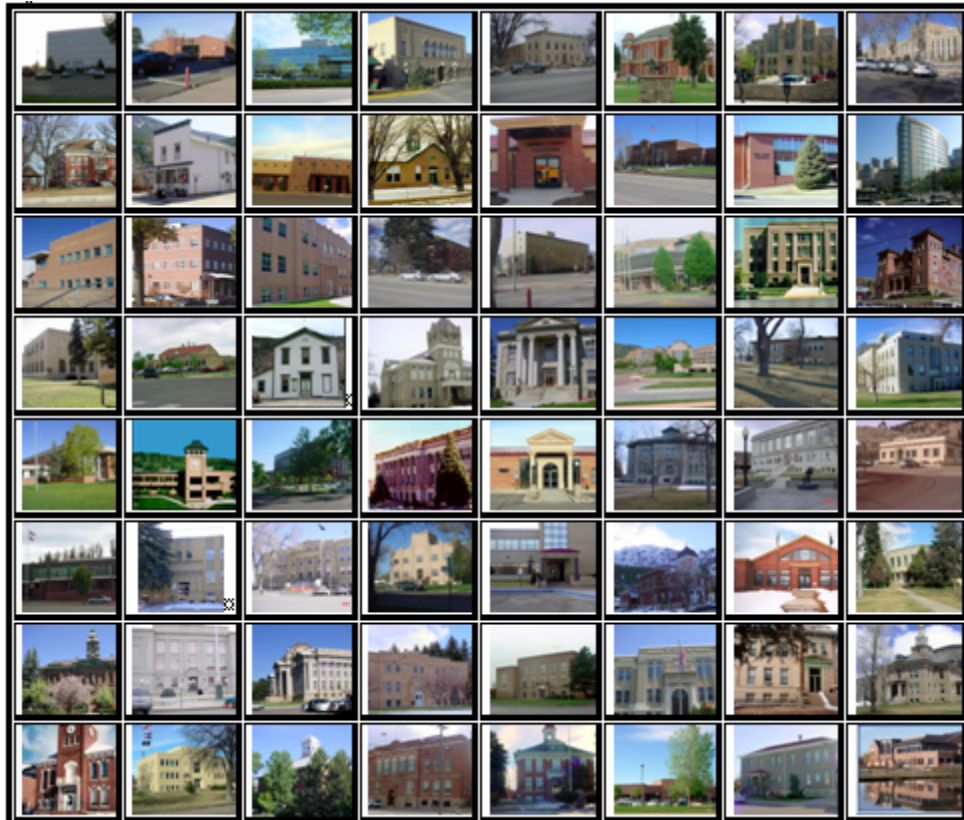




2009  
CROWLEY COUNTY  
PROPERTY ASSESSMENT  
STUDY

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WILDROSE  
APPRAISAL, INCORPORATED  
Audit Division



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.

A handwritten signature in black ink that reads "Harry J. Fuller". The signature is written in a cursive 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 2009 and is pleased to report its findings for Crowley County in the following report.

# REGIONAL/HISTORICAL SKETCH OF CROWLEY COUNTY

## Regional Information

Crowley 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

Crowley County has a population of approximately 5,386 people with 7 people per square mile, according to the U.S. Census Bureau's 2006 estimated population data.

Crowley County is located in the high plains of Southeast Colorado. Ordway, the County seat, lies about 50 miles east of Pueblo at the intersection of U.S. Highway 96 and Colorado 71. Crowley County is a rural community. Residents are a blend of ranchers and farmers, those involved in government and education and many are employed by correctional industries. Due to the mild climate, easy lifestyle and low cost of living, a number of retirees have recently selected Crowley County as their place of choice.

Crowley County was created by the Colorado legislature on May 29, 1911, out of the northern portions of Otero County. Previously both counties were part of Bent County. The county was named for John H. Crowley, the senator from Otero County to the state legislature at the time of the split.

The first significant development and settlement occurred in 1887 when the Missouri Pacific Railroad came through from the east, on its way to Pueblo and Colorado's rich gold

fields of the "Pikes Peak Or Bust" Colorado Gold Rush.

The county seat is in Ordway, a town established in 1890. Other towns still existing along the Missouri Pacific Railroad's route are Sugar City, Crowley, and Olney Springs.

A few years later, developers brought a canal east from the Arkansas River, with ambitious plans to irrigate a million acres in Kansas. Instead, the canal petered out in Crowley County but did irrigate 57,000 acres along its length. This turned early Crowley County into a lush agricultural mecca for a time.

By the 1970s, however, almost all the water rights were sold from what is now called the Twin Lakes Canal to the fast-growing cities of Colorado's Front Range corridor. The area's economic activity subsequently shifted toward ranching. Much of the land has returned to its original sparse prairie grassland conditions.

Each summer during the last week of July, the communities of Crowley, Sugar City, Ordway and Olney Springs gather together in Ordway to celebrate Crowley County Days, which has been held each year since 1911. (*Wikipedia.org*, *crowleycounty.net* & *exploresoutheastcolorado.com*)

# RATIO ANALYSIS

## Methodology

All significant classes of properties were analyzed. Sales were collected for each property class over the appropriate sale period, which was typically defined as the 18-month period between January 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 price-related differential for each class of property. Counties were not passed or failed by these

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

## Conclusions

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

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

The results for Crowley County are:

<b>Crowley 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	N/A	N/A	N/A	N/A	N/A
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	33	1.011	1.003	10.3	Compliant
Vacant Land	N/A	N/A	N/A	N/A	N/A

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

After applying the above described methodologies, it is concluded from the sales ratios that Crowley 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, Crowley County has accurately transferred sales data from the recorded deeds to the qualified or unqualified database.

**Recommendations**

None





## TIME TRENDING VERIFICATION

### Methodology

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

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

### Conclusions

After verification and analysis, it has been determined that Crowley County has complied with the statutory requirements to analyze the effects of time on value in their county. Crowley 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

Crowley 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. Once the percent change was determined for each appropriate class and sub-class, the next step was to select the unsold sample. This sample

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

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

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

<b>Sold/Unsold Results</b>	
<b>Property Class</b>	<b>Results</b>
Commercial/Industrial	N/A
Condominium	N/A
Single Family	Compliant
Vacant Land	N/A

### **Conclusions**

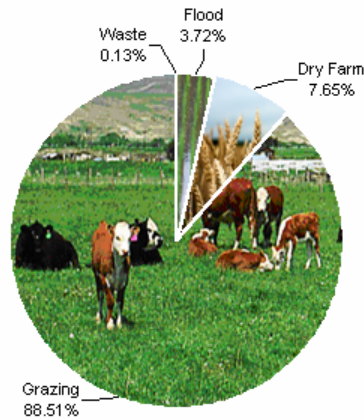
After applying the above described methodologies, it is concluded that Crowley County is reasonably treating its sold and unsold properties in the same manner.

### **Recommendations**

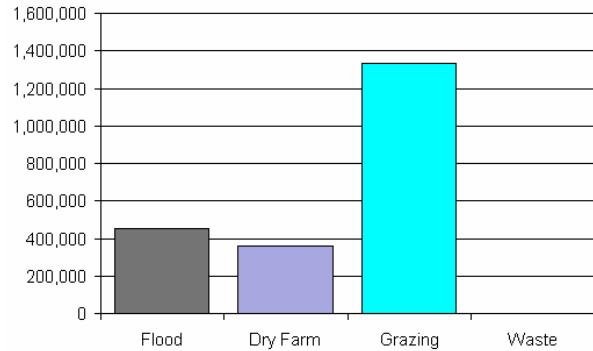
None

# 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>Crowley 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>
4117	Flood	16,041	28.24	452,930	457,837	0.99
4127	Dry Farm	32,995	10.89	359,378	355,950	1.01
4147	Grazing	381,997	3.50	1,335,266	1,335,266	1.00
4167	Waste	540	1.62	872	872	1.00
<b>Total/Avg</b>		<b>431,573</b>	<b>4.98</b>	<b>2,148,447</b>	<b>2,149,925</b>	<b>1.00</b>

### Recommendations

None



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## Agricultural Outbuildings

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### **Methodology**

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

### **Conclusions**

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

### **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 2009 for Crowley 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 31 sales listed as unqualified. All of the sales in the unqualified sales sample had reasons that were clear and supportable.

### **Conclusions**

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

### **Recommendations**

None

# ECONOMIC AREA REVIEW AND EVALUATION

## **Methodology**

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

## VACANT LAND

### **Subdivision Discounting**

Subdivisions were reviewed in 2009 in Crowley 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**

Crowley 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 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: 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.

Crowley County has been reviewed for their procedures and adherence to guidelines when

assessing and valuing agricultural 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

Crowley 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

Crowley 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.

Crowley 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
- 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.

Crowley 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:

- Accounts with obvious discrepancies
- Incomplete or inconsistent declarations
- Accounts with omitted property
- Non-filing Accounts - Best Information Available
- Accounts close to the \$4,000 actual value exemption status
- Accounts protested with substantial disagreement

### **Conclusions**

Crowley 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 / Field Analyst*

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

**Andy Rodriguez**, *Field Analyst*

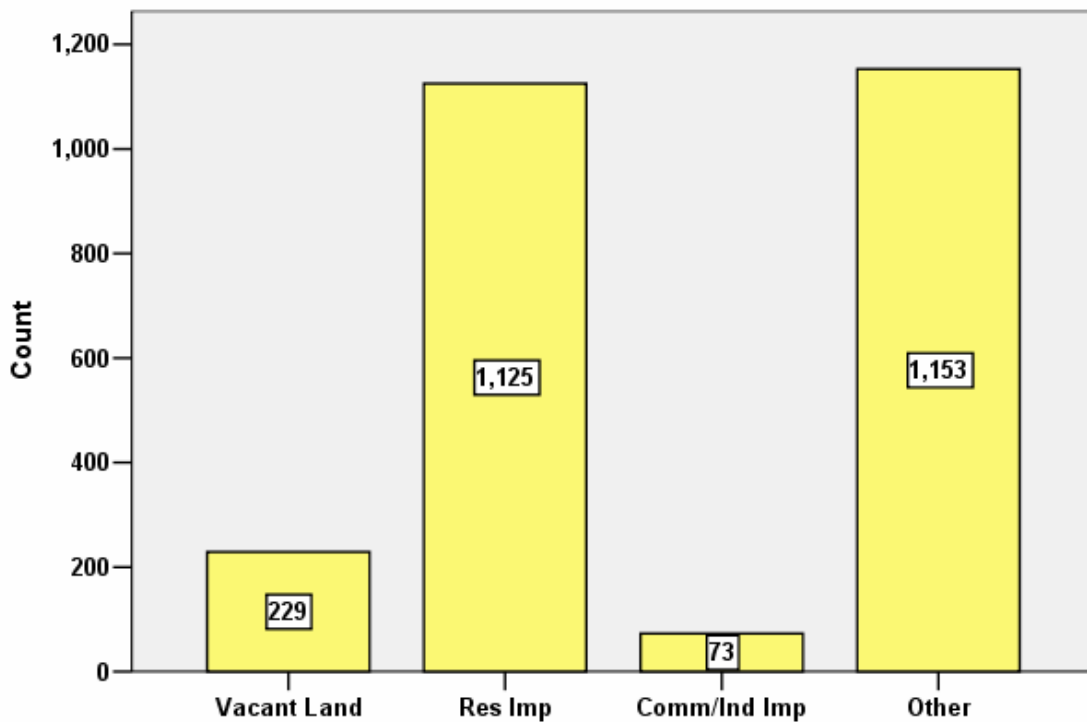
# APPENDICES

## EARLY REPORTING RESULTS FOR CROWLEY COUNTY 2009

### I. OVERVIEW

Crowley County is a rural county located in southeastern Colorado. The county has a total of 2,580 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 71% of all vacant land parcels. Based on the number of vacant land parcels in Crowley County, we were not required to analyze this class of property for audit compliance.

For residential improved properties, single family properties accounted for 68% of all residential properties. Another property classification (1272) was considered essentially single family residential and was treated as such in this report; this subclass accounted for approximately 22% of all residential improved properties in this county. Purged mobile homes (1235) accounted for the remainder of the



residential subclasses. There were no reported sales for this subclass of residential properties during the sale period.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial sales accounted for 2.8% of all such properties in this county.

## II. DATA FILES

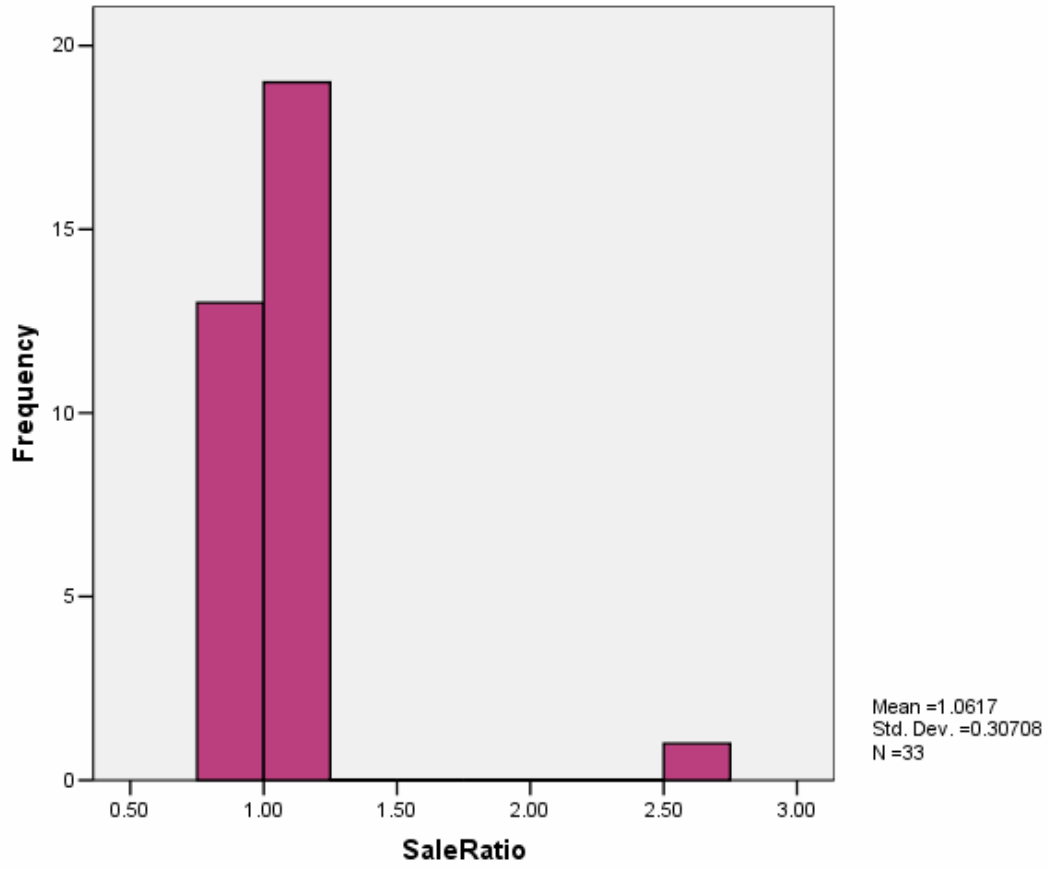
The following sales analyses were based on the requirements of the 2009 Colorado Property Assessment Study. Information was provided by the Crowley Assessor's Office on April 7, 2009. The data included all 5 property record files as specified by the Auditor.

## III. RESIDENTIAL SALES RESULTS

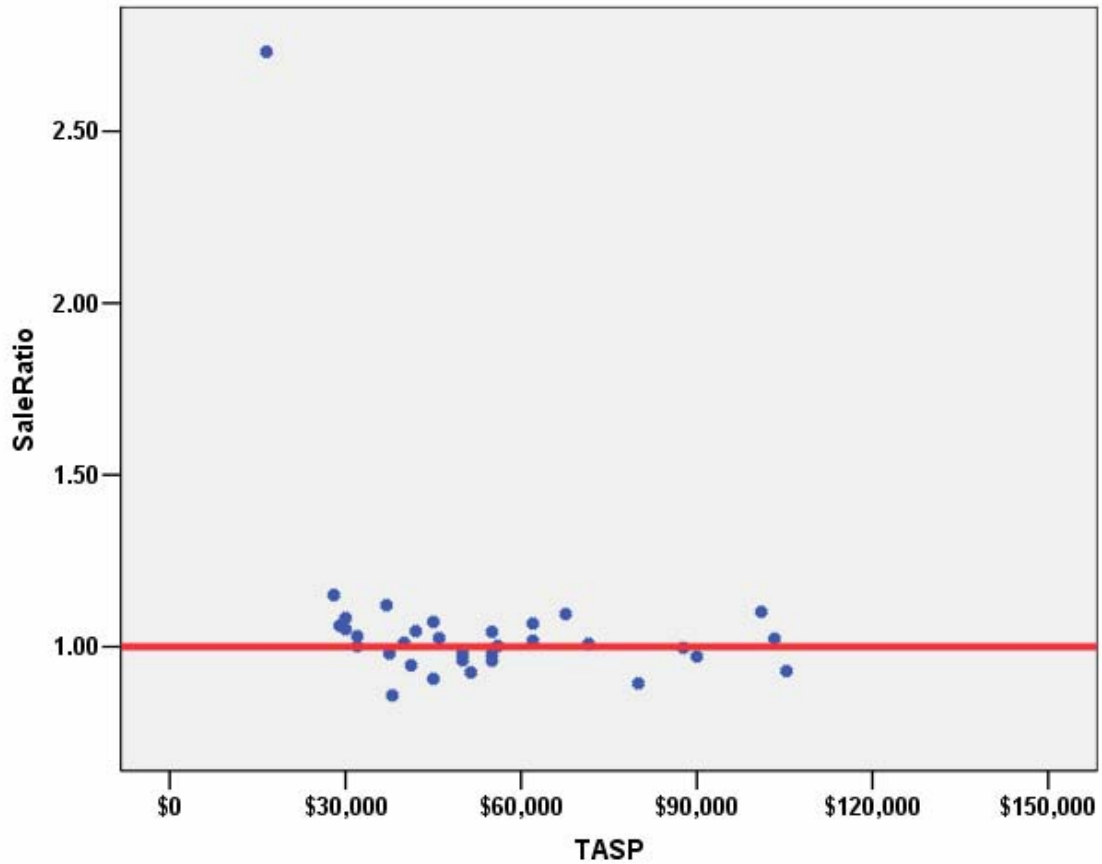
For the residential sales ratio analysis, a total of **33 qualified residential sales** were analyzed. These sales spanned the period from July 2004 to June 2008. The sales ratio analysis resulted in the following:

Median	<b>1.011</b>
Price Related Differential	<b>1.003</b>
Coefficient of Dispersion	<b>.103</b>

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



### Residential Sale Price by Sales Ratio



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. There was one outlier ratio used in the analysis. No sales were trimmed.

### Residential Market Trend Analysis

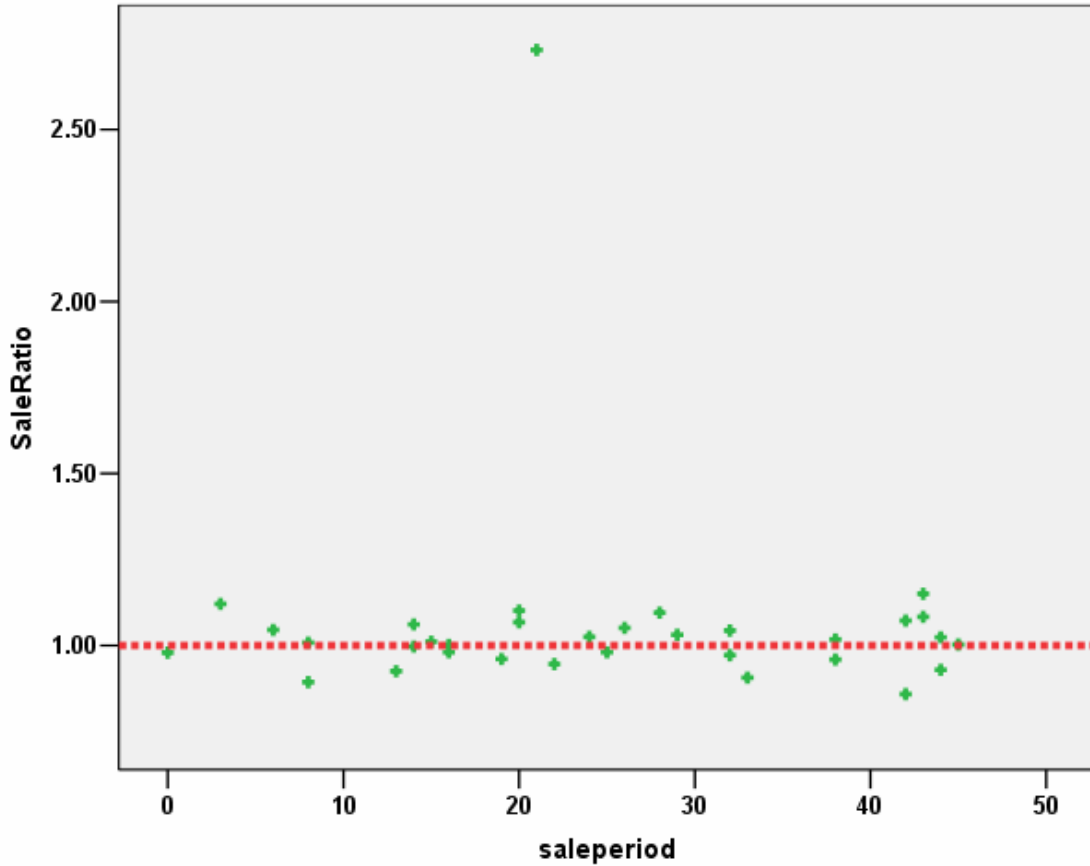
We next analyzed the residential dataset using the 48-month sale period, with the following results:

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

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.091	.116		9.362	.000
	saleperiod	-.001	.004	-.050	-.281	.781

a. Dependent Variable: SaleRatio

### Residential Sale Price Market Trend



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 town, comparing the sold and unsold groups of properties as follows:

TOWNNUM	Sold	N	Median	Mean	Minimum	Maximum
	0	2	\$42	\$42	\$30	\$54
CROWLEY	0	65	\$37	\$40	\$22	\$88
	1	1	\$42	\$42	\$42	\$42
OLNEY SP	0	104	\$39	\$41	\$21	\$93
	1	6	\$45	\$48	\$41	\$59
ORDWAY	0	371	\$38	\$39	\$20	\$88
	1	22	\$39	\$43	\$27	\$70
SUGAR CI	0	125	\$35	\$37	\$20	\$72
	1	2	\$34	\$34	\$26	\$42
Total	0	667	\$37	\$39	\$20	\$93
	1	31	\$42	\$43	\$26	\$70

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

#### **IV. COMMERCIAL/INDUSTRIAL SALE RESULTS**

Crowley County did not have enough qualified commercial/industrial sales to be statistically significant. A procedural audit was completed for taxable year 2009. This analysis reviewed all two sales. Information was gathered concerning class of property, year built, improvement size, type and quality of construction, condition at the time of sale, sale date and amount and the Assessor value. The audit then determined sale price per square foot and the sales ratio.

The audit concluded that Crowley County is in compliance due to the lack of substantive data to support a revaluation decision.

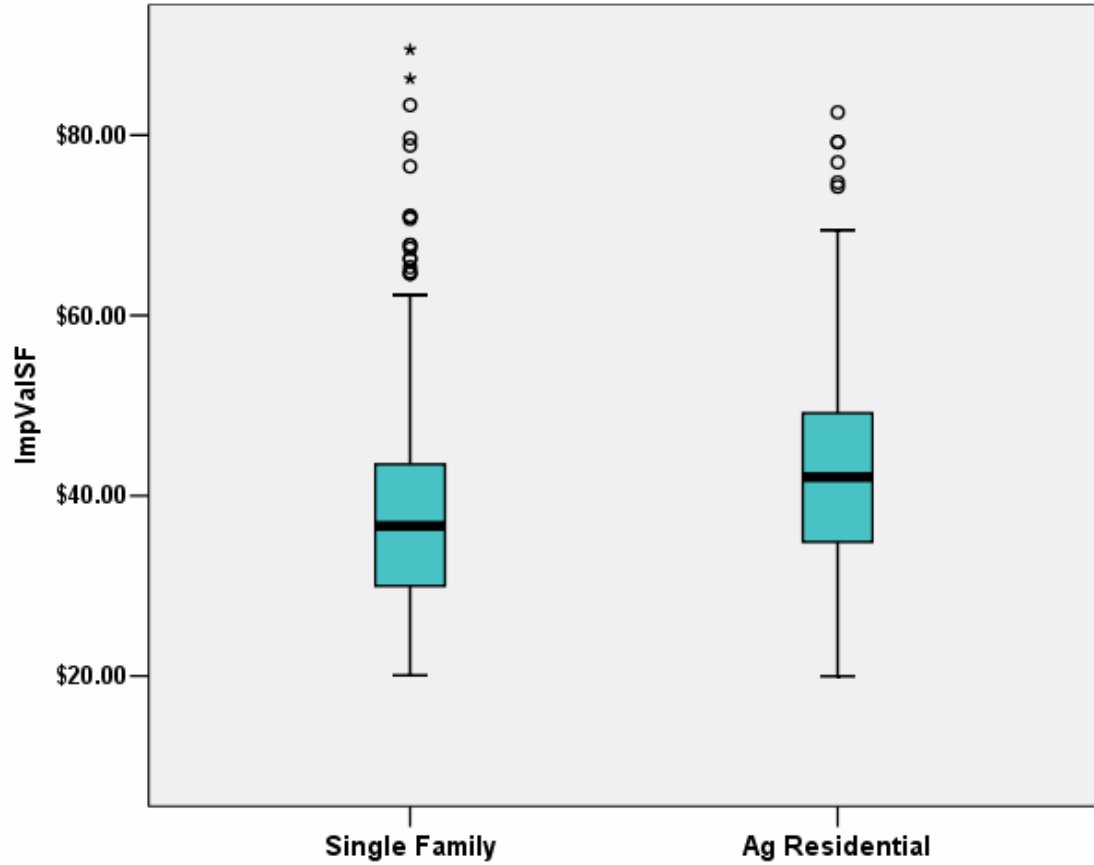
#### **V. AGRICULTURAL IMPROVEMENTS ANALYSIS**

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 Crowley County.

The following indicates that agricultural residential properties were valued slightly higher than single family residential properties in urbanized areas:

**Descriptives**

ABSTRIMP_mean			Statistic	Std. Error	
ImpValSF	1212.00	Mean	\$38.1706	\$.42268	
		95% Confidence Interval for Mean	Lower Bound		\$37.3407
			Upper Bound		\$39.0006
		5% Trimmed Mean	\$37.4650		
		Median	\$36.6201		
		Variance	119.168		
		Std. Deviation	\$10.91641		
		Minimum	\$20.05		
		Maximum	\$89.50		
		Range	\$69.45		
		Interquartile Range	\$13.58		
		Skewness	1.108		.095
		Kurtosis	1.949		.189
			4277.00		Mean
95% Confidence Interval for Mean	Lower Bound			\$41.5943	
	Upper Bound			\$44.7589	
5% Trimmed Mean	\$42.6119				
Median	\$42.0940				
Variance	143.108				
Std. Deviation	\$11.96279				
Minimum	\$20.00				
Maximum	\$82.53				
Range	\$62.54				
Interquartile Range	\$14.44				
Skewness	.767			.163	
Kurtosis	.590			.325	



The \$4 per square foot difference based on a comparison of the median improved value per square foot was similar to the gap indicated in the previous reappraisal year.

## VI. CONCLUSIONS

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

**STATISTICAL ABSTRACT**

**Residential**

**Ratio Statistics for CURRTOT / TASP**

Mean		1.062
95% Confidence Interval for Mean	Lower Bound	.953
	Upper Bound	1.171
Median		1.011
95% Confidence Interval for Median	Lower Bound	.980
	Upper Bound	1.046
	Actual Coverage	96.5%
Weighted Mean		1.021
95% Confidence Interval for Weighted Mean	Lower Bound	.979
	Upper Bound	1.063
Price Related Differential		1.040
Coefficient of Dispersion		.103
Coefficient of Variation	Mean Centered	28.9%

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

**Commercial/Industrial**

Not applicable

**Vacant Land**

Not applicable

**Residential Median Ratio Stratification**

**Sale Price**

**Case Processing Summary**

		Count	Percent
SPRec	LT \$25K	1	3.0%
	\$25K to \$50K	17	51.5%
	\$50K to \$100K	12	36.4%
	\$100K to \$150K	3	9.1%
Overall		33	100.0%
Excluded		0	
Total		33	



**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LT \$25K	2.731	1.000	.000	.
\$25K to \$50K	1.025	1.006	.056	7.3%
\$50K to \$100K	1.000	1.001	.042	5.7%
\$100K to \$150K	1.024	1.001	.056	8.4%
Overall	1.011	1.040	.103	30.8%

**Subclass**

**Case Processing Summary**

	Count	Percent
Abstrimp 1212	31	93.9%
1272	2	6.1%
Overall	33	100.0%
Excluded	0	
Total	33	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
1212	1.018	1.042	.108	31.5%
1272	1.003	1.001	.006	.8%
Overall	1.011	1.040	.103	30.8%

**Commercial Median Ratio Stratification**

Not applicable

**Vacant Land Median Ratio Stratification**

Not applicable