differential		.996
Coefficient of Dispersion		.102
Coefficient of Variation	Mean Centered	14.4%

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



# **Vacant Land**

Not applicable

# **Residential Median Ratio Stratification**

#### Sale Price

# **Case Processing Summary**

		Count	Percent
SPRec	LT \$25K	5	11.4%
	\$25K to \$50K	6	13.6%
	\$50K to \$100K	14	31.8%
	\$100K to \$150K	15	34.1%
	\$150K to \$200K	3	6.8%
	\$200K to \$300K	1	2.3%
Overall		44	100.0%
Excluded		0	
Total		44	

#### **Ratio Statistics for CurrTot / TASP**

				Coefficient of Variation
		Price Related	Coefficient of	Median
Group	Median	Differential	Dispersion	Centered
LT \$25K	1.041	1.003	.049	8.2%
\$25K to \$50K	1.099	.998	.124	19.6%
\$50K to \$100K	.977	1.002	.039	5.1%
\$100K to \$150K	.964	.998	.049	7.2%
\$150K to \$200K	.974	1.004	.044	7.0%
\$200K to \$300K	1.007	1.000	.000	
Overall	.980	1.022	.071	12.0%

# **Improved Area**

#### **Case Processing Summary**

		Count	Percent
ImpSFRec	500 to 1,000 sf	12	27.3%
	1,000 to 1,500 sf	23	52.3%
	1,500 to 2,000 sf	5	11.4%
	2,000 to 3,000 sf	4	9.1%
Overall		44	100.0%
Excluded		0	
Total		44	



#### Ratio Statistics for CurrTot / TASP

				Coefficient of Variation
		Price Related	Coefficient of	Median
Group	Median	Differential	Dispersion	Centered
500 to 1,000 sf	1.019	1.036	.068	9.0%
1,000 to 1,500 sf	.973	1.032	.078	15.5%
1,500 to 2,000 sf	1.021	1.008	.032	4.0%
2,000 to 3,000 sf	.992	.999	.040	5.5%
Overall	.980	1.022	.071	12.0%

# **Commercial Median Ratio Stratification**

# Sale Price

# **Case Processing Summary**

		Count	Percent
SPRec	LT \$25K	4	13.3%
	\$25K to \$50K	7	23.3%
	\$50K to \$100K	6	20.0%
	\$100K to \$150K	3	10.0%
	\$200K to \$300K	2	6.7%
	\$300K to \$500K	3	10.0%
	\$500K to \$750K	1	3.3%
	Over \$1,000K	4	13.3%
Overall		30	100.0%
Excluded		146	
Total		176	



#### Ratio Statistics for CurrTot / TASP

				Coefficient of Variation
		Price Related	Coefficient of	Median
Group	Median	Differential	Dispersion	Centered
LT \$25K	.990	.991	.026	3.7%
\$25K to \$50K	.827	1.002	.187	24.5%
\$50K to \$100K	.968	1.008	.100	15.6%
\$100K to \$150K	.877	.990	.096	14.5%
\$200K to \$300K	.989	1.000	.001	.1%
\$300K to \$500K	1.012	1.003	.063	9.5%
\$500K to \$750K	.771	1.000	.000	
Over \$1,000K	.967	1.010	.060	8.4%
Overall	.978	.996	.102	14.4%

# **Vacant Land Median Ratio Stratification**

Not applicable