

**ASSESSOR'S CERTIFIED
RATIO STUDY
JANUARY 1, 2018**



*“Serving Columbia County through
Engagement, Connection and Innovation”*



Oregon

Kate Brown, Governor

Department of Revenue
Property Tax Division
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August 7, 2018

Sue Martin, Assessor
Columbia County
230 Strand Street Rm. 331
St. Helens, OR 97051

Columbia County 2018 Assessor's Certified Ratio Study Acceptance and Recommendations

The Department's Mass Appraisal Review team has completed its required review of your *2018 Assessor Certified Ratio Study* report and accepts its findings.

In accordance with ORS 309.200 the county assessor has produced and timely filed a ratio study report that documents achievement of the 100% real market value (RMV) standard for the forthcoming assessment roll as required by ORS 308.232. Any significant changes made to the reported RMV adjustment program must be documented and forwarded to the mass appraisal team at MassAppraisal.Team@oregon.gov.

Your appraisal / valuation plan is yet to be received and is due on or before November 1, 2018.

In accordance with ORS 309.203(1) the Department recommends you continue to maintain accurate property records and values which are extremely important to the maintenance of the county's property tax program.

Our mass appraisal team is available to assist with your real market value mass appraisal programs. If you have questions, please contact any of the CMART team members via email at MassAppraisal.Team@oregon.gov

Sincerely,

Roxanne Gillespie, MAI, Manager
Program Assistance
Property Tax Division

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cc: County Governing Body

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Certification and Analysis of
Valuation Methods and Procedures

State of Oregon)
) SS.
County of Columbia)

I, Sue Martin, Assessor of Columbia County, State of Oregon, do hereby certify that I have prepared a ratio study for the current tax year according to ORS 309.200 and the guidelines developed by the Department of Revenue. Additionally, the attached is a complete and accurate copy of the original now on file in my office.

I further certify that the ratios and adjustments identified in this study will achieve 100% of real market value for real property and manufactured structures for the current year. This report is given to the Department of Revenue and will be given to the Clerk of the Board of Property Tax Appeals to provide current knowledge of the adjustment program used by my office.

Sue Martin
Sue Martin, Assessor

7/25/10
Date

Joelle Leach, Analyst
Preparer/Contact Person

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Introduction

The purpose of Ratio Study is to measure the level of appraised value in relation to the market value as of the assessment date of January 1. For 2018, this is the relationship between the base set-up real market values for all re-calculated or re-appraised areas.

Furthermore, the Ratio Study's purpose is to document the analysis and to identify adjustment factors that will achieve 100% of Real Market Value (RMV). As an additional benefit, this study is a valuable tool for managing appraisal and adjustment programs.

Columbia County is divided into six (6) appraisal areas as illustrated on the County map included in this report. These appraisal areas are referred to as "Maintenance Areas" (MA). Properties within these areas are grouped together for market analysis and adjustment by using Study Areas and/or Property Class/RMV Class designations.

Also referenced on the area list is Maintenance Area 7. This area is not noted on the County Map but is designated for personal property manufactured structures located throughout Columbia County.

The Ratio Study

The format of the Ratio Study is intended to reflect the adjustment program as defined by Oregon Administrative Rule (OAR) 150-309-0230. Most notably are the "Summary of Ratio Indications" and the "Market Area Conclusions and Adjustments" sections of this study. The remaining sections lend additional support and provide further explanation of the adjustment program.

Summary of Ratio Indications

This summarizes the adjustments by Maintenance Area (MA), Study Area (SA) and Neighborhood (NH). Adjustments are made in general categories by RMV class:

1. Residential Urban (RMV class 1XX); Rural Tract (RMV class 4XX or 8XX) - This includes residential land, single family site built dwellings, real property manufactured structures, condominium's, 2-4 unit multi-family properties within the city limits and rural properties which include small rural residential parcels to large farm and forest parcels.
2. Commercial (RMV class 2XX) and Industrial (RMV class 3XX) - This includes commercial and industrial properties appraised by the County in urban or rural locations.
3. Others: this is for properties that do not fit well into any of the categories, or they may be better reported as a separate group.

Sales Trimming

When performing an analysis of the sales for a dataset, there may be ratios that are either very high or very low in the array. These are commonly referred to as "outliers". These outlying ratios require

further investigation to identify whether the sale is deemed “usable” for analysis. In addition, there may be other extreme circumstances surrounding the sale that would result in a skewed ratio.

If the sale is deemed not beneficial to the analysis, then the sale should be “trimmed” from the array. The two standard methods of trimming sales are "Trimmed Mean" and the "Interquartile Range". Removing outliers is not a mandatory practice but is appropriate when drawing a conclusion about the sales data. If the decision is made to trim outliers, then this task must be performed before the process of analyzing the sale datasets. For this ratio study, a trimming method was not applied since all usable sales were deemed appropriate.

Time Study

The purpose for performing a time study is to measure the movement of value over a period. In this case, sales data is analyzed and an adjustment (shown as a percent) is developed to bring the sales price to the January 1 assessment date.

Three separate time studies have been performed: one for the RMV Class 1XX properties, another for the RMV Class 4XX properties and one for the RMV Class 019 properties.

For this Ratio Study, the Mid-Point ratio analysis was deemed as the best technique to adjust for the change over time for the RMV Class 1XX and 4XX properties. By using this analysis, the time adjustment conclusion is applied to the chosen central tendency (Mean, Median, Weighted Mean or Geometric Mean) for each study. The resulting factor is then applied and used to adjust the RMV's to the January 1 assessment date.

For the RMV Class 019 properties, the sales price was adjusted for time using the Direct Calculation Analysis on an annual basis.

Market Area Conclusions and Adjustments

Following are the essential elements that embody the Ratio Study as outlined. They include the individual ratio study for an area, as well as the supporting sales listings and statistical data.

Market grouping - The assessment system provides for adjusting values by market group using stratification and combination. Stratification means splitting a large group of properties into separate groups based on market differences. Conversely, combination means combining properties from separate groups with similar market characteristics. Study Area and RMV Class groupings are the most common market groupings used in this report. They may define the market by location, type of property or by those that have a special use.

Study - each study is two or more pages in length and identifies the RMV Class, the study area, shows the calculation of the adjustment and explains how the factors used in the calculation were selected. Furthermore, each study includes a sales list with related statistics. Following are the main elements included in each study:

1. Market Identification. This describes the population for which the individual study is done. Typically, this is by the RMV class, Maintenance Area (MA) and Study Area (SA) followed by a general description. Most locally assessed properties are identified and a trend conclusion is completed whether or not a sales listing can be generated or a conclusion of “No Trend” is determined.
2. The Adjustment Calculation Summary. This section identifies the following:

- a. The size of the sales sample used.
- b. The total size of the population in the study, both in terms of absolute numbers and by a percent.
- c. Identifies the values of the population by land RMV, on site development RMV, residential improvement RMV and farm/ancillary buildings RMV as it is documented in the Assessor file. These values are shown as dollar amounts and as a percentage of the total RMV for each population by category, both before adjustment and after.
- d. The best indicator of the market (central tendency) is selected. This ratio is either the Mean, Median, Weighted Mean or Geometric Mean. Ratio selections are based on the following principles:
 - i. No single sale should have a large influence on the ratio indications. The objective is to avoid a Mean distorted by an extreme ratio, a Weighted Mean influenced by high valued properties and to avoid a Median when gaps exist in the middle of the frequency distribution.
 - ii. Ratios above and below 100 can be a result of being at or near market. A single trend will result in half the properties being over market and half being under market. A single trend cannot reduce the distribution of ratios within the group.
 - iii. If an adjustment is clearly needed then it is applied. Similarly, the adjustment with the greatest support is applied.
 - iv. Reliability fluctuates. It is dependent upon the size of the sample and the variability within the sample. Therefore, the central tendencies will lie within a range of reliable conclusions.
- e. The "Selected Ratio from Sales" is the product of the chosen Central Tendency adjusted by the conclusion from the Time Study.
- f. The "RMV Adjustment" is not used at this time and remains 100.
- g. The "Before Ratio" is the product of the selected central tendency and the time adjustment. The resulting ratio is a measure of RMV assessment as of Jan 1 *before* any other adjustments are applied.
- h. The "Overall Adjustment Factor" is needed to bring the prior year RMV (or the current year re-calculated RMV) to the statutorily required 100% real market value as of the January 1 assessment date. It is calculated by dividing 1 by the Before Ratio. For improved properties, the overall adjustment factor is separated into the following:
 - i. Land Adjustment Factor: the adjustment by which the land portion of a property is adjusted. It usually is the land adjustment factor used in the analysis of unimproved land within the same MA and SA. However, the adjustment may be from the analysis of the improved RMV class if an insufficient sales sample of unimproved land is not available.
 - ii. OSD Adjustment Factor: the adjustment factor that brings the site improvement portion of the property to 100% of RMV. This value is available, as a separate component for improved properties, but at this time remains as a 100 adjustment.
 - iii. Residential Improvement Factor: the adjustment factor needed to bring the residential and associated improvements to 100% of RMV as part of the overall adjustment.

- iv. Farm Improvement Adjustment: the adjustment factor applied as part of the overall adjustment that will bring outbuildings and other ancillary structures to 100% real market value.
 - v. After Ratio: this measures the valuation to be sure it meets 100% real market value requirements as outlined in statute. The After Ratio "tests" the County's ratio study program.
 - vi. Adjustment: this is an estimate of the level of appraised value (RMV) relative to the market value as of the assessment date of January 1. This is before adjusting the RMV (trending).
- i. Explanation: this is a written statement explaining which central tendency was selected to determine the ratio used in the analysis. If other factors contributed to the conclusion, they may be mentioned here as well.
3. Performance History. The following are historical displays of performance and valuation:
- a. Coefficient of Dispersion (COD). The history of COD is shown at the bottom of the report. A COD higher than the maximum for the RMV class and type is an indication that the RMV Class and/or MA may have a valuation problem. The acceptable measurement of uniformity ranges are when the COD percentages are between 10 and 20.
 - b. Price Related Differential (PRD). The PRD history measures vertical equity of the RMV. The measurements of vertical equity are defined as:
 - i. Regressive: a PRD above 1.00 suggests that the high-valued properties are under-appraised and the low-valued properties are over-appraised.
 - ii. Progressive: a PRD less than 1.00 suggests that high-value properties are over-appraised and low-valued properties are under-appraised.
 - iii. An ideal PRD is within the range of .98 to 1.03.
4. Performance Measures. To measure valuation, the following studies are performed:
- a. For most studies, listings are used of sold properties that meet the definition of an arms-length sale. Each sale is identified by MA, SA, Neighborhood and RMV Class. Once identified, then additional details are provided to describe the individual sale properties. Next, a ratio is calculated for each sale then statistical data is calculated for the entire grouping and displayed. The major components are as follows:
 - i. Maintenance Area (MA): one of the seven appraisal areas.
 - ii. Study Area (SA): market identification code.
 - iii. Neighborhood (NH): this identifier is not used at this time and the current designation is "000".
 - iv. Real Market Property Class: a three-digit number identifying the type of property.
 - v. Building Class: the type of main structure included in the sale.
 - vi. Sales are identified by a code (sales code) illustrating whether a sale is confirmed or not confirmed. The current sale codes used are as follows:
 - 01 Change of use
 - 02 Deed does not show warranty of title
 - 03 Grantee/Grantor is a political subdivision

- 04 Grantee/Grantor is a bank or other financial institution
 - 05 Grantee/Grantor is a charitable, religious or other institution
 - 06 Grantee/Grantor are related or business associates
 - 07 Conveyance of partial or divided interest
 - 08 Grantee/Grantor are the same, convenience
 - 10 Short Sale or conveyance to avoid foreclosure
 - 11 Grantor is Sheriff, Court Officer, Receiver, Guardian, Trustee
 - 12 Contract payoff
 - 13 Critical field on Deed or Document left blank
 - 14 Prior year sale
 - 16 Sale includes personal property not accurately extracted
 - 17 Sale includes orchards, crops or other exempt property
 - 20 Other errors or omissions
 - 21 Property sold not same as assessed
 - 22 Sale includes timber value
 - 23 Sale of properties that had RMV adjudicated in the past 5 years
 - 25 RMV needs updating due to new construction
 - 27 Sales review requested
 - 30 Unconfirmed and usable
 - 33 Confirmed and usable
 - 35 Assessment Clerk question
 - 50 Special size change code for tracking only
 - 80 Segregation
- vii. Map Number: the Assessor’s map and tax lot number (more than one tax lot may be involved in the sale but not displayed).
 - viii. Book: the calendar year in which the title transfer document was recorded.
 - ix. Page: the recording number of the title transfer document.
 - x. Acres: the total land size expressed as acreage.
 - xi. RMV Land: the base set up land value that is analyzed and determined every year from sales data during the set-up study.
 - xii. RMV Imp: the base value using the current DOR Factor Book. The local cost modifier and depreciation conclusion is then applied. These are determined by the yearly set-up analysis.
 - xiii. Total Value: the sum of the RMV Land and the RMV Imp.
 - xiv. Sales Price: the sale price of the property as of the date of sale.
 - xv. Sale Date: the month and the year that the property sold.
 - xvi. Sale Number: the sale data is arrayed in ascending order by ratio.
 - xvii. Ratio: a comparison of the total appraised value to the sale price which is

expressed as a percentage without a decimal point (Total RMV =/Sales Price = Ratio).

5. Explanation of the statistical data: As with all statistical analysis, the accuracy of each conclusion depends on a sufficient sample size that properly represents the population of an area. Judgements about grouping properties in order to gain reasonably accurate results are primarily based on creating an adequate sample size of study areas that move similarly in the market. Descriptive statistics are found on the second page of each ratio study and are split into two categories:
 - a. Statistics of Central Tendency – the center, middle or typical element in a dataset. These are generally assumed to reflect the level of appraised value (RMV) relative to the market value. However, the central tendency ratios must be analyzed in some detail to produce reasonably accurate trend conclusions. These statistics can be found on the second page of each study and are illustrated in graph form. The central tendency measurements are comprised of the following:
 - i. Median: the middle ratio of an array. It is a positional ratio and if gaps are present near the center of the data set then the Median may be an unreliable measurement.
 - ii. Mean: traditionally referred to as the “average”, the Mean is the sum of all the ratios divided by the number of ratios. Because it uses all the ratios in an array, it is easily distorted by extreme high and low ratios.
 - iii. Weighted Mean: the sum of the total RMV divided by the sum or the total Sales Price. The sales with relatively high prices will have the most effect on this measure.
 - iv. Geometric Mean: the “Nth” root of the product of the ratios, where “N” is the number of ratios in the array.
 - b. Statistics of Distribution: this performance measurement describes how values are distributed within the group; it illustrates how far the ratios are from the central tendency. Care must be taken not to “read too much” into the distribution statistics but rather to use them as an indication of the accuracy or consistency of RMV within the marketplace. If the sample is relatively small, the conclusion of the distribution may be unreliable.
 - i. Frequency Distribution – located on the second page, this is graph and numeric display of the distribution of sales by ratio range.
 - ii. Average Deviation (AD) – the average of the differences between each ratio and the Median for the entire grouping.
 - iii. Coefficient of Dispersion (COD) – measures the uniformity of RMV and is the average deviation from the Median converted to a percentage.
 - iv. Standard Deviation (SD) – a measure of deviation from the Mean for a normally distributed population. For this statistic to be useful, the population and the sales sample must meet relatively strict statistical standards. Therefore, it is considered less useful for a typical standard appraisal analysis than the COD.
 - v. Coefficient of Variance (COV) – the standard deviation from the Mean, converted to a percentage.
 - vi. Price Related Differential (PRD) – a measure of vertical equity. It is calculated by

dividing the Mean by the Weighted Mean.

- vii. 95% Confidence Level – a calculation of uniformity used to determine the reliability that the sales array is representative of the population. This number is expressed as a percentage. The lower the percentage the greater the reliability. Conversely, the higher the percentage the lower the reliability.

6. The current “working” standards are:

a. Real Market Value	100%
b. COD Standards -	
Vacant Land RMV Class, 100, 400	20%
Real & Personal Manufactured Structure Urban	25%
Residential RMV Class 101, 109 -	
Homogenous	10%
Non-Homogenous	15%
Rural Improved RMV Class 401, 409	20%
Apartments RMV Class 701	12%
Commercial Improved RMV Class 201 –	
Large/Urban	15%
Smaller/Urban	20%
Industrial	no standard has been set
Floating Property	no standard has been set
c. The PRD standard	98% to 103%

Special Processed Values

Not all assessed values are adjusted in the manner described in this report. Specially assessed values (Farm or Forest deferred), certain personal property values, and many industrial property values are recalculated or specially processed annually. The ratio study does not report these values. It does however, indicate how the RMV of farm and forest deferred properties will be adjusted.

Columbia County Assessor's Annual Set-Up, Reappraisal and Recalculation:

Set-up

Every year, the Appraisal staff devotes approximately four months to analyzing and reviewing recent sales. During this time, land values, OSD values, local cost modifiers, and local market-based depreciation schedules are developed. In addition, class and condition benchmarks are established. These values are referred to as "base values" and are entered into the tables for January 1. Therefore, for the January 1 assessment date, the "Before Ratio" reflects these base values and modifiers.

Reappraisal

An area (or property type) is selected each year for a physical reappraisal performed by the Appraisal staff. During this time, every property within the reappraisal area is visited, inspected, and reviewed for any changes such as; class, condition, topography, access, view, or any other factor that will have an effect on the value. Once the reappraisal is complete, the property is calculated electronically using the base values and factors developed in the Set-up study.

Recalculation

The Columbia County Assessor's recalculation process is based on the base values and factors that are developed during Set-up and the existing inventory in our system. A physical inspection of the properties is not performed. Since the Set-up study is performed annually to develop base values, this recalculation method is a more reliable way to determine market trends rather than solely depending on the ratio study conclusions.

Please refer to Appendix A for further explanation on the Set-up, Reappraisal and Recalculation process and procedure.

Status of the Assessor's Adjustment Program

The Columbia County Assessor and staff will continue to review market information until the actual changes are made to the roll. It is possible that additional data and further analysis will lead to conclusions different from those contained in this report.

The Assessor must make those adjustments that are indicated by reliable market data to produce the most accurate appraisals possible. Any future modification to the adjustment factors in this report will be reported to the Department of Revenue and will be documented in the modifications section of this study.

Percent of Confirmed Sales:

Area	Number of Arm's Length Sales	Sales used in the Ratio Study	Number of Confirmed Sales	Percent Confirmed
MA 1	320	300	267	89%
MA 2	288	279	242	87%
MA 3	125	101	90	89%
MA 4	129	111	102	92%
MA 5	121	92	76	83%
MA 6	164	152	134	88%
MA 7 PPMS	91	37	18	49%
Comm/Ind	18	18	11	61%
Apartment	0	0	0	0
Floating Property	19	15	9	60%
Totals:	1256	1090	940	86%

86% of usable sales used have been confirmed for the current study

Percent of Properties where RMV is equal to Assessed Value (AV):

Area	RMV is equal to AV Count	Account Total per MA	Percent of the Accounts
MA 1	252	5271	5%
MA 2	741	4983	15%
MA 3	258	3864	7%
MA 4	382	4604	8%
MA 5	271	4802	6%
MA 6	110	4249	3%
MA 7	4	1282	0%
Total:	2018	29055	7%

*MAINTENANCE AREA
DESCRIPTIONS
AND MAP*

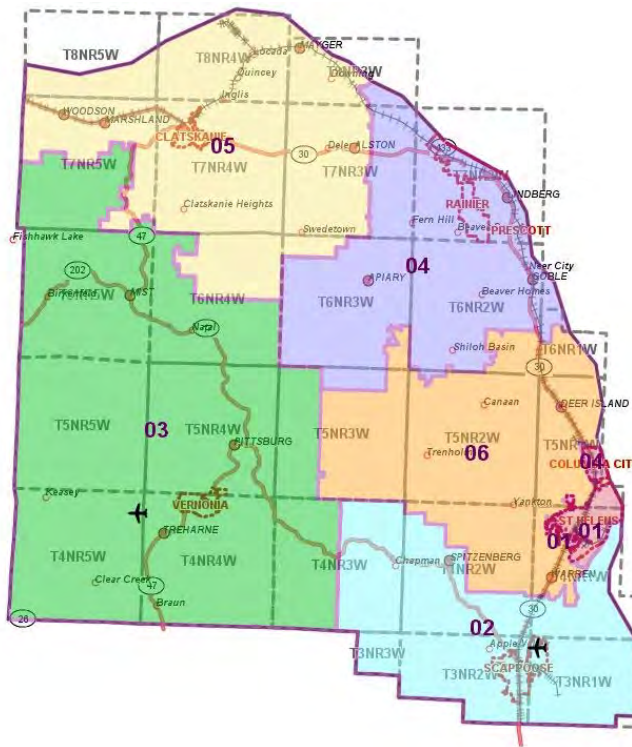
Maintenance Area Boundary Line Changes:

The maintenance area lines were adjusted this year to produce analogous areas for reappraisal, new construction, set-up and other appraisal activities.

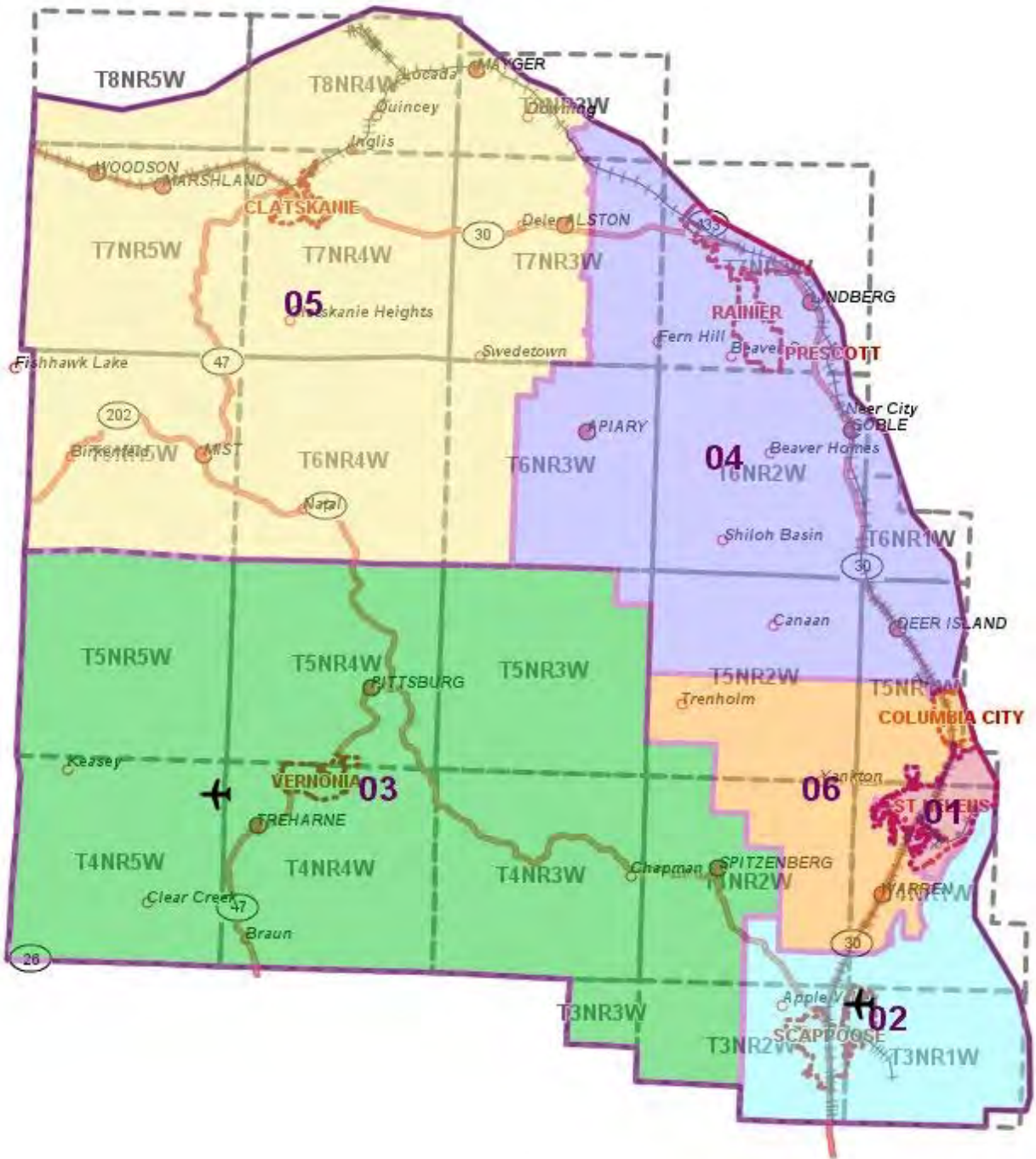
Maintenance Area Descriptions:

Maintenance Area 1:	City of St. Helens	Maintenance Area 5:	City of Clatskanie Rural Clatskanie
Maintenance Area 2:	City of Scappoose Rural Scappoose	Maintenance Area 6:	Rural St. Helens City of Columbia City Warren
Maintenance Area 3:	City of Vernonia Rural Vernonia	Maintenance Area 7:	Personal Property Manufactured Structures, Countywide
Maintenance Area 4:	City of Rainier Rural Rainier Deer Island		

Prior Year Maintenance Area Map (2017)



Current Maintenance Area Map for 2018:



*GROUPING ANALYSIS
AND
STUDY AREA
DESCRIPTIONS*

Grouping Analysis:

When performing an analysis, some Study Areas and/or property classes may move within the market in a similar manner. When this is observed, they may have been combined in one individual study. (Note: in moving the MA boundary lines, the Study Areas may have also moved to a new MA). In addition, other study areas and/or property classes may have been combined to improve the sale sample in order to arrive at a more reliable conclusion.

Study areas and/or property classes were analyzed separately if:

- The data indicated that an individual SA and/or property class had sufficient data to arrive at a reliable conclusion, and
- The sales within those areas indicated that it would not be reasonable to combine them with another area and/or classification.

If a study area and/or property classes were combined, then they have been identified in the individual ratio study.

Study Area descriptions:

Maintenance Area 1 – City or St. Helens

00	Undefined	73	Comm. use in Ind. area within Comm. corridor
15	River Front	74	Comm. use in Ind. area outside Comm. corridor
30	Duplex, Triplex, Fourplex	80	Yachts Landing PUE
43	Townhouse, Row House, Common Wall	90	Industrial – County Resp.
60	Island, Columbia River	95	Floating Home & Combinations
71	Comm. Hwy with Light	97	Boathouse & Misc. FP Imp.
72	Comm. Hwy without Light		

2018: SA 01 (City of Columbia City - undefined) moved to MA 6
 SA 21 (Columbia City - McBride Meadows/Sophie Park) moved to MA 6
 SA 31 (Columbia City - Duplex/Triplex/Fourplex) moved to MA 6

Maintenance Area 2 – Scappoose

00	Undefined	71	Comm. Hwy with Light
06	Forest Value Zone, HBU	72	Comm. Hwy without Light
21	Rural Value Zone 1 (100%)	73	Comm. use in Ind. area within Comm. corridor
25	Scappoose Dike Land	74	Comm. use in Ind. area outside Comm. corridor
28	Duplex, Triplex, Fourplex	77	Scappoose Industrial Air Park
33	Townhouse, Row House, Common Wall	79	Keys Landing, Keys Crest, Keys Orchard
41	Sauvie Island	80	Columbia River View Estates
45	Sauvie Island Dike Land	90	Industrial – County Resp.
60	Island, Columbia River	95	Floating Home & Combinations
62	Freeman Road	97	Boathouse & Misc. FP Imp.
64	Hillcrest, Columbia Acres		

2018: SA 22 (Rural Value Zone 2) moved to MA 3 SA 31
 SA 23 (Rural Value Zone 3) moved to MA 3 SA 31
 SA 63 (Columbia Acres) moved to MA 2 SA 64

Study Area descriptions continued:

Maintenance Area 3 – Vernonia

00	Undefined	38	Roseview Heights
03	Flood Zone Properties	40	Duplex, Triplex, Fourplex
06	Forest Value Zone, HBU	73	Comm. use in Ind. area within Comm. corridor
31	Rural Value Zone 1 (100%)		

2018: SA 36 (Fishhawk Lake) moved to MA 5
 SA 37 (Berndt's Creek) moved to MA 3 SA 31
 SA 39 (Heather Park) moved to MA 3 SA 00

Maintenance Area 4 – Rainier

00	Undefined	56	Deer Island Heights
06	Forest Value Zone, HBU	60	Island, Columbia River
40	Duplex, Triplex, Fourplex	71	Comm. Hwy with Light
41	Rural Value Zone 1 (100%)	72	Comm. Hwy without Light
42	Rural Value Zone 2 (90-95%)	73	Comm. use in Ind. area within Comm. corridor
44	Prescott	74	Comm. use in Ind. area outside Comm. corridor
45	Dike Land	90	Industrial – County Resp.
46	Riverview Drive, Maple Drive	95	Floating Home & Combinations
47	Rainier Riverfront Estates	97	Boathouse & Misc. FP Imp.

Maintenance Area 5 – Clatskanie

00	Undefined	60	Island, Columbia River
06	Forest Value Zone, HBU	71	Comm. Hwy with Light
36	Fishhawk Lake Estates	72	Comm. Hwy without Light
40	Duplex, Triplex, Fourplex	90	Industrial – County Resp.
51	Rural Value Zone 1 (100%)	95	Floating Home & Combinations
55	Dike Land	97	Boathouse & Misc. FP Imp.

Maintenance Area 6 – City of Columbia City and Rural St. Helens (Warren, Yankton and Deer Island)

00	Undefined	62	Rural Value Zone 2 (90-95%)
01	City of Columbia City	65	Dike Land
06	Forest Value Zone, HBU	72	Comm. Hwy without Light
15	River Front (CC)	73	Comm. use in Ind. area within Comm. corridor
21	McBride Meadows, Sophie Park (CC)	90	Industrial – County Resp.
31	Duplex, Triplex, Fourplex (CC)	95	Floating Home & Combinations
60	Island, Columbia River	97	Boathouse & Misc. FP Imp.
61	Rural Value Zone 1 (100%)		

2018: SA 63 (Rural Value Zone 3) moved to MA 4 SA 42
 SA 64 (Rural Value Zone 4) moved to MA 4 SA 42
 SA 56 (Deer Island Heights) moved to MA 4

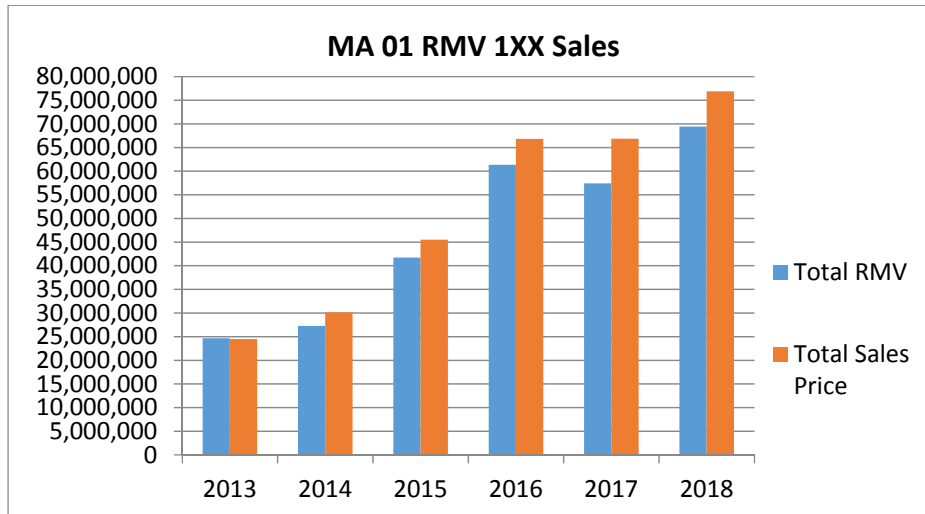
Study Area descriptions continued:

Maintenance Area 7 – Personal Property Manufactured Structure, County wide

01	PP MS in MA 1	27	PP MS in Crestwood Village (St. Helens)
02	PP MS in MA 2	28	PP MS in Columbia City Estates (Columbia City)
03	PP MS in MA 3	30	PP MS in Springlake Park (Scappoose)
04	PP MS in MA 4	31	PP MS in Crown Park (Scappoose)
05	PP MS in MA 5	35	PP MS in Riverside Meadows (Vernonia)
06	PP MS in MA 6		

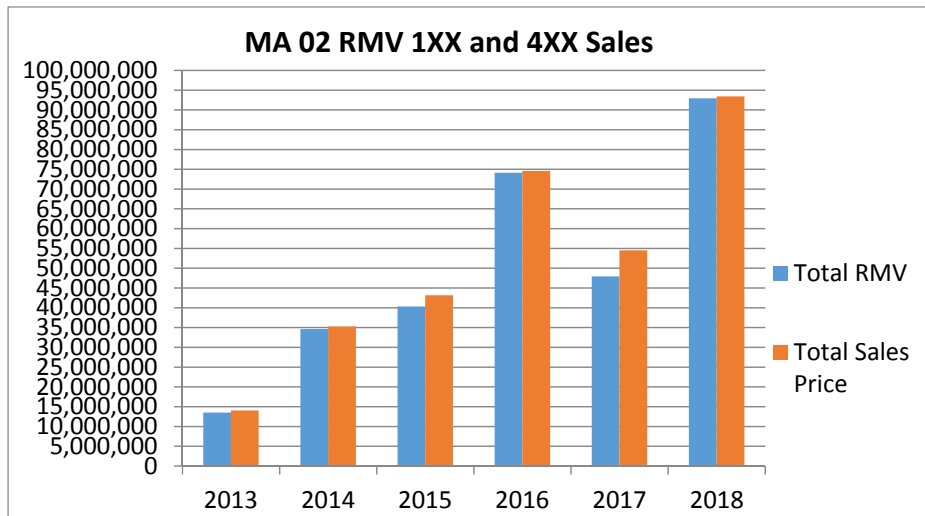
*RMV CLASS
1XX AND 4XX
Sales Comparisons of
Useable Arm's Length
Transactions*

Maintenance Area 1 – City of St. Helens:



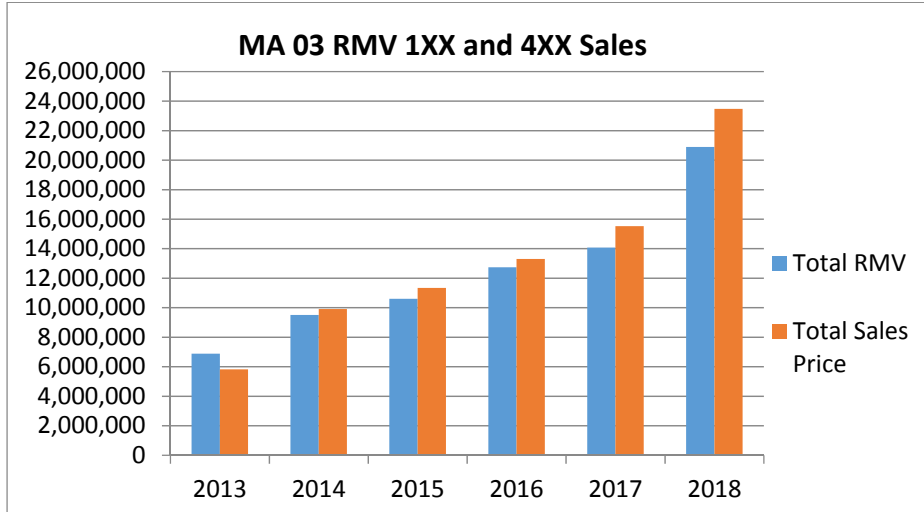
Year	Total RMV	Total Sales Price	% Increase or Decrease
2013	24,664,330	24,477,864	-0.76%
2014	27,271,640	30,125,963	9.47%
2015	41,709,450	45,485,583	8.30%
2016	61,344,200	66,808,074	8.18%
2017	57,415,130	66,843,594	14.11%
2018	69,414,700	76,871,860	9.70%

Maintenance Area 2 – Scappoose:



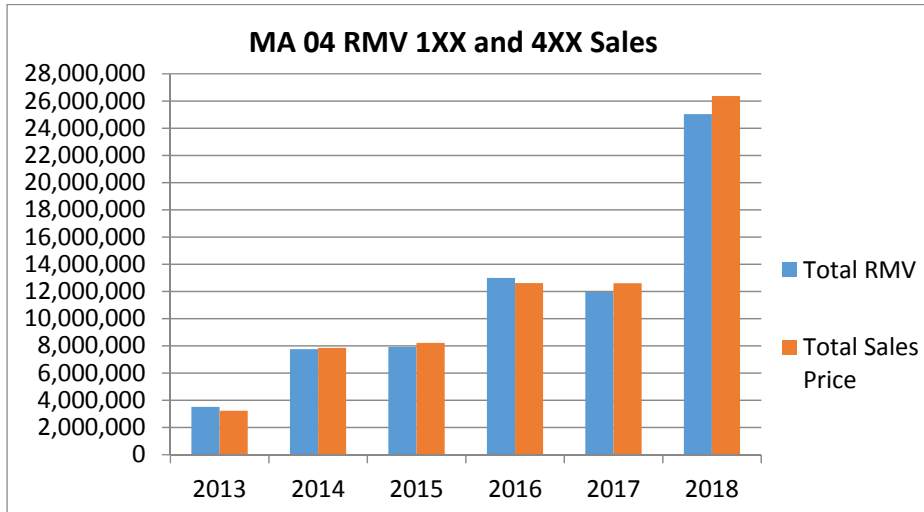
Year	Total RMV	Total Sales Price	% Increase or Decrease
2013	13,494,450	14,023,709	3.77%
2014	34,592,400	35,256,145	1.88%
2015	40,304,830	43,150,531	6.59%
2016	74,133,990	74,575,915	0.59%
2017	47,923,730	54,502,280	12.07%
2018	92,934,820	93,391,170	0.49%

Maintenance Area 3 – Vernonia:



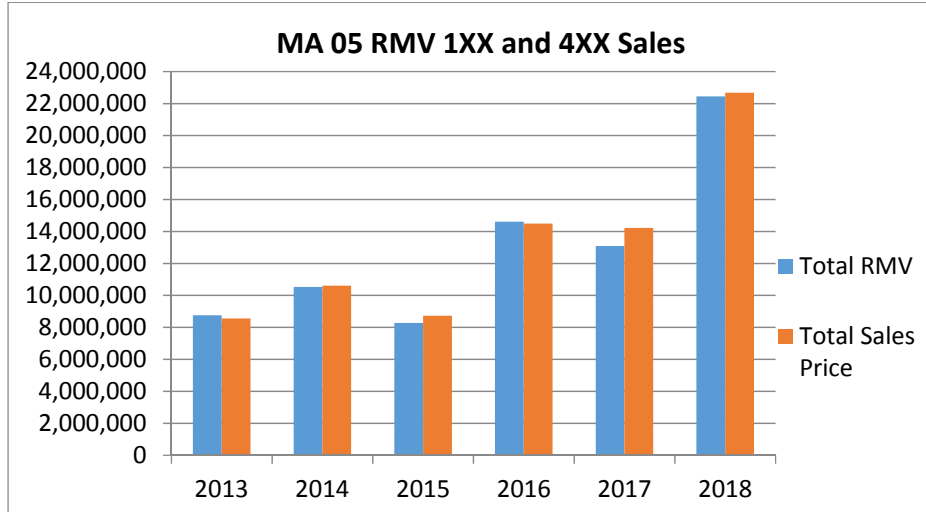
Year	Total RMV	Total Sales Price	% Increase or Decrease
2013	6,876,300	5,813,733	-18.28%
2014	9,504,190	9,907,154	4.07%
2015	10,600,840	11,341,840	6.53%
2016	12,738,250	13,296,202	4.20%
2017	14,069,940	15,526,880	9.38%
2018	20,888,200	23,469,820	11.00%

Maintenance Area 4 – Rainier and Deer Island:



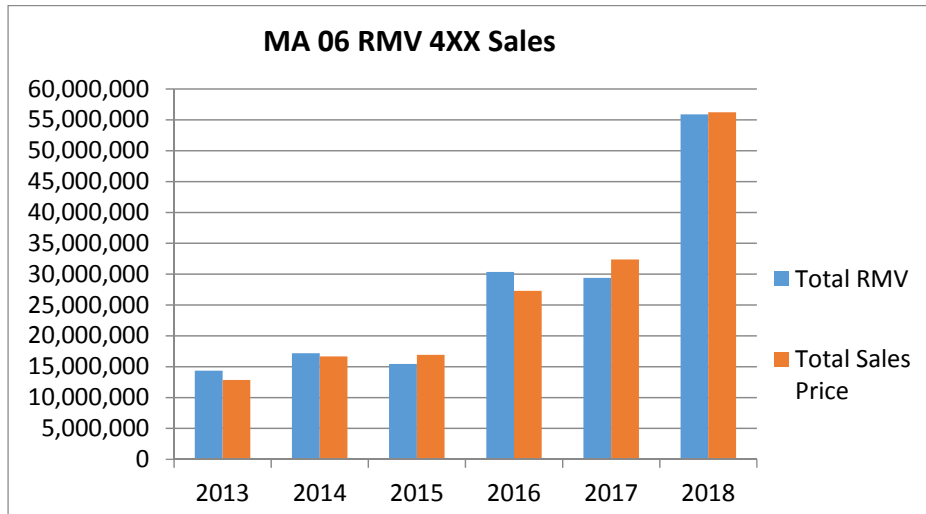
Year	Total RMV	Total Sales Price	% Increase or Decrease
2013	3,512,040	3,230,575	-8.71%
2014	7,756,040	7,852,250	1.23%
2015	7,922,360	8,211,221	3.52%
2016	12,985,430	12,615,662	-2.93%
2017	11,948,770	12,605,480	5.21%
2018	25,033,650	26,354,133	5.01%

Maintenance Area 5 – Clatskanie:



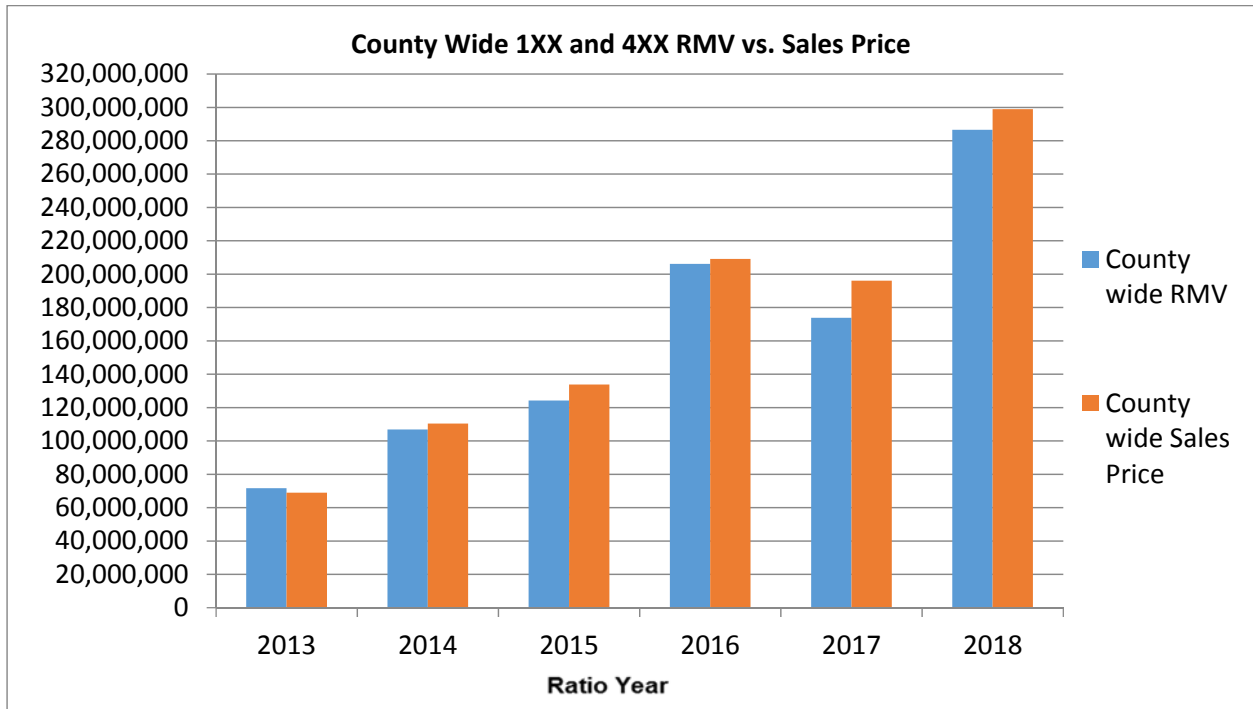
Year	Total RMV	Total Sales Price	% Increase or Decrease
2013	8,754,170	8,548,087	-2.41%
2014	10,524,760	10,609,569	0.80%
2015	8,271,680	8,725,197	5.20%
2016	14,610,760	14,488,650	-0.84%
2017	13,090,540	14,216,900	7.92%
2018	22,443,120	22,674,879	1.02%

Maintenance Area 6 – Rural St. Helens, City of Columbia City, Warren:



Year	Total RMV	Total Sales Price	% Increase or Decrease
2013	14,342,050	12,845,838	-11.65%
2014	17,172,520	16,647,834	-3.15%
2015	15,425,060	16,908,579	8.77%
2016	30,345,300	27,294,325	-11.18%
2017	29,386,950	32,361,666	9.19%
2018	55,888,420	56,207,263	0.57%

County Wide Property Class 1XX and 4XX:



Year	County wide RMV	County wide Sales Price	% Increase or Decrease
2013	71,643,340	68,939,806	-3.92%
2014	106,821,550	110,398,915	3.24%
2015	124,234,220	133,822,951	7.17%
2016	206,157,930	209,078,828	1.40%
2017	173,835,060	196,056,800	11.33%
2018	286,490,610	298,880,125	4.15%

PROPERTY CLASS
RMV CLASS

DESCRIPTIONS AND
COUNTS

Prop Class	RMV Class	Class Description	2018 Count	2017 Count	Change from prior year
003	003	Centrally Assessed	117	120	-3
003	030	Odd Lot	2	2	0
008	008	H & B Use Industrial Machinery and Equipment	41	0	41
010	010	Odd Lot	117	128	-11
014	101	H & B Use Residential Improved	1	1	0
014	401	H & B Use Rural Tract Improved	1	1	0
019	019	Personal Manufactured Structures	1282	1207	75
020	020	Odd Lot-Commercial Zone	10	10	0
024	201	H & B Use Commercial Improved	5	5	0
025	201	H & B Use Commercial Improved	3	3	0
025	401	H & B Use Rural Tract Improved	1	1	0
030	030	Odd Lot	4	4	0
032	030	Odd Lot	117	117	0
032	032	Industrial, Minerals Only	2	2	0
038	008	H & B Use Industrial Machinery and Equipment	1	0	1
038	303	H & B Use Industrial State Responsibility	1	0	1
040	040	Odd Lot	122	122	0
100	100	H & B Use Residential Vacant	693	887	-194
101	003	Centrally Assessed	1	1	0
101	010	Odd Lot	1	0	1
101	101	H & B Use Residential Improved	9356	9171	185
102	102	H & Best Use Residential Condominium	50	7	43
102	401	H & B Use Rural Tract Improved	1	1	0
109	109	H & B Use Residential MS	425	420	5
111	111	Residential, Floating Property	296	292	4
111	201	H & B Use Commercial Improved	1	0	1
200	020	Odd Lot-Commercial Zone	1	1	0
200	200	H & B Use Commercial Vacant	149	151	-2
200	300	H & B Use Industrial Vacant	1	1	0
201	201	H & B Use Commercial Improved	784	730	54
201	301	H & B Use Industrial Improved	11	10	1
206	201	H & B Use Commercial Improved	45	22	23
207	207	H & B Use Commercial MS Park improved	43	36	7
208	201	H & B Use Commercial Improved	8	8	0
300	300	H & B Use Industrial Vacant	40	37	3
301	301	H & B Use Industrial Improved	29	30	-1
301	333	H & B Use Industrial State IPR/Aggregate	1	2	-1
303	300	H & B Use Industrial Vacant	1	1	0
303	303	H & B Use Industrial State Responsibility	44	24	20
308	308	H & B Use Industrial Machinery and Equipment	10	8	2
330	300	H & B Use Industrial Vacant	15	17	-2
330	400	H & B Use Rural Tract Vacant	2	2	0
333	303	H & B Use Industrial State Responsibility	3	3	0
400	400	H & B Use Rural Tract Vacant	664	675	-11

Prop Class	RMV Class	Class Description	2018 Count	2017 Count	Change from prior year
401	101	H & B Use Residential Improved	17	17	0
401	401	H & B Use Rural Tract Improved	4736	4759	-23
409	109	H & B Use Residential MS	32	31	1
409	401	H & B Use Rural Tract Improved	1	3	-2
409	409	H & B Use Rural Tract MS Improved	1231	1190	41
441	401	H & B Use Rural Tract Improved	2	2	0
540	100	H & B Use Residential Vacant	6	6	0
540	300	H & B Use Industrial Vacant	4	4	0
540	400	H & B Use Rural Tract Vacant	146	156	-10
541	101	H & B Use Residential Improved	11	11	0
541	201	H & B Use Commercial Improved	1	1	0
541	401	H & B Use Rural Tract Improved	422	426	-4
549	109	H & B Use Residential MS	2	2	0
549	409	H & B Use Rural Tract MS Improved	60	60	0
550	300	H & B Use Industrial Vacant	3	3	0
550	400	H & B Use Rural Tract Vacant	133	133	0
551	401	H & B Use Rural Tract Improved	328	335	-7
559	409	H & B Use Rural Tract MS Improved	32	32	0
580	400	H & B Use Rural Tract Vacant	12	21	-9
581	101	H & B Use Residential Improved	2	2	0
581	401	H & B Use Rural Tract Improved	82	93	-11
589	409	H & B Use Rural Tract MS Improved	14	13	1
600	600	H & B Use Timber Vacant	556	561	-5
601	601	H & B Use Timber Improved	1	1	0
640	100	H & B Use Residential Vacant	40	44	-4
640	300	H & B Use Industrial Vacant	7	8	-1
640	400	H & B Use Rural Tract Vacant	2033	2055	-22
640	600	H & B Use Timber Vacant	1	1	0
641	101	H & B Use Residential Improved	21	21	0
641	201	H & B Use Commercial Improved	1	1	0
641	303	H & B Use Industrial State Responsibility	1	1	0
641	401	H & B Use Rural Tract Improved	2046	2082	-36
649	109	H & B Use Residential MS	5	5	0
649	401	H & B Use Rural Tract Improved	2	2	0
649	409	H & B Use Rural Tract MS Improved	612	603	9
680	400	H & B Use Rural Tract Vacant	53	57	-4
681	101	H & B Use Residential Improved	1	1	0
681	300	H & B Use Industrial Vacant	1	1	0
681	401	H & B Use Rural Tract Improved	164	162	2
689	409	H & B Use Rural Tract MS Improved	18	15	3
701	701	H & B Use Mutli-Family Imp. & MS Park Imp.	80	79	1
781	701	H & B Use Mutli-Family Imp. & MS Park Imp.	6	6	0
800	800	Recreation, Land Only	137	156	-19
801	401	H & B Use Rural Tract Improved	1	1	0

Prop Class	RMV Class	Class Description	2018 Count	2017 Count	Change from prior year
801	801	Recreation, with Improvements	2	1	1
890	890	Recreational Hillcrest/Columbia Hills	261	302	-41
910	200	H & B Use Commercial Vacant	6	12	-6
910	201	H & B Use Commercial Improved	1	2	-1
910	400	H & B Use Rural Tract Vacant	1	1	0
911	101	H & B Use Residential Improved	10	7	3
911	201	H & B Use Commercial Improved	56	71	-15
911	401	H & B Use Rural Tract Improved	15	14	1
920	200	H & B Use Commercial Vacant	7	18	-11
920	400	H & B Use Rural Tract Vacant	2	2	0
920	801	Recreation, with Improvements	1	0	1
921	101	H & B Use Residential Improved	2	3	-1
921	201	H & B Use Commercial Improved	24	32	-8
921	801	Recreation, with Improvements	1	0	1
930	200	H & B Use Commercial Vacant	19	20	-1
930	400	H & B Use Rural Tract Vacant	4	6	-2
930	800	Recreation, Land Only	3	0	3
931	101	H & B Use Residential Improved	1	1	0
931	201	H & B Use Commercial Improved	2	4	-2
931	409	H & B Use Rural Tract MS Improved	1	1	0
940	010	Odd Lot	13	15	-2
940	040	Odd Lot	2	8	-6
940	100	H & B Use Residential Vacant	52	67	-15
940	200	H & B Use Commercial Vacant	190	256	-66
940	300	H & B Use Industrial Vacant	8	18	-10
940	400	H & B Use Rural Tract Vacant	22	24	-2
940	600	H & B Use Timber Vacant	2	2	0
940	700	H & B Use Mutli-Family Vacant	1	0	1
940	800	Recreation, Land Only	8	0	8
941	101	H & B Use Residential Improved	13	28	-15
941	201	H & B Use Commercial Improved	37	65	-28
941	301	H & B Use Industrial Improved	7	4	3
941	401	H & B Use Rural Tract Improved	6	5	1
941	801	Recreation, with Improvements	6	0	6
942	201	H & B Use Commercial Improved	1	1	0
945	201	H & B Use Commercial Improved	1	0	1
950	010	Odd Lot	18	17	1
950	040	Odd Lot	18	21	-3
950	100	H & B Use Residential Vacant	22	16	6
950	200	H & B Use Commercial Vacant	56	63	-7
950	300	H & B Use Industrial Vacant	2	2	0
950	400	H & B Use Rural Tract Vacant	47	42	5
950	600	H & B Use Timber Vacant	2	2	0
950	800	Recreation, Land Only	1	0	1

Prop Class	RMV Class	Class Description	2018 Count	2017 Count	Change from prior year
950	890	Recreational Hillcrest/Columbia Hills	3	1	2
951	019	Personal Manufactured Structures	1	0	1
951	101	H & B Use Residential Improved	4	5	-1
951	109	H & B Use Residential MS	1	2	-1
951	201	H & B Use Commercial Improved	19	20	-1
951	301	H & B Use Industrial Improved	1	1	0
951	400	H & B Use Rural Tract Vacant	1	1	0
951	401	H & B Use Rural Tract Improved	12	14	-2
951	409	H & B Use Rural Tract MS Improved	1	1	0
951	801	Recreation, with Improvements	4	0	4
960	010	Odd Lot	1	3	-2
960	030	Odd Lot	3	3	0
960	040	Odd Lot	9	9	0
960	100	H & B Use Residential Vacant	3	2	1
960	200	H & B Use Commercial Vacant	55	84	-29
960	300	H & B Use Industrial Vacant	4	4	0
960	400	H & B Use Rural Tract Vacant	33	45	-12
960	600	H & B Use Timber Vacant	22	13	9
960	800	Recreation, Land Only	14	1	13
961	201	H & B Use Commercial Improved	9	7	2
961	300	H & B Use Industrial Vacant	1	1	0
961	301	H & B Use Industrial Improved	1	2	-1
961	401	H & B Use Rural Tract Improved	1	3	-2
962	201	H & B Use Commercial Improved	5	3	2
964	400	H & B Use Rural Tract Vacant	19	20	-1
964	401	H & B Use Rural Tract Improved	6	6	0
970	200	H & B Use Commercial Vacant	7	11	-4
970	400	H & B Use Rural Tract Vacant	8	12	-4
970	600	H & B Use Timber Vacant	24	20	4
970	800	Recreation, Land Only	2	0	2
971	101	H & B Use Residential Improved	1	1	0
971	200	H & B Use Commercial Vacant	1	1	0
971	201	H & B Use Commercial Improved	6	6	0
971	301	H & B Use Industrial Improved	1	0	1
980	100	H & B Use Residential Vacant	3	3	0
980	200	H & B Use Commercial Vacant	6	7	-1
981	101	H & B Use Residential Improved	14	9	5
981	201	H & B Use Commercial Improved	47	52	-5
981	401	H & B Use Rural Tract Improved	3	3	0
982	201	H & B Use Commercial Improved	3	3	0
990	040	Odd Lot	4	4	0
990	200	H & B Use Commercial Vacant	21	25	-4
990	201	H & B Use Commercial Improved	2	2	0
990	300	H & B Use Industrial Vacant	34	37	-3

Prop Class	RMV Class	Class Description	2018 Count	2017 Count	Change from prior year
990	301	H & B Use Industrial Improved	3	3	0
990	400	H & B Use Rural Tract Vacant	13	13	0
991	008	H & B Use Industrial Machinery and Equipment	2	0	2
991	040	Odd Lot	2	2	0
991	101	H & B Use Residential Improved	2	3	-1
991	200	H & B Use Commercial Vacant	1	1	0
991	201	H & B Use Commercial Improved	55	49	6
991	301	H & B Use Industrial Improved	11	11	0
991	308	H & B Use Industrial Machinery and Equipment	6	5	1
991	400	H & B Use Rural Tract Vacant	2	1	1
991	401	H & B Use Rural Tract Improved	8	8	0
991	409	H & B Use Rural Tract MS Improved	1	2	-1
994	300	H & B Use Industrial Vacant	1	1	0
994	301	H & B Use Industrial Improved	1	1	0
995	101	H & B Use Residential Improved	2	3	-1
995	201	H & B Use Commercial Improved	2	5	-3
995	701	H & B Use Mutli-Family Imp. & MS Park Imp.	2	2	0
996	701	H & B Use Mutli-Family Imp. & MS Park Imp.	1	1	0

*TIME
ADJUSTMENT
STUDY*

Property sales occurring within Columbia County from January 1, 2017 through December 31, 2017 were analyzed in order to determine an adjustment for change over time (time adjustment). These sales were separated in to four groups:

1. RMV Class 100, 101, 102 and 109: These are properties located within the city limits of each maintenance area.
2. RMV Class 400, 401 and 409: Those properties that are located outside the city limits within each maintenance area.
3. RMV Class 019. This classing of properties is personal property manufactured structures that are located throughout the County.
4. RMV Class 111. These properties are designated as floating property (floating homes, combinations and boathouses).

Time Adjustment Conclusions:

The mid-point analysis for residential property (RMV Class 1XX) indicates an adjustment of 1.03 is needed for those properties located in the city limits.

For rural property (RMV Class 4XX) located in all maintenance areas, a mid-point analysis supports an adjustment of 1.04.

For personal property manufactured structures (RMV Class 019) located in MA 7, a direct calculation analysis was performed and the sales price was then adjusted accordingly.

Since there were too few sales of Commercial (RMV Class 200/201) and Industrial properties (RMV Class 300/301) available to specify a reliable change over time, it was decided that no time adjustment would be applied.

Floating property (RMV Class 111) also had too few sales for analysis. Therefore, no time adjustment was applied to these properties.

Applying the time adjustment conclusion in the Helion ORCATS Ratio Study program:

1. The selected central tendency is multiplied by the conclusion from the time study. The product of this calculation is then entered into the "Selected Ratio from Sales" field.
2. Next, the "RMV Adjustment" field is left at 100.
3. The values of the "Selected Ratio from Sales" and the "RMV Adjustment" are multiplied and return a product that is automatically calculated and entered into the "Before Ratio" field.

Historical Time Adjustment Conclusions:

<u>Year</u>	<u>RMV 1XX</u>	<u>RMV 4XX</u>
2013	98%	93%
2014	97%	106%
2015	104%	97%
2016	99%	101%
2017	96%	95%
2018	103%	104%

Time Study for RMV Class 1XX

		Count	Cumulative Count	Mean	Median	Wtd. Mean	Selected
1	Jan	41	41	1.02	1.02	1.03	
2	Feb	36	77	0.94	0.90	0.93	
3	Mar	43	120	0.94	0.93	0.94	
4	Apr	39	159	0.95	0.96	0.96	
5	May	98	257	0.95	0.95	0.95	
6	Jun	71	328	0.90	0.91	0.91	
Mid-Point	7 Jul	70	398	0.91	0.94	0.92	0.91
8	Aug	71	469	0.93	0.94	0.94	
9	Sep	76	545	0.93	0.94	0.93	
10	Oct	67	612	0.91	0.92	0.92	
11	Nov	68	680	0.94	0.95	0.95	
End of Year	12 Dec	61	741	0.94	0.95	0.96	0.94

Total Sales:	741	Total July RMV:	18,325,290	Total Dec RMV:	16,794,370
Middle Sale:	371	Total July SP:	19,899,209	Total Dec SP:	17,557,997

Trend Factor: 0.03 Mid-point time adj: 1.03

2018 RMV Class 1XX Time Adjustment

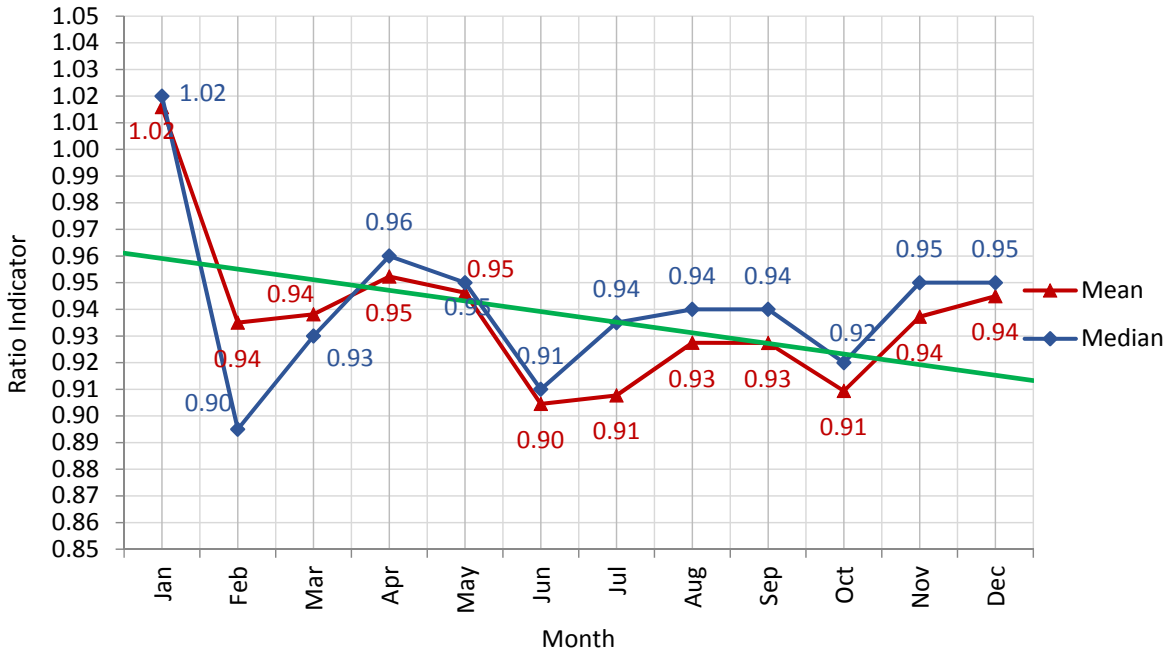
Conclusion: The mid-point of the sales is found to be July (the 7th month), with a corresponding mid-point Mean central tendency of 0.91.

The end of year central tendency Mean is 0.94.

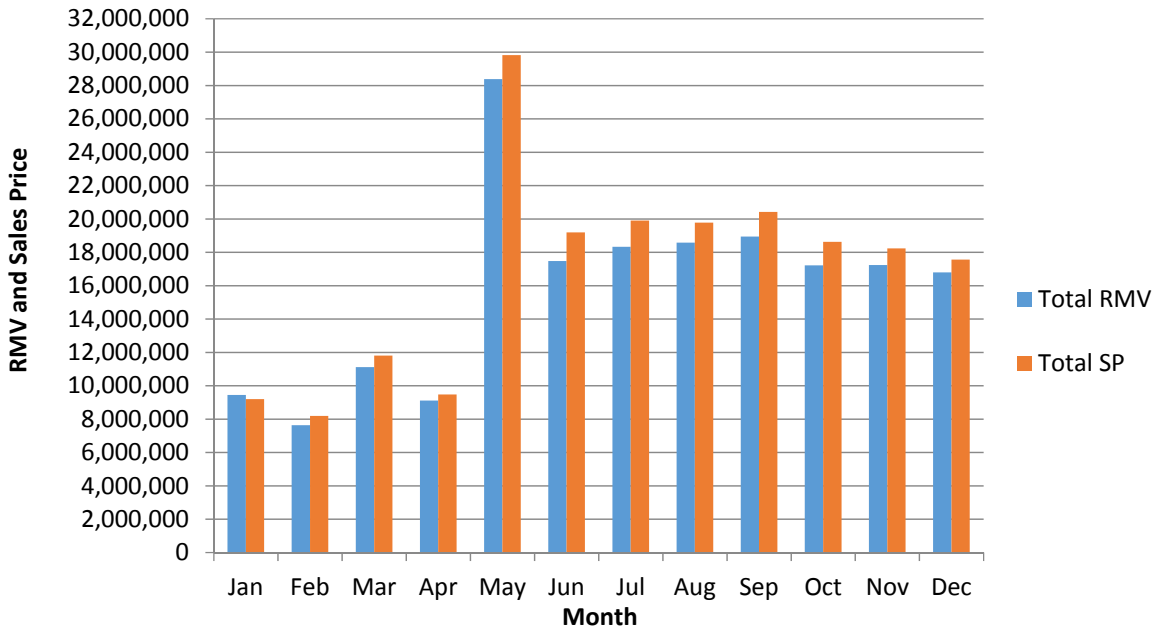
$$(0.94 - 0.91) / 0.94 = 0.03 \text{ or } 3\%$$

$$1.00 + 0.03 = 1.03 \text{ the Mid-Point Time Adjustment Factor}$$

2018 RMV Class 1XX



2018 RMV vs Sales Price, RMV Class 1XX



#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
1	2018	5	0	0	101	101	141	33	25908	7N4W08-CB-05200	2017	1154	0.18	159080	172000	1/1/2017	92	1	1
2	2018	2	0	0	101	101	141	33	432026	3N2W13-AD-04513	2017	92	0.22	306710	300000	1/4/2017	102	1	2
3	2018	2	0	0	101	101	141	33	4502	3N2W13-AD-02900	2017	129	0.15	268650	259000	1/5/2017	104	1	3
4	2018	1	0	0	101	101	154	33	13335	5N1W33-AD-01100	2017	188	0.25	394030	345000	1/5/2017	114	1	4
5	2018	1	43	0	101	101	143	33	12211	4N1W05-CB-09501	2017	265	0.07	206640	177500	1/6/2017	116	1	5
6	2018	5	0	0	101	101	142	33	25906	7N4W08-CB-05000	2017	603	0.19	186070	169000	1/10/2017	110	1	6
7	2018	4	47	0	101	101	143	33	22051	7N2W16-BB-02400	2017	1441	0.06	184680	186900	1/10/2017	99	1	7
8	2018	1	0	0	101	101	153	33	12098	4N1W05-CB-00133	2017	3015	0.12	315660	295000	1/10/2017	107	1	8
9	2018	6	1	0	101	101	142	33	14331	5N1W28-AB-02501	2017	288	0.21	227540	250000	1/11/2017	91	1	9
10	2018	4	0	0	100	100		33	18473	7N2W17-AD-01800	2017	381	2.06	12640	12000	1/12/2017	105	1	10
11	2018	2	0	0	101	101	143	33	433086	3N2W12-DC-00163	2017	271	0.06	272050	253000	1/12/2017	108	1	11
12	2018	6	21	0	101	101	141	33	14072	5N1W21-CA-02800	2017	388	0.24	239140	223000	1/12/2017	107	1	12
13	2018	5	0	0	101	101	134	30	25620	7N4W08-AC-00300	2017	967	0.13	155900	162000	1/12/2017	96	1	13
14	2018	1	0	0	101	101	143	33	11949	4N1W05-BD-03900	2017	384	0.26	290720	261500	1/13/2017	111	1	14
15	2018	4	0	0	109	109	452	33	21078	7N2W21-A0-01600	2017	292	0.18	164480	185000	1/13/2017	89	1	15
16	2018	3	3	0	109	109	462*	33	22362	4N4W03-BB-03100	2017	436	0.41	205650	235000	1/16/2017	88	1	16
17	2018	1	0	0	101	101	141	33	13017	4N1W07-AB-03153	2017	382	0.16	245090	249000	1/17/2017	98	1	17
18	2018	1	0	0	101	101	131	30	10823	4N1W05-DA-10600	2017	390	0.2	148070	164000	1/17/2017	90	1	18
19	2018	1	0	0	101	101	143	33	28945	4N1W05-CC-00708	2017	1414	0.16	279720	260000	1/18/2017	108	1	19
20	2018	3	0	0	101	101	143	33	29606	4N4W05-AD-05501	2017	523	0.11	185900	184900	1/19/2017	101	1	20
21	2018	1	0	0	101	101	136	33	9959	4N1W04-AA-06900	2017	518	0.13	171630	202000	1/20/2017	85	1	21
22	2018	2	0	0	101	101	143	33	4869	3N2W13-CA-00500	2017	721	0.16	303860	291000	1/20/2017	104	1	22
23	2018	1	0	0	101	101	143	33	13291	4N1W05-AB-04900	2017	2666	0.27	270770	223929	1/20/2017	121	1	23
24	2018	6	1	0	101	101	142	33	14731	5N1W28-DB-03900	2017	600	0.23	320430	269900	1/24/2017	119	1	24
25	2018	1	0	0	101	101	131	33	10876	4N1W04-DA-00300	2017	725	0.13	164370	215000	1/24/2017	76	1	25
26	2018	2	0	0	101	101	143	33	28464	3N1W07-CC-01301	2017	660	0.25	384520	300000	1/24/2017	128	1	26
27	2018	1	0	0	101	101	131	33	11083	4N1W04-DB-12200	2017	750	0.13	162440	209000	1/25/2017	78	1	27
28	2018	1	0	0	101	101	136	33	9950	4N1W04-AA-06000	2017	752	0.4	201000	223300	1/25/2017	90	1	28
29	2018	4	0	0	101	101	134	33	17898	7N2W16-BC-03000	2017	734	0.23	65870	75000	1/25/2017	88	1	29
30	2018	2	0	0	101	101	131	33	4015	3N2W12-DA-04106	2017	1675	0.17	236550	252000	1/25/2017	94	1	30
31	2018	1	0	0	101	101	131	33	13443	5N1W33-DC-02300	2017	759	0.11	135090	157500	1/26/2017	86	1	31
32	2018	2	0	0	101	101	143	33	436508	3N2W13-CD-05100	2017	765	0.14	346910	339000	1/26/2017	102	1	32
33	2018	3	0	0	109	109	462*	33	22740	4N4W04-BA-01601	2017	846	0.17	144540	135000	1/26/2017	107	1	33
34	2018	2	0	0	101	101	143	33	433094	3N2W12-DC-00171	2017	739	0.06	263880	232750	1/27/2017	113	1	34
35	2018	1	0	0	101	101	143	33	13284	5N1W32-DC-02800	2017	735	0.29	291730	269000	1/27/2017	108	1	35
36	2018	1	0	0	101	101	153	33	13770	5N1W34-CB-01520	2017	815	0.22	363240	332000	1/27/2017	109	1	36
37	2018	6	21	0	101	101	143	33	14105	5N1W21-CA-06100	2017	813	0.24	316470	285000	1/28/2017	111	1	37
38	2018	1	0	0	101	101	143	33	431916	4N1W05-BA-03907	2017	811	0.15	283090	280000	1/30/2017	101	1	38
39	2018	3	3	0	101	101	131	33	22342	4N4W03-BB-02100	2017	1362	0.24	151140	178900	1/30/2017	84	1	39
40	2018	1	0	0	101	101	141	30	11583	4N1W05-AC-00300	2017	867	0.18	208750	205000	1/31/2017	102	1	40
41	2018	1	43	0	101	101	143	33	12213	4N1W05-CB-09601	2017	943	0.09	213730	174000	1/31/2017	123	1	41
42	2018	2	0	0	101	101	132	33	3892	3N2W12-CC-01801	2017	970	0.25	304560	290000	2/1/2017	105	2	1
43	2018	1	0	0	101	101	131	33	10995	4N1W04-DB-03200	2017	1141	0.13	155370	200000	2/2/2017	78	2	2
44	2018	1	0	0	101	101	142	33	15790	4N1W05-AB-05100	2017	1245	0.31	405230	382200	2/3/2017	106	2	3
45	2018	1	0	0	101	101	141	33	11601	4N1W05-AC-02100	2017	1233	0.18	162470	199528	2/3/2017	81	2	4

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
46	2018	2	0	0	101	101	143	30	429894	3N1W07-CC-01429	2017	1301	0.16	373860	345000	2/3/2017	108	2	5
47	2018	5	0	0	101	101	131	33	26012	7N4W08-CD-08100	2017	3104	0.17	133890	104500	2/3/2017	128	2	6
48	2018	5	0	0	101	101	145	33	26164	7N4W08-DC-03300	2017	1170	0.18	221940	190000	2/6/2017	117	2	7
49	2018	4	0	0	101	101	132	33	18151	7N2W16-DA-02600	2017	1210	0.25	94040	80000	2/6/2017	118	2	8
50	2018	1	0	0	101	101	132	33	10612	4N1W04-CA-07000	2017	1230	0.1	148420	207000	2/6/2017	72	2	9
51	2018	6	1	0	101	101	125	30	14307	5N1W28-AB-00101	2017	1235	0.15	123480	162500	2/7/2017	76	2	10
52	2018	1	0	0	101	101	131	30	12347	4N1W05-CD-01212	2017	1303	0.11	178860	235500	2/7/2017	76	2	11
53	2018	1	0	0	101	101	141	33	10193	4N1W04-DA-08500	2017	1252	0.46	237050	257900	2/7/2017	92	2	12
54	2018	1	0	0	101	101	141	33	12222	4N1W05-CC-00900	2017	1323	0.15	178510	216255	2/8/2017	83	2	13
55	2018	1	30	0	101	101	242	30	11113	4N1W04-DB-14601	2017	1319	0.13	247360	277500	2/9/2017	89	2	14
56	2018	1	30	0	101	101	242	30	11112	4N1W04-DB-14600	2017	1321	0.13	233600	277500	2/9/2017	84	2	15
57	2018	1	30	0	101	101	242	33	11897	4N1W05-BD-01101	2017	1306	0.18	237620	281500	2/9/2017	84	2	16
58	2018	2	0	0	101	101	141	33	2856	3N1W07-CB-02900	2017	1461	0.14	301590	283522	2/9/2017	106	2	17
59	2018	1	0	0	101	101	131	33	11299	4N1W04-DD-05200	2017	1492	0.13	153080	196500	2/10/2017	78	2	18
60	2018	1	0	0	101	101	142	33	13911	5N1W34-CC-06200	2017	1422	0.15	225540	276000	2/13/2017	82	2	19
61	2018	3	0	0	101	101	131	33	23086	4N4W04-DA-00200	2017	1455	0.19	131430	120000	2/13/2017	110	2	20
62	2018	5	0	0	101	101	141	33	25661	7N4W08-AD-01700	2017	1459	0.28	191130	174000	2/14/2017	110	2	21
63	2018	3	0	0	101	101	131	30	22637	4N4W04-AC-02900	2017	1508	0.24	123320	144000	2/15/2017	86	2	22
64	2018	2	0	0	101	101	141	33	4525	3N2W13-AD-06100	2017	1516	0.16	299730	319900	2/15/2017	94	2	23
65	2018	3	0	0	109	109	462	33	22679	4N4W04-AD-00500	2017	1525	0.23	125400	140090	2/15/2017	90	2	24
66	2018	1	0	0	101	101	142	33	11043	4N1W04-DB-07900	2017	1514	0.13	267260	232900	2/16/2017	115	2	25
67	2018	5	0	0	101	101	131*	33	26174	7N4W08-DC-04100	2017	1535	0.2	120970	160000	2/16/2017	76	2	26
68	2018	1	0	0	101	101	132	33	9688	4N1W03-BC-09302	2017	1613	0.13	162560	190000	2/17/2017	86	2	27
69	2018	3	3	0	101	101	135	33	22834	4N4W04-BC-01900	2017	1724	0.11	185190	184500	2/21/2017	100	2	28
70	2018	1	0	0	101	101	145	33	12219	4N1W05-CC-00700	2017	1685	0.23	231470	279900	2/22/2017	83	2	29
71	2018	1	0	0	101	101	141	33	11434	4N1W05-AA-05800	2017	1705	0.15	200430	242000	2/22/2017	83	2	30
72	2018	1	0	0	101	101	135*	33	11795	4N1W05-AD-12000	2017	1759	0.24	163780	190000	2/22/2017	86	2	31
73	2018	3	3	0	101	101	131	33	429669	4N4W04-BC-01301	2017	1726	0.11	182990	205000	2/23/2017	89	2	32
74	2018	1	0	0	101	101	142*	33	11608	4N1W05-AC-02701	2017	2016	0.19	319770	320000	2/23/2017	100	2	33
75	2018	2	0	0	101	101	143	33	4550	3N2W13-AD-08600	2017	3086	0.15	320070	318000	2/24/2017	101	2	34
76	2018	1	0	0	101	101	141	33	12038	4N1W05-CA-01300	2017	1765	0.25	228310	240000	2/27/2017	95	2	35
77	2018	6	21	0	101	101	141	30	14032	5N1W21-BD-01900	2017	1932	0.25	267550	270000	2/27/2017	99	2	36
78	2018	1	0	0	101	101	141	33	11614	4N1W05-AC-02707	2017	2012	0.19	217050	247400	3/2/2017	88	3	1
79	2018	2	0	0	101	101	143	33	436514	3N2W13-CD-05700	2017	2009	0.19	364170	367500	3/2/2017	99	3	2
80	2018	2	0	0	101	101	141	33	28497	3N2W12-AD-06503	2017	2019	0.24	366890	375000	3/3/2017	98	3	3
81	2018	3	0	0	101	101	146	33	22915	4N4W04-BD-02101	2017	2132	0.18	242450	260000	3/3/2017	93	3	4
82	2018	1	0	0	101	101	153	33	12783	4N1W06-DA-07200	2017	2241	0.2	361600	335000	3/3/2017	108	3	5
83	2018	1	0	0	101	101	141	30	434035	5N1W33-DA-01409	2017	2207	0.2	213270	225000	3/6/2017	95	3	6
84	2018	1	0	0	101	101	131	30	10323	4N1W04-BC-01800	2017	2137	0.11	133150	158000	3/7/2017	84	3	7
85	2018	4	0	0	101	101	142	33	18564	7N2W17-DA-01200	2017	2180	0.87	226620	253500	3/7/2017	89	3	8
86	2018	1	0	0	101	101	131*	33	11252	4N1W04-DD-01800	2017	2216	0.2	153170	180000	3/7/2017	85	3	9
87	2018	1	0	0	101	101	143	33	11849	4N1W05-CB-10000	2017	2146	0.12	309110	302500	3/8/2017	102	3	10
88	2018	2	0	0	101	101	141	33	4746	3N2W13-BD-02300	2017	2175	0.14	291850	320000	3/8/2017	91	3	11
89	2018	4	0	0	101	101	142	33	18070	7N2W16-CC-00324	2017	2276	0.22	270220	372844	3/8/2017	72	3	12
90	2018	1	0	0	100	100		33	429124	4N1W05-CD-02102	2017	2196	0.24	70460	74500	3/9/2017	95	3	13

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
91	2018	5	0	0	101	101	141	33	25707	7N4W08-BC-01400	2017	2209	0.26	270750	265000	3/10/2017	102	3	14
92	2018	1	0	0	101	101	141	33	12952	4N1W06-DD-08200	2017	2279	0.14	248950	265000	3/10/2017	94	3	15
93	2018	2	33	0	101	101	143	33	429771	3N2W13-AA-04414	2017	2277	0.09	280680	242000	3/10/2017	116	3	16
94	2018	1	0	0	101	101	143	33	12465	4N1W05-DB-02109	2017	2373	0.12	303660	305000	3/14/2017	100	3	17
95	2018	2	0	0	101	101	141	33	4245	3N2W12-DC-00143	2017	2381	0.14	292800	260000	3/15/2017	113	3	18
96	2018	4	47	0	101	101	143	33	22034	7N2W16-BB-00700	2017	2409	0.08	243730	259900	3/15/2017	94	3	19
97	2018	2	0	0	101	101	143	33	4454	3N2W13-AC-03310	2017	2419	0.18	301990	275000	3/16/2017	110	3	20
98	2018	2	0	0	101	101	143	33	4755	3N2W13-BD-03300	2017	2425	0.15	315060	347300	3/16/2017	91	3	21
99	2018	1	0	0	101	101	131	33	12632	4N1W08-BA-04200	2017	2427	0.16	165400	210000	3/16/2017	79	3	22
100	2018	1	0	0	101	101	141	33	12707	4N1W06-AD-04100	2017	2456	0.17	285120	305000	3/16/2017	93	3	23
101	2018	1	0	0	101	101	141	33	12107	4N1W05-CB-00143	2017	2477	0.14	259050	287000	3/16/2017	90	3	24
102	2018	2	0	0	101	101	134	33	4820	3N2W13-BD-09501	2017	2429	0.23	245480	246000	3/17/2017	100	3	25
103	2018	1	0	0	101	101	131	33	9502	4N1W03-BB-03400	2017	2670	0.13	128180	167000	3/20/2017	77	3	26
104	2018	1	0	0	101	101	153*	33	12492	4N1W05-DB-02510	2017	2651	0.34	379320	430000	3/20/2017	88	3	27
105	2018	4	0	0	101	101	144	33	18042	7N2W16-CB-03300	2017	2564	1	229820	297500	3/21/2017	77	3	28
106	2018	6	1	0	101	101	141	33	14183	5N1W21-CD-00600	2017	2672	0.28	238730	262000	3/21/2017	91	3	29
107	2018	2	0	0	101	101	145	33	4685	3N2W13-BB-00800	2017	2655	0.39	340490	357500	3/23/2017	95	3	30
108	2018	1	0	0	101	101	143	33	28943	4N1W05-CC-00706	2017	3624	0.2	305180	262594	3/23/2017	116	3	31
109	2018	2	0	0	101	101	132	33	3273	3N2W11-DD-01902	2017	2675	0.36	308900	349000	3/24/2017	89	3	32
110	2018	1	0	0	101	101	142	33	13359	5N1W33-DA-00700	2017	2866	0.13	226910	214000	3/24/2017	106	3	33
111	2018	2	0	0	101	101	145	33	4231	3N2W12-DC-00129	2017	2820	0.14	309910	300000	3/27/2017	103	3	34
112	2018	1	0	0	101	101	141	33	11532	4N1W05-AB-01200	2017	2833	0.17	220590	255300	3/28/2017	86	3	35
113	2018	1	0	0	101	101	146	33	9428	4N1W03-BB-16000	2017	3234	0.13	238700	265000	3/28/2017	90	3	36
114	2018	1	0	0	101	101	131	33	13532	5N1W33-DC-09801	2017	2905	0.11	155400	191000	3/29/2017	81	3	37
115	2018	6	21	0	101	101	141	33	14108	5N1W21-CA-06400	2017	2873	0.27	311940	290000	3/29/2017	108	3	38
116	2018	2	0	0	101	101	141	33	433516	3N2W13-CD-03200	2017	2878	0.16	303060	315000	3/29/2017	96	3	39
117	2018	6	1	0	101	101	141	30	14512	5N1W28-BA-01909	2017	2876	0.2	261160	302500	3/30/2017	86	3	40
118	2018	1	0	0	101	101	143	33	12811	4N1W06-DC-01000	2017	2903	0.13	293780	300000	3/30/2017	98	3	41
119	2018	2	0	0	101	101	143	33	2903	3N1W18-BC-00800	2017	2915	0.15	312010	349000	3/31/2017	89	3	42
120	2018	5	0	0	101	101	131	33	26013	7N4W08-CD-08200	2017	2957	0.13	122560	160000	3/31/2017	77	3	43
121	2018	6	15	0	100	100		33	14270	5N1W28-AA-00301	2017	2962	0.28	240000	225000	4/3/2017	107	4	1
122	2018	6	1	0	101	101	141	33	14422	5N1W28-AC-04200	2017	2959	0.21	318800	295000	4/3/2017	108	4	2
123	2018	3	0	0	100	100		33	23462	4N4W05-DA-08401	2017	3038	0.46	48500	47500	4/5/2017	102	4	3
124	2018	6	1	0	101	101	131	33	14327	5N1W28-AB-02200	2017	4211	0.17	171990	164900	4/5/2017	104	4	4
125	2018	2	0	0	101	101	143	33	433087	3N2W12-DC-00164	2017	3088	0.06	279710	257500	4/7/2017	109	4	5
126	2018	2	0	0	101	101	143	33	436522	3N2W13-CD-06500	2017	3546	0.14	344750	370000	4/10/2017	93	4	6
127	2018	5	0	0	101	101	135	33	26109	7N4W08-DB-02100	2017	3385	0.11	138330	140000	4/12/2017	99	4	7
128	2018	1	0	0	101	101	143	33	11887	4N1W05-BC-06300	2017	3495	0.12	263300	282500	4/12/2017	93	4	8
129	2018	5	0	0	101	101	144	33	25702	7N4W08-BC-00900	2017	3517	0.33	296180	310000	4/12/2017	96	4	9
130	2018	1	0	0	101	101	136	33	9501	4N1W03-BB-03300	2017	3423	0.13	157850	215000	4/13/2017	73	4	10
131	2018	2	0	0	101	101	143	33	433091	3N2W12-DC-00168	2017	3398	0.06	270250	258500	4/13/2017	105	4	11
132	2018	5	0	0	101	101	142	30	26047	7N4W08-DA-01900	2017	3417	0.23	235060	194000	4/13/2017	121	4	12
133	2018	2	0	0	101	101	142	33	3050	3N2W11-AA-00111	2017	3510	0.19	378440	329000	4/14/2017	115	4	13
134	2018	3	3	0	101	101	131	33	22953	4N4W04-BD-06000	2017	4070	0.11	101670	132000	4/14/2017	77	4	14
135	2018	4	0	0	101	101	142	33	18553	7N2W17-DA-00411	2017	3560	0.31	251900	230000	4/15/2017	110	4	15

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
136	2018	1	0	0	101	101	141	33	433955	4N1W05-BD-01018	2017	3606	0.12	255520	261000	4/17/2017	98	4	16
137	2018	1	0	0	101	101	141	33	12570	4N1W05-DC-03100	2017	3562	0.27	268570	345000	4/18/2017	78	4	17
138	2018	1	0	0	101	101	141	33	12782	4N1W06-DA-07100	2017	3633	0.24	255810	305000	4/18/2017	84	4	18
139	2018	4	0	0	101	101	152	33	435523	7N2W16-CD-03902	2017	3584	0.2	355560	309500	4/18/2017	115	4	19
140	2018	1	0	0	101	101	131	33	11660	4N1W05-AC-04400	2017	3667	0.23	186150	250000	4/19/2017	74	4	20
141	2018	1	0	0	101	101	141	33	11417	4N1W05-AA-04100	2017	4213	0.21	201890	246000	4/19/2017	82	4	21
142	2018	1	0	0	101	101	142	33	13259	5N1W32-DC-00400	2017	3778	0.18	307390	315000	4/20/2017	98	4	22
143	2018	1	0	0	101	101	142	33	13258	5N1W32-DC-00300	2017	3917	0.18	305130	311000	4/20/2017	98	4	23
144	2018	6	21	0	101	101	143	33	14107	5N1W21-CA-06300	2017	3781	0.24	296940	300000	4/20/2017	99	4	24
145	2018	1	0	0	101	101	142	33	433478	5N1W32-DC-00117	2017	3970	0.21	314590	307000	4/20/2017	102	4	25
146	2018	1	0	0	101	101	141	33	11957	4N1W05-BD-04900	2017	4701	0.14	250270	274000	4/20/2017	91	4	26
147	2018	1	0	0	101	101	141	33	11449	4N1W05-AA-07300	2017	3663	0.17	198330	230000	4/21/2017	86	4	27
148	2018	1	0	0	101	101	141	33	12239	4N1W05-CC-01108	2017	3776	0.18	241630	244500	4/21/2017	99	4	28
149	2018	4	0	0	101	101	134	33	17971	7N2W16-CA-07400	2017	3964	0.13	145860	169500	4/24/2017	86	4	29
150	2018	4	0	0	100	100		30	435665	7N2W21-AB-00105	2017	4048	0.54	50290	60000	4/26/2017	84	4	30
151	2018	1	0	0	101	101	141	33	12513	4N1W05-DB-04100	2017	4051	0.22	234370	290000	4/26/2017	81	4	31
152	2018	1	0	0	101	101	131	33	11011	4N1W04-DB-04700	2017	4056	0.12	156670	178500	4/26/2017	88	4	32
153	2018	2	0	0	101	101	142	33	3531	3N2W12-BB-01600	2017	5756	0.25	442310	337000	4/26/2017	131	4	33
154	2018	5	0	0	100	100		33	432377	7N4W09-CA-00110	2017	4052	0.24	43200	49900	4/27/2017	87	4	34
155	2018	2	0	0	101	101	143	33	433093	3N2W12-DC-00170	2017	4077	0.06	270270	259900	4/27/2017	104	4	35
156	2018	5	0	0	101	101	132	33	25959	7N4W08-CD-02600	2017	4036	0.15	144140	172057	4/27/2017	84	4	36
157	2018	1	0	0	101	101	131	33	9988	5N1W33-DC-14000	2017	4207	0.13	159800	220000	4/27/2017	73	4	37
158	2018	1	0	0	101	101	143	33	12774	4N1W06-DA-06300	2017	4259	0.2	274920	320000	4/27/2017	86	4	38
159	2018	1	0	0	101	101	143	33	12995	4N1W07-AB-03131	2017	4287	0.11	254420	270000	4/29/2017	94	4	39
160	2018	1	0	0	101	101	142	33	11484	4N1W05-AB-00502	2017	4253	0.35	385890	370000	5/1/2017	104	5	1
161	2018	4	0	0	101	101	142	33	17948	7N2W16-CA-04900	2017	4235	0.15	251380	209900	5/1/2017	120	5	2
162	2018	1	0	0	101	101	143	33	11948	4N1W05-BD-03800	2017	4269	0.19	261610	279900	5/1/2017	93	5	3
163	2018	6	1	0	101	101	141	33	436084	5N1W21-BC-03600	2017	4238	0.46	428180	481230	5/2/2017	89	5	4
164	2018	1	30	0	101	101	133*	33	10808	4N1W05-DA-09100	2017	4200	0.13	228790	230000	5/2/2017	99	5	5
165	2018	2	0	0	101	101	143	33	431964	3N2W13-BA-04706	2017	4535	0.14	307850	315000	5/2/2017	98	5	6
166	2018	1	0	0	101	101	131	33	9946	4N1W04-AA-05601	2017	4226	0.13	168640	253000	5/3/2017	67	5	7
167	2018	6	1	0	101	101	166	33	14757	5N1W28-DD-00400	2017	4255	0.23	710680	670000	5/3/2017	106	5	8
168	2018	1	0	0	101	101	143	33	429777	4N1W05-DB-02704	2017	4392	0.12	264050	291000	5/3/2017	91	5	9
169	2018	5	0	0	101	101	142	33	25716	7N4W08-BC-02300	2017	4267	0.26	215370	188000	5/4/2017	115	5	10
170	2018	1	0	0	101	101	121	33	13090	4N1W08-BA-00600	2017	4271	0.1	125870	175000	5/4/2017	72	5	11
171	2018	1	0	0	101	101	141*	33	11531	4N1W05-AB-01100	2017	4284	0.17	227160	270000	5/4/2017	84	5	12
172	2018	3	0	0	100	100		33	435697	4N4W04-AB-00303	2017	4262	0.22	36450	35000	5/5/2017	104	5	13
173	2018	1	0	0	101	101	131	33	13357	5N1W33-DA-00602	2017	4273	0.13	158840	207500	5/5/2017	77	5	14
174	2018	5	0	0	101	101	141	33	25658	7N4W08-AD-01400	2017	4385	0.28	209410	185000	5/5/2017	113	5	15
175	2018	5	0	0	101	101	136	33	25809	7N4W08-CA-03300	2017	4798	0.11	129490	163500	5/5/2017	79	5	16
176	2018	1	30	0	101	101	232	33	11290	4N1W04-DD-04304	2017	4398	0.13	177840	210000	5/9/2017	85	5	17
177	2018	3	0	0	100	100		33	436993	4N4W04-AB-00401	2017	4927	0.21	36320	38000	5/10/2017	96	5	18
178	2018	1	0	0	101	101	141	33	11875	4N1W05-BC-05000	2017	4513	0.13	242230	265000	5/10/2017	91	5	19
179	2018	6	21	0	101	101	142	33	14254	5N1W21-CD-07400	2017	4521	0.2	227180	240000	5/10/2017	95	5	20
180	2018	4	0	0	101	101	142	30	18084	7N2W16-CC-00810	2017	4525	0.46	251950	183000	5/11/2017	138	5	21

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
181	2018	1	0	0	101	101	131	33	13930	5N1W34-CC-08200	2017	4523	0.13	148150	195500	5/11/2017	76	5	22
182	2018	6	21	0	101	101	141	33	14006	5N1W21-BC-00700	2017	4508	0.23	301530	311000	5/11/2017	97	5	23
183	2018	5	0	0	101	101	143	33	25652	7N4W08-AD-00800	2017	4527	0.54	259270	260000	5/11/2017	100	5	24
184	2018	3	0	0	101	101	135	33	23479	4N4W05-DA-10100	2017	4549	0.14	129130	129900	5/11/2017	99	5	25
185	2018	1	0	0	101	101	131*	33	12373	4N1W05-DA-00802	2017	4651	0.15	164730	185000	5/11/2017	89	5	26
186	2018	2	0	0	101	101	141	33	438429	3N1W18-BB-01134	2017	6549	0.21	382870	396000	5/11/2017	97	5	27
187	2018	2	0	0	101	101	141	33	438427	3N1W18-BB-01132	2017	6908	0.17	352670	382000	5/11/2017	92	5	28
188	2018	2	0	0	101	101	141	30	438413	3N1W18-BB-01118	2017	6891	0.17	374740	404931	5/11/2017	93	5	29
189	2018	2	0	0	101	101	141	33	438428	3N1W18-BB-01133	2017	7035	0.17	346330	380000	5/11/2017	91	5	30
190	2018	2	0	0	101	101	141	33	438399	3N1W18-BB-01104	2017	7643	0.17	364460	386000	5/11/2017	94	5	31
191	2018	2	0	0	101	101	141	33	438416	3N1W18-BB-01121	2017	7954	0.17	352730	369900	5/11/2017	95	5	32
192	2018	2	0	0	101	101	141	33	438431	3N1W18-BB-01136	2017	8233	0.17	374210	396000	5/11/2017	94	5	33
193	2018	2	0	0	101	101	141	33	438414	3N1W18-BB-01119	2017	8345	0.17	366950	382000	5/11/2017	96	5	34
194	2018	2	0	0	101	101	143	33	438411	3N1W18-BB-01116	2017	8416	0.17	381030	415181	5/11/2017	92	5	35
195	2018	2	0	0	101	101	143	30	438423	3N1W18-BB-01128	2017	8571	0.17	391630	417500	5/11/2017	94	5	36
196	2018	2	0	0	101	101	143	33	438402	3N1W18-BB-01107	2017	8574	0.17	369860	375000	5/11/2017	99	5	37
197	2018	2	0	0	101	101	141	33	438415	3N1W18-BB-01120	2017	8762	0.17	346020	379600	5/11/2017	91	5	38
198	2018	2	0	0	101	101	141	33	438425	3N1W18-BB-01130	2017	9016	0.17	366490	380000	5/11/2017	96	5	39
199	2018	2	0	0	101	101	143	33	438396	3N1W18-BB-01101	2017	9023	0.3	394070	407300	5/11/2017	97	5	40
200	2018	2	0	0	101	101	143	33	438400	3N1W18-BB-01105	2017	9216	0.17	380920	410000	5/11/2017	93	5	41
201	2018	2	0	0	101	101	143	33	437288	3N2W12-AD-06005	2017	9498	0.17	359580	360000	5/11/2017	100	5	42
202	2018	2	0	0	101	101	143	33	438418	3N1W18-BB-01123	2017	9501	0.24	383050	395000	5/11/2017	97	5	43
203	2018	2	0	0	101	101	141	33	438430	3N1W18-BB-01135	2017	9557	0.17	366490	393332	5/11/2017	93	5	44
204	2018	2	0	0	101	101	143	33	438420	3N1W18-BB-01125	2017	9901	0.17	411660	434000	5/11/2017	95	5	45
205	2018	2	0	0	101	101	143	33	438412	3N1W18-BB-01117	2017	10053	0.17	391980	421400	5/11/2017	93	5	46
206	2018	2	0	0	101	101	141	33	438434	3N1W18-BB-01139	2017	10641	0.17	374580	403500	5/11/2017	93	5	47
207	2018	2	0	0	101	101	143	30	438405	3N1W18-BB-01110	2017	10711	0.19	363220	379000	5/11/2017	96	5	48
208	2018	2	0	0	101	101	141	33	438422	3N1W18-BB-01127	2017	10719	0.17	366860	385000	5/11/2017	95	5	49
209	2018	2	0	0	101	101	143	30	438433	3N1W18-BB-01138	2017	10960	0.17	391630	424100	5/11/2017	92	5	50
210	2018	2	0	0	101	101	141	33	438398	3N1W18-BB-01103	2017	11132	0.17	374250	400718	5/11/2017	93	5	51
211	2018	2	0	0	101	101	141	33	438432	3N1W18-BB-01137	2017	11195	0.17	366490	389900	5/11/2017	94	5	52
212	2018	2	0	0	101	101	143	33	5327	3N1W18-BB-01100	2017	11524	0.2	362670	383000	5/11/2017	95	5	53
213	2018	2	0	0	101	101	141	33	438426	3N1W18-BB-01131	2017	11516	0.17	374210	398500	5/11/2017	94	5	54
214	2018	2	0	0	101	101	143	33	438404	3N1W18-BB-01109	2017	11637	0.18	371240	395000	5/11/2017	94	5	55
215	2018	2	0	0	101	101	143	33	438397	3N1W18-BB-01102	2017	11683	0.17	411640	424500	5/11/2017	97	5	56
216	2018	4	0	0	101	101	131	33	18345	7N2W16-DC-08600	2017	4565	0.36	137940	173500	5/12/2017	80	5	57
217	2018	2	0	0	101	101	131	33	3825	3N2W12-CB-02900	2017	4533	0.12	205340	229000	5/12/2017	90	5	58
218	2018	2	0	0	101	101	141	33	4303	3N2W12-DD-03100	2017	4626	0.17	269530	275000	5/15/2017	98	5	59
219	2018	1	0	0	101	101	131	33	10153	4N1W04-AD-01600	2017	4630	0.17	147360	198000	5/15/2017	74	5	60
220	2018	2	0	0	101	101	143	33	437291	3N2W12-AD-06008	2017	4618	0.14	347910	359900	5/16/2017	97	5	61
221	2018	2	0	0	101	101	141	33	4360	3N2W13-AA-01400	2017	4665	0.25	273550	275000	5/16/2017	99	5	62
222	2018	1	43	0	101	101	143	33	29013	4N1W08-BA-01620	2017	4692	0.04	213630	214000	5/16/2017	100	5	63
223	2018	1	0	0	101	101	143	33	12733	4N1W06-DA-02200	2017	4694	0.21	288790	285000	5/16/2017	101	5	64
224	2018	1	0	0	101	101	143	33	12961	4N1W06-DD-09100	2017	4940	0.11	238450	260000	5/16/2017	92	5	65
225	2018	5	0	0	100	100		33	432379	7N4W09-CA-00112	2017	4691	0.24	43200	50000	5/18/2017	86	5	66

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
226	2018	1	0	0	101	101	136	33	11803	4N1W05-DA-06700	2017	4723	0.14	175370	200000	5/18/2017	88	5	67
227	2018	1	0	0	101	101	135	33	9489	4N1W03-BB-02500	2017	4725	0.1	167530	227500	5/18/2017	74	5	68
228	2018	1	0	0	101	101	141	33	12890	4N1W06-DD-01800	2017	4727	0.16	246730	272000	5/18/2017	91	5	69
229	2018	2	0	0	101	101	142	33	3807	3N2W12-CB-01102	2017	4721	0.71	457030	340000	5/18/2017	134	5	70
230	2018	2	0	0	101	101	143	33	28487	3N2W12-AA-01600	2017	5284	0.17	438270	414119	5/18/2017	106	5	71
231	2018	3	0	0	109	109	452	33	433912	4N4W05-AC-04203	2017	4783	0.11	137360	205000	5/19/2017	67	5	72
232	2018	1	0	0	101	101	143	33	31194	4N1W05-AC-03508	2017	4860	0.12	267130	295000	5/22/2017	91	5	73
233	2018	2	0	0	101	101	143	33	4540	3N2W13-AD-07600	2017	4811	0.14	319380	339000	5/22/2017	94	5	74
234	2018	2	33	0	101	101	143	33	429907	3N2W12-AD-03110	2017	4830	0.08	272540	242000	5/22/2017	113	5	75
235	2018	1	0	0	101	101	141	33	12020	4N1W05-CA-00502	2017	4904	0.27	266270	255300	5/22/2017	104	5	76
236	2018	3	3	0	101	101	136	33	22370	4N4W03-BB-04000	2017	4841	0.18	183330	178900	5/23/2017	102	5	77
237	2018	3	0	0	101	101	141	33	23241	4N4W05-AD-01800	2017	4891	0.17	231050	242500	5/23/2017	95	5	78
238	2018	2	0	0	101	101	143	33	4700	3N2W13-BC-00100	2017	4900	0.15	315280	332000	5/23/2017	95	5	79
239	2018	6	1	0	101	101	142	33	14727	5N1W28-DB-03701	2017	4935	0.23	315320	330000	5/23/2017	96	5	80
240	2018	1	0	0	102	102	134	33	10508	4N1W04-BD-91500	2017	4928		140030	135000	5/23/2017	104	5	81
241	2018	2	33	0	101	101	143	33	429906	3N2W12-AD-03109	2017	4898	0.09	278970	245000	5/24/2017	114	5	82
242	2018	2	0	0	101	101	143	33	436502	3N2W13-CA-03500	2017	4958	0.2	365530	373900	5/24/2017	98	5	83
243	2018	1	0	0	101	101	131	33	9587	4N1W03-BC-00415	2017	5024	0.13	174190	230000	5/24/2017	76	5	84
244	2018	2	0	0	101	101	133	33	3357	3N2W12-AC-01400	2017	4896	0.2	266280	325000	5/25/2017	82	5	85
245	2018	1	0	0	101	101	141*	30	11687	4N1W05-AD-01100	2017	4945	0.38	254220	260000	5/25/2017	98	5	86
246	2018	2	0	0	101	101	143	30	3470	3N2W12-AD-06500	2017	5160	0.24	429720	425000	5/25/2017	101	5	87
247	2018	2	0	0	101	101	135*	33	3946	3N2W12-CD-02200	2017	5040	0.48	324150	365000	5/25/2017	89	5	88
248	2018	2	0	0	101	101	142	30	3126	3N2W11-AA-01027	2017	4966	0.34	452230	435000	5/26/2017	104	5	89
249	2018	1	0	0	101	101	131	30	12525	4N1W05-DB-04901	2017	5034	0.16	164010	198000	5/26/2017	83	5	90
250	2018	2	0	0	101	101	146	33	3208	3N2W11-DA-02401	2017	4987	0.45	526690	465000	5/26/2017	113	5	91
251	2018	1	0	0	101	101	141	33	11587	4N1W05-AC-00700	2017	5084	0.18	205030	274000	5/26/2017	75	5	92
252	2018	2	0	0	101	101	141	30	3322	3N2W12-AC-00117	2017	5039	0.2	275760	260000	5/30/2017	106	5	93
253	2018	2	0	0	101	101	143	33	2942	3N2W01-CC-00108	2017	5078	0.18	362360	386500	5/30/2017	94	5	94
254	2018	1	0	0	101	101	143	33	12856	4N1W06-DC-05500	2017	5091	0.12	306540	309000	5/30/2017	99	5	95
255	2018	2	0	0	101	101	131	33	4090	3N2W12-DB-04000	2017	5113	0.15	216750	255000	5/30/2017	85	5	96
256	2018	1	0	0	109	109	462*	33	13435	5N1W33-DC-01701	2017	5046	0.11	144270	185000	5/30/2017	78	5	97
257	2018	1	0	0	101	101	143	33	433952	4N1W05-BD-01016	2017	5148	0.13	274970	289900	5/31/2017	95	5	98
258	2018	1	0	0	101	101	141	33	12759	4N1W06-DA-04400	2017	5178	0.16	260810	287000	6/1/2017	91	6	1
259	2018	1	0	0	101	101	141	30	433473	5N1W32-DC-00112	2017	5232	0.17	311090	325000	6/1/2017	96	6	2
260	2018	1	0	0	102	102	134	33	10509	4N1W04-BD-91600	2017	5154		140030	139000	6/1/2017	101	6	3
261	2018	1	0	0	101	101	141	33	11588	4N1W05-AC-00800	2017	5196	0.18	206860	266750	6/2/2017	78	6	4
262	2018	6	1	0	101	101	142	33	14723	5N1W28-DB-03403	2017	5238	0.23	345630	329000	6/2/2017	105	6	5
263	2018	1	0	0	101	101	141	33	433458	5N1W32-DB-02500	2017	7190	0.18	291690	299000	6/2/2017	98	6	6
264	2018	1	0	0	109	109	453*	33	16989	4N1W08-BC-01500	2017	5234	0.42	242250	288000	6/2/2017	84	6	7
265	2018	2	0	0	101	101	141	33	3049	3N2W11-AA-00110	2017	5222	0.19	277520	317000	6/4/2017	88	6	8
266	2018	5	0	0	101	101	144	33	26001	7N4W08-CD-07100	2017	5286	0.22	256560	337500	6/5/2017	76	6	9
268	2018	6	1	0	101	101	142	33	14730	5N1W28-DB-03800	2017	5390	0.23	263400	245000	6/6/2017	108	6	11
267	2018	2	33	0	101	101	143	33	429922	3N2W12-AD-03125	2017	5409	0.08	272590	252500	6/6/2017	108	6	12
268	2018	3	3	0	101	101	141	30	22529	4N4W03-BD-02102	2017	5403	0.2	197730	226600	6/6/2017	87	6	13
269	2018	2	0	0	101	101	143	33	437292	3N2W12-AD-06009	2017	5548	0.14	353180	365000	6/6/2017	97	6	14

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
270	2018	2	0	0	101	101	143	33	437290	3N2W12-AD-06007	2017	5428	0.17	364070	367900	6/6/2017	99	6	15
271	2018	4	0	0	109	109	452*	33	21088	7N2W21-AB-00300	2017	5554	0.22	97500	150000	6/6/2017	65	6	16
272	2018	4	0	0	100	100		33	18459	7N2W17-AC-02800	2017	5753	0.23	43590	36000	6/7/2017	121	6	17
273	2018	2	0	0	101	101	141	33	4380	3N2W13-AA-03501	2017	5416	0.27	316820	330000	6/7/2017	96	6	18
274	2018	3	0	0	101	101	131	33	23258	4N4W05-AD-03300	2017	5790	0.11	104880	145000	6/7/2017	72	6	19
275	2018	1	0	0	101	101	143	33	429801	4N1W05-DC-08203	2017	5382	0.32	270440	285000	6/8/2017	95	6	20
276	2018	1	0	0	101	101	141	33	12156	4N1W05-CB-04600	2017	5394	0.16	254350	310000	6/8/2017	82	6	21
277	2018	1	0	0	101	101	143	33	11952	4N1W05-BD-04300	2017	5413	0.12	247740	260000	6/8/2017	95	6	22
278	2018	2	0	0	101	101	143	33	433085	3N2W12-DC-00162	2017	5430	0.06	235810	234900	6/8/2017	100	6	23
279	2018	3	3	0	109	109	462*	33	22334	4N4W03-BB-01201	2017	5534	0.46	186260	251000	6/8/2017	74	6	24
280	2018	1	0	0	101	101	131	33	10991	4N1W04-DB-02800	2017	5421	0.13	121850	155000	6/9/2017	79	6	25
281	2018	5	0	0	101	101	153	33	25585	7N4W07-AD-00700	2017	5176	0.23	388150	315000	6/11/2017	123	6	26
282	2018	4	0	0	101	101	135	33	18370	7N2W16-DD-01100	2017	5536	0.44	157930	210000	6/12/2017	75	6	27
283	2018	1	0	0	101	101	121	33	12353	4N1W05-CD-01301	2017	5573	0.12	137350	195000	6/12/2017	70	6	28
284	2018	1	0	0	101	101	131	30	12450	4N1W05-DB-01400	2017	5520	0.71	219800	276000	6/12/2017	80	6	29
285	2018	1	0	0	101	101	141	30	12568	4N1W05-DC-02900	2017	5811	0.33	284690	250000	6/12/2017	114	6	30
286	2018	2	0	0	101	101	143	33	31209	3N1W18-BB-02100	2017	5591	0.14	359720	366000	6/13/2017	98	6	31
287	2018	2	0	0	101	101	143	33	4865	3N2W13-CA-00100	2017	5575	0.21	357830	360000	6/13/2017	99	6	32
288	2018	2	0	0	101	101	143	30	437284	3N2W12-AD-06001	2017	5543	0.14	346780	355000	6/13/2017	98	6	33
289	2018	1	0	0	101	101	133	33	13397	5N1W33-DB-00807	2017	6518	0.13	188620	186000	6/13/2017	101	6	34
290	2018	2	0	0	101	101	143	30	437285	3N2W12-AD-06002	2017	5618	0.14	349110	360000	6/14/2017	97	6	35
291	2018	1	0	0	101	101	141	33	11213	4N1W04-DC-06700	2017	5880	0.13	237600	260000	6/14/2017	91	6	36
292	2018	2	0	0	101	101	143	33	4811	3N2W13-BD-08600	2017	5609	0.16	279580	315900	6/15/2017	89	6	37
293	2018	1	0	0	101	101	131	30	10693	4N1W04-CB-12700	2017	5637	0.11	133790	215000	6/15/2017	62	6	38
294	2018	1	0	0	101	101	132	33	9635	4N1W03-BC-04500	2017	5656	0.12	151660	185000	6/15/2017	82	6	39
295	2018	2	0	0	101	101	131	33	3202	3N2W11-DA-01700	2017	5652	0.2	216110	275661	6/15/2017	78	6	40
296	2018	1	0	0	101	101	141	33	13038	4N1W07-AB-03174	2017	5876	0.12	240670	270000	6/16/2017	89	6	41
297	2018	2	0	0	101	101	143	30	4528	3N2W13-AD-06400	2017	5749	0.14	316120	349900	6/19/2017	90	6	42
298	2018	3	3	0	101	101	131	33	22966	4N4W04-BD-07201	2017	5745	0.11	110430	158080	6/19/2017	70	6	43
299	2018	2	0	0	101	101	143	33	28519	3N2W12-AD-06525	2017	5751	0.15	370020	370000	6/19/2017	100	6	44
300	2018	3	0	0	101	101	141	33	22310	4N4W03-BA-01016	2017	6293	0.29	234220	292000	6/19/2017	80	6	45
301	2018	1	0	0	101	101	133	33	13958	5N1W34-CC-11200	2017	5828	0.13	162470	298000	6/20/2017	55	6	46
302	2018	1	0	0	101	101	143	33	13193	4N1W08-BC-04200	2017	5885	0.16	298240	302000	6/20/2017	99	6	47
303	2018	1	0	0	101	101	142	33	13834	5N1W34-CC-14300	2017	5855	0.27	362670	359000	6/20/2017	101	6	48
304	2018	1	0	0	101	101	131	33	10913	4N1W04-DA-03700	2017	5907	0.13	157570	205000	6/20/2017	77	6	49
305	2018	1	0	0	101	101	143	33	11877	4N1W05-BC-05200	2017	5960	0.13	292510	305000	6/20/2017	96	6	50
306	2018	5	0	0	100	100		33	434308	7N4W09-CA-00140	2017	5813	0.17	40520	42900	6/21/2017	94	6	51
308	2018	2	33	0	101	101	143	33	429772	3N2W13-AA-04415	2017	5798	0.11	277460	248890	6/21/2017	111	6	52
309	2018	2	0	0	101	101	142	30	3263	3N2W11-DD-01200	2017	5814	0.23	301890	330000	6/21/2017	91	6	53
310	2018	1	0	0	101	101	143	33	11570	4N1W05-AB-04208	2017	5833	0.16	297720	315000	6/21/2017	95	6	54
311	2018	6	21	0	101	101	141	33	14070	5N1W21-CA-02500	2017	5905	0.23	241250	295000	6/21/2017	82	6	55
312	2018	2	0	0	101	101	143	30	437289	3N2W12-AD-06006	2017	5997	0.17	354810	360000	6/22/2017	99	6	56
313	2018	1	0	0	101	101	141	33	11515	4N1W05-AB-01030	2017	5878	0.17	255380	269900	6/22/2017	95	6	57
314	2018	1	0	0	101	101	143	33	429792	4N1W05-DB-06204	2017	5955	0.16	304340	314900	6/23/2017	97	6	58
315	2018	1	0	0	101	101	141	33	11392	4N1W05-AA-01700	2017	5915	0.23	211560	267000	6/23/2017	79	6	59

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
316	2018	2	0	0	101	101	141	33	4627	3N2W13-BA-02900	2017	6055	0.25	279710	245000	6/23/2017	114	6	60
317	2018	3	0	0	101	101	131*	30	22498	4N4W03-BC-10800	2017	5952	0.3	170980	215000	6/23/2017	80	6	61
318	2018	1	0	0	101	101	131	33	11199	4N1W04-DC-05500	2017	6015	0.13	129460	215000	6/26/2017	60	6	62
319	2018	2	0	0	101	101	143	33	3875	3N2W12-CC-01212	2017	6034	0.14	277930	275000	6/26/2017	101	6	63
320	2018	6	1	0	101	101	141	33	15671	5N1W28-DB-03000	2017	6019	0.69	311610	292000	6/27/2017	107	6	64
321	2018	1	0	0	101	101	141	33	13003	4N1W07-AB-03139	2017	6113	0.11	251080	285000	6/27/2017	88	6	65
322	2018	6	1	0	101	101	134	33	14631	5N1W28-DA-03800	2017	6840	0.11	248660	251000	6/28/2017	99	6	66
323	2018	3	0	0	101	101	131*	33	22689	4N4W04-AD-01700	2017	6074	0.31	169550	250000	6/29/2017	68	6	67
324	2018	2	0	0	101	101	142	30	3903	3N2W12-CD-00402	2017	6088	0.19	321970	355000	6/29/2017	91	6	68
325	2018	2	0	0	101	101	143	33	433089	3N2W12-DC-00166	2017	6081	0.06	282010	260000	6/29/2017	108	6	69
326	2018	4	0	0	101	101	142	33	18171	7N2W16-DA-05200	2017	7163	0.2	225480	250000	6/29/2017	90	6	70
327	2018	1	0	0	101	101	141	33	434105	4N1W05-DD-00603	2017	6086	0.16	255170	288000	6/30/2017	89	6	71
328	2018	3	0	0	101	101	136	33	23401	4N4W05-DA-02801	2017	6125	0.26	245760	327000	6/30/2017	75	6	72
329	2018	3	0	0	101	101	141	33	22749	4N4W04-BA-02800	2017	6152	0.4	222810	268000	7/3/2017	83	7	1
330	2018	2	0	0	101	101	143	33	433511	3N2W13-CD-02700	2017	6211	0.15	300420	295000	7/5/2017	102	7	2
331	2018	4	0	0	101	101	136	33	18390	7N2W16-DD-03000	2017	6155	0.14	133640	174070	7/5/2017	77	7	3
332	2018	1	0	0	101	101	143	33	11520	4N1W05-AB-01035	2017	6240	0.13	273610	285000	7/5/2017	96	7	4
333	2018	2	0	0	101	101	143	30	438453	3N2W13-CA-03909	2017	7265	0.07	302130	300750	7/5/2017	100	7	5
334	2018	2	0	0	101	101	143	33	438445	3N2W13-CA-03901	2017	7329	0.07	294260	286700	7/5/2017	103	7	6
335	2018	2	0	0	100	100		33	3179	3N2W11-DB-00700	2017	6254	0.23	121620	105000	7/6/2017	116	7	7
336	2018	1	0	0	101	101	143	33	13129	4N1W08-BB-01900	2017	6316	0.09	246830	269000	7/7/2017	92	7	8
337	2018	2	0	0	101	101	143	33	4459	3N2W13-AC-03315	2017	6305	0.15	288260	295000	7/8/2017	98	7	9
338	2018	4	40	0	101	101	242	33	18494	7N2W17-AD-03600	2017	6299	0.18	176070	254000	7/10/2017	69	7	10
339	2018	1	0	0	101	101	131	33	11664	4N1W05-AC-04405	2017	6326	0.16	195090	273000	7/10/2017	71	7	11
340	2018	1	43	0	101	101	143	33	10899	4N1W04-DA-02301	2017	7229	0.07	227480	224000	7/10/2017	102	7	12
341	2018	1	30	0	101	101	242	30	11067	4N1W04-DB-10100	2017	6420	0.13	203030	230000	7/12/2017	88	7	13
342	2018	1	0	0	101	101	143	33	12474	4N1W05-DB-02118	2017	6438	0.12	300630	328000	7/12/2017	92	7	14
343	2018	1	0	0	101	101	143	33	13125	4N1W08-BB-01102	2017	6430	0.13	274160	299900	7/12/2017	91	7	15
344	2018	2	0	0	101	101	143	33	438446	3N2W13-CA-03902	2017	7080	0.07	304120	294995	7/12/2017	103	7	16
345	2018	2	0	0	101	101	143	33	438585	3N2W13-CC-00105	2017	8080	0.14	346190	341255	7/12/2017	101	7	17
346	2018	2	0	0	101	101	143	30	438455	3N2W13-CA-03911	2017	8117	0.08	307590	299335	7/12/2017	103	7	18
347	2018	1	0	0	101	101	142	33	429122	4N1W05-AB-00504	2017	9166	0.28	373450	379900	7/12/2017	98	7	19
348	2018	2	0	0	101	101	141	33	438424	3N1W18-BB-01129	2017	10232	0.17	371410	405200	7/12/2017	92	7	20
349	2018	2	0	0	101	101	143	30	438417	3N1W18-BB-01122	2017	10303	0.17	359060	375000	7/12/2017	96	7	21
350	2018	1	0	0	101	101	143	33	429114	5N1W33-AD-03900	2017	6442	0.17	329100	335000	7/13/2017	98	7	22
351	2018	3	0	0	101	101	142	33	22303	4N4W03-BA-01009	2017	6513	0.22	235710	284000	7/13/2017	83	7	23
352	2018	1	0	0	101	101	143	33	433956	4N1W05-BD-01019	2017	6519	0.12	287890	306000	7/13/2017	94	7	24
353	2018	1	0	0	101	101	121*	33	12435	4N1W05-DA-05500	2017	6461	0.18	126730	150000	7/13/2017	84	7	25
354	2018	1	0	0	101	101	141	33	431950	4N1W05-BA-03941	2017	6521	0.14	264190	309900	7/14/2017	85	7	26
355	2018	3	0	0	101	101	142	30	22766	4N4W04-BA-04500	2017	6538	0.23	220590	217000	7/14/2017	102	7	27
356	2018	1	0	0	101	101	141	30	434038	5N1W33-DA-01412	2017	6556	0.18	207950	220000	7/14/2017	95	7	28
357	2018	1	0	0	101	101	143	33	437297	4N1W03-BC-07402	2017	6927	0.13	242300	256275	7/14/2017	95	7	29
358	2018	2	0	0	101	101	143	33	438586	3N2W13-CC-00106	2017	8074	0.14	361580	360995	7/14/2017	100	7	30
359	2018	6	21	0	101	101	143*	33	14130	5N1W21-CB-01900	2017	6464	0.33	290280	348000	7/17/2017	83	7	31
360	2018	6	21	0	101	101	143	33	14105	5N1W21-CA-06100	2017	6503	0.24	316470	325000	7/17/2017	97	7	32

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
361	2018	1	0	0	101	101	142	33	431931	4N1W05-BA-03922	2017	6511	0.14	272430	295000	7/17/2017	92	7	33
362	2018	2	79	0	101	101	164	33	432008	3N2W11-DD-00318	2017	6532	0.37	744020	615000	7/17/2017	121	7	34
363	2018	2	0	0	101	101	141	33	4266	3N2W12-DD-00717	2017	6580	0.18	265220	250000	7/17/2017	106	7	35
364	2018	3	3	0	101	101	141	33	22531	4N4W03-BD-02104	2017	6542	0.62	235100	251900	7/18/2017	93	7	36
365	2018	2	0	0	101	101	141	33	4748	3N2W13-BD-02500	2017	7389	0.15	281470	285000	7/19/2017	99	7	37
366	2018	2	0	0	101	101	141	33	4301	3N2W12-DD-02900	2017	6594	0.17	269800	305000	7/20/2017	88	7	38
367	2018	3	0	0	101	101	131	33	22687	4N4W04-AD-01500	2017	6728	0.18	122520	190000	7/20/2017	64	7	39
368	2018	2	79	0	101	101	143	33	3238	3N2W11-DA-02617	2017	6717	0.32	387980	441100	7/20/2017	88	7	40
369	2018	2	0	0	101	101	132	33	3223	3N2W11-DA-02602	2017	6720	0.23	311010	371000	7/20/2017	84	7	41
370	2018	4	0	0	101	101	143	33	18076	7N2W16-CC-00800	2017	7699	0.21	218870	242500	7/20/2017	90	7	42
371	2018	1	0	0	101	101	131	33	10593	4N1W04-CA-04900	2017	6742	0.2	138980	181000	7/21/2017	77	7	44
372	2018	6	1	0	101	101	141	33	14606	5N1W28-DA-01200	2017	6746	0.23	216520	319000	7/21/2017	68	7	45
373	2018	1	0	0	101	101	143	33	11845	4N1W05-BC-02000	2017	6895	0.15	291170	292000	7/21/2017	100	7	46
374	2018	3	0	0	101	101	143*	33	22754	4N4W04-BA-03300	2017	6910	0.68	195010	280000	7/21/2017	70	7	47
375	2018	3	0	0	101	101	121*	33	23203	4N4W05-AC-04200	2017	7220	0.23	109920	114500	7/21/2017	96	7	48
376	2018	2	0	0	101	101	141	33	3047	3N2W11-AA-00108	2017	6744	0.19	265250	277088	7/24/2017	96	7	49
377	2018	1	0	0	101	101	141	33	13400	5N1W33-DB-01000	2017	6760	0.15	198150	235000	7/24/2017	84	7	50
378	2018	1	0	0	101	101	131	33	12242	4N1W05-CC-01111	2017	6795	0.17	225750	299500	7/24/2017	75	7	51
379	2018	1	0	0	101	101	121	33	9682	4N1W03-BC-08900	2017	6813	0.13	120970	193000	7/24/2017	63	7	52
380	2018	3	3	0	101	101	132	33	22390	4N4W03-BB-06100	2017	8418	0.34	121940	129500	7/24/2017	94	7	53
381	2018	1	0	0	101	101	143	33	29086	5N1W34-CB-01612	2017	6824	0.11	263510	310000	7/25/2017	85	7	54
382	2018	3	0	0	101	101	135	33	23476	4N4W05-DA-09800	2017	6833	0.13	154690	219300	7/25/2017	71	7	55
383	2018	1	0	0	101	101	141*	33	12290	4N1W05-CD-00300	2017	6923	0.53	258720	296300	7/25/2017	87	7	56
384	2018	2	0	0	101	101	143	33	433504	3N2W13-CD-02000	2017	6906	0.14	309120	330000	7/26/2017	94	7	57
385	2018	1	0	0	101	101	143	33	12990	4N1W07-AB-03126	2017	6857	0.16	336500	340000	7/26/2017	99	7	58
386	2018	1	0	0	101	101	136	33	13904	5N1W34-CC-05500	2017	6980	0.13	188240	265000	7/26/2017	71	7	59
387	2018	1	0	0	101	101	131	33	11353	4N1W04-DD-10000	2017	7167	0.13	141860	169900	7/26/2017	83	7	60
388	2018	1	0	0	100	100		33	10806	4N1W05-DA-08900	2017	7027	0.08	34770	46250	7/28/2017	75	7	61
389	2018	3	0	0	101	101	141	33	23271	4N4W05-AD-04700	2017	7091	0.11	206230	235000	7/28/2017	88	7	62
390	2018	2	0	0	101	101	141	33	432020	3N2W13-AD-04507	2017	7038	0.17	306910	324900	7/31/2017	94	7	63
391	2018	1	0	0	101	101	131	33	10665	4N1W04-CA-12100	2017	7093	0.13	152400	210000	7/31/2017	73	7	64
392	2018	1	0	0	101	101	141	33	433475	5N1W32-DC-00114	2017	7165	0.17	315010	341346	7/31/2017	92	7	65
393	2018	2	0	0	101	101	143	33	438589	3N2W13-CC-00109	2017	8055	0.14	370310	375730	7/31/2017	99	7	66
394	2018	2	0	0	101	101	143	33	438584	3N2W13-CC-00104	2017	8059	0.14	354350	339995	7/31/2017	104	7	67
395	2018	2	0	0	101	101	143	33	438588	3N2W13-CC-00108	2017	8108	0.14	345060	331185	7/31/2017	104	7	68
396	2018	2	0	0	101	101	143	30	438587	3N2W13-CC-00107	2017	8076	0.14	359700	362980	7/31/2017	99	7	69
397	2018	2	0	0	101	101	143	33	438602	3N2W13-CC-00122	2017	8499	0.14	370740	391765	7/31/2017	95	7	70
398	2018	2	0	0	101	101	143	33	438590	3N2W13-CC-00110	2017	8584	0.14	360440	347195	7/31/2017	104	7	71
399	2018	6	21	0	101	101	141	33	14155	5N1W21-CB-04500	2017	7158	0.27	261690	282150	8/1/2017	93	8	1
400	2018	6	1	0	101	101	143	33	14527	5N1W28-BD-00605	2017	7187	0.32	300160	379900	8/2/2017	79	8	2
401	2018	1	0	0	101	101	143	33	9668	4N1W03-BC-07400	2017	7160	0.13	258340	260000	8/2/2017	99	8	3
402	2018	2	79	0	101	101	164	33	431998	3N2W11-DB-02500	2017	7176	0.17	581040	495000	8/3/2017	117	8	4
403	2018	1	43	0	101	101	143	33	10898	4N1W04-DA-02300	2017	7178	0.07	227480	224000	8/3/2017	102	8	5
404	2018	4	0	0	109	109	442	30	18623	7N2W17-DC-00103	2017	7207	0.32	118740	175000	8/3/2017	68	8	6
405	2018	1	0	0	101	101	131	33	11662	4N1W05-AC-04403	2017	7194	0.17	193490	279400	8/4/2017	69	8	7

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
406	2018	1	0	0	101	101	141	30	12227	4N1W05-CC-01000	2017	7336	0.24	203990	280000	8/4/2017	73	8	8
407	2018	1	0	0	101	101	142	33	13260	5N1W32-DC-00500	2017	7271	0.23	317220	320000	8/7/2017	99	8	9
408	2018	1	0	0	101	101	143	33	12144	4N1W05-CB-03400	2017	7326	0.15	268370	293000	8/7/2017	92	8	10
409	2018	1	0	0	101	101	143	33	11503	4N1W05-AC-07000	2017	7319	0.13	289980	310000	8/7/2017	94	8	11
410	2018	1	0	0	101	101	143	33	12929	4N1W06-DD-05900	2017	7352	0.12	242120	275000	8/7/2017	88	8	12
411	2018	6	21	0	101	101	141	30	14044	5N1W21-BD-03300	2017	7280	0.23	297530	340000	8/8/2017	88	8	13
412	2018	4	0	0	101	101	134	33	17901	7N2W16-BC-03300	2017	7355	0.11	122790	199900	8/8/2017	61	8	14
413	2018	1	0	0	101	101	143	33	431915	4N1W05-BA-03906	2017	7332	0.14	288250	303000	8/8/2017	95	8	15
414	2018	4	0	0	101	101	142	33	18617	7N2W17-DB-02900	2017	7874	0.32	317480	305000	8/8/2017	104	8	16
415	2018	2	0	0	101	101	136	33	3242	3N2W11-DA-02700	2017	7372	0.17	259610	265000	8/9/2017	98	8	17
416	2018	2	0	0	101	101	141	33	4263	3N2W12-DD-00714	2017	7408	0.2	276040	300000	8/10/2017	92	8	18
417	2018	5	0	0	101	101	132	33	26063	7N4W08-DA-03200	2017	7402	0.17	130480	143000	8/10/2017	91	8	19
418	2018	3	0	0	101	101	131	33	23254	4N4W05-AD-02901	2017	7521	0.33	151340	180000	8/10/2017	84	8	20
419	2018	1	0	0	101	101	143	33	12880	4N1W06-DC-07900	2017	7426	0.15	247110	265000	8/11/2017	93	8	21
420	2018	3	0	0	101	101	141	30	437294	4N4W04-AB-00402	2017	7583	0.21	244650	299900	8/11/2017	82	8	22
421	2018	2	0	0	101	101	141	33	2889	3N1W18-BB-00200	2017	7593	0.14	265630	337800	8/11/2017	79	8	23
422	2018	1	0	0	101	101	141	30	13370	5N1W33-DA-01400	2017	7475	0.19	208540	244400	8/14/2017	85	8	24
423	2018	1	0	0	101	101	143	33	12467	4N1W05-DB-02111	2017	7506	0.12	262590	269000	8/14/2017	98	8	25
424	2018	3	0	0	101	101	151	30	22535	4N4W03-BD-02108	2017	7545	0.68	390810	325000	8/14/2017	120	8	26
425	2018	2	0	0	101	101	143	30	437286	3N2W12-AD-06003	2017	7595	0.17	361860	370000	8/14/2017	98	8	27
426	2018	5	0	0	101	101	136	30	25997	7N4W08-CD-06700	2017	7503	0.31	160730	165000	8/15/2017	97	8	28
427	2018	3	0	0	101	101	131*	33	22481	4N4W03-BC-09400	2017	7535	0.38	159560	150000	8/15/2017	106	8	29
428	2018	6	21	0	101	101	141	33	31146	5N1W21-BC-02300	2017	7519	0.23	302650	322500	8/15/2017	94	8	30
429	2018	1	0	0	101	101	131*	30	11324	4N1W04-DD-07200	2017	7634	0.13	159650	198500	8/15/2017	80	8	31
430	2018	1	0	0	101	101	131*	33	10796	4N1W04-CB-03400	2017	7591	0.27	205670	240000	8/15/2017	86	8	32
431	2018	1	0	0	101	101	143	33	12459	4N1W05-DB-02103	2017	9978	0.12	245320	250000	8/16/2017	98	8	33
432	2018	5	0	0	100	100		33	434309	7N4W09-CA-00141	2017	7605	0.24	43010	59900	8/17/2017	72	8	34
433	2018	1	0	0	101	101	153	33	11837	4N1W05-BC-01100	2017	7658	0.16	483150	394900	8/17/2017	122	8	35
434	2018	2	0	0	101	101	147	33	438456	3N2W13-CA-03912	2017	8300	0.08	328370	306995	8/17/2017	107	8	36
435	2018	2	0	0	101	101	143	30	438593	3N2W13-CC-00113	2017	8560	0.16	355620	355995	8/17/2017	100	8	37
436	2018	2	0	0	101	101	143	33	438466	3N2W13-CA-03922	2017	8833	0.12	349480	354675	8/17/2017	99	8	38
437	2018	2	0	0	101	101	143	33	438461	3N2W13-CA-03917	2017	9076	0.08	307900	306675	8/17/2017	100	8	39
438	2018	1	0	0	101	101	143	33	31190	4N1W05-AC-03504	2017	7645	0.15	273920	299500	8/18/2017	91	8	40
439	2018	1	0	0	101	101	136	33	9642	4N1W03-BC-05300	2017	7647	0.13	192940	265000	8/18/2017	73	8	41
440	2018	1	0	0	100	100		33	436569	4N1W04-AD-06702	2017	7655	0.13	35600	31900	8/21/2017	112	8	42
441	2018	2	0	0	101	101	143	33	3871	3N2W12-CC-01208	2017	7787	0.14	272510	260000	8/21/2017	105	8	43
442	2018	1	0	0	101	101	143	33	12102	4N1W05-CB-00138	2017	7765	0.13	310520	337000	8/21/2017	92	8	44
443	2018	1	0	0	101	101	131	33	12562	4N1W05-CD-04100	2017	7838	0.33	199430	252000	8/21/2017	79	8	45
444	2018	1	0	0	101	101	141	33	11937	4N1W05-BD-02600	2017	7904	0.25	280990	275000	8/23/2017	102	8	46
445	2018	6	1	0	101	101	142	33	14582	5N1W28-CA-03000	2017	7971	0.23	413810	415000	8/23/2017	100	8	47
446	2018	3	0	0	101	101	131	33	22694	4N4W04-AD-02200	2017	7849	0.2	140420	200000	8/24/2017	70	8	48
447	2018	2	0	0	101	101	143	33	28589	3N2W13-BA-00705	2017	7883	0.14	323910	338000	8/24/2017	96	8	49
448	2018	2	80	0	101	101	154	33	3601	3N2W12-BC-00235	2017	7876	0.19	422190	384890	8/25/2017	110	8	50
449	2018	2	33	0	101	101	143	33	429908	3N2W12-AD-03111	2017	7946	0.09	274020	267500	8/25/2017	102	8	51
450	2018	1	0	0	101	101	141	33	434040	5N1W33-DA-01414	2017	7964	0.13	185780	181300	8/25/2017	102	8	52

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
451	2018	1	0	0	101	101	141	30	434043	5N1W33-DA-01417	2017	7919	0.1	183400	210000	8/25/2017	87	8	53
452	2018	6	1	0	101	101	142	33	14554	5N1W28-CA-00200	2017	7997	0.23	381150	346000	8/25/2017	110	8	54
453	2018	6	1	0	101	101	151	33	14532	5N1W28-BD-00609	2017	8063	0.23	387610	370000	8/25/2017	105	8	55
454	2018	3	0	0	109	109	462*	33	23451	4N4W05-DA-07600	2017	8825	0.14	161210	194900	8/25/2017	83	8	56
455	2018	1	0	0	101	101	141	33	11602	4N1W05-AC-02200	2017	7943	0.26	239950	301900	8/28/2017	79	8	57
456	2018	1	0	0	101	101	143	33	12310	4N1W05-CD-00808	2017	8115	0.13	230660	257900	8/28/2017	89	8	58
457	2018	1	0	0	101	101	131	33	11674	4N1W05-AC-05300	2017	8029	0.25	162900	220000	8/28/2017	74	8	59
458	2018	1	0	0	101	101	131	30	13687	5N1W33-DD-11100	2017	8018	0.13	149640	192500	8/29/2017	78	8	60
459	2018	1	0	0	101	101	146	33	9955	4N1W04-AA-06500	2017	8003	0.13	239590	305000	8/29/2017	79	8	61
460	2018	2	0	0	101	101	147	33	438454	3N2W13-CA-03910	2017	8367	0.06	322000	302955	8/29/2017	106	8	62
461	2018	2	0	0	101	101	143	33	438601	3N2W13-CC-00121	2017	8506	0.14	375150	379995	8/29/2017	99	8	63
462	2018	2	0	0	109	109	452	33	2960	3N2W01-CC-02003	2017	8071	0.14	206400	180000	8/29/2017	115	8	64
463	2018	6	1	0	101	101	163	33	14664	5N1W28-DA-06100	2017	8028	0.14	586780	615000	8/30/2017	95	8	65
464	2018	2	0	0	101	101	143	33	28588	3N2W13-BA-00704	2017	8001	0.14	312140	340000	8/30/2017	92	8	66
465	2018	2	0	0	101	101	131	33	3947	3N2W12-CD-02201	2017	8042	0.14	220990	200000	8/31/2017	110	8	67
466	2018	2	0	0	101	101	131	33	3830	3N2W12-CB-03400	2017	8078	0.13	191020	204900	8/31/2017	93	8	68
467	2018	6	1	0	101	101	132	33	14497	5N1W28-BA-01300	2017	8098	0.17	206630	279000	8/31/2017	74	8	69
468	2018	1	0	0	101	101	143	30	433450	5N1W32-DB-01700	2017	8406	0.17	340820	335000	8/31/2017	102	8	70
469	2018	5	0	0	109	109	463	33	25772	7N4W08-CA-00603	2017	8347	0.21	166100	210000	8/31/2017	79	8	71
470	2018	1	0	0	101	101	131	33	9855	4N1W03-CB-05001	2017	8196	0.13	150180	215000	9/1/2017	70	9	1
471	2018	1	0	0	101	101	143	33	11867	4N1W05-BC-04200	2017	8270	0.21	228510	269900	9/1/2017	85	9	2
472	2018	3	0	0	101	101	132	33	22871	4N4W04-BC-06100	2017	8817	0.3	164300	180650	9/1/2017	91	9	3
473	2018	4	0	0	101	101	142	33	18059	7N2W16-CC-00311	2017	8580	0.23	202250	250000	9/4/2017	81	9	4
474	2018	2	0	0	101	101	143	33	433090	3N2W12-DC-00167	2017	8198	0.06	275090	261000	9/5/2017	105	9	5
475	2018	1	0	0	101	101	143	33	12836	4N1W06-DC-03500	2017	8245	0.26	344260	355000	9/6/2017	97	9	6
476	2018	1	0	0	101	101	144	30	12718	4N1W06-DA-00700	2017	8341	0.19	304380	292500	9/6/2017	104	9	7
477	2018	2	0	0	101	101	141	33	438603	3N2W13-CC-00123	2017	8986	0.14	352300	355995	9/6/2017	99	9	8
478	2018	2	0	0	101	101	143	33	438594	3N2W13-CC-00114	2017	9066	0.16	374590	391550	9/6/2017	96	9	9
479	2018	2	0	0	101	101	143	33	438591	3N2W13-CC-00111	2017	9081	0.14	361910	367150	9/6/2017	99	9	10
480	2018	1	0	0	101	101	144	30	9611	4N1W03-BB-13900	2017	8291	0.14	208270	235000	9/7/2017	89	9	11
481	2018	2	0	0	101	101	141	33	2768	3N1W07-CA-00119	2017	8317	0.17	299400	290000	9/7/2017	103	9	12
482	2018	1	0	0	101	101	156	33	13590	5N1W33-DD-04100	2017	8336	0.27	356080	330000	9/7/2017	108	9	13
483	2018	3	0	0	100	100		30	435698	4N4W04-AB-00304	2017	8309	0.22	36450	35000	9/8/2017	104	9	14
484	2018	3	0	0	100	100		30	22568	4N4W04-AB-00300	2017	8310	0.17	33730	35000	9/8/2017	96	9	15
485	2018	1	0	0	101	101	131	33	10163	4N1W04-AD-02500	2017	8431	0.2	174620	224900	9/8/2017	78	9	16
486	2018	3	0	0	101	101	131	33	22634	4N4W04-AC-02600	2017	8844	0.25	115070	157500	9/8/2017	73	9	17
487	2018	2	0	0	101	101	147	33	438447	3N2W13-CA-03903	2017	8964	0.07	327990	284995	9/8/2017	115	9	18
488	2018	2	0	0	101	101	147	30	438459	3N2W13-CA-03915	2017	9094	0.06	322000	314400	9/8/2017	102	9	19
489	2018	2	0	0	101	101	143	33	438457	3N2W13-CA-03913	2017	10542	0.06	288270	269995	9/8/2017	107	9	20
490	2018	2	0	0	101	101	143	33	433506	3N2W13-CD-02200	2017	8458	0.17	307750	305000	9/11/2017	101	9	21
491	2018	2	0	0	101	101	143	33	438468	3N2W13-CA-03924	2017	9090	0.11	309430	282335	9/11/2017	110	9	22
492	2018	2	0	0	101	101	143	33	4207	3N2W12-DC-00105	2017	8455	0.14	315140	318000	9/12/2017	99	9	23
493	2018	2	33	0	101	101	143	33	429917	3N2W12-AD-03120	2017	8517	0.09	281620	250000	9/12/2017	113	9	24
494	2018	1	0	0	101	101	131	33	11103	4N1W04-DC-08500	2017	8473	0.27	209980	270000	9/12/2017	78	9	25
495	2018	2	0	0	101	101	143	33	433492	3N2W13-CD-00800	2017	8544	0.14	298930	318500	9/12/2017	94	9	26

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
496	2018	5	0	0	101	101	146	33	25946	7N4W08-CD-01300	2017	8429	0.23	259850	300000	9/12/2017	87	9	27
497	2018	2	0	0	100	100		33	3099	3N2W11-AA-01000	2017	8556	1.68	120510	123500	9/13/2017	98	9	28
498	2018	1	0	0	101	101	141	33	12708	4N1W06-AD-04200	2017	8478	0.16	253710	275000	9/13/2017	92	9	29
499	2018	6	21	0	101	101	141	33	14242	5N1W21-CD-06100	2017	8504	0.24	239860	260000	9/13/2017	92	9	30
500	2018	1	0	0	101	101	141	30	434052	5N1W33-DB-01018	2017	8447	0.14	200730	234000	9/13/2017	86	9	31
501	2018	6	1	0	101	101	153	33	14665	5N1W28-DA-06200	2017	8490	0.15	475940	550000	9/13/2017	87	9	32
502	2018	5	0	0	101	101	135	33	26319	7N4W17-BA-02200	2017	8519	0.48	182260	159000	9/13/2017	115	9	33
503	2018	4	0	0	101	101	131	33	18252	7N2W16-DB-13400	2017	8467	0.41	158250	163500	9/13/2017	97	9	34
504	2018	1	0	0	101	101	132	33	10270	4N1W04-BA-01101	2017	8554	0.13	168430	223000	9/14/2017	76	9	35
505	2018	1	0	0	101	101	143	33	12821	4N1W06-DC-02000	2017	8562	0.14	296030	323000	9/14/2017	92	9	36
506	2018	2	0	0	101	101	143*	33	4536	3N2W13-AD-07200	2017	8573	0.17	302430	349000	9/14/2017	87	9	37
507	2018	1	0	0	100	100		33	9766	4N1W03-BD-04500	2017	8593	0.26	91550	85000	9/15/2017	108	9	38
508	2018	1	0	0	101	101	146	33	9488	4N1W03-BB-02400	2017	8575	0.14	256690	363000	9/15/2017	71	9	39
509	2018	1	0	0	101	101	143	33	429802	4N1W05-DC-08204	2017	8719	0.35	294320	318900	9/15/2017	92	9	40
510	2018	2	0	0	101	101	143	33	438597	3N2W13-CC-00117	2017	9061	0.14	351700	345495	9/15/2017	102	9	41
511	2018	3	0	0	101	101	151	33	23107	4N4W04-DA-02300	2017	8655	0.34	232480	259900	9/18/2017	89	9	42
512	2018	1	43	0	101	101	143	33	11908	4N1W05-BD-01112	2017	8675	0.08	214280	211000	9/18/2017	102	9	43
513	2018	1	0	0	101	101	132	33	9511	5N1W34-CC-13700	2017	8680	0.13	190190	246000	9/18/2017	77	9	44
514	2018	1	0	0	101	101	143	30	12930	4N1W06-DD-06000	2017	8649	0.12	239080	255000	9/19/2017	94	9	45
515	2018	1	0	0	101	101	131	33	11255	4N1W04-DD-02000	2017	8783	0.13	187040	235000	9/19/2017	80	9	46
516	2018	2	0	0	101	101	143	33	433084	3N2W12-DC-00161	2017	8706	0.06	274000	250000	9/19/2017	110	9	47
517	2018	4	0	0	101	101	141	33	18297	7N2W16-DC-03701	2017	8799	0.15	161510	215000	9/19/2017	75	9	48
518	2018	1	0	0	101	101	131	33	10648	4N1W04-CA-10401	2017	8861	0.1	140890	212000	9/19/2017	66	9	49
519	2018	1	0	0	101	101	131	33	11732	4N1W05-AD-05500	2017	8790	0.11	158310	195000	9/20/2017	81	9	50
520	2018	5	0	0	101	101	145	33	25759	7N4W08-BD-02600	2017	8785	0.3	175570	277000	9/20/2017	63	9	51
521	2018	2	0	0	101	101	136	33	4759	3N2W13-BD-03601	2017	8823	0.21	265330	325500	9/20/2017	82	9	52
522	2018	2	0	0	101	101	141	33	2878	3N1W07-CC-02800	2017	8872	0.17	274250	320000	9/20/2017	86	9	53
523	2018	1	0	0	101	101	143*	33	12696	4N1W06-AD-01900	2017	8907	0.22	435160	432000	9/20/2017	101	9	54
524	2018	2	0	0	101	101	147	33	438460	3N2W13-CA-03916	2017	9065	0.08	328790	301995	9/20/2017	109	9	55
525	2018	2	0	0	101	101	143	33	4548	3N2W13-AD-08400	2017	8796	0.14	322540	358000	9/21/2017	90	9	56
526	2018	2	80	0	101	101	154	33	3594	3N2W12-BC-00228	2017	8810	0.18	576380	565000	9/21/2017	102	9	57
527	2018	4	47	0	101	101	143	33	22040	7N2W16-BB-01300	2017	8875	0.06	184760	196000	9/21/2017	94	9	58
528	2018	2	0	0	101	101	143	33	433117	3N2W12-DC-02515	2017	8870	0.06	268220	255495	9/21/2017	105	9	59
529	2018	4	0	0	101	101	142	33	18075	7N2W16-CC-00700	2017	8819	0.44	222550	255000	9/21/2017	87	9	60
530	2018	1	0	0	101	981	141	33	12604	4N1W05-DC-05901	2017	9054	0.25	281140	364000	9/21/2017	77	9	61
531	2018	2	0	0	101	101	143	30	433083	3N2W12-DC-00160	2017	8863	0.05	261900	261000	9/22/2017	100	9	62
532	2018	1	0	0	101	101	143	33	12411	4N1W05-DA-03008	2017	9063	0.16	245520	255000	9/22/2017	96	9	63
533	2018	1	0	0	101	101	143	33	12972	4N1W07-AB-03108	2017	9012	0.14	290920	289000	9/25/2017	101	9	64
534	2018	6	21	0	101	101	141	33	14046	5N1W21-BD-03500	2017	9058	0.23	291500	325000	9/25/2017	90	9	65
535	2018	1	0	0	101	101	131	33	9906	4N1W04-AA-02700	2017	9311	0.13	142730	128834	9/25/2017	111	9	66
536	2018	1	0	0	101	101	131	33	434400	4N1W05-AC-03401	2017	8940	0.75	234750	273000	9/26/2017	86	9	67
537	2018	3	0	0	101	101	143	33	23332	4N4W05-AD-10900	2017	8962	0.17	248200	238000	9/26/2017	104	9	68
538	2018	1	0	0	101	101	131	33	11648	4N1W05-AC-03400	2017	8970	0.18	136630	184900	9/26/2017	74	9	69
539	2018	1	0	0	101	101	132	33	9702	4N1W03-BC-10600	2017	9026	0.22	180580	240000	9/26/2017	75	9	70
540	2018	1	0	0	101	101	141	33	11873	4N1W05-BC-04800	2017	9002	0.13	252670	289500	9/27/2017	87	9	71

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
541	2018	3	3	0	101	101	135	33	22957	4N4W04-BD-06400	2017	9014	0.11	107810	132000	9/27/2017	82	9	72
542	2018	2	0	0	101	101	143	33	429876	3N1W07-CC-01411	2017	8966	0.14	372570	385000	9/27/2017	97	9	73
543	2018	1	0	0	101	101	141	33	12737	4N1W06-DA-02600	2017	9068	0.24	277650	289000	9/27/2017	96	9	74
544	2018	2	33	0	101	101	143	33	429921	3N2W12-AD-03124	2017	9085	0.09	277800	253000	9/28/2017	110	9	75
545	2018	3	0	0	101	101	142	33	23324	4N4W05-AD-10100	2017	9088	0.23	197490	220000	9/28/2017	90	9	76
546	2018	1	0	0	101	101	143	33	11969	4N1W05-BD-06100	2017	9212	0.14	253330	275000	10/2/2017	92	10	1
547	2018	1	43	0	101	101	143	33	12178	4N1W05-CB-06500	2017	9202	0.06	196290	200000	10/3/2017	98	10	2
548	2018	1	0	0	101	101	141	33	12263	4N1W05-CC-01809	2017	9199	0.18	264180	285000	10/3/2017	93	10	3
549	2018	1	0	0	101	101	141	30	434049	5N1W33-DB-01015	2017	9195	0.15	202860	230000	10/3/2017	88	10	4
550	2018	2	0	0	101	101	141	33	434766	3N1W07-CB-01909	2017	9282	0.18	309140	335000	10/3/2017	92	10	5
551	2018	1	0	0	101	101	132	33	10141	4N1W04-AD-00401	2017	9284	0.13	186530	260000	10/3/2017	72	10	6
552	2018	2	0	0	101	101	141	33	3535	3N2W12-BB-02000	2017	9346	0.21	272040	270160	10/5/2017	101	10	7
553	2018	2	0	0	101	101	135	30	3619	3N2W12-BD-00200	2017	9438	0.11	197810	225000	10/5/2017	88	10	8
554	2018	4	0	0	100	100		30	438809	7N2W16-CC-00201	2017	9427	0.71	40330	50000	10/6/2017	81	10	9
555	2018	2	0	0	101	101	143	30	438592	3N2W13-CC-00112	2017	9610	0.17	375530	372995	10/6/2017	101	10	10
556	2018	1	0	0	101	981	143	33	12518	4N1W05-DB-04400	2017	9889	0.27	294030	294000	10/6/2017	100	10	11
557	2018	2	0	0	101	101	143	33	438464	3N2W13-CA-03920	2017	10102	0.06	300580	289995	10/6/2017	104	10	12
558	2018	2	0	0	101	101	143	33	438462	3N2W13-CA-03918	2017	10135	0.07	291840	281765	10/6/2017	104	10	13
559	2018	2	0	0	101	101	153	33	4690	3N2W13-BB-01500	2017	9428	0.2	436520	357000	10/9/2017	122	10	14
560	2018	4	0	0	101	101	133	33	18000	7N2W16-CB-00301	2017	9388	0.3	131910	262000	10/9/2017	50	10	15
561	2018	1	0	0	101	101	143	33	12025	4N1W05-CA-00507	2017	9380	0.17	288190	290000	10/9/2017	99	10	16
562	2018	1	0	0	109	109	443	33	9914	4N1W04-AA-03401	2017	9421	0.13	145480	182000	10/9/2017	80	10	17
563	2018	1	0	0	101	101	143	33	12826	4N1W06-DC-02500	2017	9452	0.34	333240	334500	10/10/2017	100	10	18
564	2018	3	0	0	101	101	142*	33	22644	4N4W04-AC-03600	2017	9575	0.22	203240	223000	10/10/2017	91	10	19
565	2018	2	0	0	101	101	147	30	438463	3N2W13-CA-03919	2017	10060	0.06	323470	299995	10/10/2017	108	10	20
566	2018	1	0	0	101	101	131	33	11791	4N1W05-DA-06300	2017	9541	0.11	158680	242000	10/11/2017	66	10	21
567	2018	6	1	0	101	101	153	33	14754	5N1W28-DD-00100	2017	9559	0.18	588570	605000	10/11/2017	97	10	22
568	2018	2	0	0	101	101	143	33	438471	3N2W13-CA-03927	2017	10345	0.08	297930	279675	10/11/2017	107	10	23
569	2018	2	0	0	101	101	143	33	438605	3N2W13-CC-00125	2017	10698	0.14	381100	382995	10/11/2017	100	10	24
570	2018	2	0	0	101	101	143	33	438604	3N2W13-CC-00124	2017	10861	0.14	355450	345860	10/11/2017	103	10	25
571	2018	1	0	0	101	101	141	33	11550	4N1W05-AB-03000	2017	9514	0.2	205440	275000	10/12/2017	75	10	26
572	2018	1	0	0	101	101	141	33	433474	5N1W32-DC-00113	2017	9613	0.16	300850	338900	10/13/2017	89	10	27
573	2018	1	0	0	101	101	142	33	11535	4N1W05-AB-01500	2017	9739	0.22	287190	330000	10/13/2017	87	10	28
574	2018	6	21	0	101	101	143	33	14082	5N1W21-CA-03800	2017	9972	0.25	262410	255000	10/13/2017	103	10	29
575	2018	1	0	0	101	101	153	33	12953	4N1W06-DD-08300	2017	10440	0.14	363840	335000	10/13/2017	109	10	30
576	2018	1	0	0	101	101	143	33	10137	4N1W04-AD-00302	2017	10944	0.13	228210	263900	10/13/2017	86	10	31
577	2018	1	0	0	101	101	143	33	11500	4N1W05-AC-06700	2017	9830	0.16	296980	319900	10/16/2017	93	10	32
578	2018	3	0	0	101	101	131	33	22745	4N4W04-BA-02401	2017	10204	0.34	151440	213000	10/17/2017	71	10	33
579	2018	2	0	0	101	101	141	33	4429	3N2W13-AC-01700	2017	9765	0.14	285480	326200	10/18/2017	88	10	34
580	2018	1	30	0	101	101	242	33	10143	4N1W04-AD-00600	2017	9836	0.16	194650	220000	10/18/2017	88	10	35
581	2018	1	30	0	101	101	242	33	10142	4N1W04-AD-00500	2017	9840	0.14	191470	220000	10/18/2017	87	10	36
582	2018	1	0	0	101	101	141	33	12389	4N1W05-DA-02300	2017	9881	0.18	213840	262900	10/18/2017	81	10	37
583	2018	1	0	0	101	101	141	33	12249	4N1W05-CC-01118	2017	9832	0.17	254850	275000	10/19/2017	93	10	38
584	2018	2	0	0	101	101	143	33	4274	3N2W12-DD-00726	2017	9877	0.18	293640	293500	10/19/2017	100	10	39
585	2018	5	0	0	101	101	131	33	26278	7N4W09-CB-03500	2017	9820	0.27	179970	197000	10/19/2017	91	10	40

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#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
586	2018	3	3	0	101	101	143*	33	23023	4N4W04-BD-13000	2017	10609	0.18	223170	252200	10/19/2017	88	10	41
587	2018	1	0	0	101	101	143	33	10976	4N1W04-DA-11700	2017	9958	0.18	290710	291500	10/20/2017	100	10	42
588	2018	1	0	0	101	101	141	30	434058	5N1W33-DB-01024	2017	9906	0.15	204120	231000	10/23/2017	88	10	43
589	2018	3	0	0	101	101	141	33	22542	4N4W03-CA-00106	2017	10052	0.23	147750	169000	10/24/2017	87	10	44
590	2018	4	0	0	101	101	131	33	18334	7N2W16-DC-06504	2017	9979	0.23	128410	205000	10/25/2017	63	10	45
591	2018	1	0	0	101	101	136	33	13476	5N1W33-DC-05000	2017	10071	0.23	192160	225000	10/25/2017	85	10	46
592	2018	1	43	0	101	101	143	33	12201	4N1W05-CB-08901	2017	10075	0.07	206120	160000	10/25/2017	129	10	47
593	2018	2	0	0	101	101	143	33	28535	3N2W12-AD-06541	2017	10190	0.14	339140	369900	10/25/2017	92	10	48
594	2018	3	0	0	101	101	131	33	435142	4N4W05-AC-04301	2017	10199	0.11	172110	250000	10/25/2017	69	10	49
595	2018	1	0	0	101	101	142	33	11578	4N1W05-AB-04216	2017	10216	0.18	304750	322000	10/25/2017	95	10	50
596	2018	3	0	0	101	101	121*	33	23320	4N4W05-AD-09701	2017	10048	0.11	93710	124800	10/26/2017	75	10	51
597	2018	1	0	0	101	101	141	33	14905	4N1W05-BA-03900	2017	10186	0.13	242530	279900	10/26/2017	87	10	52
598	2018	2	0	0	101	101	141	33	4236	3N2W12-DC-00134	2017	10193	0.14	289830	300000	10/26/2017	97	10	53
599	2018	1	0	0	101	101	131	33	11269	4N1W04-DA-12900	2017	10164	0.13	157200	230000	10/26/2017	68	10	54
600	2018	1	0	0	101	101	144	33	431949	4N1W05-BA-03940	2017	10224	0.13	331260	360000	10/26/2017	92	10	55
601	2018	3	0	0	109	109	452*	33	22537	4N4W03-CA-00100	2017	10099	0.59	185880	258900	10/26/2017	72	10	56
602	2018	1	30	0	101	101	242	33	31193	4N1W05-AC-03507	2017	10166	0.17	305370	312000	10/27/2017	98	10	57
603	2018	1	0	0	101	101	143	33	433546	4N1W04-CA-07301	2017	10184	0.11	244760	264000	10/27/2017	93	10	58
604	2018	2	0	0	101	101	131	33	4139	3N2W12-DB-08500	2017	10188	0.14	193700	229900	10/28/2017	84	10	59
605	2018	2	0	0	101	101	143	33	4537	3N2W13-AD-07300	2017	10121	0.14	302050	342500	10/30/2017	88	10	60
606	2018	1	0	0	101	101	141	30	433955	4N1W05-BD-01018	2017	10170	0.12	255520	269000	10/30/2017	95	10	61
607	2018	6	1	0	101	101	142	33	14676	5N1W28-DB-00102	2017	10916	0.23	254170	277900	10/30/2017	91	10	62
608	2018	1	0	0	101	101	141	33	433954	4N1W05-BD-01017	2017	11485	0.12	252070	269000	10/30/2017	94	10	63
609	2018	3	0	0	100	100		33	22712	4N4W04-AD-04201	2017	10300	0.2	35350	48000	10/31/2017	74	10	64
610	2018	2	79	0	101	101	162	33	432005	3N2W11-DD-00315	2017	10196	0.27	618360	585700	10/31/2017	106	10	65
611	2018	6	1	0	101	101	152	30	14662	5N1W28-DA-05900	2017	10226	0.41	418770	450000	10/31/2017	93	10	66
612	2018	2	33	0	101	101	143	30	429911	3N2W12-AD-03114	2017	10237	0.09	286510	255000	10/31/2017	112	10	67
613	2018	1	0	0	101	101	142	33	11576	4N1W05-AB-04214	2017	10276	0.18	326330	374900	11/1/2017	87	11	1
614	2018	5	0	0	101	101	141	33	26233	7N4W09-CB-00600	2017	10314	0.36	252580	260900	11/1/2017	97	11	2
615	2018	1	0	0	101	101	143	33	12937	4N1W06-DD-06700	2017	10333	0.12	241570	254500	11/1/2017	95	11	3
616	2018	3	0	0	101	101	141	33	429815	4N4W05-AA-00403	2017	10484	0.54	237680	259900	11/1/2017	91	11	4
617	2018	2	0	0	101	101	143	33	2959	3N2W01-CC-02002	2017	10309	0.14	303050	288000	11/2/2017	105	11	5
618	2018	1	0	0	100	100		30	9769	4N1W03-BD-04503	2017	10455	0.13	50860	71000	11/3/2017	72	11	6
619	2018	3	3	0	101	101	131	33	22831	4N4W04-BC-01300	2017	10342	0.11	125760	120000	11/3/2017	105	11	7
620	2018	2	0	0	101	101	141	33	4725	3N2W13-BD-00100	2017	10437	0.14	261360	276000	11/3/2017	95	11	8
621	2018	6	15	0	101	101	132*	33	14297	5N1W28-AA-02100	2017	10950	0.24	443900	495000	11/6/2017	90	11	9
622	2018	4	46	0	100	100		30	18545	7N2W17-DA-00403	2017	10429	0.57	34710	39000	11/7/2017	89	11	10
623	2018	2	0	0	101	101	135	30	3757	3N2W12-CA-06600	2017	10451	0.16	197570	150000	11/7/2017	132	11	11
624	2018	1	0	0	101	101	121	33	10150	4N1W04-AD-01200	2017	10474	0.13	110870	125000	11/7/2017	89	11	12
625	2018	2	0	0	101	101	143	33	429869	3N1W07-CC-01404	2017	10453	0.14	375310	387000	11/7/2017	97	11	13
626	2018	1	0	0	101	101	131	33	12405	4N1W05-DA-03002	2017	10499	0.16	214430	249900	11/7/2017	86	11	14
627	2018	2	0	0	101	101	143	33	438607	3N2W13-CC-00127	2017	10744	0.14	354210	342995	11/7/2017	103	11	15
628	2018	2	0	0	101	101	147	30	438465	3N2W13-CA-03921	2017	10791	0.07	325570	289995	11/7/2017	112	11	16
629	2018	2	0	0	101	101	143	33	438458	3N2W13-CA-03914	2017	10854	0.07	301110	269995	11/7/2017	112	11	17
630	2018	2	0	0	101	101	143	33	438469	3N2W13-CA-03925	2017	10952	0.11	321610	279995	11/7/2017	115	11	18

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
631	2018	2	0	0	101	101	143	33	438472	3N2W13-CA-03928	2017	11134	0.09	313790	285675	11/7/2017	110	11	19
632	2018	2	0	0	101	101	143	33	438444	3N2W13-CA-03900	2017	12036	0.08	348470	329995	11/7/2017	106	11	20
633	2018	2	0	0	101	101	141	33	4479	3N2W13-AD-00300	2017	10458	0.15	279120	290000	11/8/2017	96	11	21
634	2018	2	0	0	101	101	141	33	4554	3N2W13-AD-09000	2017	10478	0.14	281090	259000	11/8/2017	109	11	22
635	2018	3	0	0	101	101	141	33	23260	4N4W05-AD-03500	2017	10463	0.23	231290	249900	11/8/2017	93	11	23
636	2018	5	0	0	101	101	142	30	25762	7N4W08-BD-03000	2017	10486	0.28	182940	195000	11/8/2017	94	11	24
637	2018	6	21	0	101	101	141	33	31148	5N1W21-BC-02500	2017	10568	0.24	306430	311000	11/8/2017	99	11	25
638	2018	1	0	0	101	101	141	33	11506	4N1W05-AB-01021	2017	10652	0.21	267920	271000	11/10/2017	99	11	26
639	2018	1	0	0	101	101	141	33	436368	4N1W04-AA-01002	2017	10676	0.12	250570	260000	11/10/2017	96	11	27
640	2018	1	0	0	101	101	143	33	12945	4N1W06-DD-07500	2017	10650	0.2	275900	277500	11/12/2017	99	11	28
641	2018	6	21	0	101	101	141	33	14039	5N1W21-BD-02800	2017	10622	0.28	332800	349000	11/13/2017	95	11	29
642	2018	3	0	0	101	101	131	33	22645	4N4W04-AC-03700	2017	10685	0.26	176460	259000	11/13/2017	68	11	30
643	2018	1	0	0	101	101	141	33	11953	4N1W05-BD-04400	2017	10617	0.11	238630	255000	11/14/2017	94	11	31
644	2018	1	0	0	101	101	154	33	29071	5N1W33-AD-00400	2017	10635	0.25	439790	430000	11/14/2017	102	11	32
645	2018	1	0	0	101	101	142	30	429123	4N1W05-AB-00505	2017	10667	0.32	381210	365000	11/14/2017	104	11	33
646	2018	4	0	0	101	101	134	33	17947	7N2W16-CA-04800	2017	10642	0.15	238490	220000	11/14/2017	108	11	34
647	2018	1	0	0	101	101	143	33	12838	4N1W06-DC-03700	2017	10718	0.16	257390	250000	11/14/2017	103	11	35
648	2018	3	0	0	109	109	462*	33	22669	4N4W04-AC-06100	2017	10656	0.21	143460	215000	11/15/2017	67	11	36
649	2018	5	0	0	101	101	142	33	25706	7N4W08-BC-01300	2017	10799	0.21	213430	225000	11/16/2017	95	11	37
650	2018	1	0	0	101	101	131	33	9619	4N1W03-BC-03000	2017	11130	0.13	141740	228000	11/16/2017	62	11	38
651	2018	1	0	0	100	100		33	438773	5N1W33-DD-05201	2017	10782	0.13	50860	45000	11/17/2017	113	11	39
652	2018	1	0	0	101	101	141	33	11586	4N1W05-AC-00600	2017	10714	0.18	206840	285000	11/17/2017	73	11	40
653	2018	2	0	0	101	101	143	33	436506	3N2W13-CD-04900	2017	10747	0.15	366580	370000	11/17/2017	99	11	41
654	2018	1	0	0	101	101	131	33	10981	4N1W04-DB-01900	2017	10757	0.13	148670	234000	11/17/2017	64	11	42
655	2018	4	0	0	101	101	135	33	22134	7N2W16-DB-04300	2017	10750	0.1	144740	225000	11/17/2017	64	11	43
656	2018	1	0	0	101	101	131	33	11060	4N1W04-DB-09500	2017	10810	0.13	145850	209000	11/17/2017	70	11	44
657	2018	1	0	0	101	101	141	33	11416	4N1W05-AD-15900	2017	10868	0.21	211730	253900	11/17/2017	83	11	45
658	2018	4	0	0	101	101	122	33	17935	7N2W16-BC-06600	2017	10794	0.14	108440	133000	11/17/2017	82	11	46
659	2018	1	0	0	101	101	135	33	11805	4N1W05-DA-06900	2017	10893	0.13	151170	265000	11/20/2017	57	11	47
660	2018	3	0	0	101	101	143	33	22306	4N4W03-BA-01012	2017	10891	0.41	237910	290000	11/20/2017	82	11	48
661	2018	2	0	0	101	101	131	33	3089	3N2W11-AA-00206	2017	10898	0.35	212450	249500	11/20/2017	85	11	49
662	2018	1	43	0	101	101	143	33	12182	4N1W05-CB-06700	2017	10919	0.08	205510	197500	11/20/2017	104	11	50
663	2018	2	0	0	101	101	141	33	438510	3N2W13-CB-00119	2017	11027	0.12	304410	341150	11/20/2017	89	11	51
664	2018	2	0	0	101	101	143	33	438512	3N2W13-CB-00121	2017	10971	0.1	338910	359900	11/20/2017	94	11	52
665	2018	4	0	0	109	109	452	33	21078	7N2W21-A0-01600	2017	10882	0.18	164480	191000	11/20/2017	86	11	53
666	2018	1	0	0	101	101	143	33	11850	4N1W05-CB-10100	2017	10983	0.12	304690	324500	11/21/2017	94	11	54
667	2018	1	0	0	101	101	141	33	13302	5N1W32-DD-00210	2017	10977	0.16	283380	311500	11/22/2017	91	11	55
668	2018	6	1	0	101	101	153	33	14503	5N1W28-BA-01900	2017	11029	0.2	342650	326200	11/22/2017	105	11	56
669	2018	3	0	0	101	101	131	33	23348	4N4W05-AD-12400	2017	11035	0.23	150740	196000	11/27/2017	77	11	57
670	2018	1	0	0	101	101	132	33	13849	5N1W34-CB-08000	2017	11048	0.15	155320	182000	11/27/2017	85	11	58
671	2018	2	0	0	101	101	131	33	4597	3N2W13-BA-00612	2017	11111	0.18	227070	255000	11/27/2017	89	11	59
672	2018	1	0	0	101	101	141	33	12609	4N1W05-DC-06400	2017	11277	0.23	231380	195000	11/27/2017	119	11	60
673	2018	2	0	0	101	101	143*	33	4678	3N2W13-BA-07200	2017	11096	0.31	418490	344900	11/28/2017	121	11	61
674	2018	5	0	0	101	101	133*	33	25954	7N4W08-CD-02000	2017	11251	0.2	155950	185000	11/28/2017	84	11	62
675	2018	2	79	0	101	101	164	33	431999	3N2W11-DB-02600	2017	11168	0.2	548260	488000	11/29/2017	112	11	63

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
676	2018	1	0	0	101	101	143	33	28950	4N1W05-CC-00713	2017	11119	0.23	350930	345000	11/29/2017	102	11	64
677	2018	1	43	0	101	101	143	33	12175	4N1W05-CB-06301	2017	11126	0.1	216230	206099	11/29/2017	105	11	65
678	2018	2	0	0	101	101	152	33	3517	3N2W12-BB-00701	2017	11128	0.22	516840	529000	11/30/2017	98	11	66
679	2018	1	0	0	101	101	142	33	11383	4N1W05-AA-00812	2017	11382	0.18	263770	315000	11/30/2017	84	11	67
680	2018	1	0	0	101	101	143	33	12846	4N1W06-DC-04500	2017	12034	0.12	289890	317000	11/30/2017	91	11	68
681	2018	1	0	0	101	101	143	33	11994	4N1W05-CA-00106	2017	11285	0.13	288480	299900	12/1/2017	96	12	1
682	2018	2	0	0	101	101	143	33	2787	3N1W07-CA-00138	2017	11249	0.17	306340	290000	12/1/2017	106	12	2
683	2018	6	1	0	101	101	131	33	14323	5N1W28-AB-01500	2017	11575	0.11	139710	199500	12/1/2017	70	12	3
684	2018	2	0	0	101	101	143	33	438616	3N2W13-CC-00136	2017	11794	0.16	355520	350995	12/1/2017	101	12	4
685	2018	2	0	0	101	101	143	33	438488	3N2W13-CA-03944	2017	12005	0.08	297300	280000	12/1/2017	106	12	5
686	2018	2	0	0	101	101	147	33	438470	3N2W13-CA-03926	2018	390	0.09	337350	294995	12/1/2017	114	12	6
687	2018	2	0	0	101	101	153	33	4543	3N2W13-AD-07900	2017	11241	0.18	415690	380000	12/4/2017	109	12	7
688	2018	2	0	0	101	101	143	33	4317	3N2W12-DD-04500	2017	11341	0.18	307420	320000	12/4/2017	96	12	8
689	2018	3	0	0	101	101	135	33	23340	4N4W05-AD-11700	2017	11459	0.37	157500	225000	12/4/2017	70	12	9
690	2018	1	0	0	101	101	143	33	10379	4N1W04-BC-07900	2017	11609	0.16	261280	299900	12/4/2017	87	12	10
691	2018	2	0	0	101	101	143	33	28513	3N2W12-AD-06519	2017	11295	0.23	515020	500000	12/5/2017	103	12	11
692	2018	1	0	0	101	101	143	33	429803	4N1W05-DC-08205	2017	11387	0.32	277010	335000	12/5/2017	83	12	12
693	2018	2	0	0	101	101	141	33	2855	3N1W07-CB-02800	2017	11497	0.14	285800	270000	12/5/2017	106	12	13
694	2018	6	1	0	101	101	131	33	14327	5N1W28-AB-02200	2017	11410	0.17	171990	235000	12/6/2017	73	12	14
695	2018	2	0	0	101	101	141	33	4002	3N2W12-DD-08700	2017	11389	0.21	268920	275000	12/6/2017	98	12	15
696	2018	2	0	0	101	101	143	33	434073	3N1W07-CC-01008	2017	11464	0.14	324440	341200	12/6/2017	95	12	16
697	2018	1	0	0	102	102	134	33	10504	4N1W04-BD-91100	2017	11428		140030	151000	12/6/2017	93	12	17
698	2018	6	1	0	101	101	154	33	14673	5N1W28-DD-04800	2017	11423	0.18	530870	470000	12/7/2017	113	12	18
699	2018	2	0	0	101	101	143	33	429871	3N1W07-CC-01406	2017	11470	0.15	370250	375000	12/7/2017	99	12	19
700	2018	2	0	0	101	101	131	33	3297	3N2W12-AB-00206	2017	11510	0.14	236560	290000	12/7/2017	82	12	20
701	2018	1	0	0	101	101	132	33	13924	5N1W34-CC-07400	2017	11403	0.16	172890	195000	12/7/2017	89	12	21
702	2018	4	0	0	101	101	131	33	17931	7N2W16-BC-06200	2017	11456	0.09	109330	153000	12/8/2017	71	12	22
703	2018	1	0	0	101	101	143	33	11947	4N1W05-BD-03700	2017	11461	0.14	269630	288000	12/8/2017	94	12	23
704	2018	1	0	0	101	101	143	33	13187	4N1W08-BB-10000	2017	11467	0.16	290670	290000	12/8/2017	100	12	24
705	2018	2	0	0	101	101	147	33	438482	3N2W13-CA-03938	2017	12001	0.09	335310	299995	12/8/2017	112	12	25
706	2018	2	0	0	101	101	143	33	438486	3N2W13-CA-03942	2017	12049	0.08	308160	293495	12/8/2017	105	12	26
707	2018	2	0	0	101	101	143	30	438606	3N2W13-CC-00126	2017	12006	0.14	365320	362995	12/8/2017	101	12	27
708	2018	4	0	0	109	109	452	30	18517	7N2W17-AD-05700	2017	11568	0.34	148230	182500	12/8/2017	81	12	28
709	2018	3	0	0	101	101	141	33	23525	5N4W34-CD-00800	2017	11454	0.3	280270	324900	12/9/2017	86	12	29
710	2018	6	1	0	101	101	143	33	14508	5N1W28-BA-01905	2017	11615	0.2	271970	349900	12/12/2017	78	12	30
711	2018	4	0	0	101	101	133	33	18142	7N2W16-DA-01800	2017	11613	0.16	141820	199000	12/13/2017	71	12	31
712	2018	2	0	0	101	101	141	33	438509	3N2W13-CB-00118	2017	11639	0.14	310610	341100	12/13/2017	91	12	32
713	2018	1	0	0	101	101	141	33	10674	4N1W04-CA-13000	2017	11661	0.22	223390	240000	12/13/2017	93	12	33
714	2018	2	0	0	101	101	143	33	438513	3N2W13-CB-00122	2017	11703	0.12	354160	379900	12/13/2017	93	12	34
715	2018	2	0	0	101	101	141	33	438523	3N2W13-CB-00132	2017	11922	0.12	304770	340900	12/13/2017	89	12	35
716	2018	2	0	0	101	101	143	33	438524	3N2W13-CB-00133	2017	12014	0.1	339000	360472	12/13/2017	94	12	36
717	2018	1	0	0	102	102	152	30	436631	5N1W34-CD-90001	2017	11659		292000	260000	12/13/2017	112	12	37
718	2018	2	0	0	101	101	131	33	4129	3N2W12-DB-07600	2017	11617	0.17	208050	195825	12/14/2017	106	12	38
719	2018	1	0	0	101	101	131	33	11272	4N1W04-DA-13200	2017	11663	0.13	106490	165000	12/14/2017	65	12	39
720	2018	3	0	0	101	101	142	33	23154	4N4W05-AA-01100	2017	11776	0.87	338650	368000	12/15/2017	92	12	40

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	# of Mo.	Mo. Count
721	2018	3	0	0	109	109	462	33	22619	4N4W04-AC-01500	2017	11879	0.68	186740	221000	12/16/2017	84	12	41
722	2018	1	0	0	101	101	141	33	437258	4N1W05-DC-08102	2017	11726	0.28	309650	329950	12/18/2017	94	12	42
723	2018	2	0	0	101	101	143	33	438481	3N2W13-CA-03937	2017	11847	0.07	294610	276490	12/18/2017	107	12	43
724	2018	2	0	0	101	101	147	33	438487	3N2W13-CA-03943	2017	11927	0.08	328870	294100	12/18/2017	112	12	44
725	2018	1	0	0	101	101	143	33	10389	4N1W04-BC-08900	2017	11836	0.16	303910	313150	12/19/2017	97	12	45
726	2018	2	0	0	101	101	143	33	4660	3N2W13-BA-05400	2017	11948	0.17	340480	332000	12/19/2017	103	12	46
727	2018	2	0	0	101	101	143	30	438480	3N2W13-CA-03936	2017	11970	0.08	308610	285995	12/19/2017	108	12	47
728	2018	1	0	0	100	100		30	9768	4N1W03-BD-04502	2017	11835	0.13	50860	65000	12/20/2017	78	12	48
729	2018	2	0	0	101	101	143	33	28501	3N2W12-AD-06507	2017	11759	0.15	367140	403000	12/20/2017	91	12	49
730	2018	2	0	0	101	101	141	33	4254	3N2W12-DD-00704	2017	11857	0.19	293720	290000	12/20/2017	101	12	50
731	2018	2	0	0	101	101	143	33	434072	3N1W07-CC-01007	2017	11844	0.14	322570	338250	12/21/2017	95	12	51
732	2018	1	0	0	101	101	141	33	12595	4N1W05-DC-05000	2017	11929	0.21	221730	255000	12/22/2017	87	12	52
733	2018	2	0	0	101	101	131	33	3329	3N2W12-AC-00126	2017	11985	0.22	222790	265150	12/26/2017	84	12	53
734	2018	2	0	0	101	101	147	30	438479	3N2W13-CA-03935	2018	362	0.08	330480	295995	12/26/2017	112	12	54
735	2018	2	0	0	101	101	143	33	438478	3N2W13-CA-03934	2018	438	0.07	294610	269995	12/26/2017	109	12	55
736	2018	1	0	0	101	101	131	33	13448	5N1W33-DC-02701	2017	11989	0.13	161410	160000	12/27/2017	101	12	56
737	2018	2	0	0	101	101	141	33	4023	3N2W12-DA-04114	2018	93	0.18	275060	290000	12/27/2017	95	12	57
738	2018	1	0	0	101	101	132	33	433926	4N1W04-AC-06701	2017	12004	0.12	158840	159900	12/28/2017	99	12	58
739	2018	2	0	0	101	101	143	33	438511	3N2W13-CB-00120	2018	416	0.1	348100	389400	12/29/2017	89	12	59
740	2018	2	0	0	101	101	143	33	438525	3N2W13-CB-00134	2018	490	0.1	348210	392650	12/29/2017	89	12	60
741	2018	1	0	0	109	109	462*	30	431959	4N1W05-CC-02501	2017	12046	0.17	167780	158500	12/29/2017	106	12	61

Time Study for RMV Class 4XX

		Count	Cumulative Count	Mean	Median	Wtd. Mean	Selected
1	Jan	18	18	1.09	1.06	1.07	
2	Feb	29	47	1.00	0.99	1.04	
3	Mar	23	70	1.03	1.00	1.02	
4	Apr	18	88	1.08	1.06	1.06	
5	May	26	114	1.01	0.99	0.99	
6	Jun	29	143	1.00	1.00	1.00	
Mid-Point	7 Jul	25	168	0.97	0.94	0.97	0.97
	8 Aug	37	205	0.93	0.92	0.94	
	9 Sep	25	230	0.97	0.95	0.97	
	10 Oct	23	253	0.96	0.97	0.95	
	11 Nov	20	273	1.00	0.95	1.00	
End of Year	12 Dec	21	294	1.01	0.99	1.00	1.01

Total Sales:	294	Total July RMV:	8,442,770	Total Dec RMV:	7,366,010
Middle Sale:	147	Total July SP:	8,682,700	Total Dec SP:	7,368,879

Trend Factor: 0.04 Mid-point time adj: 1.04

2018 RMV Class 4XX Time Adjustment

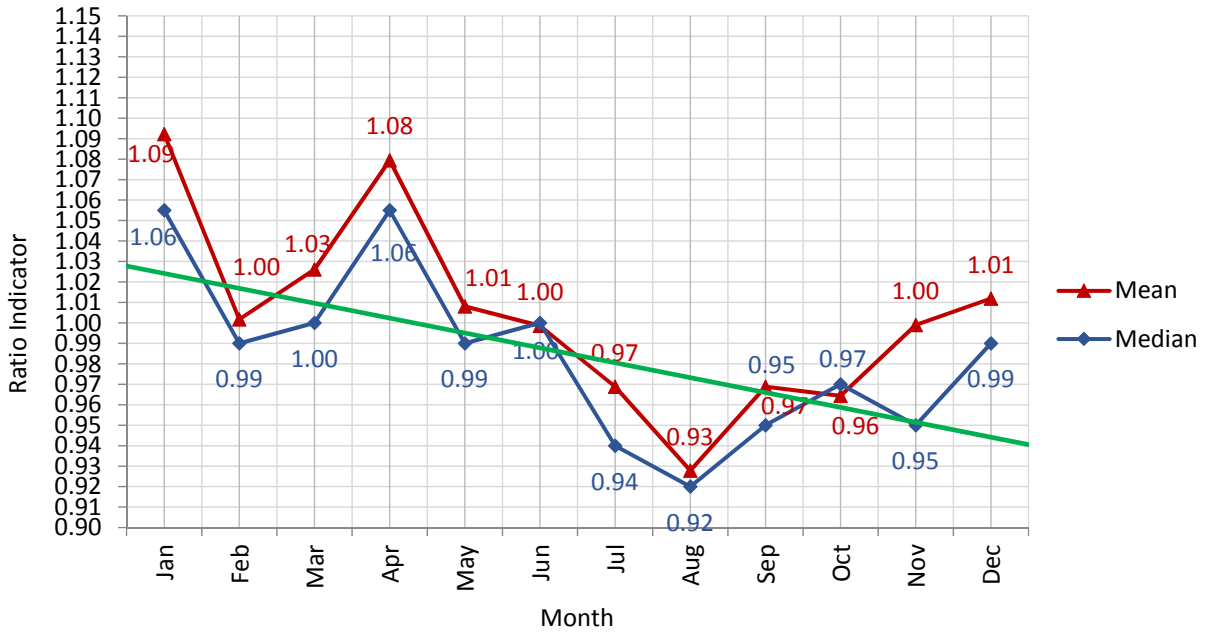
Conclusion: The mid-point of the sales is found to be July (the 7th month, with a corresponding mid-point Mean central tendency of 0.97.

The end of year central tendency Mean is 1.01.

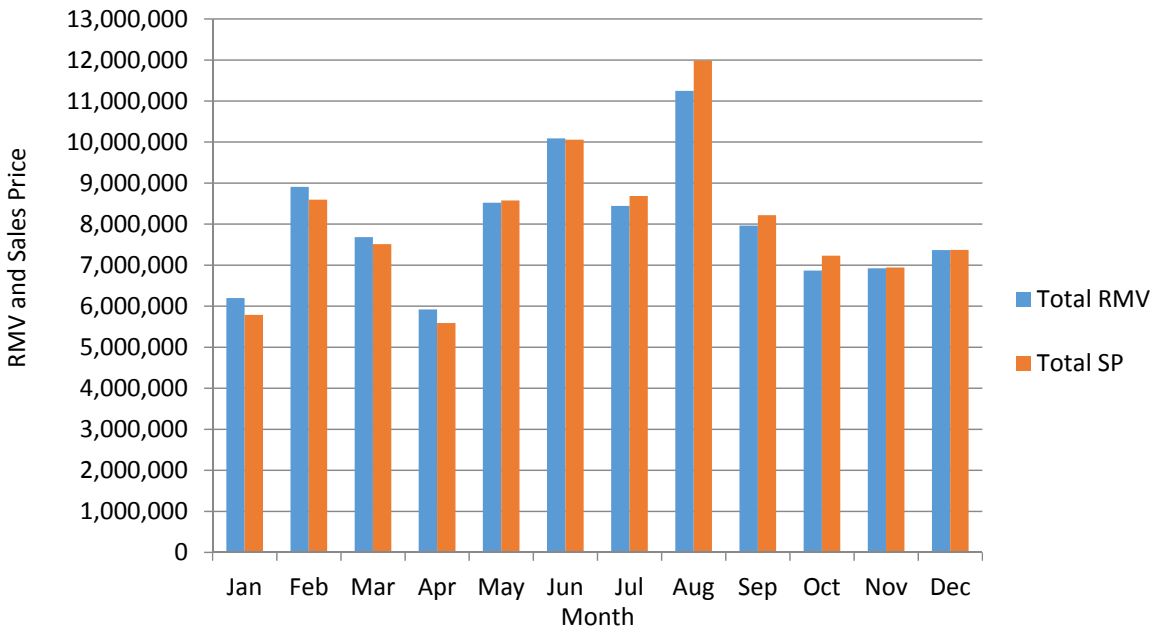
$$(1.01 - 0.97) / 1.01 = 0.04 \text{ or } 4\%$$

1.00 + 0.04 = 1.04, the Mid-Point Time Adjustment Factor

2018 RMV Class 4XX



2018 RMV vs Sales Price, RMV Class 4XX



#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	Month	Mo. Count
1	2018	5	51	0	401	641	141*	30	21667	7N3W20-00-00600	2017	185	59.37	527090	600000	1/4/2017	88	1	1
2	2018	6	61	0	401	401	121*	33	16882	4N1W07-C0-00300	2017	117	5.58	256640	216000	1/6/2017	119	1	2
3	2018	6	61	0	401	401	144*	33	16676	4N1W06-C0-03000	2017	174	3.46	421360	415000	1/6/2017	102	1	3
4	2018	6	62	0	401	641	133	33	16172	5N2W24-00-01000	2017	181	8.66	354950	279000	1/9/2017	127	1	4
5	2018	2	21	0	401	641	143*	33	5875	3N2W15-A0-00600	2017	290	5	487450	449500	1/10/2017	108	1	5
6	2018	5	51	0	401	401	134	33	27048	7N4W09-BA-01600	2017	256	1	213310	220000	1/11/2017	97	1	6
7	2018	2	21	0	400	400		30	437277	3N2W11-CA-00501	2017	514	5.02	159520	155000	1/13/2017	103	1	7
8	2018	2	21	0	401	641	132*	33	5536	3N2W02-00-04500	2017	386	4.84	391390	340000	1/13/2017	115	1	8
9	2018	5	51	0	409	409	473*	33	26648	7N4W22-00-01100	2017	348	5.11	398800	350000	1/13/2017	114	1	9
10	2018	3	31	0	401	401	141*	33	7859	4N2W21-A0-01100	2017	499	3.92	330930	319000	1/18/2017	104	1	10
11	2018	4	41	0	401	641	151*	33	18993	7N3W36-00-02100	2017	552	9.77	509380	379500	1/20/2017	134	1	11
12	2018	4	42	0	400	680		33	17660	6N3W25-00-00300	2017	586	20.19	157250	150000	1/23/2017	105	1	12
13	2018	6	61	0	401	401	141	33	15035	4N1W08-BC-01000	2017	723	0.35	366280	350000	1/25/2017	105	1	13
14	2018	5	51	0	401	401	144*	33	20911	7N3W18-A0-00900	2017	729	5.27	472700	420000	1/25/2017	113	1	14
15	2018	6	61	0	401	641	131*	33	17572	5N2W36-00-00500	2017	808	18.23	412500	390000	1/26/2017	106	1	15
16	2018	2	21	0	401	401	136*	33	8304	4N2W34-B0-00900	2017	747	1.83	309010	294000	1/27/2017	105	1	16
17	2018	4	41	0	400	400		33	21280	6N2W16-A0-01300	2017	810	7.5	66680	50000	1/30/2017	133	1	17
18	2018	4	41	0	401	641	141*	33	19952	7N2W28-00-00300	2017	805	16.25	362140	411100	1/31/2017	88	1	18
19	2018	5	51	0	401	401	131*	33	27508	7N5W11-00-00201	2017	1036	2.16	235830	255000	2/2/2017	92	2	1
20	2018	6	61	0	401	401	142	33	17395	4N2W12-A0-00800	2017	1138	2.72	460430	375000	2/2/2017	123	2	2
21	2018	5	51	0	401	401	141*	33	20405	7N3W04-A0-00301	2017	1156	6.15	338240	340000	2/2/2017	99	2	3
22	2018	4	41	0	401	401	142*	33	20182	7N3W11-B0-00701	2017	1143	1.43	290100	299000	2/3/2017	97	2	4
23	2018	2	21	0	401	641	136*	33	8330	4N2W34-C0-00100	2017	1289	50.3	476020	525000	2/8/2017	91	2	5
24	2018	5	51	0	401	401	141	33	20826	7N3W16-C0-01800	2017	1295	2.3	252540	269402	2/9/2017	94	2	6
25	2018	5	51	0	401	641	143*	33	20581	7N3W09-00-00800	2017	1317	20.35	411860	434100	2/9/2017	95	2	7
26	2018	6	61	0	401	401	151	30	7915	4N2W25-A0-03000	2017	1326	1.53	480310	435000	2/10/2017	110	2	8
27	2018	5	51	0	401	401	142	33	28126	8N4W24-00-01700	2017	1496	0.44	238670	250000	2/13/2017	95	2	9
28	2018	3	31	0	401	641	142*	33	5024	4N3W14-00-01700	2017	1426	5.14	347160	306000	2/14/2017	113	2	10
29	2018	5	36	0	401	401	142	33	25312	6N5W06-BD-02900	2017	1490	0.35	199070	225000	2/14/2017	88	2	11
30	2018	5	51	0	401	401	143*	33	26591	7N4W21-BA-00102	2017	1494	4.99	329350	365000	2/15/2017	90	2	12
31	2018	6	62	0	409	409	452*	33	16114	5N2W20-00-00900	2017	1732	9.89	375230	316900	2/15/2017	118	2	13
32	2018	3	31	0	409	409	452*	33	7738	4N2W17-D0-00900	2017	11400	2.2	212120	201500	2/16/2017	105	2	14
33	2018	5	36	0	401	401	145	33	25276	6N5W06-BC-04500	2017	1661	0.34	150340	168500	2/17/2017	89	2	15
34	2018	6	61	0	409	409	452	33	17267	4N2W01-00-00202	2017	1537	2	304080	275000	2/17/2017	111	2	16
35	2018	4	42	0	409	649	473*	33	21615	6N2W33-00-00700	2017	1845	4.95	262390	223000	2/17/2017	118	2	17
36	2018	3	31	0	409	409	452*	33	7827	4N2W18-D0-01600	2017	1961	1.43	222140	275000	2/17/2017	81	2	18
37	2018	4	41	0	400	400		33	19154	6N2W05-00-01400	2017	1660	8.38	34960	65000	2/21/2017	54	2	19
38	2018	6	62	0	401	641	133*	33	17838	5N2W30-00-00407	2017	1658	4.83	429520	349500	2/21/2017	123	2	20
39	2018	3	31	0	401	401	143	33	24063	4N4W08-AD-00103	2017	1755	1.31	279900	240000	2/21/2017	117	2	21
40	2018	6	62	0	401	641	153	33	16189	5N2W24-B0-00101	2017	1806	6.4	571230	580000	2/21/2017	98	2	22
41	2018	4	41	0	400	640		33	19655	7N2W20-00-00900	2017	1708	44.63	213920	170000	2/22/2017	126	2	23
42	2018	4	41	0	400	400		30	19480	7N2W17-C0-00300	2017	1834	2	40320	80000	2/24/2017	50	2	24
43	2018	6	61	0	401	401	142*	33	8800	4N1W19-C0-01900	2017	1804	1.73	437250	387000	2/24/2017	113	2	25
44	2018	3	31	0	401	401	155*	33	24354	4N5W14-00-00900	2017	1831	2.26	341780	340000	2/27/2017	101	2	26
45	2018	5	51	0	401	401	155	33	28217	8N4W27-DA-00300	2017	1836	2.07	390750	335000	2/27/2017	117	2	27

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	Month	Mo. Count
46	2018	4	41	0	400	400		33	19323	6N2W12-00-00402	2017	2014	8.12	76880	105000	2/28/2017	73	2	28
47	2018	5	51	0	401	401	153*	33	25042	6N4W30-A0-00302	2017	2003	6.6	502740	405000	2/28/2017	124	2	29
48	2018	6	61	0	401	541	153*	33	17581	5N2W36-00-01301	2017	1946	7.33	650280	580000	3/1/2017	112	3	1
49	2018	4	41	0	401	401	153*	33	19546	7N2W18-A0-01301	2017	2023	5.07	650890	517500	3/2/2017	126	3	2
50	2018	6	61	0	401	401	136*	33	15743	5N1W31-D0-00300	2017	2075	2.29	346300	270000	3/3/2017	128	3	3
51	2018	6	61	0	400	580		30	9201	4N2W24-C0-02603	2017	2134	4.98	126200	192600	3/6/2017	66	3	4
52	2018	5	51	0	401	401	131*	30	20651	7N3W10-A0-00500	2017	2056	2.06	173820	160000	3/6/2017	109	3	5
53	2018	4	41	0	401	401	122	33	19867	7N2W23-CA-00700	2017	2898	0.17	123830	90169	3/6/2017	137	3	6
54	2018	5	51	0	401	401	145*	33	27814	7N4W04-B0-00201	2017	2193	5.86	372940	375000	3/7/2017	99	3	7
55	2018	4	42	0	401	641	145*	33	21468	6N2W22-B0-01500	2017	2177	5	281700	325000	3/7/2017	87	3	8
56	2018	5	51	0	401	641	145*	33	20687	7N3W10-B0-01300	2017	2830	7.73	397400	374000	3/15/2017	106	3	9
57	2018	2	21	0	401	401	300*	33	5924	3N2W15-D0-01100	2017	2423	0.97	417900	305000	3/16/2017	137	3	10
58	2018	4	42	0	409	409	442	33	15550	5N1W08-CB-00201	2017	2479	0.45	142760	185000	3/17/2017	77	3	11
59	2018	6	61	0	401	401	141	30	8973	4N2W23-A0-00401	2017	2645	2.91	393120	383500	3/20/2017	103	3	12
60	2018	4	41	0	409	409	473	33	20329	7N3W14-B0-00200	2017	2503	5.01	282900	283000	3/21/2017	100	3	13
61	2018	3	31	0	401	541	143*	33	24304	4N5W12-00-01800	2017	2981	58.22	638990	685000	3/22/2017	93	3	14
62	2018	5	51	0	409	409	452	33	27408	7N5W05-00-01919	2017	2643	9.13	190040	153745	3/22/2017	124	3	15
63	2018	5	36	0	401	401	143*	33	25240	6N5W06-BC-00900	2017	2693	0.22	218070	310000	3/23/2017	70	3	16
64	2018	6	61	0	401	401	133	33	16849	4N1W07-BC-00500	2017	2762	0.45	245330	245000	3/25/2017	100	3	17
65	2018	5	51	0	401	641	131*	30	20514	7N3W06-00-00204	2017	2769	4.53	293010	350000	3/27/2017	84	3	18
66	2018	6	61	0	401	401	142	33	15024	4N1W08-BB-04200	2017	2860	0.46	354870	315000	3/28/2017	113	3	19
67	2018	4	41	0	401	641	141*	33	21241	6N2W15-AC-00900	2017	2832	5.64	330690	345000	3/29/2017	96	3	20
68	2018	6	61	0	401	401	142*	33	8687	4N1W19-AC-00900	2017	2862	1.65	428230	429600	3/29/2017	100	3	21
69	2018	2	21	0	401	401	142	30	5526	3N2W02-00-03803	2017	2907	1.93	404300	375000	3/29/2017	108	3	22
70	2018	3	31	0	400	640		33	7839	4N2W21-00-00200	2017	2863	26.54	219940	260000	3/30/2017	85	3	23
71	2018	4	41	0	409	409	462	33	21139	6N2W13-B0-00600	2017	3049	2.25	244260	249400	4/3/2017	98	4	1
72	2018	6	61	0	401	401	151*	33	7913	4N2W25-A0-02801	2017	3065	2	562620	599350	4/5/2017	94	4	2
73	2018	5	51	0	401	641	151*	33	20701	7N3W10-C0-00202	2017	3043	5.11	357710	299900	4/5/2017	119	4	3
74	2018	4	41	0	409	649	462*	33	21551	6N2W28-00-02600	2017	4081	5	219740	189000	4/6/2017	116	4	4
75	2018	6	61	0	401	401	142*	30	15752	5N1W31-D0-00700	2017	3218	3.7	495030	418000	4/10/2017	118	4	5
76	2018	4	41	0	401	401	141*	33	19394	6N2W12-CA-00700	2017	3383	0.81	318420	248000	4/11/2017	128	4	6
77	2018	5	51	0	400	640		33	26513	7N3W31-00-00601	2017	3366	10.55	99840	95000	4/12/2017	105	4	7
78	2018	5	51	0	409	409	452	33	27273	7N4W18-AB-00700	2017	3520	2.42	224090	220000	4/12/2017	102	4	8
79	2018	4	41	0	409	649	452*	33	19282	6N2W10-00-00702	2017	3375	32.14	379570	280000	4/12/2017	136	4	9
80	2018	5	51	0	401	401	141*	33	26946	7N4W07-D0-01800	2017	3415	5.97	296530	279000	4/13/2017	106	4	10
81	2018	6	61	0	400	400		33	15180	4N1W17-CB-03100	2017	3603	1.23	124440	125000	4/17/2017	100	4	11
82	2018	4	41	0	401	401	131*	33	20263	7N3W13-C0-00200	2017	4047	4.39	247400	182000	4/25/2017	136	4	12
83	2018	6	61	0	401	401	144	33	16538	4N1W06-A0-00310	2017	3996	1.01	496000	495000	4/26/2017	100	4	13
84	2018	6	61	0	401	641	163*	33	16878	4N1W07-C0-00101	2017	4129	9.61	937830	1000000	4/26/2017	94	4	14
85	2018	2	64	0	400	400		30	6602	3N2W22-CA-05900	2017	4054	0.58	165000	149900	4/27/2017	110	4	15
86	2018	6	62	0	401	401	134*	33	16176	5N2W24-00-01200	2017	4127	4.85	380560	340000	4/27/2017	112	4	16
87	2018	4	42	0	400	640		33	29269	6N3W25-00-00401	2017	4186	8.38	96290	130000	4/28/2017	74	4	17
88	2018	4	41	0	409	649	463	33	19978	7N2W29-00-00500	2017	4073	5	274960	290000	4/28/2017	95	4	18
89	2018	3	31	0	400	640		33	23606	4N4W00-00-01800	2017	5032	13.23	140940	139000	5/2/2017	101	5	1
90	2018	4	42	0	401	641	141*	33	18744	6N3W02-00-01702	2017	4277	8	343170	348000	5/3/2017	99	5	2

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	Month	Mo. Count
91	2018	6	61	0	401	401	131*	33	17179	4N1W17-CB-01100	2017	4279	0.88	275980	290000	5/5/2017	95	5	3
92	2018	6	61	0	401	401	135	33	17255	4N1W18-B0-00400	2017	4437	2	356580	403500	5/5/2017	88	5	4
93	2018	4	42	0	401	401	131*	33	21415	6N2W21-A0-01300	2017	4434	4.68	217690	237750	5/8/2017	92	5	5
94	2018	5	51	0	401	401	142	30	27029	7N4W09-BA-00201	2017	4529	0.8	364400	365000	5/10/2017	100	5	6
95	2018	4	41	0	401	641	142*	33	21548	6N2W28-00-02400	2017	4632	20	396610	330000	5/11/2017	120	5	7
96	2018	6	62	0	401	401	143*	33	15287	4N2W04-A0-00500	2017	4663	5.05	463520	440500	5/16/2017	105	5	8
97	2018	2	21	0	401	641	141*	33	8202	4N2W27-DC-00100	2017	4679	8.04	430180	420000	5/16/2017	102	5	9
98	2018	5	36	0	401	401	144	33	25278	6N5W06-BC-04700	2017	4719	0.89	189260	170000	5/16/2017	111	5	10
99	2018	4	41	0	401	641	143	33	19998	7N2W29-00-01506	2017	5772	4.21	419100	306500	5/16/2017	137	5	11
100	2018	3	31	0	400	400		33	23998	4N4W07-D0-00103	2017	4678	5.29	123140	125000	5/17/2017	99	5	12
101	2018	4	42	0	401	401	132*	33	21447	6N2W22-00-01300	2017	7656	3.54	225580	170000	5/18/2017	133	5	13
102	2018	6	61	0	409	409	453*	30	9106	4N2W24-AD-00300	2017	5089	0.33	288140	290000	5/18/2017	99	5	14
103	2018	3	31	0	401	401	141*	33	8548	4N2W20-00-00100	2017	4739	5.8	363130	430000	5/19/2017	84	5	15
104	2018	2	21	0	401	401	142*	33	5859	3N2W14-DB-00701	2017	4744	1.88	377570	425000	5/19/2017	89	5	16
105	2018	2	21	0	401	401	141	30	5271	3N1W07-CB-04100	2017	4809	1.41	417840	322000	5/22/2017	130	5	17
106	2018	4	41	0	401	641	136*	33	19136	6N2W04-C0-00800	2017	4828	22.34	389490	385000	5/22/2017	101	5	18
107	2018	6	61	0	401	401	146*	33	17015	4N1W08-CA-00300	2017	4843	0.31	297830	283000	5/22/2017	105	5	19
108	2018	6	61	0	401	401	143	33	16656	4N1W06-C0-02400	2017	4894	2.46	417940	422500	5/22/2017	99	5	20
109	2018	3	31	0	409	409	452*	33	24084	4N4W08-C0-00600	2017	4826	1.22	209220	250000	5/22/2017	84	5	21
110	2018	6	61	0	401	541	141*	30	17324	4N2W02-00-00201	2017	5080	2.74	422120	445000	5/23/2017	95	5	22
111	2018	4	41	0	409	409	452*	33	21257	6N2W15-B0-01200	2017	4902	5.32	219490	268000	5/23/2017	82	5	23
112	2018	6	61	0	401	401	143	33	17170	4N1W17-B0-09700	2017	4968	0.98	379380	460000	5/26/2017	82	5	24
113	2018	4	41	0	401	401	141*	33	20268	7N3W13-C0-00600	2017	5100	5.68	278610	285000	5/26/2017	98	5	25
114	2018	6	61	0	401	401	142*	33	8600	4N1W18-B0-02700	2017	5086	1.99	512430	565000	5/26/2017	91	5	26
115	2018	6	61	0	401	401	143*	30	16582	4N1W06-B0-00504	2017	5150	2	514730	557500	6/1/2017	92	6	1
116	2018	4	42	0	401	401	155	33	436580	5N2W09-00-02001	2017	5156	8.79	550000	550000	6/1/2017	100	6	2
117	2018	4	41	0	401	401	141*	30	20023	7N2W29-C0-01702	2017	5192	11	484320	416500	6/1/2017	116	6	3
118	2018	5	51	0	409	409	462*	33	20697	7N3W10-C0-00104	2017	5242	2	234340	290000	6/2/2017	81	6	4
119	2018	4	41	0	401	641	141*	33	15848	5N2W01-00-02001	2017	5267	4.92	294560	288000	6/5/2017	102	6	5
120	2018	4	42	0	401	401	141*	33	22014	6N3W25-00-00600	2017	5362	2.04	324560	360000	6/7/2017	90	6	6
121	2018	5	51	0	401	401	141*	33	20652	7N3W10-A0-00600	2017	5616	4.64	309560	369000	6/7/2017	84	6	7
122	2018	6	61	0	401	641	142	33	15774	5N1W32-C0-00400	2017	5391	3.05	324930	285000	6/8/2017	114	6	8
123	2018	4	41	0	400	400		33	434126	5N2W10-A0-00306	2017	5405	5.01	82590	132000	6/9/2017	63	6	9
124	2018	6	61	0	401	401	141	30	8935	4N2W13-D0-00501	2017	5411	2.24	464030	499999	6/9/2017	93	6	10
125	2018	6	62	0	401	641	153*	33	17498	5N2W25-D0-01000	2017	5466	4.88	563590	599000	6/9/2017	94	6	11
126	2018	6	61	0	409	409	453*	33	9209	4N2W24-C0-03102	2017	5522	2.83	427970	340000	6/9/2017	126	6	12
127	2018	4	42	0	401	401	131*	33	15914	5N2W09-00-00700	2017	5518	2.9	218460	292900	6/13/2017	75	6	13
128	2018	4	41	0	401	401	142*	33	19925	7N2W26-D0-01101	2017	5538	0.75	526230	534000	6/13/2017	99	6	14
129	2018	6	61	0	400	640		33	15777	5N1W32-C0-00700	2017	5572	25.44	251770	225000	6/14/2017	112	6	15
130	2018	5	51	0	401	641	144*	33	26666	7N4W24-00-00800	2017	5551	36	469860	405000	6/14/2017	116	6	16
131	2018	5	51	0	401	401	141	33	26473	7N3W30-A0-00200	2017	5730	1.8	200740	241000	6/16/2017	83	6	17
132	2018	5	51	0	400	400		33	20940	8N3W28-00-01300	2017	5848	5.01	82590	70000	6/20/2017	118	6	18
133	2018	4	41	0	400	400		33	434125	5N2W10-A0-00305	2017	5875	5.91	89330	132000	6/22/2017	68	6	19
134	2018	5	55	0	401	401	144*	33	27575	8N4W31-B0-01100	2017	5887	11.27	341610	280000	6/22/2017	122	6	20
135	2018	6	61	0	401	401	143	33	8821	4N1W19-CA-02000	2017	5902	0.4	367060	335000	6/22/2017	110	6	21

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	Month	Mo. Count
136	2018	5	51	0	409	409	441*	30	20603	7N3W09-A0-01600	2017	5883	4.93	222000	200000	6/22/2017	111	6	22
137	2018	6	61	0	401	401	131	33	17235	4N1W17-B0-11800	2017	5963	0.73	276070	275000	6/26/2017	100	6	23
138	2018	4	42	0	401	641	141*	33	15887	5N2W04-00-00104	2017	5966	9.32	284970	345000	6/27/2017	83	6	24
139	2018	2	21	0	401	401	142	33	8458	4N2W36-C0-00300	2017	6017	1.35	439350	460000	6/27/2017	96	6	25
140	2018	2	21	0	409	549	300*	33	8350	4N2W35-00-00202	2017	6036	5.07	492690	456000	6/28/2017	108	6	26
141	2018	3	31	0	400	640		33	24625	5N4W33-00-01401	2017	6207	7.25	141020	120000	6/29/2017	118	6	27
142	2018	5	51	0	401	641	142*	33	27078	7N4W13-00-00202	2017	6210	6.32	502770	450000	6/29/2017	112	6	28
143	2018	3	31	0	401	641	155*	30	24780	5N5W33-00-00503	2017	6093	54.42	606020	550000	6/29/2017	110	6	29
144	2018	6	62	0	401	401	141*	33	16261	5N2W26-D0-01900	2017	6251	1.58	372280	435000	7/3/2017	86	7	1
145	2018	6	61	0	401	401	152*	33	8147	4N2W26-A0-01100	2017	7341	6.06	634380	500000	7/3/2017	127	7	2
146	2018	6	61	0	401	401	141	33	16770	4N1W07-AB-04000	2017	6336	0.29	332880	269900	7/10/2017	123	7	3
147	2018	3	31	0	401	641	141*	33	5064	4N3W24-00-00800	2017	6373	9.21	320840	380000	7/11/2017	84	7	4
148	2018	5	51	0	401	641	143*	33	28146	8N4W25-00-01200	2017	6435	13.86	459030	439000	7/11/2017	105	7	5
149	2018	2	21	0	401	641	142*	33	5881	3N2W15-B0-00102	2017	6559	6.4	438930	535000	7/11/2017	82	7	6
150	2018	6	61	0	401	401	131*	33	15428	4N2W12-DD-01000	2017	6392	0.37	259400	275000	7/12/2017	94	7	7
151	2018	6	61	0	401	401	141*	33	8062	4N2W25-D0-00601	2017	6578	2	518670	550000	7/13/2017	94	7	8
152	2018	2	21	0	409	409	452*	33	5719	3N2W13-BB-05300	2017	6468	1.59	346150	345000	7/13/2017	100	7	9
153	2018	6	61	0	401	401	141	33	8739	4N1W19-B0-01406	2017	6509	2.06	381900	415000	7/14/2017	92	7	10
154	2018	6	61	0	400	540		33	9167	4N2W24-C0-00101	2017	6537	4.28	188710	170000	7/17/2017	111	7	11
155	2018	2	21	0	401	681	135*	33	7410	3N2W24-C0-01100	2017	6692	10.01	421110	437500	7/20/2017	96	7	12
156	2018	6	62	0	401	401	143*	33	16282	5N2W27-B0-00700	2017	7042	2.2	451520	468000	7/20/2017	96	7	13
157	2018	5	36	0	401	401	133	33	25265	6N5W06-BC-03400	2017	6755	0.22	119190	190000	7/21/2017	63	7	14
158	2018	4	41	0	401	401	132	33	19555	7N2W18-D0-00300	2017	6822	3.29	319790	300000	7/24/2017	107	7	15
159	2018	3	31	0	409	409	452*	33	24530	5N4W28-00-01700	2017	7397	5.45	250450	295000	7/25/2017	85	7	16
160	2018	2	64	0	400	400		33	6341	3N2W22-AD-12300	2017	7141	2.14	248160	269000	7/26/2017	92	7	17
161	2018	6	61	0	401	401	142*	33	15404	4N2W12-DA-00602	2017	6921	2.1	404050	388900	7/26/2017	104	7	18
162	2018	6	61	0	401	541	141	30	9170	4N2W24-C0-00104	2017	6915	2	487880	445000	7/27/2017	110	7	19
163	2018	3	31	0	409	409	462*	30	7687	4N2W17-00-02002	2017	6917	3.48	232780	295900	7/27/2017	79	7	20
164	2018	5	51	0	401	401	131*	30	26729	7N4W27-00-01200	2017	7022	1.72	165910	190000	7/28/2017	87	7	21
165	2018	3	31	0	409	409	463*	33	24663	5N4W33-DC-01000	2017	6975	1.95	371720	300000	7/28/2017	124	7	22
166	2018	3	31	0	409	409	452	30	24098	4N4W08-D0-00600	2017	7044	3.05	236040	257000	7/30/2017	92	7	23
167	2018	5	51	0	400	640		30	26512	7N3W31-00-00600	2017	7098	16.69	114750	113000	7/31/2017	102	7	24
168	2018	4	42	0	401	401	141*	33	17770	5N2W08-00-00802	2017	7040	2.96	366250	419500	7/31/2017	87	7	25
169	2018	4	41	0	409	409	462*	33	19725	7N2W21-A0-00100	2017	7138	4.9	287620	255000	8/2/2017	113	8	1
170	2018	6	61	0	401	401	151	33	16561	4N1W06-AD-00100	2017	7170	0.92	601830	599000	8/3/2017	100	8	2
171	2018	2	21	0	401	401	132	33	8493	4N2W36-D0-00200	2017	7323	0.82	243380	270226	8/3/2017	90	8	3
172	2018	5	51	0	401	401	142*	33	20677	7N3W10-B0-00901	2017	7357	9.85	376890	355000	8/4/2017	106	8	4
173	2018	6	62	0	401	641	141	33	16167	5N2W24-00-00900	2017	7285	14.78	526230	629000	8/4/2017	84	8	5
174	2018	3	31	0	401	401	135*	30	24867	5N4W11-00-00400	2017	7395	5.86	332380	331250	8/8/2017	100	8	6
175	2018	6	61	0	401	401	161*	33	8685	4N1W19-AC-00801	2017	7370	2.07	609860	580000	8/8/2017	105	8	7
176	2018	2	21	0	401	401	145	33	8375	4N2W35-BC-00300	2017	7322	0.57	272820	285000	8/9/2017	96	8	8
177	2018	2	21	0	401	401	131	33	5705	3N2W12-DA-00301	2017	7393	0.27	220240	243600	8/10/2017	90	8	9
178	2018	5	51	0	401	401	145	33	27164	7N4W15-DC-01400	2017	7458	7.08	290990	376500	8/10/2017	77	8	10
179	2018	3	31	0	409	409	452*	33	24118	4N4W09-00-01403	2017	7630	3.49	240340	295000	8/12/2017	81	8	11
180	2018	5	51	0	401	401	141*	30	20664	7N3W10-B0-00100	2017	7452	4.23	251970	270000	8/14/2017	93	8	12

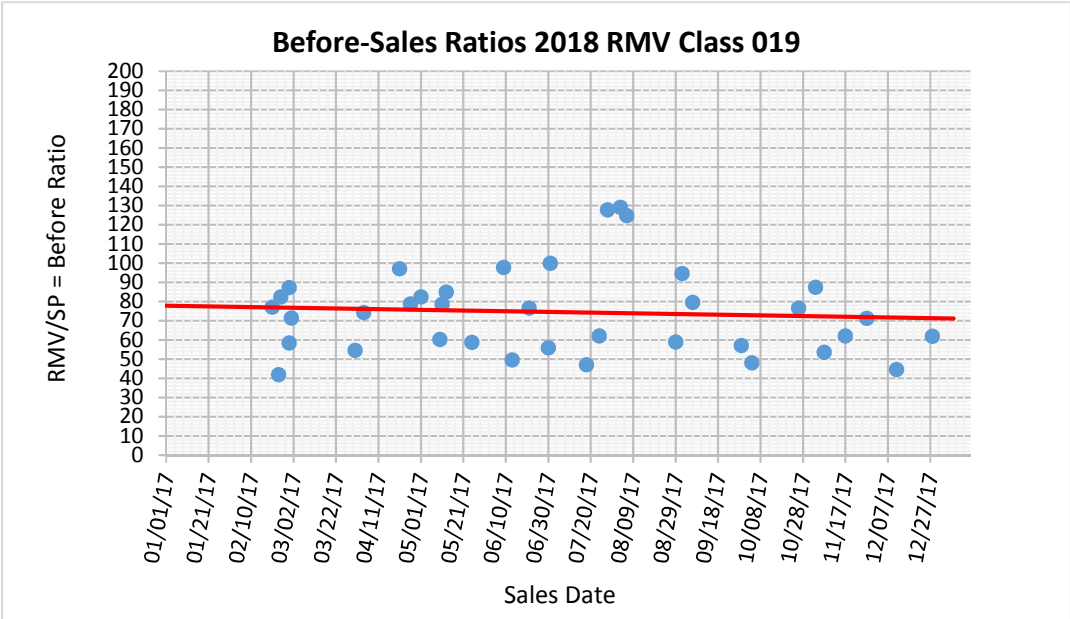
Columbia County 2018 Ratio Study

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	Month	Mo. Count
181	2018	4	41	0	401	401	145*	33	21296	6N2W16-B0-00802	2017	7494	1.7	244110	345000	8/14/2017	71	8	13
182	2018	4	42	0	401	401	131*	33	21983	6N3W24-00-00700	2017	7627	1.33	125010	150900	8/15/2017	83	8	14
183	2018	4	41	0	409	409	442	33	20345	7N3W14-B0-01600	2017	7600	3.7	187700	235000	8/15/2017	80	8	15
184	2018	6	61	0	400	540		30	438760	4N2W13-A0-00201	2017	7617	2.34	103630	152650	8/16/2017	68	8	16
185	2018	6	61	0	401	401	142	33	14939	4N1W05-BD-00500	2017	7623	0.5	328830	354000	8/16/2017	93	8	17
186	2018	6	61	0	401	401	151	33	17076	4N1W08-CC-01500	2017	7632	1	488380	533000	8/17/2017	92	8	18
187	2018	3	31	0	401	401	142	33	8570	4N2W20-00-00801	2017	7602	2.12	334440	396200	8/17/2017	84	8	19
188	2018	6	61	0	400	540		30	8904	4N2W13-00-02301	2017	8269	6.46	225700	240000	8/18/2017	94	8	20
189	2018	3	31	0	409	409	463*	33	7875	4N2W21-B0-00702	2017	9119	1.06	238020	215000	8/18/2017	111	8	21
190	2018	5	51	0	401	401	141	33	20825	7N3W16-C0-01700	2017	7661	2.3	243030	279900	8/21/2017	87	8	22
191	2018	5	55	0	409	409	462*	33	27676	8N5W36-D0-00600	2017	7925	8.22	381930	425000	8/21/2017	90	8	23
192	2018	4	42	0	401	401	144*	33	21421	6N2W21-D0-00500	2017	7828	4.5	413380	450000	8/22/2017	92	8	24
193	2018	5	51	0	401	541	144*	33	26531	7N3W32-00-01003	2017	7826	18.48	606430	530000	8/22/2017	114	8	25
194	2018	5	51	0	401	401	300*	30	438667	7N4W26-00-00201	2017	7823	20	246970	200000	8/22/2017	123	8	26
195	2018	4	42	0	409	409	452*	33	21586	6N2W31-00-00707	2017	7937	6.57	296770	274000	8/23/2017	108	8	27
196	2018	5	51	0	400	400		33	28178	8N4W26-C0-00900	2017	7917	2	45000	65000	8/24/2017	69	8	28
197	2018	5	51	0	401	401	142	33	27737	7N4W03-B0-00400	2017	7832	0.28	224900	205000	8/24/2017	110	8	29
198	2018	2	21	0	409	409	442*	33	8286	4N2W34-AD-00902	2017	7935	1.47	263220	313650	8/25/2017	84	8	30
199	2018	4	41	0	401	401	142*	33	19643	7N2W19-AA-01004	2017	8275	2.46	311530	349900	8/26/2017	89	8	31
200	2018	6	61	0	400	540		33	8926	4N2W13-A0-03003	2017	7945	6	188000	275000	8/28/2017	68	8	32
201	2018	6	61	0	401	401	141	33	15712	5N1W30-00-02401	2017	7969	5.39	483040	380000	8/29/2017	127	8	33
202	2018	6	61	0	401	401	141*	33	7945	4N2W25-AD-00700	2017	7999	0.37	304940	327000	8/29/2017	93	8	34
203	2018	2	21	0	409	409	452*	33	5484	3N2W02-00-01401	2017	7959	1.96	271770	270000	8/29/2017	101	8	35
204	2018	4	41	0	409	409	463*	33	21328	6N2W16-D0-00600	2017	8092	1.75	200290	290000	8/31/2017	69	8	36
205	2018	4	42	0	409	409	452*	33	19166	6N2W06-00-00301	2017	8110	5.36	232860	237500	8/31/2017	98	8	37
206	2018	6	62	0	401	401	143	33	15288	4N2W04-A0-00600	2017	8187	2.85	415770	400500	9/5/2017	104	9	1
207	2018	3	31	0	401	641	300*	33	24669	5N4W34-00-00100	2017	9746	70.69	372240	350000	9/5/2017	106	9	2
208	2018	6	61	0	401	401	300	33	8020	4N2W25-C0-00200	2017	10095	7.8	402630	315000	9/5/2017	128	9	3
209	2018	4	41	0	401	401	142	33	19481	7N2W17-C0-00400	2017	8261	1.01	256240	248500	9/6/2017	103	9	4
210	2018	6	61	0	401	401	141	33	15026	4N1W08-BB-04400	2017	8339	0.46	336920	364000	9/7/2017	93	9	5
211	2018	4	42	0	401	401	135	33	15571	5N1W08-CB-02200	2017	8349	0.11	139450	190000	9/8/2017	73	9	6
212	2018	6	61	0	401	401	143*	33	8981	4N2W23-A0-00602	2017	8315	1.98	455010	534000	9/11/2017	85	9	7
213	2018	4	42	0	401	641	131	33	21931	6N3W14-00-00403	2017	8461	5.66	221380	240900	9/11/2017	92	9	8
214	2018	6	61	0	400	540		33	438636	4N2W24-C0-02604	2017	8531	5.32	285240	299000	9/13/2017	95	9	9
215	2018	6	61	0	401	401	154	33	17351	4N2W12-C0-02300	2017	8551	2	560690	523900	9/13/2017	107	9	10
216	2018	6	61	0	409	409	452*	33	9281	4N1W18-D0-00600	2017	8548	5.97	429700	491500	9/14/2017	87	9	11
217	2018	4	41	0	400	640		33	21183	6N2W14-00-00700	2017	8535	79.42	341380	330000	9/15/2017	103	9	12
218	2018	4	42	0	401	641	300	33	21477	6N2W23-00-00402	2017	8658	13.89	142260	154000	9/15/2017	92	9	13
219	2018	5	55	0	401	401	133*	33	26860	7N4W05-00-00600	2017	8677	2.07	221150	215000	9/18/2017	103	9	14
220	2018	3	31	0	401	401	131	33	24340	4N5W13-00-02200	2017	8717	1.16	154110	215000	9/19/2017	72	9	15
221	2018	5	51	0	409	409	452*	33	26491	7N3W30-A0-02000	2017	9114	4.3	218370	257500	9/19/2017	85	9	16
222	2018	6	61	0	409	409	452	33	17220	4N1W18-A0-02301	2017	10739	1	268630	265000	9/20/2017	101	9	17
223	2018	4	41	0	401	401	300	33	20333	7N3W14-B0-00302	2017	9084	6.08	146900	115000	9/21/2017	128	9	18
224	2018	4	41	0	401	401	141	33	15966	5N2W10-B0-00200	2017	9004	3.24	245430	335000	9/21/2017	73	9	19
225	2018	2	21	0	401	641	153*	33	5619	3N2W11-00-00302	2017	9055	6.11	572810	555000	9/26/2017	103	9	20

#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	Month	Mo. Count
226	2018	2	25	0	401	551	131*	33	5292	3N1W09-00-00200	2017	8994	33.17	590110	630000	9/26/2017	94	9	21
227	2018	2	21	0	400	640		30	437278	3N2W11-CA-00502	2017	9278	5.02	182620	275000	9/27/2017	66	9	22
228	2018	4	41	0	401	641	131*	33	19251	6N2W09-C0-01100	2017	8981	5.85	192080	221000	9/27/2017	87	9	23
229	2018	6	61	0	401	401	153*	33	17353	4N2W12-C0-02500	2017	9006	2	561140	500000	9/28/2017	112	9	24
230	2018	5	55	0	401	401	132*	30	28259	8N4W27-D0-01500	2017	9097	5.05	249980	192000	9/28/2017	130	9	25
231	2018	2	21	0	401	401	136*	33	5908	3N2W15-D0-00100	2017	9391	1.36	256890	334000	10/4/2017	77	10	1
232	2018	4	42	0	409	409	462	33	21588	6N2W31-00-00709	2017	9313	2.95	194850	255000	10/4/2017	76	10	2
233	2018	6	61	0	401	401	145*	33	9030	4N2W23-C0-00200	2017	9301	1.58	423980	499900	10/5/2017	85	10	3
234	2018	5	51	0	409	409	453*	30	20537	7N3W08-00-00504	2017	9441	18.78	344010	375000	10/5/2017	92	10	4
235	2018	5	51	0	401	401	131*	30	20686	7N3W10-B0-01202	2017	9419	1.69	196000	200000	10/6/2017	98	10	5
236	2018	4	41	0	409	409	462*	33	19605	7N2W19-A0-01200	2017	9385	3.48	252930	313600	10/6/2017	81	10	6
237	2018	2	21	0	401	401	142	33	7437	3N2W24-C0-03400	2017	10202	13.72	922200	950000	10/9/2017	97	10	7
238	2018	5	51	0	409	649	133*	33	21787	7N3W27-C0-00100	2017	9462	9.37	331900	257800	10/9/2017	129	10	8
239	2018	3	31	0	409	649	452*	33	7726	4N2W17-D0-00103	2017	9579	5.06	252080	335000	10/11/2017	75	10	9
240	2018	6	61	0	401	641	141*	33	8914	4N2W13-A0-02301	2017	9594	5	440310	459000	10/12/2017	96	10	10
241	2018	6	61	0	401	401	131	33	16722	4N1W07-AA-01200	2017	9538	0.46	239770	262925	10/12/2017	91	10	11
242	2018	6	61	0	401	401	141	33	15380	4N2W12-AD-00400	2017	9554	0.3	267130	260500	10/16/2017	103	10	12
243	2018	6	61	0	409	409	443*	33	16344	5N2W35-AB-00500	2017	9751	5.01	360850	294000	10/16/2017	123	10	13
244	2018	2	21	0	400	640		30	438807	4N2W27-C0-00300	2017	9744	5.18	183180	150000	10/17/2017	122	10	14
245	2018	6	61	0	400	640		30	17371	4N2W12-C0-00100	2017	9987	5	225000	220000	10/18/2017	102	10	15
246	2018	5	51	0	400	400		33	436007	7N4W10-A0-01002	2017	9960	11.83	81400	60000	10/19/2017	136	10	16
247	2018	3	31	0	401	401	131	33	24719	5N5W25-CB-00500	2017	9806	0.29	185180	250000	10/19/2017	74	10	17
248	2018	6	61	0	401	401	143	33	16560	4N1W06-A0-00506	2017	9847	1.01	478370	482000	10/19/2017	99	10	18
249	2018	5	51	0	409	409	452	33	19008	7N3W34-A0-01000	2017	9838	3.79	185050	216500	10/19/2017	85	10	19
250	2018	4	41	0	400	640		33	16424	6N2W26-B0-01500	2017	10019	4.11	80310	124000	10/25/2017	65	10	20
251	2018	5	55	0	409	559	452*	33	27302	7N5W01-00-01500	2017	10073	14.4	283580	270500	10/26/2017	105	10	21
252	2018	6	61	0	401	401	135*	33	16813	4N1W07-BA-00401	2017	10228	1.98	389650	367880	10/27/2017	106	10	22
253	2018	6	61	0	401	401	141	33	16748	4N1W07-AB-01600	2017	10175	0.43	292930	290000	10/30/2017	101	10	23
254	2018	6	61	0	401	681	146*	33	7992	4N2W25-B0-01910	2017	10347	5.61	472540	579000	11/3/2017	82	11	1
255	2018	2	21	0	409	409	462	33	8307	4N2W34-B0-01200	2017	10330	0.45	245910	252900	11/3/2017	97	11	2
256	2018	6	61	0	400	400		33	17173	4N1W17-B0-10000	2017	10480	1	110000	140000	11/6/2017	79	11	3
257	2018	6	61	0	401	401	141*	33	17056	4N1W08-CB-01300	2017	10435	0.54	405300	425000	11/6/2017	95	11	4
258	2018	4	41	0	401	401	152	33	19658	7N2W20-BA-00300	2017	10613	2.81	629060	452500	11/6/2017	139	11	5
259	2018	2	21	0	401	401	152*	33	8481	4N2W36-C0-01700	2017	10407	2.08	630630	597500	11/6/2017	106	11	6
260	2018	6	61	0	401	401	132	33	17141	4N1W17-B0-07000	2017	10445	1.59	306150	270000	11/7/2017	113	11	7
261	2018	5	51	0	401	401	141*	33	20937	8N3W28-00-01000	2017	10442	3.84	293530	299000	11/7/2017	98	11	8
262	2018	3	31	0	401	641	143	33	7600	4N2W16-00-03200	2017	10602	3.6	359400	445500	11/13/2017	81	11	9
263	2018	6	62	0	401	581	141*	30	17489	5N2W25-C0-02300	2017	10544	8.47	436630	400000	11/13/2017	109	11	10
264	2018	6	61	0	401	401	135*	33	8971	4N2W23-A0-00300	2017	10580	2.82	365150	415000	11/13/2017	88	11	11
265	2018	6	62	0	401	641	156*	33	15246	4N2W03-C0-00103	2017	10645	2.07	592710	440000	11/14/2017	135	11	12
266	2018	6	61	0	400	550		33	434986	4N2W01-00-01801	2017	10668	2.38	182000	226000	11/15/2017	81	11	13
267	2018	6	61	0	409	409	453	33	17180	4N1W17-CB-01200	2017	10873	0.98	239490	269000	11/17/2017	89	11	14
268	2018	4	41	0	409	649	452*	33	16050	5N2W12-00-00401	2017	10923	16.5	284380	325000	11/20/2017	88	11	15
269	2018	4	42	0	409	549	452*	33	21442	6N2W22-00-00701	2017	10906	17.58	309870	325000	11/20/2017	95	11	16
270	2018	4	41	0	401	401	151	33	16087	5N2W12-A0-00300	2017	11051	2.5	307110	350000	11/27/2017	88	11	17

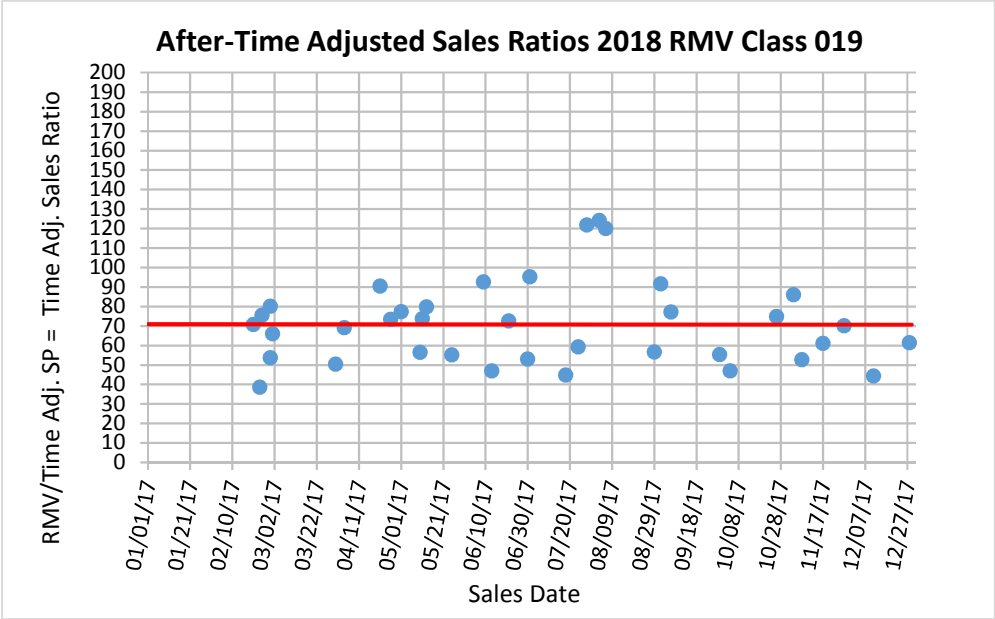
#	Ratio Year	MA	SA	NH	RMV Class	Prop Class	Stat Class	Sales Code	Acct No	Map #	Book	Page	Total Size	Total RMV	Sale Price	Sales Date	Before Ratio	Month	Mo. Count
271	2018	5	36	0	401	401	142*	33	25260	6N5W06-BC-02900	2017	11060	0.22	245250	258375	11/27/2017	95	11	18
272	2018	4	41	0	400	400		33	20199	7N3W12-00-00500	2017	11118	18.6	148280	105000	11/29/2017	141	11	19
273	2018	6	61	0	401	401	142	33	15783	5N1W32-CD-00500	2017	11122	0.54	359600	364250	11/29/2017	99	11	20
274	2018	6	61	0	401	401	134*	33	16823	4N1W07-BA-00800	2017	11202	1.5	430030	399900	12/1/2017	108	12	1
275	2018	6	62	0	400	640		33	15256	4N2W03-C0-01000	2017	11756	16.95	189750	166229	12/4/2017	114	12	2
276	2018	6	62	0	401	401	153	33	17474	5N2W25-C0-00900	2017	11274	2.01	605740	615000	12/4/2017	98	12	3
277	2018	3	31	0	401	401	143*	33	29666	5N4W22-D0-00300	2017	11257	2.2	377880	396000	12/4/2017	95	12	4
278	2018	2	21	0	401	401	152	33	5721	3N2W13-BB-05100	2017	11246	1.57	477120	510000	12/4/2017	94	12	5
279	2018	4	41	0	400	400		33	19262	6N2W09-C0-01402	2017	11381	5	82510	130000	12/5/2017	63	12	6
280	2018	3	31	0	409	649	452*	33	23986	4N4W07-C0-01100	2017	11635	3.92	242750	249950	12/6/2017	97	12	7
281	2018	6	61	0	401	401	144*	33	9014	4N2W23-B0-00300	2017	11472	2.09	450830	497500	12/7/2017	91	12	8
282	2018	2	21	0	401	401	152	33	7433	3N2W24-C0-03100	2017	11475	0.86	341020	380000	12/8/2017	90	12	9
283	2018	3	31	0	400	640		33	24625	5N4W33-00-01401	2017	11668	7.25	141020	128000	12/9/2017	110	12	10
284	2018	6	61	0	401	401	151	33	17321	4N2W01-00-03509	2017	11487	2.04	596430	600000	12/12/2017	99	12	11
285	2018	6	61	0	401	401	141*	33	9043	4N2W23-DB-00500	2017	11665	2	417430	514900	12/15/2017	81	12	12
286	2018	6	62	0	401	541	132	33	17505	5N2W26-D0-00900	2017	11633	8.47	382020	320000	12/15/2017	119	12	13
287	2018	6	61	0	401	401	141*	33	7470	4N1W30-B0-00700	2017	11841	3.6	499740	515500	12/19/2017	97	12	14
288	2018	4	41	0	400	640		30	21182	6N2W14-00-00600	2017	12013	56.82	252450	212000	12/20/2017	119	12	15
289	2018	6	61	0	409	649	452*	33	15340	4N2W11-00-00903	2017	11792	5	445710	400000	12/20/2017	111	12	16
290	2018	3	31	0	401	401	135*	33	24444	5N4W22-D0-00400	2017	11908	5	269020	280000	12/22/2017	96	12	17
291	2018	2	21	0	409	649	300*	33	6927	3N2W23-00-01900	2017	11931	13.31	264310	241000	12/23/2017	110	12	18
292	2018	6	61	0	409	409	442*	33	15217	4N2W02-00-02900	2018	90	4.68	335400	272000	12/26/2017	123	12	19
293	2018	6	61	0	401	401	141*	33	15145	4N1W17-B0-02900	2017	11302	0.41	279850	281000	12/28/2017	100	12	20
294	2018	6	61	0	400	540		33	438641	4N2W24-C0-02609	2017	12022	5	285000	259900	12/29/2017	110	12	21

Time Study for RMV Class 019, Personal Property Manufactured Structures



Direct Calculation (Linear Regression) Analysis adjusting the sales price on an annual basis:

- 1. Y axis intersect:
 - 01/01/17 79%
 - 12/31/17 70%
- 2. Amount of change: 9%
- 3. Annual change factor: 91%
- 4. Annual adj. factor: 110%
- 5. Overall adjustment: 10%
- 6. Intermediate adj factor: 0.8%



Sale No	Acct	MA	SA	RJ Code	Sale Date	Adjusted Sales Price	2018 Base RMV	Before Ratio	# of Months to Dec	Monthly Adj Factor	Total Adj. Factor	Total Adj	Time Adj. Sales Price	Time Adj. Ratio
1	433876	7	6	30	02/20/17	65,000	50,120	77	11	0.8%	9%	5,893	70,893	71
2	146	7	30	33	02/23/17	118,000	49,620	42	11	0.8%	9%	10,698	128,698	39
3	1141	7	27	30	02/24/17	41,000	33,810	82	11	0.8%	9%	3,717	44,717	76
4	103	7	30	33	02/28/17	138,900	81,350	59	11	0.8%	9%	12,593	151,493	54
5	1248	7	27	30	02/28/17	50,000	43,680	87	11	0.8%	9%	4,533	54,533	80
6	34262	7	4	30	03/01/17	30,000	21,450	72	10	0.8%	8%	2,473	32,473	66
7	213	7	30	33	03/31/17	98,000	53,500	55	10	0.8%	8%	8,077	106,077	50
8	471	7	2	33	04/04/17	18,000	13,380	74	9	0.8%	7%	1,335	19,335	69
9	1074	7	27	33	04/21/17	50,000	48,600	97	9	0.8%	7%	3,709	53,709	90
10	1475	7	4	30	04/26/17	8,000	6,310	79	9	0.8%	7%	593	8,593	73
11	2325	7	35	30	05/01/17	11,000	9,070	82	8	0.8%	7%	725	11,725	77
12	1252	7	28	30	05/10/17	77,000	46,410	60	8	0.8%	7%	5,077	82,077	57
13	1088	7	27	33	05/11/17	49,900	39,230	79	8	0.8%	7%	3,290	53,190	74
14	435885	7	4	30	05/13/17	16,000	13,600	85	8	0.8%	7%	1,055	17,055	80
15	30252	7	30	30	05/25/17	204,000	119,900	59	8	0.8%	7%	13,451	217,451	55
16	1192	7	27	33	06/09/17	76,000	74,390	98	7	0.8%	6%	4,385	80,385	93
17	429795	7	30	30	06/13/17	126,500	62,900	50	7	0.8%	6%	7,298	133,798	47
18	1039	7	27	30	06/21/17	65,000	49,850	77	7	0.8%	6%	3,750	68,750	73
19	1288	7	28	33	06/30/17	80,700	45,250	56	7	0.8%	6%	4,656	85,356	53
20	399	7	2	33	07/01/17	5,500	5,500	100	6	0.8%	5%	272	5,772	95
21	2041	7	5	33	07/18/17	35,000	16,500	47	6	0.8%	5%	1,731	36,731	45
22	155	7	30	33	07/24/17	119,000	73,960	62	6	0.8%	5%	5,885	124,885	59
23	439046	7	4	33	07/28/17	45,000	57,540	128	6	0.8%	5%	2,225	47,225	122
24	1441	7	4	33	08/03/17	25,000	32,310	129	5	0.8%	4%	1,030	26,030	124
25	289	7	2	30	08/06/17	7,500	9,370	125	5	0.8%	4%	309	7,809	120
26	180	7	30	30	08/29/17	99,000	58,370	59	5	0.8%	4%	4,080	103,080	57
27	404	7	2	30	09/01/17	22,500	21,310	95	4	0.8%	3%	742	23,242	92
28	1111	7	27	33	09/06/17	52,000	41,460	80	4	0.8%	3%	1,714	53,714	77
29	1066	7	27	33	09/29/17	62,750	35,920	57	4	0.8%	3%	2,069	64,819	55
30	1284	7	28	33	10/04/17	76,000	36,570	48	3	0.8%	2%	1,879	77,879	47

Sale No	Acct	MA	SA	RJ Code	Sale Date	Adjusted Sales Price	2018 Base RMV	Before Ratio	# of Months to Dec	Monthly Adj Factor	Total Adj. Factor	Total Adj	Time Adj. Sales Price	Time Adj. Ratio
31	1039	7	27	30	10/26/17	65,000	49,850	77	3	0.8%	2%	1,607	66,607	75
32	1086	7	27	30	11/03/17	70,000	61,250	88	2	0.8%	2%	1,154	71,154	86
33	1076	7	27	30	11/07/17	65,250	34,980	54	2	0.8%	2%	1,076	66,326	53
34	429797	7	30	33	11/17/17	159,000	98,720	62	2	0.8%	2%	2,621	161,621	61
35	2512	7	5	33	11/27/17	34,500	24,620	71	2	0.8%	2%	569	35,069	70
36	1028	7	27	30	12/11/17	80,500	35,930	45	1	0.8%	1%	663	81,163	44
37	1042	7	27	30	12/28/17	71,500	44,280	62	1	0.8%	1%	589	72,089	61

Total Sales 37

*SUPPLEMENTAL
NOTES*

Areas of Reappraisal:

Maintenance Area 3, Vernonia

Currently, all of the unimproved and improved properties located in Vernonia are being reappraised. The sales of the properties located in Vernonia, which are used in this Ratio Study, have been reviewed and reappraised to reflect current base values and set-up conclusions for January 1.

Areas of Recalculation:

Maintenance Area 1	City of St. Helens
Maintenance Area 2	Scappoose
Maintenance Area 4	Rainier
Maintenance Area 5	Clatskanie
Maintenance Area 6	Rural St. Helens, City of Columbia City, Warren and Deer Island
Maintenance Area 7	Personal Property Manufactured Structures, Countywide
Floating Property	Personal Property Floating Homes, Boathouses and Combinations, Countywide

Changed Study Areas:

Due to the adjustment of the maintenance area lines, several study areas were reassigned to different maintenance areas. Please refer to the "Grouping Analysis and Study Area List" section for the location of each study area within the County.

No new study areas were created for the 2018 ratio year.

ORCATS Property Appraisal Conversion:

In May, the Helion ORCATS software company began the process of converting our data from Real Value Voucher to Property Appraisal. This conversion process has taken some time to complete. As with any software conversion, there is an opportunity to "clean up" old legacy data and eliminate the redundancy of some processes. With the re-write and conversion to Property Appraisal, the goal of the Assessor is for current assessment records to reflect data as it is described in Oregon Revised Statute.

*SUMMARY OF RATIO
INDICATIONS*

Summary of Ratio Indications

2018 Ratio Study

YEAR	RMV CLASS	MA	SA	NH	LAND%	OSD%	IMPR%	OVERALL%	COD	PRD	RE CALC
2018	003	01	00	000	100	100	100	100			<input type="checkbox"/>
2018	003	02	00	000	100	100	100	100			<input type="checkbox"/>
2018	003	03	00	000	100	100	100	100			<input type="checkbox"/>
2018	003	04	00	000	100	100	100	100			<input type="checkbox"/>
2018	003	04	41	000	100	100	100	100			<input type="checkbox"/>
2018	003	05	00	000	100	100	100	100			<input type="checkbox"/>
2018	003	06	00	000	100	100	100	100			<input type="checkbox"/>
2018	008	01	00	000	100	100	100	100			<input type="checkbox"/>
2018	008	01	90	000	100	100	100	100			<input type="checkbox"/>
2018	008	02	00	000	100	100	100	100			<input type="checkbox"/>
2018	008	02	90	000	100	100	100	100			<input type="checkbox"/>
2018	008	03	00	000	100	100	100	100			<input type="checkbox"/>
2018	008	03	09	000	100	100	100	100			<input type="checkbox"/>
2018	008	03	90	000	100	100	100	100			<input type="checkbox"/>
2018	008	04	00	000	100	100	100	100			<input type="checkbox"/>
2018	008	04	90	000	100	100	100	100			<input type="checkbox"/>
2018	008	05	00	000	100	100	100	100			<input type="checkbox"/>
2018	008	05	90	000	100	100	100	100			<input type="checkbox"/>
2018	008	06	00	000	100	100	100	100			<input type="checkbox"/>
2018	008	06	90	000	100	100	100	100			<input type="checkbox"/>
2018	010	01	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	010	01	01	000	100	100	100	100			<input type="checkbox"/>
2018	010	01	15	000	100	100	100	100			<input type="checkbox"/>
2018	010	02	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	010	03	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	010	03	03	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	010	04	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	010	05	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	010	06	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	019	07	01	000	100	100	143	143	27.14	1.23	<input checked="" type="checkbox"/>
2018	019	07	02	000	100	100	143	143	27.14	1.23	<input checked="" type="checkbox"/>
2018	019	07	03	000	100	100	122	122	24.83	.97	<input checked="" type="checkbox"/>
2018	019	07	04	000	100	100	122	122	24.83	.97	<input checked="" type="checkbox"/>
2018	019	07	05	000	100	100	122	122	24.83	.97	<input checked="" type="checkbox"/>
2018	019	07	06	000	100	100	143	143	27.14	1.23	<input checked="" type="checkbox"/>
2018	019	07	27	000	100	100	133	133	14.87	1.01	<input checked="" type="checkbox"/>
2018	019	07	28	000	100	100	143	143	27.14	1.23	<input checked="" type="checkbox"/>
2018	019	07	30	000	100	100	182	182	9.63	.99	<input checked="" type="checkbox"/>
2018	019	07	31	000	100	100	143	143	27.14	1.23	<input checked="" type="checkbox"/>
2018	019	07	35	000	100	100	122	122	24.83	.97	<input checked="" type="checkbox"/>
2018	020	01	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	020	02	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	020	03	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	020	04	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	020	05	00	000	100	100	100	100			<input checked="" type="checkbox"/>

Summary of Ratio Indications

2018 Ratio Study

YEAR	RMV CLASS	MA	SA	NH	LAND%	OSD%	IMPR%	OVERALL%	COD	PRD	RE CALC
2018	030	01	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	030	03	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	030	04	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	030	05	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	030	06	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	032	03	00	000	100	100	100	100			<input type="checkbox"/>
2018	032	03	31	000	100	100	100	100			<input type="checkbox"/>
2018	032	05	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	040	02	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	040	02	21	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	040	03	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	040	03	03	000	100	100	100	100			<input type="checkbox"/>
2018	040	04	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	040	04	41	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	040	04	42	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	040	04	44	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	040	05	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	040	06	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	040	06	61	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	040	06	62	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	100	01	00	000	104	100	100	104	16.54	1.01	<input checked="" type="checkbox"/>
2018	100	01	01	000	100	100	100	100			<input type="checkbox"/>
2018	100	01	15	000	104	100	100	104	16.54	1.01	<input checked="" type="checkbox"/>
2018	100	02	00	000	98	100	100	98	8.41	1.01	<input checked="" type="checkbox"/>
2018	100	02	79	000	87	100	100	87			<input checked="" type="checkbox"/>
2018	100	03	00	000	98	100	100	98	7.41	1.01	<input type="checkbox"/>
2018	100	03	03	000	98	100	100	98			<input type="checkbox"/>
2018	100	03	38	000	98	100	100	98			<input type="checkbox"/>
2018	100	04	00	000	119	100	100	119	20.24	1.03	<input checked="" type="checkbox"/>
2018	100	04	46	000	119	100	100	119	.00	1.00	<input checked="" type="checkbox"/>
2018	100	04	47	000	103	100	100	103			<input checked="" type="checkbox"/>
2018	100	05	00	000	114	100	100	114	7.27	1.01	<input checked="" type="checkbox"/>
2018	100	06	01	000	102	100	100	102	.00	1.00	<input checked="" type="checkbox"/>
2018	100	06	15	000	102	100	100	102	.00	1.00	<input checked="" type="checkbox"/>
2018	101	01	00	000	104	100	112	108	10.50	.99	<input checked="" type="checkbox"/>
2018	101	01	01	000	100	100	100	100			<input type="checkbox"/>
2018	101	01	15	000	104	100	112	108	10.50	.99	<input checked="" type="checkbox"/>
2018	101	01	21	000	100	100	100	100			<input type="checkbox"/>
2018	101	01	30	000	104	100	115	109	4.67	1.00	<input checked="" type="checkbox"/>
2018	101	01	31	000	100	100	100	100			<input type="checkbox"/>
2018	101	01	43	000	104	100	90	94	8.45	1.01	<input checked="" type="checkbox"/>
2018	101	01	80	000	104	100	111	108			<input checked="" type="checkbox"/>
2018	101	02	00	000	98	100	98	98	6.67	1.00	<input checked="" type="checkbox"/>
2018	101	02	28	000	98	100	97	98			<input checked="" type="checkbox"/>
2018	101	02	33	000	98	100	80	88	2.58	1.00	<input checked="" type="checkbox"/>

Summary of Ratio Indications

2018 Ratio Study

YEAR	RMV CLASS	MA	SA	NH	LAND%	OSD%	IMPR%	OVERALL%	COD	PRD	RE CALC
2018	101	02	79	000	87	100	86	87	6.79	.99	<input checked="" type="checkbox"/>
2018	101	02	80	000	98	100	89	92	3.77	1.01	<input checked="" type="checkbox"/>
2018	101	03	00	000	98	100	123	114	12.41	1.00	<input type="checkbox"/>
2018	101	03	03	000	98	100	117	109	9.00	.99	<input type="checkbox"/>
2018	101	03	40	000	98	100	125	114			<input type="checkbox"/>
2018	101	04	00	000	119	100	121	119	17.52	1.00	<input checked="" type="checkbox"/>
2018	101	04	40	000	119	100	122	119	.00	1.00	<input checked="" type="checkbox"/>
2018	101	04	46	000	119	100	120	119			<input checked="" type="checkbox"/>
2018	101	04	47	000	103	100	103	103	2.48	1.01	<input checked="" type="checkbox"/>
2018	101	05	00	000	114	100	97	101	12.28	1.00	<input checked="" type="checkbox"/>
2018	101	05	40	000	114	100	96	101			<input checked="" type="checkbox"/>
2018	101	06	01	000	102	100	102	102	11.78	.99	<input checked="" type="checkbox"/>
2018	101	06	15	000	102	100	102	102	11.78	.99	<input checked="" type="checkbox"/>
2018	101	06	21	000	102	100	101	101	6.25	1.00	<input checked="" type="checkbox"/>
2018	101	06	31	000	102	100	103	102			<input checked="" type="checkbox"/>
2018	102	01	00	000	100	100	95	95	5.39	.98	<input checked="" type="checkbox"/>
2018	102	02	00	000	100	100	98	98			<input checked="" type="checkbox"/>
2018	102	02	21	000	100	100	98	98			<input checked="" type="checkbox"/>
2018	102	04	00	000	100	100	119	119			<input checked="" type="checkbox"/>
2018	109	01	00	000	104	100	120	111	11.59	1.01	<input checked="" type="checkbox"/>
2018	109	01	01	000	100	100	100	100			<input type="checkbox"/>
2018	109	01	15	000	100	100	100	100			<input type="checkbox"/>
2018	109	02	00	000	98	100	97	98	.00	1.00	<input checked="" type="checkbox"/>
2018	109	03	00	000	98	100	134	118	13.25	1.03	<input type="checkbox"/>
2018	109	03	03	000	98	100	118	109	8.64	1.00	<input type="checkbox"/>
2018	109	03	38	000	98	100	133	118			<input type="checkbox"/>
2018	109	04	00	000	119	100	124	120	11.11	1.00	<input checked="" type="checkbox"/>
2018	109	05	00	000	114	100	89	101	.00	1.00	<input checked="" type="checkbox"/>
2018	109	06	01	000	102	100	103	102			<input checked="" type="checkbox"/>
2018	109	06	15	000	102	100	103	102			<input checked="" type="checkbox"/>
2018	111	01	95	000	100	100	103	103	22.00	.92	<input checked="" type="checkbox"/>
2018	111	01	97	000	100	100	97	97	26.00	.64	<input checked="" type="checkbox"/>
2018	111	02	95	000	100	100	119	119	11.00	1.02	<input checked="" type="checkbox"/>
2018	111	02	97	000	100	100	97	97	26.00	.64	<input checked="" type="checkbox"/>
2018	111	04	95	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	111	04	97	000	100	100	97	97	26.00	.64	<input checked="" type="checkbox"/>
2018	111	05	95	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	111	05	97	000	100	100	97	97	26.00	.64	<input checked="" type="checkbox"/>
2018	111	06	95	000	100	100	103	103	22.00	.92	<input checked="" type="checkbox"/>
2018	111	06	97	000	100	100	97	97	26.00	.64	<input checked="" type="checkbox"/>
2018	200	01	00	000	115	100	100	115	9.09	1.05	<input checked="" type="checkbox"/>
2018	200	01	01	000	100	100	100	100			<input type="checkbox"/>
2018	200	01	71	000	100	100	100	100			<input type="checkbox"/>
2018	200	01	72	000	115	100	100	115	9.09	1.05	<input checked="" type="checkbox"/>
2018	200	01	73	000	115	100	100	115	9.09	1.05	<input checked="" type="checkbox"/>

Summary of Ratio Indications

2018 Ratio Study

YEAR	RMV CLASS	MA	SA	NH	LAND%	OSD%	IMPR%	OVERALL%	COD	PRD	RE CALC
2018	200	02	00	000	115	100	100	115	9.09	1.05	<input checked="" type="checkbox"/>
2018	200	02	71	000	115	100	100	115	9.09	1.05	<input checked="" type="checkbox"/>
2018	200	02	72	000	115	100	100	115	9.09	1.05	<input checked="" type="checkbox"/>
2018	200	02	73	000	115	100	100	115	9.09	1.05	<input checked="" type="checkbox"/>
2018	200	03	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	200	03	31	000	100	100	100	100			<input type="checkbox"/>
2018	200	03	71	000	100	100	100	100			<input type="checkbox"/>
2018	200	03	72	000	100	100	100	100			<input type="checkbox"/>
2018	200	03	73	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	200	04	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	200	04	71	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	200	04	72	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	200	04	73	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	200	05	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	200	05	51	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	200	05	71	000	100	100	100	100			<input type="checkbox"/>
2018	200	05	72	000	100	100	100	100			<input type="checkbox"/>
2018	200	05	73	000	100	100	100	100			<input type="checkbox"/>
2018	200	06	00	000	115	100	100	115	9.09	1.05	<input checked="" type="checkbox"/>
2018	200	06	71	000	100	100	100	100			<input type="checkbox"/>
2018	200	06	72	000	115	100	100	115	9.09	1.05	<input checked="" type="checkbox"/>
2018	201	01	00	000	115	100	100	115	15.58	1.00	<input checked="" type="checkbox"/>
2018	201	01	01	000	100	100	100	100			<input type="checkbox"/>
2018	201	01	71	000	115	100	100	115	15.58	1.00	<input checked="" type="checkbox"/>
2018	201	01	72	000	115	100	100	115	15.58	1.00	<input checked="" type="checkbox"/>
2018	201	01	73	000	115	100	100	115	15.58	1.00	<input checked="" type="checkbox"/>
2018	201	02	00	000	115	100	100	115	15.58	1.00	<input checked="" type="checkbox"/>
2018	201	02	71	000	115	100	100	115	15.58	1.00	<input checked="" type="checkbox"/>
2018	201	02	72	000	115	100	100	115	15.58	1.00	<input checked="" type="checkbox"/>
2018	201	02	73	000	115	100	100	115	15.58	1.00	<input checked="" type="checkbox"/>
2018	201	02	95	000	100	100	100	100			<input type="checkbox"/>
2018	201	02	97	000	100	100	100	100			<input type="checkbox"/>
2018	201	03	00	000	100	100	100	100	26.27	.92	<input checked="" type="checkbox"/>
2018	201	03	03	000	100	100	100	100			<input type="checkbox"/>
2018	201	03	71	000	100	100	100	100			<input type="checkbox"/>
2018	201	03	72	000	100	100	100	100			<input type="checkbox"/>
2018	201	03	73	000	100	100	100	100	26.27	.92	<input checked="" type="checkbox"/>
2018	201	04	00	000	100	100	100	100	26.27	.92	<input checked="" type="checkbox"/>
2018	201	04	71	000	100	100	100	100	26.27	.92	<input checked="" type="checkbox"/>
2018	201	04	72	000	100	100	100	100	26.27	.92	<input checked="" type="checkbox"/>
2018	201	04	73	000	100	100	100	100			<input type="checkbox"/>
2018	201	05	00	000	100	100	100	100	26.27	.92	<input checked="" type="checkbox"/>
2018	201	05	71	000	100	100	100	100	26.27	.92	<input checked="" type="checkbox"/>
2018	201	05	72	000	100	100	100	100	26.27	.92	<input checked="" type="checkbox"/>
2018	201	05	73	000	100	100	100	100			<input type="checkbox"/>

Summary of Ratio Indications

2018 Ratio Study

YEAR	RMV CLASS	MA	SA	NH	LAND%	OSD%	IMPR%	OVERALL%	COD	PRD	RE CALC
2018	201	06	00	000	115	100	100	115	15.58	1.00	<input checked="" type="checkbox"/>
2018	201	06	71	000	100	100	100	100			<input type="checkbox"/>
2018	201	06	72	000	115	100	100	115	15.58	1.00	<input checked="" type="checkbox"/>
2018	201	06	73	000	115	100	100	115	15.58	1.00	<input checked="" type="checkbox"/>
2018	207	01	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	207	01	01	000	100	100	100	100			<input type="checkbox"/>
2018	207	02	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	207	03	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	207	04	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	207	05	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	207	06	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	209	01	71	000	100	100	100	100			<input type="checkbox"/>
2018	209	01	72	000	100	100	100	100			<input type="checkbox"/>
2018	209	01	73	000	100	100	100	100			<input type="checkbox"/>
2018	209	02	71	000	100	100	100	100			<input type="checkbox"/>
2018	209	02	72	000	100	100	100	100			<input type="checkbox"/>
2018	209	02	73	000	100	100	100	100			<input type="checkbox"/>
2018	209	03	71	000	100	100	100	100			<input type="checkbox"/>
2018	209	03	72	000	100	100	100	100			<input type="checkbox"/>
2018	209	03	73	000	100	100	100	100			<input type="checkbox"/>
2018	209	04	71	000	100	100	100	100			<input type="checkbox"/>
2018	209	04	72	000	100	100	100	100			<input type="checkbox"/>
2018	209	04	73	000	100	100	100	100			<input type="checkbox"/>
2018	209	05	71	000	100	100	100	100			<input type="checkbox"/>
2018	209	05	72	000	100	100	100	100			<input type="checkbox"/>
2018	209	05	73	000	100	100	100	100			<input type="checkbox"/>
2018	209	06	71	000	100	100	100	100			<input type="checkbox"/>
2018	209	06	72	000	100	100	100	100			<input type="checkbox"/>
2018	209	06	73	000	100	100	100	100			<input type="checkbox"/>
2018	300	01	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	300	01	74	000	100	100	100	100			<input type="checkbox"/>
2018	300	02	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	300	02	74	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	300	02	77	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	300	03	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	300	03	74	000	100	100	100	100			<input type="checkbox"/>
2018	300	04	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	300	04	74	000	100	100	100	100			<input type="checkbox"/>
2018	300	05	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	300	05	74	000	100	100	100	100			<input type="checkbox"/>
2018	300	06	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	300	06	74	000	100	100	100	100			<input type="checkbox"/>
2018	301	01	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	301	01	74	000	100	100	100	100			<input type="checkbox"/>
2018	301	01	78	000	100	100	100	100			<input type="checkbox"/>

Summary of Ratio Indications

2018 Ratio Study

YEAR	RMV CLASS	MA	SA	NH	LAND%	OSD%	IMPR%	OVERALL%	COD	PRD	RE CALC
2018	301	01	90	000	100	100	100	100			<input type="checkbox"/>
2018	301	02	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	301	02	74	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	301	02	77	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	301	03	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	301	03	74	000	100	100	100	100			<input type="checkbox"/>
2018	301	04	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	301	04	74	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	301	05	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	301	05	74	000	100	100	100	100			<input type="checkbox"/>
2018	301	05	90	000	100	100	100	100			<input type="checkbox"/>
2018	301	06	00	000	100	100	100	100	.00	1.00	<input checked="" type="checkbox"/>
2018	301	06	74	000	100	100	100	100			<input type="checkbox"/>
2018	301	06	78	000	100	100	100	100			<input type="checkbox"/>
2018	301	06	90	000	100	100	100	100			<input type="checkbox"/>
2018	303	01	00	000	100	100	100	100			<input type="checkbox"/>
2018	303	01	78	000	100	100	100	100			<input type="checkbox"/>
2018	303	02	00	000	100	100	100	100			<input type="checkbox"/>
2018	303	02	77	000	100	100	100	100			<input type="checkbox"/>
2018	303	03	00	000	100	100	100	100			<input type="checkbox"/>
2018	303	04	00	000	100	100	100	100			<input type="checkbox"/>
2018	303	05	00	000	100	100	100	100			<input type="checkbox"/>
2018	308	01	00	000	100	100	100	100			<input type="checkbox"/>
2018	308	01	74	000	100	100	100	100			<input type="checkbox"/>
2018	308	01	90	000	100	100	100	100			<input type="checkbox"/>
2018	308	02	00	000	100	100	100	100			<input type="checkbox"/>
2018	308	02	74	000	100	100	100	100			<input type="checkbox"/>
2018	308	02	90	000	100	100	100	100			<input type="checkbox"/>
2018	308	03	00	000	100	100	100	100			<input type="checkbox"/>
2018	308	03	74	000	100	100	100	100			<input type="checkbox"/>
2018	308	04	00	000	100	100	100	100			<input type="checkbox"/>
2018	308	04	74	000	100	100	100	100			<input type="checkbox"/>
2018	308	04	90	000	100	100	100	100			<input type="checkbox"/>
2018	308	05	00	000	100	100	100	100			<input type="checkbox"/>
2018	308	05	74	000	100	100	100	100			<input type="checkbox"/>
2018	308	06	00	000	100	100	100	100			<input type="checkbox"/>
2018	308	06	74	000	100	100	100	100			<input type="checkbox"/>
2018	308	06	90	000	100	100	100	100			<input type="checkbox"/>
2018	309	01	74	000	100	100	100	100			<input type="checkbox"/>
2018	309	02	74	000	100	100	100	100			<input type="checkbox"/>
2018	309	02	77	000	100	100	100	100			<input type="checkbox"/>
2018	309	03	74	000	100	100	100	100			<input type="checkbox"/>
2018	309	04	74	000	100	100	100	100			<input type="checkbox"/>
2018	309	05	74	000	100	100	100	100			<input type="checkbox"/>
2018	309	06	74	000	100	100	100	100			<input type="checkbox"/>

Summary of Ratio Indications

2018 Ratio Study

YEAR	RMV CLASS	MA	SA	NH	LAND%	OSD%	IMPR%	OVERALL%	COD	PRD	RE CALC
2018	333	02	00	000	100	100	100	100			<input type="checkbox"/>
2018	333	06	78	000	100	100	100	100			<input type="checkbox"/>
2018	400	01	00	000	100	100	100	100			<input type="checkbox"/>
2018	400	02	00	000	100	100	100	100			<input type="checkbox"/>
2018	400	02	21	000	98	100	100	98	20.06	1.07	<input checked="" type="checkbox"/>
2018	400	02	22	000	100	100	100	100			<input type="checkbox"/>
2018	400	02	25	000	98	100	100	98			<input checked="" type="checkbox"/>
2018	400	02	41	000	100	100	100	100			<input type="checkbox"/>
2018	400	02	45	000	98	100	100	98			<input checked="" type="checkbox"/>
2018	400	02	60	000	100	100	100	100			<input type="checkbox"/>
2018	400	02	62	000	98	100	100	98	20.06	1.07	<input checked="" type="checkbox"/>
2018	400	02	64	000	95	100	100	95	8.91	1.02	<input checked="" type="checkbox"/>
2018	400	03	00	000	100	100	100	100			<input type="checkbox"/>
2018	400	03	31	000	95	100	100	95	9.11	1.04	<input type="checkbox"/>
2018	400	03	36	000	100	100	100	100			<input type="checkbox"/>
2018	400	03	37	000	100	100	100	100			<input type="checkbox"/>
2018	400	04	00	000	100	100	100	100			<input type="checkbox"/>
2018	400	04	41	000	133	100	100	133	15.40	.91	<input checked="" type="checkbox"/>
2018	400	04	42	000	105	100	100	105	17.22	.99	<input checked="" type="checkbox"/>
2018	400	04	44	000	105	100	100	105			<input checked="" type="checkbox"/>
2018	400	04	45	000	133	100	100	133			<input checked="" type="checkbox"/>
2018	400	05	00	000	100	100	100	100			<input type="checkbox"/>
2018	400	05	36	000	109	100	100	109			<input checked="" type="checkbox"/>
2018	400	05	51	000	98	100	100	98	16.00	1.01	<input checked="" type="checkbox"/>
2018	400	05	55	000	98	100	100	98			<input checked="" type="checkbox"/>
2018	400	05	60	000	100	100	100	100			<input type="checkbox"/>
2018	400	06	01	000	100	100	100	100			<input type="checkbox"/>
2018	400	06	56	000	100	100	100	100			<input type="checkbox"/>
2018	400	06	61	000	102	100	100	102	16.13	.99	<input checked="" type="checkbox"/>
2018	400	06	62	000	98	100	100	98	.00	1.00	<input checked="" type="checkbox"/>
2018	400	06	63	000	100	100	100	100			<input type="checkbox"/>
2018	400	06	64	000	100	100	100	100			<input type="checkbox"/>
2018	400	06	65	000	102	100	100	102			<input checked="" type="checkbox"/>
2018	401	02	21	000	98	100	97	98	9.43	1.00	<input checked="" type="checkbox"/>
2018	401	02	22	000	100	100	100	100			<input type="checkbox"/>
2018	401	02	23	000	100	100	100	100			<input type="checkbox"/>
2018	401	02	25	000	98	100	98	98	.00	1.00	<input checked="" type="checkbox"/>
2018	401	02	41	000	98	100	97	98	9.43	1.00	<input checked="" type="checkbox"/>
2018	401	02	45	000	98	100	98	98	.00	1.00	<input checked="" type="checkbox"/>
2018	401	02	62	000	98	100	97	98	9.43	1.00	<input checked="" type="checkbox"/>
2018	401	02	63	000	100	100	100	100			<input type="checkbox"/>
2018	401	02	64	000	95	100	99	98			<input checked="" type="checkbox"/>
2018	401	03	31	000	95	100	106	101	11.72	1.00	<input type="checkbox"/>
2018	401	03	36	000	100	100	100	100			<input type="checkbox"/>
2018	401	03	40	000	95	100	105	101			<input type="checkbox"/>

Summary of Ratio Indications

2018 Ratio Study

YEAR	RMV CLASS	MA	SA	NH	LAND%	OSD%	IMPR%	OVERALL%	COD	PRD	RE CALC
2018	401	04	41	000	133	100	65	94	17.73	1.01	<input checked="" type="checkbox"/>
2018	401	04	42	000	105	100	107	105	9.58	1.00	<input checked="" type="checkbox"/>
2018	401	04	44	000	105	100	106	105			<input checked="" type="checkbox"/>
2018	401	04	45	000	133	100	65	94			<input checked="" type="checkbox"/>
2018	401	05	36	000	109	100	111	109	14.77	1.01	<input checked="" type="checkbox"/>
2018	401	05	51	000	98	100	97	98	10.08	1.00	<input checked="" type="checkbox"/>
2018	401	05	55	000	98	100	97	98	8.47	1.00	<input checked="" type="checkbox"/>
2018	401	06	61	000	102	100	90	96	7.92	1.01	<input checked="" type="checkbox"/>
2018	401	06	62	000	98	100	98	98	8.63	1.01	<input checked="" type="checkbox"/>
2018	401	06	63	000	100	100	100	100			<input type="checkbox"/>
2018	401	06	64	000	100	100	100	100			<input type="checkbox"/>
2018	401	06	65	000	102	100	83	96			<input checked="" type="checkbox"/>
2018	409	02	21	000	98	100	90	96	6.33	1.00	<input checked="" type="checkbox"/>
2018	409	02	22	000	100	100	100	100			<input type="checkbox"/>
2018	409	02	23	000	100	100	100	100			<input type="checkbox"/>
2018	409	02	25	000	98	100	98	98			<input checked="" type="checkbox"/>
2018	409	02	41	000	98	100	90	96	6.33	1.00	<input checked="" type="checkbox"/>
2018	409	02	45	000	98	100	98	98			<input checked="" type="checkbox"/>
2018	409	02	62	000	98	100	90	96	6.33	1.00	<input checked="" type="checkbox"/>
2018	409	02	64	000	95	100	100	95			<input checked="" type="checkbox"/>
2018	409	03	31	000	95	100	118	104	14.55	1.01	<input type="checkbox"/>
2018	409	03	37	000	100	100	100	100			<input type="checkbox"/>
2018	409	04	41	000	133	100	67	101	15.69	1.01	<input checked="" type="checkbox"/>
2018	409	04	42	000	105	100	97	101	13.19	.99	<input checked="" type="checkbox"/>
2018	409	04	44	000	105	100	97	101			<input checked="" type="checkbox"/>
2018	409	04	45	000	133	100	81	101			<input checked="" type="checkbox"/>
2018	409	05	51	000	98	100	99	99	13.92	1.01	<input checked="" type="checkbox"/>
2018	409	05	55	000	98	100	97	98	7.65	1.02	<input checked="" type="checkbox"/>
2018	409	06	56	000	100	100	100	100			<input type="checkbox"/>
2018	409	06	61	000	102	100	80	95	10.18	1.01	<input checked="" type="checkbox"/>
2018	409	06	62	000	98	100	97	98	.00	1.00	<input checked="" type="checkbox"/>
2018	409	06	63	000	100	100	100	100			<input type="checkbox"/>
2018	409	06	64	000	100	100	100	100			<input type="checkbox"/>
2018	409	06	65	000	102	100	80	95			<input checked="" type="checkbox"/>
2018	600	03	06	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	600	04	06	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	600	05	06	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	600	06	06	000	100	100	100	100			<input type="checkbox"/>
2018	601	04	06	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	701	01	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	701	02	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	701	03	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	701	04	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	701	05	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	701	06	00	000	100	100	100	100			<input checked="" type="checkbox"/>

Summary of Ratio Indications

2018 Ratio Study

YEAR	RMV CLASS	MA	SA	NH	LAND%	OSD%	IMPR%	OVERALL%	COD	PRD	RE CALC
2018	800	01	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	800	01	15	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	800	02	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	800	02	63	000	100	100	100	100			<input type="checkbox"/>
2018	800	02	64	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	800	02	72	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	800	02	73	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	800	04	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	800	05	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	800	05	51	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	800	05	55	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	800	05	60	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	800	06	00	000	100	100	100	100			<input type="checkbox"/>
2018	801	01	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	801	02	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	801	03	31	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	801	04	00	000	100	100	100	100			<input checked="" type="checkbox"/>
2018	801	05	51	000	100	100	100	100			<input type="checkbox"/>
2018	801	06	00	000	100	100	100	100			<input type="checkbox"/>
2018	890	02	63	000	100	100	100	100			<input type="checkbox"/>
2018	890	02	64	000	100	100	100	100			<input checked="" type="checkbox"/>

*MARKET AREA
ANALYSIS
ADJUSTMENTS &
CONCLUSIONS*

RESIDENTIAL PROPERTY

MAINTENANCE AREA 1

CITY OF ST. HELENS

COLUMBIA County 2018 Ratio Study

RMV																						
Class	MA	SA	NH	Year	# of	Location	RMV	Class	MA	SA	NH	Year	# of	Location	RMV	Class	MA	SA	NH	Year	# of	Location
100	01	00	000	2018	7	St Helens	100	01	15	000	2018	0	St Helens	100	01	15	000	2018	0	St Helens		

Adjustment Calculation Summary

Sample - Number of Sales	7	RECALCULATED		
Population - Number of Accounts	176			
Sales as a percentage of the Population	3.98 %	Pre-Trend	Post Trend	Post Trend
Prior Year Population Values		Brkdwn	Values	Brkdwn
Land RMV	15,313,227	100.00 %	15,925,756	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	96			
RMV Adjustment	100			
Before Ratio	96			
Overall Adjustment Factor	104			
Land Adjustment Factor	104			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	96	2018	Adjustment	104

Explanation

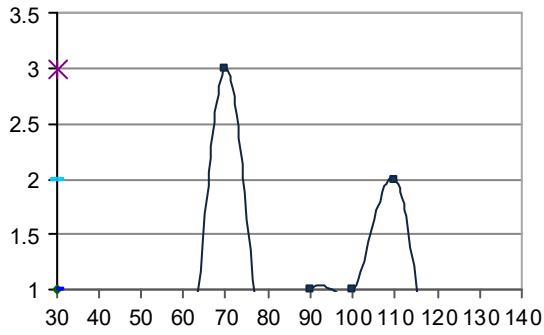
RMV 100: SA 00
 RMV 100: SA 15
 Unimproved land, City of St. Helens and Riverfront property
 The sales array of vacant land for the City of St. Helens (SA 00) and Riverfront (SA 15) returned 7 sales which is 3.98% of the population. The Mean of 93 was selected as the best indicator and was then adjusted by 103 (the Time Study conclusion). The resulting Selected Ratio is 96 and the Overall Adjustment Factor is 104.

Performance History

	2018	2017	2016	2015	2014
COD	16.54	-	-	-	-
PRD	1.01	-	-	-	-

COLUMBIA County 2018 Ratio Study

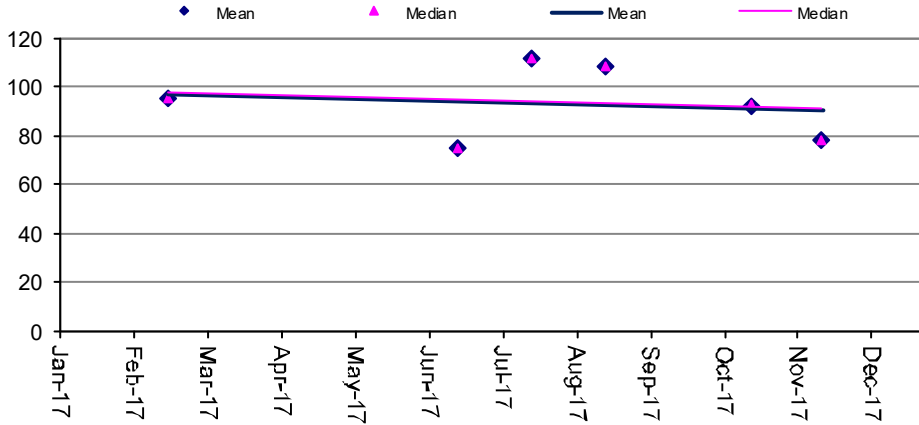
Frequency



30	0	Median	95	Wtd Mean	92
40	0	AD	15.71	GeoMean	92
50	0	COD	16.54	PRD	1.01
60	0	Mean	93	95% Confidence	13.46
70	3	SD	18.17		
80	0	COV	19.53		
90	1				
100	1				
110	2				
120	0				
130	0				
140	0				

Number Of Sales 7

Central Tendencies



Month	Mean	Median	Sales
Mar-17	95	95	1
Jul-17	75	75	1
Aug-17	112	112	1
Sep-17	108	108	1
Nov-17	92	93	2
Dec-17	78	78	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
01	00	000	100		30	4N1W03-BD-04503	2017	10455	0.13	50,860	0	50,860	71,000	Nov-17	1	72
01	00	000	100		33	4N1W05-DA-08900	2017	7027	0.08	34,770	0	34,770	46,250	Jul-17	2	75
01	00	000	100		30	4N1W03-BD-04502	2017	11835	0.13	50,860	0	50,860	65,000	Dec-17	3	78
01	00	000	100		33	4N1W05-CD-02102	2017	2196	0.24	70,460	0	70,460	74,500	Mar-17	4	95
01	00	000	100		33	4N1W03-BD-04500	2017	8593	0.26	91,550	0	91,550	85,000	Sep-17	5	108
01	00	000	100		33	4N1W04-AD-06702	2017	7655	0.13	35,600	0	35,600	31,900	Aug-17	6	112
01	00	000	100		33	5N1W33-DD-05201	2017	10782	0.13	50,860	0	50,860	45,000	Nov-17	7	113

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
101	01	00	000	2018	266	St Helens	101	01	15	000	2018	0	St Helens

Adjustment Calculation Summary

Sample - Number of Sales	266
Population - Number of Accounts	3,848
Sales as a percentage of the Population	6.91 %
Prior Year Population Values	
Land RMV	251,514,460
OSD RMV	100,489,820
Residential Improvement RMV	487,121,806
Farm Improvement RMV	3,671,850
SelectedRatioFromSales	93
RMV Adjustment	100
Before Ratio	93
Overall Adjustment Factor	108
Land Adjustment Factor	104
OSD Adjustment Factor	100
Residential Adjustment Factor	112
Farm Improvement Factor	112
After Ratio	100

RECALCULATED

Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
29.84 %	261,575,038	28.69 %
11.92 %	100,489,820	11.02 %
57.80 %	545,576,423	59.84 %
0.44 %	4,112,472	0.45 %

Selected Ratio 93 2018 Adjustment 108

Explanation

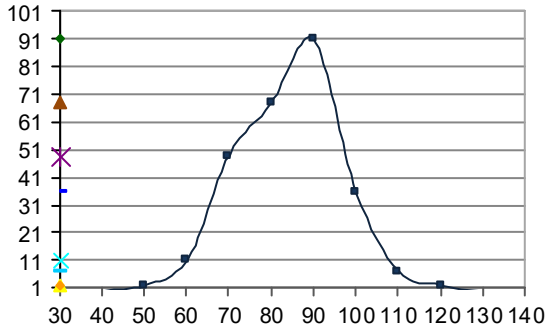
RMV 101: SA 00
 RMV 101: SA 15
 Improved property, City of St. Helens and Riverfront property
 For this analysis, the Median and Weighted Mean returned the same ratio of 90. This is further supported by the Mean of 89. Therefore, the Median (90) was selected and was then adjusted by 103, the conclusion from the RMV Class 1XX Time Study. This resulted in a Before Ratio of 93 and an Overall Adjustment of 108.

Performance History

	2018	2017	2016	2015	2014
COD	10.50	-	-	-	-
PRD	0.99	-	-	-	-

COLUMBIA County 2018 Ratio Study

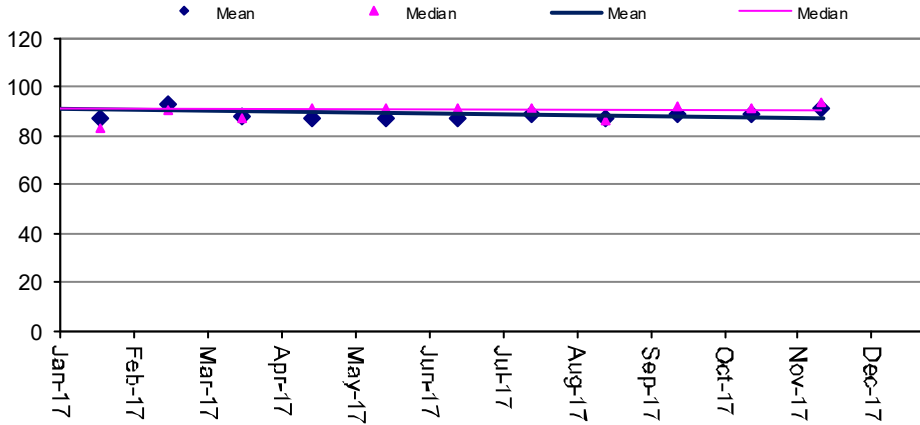
Frequency



30	0	Median	90	Wtd Mean	90
40	0	AD	9.45	GeoMean	88
50	2	COD	10.50	PRD	0.99
60	11	Mean	89	95% Confidence	1.43
70	49	SD	11.87		
80	68	COV	13.34		
90	91				
100	36				
110	7				
120	2				
130	0				
140	0				

Number Of Sales 266

Central Tendencies



Month	Mean	Median	Sales
Jan-17	99	102	16
Feb-17	87	83	16
Mar-17	93	90	19
Apr-17	88	87	18
May-17	87	91	24
Jun-17	87	91	28
Jul-17	87	91	25
Aug-17	89	91	28
Sep-17	87	86	29
Oct-17	89	92	26
Nov-17	89	91	24
Dec-17	91	94	13

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
01	00	000	101	133	33	5N1W34-CC-11200	2017	5828	0.13	77,860	84,610	162,470	298,000	Jun-17	1	55
01	00	000	101	135	33	4N1W05-DA-06900	2017	10893	0.13	76,740	74,430	151,170	265,000	Nov-17	2	57
01	00	000	101	131	33	4N1W04-DC-05500	2017	6015	0.13	77,860	51,600	129,460	215,000	Jun-17	3	60
01	00	000	101	131	30	4N1W04-CB-12700	2017	5637	0.11	73,350	60,440	133,790	215,000	Jun-17	4	62
01	00	000	101	131	33	4N1W03-BC-03000	2017	11130	0.13	77,410	64,330	141,740	228,000	Nov-17	5	62
01	00	000	101	121	33	4N1W03-BC-08900	2017	6813	0.13	77,860	43,110	120,970	193,000	Jul-17	6	63
01	00	000	101	131	33	4N1W04-DB-01900	2017	10757	0.13	77,860	70,810	148,670	234,000	Nov-17	7	64
01	00	000	101	131	33	4N1W04-DA-13200	2017	11663	0.13	62,600	43,890	106,490	165,000	Dec-17	8	65
01	00	000	101	131	33	4N1W04-CA-10401	2017	8861	0.10	68,950	71,940	140,890	212,000	Sep-17	9	66
01	00	000	101	131	33	4N1W05-DA-06300	2017	9541	0.11	74,250	84,430	158,680	242,000	Oct-17	10	66
01	00	000	101	131	33	4N1W04-AA-05601	2017	4226	0.13	76,960	91,680	168,640	253,000	May-17	11	67
01	00	000	101	131	33	4N1W04-DA-12900	2017	10164	0.13	77,860	79,340	157,200	230,000	Oct-17	12	68
01	00	000	101	131	33	4N1W05-AC-04403	2017	7194	0.17	83,650	109,840	193,490	279,400	Aug-17	13	69
01	00	000	101	121	33	4N1W05-CD-01301	2017	5573	0.12	75,290	62,060	137,350	195,000	Jun-17	14	70
01	00	000	101	131	33	4N1W03-CB-05001	2017	8196	0.13	77,860	72,320	150,180	215,000	Sep-17	15	70
01	00	000	101	131	33	4N1W04-DB-09500	2017	10810	0.13	77,860	67,990	145,850	209,000	Nov-17	16	70
01	00	000	101	131	33	4N1W05-AC-04405	2017	6326	0.16	83,240	111,850	195,090	273,000	Jul-17	17	71
01	00	000	101	136	33	5N1W34-CC-05500	2017	6980	0.13	77,860	110,380	188,240	265,000	Jul-17	18	71
01	00	000	101	146	33	4N1W03-BB-02400	2017	8575	0.14	78,530	178,160	256,690	363,000	Sep-17	19	71

COLUMBIA County 2018 Ratio Study

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
01	00	000	101	132	33	4N1W04-CA-07000	2017	1230	0.10	71,510	76,910	148,420	207,000	Feb-17	20	72
01	00	000	101	121	33	4N1W08-BA-00600	2017	4271	0.10	68,690	57,180	125,870	175,000	May-17	21	72
01	00	000	101	132	33	4N1W04-AD-00401	2017	9284	0.13	77,410	109,120	186,530	260,000	Oct-17	22	72
01	00	000	101	136	33	4N1W03-BB-03300	2017	3423	0.13	77,860	79,990	157,850	215,000	Apr-17	23	73
01	00	000	101	131	33	5N1W33-DC-14000	2017	4207	0.13	77,860	81,940	159,800	220,000	Apr-17	24	73
01	00	000	101	131	33	4N1W04-CA-12100	2017	7093	0.13	77,860	74,540	152,400	210,000	Jul-17	25	73
01	00	000	101	141	30	4N1W05-CC-01000	2017	7336	0.24	97,460	106,530	203,990	280,000	Aug-17	26	73
01	00	000	101	136	33	4N1W03-BC-05300	2017	7647	0.13	77,410	115,530	192,940	265,000	Aug-17	27	73
01	00	000	101	141	33	4N1W05-AC-00600	2017	10714	0.18	85,800	121,040	206,840	285,000	Nov-17	28	73
01	00	000	101	131	33	4N1W05-AC-04400	2017	3667	0.23	95,270	90,880	186,150	250,000	Apr-17	29	74
01	00	000	101	135	33	4N1W03-BB-02500	2017	4725	0.10	70,030	97,500	167,530	227,500	May-17	30	74
01	00	000	101	131	33	4N1W04-AD-01600	2017	4630	0.17	83,650	63,710	147,360	198,000	May-17	31	74
01	00	000	101	131	33	4N1W05-AC-05300	2017	8029	0.25	98,610	64,290	162,900	220,000	Aug-17	32	74
01	00	000	101	131	33	4N1W05-AC-03400	2017	8970	0.18	85,620	51,010	136,630	184,900	Sep-17	33	74
01	00	000	101	141	33	4N1W05-AC-00700	2017	5084	0.18	85,800	119,230	205,030	274,000	May-17	34	75
01	00	000	101	131	33	4N1W05-CC-01111	2017	6795	0.17	102,820	122,930	225,750	299,500	Jul-17	35	75
01	00	000	101	132	33	4N1W03-BC-10600	2017	9026	0.22	93,440	87,140	180,580	240,000	Sep-17	36	75
01	00	000	101	141	33	4N1W05-AB-03000	2017	9514	0.20	88,980	116,460	205,440	275,000	Oct-17	37	75
01	00	000	101	131	33	4N1W04-DA-00300	2017	725	0.13	77,860	86,510	164,370	215,000	Jan-17	38	76
01	00	000	101	131	30	4N1W05-CD-01212	2017	1303	0.11	74,250	104,610	178,860	235,500	Feb-17	39	76
01	00	000	101	131	33	5N1W34-CC-08200	2017	4523	0.13	77,860	70,290	148,150	195,500	May-17	40	76
01	00	000	101	131	33	4N1W03-BC-00415	2017	5024	0.13	76,510	97,680	174,190	230,000	May-17	41	76
01	00	000	101	132	33	4N1W04-BA-01101	2017	8554	0.13	77,860	90,570	168,430	223,000	Sep-17	42	76
01	00	000	101	131	33	4N1W03-BB-03400	2017	2670	0.13	77,860	50,320	128,180	167,000	Mar-17	43	77
01	00	000	101	131	33	5N1W33-DA-00602	2017	4273	0.13	77,240	81,600	158,840	207,500	May-17	44	77
01	00	000	101	131	33	4N1W04-DA-03700	2017	5907	0.13	77,860	79,710	157,570	205,000	Jun-17	45	77
01	00	000	101	131	33	4N1W04-CA-04900	2017	6742	0.20	88,800	50,180	138,980	181,000	Jul-17	46	77
01	00	000	101	132	33	5N1W34-CC-13700	2017	8680	0.13	77,860	112,330	190,190	246,000	Sep-17	47	77
01	00	000	101	141	33	4N1W05-DC-05901	2017	9054	0.25	98,830	182,310	281,140	364,000	Sep-17	48	77
01	00	000	101	131	33	4N1W04-DB-12200	2017	750	0.13	77,860	84,580	162,440	209,000	Jan-17	49	78
01	00	000	101	131	33	4N1W04-DB-03200	2017	1141	0.13	77,860	77,510	155,370	200,000	Feb-17	50	78
01	00	000	101	131	33	4N1W04-DD-05200	2017	1492	0.13	77,860	75,220	153,080	196,500	Feb-17	51	78
01	00	000	101	141	33	4N1W05-DC-03100	2017	3562	0.27	101,210	167,360	268,570	345,000	Apr-17	52	78
01	00	000	101	141	33	4N1W05-AC-00800	2017	5196	0.18	85,800	121,060	206,860	266,750	Jun-17	53	78
01	00	000	101	131	30	5N1W33-DD-11100	2017	8018	0.13	77,860	71,780	149,640	192,500	Aug-17	54	78
01	00	000	101	131	33	4N1W04-AD-02500	2017	8431	0.20	89,430	85,190	174,620	224,900	Sep-17	55	78
01	00	000	101	131	33	4N1W04-DC-08500	2017	8473	0.27	101,330	108,650	209,980	270,000	Sep-17	56	78
01	00	000	101	131	33	4N1W08-BA-04200	2017	2427	0.16	82,900	82,500	165,400	210,000	Mar-17	57	79
01	00	000	101	131	33	4N1W04-DB-02800	2017	5421	0.13	77,860	43,990	121,850	155,000	Jun-17	58	79
01	00	000	101	141	33	4N1W05-AA-01700	2017	5915	0.23	95,230	116,330	211,560	267,000	Jun-17	59	79
01	00	000	101	131	33	4N1W05-CD-04100	2017	7838	0.33	108,610	90,820	199,430	252,000	Aug-17	60	79
01	00	000	101	141	33	4N1W05-AC-02200	2017	7943	0.26	100,100	139,850	239,950	301,900	Aug-17	61	79
01	00	000	101	146	33	4N1W04-AA-06500	2017	8003	0.13	77,860	161,730	239,590	305,000	Aug-17	62	79
01	00	000	101	131	30	4N1W05-DB-01400	2017	5520	0.71	119,630	100,170	219,800	276,000	Jun-17	63	80
01	00	000	101	131	30	4N1W04-DD-07200	2017	7634	0.13	77,860	81,790	159,650	198,500	Aug-17	64	80
01	00	000	101	131	33	4N1W04-DD-02000	2017	8783	0.13	77,860	109,180	187,040	235,000	Sep-17	65	80

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01	00	000	101	141	33	4N1W05-AC-02100	2017	1233	0.18	86,060	76,410	162,470	199,528	Feb-17	66	81
01	00	000	101	131	33	5N1W33-DC-09801	2017	2905	0.11	74,250	81,150	155,400	191,000	Mar-17	67	81
01	00	000	101	141	33	4N1W05-DB-04100	2017	4051	0.22	92,460	141,910	234,370	290,000	Apr-17	68	81
01	00	000	101	131	33	4N1W05-AD-05500	2017	8790	0.11	74,250	84,060	158,310	195,000	Sep-17	69	81
01	00	000	101	141	33	4N1W05-DA-02300	2017	9881	0.18	106,410	107,430	213,840	262,900	Oct-17	70	81
01	00	000	101	142	33	5N1W34-CC-06200	2017	1422	0.15	80,560	144,980	225,540	276,000	Feb-17	71	82
01	00	000	101	141	33	4N1W05-AA-04100	2017	4213	0.21	92,230	109,660	201,890	246,000	Apr-17	72	82
01	00	000	101	141	33	4N1W05-CB-04600	2017	5394	0.16	100,920	153,430	254,350	310,000	Jun-17	73	82
01	00	000	101	132	33	4N1W03-BC-04500	2017	5656	0.12	75,240	76,420	151,660	185,000	Jun-17	74	82
01	00	000	101	141	33	4N1W05-CC-00900	2017	1323	0.15	81,010	97,500	178,510	216,255	Feb-17	75	83
01	00	000	101	145	33	4N1W05-CC-00700	2017	1685	0.23	95,160	136,310	231,470	279,900	Feb-17	76	83
01	00	000	101	141	33	4N1W05-AA-05800	2017	1705	0.15	80,790	119,640	200,430	242,000	Feb-17	77	83
01	00	000	101	131	30	4N1W05-DB-04901	2017	5034	0.16	82,320	81,690	164,010	198,000	May-17	78	83
01	00	000	101	131	33	4N1W04-DD-10000	2017	7167	0.13	77,860	64,000	141,860	169,900	Jul-17	79	83
01	00	000	101	141	33	4N1W05-AD-15900	2017	10868	0.21	92,210	119,520	211,730	253,900	Nov-17	80	83
01	00	000	101	143	33	4N1W05-DC-08205	2017	11387	0.32	77,840	199,170	277,010	335,000	Dec-17	81	83
01	00	000	101	131	30	4N1W04-BC-01800	2017	2137	0.11	74,250	58,900	133,150	158,000	Mar-17	82	84
01	00	000	101	141	33	4N1W06-DA-07100	2017	3633	0.24	96,320	159,490	255,810	305,000	Apr-17	83	84
01	00	000	101	141	33	4N1W05-AB-01100	2017	4284	0.17	84,780	142,380	227,160	270,000	May-17	84	84
01	00	000	101	121	33	4N1W05-DA-05500	2017	6461	0.18	85,460	41,270	126,730	150,000	Jul-17	85	84
01	00	000	101	141	33	5N1W33-DB-01000	2017	6760	0.15	80,300	117,850	198,150	235,000	Jul-17	86	84
01	00	000	101	142	33	4N1W05-AA-00812	2017	11382	0.18	85,740	178,030	263,770	315,000	Nov-17	87	84
01	00	000	101	136	33	4N1W04-AA-06900	2017	518	0.13	77,860	93,770	171,630	202,000	Jan-17	88	85
01	00	000	101	131	33	4N1W04-DD-01800	2017	2216	0.20	89,430	63,740	153,170	180,000	Mar-17	89	85
01	00	000	101	141	33	4N1W05-BA-03941	2017	6521	0.14	93,640	170,550	264,190	309,900	Jul-17	90	85
01	00	000	101	143	33	5N1W34-CB-01612	2017	6824	0.11	74,250	189,260	263,510	310,000	Jul-17	91	85
01	00	000	101	141	30	5N1W33-DA-01400	2017	7475	0.19	86,900	121,640	208,540	244,400	Aug-17	92	85
01	00	000	101	143	33	4N1W05-BC-04200	2017	8270	0.21	110,060	118,450	228,510	269,900	Sep-17	93	85
01	00	000	101	136	33	5N1W33-DC-05000	2017	10071	0.23	95,230	96,930	192,160	225,000	Oct-17	94	85
01	00	000	101	132	33	5N1W34-CB-08000	2017	11048	0.15	81,880	73,440	155,320	182,000	Nov-17	95	85
01	00	000	101	131	33	5N1W33-DC-02300	2017	759	0.11	74,250	60,840	135,090	157,500	Jan-17	96	86
01	00	000	101	132	33	4N1W03-BC-09302	2017	1613	0.13	77,860	84,700	162,560	190,000	Feb-17	97	86
01	00	000	101	135	33	4N1W05-AD-12000	2017	1759	0.24	96,740	67,040	163,780	190,000	Feb-17	98	86
01	00	000	101	141	33	4N1W05-AB-01200	2017	2833	0.17	84,780	135,810	220,590	255,300	Mar-17	99	86
01	00	000	101	141	33	4N1W05-AA-07300	2017	3663	0.17	84,250	114,080	198,330	230,000	Apr-17	100	86
01	00	000	101	143	33	4N1W06-DA-06300	2017	4259	0.20	89,620	185,300	274,920	320,000	Apr-17	101	86
01	00	000	101	131	33	4N1W04-CB-03400	2017	7591	0.27	102,630	103,040	205,670	240,000	Aug-17	102	86
01	00	000	101	141	30	5N1W33-DB-01018	2017	8447	0.14	80,140	120,590	200,730	234,000	Sep-17	103	86
01	00	000	101	131	33	4N1W05-AC-03401	2017	8940	0.75	120,410	114,340	234,750	273,000	Sep-17	104	86
01	00	000	101	143	33	4N1W04-AD-00302	2017	10944	0.13	77,410	150,800	228,210	263,900	Oct-17	105	86
01	00	000	101	131	33	4N1W05-DA-03002	2017	10499	0.16	100,260	114,170	214,430	249,900	Nov-17	106	86
01	00	000	101	141	33	4N1W05-CD-00300	2017	6923	0.53	115,760	142,960	258,720	296,300	Jul-17	107	87
01	00	000	101	141	30	5N1W33-DA-01417	2017	7919	0.10	72,070	111,330	183,400	210,000	Aug-17	108	87
01	00	000	101	141	33	4N1W05-BC-04800	2017	9002	0.13	92,210	160,460	252,670	289,500	Sep-17	109	87
01	00	000	101	142	33	4N1W05-AB-01500	2017	9739	0.22	93,440	193,750	287,190	330,000	Oct-17	110	87
01	00	000	101	141	33	4N1W05-BA-03900	2017	10186	0.13	92,330	150,200	242,530	279,900	Oct-17	111	87

COLUMBIA County 2018 Ratio Study

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01	00	000	101	142	33	4N1W05-AB-04214	2017	10276	0.18	104,260	222,070	326,330	374,900	Nov-17	112	87
01	00	000	101	143	33	4N1W04-BC-07900	2017	11609	0.16	99,890	161,390	261,280	299,900	Dec-17	113	87
01	00	000	101	141	33	4N1W05-DC-05000	2017	11929	0.21	92,310	129,420	221,730	255,000	Dec-17	114	87
01	00	000	101	141	33	4N1W05-AC-02707	2017	2012	0.19	87,700	129,350	217,050	247,400	Mar-17	115	88
01	00	000	101	153	33	4N1W05-DB-02510	2017	2651	0.34	109,450	269,870	379,320	430,000	Mar-17	116	88
01	00	000	101	131	33	4N1W04-DB-04700	2017	4056	0.12	75,240	81,430	156,670	178,500	Apr-17	117	88
01	00	000	101	136	33	4N1W05-DA-06700	2017	4723	0.14	78,760	96,610	175,370	200,000	May-17	118	88
01	00	000	101	141	33	4N1W07-AB-03139	2017	6113	0.11	88,950	162,130	251,080	285,000	Jun-17	119	88
01	00	000	101	143	33	4N1W06-DD-05900	2017	7352	0.12	89,760	152,360	242,120	275,000	Aug-17	120	88
01	00	000	101	141	30	5N1W33-DB-01015	2017	9195	0.15	80,780	122,080	202,860	230,000	Oct-17	121	88
01	00	000	101	141	30	5N1W33-DB-01024	2017	9906	0.15	80,660	123,460	204,120	231,000	Oct-17	122	88
01	00	000	101	131	33	4N1W05-DA-00802	2017	4651	0.15	81,150	83,580	164,730	185,000	May-17	123	89
01	00	000	101	141	33	4N1W07-AB-03174	2017	5876	0.12	90,460	150,210	240,670	270,000	Jun-17	124	89
01	00	000	101	141	33	4N1W05-DD-00603	2017	6086	0.16	83,010	172,160	255,170	288,000	Jun-17	125	89
01	00	000	101	143	33	4N1W05-CD-00808	2017	8115	0.13	76,740	153,920	230,660	257,900	Aug-17	126	89
01	00	000	101	144	30	4N1W03-BB-13900	2017	8291	0.14	78,310	129,960	208,270	235,000	Sep-17	127	89
01	00	000	101	141	33	5N1W32-DC-00113	2017	9613	0.16	100,890	199,960	300,850	338,900	Oct-17	128	89
01	00	000	101	121	33	4N1W04-AD-01200	2017	10474	0.13	77,410	33,460	110,870	125,000	Nov-17	129	89
01	00	000	101	132	33	5N1W34-CC-07400	2017	11403	0.16	83,260	89,630	172,890	195,000	Dec-17	130	89
01	00	000	101	131	30	4N1W05-DA-10600	2017	390	0.20	89,000	59,070	148,070	164,000	Jan-17	131	90
01	00	000	101	136	33	4N1W04-AA-06000	2017	752	0.40	106,730	94,270	201,000	223,300	Jan-17	132	90
01	00	000	101	141	33	4N1W05-CB-00143	2017	2477	0.14	94,440	164,610	259,050	287,000	Mar-17	133	90
01	00	000	101	146	33	4N1W03-BB-16000	2017	3234	0.13	77,860	160,840	238,700	265,000	Mar-17	134	90
01	00	000	101	141	33	4N1W05-BD-04900	2017	4701	0.14	94,970	155,300	250,270	274,000	Apr-17	135	91
01	00	000	101	143	33	4N1W05-DB-02704	2017	4392	0.12	89,960	174,090	264,050	291,000	May-17	136	91
01	00	000	101	141	33	4N1W05-BC-05000	2017	4513	0.13	76,790	165,440	242,230	265,000	May-17	137	91
01	00	000	101	141	33	4N1W06-DD-01800	2017	4727	0.16	100,270	146,460	246,730	272,000	May-17	138	91
01	00	000	101	143	33	4N1W05-AC-03508	2017	4860	0.12	88,990	178,140	267,130	295,000	May-17	139	91
01	00	000	101	141	33	4N1W06-DA-04400	2017	5178	0.16	100,460	160,350	260,810	287,000	Jun-17	140	91
01	00	000	101	141	33	4N1W04-DC-06700	2017	5880	0.13	77,860	159,740	237,600	260,000	Jun-17	141	91
01	00	000	101	143	33	4N1W08-BB-01102	2017	6430	0.13	92,550	181,610	274,160	299,900	Jul-17	142	91
01	00	000	101	143	33	4N1W05-AC-03504	2017	7645	0.15	97,040	176,880	273,920	299,500	Aug-17	143	91
01	00	000	101	141	33	5N1W32-DD-00210	2017	10977	0.16	100,110	183,270	283,380	311,500	Nov-17	144	91
01	00	000	101	143	33	4N1W06-DC-04500	2017	12034	0.12	91,320	198,570	289,890	317,000	Nov-17	145	91
01	00	000	101	141	33	4N1W04-DA-08500	2017	1252	0.46	105,900	131,150	237,050	257,900	Feb-17	146	92
01	00	000	101	143	33	4N1W06-DD-09100	2017	4940	0.11	87,980	150,470	238,450	260,000	May-17	147	92
01	00	000	101	143	33	4N1W08-BB-01900	2017	6316	0.09	67,440	179,390	246,830	269,000	Jul-17	148	92
01	00	000	101	143	33	4N1W05-DB-02118	2017	6438	0.12	88,560	212,070	300,630	328,000	Jul-17	149	92
01	00	000	101	142	33	4N1W05-BA-03922	2017	6511	0.14	93,730	178,700	272,430	295,000	Jul-17	150	92
01	00	000	101	141	33	5N1W32-DC-00114	2017	7165	0.17	101,150	213,860	315,010	341,346	Jul-17	151	92
01	00	000	101	143	33	4N1W05-CB-03400	2017	7326	0.15	97,300	171,070	268,370	293,000	Aug-17	152	92
01	00	000	101	143	33	4N1W05-CB-00138	2017	7765	0.13	93,740	216,780	310,520	337,000	Aug-17	153	92
01	00	000	101	141	33	4N1W06-AD-04200	2017	8478	0.16	99,770	153,940	253,710	275,000	Sep-17	154	92
01	00	000	101	143	33	4N1W06-DC-02000	2017	8562	0.14	94,830	201,200	296,030	323,000	Sep-17	155	92
01	00	000	101	143	33	4N1W05-DC-08204	2017	8719	0.35	95,530	198,790	294,320	318,900	Sep-17	156	92
01	00	000	101	143	33	4N1W05-BD-06100	2017	9212	0.14	94,420	158,910	253,330	275,000	Oct-17	157	92

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01	00	000	101	144	33	4N1W05-BA-03940	2017	10224	0.13	93,270	237,990	331,260	360,000	Oct-17	158	92
01	00	000	101	141	33	4N1W06-AD-04100	2017	2456	0.17	101,160	183,960	285,120	305,000	Mar-17	159	93
01	00	000	101	143	33	4N1W05-BC-06300	2017	3495	0.12	89,800	173,500	263,300	282,500	Apr-17	160	93
01	00	000	101	143	33	4N1W05-BD-03800	2017	4269	0.19	87,570	174,040	261,610	279,900	May-17	161	93
01	00	000	101	143	33	4N1W06-DC-07900	2017	7426	0.15	97,090	150,020	247,110	265,000	Aug-17	162	93
01	00	000	101	141	33	4N1W05-CC-01809	2017	9199	0.18	104,210	159,970	264,180	285,000	Oct-17	163	93
01	00	000	101	143	33	4N1W05-AC-06700	2017	9830	0.16	99,680	197,300	296,980	319,900	Oct-17	164	93
01	00	000	101	141	33	4N1W05-CC-01118	2017	9832	0.17	102,520	152,330	254,850	275,000	Oct-17	165	93
01	00	000	101	143	33	4N1W04-CA-07301	2017	10184	0.11	74,250	170,510	244,760	264,000	Oct-17	166	93
01	00	000	101	141	33	4N1W04-CA-13000	2017	11661	0.22	93,000	130,390	223,390	240,000	Dec-17	167	93
01	00	000	101	141	33	4N1W06-DD-08200	2017	2279	0.14	94,450	154,500	248,950	265,000	Mar-17	168	94
01	00	000	101	143	33	4N1W07-AB-03131	2017	4287	0.11	88,950	165,470	254,420	270,000	Apr-17	169	94
01	00	000	101	143	33	4N1W05-BD-01019	2017	6519	0.12	89,820	198,070	287,890	306,000	Jul-17	170	94
01	00	000	101	143	33	4N1W05-AC-07000	2017	7319	0.13	93,200	196,780	289,980	310,000	Aug-17	171	94
01	00	000	101	143	30	4N1W06-DD-06000	2017	8649	0.12	90,260	148,820	239,080	255,000	Sep-17	172	94
01	00	000	101	141	33	4N1W05-BD-01017	2017	11485	0.12	89,240	162,830	252,070	269,000	Oct-17	173	94
01	00	000	101	141	33	4N1W05-BD-04400	2017	10617	0.11	88,930	149,700	238,630	255,000	Nov-17	174	94
01	00	000	101	143	33	4N1W05-CB-10100	2017	10983	0.12	91,020	213,670	304,690	324,500	Nov-17	175	94
01	00	000	101	143	33	4N1W05-BD-03700	2017	11461	0.14	96,310	173,320	269,630	288,000	Dec-17	176	94
01	00	000	101	141	33	4N1W05-DC-08102	2017	11726	0.28	103,700	205,950	309,650	329,950	Dec-17	177	94
01	00	000	101	141	33	4N1W05-CA-01300	2017	1765	0.25	98,520	129,790	228,310	240,000	Feb-17	178	95
01	00	000	101	141	30	5N1W33-DA-01409	2017	2207	0.20	89,200	124,070	213,270	225,000	Mar-17	179	95
01	00	000	101	143	33	4N1W05-BD-01016	2017	5148	0.13	93,670	181,300	274,970	289,900	May-17	180	95
01	00	000	101	143	33	4N1W05-DC-08203	2017	5382	0.32	90,290	180,150	270,440	285,000	Jun-17	181	95
01	00	000	101	143	33	4N1W05-BD-04300	2017	5413	0.12	91,020	156,720	247,740	260,000	Jun-17	182	95
01	00	000	101	143	33	4N1W05-AB-04208	2017	5833	0.16	100,480	197,240	297,720	315,000	Jun-17	183	95
01	00	000	101	141	33	4N1W05-AB-01030	2017	5878	0.17	102,540	152,840	255,380	269,900	Jun-17	184	95
01	00	000	101	141	30	5N1W33-DA-01412	2017	6556	0.18	86,310	121,640	207,950	220,000	Jul-17	185	95
01	00	000	101	143	33	4N1W03-BC-07402	2017	6927	0.13	72,770	169,530	242,300	256,275	Jul-17	186	95
01	00	000	101	143	33	4N1W05-BA-03906	2017	7332	0.14	94,910	193,340	288,250	303,000	Aug-17	187	95
01	00	000	101	141	30	4N1W05-BD-01018	2017	10170	0.12	88,710	166,810	255,520	269,000	Oct-17	188	95
01	00	000	101	142	33	4N1W05-AB-04216	2017	10216	0.18	102,820	201,930	304,750	322,000	Oct-17	189	95
01	00	000	101	143	33	4N1W06-DD-06700	2017	10333	0.12	89,210	152,360	241,570	254,500	Nov-17	190	95
01	00	000	101	141	30	5N1W32-DC-00112	2017	5232	0.17	102,240	208,850	311,090	325,000	Jun-17	191	96
01	00	000	101	143	33	4N1W05-BC-05200	2017	5960	0.13	92,210	200,300	292,510	305,000	Jun-17	192	96
01	00	000	101	143	33	4N1W05-AB-01035	2017	6240	0.13	93,330	180,280	273,610	285,000	Jul-17	193	96
01	00	000	101	143	33	4N1W05-DA-03008	2017	9063	0.16	100,630	144,890	245,520	255,000	Sep-17	194	96
01	00	000	101	141	33	4N1W06-DA-02600	2017	9068	0.24	117,090	160,560	277,650	289,000	Sep-17	195	96
01	00	000	101	141	33	4N1W04-AA-01002	2017	10676	0.12	75,420	175,150	250,570	260,000	Nov-17	196	96
01	00	000	101	143	33	4N1W05-CA-00106	2017	11285	0.13	91,360	197,120	288,480	299,900	Dec-17	197	96
01	00	000	101	143	33	4N1W05-DB-06204	2017	5955	0.16	99,720	204,620	304,340	314,900	Jun-17	198	97
01	00	000	101	143	33	4N1W06-DC-03500	2017	8245	0.26	123,060	221,200	344,260	355,000	Sep-17	199	97
01	00	000	101	143	33	4N1W04-BC-08900	2017	11836	0.16	99,960	203,950	303,910	313,150	Dec-17	200	97
01	00	000	101	141	33	4N1W07-AB-03153	2017	382	0.16	99,100	145,990	245,090	249,000	Jan-17	201	98
01	00	000	101	143	33	4N1W06-DC-01000	2017	2903	0.13	93,400	200,380	293,780	300,000	Mar-17	202	98
01	00	000	101	141	33	4N1W05-BD-01018	2017	3606	0.12	88,710	166,810	255,520	261,000	Apr-17	203	98

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01	00	000	101	142	33	5N1W32-DC-00400	2017	3778	0.18	104,620	202,770	307,390	315,000	Apr-17	204	98
01	00	000	101	142	33	5N1W32-DC-00300	2017	3917	0.18	102,950	202,180	305,130	311,000	Apr-17	205	98
01	00	000	101	141	30	4N1W05-AD-01100	2017	4945	0.38	111,540	142,680	254,220	260,000	May-17	206	98
01	00	000	101	141	33	5N1W32-DB-02500	2017	7190	0.18	104,820	186,870	291,690	299,000	Jun-17	207	98
01	00	000	101	143	33	5N1W33-AD-03900	2017	6442	0.17	102,810	226,290	329,100	335,000	Jul-17	208	98
01	00	000	101	142	33	4N1W05-AB-00504	2017	9166	0.28	102,820	270,630	373,450	379,900	Jul-17	209	98
01	00	000	101	143	33	4N1W05-DB-02111	2017	7506	0.12	88,970	173,620	262,590	269,000	Aug-17	210	98
01	00	000	101	143	33	4N1W05-DB-02103	2017	9978	0.12	88,650	156,670	245,320	250,000	Aug-17	211	98
01	00	000	101	141	33	4N1W05-CC-01108	2017	3776	0.18	104,130	137,500	241,630	244,500	Apr-17	212	99
01	00	000	101	143	33	4N1W06-DC-05500	2017	5091	0.12	91,320	215,220	306,540	309,000	May-17	213	99
01	00	000	101	143	33	4N1W08-BC-04200	2017	5885	0.16	99,670	198,570	298,240	302,000	Jun-17	214	99
01	00	000	101	143	33	4N1W07-AB-03126	2017	6857	0.16	100,300	236,200	336,500	340,000	Jul-17	215	99
01	00	000	101	143	33	4N1W03-BC-07400	2017	7160	0.13	77,860	180,480	258,340	260,000	Aug-17	216	99
01	00	000	101	142	33	5N1W32-DC-00500	2017	7271	0.23	115,700	201,520	317,220	320,000	Aug-17	217	99
01	00	000	101	143	33	4N1W05-CA-00507	2017	9380	0.17	102,450	185,740	288,190	290,000	Oct-17	218	99
01	00	000	101	143	33	4N1W06-DD-07500	2017	10650	0.20	108,150	167,750	275,900	277,500	Nov-17	219	99
01	00	000	101	141	33	4N1W05-AB-01021	2017	10652	0.21	111,060	156,860	267,920	271,000	Nov-17	220	99
01	00	000	101	132	33	4N1W04-AC-06701	2017	12004	0.12	74,300	84,540	158,840	159,900	Dec-17	221	99
01	00	000	101	142	33	4N1W05-AC-02701	2017	2016	0.19	87,750	232,020	319,770	320,000	Feb-17	222	100
01	00	000	101	143	33	4N1W05-DB-02109	2017	2373	0.12	88,540	215,120	303,660	305,000	Mar-17	223	100
01	00	000	101	143	33	4N1W05-BC-02000	2017	6895	0.15	97,560	193,610	291,170	292,000	Jul-17	224	100
01	00	000	101	143	33	4N1W06-DC-02500	2017	9452	0.34	134,410	198,830	333,240	334,500	Oct-17	225	100
01	00	000	101	143	33	4N1W04-DA-11700	2017	9958	0.18	85,580	205,130	290,710	291,500	Oct-17	226	100
01	00	000	101	143	33	4N1W05-DB-04400	2017	9889	0.27	101,890	192,140	294,030	294,000	Oct-17	227	100
01	00	000	101	143	33	4N1W08-BB-10000	2017	11467	0.16	100,350	190,320	290,670	290,000	Dec-17	228	100
01	00	000	101	143	33	4N1W05-BA-03907	2017	811	0.15	96,800	186,290	283,090	280,000	Jan-17	229	101
01	00	000	101	143	33	4N1W06-DA-02200	2017	4694	0.21	110,560	178,230	288,790	285,000	May-17	230	101
01	00	000	101	142	33	5N1W34-CC-14300	2017	5855	0.27	101,330	261,340	362,670	359,000	Jun-17	231	101
01	00	000	101	133	33	5N1W33-DB-00807	2017	6518	0.13	77,860	110,760	188,620	186,000	Jun-17	232	101
01	00	000	101	143	33	4N1W06-AD-01900	2017	8907	0.22	114,450	320,710	435,160	432,000	Sep-17	233	101
01	00	000	101	143	33	4N1W07-AB-03108	2017	9012	0.14	96,440	194,480	290,920	289,000	Sep-17	234	101
01	00	000	101	131	33	5N1W33-DC-02701	2017	11989	0.13	78,080	83,330	161,410	160,000	Dec-17	235	101
01	00	000	101	141	30	4N1W05-AC-00300	2017	867	0.18	85,800	122,950	208,750	205,000	Jan-17	236	102
01	00	000	101	143	33	4N1W05-CB-10000	2017	2146	0.12	89,540	219,570	309,110	302,500	Mar-17	237	102
01	00	000	101	142	33	5N1W32-DC-00117	2017	3970	0.21	111,930	202,660	314,590	307,000	Apr-17	238	102
01	00	000	101	143	30	5N1W32-DB-01700	2017	8406	0.17	101,150	239,670	340,820	335,000	Aug-17	239	102
01	00	000	101	141	33	4N1W05-BD-02600	2017	7904	0.25	121,170	159,820	280,990	275,000	Aug-17	240	102
01	00	000	101	141	33	5N1W33-DA-01414	2017	7964	0.13	76,350	109,430	185,780	181,300	Aug-17	241	102
01	00	000	101	154	33	5N1W33-AD-00400	2017	10635	0.25	98,830	340,960	439,790	430,000	Nov-17	242	102
01	00	000	101	143	33	4N1W05-CC-00713	2017	11119	0.23	116,230	234,700	350,930	345,000	Nov-17	243	102
01	00	000	101	143	33	4N1W06-DC-03700	2017	10718	0.16	99,160	158,230	257,390	250,000	Nov-17	244	103
01	00	000	101	142	33	4N1W05-AB-00502	2017	4253	0.35	134,860	251,030	385,890	370,000	May-17	245	104
01	00	000	101	141	33	4N1W05-CA-00502	2017	4904	0.27	124,620	141,650	266,270	255,300	May-17	246	104
01	00	000	101	144	30	4N1W06-DA-00700	2017	8341	0.19	105,900	198,480	304,380	292,500	Sep-17	247	104
01	00	000	101	142	30	4N1W05-AB-00505	2017	10667	0.32	108,130	273,080	381,210	365,000	Nov-17	248	104
01	00	000	101	142	33	4N1W05-AB-05100	2017	1245	0.31	130,740	274,490	405,230	382,200	Feb-17	249	106

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01	00	000	101	142	33	5N1W33-DA-00700	2017	2866	0.13	77,860	149,050	226,910	214,000	Mar-17	250	106
01	00	000	101	153	33	4N1W05-CB-00133	2017	3015	0.12	91,010	224,650	315,660	295,000	Jan-17	251	107
01	00	000	101	143	33	5N1W32-DC-02800	2017	735	0.29	127,390	164,340	291,730	269,000	Jan-17	252	108
01	00	000	101	143	33	4N1W05-CC-00708	2017	1414	0.16	100,450	179,270	279,720	260,000	Jan-17	253	108
01	00	000	101	153	33	4N1W06-DA-07200	2017	2241	0.20	90,380	271,220	361,600	335,000	Mar-17	254	108
01	00	000	101	156	33	5N1W33-DD-04100	2017	8336	0.27	101,330	254,750	356,080	330,000	Sep-17	255	108
01	00	000	101	153	33	5N1W34-CB-01520	2017	815	0.22	93,370	269,870	363,240	332,000	Jan-17	256	109
01	00	000	101	153	33	4N1W06-DD-08300	2017	10440	0.14	94,290	269,550	363,840	335,000	Oct-17	257	109
01	00	000	101	143	33	4N1W05-BD-03900	2017	384	0.26	122,300	168,420	290,720	261,500	Jan-17	258	111
01	00	000	101	131	33	4N1W04-AA-02700	2017	9311	0.13	77,860	64,870	142,730	128,834	Sep-17	259	111
01	00	000	101	154	33	5N1W33-AD-01100	2017	188	0.25	120,380	273,650	394,030	345,000	Jan-17	260	114
01	00	000	101	141	30	4N1W05-DC-02900	2017	5811	0.33	108,790	175,900	284,690	250,000	Jun-17	261	114
01	00	000	101	142	33	4N1W04-DB-07900	2017	1514	0.13	77,860	189,400	267,260	232,900	Feb-17	262	115
01	00	000	101	143	33	4N1W05-CC-00706	2017	3624	0.20	107,640	197,540	305,180	262,594	Mar-17	263	116
01	00	000	101	141	33	4N1W05-DC-06400	2017	11277	0.23	94,660	136,720	231,380	195,000	Nov-17	264	119
01	00	000	101	143	33	4N1W05-AB-04900	2017	2666	0.27	124,810	145,960	270,770	223,929	Jan-17	265	121
01	00	000	101	153	33	4N1W05-BC-01100	2017	7658	0.16	100,170	382,980	483,150	394,900	Aug-17	266	122

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
102	01	00	000	2018	4	St Helens							

Adjustment Calculation Summary

Sample - Number of Sales	4	RECALCULATED		
Population - Number of Accounts	27			
Sales as a percentage of the Population	14.81 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	0	0.00 %	0	0.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	4,910,650	100.00 %	4,665,118	100.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	105			
RMV Adjustment	100			
Before Ratio	105			
Overall Adjustment Factor	95			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	95			
Farm Improvement Factor	95			
After Ratio	100			
Selected Ratio	105	2018	Adjustment	95

Explanation

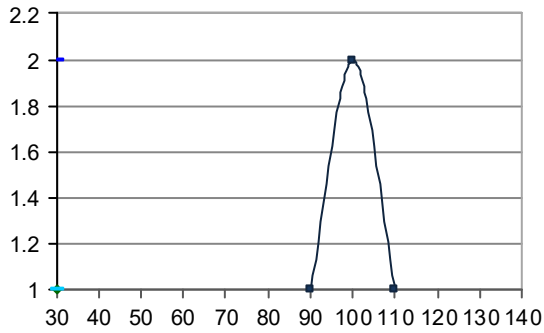
RMV 102: SA 00
 Improved property - Condominium, City of St. Helens
 Selected the Median of 102, which is supported by the Mean (102) and the GeoMean (102). The time adjustment conclusion of 103 was then applied which then resulted in a Selected Ratio of 105.

Performance History

	2018	2017	2016	2015	2014
COD	5.39	11.11	2.88	-	-
PRD	0.98	1.02	0.99	-	-

COLUMBIA County 2018 Ratio Study

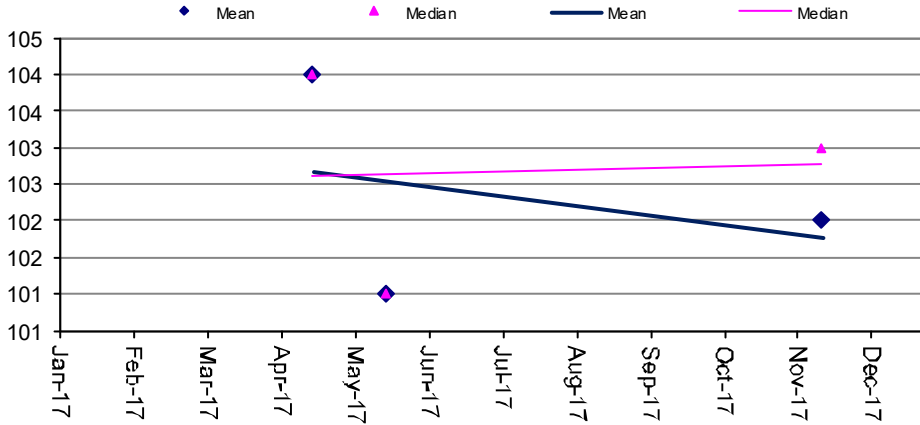
Frequency



30	0	Median	102	Wtd Mean	104
40	0	AD	5.50	GeoMean	102
50	0	COD	5.39	PRD	0.98
60	0	Mean	102	95% Confidence	7.72
70	0	SD	7.87		
80	0	COV	7.72		
90	1				
100	2				
110	1				
120	0				
130	0				
140	0				

Number Of Sales **4**

Central Tendencies



Month	Mean	Median	Sales
May-17	104	104	1
Jun-17	101	101	1
Dec-17	102	103	2

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
01	00	000	102	134	33	4N1W04-BD-91100	2017	11428	0	0	140,030	140,030	151,000	Dec-17	1	93
01	00	000	102	134	33	4N1W04-BD-91600	2017	5154	0	0	140,030	140,030	139,000	Jun-17	2	101
01	00	000	102	134	33	4N1W04-BD-91500	2017	4928	0	0	140,030	140,030	135,000	May-17	3	104
01	00	000	102	152	30	5N1W34-CD-90001	2017	11659	0	0	292,000	292,000	260,000	Dec-17	4	112

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
109	01	00	000	2018	4	St Helens							

Adjustment Calculation Summary

Sample - Number of Sales	4	RECALCULATED		
Population - Number of Accounts	90			
Sales as a percentage of the Population	4.44 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	5,465,700	36.90 %	5,684,328	34.62 %
OSD RMV	2,387,000	16.12 %	2,387,000	14.54 %
Residential Improvement RMV	6,754,680	45.61 %	8,105,616	49.36 %
Farm Improvement RMV	203,140	1.37 %	243,768	1.48 %
SelectedRatioFromSales	90			
RMV Adjustment	100			
Before Ratio	90			
Overall Adjustment Factor	111			
Land Adjustment Factor	104			
OSD Adjustment Factor	100			
Residential Adjustment Factor	120			
Farm Improvement Factor	120			
After Ratio	100			
Selected Ratio	90	2018	Adjustment	111

Explanation

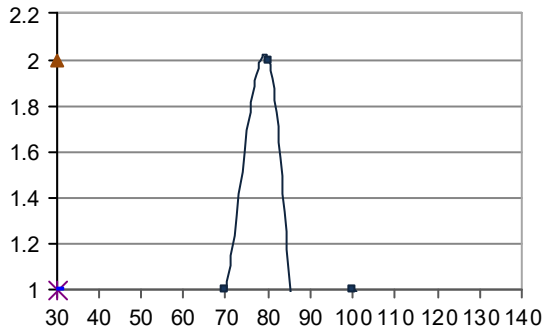
RMV 109: SA 00
 Improved property - Manufactured Structure, City of St. Helens
 The Mean of 87 was selected as the best indicator for this grouping of properties. This selected central tendency is further supported by the Weighted Mean (86) and the GeoMean (86). The time adjustment conclusion of 103 was then applied resulting in a Before Ratio of 90 and an Overall Adjustment Factor of 111.

Performance History

	2018	2017	2016	2015	2014
COD	11.59	29.17	14.29	11.33	12.31
PRD	1.01	1.06	1.01	1.00	1.00

COLUMBIA County 2018 Ratio Study

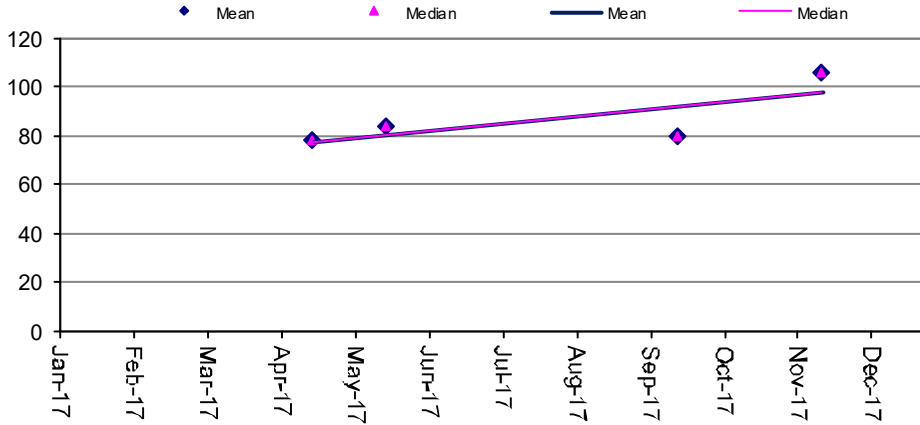
Frequency



30	0	Median	82	Wtd Mean	86
40	0	AD	9.50	GeoMean	86
50	0	COD	11.59	PRD	1.01
60	0	Mean	87	95% Confidence	12.65
70	1	SD	12.91		
80	2	COV	14.84		
90	0				
100	1				
110	0				
120	0				
130	0				
140	0				

Number Of Sales **4**

Central Tendencies



Month	Mean	Median	Sales
May-17	78	78	1
Jun-17	84	84	1
Oct-17	80	80	1
Dec-17	106	106	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
01	00	000	109	462	33	5N1W33-DC-01701	2017	5046	0.11	74,250	70,020	144,270	185,000	May-17	1	78
01	00	000	109	443	33	4N1W04-AA-03401	2017	9421	0.13	77,860	67,620	145,480	182,000	Oct-17	2	80
01	00	000	109	453	33	4N1W08-BC-01500	2017	5234	0.42	113,360	128,890	242,250	288,000	Jun-17	3	84
01	00	000	109	462	30	4N1W05-CC-02501	2017	12046	0.17	83,770	84,010	167,780	158,500	Dec-17	4	106

COLUMBIA County 2018 Ratio Study

RMV		App	# of					RMV		App	# of						
Class	MA	SA	NH	Year	Sales	Location		Class	MA	SA	NH	Year	Sales	Location			
101	01	30	000	2018	9	St Helens											

Adjustment Calculation Summary

Sample - Number of Sales	9	RECALCULATED		
Population - Number of Accounts	220			
Sales as a percentage of the Population	4.09 %	Pre-Trend	Post Trend	Post Trend
Prior Year Population Values		Brkdwn	Values	Brkdwn
Land RMV	13,269,170	28.06 %	13,799,937	26.76 %
OSD RMV	9,029,000	19.09 %	9,029,000	17.51 %
Residential Improvement RMV	24,967,790	52.79 %	28,712,959	55.67 %
Farm Improvement RMV	27,730	0.06 %	31,890	0.06 %
SelectedRatioFromSales	92			
RMV Adjustment	100			
Before Ratio	92			
Overall Adjustment Factor	109			
Land Adjustment Factor	104			
OSD Adjustment Factor	100			
Residential Adjustment Factor	115			
Farm Improvement Factor	115			
After Ratio	100			
Selected Ratio	92	2018	Adjustment	109

Explanation

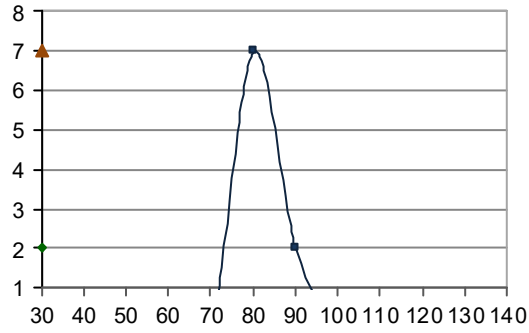
RMV 101: SA 30
Improved land - Duplex/Triplex/Fourplex, City of St. Helens
The population of this study is 220 and there are 9 sales available for analysis. The Mean of 89 was selected and is supported by the GeoMean (89), Median (88) and the Weighted Mean (89). The Mean was adjusted for time using the conclusion from the residential time study (103) thus returning a Selected Ratio of 92.

Performance History

	2018	2017	2016	2015	2014
COD	4.67	15.00	14.68	7.80	12.31
PRD	1.00	1.03	1.01	0.98	1.00

COLUMBIA County 2018 Ratio Study

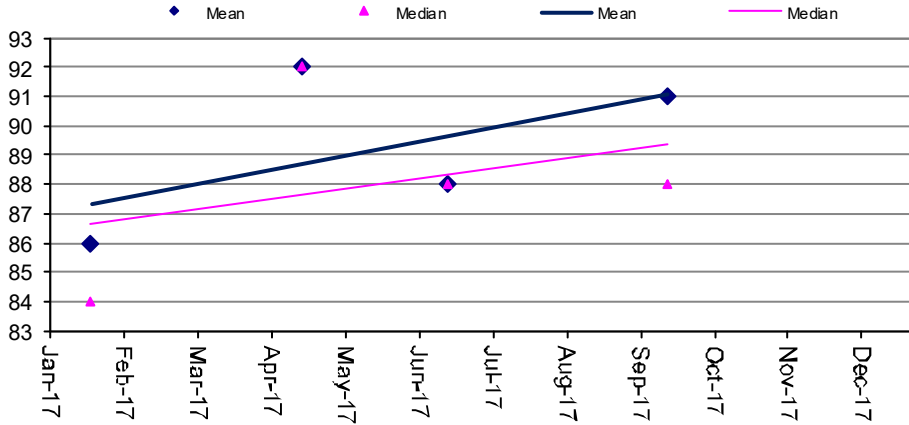
Frequency



30	0	Median	88	Wtd Mean	89
40	0	AD	4.11	GeoMean	89
50	0	COD	4.67	PRD	1.00
60	0	Mean	89	95% Confidence	3.67
70	0	SD	5.62		
80	7	COV	6.32		
90	2				
100	0				
110	0				
120	0				
130	0				
140	0				

Number Of Sales **9**

Central Tendencies



Month	Mean	Median	Sales
Feb-17	86	84	3
May-17	92	92	2
Jul-17	88	88	1
Oct-17	91	88	3

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
01	30	000	101	242	30	4N1W04-DB-14600	2017	1321	0.13	88,860	144,740	233,600	277,500	Feb-17	1	84
01	30	000	101	242	33	4N1W05-BD-01101	2017	1306	0.18	96,840	140,780	237,620	281,500	Feb-17	2	84
01	30	000	101	232	33	4N1W04-DD-04304	2017	4398	0.13	88,860	88,980	177,840	210,000	May-17	3	85
01	30	000	101	242	33	4N1W04-AD-00500	2017	9840	0.14	91,100	100,370	191,470	220,000	Oct-17	4	87
01	30	000	101	242	30	4N1W04-DB-10100	2017	6420	0.13	88,860	114,170	203,030	230,000	Jul-17	5	88
01	30	000	101	242	33	4N1W04-AD-00600	2017	9836	0.16	94,280	100,370	194,650	220,000	Oct-17	6	88
01	30	000	101	242	30	4N1W04-DB-14601	2017	1319	0.13	88,860	158,500	247,360	277,500	Feb-17	7	89
01	30	000	101	242	33	4N1W05-AC-03507	2017	10166	0.17	113,410	191,960	305,370	312,000	Oct-17	8	98
01	30	000	101	133	33	4N1W05-DA-09100	2017	4200	0.13	88,270	140,520	228,790	230,000	May-17	9	99

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
101	01	43	000	2018	10	St Helens							

Adjustment Calculation Summary

Sample - Number of Sales	10	RECALCULATED		
Population - Number of Accounts	106			
Sales as a percentage of the Population	9.43 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	3,787,200	17.88 %	3,938,688	19.81 %
OSD RMV	2,862,000	13.51 %	2,862,000	14.40 %
Residential Improvement RMV	14,532,740	68.61 %	13,079,466	65.79 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	106			
RMV Adjustment	100			
Before Ratio	106			
Overall Adjustment Factor	94			
Land Adjustment Factor	104			
OSD Adjustment Factor	100			
Residential Adjustment Factor	90			
Farm Improvement Factor	90			
After Ratio	100			
Selected Ratio	106	2018	Adjustment	94

Explanation

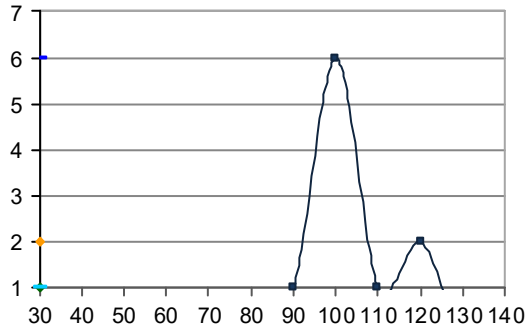
RMV 101: SA 43
Improved land - Town house/Row house, City of St. Helens
Selected the Median of 103 applying the time adjustment of 103 resulting in a Selected Ratio adjustment of 106. The Overall Adjustment Factor is 94 for this study area.

Performance History

	2018	2017	2016	2015	2014
COD	8.45	13.47	14.68	7.80	9.00
PRD	1.01	1.03	1.01	0.98	1.00

COLUMBIA County 2018 Ratio Study

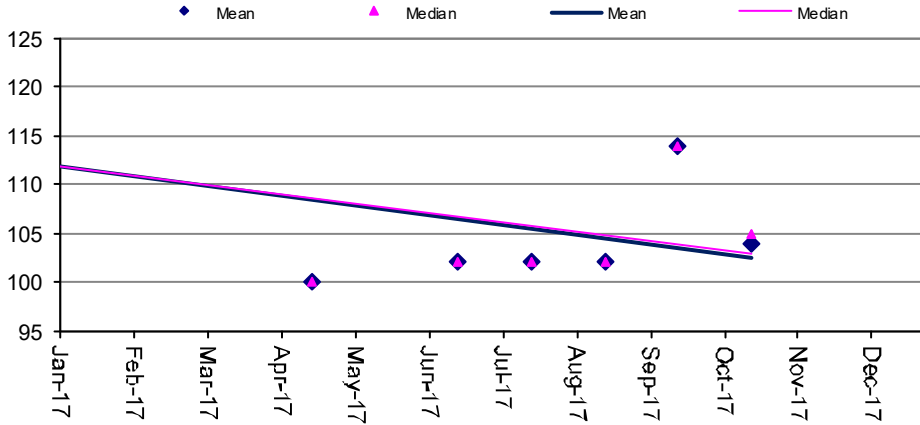
Frequency



30	0	Median	103	Wtd Mean	107
40	0	AD	8.70	GeoMean	108
50	0	COD	8.45	PRD	1.01
60	0	Mean	108	95% Confidence	6.62
70	0	SD	10.68		
80	0	COV	9.89		
90	1				
100	6				
110	1				
120	2				
130	0				
140	0				

Number Of Sales **10**

Central Tendencies



Month	Mean	Median	Sales
Jan-17	120	120	2
May-17	100	100	1
Jul-17	102	102	1
Aug-17	102	102	1
Sep-17	102	102	1
Oct-17	114	114	2
Nov-17	104	105	2

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
01	43	000	101	143	33	4N1W05-CB-06500	2017	9202	0.06	63,670	132,620	196,290	200,000	Oct-17	1	98
01	43	000	101	143	33	4N1W08-BA-01620	2017	4692	0.04	46,830	166,800	213,630	214,000	May-17	2	100
01	43	000	101	143	33	4N1W04-DA-02301	2017	7229	0.07	56,180	171,300	227,480	224,000	Jul-17	3	102
01	43	000	101	143	33	4N1W04-DA-02300	2017	7178	0.07	56,180	171,300	227,480	224,000	Aug-17	4	102
01	43	000	101	143	33	4N1W05-BD-01112	2017	8675	0.08	75,090	139,190	214,280	211,000	Sep-17	5	102
01	43	000	101	143	33	4N1W05-CB-06700	2017	10919	0.08	72,890	132,620	205,510	197,500	Nov-17	6	104
01	43	000	101	143	33	4N1W05-CB-06301	2017	11126	0.10	84,060	132,170	216,230	206,099	Nov-17	7	105
01	43	000	101	143	33	4N1W05-CB-09501	2017	265	0.07	68,700	137,940	206,640	177,500	Jan-17	8	116
01	43	000	101	143	33	4N1W05-CB-09601	2017	943	0.09	75,790	137,940	213,730	174,000	Jan-17	9	123
01	43	000	101	143	33	4N1W05-CB-08901	2017	10075	0.07	68,180	137,940	206,120	160,000	Oct-17	10	129

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
101	01	80	000	2018	0	St Helens							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	14			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	1,307,350	26.51 %	1,359,644	25.46 %
OSD RMV	378,000	7.66 %	378,000	7.08 %
Residential Improvement RMV	3,246,250	65.83 %	3,603,338	67.47 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	93			
RMV Adjustment	100			
Before Ratio	93			
Overall Adjustment Factor	108			
Land Adjustment Factor	104			
OSD Adjustment Factor	100			
Residential Adjustment Factor	111			
Farm Improvement Factor	111			
After Ratio	100			
Selected Ratio	93	2018	Adjustment	108

Explanation

RMV 101: SA 80

Improved land - Yachts Landing-PUD, City of St. Helens

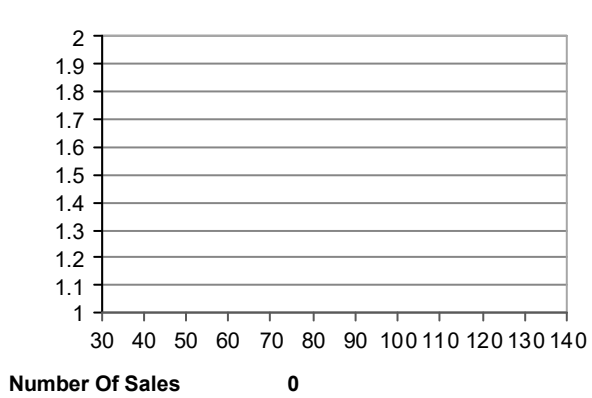
The Yachts Landing study area is a planned unit development consisting of a hybrid of condominiums and attached housing with shared common areas. This area is located along the Columbia River, next to the County Courthouse. Due to having no sales data available for this analysis, the Selected Ratio of 93 from the MA 1, SA 00, RMV Class 101 study was applied here.

Performance History

	2018	2017	2016	2015	2014
COD		0.00	-	-	-
PRD		1.00	-	-	-

COLUMBIA County 2018 Ratio Study

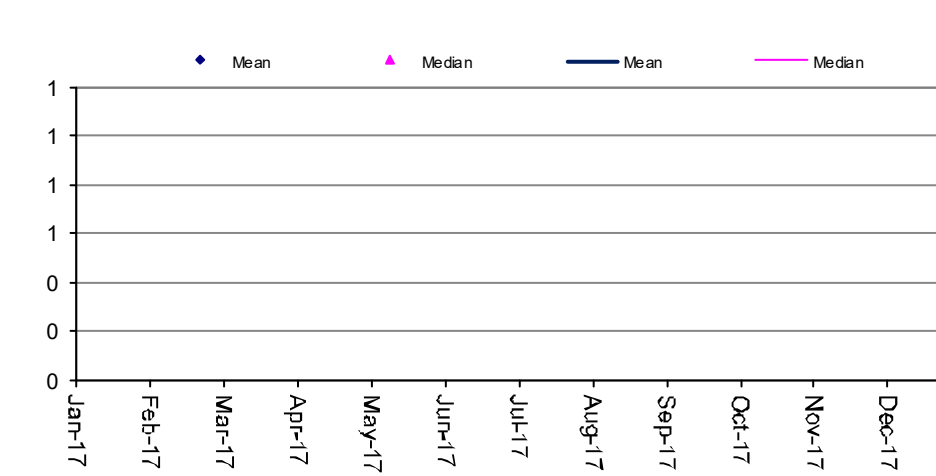
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

MAINTENANCE AREA 2

SCAPPOOSE

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
100	02	00	000	2018	2	Scappoose							

Adjustment Calculation Summary

Sample - Number of Sales	2	RECALCULATED		
Population - Number of Accounts	93			
Sales as a percentage of the Population	2.15 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	18,386,750	100.00 %	18,019,015	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

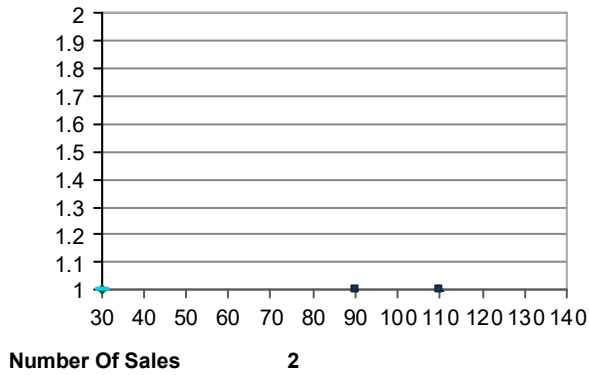
RMV 100: SA 00
 Undeveloped land, City of Scappoose.
 There were only two "good" sales within the study period and these sales did not provide an adequate sampling with which an accurate conclusion could be made. Because of this, it was decided to apply the Selected Ratio from the Improved RMV Class 101 study (MA 2, SA 00).

Performance History

	2018	2017	2016	2015	2014
COD	8.41	-	-	5.56	20.28
PRD	1.01	-	-	1.01	1.03

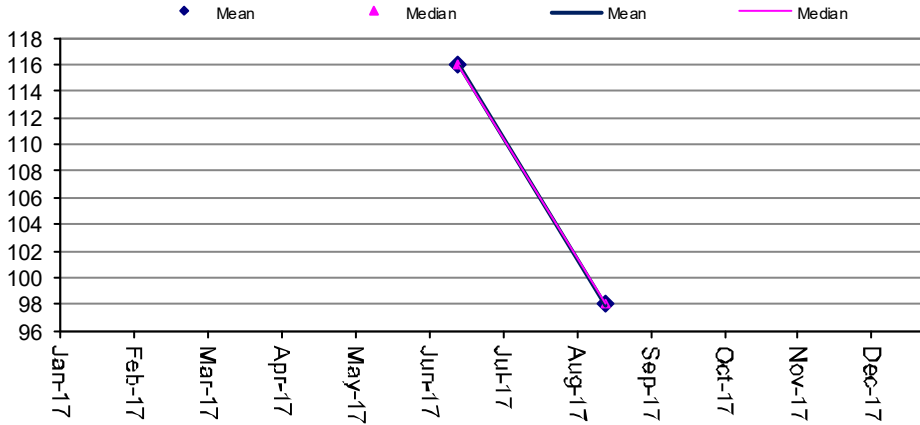
COLUMBIA County 2018 Ratio Study

Frequency



30	0	Median	107	Wtd Mean	106
40	0	AD	9.00	GeoMean	106
50	0	COD	8.41	PRD	1.01
60	0	Mean	107	95% Confidence	17.64
70	0	SD	12.73		
80	0	COV	11.90		
90	1				
100	0				
110	1				
120	0				
130	0				
140	0				

Central Tendencies



Month	Mean	Median	Sales
Jul-17	116	116	1
Sep-17	98	98	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	00	000	100		33	3N2W11-AA-01000	2017	8556	1.68	120,510	0	120,510	123,500	Sep-17	1	98
02	00	000	100		33	3N2W11-DB-00700	2017	6254	0.23	121,620	0	121,620	105,000	Jul-17	2	116

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
101	02	00	000	2018	227	Scappoose							

Adjustment Calculation Summary

Sample - Number of Sales	227	RECALCULATED		
Population - Number of Accounts	2,162			
Sales as a percentage of the Population	10.50 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	258,757,334	39.09 %	253,582,187	39.02 %
OSD RMV	59,123,000	8.93 %	59,123,000	9.10 %
Residential Improvement RMV	341,714,507	51.62 %	334,880,217	51.53 %
Farm Improvement RMV	2,330,580	0.35 %	2,283,968	0.35 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	98			
Farm Improvement Factor	98			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

RMV 101: SA 00

Improved property of Single Family dwellings, City of Scappoose.

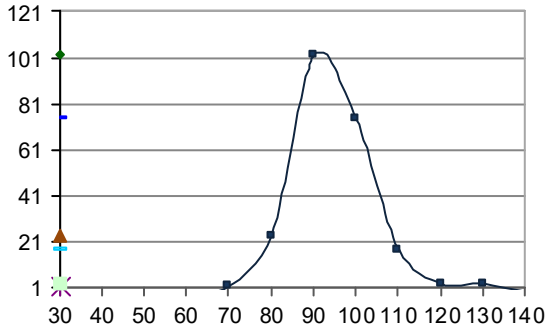
For this analysis, the Median, Mean and Weighted Mean returned a ratio indicator of 99. The central tendency of 99 was then adjusted by 103 from the time study conclusion. The Selected Ratio for this study is 102 and the Overall Adjustment is 98.

Performance History

	2018	2017	2016	2015	2014
COD	6.67	7.69	7.90	8.66	10.06
PRD	1.00	1.00	1.01	1.01	1.00

COLUMBIA County 2018 Ratio Study

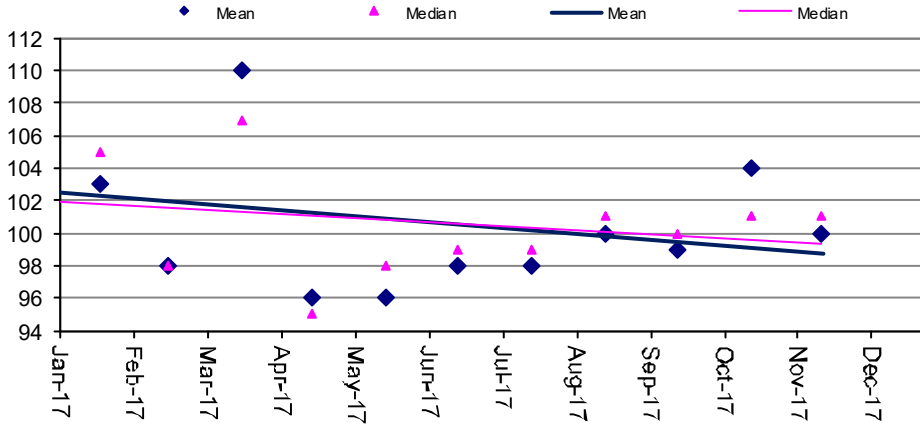
Frequency



30	0	Median	99	Wtd Mean	99
40	0	AD	6.60	GeoMean	99
50	0	COD	6.67	PRD	1.00
60	0	Mean	99	95% Confidence	1.15
70	2	SD	8.82		
80	24	COV	8.91		
90	102				
100	75				
110	18				
120	3				
130	3				
140	0				

Number Of Sales 227

Central Tendencies



Month	Mean	Median	Sales
Jan-17	107	104	8
Feb-17	103	105	5
Mar-17	98	98	12
Apr-17	110	107	6
May-17	96	95	48
Jun-17	96	98	19
Jul-17	98	99	23
Aug-17	98	99	15
Sep-17	100	101	22
Oct-17	99	100	17
Nov-17	104	101	19
Dec-17	100	101	33

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	00	000	101	131	33	3N2W11-DA-01700	2017	5652	0.20	144,670	71,440	216,110	275,661	Jun-17	1	78
02	00	000	101	141	33	3N1W18-BB-00200	2017	7593	0.14	127,770	137,860	265,630	337,800	Aug-17	2	79
02	00	000	101	133	33	3N2W12-AC-01400	2017	4896	0.20	145,050	121,230	266,280	325,000	May-17	3	82
02	00	000	101	136	33	3N2W13-BD-03601	2017	8823	0.21	146,290	119,040	265,330	325,500	Sep-17	4	82
02	00	000	101	131	33	3N2W12-AB-00206	2017	11510	0.14	127,770	108,790	236,560	290,000	Dec-17	5	82
02	00	000	101	132	33	3N2W11-DA-02602	2017	6720	0.23	149,150	161,860	311,010	371,000	Jul-17	6	84
02	00	000	101	131	33	3N2W12-DB-08500	2017	10188	0.14	129,720	63,980	193,700	229,900	Oct-17	7	84
02	00	000	101	131	33	3N2W12-AC-00126	2017	11985	0.22	147,950	74,840	222,790	265,150	Dec-17	8	84
02	00	000	101	131	33	3N2W12-DB-04000	2017	5113	0.15	131,220	85,530	216,750	255,000	May-17	9	85
02	00	000	101	131	33	3N2W11-AA-00206	2017	10898	0.35	167,430	45,020	212,450	249,500	Nov-17	10	85
02	00	000	101	141	33	3N1W07-CC-02800	2017	8872	0.17	137,530	136,720	274,250	320,000	Sep-17	11	86
02	00	000	101	143	33	3N2W13-AD-07200	2017	8573	0.17	135,830	166,600	302,430	349,000	Sep-17	12	87
02	00	000	101	141	33	3N2W11-AA-00110	2017	5222	0.19	141,400	136,120	277,520	317,000	Jun-17	13	88
02	00	000	101	141	33	3N2W12-DD-02900	2017	6594	0.17	137,530	132,270	269,800	305,000	Jul-17	14	88
02	00	000	101	135	30	3N2W12-BD-00200	2017	9438	0.11	119,440	78,370	197,810	225,000	Oct-17	15	88
02	00	000	101	141	33	3N2W13-AC-01700	2017	9765	0.14	129,220	156,260	285,480	326,200	Oct-17	16	88
02	00	000	101	143	33	3N2W13-AD-07300	2017	10121	0.14	128,040	174,010	302,050	342,500	Oct-17	17	88
02	00	000	101	132	33	3N2W11-DD-01902	2017	2675	0.36	170,360	138,540	308,900	349,000	Mar-17	18	89
02	00	000	101	143	33	3N1W18-BC-00800	2017	2915	0.15	131,030	180,980	312,010	349,000	Mar-17	19	89

COLUMBIA County 2018 Ratio Study

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	00	000	101	135	33	3N2W12-CD-02200	2017	5040	0.48	182,890	141,260	324,150	365,000	May-17	20	89
02	00	000	101	143	33	3N2W13-BD-08600	2017	5609	0.16	134,280	145,300	279,580	315,900	Jun-17	21	89
02	00	000	101	141	33	3N2W13-CB-00119	2017	11027	0.12	122,090	182,320	304,410	341,150	Nov-17	22	89
02	00	000	101	131	33	3N2W13-BA-00612	2017	11111	0.18	138,450	88,620	227,070	255,000	Nov-17	23	89
02	00	000	101	141	33	3N2W13-CB-00132	2017	11922	0.12	122,450	182,320	304,770	340,900	Dec-17	24	89
02	00	000	101	143	33	3N2W13-CB-00120	2018	416	0.10	117,300	230,800	348,100	389,400	Dec-17	25	89
02	00	000	101	143	33	3N2W13-CB-00134	2018	490	0.10	117,410	230,800	348,210	392,650	Dec-17	26	89
02	00	000	101	131	33	3N2W12-CB-02900	2017	4533	0.12	123,860	81,480	205,340	229,000	May-17	27	90
02	00	000	101	143	30	3N2W13-AD-06400	2017	5749	0.14	128,050	188,070	316,120	349,900	Jun-17	28	90
02	00	000	101	143	33	3N2W13-AD-08400	2017	8796	0.14	128,130	194,410	322,540	358,000	Sep-17	29	90
02	00	000	101	141	33	3N2W13-BD-02300	2017	2175	0.14	129,360	162,490	291,850	320,000	Mar-17	30	91
02	00	000	101	143	33	3N2W13-BD-03300	2017	2425	0.15	129,980	185,080	315,060	347,300	Mar-17	31	91
02	00	000	101	141	33	3N1W18-BB-01133	2017	7035	0.17	138,490	207,840	346,330	380,000	May-17	32	91
02	00	000	101	141	33	3N1W18-BB-01120	2017	8762	0.17	138,180	207,840	346,020	379,600	May-17	33	91
02	00	000	101	142	30	3N2W11-DD-01200	2017	5814	0.23	149,210	152,680	301,890	330,000	Jun-17	34	91
02	00	000	101	142	30	3N2W12-CD-00402	2017	6088	0.19	142,570	179,400	321,970	355,000	Jun-17	35	91
02	00	000	101	141	33	3N2W13-CB-00118	2017	11639	0.14	128,290	182,320	310,610	341,100	Dec-17	36	91
02	00	000	101	143	33	3N2W12-AD-06507	2017	11759	0.15	131,200	235,940	367,140	403,000	Dec-17	37	91
02	00	000	101	143	30	3N1W18-BB-01138	2017	10960	0.17	138,030	253,600	391,630	424,100	May-17	38	92
02	00	000	101	141	33	3N1W18-BB-01132	2017	6908	0.17	138,210	214,460	352,670	382,000	May-17	39	92
02	00	000	101	143	33	3N1W18-BB-01116	2017	8416	0.17	138,530	242,500	381,030	415,181	May-17	40	92
02	00	000	101	141	33	3N1W18-BB-01129	2017	10232	0.17	138,030	233,380	371,410	405,200	Jul-17	41	92
02	00	000	101	141	33	3N2W12-DD-00714	2017	7408	0.20	144,750	131,290	276,040	300,000	Aug-17	42	92
02	00	000	101	143	33	3N2W13-BA-00704	2017	8001	0.14	127,770	184,370	312,140	340,000	Aug-17	43	92
02	00	000	101	141	33	3N1W07-CB-01909	2017	9282	0.18	140,240	168,900	309,140	335,000	Oct-17	44	92
02	00	000	101	143	33	3N2W12-AD-06541	2017	10190	0.14	127,770	211,370	339,140	369,900	Oct-17	45	92
02	00	000	101	143	33	3N2W13-CD-06500	2017	3546	0.14	128,510	216,240	344,750	370,000	Apr-17	46	93
02	00	000	101	141	30	3N1W18-BB-01118	2017	6891	0.17	138,560	236,180	374,740	404,931	May-17	47	93
02	00	000	101	143	33	3N1W18-BB-01105	2017	9216	0.17	138,420	242,500	380,920	410,000	May-17	48	93
02	00	000	101	141	33	3N1W18-BB-01135	2017	9557	0.17	138,030	228,460	366,490	393,332	May-17	49	93
02	00	000	101	143	33	3N1W18-BB-01117	2017	10053	0.17	138,380	253,600	391,980	421,400	May-17	50	93
02	00	000	101	141	33	3N1W18-BB-01139	2017	10641	0.17	138,400	236,180	374,580	403,500	May-17	51	93
02	00	000	101	141	33	3N1W18-BB-01103	2017	11132	0.17	138,070	236,180	374,250	400,718	May-17	52	93
02	00	000	101	131	33	3N2W12-CB-03400	2017	8078	0.13	126,790	64,230	191,020	204,900	Aug-17	53	93
02	00	000	101	143	33	3N2W13-CB-00122	2017	11703	0.12	123,360	230,800	354,160	379,900	Dec-17	54	93
02	00	000	101	131	33	3N2W12-DA-04106	2017	001675	0.17	137,530	99,020	236,550	252,000	Jan-17	55	94
02	00	000	101	141	33	3N2W13-AD-06100	2017	1516	0.16	132,760	166,970	299,730	319,900	Feb-17	56	94
02	00	000	101	143	30	3N1W18-BB-01128	2017	8571	0.17	138,030	253,600	391,630	417,500	May-17	57	94
02	00	000	101	143	33	3N2W13-AD-07600	2017	4811	0.14	128,040	191,340	319,380	339,000	May-17	58	94
02	00	000	101	143	33	3N2W01-CC-00108	2017	5078	0.18	140,730	221,630	362,360	386,500	May-17	59	94
02	00	000	101	141	33	3N1W18-BB-01104	2017	7643	0.17	138,340	226,120	364,460	386,000	May-17	60	94
02	00	000	101	141	33	3N1W18-BB-01136	2017	8233	0.17	138,030	236,180	374,210	396,000	May-17	61	94
02	00	000	101	141	33	3N1W18-BB-01137	2017	11195	0.17	138,030	228,460	366,490	389,900	May-17	62	94
02	00	000	101	141	33	3N1W18-BB-01131	2017	11516	0.17	138,030	236,180	374,210	398,500	May-17	63	94
02	00	000	101	143	33	3N1W18-BB-01109	2017	11637	0.18	138,920	232,320	371,240	395,000	May-17	64	94
02	00	000	101	143	33	3N2W13-CD-02000	2017	6906	0.14	127,900	181,220	309,120	330,000	Jul-17	65	94

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02	00	000	101	141	33	3N2W13-AD-04507	2017	7038	0.17	136,700	170,210	306,910	324,900	Jul-17	66	94
02	00	000	101	143	33	3N2W13-CD-00800	2017	8544	0.14	127,770	171,160	298,930	318,500	Sep-17	67	94
02	00	000	101	143	33	3N2W13-CB-00121	2017	10971	0.10	117,300	221,610	338,910	359,900	Nov-17	68	94
02	00	000	101	143	33	3N2W13-CB-00133	2017	12014	0.10	117,390	221,610	339,000	360,472	Dec-17	69	94
02	00	000	101	145	33	3N2W13-BB-00800	2017	2655	0.39	173,960	166,530	340,490	357,500	Mar-17	70	95
02	00	000	101	143	33	3N2W13-BC-00100	2017	4900	0.15	130,640	184,640	315,280	332,000	May-17	71	95
02	00	000	101	141	33	3N1W18-BB-01121	2017	7954	0.17	138,270	214,460	352,730	369,900	May-17	72	95
02	00	000	101	143	33	3N1W18-BB-01125	2017	9901	0.17	138,400	273,260	411,660	434,000	May-17	73	95
02	00	000	101	141	33	3N1W18-BB-01127	2017	10719	0.17	138,400	228,460	366,860	385,000	May-17	74	95
02	00	000	101	143	33	3N1W18-BB-01100	2017	11524	0.20	144,930	217,740	362,670	383,000	May-17	75	95
02	00	000	101	143	33	3N2W13-CC-00122	2017	8499	0.14	128,270	242,470	370,740	391,765	Jul-17	76	95
02	00	000	101	141	33	3N2W13-BD-00100	2017	10437	0.14	129,610	131,750	261,360	276,000	Nov-17	77	95
02	00	000	101	143	33	3N1W07-CC-01008	2017	11464	0.14	129,320	195,120	324,440	341,200	Dec-17	78	95
02	00	000	101	143	33	3N1W07-CC-01007	2017	11844	0.14	129,260	193,310	322,570	338,250	Dec-17	79	95
02	00	000	101	141	33	3N2W12-DA-04114	2018	93	0.18	139,740	135,320	275,060	290,000	Dec-17	80	95
02	00	000	101	141	33	3N2W13-CD-03200	2017	2878	0.16	134,830	168,230	303,060	315,000	Mar-17	81	96
02	00	000	101	143	30	3N1W18-BB-01110	2017	10711	0.19	142,650	220,570	363,220	379,000	May-17	82	96
02	00	000	101	141	33	3N1W18-BB-01119	2017	8345	0.17	138,490	228,460	366,950	382,000	May-17	83	96
02	00	000	101	141	33	3N1W18-BB-01130	2017	9016	0.17	138,030	228,460	366,490	380,000	May-17	84	96
02	00	000	101	141	33	3N2W13-AA-03501	2017	5416	0.27	156,280	160,540	316,820	330,000	Jun-17	85	96
02	00	000	101	143	30	3N1W18-BB-01122	2017	10303	0.17	138,490	220,570	359,060	375,000	Jul-17	86	96
02	00	000	101	141	33	3N2W11-AA-00108	2017	6744	0.19	141,690	123,560	265,250	277,088	Jul-17	87	96
02	00	000	101	143	33	3N2W13-BA-00705	2017	7883	0.14	127,800	196,110	323,910	338,000	Aug-17	88	96
02	00	000	101	143	33	3N2W13-CC-00114	2017	9066	0.16	134,920	239,670	374,590	391,550	Sep-17	89	96
02	00	000	101	141	33	3N2W13-AD-00300	2017	10458	0.15	130,790	148,330	279,120	290,000	Nov-17	90	96
02	00	000	101	143	33	3N2W12-DD-04500	2017	11341	0.18	140,580	166,840	307,420	320,000	Dec-17	91	96
02	00	000	101	143	33	3N2W12-AD-06008	2017	4618	0.14	129,410	218,500	347,910	359,900	May-17	92	97
02	00	000	101	141	33	3N1W18-BB-01134	2017	6549	0.21	146,690	236,180	382,870	396,000	May-17	93	97
02	00	000	101	143	33	3N1W18-BB-01101	2017	9023	0.30	161,750	232,320	394,070	407,300	May-17	94	97
02	00	000	101	143	33	3N1W18-BB-01123	2017	9501	0.24	150,730	232,320	383,050	395,000	May-17	95	97
02	00	000	101	143	33	3N1W18-BB-01102	2017	11683	0.17	138,380	273,260	411,640	424,500	May-17	96	97
02	00	000	101	143	30	3N2W12-AD-06002	2017	5618	0.14	129,920	219,190	349,110	360,000	Jun-17	97	97
02	00	000	101	143	33	3N2W12-AD-06009	2017	5548	0.14	129,490	223,690	353,180	365,000	Jun-17	98	97
02	00	000	101	143	33	3N1W07-CC-01411	2017	8966	0.14	127,890	244,680	372,570	385,000	Sep-17	99	97
02	00	000	101	141	33	3N2W12-DC-00134	2017	10193	0.14	127,770	162,060	289,830	300,000	Oct-17	100	97
02	00	000	101	143	33	3N1W07-CC-01404	2017	10453	0.14	127,770	247,540	375,310	387,000	Nov-17	101	97
02	00	000	101	141	33	3N2W12-AD-06503	2017	2019	0.24	150,000	216,890	366,890	375,000	Mar-17	102	98
02	00	000	101	141	33	3N2W12-DD-03100	2017	4626	0.17	137,530	132,000	269,530	275,000	May-17	103	98
02	00	000	101	143	33	3N2W13-BA-04706	2017	4535	0.14	127,910	179,940	307,850	315,000	May-17	104	98
02	00	000	101	143	33	3N2W13-CA-03500	2017	4958	0.20	144,400	221,130	365,530	373,900	May-17	105	98
02	00	000	101	143	30	3N2W12-AD-06001	2017	5543	0.14	128,280	218,500	346,780	355,000	Jun-17	106	98
02	00	000	101	143	33	3N1W18-BB-02100	2017	5591	0.14	127,770	231,950	359,720	366,000	Jun-17	107	98
02	00	000	101	143	33	3N2W13-AC-03315	2017	6305	0.15	129,880	158,380	288,260	295,000	Jul-17	108	98
02	00	000	101	143	30	3N2W12-AD-06003	2017	7595	0.17	138,170	223,690	361,860	370,000	Aug-17	109	98
02	00	000	101	136	33	3N2W11-DA-02700	2017	7372	0.17	137,530	122,080	259,610	265,000	Aug-17	110	98
02	00	000	101	152	33	3N2W12-BB-00701	2017	11128	0.22	207,570	309,270	516,840	529,000	Nov-17	111	98

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02	00	000	101	141	33	3N2W12-DD-08700	2017	11389	0.21	146,240	122,680	268,920	275,000	Dec-17	112	98
02	00	000	101	143	33	3N2W13-CD-05700	2017	2009	0.19	143,600	220,570	364,170	367,500	Mar-17	113	99
02	00	000	101	141	33	3N2W13-AA-01400	2017	4665	0.25	153,110	120,440	273,550	275,000	May-17	114	99
02	00	000	101	143	33	3N1W18-BB-01107	2017	8574	0.17	138,670	231,190	369,860	375,000	May-17	115	99
02	00	000	101	143	30	3N2W12-AD-06006	2017	5997	0.17	138,710	216,100	354,810	360,000	Jun-17	116	99
02	00	000	101	143	33	3N2W13-CA-00100	2017	5575	0.21	146,590	211,240	357,830	360,000	Jun-17	117	99
02	00	000	101	143	33	3N2W12-AD-06007	2017	5428	0.17	138,710	225,360	364,070	367,900	Jun-17	118	99
02	00	000	101	143	30	3N2W13-CC-00107	2017	8076	0.14	129,230	230,470	359,700	362,980	Jul-17	119	99
02	00	000	101	141	33	3N2W13-BD-02500	2017	7389	0.15	130,060	151,410	281,470	285,000	Jul-17	120	99
02	00	000	101	143	33	3N2W13-CC-00109	2017	8055	0.14	129,230	241,080	370,310	375,730	Jul-17	121	99
02	00	000	101	143	33	3N2W13-CC-00121	2017	8506	0.14	128,320	246,830	375,150	379,995	Aug-17	122	99
02	00	000	101	143	33	3N2W13-CA-03922	2017	8833	0.12	122,800	226,680	349,480	354,675	Aug-17	123	99
02	00	000	101	143	33	3N2W12-DC-00105	2017	8455	0.14	128,310	186,830	315,140	318,000	Sep-17	124	99
02	00	000	101	141	33	3N2W13-CC-00123	2017	8986	0.14	129,930	222,370	352,300	355,995	Sep-17	125	99
02	00	000	101	143	33	3N2W13-CC-00111	2017	9081	0.14	128,360	233,550	361,910	367,150	Sep-17	126	99
02	00	000	101	143	33	3N2W13-CD-04900	2017	10747	0.15	130,340	236,240	366,580	370,000	Nov-17	127	99
02	00	000	101	143	33	3N1W07-CC-01406	2017	11470	0.15	130,000	240,250	370,250	375,000	Dec-17	128	99
02	00	000	101	134	33	3N2W13-BD-09501	2017	2429	0.23	149,150	96,330	245,480	246,000	Mar-17	129	100
02	00	000	101	143	33	3N2W12-AD-06005	2017	9498	0.17	138,710	220,870	359,580	360,000	May-17	130	100
02	00	000	101	143	33	3N2W12-DC-00162	2017	5430	0.06	97,510	138,300	235,810	234,900	Jun-17	131	100
02	00	000	101	143	33	3N2W12-AD-06525	2017	5751	0.15	131,840	238,180	370,020	370,000	Jun-17	132	100
02	00	000	101	143	30	3N2W13-CA-03909	2017	7265	0.07	101,180	200,950	302,130	300,750	Jul-17	133	100
02	00	000	101	143	33	3N2W13-CC-00106	2017	8074	0.14	129,230	232,350	361,580	360,995	Jul-17	134	100
02	00	000	101	143	30	3N2W13-CC-00113	2017	8560	0.16	134,490	221,130	355,620	355,995	Aug-17	135	100
02	00	000	101	143	33	3N2W13-CA-03917	2017	9076	0.08	107,970	199,930	307,900	306,675	Aug-17	136	100
02	00	000	101	143	30	3N2W12-DC-00160	2017	8863	0.05	93,710	168,190	261,900	261,000	Sep-17	137	100
02	00	000	101	143	33	3N2W12-DD-00726	2017	9877	0.18	140,680	152,960	293,640	293,500	Oct-17	138	100
02	00	000	101	143	33	3N2W13-CC-00125	2017	10698	0.14	129,790	251,310	381,100	382,995	Oct-17	139	100
02	00	000	101	143	33	3N2W13-AD-08600	2017	3086	0.15	131,770	188,300	320,070	318,000	Feb-17	140	101
02	00	000	101	143	30	3N2W12-AD-06500	2017	5160	0.24	150,660	279,060	429,720	425,000	May-17	141	101
02	00	000	101	143	33	3N2W12-CC-01212	2017	6034	0.14	128,000	149,930	277,930	275,000	Jun-17	142	101
02	00	000	101	143	33	3N2W13-CC-00105	2017	8080	0.14	129,230	216,960	346,190	341,255	Jul-17	143	101
02	00	000	101	143	33	3N2W13-CD-02200	2017	8458	0.17	136,620	171,130	307,750	305,000	Sep-17	144	101
02	00	000	101	143	30	3N2W13-CC-00112	2017	9610	0.17	138,490	237,040	375,530	372,995	Oct-17	145	101
02	00	000	101	141	33	3N2W12-BB-02000	2017	9346	0.21	145,740	126,300	272,040	270,160	Oct-17	146	101
02	00	000	101	143	30	3N2W13-CC-00126	2017	12006	0.14	128,280	237,040	365,320	362,995	Dec-17	147	101
02	00	000	101	143	33	3N2W13-CC-00136	2017	11794	0.16	134,390	221,130	355,520	350,995	Dec-17	148	101
02	00	000	101	141	33	3N2W12-DD-00704	2017	11857	0.19	142,080	151,640	293,720	290,000	Dec-17	149	101
02	00	000	101	141	33	3N2W13-AD-04513	2017	92	0.22	147,480	159,230	306,710	300,000	Jan-17	150	102
02	00	000	101	143	33	3N2W13-CD-05100	2017	765	0.14	128,080	218,830	346,910	339,000	Jan-17	151	102
02	00	000	101	143	33	3N2W13-CD-02700	2017	6211	0.15	130,930	169,490	300,420	295,000	Jul-17	152	102
02	00	000	101	147	30	3N2W13-CA-03915	2017	9094	0.06	99,180	222,820	322,000	314,400	Sep-17	153	102
02	00	000	101	143	33	3N2W13-CC-00117	2017	9061	0.14	128,680	223,020	351,700	345,495	Sep-17	154	102
02	00	000	101	145	33	3N2W12-DC-00129	2017	2820	0.14	127,770	182,140	309,910	300,000	Mar-17	155	103
02	00	000	101	143	30	3N2W13-CA-03911	2017	8117	0.08	105,550	202,040	307,590	299,335	Jul-17	156	103
02	00	000	101	143	33	3N2W13-CA-03902	2017	7080	0.07	103,170	200,950	304,120	294,995	Jul-17	157	103

COLUMBIA County 2018 Ratio Study

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	00	000	101	143	33	3N2W13-CA-03901	2017	7329	0.07	105,170	189,090	294,260	286,700	Jul-17	158	103
02	00	000	101	141	33	3N1W07-CA-00119	2017	8317	0.17	137,860	161,540	299,400	290,000	Sep-17	159	103
02	00	000	101	143	33	3N2W13-CC-00124	2017	10861	0.14	129,890	225,560	355,450	345,860	Oct-17	160	103
02	00	000	101	143	33	3N2W13-CC-00127	2017	10744	0.14	128,270	225,940	354,210	342,995	Nov-17	161	103
02	00	000	101	143	33	3N2W12-AD-06519	2017	11295	0.23	149,330	365,690	515,020	500,000	Dec-17	162	103
02	00	000	101	143	33	3N2W13-BA-05400	2017	11948	0.17	136,470	204,010	340,480	332,000	Dec-17	163	103
02	00	000	101	141	33	3N2W13-AD-02900	2017	129	0.15	131,030	137,620	268,650	259,000	Jan-17	164	104
02	00	000	101	143	33	3N2W13-CA-00500	2017	721	0.16	134,280	169,580	303,860	291,000	Jan-17	165	104
02	00	000	101	143	33	3N2W12-DC-00170	2017	4077	0.06	97,530	172,740	270,270	259,900	Apr-17	166	104
02	00	000	101	142	30	3N2W11-AA-01027	2017	4966	0.34	166,850	285,380	452,230	435,000	May-17	167	104
02	00	000	101	143	33	3N2W13-CC-00104	2017	8059	0.14	129,230	225,120	354,350	339,995	Jul-17	168	104
02	00	000	101	143	33	3N2W13-CC-00108	2017	8108	0.14	129,230	215,830	345,060	331,185	Jul-17	169	104
02	00	000	101	143	33	3N2W13-CC-00110	2017	8584	0.14	129,230	231,210	360,440	347,195	Jul-17	170	104
02	00	000	101	143	33	3N2W13-CA-03920	2017	10102	0.06	100,650	199,930	300,580	289,995	Oct-17	171	104
02	00	000	101	143	33	3N2W13-CA-03918	2017	10135	0.07	102,750	189,090	291,840	281,765	Oct-17	172	104
02	00	000	101	132	33	3N2W12-CC-01801	2017	970	0.25	153,300	151,260	304,560	290,000	Feb-17	173	105
02	00	000	101	143	33	3N2W12-DC-00168	2017	3398	0.06	97,530	172,720	270,250	258,500	Apr-17	174	105
02	00	000	101	143	33	3N2W12-CC-01208	2017	7787	0.14	128,950	143,560	272,510	260,000	Aug-17	175	105
02	00	000	101	143	33	3N2W12-DC-00167	2017	8198	0.06	97,530	177,560	275,090	261,000	Sep-17	176	105
02	00	000	101	143	33	3N2W12-DC-02515	2017	8870	0.06	98,160	170,060	268,220	255,495	Sep-17	177	105
02	00	000	101	143	33	3N2W01-CC-02002	2017	10309	0.14	129,100	173,950	303,050	288,000	Nov-17	178	105
02	00	000	101	143	33	3N2W13-CA-03942	2017	12049	0.08	108,230	199,930	308,160	293,495	Dec-17	179	105
02	00	000	101	141	33	3N1W07-CB-02900	2017	1461	0.14	129,000	172,590	301,590	283,522	Feb-17	180	106
02	00	000	101	141	30	3N2W12-AC-00117	2017	5039	0.20	145,250	130,510	275,760	260,000	May-17	181	106
02	00	000	101	143	33	3N2W12-AA-01600	2017	5284	0.17	135,840	302,430	438,270	414,119	May-17	182	106
02	00	000	101	141	33	3N2W12-DD-00717	2017	6580	0.18	139,740	125,480	265,220	250,000	Jul-17	183	106
02	00	000	101	147	33	3N2W13-CA-03910	2017	8367	0.06	99,180	222,820	322,000	302,955	Aug-17	184	106
02	00	000	101	143	33	3N2W13-CA-03900	2017	12036	0.08	107,860	240,610	348,470	329,995	Nov-17	185	106
02	00	000	101	143	33	3N1W07-CA-00138	2017	11249	0.17	137,530	168,810	306,340	290,000	Dec-17	186	106
02	00	000	101	141	33	3N1W07-CB-02800	2017	11497	0.14	129,010	156,790	285,800	270,000	Dec-17	187	106
02	00	000	101	131	33	3N2W12-DB-07600	2017	11617	0.17	137,150	70,900	208,050	195,825	Dec-17	188	106
02	00	000	101	143	33	3N2W13-CA-03944	2017	12005	0.08	108,210	189,090	297,300	280,000	Dec-17	189	106
02	00	000	101	147	33	3N2W13-CA-03912	2017	8300	0.08	105,550	222,820	328,370	306,995	Aug-17	190	107
02	00	000	101	143	33	3N2W13-CA-03913	2017	10542	0.06	99,180	189,090	288,270	269,995	Sep-17	191	107
02	00	000	101	143	33	3N2W13-CA-03927	2017	10345	0.08	107,820	190,110	297,930	279,675	Oct-17	192	107
02	00	000	101	143	33	3N2W13-CA-03937	2017	11847	0.07	105,520	189,090	294,610	276,490	Dec-17	193	107
02	00	000	101	143	33	3N2W12-DC-00163	2017	271	0.06	96,180	175,870	272,050	253,000	Jan-17	194	108
02	00	000	101	143	30	3N1W07-CC-01429	2017	1301	0.16	135,300	238,560	373,860	345,000	Feb-17	195	108
02	00	000	101	143	33	3N2W12-DC-00166	2017	6081	0.06	97,590	184,420	282,010	260,000	Jun-17	196	108
02	00	000	101	147	30	3N2W13-CA-03919	2017	10060	0.06	100,650	222,820	323,470	299,995	Oct-17	197	108
02	00	000	101	143	30	3N2W13-CA-03936	2017	11970	0.08	107,660	200,950	308,610	285,995	Dec-17	198	108
02	00	000	101	143	33	3N2W12-DC-00164	2017	3088	0.06	99,950	179,760	279,710	257,500	Apr-17	199	109
02	00	000	101	147	33	3N2W13-CA-03916	2017	9065	0.08	105,970	222,820	328,790	301,995	Sep-17	200	109
02	00	000	101	141	33	3N2W13-AD-09000	2017	10478	0.14	128,060	153,030	281,090	259,000	Nov-17	201	109
02	00	000	101	153	33	3N2W13-AD-07900	2017	11241	0.18	140,650	275,040	415,690	380,000	Dec-17	202	109
02	00	000	101	143	33	3N2W13-CA-03934	2018	438	0.07	105,520	189,090	294,610	269,995	Dec-17	203	109

COLUMBIA County 2018 Ratio Study

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	00	000	101	143	33	3N2W13-AC-03310	2017	2419	0.18	140,570	161,420	301,990	275,000	Mar-17	204	110
02	00	000	101	131	33	3N2W12-CD-02201	2017	8042	0.14	127,570	93,420	220,990	200,000	Aug-17	205	110
02	00	000	101	143	33	3N2W12-DC-00161	2017	8706	0.06	98,220	175,780	274,000	250,000	Sep-17	206	110
02	00	000	101	143	33	3N2W13-CA-03924	2017	9090	0.11	119,320	190,110	309,430	282,335	Sep-17	207	110
02	00	000	101	143	33	3N2W13-CA-03928	2017	11134	0.09	112,840	200,950	313,790	285,675	Nov-17	208	110
02	00	000	101	147	30	3N2W13-CA-03921	2017	10791	0.07	102,750	222,820	325,570	289,995	Nov-17	209	112
02	00	000	101	143	33	3N2W13-CA-03914	2017	10854	0.07	101,180	199,930	301,110	269,995	Nov-17	210	112
02	00	000	101	147	30	3N2W13-CA-03935	2018	362	0.08	107,660	222,820	330,480	295,995	Dec-17	211	112
02	00	000	101	147	33	3N2W13-CA-03943	2017	11927	0.08	106,050	222,820	328,870	294,100	Dec-17	212	112
02	00	000	101	147	33	3N2W13-CA-03938	2017	12001	0.09	112,490	222,820	335,310	299,995	Dec-17	213	112
02	00	000	101	143	33	3N2W12-DC-00171	2017	739	0.06	97,530	166,350	263,880	232,750	Jan-17	214	113
02	00	000	101	141	33	3N2W12-DC-00143	2017	2381	0.14	129,140	163,660	292,800	260,000	Mar-17	215	113
02	00	000	101	146	33	3N2W11-DA-02401	2017	4987	0.45	180,230	346,460	526,690	465,000	May-17	216	113
02	00	000	101	141	33	3N2W13-BA-02900	2017	6055	0.25	152,740	126,970	279,710	245,000	Jun-17	217	114
02	00	000	101	147	33	3N2W13-CA-03926	2018	390	0.09	114,530	222,820	337,350	294,995	Dec-17	218	114
02	00	000	101	142	33	3N2W11-AA-00111	2017	3510	0.19	202,100	176,340	378,440	329,000	Apr-17	219	115
02	00	000	101	147	33	3N2W13-CA-03903	2017	8964	0.07	105,170	222,820	327,990	284,995	Sep-17	220	115
02	00	000	101	143	33	3N2W13-CA-03925	2017	10952	0.11	121,680	199,930	321,610	279,995	Nov-17	221	115
02	00	000	101	143	33	3N2W13-BA-07200	2017	11096	0.31	238,630	179,860	418,490	344,900	Nov-17	222	121
02	00	000	101	153	33	3N2W13-BB-01500	2017	9428	0.20	145,160	291,360	436,520	357,000	Oct-17	223	122
02	00	000	101	143	33	3N1W07-CC-01301	2017	660	0.25	152,490	232,030	384,520	300,000	Jan-17	224	128
02	00	000	101	142	33	3N2W12-BB-01600	2017	5756	0.25	152,490	289,820	442,310	337,000	Apr-17	225	131
02	00	000	101	135	30	3N2W12-CA-06600	2017	10451	0.16	134,020	63,550	197,570	150,000	Nov-17	226	132
02	00	000	101	142	33	3N2W12-CB-01102	2017	4721	0.71	279,790	177,240	457,030	340,000	May-17	227	134

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
102	02	00	000	2018	0	Scappoose							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	8			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	0	0.00 %	0	0.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	1,808,480	100.00 %	1,772,310	100.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	98			
Farm Improvement Factor	98			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

RMV 102: SA 00

Improved property- Condominium, City of Scappoose

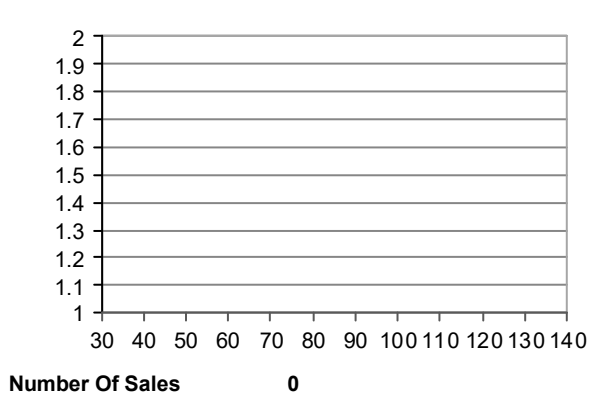
No sales were identified in this grouping of condominiums located in the City of Scappoose. Therefore, the Selected Ratio (102) from the analysis of improved properties located in SA 00 was applied here.

Performance History

	2018	2017	2016	2015	2014
COD		8.83	-	-	-
PRD		1.02	-	-	-

COLUMBIA County 2018 Ratio Study

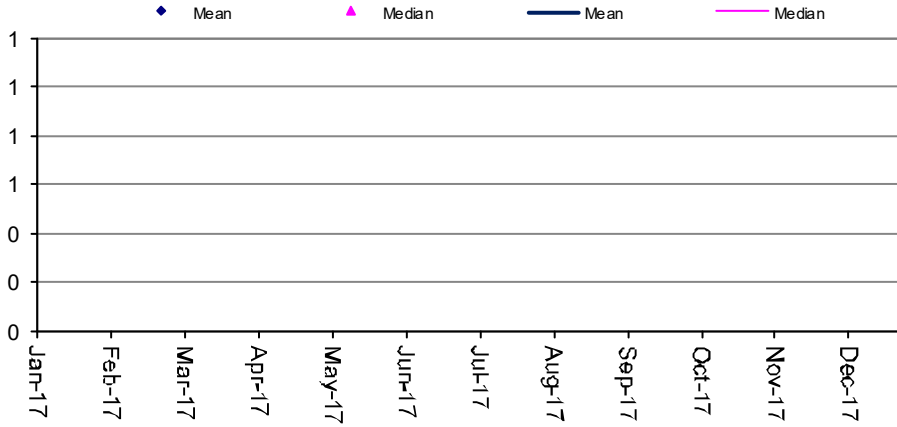
Frequency



- 30 0 Median
- 40 0 AD
- 50 0 COD
- 60 0 Mean
- 70 0 SD
- 80 0 COV
- 90 0
- 100 0
- 110 0
- 120 0
- 130 0
- 140 0

- Wtd Mean
- GeoMean
- PRD
- 95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
109	02	00	000	2018	1	Scappoose							

Adjustment Calculation Summary

Sample - Number of Sales	1	RECALCULATED		
Population - Number of Accounts	63			
Sales as a percentage of the Population	1.59 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	6,795,361	57.57 %	6,659,454	57.61 %
OSD RMV	1,400,000	11.86 %	1,400,000	12.11 %
Residential Improvement RMV	3,383,300	28.66 %	3,281,801	28.39 %
Farm Improvement RMV	225,860	1.91 %	219,084	1.90 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	97			
Farm Improvement Factor	97			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

RMV 109: SA 00

Improved property - Manufactured Structure, City of Scappoose.

A single sale was identified in this study period, which is a sample too small to use as a determination of the current market.

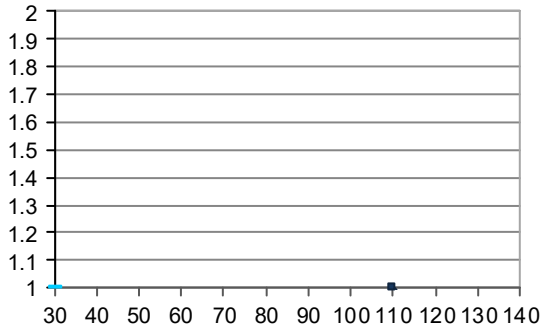
Therefore, it is recommended that the conclusion from the RMV 101-Improved Property study be applied here (Selected Ratio of 102).

Performance History

	2018	2017	2016	2015	2014
COD	0.00	6.25	-	8.66	10.06
PRD	1.00	1.00	-	1.01	1.00

COLUMBIA County 2018 Ratio Study

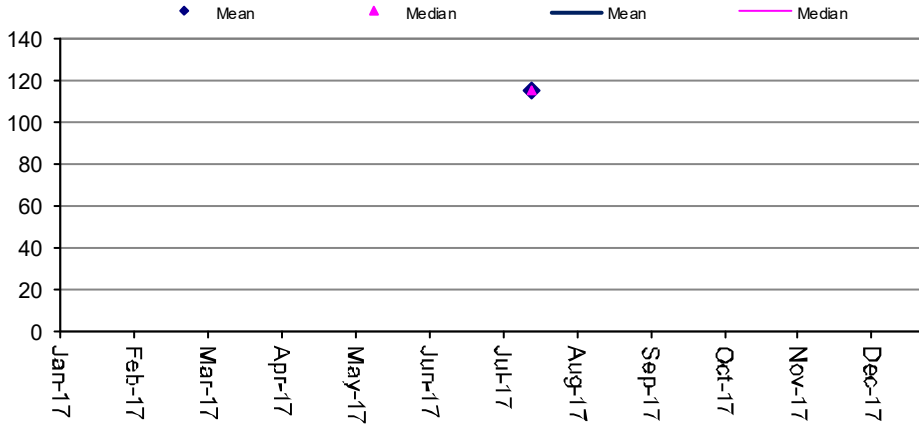
Frequency



30	0	Median	115	Wtd Mean	115
40	0	AD	0.00	GeoMean	115
50	0	COD	0.00	PRD	1.00
60	0	Mean	115	95% Confidence	1.96
70	0	SD	1.00		
80	0	COV	0.87		
90	0				
100	0				
110	1				
120	0				
130	0				
140	0				

Number Of Sales 1

Central Tendencies



Month	Mean	Median	Sales
Aug-17	115	115	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	00	000	109	452	33	3N2W01-CC-02003	2017	8071	0.14	129,100	77,300	206,400	180,000	Aug-17	1	115

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
102	02	21	000	2018	0	Scappoose							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	4			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	0	0.00 %	0	0.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	748,540	100.00 %	733,569	100.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	98			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

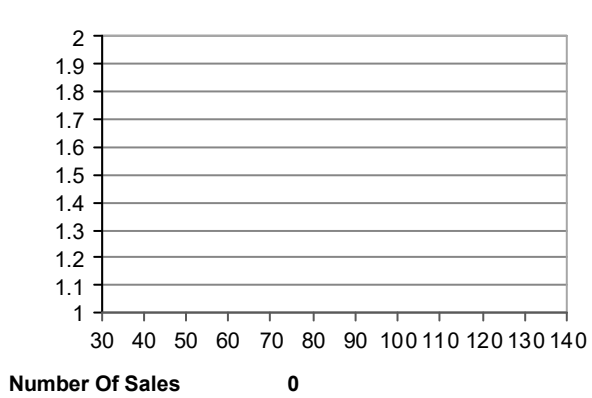
RMV 102, SA 21
Improved land - Condominium, Rural Value Zone 1, Rural Scappoose
These Condominium properties are located in the rural areas of Scappoose (SA 21, Value Zone 1), just beyond the city limits of Scappoose. No sales were identified in this area for the study period. Therefore, the Selected Ratio (102) from the analysis of improved properties located in SA 21, SA 41 and SA 62 was applied here.

Performance History

	2018	2017	2016	2015	2014
COD		-	-	-	2.00
PRD		-	-	-	1.00

COLUMBIA County 2018 Ratio Study

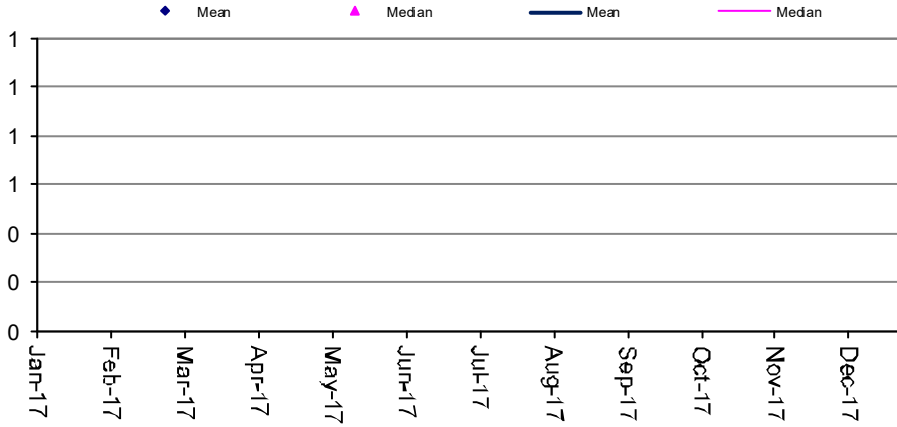
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
101	02	28	000	2018	0	Scappoose							

Adjustment Calculation Summary

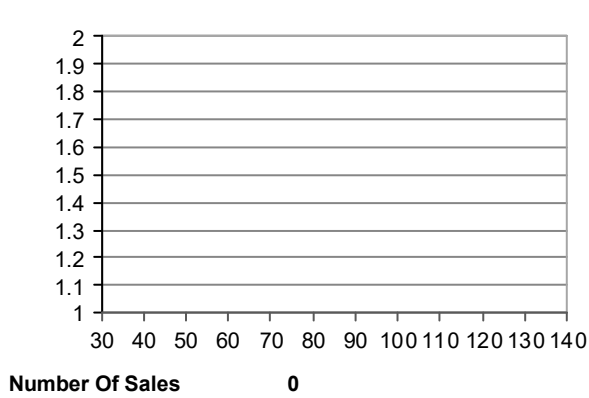
Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	51			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	6,337,900	40.49 %	6,211,142	40.53 %
OSD RMV	2,522,000	16.11 %	2,522,000	16.46 %
Residential Improvement RMV	6,746,950	43.10 %	6,544,542	42.71 %
Farm Improvement RMV	47,300	0.30 %	45,881	0.30 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	97			
Farm Improvement Factor	97			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98
Explanation				

Performance History

	2018	2017	2016	2015	2014
COD		3.92	11.23	2.06	10.06
PRD		1.01	1.02	1.00	1.00

COLUMBIA County 2018 Ratio Study

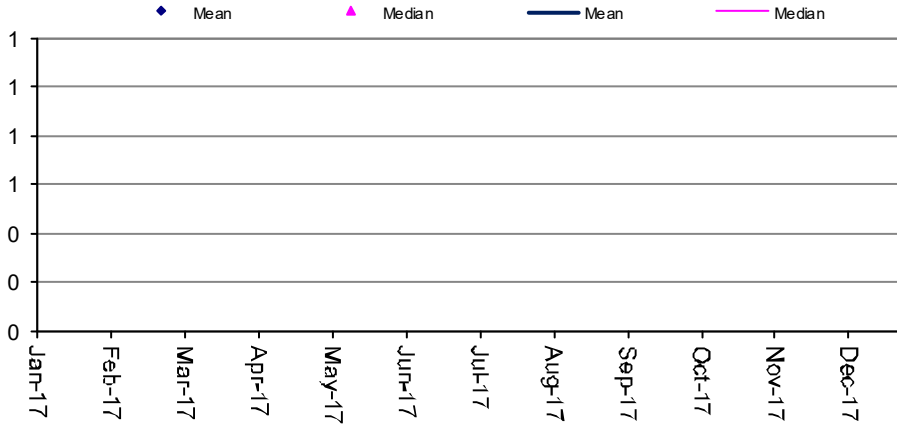
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA AR	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA AR	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
101	02	33	000	2018	9	Scappoose							

Adjustment Calculation Summary

Sample - Number of Sales	9	RECALCULATED		
Population - Number of Accounts	105			
Sales as a percentage of the Population	8.57 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	8,532,210	31.61 %	8,361,566	35.25 %
OSD RMV	2,954,000	10.94 %	2,954,000	12.45 %
Residential Improvement RMV	15,500,020	57.42 %	12,400,016	52.27 %
Farm Improvement RMV	8,470	0.03 %	6,776	0.03 %
SelectedRatioFromSales	114			
RMV Adjustment	100			
Before Ratio	114			
Overall Adjustment Factor	88			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	80			
Farm Improvement Factor	80			
After Ratio	100			
Selected Ratio	114	2018	Adjustment	88

Explanation

RMV 101: SA 33

Town house/Row house/Common wall, City of Scappoose

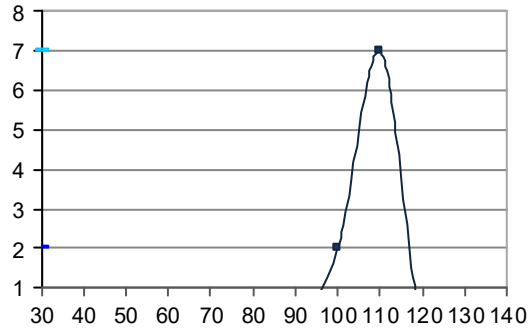
This study consists of town houses, row houses and/or those dwellings that share a common wall. The Mean of 111 was selected from this sales array, which is supported by the Median (112) and the Weighted Mean (111). After applying the conclusion from the time study (103), the Selected Ratio is 114.

Performance History

	2018	2017	2016	2015	2014
COD	2.58	3.92	11.23	2.06	2.68
PRD	1.00	1.01	1.02	1.00	1.00

COLUMBIA County 2018 Ratio Study

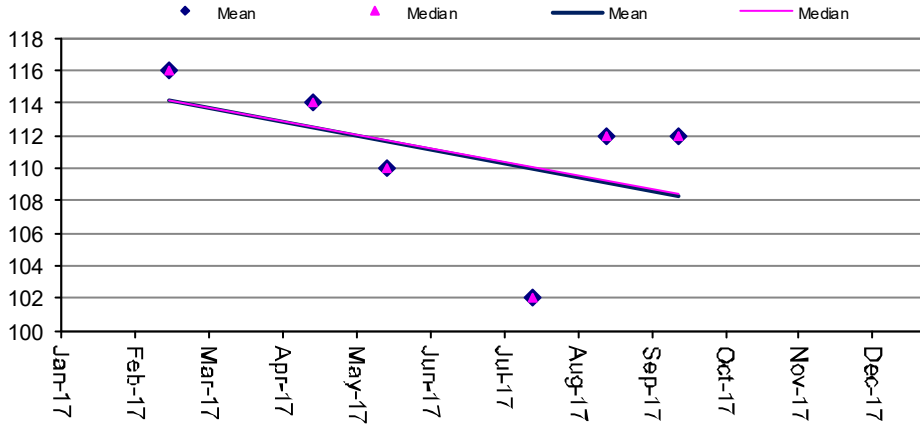
Frequency



30	0	Median	112	Wtd Mean	111
40	0	AD	2.89	GeoMean	111
50	0	COD	2.58	PRD	1.00
60	0	Mean	111	95% Confidence	2.67
70	0	SD	4.09		
80	0	COV	3.69		
90	0				
100	2				
110	7				
120	0				
130	0				
140	0				

Number Of Sales **9**

Central Tendencies



Month	Mean	Median	Sales
Mar-17	116	116	1
May-17	114	114	2
Jun-17	110	110	2
Aug-17	102	102	1
Sep-17	112	112	2
Oct-17	112	112	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	33	000	101	143	33	3N2W12-AD-03111	2017	7946	0.09	113,300	160,720	274,020	267,500	Aug-17	1	102
02	33	000	101	143	33	3N2W12-AD-03125	2017	5409	0.08	106,870	165,720	272,590	252,500	Jun-17	2	108
02	33	000	101	143	33	3N2W12-AD-03124	2017	9085	0.09	112,280	165,520	277,800	253,000	Sep-17	3	110
02	33	000	101	143	33	3N2W13-AA-04415	2017	5798	0.11	118,540	158,920	277,460	248,890	Jun-17	4	111
02	33	000	101	143	30	3N2W12-AD-03114	2017	10237	0.09	113,600	172,910	286,510	255,000	Oct-17	5	112
02	33	000	101	143	33	3N2W12-AD-03110	2017	4830	0.08	108,410	164,130	272,540	242,000	May-17	6	113
02	33	000	101	143	33	3N2W12-AD-03120	2017	8517	0.09	112,290	169,330	281,620	250,000	Sep-17	7	113
02	33	000	101	143	33	3N2W12-AD-03109	2017	4898	0.09	112,720	166,250	278,970	245,000	May-17	8	114
02	33	000	101	143	33	3N2W13-AA-04414	2017	2277	0.09	112,080	168,600	280,680	242,000	Mar-17	9	116

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
100	02	79	000	2018	0	Scappoose							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	0			
Population - Number of Accounts	5			
Sales as a percentage of the Population	0.00 %			
Prior Year Population Values				
Land RMV	613,300	100.00 %	533,571	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	115			
RMV Adjustment	100			
Before Ratio	115			
Overall Adjustment Factor	87			
Land Adjustment Factor	87			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	115	2018	Adjustment	87

Explanation

RMV 100: SA 79

Unimproved land - Keys Landing, Keys Crest and Keys Orchard, City of Scappoose

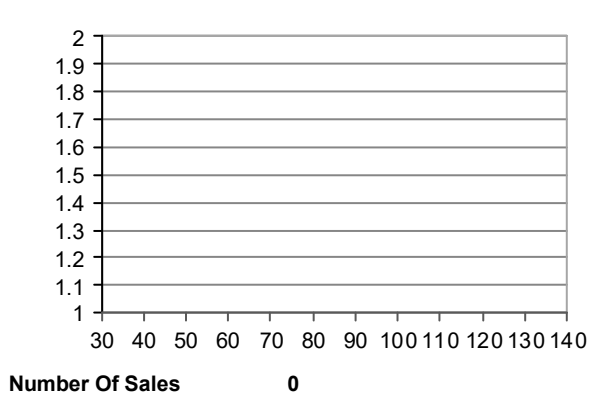
No sales are available for this study area of undeveloped properties. Therefore, the Selected Ratio (115) from the improved properties located in this study area has been applied here.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	-
PRD	-	-	-	-	-

COLUMBIA County 2018 Ratio Study

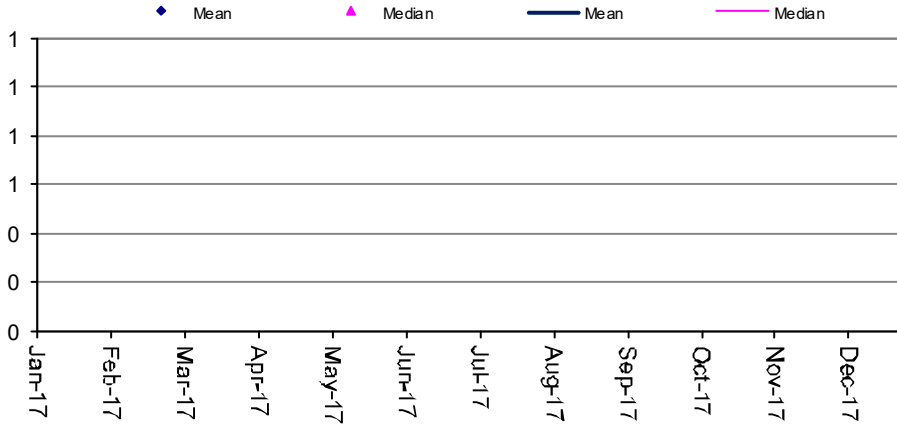
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA AR	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA AR	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
101	02	79	000	2018	5	Scappoose							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	5			
Population - Number of Accounts	51			
Sales as a percentage of the Population	9.80 %			
Prior Year Population Values				
Land RMV	6,558,780	25.46 %	5,706,139	25.45 %
OSD RMV	1,428,000	5.54 %	1,428,000	6.37 %
Residential Improvement RMV	17,775,060	69.00 %	15,286,552	68.18 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	115			
RMV Adjustment	100			
Before Ratio	115			
Overall Adjustment Factor	87			
Land Adjustment Factor	87			
OSD Adjustment Factor	100			
Residential Adjustment Factor	86			
Farm Improvement Factor	86			
After Ratio	100			
Selected Ratio	115	2018	Adjustment	87

Explanation

RMV 101: SA 79

Improved land - Keys Landing, Keys Crest and Keys Orchard, City of Scappoose

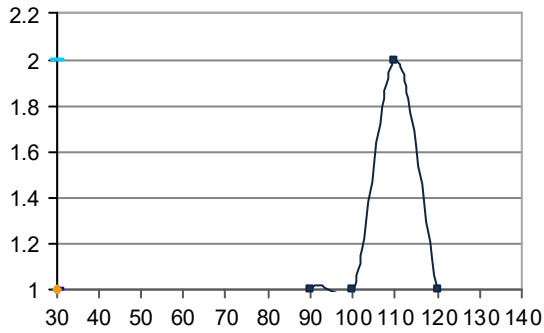
This study area is comprised of Class 5 and Class 6 properties located within smaller subdivisions in the City of Scappoose. For this study, the Median (112) was adjusted by the time adjustment (103), resulting in a Selected Ratio of 115.

Performance History

	2018	2017	2016	2015	2014
COD	6.79	15.75	7.16	5.29	10.14
PRD	0.99	1.00	1.00	1.00	0.99

COLUMBIA County 2018 Ratio Study

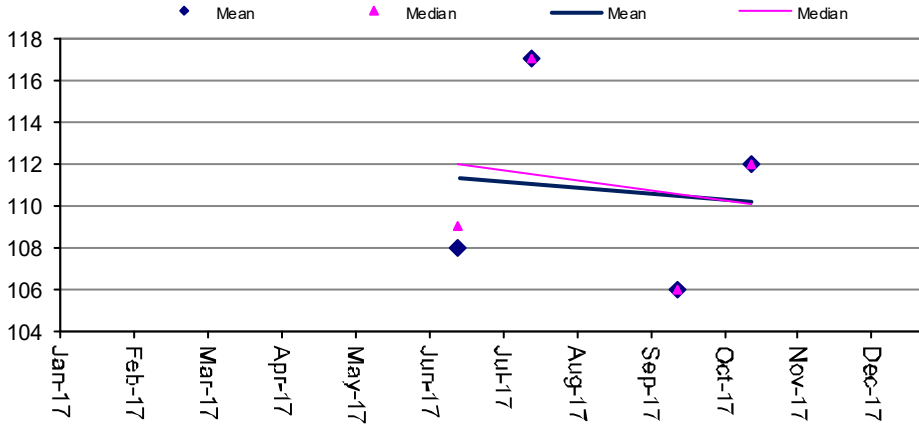
Frequency



30	0	Median	112	Wtd Mean	111
40	0	AD	7.60	GeoMean	110
50	0	COD	6.79	PRD	0.99
60	0	Mean	110	95% Confidence	8.61
70	0	SD	9.82		
80	0	COV	8.93		
90	1				
100	1				
110	2				
120	1				
130	0				
140	0				

Number Of Sales 5

Central Tendencies



Month	Mean	Median	Sales
Jul-17	108	109	2
Aug-17	117	117	1
Oct-17	106	106	1
Nov-17	112	112	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	79	000	101	153	33	3N2W11-DA-02617	2017	6717	0.32	163,000	260,540	423,540	441,100	Jul-17	1	96
02	79	000	101	162	33	3N2W11-DD-00315	2017	10196	0.27	155,820	462,540	618,360	585,700	Oct-17	2	106
02	79	000	101	164	33	3N2W11-DB-02600	2017	11168	0.20	144,330	403,930	548,260	488,000	Nov-17	3	112
02	79	000	101	164	33	3N2W11-DB-02500	2017	7176	0.17	137,540	443,500	581,040	495,000	Aug-17	4	117
02	79	000	101	164	33	3N2W11-DD-00318	2017	6532	0.37	170,470	573,550	744,020	615,000	Jul-17	5	121

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
101	02	80	000	2018	2	Scappoose							

Adjustment Calculation Summary

Sample - Number of Sales	2	RECALCULATED		
Population - Number of Accounts	45			
Sales as a percentage of the Population	4.44 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	6,092,100	27.36 %	5,970,258	29.11 %
OSD RMV	1,260,000	5.66 %	1,260,000	6.14 %
Residential Improvement RMV	14,916,420	66.98 %	13,275,614	64.74 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	109			
RMV Adjustment	100			
Before Ratio	109			
Overall Adjustment Factor	92			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	89			
Farm Improvement Factor	89			
After Ratio	100			
Selected Ratio	109	2018	Adjustment	92

Explanation

RMV 101: SA 80

Improved land - Columbia River View Estates, City of Scappoose

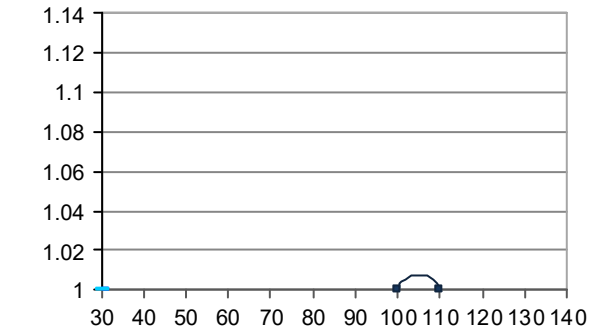
Columbia River View Estates is a homogeneous subdivision located northwest of Highway 30. Analysis of the sales array shows that the Mean and Median with ratio indications of 106 are the best indicators for this grouping. Therefore, the time study conclusion (103) was applied returning a Selected Ratio of 109.

Performance History

	2018	2017	2016	2015	2014
COD	3.77	7.81	4.08	8.08	1.22
PRD	1.01	1.01	1.00	1.01	1.00

COLUMBIA County 2018 Ratio Study

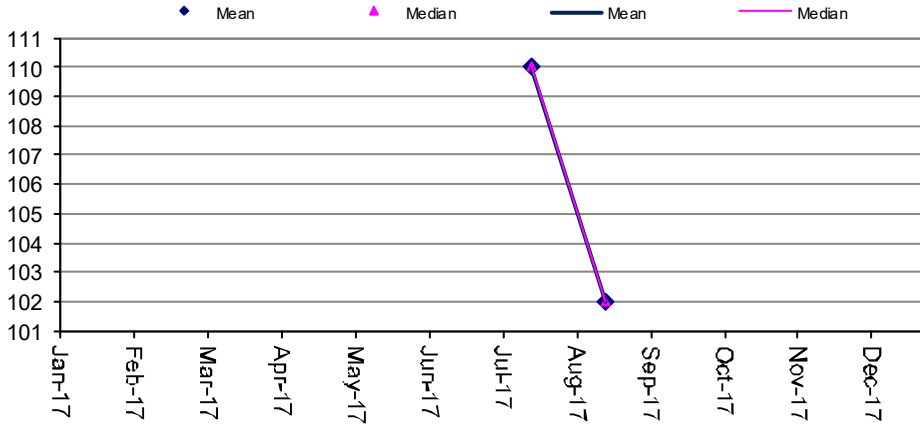
Frequency



30	0	Median	106	Wtd Mean	105
40	0	AD	4.00	GeoMean	106
50	0	COD	3.77	PRD	1.01
60	0	Mean	106	95% Confidence	7.84
70	0	SD	5.66		
80	0	COV	5.34		
90	0				
100	1				
110	1				
120	0				
130	0				
140	0				

Number Of Sales 2

Central Tendencies



Month	Mean	Median	Sales
Aug-17	110	110	1
Sep-17	102	102	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	80	000	101	154	33	3N2W12-BC-00228	2017	8810	0.18	139,230	437,150	576,380	565,000	Sep-17	1	102
02	80	000	101	154	33	3N2W12-BC-00235	2017	7876	0.19	141,520	280,670	422,190	384,890	Aug-17	2	110

COLUMBIA County 2018 Ratio Study

RMV					App	# of					RMV					App	# of					Location
Class	MA	SA	NH	Year	Sales			Class	MA	SA	NH	Year	Sales			Location						
400	02	21	000	2018	3			400	02	62	000	2018	0			Scappoose						

Adjustment Calculation Summary

Sample - Number of Sales	3	RECALCULATED		
Population - Number of Accounts	170			
Sales as a percentage of the Population	1.76 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	29,643,890	100.00 %	29,051,012	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

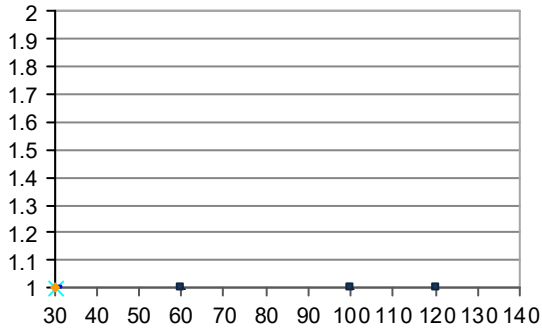
RMV 400, SA 21 & SA 62
Value Zone 1 (21) and Freeman Road (62) in Rural Scappoose. Due to having too few sales available, the Selected Ratio (102) from the improved sales analysis within the same study areas has been applied here.

Performance History

	2018	2017	2016	2015	2014
COD	20.06	11.39	0.00	0.00	8.96
PRD	1.07	1.01	1.00	1.00	1.02

COLUMBIA County 2018 Ratio Study

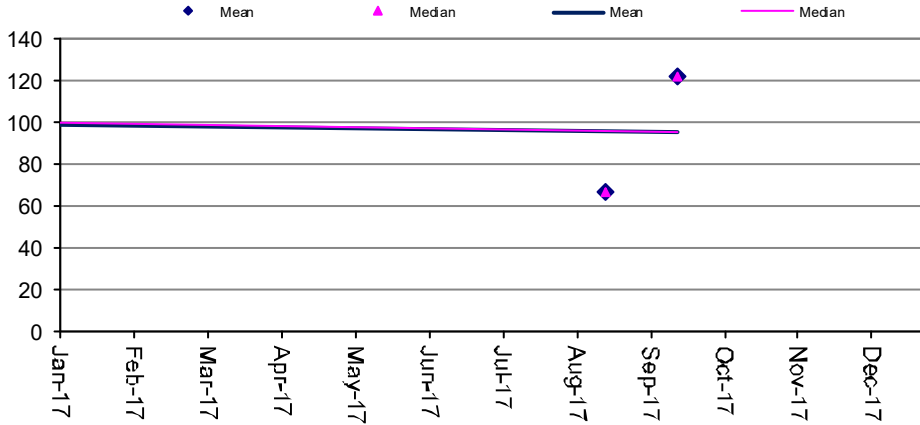
Frequency



30	0	Median	103	Wtd Mean	91
40	0	AD	20.67	GeoMean	94
50	0	COD	20.06	PRD	1.07
60	1	Mean	97	95% Confidence	32.23
70	0	SD	28.48		
80	0	COV	29.36		
90	0				
100	1				
110	0				
120	1				
130	0				
140	0				

Number Of Sales 3

Central Tendencies



Month	Mean	Median	Sales
Jan-17	103	103	1
Sep-17	66	66	1
Oct-17	122	122	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	21	000	400		30	3N2W11-CA-00502	2017	9278	5.02	182,620	0	182,620	275,000	Sep-17	1	66
02	21	000	400		30	3N2W11-CA-00501	2017	514	5.02	159,520	0	159,520	155,000	Jan-17	2	103
02	21	000	400		30	4N2W27-C0-00300	2017	9744	5.18	183,180	0	183,180	150,000	Oct-17	3	122

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
401	02	21	000	2018	20	Scappoose	401	02	62	000	2018	0	Scappoose
401	02	41	000	2018	0	Sauvie Island							

Adjustment Calculation Summary

Sample - Number of Sales	20	RECALCULATED		
Population - Number of Accounts	769			
Sales as a percentage of the Population	2.60 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	112,561,669	38.35 %	110,310,436	38.44 %
OSD RMV	36,277,240	12.36 %	36,277,240	12.64 %
Residential Improvement RMV	127,882,210	43.57 %	124,045,744	43.23 %
Farm Improvement RMV	16,819,420	5.73 %	16,314,837	5.69 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	97			
Farm Improvement Factor	97			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

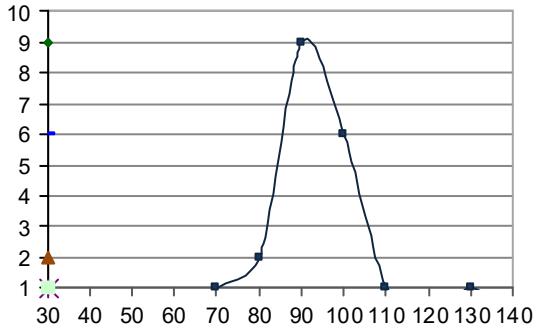
RMV 401, SA 21, SA 41 & SA 62
 Improved land - Value Zone 1 (21), Sauvies Island (41) and Freeman Road (62) in Rural Scappoose. For this analysis of rural properties, the Mean of 98 was selected as the best ratio indicator. As determined in the time study for rural properties, the adjustment of 104 was applied to this central tendency and then the product was entered as the Selected Ratio (102). Thus, the Overall Adjustment Factor is 98.

Performance History

	2018	2017	2016	2015	2014
COD	9.43	9.96	13.44	12.19	10.38
PRD	1.00	1.00	1.02	1.02	1.01

COLUMBIA County 2018 Ratio Study

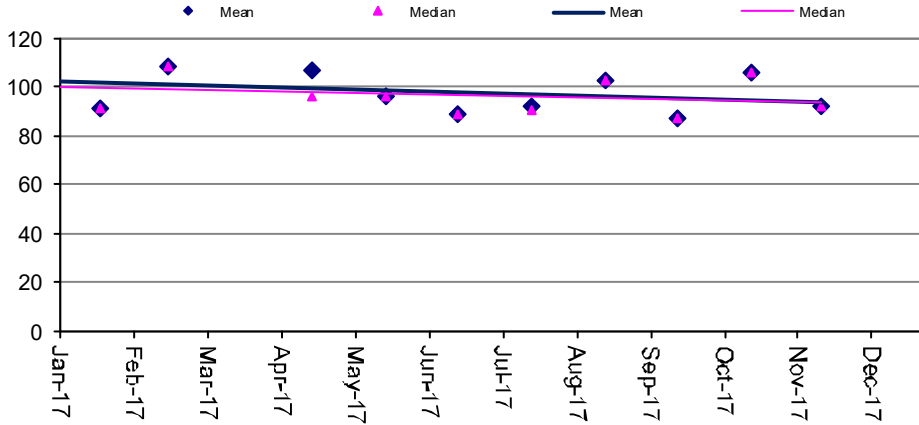
Frequency



30	0	Median	96	Wtd Mean	98
40	0	AD	9.05	GeoMean	98
50	0	COD	9.43	PRD	1.00
60	0	Mean	98	95% Confidence	5.24
70	1	SD	11.95		
80	2	COV	12.20		
90	9				
100	6				
110	1				
120	0				
130	1				
140	0				

Number Of Sales **20**

Central Tendencies



Month	Mean	Median	Sales
Jan-17	109	107	3
Feb-17	91	91	1
Mar-17	108	108	1
Apr-17	107	96	3
May-17	96	96	1
Jun-17	89	89	2
Jul-17	92	90	3
Aug-17	103	103	1
Sep-17	87	87	2
Oct-17	106	106	1
Nov-17	92	92	2
Dec-17	92	92	2

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	21	000	401	136	33	3N2W15-D0-00100	2017	9391	1.36	155,590	101,300	256,890	334,000	Oct-17	1	77
02	21	000	401	142	33	3N2W15-B0-00102	2017	6559	6.40	221,500	217,430	438,930	535,000	Jul-17	2	82
02	21	000	401	142	33	3N2W14-DB-00701	2017	4744	1.88	154,470	223,100	377,570	425,000	May-17	3	89
02	21	000	401	132	33	4N2W36-D0-00200	2017	7323	0.82	135,000	108,380	243,380	270,226	Aug-17	4	90
02	21	000	401	131	33	3N2W12-DA-00301	2017	7393	0.27	130,000	90,240	220,240	243,600	Aug-17	5	90
02	21	000	401	152	33	3N2W24-C0-03100	2017	11475	0.86	135,000	206,020	341,020	380,000	Dec-17	6	90
02	21	000	401	136	33	4N2W34-C0-00100	2017	1289	50.30	304,600	171,420	476,020	525,000	Feb-17	7	91
02	21	000	401	152	33	3N2W13-BB-05100	2017	11246	1.57	167,540	309,580	477,120	510,000	Dec-17	8	94
02	21	000	401	142	33	4N2W36-C0-00300	2017	6017	1.35	155,030	284,320	439,350	460,000	Jun-17	9	96
02	21	000	401	135	33	3N2W24-C0-01100	2017	6692	10.01	328,780	92,330	421,110	437,500	Jul-17	10	96
02	21	000	401	145	33	4N2W35-BC-00300	2017	7322	0.57	130,000	142,820	272,820	285,000	Aug-17	11	96
02	21	000	401	142	33	3N2W24-C0-03400	2017	10202	13.72	593,830	328,370	922,200	950,000	Oct-17	12	97
02	21	000	401	141	33	4N2W27-DC-00100	2017	4679	8.04	242,070	188,110	430,180	420,000	May-17	13	102
02	21	000	401	153	33	3N2W11-00-00302	2017	9055	6.11	300,060	272,750	572,810	555,000	Sep-17	14	103
02	21	000	401	136	33	4N2W34-B0-00900	2017	747	1.83	182,330	126,680	309,010	294,000	Jan-17	15	105
02	21	000	401	152	33	4N2W36-C0-01700	2017	10407	2.08	254,980	375,650	630,630	597,500	Nov-17	16	106
02	21	000	401	143	33	3N2W15-A0-00600	2017	290	5.00	236,500	250,950	487,450	449,500	Jan-17	17	108
02	21	000	401	142	30	3N2W02-00-03803	2017	2907	1.93	188,020	216,280	404,300	375,000	Mar-17	18	108
02	21	000	401	132	33	3N2W02-00-04500	2017	386	4.84	236,430	154,960	391,390	340,000	Jan-17	19	115

COLUMBIA County 2018 Ratio Study

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	21	000	401	141	30	3N1W07-CB-04100	2017	4809	1.41	158,440	259,400	417,840	322,000	May-17	20	130

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
409	02	21	000	2018	6	Scappoose	409	02	62	000	2018	0	Scappoose
409	02	41	000	2018	0	Sauvie Island							

Adjustment Calculation Summary

Sample - Number of Sales	6	RECALCULATED		
Population - Number of Accounts	158			
Sales as a percentage of the Population	3.80 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	21,363,000	51.56 %	20,935,740	52.62 %
OSD RMV	7,884,000	19.03 %	7,884,000	19.81 %
Residential Improvement RMV	9,416,300	22.73 %	8,474,670	21.30 %
Farm Improvement RMV	2,771,650	6.69 %	2,494,485	6.27 %
SelectedRatioFromSales	104			
RMV Adjustment	100			
Before Ratio	104			
Overall Adjustment Factor	96			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	90			
Farm Improvement Factor	90			
After Ratio	100			
Selected Ratio	104	2018	Adjustment	96

Explanation

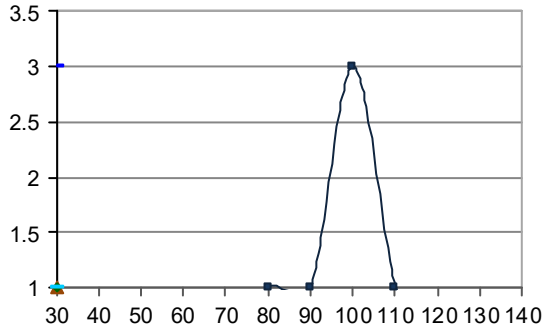
RMV 409: SA 21, SA 41, SA 62
 Improved land - Manufactured Structure - Value Zone 1 (21), Sauvie Island (41) and Freeman Road (62) in Rural Scappoose. The Mean, Median and Weighted Mean have returned a 100 ratio. This ratio was then adjusted by the conclusion from the time study (104). The Overall Adjustment Factor is 96.

Performance History

	2018	2017	2016	2015	2014
COD	6.33	0.00	5.56	12.19	13.45
PRD	1.00	1.00	1.00	1.02	1.02

COLUMBIA County 2018 Ratio Study

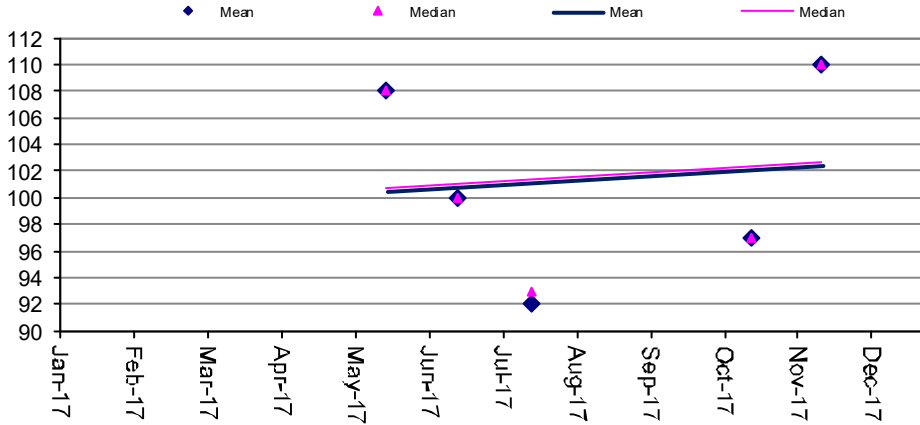
Frequency



30	0	Median	100	Wtd Mean	100
40	0	AD	6.33	GeoMean	100
50	0	COD	6.33	PRD	1.00
60	0	Mean	100	95% Confidence	7.42
70	0	SD	9.27		
80	1	COV	9.27		
90	1				
100	3				
110	1				
120	0				
130	0				
140	0				

Number Of Sales **6**

Central Tendencies



Month	Mean	Median	Sales
Jun-17	108	108	1
Jul-17	100	100	1
Aug-17	92	93	2
Nov-17	97	97	1
Dec-17	110	110	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	21	000	409	442	33	4N2W34-AD-00902	2017	7935	1.47	161,850	101,370	263,220	313,650	Aug-17	1	84
02	21	000	409	462	33	4N2W34-B0-01200	2017	10330	0.45	130,000	115,910	245,910	252,900	Nov-17	2	97
02	21	000	409	452	33	3N2W13-BB-05300	2017	6468	1.59	168,690	177,460	346,150	345,000	Jul-17	3	100
02	21	000	409	452	33	3N2W02-00-01401	2017	7959	1.96	176,160	95,610	271,770	270,000	Aug-17	4	101
02	21	000	409	300	33	4N2W35-00-00202	2017	6036	5.07	296,790	195,900	492,690	456,000	Jun-17	5	108
02	21	000	409	300	33	3N2W23-00-01900	2017	11931	13.31	248,630	15,680	264,310	241,000	Dec-17	6	110

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
400	02	25	000	2018	0	Scappoose	400	02	45	000	2018	0	Sauvie Island

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	0			
Population - Number of Accounts	57			
Sales as a percentage of the Population	0.00 %			
Prior Year Population Values				
Land RMV	32,035,850	100.00 %	31,395,133	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	102 2018	Adjustment	98	

Explanation

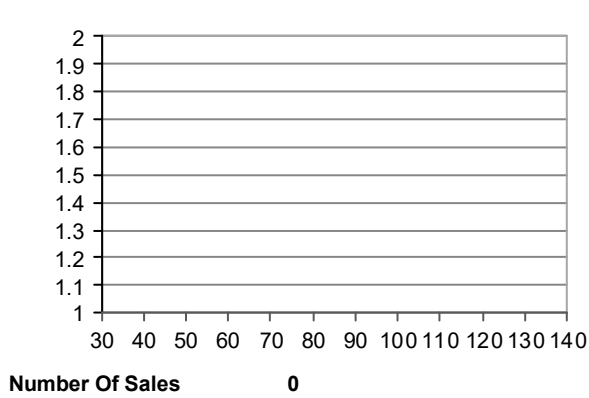
RMV 400: SA 25 & SA 45
 Unimproved land - Dike land in Scappoose (SA 25) & Sauvies Island (45)
 No sales information was available for this study. Therefore, the selected ratio of 102 from the undeveloped land study for MA 02 SA 21 and SA 62 analysis was applied here.

Performance History

	2018	2017	2016	2015	2014
COD		-	-	-	8.96
PRD		-	-	-	1.02

COLUMBIA County 2018 Ratio Study

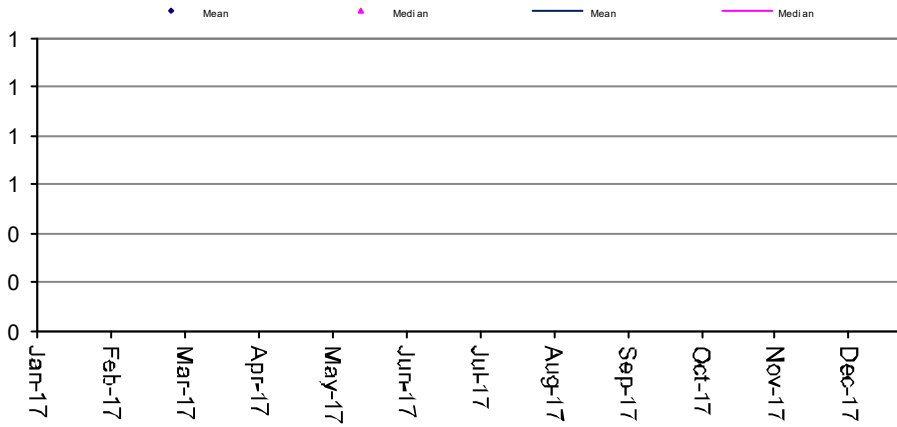
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
		CLS											

COLUMBIA County 2018 Ratio Study

RMV					App	# of				RMV					App	# of			
Class	MA	SA	NH	Year	Sales	Location			Class	MA	SA	NH	Year	Sales	Location				
401	02	25	000	2018	1	Scappoose			401	02	45	000	2018	0	Sauvie Island				

Adjustment Calculation Summary

Sample - Number of Sales	1	RECALCULATED		
Population - Number of Accounts	57			
Sales as a percentage of the Population	1.75 %	Pre-Trend	Post Trend	Post Trend
Prior Year Population Values		Brkdwn	Values	Brkdwn
Land RMV	61,213,440	80.71 %	59,989,171	80.66 %
OSD RMV	2,114,640	2.79 %	2,114,640	2.84 %
Residential Improvement RMV	7,499,350	9.89 %	7,349,363	9.88 %
Farm Improvement RMV	5,020,160	6.62 %	4,919,757	6.61 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	98			
Farm Improvement Factor	98			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

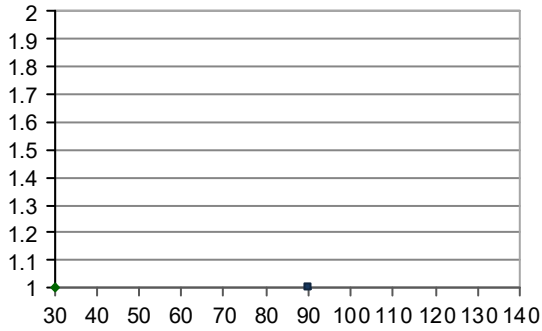
RMV 401: SA 25 & SA 45
 Improved land - Dike land in Scappoose (SA 25) & Sauvie Island (45)
 Only one sale was identified in these areas for the study period. Therefore, the conclusion from the improved properties in the MA 02 SA 21, SA 41 and SA 62 analysis is recommended, with a Selected Ratio indicator of 102.

Performance History

	2018	2017	2016	2015	2014
COD	0.00	-	0.00	-	10.38
PRD	1.00	-	1.00	-	1.01

COLUMBIA County 2018 Ratio Study

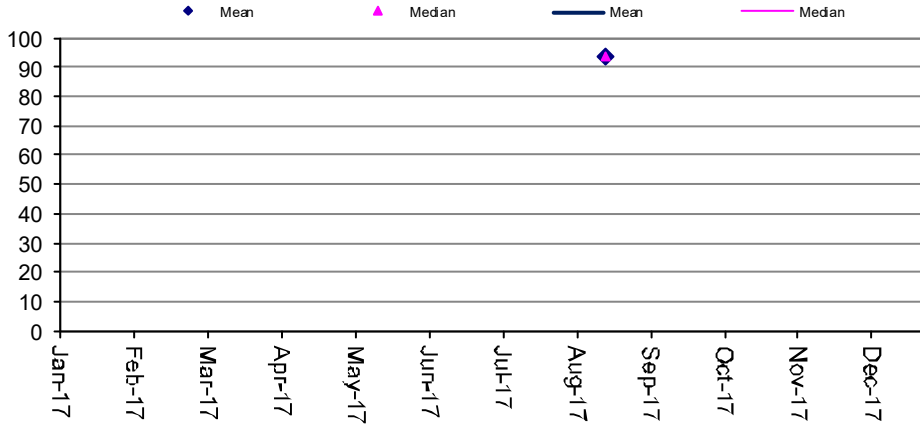
Frequency



30	0	Median	94	Wtd Mean	94
40	0	AD	0.00	GeoMean	94
50	0	COD	0.00	PRD	1.00
60	0	Mean	94	95% Confidence	1.96
70	0	SD	1.00		
80	0	COV	1.06		
90	1				
100	0				
110	0				
120	0				
130	0				
140	0				

Number Of Sales 1

Central Tendencies



Month	Mean	Median	Sales
Sep-17	94	94	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	25	000	401	131	33	3N1W09-00-00200	2017	8994	33.17	267,320	322,790	590,110	630,000	Sep-17	1	94

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
409	02	25	000	2018	0	Scappoose	409	02	45	000	2018	0	Sauvie Island

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	0			
Population - Number of Accounts	3			
Sales as a percentage of the Population	0.00 %			
Prior Year Population Values				
Land RMV	2,319,860	84.46 %	2,273,463	84.32 %
OSD RMV	216,000	7.86 %	216,000	8.01 %
Residential Improvement RMV	64,990	2.37 %	63,690	2.36 %
Farm Improvement RMV	145,870	5.31 %	142,953	5.30 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	98			
Farm Improvement Factor	98			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

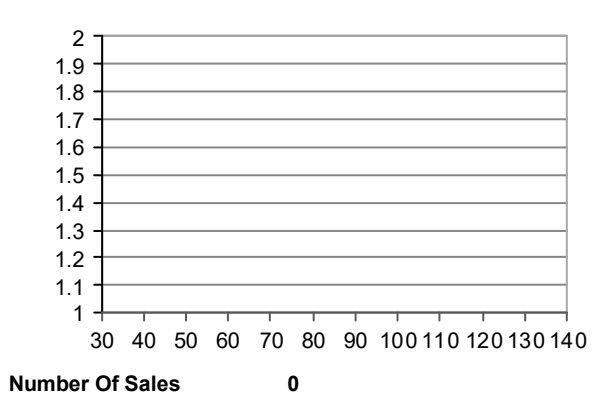
RMV 409: SA 25 & SA 45
 Improved land - Manufactured Structure - Dike land in Scappoose (SA 25) & Sauvies Island (45)
 Due to having no sales available for this study, it was decided to use the selected ratio of 102 from the rural property improved with manufactured structures study, resulting Overall Adjustment Factor of 98.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	13.45
PRD	-	-	-	-	1.02

COLUMBIA County 2018 Ratio Study

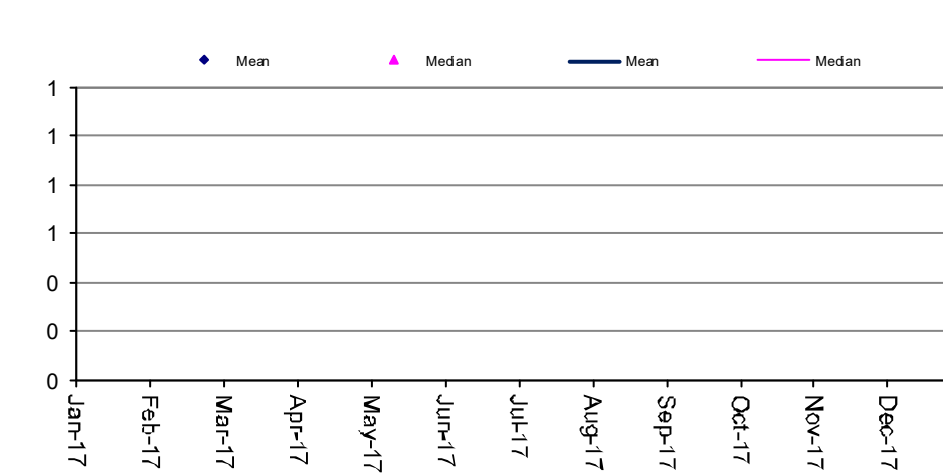
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
400	02	64	000	2018	2	Scappoose							

Adjustment Calculation Summary

Sample - Number of Sales	2	RECALCULATED		
Population - Number of Accounts	15			
Sales as a percentage of the Population	13.33 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	1,171,900	100.00 %	1,113,305	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	105			
RMV Adjustment	100			
Before Ratio	105			
Overall Adjustment Factor	95			
Land Adjustment Factor	95			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	105	2018	Adjustment	95

Explanation

RMV 400: SA SA 64

Undeveloped land - Columbia Acres & Hillcrest, Rural Scappoose.

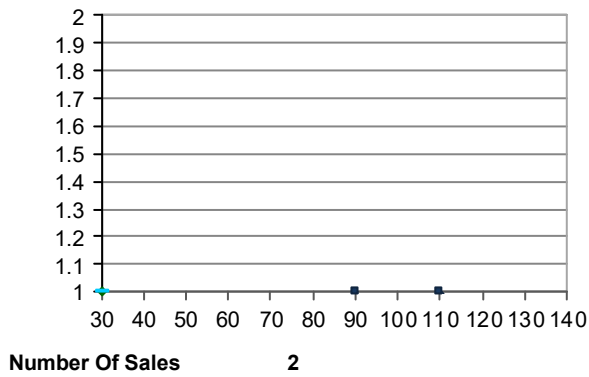
Out of a population of 15, two sales were found which make up 13.33% of the population. For this property grouping, the Median and Mean both returned a ratio of 101. Therefore, this ratio was then adjusted by 1.04 (the time study conclusion) resulting in a Selected Ratio of 1.05. The Overall Adjustment is 95.

Performance History

	2018	2017	2016	2015	2014
COD	8.91	-	0.00	0.00	8.96
PRD	1.02	-	1.00	1.00	1.02

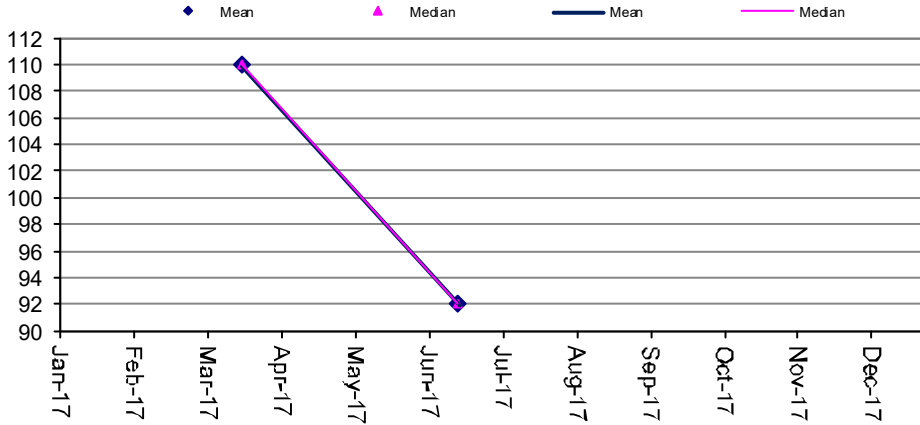
COLUMBIA County 2018 Ratio Study

Frequency



30	0	Median	101	Wtd Mean	99
40	0	AD	9.00	GeoMean	101
50	0	COD	8.91	PRD	1.02
60	0	Mean	101	95% Confidence	17.64
70	0	SD	12.73		
80	0	COV	12.60		
90	1				
100	0				
110	1				
120	0				
130	0				
140	0				

Central Tendencies



Month	Mean	Median	Sales
Apr-17	110	110	1
Jul-17	92	92	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	64	000	400		33	3N2W22-AD-12300	2017	7141	2.14	248,160	0	248,160	269,000	Jul-17	1	92
02	64	000	400		30	3N2W22-CA-05900	2017	4054	0.58	165,000	0	165,000	149,900	Apr-17	2	110

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
401	02	64	000	2018	0	Scappoose							

Adjustment Calculation Summary

		RECALCULATED		
	0	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	0			
Population - Number of Accounts	95			
Sales as a percentage of the Population	0.00 %			
Prior Year Population Values				
Land RMV	10,585,220	25.46 %	10,055,959	24.66 %
OSD RMV	4,446,820	10.70 %	4,446,820	10.91 %
Residential Improvement RMV	26,189,070	63.00 %	25,927,179	63.58 %
Farm Improvement RMV	350,490	0.84 %	346,985	0.85 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	95			
OSD Adjustment Factor	100			
Residential Adjustment Factor	99			
Farm Improvement Factor	99			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

RMV 401: SA 64

Improved land - Columbia Acres & Hillcrest, Rural Scappoose.

The properties in this study area are in a highly desirable location since they are located south of the City of Scappoose and have easy access to Highway 30. A rural setting of mountain and territorial views with upscale homes makes this area unique.

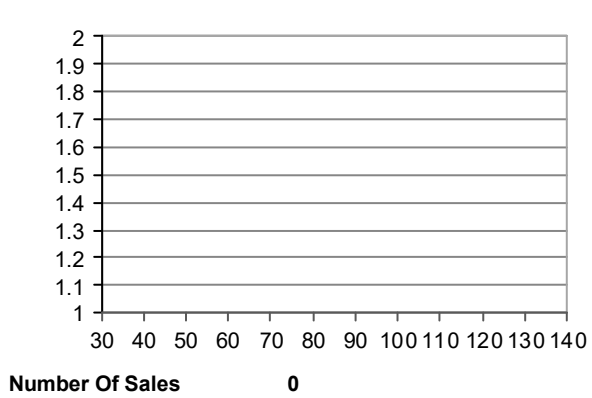
For this analysis, there are no sales available. Therefore, it was decided to use the Selected Ratio of 102 from the MA 02 SA 21, SA 41 and SA 62 improved property study.

Performance History

	2018	2017	2016	2015	2014
COD		6.33	13.44	12.19	10.38
PRD		0.98	1.02	1.02	1.01

COLUMBIA County 2018 Ratio Study

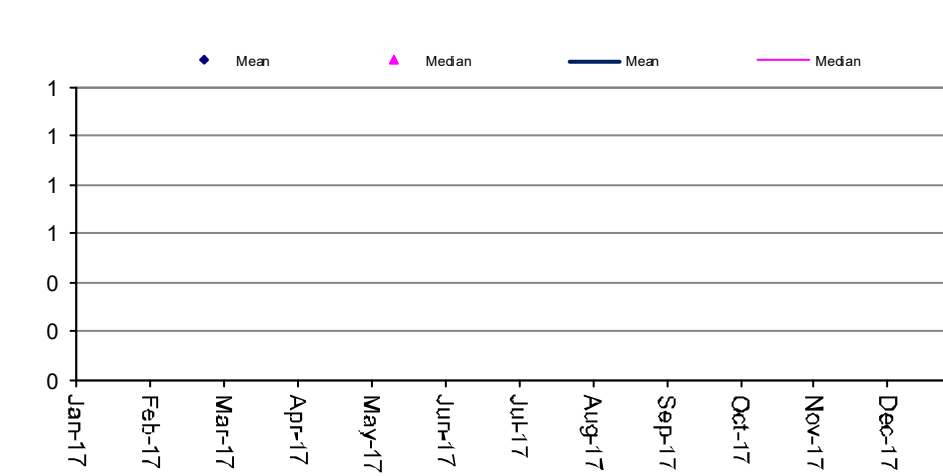
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
AP AR	SA	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
409	02	64	000	2018	0	Scappoose							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	1			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	115,000	43.25 %	109,250	41.99 %
OSD RMV	54,000	20.31 %	54,000	20.76 %
Residential Improvement RMV	96,910	36.44 %	96,910	37.25 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	105			
RMV Adjustment	100			
Before Ratio	105			
Overall Adjustment Factor	95			
Land Adjustment Factor	95			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	105	2018	Adjustment	95

Explanation

RMV 409: SA 64

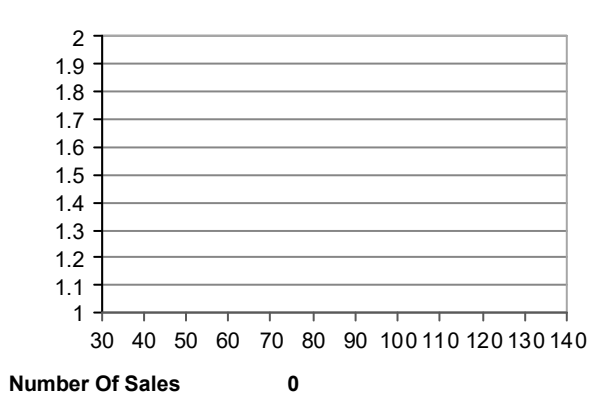
Improved land - Manufactured Structure - Columbia Acres (63, no active accounts) & Hillcrest (64) in Rural Scappoose. Having no sales data available for this study with a population of 1 account, it was decided to implement the conclusion from the MA 02 SA 64 RMV Class 400 analysis, applying an adjustment to the land only. There is not enough data available to warrant an adjustment to the improvements at this time.

Performance History

	2018	2017	2016	2015	2014
COD		-	5.56	12.19	13.45
PRD		-	1.00	1.02	1.02

COLUMBIA County 2018 Ratio Study

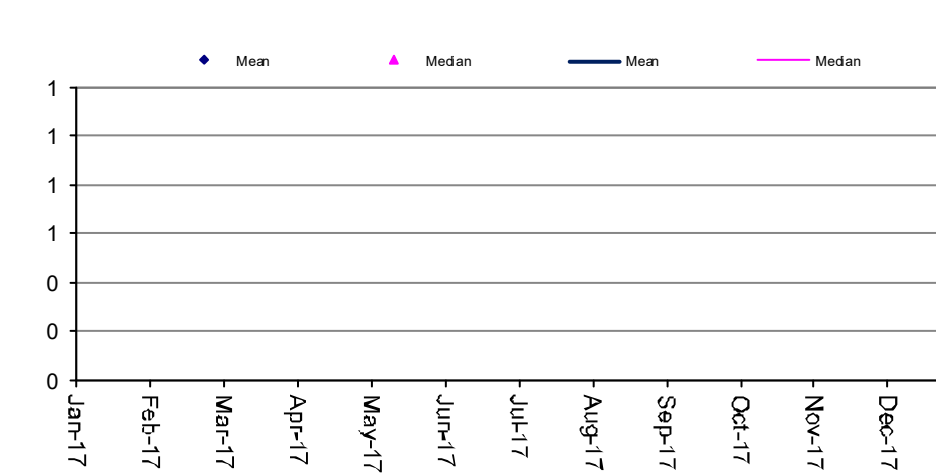
Frequency



- 30 0 Median
- 40 0 AD
- 50 0 COD
- 60 0 Mean
- 70 0 SD
- 80 0 COV
- 90 0
- 100 0
- 110 0
- 120 0
- 130 0
- 140 0

- Wtd Mean
- GeoMean
- PRD
- 95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
800	02	64	000	2018	0	Scappoose	890	02	64	000	2018	0	Scappoose

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	397			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	430,750	100.00 %	430,750	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	100			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	100	2018	Adjustment	100

Explanation

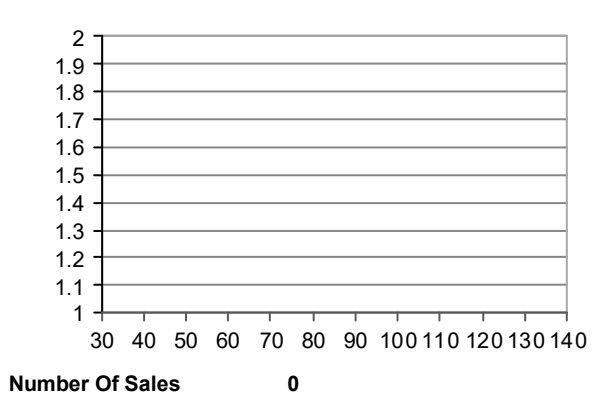
RMV 800 & RMV 890: SA 64
 Undeveloped land - Columbia Acres & Hillcrest, Rural Scappoose
 These properties are very small vacant lots, which can only be developed if they are combined or irrevocably bound. Generally, they are of minimal value until such time that they can be combined or irrevocably bound and then the RMV class is changed to 4XX. Because of the unique nature of these groupings and having no sales data available, it is recommended to make no adjustment at this time.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	0.00	-	-
PRD	-	-	1.00	-	-

COLUMBIA County 2018 Ratio Study

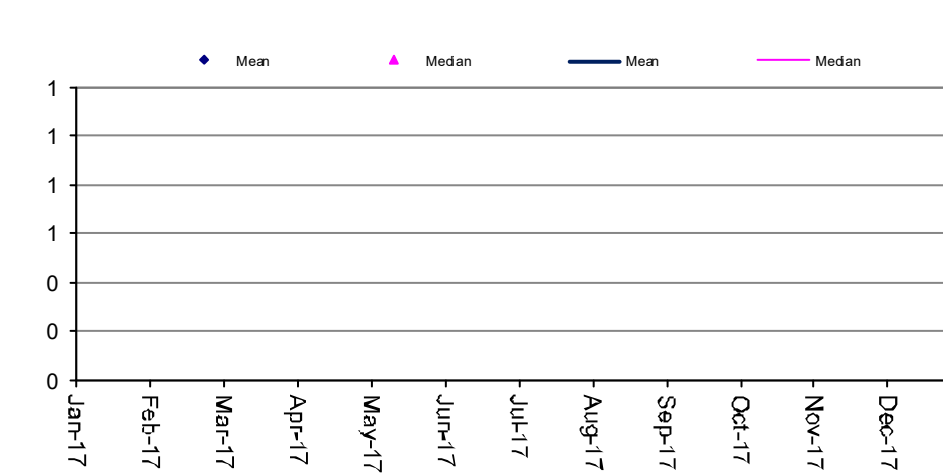
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
AP AR	SA	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO

MAINTENANCE AREA 3

VERNONIA

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
100	03	00	000	2018	6	Vernonia							

Adjustment Calculation Summary

Sample - Number of Sales	6			
Population - Number of Accounts	141			
Sales as a percentage of the Population	4.26 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	7,541,640	100.00 %	7,390,807	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

RMV 100: SA 00

Unimproved land, City of Vernonia

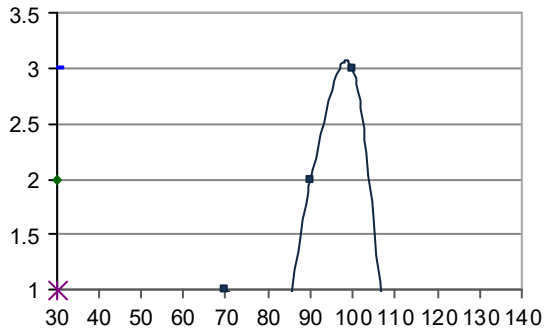
This study is comprised of undeveloped land located within the City of Vernonia. The Median of 99 was selected. This central tendency was also adjusted by the conclusion of 103 from the time study for residential properties. The result is a Selected Ratio of 102. Note: At the time this Study is being prepared the properties in MA 03 (Vernonia) are in the process of a cycle re-appraisal. All the sales referenced in this portion of the study have been re-appraised.

Performance History

	2018	2017	2016	2015	2014
COD	7.41	22.59	8.91	11.01	0.00
PRD	1.01	1.03	1.01	1.01	1.00

COLUMBIA County 2018 Ratio Study

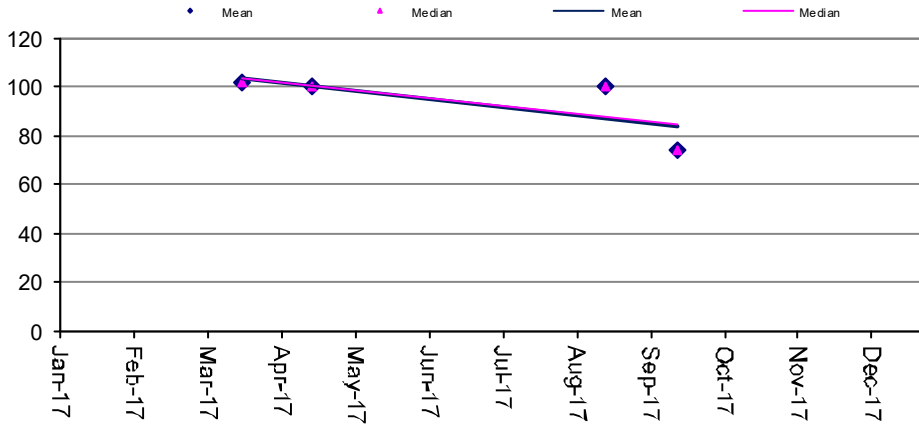
Frequency



30	0	Median	99	Wtd Mean	95
40	0	AD	7.33	GeoMean	95
50	0	COD	7.41	PRD	1.01
60	0	Mean	96	95% Confidence	9.11
70	1	SD	11.38		
80	0	COV	11.86		
90	2				
100	3				
110	0				
120	0				
130	0				
140	0				

Number Of Sales **6**

Central Tendencies



Month	Mean	Median	Sales
Apr-17	102	102	1
May-17	100	100	2
Sep-17	100	100	2
Oct-17	74	74	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
03	00	000	100		33	4N4W04-AD-04201	2017	10300	0.20	35,350	0	35,350	48,000	Oct-17	1	74
03	00	000	100		33	4N4W04-AB-00401	2017	4927	0.21	36,320	0	36,320	38,000	May-17	2	96
03	00	000	100		30	4N4W04-AB-00300	2017	8310	0.17	33,730	0	33,730	35,000	Sep-17	3	96
03	00	000	100		33	4N4W05-DA-08401	2017	3038	0.46	48,500	0	48,500	47,500	Apr-17	4	102
03	00	000	100		33	4N4W04-AB-00303	2017	4262	0.22	36,450	0	36,450	35,000	May-17	5	104
03	00	000	100		30	4N4W04-AB-00304	2017	8309	0.22	36,450	0	36,450	35,000	Sep-17	6	104

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
101	03	00	000	2018	42	Vernonia							

Adjustment Calculation Summary

Sample - Number of Sales	42			
Population - Number of Accounts	499			
Sales as a percentage of the Population	8.42 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	18,187,960	22.07 %	17,824,201	18.97 %
OSD RMV	12,456,000	15.11 %	12,456,000	13.26 %
Residential Improvement RMV	50,627,050	61.43 %	62,271,272	66.27 %
Farm Improvement RMV	1,149,030	1.39 %	1,413,307	1.50 %
SelectedRatioFromSales	88			
RMV Adjustment	100			
Before Ratio	88			
Overall Adjustment Factor	114			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	123			
Farm Improvement Factor	123			
After Ratio	100			
Selected Ratio	88	2018	Adjustment	114

Explanation

RMV 101: SA 00

Improved land, City of Vernonia

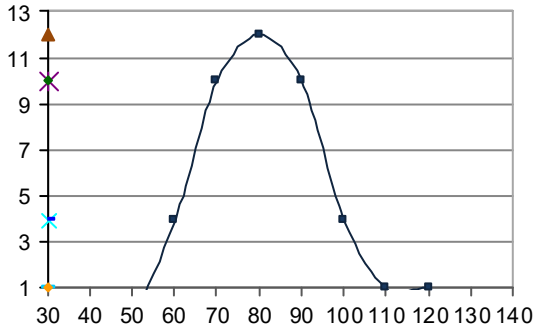
All improved properties in the City of Vernonia, located outside the flood way. This grouping of sales contains a sampling of ratios without any extreme highs or lows. The Median, Mean and Weighted Mean returned a ratio of 85, which is a clear indication of the market. The time adjustment conclusion of 103 was applied accordingly. Note: At the time this Study is being prepared the properties in MA 03 (Vernonia) are in the process of a cycle re-appraisal. All the sales referenced in this portion of the study have been re-appraised.

Performance History

	2018	2017	2016	2015	2014
COD	12.41	8.20	10.32	15.86	9.67
PRD	1.00	1.00	1.01	1.03	1.01

COLUMBIA County 2018 Ratio Study

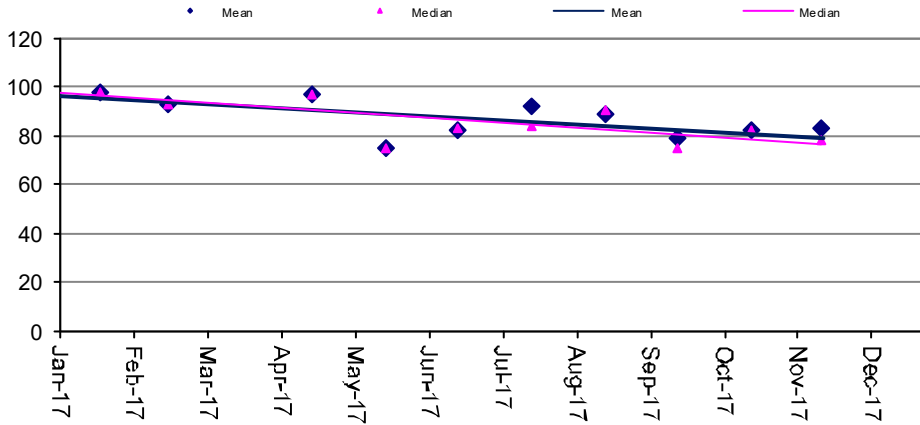
Frequency



30	0	Median	85	Wtd Mean	85
40	0	AD	10.55	GeoMean	84
50	0	COD	12.41	PRD	1.00
60	4	Mean	85	95% Confidence	3.94
70	10	SD	13.02		
80	12	COV	15.32		
90	10				
100	4				
110	1				
120	1				
130	0				
140	0				

Number Of Sales **42**

Central Tendencies



Month	Mean	Median	Sales
Jan-17	101	101	1
Feb-17	98	98	2
Mar-17	93	93	1
May-17	97	97	2
Jun-17	75	75	5
Jul-17	82	83	8
Aug-17	92	84	5
Sep-17	89	90	5
Oct-17	79	75	5
Nov-17	82	82	5
Dec-17	83	78	3

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
03	00	000	101	131	33	4N4W04-AD-01500	2017	6728	0.18	61,090	61,430	122,520	190,000	Jul-17	1	64
03	00	000	101	131	33	4N4W04-AD-01700	2017	6074	0.31	69,040	100,510	169,550	250,000	Jun-17	2	68
03	00	000	101	131	33	4N4W04-AC-03700	2017	10685	0.26	66,230	110,230	176,460	259,000	Nov-17	3	68
03	00	000	101	131	33	4N4W05-AC-04301	2017	10199	0.11	56,860	115,250	172,110	250,000	Oct-17	4	69
03	00	000	101	143	33	4N4W04-BA-03300	2017	6910	0.68	78,080	116,930	195,010	280,000	Jul-17	5	70
03	00	000	101	131	33	4N4W04-AD-02200	2017	7849	0.20	62,360	78,060	140,420	200,000	Aug-17	6	70
03	00	000	101	135	33	4N4W05-AD-11700	2017	11459	0.37	71,800	85,700	157,500	225,000	Dec-17	7	70
03	00	000	101	135	33	4N4W05-DA-09800	2017	6833	0.13	58,090	96,600	154,690	219,300	Jul-17	8	71
03	00	000	101	131	33	4N4W04-BA-02401	2017	10204	0.34	70,560	80,880	151,440	213,000	Oct-17	9	71
03	00	000	101	131	33	4N4W05-AD-03300	2017	5790	0.11	56,860	48,020	104,880	145,000	Jun-17	10	72
03	00	000	101	131	33	4N4W04-AC-02600	2017	8844	0.25	65,850	49,220	115,070	157,500	Sep-17	11	73
03	00	000	101	136	33	4N4W05-DA-02801	2017	6125	0.26	66,110	179,650	245,760	327,000	Jun-17	12	75
03	00	000	101	121	33	4N4W05-AD-09701	2017	10048	0.11	56,860	36,850	93,710	124,800	Oct-17	13	75
03	00	000	101	131	33	4N4W05-AD-12400	2017	11035	0.23	64,270	86,470	150,740	196,000	Nov-17	14	77
03	00	000	101	131	30	4N4W03-BC-10800	2017	5952	0.30	68,640	102,340	170,980	215,000	Jun-17	15	80
03	00	000	101	141	33	4N4W03-BA-01016	2017	6293	0.29	68,140	166,080	234,220	292,000	Jun-17	16	80
03	00	000	101	141	30	4N4W04-AB-00402	2017	7583	0.21	63,150	181,500	244,650	299,900	Aug-17	17	82
03	00	000	101	143	33	4N4W03-BA-01012	2017	10891	0.41	73,370	164,540	237,910	290,000	Nov-17	18	82
03	00	000	101	141	33	4N4W04-BA-02800	2017	6152	0.40	73,140	149,670	222,810	268,000	Jul-17	19	83

COLUMBIA County 2018 Ratio Study

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
03	00	000	101	142	33	4N4W03-BA-01009	2017	6513	0.22	63,520	172,190	235,710	284,000	Jul-17	20	83
03	00	000	101	131	33	4N4W05-AD-02901	2017	7521	0.33	70,080	81,260	151,340	180,000	Aug-17	21	84
03	00	000	101	131	30	4N4W04-AC-02900	2017	1508	0.24	65,130	58,190	123,320	144,000	Feb-17	22	86
03	00	000	101	141	33	5N4W34-CD-00800	2017	11454	0.30	68,690	211,580	280,270	324,900	Dec-17	23	86
03	00	000	101	141	33	4N4W03-CA-00106	2017	10052	0.23	64,090	83,660	147,750	169,000	Oct-17	24	87
03	00	000	101	141	33	4N4W05-AD-04700	2017	7091	0.11	56,860	149,370	206,230	235,000	Jul-17	25	88
03	00	000	101	151	33	4N4W04-DA-02300	2017	8655	0.34	70,280	162,200	232,480	259,900	Sep-17	26	89
03	00	000	101	142	33	4N4W05-AD-10100	2017	9088	0.23	64,270	133,220	197,490	220,000	Sep-17	27	90
03	00	000	101	132	33	4N4W04-BC-06100	2017	8817	0.30	68,590	95,710	164,300	180,650	Sep-17	28	91
03	00	000	101	142	33	4N4W04-AC-03600	2017	9575	0.22	63,410	139,830	203,240	223,000	Oct-17	29	91
03	00	000	101	141	33	4N4W05-AA-00403	2017	10484	0.54	77,150	160,530	237,680	259,900	Nov-17	30	91
03	00	000	101	142	33	4N4W05-AA-01100	2017	11776	0.87	78,490	260,160	338,650	368,000	Dec-17	31	92
03	00	000	101	146	33	4N4W04-BD-02101	2017	2132	0.18	61,390	181,060	242,450	260,000	Mar-17	32	93
03	00	000	101	141	33	4N4W05-AD-03500	2017	10463	0.23	64,270	167,020	231,290	249,900	Nov-17	33	93
03	00	000	101	141	33	4N4W05-AD-01800	2017	4891	0.17	60,520	170,530	231,050	242,500	May-17	34	95
03	00	000	101	121	33	4N4W05-AC-04200	2017	7220	0.23	64,270	45,650	109,920	114,500	Jul-17	35	96
03	00	000	101	135	33	4N4W05-DA-10100	2017	4549	0.14	58,620	70,510	129,130	129,900	May-17	36	99
03	00	000	101	143	33	4N4W05-AD-05501	2017	523	0.11	56,850	129,050	185,900	184,900	Jan-17	37	101
03	00	000	101	142	30	4N4W04-BA-04500	2017	6538	0.23	64,270	156,320	220,590	217,000	Jul-17	38	102
03	00	000	101	143	33	4N4W05-AD-10900	2017	8962	0.17	60,760	187,440	248,200	238,000	Sep-17	39	104
03	00	000	101	131	33	4N4W03-BC-09400	2017	7535	0.38	72,050	87,510	159,560	150,000	Aug-17	40	106
03	00	000	101	131	33	4N4W04-DA-00200	2017	1455	0.19	61,600	69,830	131,430	120,000	Feb-17	41	110
03	00	000	101	151	30	4N4W03-BD-02108	2017	7545	0.68	113,710	277,100	390,810	325,000	Aug-17	42	120

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
109	03	00	000	2018	7	Vernonia							

Adjustment Calculation Summary

Sample - Number of Sales	7			
Population - Number of Accounts	82			
Sales as a percentage of the Population	8.54 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	3,069,130	27.78 %	3,007,747	23.12 %
OSD RMV	2,025,000	18.33 %	2,025,000	15.56 %
Residential Improvement RMV	5,608,050	50.76 %	7,514,787	57.76 %
Farm Improvement RMV	345,650	3.13 %	463,171	3.56 %
SelectedRatioFromSales	85			
RMV Adjustment	100			
Before Ratio	85			
Overall Adjustment Factor	118			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	134			
Farm Improvement Factor	134			
After Ratio	100			
Selected Ratio	85	2018	Adjustment	118

Explanation

RMV 109: SA 00

Improved Land - Manufactured Structure, City of Vernonia

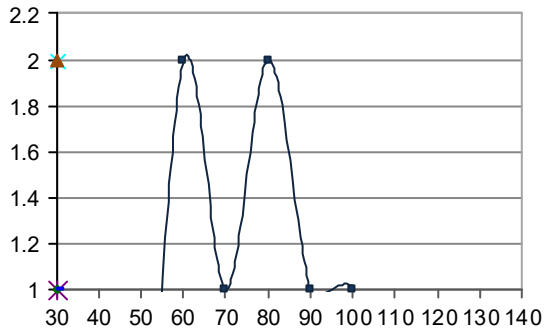
The Overall Adjustment Factor is 118 after selecting the Median of 83 and applying the time adjustment of 103 for this array of properties improved with manufactured structures within the city limits of Vernonia. Note: At the time this Study is being prepared the properties in MA 03 (Vernonia) are in the process of a cycle re-appraisal. All the sales referenced in this portion of the study have been re-appraised.

Performance History

	2018	2017	2016	2015	2014
COD	13.25	18.00	2.46	15.86	9.67
PRD	1.03	1.03	1.00	1.03	1.01

COLUMBIA County 2018 Ratio Study

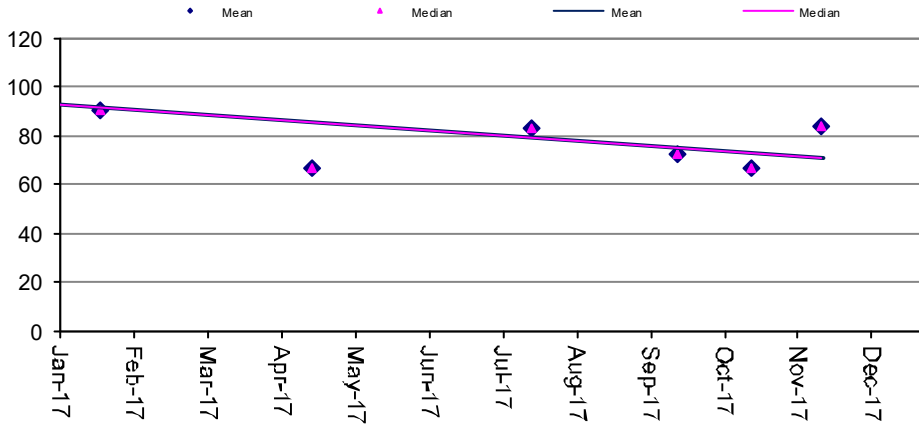
Frequency



30	0	Median	83	Wtd Mean	79
40	0	AD	11.00	GeoMean	80
50	0	COD	13.25	PRD	1.03
60	2	Mean	81	95% Confidence	10.66
70	1	SD	14.39		
80	2	COV	17.77		
90	1				
100	1				
110	0				
120	0				
130	0				
140	0				

Number Of Sales 7

Central Tendencies



Month	Mean	Median	Sales
Jan-17	107	107	1
Feb-17	90	90	1
May-17	67	67	1
Aug-17	83	83	1
Oct-17	72	72	1
Nov-17	67	67	1
Dec-17	84	84	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
03	00	000	109	452	33	4N4W05-AC-04203	2017	4783	0.11	56,860	80,500	137,360	205,000	May-17	1	67
03	00	000	109	462	33	4N4W04-AC-06100	2017	10656	0.21	63,070	80,390	143,460	215,000	Nov-17	2	67
03	00	000	109	452	33	4N4W03-CA-00100	2017	10099	0.59	77,640	108,240	185,880	258,900	Oct-17	3	72
03	00	000	109	462	33	4N4W05-DA-07600	2017	8825	0.14	58,620	102,590	161,210	194,900	Aug-17	4	83
03	00	000	109	462	33	4N4W04-AC-01500	2017	11879	0.68	78,080	108,660	186,740	221,000	Dec-17	5	84
03	00	000	109	462	33	4N4W04-AD-00500	2017	1525	0.23	64,430	60,970	125,400	140,090	Feb-17	6	90
03	00	000	109	462	33	4N4W04-BA-01601	2017	846	0.17	60,450	84,090	144,540	135,000	Jan-17	7	107

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	# of Sales	Location	RMV Class	MA	SA	NH	Year	# of Sales	Location
100	03	03	000	2018	0	Vernonia							

Adjustment Calculation Summary

Sample - Number of Sales	0			
Population - Number of Accounts	99			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	2,659,740	100.00 %	2,899,117	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	92			
RMV Adjustment	100			
Before Ratio	92			
Overall Adjustment Factor	109			
Land Adjustment Factor	109			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	92	2018	Adjustment	109

Explanation

RMV 100: SA 03

Undeveloped land - located in the Floodway - City of Vernonia

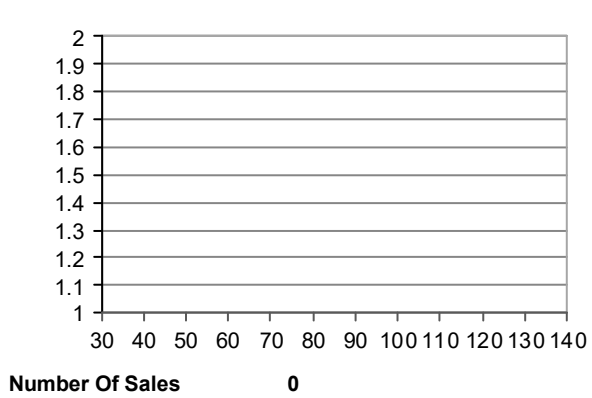
There were no undeveloped land sales available for this analysis. Therefore, the conclusion from the residential improved property study (RMV 101) located in the same area has been applied here. Note: At the time this Study is being prepared the properties in MA 03 (Vernonia) are in the process of a cycle re-appraisal. All the sales referenced in this portion of the study have been re-appraised.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	12.81
PRD	-	-	-	-	1.06

COLUMBIA County 2018 Ratio Study

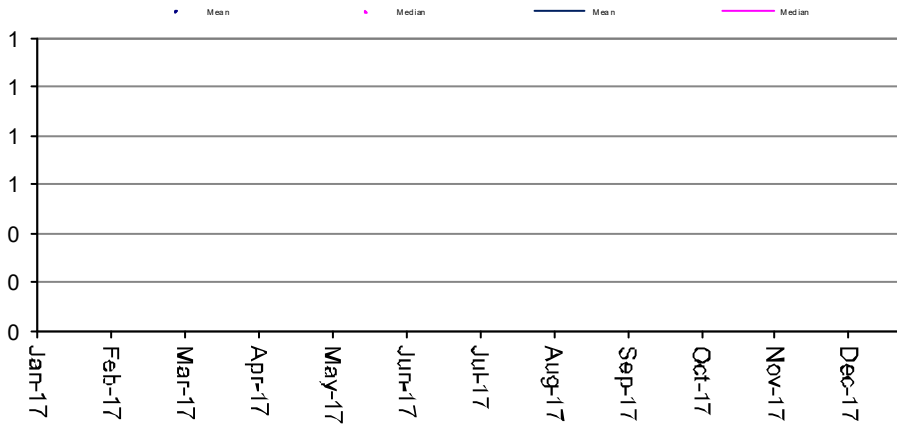
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
101	03	03	000	2018	12	Vernonia							

Adjustment Calculation Summary

Sample - Number of Sales	12			
Population - Number of Accounts	289			
Sales as a percentage of the Population	4.15 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	10,026,800	25.60 %	10,929,212	25.56 %
OSD RMV	6,741,750	17.21 %	6,741,750	15.77 %
Residential Improvement RMV	21,545,300	55.01 %	24,130,736	56.44 %
Farm Improvement RMV	848,760	2.17 %	950,611	2.22 %
SelectedRatioFromSales	92			
RMV Adjustment	100			
Before Ratio	92			
Overall Adjustment Factor	109			
Land Adjustment Factor	109			
OSD Adjustment Factor	100			
Residential Adjustment Factor	112			
Farm Improvement Factor	112			
After Ratio	100			
Selected Ratio	92	2018	Adjustment	109

Explanation

RMV 101: SA 03

Improved land - located in the Floodway - City of Vernonia

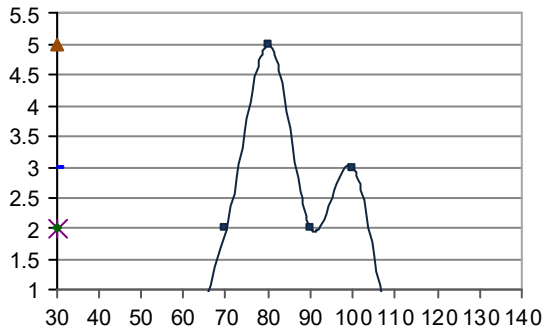
This study area is for those improved properties located within the designated FEMA Floodway in the City of Vernonia. For this analysis, the Mean (89) was selected and adjusted by 103 (the conclusion from the time study). The Selected Ratio is 92. Note: At the time this Study is being prepared the properties in MA 03 (Vernonia) are in the process of a cycle re-appraisal. All the sales referenced in this portion of the study have been re-appraised.

Performance History

	2018	2017	2016	2015	2014
COD	9.00	17.78	8.87	15.71	12.81
PRD	0.99	1.04	0.99	1.05	1.06

COLUMBIA County 2018 Ratio Study

Frequency

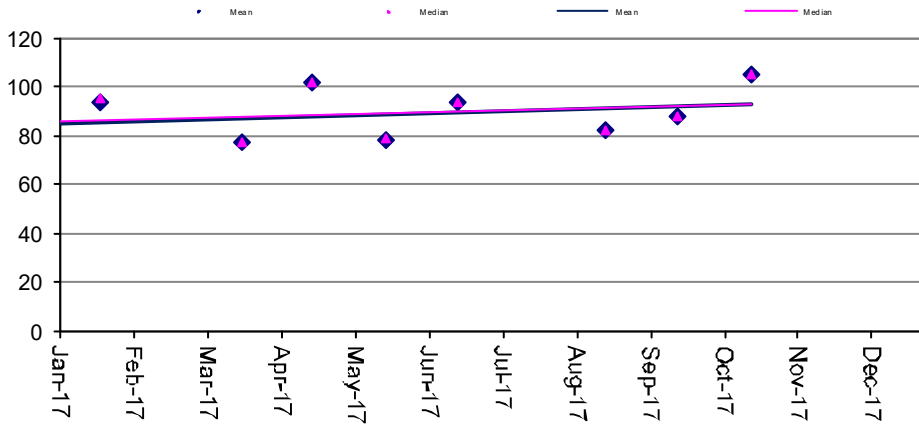


30	0	Median	88	Wtd Mean	90
40	0	AD	7.92	GeoMean	89
50	0	COD	9.00	PRD	0.99
60	0	Mean	89	95% Confidence	5.84
70	2	SD	10.32		
80	5	COV	11.59		
90	2				
100	3				
110	0				
120	0				
130	0				
140	0				

Number Of Sales

12

Central Tendencies



Month	Mean	Median	Sales
Jan-17	84	84	1
Feb-17	94	95	2
Apr-17	77	77	1
May-17	102	102	1
Jun-17	78	79	2
Jul-17	94	94	2
Sep-17	82	82	1
Oct-17	88	88	1
Nov-17	105	105	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
03	03	000	101	131	33	4N4W04-BD-07201	2017	5745	0.11	56,860	53,570	110,430	158,080	Jun-17	1	70
03	03	000	101	131	33	4N4W04-BD-06000	2017	4070	0.11	56,860	44,810	101,670	132,000	Apr-17	2	77
03	03	000	101	135	33	4N4W04-BD-06400	2017	9014	0.11	56,860	50,950	107,810	132,000	Sep-17	3	82
03	03	000	101	131	33	4N4W03-BB-02100	2017	1362	0.24	64,940	86,200	151,140	178,900	Jan-17	4	84
03	03	000	101	141	30	4N4W03-BD-02102	2017	5403	0.20	62,160	135,570	197,730	226,600	Jun-17	5	87
03	03	000	101	143	33	4N4W04-BD-13000	2017	10609	0.18	61,390	161,780	223,170	252,200	Oct-17	6	88
03	03	000	101	131	33	4N4W04-BC-01301	2017	1726	0.11	56,860	126,130	182,990	205,000	Feb-17	7	89
03	03	000	101	141	33	4N4W03-BD-02104	2017	6542	0.62	77,760	157,340	235,100	251,900	Jul-17	8	93
03	03	000	101	132	33	4N4W03-BB-06100	2017	8418	0.34	70,560	51,380	121,940	129,500	Jul-17	9	94
03	03	000	101	135	33	4N4W04-BC-01900	2017	1724	0.11	56,860	128,330	185,190	184,500	Feb-17	10	100
03	03	000	101	136	33	4N4W03-BB-04000	2017	4841	0.18	61,380	121,950	183,330	178,900	May-17	11	102
03	03	000	101	131	33	4N4W04-BC-01300	2017	10342	0.11	56,860	68,900	125,760	120,000	Nov-17	12	105

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location		RMV Class	MA	SA	NH	Year	App # of Sales	Location
109	03	03	000	2018	2	Vernonia								

Adjustment Calculation Summary

Sample - Number of Sales	2			
Population - Number of Accounts	47			
Sales as a percentage of the Population	4.26 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	1,661,170	28.75 %	1,810,675	28.80 %
OSD RMV	1,107,000	19.16 %	1,107,000	17.61 %
Residential Improvement RMV	2,680,720	46.40 %	3,002,406	47.75 %
Farm Improvement RMV	328,130	5.68 %	367,506	5.84 %
SelectedRatioFromSales	92			
RMV Adjustment	100			
Before Ratio	92			
Overall Adjustment Factor	109			
Land Adjustment Factor	109			
OSD Adjustment Factor	100			
Residential Adjustment Factor	112			
Farm Improvement Factor	112			
After Ratio	100			
Selected Ratio	92	2018	Adjustment	109

Explanation

RMV 109 SA 03

Improved land - located in the Floodway, Manufactured Structure - City of Vernonia

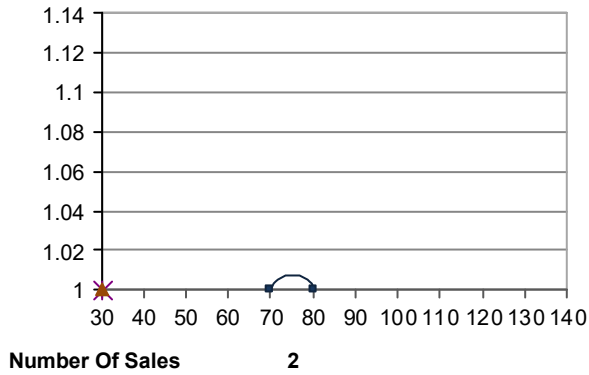
There were only two "good" sales within the study period and these sales did not provide an adequate sampling with which an accurate conclusion could be made. Therefore, the conclusion from the MA 03 SA 03 improved properties analysis is recommended, with a ratio indicator of 89 and a time adjustment of 103. The Selected Ratio is 92. Note: At the time this Study is being prepared the properties in MA 03 (Vernonia) are in the process of a cycle re-appraisal. All the sales referenced in this portion of the study have been re-appraised.

Performance History

	2018	2017	2016	2015	2014
COD	8.64	-	15.38	15.71	12.81
PRD	1.00	-	0.99	1.05	1.06

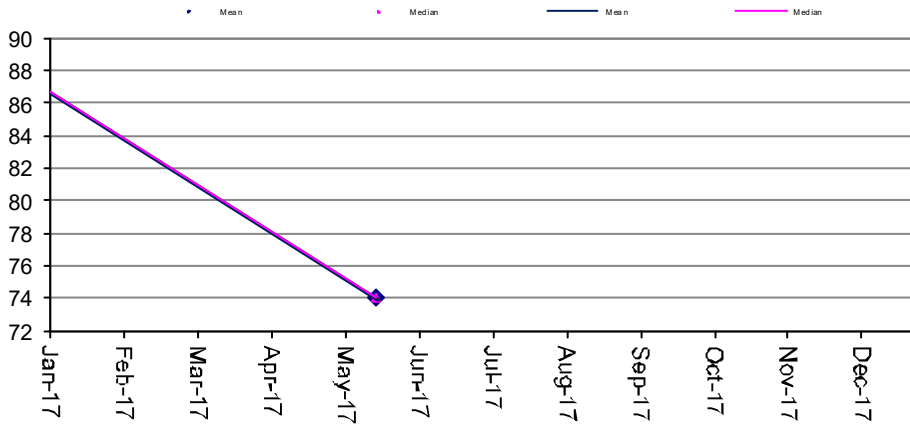
COLUMBIA County 2018 Ratio Study

Frequency



30	0	Median	81	Wtd Mean	81
40	0	AD	7.00	GeoMean	81
50	0	COD	8.64	PRD	1.00
60	0	Mean	81	95% Confidence	13.72
70	1	SD	9.90		
80	1	COV	12.22		
90	0				
100	0				
110	0				
120	0				
130	0				
140	0				

Central Tendencies



Month	Mean	Median	Sales
Jan-17	88	88	1
Jun-17	74	74	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
03	03	000	109	462	33	4N4W03-BB-01201	2017	5534	0.46	75,530	110,730	186,260	251,000	Jun-17	1	74
03	03	000	109	462	33	4N4W03-BB-03100	2017	436	0.41	73,370	132,280	205,650	235,000	Jan-17	2	88

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
100	03	38	000	2018	0	Vernonia							

Adjustment Calculation Summary

Sample - Number of Sales	0			
Population - Number of Accounts	2			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	41,870	100.00 %	41,033	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

RMV 100: SA 38

Unimproved land - Roseview Heights, City of Vernonia

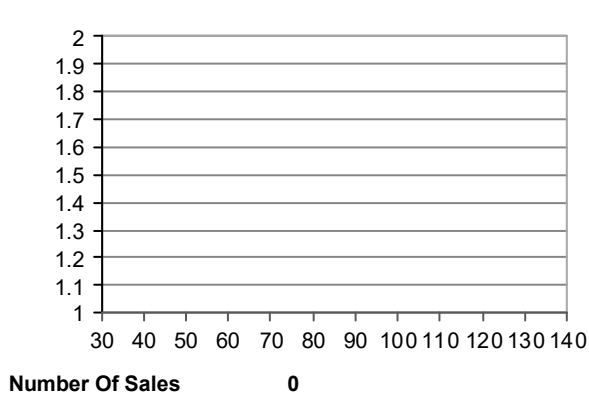
Due to having no bare land sales available, it was decided to use the selected ratio of 102 from the MA 03 SA 00 unimproved study. Note: At the time this Study is being prepared the properties in MA 03 (Vernonia) are in the process of a cycle re-appraisal. All the sales referenced in this portion of the study have been re-appraised

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	-
PRD	-	-	-	-	-

COLUMBIA County 2018 Ratio Study

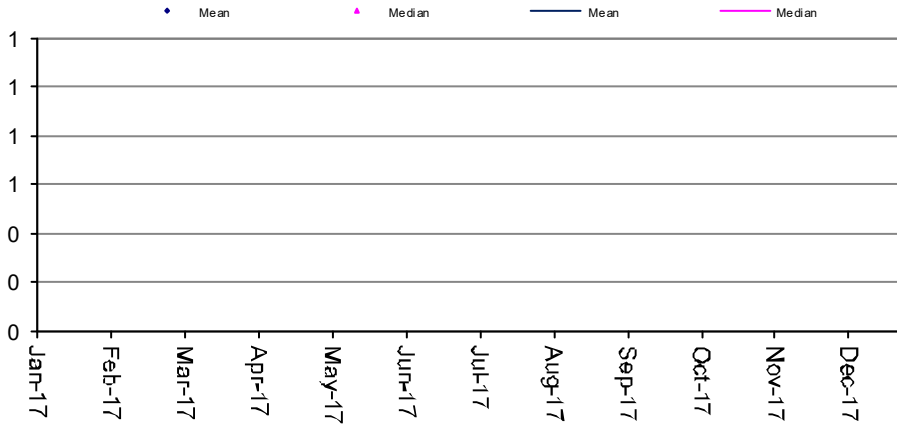
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
109	03	38	000	2018	0	Vernonia							

Adjustment Calculation Summary

Sample - Number of Sales	0			
Population - Number of Accounts	21			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	689,260	23.87 %	675,475	19.79 %
OSD RMV	567,000	19.63 %	567,000	16.61 %
Residential Improvement RMV	1,629,720	56.43 %	2,167,528	63.51 %
Farm Improvement RMV	2,060	0.07 %	2,740	0.08 %
SelectedRatioFromSales	85			
RMV Adjustment	100			
Before Ratio	85			
Overall Adjustment Factor	118			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	133			
Farm Improvement Factor	133			
After Ratio	100			
Selected Ratio	85	2018	Adjustment	118

Explanation

RMV 109: SA 38

Improved land - Roseview Heights, City of Vernonia

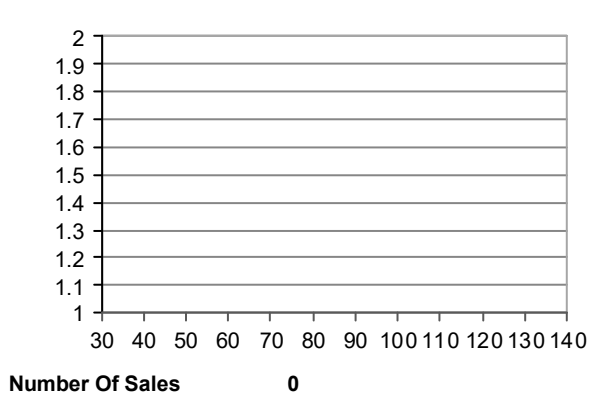
This area is a small subdivision located within the City of Vernonia, which is comprised of manufactured structures and various accessory items/buildings. Because there are no sales available for this analysis, the Selected Ratio of 85 from the MA 03 SA 00 improved study was applied here. Note: At the time this Study is being prepared the properties in MA 03 (Vernonia) are in the process of a cycle re-appraisal. All the sales referenced in this portion of the study have been re-appraised.

Performance History

	2018	2017	2016	2015	2014
COD		8.02	8.33	0.00	9.32
PRD		0.99	1.01	1.00	1.02

COLUMBIA County 2018 Ratio Study

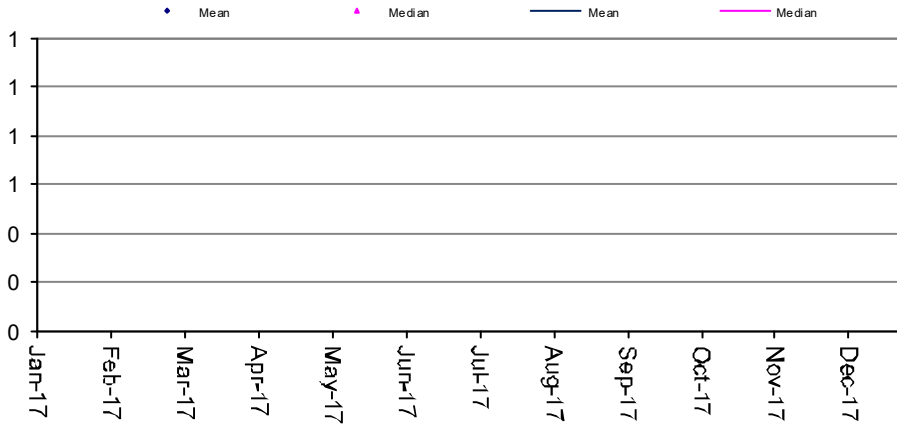
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA AR	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA AR	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
101	03	40	000	2018	0	Vernonia							

Adjustment Calculation Summary

Sample - Number of Sales	0			
Population - Number of Accounts	9			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	231,390	16.61 %	226,762	14.25 %
OSD RMV	348,000	24.98 %	348,000	21.86 %
Residential Improvement RMV	809,710	58.13 %	1,012,138	63.59 %
Farm Improvement RMV	3,840	0.28 %	4,800	0.30 %
SelectedRatioFromSales	88			
RMV Adjustment	100			
Before Ratio	88			
Overall Adjustment Factor	114			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	125			
Farm Improvement Factor	125			
After Ratio	100			
Selected Ratio	88	2018	Adjustment	114

Explanation

RMV 101: SA 40

Improved land - Duplex/Triplex/Fourplex, City of Vernonia

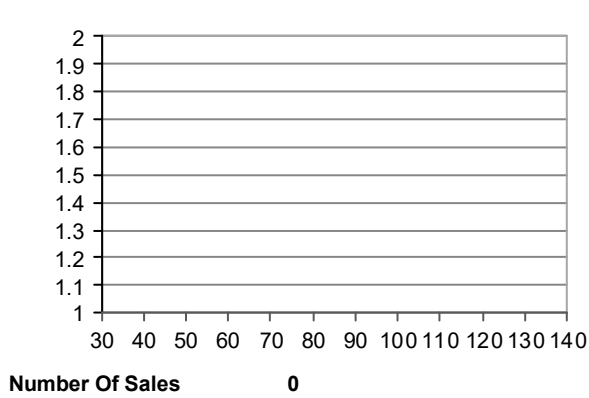
With having no sales data available for this study, the Selected Ratio of 88 from the analysis of improved properties in the general area of the City of Vernonia was deemed appropriate to apply here. Note: At the time this Study is being prepared the properties in MA 03 (Vernonia) are in the process of a cycle re-appraisal. All the sales referenced in this portion of the study have been re-appraised.

Performance History

	2018	2017	2016	2015	2014
COD		-	0.00	-	9.67
PRD		-	1.00	-	1.01

COLUMBIA County 2018 Ratio Study

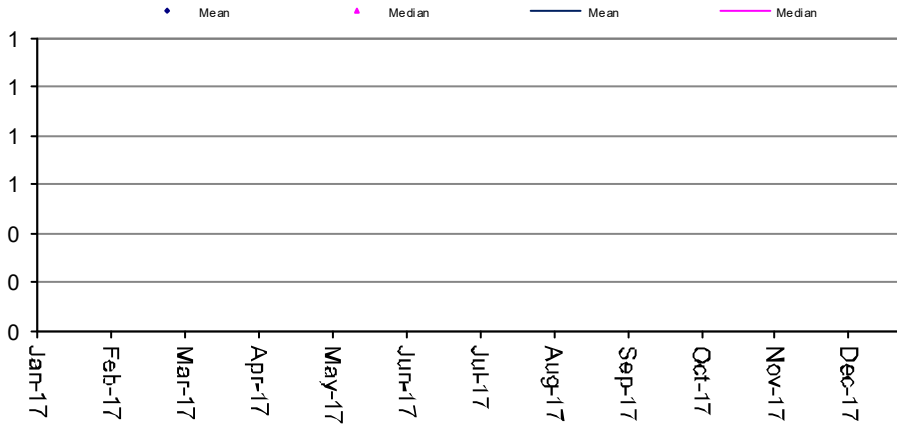
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA AR	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA AR	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
400	03	31	000	2018	5	Vernonia							

Adjustment Calculation Summary

Sample - Number of Sales	5			
Population - Number of Accounts	714			
Sales as a percentage of the Population	0.70 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	169,069,760	100.00 %	160,616,272	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	1,460	0.00 %	1,460	0.00 %
SelectedRatioFromSales	105			
RMV Adjustment	100			
Before Ratio	105			
Overall Adjustment Factor	95			
Land Adjustment Factor	95			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	105	2018	Adjustment	95

Explanation

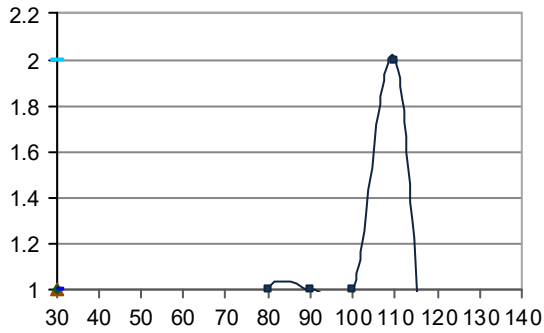
RMV 400: SA 31
 Undeveloped land - Value Zone 1 (31) in Rural Vernonia.
 For this analysis of undeveloped property located in rural Vernonia, the Median was selected with a ratio indicator of 101. This central tendency was then adjusted by 104 (the time study conclusion) resulting in a Selected Ratio of 105. The Overall Adjustment Factor is 95. Note: At the time this Study is being prepared the properties in MA 03 (Vernonia) are in the process of a cycle re-appraisal. All the sales referenced in this portion of the study have been re-appraised.

Performance History

	2018	2017	2016	2015	2014
COD	9.11	25.00	8.93	15.51	13.40
PRD	1.04	0.87	1.02	1.04	0.97

COLUMBIA County 2018 Ratio Study

Frequency

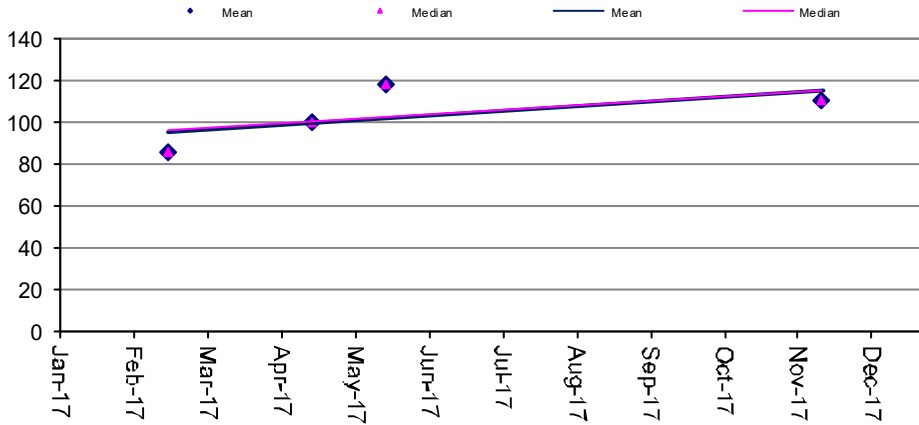


30	0	Median	101	Wtd Mean	99
40	0	AD	9.20	GeoMean	102
50	0	COD	9.11	PRD	1.04
60	0	Mean	103	95% Confidence	10.90
70	0	SD	12.43		
80	1	COV	12.07		
90	1				
100	1				
110	2				
120	0				
130	0				
140	0				

Number Of Sales

5

Central Tendencies



Month	Mean	Median	Sales
Mar-17	85	85	1
May-17	100	100	2
Jun-17	118	118	1
Dec-17	110	110	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
03	31	000	400		33	4N2W21-00-00200	2017	2863	26.54	219,940	0	219,940	260,000	Mar-17	1	85
03	31	000	400		33	4N4W07-D0-00103	2017	4678	5.29	123,140	0	123,140	125,000	May-17	2	99
03	31	000	400		33	4N4W00-00-01800	2017	5032	13.23	140,940	0	140,940	139,000	May-17	3	101
03	31	000	400		33	5N4W33-00-01401	2017	11668	7.25	141,020	0	141,020	128,000	Dec-17	4	110
03	31	000	400		33	5N4W33-00-01401	2017	6207	7.25	141,020	0	141,020	120,000	Jun-17	5	118

COLUMBIA County 2018 Ratio Study

RMV																				
Class	MA	SA	NH	Year	# of	Location		RMV	Class	MA	SA	NH	Year	# of	Location					
401	03	31	000	2018	16	Vernonia														

Adjustment Calculation Summary

Sample - Number of Sales	16			
Population - Number of Accounts	971			
Sales as a percentage of the Population	1.65 %	Pre-Trend	Post Trend	Post Trend
Prior Year Population Values		Brkdwn	Values	Brkdwn
Land RMV	107,425,160	36.39 %	102,053,902	34.18 %
OSD RMV	42,449,540	14.38 %	42,449,540	14.22 %
Residential Improvement RMV	127,946,353	43.34 %	135,623,134	45.43 %
Farm Improvement RMV	17,376,589	5.89 %	18,419,184	6.17 %
SelectedRatioFromSales	99			
RMV Adjustment	100			
Before Ratio	99			
Overall Adjustment Factor	101			
Land Adjustment Factor	95			
OSD Adjustment Factor	100			
Residential Adjustment Factor	106			
Farm Improvement Factor	106			
After Ratio	100			
Selected Ratio	99	2018	Adjustment	101

Explanation

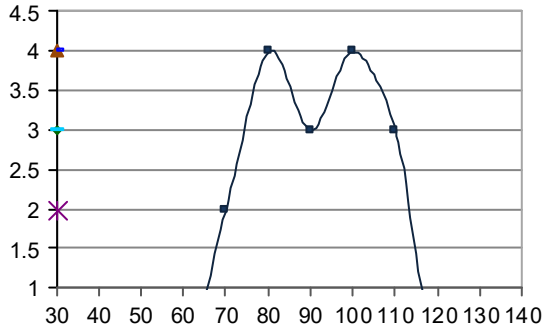
RMV 401: SA 31
 Improved land - Value Zone 1 (31) in Rural Vernonia.
 For this study of developed property located throughout Rural Vernonia, 16 sales are available for analysis. The Mean, Median and Weighted Mean returned an indicator of 95, which was then adjusted by the conclusion from the time study (104). As a result, the Selected Ratio is 99.

Performance History

	2018	2017	2016	2015	2014
COD	11.72	12.73	7.16	18.26	12.88
PRD	1.00	1.01	1.00	1.06	1.01

COLUMBIA County 2018 Ratio Study

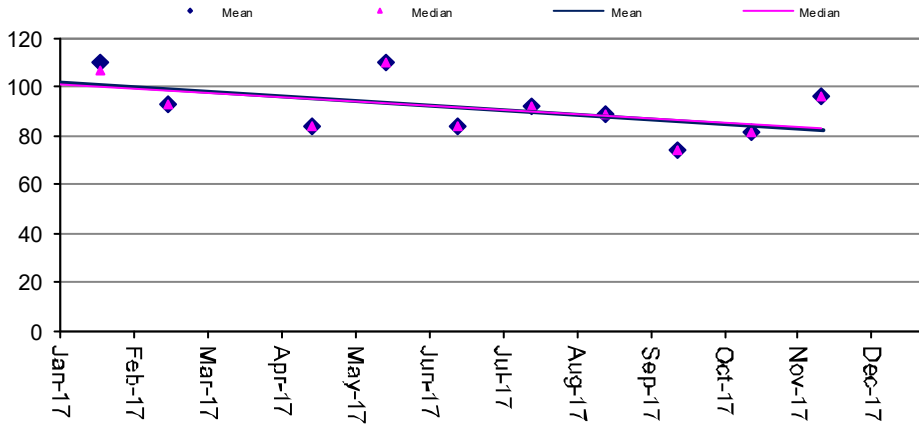
Frequency



Number Of Sales **16**

30	0	Median	96	Wtd Mean	95
40	0	AD	11.25	GeoMean	94
50	0	COD	11.72	PRD	1.00
60	0	Mean	95	95% Confidence	6.73
70	2	SD	13.74		
80	4	COV	14.46		
90	3				
100	4				
110	3				
120	0				
130	0				
140	0				

Central Tendencies



Month	Mean	Median	Sales
Jan-17	104	104	1
Feb-17	110	107	3
Mar-17	93	93	1
May-17	84	84	1
Jun-17	110	110	1
Jul-17	84	84	1
Aug-17	92	92	2
Sep-17	89	89	2
Oct-17	74	74	1
Nov-17	81	81	1
Dec-17	96	96	2

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
03	31	000	401	131	33	4N5W13-00-02200	2017	8717	1.16	104,850	49,260	154,110	215,000	Sep-17	1	72
03	31	000	401	131	33	5N5W25-CB-00500	2017	9806	0.29	95,000	90,180	185,180	250,000	Oct-17	2	74
03	31	000	401	143	33	4N2W16-00-03200	2017	10602	3.60	138,220	221,180	359,400	445,500	Nov-17	3	81
03	31	000	401	141	33	4N2W20-00-00100	2017	4739	5.80	173,550	189,580	363,130	430,000	May-17	4	84
03	31	000	401	141	33	4N3W24-00-00800	2017	6373	9.21	201,940	118,900	320,840	380,000	Jul-17	5	84
03	31	000	401	142	33	4N2W20-00-00801	2017	7602	2.12	132,450	201,990	334,440	396,200	Aug-17	6	84
03	31	000	401	143	33	4N5W12-00-01800	2017	2981	58.22	308,650	330,340	638,990	685,000	Mar-17	7	93
03	31	000	401	143	33	5N4W22-D0-00300	2017	11257	2.20	134,040	243,840	377,880	396,000	Dec-17	8	95
03	31	000	401	135	33	5N4W22-D0-00400	2017	11908	5.00	176,500	92,520	269,020	280,000	Dec-17	9	96
03	31	000	401	135	30	5N4W11-00-00400	2017	7395	5.86	187,250	145,130	332,380	331,250	Aug-17	10	100
03	31	000	401	155	33	4N5W14-00-00900	2017	1831	2.26	135,240	206,540	341,780	340,000	Feb-17	11	101
03	31	000	401	141	33	4N2W21-A0-01100	2017	499	3.92	156,410	174,520	330,930	319,000	Jan-17	12	104
03	31	000	401	300	33	5N4W34-00-00100	2017	9746	70.69	336,800	35,440	372,240	350,000	Sep-17	13	106
03	31	000	401	155	30	5N5W33-00-00503	2017	6093	54.42	307,890	298,130	606,020	550,000	Jun-17	14	110
03	31	000	401	142	33	4N3W14-00-01700	2017	1426	5.14	178,260	168,900	347,160	306,000	Feb-17	15	113
03	31	000	401	143	33	4N4W08-AD-00103	2017	1755	1.31	109,350	170,550	279,900	240,000	Feb-17	16	117

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
409	03	31	000	2018	11	Vernonia							

Adjustment Calculation Summary

Sample - Number of Sales	11			
Population - Number of Accounts	309			
Sales as a percentage of the Population	3.56 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	33,393,120	43.88 %	31,723,464	40.09 %
OSD RMV	16,567,620	21.77 %	16,567,620	20.94 %
Residential Improvement RMV	20,419,715	26.83 %	24,095,264	30.45 %
Farm Improvement RMV	5,714,780	7.51 %	6,743,440	8.52 %
SelectedRatioFromSales	96			
RMV Adjustment	100			
Before Ratio	96			
Overall Adjustment Factor	104			
Land Adjustment Factor	95			
OSD Adjustment Factor	100			
Residential Adjustment Factor	118			
Farm Improvement Factor	118			
After Ratio	100			
Selected Ratio	96	2018	Adjustment	104

Explanation

RMV 409: SA 31

Improved land - Manufactured Structure in Rural Vernonia.

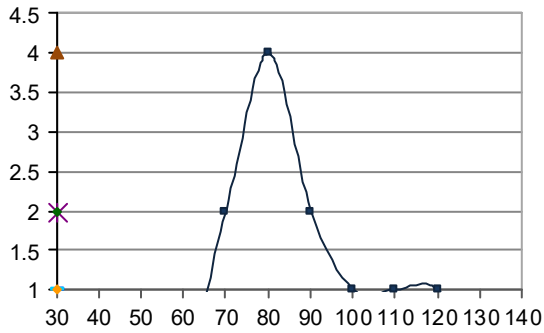
This grouping of properties consists of those improved with manufactured structures located in the rural areas of Vernonia. For this study, the Mean of 92 was selected which is supported by the Weighted Mean (91). The Mean was then adjusted by 104 the adjustment from the time study for a Selected Ratio of 96. Note: At the time this Study is being prepared the properties in MA 03 (Vernonia) are in the process of a cycle re-appraisal. All the sales referenced in this portion of the study have been re-appraised.

Performance History

	2018	2017	2016	2015	2014
COD	14.55	10.88	14.21	18.26	12.88
PRD	1.01	1.02	0.98	1.06	1.01

COLUMBIA County 2018 Ratio Study

Frequency

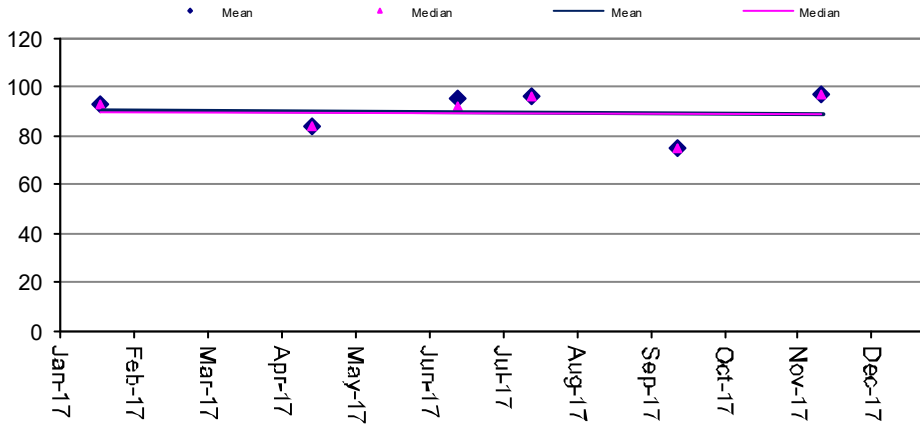


30	0	Median	85	Wtd Mean	91
40	0	AD	12.36	GeoMean	91
50	0	COD	14.55	PRD	1.01
60	0	Mean	92	95% Confidence	9.14
70	2	SD	15.47		
80	4	COV	16.81		
90	2				
100	1				
110	1				
120	1				
130	0				
140	0				

Number Of Sales

11

Central Tendencies



Month	Mean	Median	Sales
Feb-17	93	93	2
May-17	84	84	1
Jul-17	95	92	4
Aug-17	96	96	2
Oct-17	75	75	1
Dec-17	97	97	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
03	31	000	409	452	33	4N2W17-D0-00103	2017	9579	5.06	177,270	74,810	252,080	335,000	Oct-17	1	75
03	31	000	409	462	30	4N2W17-00-02002	2017	6917	3.48	156,840	75,940	232,780	295,900	Jul-17	2	79
03	31	000	409	452	33	4N2W18-D0-01600	2017	1961	1.43	112,940	109,200	222,140	275,000	Feb-17	3	81
03	31	000	409	452	33	4N4W09-00-01403	2017	7630	3.49	141,120	99,220	240,340	295,000	Aug-17	4	81
03	31	000	409	452	33	4N4W08-C0-00600	2017	4826	1.22	106,650	102,570	209,220	250,000	May-17	5	84
03	31	000	409	452	33	5N4W28-00-01700	2017	7397	5.45	182,130	68,320	250,450	295,000	Jul-17	6	85
03	31	000	409	452	30	4N4W08-D0-00600	2017	7044	3.05	150,750	85,290	236,040	257,000	Jul-17	7	92
03	31	000	409	452	33	4N4W07-C0-01100	2017	11635	3.92	163,070	79,680	242,750	249,950	Dec-17	8	97
03	31	000	409	452	33	4N2W17-D0-00900	2017	11400	2.20	134,040	78,080	212,120	201,500	Feb-17	9	105
03	31	000	409	463	33	4N2W21-B0-00702	2017	9119	1.06	101,860	136,160	238,020	215,000	Aug-17	10	111
03	31	000	409	463	33	5N4W33-DC-01000	2017	6975	1.95	128,500	243,220	371,720	300,000	Jul-17	11	124

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
801	03	31	000	2018	0	Vernonia							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	0			
Population - Number of Accounts	2			
Sales as a percentage of the Population	0.00 %			
Prior Year Population Values				
Land RMV	39,220	100.00 %	39,220	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	100			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	100	2018	Adjustment	100

Explanation

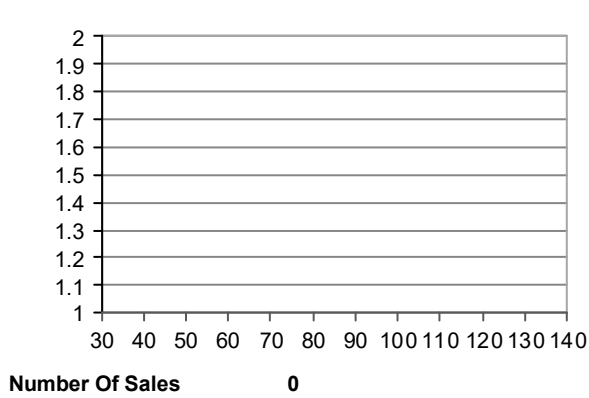
RMV 801: SA 31
 Improved land - Recreational Improved Land in Rural Vernonia.
 The two accounts with this RMV class in rural Vernonia is Big Eddy Park owned by Columbia County and are non-assessable.
 Therefore, no trend has been applied.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	-
PRD	-	-	-	-	-

COLUMBIA County 2018 Ratio Study

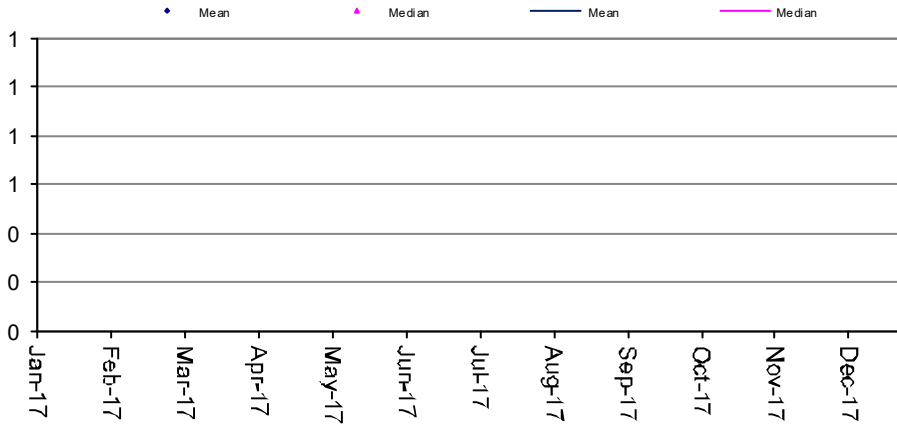
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA AR	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA AR	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
401	03	40	000	2018	0	Vernonia							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	1			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	31,910	21.79 %	30,315	20.48 %
OSD RMV	51,000	34.82 %	51,000	34.45 %
Residential Improvement RMV	63,540	43.39 %	66,717	45.07 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	99			
RMV Adjustment	100			
Before Ratio	99			
Overall Adjustment Factor	101			
Land Adjustment Factor	95			
OSD Adjustment Factor	100			
Residential Adjustment Factor	105			
Farm Improvement Factor	105			
After Ratio	100			
Selected Ratio	99	2018	Adjustment	101

Explanation

RMV 401: SA 40

Improved land - Duplex/Triplex/Fourplex in Rural Vernonia.

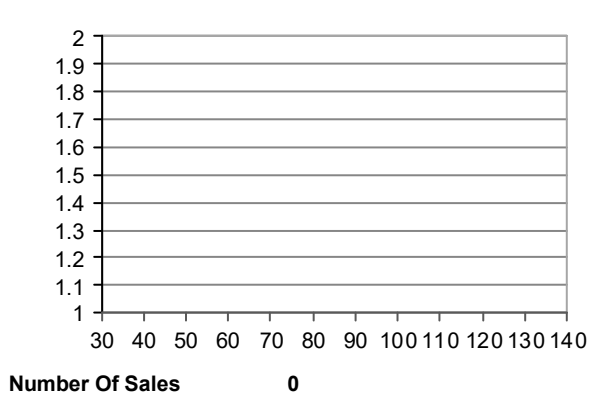
No Sales were identified in this area for the study period. Therefore, the conclusion from the improved properties in MA 03 SA 31 is recommended, with a Selected Ratio of 99 and an Overall Adjustment of 101. Note: At the time this Study is being prepared the properties in MA 03 (Vernonia) are in the process of a cycle re-appraisal. All the sales referenced in this portion of the study have been re-appraised.

Performance History

	2018	2017	2016	2015	2014
COD		0.00	-	-	12.88
PRD		1.00	-	-	1.01

COLUMBIA County 2018 Ratio Study

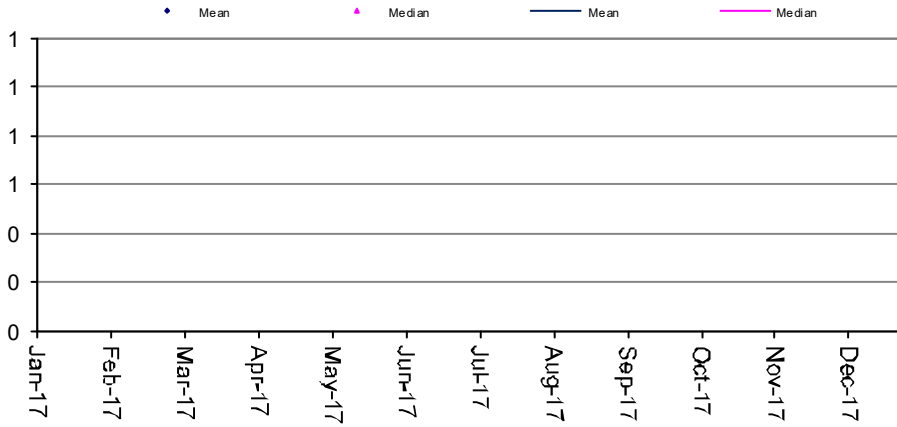
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA AR	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA AR	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

MAINTENANCE AREA 4

RAINIER

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
100	04	00	000	2018	3	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	3	RECALCULATED		
Population - Number of Accounts	154			
Sales as a percentage of the Population	1.95 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	4,711,220	100.00 %	5,606,352	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	84			
RMV Adjustment	100			
Before Ratio	84			
Overall Adjustment Factor	119			
Land Adjustment Factor	119			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	84	2018	Adjustment	119

Explanation

RMV 100: SA 00

Undeveloped land, City of Rainier.

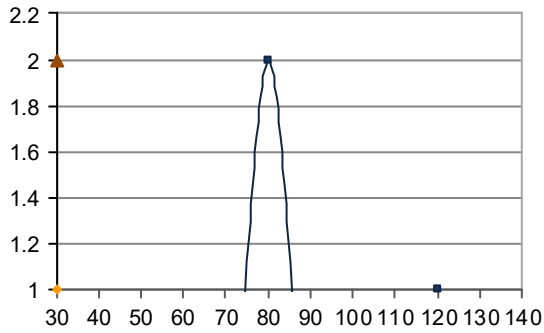
Only 3 sales were identified during the sales period resulting in an inadequate sampling. Therefore, the conclusion from the Improved Properties in these areas (82 Indicated Ratio, 84 Selected Ratio) is recommended.

Performance History

	2018	2017	2016	2015	2014
COD	20.24	32.31	0.00	0.00	-
PRD	1.03	1.05	1.00	1.00	-

COLUMBIA County 2018 Ratio Study

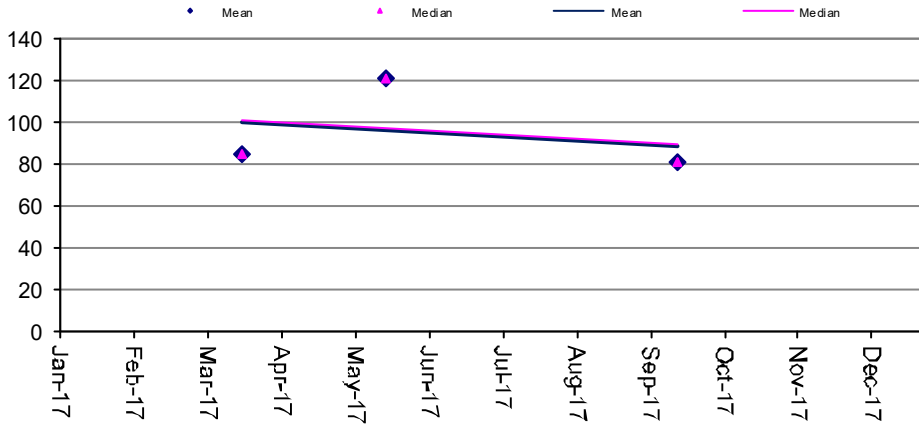
Frequency



30	0	Median	84	Wtd Mean	92
40	0	AD	17.00	GeoMean	94
50	0	COD	20.24	PRD	1.03
60	0	Mean	95	95% Confidence	25.21
70	0	SD	22.28		
80	2	COV	23.46		
90	0				
100	0				
110	0				
120	1				
130	0				
140	0				

Number Of Sales **3**

Central Tendencies



Month	Mean	Median	Sales
Apr-17	84	84	1
Jun-17	121	121	1
Oct-17	81	81	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
04	00	000	100		30	7N2W16-CC-00201	2017	9427	0.71	40,330	0	40,330	50,000	Oct-17	1	81
04	00	000	100		30	7N2W21-AB-00105	2017	4048	0.54	50,290	0	50,290	60,000	Apr-17	2	84
04	00	000	100		33	7N2W17-AC-02800	2017	5753	0.23	43,590	0	43,590	36,000	Jun-17	3	121

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
101	04	00	000	2018	27	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	27	RECALCULATED		
Population - Number of Accounts	624			
Sales as a percentage of the Population	4.33 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	19,193,340	20.31 %	22,840,075	20.34 %
OSD RMV	8,007,000	8.47 %	8,007,000	7.13 %
Residential Improvement RMV	66,737,500	70.60 %	80,752,375	71.90 %
Farm Improvement RMV	586,340	0.62 %	709,471	0.63 %
SelectedRatioFromSales	84			
RMV Adjustment	100			
Before Ratio	84			
Overall Adjustment Factor	119			
Land Adjustment Factor	119			
OSD Adjustment Factor	100			
Residential Adjustment Factor	121			
Farm Improvement Factor	121			
After Ratio	100			
Selected Ratio	84	2018	Adjustment	119

Explanation

RMV 101: SA 00

Improved property, City of Rainier.

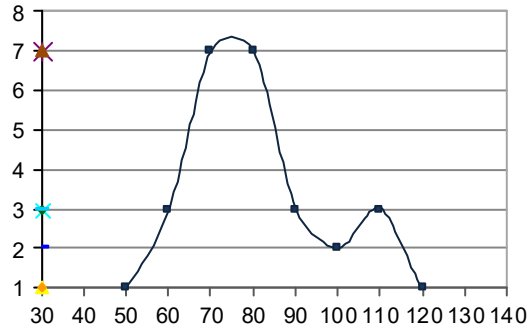
Improved residential properties located within the City of Rainier. The Median of 82 was selected which is supported by the GeoMean (83). The time adjustment for residential properties of 103 was applied to the Median and returned a Selected Ratio of 84.

Performance History

	2018	2017	2016	2015	2014
COD	17.52	8.78	15.48	12.86	14.46
PRD	1.00	0.99	1.05	1.00	1.01

COLUMBIA County 2018 Ratio Study

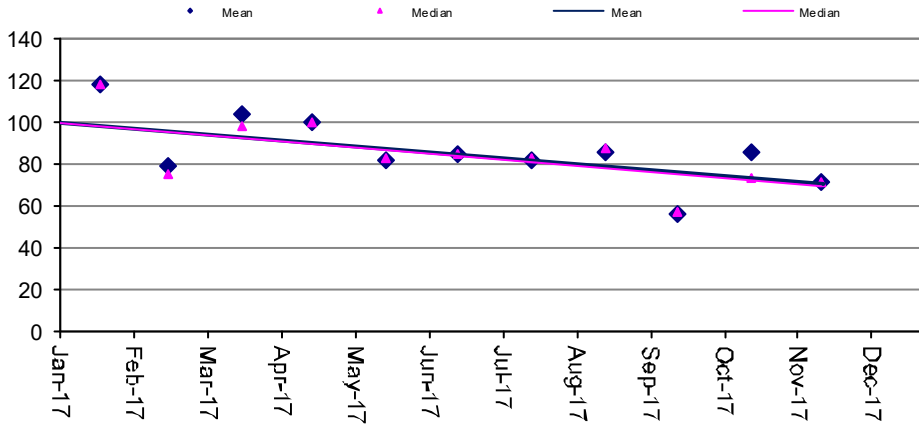
Frequency



30	0	Median	82	Wtd Mean	85
40	0	AD	14.37	GeoMean	83
50	1	COD	17.52	PRD	1.00
60	3	Mean	85	95% Confidence	6.87
70	7	SD	18.21		
80	7	COV	21.42		
90	3				
100	2				
110	3				
120	1				
130	0				
140	0				

Number Of Sales **27**

Central Tendencies



Month	Mean	Median	Sales
Jan-17	88	88	1
Feb-17	118	118	1
Mar-17	79	75	3
Apr-17	104	98	3
May-17	100	100	2
Jun-17	82	83	2
Jul-17	84	84	2
Aug-17	82	83	2
Sep-17	85	87	4
Oct-17	56	57	2
Nov-17	85	73	3
Dec-17	71	71	2

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
04	00	000	101	133	33	7N2W16-CB-00301	2017	9388	0.30	49,080	82,830	131,910	262,000	Oct-17	1	50
04	00	000	101	134	33	7N2W16-BC-03300	2017	7355	0.11	35,040	87,750	122,790	199,900	Aug-17	2	61
04	00	000	101	131	33	7N2W16-DC-06504	2017	9979	0.23	44,440	83,970	128,410	205,000	Oct-17	3	63
04	00	000	101	135	33	7N2W16-DB-04300	2017	10750	0.10	56,050	88,690	144,740	225,000	Nov-17	4	64
04	00	000	101	131	33	7N2W16-BC-06200	2017	11456	0.09	54,940	54,390	109,330	153,000	Dec-17	5	71
04	00	000	101	133	33	7N2W16-DA-01800	2017	11613	0.16	62,370	79,450	141,820	199,000	Dec-17	6	71
04	00	000	101	142	33	7N2W16-CC-00324	2017	2276	0.22	43,690	226,530	270,220	372,844	Mar-17	7	72
04	00	000	101	135	33	7N2W16-DD-01100	2017	5536	0.44	67,010	90,920	157,930	210,000	Jun-17	8	75
04	00	000	101	141	33	7N2W16-DC-03701	2017	8799	0.15	38,390	123,120	161,510	215,000	Sep-17	9	75
04	00	000	101	144	33	7N2W16-CB-03300	2017	2564	1.00	27,650	202,170	229,820	297,500	Mar-17	10	77
04	00	000	101	136	33	7N2W16-DD-03000	2017	6155	0.14	59,760	73,880	133,640	174,070	Jul-17	11	77
04	00	000	101	131	33	7N2W16-DC-08600	2017	4565	0.36	51,030	86,910	137,940	173,500	May-17	12	80
04	00	000	101	142	33	7N2W16-CC-00311	2017	8580	0.23	44,460	157,790	202,250	250,000	Sep-17	13	81
04	00	000	101	122	33	7N2W16-BC-06600	2017	10794	0.14	60,360	48,080	108,440	133,000	Nov-17	14	82
04	00	000	101	134	33	7N2W16-CA-07400	2017	3964	0.13	59,100	86,760	145,860	169,500	Apr-17	15	86
04	00	000	101	142	33	7N2W16-CC-00700	2017	8819	0.44	52,170	170,380	222,550	255,000	Sep-17	16	87
04	00	000	101	134	33	7N2W16-BC-03000	2017	734	0.23	44,380	21,490	65,870	75,000	Jan-17	17	88
04	00	000	101	142	33	7N2W17-DA-01200	2017	2180	0.87	56,350	170,270	226,620	253,500	Mar-17	18	89
04	00	000	101	142	33	7N2W16-DA-05200	2017	7163	0.20	34,150	191,330	225,480	250,000	Jun-17	19	90

COLUMBIA County 2018 Ratio Study

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
04	00	000	101	143	33	7N2W16-CC-00800	2017	7699	0.21	42,900	175,970	218,870	242,500	Jul-17	20	90
04	00	000	101	131	33	7N2W16-DB-13400	2017	8467	0.41	60,300	97,950	158,250	163,500	Sep-17	21	97
04	00	000	101	142	33	7N2W17-DB-02900	2017	7874	0.32	49,960	267,520	317,480	305,000	Aug-17	22	104
04	00	000	101	134	33	7N2W16-CA-04800	2017	10642	0.15	61,600	176,890	238,490	220,000	Nov-17	23	108
04	00	000	101	142	33	7N2W17-DA-00411	2017	3560	0.31	49,380	202,520	251,900	230,000	Apr-17	24	110
04	00	000	101	152	33	7N2W16-CD-03902	2017	3584	0.20	42,150	313,410	355,560	309,500	Apr-17	25	115
04	00	000	101	132	33	7N2W16-DA-02600	2017	1210	0.25	45,880	48,160	94,040	80,000	Feb-17	26	118
04	00	000	101	142	33	7N2W16-CA-04900	2017	4235	0.15	60,960	190,420	251,380	209,900	May-17	27	120

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
102	04	00	000	2018	0	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	4			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	0	0.00 %	0	0.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	998,660	100.00 %	1,188,405	100.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	84			
RMV Adjustment	100			
Before Ratio	84			
Overall Adjustment Factor	119			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	119			
Farm Improvement Factor	119			
After Ratio	100			
Selected Ratio	84	2018	Adjustment	119

Explanation

RMV 102: SA 00

Improved land - Condominium, City of Rainier.

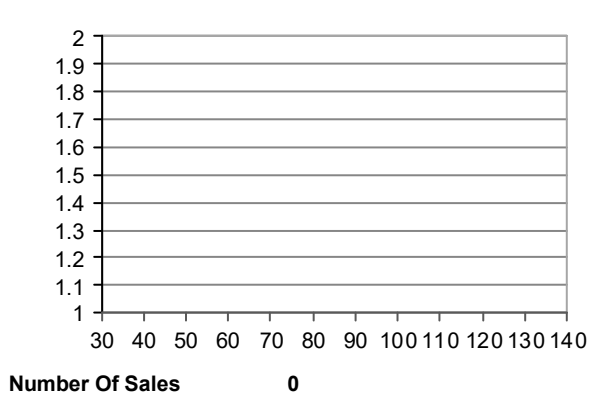
This analysis is comprised of condominiums located within the City of Rainier. At this time, no sales were identified in this area for the study period. Because of the lack of sales data, the Selected Ratio of 84 from the improved residential properties was applied to this population of accounts within this study area.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	-
PRD	-	-	-	-	-

COLUMBIA County 2018 Ratio Study

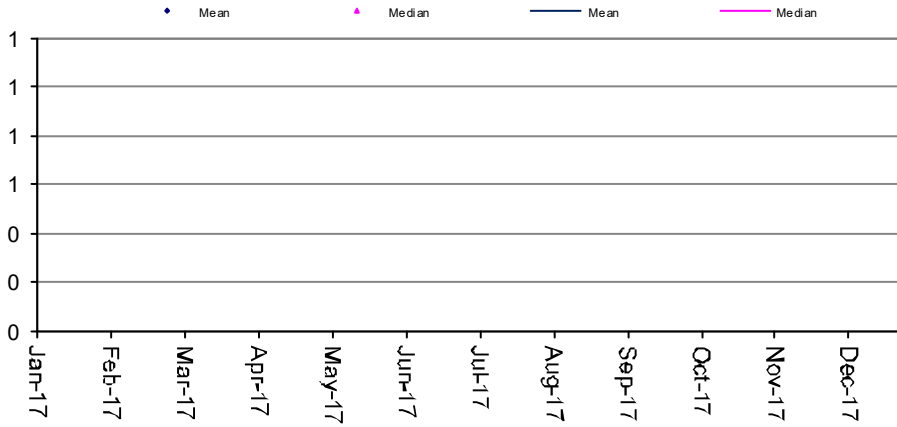
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA AR	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA AR	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
109	04	00	000	2018	5	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	5	RECALCULATED		
Population - Number of Accounts	93			
Sales as a percentage of the Population	5.38 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	2,631,330	24.70 %	3,131,283	24.47 %
OSD RMV	1,161,000	10.90 %	1,161,000	9.07 %
Residential Improvement RMV	6,620,040	62.15 %	8,208,850	64.14 %
Farm Improvement RMV	239,900	2.25 %	297,476	2.32 %
SelectedRatioFromSales	83			
RMV Adjustment	100			
Before Ratio	83			
Overall Adjustment Factor	120			
Land Adjustment Factor	119			
OSD Adjustment Factor	100			
Residential Adjustment Factor	124			
Farm Improvement Factor	124			
After Ratio	100			
Selected Ratio	83	2018	Adjustment	120

Explanation

RMV 109: SA 00

Improved land - Manufactured Structure, City of Rainier.

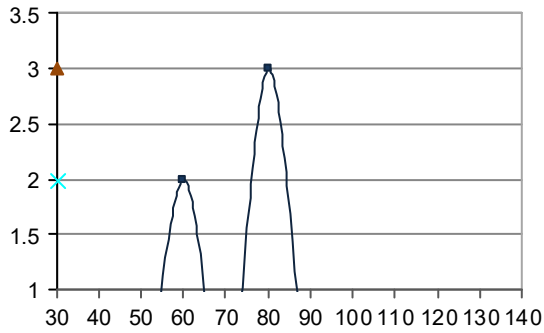
It has been found that the properties that have Manufactured Structures as the main residence move quite differently within the market than those properties that have Single Family dwellings. This is in part due to the type financing available. Because of this, it was decided the ratio indicators that were returned from this study are adequate and deemed appropriate. Therefore, the Median (81) was selected and then adjusted by 103 for movement over time. Thus, the Selected Ratio applied is 83.

Performance History

	2018	2017	2016	2015	2014
COD	11.11	0.00	8.05	12.86	14.46
PRD	1.00	1.00	0.99	1.00	1.01

COLUMBIA County 2018 Ratio Study

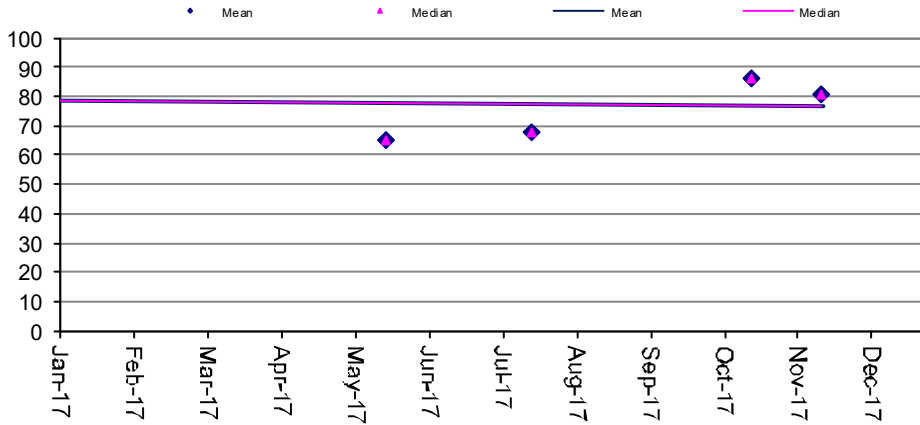
Frequency



30	0	Median	81	Wtd Mean	78
40	0	AD	9.00	GeoMean	77
50	0	COD	11.11	PRD	1.00
60	2	Mean	78	95% Confidence	9.43
70	0	SD	10.76		
80	3	COV	13.79		
90	0				
100	0				
110	0				
120	0				
130	0				
140	0				

Number Of Sales **5**

Central Tendencies



Month	Mean	Median	Sales
Jan-17	89	89	1
Jun-17	65	65	1
Aug-17	68	68	1
Nov-17	86	86	1
Dec-17	81	81	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
04	00	000	109	452	33	7N2W21-AB-00300	2017	5554	0.22	43,350	54,150	97,500	150,000	Jun-17	1	65
04	00	000	109	442	30	7N2W17-DC-00103	2017	7207	0.32	49,960	68,780	118,740	175,000	Aug-17	2	68
04	00	000	109	452	30	7N2W17-AD-05700	2017	11568	0.34	50,720	97,510	148,230	182,500	Dec-17	3	81
04	00	000	109	452	33	7N2W21-A0-01600	2017	10882	0.18	40,600	123,880	164,480	191,000	Nov-17	4	86
04	00	000	109	452	33	7N2W21-A0-01600	2017	292	0.18	40,600	123,880	164,480	185,000	Jan-17	5	89

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
101	04	40	000	2018	1	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	1	RECALCULATED		
Population - Number of Accounts	25			
Sales as a percentage of the Population	4.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	927,060	20.82 %	1,103,201	20.81 %
OSD RMV	469,000	10.53 %	469,000	8.85 %
Residential Improvement RMV	3,029,660	68.05 %	3,696,185	69.73 %
Farm Improvement RMV	26,430	0.59 %	32,245	0.61 %
SelectedRatioFromSales	84			
RMV Adjustment	100			
Before Ratio	84			
Overall Adjustment Factor	119			
Land Adjustment Factor	119			
OSD Adjustment Factor	100			
Residential Adjustment Factor	122			
Farm Improvement Factor	122			
After Ratio	100			
Selected Ratio	84	2018	Adjustment	119

Explanation

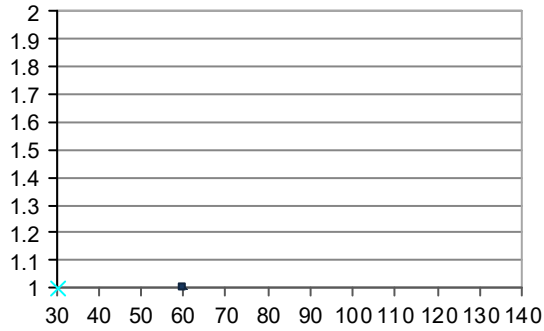
RMV 101: SA 40
 Improved land - Duplex/Triplex/Fourplex, City of Rainier
 With having only one sale available for this analysis, it was decided to use the Selected Ratio of 84 from the single family dwelling residential study.

Performance History

	2018	2017	2016	2015	2014
COD	0.00	-	0.00	-	-
PRD	1.00	-	1.00	-	-

COLUMBIA County 2018 Ratio Study

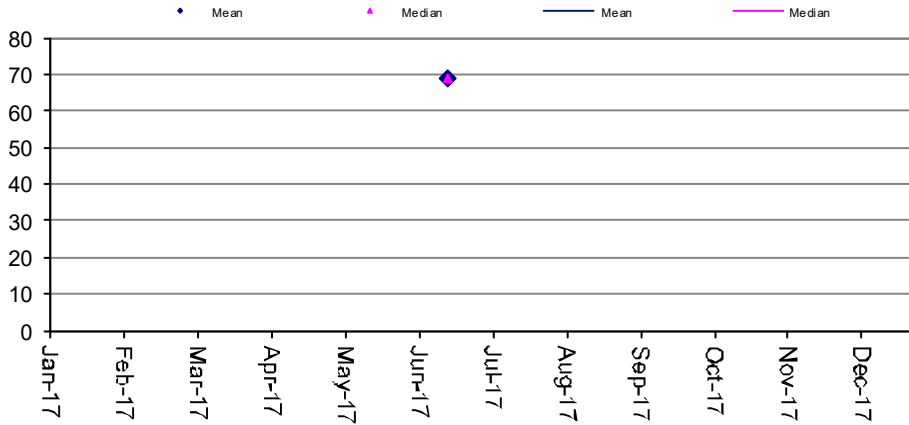
Frequency



Number Of Sales 1

30	0	Median	69	Wtd Mean	69
40	0	AD	0.00	GeoMean	69
50	0	COD	0.00	PRD	1.00
60	1	Mean	69	95% Confidence	1.96
70	0	SD	1.00		
80	0	COV	1.45		
90	0				
100	0				
110	0				
120	0				
130	0				
140	0				

Central Tendencies



Month	Mean	Median	Sales
Jul-17	69	69	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
04	40	000	101	242	33	7N2W17-AD-03600	2017	6299	0.18	43,890	132,180	176,070	254,000	Jul-17	1	69

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
100	04	46	000	2018	1	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	1	RECALCULATED		
Population - Number of Accounts	10			
Sales as a percentage of the Population	10.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	249,470	100.00 %	296,869	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	84			
RMV Adjustment	100			
Before Ratio	84			
Overall Adjustment Factor	119			
Land Adjustment Factor	119			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	84	2018	Adjustment	119

Explanation

RMV 100: SA 46

Unimproved land - Riverview Drive & Maple Drive, City of Rainier.

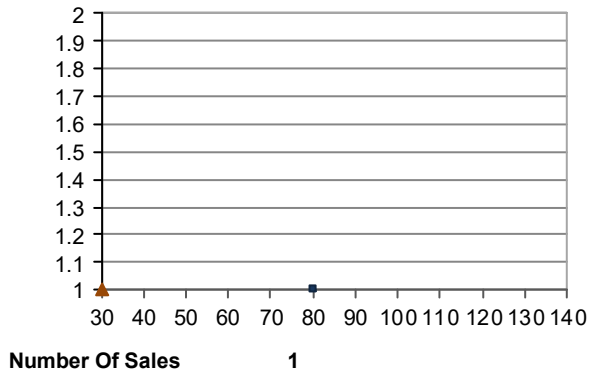
A single sale was identified in this study period, a sample too small to use as a determination of the current market. Therefore, it is recommended to apply the conclusion from the SA 00 properties located in this study area (82 indicator x 103 time adjustment).

Performance History

	2018	2017	2016	2015	2014
COD	0.00	-	-	0.00	-
PRD	1.00	-	-	1.00	-

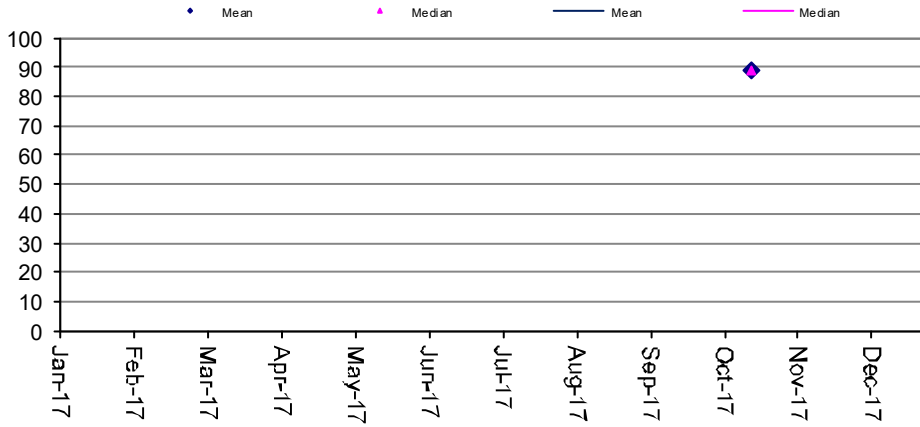
COLUMBIA County 2018 Ratio Study

Frequency



30	0	Median	89	Wtd Mean	89
40	0	AD	0.00	GeoMean	89
50	0	COD	0.00	PRD	1.00
60	0	Mean	89	95% Confidence	1.96
70	0	SD	1.00		
80	1	COV	1.12		
90	0				
100	0				
110	0				
120	0				
130	0				
140	0				

Central Tendencies



Month	Mean	Median	Sales
Nov-17	89	89	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
04	46	000	100		30	7N2W17-DA-00403	2017	10429	0.57	34,710	0	34,710	39,000	Nov-17	1	89

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
101	04	46	000	2018	0	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	34			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	1,424,390	15.69 %	1,695,024	15.72 %
OSD RMV	483,000	5.32 %	483,000	4.48 %
Residential Improvement RMV	7,113,250	78.38 %	8,535,900	79.18 %
Farm Improvement RMV	55,100	0.61 %	66,120	0.61 %
SelectedRatioFromSales	84			
RMV Adjustment	100			
Before Ratio	84			
Overall Adjustment Factor	119			
Land Adjustment Factor	119			
OSD Adjustment Factor	100			
Residential Adjustment Factor	120			
Farm Improvement Factor	120			
After Ratio	100			
Selected Ratio	84	2018	Adjustment	119

Explanation

RMV 101: SA 46

Improved land - Riverview Drive & Maple Drive, City of Rainier.

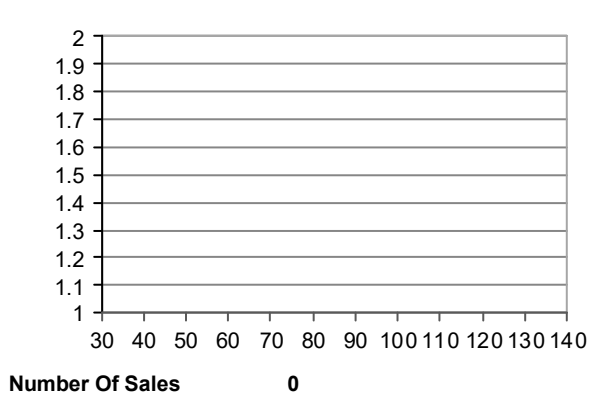
No Sales were identified in these areas for the study period. Therefore, the conclusion from the improved properties in SA 00 is recommended (Selected Ratio of 84).

Performance History

	2018	2017	2016	2015	2014
COD		8.85	-	12.86	14.46
PRD		1.01	-	1.00	1.01

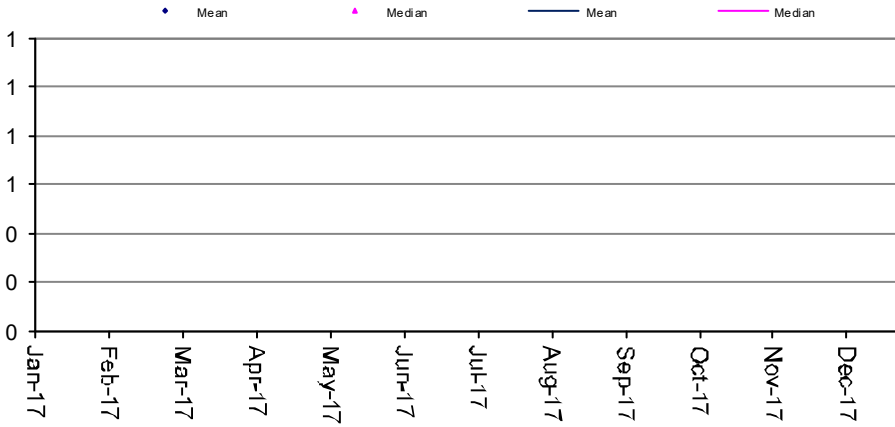
COLUMBIA County 2018 Ratio Study

Frequency



30	0	Median	Wtd Mean
40	0	AD	GeoMean
50	0	COD	PRD
60	0	Mean	95% Confidence
70	0	SD	
80	0	COV	
90	0		
100	0		
110	0		
120	0		
130	0		
140	0		

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
		CLS											

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
100	04	47	000	2018	0	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	4			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	172,000	100.00 %	177,160	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	97			
RMV Adjustment	100			
Before Ratio	97			
Overall Adjustment Factor	103			
Land Adjustment Factor	103			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	97	2018	Adjustment	103

Explanation

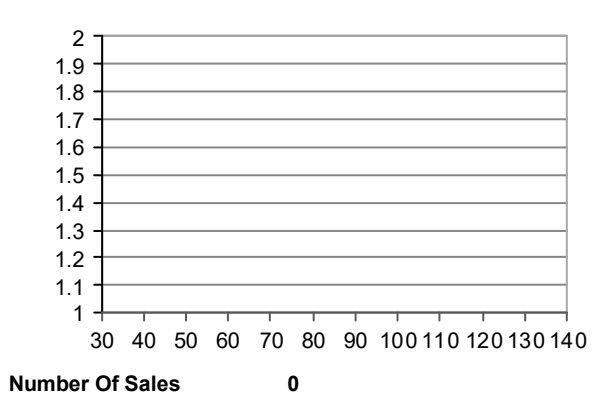
RMV 100: SA 47
 Unimproved land - Rainier Riverfront Estates, City of Rainier.
 No sales were identified in this area. Therefore, it was decided to use conclusion from the improved study located in the same area (Selected Ratio of 97).

Performance History

	2018	2017	2016	2015	2014
COD		-	7.50	-	1.79
PRD		-	0.98	-	0.99

COLUMBIA County 2018 Ratio Study

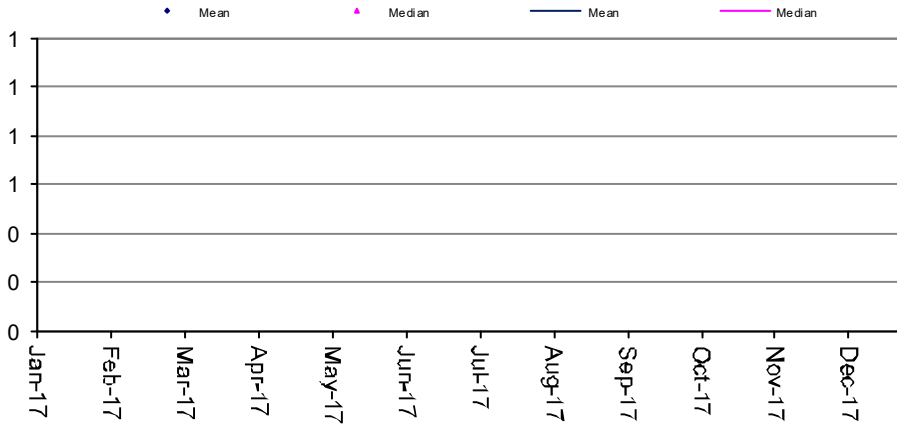
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA AR	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA AR	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
101	04	47	000	2018	3	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	3	RECALCULATED		
Population - Number of Accounts	47			
Sales as a percentage of the Population	6.38 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	2,267,000	20.92 %	2,335,010	20.96 %
OSD RMV	705,000	6.51 %	705,000	6.33 %
Residential Improvement RMV	7,865,690	72.58 %	8,101,661	72.71 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	97			
RMV Adjustment	100			
Before Ratio	97			
Overall Adjustment Factor	103			
Land Adjustment Factor	103			
OSD Adjustment Factor	100			
Residential Adjustment Factor	103			
Farm Improvement Factor	103			
After Ratio	100			
Selected Ratio	97	2018	Adjustment	103

Explanation

RMV 101: SA 47

Improved land - Rainier Riverfront Estates, City of Rainier.

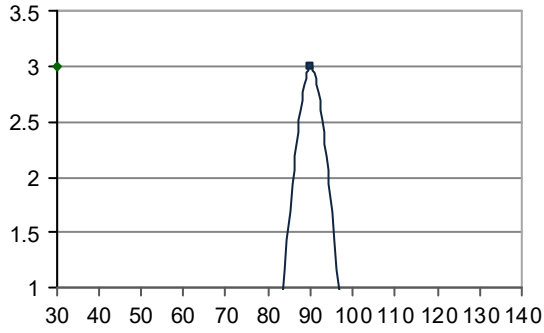
Rainier Riverfront Estates is a small subdivision located on the Columbia River. The ratio selected is the Median of 94, which is also supported by the Mean and Weighted Mean. The time adjustment conclusion of 103 was then applied to the ratio indicator, resulting in a Selected Ratio of 97.

Performance History

	2018	2017	2016	2015	2014
COD	2.48	2.25	1.61	0.00	1.79
PRD	1.01	1.00	1.00	1.00	0.99

COLUMBIA County 2018 Ratio Study

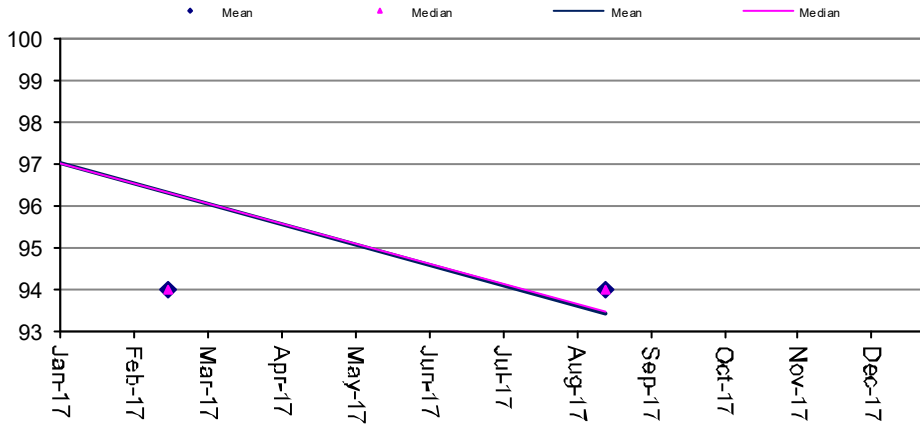
Frequency



30	0	Median	94	Wtd Mean	95
40	0	AD	2.33	GeoMean	96
50	0	COD	2.48	PRD	1.01
60	0	Mean	96	95% Confidence	3.30
70	0	SD	2.92		
80	0	COV	3.04		
90	3				
100	0				
110	0				
120	0				
130	0				
140	0				

Number Of Sales 3

Central Tendencies



Month	Mean	Median	Sales
Jan-17	99	99	1
Mar-17	94	94	1
Sep-17	94	94	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
04	47	000	101	143	33	7N2W16-BB-00700	2017	2409	0.08	84,000	159,730	243,730	259,900	Mar-17	1	94
04	47	000	101	143	33	7N2W16-BB-01300	2017	8875	0.06	32,000	152,760	184,760	196,000	Sep-17	2	94
04	47	000	101	143	33	7N2W16-BB-02400	2017	1441	0.06	32,000	152,680	184,680	186,900	Jan-17	3	99

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
400	04	41	000	2018	6	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	6	RECALCULATED		
Population - Number of Accounts	488			
Sales as a percentage of the Population	1.23 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	77,334,883	100.00 %	102,855,394	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	75			
RMV Adjustment	100			
Before Ratio	75			
Overall Adjustment Factor	133			
Land Adjustment Factor	133			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	75	2018	Adjustment	133

Explanation

RMV 400: SA 41

Unimproved land - Rural Rainier (Value Zone 1)

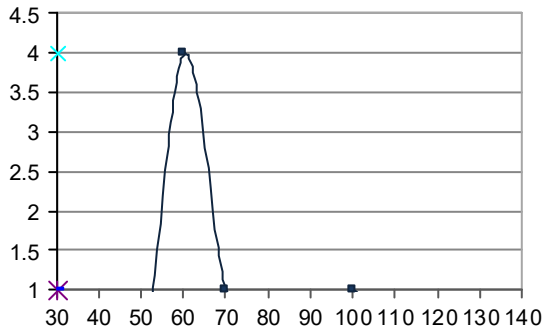
The Mean with a ratio indicator of 72 has been selected for this grouping of properties. A time adjustment of 104 was then applied to the Mean, providing a Selected Ratio of 75.

Performance History

	2018	2017	2016	2015	2014
COD	15.40	0.00	11.76	0.00	0.00
PRD	0.91	1.00	1.00	1.00	1.00

COLUMBIA County 2018 Ratio Study

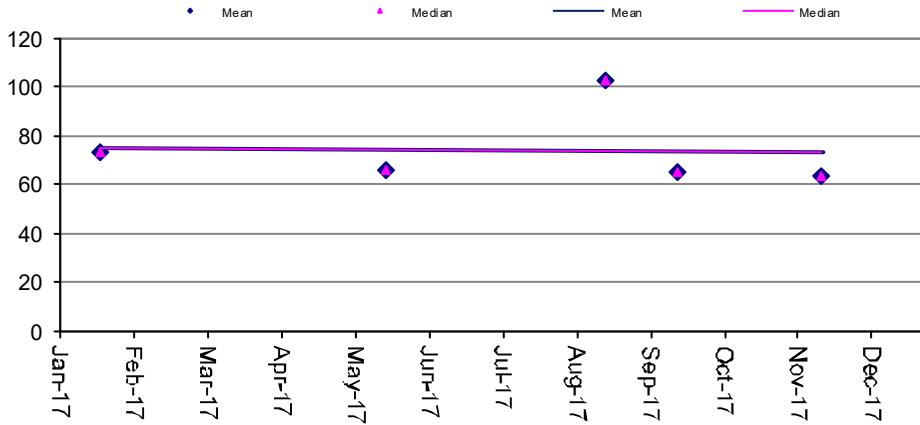
Frequency



30	0	Median	66	Wtd Mean	79
40	0	AD	10.17	GeoMean	71
50	0	COD	15.40	PRD	0.91
60	4	Mean	72	95% Confidence	12.34
70	1	SD	15.42		
80	0	COV	21.42		
90	0				
100	1				
110	0				
120	0				
130	0				
140	0				

Number Of Sales **6**

Central Tendencies



Month	Mean	Median	Sales
Feb-17	73	73	1
Jun-17	66	66	2
Sep-17	103	103	1
Oct-17	65	65	1
Dec-17	63	63	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
04	41	000	400		33	5N2W10-A0-00306	2017	5405	5.01	82,590	0	82,590	132,000	Jun-17	1	63
04	41	000	400		33	6N2W09-C0-01402	2017	11381	5.00	82,510	0	82,510	130,000	Dec-17	2	63
04	41	000	400		33	6N2W26-B0-01500	2017	10019	4.11	80,310	0	80,310	124,000	Oct-17	3	65
04	41	000	400		33	5N2W10-A0-00305	2017	5875	5.91	89,330	0	89,330	132,000	Jun-17	4	68
04	41	000	400		33	6N2W12-00-00402	2017	2014	8.12	76,880	0	76,880	105,000	Feb-17	5	73
04	41	000	400		33	6N2W14-00-00700	2017	8535	79.42	341,380	0	341,380	330,000	Sep-17	6	103

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
401	04	41	000	2018	24	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	24	RECALCULATED		
Population - Number of Accounts	1,167			
Sales as a percentage of the Population	2.06 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	110,930,565	35.02 %	147,537,651	49.43 %
OSD RMV	48,929,380	15.45 %	48,929,380	16.39 %
Residential Improvement RMV	137,774,470	43.49 %	89,553,406	30.00 %
Farm Improvement RMV	19,162,827	6.05 %	12,455,838	4.17 %
SelectedRatioFromSales	106			
RMV Adjustment	100			
Before Ratio	106			
Overall Adjustment Factor	94			
Land Adjustment Factor	133			
OSD Adjustment Factor	100			
Residential Adjustment Factor	65			
Farm Improvement Factor	65			
After Ratio	100			
Selected Ratio	106	2018	Adjustment	94

Explanation

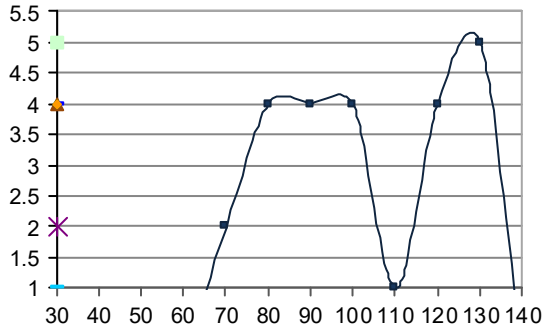
RMV 401: SA 41
 Improved land - Rural Rainier (Value Zone 1)
 For this analysis of improved property sales in Value Zone 1-Rainier, the Median was selected with a ratio indicator of 102. This was then adjusted by 104, the time study conclusion. As a result, the Selected Ratio entered is 106.

Performance History

	2018	2017	2016	2015	2014
COD	17.73	5.78	13.27	13.75	11.26
PRD	1.01	1.01	0.98	0.98	0.99

COLUMBIA County 2018 Ratio Study

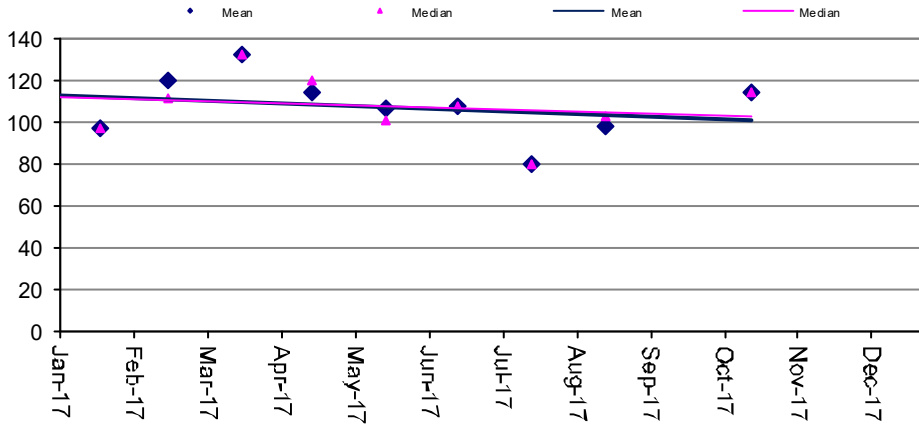
Frequency



Number Of Sales **24**

30	0	Median	102	Wtd Mean	107
40	0	AD	18.08	GeoMean	106
50	0	COD	17.73	PRD	1.01
60	0	Mean	108	95% Confidence	8.42
70	2	SD	21.05		
80	4	COV	19.49		
90	4				
100	4				
110	1				
120	4				
130	5				
140	0				

Central Tendencies



Month	Mean	Median	Sales
Jan-17	111	111	2
Feb-17	97	97	1
Mar-17	120	111	3
Apr-17	132	132	2
May-17	114	120	4
Jun-17	106	101	3
Jul-17	107	107	1
Aug-17	80	80	2
Sep-17	98	103	4
Nov-17	114	114	2

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
04	41	000	401	145	33	6N2W16-B0-00802	2017	7494	1.70	96,840	147,270	244,110	345,000	Aug-17	1	71
04	41	000	401	141	33	5N2W10-B0-00200	2017	9004	3.24	125,660	119,770	245,430	335,000	Sep-17	2	73
04	41	000	401	131	33	6N2W09-C0-01100	2017	8981	5.85	142,880	49,200	192,080	221,000	Sep-17	3	87
04	41	000	401	141	33	7N2W28-00-00300	2017	805	16.25	195,640	166,500	362,140	411,100	Jan-17	4	88
04	41	000	401	151	33	5N2W12-A0-00300	2017	11051	2.50	95,800	211,310	307,110	350,000	Nov-17	5	88
04	41	000	401	142	33	7N2W19-AA-01004	2017	8275	2.46	112,970	198,560	311,530	349,900	Aug-17	6	89
04	41	000	401	141	33	6N2W15-AC-00900	2017	2832	5.64	141,310	189,380	330,690	345,000	Mar-17	7	96
04	41	000	401	142	33	7N3W11-B0-00701	2017	1143	1.43	90,040	200,060	290,100	299,000	Feb-17	8	97
04	41	000	401	141	33	7N3W13-C0-00600	2017	5100	5.68	141,600	137,010	278,610	285,000	May-17	9	98
04	41	000	401	142	33	7N2W26-D0-01101	2017	5538	0.75	101,000	425,230	526,230	534,000	Jun-17	10	99
04	41	000	401	136	33	6N2W04-C0-00800	2017	4828	22.34	235,380	154,110	389,490	385,000	May-17	11	101
04	41	000	401	141	33	5N2W01-00-02001	2017	5267	4.92	136,310	158,250	294,560	288,000	Jun-17	12	102
04	41	000	401	142	33	7N2W17-C0-00400	2017	8261	1.01	102,450	153,790	256,240	248,500	Sep-17	13	103
04	41	000	401	132	33	7N2W18-D0-00300	2017	6822	3.29	149,210	170,580	319,790	300,000	Jul-17	14	107
04	41	000	401	141	30	7N2W29-C0-01702	2017	5192	11.00	161,010	323,310	484,320	416,500	Jun-17	15	116
04	41	000	401	142	33	6N2W28-00-02400	2017	4632	20.00	219,000	177,610	396,610	330,000	May-17	16	120
04	41	000	401	153	33	7N2W18-A0-01301	2017	2023	5.07	160,050	490,840	650,890	517,500	Mar-17	17	126
04	41	000	401	141	33	6N2W12-CA-00700	2017	3383	0.81	100,330	218,090	318,420	248,000	Apr-17	18	128
04	41	000	401	300	33	7N3W14-B0-00302	2017	9084	6.08	144,370	2,530	146,900	115,000	Sep-17	19	128

COLUMBIA County 2018 Ratio Study

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
04	41	000	401	151	33	7N3W36-00-02100	2017	552	9.77	153,260	356,120	509,380	379,500	Jan-17	20	134
04	41	000	401	131	33	7N3W13-C0-00200	2017	4047	4.39	135,000	112,400	247,400	182,000	Apr-17	21	136
04	41	000	401	122	33	7N2W23-CA-00700	2017	2898	0.17	77,000	46,830	123,830	90,169	Mar-17	22	137
04	41	000	401	143	33	7N2W29-00-01506	2017	5772	4.21	134,550	284,550	419,100	306,500	May-17	23	137
04	41	000	401	152	33	7N2W20-BA-00300	2017	10613	2.81	142,480	486,580	629,060	452,500	Nov-17	24	139

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
409	04	41	000	2018	11	Rainier							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	11			
Population - Number of Accounts	351			
Sales as a percentage of the Population	3.13 %			
Prior Year Population Values				
Land RMV	31,782,410	40.48 %	42,270,605	53.32 %
OSD RMV	17,262,640	21.99 %	17,262,640	21.78 %
Residential Improvement RMV	23,202,720	29.55 %	15,545,822	19.61 %
Farm Improvement RMV	6,261,710	7.98 %	4,195,346	5.29 %
SelectedRatioFromSales	99			
RMV Adjustment	100			
Before Ratio	99			
Overall Adjustment Factor	101			
Land Adjustment Factor	133			
OSD Adjustment Factor	100			
Residential Adjustment Factor	67			
Farm Improvement Factor	67			
After Ratio	100			
Selected Ratio	99	2018	Adjustment	101

Explanation

RMV 409: SA 41

Improved land - Manufactured Structure, Rural Rainier (Value Zone 1)

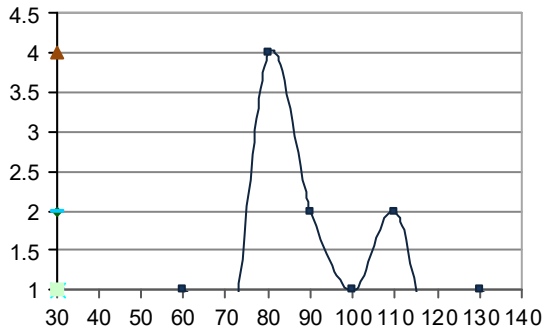
For this analysis of manufactured structures in rural Rainier, the Median with a ratio indicator of 95 was selected. This central tendency is bracketed by the GeoMean (94) and the Mean (96) and has been selected as the best fit. The calculated adjustment using the time study conclusion (104) is 99.

Performance History

	2018	2017	2016	2015	2014
COD	15.69	0.00	3.58	13.75	11.26
PRD	1.01	1.00	1.00	0.98	0.99

COLUMBIA County 2018 Ratio Study

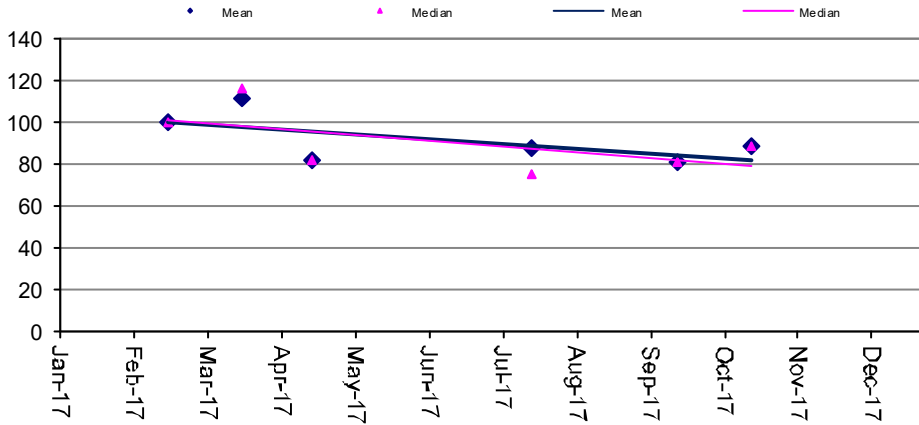
Frequency



30	0	Median	95	Wtd Mean	95
40	0	AD	14.91	GeoMean	94
50	0	COD	15.69	PRD	1.01
60	1	Mean	96	95% Confidence	11.49
70	0	SD	19.44		
80	4	COV	20.25		
90	2				
100	1				
110	2				
120	0				
130	1				
140	0				

Number Of Sales **11**

Central Tendencies



Month	Mean	Median	Sales
Mar-17	100	100	1
Apr-17	111	116	4
May-17	82	82	1
Aug-17	87	75	3
Oct-17	81	81	1
Nov-17	88	88	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
04	41	000	409	463	33	6N2W16-D0-00600	2017	8092	1.75	98,100	102,190	200,290	290,000	Aug-17	1	69
04	41	000	409	442	33	7N3W14-B0-01600	2017	7600	3.70	130,710	56,990	187,700	235,000	Aug-17	2	80
04	41	000	409	462	33	7N2W19-A0-01200	2017	9385	3.48	128,300	124,630	252,930	313,600	Oct-17	3	81
04	41	000	409	452	33	6N2W15-B0-01200	2017	4902	5.32	138,910	80,580	219,490	268,000	May-17	4	82
04	41	000	409	452	33	5N2W12-00-00401	2017	10923	16.50	197,250	87,130	284,380	325,000	Nov-17	5	88
04	41	000	409	463	33	7N2W29-00-00500	2017	4073	5.00	136,500	138,460	274,960	290,000	Apr-17	6	95
04	41	000	409	462	33	6N2W13-B0-00600	2017	3049	2.25	109,060	135,200	244,260	249,400	Apr-17	7	98
04	41	000	409	473	33	7N3W14-B0-00200	2017	2503	5.01	136,600	146,300	282,900	283,000	Mar-17	8	100
04	41	000	409	462	33	7N2W21-A0-00100	2017	7138	4.90	136,260	151,360	287,620	255,000	Aug-17	9	113
04	41	000	409	462	33	6N2W28-00-02600	2017	4081	5.00	136,500	83,240	219,740	189,000	Apr-17	10	116
04	41	000	409	452	33	6N2W10-00-00702	2017	3375	32.14	295,610	83,960	379,570	280,000	Apr-17	11	136

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
400	04	42	000	2018	2	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	2	RECALCULATED		
Population - Number of Accounts	277			
Sales as a percentage of the Population	0.72 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	91,006,250	100.00 %	95,556,563	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	95			
RMV Adjustment	100			
Before Ratio	95			
Overall Adjustment Factor	105			
Land Adjustment Factor	105			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	95	2018	Adjustment	105

Explanation

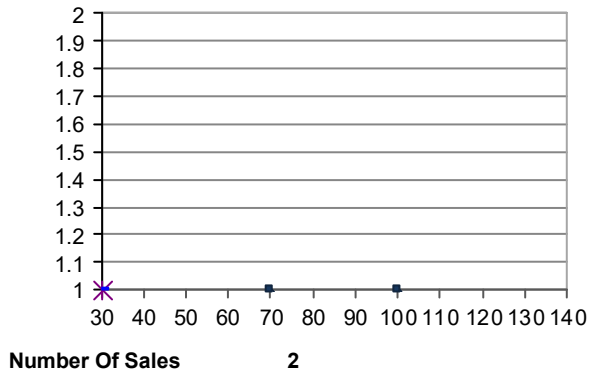
RMV 400: SA 42
 Unimproved land - Rural Rainier (Value Zone 2)
 There are too few sales available for this analysis. Therefore, the Selected Ratio (95) from the improved property study (RMV Class 401) was applied here.

Performance History

	2018	2017	2016	2015	2014
COD	17.22	22.92	11.76	0.00	0.00
PRD	0.99	1.11	1.00	1.00	1.00

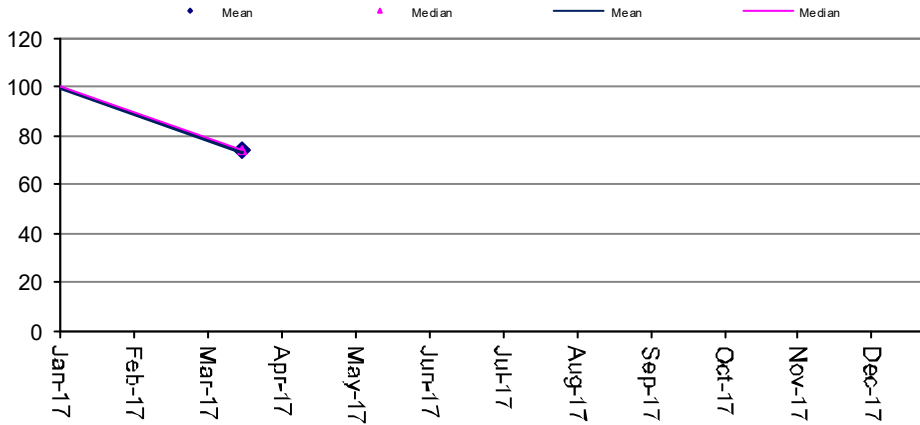
COLUMBIA County 2018 Ratio Study

Frequency



30	0	Median	90	Wtd Mean	91
40	0	AD	15.50	GeoMean	88
50	0	COD	17.22	PRD	0.99
60	0	Mean	90	95% Confidence	30.40
70	1	SD	21.93		
80	0	COV	24.37		
90	0				
100	1				
110	0				
120	0				
130	0				
140	0				

Central Tendencies



Month	Mean	Median	Sales
Jan-17	105	105	1
Apr-17	74	74	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
04	42	000	400		33	6N3W25-00-00401	2017	4186	8.38	96,290	0	96,290	130,000	Apr-17	1	74
04	42	000	400		33	6N3W25-00-00300	2017	586	20.19	157,250	0	157,250	150,000	Jan-17	2	105

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
401	04	42	000	2018	14	Rainier							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	14			
Population - Number of Accounts	436			
Sales as a percentage of the Population	3.21 %			
Prior Year Population Values				
Land RMV	60,088,140	43.62 %	63,092,547	43.57 %
OSD RMV	19,654,600	14.27 %	19,654,600	13.57 %
Residential Improvement RMV	49,625,230	36.03 %	53,098,996	36.67 %
Farm Improvement RMV	8,374,880	6.08 %	8,961,122	6.19 %

SelectedRatioFromSales	95
RMV Adjustment	100
Before Ratio	95
Overall Adjustment Factor	105
Land Adjustment Factor	105
OSD Adjustment Factor	100
Residential Adjustment Factor	107
Farm Improvement Factor	107
After Ratio	100

Selected Ratio 95 2018 Adjustment 105

Explanation

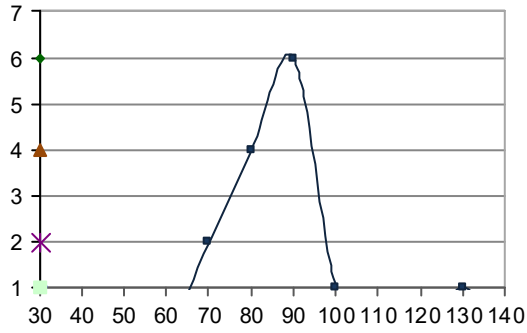
RMV 401: SA 42
 Improved land - Rural Rainier (Value Zone 2)
 The Median with a ratio of 91 has been selected as the best indicator for this grouping of improved properties. After the time adjustment of 104 was applied, the result is a Selected Ratio of 95 with an Overall Ratio of 105.

Performance History

	2018	2017	2016	2015	2014
COD	9.58	14.89	13.27	13.75	11.26
PRD	1.00	1.02	0.98	0.98	0.99

COLUMBIA County 2018 Ratio Study

Frequency

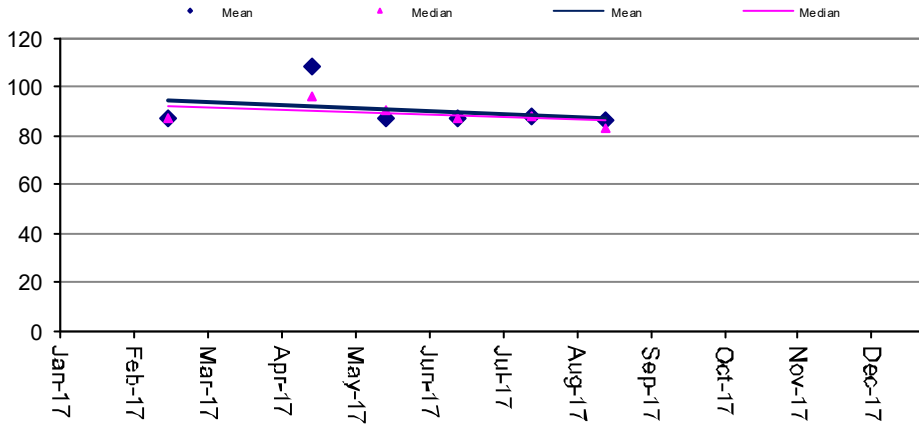


30	0	Median	91	Wtd Mean	91
40	0	AD	8.71	GeoMean	90
50	0	COD	9.58	PRD	1.00
60	0	Mean	91	95% Confidence	7.48
70	2	SD	14.29		
80	4	COV	15.70		
90	6				
100	1				
110	0				
120	0				
130	1				
140	0				

Number Of Sales

14

Central Tendencies



Month	Mean	Median	Sales
Mar-17	87	87	1
May-17	108	96	3
Jun-17	87	90	4
Jul-17	87	87	1
Aug-17	88	88	2
Sep-17	86	83	3

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
04	42	000	401	135	33	5N1W08-CB-02200	2017	8349	0.11	77,000	62,450	139,450	190,000	Sep-17	1	73
04	42	000	401	131	33	5N2W09-00-00700	2017	5518	2.90	121,140	97,320	218,460	292,900	Jun-17	2	75
04	42	000	401	141	33	5N2W04-00-00104	2017	5966	9.32	151,790	133,180	284,970	345,000	Jun-17	3	83
04	42	000	401	131	33	6N3W24-00-00700	2017	7627	1.33	68,620	56,390	125,010	150,900	Aug-17	4	83
04	42	000	401	145	33	6N2W22-B0-01500	2017	2177	5.00	136,500	145,200	281,700	325,000	Mar-17	5	87
04	42	000	401	141	33	5N2W08-00-00802	2017	7040	2.96	122,260	243,990	366,250	419,500	Jul-17	6	87
04	42	000	401	141	33	6N3W25-00-00600	2017	5362	2.04	105,160	219,400	324,560	360,000	Jun-17	7	90
04	42	000	401	131	33	6N2W21-A0-01300	2017	4434	4.68	135,710	81,980	217,690	237,750	May-17	8	92
04	42	000	401	144	33	6N2W21-D0-00500	2017	7828	4.50	135,270	278,110	413,380	450,000	Aug-17	9	92
04	42	000	401	131	33	6N3W14-00-00403	2017	8461	5.66	141,460	79,920	221,380	240,900	Sep-17	10	92
04	42	000	401	300	33	6N2W23-00-00402	2017	8658	13.89	138,840	3,420	142,260	154,000	Sep-17	11	92
04	42	000	401	141	33	6N3W02-00-01702	2017	4277	8.00	150,000	193,170	343,170	348,000	May-17	12	99
04	42	000	401	155	33	5N2W09-00-02001	2017	5156	8.79	173,600	376,400	550,000	550,000	Jun-17	13	100
04	42	000	401	132	33	6N2W22-00-01300	2017	7656	3.54	128,950	96,630	225,580	170,000	May-17	14	133

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
409	04	42	000	2018	6	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	6	RECALCULATED		
Population - Number of Accounts	180			
Sales as a percentage of the Population	3.33 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	16,650,110	41.79 %	17,482,616	43.43 %
OSD RMV	9,135,640	22.93 %	9,135,640	22.70 %
Residential Improvement RMV	11,271,160	28.29 %	10,933,025	27.16 %
Farm Improvement RMV	2,783,007	6.99 %	2,699,517	6.71 %
SelectedRatioFromSales	99			
RMV Adjustment	100			
Before Ratio	99			
Overall Adjustment Factor	101			
Land Adjustment Factor	105			
OSD Adjustment Factor	100			
Residential Adjustment Factor	97			
Farm Improvement Factor	97			
After Ratio	100			
Selected Ratio	99	2018	Adjustment	101

Explanation

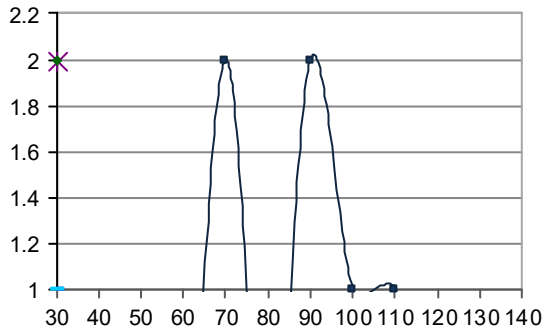
RMV 409: SA 42
 Improved land - Manufactured Structure, Rural Rainier (Value Zone 2)
 The Mean of 95 has been selected for this grouping of properties. This ratio was then adjusted by 104, which is the conclusion from the time study. The resulting Selected Ratio of 99 was then applied accordingly.

Performance History

	2018	2017	2016	2015	2014
COD	13.19	6.77	3.58	13.75	11.26
PRD	0.99	0.99	1.00	0.98	0.99

COLUMBIA County 2018 Ratio Study

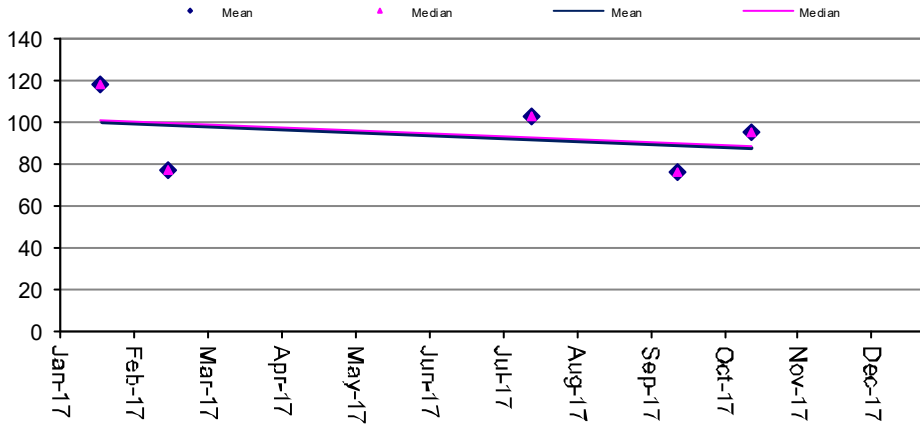
Frequency



30	0	Median	96	Wtd Mean	96
40	0	AD	12.67	GeoMean	94
50	0	COD	13.19	PRD	0.99
60	0	Mean	95	95% Confidence	13.35
70	2	SD	16.69		
80	0	COV	17.56		
90	2				
100	1				
110	1				
120	0				
130	0				
140	0				

Number Of Sales **6**

Central Tendencies



Month	Mean	Median	Sales
Feb-17	118	118	1
Mar-17	77	77	1
Aug-17	103	103	2
Oct-17	76	76	1
Nov-17	95	95	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
04	42	000	409	462	33	6N2W31-00-00709	2017	9313	2.95	122,080	72,770	194,850	255,000	Oct-17	1	76
04	42	000	409	442	33	5N1W08-CB-00201	2017	2479	0.45	77,000	65,760	142,760	185,000	Mar-17	2	77
04	42	000	409	452	33	6N2W22-00-00701	2017	10906	17.58	204,270	105,600	309,870	325,000	Nov-17	3	95
04	42	000	409	452	33	6N2W06-00-00301	2017	8110	5.36	139,210	93,650	232,860	237,500	Aug-17	4	98
04	42	000	409	452	33	6N2W31-00-00707	2017	7937	6.57	146,570	150,200	296,770	274,000	Aug-17	5	108
04	42	000	409	473	33	6N2W33-00-00700	2017	1845	4.95	136,380	126,010	262,390	223,000	Feb-17	6	118

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location	
400	04	44	000	2018	0	Rainier								

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	13			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	328,240	100.00 %	344,652	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	95			
RMV Adjustment	100			
Before Ratio	95			
Overall Adjustment Factor	105			
Land Adjustment Factor	105			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	95	2018	Adjustment	105

Explanation

RMV 400: SA 44

Unimproved land - Prescott

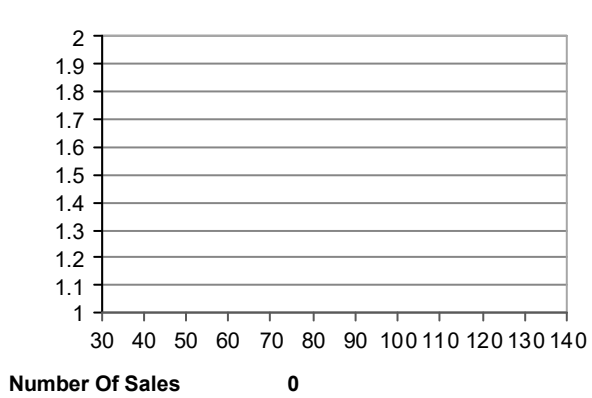
There are no "good" sales available to study for the unimproved Prescott area. Because of this, it was decided to use the selected ratio indicator of 95 from the SA 42, RMV Class 400 study.

Performance History

	2018	2017	2016	2015	2014
COD		-	0.00	-	0.00
PRD		-	1.00	-	1.00

COLUMBIA County 2018 Ratio Study

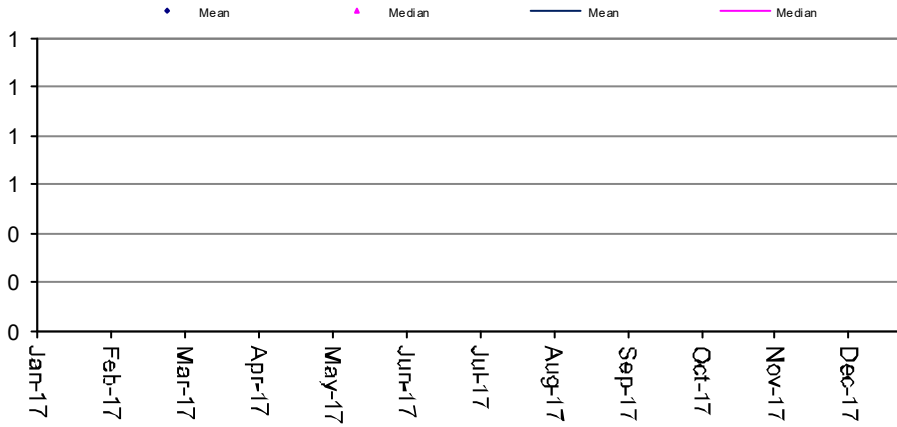
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
		CLS											

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
401	04	44	000	2018	0	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	44			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	1,779,368	22.32 %	1,868,336	22.37 %
OSD RMV	1,301,760	16.33 %	1,301,760	15.58 %
Residential Improvement RMV	4,770,800	59.86 %	5,057,048	60.54 %
Farm Improvement RMV	118,510	1.49 %	125,621	1.50 %
SelectedRatioFromSales	95			
RMV Adjustment	100			
Before Ratio	95			
Overall Adjustment Factor	105			
Land Adjustment Factor	105			
OSD Adjustment Factor	100			
Residential Adjustment Factor	106			
Farm Improvement Factor	106			
After Ratio	100			
Selected Ratio	95	2018	Adjustment	105

Explanation

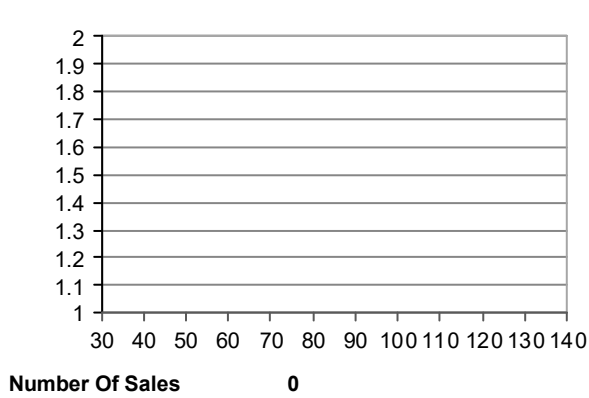
RMV 401: SA 44
 Improved land - Prescott
 Prescott is a former mill-town community located on the Columbia River South of Rainier. No sales were identified in this area. Therefore, it was decided to use conclusion from the improved study located in Study Area 42 (Median of 92 multiplied by the time adjustment of 104).

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	0.00	11.26
PRD	-	-	-	1.00	0.99

COLUMBIA County 2018 Ratio Study

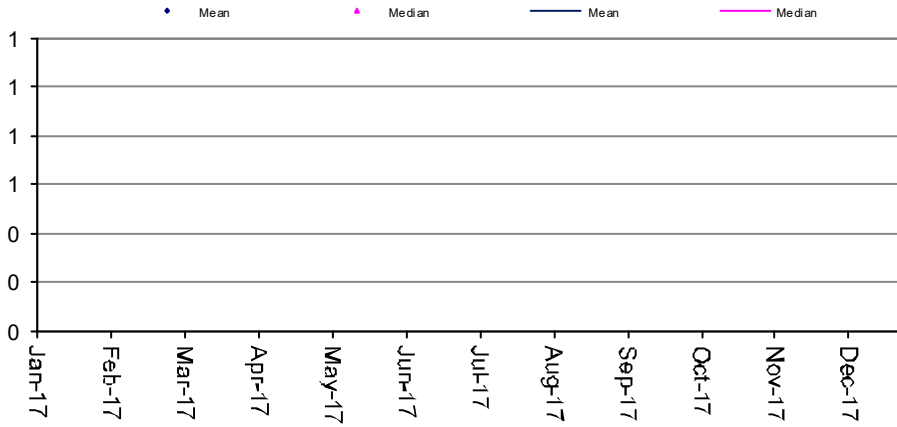
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA AR	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA AR	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
409	04	44	000	2018	0	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	4			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	113,180	23.42 %	118,839	24.71 %
OSD RMV	108,000	22.35 %	108,000	22.45 %
Residential Improvement RMV	259,550	53.72 %	251,764	52.35 %
Farm Improvement RMV	2,440	0.50 %	2,367	0.49 %
SelectedRatioFromSales	99			
RMV Adjustment	100			
Before Ratio	99			
Overall Adjustment Factor	101			
Land Adjustment Factor	105			
OSD Adjustment Factor	100			
Residential Adjustment Factor	97			
Farm Improvement Factor	97			
After Ratio	100			
Selected Ratio	99	2018	Adjustment	101

Explanation

RMV 409: SA 44

Improved land - Manufactured Structure, Prescott

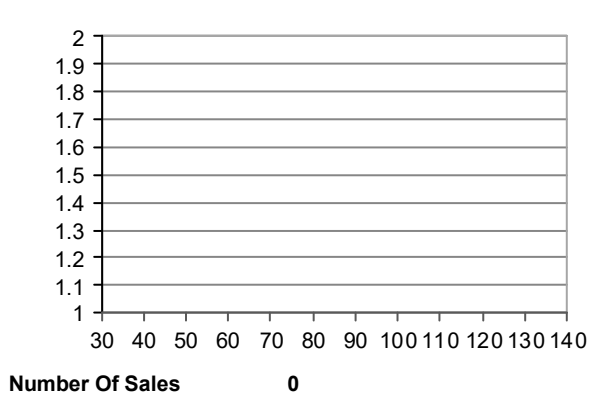
No sales were identified in these areas for the study period. Therefore, the manufactured structures improved properties conclusion from SA 42 is recommended and has been applied here (Selected Ratio of 99).

Performance History

	2018	2017	2016	2015	2014
COD		-	-	0.00	11.26
PRD		-	-	1.00	0.99

COLUMBIA County 2018 Ratio Study

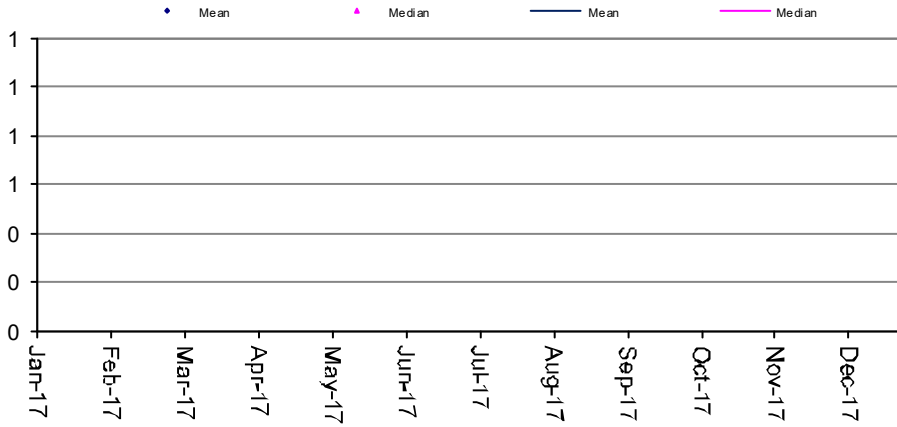
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
400	04	45	000	2018	0	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	17			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	2,140,300	100.00 %	2,846,599	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	75			
RMV Adjustment	100			
Before Ratio	75			
Overall Adjustment Factor	133			
Land Adjustment Factor	133			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	75	2018	Adjustment	133

Explanation

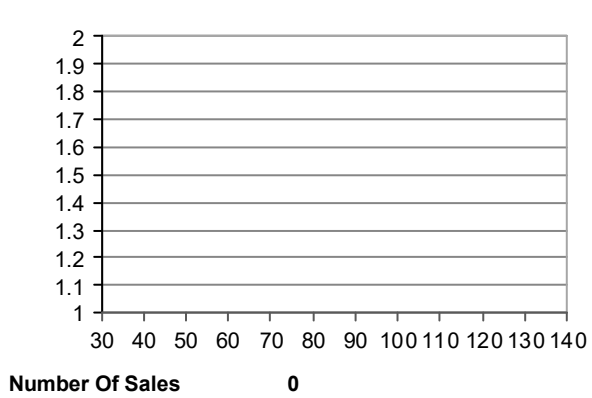
RMV 400: SA 45
 Unimproved land - Dike Land, Rural Rainier
 No sales are available. Therefore, the RMV Class 400 analysis located in Study Area 41 was applied here (ratio 72 X time adjustment 104 = Selected Ratio of 75).

Performance History

	2018	2017	2016	2015	2014
COD		-	-	-	0.00
PRD		-	-	-	1.00

COLUMBIA County 2018 Ratio Study

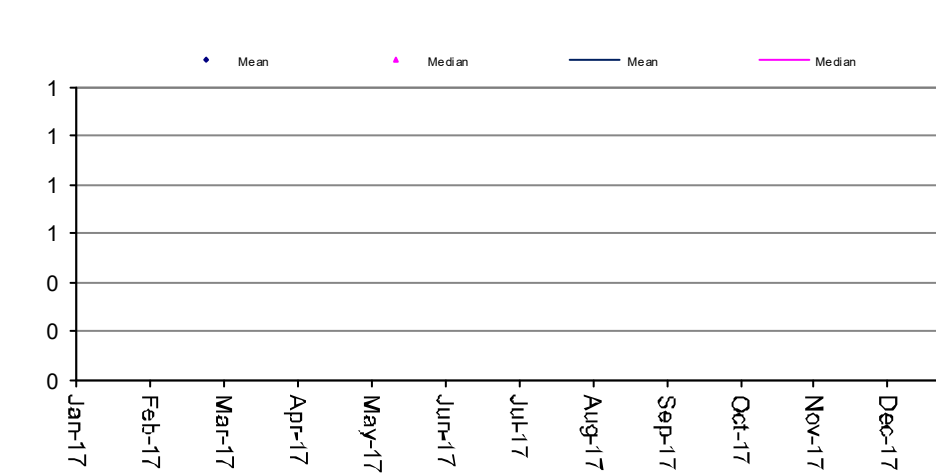
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
401	04	45	000	2018	0	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	94			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	24,187,360	67.40 %	32,169,189	78.87 %
OSD RMV	2,890,000	8.05 %	2,890,000	7.09 %
Residential Improvement RMV	6,622,980	18.45 %	4,304,937	10.55 %
Farm Improvement RMV	2,188,480	6.10 %	1,422,512	3.49 %
SelectedRatioFromSales	106			
RMV Adjustment	100			
Before Ratio	106			
Overall Adjustment Factor	94			
Land Adjustment Factor	133			
OSD Adjustment Factor	100			
Residential Adjustment Factor	65			
Farm Improvement Factor	65			
After Ratio	100			
Selected Ratio	106	2018	Adjustment	94

Explanation

RMV 401: SA 45

Improved land - Dike Land, Rural Rainier

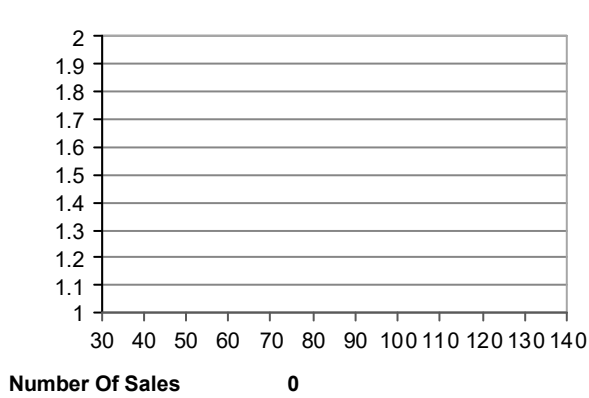
There are no sales available for this study. Therefore, the central tendency of 102 and the time conclusion of 104 was applied to this analysis from the study performed on improved property located in SA 41. Thus, the selected Ratio is 106.

Performance History

	2018	2017	2016	2015	2014
COD		-	22.48	0.00	11.26
PRD		-	1.01	1.00	0.99

COLUMBIA County 2018 Ratio Study

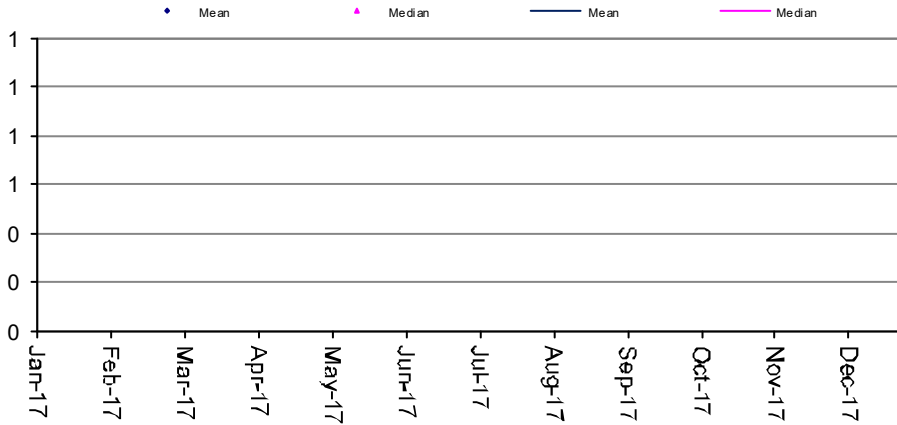
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA AR	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA AR	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
409	04	45	000	2018	0	Rainier							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	9			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	589,730	29.02 %	784,341	38.16 %
OSD RMV	540,000	26.57 %	540,000	26.27 %
Residential Improvement RMV	618,960	30.46 %	501,358	24.39 %
Farm Improvement RMV	283,360	13.94 %	229,522	11.17 %
SelectedRatioFromSales	99			
RMV Adjustment	100			
Before Ratio	99			
Overall Adjustment Factor	101			
Land Adjustment Factor	133			
OSD Adjustment Factor	100			
Residential Adjustment Factor	81			
Farm Improvement Factor	81			
After Ratio	100			
Selected Ratio	99	2018	Adjustment	101

Explanation

RMV 409: SA 45

Improved land - Manufactured Structure - Dike Land, Rural Rainier

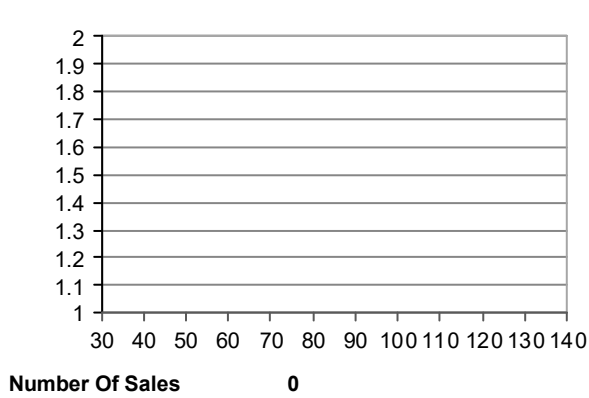
There are no sales for this study of Dike Land with manufactured structures. Due to the lack of sales, the selected ratio of 99 from SA 41 RMV Class 409 was applied here.

Performance History

	2018	2017	2016	2015	2014
COD		-	-	0.00	11.26
PRD		-	-	1.00	0.99

COLUMBIA County 2018 Ratio Study

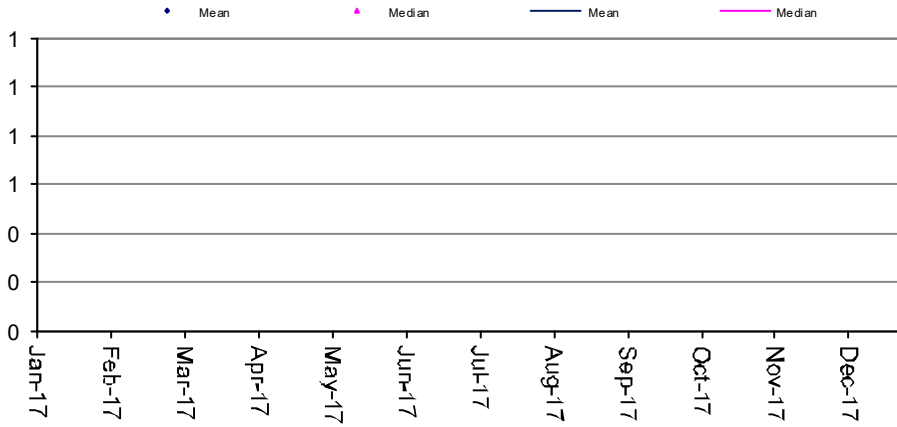
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

MAINTENANCE AREA 5

CLATSKANIE

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
100	05	00	000	2018	4	Clatskanie							

Adjustment Calculation Summary

Sample - Number of Sales	4	RECALCULATED		
Population - Number of Accounts	91			
Sales as a percentage of the Population	4.40 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	7,850,610	100.00 %	8,949,695	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	88			
RMV Adjustment	100			
Before Ratio	88			
Overall Adjustment Factor	114			
Land Adjustment Factor	114			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	88	2018	Adjustment	114

Explanation

RMV 100: SA 00

Unimproved land, City of Clatskanie.

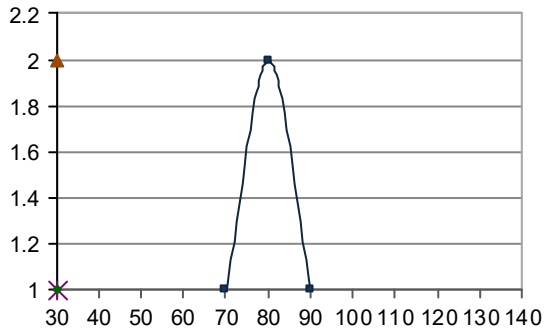
For this study of undeveloped land in the City of Clatskanie, the Mean of 85 was selected which is bracketed by the Median (86) and the Weighted Mean (84). Therefore, after the Mean was adjusted for time, the Selected Ratio is 88.

Performance History

	2018	2017	2016	2015	2014
COD	7.27	18.49	0.00	-	-
PRD	1.01	1.09	1.00	-	-

COLUMBIA County 2018 Ratio Study

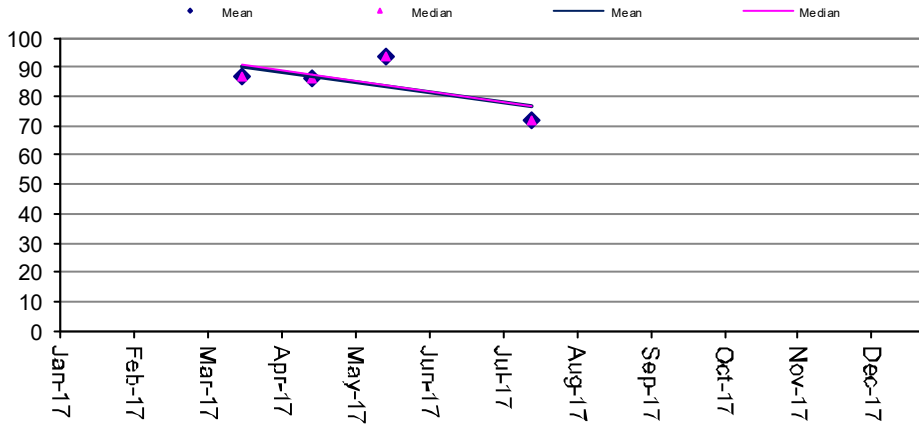
Frequency



30	0	Median	86	Wtd Mean	84
40	0	AD	6.25	GeoMean	84
50	0	COD	7.27	PRD	1.01
60	0	Mean	85	95% Confidence	9.04
70	1	SD	9.22		
80	2	COV	10.85		
90	1				
100	0				
110	0				
120	0				
130	0				
140	0				

Number Of Sales **4**

Central Tendencies



Month	Mean	Median	Sales
Apr-17	87	87	1
May-17	86	86	1
Jun-17	94	94	1
Aug-17	72	72	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
05	00	000	100		33	7N4W09-CA-00141	2017	7605	0.24	43,010	0	43,010	59,900	Aug-17	1	72
05	00	000	100		33	7N4W09-CA-00112	2017	4691	0.24	43,200	0	43,200	50,000	May-17	2	86
05	00	000	100		33	7N4W09-CA-00110	2017	4052	0.24	43,200	0	43,200	49,900	Apr-17	3	87
05	00	000	100		33	7N4W09-CA-00140	2017	5813	0.17	40,520	0	40,520	42,900	Jun-17	4	94

COLUMBIA County 2018 Ratio Study

RMV																				
Class	MA	SA	NH	Year	# of	Location														
101	05	00	000	2018	28	Clatskanie														

Adjustment Calculation Summary

Sample - Number of Sales	28			
Population - Number of Accounts	519			
Sales as a percentage of the Population	5.39 %			
Prior Year Population Values				
Land RMV	22,134,810	23.87 %	25,233,683	26.88 %
OSD RMV	6,622,000	7.14 %	6,622,000	7.05 %
Residential Improvement RMV	63,228,200	68.20 %	61,331,354	65.32 %
Farm Improvement RMV	727,380	0.78 %	705,559	0.75 %
SelectedRatioFromSales	99			
RMV Adjustment	100			
Before Ratio	99			
Overall Adjustment Factor	101			
Land Adjustment Factor	114			
OSD Adjustment Factor	100			
Residential Adjustment Factor	97			
Farm Improvement Factor	97			
After Ratio	100			
Selected Ratio	99	2018	Adjustment	101

Explanation

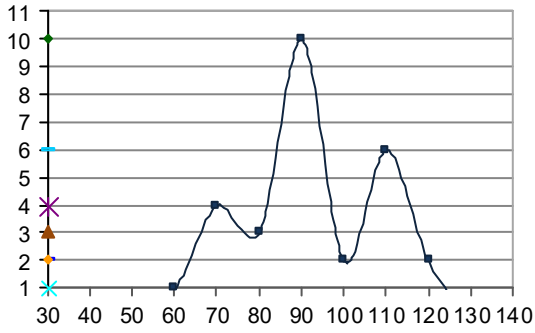
RMV 101: SA 00
 Improved property, City of Clatskanie.
 All single-family site built residential properties located in the City of Clatskanie. The Mean, Median and Weighted Mean all returned ratio indications of 96. After applying the time adjustment (103), the Selected Ratio of 99 was applied for this grouping of improved properties.

Performance History

	2018	2017	2016	2015	2014
COD	12.28	13.32	9.39	12.50	12.14
PRD	1.00	1.01	1.01	1.01	1.00

COLUMBIA County 2018 Ratio Study

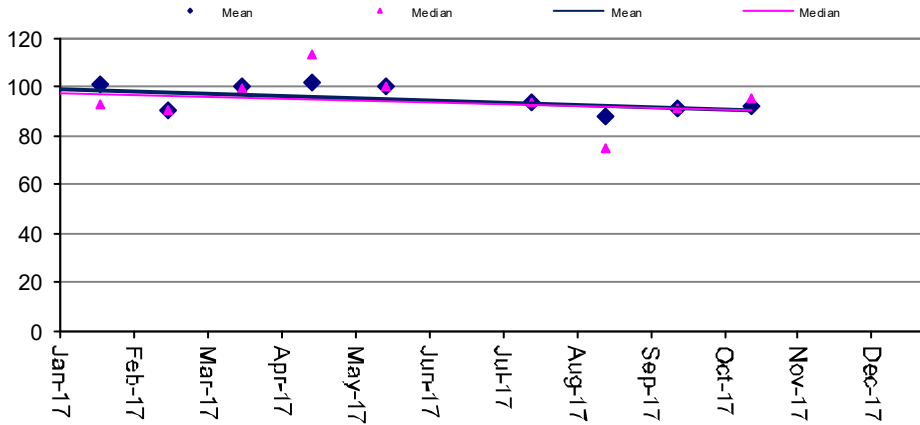
Frequency



30	0	Median	96	Wtd Mean	96
40	0	AD	11.79	GeoMean	95
50	0	COD	12.28	PRD	1.00
60	1	Mean	96	95% Confidence	5.63
70	4	SD	15.20		
80	3	COV	15.84		
90	10				
100	2				
110	6				
120	2				
130	0				
140	0				

Number Of Sales **28**

Central Tendencies



Month	Mean	Median	Sales
Jan-17	99	94	3
Feb-17	101	93	3
Mar-17	90	90	2
Apr-17	100	99	4
May-17	102	113	4
Jun-17	100	100	2
Jul-17	94	94	2
Sep-17	88	75	3
Oct-17	91	91	1
Nov-17	92	95	4

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
05	00	000	101	145	33	7N4W08-BD-02600	2017	8785	0.30	58,670	116,900	175,570	277,000	Sep-17	1	63
05	00	000	101	131	33	7N4W08-DC-04100	2017	1535	0.20	55,360	65,610	120,970	160,000	Feb-17	2	76
05	00	000	101	144	33	7N4W08-CD-07100	2017	5286	0.22	56,480	200,080	256,560	337,500	Jun-17	3	76
05	00	000	101	131	33	7N4W08-CD-08200	2017	2957	0.13	53,230	69,330	122,560	160,000	Mar-17	4	77
05	00	000	101	136	33	7N4W08-CA-03300	2017	4798	0.11	52,550	76,940	129,490	163,500	May-17	5	79
05	00	000	101	132	33	7N4W08-CD-02600	2017	4036	0.15	54,290	89,850	144,140	172,057	Apr-17	6	84
05	00	000	101	133	33	7N4W08-CD-02000	2017	11251	0.20	55,140	100,810	155,950	185,000	Nov-17	7	84
05	00	000	101	146	33	7N4W08-CD-01300	2017	8429	0.23	56,730	203,120	259,850	300,000	Sep-17	8	87
05	00	000	101	132	33	7N4W08-DA-03200	2017	7402	0.17	54,570	75,910	130,480	143,000	Aug-17	9	91
05	00	000	101	131	33	7N4W09-CB-03500	2017	9820	0.27	57,960	122,010	179,970	197,000	Oct-17	10	91
05	00	000	101	141	33	7N4W08-CB-05200	2017	1154	0.18	54,910	104,170	159,080	172,000	Jan-17	11	92
05	00	000	101	142	30	7N4W08-BD-03000	2017	10486	0.28	58,210	124,730	182,940	195,000	Nov-17	12	94
05	00	000	101	142	33	7N4W08-BC-01300	2017	10799	0.21	56,010	157,420	213,430	225,000	Nov-17	13	95
05	00	000	101	134	30	7N4W08-AC-00300	2017	967	0.13	53,360	102,540	155,900	162,000	Jan-17	14	96
05	00	000	101	144	33	7N4W08-BC-00900	2017	3517	0.33	59,230	236,950	296,180	310,000	Apr-17	15	96
05	00	000	101	136	30	7N4W08-CD-06700	2017	7503	0.31	58,820	101,910	160,730	165,000	Aug-17	16	97
05	00	000	101	141	33	7N4W09-CB-00600	2017	10314	0.36	60,490	192,090	252,580	260,900	Nov-17	17	97
05	00	000	101	135	33	7N4W08-DB-02100	2017	3385	0.11	52,540	85,790	138,330	140,000	Apr-17	18	99
05	00	000	101	143	33	7N4W08-AD-00800	2017	4527	0.54	69,620	189,650	259,270	260,000	May-17	19	100

COLUMBIA County 2018 Ratio Study

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
05	00	000	101	141	33	7N4W08-BC-01400	2017	2209	0.26	57,750	213,000	270,750	265,000	Mar-17	20	102
05	00	000	101	142	33	7N4W08-CB-05000	2017	603	0.19	55,020	131,050	186,070	169,000	Jan-17	21	110
05	00	000	101	141	33	7N4W08-AD-01700	2017	1459	0.28	58,170	132,960	191,130	174,000	Feb-17	22	110
05	00	000	101	141	33	7N4W08-AD-01400	2017	4385	0.28	58,120	151,290	209,410	185,000	May-17	23	113
05	00	000	101	142	33	7N4W08-BC-02300	2017	4267	0.26	57,830	157,540	215,370	188,000	May-17	24	115
05	00	000	101	135	33	7N4W17-BA-02200	2017	8519	0.48	100,260	82,000	182,260	159,000	Sep-17	25	115
05	00	000	101	145	33	7N4W08-DC-03300	2017	1170	0.18	54,830	167,110	221,940	190,000	Feb-17	26	117
05	00	000	101	142	30	7N4W08-DA-01900	2017	3417	0.23	56,760	178,300	235,060	194,000	Apr-17	27	121
05	00	000	101	153	33	7N4W07-AD-00700	2017	5176	0.23	56,730	331,420	388,150	315,000	Jun-17	28	123

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
109	05	00	000	2018	1	Clatskanie							

Adjustment Calculation Summary

Sample - Number of Sales	1	RECALCULATED		
Population - Number of Accounts	52			
Sales as a percentage of the Population	1.92 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	2,927,930	43.83 %	3,337,840	49.43 %
OSD RMV	686,000	10.27 %	686,000	10.16 %
Residential Improvement RMV	2,908,170	43.53 %	2,588,271	38.33 %
Farm Improvement RMV	158,600	2.37 %	141,154	2.09 %
SelectedRatioFromSales	99			
RMV Adjustment	100			
Before Ratio	99			
Overall Adjustment Factor	101			
Land Adjustment Factor	114			
OSD Adjustment Factor	100			
Residential Adjustment Factor	89			
Farm Improvement Factor	89			
After Ratio	100			
Selected Ratio	99	2018	Adjustment	101

Explanation

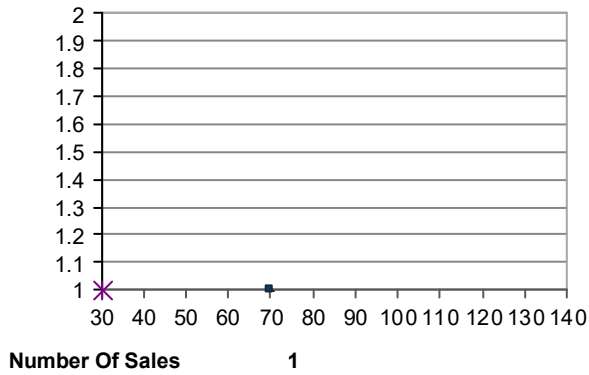
RMV 109: SA 00
 Improved property - Manufactured Structures, City of Clatskanie.
 There are too few sales for this analysis. Therefore, it was decided to use the Selected Ratio of 99 from the improved property analysis (RMV 101 SA 00).

Performance History

	2018	2017	2016	2015	2014
COD	0.00	-	0.00	12.50	12.14
PRD	1.00	-	1.00	1.01	1.00

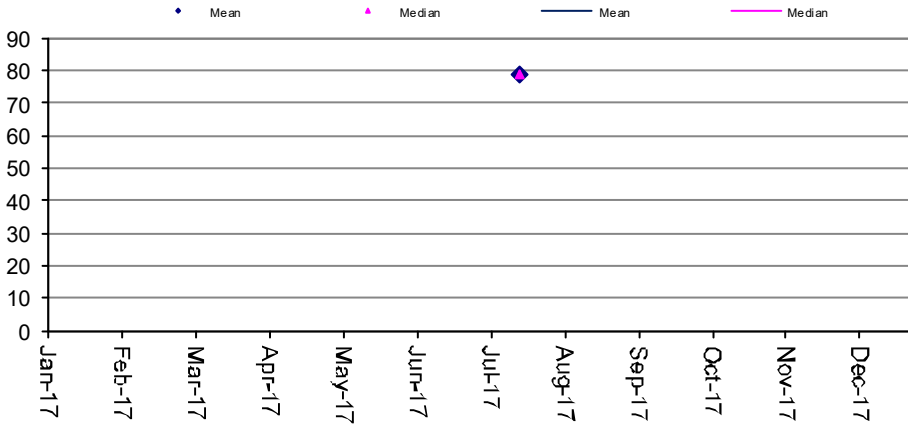
COLUMBIA County 2018 Ratio Study

Frequency



30	0	Median	79	Wtd Mean	79
40	0	AD	0.00	GeoMean	79
50	0	COD	0.00	PRD	1.00
60	0	Mean	79	95% Confidence	1.96
70	1	SD	1.00		
80	0	COV	1.27		
90	0				
100	0				
110	0				
120	0				
130	0				
140	0				

Central Tendencies



Month	Mean	Median	Sales
Aug-17	79	79	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
05	00	000	109	463	33	7N4W08-CA-00603	2017	8347	0.21	55,690	110,410	166,100	210,000	Aug-17	1	79

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	# of Sales	Location	RMV Class	MA	SA	NH	Year	# of Sales	Location
101	05	40	000	2018	0	Clatskanie							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	21			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	908,620	24.29 %	1,035,827	27.48 %
OSD RMV	390,000	10.43 %	390,000	10.35 %
Residential Improvement RMV	2,436,240	65.14 %	2,338,790	62.04 %
Farm Improvement RMV	5,100	0.14 %	4,896	0.13 %
SelectedRatioFromSales	99			
RMV Adjustment	100			
Before Ratio	99			
Overall Adjustment Factor	101			
Land Adjustment Factor	114			
OSD Adjustment Factor	100			
Residential Adjustment Factor	96			
Farm Improvement Factor	96			
After Ratio	100			
Selected Ratio	99	2018	Adjustment	101

Explanation

RMV 101: SA 40

Improved land - Duplex/Triplex/Fourplex, City of Clatskanie

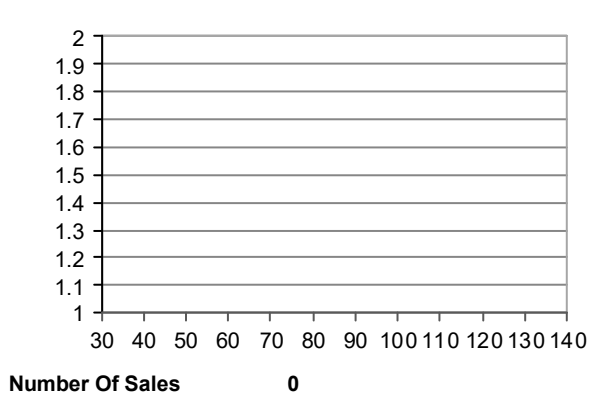
The query did not return any sales for this analysis of Duplex/Triplex/Fourplex properties. Because of this, it was decided to use the selected ratio of 99 from the single-family residential study in the same area and to apply it here.

Performance History

	2018	2017	2016	2015	2014
COD		-	3.30	-	-
PRD		-	1.00	-	-

COLUMBIA County 2018 Ratio Study

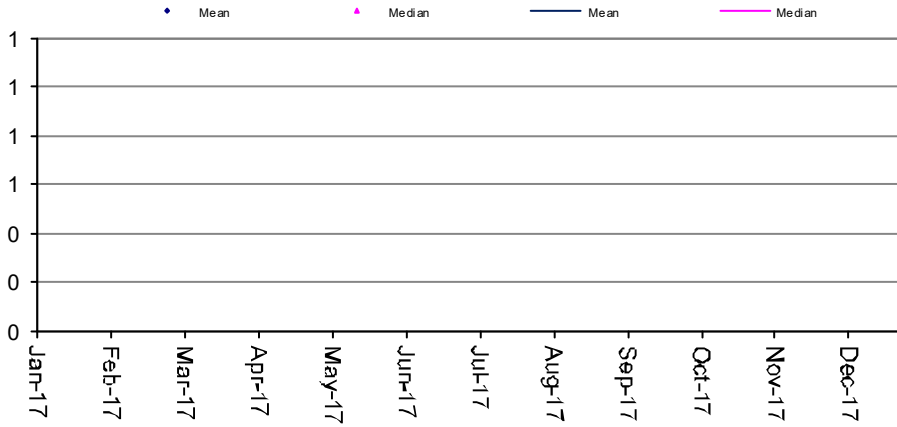
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App Sales	# of Sales	Location	RMV Class	MA	SA	NH	Year	App Sales	# of Sales	Location	
400	05	36	000	2018		0	Clatskanie									

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	27			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	751,500	100.00 %	819,135	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	92			
RMV Adjustment	100			
Before Ratio	92			
Overall Adjustment Factor	109			
Land Adjustment Factor	109			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	92	2018	Adjustment	109

Explanation

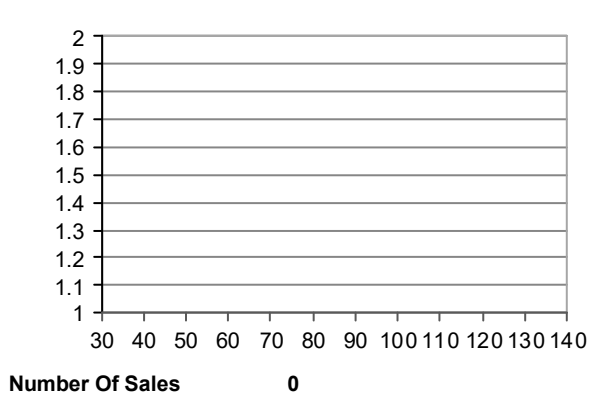
RMV 400: SA 36
 Unimproved land - Fishhawk Lake in Rural Clatskanie
 There was no sales found during the study period. Therefore the conclusion from the improved properties in this area (92 ratio, 104 time adjustment factor) is recommended.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	-
PRD	-	-	-	-	-

COLUMBIA County 2018 Ratio Study

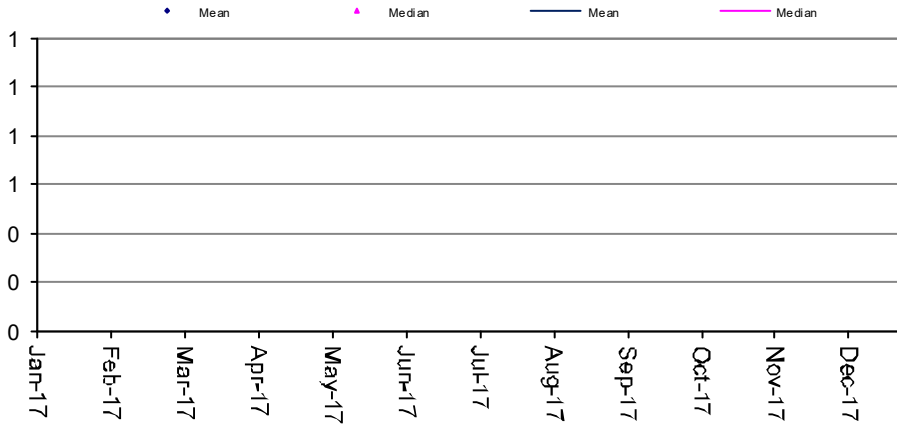
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA AR	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA AR	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
401	05	36	000	2018	6	Clatskanie							

Adjustment Calculation Summary

Sample - Number of Sales	6	RECALCULATED		
Population - Number of Accounts	59			
Sales as a percentage of the Population	10.17 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	2,263,680	19.56 %	2,467,411	19.55 %
OSD RMV	1,653,000	14.28 %	1,653,000	13.10 %
Residential Improvement RMV	7,603,730	65.71 %	8,440,140	66.89 %
Farm Improvement RMV	51,720	0.45 %	57,409	0.45 %
SelectedRatioFromSales	92			
RMV Adjustment	100			
Before Ratio	92			
Overall Adjustment Factor	109			
Land Adjustment Factor	109			
OSD Adjustment Factor	100			
Residential Adjustment Factor	111			
Farm Improvement Factor	111			
After Ratio	100			
Selected Ratio	92	2018	Adjustment	109

Explanation

RMV 401: SA 36

Improved land - Fishhawk Lake in Rural Clatskanie

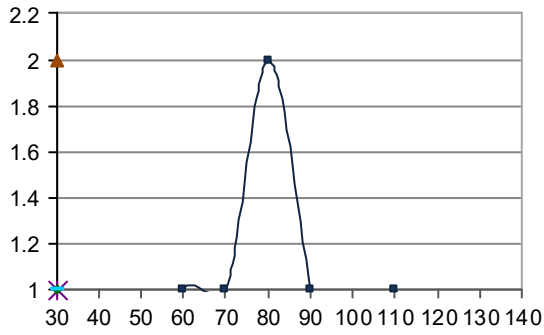
The Fishhawk Lake Estates is a private community that surrounds a 100-acre man-made lake. The area is distinctive due to the nature of the market it encompasses: recreational lake, vacation get-a-way and second home type properties. The Selected Ratio of 92 was applied. This ratio was determined from the central tendency of 88 (the Median) which was then adjusted by 104, the conclusion from the time adjustment study for rural properties.

Performance History

	2018	2017	2016	2015	2014
COD	14.77	-	-	-	-
PRD	1.01	-	-	-	-

COLUMBIA County 2018 Ratio Study

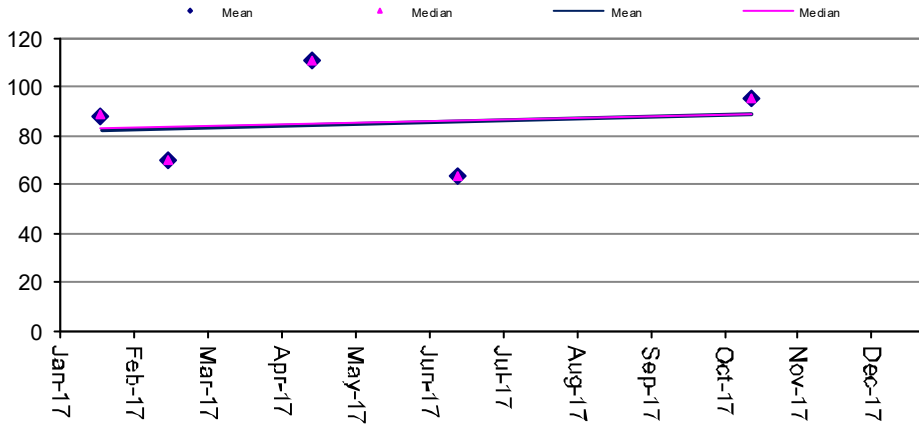
Frequency



30	0	Median	88	Wtd Mean	85
40	0	AD	13.00	GeoMean	85
50	0	COD	14.77	PRD	1.01
60	1	Mean	86	95% Confidence	13.88
70	1	SD	17.34		
80	2	COV	20.17		
90	1				
100	0				
110	1				
120	0				
130	0				
140	0				

Number Of Sales **6**

Central Tendencies



Month	Mean	Median	Sales
Feb-17	88	89	2
Mar-17	70	70	1
May-17	111	111	1
Jul-17	63	63	1
Nov-17	95	95	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
05	36	000	401	133	33	6N5W06-BC-03400	2017	6755	0.22	44,000	75,190	119,190	190,000	Jul-17	1	63
05	36	000	401	143	33	6N5W06-BC-00900	2017	2693	0.22	99,000	119,070	218,070	310,000	Mar-17	2	70
05	36	000	401	142	33	6N5W06-BD-02900	2017	1490	0.35	71,000	128,070	199,070	225,000	Feb-17	3	88
05	36	000	401	145	33	6N5W06-BC-04500	2017	1661	0.34	44,000	106,340	150,340	168,500	Feb-17	4	89
05	36	000	401	142	33	6N5W06-BC-02900	2017	11060	0.22	44,000	201,250	245,250	258,375	Nov-17	5	95
05	36	000	401	144	33	6N5W06-BC-04700	2017	4719	0.89	56,000	133,260	189,260	170,000	May-17	6	111

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
400	05	51	000	2018	5	Clatskanie							

Adjustment Calculation Summary

Sample - Number of Sales	5	RECALCULATED		
Population - Number of Accounts	820			
Sales as a percentage of the Population	0.61 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	203,302,760	100.00 %	199,236,705	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

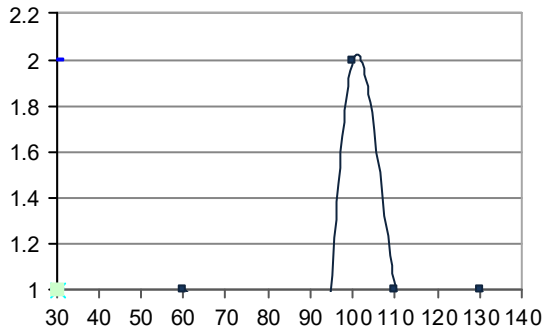
RMV 400: SA 51
 Unimproved land, Rural Clatskanie (Value Zone 1)
 Due to having too few sales resulting in less the one per cent of the population, the selected ratio of 102 from the improved study in the same area has been applied here.

Performance History

	2018	2017	2016	2015	2014
COD	16.00	19.55	12.31	22.57	20.83
PRD	1.01	1.06	1.06	1.03	1.09

COLUMBIA County 2018 Ratio Study

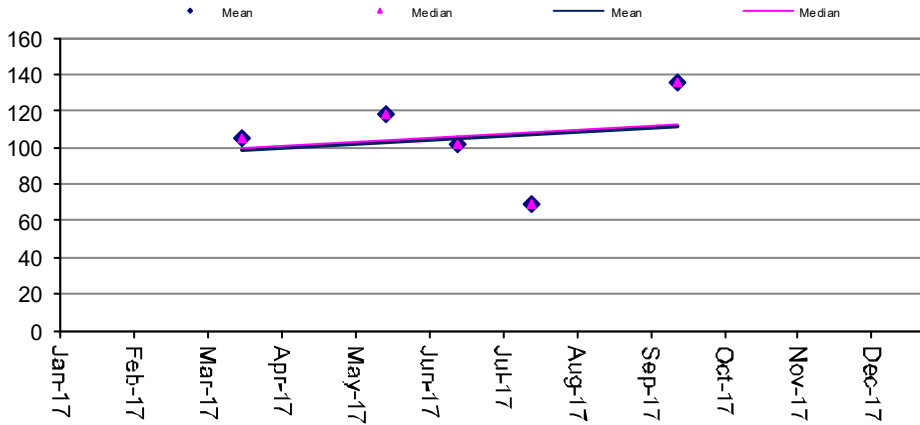
Frequency



30	0	Median	105	Wtd Mean	105
40	0	AD	16.80	GeoMean	103
50	0	COD	16.00	PRD	1.01
60	1	Mean	106	95% Confidence	21.60
70	0	SD	24.65		
80	0	COV	23.25		
90	0				
100	2				
110	1				
120	0				
130	1				
140	0				

Number Of Sales 5

Central Tendencies



Month	Mean	Median	Sales
Apr-17	105	105	1
Jun-17	118	118	1
Jul-17	102	102	1
Aug-17	69	69	1
Oct-17	136	136	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
05	51	000	400		33	8N4W26-C0-00900	2017	7917	2.00	45,000	0	45,000	65,000	Aug-17	1	69
05	51	000	400		30	7N3W31-00-00600	2017	7098	16.69	114,750	0	114,750	113,000	Jul-17	2	102
05	51	000	400		33	7N3W31-00-00601	2017	3366	10.55	99,840	0	99,840	95,000	Apr-17	3	105
05	51	000	400		33	8N3W28-00-01300	2017	5848	5.01	82,590	0	82,590	70,000	Jun-17	4	118
05	51	000	400		33	7N4W10-A0-01002	2017	9960	11.83	81,400	0	81,400	60,000	Oct-17	5	136

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
401	05	51	000	2018	32	Clatskanie							

Adjustment Calculation Summary

Sample - Number of Sales	32	RECALCULATED		
Population - Number of Accounts	1,478			
Sales as a percentage of the Population	2.17 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	128,326,140	32.55 %	125,759,617	32.62 %
OSD RMV	62,154,220	15.76 %	62,154,220	16.12 %
Residential Improvement RMV	178,509,890	45.28 %	173,154,593	44.91 %
Farm Improvement RMV	25,275,560	6.41 %	24,517,293	6.36 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	97			
Farm Improvement Factor	97			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

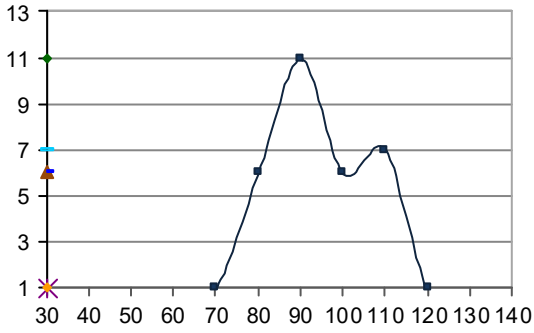
RMV 401: SA 51
 Improved property, Rural Clatskanie (Value Zone 1)
 For this sales array of improved property within rural Clatskanie, the Median of 98 was selected and the time adjustment of 104 was applied to this indicator, which resulted in a Selected Ratio of 102.

Performance History

	2018	2017	2016	2015	2014
COD	10.08	9.18	13.04	13.29	14.17
PRD	1.00	1.01	1.00	1.03	1.02

COLUMBIA County 2018 Ratio Study

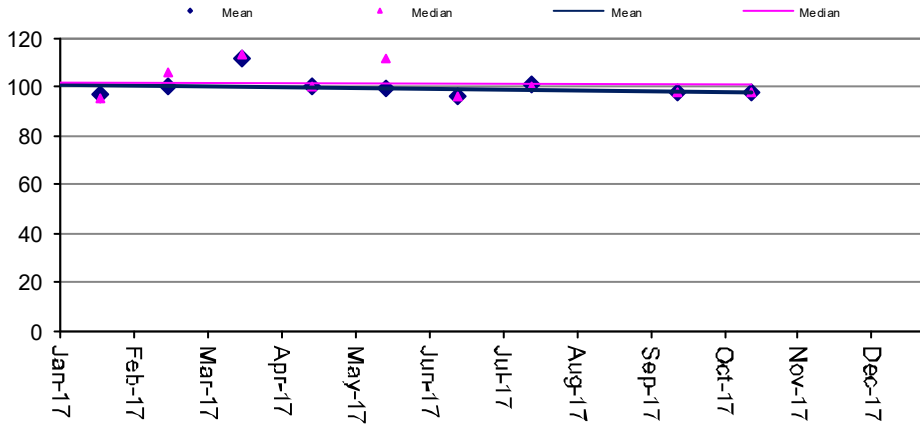
Frequency



30	0	Median	98	Wtd Mean	100
40	0	AD	9.88	GeoMean	99
50	0	COD	10.08	PRD	1.00
60	0	Mean	100	95% Confidence	4.12
70	1	SD	11.90		
80	6	COV	11.90		
90	11				
100	6				
110	7				
120	1				
130	0				
140	0				

Number Of Sales **32**

Central Tendencies



Month	Mean	Median	Sales
Jan-17	99	93	3
Feb-17	97	95	7
Mar-17	100	106	4
Apr-17	112	113	2
May-17	100	100	1
Jun-17	99	112	4
Jul-17	96	96	2
Aug-17	101	100	7
Oct-17	98	98	1
Nov-17	98	98	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
05	51	000	401	145	33	7N4W15-DC-01400	2017	7458	7.08	136,000	154,990	290,990	376,500	Aug-17	1	77
05	51	000	401	141	33	7N3W30-A0-00200	2017	5730	1.80	91,150	109,590	200,740	241,000	Jun-17	2	83
05	51	000	401	131	30	7N3W06-00-00204	2017	2769	4.53	127,570	165,440	293,010	350,000	Mar-17	3	84
05	51	000	401	141	33	7N3W10-A0-00600	2017	5616	4.64	128,730	180,830	309,560	369,000	Jun-17	4	84
05	51	000	401	131	30	7N4W27-00-01200	2017	7022	1.72	89,610	76,300	165,910	190,000	Jul-17	5	87
05	51	000	401	141	33	7N3W16-C0-01700	2017	7661	2.30	99,520	143,510	243,030	279,900	Aug-17	6	87
05	51	000	401	141	30	7N3W20-00-00600	2017	185	59.37	347,630	179,460	527,090	600,000	Jan-17	7	88
05	51	000	401	143	33	7N4W21-BA-00102	2017	1494	4.99	132,390	196,960	329,350	365,000	Feb-17	8	90
05	51	000	401	131	33	7N5W11-00-00201	2017	1036	2.16	97,420	138,410	235,830	255,000	Feb-17	9	92
05	51	000	401	141	30	7N3W10-B0-00100	2017	7452	4.23	124,430	127,540	251,970	270,000	Aug-17	10	93
05	51	000	401	141	33	7N3W16-C0-01800	2017	1295	2.30	99,520	153,020	252,540	269,402	Feb-17	11	94
05	51	000	401	143	33	7N3W09-00-00800	2017	1317	20.35	179,060	232,800	411,860	434,100	Feb-17	12	95
05	51	000	401	142	33	8N4W24-00-01700	2017	1496	0.44	73,600	165,070	238,670	250,000	Feb-17	13	95
05	51	000	401	134	33	7N4W09-BA-01600	2017	256	1.00	75,750	137,560	213,310	220,000	Jan-17	14	97
05	51	000	401	131	30	7N3W10-B0-01202	2017	9419	1.69	89,040	106,960	196,000	200,000	Oct-17	15	98
05	51	000	401	141	33	8N3W28-00-01000	2017	10442	3.84	137,750	155,780	293,530	299,000	Nov-17	16	98
05	51	000	401	141	33	7N3W04-A0-00301	2017	1156	6.15	140,950	197,290	338,240	340,000	Feb-17	17	99
05	51	000	401	145	33	7N4W04-B0-00201	2017	2193	5.86	138,950	233,990	372,940	375,000	Mar-17	18	99
05	51	000	401	142	30	7N4W09-BA-00201	2017	4529	0.80	76,250	288,150	364,400	365,000	May-17	19	100

COLUMBIA County 2018 Ratio Study

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
05	51	000	401	143	33	8N4W25-00-01200	2017	6435	13.86	152,180	306,850	459,030	439,000	Jul-17	20	105
05	51	000	401	145	33	7N3W10-B0-01300	2017	2830	7.73	147,540	249,860	397,400	374,000	Mar-17	21	106
05	51	000	401	141	33	7N4W07-D0-01800	2017	3415	5.97	139,780	156,750	296,530	279,000	Apr-17	22	106
05	51	000	401	142	33	7N3W10-B0-00901	2017	7357	9.85	148,870	228,020	376,890	355,000	Aug-17	23	106
05	51	000	401	131	30	7N3W10-A0-00500	2017	2056	2.06	95,920	77,900	173,820	160,000	Mar-17	24	109
05	51	000	401	142	33	7N4W03-B0-00400	2017	7832	0.28	79,500	145,400	224,900	205,000	Aug-17	25	110
05	51	000	401	142	33	7N4W13-00-00202	2017	6210	6.32	142,020	360,750	502,770	450,000	Jun-17	26	112
05	51	000	401	144	33	7N3W18-A0-00900	2017	729	5.27	92,270	380,430	472,700	420,000	Jan-17	27	113
05	51	000	401	144	33	7N3W32-00-01003	2017	7826	18.48	173,550	432,880	606,430	530,000	Aug-17	28	114
05	51	000	401	144	33	7N4W24-00-00800	2017	5551	36.00	226,710	243,150	469,860	405,000	Jun-17	29	116
05	51	000	401	155	33	8N4W27-DA-00300	2017	1836	2.07	96,080	294,670	390,750	335,000	Feb-17	30	117
05	51	000	401	151	33	7N3W10-C0-00202	2017	3043	5.11	133,340	224,370	357,710	299,900	Apr-17	31	119
05	51	000	401	300	30	7N4W26-00-00201	2017	7823	20.00	180,000	66,970	246,970	200,000	Aug-17	32	123

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
409	05	51	000	2018	8	Clatskanie							

Adjustment Calculation Summary

Sample - Number of Sales	8	RECALCULATED		
Population - Number of Accounts	517			
Sales as a percentage of the Population	1.55 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	41,199,930	39.16 %	40,375,931	38.82 %
OSD RMV	24,418,860	23.21 %	24,418,860	23.48 %
Residential Improvement RMV	30,883,606	29.35 %	30,574,770	29.40 %
Farm Improvement RMV	8,713,960	8.28 %	8,626,820	8.30 %
SelectedRatioFromSales	101			
RMV Adjustment	100			
Before Ratio	101			
Overall Adjustment Factor	99			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	99			
Farm Improvement Factor	99			
After Ratio	100			
Selected Ratio	101	2018	Adjustment	99

Explanation

RMV 409: SA 51

Improved property - Manufactured Structure, Rural Clatskanie (Value Zone 1)

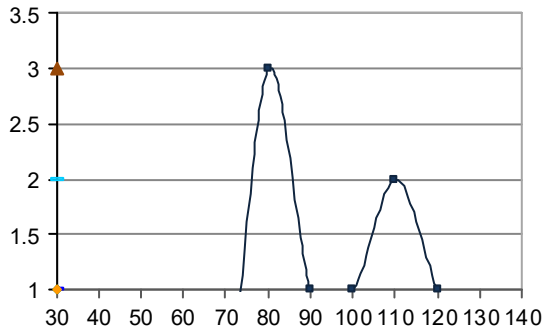
For this grouping of rural Clatskanie properties improved with manufactured structures, the Median of 97 was selected (supported by the Weighted Mean and GeoMean) and then was adjusted by the time study conclusion of 104. This resulted in a Selected Ratio of 101 and an Overall Adjustment Factor of 99.

Performance History

	2018	2017	2016	2015	2014
COD	13.92	13.82	10.24	13.29	14.17
PRD	1.01	0.97	1.01	1.03	1.02

COLUMBIA County 2018 Ratio Study

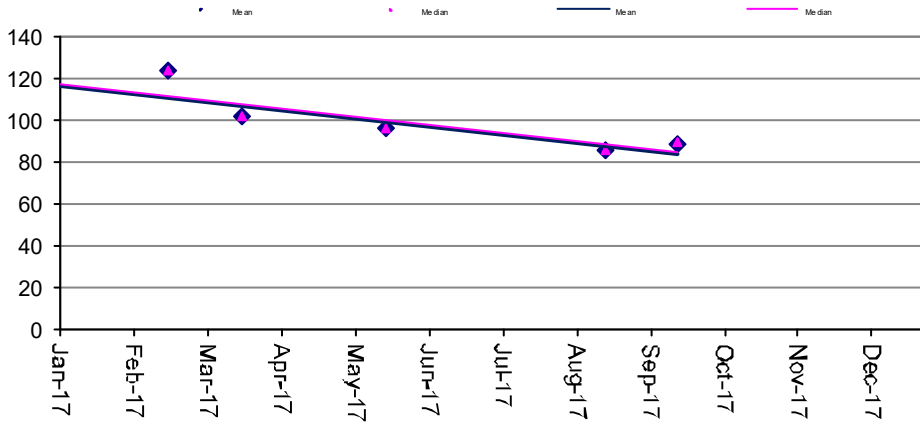
Frequency



30	0	Median	97	Wtd Mean	98
40	0	AD	13.50	GeoMean	98
50	0	COD	13.92	PRD	1.01
60	0	Mean	99	95% Confidence	11.01
70	0	SD	15.89		
80	3	COV	16.05		
90	1				
100	1				
110	2				
120	1				
130	0				
140	0				

Number Of Sales **8**

Central Tendencies



Month	Mean	Median	Sales
Jan-17	114	114	1
Mar-17	124	124	1
Apr-17	102	102	1
Jun-17	96	96	2
Sep-17	85	85	1
Oct-17	88	89	2

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
05	51	000	409	462	33	7N3W10-C0-00104	2017	5242	2.00	95,000	139,340	234,340	290,000	Jun-17	1	81
05	51	000	409	452	33	7N3W30-A0-02000	2017	9114	4.30	125,160	93,210	218,370	257,500	Sep-17	2	85
05	51	000	409	452	33	7N3W34-A0-01000	2017	9838	3.79	119,480	65,570	185,050	216,500	Oct-17	3	85
05	51	000	409	453	30	7N3W08-00-00504	2017	9441	18.78	174,820	169,190	344,010	375,000	Oct-17	4	92
05	51	000	409	452	33	7N4W18-AB-00700	2017	3520	2.42	101,310	122,780	224,090	220,000	Apr-17	5	102
05	51	000	409	441	30	7N3W09-A0-01600	2017	5883	4.93	131,770	90,230	222,000	200,000	Jun-17	6	111
05	51	000	409	473	33	7N4W22-00-01100	2017	348	5.11	133,340	265,460	398,800	350,000	Jan-17	7	114
05	51	000	409	452	33	7N5W05-00-01919	2017	2643	9.13	140,380	49,660	190,040	153,745	Mar-17	8	124

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
400	05	55	000	2018	0	Clatskanie							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	118			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	15,909,500	100.00 %	15,591,310	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

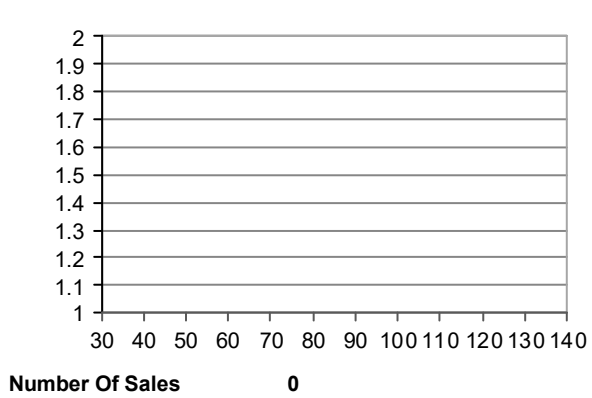
RMV 400: SA 55
 Unimproved Land - Dike Land, Rural Clatskanie
 There are no sales available for this study. Therefore, the selected ratio of 102 from MA 05 SA 51 unimproved property analysis located in the same area was applied here.

Performance History

	2018	2017	2016	2015	2014
COD		-	-	33.75	20.83
PRD		-	-	0.87	1.09

COLUMBIA County 2018 Ratio Study

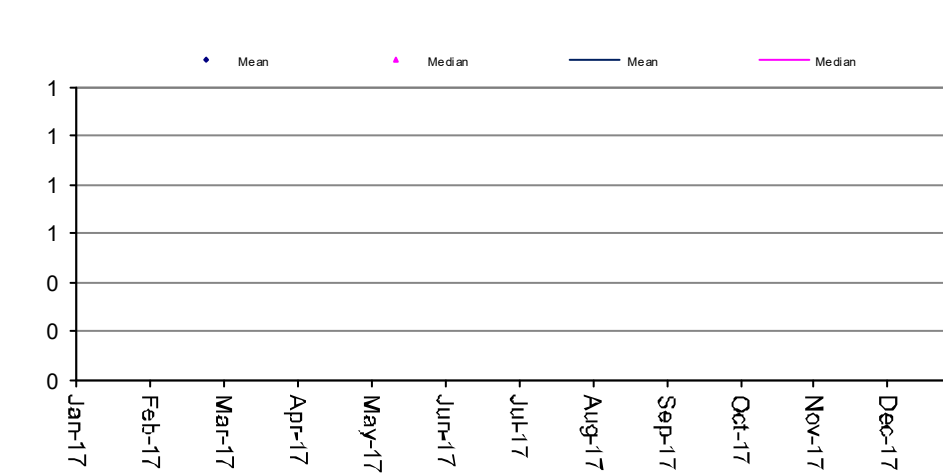
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	# of Sales	Location	RMV Class	MA	SA	NH	Year	# of Sales	Location
401	05	55	000	2018	3	Clatskanie							

Adjustment Calculation Summary

Sample - Number of Sales	3	RECALCULATED		
Population - Number of Accounts	269			
Sales as a percentage of the Population	1.12 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	35,395,900	51.95 %	34,687,982	52.01 %
OSD RMV	8,375,000	12.29 %	8,375,000	12.56 %
Residential Improvement RMV	18,486,070	27.13 %	17,931,488	26.89 %
Farm Improvement RMV	5,873,070	8.62 %	5,696,878	8.54 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	97			
Farm Improvement Factor	97			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

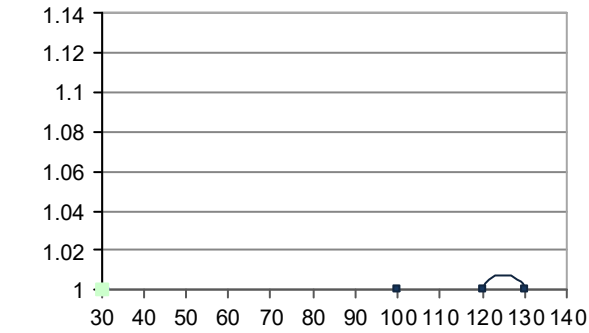
RMV 401: SA 55
 Improved Land - Dike Land, Rural Clatskanie
 There were too few sales available and they did not present a clear picture of the market. Therefore, it has been decided that the conclusion from the MA 05 SA 51 improved property analysis would be applied here (Selected Ratio 102).

Performance History

	2018	2017	2016	2015	2014
COD	8.47	11.48	11.21	13.13	14.17
PRD	1.00	1.02	0.98	1.00	1.02

COLUMBIA County 2018 Ratio Study

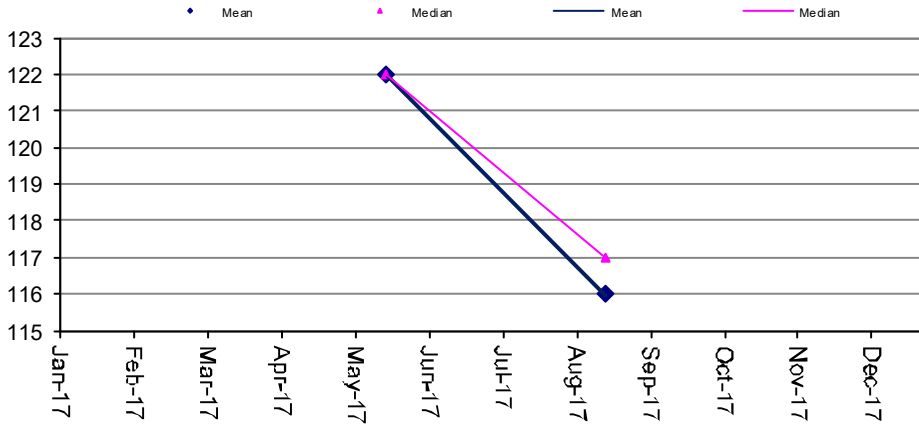
Frequency



30	0	Median	122	Wtd Mean	118
40	0	AD	10.33	GeoMean	118
50	0	COD	8.47	PRD	1.00
60	0	Mean	118	95% Confidence	15.70
70	0	SD	13.87		
80	0	COV	11.76		
90	0				
100	1				
110	0				
120	1				
130	1				
140	0				

Number Of Sales 3

Central Tendencies



Month	Mean	Median	Sales
Jun-17	122	122	1
Sep-17	116	117	2

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
05	55	000	401	133	33	7N4W05-00-00600	2017	8677	2.07	96,070	125,080	221,150	215,000	Sep-17	1	103
05	55	000	401	144	33	8N4W31-B0-01100	2017	5887	11.27	173,910	167,700	341,610	280,000	Jun-17	2	122
05	55	000	401	132	30	8N4W27-D0-01500	2017	9097	5.05	132,890	117,090	249,980	192,000	Sep-17	3	130

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
409	05	55	000	2018	2	Clatskanie							

Adjustment Calculation Summary

Sample - Number of Sales	2	RECALCULATED		
Population - Number of Accounts	31			
Sales as a percentage of the Population	6.45 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	3,012,780	43.32 %	2,952,524	43.31 %
OSD RMV	1,400,000	20.13 %	1,400,000	20.54 %
Residential Improvement RMV	1,784,690	25.66 %	1,731,149	25.39 %
Farm Improvement RMV	756,600	10.88 %	733,902	10.76 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	97			
Farm Improvement Factor	97			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

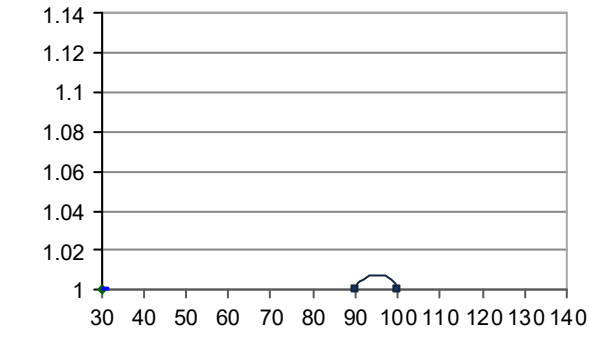
RMV 409: SA 55
 Improved Land - Dike Land - Manufactured Structure, Rural Clatskanie
 The sales available are 6.45% of the total population. The Median and Mean returned ratio indicators of 98 that is further supported by the Weighted Mean. The median was then adjusted by 104, the conclusion from the time study. As a result, the Selected Ratio is 102.

Performance History

	2018	2017	2016	2015	2014
COD	7.65	-	0.00	13.13	14.17
PRD	1.02	-	1.00	1.00	1.02

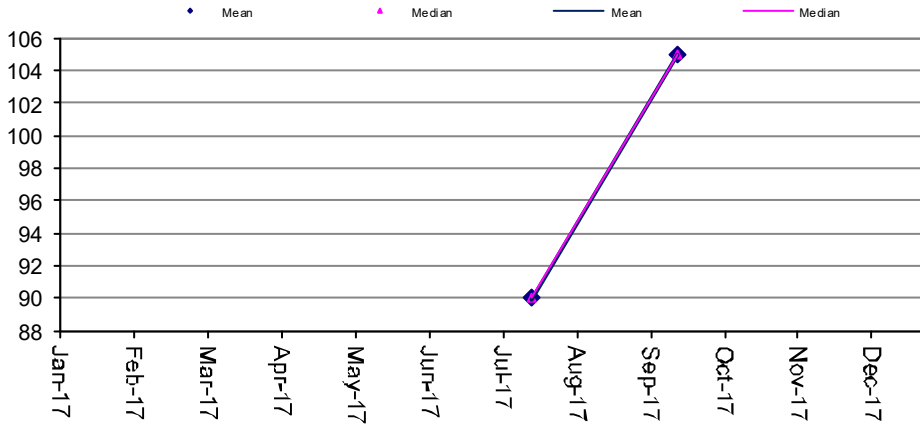
COLUMBIA County 2018 Ratio Study

Frequency



30	0	Median	98	Wtd Mean	96
40	0	AD	7.50	GeoMean	97
50	0	COD	7.65	PRD	1.02
60	0	Mean	98	95% Confidence	14.73
70	0	SD	10.63		
80	0	COV	10.85		
90	1				
100	1				
110	0				
120	0				
130	0				
140	0				

Central Tendencies



Month	Mean	Median	Sales
Aug-17	90	90	1
Oct-17	105	105	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
05	55	000	409	462	33	8N5W36-D0-00600	2017	7925	8.22	171,040	210,890	381,930	425,000	Aug-17	1	90
05	55	000	409	452	33	7N5W01-00-01500	2017	10073	14.40	177,000	106,580	283,580	270,500	Oct-17	2	105

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
800	05	51	000	2018	0	Clatskanie	801	05	51	000	2018	0	Clatskanie
800	05	55	000	2018	0	Clatskanie							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	0			
Population - Number of Accounts	5			
Sales as a percentage of the Population	0.00 %			
Prior Year Population Values				
Land RMV	500	100.00 %	500	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	100			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	100	2018	Adjustment	100

Explanation

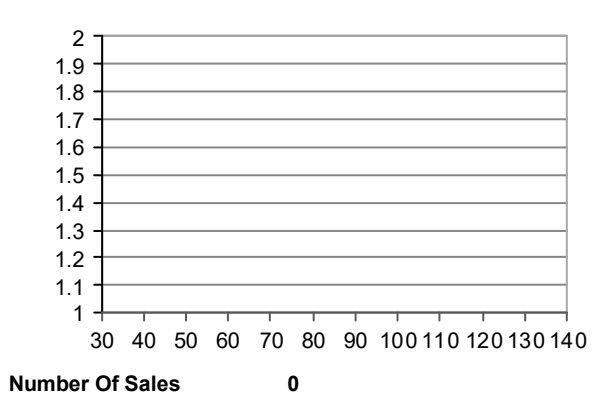
RMV 800: SA 51 and SA 55
 RMV 801: SA 51 and SA 55
 Recreational Land in Rural Clatskanie
 There are only 5 accounts within this RMV class as recreational land. No sales were found, therefore no trend has been applied.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	-
PRD	-	-	-	-	-

COLUMBIA County 2018 Ratio Study

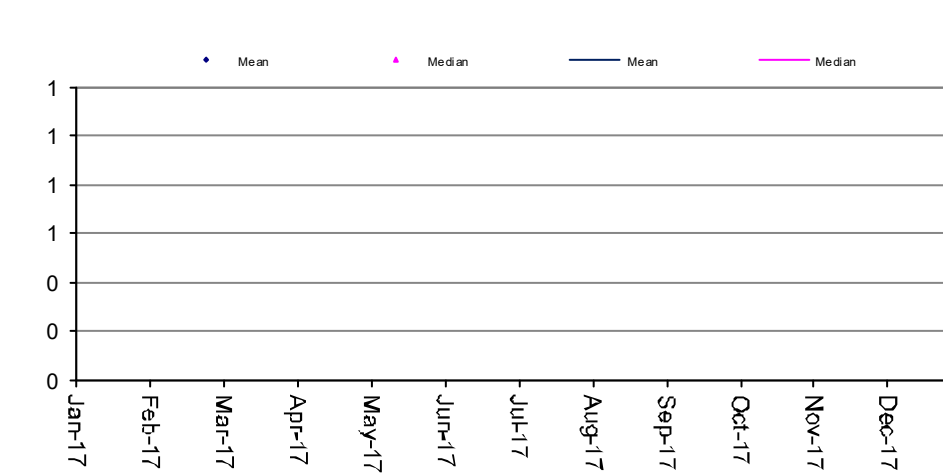
Frequency



- 30 0 Median
- 40 0 AD
- 50 0 COD
- 60 0 Mean
- 70 0 SD
- 80 0 COV
- 90 0
- 100 0
- 110 0
- 120 0
- 130 0
- 140 0

- Wtd Mean
- GeoMean
- PRD
- 95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
AP AR	SA	NH	PR P	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO

MAINTENANCE AREA 6

RURAL ST. HELENS,
CITY OF COLUMBIA CITY,
and WARREN

COLUMBIA County 2018 Ratio Study

RMV																			
Class	MA	SA	NH	Year	# of	Location	RMV	Class	MA	SA	NH	Year	# of	Location					
100	06	01	000	2018	0	Columbia City	100	06	15	000	2018	1	Columbia City						

Adjustment Calculation Summary

Sample - Number of Sales	1	RECALCULATED		
Population - Number of Accounts	39			
Sales as a percentage of the Population	2.56 %	Pre-Trend	Post Trend	Post Trend
Prior Year Population Values		Brkdwn	Values	Brkdwn
Land RMV	4,243,320	100.00 %	4,328,186	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	98			
RMV Adjustment	100			
Before Ratio	98			
Overall Adjustment Factor	102			
Land Adjustment Factor	102			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	98	2018	Adjustment	102

Explanation

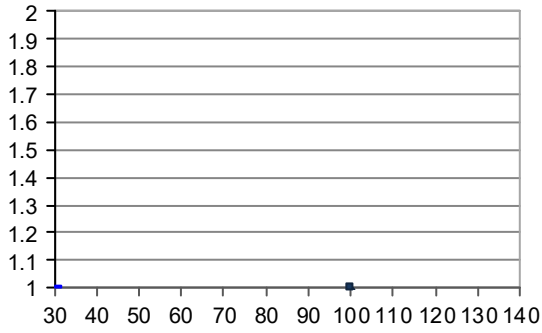
RMV 100: SA 01
 RMV 101: SA 15
 Unimproved land, City of Columbia City General Area and River Front
 A single sale was identified in this study period, a sample too small to use as a determination of the current market. Therefore, it is recommended to apply the conclusion from the RMV Class 101 properties located in these study areas (95 ratio, 103 time adjustment).

Performance History

	2018	2017	2016	2015	2014
COD	0.00	-	-	-	-
PRD	1.00	-	-	-	-

COLUMBIA County 2018 Ratio Study

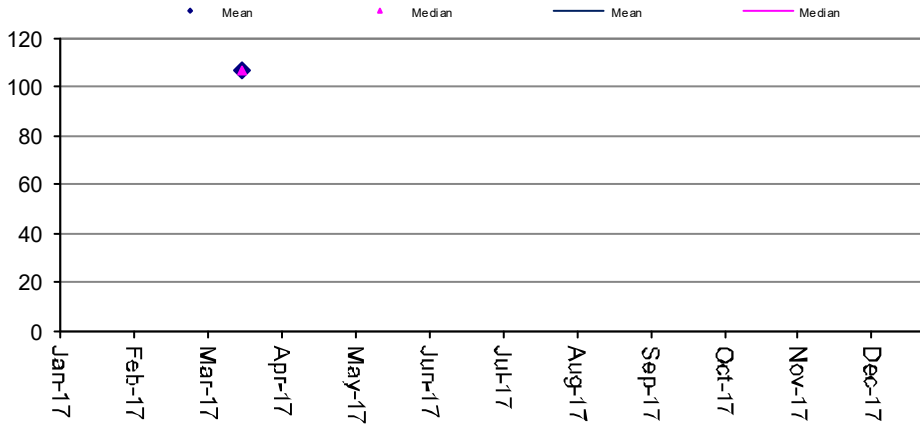
Frequency



30	0	Median	107	Wtd Mean	107
40	0	AD	0.00	GeoMean	107
50	0	COD	0.00	PRD	1.00
60	0	Mean	107	95% Confidence	1.96
70	0	SD	1.00		
80	0	COV	0.93		
90	0				
100	1				
110	0				
120	0				
130	0				
140	0				

Number Of Sales 1

Central Tendencies



Month	Mean	Median	Sales
Apr-17	107	107	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
06	15	000	100		33	5N1W28-AA-00301	2017	2962	0.28	240,000	0	240,000	225,000	Apr-17	1	107

COLUMBIA County 2018 Ratio Study

RMV	App	# of							
Class	MA	SA	NH	Year	Sales	Location			
101	06	01	000	2018	30	Columbia City			

RMV	App	# of							
Class	MA	SA	NH	Year	Sales	Location			
101	06	15	000	2018	1	Columbia City			

Adjustment Calculation Summary

Sample - Number of Sales	31
Population - Number of Accounts	548
Sales as a percentage of the Population	5.66 %
Prior Year Population Values	
Land RMV	55,536,230
OSD RMV	15,852,000
Residential Improvement RMV	95,645,170
Farm Improvement RMV	378,200

RECALCULATED

		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
SelectedRatioFromSales	98			
RMV Adjustment	100			
Before Ratio	98			
Overall Adjustment Factor	102			
Land Adjustment Factor	102			
OSD Adjustment Factor	100			
Residential Adjustment Factor	102			
Farm Improvement Factor	102			
After Ratio	100			

SelectedRatioFromSales	98
RMV Adjustment	100
Before Ratio	98
Overall Adjustment Factor	102
Land Adjustment Factor	102
OSD Adjustment Factor	100
Residential Adjustment Factor	102
Farm Improvement Factor	102
After Ratio	100

Selected Ratio	98	2018	Adjustment	102
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Explanation

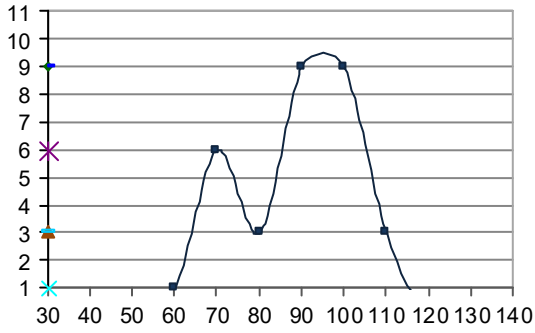
RMV 101: SA 01
 RMV 101: SA 15
 Improved land, City of Columbia City General Area and River Front
 This analysis consists of improved properties located in the City of Columbia City General Area (SA 01) and the River Front (SA 15). The central tendency selected is the Median of 95 due to the distribution of ratios in the array. The time adjustment of 103 was then applied to the central tendency. The resulting Selected Ratio is 98.

Performance History

	2018	2017	2016	2015	2014
COD	11.78	-	-	-	-
PRD	0.99	-	-	-	-

COLUMBIA County 2018 Ratio Study

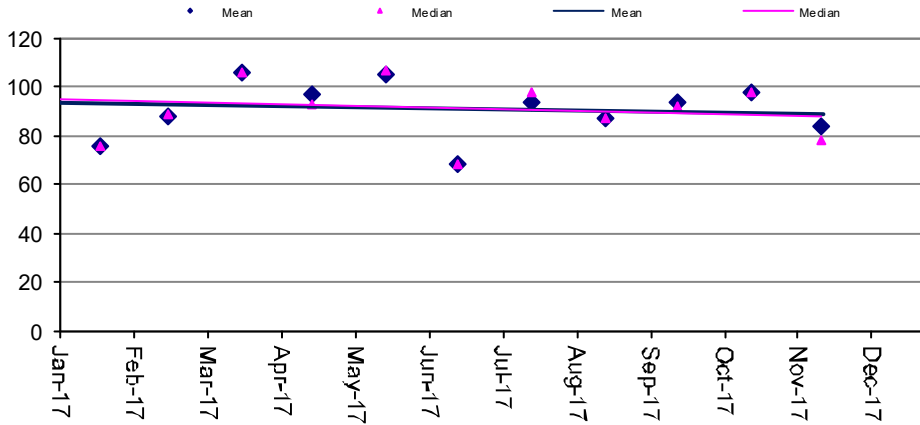
Frequency



30	0	Median	95	Wtd Mean	95
40	0	AD	11.19	GeoMean	93
50	0	COD	11.78	PRD	0.99
60	1	Mean	94	95% Confidence	4.79
70	6	SD	13.62		
80	3	COV	14.49		
90	9				
100	9				
110	3				
120	0				
130	0				
140	0				

Number Of Sales **31**

Central Tendencies



Month	Mean	Median	Sales
Jan-17	105	105	2
Feb-17	76	76	1
Mar-17	88	89	2
Apr-17	106	106	2
May-17	97	93	3
Jun-17	105	107	4
Jul-17	68	68	1
Aug-17	94	98	6
Sep-17	87	87	1
Oct-17	94	92	3
Nov-17	98	98	2
Dec-17	84	78	4

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
06	01	000	101	141	33	5N1W28-DA-01200	2017	6746	0.23	98,230	118,290	216,520	319,000	Jul-17	1	68
06	01	000	101	131	33	5N1W28-AB-01500	2017	11575	0.11	77,250	62,460	139,710	199,500	Dec-17	2	70
06	01	000	101	131	33	5N1W28-AB-02200	2017	11410	0.17	87,780	84,210	171,990	235,000	Dec-17	3	73
06	01	000	101	132	33	5N1W28-BA-01300	2017	8098	0.17	87,780	118,850	206,630	279,000	Aug-17	4	74
06	01	000	101	125	30	5N1W28-AB-00101	2017	1235	0.15	84,770	38,710	123,480	162,500	Feb-17	5	76
06	01	000	101	143	33	5N1W28-BA-01905	2017	11615	0.20	92,870	179,100	271,970	349,900	Dec-17	6	78
06	01	000	101	143	33	5N1W28-BD-00605	2017	7187	0.32	106,580	193,580	300,160	379,900	Aug-17	7	79
06	01	000	101	141	30	5N1W28-BA-01909	2017	2876	0.20	92,870	168,290	261,160	302,500	Mar-17	8	86
06	01	000	101	153	33	5N1W28-DA-06200	2017	8490	0.15	218,170	257,770	475,940	550,000	Sep-17	9	87
06	01	000	101	141	33	5N1W21-BC-03600	2017	4238	0.46	143,840	284,340	428,180	481,230	May-17	10	89
06	15	000	101	132	33	5N1W28-AA-02100	2017	10950	0.24	246,450	197,450	443,900	495,000	Nov-17	11	90
06	01	000	101	142	33	5N1W28-AB-02501	2017	288	0.21	93,770	133,770	227,540	250,000	Jan-17	12	91
06	01	000	101	141	33	5N1W21-CD-00600	2017	2672	0.28	106,930	131,800	238,730	262,000	Mar-17	13	91
06	01	000	101	142	33	5N1W28-DB-00102	2017	10916	0.23	98,230	155,940	254,170	277,900	Oct-17	14	91
06	01	000	101	152	30	5N1W28-DA-05900	2017	10226	0.41	205,910	212,860	418,770	450,000	Oct-17	15	93
06	01	000	101	163	33	5N1W28-DA-06100	2017	8028	0.14	213,850	372,930	586,780	615,000	Aug-17	16	95
06	01	000	101	142	33	5N1W28-DB-03701	2017	4935	0.23	98,230	217,090	315,320	330,000	May-17	17	96
06	01	000	101	153	33	5N1W28-DD-00100	2017	9559	0.18	224,550	364,020	588,570	605,000	Oct-17	18	97
06	01	000	101	134	33	5N1W28-DA-03800	2017	6840	0.11	137,250	111,410	248,660	251,000	Jun-17	19	99

COLUMBIA County 2018 Ratio Study

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
06	01	000	101	142	33	5N1W28-CA-03000	2017	7971	0.23	209,410	204,400	413,810	415,000	Aug-17	20	100
06	01	000	101	131	33	5N1W28-AB-02200	2017	4211	0.17	87,780	84,210	171,990	164,900	Apr-17	21	104
06	01	000	101	142	33	5N1W28-DB-03403	2017	5238	0.23	118,800	226,830	345,630	329,000	Jun-17	22	105
06	01	000	101	151	33	5N1W28-BD-00609	2017	8063	0.23	106,170	281,440	387,610	370,000	Aug-17	23	105
06	01	000	101	153	33	5N1W28-BA-01900	2017	11029	0.20	92,870	249,780	342,650	326,200	Nov-17	24	105
06	01	000	101	166	33	5N1W28-DD-00400	2017	4255	0.23	234,560	476,120	710,680	670,000	May-17	25	106
06	01	000	101	141	33	5N1W28-DB-03000	2017	6019	0.69	182,090	129,520	311,610	292,000	Jun-17	26	107
06	01	000	101	141	33	5N1W28-AC-04200	2017	2959	0.21	174,620	144,180	318,800	295,000	Apr-17	27	108
06	01	000	101	142	33	5N1W28-DB-03800	2017	5390	0.23	119,410	143,990	263,400	245,000	Jun-17	28	108
06	01	000	101	142	33	5N1W28-CA-00200	2017	7997	0.23	209,410	171,740	381,150	346,000	Aug-17	29	110
06	01	000	101	154	33	5N1W28-DD-04800	2017	11423	0.18	197,770	333,100	530,870	470,000	Dec-17	30	113
06	01	000	101	142	33	5N1W28-DB-03900	2017	600	0.23	179,410	141,020	320,430	269,900	Jan-17	31	119

COLUMBIA County 2018 Ratio Study

RMV	App	# of								
Class	MA	SA	NH	Year	Sales	Location				
109	06	01	000	2018	0	Columbia City				

RMV	App	# of								
Class	MA	SA	NH	Year	Sales	Location				
109	06	15	000	2018	0	Columbia City				

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	10			
Sales as a percentage of the Population	0.00 %	Pre-Trend	Post Trend	Post Trend
Prior Year Population Values		Brkdwn	Values	Brkdwn
Land RMV	1,157,770	51.79 %	1,180,925	51.75 %
OSD RMV	300,000	13.42 %	300,000	13.15 %
Residential Improvement RMV	761,510	34.06 %	784,355	34.37 %
Farm Improvement RMV	16,420	0.73 %	16,913	0.74 %
SelectedRatioFromSales	98			
RMV Adjustment	100			
Before Ratio	98			
Overall Adjustment Factor	102			
Land Adjustment Factor	102			
OSD Adjustment Factor	100			
Residential Adjustment Factor	103			
Farm Improvement Factor	103			
After Ratio	100			
Selected Ratio	98	2018	Adjustment	102

Explanation

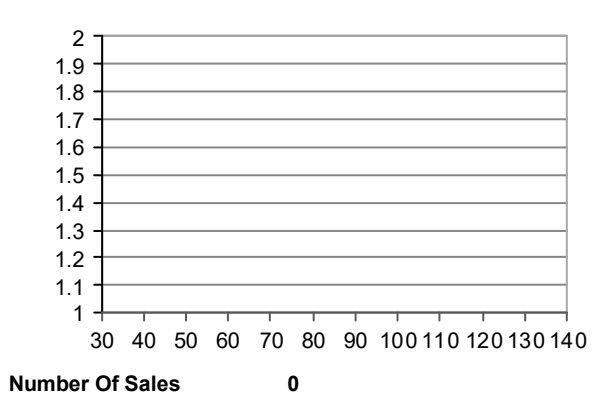
RMV 109: SA 01
 RMV 109: SA 15
 Improved land - Manufactured Structure, City of Columbia City and River Front
 Due to having no sales available of properties that are improved with manufactured structures for this analysis, the Selected Ratio of 98 from the Columbia City improved study (RMV Class 101) was applied here.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	-
PRD	-	-	-	-	-

COLUMBIA County 2018 Ratio Study

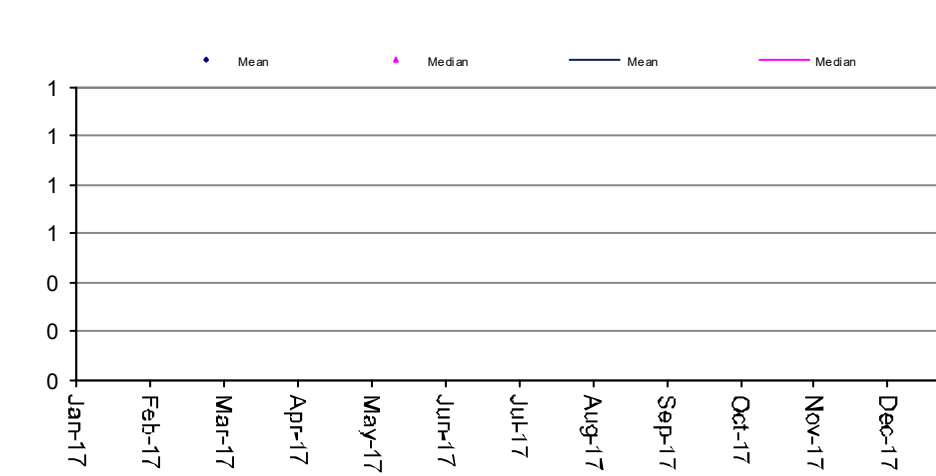
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
101	06	21	000	2018	18	Columbia City							

Adjustment Calculation Summary

Sample - Number of Sales	18	RECALCULATED		
Population - Number of Accounts	217			
Sales as a percentage of the Population	8.29 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	17,944,300	29.48 %	18,303,186	29.72 %
OSD RMV	6,420,000	10.55 %	6,420,000	10.42 %
Residential Improvement RMV	36,280,620	59.60 %	36,643,426	59.49 %
Farm Improvement RMV	224,290	0.37 %	226,533	0.37 %
SelectedRatioFromSales	99			
RMV Adjustment	100			
Before Ratio	99			
Overall Adjustment Factor	101			
Land Adjustment Factor	102			
OSD Adjustment Factor	100			
Residential Adjustment Factor	101			
Farm Improvement Factor	101			
After Ratio	100			
Selected Ratio	99	2018	Adjustment	101

Explanation

RMV 101: SA 21

Improved land - McBride Meadows/Sophie Park, City of Columbia City.

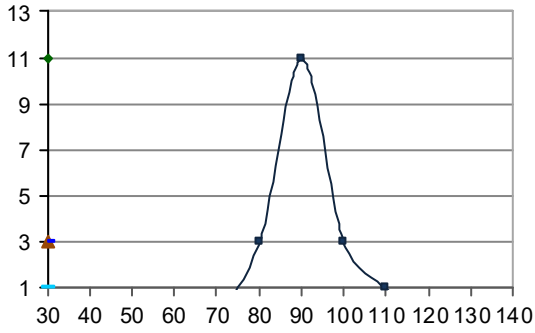
This study area consists of homogeneous properties of residential homes located north of Columbia City, which has easy access to Highway 30. The Median, Mean, Weighted Mean and GeoMean returned a ratio of 96. This indicator was adjusted by the conclusion of 103 from the time adjustment study for RMV 1XX resulting in a Selected Ratio of 99.

Performance History

	2018	2017	2016	2015	2014
COD	6.25	-	-	-	-
PRD	1.00	-	-	-	-

COLUMBIA County 2018 Ratio Study

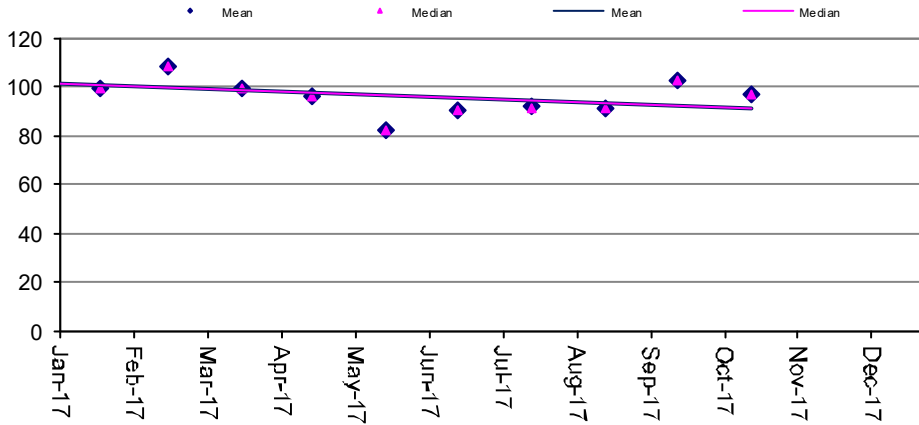
Frequency



30	0	Median	96	Wtd Mean	96
40	0	AD	6.00	GeoMean	96
50	0	COD	6.25	PRD	1.00
60	0	Mean	96	95% Confidence	3.65
70	0	SD	7.91		
80	3	COV	8.24		
90	11				
100	3				
110	1				
120	0				
130	0				
140	0				

Number Of Sales **18**

Central Tendencies



Month	Mean	Median	Sales
Jan-17	109	109	2
Feb-17	99	99	1
Mar-17	108	108	1
Apr-17	99	99	1
May-17	96	96	2
Jun-17	82	82	1
Jul-17	90	90	2
Aug-17	92	91	3
Sep-17	91	91	2
Oct-17	103	103	1
Nov-17	97	97	2
Dec-17			

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
06	21	000	101	141	33	5N1W21-CA-02500	2017	5905	0.23	98,230	143,020	241,250	295,000	Jun-17	1	82
06	21	000	101	143	33	5N1W21-CB-01900	2017	6464	0.33	112,160	178,120	290,280	348,000	Jul-17	2	83
06	21	000	101	141	30	5N1W21-BD-03300	2017	7280	0.23	118,700	178,830	297,530	340,000	Aug-17	3	88
06	21	000	101	141	33	5N1W21-BD-03500	2017	9058	0.23	118,700	172,800	291,500	325,000	Sep-17	4	90
06	21	000	101	141	33	5N1W21-CD-06100	2017	8504	0.24	99,440	140,420	239,860	260,000	Sep-17	5	92
06	21	000	101	141	33	5N1W21-CB-04500	2017	7158	0.27	128,010	133,680	261,690	282,150	Aug-17	6	93
06	21	000	101	141	33	5N1W21-BC-02300	2017	7519	0.23	118,840	183,810	302,650	322,500	Aug-17	7	94
06	21	000	101	142	33	5N1W21-CD-07400	2017	4521	0.20	92,710	134,470	227,180	240,000	May-17	8	95
06	21	000	101	141	33	5N1W21-BD-02800	2017	10622	0.28	129,290	203,510	332,800	349,000	Nov-17	9	95
06	21	000	101	141	33	5N1W21-BC-00700	2017	4508	0.23	119,740	181,790	301,530	311,000	May-17	10	97
06	21	000	101	143	33	5N1W21-CA-06100	2017	6503	0.24	120,190	196,280	316,470	325,000	Jul-17	11	97
06	21	000	101	141	30	5N1W21-BD-01900	2017	1932	0.25	123,560	143,990	267,550	270,000	Feb-17	12	99
06	21	000	101	143	33	5N1W21-CA-06300	2017	3781	0.24	120,250	176,690	296,940	300,000	Apr-17	13	99
06	21	000	101	141	33	5N1W21-BC-02500	2017	10568	0.24	120,400	186,030	306,430	311,000	Nov-17	14	99
06	21	000	101	143	33	5N1W21-CA-03800	2017	9972	0.25	101,150	161,260	262,410	255,000	Oct-17	15	103
06	21	000	101	141	33	5N1W21-CA-02800	2017	388	0.24	100,740	138,400	239,140	223,000	Jan-17	16	107
06	21	000	101	141	33	5N1W21-CA-06400	2017	2873	0.27	126,890	185,050	311,940	290,000	Mar-17	17	108
06	21	000	101	143	33	5N1W21-CA-06100	2017	813	0.24	120,190	196,280	316,470	285,000	Jan-17	18	111

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
101	06	31	000	2018	0	Columbia City							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	9			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	906,190	35.54 %	924,314	35.48 %
OSD RMV	396,000	15.53 %	396,000	15.20 %
Residential Improvement RMV	1,234,750	48.42 %	1,271,793	48.81 %
Farm Improvement RMV	12,930	0.51 %	13,318	0.51 %
SelectedRatioFromSales	98			
RMV Adjustment	100			
Before Ratio	98			
Overall Adjustment Factor	102			
Land Adjustment Factor	102			
OSD Adjustment Factor	100			
Residential Adjustment Factor	103			
Farm Improvement Factor	103			
After Ratio	100			
Selected Ratio	98	2018	Adjustment	102

Explanation

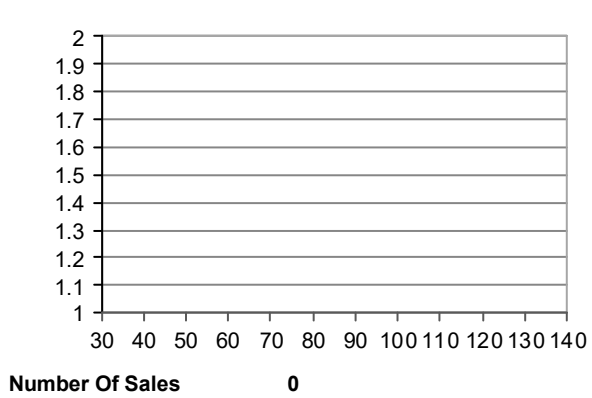
RMV 101: SA 31
 Improved study of Duplex/Triplex/Fourplex properties located in the City of Columbia City. No sales are available for analysis. Therefore., the Selected Ratio of 98 from the RMV 101 general area study was applied here.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	-
PRD	-	-	-	-	-

COLUMBIA County 2018 Ratio Study

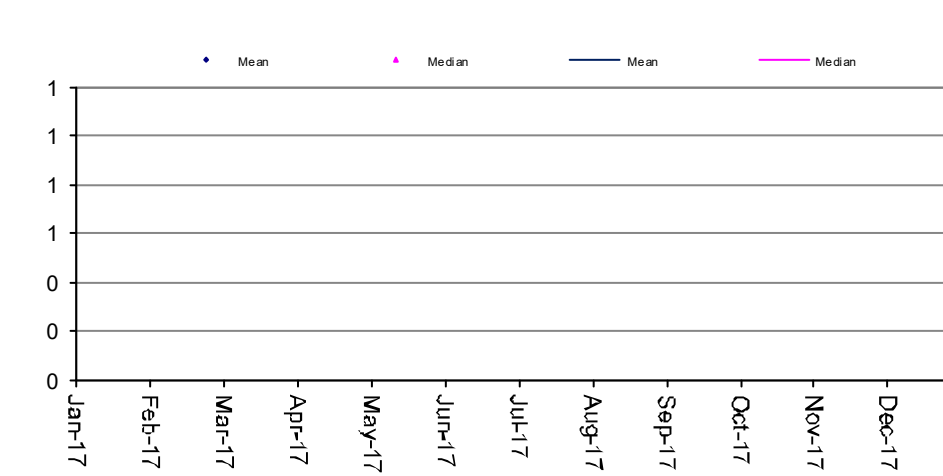
Frequency



- 30 0 Median
- 40 0 AD
- 50 0 COD
- 60 0 Mean
- 70 0 SD
- 80 0 COV
- 90 0
- 100 0
- 110 0
- 120 0
- 130 0
- 140 0

- Wtd Mean
- GeoMean
- PRD
- 95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
		CLS											

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
400	06	61	000	2018	12	Rural St Helens							

Adjustment Calculation Summary

Sample - Number of Sales	12	RECALCULATED		
Population - Number of Accounts	347			
Sales as a percentage of the Population	3.46 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	68,234,440	100.00 %	69,599,129	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	98			
RMV Adjustment	100			
Before Ratio	98			
Overall Adjustment Factor	102			
Land Adjustment Factor	102			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	98	2018	Adjustment	102

Explanation

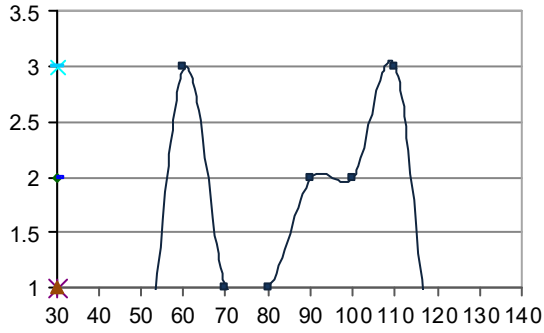
MA 06 - Rural St. Helens, Warren
 RMV 400: SA 61
 Unimproved land, Rural St. Helens, Warren (Value Zone 1)
 Undeveloped rural properties located in Warren and surrounding the City of St. Helens. For this analysis, the Median of 94 was selected. The median was further adjusted by the conclusion from the time study (104), which resulted in a Selected Ratio of 98.

Performance History

	2018	2017	2016	2015	2014
COD	16.13	14.38	24.84	13.87	20.26
PRD	0.99	1.04	1.02	1.01	1.05

COLUMBIA County 2018 Ratio Study

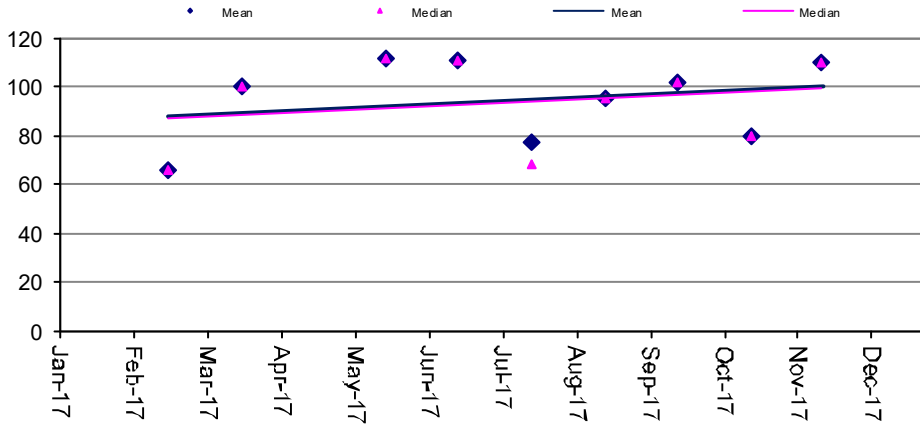
Frequency



30	0	Median	94	Wtd Mean	91
40	0	AD	15.17	GeoMean	89
50	0	COD	16.13	PRD	0.99
60	3	Mean	90	95% Confidence	9.88
70	1	SD	17.47		
80	1	COV	19.41		
90	2				
100	2				
110	3				
120	0				
130	0				
140	0				

Number Of Sales **12**

Central Tendencies



Month	Mean	Median	Sales
Mar-17	66	66	1
Apr-17	100	100	1
Jun-17	112	112	1
Jul-17	111	111	1
Aug-17	77	68	3
Sep-17	95	95	1
Oct-17	102	102	1
Nov-17	80	80	2
Dec-17	110	110	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
06	61	000	400		30	4N2W24-C0-02603	2017	2134	4.98	126,200	0	126,200	192,600	Mar-17	1	66
06	61	000	400		30	4N2W13-A0-00201	2017	7617	2.34	103,630	0	103,630	152,650	Aug-17	2	68
06	61	000	400		33	4N2W13-A0-03003	2017	7945	6.00	188,000	0	188,000	275,000	Aug-17	3	68
06	61	000	400		33	4N1W17-B0-10000	2017	10480	1.00	110,000	0	110,000	140,000	Nov-17	4	79
06	61	000	400		33	4N2W01-00-01801	2017	10668	2.38	182,000	0	182,000	226,000	Nov-17	5	81
06	61	000	400		30	4N2W13-00-02301	2017	8269	6.46	225,700	0	225,700	240,000	Aug-17	6	94
06	61	000	400		33	4N2W24-C0-02604	2017	8531	5.32	285,240	0	285,240	299,000	Sep-17	7	95
06	61	000	400		33	4N1W17-CB-03100	2017	3603	1.23	124,440	0	124,440	125,000	Apr-17	8	100
06	61	000	400		30	4N2W12-C0-00100	2017	9987	5.00	225,000	0	225,000	220,000	Oct-17	9	102
06	61	000	400		33	4N2W24-C0-02609	2017	12022	5.00	285,000	0	285,000	259,900	Dec-17	10	110
06	61	000	400		33	4N2W24-C0-00101	2017	6537	4.28	188,710	0	188,710	170,000	Jul-17	11	111
06	61	000	400		33	5N1W32-C0-00700	2017	5572	25.44	251,770	0	251,770	225,000	Jun-17	12	112

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
401	06	61	000	2018	61	Rural St Helens							

Adjustment Calculation Summary

Sample - Number of Sales	61	RECALCULATED		
Population - Number of Accounts	2,123			
Sales as a percentage of the Population	2.87 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	334,481,520	39.51 %	341,171,150	41.99 %
OSD RMV	105,182,780	12.43 %	105,182,780	12.95 %
Residential Improvement RMV	367,758,140	43.45 %	330,982,326	40.74 %
Farm Improvement RMV	39,061,260	4.61 %	35,155,134	4.33 %
SelectedRatioFromSales	104			
RMV Adjustment	100			
Before Ratio	104			
Overall Adjustment Factor	96			
Land Adjustment Factor	102			
OSD Adjustment Factor	100			
Residential Adjustment Factor	90			
Farm Improvement Factor	90			
After Ratio	100			
Selected Ratio	104	2018	Adjustment	96

Explanation

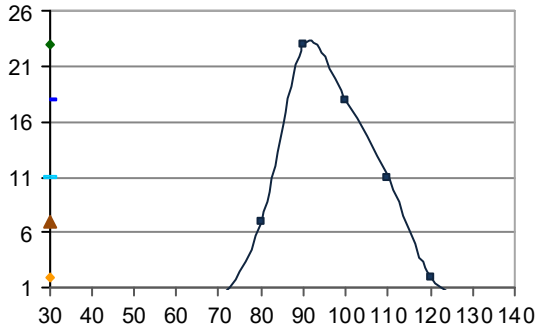
RMV 401: SA 61
 Improved land, Rural St. Helens, Warren
 For this analysis of site built property located in rural St. Helens and Warren, both the Mean and the Median indicated a 100 ratio. This is further supported by the Weighted Mean (99). The Median was selected and the time study adjustment (104) and was applied to this data set. The Selected Ratio of 104 was then applied to the study.

Performance History

	2018	2017	2016	2015	2014
COD	7.92	11.22	17.03	12.88	13.58
PRD	1.01	1.01	1.03	1.02	1.02

COLUMBIA County 2018 Ratio Study

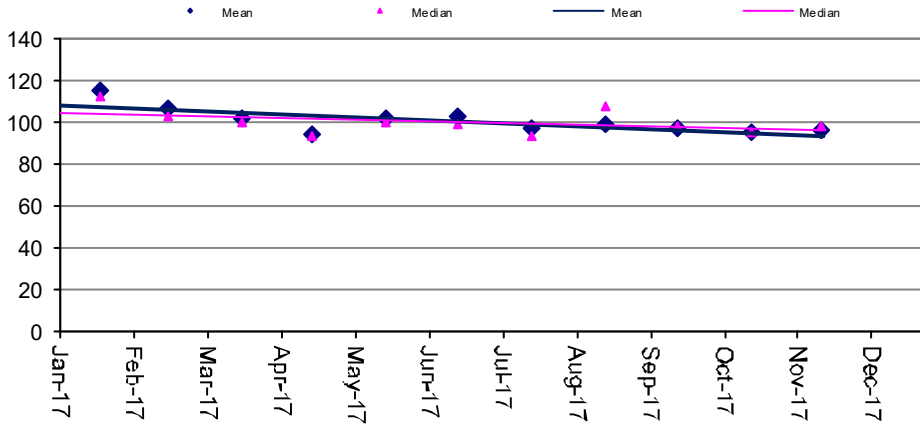
Frequency



30	0	Median	100	Wtd Mean	99
40	0	AD	7.92	GeoMean	100
50	0	COD	7.92	PRD	1.01
60	0	Mean	100	95% Confidence	2.50
70	0	SD	9.97		
80	7	COV	9.97		
90	23				
100	18				
110	11				
120	2				
130	0				
140	0				

Number Of Sales 61

Central Tendencies



Month	Mean	Median	Sales
Jan-17	108	106	4
Feb-17	115	112	3
Mar-17	106	103	5
Apr-17	102	100	4
May-17	94	93	7
Jun-17	102	100	5
Jul-17	103	99	6
Aug-17	97	93	5
Sep-17	99	107	4
Oct-17	97	98	7
Nov-17	95	95	5
Dec-17	96	98	6

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
06	61	000	401	141	33	4N2W23-DB-00500	2017	11665	2.00	226,000	191,430	417,430	514,900	Dec-17	1	81
06	61	000	401	143	33	4N1W17-B0-09700	2017	4968	0.98	164,000	215,380	379,380	460,000	May-17	2	82
06	61	000	401	146	33	4N2W25-B0-01910	2017	10347	5.61	279,400	193,140	472,540	579,000	Nov-17	3	82
06	61	000	401	143	33	4N2W23-A0-00602	2017	8315	1.98	207,680	247,330	455,010	534,000	Sep-17	4	85
06	61	000	401	145	33	4N2W23-C0-00200	2017	9301	1.58	200,060	223,920	423,980	499,900	Oct-17	5	85
06	61	000	401	135	33	4N1W18-B0-00400	2017	4437	2.00	226,000	130,580	356,580	403,500	May-17	6	88
06	61	000	401	135	33	4N2W23-A0-00300	2017	10580	2.82	247,360	117,790	365,150	415,000	Nov-17	7	88
06	61	000	401	142	33	4N1W18-B0-02700	2017	5086	1.99	225,380	287,050	512,430	565,000	May-17	8	91
06	61	000	401	131	33	4N1W07-AA-01200	2017	9538	0.46	152,000	87,770	239,770	262,925	Oct-17	9	91
06	61	000	401	144	33	4N2W23-B0-00300	2017	11472	2.09	228,520	222,310	450,830	497,500	Dec-17	10	91
06	61	000	401	143	30	4N1W06-B0-00504	2017	5150	2.00	226,000	288,730	514,730	557,500	Jun-17	11	92
06	61	000	401	141	33	4N1W19-B0-01406	2017	6509	2.06	227,740	154,160	381,900	415,000	Jul-17	12	92
06	61	000	401	151	33	4N1W08-CC-01500	2017	7632	1.00	164,000	324,380	488,380	533,000	Aug-17	13	92
06	61	000	401	141	30	4N2W13-D0-00501	2017	5411	2.24	232,390	231,640	464,030	499,999	Jun-17	14	93
06	61	000	401	142	33	4N1W05-BD-00500	2017	7623	0.50	152,000	176,830	328,830	354,000	Aug-17	15	93
06	61	000	401	141	33	4N2W25-AD-00700	2017	7999	0.37	152,000	152,940	304,940	327,000	Aug-17	16	93
06	61	000	401	141	33	4N1W08-BB-04400	2017	8339	0.46	152,000	184,920	336,920	364,000	Sep-17	17	93
06	61	000	401	151	33	4N2W25-A0-02801	2017	3065	2.00	226,000	336,620	562,620	599,350	Apr-17	18	94
06	61	000	401	163	33	4N1W07-C0-00101	2017	4129	9.61	307,440	630,390	937,830	1,000,000	Apr-17	19	94

COLUMBIA County 2018 Ratio Study

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
06	61	000	401	131	33	4N2W12-DD-01000	2017	6392	0.37	152,000	107,400	259,400	275,000	Jul-17	20	94
06	61	000	401	141	33	4N2W25-D0-00601	2017	6578	2.00	226,000	292,670	518,670	550,000	Jul-17	21	94
06	61	000	401	141	30	4N2W02-00-00201	2017	5080	2.74	245,290	176,830	422,120	445,000	May-17	22	95
06	61	000	401	131	33	4N1W17-CB-01100	2017	4279	0.88	164,000	111,980	275,980	290,000	May-17	23	95
06	61	000	401	141	33	4N1W08-CB-01300	2017	10435	0.54	152,000	253,300	405,300	425,000	Nov-17	24	95
06	61	000	401	141	33	4N2W13-A0-02301	2017	9594	5.00	279,000	161,310	440,310	459,000	Oct-17	25	96
06	61	000	401	141	33	4N1W30-B0-00700	2017	11841	3.60	262,840	236,900	499,740	515,500	Dec-17	26	97
06	61	000	401	143	33	4N1W06-C0-02400	2017	4894	2.46	238,060	179,880	417,940	422,500	May-17	27	99
06	61	000	401	143	33	4N1W06-A0-00506	2017	9847	1.01	164,860	313,510	478,370	482,000	Oct-17	28	99
06	61	000	401	142	33	5N1W32-CD-00500	2017	11122	0.54	152,500	207,100	359,600	364,250	Nov-17	29	99
06	61	000	401	151	33	4N2W01-00-03509	2017	11487	2.04	227,230	369,200	596,430	600,000	Dec-17	30	99
06	61	000	401	133	33	4N1W07-BC-00500	2017	2762	0.45	152,000	93,330	245,330	245,000	Mar-17	31	100
06	61	000	401	142	33	4N1W19-AC-00900	2017	2862	1.65	204,380	223,850	428,230	429,600	Mar-17	32	100
06	61	000	401	144	33	4N1W06-A0-00310	2017	3996	1.01	164,860	331,140	496,000	495,000	Apr-17	33	100
06	61	000	401	131	33	4N1W17-B0-11800	2017	5963	0.73	159,000	117,070	276,070	275,000	Jun-17	34	100
06	61	000	401	151	33	4N1W06-AD-00100	2017	7170	0.92	254,000	347,830	601,830	599,000	Aug-17	35	100
06	61	000	401	141	33	4N1W17-B0-02900	2017	11302	0.41	152,000	127,850	279,850	281,000	Dec-17	36	100
06	61	000	401	141	33	4N1W07-AB-01600	2017	10175	0.43	152,000	140,930	292,930	290,000	Oct-17	37	101
06	61	000	401	144	33	4N1W06-C0-03000	2017	174	3.46	218,790	202,570	421,360	415,000	Jan-17	38	102
06	61	000	401	141	30	4N2W23-A0-00401	2017	2645	2.91	249,680	143,440	393,120	383,500	Mar-17	39	103
06	61	000	401	141	33	4N2W12-AD-00400	2017	9554	0.30	152,000	115,130	267,130	260,500	Oct-17	40	103
06	61	000	401	142	33	4N2W12-DA-00602	2017	6921	2.10	228,780	175,270	404,050	388,900	Jul-17	41	104
06	61	000	401	141	33	4N1W08-BC-01000	2017	723	0.35	152,000	214,280	366,280	350,000	Jan-17	42	105
06	61	000	401	146	33	4N1W08-CA-00300	2017	4843	0.31	152,000	145,830	297,830	283,000	May-17	43	105
06	61	000	401	161	33	4N1W19-AC-00801	2017	7370	2.07	228,010	381,850	609,860	580,000	Aug-17	44	105
06	61	000	401	131	33	5N2W36-00-00500	2017	808	18.23	283,560	128,940	412,500	390,000	Jan-17	45	106
06	61	000	401	135	33	4N1W07-BA-00401	2017	10228	1.98	224,760	164,890	389,650	367,880	Oct-17	46	106
06	61	000	401	154	33	4N2W12-C0-02300	2017	8551	2.00	226,000	334,690	560,690	523,900	Sep-17	47	107
06	61	000	401	134	33	4N1W07-BA-00800	2017	11202	1.50	195,120	234,910	430,030	399,900	Dec-17	48	108
06	61	000	401	151	30	4N2W25-A0-03000	2017	1326	1.53	196,980	283,330	480,310	435,000	Feb-17	49	110
06	61	000	401	143	33	4N1W19-CA-02000	2017	5902	0.40	152,000	215,060	367,060	335,000	Jun-17	50	110
06	61	000	401	141	30	4N2W24-C0-00104	2017	6915	2.00	226,000	261,880	487,880	445,000	Jul-17	51	110
06	61	000	401	153	33	5N2W36-00-01301	2017	1946	7.33	279,850	370,430	650,280	580,000	Mar-17	52	112
06	61	000	401	153	33	4N2W12-C0-02500	2017	9006	2.00	226,000	335,140	561,140	500,000	Sep-17	53	112
06	61	000	401	142	33	4N1W19-C0-01900	2017	1804	1.73	209,320	227,930	437,250	387,000	Feb-17	54	113
06	61	000	401	142	33	4N1W08-BB-04200	2017	2860	0.46	152,000	202,870	354,870	315,000	Mar-17	55	113
06	61	000	401	132	33	4N1W17-B0-07000	2017	10445	1.59	200,680	105,470	306,150	270,000	Nov-17	56	113
06	61	000	401	142	33	5N1W32-C0-00400	2017	5391	3.05	173,410	151,520	324,930	285,000	Jun-17	57	114
06	61	000	401	142	30	5N1W31-D0-00700	2017	3218	3.70	264,640	230,390	495,030	418,000	Apr-17	58	118
06	61	000	401	121	33	4N1W07-C0-00300	2017	117	5.58	220,680	35,960	256,640	216,000	Jan-17	59	119
06	61	000	401	142	33	4N2W12-A0-00800	2017	1138	2.72	244,780	215,650	460,430	375,000	Feb-17	60	123
06	61	000	401	141	33	4N1W07-AB-04000	2017	6336	0.29	212,000	120,880	332,880	269,900	Jul-17	61	123

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
409	06	61	000	2018	7	Rural St Helens							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	7			
Population - Number of Accounts	242			
Sales as a percentage of the Population	2.89 %			
Prior Year Population Values				
Land RMV	40,826,070	52.97 %	41,642,591	56.88 %
OSD RMV	12,898,980	16.74 %	12,898,980	17.62 %
Residential Improvement RMV	17,942,770	23.28 %	14,354,216	19.60 %
Farm Improvement RMV	5,401,740	7.01 %	4,321,392	5.90 %
SelectedRatioFromSales	105			
RMV Adjustment	100			
Before Ratio	105			
Overall Adjustment Factor	95			
Land Adjustment Factor	102			
OSD Adjustment Factor	100			
Residential Adjustment Factor	80			
Farm Improvement Factor	80			
After Ratio	100			
Selected Ratio	105	2018	Adjustment	95

Explanation

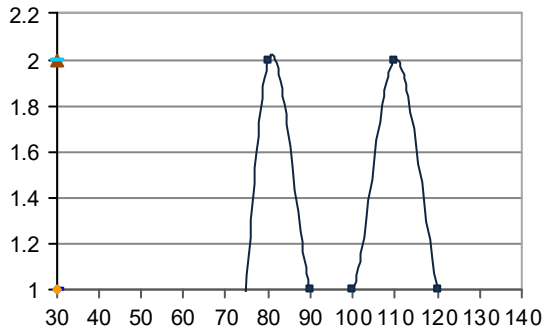
RMV 409: SA 61
Improved land - Manufactured Structure - Rural St. Helens, Warren
For this grouping of rural St Helens and Warren properties, the Median of 101 was selected (supported by the Mean and the Weighted Mean) and then was adjusted by the time study conclusion of 104. This resulted in a Selected Ratio of 105 and an Overall Adjustment Factor of 95.

Performance History

	2018	2017	2016	2015	2014
COD	10.18	0.00	14.52	12.88	13.58
PRD	1.01	1.00	1.04	1.02	1.02

COLUMBIA County 2018 Ratio Study

Frequency

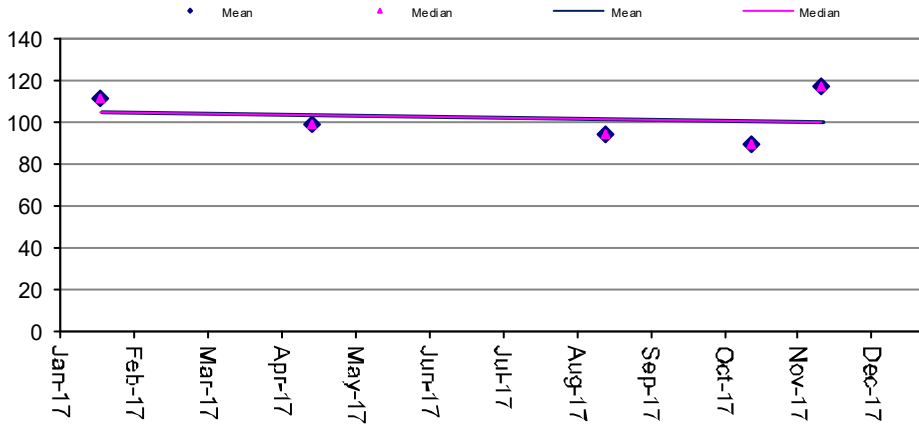


30	0	Median	101	Wtd Mean	102
40	0	AD	10.29	GeoMean	103
50	0	COD	10.18	PRD	1.01
60	0	Mean	103	95% Confidence	9.56
70	0	SD	12.91		
80	2	COV	12.53		
90	1				
100	1				
110	2				
120	1				
130	0				
140	0				

Number Of Sales

7

Central Tendencies



Month	Mean	Median	Sales
Feb-17	111	111	1
May-17	99	99	1
Sep-17	94	94	2
Nov-17	89	89	1
Dec-17	117	117	2

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
06	61	000	409	452	33	4N1W18-D0-00600	2017	8548	5.97	279,590	150,110	429,700	491,500	Sep-17	1	87
06	61	000	409	453	33	4N1W17-CB-01200	2017	10873	0.98	164,000	75,490	239,490	269,000	Nov-17	2	89
06	61	000	409	453	30	4N2W24-AD-00300	2017	5089	0.33	152,000	136,140	288,140	290,000	May-17	3	99
06	61	000	409	452	33	4N1W18-A0-02301	2017	10739	1.00	164,000	104,630	268,630	265,000	Sep-17	4	101
06	61	000	409	452	33	4N2W01-00-00202	2017	1537	2.00	226,000	78,080	304,080	275,000	Feb-17	5	111
06	61	000	409	452	33	4N2W11-00-00903	2017	11792	5.00	279,000	166,710	445,710	400,000	Dec-17	6	111
06	61	000	409	442	33	4N2W02-00-02900	2018	90	4.68	276,150	59,250	335,400	272,000	Dec-17	7	123

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
400	06	62	000	2018	1	Rural St Helens							

Adjustment Calculation Summary

Sample - Number of Sales	1	RECALCULATED		
Population - Number of Accounts	115			
Sales as a percentage of the Population	0.87 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	33,523,920	100.00 %	32,853,442	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

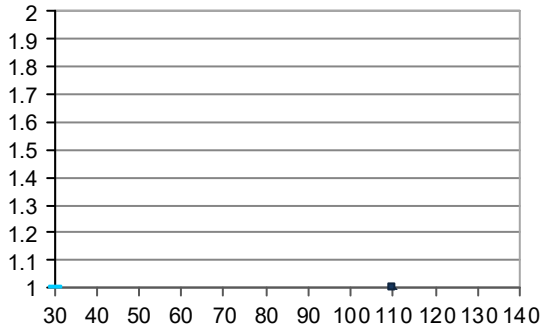
RMV 400: SA 62
 Unimproved land, Rural St. Helens, Warren (Value Zone 2)
 The sales data is insufficient for this analysis. Therefore, it was decided to apply the Selected Ratio of 102 from the improved study (MA 06 SA 62).

Performance History

	2018	2017	2016	2015	2014
COD	0.00	0.00	24.84	13.87	20.26
PRD	1.00	1.00	1.02	1.01	1.05

COLUMBIA County 2018 Ratio Study

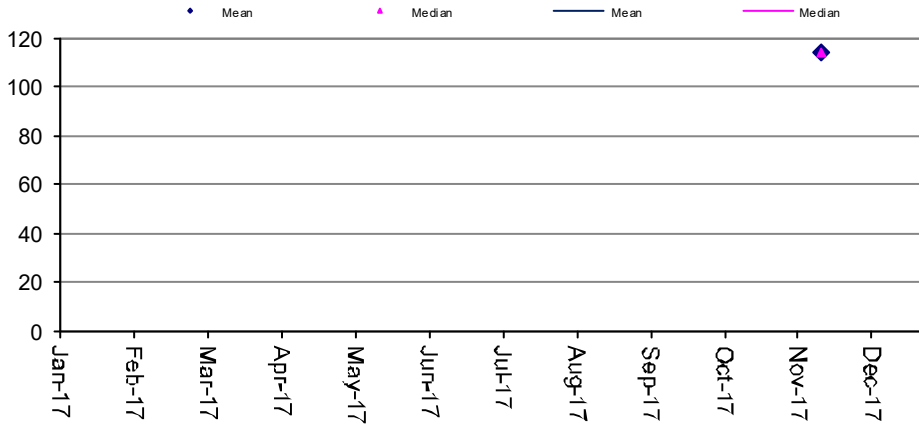
Frequency



30	0	Median	114	Wtd Mean	114
40	0	AD	0.00	GeoMean	114
50	0	COD	0.00	PRD	1.00
60	0	Mean	114	95% Confidence	1.96
70	0	SD	1.00		
80	0	COV	0.88		
90	0				
100	0				
110	1				
120	0				
130	0				
140	0				

Number Of Sales 1

Central Tendencies



Month	Mean	Median	Sales
Dec-17	114	114	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
06	62	000	400		33	4N2W03-C0-01000	2017	11756	16.95	189,750	0	189,750	166,229	Dec-17	1	114

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
401	06	62	000	2018	11	Rural St Helens							

Adjustment Calculation Summary

Sample - Number of Sales	11	RECALCULATED		
Population - Number of Accounts	255			
Sales as a percentage of the Population	4.31 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	39,861,870	40.80 %	39,064,633	40.70 %
OSD RMV	11,837,640	12.12 %	11,837,640	12.33 %
Residential Improvement RMV	39,649,970	40.59 %	38,856,971	40.49 %
Farm Improvement RMV	6,339,940	6.49 %	6,213,141	6.47 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	98			
Farm Improvement Factor	98			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

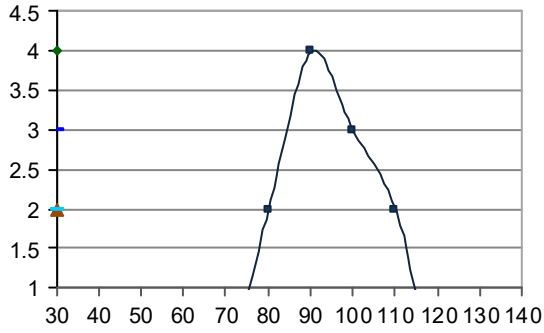
RMV 401: SA 62
 Improved land, Rural St. Helens, Warren (Value Zone 2)
 Improved site built properties located in Rural Value Zone 2. For this sales array, the Median of 98 was deemed the best indicator of the market. This ratio was then adjusted by the conclusion from the time study for rural property. The Selected Ratio from this adjustment is 102.

Performance History

	2018	2017	2016	2015	2014
COD	8.63	10.20	17.03	12.88	13.58
PRD	1.01	1.03	1.03	1.02	1.02

COLUMBIA County 2018 Ratio Study

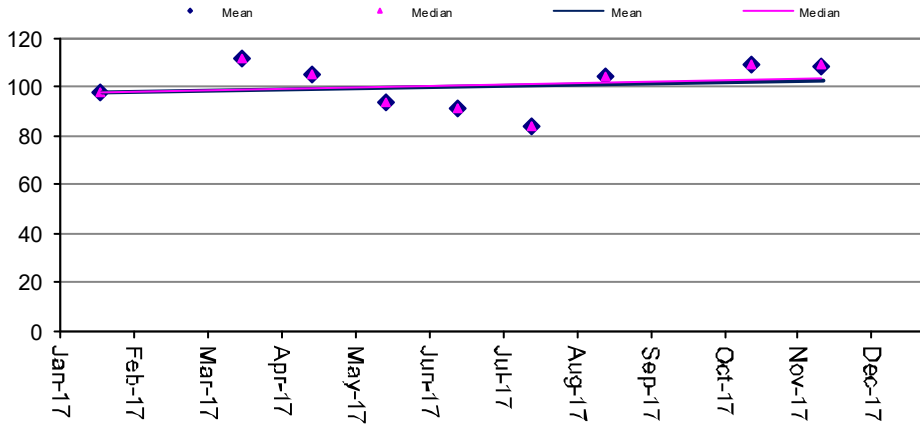
Frequency



30	0	Median	98	Wtd Mean	99
40	0	AD	8.45	GeoMean	100
50	0	COD	8.63	PRD	1.01
60	0	Mean	100	95% Confidence	6.31
70	0	SD	10.67		
80	2	COV	10.67		
90	4				
100	3				
110	2				
120	0				
130	0				
140	0				

Number Of Sales **11**

Central Tendencies



Month	Mean	Median	Sales
Feb-17	98	98	1
Apr-17	112	112	1
May-17	105	105	1
Jun-17	94	94	1
Jul-17	91	91	2
Aug-17	84	84	1
Sep-17	104	104	1
Nov-17	109	109	1
Dec-17	108	109	2

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
06	62	000	401	141	33	5N2W24-00-00900	2017	7285	14.78	242,820	283,410	526,230	629,000	Aug-17	1	84
06	62	000	401	141	33	5N2W26-D0-01900	2017	6251	1.58	167,920	204,360	372,280	435,000	Jul-17	2	86
06	62	000	401	153	33	5N2W25-D0-01000	2017	5466	4.88	238,890	324,700	563,590	599,000	Jun-17	3	94
06	62	000	401	143	33	5N2W27-B0-00700	2017	7042	2.20	194,300	257,220	451,520	468,000	Jul-17	4	96
06	62	000	401	153	33	5N2W24-B0-00101	2017	1806	6.40	240,110	331,120	571,230	580,000	Feb-17	5	98
06	62	000	401	153	33	5N2W25-C0-00900	2017	11274	2.01	188,420	417,320	605,740	615,000	Dec-17	6	98
06	62	000	401	143	33	4N2W04-A0-00600	2017	8187	2.85	214,370	201,400	415,770	400,500	Sep-17	7	104
06	62	000	401	143	33	4N2W04-A0-00500	2017	4663	5.05	239,100	224,420	463,520	440,500	May-17	8	105
06	62	000	401	141	30	5N2W25-C0-02300	2017	10544	8.47	241,000	195,630	436,630	400,000	Nov-17	9	109
06	62	000	401	134	33	5N2W24-00-01200	2017	4127	4.85	238,870	141,690	380,560	340,000	Apr-17	10	112
06	62	000	401	132	33	5N2W26-D0-00900	2017	11633	8.47	241,000	141,020	382,020	320,000	Dec-17	11	119

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
409	06	62	000	2018	1	Rural St Helens							

Adjustment Calculation Summary

Sample - Number of Sales	1	RECALCULATED		
Population - Number of Accounts	76			
Sales as a percentage of the Population	1.32 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	11,811,460	54.40 %	11,575,231	54.36 %
OSD RMV	3,793,500	17.47 %	3,793,500	17.82 %
Residential Improvement RMV	4,799,730	22.11 %	4,655,738	21.86 %
Farm Improvement RMV	1,308,300	6.03 %	1,269,051	5.96 %
SelectedRatioFromSales	102			
RMV Adjustment	100			
Before Ratio	102			
Overall Adjustment Factor	98			
Land Adjustment Factor	98			
OSD Adjustment Factor	100			
Residential Adjustment Factor	97			
Farm Improvement Factor	97			
After Ratio	100			
Selected Ratio	102	2018	Adjustment	98

Explanation

RMV 409: SA 62

Improved land - Manufactured Structure - Rural St. Helens, Warren, (Value Zone 2)

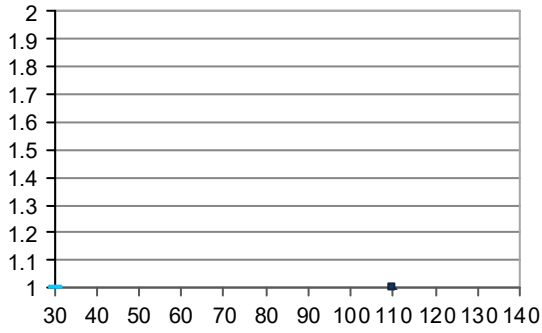
Only one "good" sale was available for this study of improved property with manufactured structures. Therefore, it was decided to use the conclusion from the site built study in the same area (ratio 98, time adjustment 104, selected ratio 102).

Performance History

	2018	2017	2016	2015	2014
COD	0.00	-	14.52	12.88	13.58
PRD	1.00	-	1.04	1.02	1.02

COLUMBIA County 2018 Ratio Study

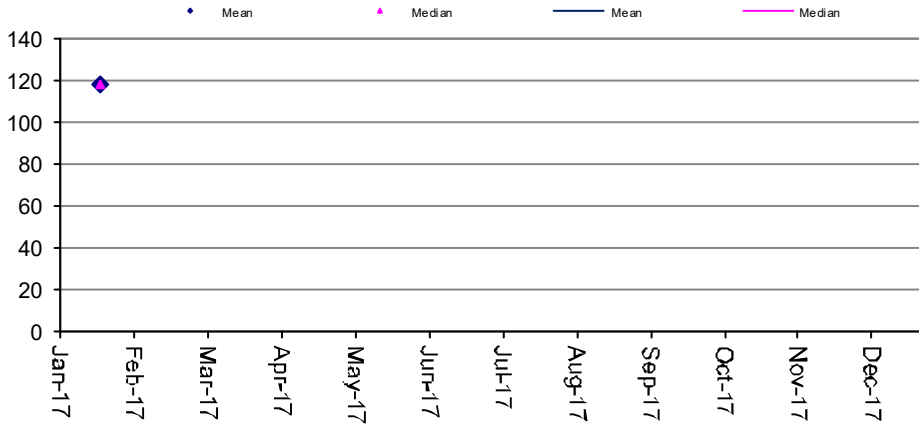
Frequency



30	0	Median	118	Wtd Mean	118
40	0	AD	0.00	GeoMean	118
50	0	COD	0.00	PRD	1.00
60	0	Mean	118	95% Confidence	1.96
70	0	SD	1.00		
80	0	COV	0.85		
90	0				
100	0				
110	1				
120	0				
130	0				
140	0				

Number Of Sales 1

Central Tendencies



Month	Mean	Median	Sales
Feb-17	118	118	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
06	62	000	409	452	33	5N2W20-00-00900	2017	1732	9.89	241,490	133,740	375,230	316,900	Feb-17	1	118

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
400	06	65	000	2018	0	Rural St Helens							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	5			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	1,429,570	100.00 %	1,458,161	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	98			
RMV Adjustment	100			
Before Ratio	98			
Overall Adjustment Factor	102			
Land Adjustment Factor	102			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	98	2018	Adjustment	102

Explanation

RMV 400: SA 65

Unimproved Land - Dike Land - Rural St. Helens, Warren

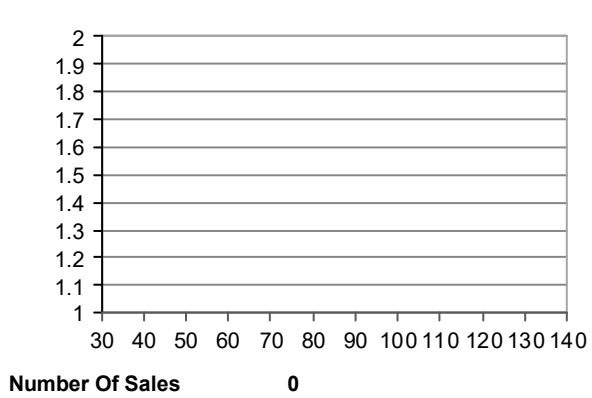
For this population of 8 accounts no sales data is available. Therefore, it was decided to use the Selected Ratio of 98 from the undeveloped land study for SA 61 for this analysis.

Performance History

	2018	2017	2016	2015	2014
COD		-	0.00	-	20.26
PRD		-	1.00	-	1.05

COLUMBIA County 2018 Ratio Study

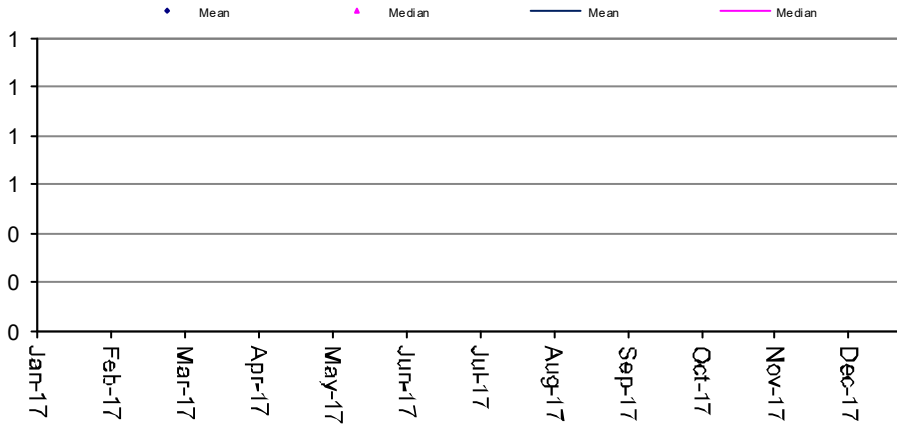
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO NO
AP AR	SA	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	# of Sales	Location	RMV Class	MA	SA	NH	Year	# of Sales	Location
401	06	65	000	2018	0	Rural St Helens							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	1			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	226,370	56.63 %	230,897	60.13 %
OSD RMV	54,000	13.51 %	54,000	14.06 %
Residential Improvement RMV	98,290	24.59 %	81,581	21.25 %
Farm Improvement RMV	21,100	5.28 %	17,513	4.56 %
SelectedRatioFromSales	104			
RMV Adjustment	100			
Before Ratio	104			
Overall Adjustment Factor	96			
Land Adjustment Factor	102			
OSD Adjustment Factor	100			
Residential Adjustment Factor	83			
Farm Improvement Factor	83			
After Ratio	100			
Selected Ratio	104	2018	Adjustment	96

Explanation

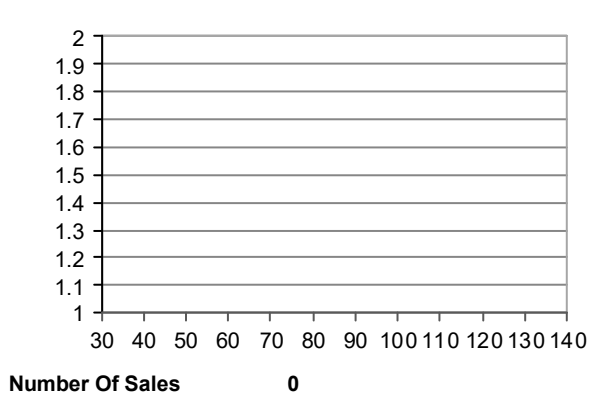
RMV 401: SA 65
 Improved Land - Dike Land - Rural St. Helens, Warren
 Having no sales data available, it was decided to apply the selected ratio of 104 from the improved study in SA 61.

Performance History

	2018	2017	2016	2015	2014
COD		-	-	-	13.58
PRD		-	-	-	1.02

COLUMBIA County 2018 Ratio Study

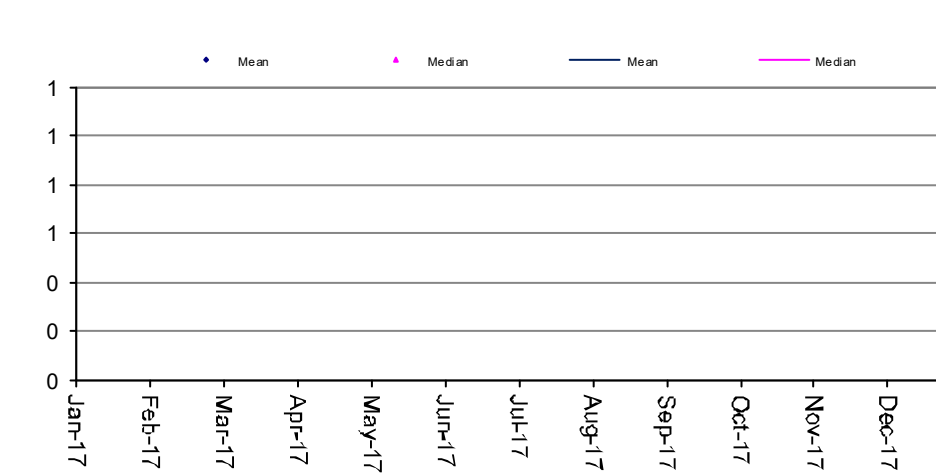
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA AR	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA AR	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
409	06	65	000	2018	0	Rural St Helens							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	3			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	1,769,940	96.87 %	1,805,339	96.96 %
OSD RMV	54,000	2.96 %	54,000	2.90 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	3,200	0.18 %	2,560	0.14 %
SelectedRatioFromSales	105			
RMV Adjustment	100			
Before Ratio	105			
Overall Adjustment Factor	95			
Land Adjustment Factor	102			
OSD Adjustment Factor	100			
Residential Adjustment Factor	80			
Farm Improvement Factor	80			
After Ratio	100			
Selected Ratio	105	2018	Adjustment	95

Explanation

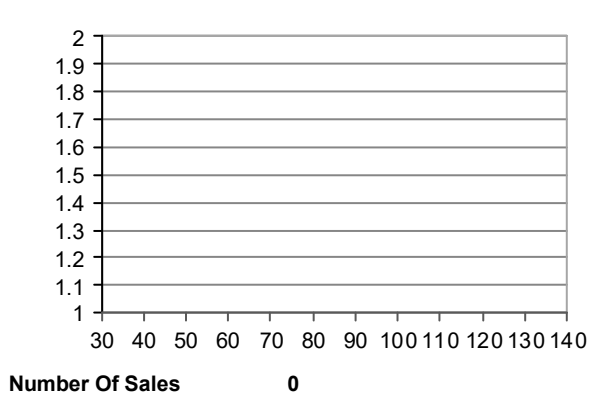
RMV 409: SA 65
 Improved Land - Dike Land, Manufactured Structures - Rural St. Helens, Warren
 For this study, there are no sales available to review. Therefore, the Median of 101 from the RMV 409 SA 61 study was used.
 The time study conclusion of 104 was then applied to the Median, which then returned a Selected Ratio of 105.

Performance History

	2018	2017	2016	2015	2014
COD		-	-	-	13.58
PRD		-	-	-	1.02

COLUMBIA County 2018 Ratio Study

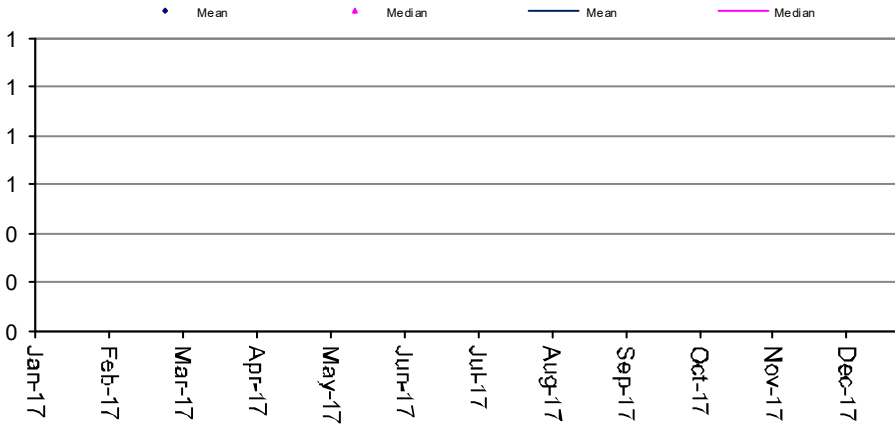
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

MAINTENANCE AREA 7

PERSONAL PROPERTY

MANUFACTURED

STRUCTURES

MA 07 – Personal Property Manufactured Structures

Because of the unique way these properties move within the market, we developed MA 07 in 2012 to better identify and track these properties. This maintenance area consists of manufactured structures which are considered personal property (RMV Class 019) and are located throughout Columbia County either in a manufactured home park or where the land is not owned by the same titled owner of the manufactured structure.

Year	CLASS	MA	SA	PARK NAME	COUNT	RMV TOTAL
2018	019	07	01	GENERAL AREA - ST. HELENS	2	76,660
2018	019	07	02	GENERAL AREA - SCAPPOOSE	76	1,405,030
2018	019	07	02	CEDAR TREE	23	331,500
2018	019	07	02	COUNTRY VILLA	31	323,370
2018	019	07	02	GOSS MANUFACTURED HOME PARK	15	231,130
2018	019	07	02	GREEN MEADOWS	37	798,880
2018	019	07	02	RUDDS	25	382,870
2018	019	07	02	SUNVIEW	5	54,920
2018	019	07	02	TAMARACK	39	831,140
2018	019	07	02	WALLER'S	1	11,220
2018	019	07	03	GENERAL AREA - VERNONIA	39	663,690
2018	019	07	03	BOULDER RIDGE	7	113,640
2018	019	07	04	GENERAL AREA - RAINIER	72	1,218,880
2018	019	07	04	CLOVER HILL	4	79,600
2018	019	07	04	DEER ISLAND HEIGHTS	4	104,130
2018	019	07	04	DEER ISLAND VILLAGE	50	1,011,690
2018	019	07	04	FERNVIEW	24	399,540
2018	019	07	04	RAINIER HEIGHTS	10	139,790
2018	019	07	04	RIVERS EDGE	15	135,430
2018	019	07	04	RIVERWOOD	27	240,430
2018	019	07	04	WESTERN HILLS	82	1,216,060
2018	019	07	05	GENERAL AREA - CLATSKANIE	105	2,029,030
2018	019	07	05	DEER POINTE	35	634,700
2018	019	07	05	DRAKES J/M	28	332,980
2018	019	07	05	RIVERBEND	28	584,530
2018	019	07	05	SWEDETOWN VILLAGE	24	621,580
2018	019	07	06	GENERAL AREA - WARREN, RURAL ST. HELENS	49	802,780
2018	019	07	06	MAPLE TERRACE	23	496,210
2018	019	07	06	MOUNTIAN VIEW	12	171,050
2018	019	07	06	ROSE MANOR	30	529,600
2018	019	07	06	WESTWIND	6	274,420
2018	019	07	27	CRESTWOOD VILLAGE	123	5,383,290
2018	019	07	28	COLUMBIA CITY ESTATES	42	1,715,610
2018	019	07	30	SPRINGLAKE PARK	145	9,220,710
2018	019	07	31	CROWN PARK	22	1,013,610
2018	019	07	35	RIVERSIDE MEADOWS	22	240,710

Total Count: 1,282

Total RMV: 33,820,410

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
019	07	01	000		0	St. Helens	019	07	28	000		3	Columbia City Estates
019	07	02	000		4	Scappoose	019	07	31	000		0	Crown Park
019	07	06	000		1	Rural St. Helens, Warren							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	8			
Population - Number of Accounts	438			
Sales as a percentage of the Population	1.83 %			
Prior Year Population Values				
Land RMV	0	0.00 %	0	0.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	10,037,030	100.00 %	14,352,952	100.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	70			
RMV Adjustment	100			
Before Ratio	143			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	143			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	70	2018	Adjustment	143

Explanation

RMV 019: MA 07 SA 01, SA 02, SA 06, SA 27, SA 31

Personal Property Manufactured Structures - South Columbia County

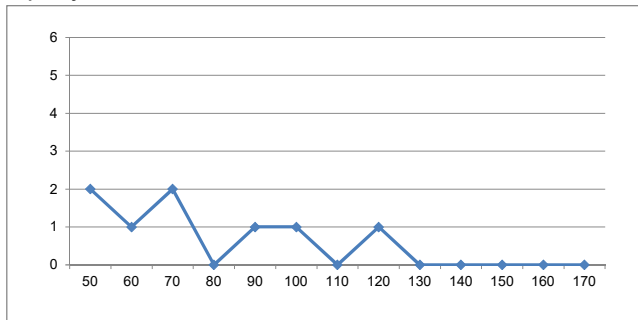
This analysis is comprised of personal property manufactured structures (PPMS) located throughout South Columbia County. Due to similar movement within the market, Columbia City Estates (SA 28) and Crown Point (SA 31) were included with the PPMS General Area (SA 01, SA 02 and SA 06) study. The total population of these areas is 438 and there are 8 usable sales. The sales as a percentage is 1.83% and the Median of 70 was selected for this grouping.

Note: For the 2018 Ratio year, the boundary lines for each maintenance area was moved. Because of this, there may be a change in population size, RMV totals and indicators of value over the previous year. Our intent is to review this appraisal area for 2019 and to take action if it is deemed necessary at that time.

Performance History

	2018	2017	2016	2015	2014
COD	27.14	18.90	18.00	-	-
PRD	1.23	0.95	0.99	-	-

Frequency



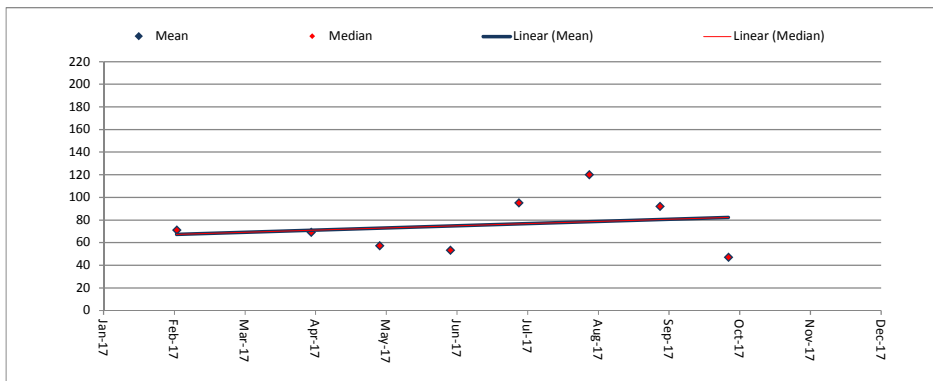
50	2
60	1
70	2
80	0
90	1
100	1
110	0
120	1
130	0
140	0
150	0
160	0
170	0

Median	70
AAD	19
COD	27.14
Mean	76
SD	23
COV	31

Wtd. Mean	61
GeoMean	72
PRD	123

Number of Sales: 8

Central Tendencies



Month	Mean	Median	Sales
Feb-17	71	71	1
Apr-17	69	69	1
May-17	57	57	1
Jun-17	53	53	1
Jul-17	95	95	1
Aug-17	120	120	1
Sep-17	92	92	1
Oct-17	47	47	1

AP	AR	SA	NH	Prop Class	RJ Code	Acct #	Home ID	Sale Date	Sales Price	2017 Base RMV	Time Adj. Sales Price	Time Adj. Ratio
07	6	000	019	30	433876	336244	02/20/17	65,000	50,120	70,893	71	
07	2	000	019	33	471	249044	04/04/17	18,000	13,380	19,335	69	
07	28	000	019	30	1252	270266	05/10/17	77,000	46,410	82,077	57	
07	28	000	019	33	1288	293234	06/30/17	80,700	45,250	85,356	53	
07	2	000	019	33	399	222851	07/01/17	5,500	5,500	5,772	95	
07	2	000	019	30	289	371927	08/06/17	7,500	9,370	7,809	120	
07	2	000	019	30	404	223809	09/01/17	22,500	21,310	23,242	92	
07	28	000	019	33	1284	280885	10/04/17	76,000	36,570	77,879	47	

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
019	07	03	000		0	Maintenance Area 03	019	07	05	000		2	Maintenance Area 05
019	07	04	000		5	Maintenance Area 04	019	07	35	000		1	Riverside Meadows

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	8			
Population - Number of Accounts	576			
Sales as a percentage of the Population	1.39 %			
Prior Year Population Values				
Land RMV	0	0.00 %	0	0.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	9,179,380	100.00 %	11,198,840	100.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	82			
RMV Adjustment	100			
Before Ratio	122			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	122			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	82	2018	Adjustment	122

Explanation

RMV 019: MA 07 SA 03, SA 04, SA 05, SA 35

Personal Property Manufactured Structures – North Columbia County

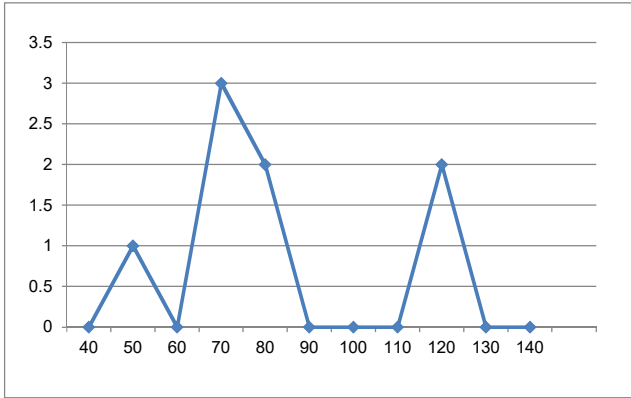
This analysis is comprised of personal property manufactured structures (PPMS) located throughout North Columbia County in the MA 07 General Areas of SA 03 (Vernonia), SA 04 (Rainier) and SA 05 (Clatskanie). Also included in this analysis is SA 35 (Riverside Meadows) which is located in the City of Vernonia flood way. The total population of North MA 07 is 576 and the percent of useable sales is 1.39%. Therefore, the Mean (82) was deemed the most reliable of the indicators, which is supported by the Weighted Mean (84).

Note: For the 2018 Ratio year, the boundary lines for each maintenance area was moved. Because of this, there may be a change in population size, RMV totals and indicators of value over the previous year. Our intent is to review this appraisal area for 2019 and to take action if it is deemed necessary at that time.

Performance History

	2018	2017	2016	2015	2014
COD	24.83	19.74	7.00	-	-
PRD	0.97	0.95	1.00	-	-

Frequency



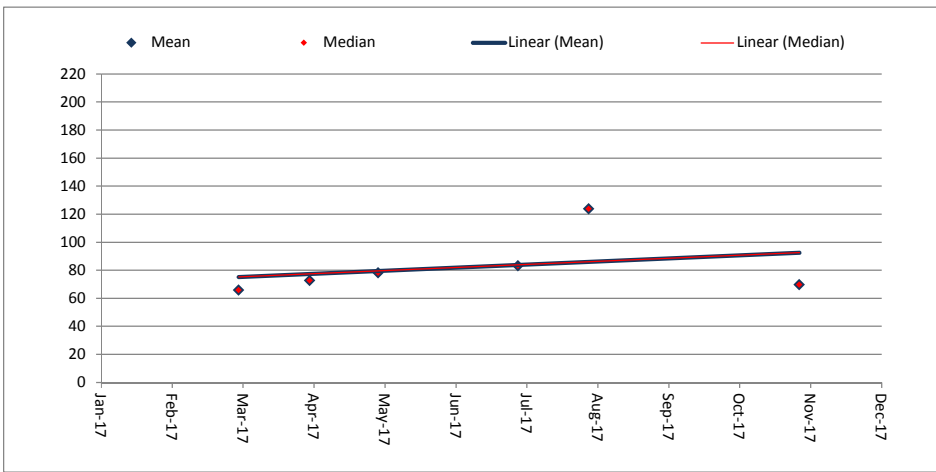
40	0
50	1
60	0
70	3
80	2
90	0
100	0
110	0
120	2
130	0
140	0

Median	75
AAD	19
COD	24.83
Mean	82
SD	26
COV	31

Wtd. Mean	84
GeoMean	78
PRD	97

Number of Sales: 8

Central Tendencies



Month	Mean	Median	Sales
Mar-17	66	66	1
Apr-17	73	73	1
May-17	79	79	2
Jul-17	84	84	2
Aug-17	124	124	1
Nov-17	70	70	1

AP	AR	SA	NH	Prop Class	RJ Code	Acct #	Home ID	Sale Date	Sales Price	2017 Base RMV	Time Adj. Sales Price	Time Adj. Ratio
07	4	000	019	30	34262	131270	03/01/17	30,000	21,450	32,473	66	
07	4	000	019	30	1475	366309	04/26/17	8,000	6,310	8,593	73	
07	35	000	019	30	2325	208558	05/01/17	11,000	9,070	11,725	77	
07	4	000	019	30	435885	140852	05/13/17	16,000	13,600	17,055	80	
07	5	000	019	33	2041	280335	07/18/17	35,000	16,500	36,731	45	
07	4	000	019	33	439046	395021	07/28/17	45,000	57,540	47,225	122	
07	4	000	019	33	1441	257872	08/03/17	25,000	32,310	26,030	124	
07	5	000	019	33	2512	255934	11/27/17	34,500	24,620	35,069	70	

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
019	07	27	000		13	Crestwood Village							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	13			
Population - Number of Accounts	123			
Sales as a percentage of the Population	10.57 %			
Prior Year Population Values				
Land RMV	0	0.00 %	0	0.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	5,383,290	100.00 %	7,159,775	100.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	75			
RMV Adjustment	100			
Before Ratio	133			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	133			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	75	2018	Adjustment	133

Explanation

RMV 019: MA 07 SA 27

Personal Property Manufactured Structures - Crestwood Village, City of St. Helens

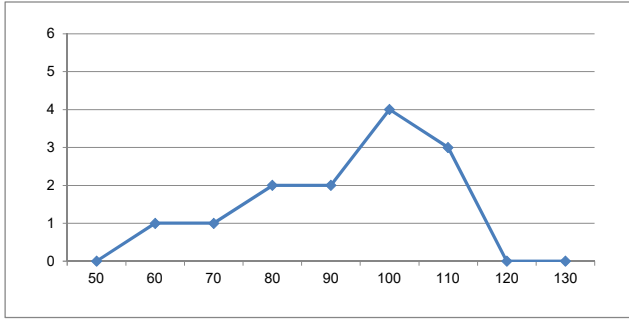
For this grouping, the Median returned a ratio of 75. This central tendency was selected as the best indicator of the market. Once the median was applied, the Overall Adjustment Factor is 133 for Crestwood Village (SA 27).

Note: For the 2018 Ratio year, the boundary lines for each maintenance area was moved. Because of this, there may be a change in population size, RMV totals and indicators of value over the previous year. Our intent is to review this appraisal area for 2019 and to take action if it is deemed necessary at that time.

Performance History

	2018	2017	2016	2015	2014
COD	14.87	7.57	-	-	-
PRD	1.01	1.08	-	-	-

Frequency



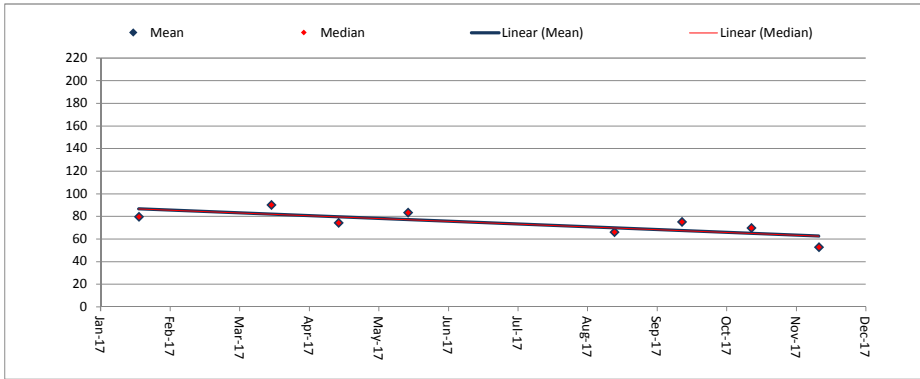
30	0
40	1
50	1
60	2
70	2
80	4
90	3
100	0
110	0

Median	75
AAD	11
COD	14.87
Mean	72
SD	14
COV	20

Wtd. Mean	71
GeoMean	71
PRD	101

Number of Sales: 13

Central Tendencies



Month	Mean	Median	Sales
Feb-17	80	80	2
Apr-17	90	90	1
May-17	74	74	1
Jun-17	83	83	2
Sep-17	66	66	2
Oct-17	75	75	1
Nov-17	70	70	2
Dec-17	53	53	2

AP	AR	SA	NH	Prop Class	RJ Code	Acct #	Home ID	Sale Date	Sales Price	2017 Base RMV	Time Adj. Sales Price	Time Adj. Ratio
07	27	000	019	30	1141	140449	02/24/17	41,000	33,810	44,717	79	
07	27	000	019	30	1248	251059	02/28/17	50,000	43,680	54,533	80	
07	27	000	019	33	1074	284848	04/21/17	50,000	48,600	53,709	90	
07	27	000	019	33	1088	286570	05/11/17	49,900	39,230	53,190	74	
07	27	000	019	33	1192	394022	06/09/17	76,000	74,390	80,385	93	
07	27	000	019	30	1039	278720	06/21/17	65,000	49,850	68,750	73	
07	27	000	019	33	1111	289657	09/06/17	52,000	41,460	53,714	77	
07	27	000	019	33	1066	283741	09/29/17	62,750	35,920	64,819	55	
07	27	000	019	30	1039	278720	10/26/17	65,000	49,850	66,607	75	
07	27	000	019	30	1086	286420	11/03/17	70,000	61,250	71,154	86	
07	27	000	019	30	1076	284942	11/07/17	65,250	34,980	66,326	53	
07	27	000	019	30	1028	251060	12/11/17	80,500	35,930	81,163	44	
07	27	000	019	30	1042	279253	12/28/17	71,500	44,280	72,089	61	

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
019	07	30	000		8	Springlake Park							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	8			
Population - Number of Accounts	145			
Sales as a percentage of the Population	5.52 %			
Prior Year Population Values				
Land RMV	0	0.00 %	0	0.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	9,220,710	100.00 %	16,781,690	100.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	55			
RMV Adjustment	100			
Before Ratio	182			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	182			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	55	2018	Adjustment	182

Explanation

RMV 019: MA 07 SA 30

Personal Property Manufactured Structures – Springlake Park, City of Scappoose

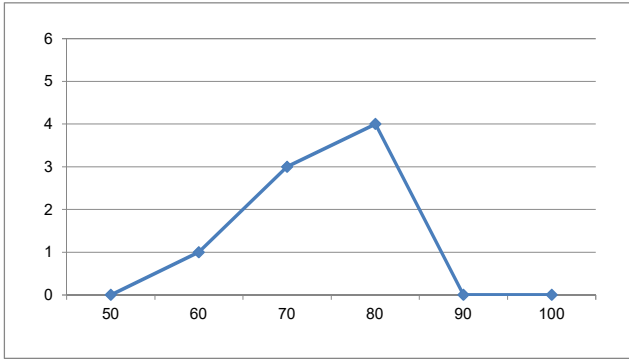
This study is comprised of the personal manufactured structures located in Springlake Park in the City of Scappoose. This community is for those who are age 55 and older. It has a large lake set in the center of the park and is close to the Portland Metropolitan area. The Median returned a ratio of 55, which is supported, by the Mean (53) and Weighted Mean (53). Therefore, the Median was selected for this analysis and the Overall Adjustment Factor is 182.

Note: For the 2018 Ratio year, the boundary lines for each maintenance area was moved. Because of this, there may be a change in population size, RMV totals and indicators of value over the previous year. Our intent is to review this appraisal area for 2019 and to take action if it is deemed necessary at that time.

Performance History

	2018	2017	2016	2015	2014
COD	9.63	19.59	16.00	-	-
PRD	0.99	1.10	1.05-	-	-

Frequency



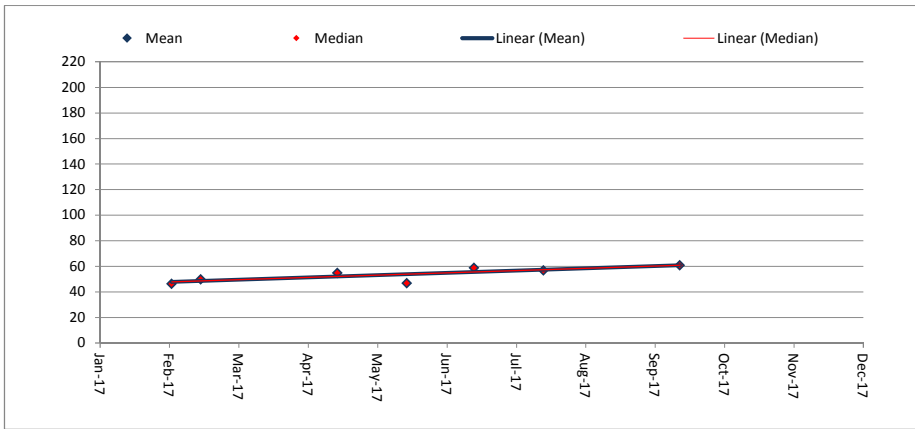
39	0
40	1
50	3
60	4
70	0
80	0
90	0
100	0
110	0
120	0
130	0
140	0

Median	55
AAD	5
COD	9.63
Mean	53
SD	7
COV	13

Wtd. Mean	53
GeoMean	52
PRD	99

Number of Sales: 8

Central Tendencies



Month	Mean	Median	Sales
Feb-17	47	47	2
Mar-17	50	50	1
May-17	55	55	1
Jun-17	47	47	1
Jul-17	59	59	1
Aug-17	57	57	1
Oct-17	61	61	1

AP AR	SA	NH	Prop Class	RJ Code	Acct #	Home ID	Sale Date	Sales Price	2017 Base RMV	Time Adj. Sales Price	Time Adj. Ratio
07	30	000	019	33	146	278883	02/23/17	118,000	49,620	128,698	39
07	30	000	019	33	103	254041	02/28/17	138,900	81,350	151,493	54
07	30	000	019	33	213	293647	03/31/17	98,000	53,500	106,077	50
07	30	000	019	30	30252	305225	05/25/17	204,000	119,900	217,451	55
07	30	000	019	30	429795	314626	06/13/17	126,500	62,900	133,798	47
07	30	000	019	33	155	281517	07/24/17	119,000	73,960	124,885	59
07	30	000	019	30	180	287097	08/29/17	99,000	58,370	103,080	57
07	30	000	019	33	429797	311321	11/17/17	159,000	98,720	161,621	61

*RMV CLASS 111
COUNTYWIDE
FLOATING HOMES,
BOAT HOUSES AND
COMBINATIONS*

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
111	01	95	000		4	St. Helens	111	06	95	000		1	Warren, Columbia City

Adjustment Calculation Summary

Sample - Number of Sales	5	RECALCULATED		
Population - Number of Accounts	29			
Sales as a percentage of the Population	13.79 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	0	0.00 %	0	0.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	2,995,600	100.00 %	3,085,470	100.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	97			
RMV Adjustment	100			
Before Ratio	103			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	103			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	97	2018	Adjustment	103

Explanation

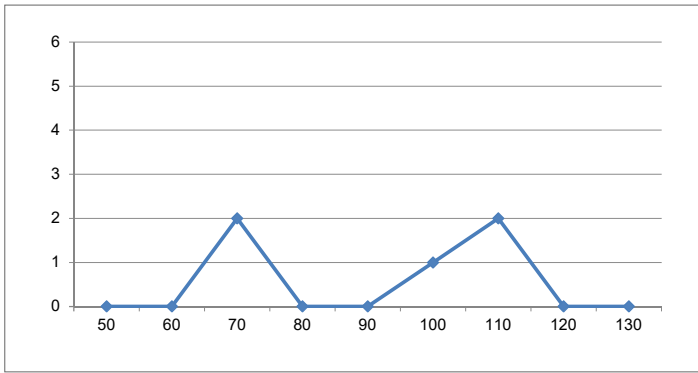
RMV 111: SA 95 MA 01 and MA 06 – St. Helens, Warren and Columbia City

This analysis is comprised of personal property floating property (Floating Homes and Combinations) located along the Columbia River. This is a fast moving, larger body of water and the moorages and marinas are located further from the Portland area. Total population of these properties is 29.

For this analysis, the Median and the Weighted Mean returned a central tendency of 97. This indicator was then applied resulting in an Overall Adjustment Factor of 103.

Performance History

	2018	2017	2016	2015	2014
COD	22.00	-	-	-	-
PRD	0.92	-	-	-	-



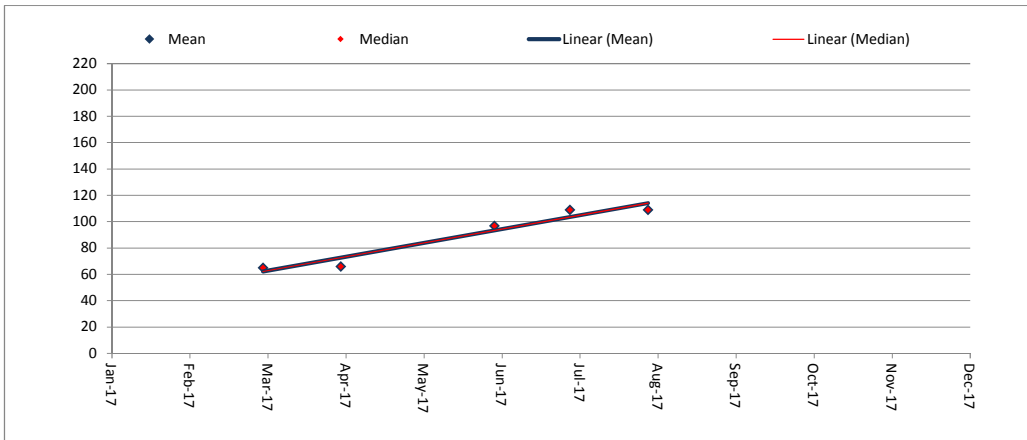
50	0
60	0
70	2
80	0
90	0
100	1
110	2
120	0
130	0

Median	97
AAD	22
COD	22
Mean	89
SD	22
COV	25

Wtd. Mean
GeoMean
PRD

Number of Sales: 4

Central Tendencies



Month	Mean	Median
Mar-17	65	65
Apr-17	66	66
Jun-17	97	97
Jul-17	109	109
Aug-17	109	109

AP AR	SA	NH	Prop Class	RJ Code	WC Acct	Tax ID	Sale Date	Sales Price	2017 Base RMV	Ratio
01	95	000	111	30	3419	432529	03/10/17	113000	73,530	65
01	95	001	111	33	3327	432188	04/24/17	58036	38,490	66
01	95	002	111	33	3406	432317	06/21/17	125000	120,840	97

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
111	02	95	000		7	Scappoose							

Adjustment Calculation Summary

Sample - Number of Sales	7	RECALCULATED		
Population - Number of Accounts	125			
Sales as a percentage of the Population	5.60 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	0	0.00 %	0	0.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	11,947,000	100.00 %	14,216,930	100.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	84			
RMV Adjustment	100			
Before Ratio	119			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	119			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	84	2018	Adjustment	119

Explanation

RMV 111: SA 95 MA 02 – Floating homes and combinations, Scappoose

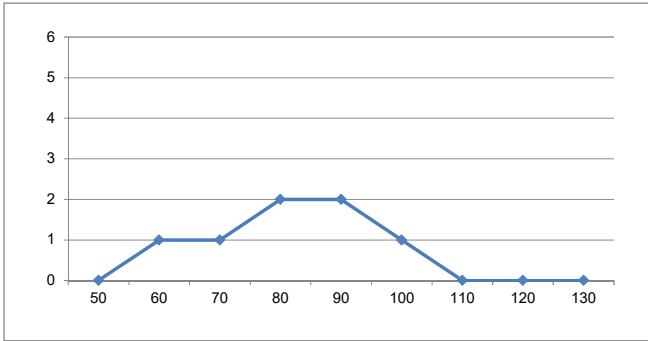
This analysis is comprised of floating homes and combination homes, which are located along the Multnomah Channel in Scappoose (MA 02). This channel connects both the Columbia River and the Willamette River and because of its proximity to the Portland area it is a highly sought after locale. This area is known for its calm waters, affordable housing and peaceful “country” setting. Due to these factors and the sales data available, it was decided to analyze MA 02 separately from the rest of the County because of how these properties move on the open market.

The population count of these properties is 125 with seven useable sales available. The sales as a percentage is 5.60%. Most of the floating homes located here are primary residences inter-mixed with vacation homes. No adjustment was made for change over time. Based on the sales analysis performed above, the Median of 84 was selected. This central tendency is supported by the Mean (81) and the Geo Mean (80).

Performance History

	2018	2017	2016	2015	2014
COD	11.00	-	-	-	-
PRD	1.02	-	-	-	-

Frequency

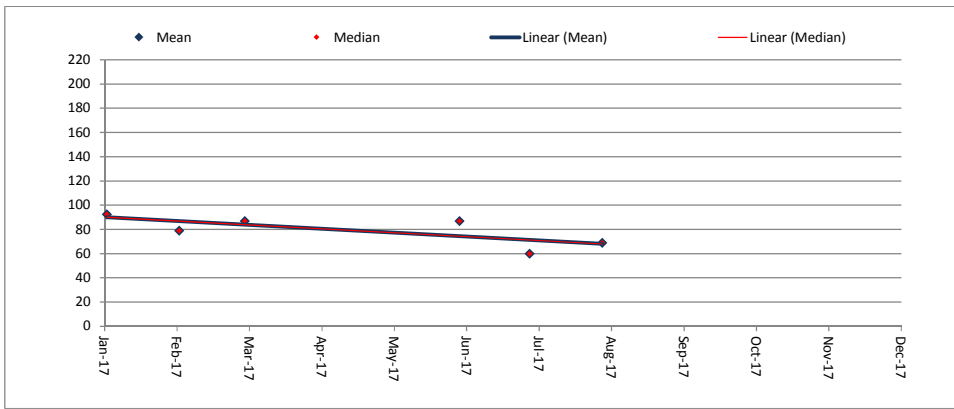


50	0
60	1
70	1
80	2
90	2
100	1
110	0
120	0
130	0

Median	84	Wtd. Mean	79
AAD	10	GeoMean	80
COD	11	PRD	102
Mean	81		
SD	12		
COV	15		

Number of Sales: 7

Central Tendencies



Month	Mean	Median	Sales
Jan-17	93	93	2
Feb-17	79	79	1
Mar-17	87	87	1
Jun-17	87	87	1
Jul-17	60	60	1
Aug-17	69	69	1

AP AR	SA	NH	Prop Class	RJ Code	WC Acct	Tax ID	Sale Date	Sales Price	2017 Base RMV	Ratio
02	95	000	111	33	3386	432199	01/01/17	58,713	56,000	101
02	95	000	111	33	3454	434382	01/31/17	107,250	90,350	84
02	95	000	111	30	3325	432230	02/22/17	205,000	161,550	79
02	95	000	111	33	3498	438695	03/03/17	161,000	140,250	87
02	95	000	111	30	3364	432196	06/01/17	220,000	192,310	87
02	95	000	111	33	3319	432252	07/05/17	121,500	72,720	60
02	95	000	111	30	3326	432236	08/07/17	185,000	127,940	69

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
111	04	95	000		0	Rainier	111	05	95	000		0	Clatskanie

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	0			
Population - Number of Accounts	0			
Sales as a percentage of the Population	0.00 %			
Prior Year Population Values				
Land RMV	0	0.00 %	0	0.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	108,590	100.00 %	108,590	100.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	100			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	100	2018	Adjustment	100

Explanation

RMV 111: SA 95 MA 04 and MA 05 – Rainier and Clatskanie
 This analysis is comprised of personal property floating property (Floating Homes and Combinations) located along the Columbia River which are accessed by Highway 30. There is a population of four accounts located is SA 95 and no sales were available. Therefore, it is recommend applying no adjustment at this time.

Performance History

	2018	2017	2016	2015	2014
COD	0.0	-	-	-	-
PRD	1.00	-	-	-	-

COLUMBIA County 2016 Ratio Study Commercial Floating Property

Frequency



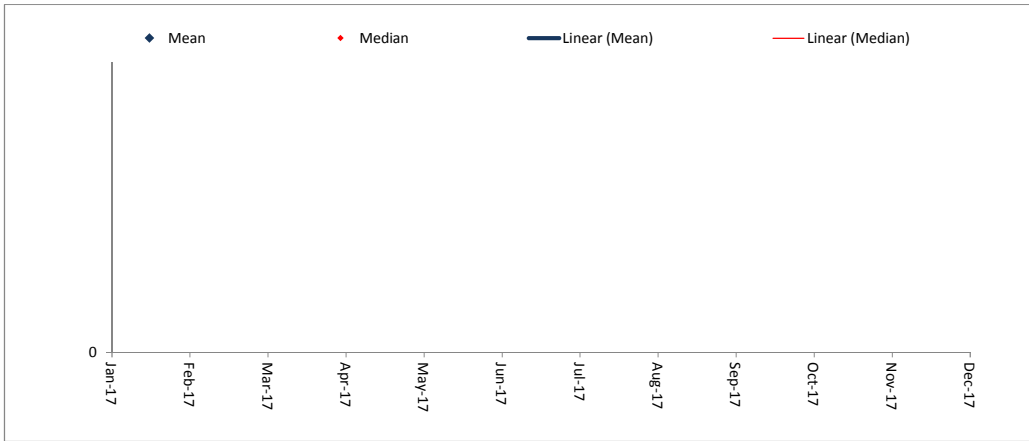
50 0
60 0
70 0
80 0
90 0
100 0
110 0
120 0
130 0

Median
AAD
COD
Mean
SD
COV

Wtd. Mean
GeoMean
PRD

Number of Sales: 0

Central Tendencies



Month Mean Median

AP AR SA NH	Prop Class	RJ Code	WC Acct	Tax ID	Sale Date	Sales Price	2017 Base RMV	Ratio
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COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
111	01	97	000		1	St. Helens	111	06	97	000		1	Warren, Rural St. Helens
111	02	97	000		1	Scappoose							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	3			
Population - Number of Accounts	138			
Sales as a percentage of the Population	2.17 %			
Prior Year Population Values				
Land RMV	0	0.00 %	0	0.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	4,139,970	100.00 %	4,015,770	100.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	103			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	97			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	97			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	103	2018	Adjustment	97

Explanation

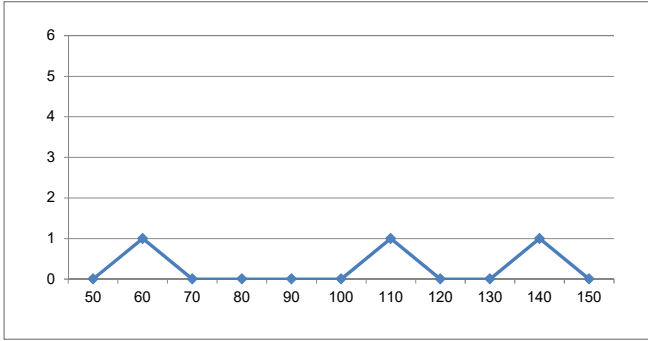
RMV 111: SA 97 – Countywide

The unique nature of how boathouses sell on the open market is quite variable. Therefore, it was decided to perform a single countywide study to determine market trends. There are three sales available for this study of Boathouses and the sales as a percentage is 2.17% based on a population of 138 accounts. The Median (103) was applied as the best indicator of value. This returned an Overall Adjustment Factor of 97.

Performance History

	2018	2017	2016	2015	2014
COD	26.00	-	-	-	-
PRD	0.64	-	-	-	-

Frequency



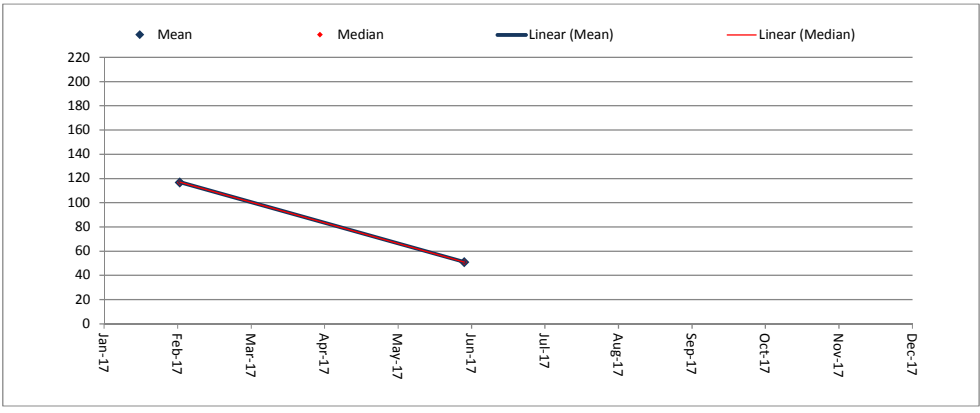
40	0
50	1
60	0
70	0
80	0
90	0
100	1
110	0
120	0
130	1
140	0

Median	103
AAD	80
COD	78
Mean	95
SD	57
COV	60

Wtd. Mean	148
GeoMean	88
PRD	64

Number of Sales: 1

Central Tendencies



Month	Mean	Median	Sales
Feb-17	117	117	2
Jun-17	51	51	1

AP AR	SA	NH	Prop Class	RJ Code	WC Acct	Tax ID	Sale Date	Sales Price	2017 Base RMV	Ratio
02	97	000	111	30	3496	438698	02/15/17	36800	38020	103
01	97	000	111	33	3275	432314	02/17/17	32500	42440	131
06	97	000	111	33	3477	436344	06/01/17	6000	30770	51

*RMV CLASS 2XX
COUNTYWIDE
COMMERCIAL PROPERTY*

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
200	01	00	000	2018	1	St Helens	200	02	71	000	2018	0	Scappoose
200	01	72	000	2018	1	St Helens/Col City	200	02	73	000	2018	0	Scappoose
200	01	73	000	2018	0	St Helens/Col City	200	06	00	000	2018	0	Rural St Helens
200	02	72	000	2018	0	Scappoose	200	06	72	000	2018	0	Rural St Helens
200	02	00	000	2018	0	Scappoose							

Adjustment Calculation Summary

Sample - Number of Sales		2	RECALCULATED		
Population - Number of Accounts		237			
Sales as a percentage of the Population		0.84 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values					
Land RMV	16,808,940	100.00 %	19,330,281	100.00 %	
OSD RMV	0	0.00 %	0	0.00 %	
Residential Improvement RMV	0	0.00 %	0	0.00 %	
Farm Improvement RMV	0	0.00 %	0	0.00 %	
SelectedRatioFromSales	87				
RMV Adjustment	100				
Before Ratio	87				
Overall Adjustment Factor	115				
Land Adjustment Factor	115				
OSD Adjustment Factor	100				
Residential Adjustment Factor	100				
Farm Improvement Factor	100				
After Ratio	100				
Selected Ratio	87	2018	Adjustment	115	

Explanation

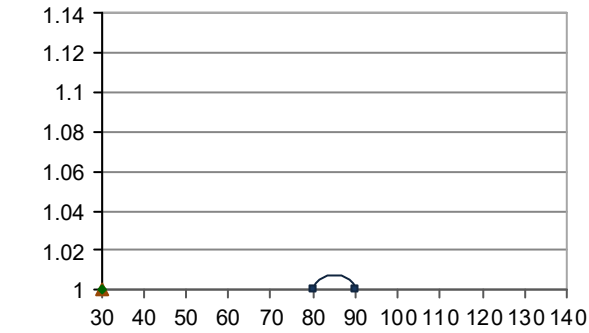
Commercial
 RMV 200: MA 01, MA 02 and MA 06; Study Areas 00, 01, 71, 72, 73 & 74
 Unimproved land - Commercial, Countywide
 There were only two usable sales available for undeveloped commercial land located in St. Helens, Scappoose and Warren. These sales did not provide a significant sampling or a clear indication of the market for these properties. Therefore, it was decided to use 87 as the Selected Ratio from the RMV Class 201 study. No time adjustment was applied.

Performance History

	2018	2017	2016	2015	2014
COD	9.09	26.47	118.47	9.65	0.00
PRD	1.05	1.11	1.58	1.01	1.00

COLUMBIA County 2018 Ratio Study

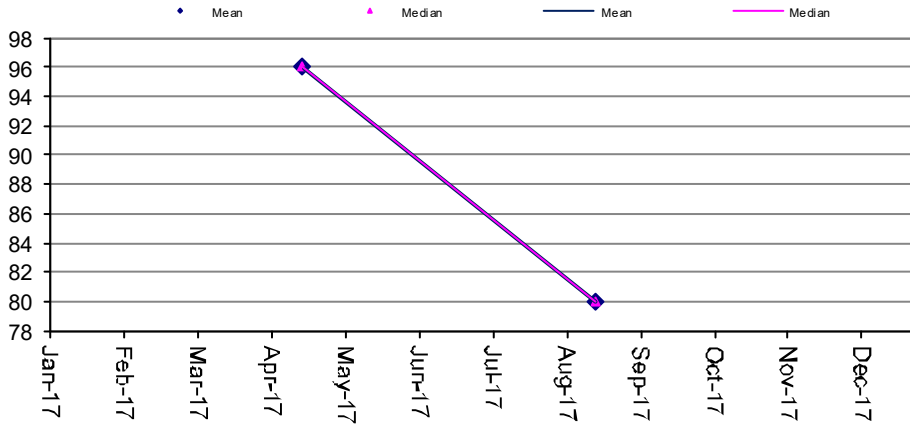
Frequency



30	0	Median	88	Wtd Mean	84
40	0	AD	8.00	GeoMean	88
50	0	COD	9.09	PRD	1.05
60	0	Mean	88	95% Confidence	15.68
70	0	SD	11.31		
80	1	COV	12.86		
90	1				
100	0				
110	0				
120	0				
130	0				
140	0				

Number Of Sales 2

Central Tendencies



Month	Mean	Median	Sales
May-17	96	96	1
Sep-17	80	80	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
01	72	000	200		33	4N1W05-DD-01900	2017	8533	13.00	1,753,310	0	1,753,310	2,200,000	Sep-17	1	80
01	00	000	200		30	4N1W04-B0-00600	2017	4832	11.53	771,100	0	771,100	800,000	May-17	2	96

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
201	01	73	000	2018	0	St Helens/Col City	201	02	71	000	2018	0	Scappoose
201	01	71	000	2018	0	St Helens/Col City	201	02	72	000	2018	1	Scappoose
201	01	72	000	2018	2	St Helens/Col City	201	06	72	000	2018	0	Rural St Helens
201	01	00	000	2018	4	St Helens	201	06	00	000	2018	0	Rural St Helens
201	02	73	000	2018	0	Scappoose	201	06	73	000	2018	0	Rural St Helens
201	02	00	000	2018	2	Scappoose							

Adjustment Calculation Summary

		9	RECALCULATED		
		642			
		1.40 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales					
Population - Number of Accounts					
Sales as a percentage of the Population					
Prior Year Population Values					
Land RMV	104,024,560		35.59 %	119,628,244	38.86 %
OSD RMV	30,500		0.01 %	30,500	0.01 %
Residential Improvement RMV	188,097,040		64.36 %	188,097,040	61.09 %
Farm Improvement RMV	120,600		0.04 %	120,600	0.04 %
SelectedRatioFromSales		87			
RMV Adjustment		100			
Before Ratio		87			
Overall Adjustment Factor		115			
Land Adjustment Factor		115			
OSD Adjustment Factor		100			
Residential Adjustment Factor		100			
Farm Improvement Factor		100			
After Ratio		100			
Selected Ratio		87			
	2018		Adjustment		115

Explanation

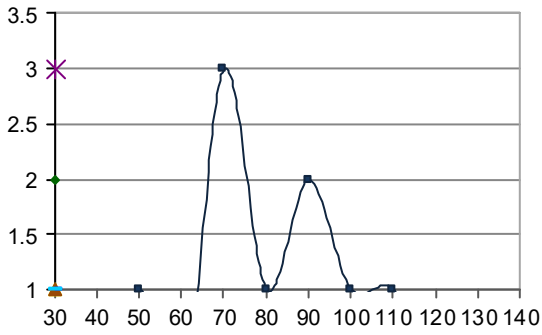
RMV 201: MA 01, MA 02 and MA 06; Study Areas 00, 01,71, 72, 73 & 74
 Improved land - Commercial, Countywide
 There are 9 sales available for this analysis of improved commercial property located in St. Helens, Scappoose and Warren.
 Then Median of 87 was selected as the best indicator of the market resulting in an Overall Adjustment Factor of 115. No time adjustment was applied at this time.

Performance History

	2018	2017	2016	2015	2014
COD	15.58	22.85	25.63	21.23	15.07
PRD	1.00	1.12	0.93	1.15	1.02

COLUMBIA County 2018 Ratio Study

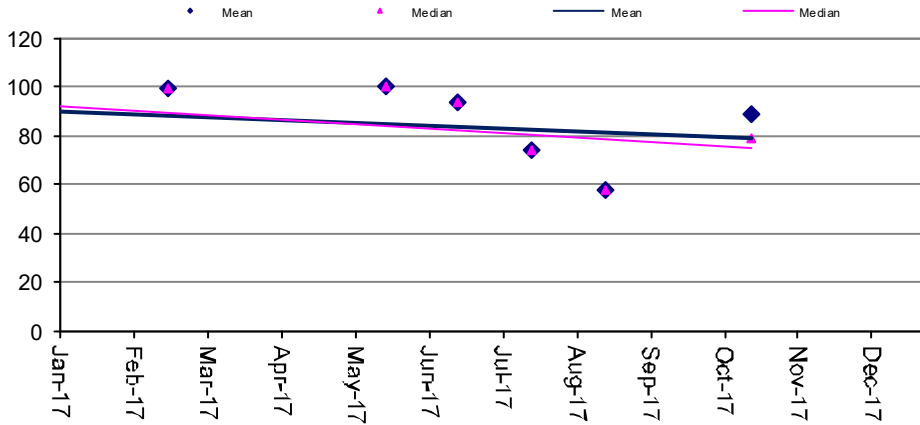
Frequency



30	0	Median	87	Wtd Mean	86
40	0	AD	13.56	GeoMean	84
50	1	COD	15.58	PRD	1.00
60	0	Mean	86	95% Confidence	10.85
70	3	SD	16.61		
80	1	COV	19.32		
90	2				
100	1				
110	1				
120	0				
130	0				
140	0				

Number Of Sales **9**

Central Tendencies



Month	Mean	Median	Sales
Jan-17	79	79	1
Mar-17	99	99	1
Jun-17	100	100	1
Jul-17	94	94	1
Aug-17	74	74	1
Sep-17	58	58	1
Nov-17	89	79	3

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	00	000	201	562	30	3N2W12-AC-03100	2017	9269	0.18	73,200	64,910	138,110	240,000	Sep-17	1	58
01	00	000	201	574	33	4N1W03-BB-03901	2017	10746	0.13	53,590	56,440	110,030	155,000	Nov-17	2	71
01	72	000	201	512	33	4N1W05-DD-02000	2017	7184	4.33	613,990	1,428,660	2,042,650	2,750,000	Aug-17	3	74
01	00	000	201	572	33	4N1W04-CA-00800	2017	126	0.20	79,100	157,830	236,930	299,000	Jan-17	4	79
01	00	000	201	596	33	4N1W09-BA-00300	2017	10786	0.70	247,690	574,710	822,400	950,000	Nov-17	5	87
02	00	000	201	572	33	3N2W13-BD-12000	2017	7009	0.84	276,110	470,210	746,320	795,000	Jul-17	6	94
01	72	000	201	581	30	4N1W04-BC-02500	2017	3401	1.00	412,750	283,640	696,390	700,000	Mar-17	7	99
01	00	000	201	574	33	4N1W04-AC-08900	2017	5364	0.35	137,660	400,350	538,010	540,000	Jun-17	8	100
02	72	000	201	594	33	3N2W01-C0-02800	2017	11121	6.97	835,690	65,450	901,140	820,000	Nov-17	9	110

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
200	03	00	000	2018	0	Vernonia	200	04	72	000	2018	0	Rainier
200	03	73	000	2018	0	Vernonia	200	04	73	000	2018	0	Rainier
200	04	00	000	2018	0	Rainier	200	05	00	000	2018	1	Clatskanie
200	04	71	000	2018	0	Rainier	200	05	51	000	2018	0	Clatskanie

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	1			
Population - Number of Accounts	279			
Sales as a percentage of the Population	0.36 %			
Prior Year Population Values				
Land RMV	7,728,227	100.00 %	7,728,227	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	100			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	100 2018	Adjustment	100	

Explanation

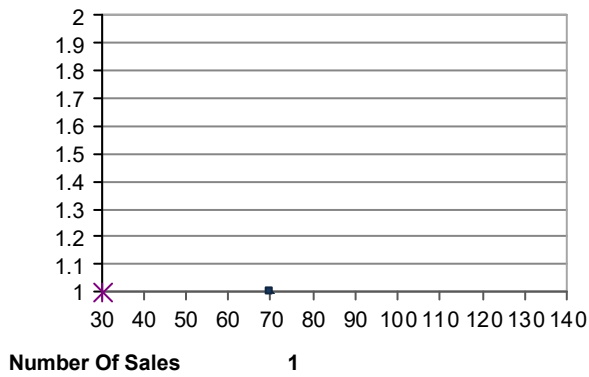
RMV 200: MA 03, MA 04 and MA 05; Study Areas 00, 71, 72, 73 & 74
 Unimproved land - Commercial, Countywide
 A single sale was identified in this study period for unimproved land located in Vernonia, Rainier and Clatskanie. This sample is too small to use as a determination of the current market. Therefore, it is recommended to use 100 as the selected ratio. No time adjustment was applied to this study.

Performance History

	2018	2017	2016	2015	2014
COD	0.00	0.00	118.47	9.65	0.00
PRD	1.00	1.00	1.58	1.01	1.00

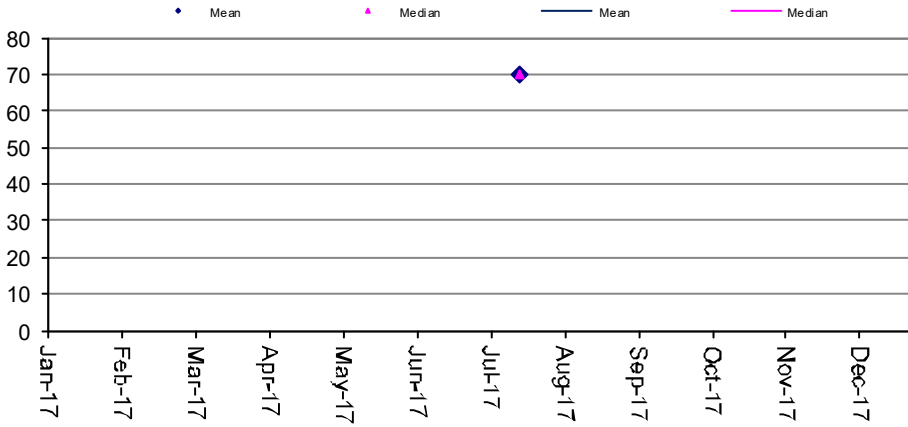
COLUMBIA County 2018 Ratio Study

Frequency



30	0	Median	70	Wtd Mean	70
40	0	AD	0.00	GeoMean	70
50	0	COD	0.00	PRD	1.00
60	0	Mean	70	95% Confidence	1.96
70	1	SD	1.00		
80	0	COV	1.43		
90	0				
100	0				
110	0				
120	0				
130	0				
140	0				

Central Tendencies



Month	Mean	Median	Sales
Aug-17	70	70	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
05	00	000	200		30	7N4W08-DC-00700	2017	8359	1.08	158,400	0	158,400	225,000	Aug-17	1	70

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
201	03	00	000	2018	0	Vernonia	201	04	72	000	2018	0	Rainier
201	03	73	000	2018	0	Vernonia	201	05	00	000	2018	0	Clatskanie
201	04	00	000	2018	2	Rainier	201	05	71	000	2018	0	Clatskanie
201	04	71	000	2018	0	Rainier	201	05	72	000	2018	1	Clatskanie

Adjustment Calculation Summary

Sample - Number of Sales	3	RECALCULATED		
Population - Number of Accounts	442	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sales as a percentage of the Population	0.68 %			
Prior Year Population Values				
Land RMV	23,954,040	31.96 %	23,954,040	31.96 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	50,887,520	67.90 %	50,887,520	67.90 %
Farm Improvement RMV	101,457	0.14 %	101,457	0.14 %
SelectedRatioFromSales	100			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	100	2018	Adjustment	100

Explanation

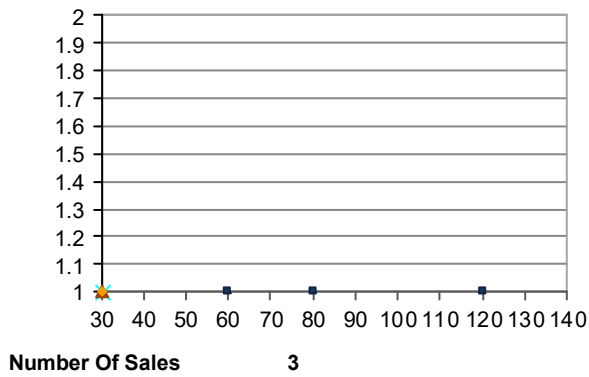
RMV 201: MA 03, MA 04 and MA 05; Study Areas 00, 71, 72, 73 & 74
 Improved land - Commercial, Countywide
 For the analysis of improved commercial property located in Vernonia, Rainier and Clatskanie, only three sales were returned in the sales array. Because of the lack of usable sales data, it was deemed appropriate to apply 100 as the selected ratio and to apply no adjustment for time.

Performance History

	2018	2017	2016	2015	2014
COD	26.27	25.29	25.63	21.23	15.07
PRD	0.92	1.07	0.93	1.15	1.02

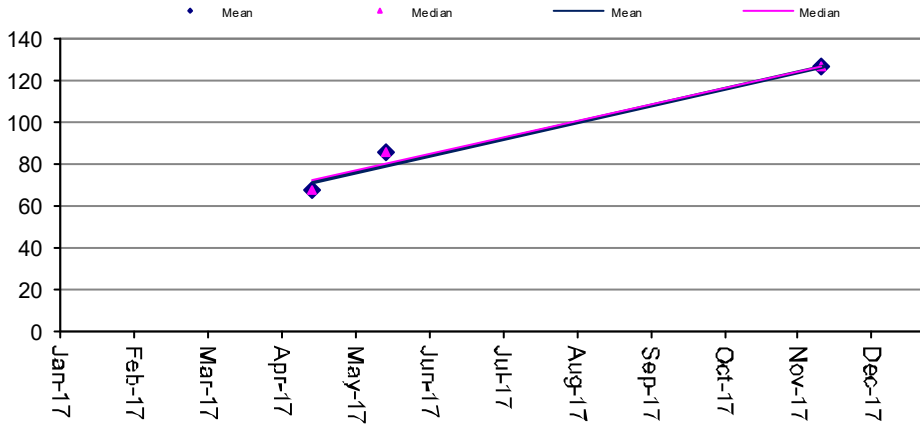
COLUMBIA County 2018 Ratio Study

Frequency



30	0	Median	85	Wtd Mean	101
40	0	AD	22.33	GeoMean	90
50	0	COD	26.27	PRD	0.92
60	1	Mean	93	95% Confidence	34.22
70	0	SD	30.24		
80	1	COV	32.52		
90	0				
100	0				
110	0				
120	1				
130	0				
140	0				

Central Tendencies



Month	Mean	Median	Sales
May-17	67	67	1
Jun-17	85	85	1
Dec-17	126	126	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
04	00	000	201	543	30	7N2W16-DB-00300	2017	4237	0.08	17,230	181,690	198,920	295,000	May-17	1	67
05	72	000	201	576	33	7N4W08-CA-02201	2017	6079	0.06	19,660	61,000	80,660	95,000	Jun-17	2	85
04	00	000	201	541	30	7N3W14-B0-00400A	2018	62	22.25	302,720	262,320	565,040	450,000	Dec-17	3	126

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
207	01	00	000	2018	0	St Helens	207	04	00	000	2018	0	Rainier
207	02	00	000	2018	1	Scappoose	207	05	00	000	2018	0	Clatskanie
207	03	00	000	2018	0	Vernonia	207	06	00	000	2018	0	Rural St Helens

Adjustment Calculation Summary

Sample - Number of Sales	1	RECALCULATED		
Population - Number of Accounts	38			
Sales as a percentage of the Population	2.63 %	Pre-Trend Brkdown	Post Trend Values	Post Trend Brkdown
Prior Year Population Values				
Land RMV	17,781,756	39.54 %	17,781,756	39.54 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	27,143,060	60.35 %	27,143,060	60.35 %
Farm Improvement RMV	47,930	0.11 %	47,930	0.11 %
SelectedRatioFromSales	100			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	100	2018	Adjustment	100

Explanation

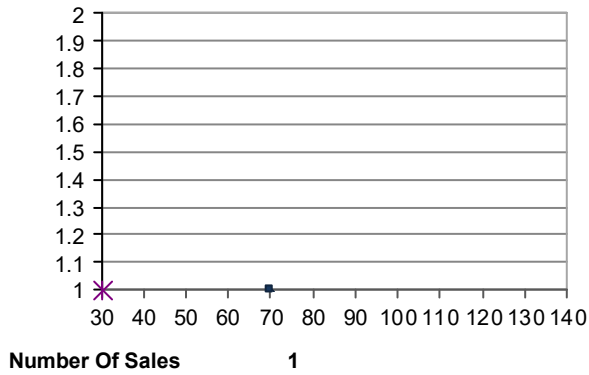
RMV 207
 Improved land - Manufactured Home Parks, Countywide
 These properties are appraised based on income. Because of this, no adjustment has been applied.

Performance History

	2018	2017	2016	2015	2014
COD	0.00	-	-	-	-
PRD	1.00	-	-	-	-

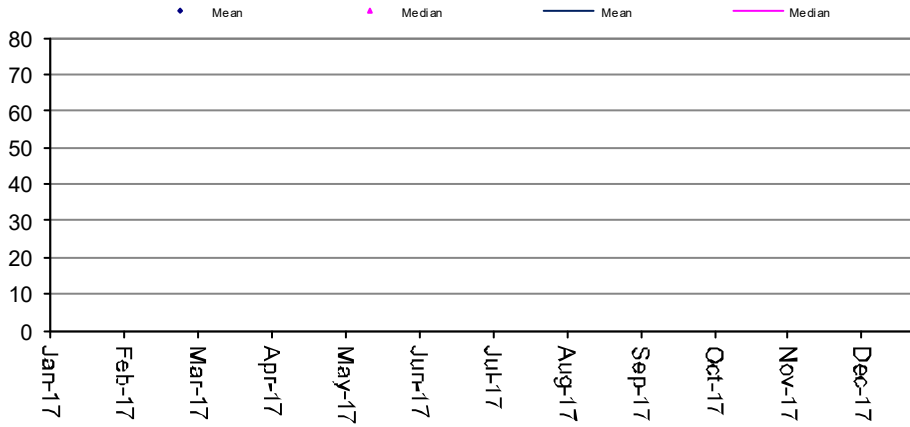
COLUMBIA County 2018 Ratio Study

Frequency



30	0	Median	71	Wtd Mean	71
40	0	AD	0.00	GeoMean	71
50	0	COD	0.00	PRD	1.00
60	0	Mean	71	95% Confidence	1.96
70	1	SD	1.00		
80	0	COV	1.41		
90	0				
100	0				
110	0				
120	0				
130	0				
140	0				

Central Tendencies



Month	Mean	Median	Sales
Jan-17	71	71	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	00	000	207	592	33	3N1W07-CC-00300	2017	96	3.92	390,000	714,000	1,104,000	1,550,000	Jan-17	1	71

*RMV CLASS 3XX
COUNTYWIDE
INDUSTRIAL PROPERTY*

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
300	01	00	000	2018	0	St Helens	300	03	00	000	2018	0	Vernonia
300	02	00	000	2018	0	Scappoose	300	04	00	000	2018	0	Rainier
300	02	74	000	2018	0	Scappoose	300	05	00	000	2018	0	Clatskanie
300	02	77	000	2018	1	Scappoose	300	06	00	000	2018	0	Rural St Helens

Adjustment Calculation Summary

Sample - Number of Sales	1	RECALCULATED		
Population - Number of Accounts	122			
Sales as a percentage of the Population	0.82 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	63,831,860	100.00 %	63,831,860	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	100			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	100	2018	Adjustment	100

Explanation

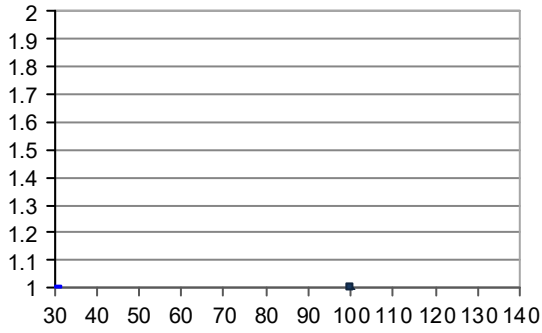
RMV 300: MA 01 SA 00, 01, 74; MA 02 SA 00, 74; MA 03 SA 00, 74; MA 04 SA 00, 74; MA 05 SA 00, 74; MA 06 SA 00, 74
 Unimproved land - Industrial, Countywide
 This study has only one usable sale available for industrial unimproved land located throughout the County. Because this sales sample is too small to use as an indicator of the market, it was decided to apply 100 as the Selected Ratio with no adjustment for time.

Performance History

	2018	2017	2016	2015	2014
COD	0.00	0.00	0.00	0.00	-
PRD	1.00	1.00	1.00	1.00	-

COLUMBIA County 2018 Ratio Study

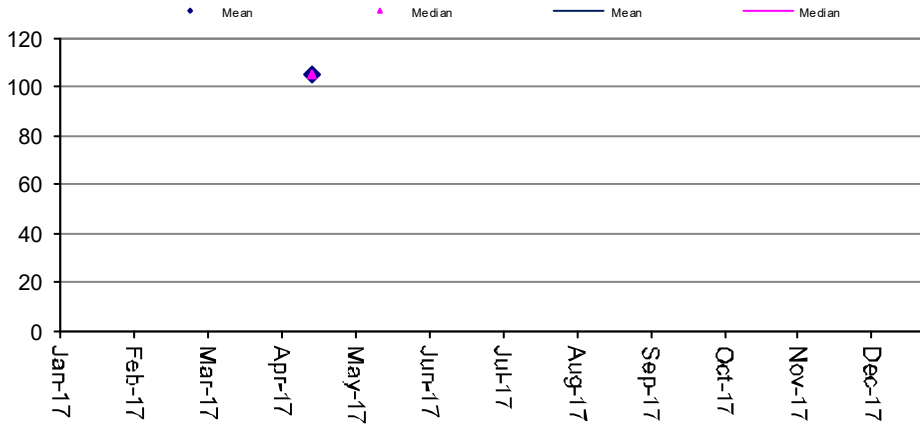
Frequency



30	0	Median	105	Wtd Mean	105
40	0	AD	0.00	GeoMean	105
50	0	COD	0.00	PRD	1.00
60	0	Mean	105	95% Confidence	1.96
70	0	SD	1.00		
80	0	COV	0.95		
90	0				
100	1				
110	0				
120	0				
130	0				
140	0				

Number Of Sales 1

Central Tendencies



Month	Mean	Median	Sales
May-17	105	105	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
02	77	000	300		30	3N1W06-C0-00700	2017	4845	3.59	610,300	0	610,300	583,159	May-17	1	105

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
301	01	00	000	2018	0	St Helens	301	04	74	000	2018	1	Rainier
301	02	00	000	2018	0	Scappoose	301	04	00	000	2018	0	Rainier
301	02	74	000	2018	0	Scappoose	301	05	00	000	2018	0	Clatskanie
301	02	77	000	2018	0	Scappoose	301	06	00	000	2018	0	Rural St Helens
301	03	00	000	2018	0	Vernonia							

Adjustment Calculation Summary

Sample - Number of Sales	1	RECALCULATED		
Population - Number of Accounts	66			
Sales as a percentage of the Population	1.52 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	18,124,340	75.37 %	18,124,340	75.37 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	5,859,310	24.36 %	5,859,310	24.36 %
Farm Improvement RMV	65,050	0.27 %	65,050	0.27 %
SelectedRatioFromSales	100			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	100 2018	Adjustment	100	

Explanation

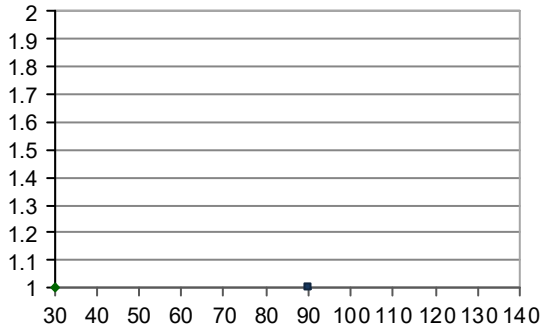
RMV 301: MA 01 SA 00, 01, 74; MA 02 SA 00, 74; MA 03 SA 00, 74; MA 04 SA 00, 74; MA 05 SA 00, 74; MA 06 SA 00, 74
 Improved Land - Industrial, Countywide
 For this study of improved industrial property, a single sale was found. Due to the limited data available, it was deemed appropriate to apply the Selected Ratio of 100. No adjustment for time was made.

Performance History

	2018	2017	2016	2015	2014
COD	0.00	-	0.00	0.00	-
PRD	1.00	-	1.00	1.00	-

COLUMBIA County 2018 Ratio Study

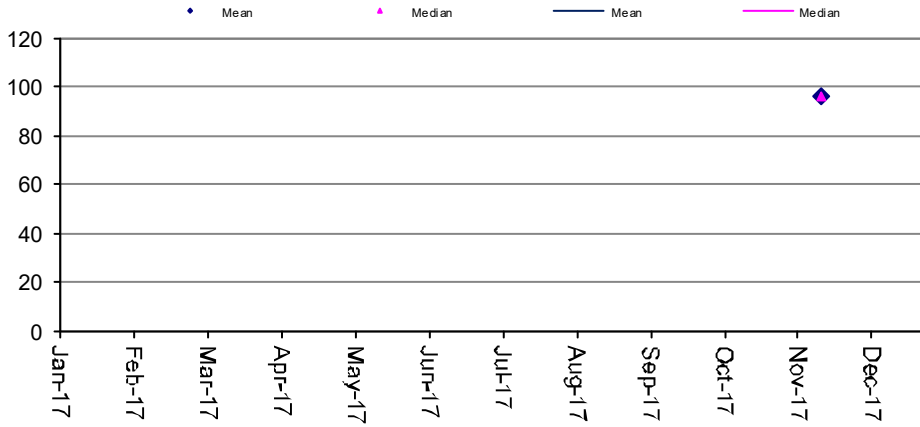
Frequency



30	0	Median	96	Wtd Mean	96
40	0	AD	0.00	GeoMean	96
50	0	COD	0.00	PRD	1.00
60	0	Mean	96	95% Confidence	1.96
70	0	SD	1.00		
80	0	COV	1.04		
90	1				
100	0				
110	0				
120	0				
130	0				
140	0				

Number Of Sales 1

Central Tendencies



Month	Mean	Median	Sales
Dec-17	96	96	1

AP AR	SA	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE NO	RATIO
04	74	000	301	595	33	7N2W07-C0-00100	2017	11622	4.41	386,680	428,560	815,240	845,000	Dec-17	1	96

*RMV CLASS 600
COUNTYWIDE
HIGHEST AND BEST USE
FORESTLAND (SA 06)*

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
600	05	06	000	2018	0	Clatskanie	600	04	06	000	2018	0	Rainier
600	03	06	000	2018	0	Vernonia	601	04	06	000	2018	0	Rainier

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	0			
Population - Number of Accounts	607			
Sales as a percentage of the Population	0.00 %			
Prior Year Population Values				
Land RMV	99,065,270	100.00 %	99,065,270	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	4,120	0.00 %	4,120	0.00 %
SelectedRatioFromSales	100			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	100	2018	Adjustment	100

Explanation

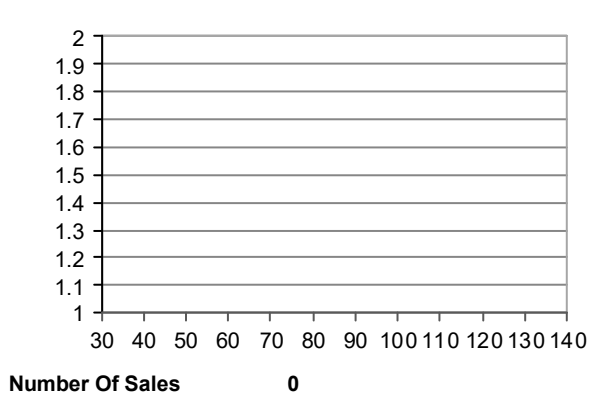
RMV 600: SA 06
 RMV 601: SA 06
 Highest & Best Use Forestland
 This grouping of Highest and Best Use Forest Land properties are located throughout Columbia County. They are large tracts of land and many have topographical issues as well as access limitations that hinder the use of the property. The Real Market Values that are applied each assessment year to H&BU properties are determined by the Department of Revenue. Therefore, no adjustment was applied.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	-
PRD	-	-	-	-	-

COLUMBIA County 2018 Ratio Study

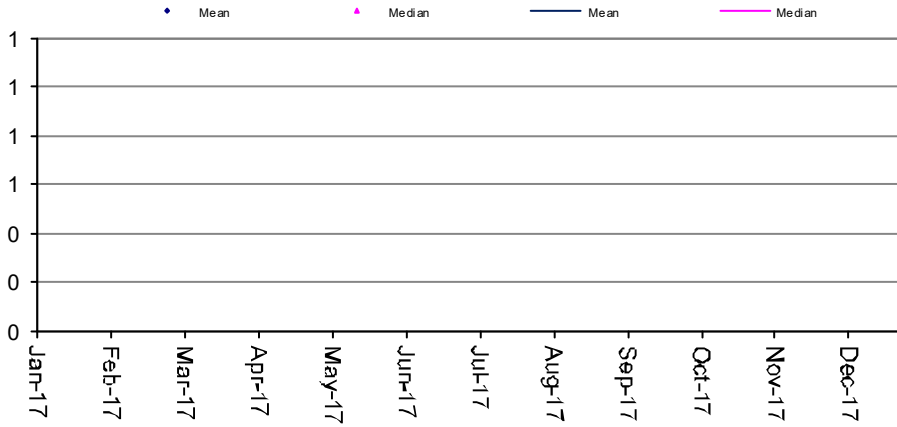
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA AR	NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK	PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA AR	NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK	PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

*RMV CLASS 701
COUNTYWIDE
MULTI FAMILY
(Five or more units)*

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
700	01	00	000	2018	0	St Helens	701	04	00	000	2018	0	Rainier
701	01	00	000	2018	0	St Helens	701	05	00	000	2018	0	Clatskanie
701	02	00	000	2018	0	Scappoose	701	06	00	000	2018	0	Rural St Helens
701	03	00	000	2018	0	Vernonia							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	0			
Population - Number of Accounts	89			
Sales as a percentage of the Population	0.00 %			
Prior Year Population Values				
Land RMV	12,249,830	21.46 %	12,249,830	21.46 %
OSD RMV	14,000	0.02 %	14,000	0.02 %
Residential Improvement RMV	44,827,070	78.52 %	44,827,070	78.52 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	100			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			

Selected Ratio 100 2018 Adjustment 100

Explanation

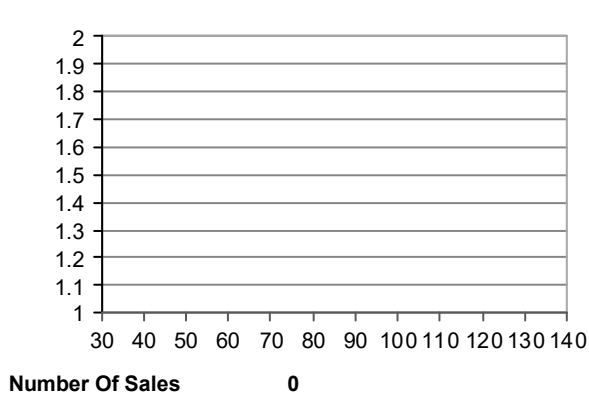
RMV 700
 RMV 701
 Un-improved and improved land - H & B Use Multi-Family (Apartments), Countywide
 For this analysis of Multi-Family property (apartments), no sales information was found. Because of the lack of sales data available, it was decided to use 100 as the Selected Ratio. No time adjustment was applied.

Performance History

	2018	2017	2016	2015	2014
COD		5.00	0.00	0.00	-
PRD		1.05	1.00	1.00	-

COLUMBIA County 2018 Ratio Study

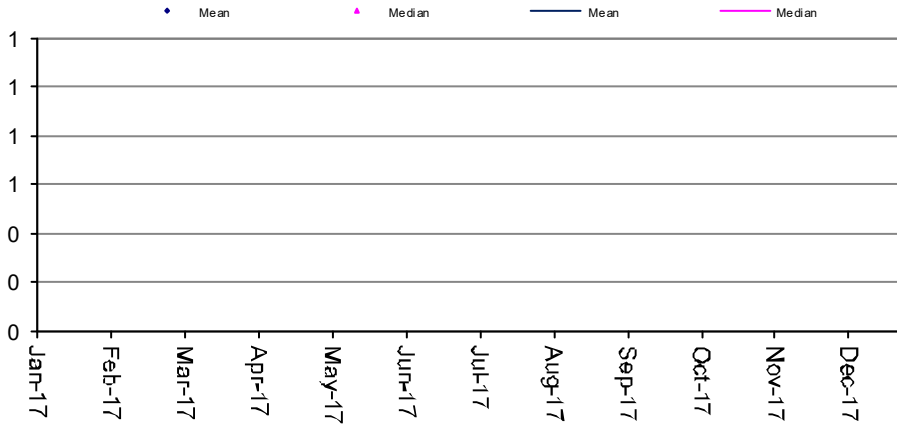
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

*RMV CLASS 8XX
COUNTYWIDE
RECREATIONAL
LAND*

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
800	01	00	000	2018	0	St Helens	800	05	55	000	2018	0	Clatskanie
800	01	15	000	2018	0	St Helens	800	05	00	000	2018	0	Clatskanie
800	02	00	000	2018	0	Scappoose	800	05	51	000	2018	0	Clatskanie
800	02	73	000	2018	0	Scappoose	800	06	61	000	2018	0	Rural St Helens
800	02	72	000	2018	0	Scappoose							
800	04	00	000	2018	0	Rainier							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	0			
Population - Number of Accounts	32			
Sales as a percentage of the Population	0.00 %			
Prior Year Population Values				
Land RMV	130,530	100.00 %	130,530	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %

SelectedRatioFromSales	100
RMV Adjustment	100
Before Ratio	100
Overall Adjustment Factor	100
Land Adjustment Factor	100
OSD Adjustment Factor	100
Residential Adjustment Factor	100
Farm Improvement Factor	100
After Ratio	100

Selected Ratio 100 2018 Adjustment 100

Explanation

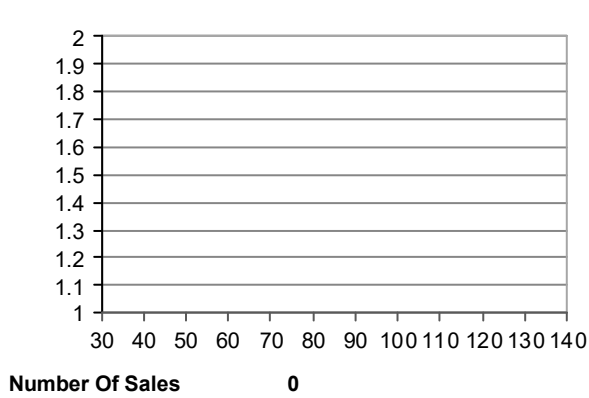
RMV 800: MA 01 SA 00, SA 15; MA 02 SA 00, SA 72, SA 73; MA 04 SA 00; MA 05 SA 00, SA 51, SA 55; MA 06 SA 61
 Undeveloped land - Countywide
 These properties are categorized as recreational land. Many are parks that are non-assessable and owned by varying agencies.
 Due to the unique nature of these groupings, it is recommended to make no adjustment at this time.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	-
PRD	-	-	-	-	-

COLUMBIA County 2018 Ratio Study

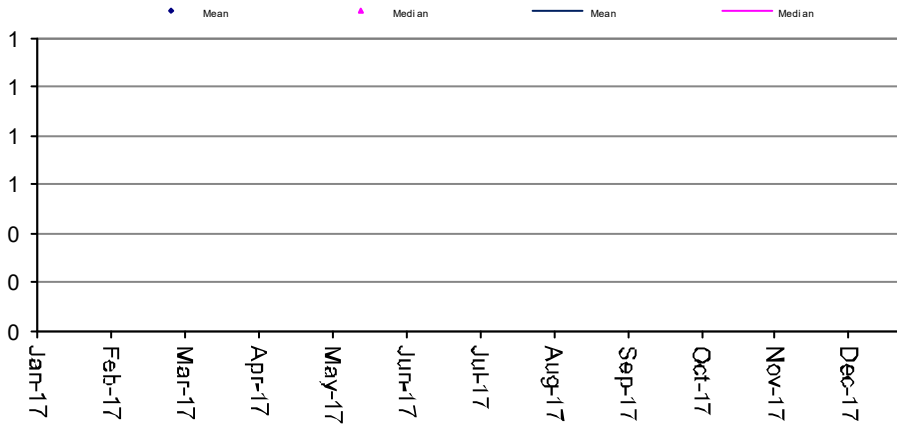
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
		CLS											

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
801	01	00	000	2018	0	St Helens	801	03	31	000	2018	0	Vernonia
801	02	00	000	2018	0	Scappoose	801	04	00	000	2018	0	Rainier
801	03	00	000	2018	0	Vernonia	801	05	36	000	2018	0	Clatskanie

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdown	Post Trend Values	Post Trend Brkdown
Sample - Number of Sales	0			
Population - Number of Accounts	14			
Sales as a percentage of the Population	0.00 %			
Prior Year Population Values				
Land RMV	39,720	100.00 %	39,720	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	100			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	100	2018	Adjustment	100

Explanation

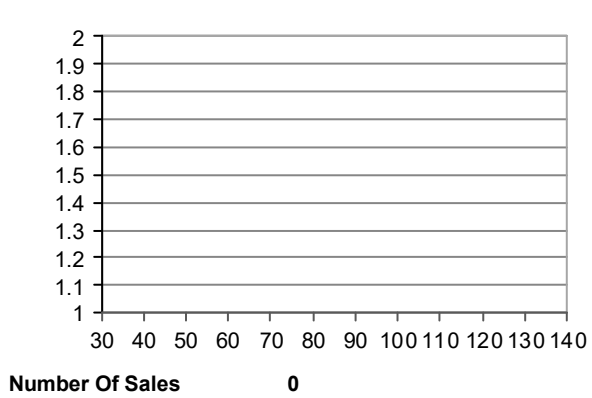
RMV 801:
 MA 01 SA 00, SA 01; MA 02 SA 00; MA 03 SA 00, SA 31; MA 04 SA 00; MA 05 SA 36
 Developed land - Countywide
 These properties are categorized as improved recreational land. Because of the distinctive nature of these groupings, it is recommended to make no adjustment at this time.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	-
PRD	-	-	-	-	-

COLUMBIA County 2018 Ratio Study

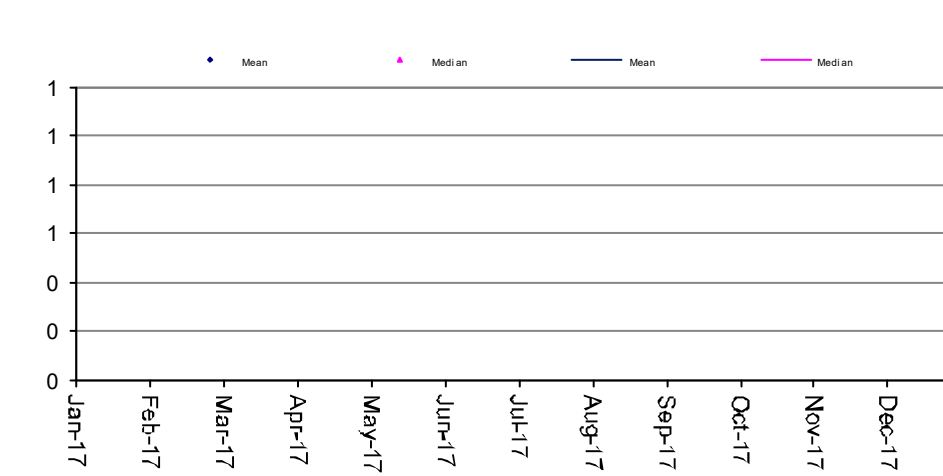
Frequency



- 30 0 Median
- 40 0 AD
- 50 0 COD
- 60 0 Mean
- 70 0 SD
- 80 0 COV
- 90 0
- 100 0
- 110 0
- 120 0
- 130 0
- 140 0

- Wtd Mean
- GeoMean
- PRD
- 95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

*ODD LOTS
COUNTYWIDE
RMV CLASS 010
RMV CLASS 020
RMV CLASS 030
RMV CLASS 040*

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
010	01	00	000	2018	0	St Helens	010	05	00	000	2018	0	Clatskanie
010	03	00	000	2018	0	Vernonia	010	06	00	000	2018	0	Rural St Helens
010	03	03	000	2018	0	Vernonia	010	02	00	000	2018	0	Scappoose
010	04	00	000	2018	0	Rainier							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	0			
Population - Number of Accounts	132			
Sales as a percentage of the Population	0.00 %			
Prior Year Population Values				
Land RMV	67,361	87.66 %	67,361	87.66 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	9,480	12.34 %	9,480	12.34 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	100			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	100	2018	Adjustment	100

Explanation

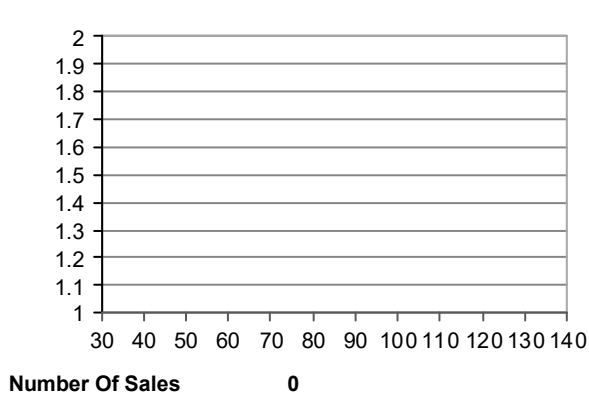
RMV 010
 Odd Lot - Unbuildable, Zoned Residential
 This study is comprised of odd lots that are not buildable due to size, DEQ denial, etc. and are located in the incorporated areas of Columbia County. They have been identified as having minimal value for assessment reasons. The improvement value displayed on this report represents paving and is considered to be of little value. Therefore, it was deemed no adjustment was warranted at this time.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	-
PRD	-	-	-	-	-

COLUMBIA County 2018 Ratio Study

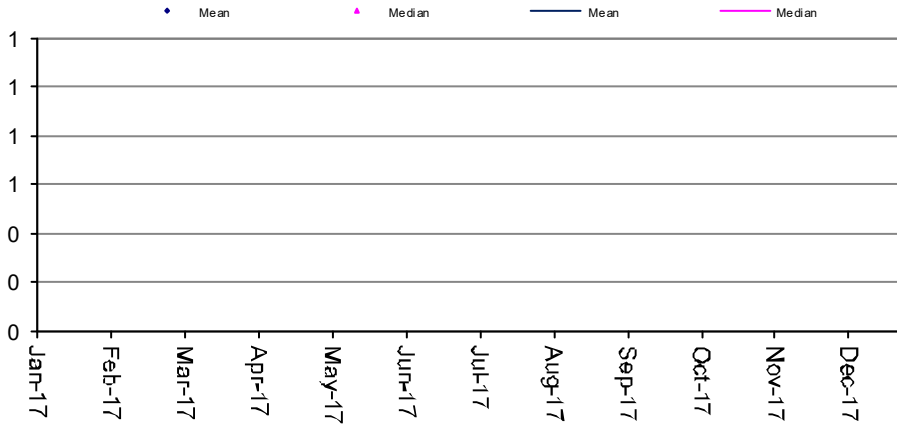
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
020	01	00	000	2018	0	St Helens	020	04	00	000	2018	0	Rainier
020	02	00	000	2018	0	Scappoose	020	05	00	000	2018	0	Clatskanie
020	03	00	000	2018	0	Vernonia							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdown	Post Trend Values	Post Trend Brkdown
Sample - Number of Sales	0			
Population - Number of Accounts	11			
Sales as a percentage of the Population	0.00 %			
Prior Year Population Values				
Land RMV	11,630	51.23 %	11,630	51.23 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	11,070	48.77 %	11,070	48.77 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	100			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	100	2018	Adjustment	100

Explanation

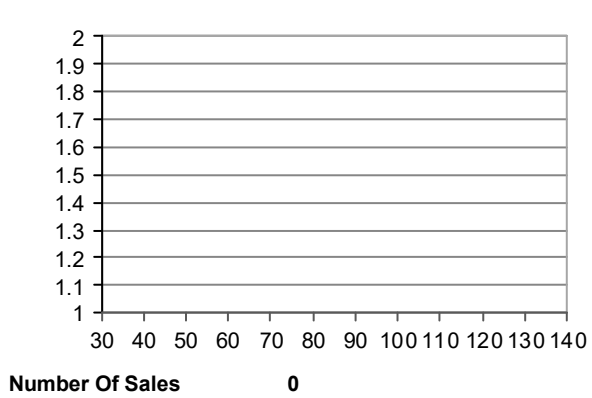
RMV 020
 Odd Lot - Unbuildable, Zoned Commercial
 These properties are zoned commercial and are located throughout Columbia County. Because of their size, shape and/or location they are considered as odd lots and have been given minimal value. It is recommended that no adjustment be made to these properties for the current year.

Performance History

	2018	2017	2016	2015	2014
COD		-	-	-	-
PRD		-	-	-	-

COLUMBIA County 2018 Ratio Study

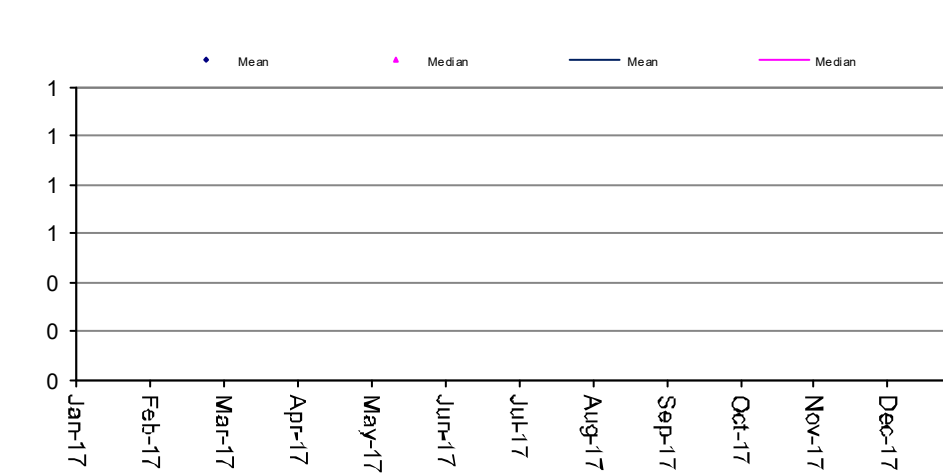
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
030	01	00	000	2018	0	St Helens	030	05	00	000	2018	0	Clatskanie
030	03	00	000	2018	0	Vernonia	030	06	00	000	2018	0	Rural St Helens
030	04	00	000	2018	0	Rainier							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdown	Post Trend Values	Post Trend Brkdown
Sample - Number of Sales	0			
Population - Number of Accounts	124			
Sales as a percentage of the Population	0.00 %			
Prior Year Population Values				
Land RMV	76,500	100.00 %	76,500	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	100			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	100 2018	Adjustment	100	

Explanation

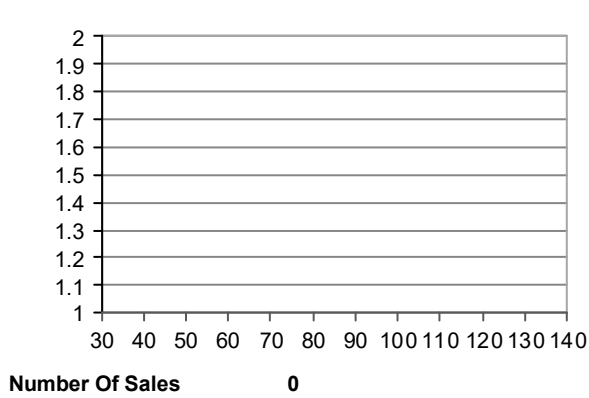
RMV 030
 Odd Lot - Unbuildable, Zoned Industrial
 This analysis is for odd lots that are zoned industrial. They are of insufficient size for development but may provide access to other sites. These properties are given a minimal value and no adjustment is recommended.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	-
PRD	-	-	-	-	-

COLUMBIA County 2018 Ratio Study

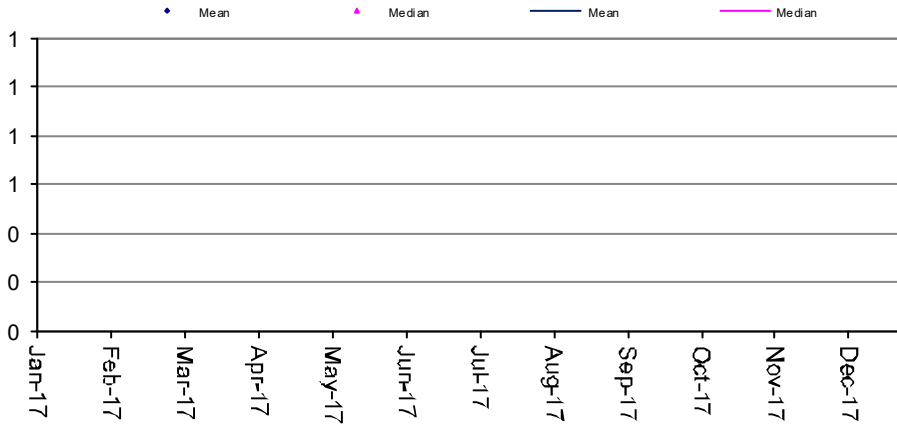
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	App Year	# of Sales	Location	RMV Class	MA	SA	NH	App Year	# of Sales	Location
040	02	00	000	2018	0	Scappoose	040	04	42	000	2018	0	Rainier
040	04	41	000	2018	0	Rainier	040	04	44	000	2018	0	Rainier
040	06	62	000	2018	0	Rural St Helens	040	05	00	000	2018	0	Clatskanie
040	02	21	000	2018	0	Scappoose	040	06	00	000	2018	0	Rural St Helens
040	03	00	000	2018	0	Vernonia	040	06	61	000	2018	0	Rural St Helens
040	04	00	000	2018	0	Rainier							

Adjustment Calculation Summary

		RECALCULATED		
		Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Sample - Number of Sales	0			
Population - Number of Accounts	156			
Sales as a percentage of the Population	0.00 %			
Prior Year Population Values				
Land RMV	250,810	100.00 %	250,810	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %

SelectedRatioFromSales	100
RMV Adjustment	100
Before Ratio	100
Overall Adjustment Factor	100
Land Adjustment Factor	100
OSD Adjustment Factor	100
Residential Adjustment Factor	100
Farm Improvement Factor	100
After Ratio	100

Selected Ratio 100 2018 Adjustment 100

Explanation

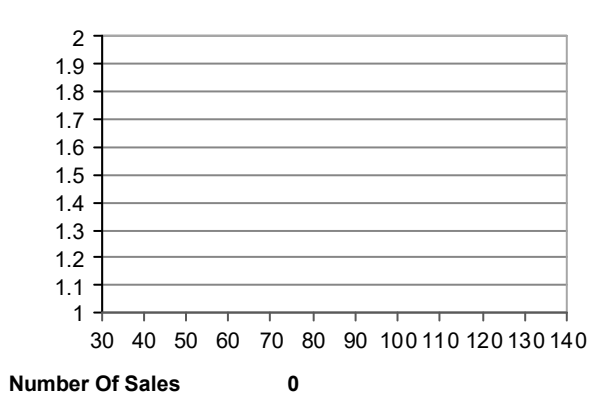
RMV 040
 Odd Lot - Unbuildable, zoning not significant
 These lots are properties located within rural Columbia County. Due to their size, shape and/or location they are considered to have minimal value. Therefore, no adjustment is to be applied for the current year.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	-
PRD	-	-	-	-	-

COLUMBIA County 2018 Ratio Study

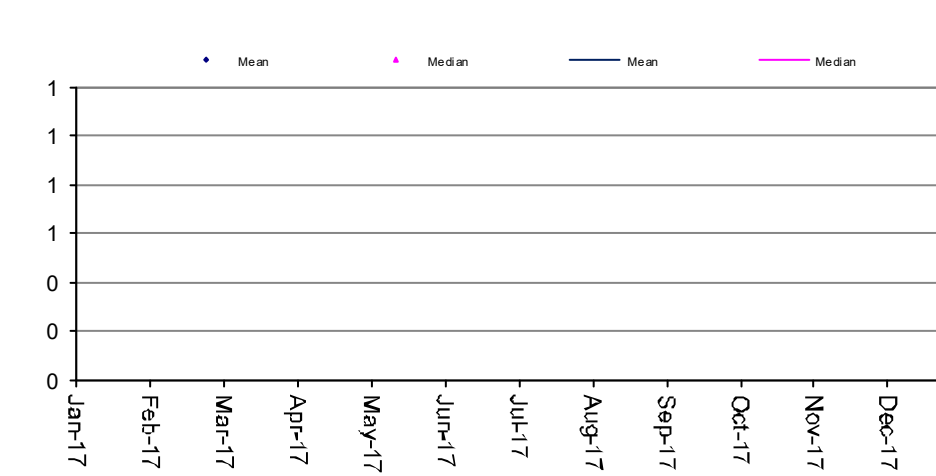
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

*ISLANDS
COUNTYWIDE
STUDY AREA 60*

COLUMBIA County 2018 Ratio Study

RMV Class	MA	SA	NH	Year	App # of Sales	Location	RMV Class	MA	SA	NH	Year	App # of Sales	Location
400	02	60	000	2018	0	Scappoose	800	05	60	000	2018	0	Clatskanie
400	05	60	000	2018	0	Clatskanie							

Adjustment Calculation Summary

Sample - Number of Sales	0	RECALCULATED		
Population - Number of Accounts	8			
Sales as a percentage of the Population	0.00 %	Pre-Trend Brkdwn	Post Trend Values	Post Trend Brkdwn
Prior Year Population Values				
Land RMV	152,800	100.00 %	152,800	100.00 %
OSD RMV	0	0.00 %	0	0.00 %
Residential Improvement RMV	0	0.00 %	0	0.00 %
Farm Improvement RMV	0	0.00 %	0	0.00 %
SelectedRatioFromSales	100			
RMV Adjustment	100			
Before Ratio	100			
Overall Adjustment Factor	100			
Land Adjustment Factor	100			
OSD Adjustment Factor	100			
Residential Adjustment Factor	100			
Farm Improvement Factor	100			
After Ratio	100			
Selected Ratio	100	2018	Adjustment	100

Explanation

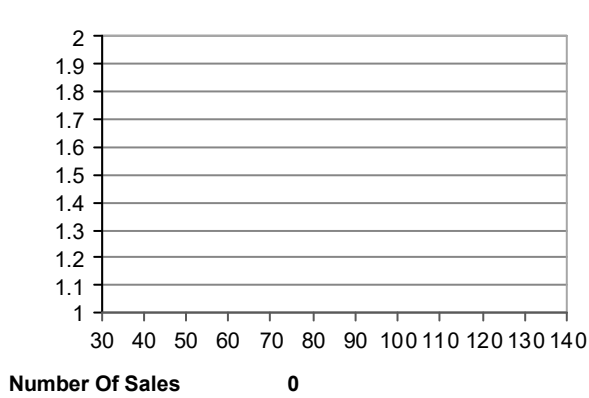
RMV 400 and 800, located in MA 02 and MA 05, SA 60 Islands
 This analysis comprises those properties located on the Columbia River (Islands). They have very little marketability due to access and development limitations. Therefore, it is recommended that no adjustment be applied.

Performance History

	2018	2017	2016	2015	2014
COD	-	-	-	-	-
PRD	-	-	-	-	-

COLUMBIA County 2018 Ratio Study

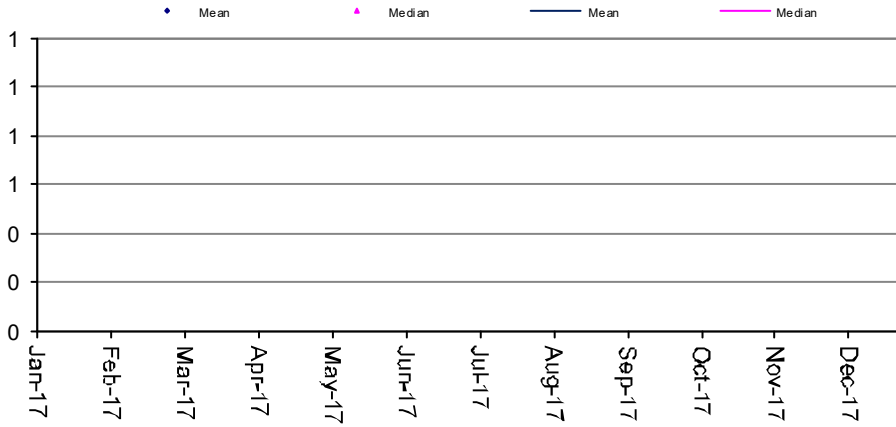
Frequency



30	0	Median
40	0	AD
50	0	COD
60	0	Mean
70	0	SD
80	0	COV
90	0	
100	0	
110	0	
120	0	
130	0	
140	0	

Wtd Mean
GeoMean
PRD
95% Confidence

Central Tendencies



Month Mean Median Sales

AP AR	SA NH	PRP CLS	BLD CLS	RJ CD	MAP NO.	BOOK PAGE	ACRES	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO
AP AR	SA NH	PR P CLS	BLD CLS	RJ CD	ACCOUNT NO	BOOK PAGE	AC	RMV LAND	RMV IMP	TOTAL VALUE	SALES PRICE	SALE DATE	SALE RATIO NO

AREAS OF CONCERN

COEFFICIENT OF DISPERSION

AND

PRICE RELATED DIFFERENTIAL

Coefficient of Dispersion

The Coefficients of Dispersion (COD) standards are defined under Oregon Administrative Rule 150-308-0380. The maximum COD standards (as illustrated below) are used by the County Assessor and the Oregon Department of Revenue to measure appraisal valuations and RMV uniformity.

Type of Property (RMV Class)	Maximum COD
Vacant Land (100, 400)	20
Real and Pers. Prop. MS	25
Urban Residential (101)	
Homogenous	10
Non-Homogenous	15
Rural Improved (101, 401)	20
Apartments (701)	12
Other Income (201)	
Large Urban	15
Smaller Rural	20

Following are the COD's for the RMV Classes that have exceeded the current standards for the 2018 ratio year. The sales used in the 2018 Ratio study are from January 1, 2017 to December 31, 2017.

MA	SA	RMV Class	Number of Accounts Affected	Current Year COD	Prior Year COD			
					1 Year	2 Years	3 Years	4Years
07	01	019	2	27.14	18.90	18.00	-	-
07	02	019	252	27.14	18.90	18.00	-	-
07	06	019	120	27.14	18.90	18.00	-	-
07	28	019	42	27.14	18.90	18.00	-	-
07	31	019	22	27.14	18.90	18.00	-	-

Explanation:

RMV Class 019 located in MA 07 SA 01, 02, 06, 28 and 31: this RMV Class is designated as personal property manufactured structures that are located in South Columbia County. Maintenance Area lines were adjusted this past year that resulted in a change in population size, RMV totals and indicators of value compared to the previous year. Our intent is to review this area for 2019 and to take action if it is deemed necessary at that time.

Price Related Differential

Following are the areas of concern or the Price Related Differential (PRD) by Maintenance Area, Study Area and RMV Class. The PRD illustrates whether valuations are reasonably equal between high and low properties

If the PRD is over 1.03, then the PRD is regressive. This means the low-value properties are overvalued and high-value properties are undervalued. (Valuations are higher than their sale price).

When the PRD is below .98, then the properties are considered progressive. This means the high-value properties are overvalued and the low-value properties are undervalued. (Valuations are lower than their sale price).

This data is from the sales file date January 1, 2017 through December 31, 2017 and has been used in the 2018 Ratio Report.

MA	SA	RMV Class	PRD	Under. 98	Over 1.03
03	31	400	1.04		X
04	41	400	.91	X	
PP MS MA 7 - SA 1, SA 2, SA 6, SA 28 & SA 31		019	1.23		X
PP MS MA 7 - SA 3, SA 4, SA 5 & SA 35		019	.97	X	
Floating Property (Floating Home) MA 1 & MA 6		111	.92	X	
Floating Property (Boathouse) All MA's		111	.64	X	

APPENDIX A
RECALCULATION
AND
REAPPRAISAL SETUPS

**2018 Annual Recalculation and Reappraisal
Setup Studies for All Residential Properties
in Columbia County for Property Tax
Assessment**



Published by the Columbia County Assessor

January 2, 2018

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INTRODUCTION

As part of our effort to provide as much information to the public as possible who are interested in how a mass appraisal system works and the steps taken to study the current market and apply our conclusions to all residential properties annually, we are publishing our setup analysis on our website. This document includes our methods, analysis, and conclusions. The raw data used for this setup is not included in this publication, however, it is available in our office.

In order to ensure statewide uniformity in administering Oregon's Property Tax Laws, the Oregon Department of Revenue (DOR) exercises its supervisory authority over the property tax system under Oregon Revised Statute (ORS) 306.115. In addition to its statewide supervisory authority, under ORS 306.120, DOR must develop and provide manuals and instruction to all county assessors to ensure uniform methods of assessments. The publication developed by DOR and used as a guide for our setup is the "Appraisal Methods" manual. This manual, along with the "Cost Factors for Residential Buildings" and "Cost Factors for Farm Buildings", can be found on and downloaded from the DOR's website at <http://www.oregon.gov/DOR/forms/>.

Summary of the Mass Appraisal of Property

Mass Appraisal is an accepted method of appraisal and is not simply a cost approach to value.

A successful mass appraisal of residential properties in a selected area is dependent on an in-depth analysis of recent sales to determine land values, local cost modifiers to apply to our cost factors, and to develop local market-based depreciation schedules based on age and condition of structures. Set-up includes establishing benchmark properties to be used in determining class quality and condition of properties being reappraised so each appraiser can be consistent. Whenever a new residential cost factor book is published by the Department of Revenue, a local class quality benchmark study is completed to increase uniformity among appraisers when determining the class quality of a dwelling. Several homes of varying ages, design and quality are selected throughout the county and compared to the class quality descriptions given in the cost factor book. A class quality benchmark notebook is developed and used during the reappraisal process in addition to the cost factor book.

Sales Reviews and Coding

All real property deeds recorded in the county clerk's office and personal property sales brought to our attention through various sources are reviewed on an ongoing basis to determine whether or not the sale meets the definition of 'Real Market Value'. Real Market Value is defined under ORS 308.205(1):

Real market value of all property, real and personal, means the amount in cash that could reasonably be expected to be paid by an informed buyer to an informed seller, each acting without compulsion in an arm's-length transaction occurring as of the assessment date for the tax year.

Each sale is coded based on the conditions of the sale, such as sale between relatives, foreclosures, confirmed market sale, etc. On sales considered to be market sales (meet the definition of real market value), the property is reviewed to determine if it is adequately described in our records. If the property is in better or worse condition, or inventory items are missing or overstated, our records are corrected to reflect the property as it sold. Only those sales that meet the definition of real market value are used in our setup studies.

Pre-appraisal and Recalculation Setup

Base Appraisal Date

Before a setup can be started, a base appraisal date must be selected. All sales data must be adjusted to this date. Generally, sales that occurred during the previous 12 months are used for the setup studies. However, when there are insufficient sales for a study, sales for the last 2 or more years may be included.

Time Study

A time study must be completed to determine if the market has been steady or if a time adjustment must be applied to all sales used in the study to adjust the sales prices to the base appraisal date.

Land Values

Bare land sales in each Maintenance Area (MA) and Study Area (SA) are analyzed and graphed according to size and time adjusted sale price. This data is used to determine the typical value per acre (or square foot) of land for different size parcels and is converted to a land table used to calculate the land value of a property. Typical on-site development costs are gathered by obtaining cost data from general contractors and utility companies to determine the amount of on-site development (OSD) to add to the land value on improved properties. When there are not enough vacant land sales in a specific area to develop a land schedule, the improved sales for that area are set aside to use after the LCM and Depreciation Studies have been completed in order to 'extract' the land value from the sales price.

Local Cost Modifier (LCM)

In order to adjust the "Cost Factor Book for Residential Buildings" provided by the Department of Revenue to reflect local area costs, sales of new homes are analyzed. With the land study complete, the calculated land value and OSD are subtracted from the time adjusted sales price to determine the residual value attributed to the new home. Using the cost factor book, a replacement cost is calculated for the new home and accessory improvements. The residual value is then divided by the replacement cost new to determine the local cost modifier to be applied to the cost factor book for all improvements. If there are limited sales of properties with new homes, an analysis of homes that were built by a contractor hired by the land owner is included. The total contractor price is divided by the replacement cost new to determine a local cost modifier. In the absence of any sales data, local contractors are contacted to try to

determine an appropriate local cost modifier. This is generally the method used for general purpose and farm buildings. A separate LCM is calculated for conventional dwellings, manufactured dwellings, floating property and farm buildings.

Depreciation Study

Sales of improved properties are analyzed based on age and condition. Only verified market sales are used. The calculated land value and OSD are subtracted from the time adjusted sales price of each property to determine the residual value attributable to the dwelling and accessory improvements. A replacement cost new with the local modifier applied is calculated for the dwelling and any accessory improvements. The residual value is then divided by the adjusted replacement cost new to determine the depreciation for that age and condition. Once all the sales have been analyzed, the data is graphed based on age and condition to develop a depreciation schedule that is based on effective age. A separate schedule is created to restrict effective year to be selected based on physical age and noted condition (poor, fair, average, good, excellent). This ensures consistency among appraisers when selecting an effective age that is different than the physical age of a structure. A separate depreciation study is conducted for conventional single family dwellings, multi-family dwellings, manufactured dwellings sited on real property (same ownership and considered real property), manufactured dwellings sited in a park or other leased site (these are considered personal property), and floating property. A straight line depreciation schedule is used for general purpose and farm buildings, since it is not possible to extract enough data to base their depreciation on sales.

Adjustment Study

During the previous studies, sales of properties identified as having potential adjustments due to topography, views, or other unique features are set aside to determine the value of various factors that may influence value. After all studies have been completed, including the extraction method for determining land values in areas with insufficient vacant land sales, these sales are analyzed based on the type of adjustment and the area they are located in, however, if there is insufficient data, nearby areas may be combined in the study. By comparing the total sales price of the sold property with the total calculated cost of land, OSD and depreciated dwelling, the difference gives an indication of the value of the adjustment.

Reappraisal vs. Recalculation

Physical Reappraisal

With resources becoming more limited, very few interior inspections are completed during a reappraisal. The appraiser will determine class quality and condition of the structures from the exterior, attempt to contact owner to verify inventory at the door, and note any necessary adjustments for topography, views or any other factor that would likely have an effect on the value. The last appraisal diagram and inventory are reviewed to determine if there have been any changes to the property. The value of the property is calculated electronically using the factors developed in the setup study.

Recalculation

Recalculation is an electronic revaluation of properties based on factors developed during the setup study and the existing inventory in our system. These properties are not visited to determine if any changes have taken place, however, the recalculation is a more reliable method of maintaining accurate real market values rather than relying solely on a ratio study to determine overall market trends.

New Construction

New construction throughout the county is physically inspected and appraised using the setup factors for the area.

Ratio Study

A ratio study is an analysis of sales in all study areas to determine the percentage of market increase or decrease in each study area since the base appraisal date selected in our setup. The study separates properties by type, such as commercial, industrial or residential, by location or study area, and by improved or vacant. All sales are time adjusted to the assessment date of January 1 before comparing to our current value. Once complete, the resulting trends are electronically applied to all properties prior to certifying the assessment roll.

2018 Time Study Analysis and Conclusions

Time Trend Study for all Maintenance Areas (MA)

Analysis

Before any setup studies can be conducted, a time trend for each Maintenance Area must be completed to adjust sales to the selected base appraisal date. The selected base appraisal date for the 2018 reappraisal and recalculation of residential properties countywide is January 1, 2017. A separate time study was completed for City Residential Property and Rural Residential Property in each Maintenance Area.

All sales of residential properties that occurred between January 1, 2016 and December 31, 2016 that reflected real market value were extracted from our sales files. The sales were separated based on Maintenance Area and property type (city or rural). The total sales price of all properties for each area was compared to our January 1, 2016 base RMV of the same properties, which gives an estimated market trend for the entire 2016 year. The trend is divided by 12 in order to give a per month percentage to apply to each sales price, based on the month in which the sale occurred, and used in our setup studies to reflect a sales price as of January 1, 2017.

Some studies required additional data before we were able to establish a reliable conclusion for the study. For this purpose, another time trend study was completed on properties that sold between January 1, 2017 and June 30, 2017, and separated based on Maintenance Area and property type (city or rural). The total sales price of all properties for each area was compared to our January 1, 2017 certified values (January 1, 2016 base RMV times the market trend from the 2017 Ratio Study) which gives an estimated market trend for the first half of 2017. The trend was divided by 6 in order to give a per month percentage to apply to each sales price, based on the month in which the sale occurred, and used in our setup studies to reflect a sales price as of January 1, 2017.

Conclusions

Based on the supporting data collected, there is sufficient sales data to estimate the market trends to be used to time trend sales to the base appraisal date of January 1, 2018 for city residential property and rural residential property in each maintenance area.

Time Trend Factors to be Applied to Sales Used for the 2018 Residential Setup Studies

Time Trend Rate for 2016 Sales to Reflect Base Appraisal Date of January 1, 2017				
CITY RESIDENTIAL	AREA	NO. OF SALES	ANNUAL TREND	PER MONTH TREND
Saint Helens	MA 1	210	0.1474	0.0123
Scappoose	MA 2	110	0.1792	0.0149
Vernonia	MA 3	42	0.1155	0.0096
Rainier	MA 4	20	0.0084	0.0007
Clatskanie	MA 5	23	0.0207	0.0017
Columbia City	MA 6	30	0.1569	0.0131
RURAL RESIDENTIAL	AREA	NO. OF SALES	ANNUAL TREND	PER MONTH TREND
Rural Scappoose	MA 2	42	0.0979	0.0082
Rural Vernonia	MA 3	35	-0.1392	-0.0116
Rural Rainier	MA 4	30	0.0359	0.0030
Rural Clatskanie	MA 5	34	0.1093	0.0091
Rural Saint Helens	MA 6	77	0.0832	0.0069

Time Trend Rate for 2017 Sales to Reflect Base Appraisal Date of January 1, 2017				
CITY RESIDENTIAL	AREA	NO. OF SALES	ANNUAL TREND	PER MONTH TREND
Saint Helens	MA 1	109	0.0949	0.0158
Scappoose	MA 2	49	0.0560	0.0093
Vernonia	MA 3	21	0.0379	0.0063
Rainier	MA 4	15	0.0446	0.0074
Clatskanie	MA 5	19	0.0141	0.0024
Columbia City	MA 6	13	0.0053	0.0009
RURAL RESIDENTIAL	AREA	NO. OF SALES	ANNUAL TREND	PER MONTH TREND
Rural Scappoose	MA 2	11	-0.0714	-0.0119
Rural Vernonia	MA 3	12	0.0154	0.0026
Rural Rainier	MA 4	25	-0.0419	-0.0070
Rural Clatskanie	MA 5	23	0.0123	0.0021
Rural Saint Helens	MA 6	38	-0.0069	-0.0012

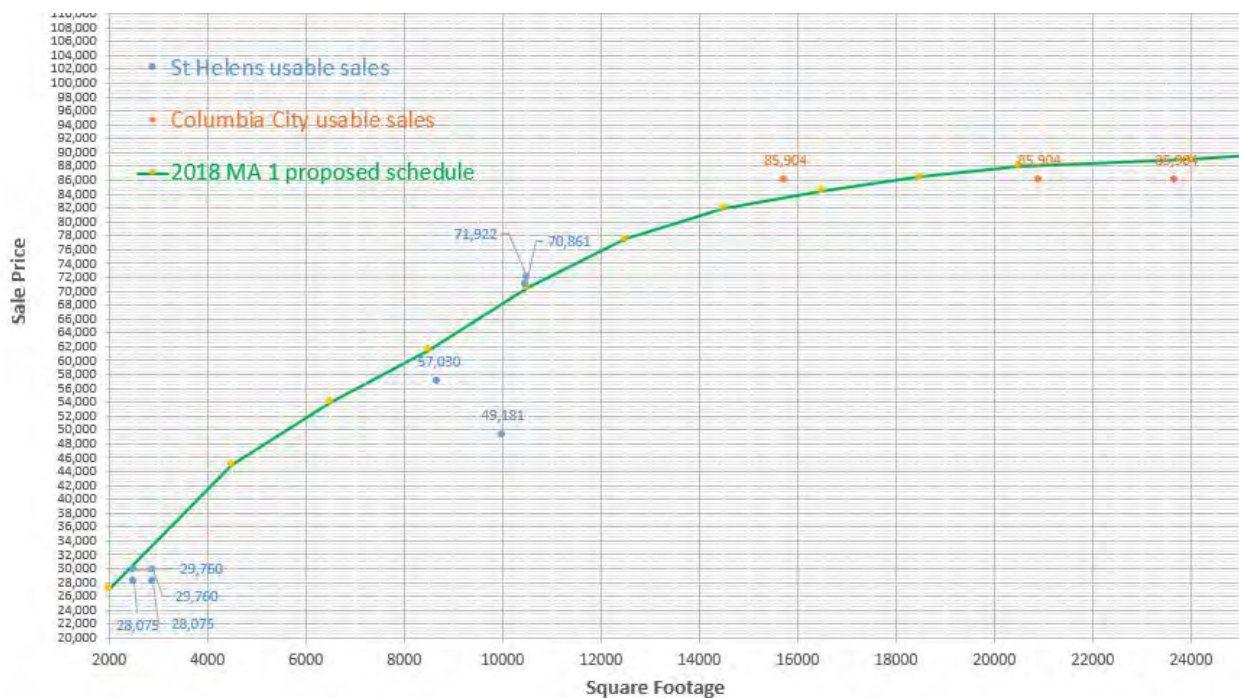
2018 Land Analysis and Conclusions

Maintenance Area (MA) 1, City of Saint Helens Land Setup

Analysis

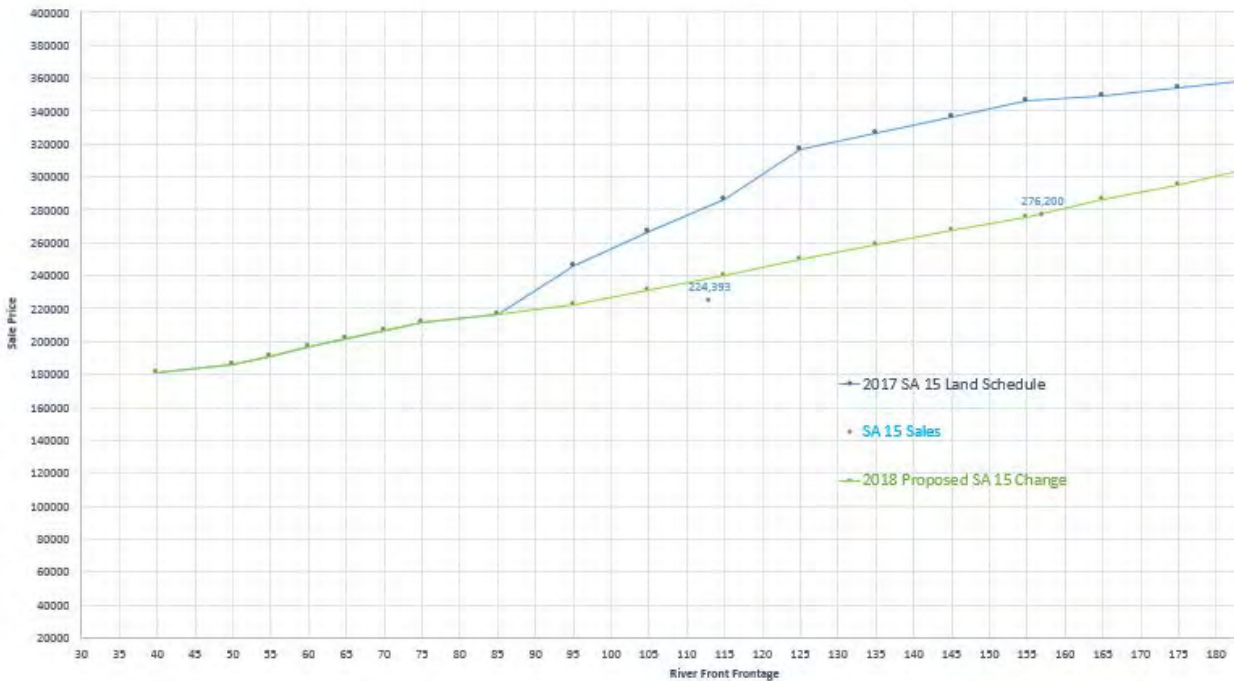
For 2018, MA 1 boundary lines were moved and adjusted with adjacent MA 6. The boundaries were shifted and balanced due to growth for management/maintenance purposes. This change resulted in moving Columbia City into MA 6, with no other changes made to MA 1. There were 14 sales within Saint Helens, of which 8 were considered usable and 6 were considered unusable because of topography issues and or view adjustments. A bulk sale of 4 smaller lots were included in this analysis. The use of this bulk sale is considered to be reasonable, as these 4 lots were similar in size and already partitioned. They were simply recorded on 1 deed by seller. Due to the close proximity to Saint Helens, 3 Columbia City sales were considered for analysis. When sales data from both Saint Helens and Columbia City were analyzed, the results between the two appeared to be similar. All sales analyzed were time trended to the base appraisal date of 1/1/17. The data compiled for analysis is considered to provide sufficient support for creating a new land schedule for SA 00.

2018 MA 1 City Base Land Sales Graph



SA 15 had 2 usable land sales that when plotted against the previous year's land schedule indicated a slight reduction for properties that had more than 85' of river frontage.

2018 MA 1 and MA 6 City Riverfront Land Sales Graph



Due to the lack of City Acreage sales data within Columbia City and St Helens, the need to expand the search to nearby Scappoose was warranted. Scappoose has recently seen several city acreage sales that were sold for subdivision development, which provides reasonable and credible data for a city acreage land schedule. When analyzing residential lot sales data between City of Scappoose versus Columbia City/Saint Helens, land values indicate a 45% reduction between the areas. By reducing the City of Scappoose sales-based City Acreage land schedule by 45%, the resulting value provides a reasonable and credible City Acreage land schedule for both Columbia City and Saint Helens.

Conclusions

Based on the supporting data collected, there is sufficient sales data for the creation of a new 2018 land schedule for SA 00. SA 30 and SA 43 will also use the SA 00 land schedule as these areas have very similar land characteristics.

SA 15 sales were limited but the data provided sufficient information to modify the 2017 schedule to be used for the 2018 land schedule.

Based on supporting data, the city acreage land schedules for Saint Helens and Columbia City will reflect a value that is 45% less than the City of Scappoose city acreage land schedule for 2018.

MA 1 City of Saint Helens Recalculation Land Schedules for 2018

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)

LUC = Land Use Code (Type of land value schedule used for assessment)

001 = Residential City Under an Acre – Square Feet

002 = Residential City Acreage – Acres

005 = Residential Riverfront – Front Footage

SA 00 LUC 001 General Saint Helens		
Size (sq. ft.)		Total Value
From	To	
1	4500	45,000
4501	6500	54,000
6501	8500	61,500
8501	10500	70,500
10501	12500	77,500
12501	14500	82,000
14501	16500	84,500
16501	18500	86,500
18501	20500	88,000
20501	24000	89,000
24001	28000	91,000
28001	32000	93,000
32001	40000	96,000
40001	43560	98,000

SA 30 LUC 001 Duplex, Triplex, Fourplex		
Size (sq. ft.)		Total Value
From	To	
1	4500	45,000
4501	6500	54,000
6501	8500	61,500
8501	10500	70,500
10501	12500	77,500
12501	14500	82,000
14501	16500	84,500
16501	18500	86,500
18501	20500	88,000
20501	24000	89,000
24001	28000	91,000
28001	32000	93,000
32001	40000	96,000
40001	43560	98,000

SA 00 LUC 002 City Acreage		
Size (Acres)		Value Per Acre
From	To	
0.01	999999	65,390

SA 15 LUC 005 Riverfront		
Size (front footage)		Total Value
From	To	
0	40	181450
41	50	186450
51	55	191450
56	60	196450
61	65	201450
66	70	206450
71	75	211450
76	85	216450
86	95	222000
96	105	231000
106	115	240000
116	125	250000
126	135	259000
136	145	268000
146	155	276000
156	165	286000
166	175	295000
176	185	306000
186	195	316000
196	999999	318000

SA 80 LUC 001 Yachts Landing PUD		
Size (sq. ft.)		Total Value
From	To	
1	4500	45,000
4501	6500	54,000
6501	8500	61,500
8501	10500	70,500
10501	12500	77,500
12501	14500	82,000
14501	16500	84,500
16501	18500	86,500
18501	20500	88,000
20501	24000	89,000
24001	28000	91,000
28001	32000	93,000
32001	40000	96,000
40001	43560	98,000

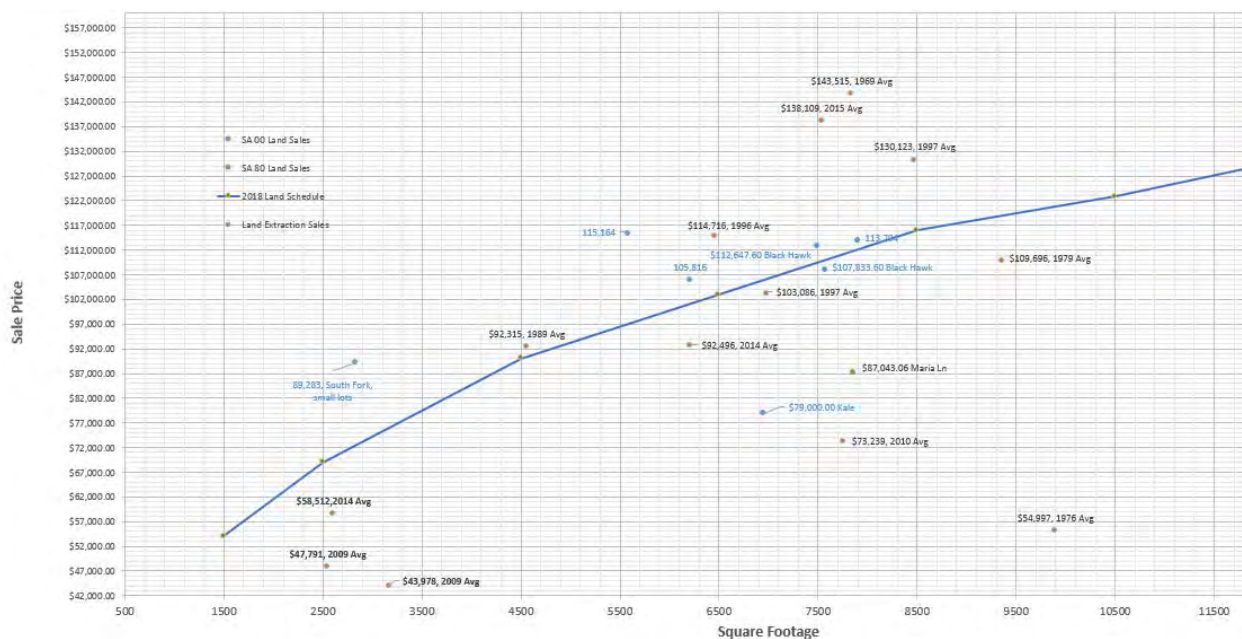
SA 43 LUC 001 Townhouse, Rowhouse		
Size (sq. ft.)		Total Value
From	To	
1	3500	35,120
3501	4500	45,000
4501	6500	54,000
6501	8500	61,500
8501	10500	70,500
10501	12500	77,500
12501	14500	82,000
14501	16500	84,500
16501	18500	86,500
18501	20500	88,000
20501	24000	89,000
24001	28000	91,000
28001	32000	93,000
32001	40000	96,000
40001	43560	98,000

Maintenance Area (MA) 2, City of Scappoose Land Setup

Analysis

For 2018, the City of Scappoose vacant land sales were mostly comprised of newly created subdivisions where the lots were sold in bulk to contractors. There were only 4 sales that were not in these subdivisions located in SA 00. The sales were time trended to the base appraisal date of 1/1/17. The plotted sales on the graph did not give a good indication of value. Due to not having enough data to support a base lot value for the city, more data was needed. In order to create a more supportable land schedule, the land extraction method was used. This method uses improved property sales trended to the base appraisal date, and then subtract the calculated OSD and depreciated replacement cost of the structures to get the residual value for land only. There were 18 improved sales in SA 00 that were used. The residual land values were plotted on the same graph as the bare land sales. This provided us enough data to support a new land schedule.

2018 MA 2 City Base Land Sales Graph



There were 4 City Acreage sales in Scappoose ranging from 1.25 acres to 15.03 acres. The price per acre for these sales ranged from \$90,000 to \$140,000, and resulted in an overall average price per acre of 119,540.

Conclusions

Based on the supporting data, a new 2018 land schedule for SA 00 has been created. This schedule will also be used for SA 28, SA 33, SA 79 and SA 80 due to lack of sales in those areas and similar land characteristics.

Based on the 4 city acreage sales of raw vacant land with a highest and best use for future subdivision development, the city acreage schedule for 2018 will be \$119,540 per acre.

MA 2 City of Scappoose Recalculation Land Schedules for 2018

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)

LUC = Land Use Code (Type of land value schedule used for assessment)

001 = Residential City Under an Acre – Square Feet

002 = Residential City Acreage – Acres

SA 00 LUC 001 General Scappoose		
Size (sq. ft.)		Total Value
From	To	
1	2500	69,000
2501	4500	90,000
4501	6500	103,000
6501	8500	116,000
8501	10500	122,850
10501	12500	131,250
12501	14500	137,030
14501	16500	144,710
16501	18500	149,850
18501	20500	154,160
20501	24000	160,320
24001	28000	168,560
28001	32000	176,960
32001	40000	192,800
40001	43560	200,380

SA 28 LUC 001 Duplex, Triplex, Fourplex		
Size (sq. ft.)		Total Value
From	To	
1	4500	90,000
4501	6500	103,000
6501	8500	116,000
8501	10500	122,850
10501	12500	131,250
12501	14500	137,030
14501	16500	144,710
16501	18500	149,850
18501	20500	154,160
20501	24000	160,320
24001	28000	168,560
28001	32000	176,960
32001	40000	192,800
40001	43560	200,380

SA 33 LUC 001 Townhouse, Rowhouse, Common Wall		
Size (sq. ft.)		Total Value
From	To	
1	2500	69,000
2501	4500	90,000
4501	6500	103,000
6501	8500	116,000
8501	10500	122,850
10501	12500	131,250
12501	14500	137,030
14501	16500	144,710
16501	18500	149,850
18501	20500	154,160
20501	24000	160,320
24001	28000	168,560
28001	32000	176,960
32001	40000	192,800
40001	43560	200,380

SA 79 LUC 001 Keys Landing, Keys Crest, Keys Orch		
Size (sq. ft.)		Total Value
From	To	
1	4500	90,000
4501	6500	103,000
6501	8500	116,000
8501	10500	122,850
10501	12500	131,250
12501	14500	137,030
14501	16500	144,710
16501	18500	149,850
18501	20500	154,160
20501	24000	160,320
24001	28000	168,560
28001	32000	176,960
32001	40000	192,800

SA 80 LUC 001 Columbia River View Estates		
Size (sq. ft.)		Total Value
From	To	
1	4500	90,000
4501	6500	103,000
6501	8500	116,000
8501	10500	122,850
10501	12500	131,250
12501	14500	137,030
14501	16500	144,710
16501	18500	149,850
18501	20500	154,160
20501	24000	160,320
24001	28000	168,560
28001	32000	176,960
32001	40000	192,800

SA 00 LUC 002 City Acreage		
Size (Acres)		Total Value
From	To	
0.01	999999	119,540

40001	43560	200,380	40001	43560	200,380
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Maintenance Area (MA) 2, Rural Scappoose Land Setup

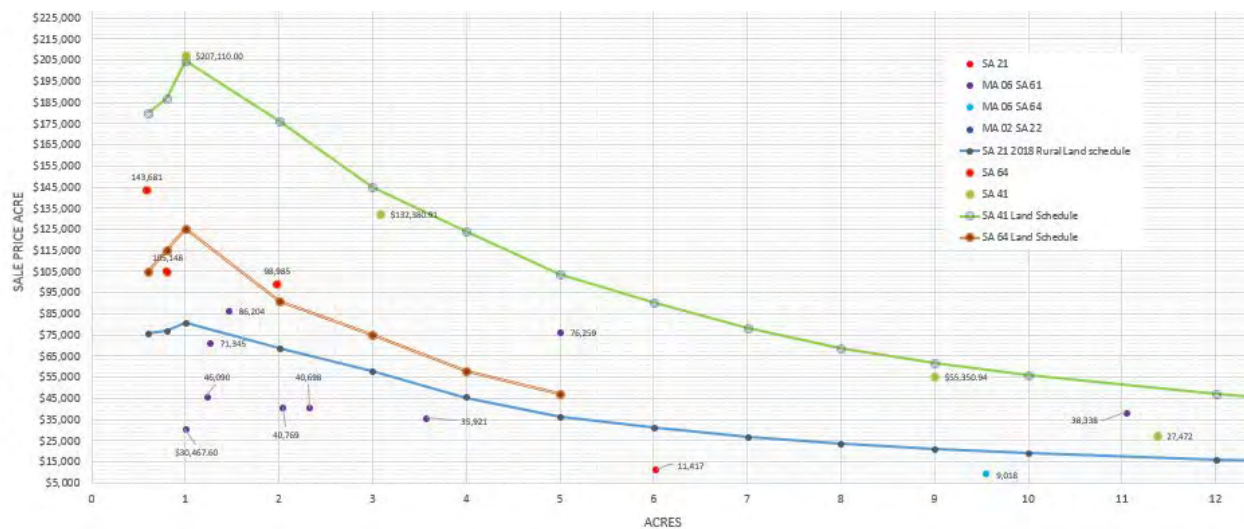
Analysis

For 2018, MA 2 boundary lines were moved and adjusted with adjacent MA 3 and 6. The boundaries were shifted and balanced due to growth for management/maintenance purposes. Land sales from nearby MA 6 with similar characteristics and market appeal were used due to a limited number of sales available in MA 2. There were 35 vacant land sales of which 22 were useable for the vacant land study. These sales were site visited and time trended to the base appraisal date of 1/1/17. The data supported a new land schedule for SA 21.

The land sales in SA 64 and 63 showed differences in market values, views and topography when compared to SA 21, therefore, a new land schedule was created.

Due to the lack of vacant land sales, the extraction method was used for SA 41. There were 12 sales, 5 useable for this study.

MA 2 Rural Land Sales Graph



Conclusions

Based on the supporting data, new land schedules were created for SA 21 and SA 41. SA 63 was combined into SA 64 and a new land schedule was created. Due to lack of sales in SA 25, SA 45 and SA 62, SA 21 land schedule will be used for SA 25 and SA 62, and SA 41 land schedule will be used for SA 41.

MA 2 Rural Scappoose Recalculation Land Schedules for 2018

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)

LUC = Land Use Code (Type of land value schedule used for assessment)

003 = Residential Rural Tract – Acres

SA 21 LUC 003 Scappoose Value Zone 1		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	76,000
0.61	0.80	77,000
0.81	1.00	81,000
Over 1 Acre		Per Acre
1.01	2.00	69,000
2.01	3.00	58,000
3.01	4.00	45,500
4.01	5.00	36,500
5.01	6.00	31,000
6.01	7.00	26,600
7.01	8.00	23,500
8.01	9.00	21,000
9.01	10.00	19,000
10.01	12.00	16,000
12.01	14.00	14,000
14.01	16.00	12,500
16.01	18.00	11,500
18.01	20.00	10,400
20.01	25.00	8,400
25.01	30.00	7,100
30.01	35.00	6,100
35.01	40.00	5,400
40.01	50.00	5,000
50.01	60.00	4,500
60.01	80.00	4,200
80.01	999999.00	4,000

SA 41 LUC 003 Sauvie Island Value Zone 1		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	180,000
0.61	0.80	187,000
0.81	1.00	205,000
Over 1 Acre		Per Acre
1.01	2.00	176,000
2.01	3.00	145,200
3.01	4.00	124,300
4.01	5.00	103,400
5.01	6.00	90,200
6.01	7.00	78,100
7.01	8.00	68,750
8.01	9.00	61,600
9.01	10.00	56,100
10.01	12.00	46,970
12.01	14.00	40,370
14.01	16.00	35,750
16.01	18.00	31,900
18.01	20.00	28,820
20.01	25.00	23,100
25.01	30.00	19,470
30.01	35.00	16,720
35.01	40.00	14,850
40.01	50.00	12,100
50.01	60.00	11,000
60.01	80.00	10,200
80.01	999999.00	9,700

SA 62 LUC 003 Freeman Road		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	76,000
0.61	0.80	77,000
0.81	1.00	81,000
Over 1 Acre		Per Acre
1.01	2.00	69,000
2.01	3.00	58,000
3.01	4.00	45,500
4.01	5.00	36,500
5.01	6.00	31,000
6.01	7.00	26,600
7.01	8.00	23,500
8.01	9.00	21,000
9.01	10.00	19,000
10.01	12.00	16,000
12.01	14.00	14,000
14.01	16.00	12,500
16.01	18.00	11,500
18.01	20.00	10,400
20.01	25.00	8,400
25.01	30.00	7,100
30.01	35.00	6,100
35.01	40.00	5,400
40.01	50.00	5,000
50.01	60.00	4,500
60.01	80.00	4,200
80.01	999999.00	4,000

MA 2 Rural Scappoose Recalculation Land Schedules for 2018 (continued)

SA 25 LUC 003 Scappoose Dikeland		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	76,000
0.61	0.80	77,000
0.81	1.00	81,000
Over 1 Acre		Per Acre
1.01	2.00	69,000
2.01	3.00	58,000
3.01	4.00	45,500
4.01	5.00	36,500
5.01	6.00	31,000
6.01	7.00	26,600
7.01	8.00	23,500
8.01	9.00	21,000
9.01	10.00	19,000
10.01	12.00	16,000
12.01	14.00	14,000
14.01	16.00	12,500
16.01	18.00	11,500
18.01	20.00	10,400
20.01	25.00	8,400
25.01	30.00	7,100
30.01	35.00	6,100
35.01	40.00	5,400
40.01	50.00	5,000
50.01	60.00	4,500
60.01	80.00	4,200
80.01	999999.00	4,000

SA 45 LUC 003 Sauvie Island Dikeland		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	180,000
0.61	0.80	187,000
0.81	1.00	205,000
Over 1 Acre		Per Acre
1.01	2.00	176,000
2.01	3.00	145,200
3.01	4.00	124,300
4.01	5.00	103,400
5.01	6.00	90,200
6.01	7.00	78,100
7.01	8.00	68,750
8.01	9.00	61,600
9.01	10.00	56,100
10.01	12.00	46,970
12.01	14.00	40,370
14.01	16.00	35,750
16.01	18.00	31,900
18.01	20.00	28,820
20.01	25.00	23,100
25.01	30.00	19,470
30.01	35.00	16,720
35.01	40.00	14,850
40.01	50.00	12,100
50.01	60.00	11,000
60.01	80.00	10,200
80.01	999999.00	9,700

SA 64 LUC 003 Columbia Acres/Hillcrest		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	105000
0.61	0.80	115000
0.81	1.00	125000
Over 1 Acre		Per Acre
1.01	2.00	91,000
2.01	3.00	75,000
3.01	4.00	58,000
4.01	5.00	47,000

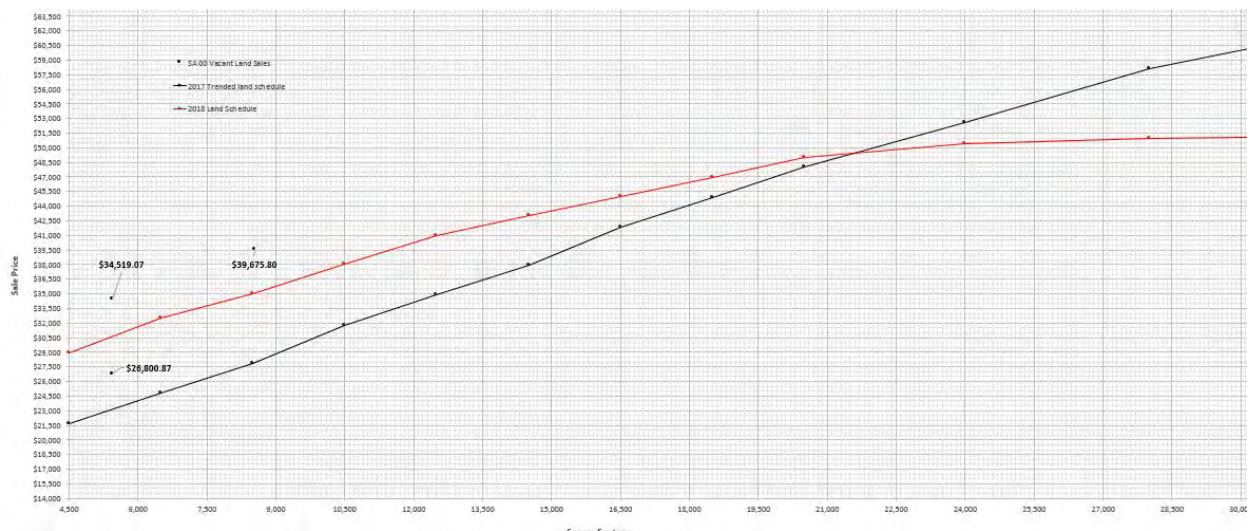
SA 64 LUC 003 Columbia Acres/Hillcrest (Unbuildable)		
Size (Lots)		Value
From	To	Lump Sum
Per Platted Lot		500

Maintenance Area (MA) 3, City of Vernonia Land Setup

Analysis

For 2018, there were 17 vacant land sales in SA 00, 1 vacant land sale in SA 03, and 0 vacant land sales in SA 38, SA 39 and SA 40. Only 3 of the sales in SA 00 were considered useable and were site visited and time trended to the base appraisal date of 1/1/17. With very limited data, the sales were compared to the previous year's trended land schedule. While the sales were for smaller lots and showed an increase in value, it is unlikely that larger parcels would have increased by the same percentage. Therefore, when a new curve was created on the graph, it was drawn to reflect a curve more typical of other cities' land data. The data compiled for analysis is considered to provide sufficient support for creating a new land schedule. At this time, the market does not indicate a difference in value for properties located in SA 03, designated floodplain.

MA 3 City Base Land Sales Graph



Conclusions

Based on the supporting data, a new land schedule was developed for SA 00. This schedule will also be used in SA 03 due to a market that does not currently support a difference. The SA 00 schedule will also be used for SA 38, SA 39 and SA 40 due to lack of sales data and similar land characteristics. There was no sales data for City Acreage, therefore, the 2017 trended land values will be used as a base value for these properties.

MA 3 City of Vernonia Reappraisal Land Schedules for 2018

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)

LUC = Land Use Code (Type of land value schedule used for assessment)

001 = Residential City Under an Acre – Square Feet

002 = Residential City Acreage – Acres

SA 00 LUC 001		
General Vernonia		
Size (sq. ft.)		Total Value
From	To	
1	4500	29,000
4501	6500	32,500
6501	8500	35,000
8501	10500	38,000
10501	12500	41,000
12501	14500	43,000
14501	16500	45,000
16501	18500	47,000
18501	20500	49,000
20501	24000	50,500
24001	28000	51,000
28001	32000	51,200
32001	40000	51,500
40001	43560	51,700

SA 03 LUC 001		
Flood Zone Properties		
Size (sq. ft.)		Total Value
From	To	
1	4500	29,000
4501	6500	32,500
6501	8500	35,000
8501	10500	38,000
10501	12500	41,000
12501	14500	43,000
14501	16500	45,000
16501	18500	47,000
18501	20500	49,000
20501	24000	50,500
24001	28000	51,000
28001	32000	51,200
32001	40000	51,500
40001	43560	51,700

SA 38 LUC 001		
Roseview Heights		
Size (sq. ft.)		Total Value
From	To	
1	4500	26,500
4501	6500	28,000
6501	8500	29,000
8501	10500	30,000
10501	12500	30,800
12501	14500	31,500
14501	16500	32,000
16501	18500	32,500
18501	20500	33,000
20501	24000	34,000
24001	28000	34,500
28001	32000	34,500
32001	40000	35,000
40001	43560	36,500

SA 40 LUC 001		
Duplex, Triplex, Fourplex		
Size (sq. ft.)		Total Value
From	To	
1	4500	26,500
4501	6500	28,000
6501	8500	29,000
8501	10500	30,000
10501	12500	30,800
12501	14500	31,500
14501	16500	32,000
16501	18500	32,500
18501	20500	33,000
20501	24000	34,000
24001	28000	34,500
28001	32000	34,500
32001	40000	35,000
40001	43560	36,500

SA 00 LUC 002		
City Acreage		
Size (Acres)		Value Per Acre
From	To	
0.01	999999	29,880

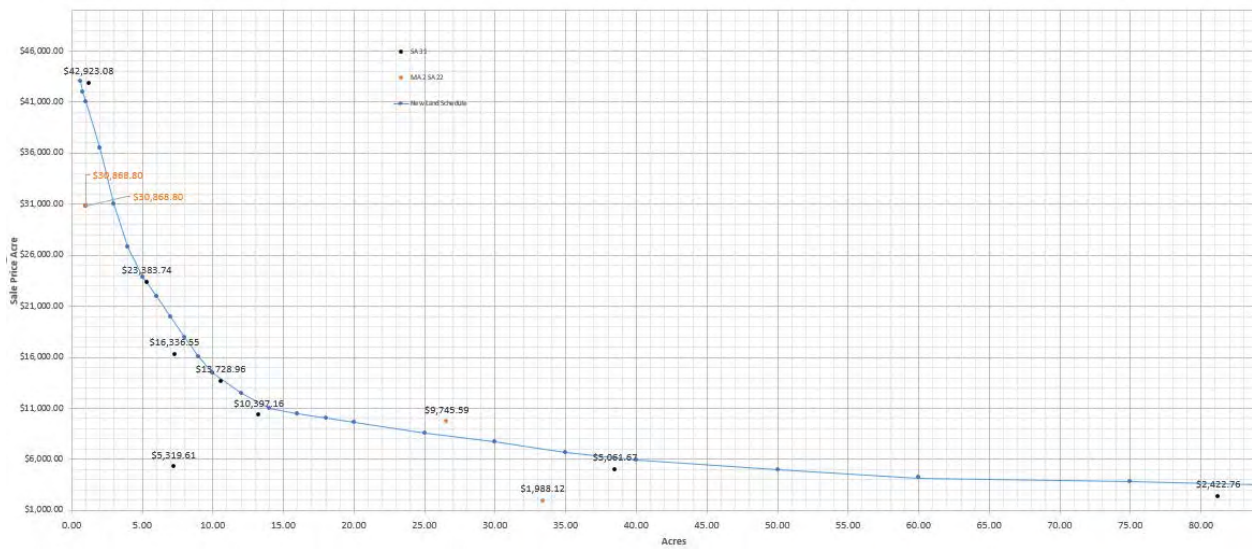
SA 03 LUC 002		
Flood Zone City Acreage		
Size (Acres)		Value Per Acre
From	To	
0.01	999999	16,240

Maintenance Area (MA) 3, Rural Vernonia Land Setup

Analysis

For 2018, MA 3 boundary lines were moved and adjusted with adjacent MA 2, MA 5 and MA 6. The boundaries were shifted and balanced due to growth for management/maintenance purposes. Land sales from nearby MA 2 with similar characteristics and market appeal were used due to a limited number of sales available in MA 3. There were 22 vacant land sales of which 12 were useable for the vacant land study. These sales were site visited and time trended to the base appraisal date of 1/1/17. The data supported a new land schedule for SA 31.

MA 3 Rural Land Sales Graph



Conclusions

Based on the supporting data, a new land schedule was developed for SA 31.

MA 3 Rural Vernonia Reappraisal Land Schedules for 2018

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)

LUC = Land Use Code (Type of land value schedule used for assessment)

003 = Residential Rural Tract – Acres

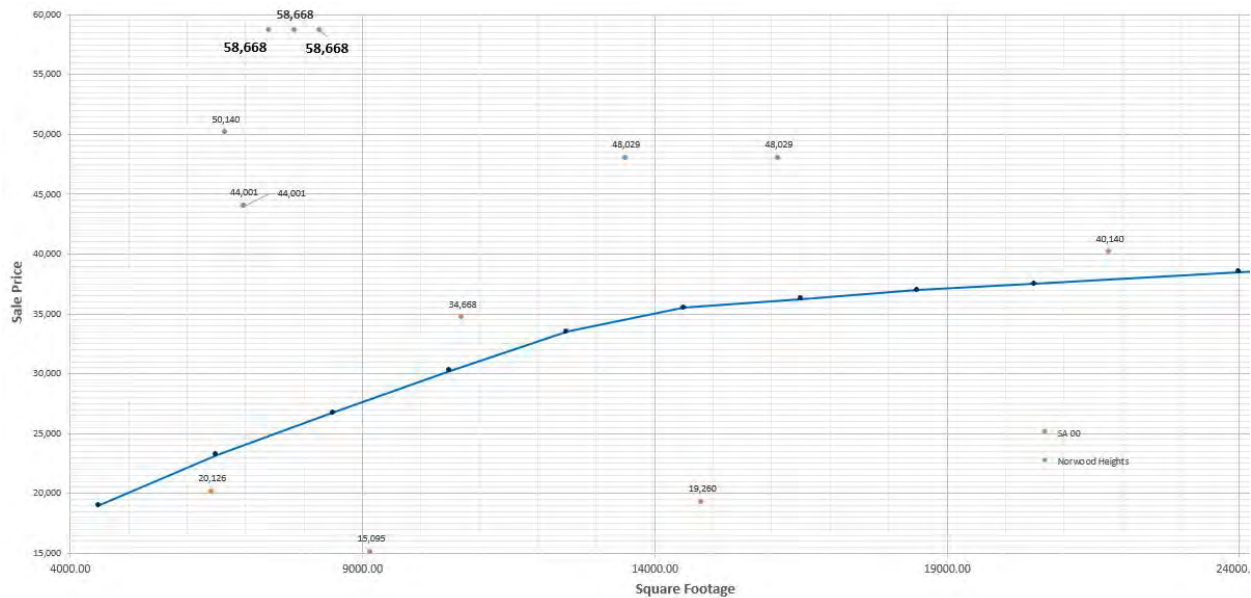
SA 31 LUC 003 Rural Vernonia		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	38,000
0.61	0.80	40,000
0.81	1.00	43,000
Over 1 Acre		Per Acre
1.01	2.00	36,500
2.01	3.00	31,000
3.01	4.00	26,800
4.01	5.00	23,900
5.01	6.00	22,000
6.01	7.00	20,000
7.01	8.00	18,000
8.01	9.00	16,100
9.01	10.00	14,500
10.01	12.00	12,500
12.01	14.00	11,000
14.01	16.00	10,500
16.01	18.00	10,000
18.01	20.00	9,600
20.01	25.00	8,600
25.01	30.00	7,700
30.01	35.00	6,700
35.01	40.00	5,900
40.01	50.00	5,000
50.01	60.00	4,200
60.01	80.00	3,800
80.01	999999.00	3,000

Maintenance Area (MA) 4, City of Rainier Land Setup

Analysis

For 2018, there were 18 vacant land sales of which 13 were useable for the vacant land study in SA 00. These sales were site visited and time trended to the base appraisal date of 1/1/17. The data supported a new land schedule for SA 00.

MA 4 City Base Land Sales Graph



There were 3 city acreage vacant land sales of which 2 were not usable due to severe topography issues. 1 sale gave a good indication of value for raw vacant land with a highest and best use for future subdivision development and was used to develop the city acreage land schedule. SA 47, Riverfront Estates, is unique since the majority of these properties have attached homes on 2,500 sf +/- lots along the riverfront and interior lots. There are also a handful of 5,000 sf +/- single family detached dwellings. There were 2 vacant land sales of 5,000 sf +/- lots, which appear to have been purchased by homeowners for detached single family dwellings, each for approximately \$90,000. Analysis of the data determined that these 2 sales are representative of the larger 5,000 sf +/- single family detached dwellings sites, but not necessarily reflective of the smaller 2500 sf +/- lots with attached dwelling. 6 improved sales were used to determine the value of the smaller lots by extracting the OSD and dwellings, to determine a residual value for the land, which resulted in an average small lot value of \$17,000.

Conclusions

Based on the supporting data, new land schedules were created for SA 00, SA 47 and for city acreage. The land schedule for SA 00 will also be used for SA 40 and SA 46 due to lack of sales in those areas and similar land characteristics.

MA 4 City of Rainier Recalculation Land Schedules for 2018

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)

LUC = Land Use Code (Type of land value schedule used for assessment)

001 = Residential City Under an Acre – Square Feet

002 = Residential City Acreage – Acres

SA 00 LUC 001 General Rainier		
Size (sq. ft.)		Total Value
From	To	
1	4500	45,000
4501	6500	54,000
6501	8500	61,500
8501	10500	70,500
10501	12500	77,500
12501	14500	82,000
14501	16500	84,500
16501	18500	86,500
18501	20500	88,000
20501	24000	89,000
24001	28000	91,000
28001	32000	93,000
32001	40000	96,000
40001	43560	98,000

SA 40 LUC 001 Duplex, Triplex, Fourplex		
Size (sq. ft.)		Total Value
From	To	
1	4500	45,000
4501	6500	54,000
6501	8500	61,500
8501	10500	70,500
10501	12500	77,500
12501	14500	82,000
14501	16500	84,500
16501	18500	86,500
18501	20500	88,000
20501	24000	89,000
24001	28000	91,000
28001	32000	93,000
32001	40000	96,000
40001	43560	98,000

SA 46 LUC 001 Riverview Dr, Maple Dr		
Size (sq. ft.)		Total Value
From	To	
1	3500	35,120
3501	4500	45,000
4501	6500	54,000
6501	8500	61,500
8501	10500	70,500
10501	12500	77,500
12501	14500	82,000
14501	16500	84,500
16501	18500	86,500
18501	20500	88,000
20501	24000	89,000
24001	28000	91,000
28001	32000	93,000
32001	40000	96,000
40001	43560	98,000

SA 47 LUC 001 Rainier Riverfront Estates		
Size (sq. ft.)		Lump Sum Value
From	To	
1	4500	17,000
4501	6500	90,000

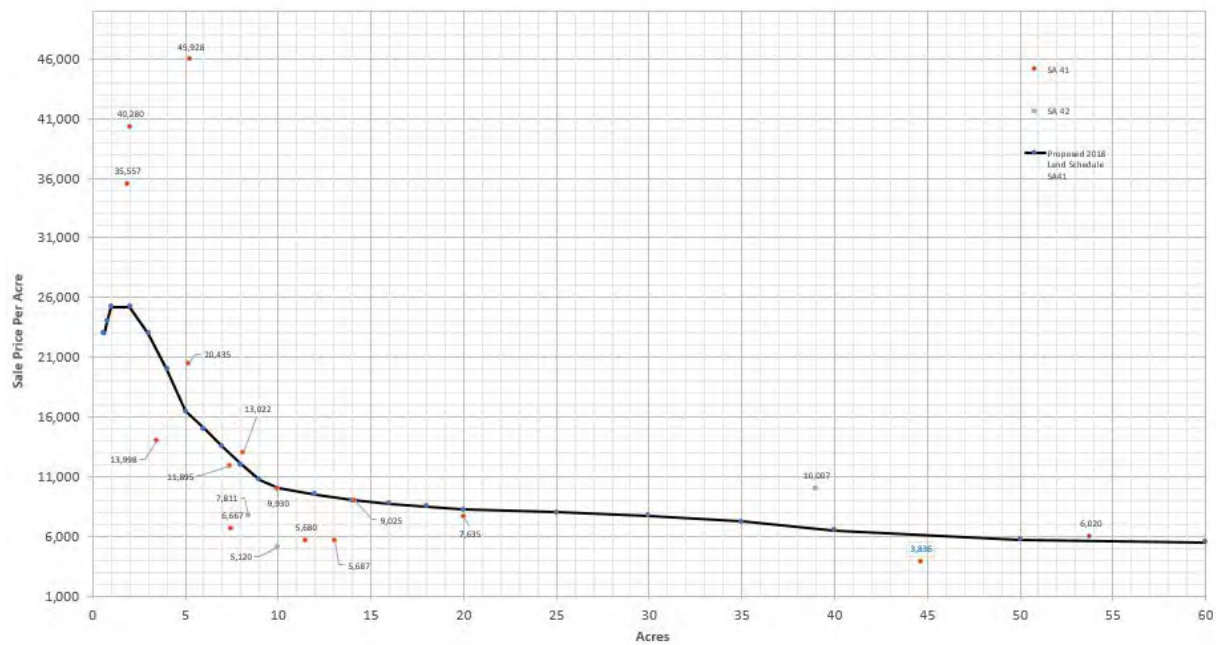
SA 00 LUC 002 City Acreage		
Size (Acres)		Value Per Acre
From	To	
0.01	999999	12,650

Maintenance Area (MA) 4, Rural Rainier Land Setup

Analysis

For 2018, MA 4 boundary lines were moved and adjusted with adjacent MA 5 and MA 6. The boundaries were shifted and balanced due to growth for management/maintenance purposes. There were 25 vacant land sales combined for SA 41 and SA 42, of which 18 were useable for the vacant land study. These sales were site visited and time trended to the base appraisal date of 1/1/17. The sales did not reflect a difference between SA 41 and 42, and the data supported a new land schedule.

MA 4 Rural Land Sales Graph



Conclusions

Based on the supporting data, a new land schedule for SA 41 and SA 42 was developed. The land schedule for SA 41 will also be used for SA 44, SA 45 and SA 56 due to lack of sales in those areas and similar land characteristics.

MA 4 Rural Rainier Recalculation Land Schedules for 2018

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)

LUC = Land Use Code (Type of land value schedule used for assessment)

003 = Residential Rural Tract – Acres

SA 41 LUC 003 Rainier Value Zone 1		
Size (Acres)		Value Lump Sum
From	To	
0.00	0.60	23,000
0.61	0.80	24,000
0.81	1.00	25,200
Over 1 Acre		Per Acre
1.01	2.00	25,200
2.01	3.00	23,000
3.01	4.00	20,000
4.01	5.00	16,500
5.01	6.00	15,000
6.01	7.00	13,500
7.01	8.00	12,000
8.01	9.00	10,750
9.01	10.00	10,000
10.01	12.00	9,500
12.01	14.00	9,000
14.01	16.00	8,750
16.01	18.00	8,500
18.01	20.00	8,250
20.01	25.00	8,000
25.01	30.00	7,750
30.01	35.00	7,250
35.01	40.00	6,500
40.01	50.00	5,750
50.01	60.00	5,500
60.01	80.00	5,000
80.01	999999.00	4,500

SA 42 LUC 003 Rainier Value Zone 2		
Size (Acres)		Value Lump Sum
From	To	
0.00	0.60	23,000
0.61	0.80	24,000
0.81	1.00	25,200
Over 1 Acre		Per Acre
1.01	2.00	25,200
2.01	3.00	23,000
3.01	4.00	20,000
4.01	5.00	16,500
5.01	6.00	15,000
6.01	7.00	13,500
7.01	8.00	12,000
8.01	9.00	10,750
9.01	10.00	10,000
10.01	12.00	9,500
12.01	14.00	9,000
14.01	16.00	8,750
16.01	18.00	8,500
18.01	20.00	8,250
20.01	25.00	8,000
25.01	30.00	7,750
30.01	35.00	7,250
35.01	40.00	6,500
40.01	50.00	5,750
50.01	60.00	5,500
60.01	80.00	5,000
80.01	999999.00	4,500

SA 45 LUC 003 Rainier Dikeland		
Size (Acres)		Value Lump Sum
From	To	
0.00	0.60	23,000
0.61	0.80	24,000
0.81	1.00	25,200
Over 1 Acre		Per Acre
1.01	2.00	25,200
2.01	3.00	23,000
3.01	4.00	20,000
4.01	5.00	16,500
5.01	6.00	15,000
6.01	7.00	13,500
7.01	8.00	12,000
8.01	9.00	10,750
9.01	10.00	10,000
10.01	12.00	9,500
12.01	14.00	9,000
14.01	16.00	8,750
16.01	18.00	8,500
18.01	20.00	8,250
20.01	25.00	8,000
25.01	30.00	7,750
30.01	35.00	7,250
35.01	40.00	6,500
40.01	50.00	5,750
50.01	60.00	5,500
60.01	80.00	5,000
80.01	999999.00	4,500

MA 4 Rural Rainier Recalculation Land Schedules for 2018 (Continued)

SA 44 LUC 003 Prescott		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	23,000
0.61	0.80	24,000
0.81	1.00	25,200
Over 1 Acre		Per Acre
1.01	2.00	25,200
2.01	3.00	23,000
3.01	4.00	20,000
4.01	5.00	16,500

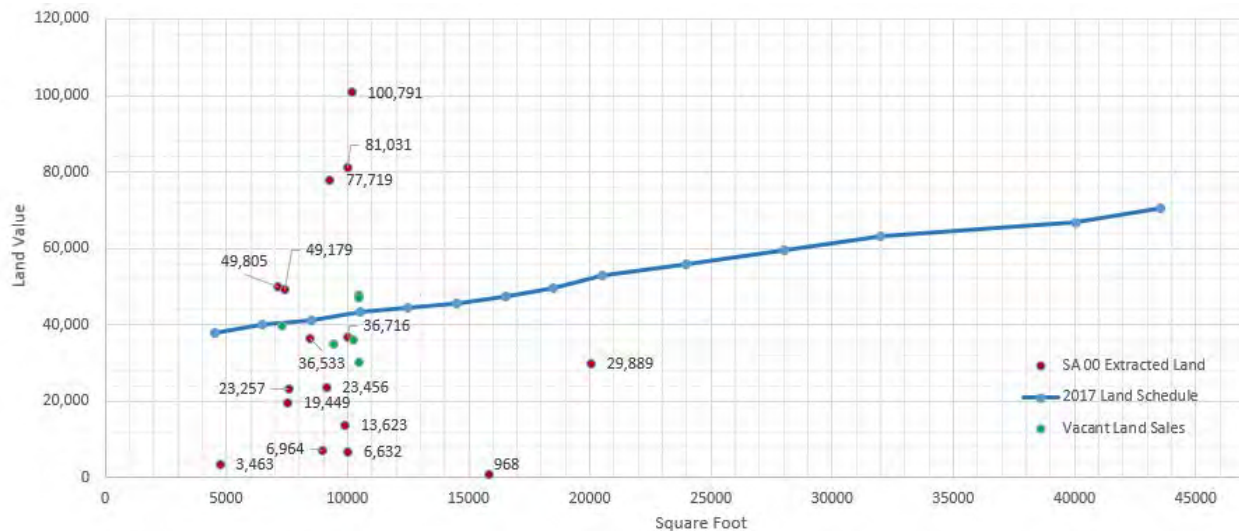
SA 56 LUC 003 Deer Island Heights		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	23,000
0.61	0.80	24,000
0.81	1.00	25,200
Over 1 Acre		Per Acre
1.01	2.00	25,200
2.01	3.00	23,000
3.01	4.00	20,000
4.01	5.00	16,500

Maintenance Area (MA) 5, City of Clatskanie Land Setup

Analysis

For 2018, there were 6 vacant land sales in SA 00 of which 1 was a large bulk sale of 20 lots. The remaining sales were analyzed but were insufficient to develop a new land schedule. 16 improved sales were used to determine the value of the residual land by extracting the OSD and dwelling values. Both the vacant land and improved sales were site visited and time trended to the base appraisal date of 1/1/17. The data was still insufficient to develop a supportable new land schedule. The final analyses was to overlay the previous year's trended land schedule to identify any additional market trends. The sales data fell both above and below that schedule.

MA 5 City Base Land Sales Graph



There were no sales of city acreage recent enough to use for analysis. It is assumed this schedule would trend similarly to city lots.

Conclusions

Due to both the bare land sales and extracted sales in MA 5 SA 00 not resulting in a conclusion which would allow for a new land schedule to be developed, the 2017 MA 5 SA 00 trended base land values for 2017 will be used for MA 5 SA 00. The trended city acreage land schedule for 2017 will be used for 2018.

MA 5 City of Clatskanie Recalculation Land Schedules for 2018

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)

LUC = Land Use Code (Type of land value schedule used for assessment)

001 = Residential City Under an Acre – Square Feet

002 = Residential City Acreage – Acres

SA 00 LUC 001 General Clatskanie		
Size (sq. ft.)		Total Value
From	To	
1	4500	38,020
4501	6500	40,130
6501	8500	41,180
8501	10500	43,300
10501	12500	44,350
12501	14500	45,410
14501	16500	47,520
16501	18500	49,630
18501	20500	52,800
20501	24000	55,970
24001	28000	59,320
28001	32000	62,890
32001	40000	66,660
40001	43560	70,650

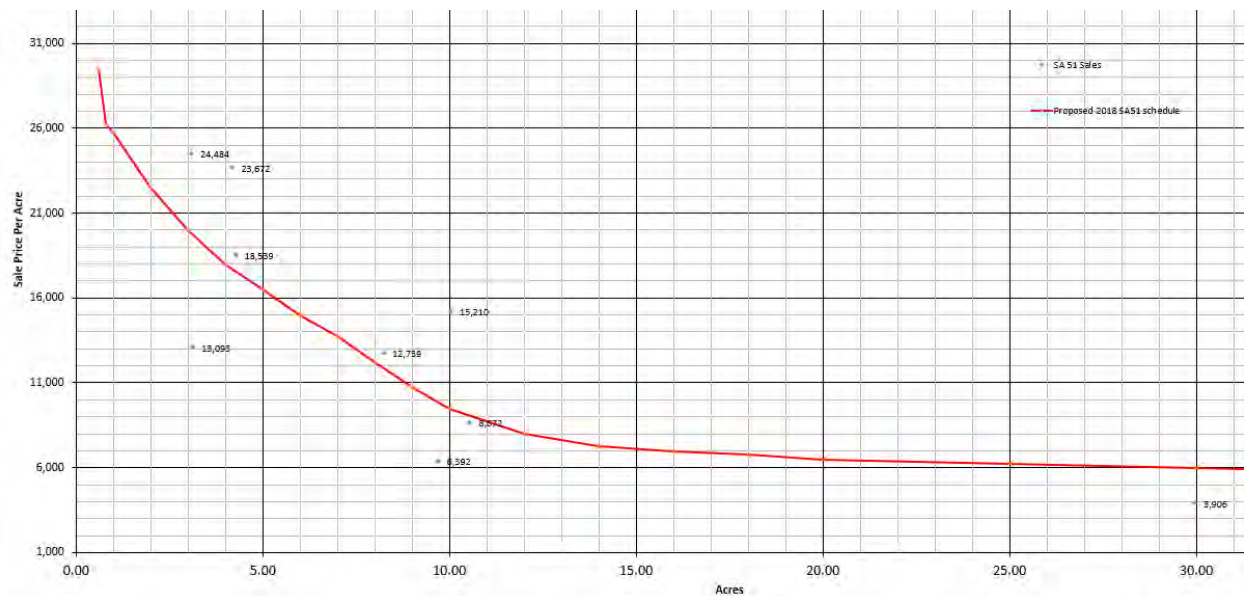
SA 00 LUC 002 City Acreage		
Size (Acres)		Value Per Acre
From	To	
0	999999	37,620

Maintenance Area (MA) 5, Rural Clatskanie Land Setup

Analysis

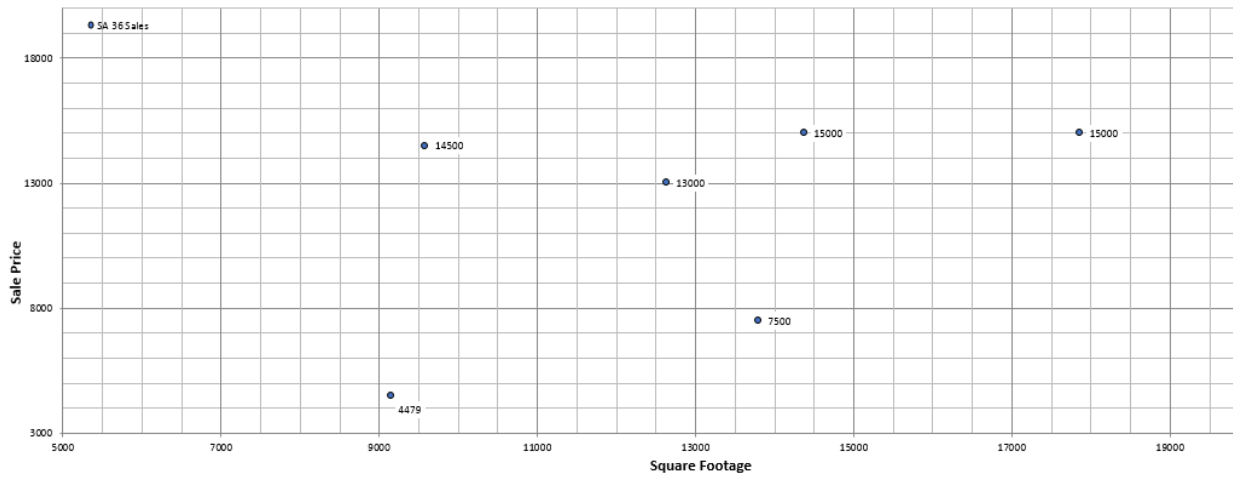
For 2018, MA 5 boundary lines were moved and adjusted with adjacent MA 3 and MA 4. The boundaries were shifted and balanced due to growth for management/maintenance purposes. There were 16 vacant land sales for SA 51, of which 9 were useable for the vacant land study. These sales were site visited and time trended to the base appraisal date of 1/1/17. The data supported a new land schedule for SA 51.

MA 5 Rural Land Sales Graph



For 2018, SA 36 was moved from MA 3 to MA 5. There were 9 sales of which 6 were usable for the vacant land study. In attempting to time trend and analyze the sales, it was determined that Fishhawk Lake Estates is a unique community and has not kept up with the average market trends. Once time trends were removed, it was determined that a per lot value was warranted.

MA 5 Fishhawk Lake Estates Land Graph



Conclusions

Based on the supporting data, a new land schedule for SA 51 was developed. The land schedule for SA 51 will also be used for SA 55 due to lack of sales in those areas and similar land characteristics. The land schedule for SA 36 will have a per lot base value of \$15,000 regardless of size.

MA 5 Rural Clatskanie Recalculation Land Schedules for 2018

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)

LUC = Land Use Code (Type of land value schedule used for assessment)

003 = Residential Rural Tract - Acres

SA 51 LUC 003 Clatskanie Value Zone 1		
Size (Acres)		Value Lump Sum
From	To	
0.00	0.60	29,500
0.61	0.80	26,250
0.81	1.00	25,750
Over 1 Acre		Per Acre
1.01	2.00	22,500
2.01	3.00	20,000
3.01	4.00	18,000
4.01	5.00	16,500
5.01	6.00	15,000
6.01	7.00	13,750
7.01	8.00	12,250
8.01	9.00	10,900
9.01	10.00	9,900
10.01	12.00	8,500
12.01	14.00	7,300
14.01	16.00	6,950
16.01	18.00	6,750
18.01	20.00	6,500
20.01	25.00	6,250
25.01	30.00	6,000
30.01	35.00	5,750
35.01	40.00	5,500
40.01	50.00	5,250
50.01	60.00	5,000
60.01	80.00	4,500
80.01	999999.00	4,000

SA 55 LUC 003 Clatskanie Dikeland		
Size (Acres)		Value Lump Sum
From	To	
0.00	0.60	29,500
0.61	0.80	26,250
0.81	1.00	25,750
Over 1 Acre		Per Acre
1.01	2.00	22,500
2.01	3.00	20,000
3.01	4.00	18,000
4.01	5.00	16,500
5.01	6.00	15,000
6.01	7.00	13,750
7.01	8.00	12,250
8.01	9.00	10,900
9.01	10.00	9,900
10.01	12.00	8,500
12.01	14.00	7,300
14.01	16.00	6,950
16.01	18.00	6,750
18.01	20.00	6,500
20.01	25.00	6,250
25.01	30.00	6,000
30.01	35.00	5,750
35.01	40.00	5,500
40.01	50.00	5,250
50.01	60.00	5,000
60.01	80.00	4,500
80.01	999999.00	4,000

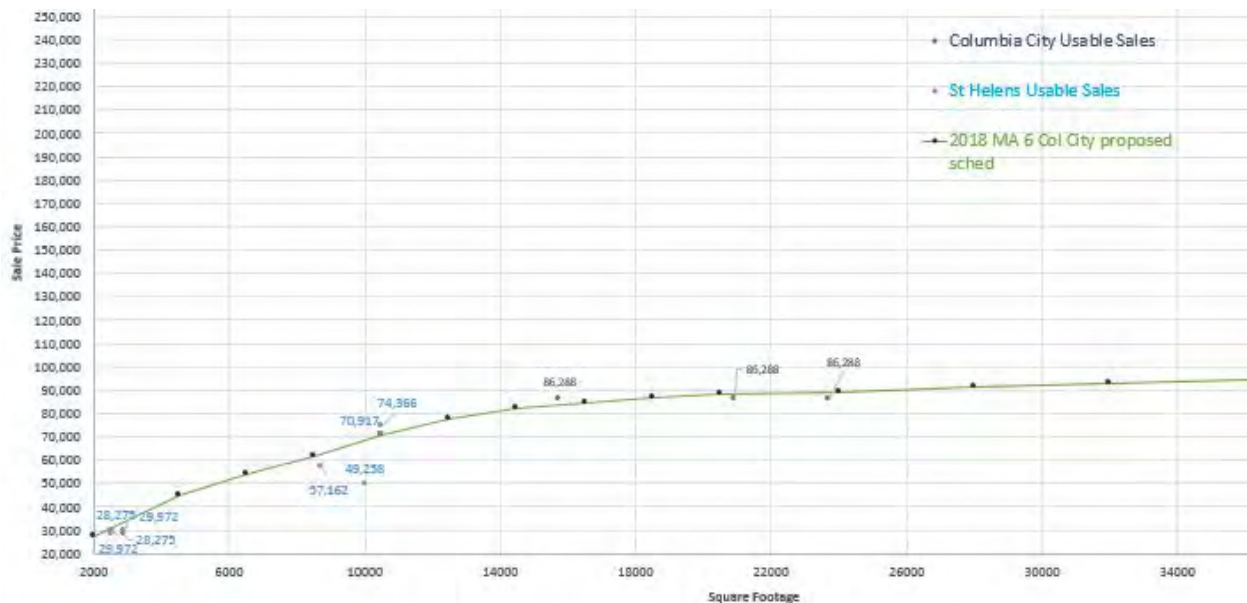
SA 36 LUC 003 Fishhawk Lake Estates		
Size (Acres)		Value Lump Sum
From	To	
0.01	5.00	15,000

Maintenance Area (MA) 6, City of Columbia City Land Setup

Analysis

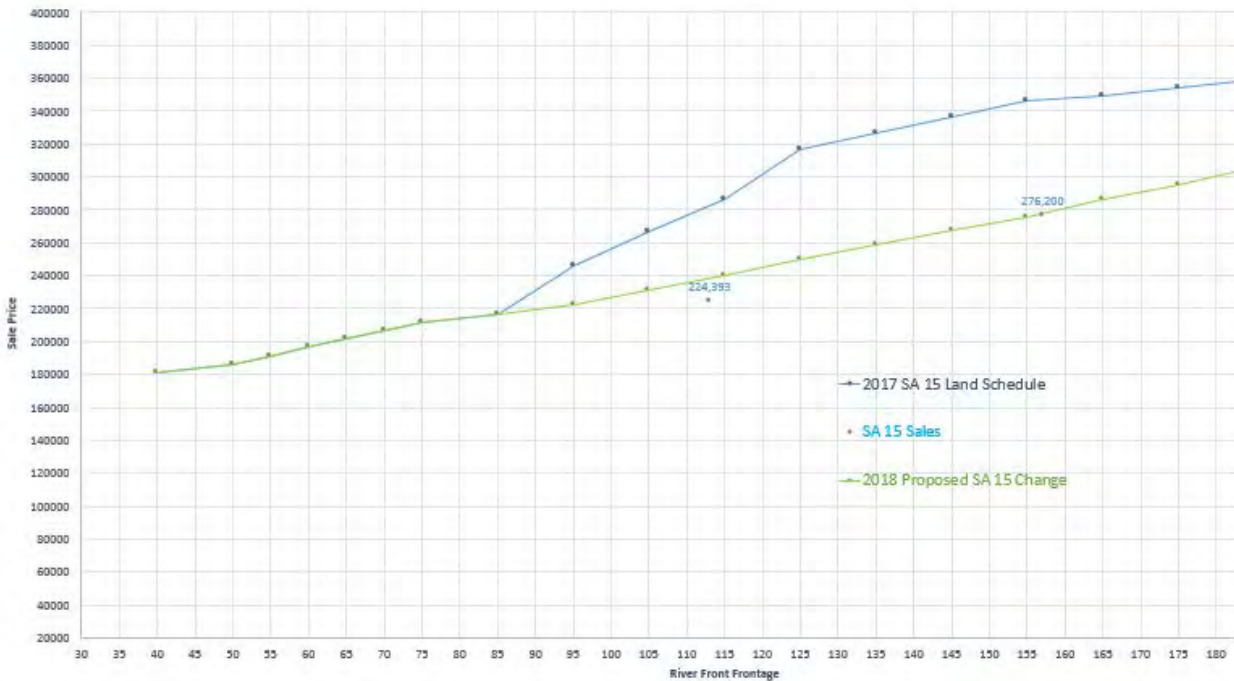
For 2018, MA 6 boundary lines were moved and adjusted with adjacent MA 1, MA 2, MA 3 and MA 4. The boundaries were shifted and balanced due to growth for management/maintenance purposes. This change resulted in moving Columbia City into MA 6, with no other changes made to MA 1. There were 9 sales within Columbia City, of which 3 were considered usable and 6 were considered unusable because of topography issues and or view adjustments. Due to the close proximity to Columbia City, 8 Saint Helens sales were considered for analysis. When sales data from both Columbia City and Saint Helens were analyzed, the results between the two appeared to be similar. All sales analyzed were time trended to the base appraisal date of 1/1/17. The data compiled for analysis is considered to provide sufficient support for creating a new land schedule for SA 01.

2018 MA 6 City Base Land Sales Graph



SA 15 had 2 usable land sales that when plotted against the previous year's land schedule indicated a slight reduction for properties that had more than 85' of river frontage.

2018 MA 1 and MA 6 City Riverfront Land Sales Graph



Due to the lack of City Acreage sales data within Columbia City and St Helens, the need to expand the search to nearby Scappoose was warranted. Scappoose has recently seen several city acreage sales that were sold for subdivision development, which provides reasonable and credible data for a city acreage land schedule. When analyzing residential lot sales data between City of Scappoose versus Columbia City/Saint Helens, land values indicate a 45% reduction between the areas. By reducing the City of Scappoose sales-based City Acreage land schedule by 45%, the resulting value provides a reasonable and credible City Acreage land schedule for both Columbia City and Saint Helens.

Conclusions

Based on the supporting data collected, there is sufficient sales data for the creation of a new 2018 land schedule for SA 01. SA 21 and SA 31 will also use the SA 01 land schedule as these areas have very similar land characteristics.

SA 15 sales were limited but the data provided sufficient information to modify the 2017 schedule to be used for the 2018 land schedule.

Based on supporting data, the city acreage land schedules for Saint Helens and Columbia City will reflect a value that is 45% less than the City of Scappoose city acreage land schedule for 2018.

MA 6 City of Columbia City Recalculation Land Schedules for 2018

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)

LUC = Land Use Code (Type of land value schedule used for assessment)

001 = Residential City Under an Acre – Square Feet

002 = Residential City Acreage – Acres

005 = Residential Riverfront – Front Footage

SA 01 LUC 001 General Columbia City		
Size (sq. ft.)		Total Value
From	To	
1	4500	45,000
4501	6500	54,000
6501	8500	61,500
8501	10500	70,500
10501	12500	77,500
12501	14500	82,000
14501	16500	84,500
16501	18500	86,500
18501	20500	88,000
20501	24000	89,000
24001	28000	91,000
28001	32000	93,000
32001	40000	96,000
40001	43560	98,000

SA 21 LUC 001 McBride Meadows, Sophie Park		
Size (sq. ft.)		Total Value
From	To	
1	4500	45,000
4501	6500	54,000
6501	8500	61,500
8501	10500	70,500
10501	12500	77,500
12501	14500	82,000
14501	16500	84,500
16501	18500	86,500
18501	20500	88,000
20501	24000	89,000
24001	28000	91,000
28001	32000	93,000
32001	40000	96,000
40001	43560	98,000

SA 15 LUC 005 Riverfront		
Size (front footage)		Total Value
From	To	
0	40	181,450
41	50	186,450
51	55	191,450
56	60	196,450
61	65	201,450
66	70	206,450
71	75	211,450
76	85	216,450
86	95	222,000
96	105	231,000
106	115	240,000
116	125	250,000
126	135	259,000
126	135	268,000
136	145	276,000
146	155	286,000
156	165	295,000
166	175	306,000
176	185	316,000
186	195	318,000

SA 31 LUC 001 Duplex, Triplex, Fourplex		
Size (sq. ft.)		Total Value
From	To	
1	4500	45,000
4501	6500	54,000
6501	8500	61,500
8501	10500	70,500
10501	12500	77,500
12501	14500	82,000
14501	16500	84,500
16501	18500	86,500
18501	20500	88,000
20501	24000	89,000
24001	28000	91,000
28001	32000	93,000
32001	40000	96,000
40001	43560	98,000

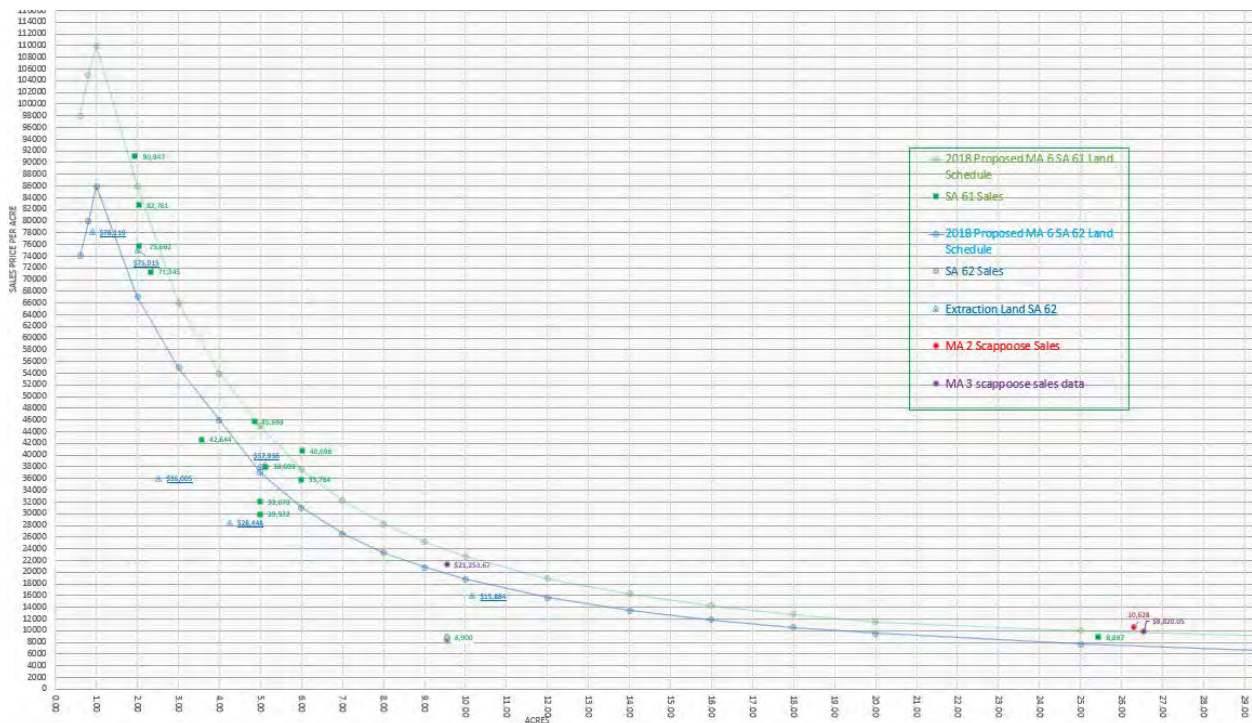
SA 01 LUC 002 City Acreage		
Size (Acres)		Value Per Acre
From	To	
1.00	999999	65,390

Maintenance Area (MA) 6, Rural Saint Helens Land Setup

Analysis

For 2018, MA 6 boundary lines were moved and adjusted with adjacent MA 1, MA 2, MA 3 and MA 4. The boundaries were shifted and balanced due to growth for management/maintenance purposes. After MA lines were adjusted, sales data indicated a realignment of SA boundaries in MA 6 resulting in 2 different market perceived study areas, SA 61 and SA 62. There were 24 vacant land sales of which 12 were considered usable for SA 61 and 7 considered unusable due to potential topography and view adjustments. SA 62 had only 1 usable sale, so an additional 3 land sales from nearby MA 2 and MA 3 were also included. With so few sales available, the study was extended to include land extraction value from improved sales in SA 62. The combination of vacant and extracted land sales when compared to the new SA 61 schedule provided sufficient support to develop a new SA 62 Land Schedule.

MA 6 Rural Land Sales Graph



Conclusions

Based on the supporting data collected, there is sufficient sales data for the creation of a new 2018 land schedule for SA 61 and SA 62. The SA 61 land schedule will also be used for SA 65 due to lack of sales for that area and similar land characteristics.

MA 6 Rural Saint Helens Recalculation Land Schedules for 2018

SA = Study Area (Properties, usually within specified boundaries, that share similar market attributes and influence)

LUC = Land Use Code (Type of land value schedule used for assessment)

003 = Residential Rural Tract - Acres

SA 61 LUC 003 Rural St Helens Value Zone 1		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	98,000
0.61	0.80	105,000
0.81	1.00	110,000
Over 1 Acre		Per Acre
1.01	2.00	86,000
2.01	3.00	66,000
3.01	4.00	54,000
4.01	5.00	45,000
5.01	6.00	37,600
6.01	7.00	32,250
7.01	8.00	28,250
8.01	9.00	25,150
9.01	10.00	22,650
10.01	12.00	18,900
12.01	14.00	16,250
14.01	16.00	14,250
16.01	18.00	12,750
18.01	20.00	11,500
20.01	25.00	10,000
25.01	30.00	9,000
30.01	35.00	8,500
35.01	40.00	8,000
40.01	50.00	7,500
50.01	60.00	7,000
60.01	80.00	6,500
80.01	999999.00	5,000

SA 62 LUC 003 Rural St Helens Value Zone 2		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	74,000
0.61	0.80	80,000
0.81	1.00	86,000
Over 1 Acre		Per Acre
1.01	2.00	67,000
2.01	3.00	55,000
3.01	4.00	46,000
4.01	5.00	37,000
5.01	6.00	31,000
6.01	7.00	26,600
7.01	8.00	23,350
8.01	9.00	20,800
9.01	10.00	18,750
10.01	12.00	15,650
12.01	14.00	13,450
14.01	16.00	11,850
16.01	18.00	10,550
18.01	20.00	9,500
20.01	25.00	7,650
25.01	30.00	6,400
30.01	35.00	6,000
35.01	40.00	5,500
40.01	50.00	5,000
50.01	60.00	4,900
60.01	80.00	4,500
80.01	999999.00	3,500

SA 65 LUC 003 Rural St Helens Dikeland		
Size (Acres)		Value
From	To	Lump Sum
0.00	0.60	98,000
0.61	0.80	105,000
0.81	1.00	110,000
Over 1 Acre		Per Acre
1.01	2.00	86,000
2.01	3.00	66,000
3.01	4.00	54,000
4.01	5.00	45,000
5.01	6.00	37,600
6.01	7.00	32,250
7.01	8.00	28,250
8.01	9.00	25,150
9.01	10.00	22,650
10.01	12.00	18,900
12.01	14.00	16,250
14.01	16.00	14,250
16.01	18.00	12,750
18.01	20.00	11,500
20.01	25.00	10,000
25.01	30.00	9,000
30.01	35.00	8,500
35.01	40.00	8,000
40.01	50.00	7,500
50.01	60.00	7,000
60.01	80.00	6,500
80.01	999999.00	5,000

2018 On-Site Development (OSD) Analysis and Conclusions

Maintenance Area 1, City of Saint Helens On-Site Development (OSD) Study

Analysis

The cost figures below are estimates associated with the development of a residential structure within the City of St Helens. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner, or developer, for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of 5-10k square foot lot.
- Power costs are provided by the local governing utility company Columbia River PUD. These cost estimates are based on CRPUD's flat rate fee schedule.
- All the necessary SDC fees associated with; water, sewer, parks, streets, and storms are only charged at initial development of a site.
- Multifamily properties, if available, have the choice to have each unit metered independently for water and sewer for billing purposes. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multifamily. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	\$11,000	\$11,000	\$11,000	\$11,000
Power (Columbia River PUD)	\$1,740	\$1,880	\$2,030	\$2,190
Water SDC + connection	\$4,086	\$8,172	\$12,258	\$16,344
Sanitary services SDC + connection	\$4,252	\$8,504	\$12,756	\$17,008
Parks SDC	\$2,944	\$2,904	\$4,357	\$5,809
Streets SDC	\$2,370	\$4,233	\$6,350	\$8,466
Storm SDC	\$821	\$821	\$1,231	\$1,642
TOTAL	\$27,213	\$37,514	\$49,982	\$62,459

Conclusions

The collected cost data, provided above, is deemed to be credible and reliable indicators of on site development costs for residential dwellings, for 2018, the new OSD costs are listed below.

2018 City of Saint Helens OSD	
Single Family Dwelling	\$27,000
Multi-Family – Duplex	\$38,000
Multi-Family – Triplex	\$50,000
Multi-Family – Fourplex	\$62,000

Maintenance Area 2, City of Scappoose On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the City of Scappoose. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner or, developer, for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of 5-10k square foot lot.
- Power costs are provided by the local governing utility company Columbia River PUD. These cost estimates are based on CRPUD's flat rate fee schedule.
- All the necessary SDC fees associated with; water, sewer, parks, streets, and storms are SDC fees that are charged only at initial development of a site.
- Multi-family properties in this area generally opt to have each unit separately metered for water and sewer, because of the cost of water & sewer rates. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	\$11,000	\$11,000	\$11,000	\$11,000
Power (Columbia River PUD)	\$1,740	\$1,880	\$2,030	\$2,190
Water SDC + connection	\$5,519	\$11,038	\$15,992	\$21,322
Sanitary services SDC + connection	\$4,942	\$9,886	\$14,828	\$19,771
Parks SDC	\$2,008	\$2,953	\$4,430	\$5,906
Streets SDC	\$2,447	\$4,894	\$7,341	\$9,789
Storm SDC	\$605	\$605	\$908	\$1,211
TOTAL	\$28,261	\$42,256	\$56,529	\$71,189

Conclusions

The collected cost data, provided above, is deemed to be credible and reliable indicators of on site development costs for residential dwellings, for 2018, the new OSD costs are listed below.

2018 City of Scappoose OSD	
Single Family Dwelling	\$28,000
Multi-Family – Duplex	\$42,000
Multi-Family – Triplex	\$57,000
Multi-Family – Fourplex	\$71,000

Maintenance Area 2, Rural Scappoose On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the rural areas of Scappoose. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner, or developer, for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of less than an acre.
- Power costs are provided by the local governing utility companies; Columbia River PUD (CRPUD), West Oregon Electric, and PGE. Approximately 75% of the area is served by Columbia River PUD, therefore these cost estimates are based on CRPUD's flat rate fee schedule.
- Water is generally provided by drilled domestic water wells on each property at an average well depth of 280' deep (per local drillers).
- Sanitation is generally provided by a private onsite standard septic system. Its known that other alternative septic systems are utilized throughout the county, but the standard septic system is reported to be the typical system as shown below. Columbia County Land Development Services imposes transportation & parks SDC fees, that are charged at initial development of the site.
- Multi-family properties in the rural areas are limited, with the assumption that they are only separately metered for electric and not water & sewer. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	\$17,100	\$17,100	\$17,100	\$17,100
Power (Columbia River PUD)	\$4,282	\$5,267	\$6,268	\$7,270
Well Drilling & Pump System 280' @\$65	\$18,500	\$18,500	\$18,500	\$18,500
Sanitation (Standard Septic) w/permits	\$11,408	\$11,408	\$11,408	\$11,408
LDS Transportation SDC	\$2,273	\$2,273	\$2,273	\$2,273
LDS Parks SDC	\$750	\$750	\$750	\$750
TOTAL	\$54,313	\$55,298	\$56,299	\$57,301

Conclusions

The collected cost data, provided above, is deemed to be credible and reliable indicators of on site development costs for residential dwellings, for 2018, the new OSD costs are listed below.

2018 Rural Scappoose OSD	
Single Family Dwelling	\$54,000
Multi-Family – Duplex	\$55,000
Multi-Family – Triplex	\$56,000
Multi-Family – Fourplex	\$57,000

Maintenance Area 3, City of Vernonia On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the City of Vernonia. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner, or developer, for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of 5-10k square foot lot.
- Power costs are provided by the local governing utility company West Oregon Electric Co-op (WOEC).
- All the necessary SDC fees associated with; water, sewer, parks, streets, and storms are fees that are charged only at initial development of a site.
- Multi-family properties in this area generally opt to have each unit separately metered for water and sewer, because of the cost of water & sewer rates. It should be noted that contractors indicated no real increase in excavation costs for up to a typical 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	\$11,000	\$11,000	\$11,000	\$11,000
Power (Western Oregon Electric)	\$5,305	\$6,555	\$7,805	\$9,055
Sewer SDC	\$2,957	\$5,914	\$8,871	\$11,828
Storm SDC	\$1,340	\$2,680	\$4,020	\$5,360
Streets SDC	\$858	\$1,716	\$2,574	\$3,432
Parks SDC	\$1,000	\$2,000	\$3,000	\$4,000
Water Connection Fee	\$1,050	\$2,100	\$3,150	\$4,200
Sewer Connection Fee	\$1,250	\$2,500	\$3,750	\$5,000
TOTAL	\$27,029	\$39,003	\$50,977	\$62,977

Conclusions

The collected cost data, provided above, is deemed to be credible and reliable indicators of on site development costs for residential dwellings, for 2018, the new OSD costs are listed below.

2018 City of Vernonia OSD	
Single Family Dwelling	\$27,000
Multi-Family – Duplex	\$39,000
Multi-Family – Triplex	\$51,000
Multi-Family – Fourplex	\$63,000

Maintenance Area 3, Rural Vernonia On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the rural areas of Vernonia. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner or developer for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of less than an acre.
- Power costs estimates are provided by the local governing utility company West Oregon Electric Co-op (WOEC).
- Water is generally provided by drilled domestic water wells on each property with an average well depth of 280' deep (per local drillers).
- Sanitation is generally provided by a private onsite standard septic system. Its known that other alternative septic systems are utilized throughout the county, but the standard septic system is reported to be the most typical system as shown below. Columbia County Land Development Services impose transportation & park SDC fees, which are charged at initial development of the site.
- Multi-family properties in the rural areas are limited, with the assumption that they are only seperately metered for electric and not water & sewer. It should be noted that contractors indicated no real increase in excavation costs forl up to the 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	\$17,100	\$17,100	\$17,100	\$17,100
Power (Western Oregon Electric)	\$6,896	\$8,222	\$19,548	\$10,875
Well Drilling & Pump System 280' @\$65	\$18,500	\$18,500	\$18,500	\$18,500
Sanitation (Standard Septic) w/permits	\$11,408	\$11,408	\$11,408	\$11,408
LDS Transportation SDC	\$2,273	\$2,273	\$2,273	\$2,273
LDS Parks SDC	\$750	\$750	\$750	\$750
TOTAL	\$56,927	\$58,253	\$59,579	\$60,906

Conclusions

The collected cost data, provided above, is deemed to be credible and reliable indicators of on site development costs for residential dwellings, for 2018, the new OSD costs are listed below.

2018 Rural Vernonia OSD	
Single Family Dwelling	\$57,000
Multi-Family – Duplex	\$58,000
Multi-Family – Triplex	\$60,000
Multi-Family – Fourplex	\$61,000

Maintenance Area 4, City of Rainier On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the City of Rainier. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner, or developer, for site development of a new structure.

Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of 5-10k square foot lot.

Power costs are provided by the local governing utility company Clatskanie PUD. Clatskanie PUD offers a line credit for new installations that generally cover the costs.

All the necessary SDC fees associated with water & sewer are charged at initial development of a site.

Multi-family properties in Rainier generally opt not to separately meter for water and sewer, but do opt for a separate meter for electric. It should be noted that contractors indicated no real increase in excavation costs for up to a typical 4 unit multi-family home. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	\$11,000	\$11,000	\$11,000	\$11,000
Power (Clatskanie PUD)	\$50	\$50	\$50	\$50
Sanitary services SDC + connection	\$2,745	\$5,490	\$8,235	\$10,980
Water SDC + connection	\$1,420	\$1,420	\$1,420	\$1,420
TOTAL	\$15,215	\$17,960	\$20,705	\$23,450

Conclusions

The collected cost data, provided above, is deemed to be credible and reliable indicators of on site development costs for residential dwellings, for 2018, the new OSD costs are listed below.

2018 City of Rainier OSD	
Single Family Dwelling	\$15,000
Multi-Family – Duplex	\$18,000
Multi-Family – Triplex	\$21,000
Multi-Family – Fourplex	\$23,000

Maintenance Area 4, Rural Rainier On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the rural areas of Rainier. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner, or developer, for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of less than an acre.
- Power costs are provided by the local governing utility company Columbia River PUD (CRPUD) and are based on CRPUD's flat rate fee schedule.
- Water is generally provided by drilled domestic water wells on each property at an average well depth of 280' deep (per local drillers).
- Sanitation is generally provided by a private onsite standard septic system. Its known that other alternative septic systems are utilized throughout the county, but the standard septic system is reported to be the typical system as shown below. Columbia County Land Development Services imposes transportation & parks SDC fees, that are charged at initial development of the site.
- Multi-family properties in the rural areas are limited, with the assumption that they are only separately metered for electric and not water & sewer. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	\$17,100	\$17,100	\$17,100	\$17,100
Power (Columbia River PUD)	\$4,282	\$5,267	\$6,268	\$7,270
Well Drilling & Pump System 280' @\$65	\$18,500	\$18,500	\$18,500	\$18,500
Sanitation (Standard Septic) w/permits	\$11,408	\$11,408	\$11,408	\$11,408
LDS Transportation SDC	\$2,273	\$2,273	\$2,273	\$2,273
LDS Parks SDC	\$750	\$750	\$750	\$750
TOTAL	\$54,313	\$55,298	\$56,299	\$57,301

Conclusions

The collected cost data, provided above, is deemed to be credible and reliable indicators of on site development costs for residential dwellings, for 2018, the new OSD costs are listed below.

2018 Rural Rainier OSD	
Single Family Dwelling	\$54,000
Multi-Family – Duplex	\$55,000
Multi-Family – Triplex	\$56,000
Multi-Family – Fourplex	\$57,000

Maintenance Area 4, City of Prescott On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the rural areas of Rainier. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner, or developer, for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of less than an acre.
- Power costs are provided by the local governing utility company, Columbia River PUD (CRPUD), and are based on CRPUD's flat rate fee schedule.
- Water is provided by a community water source in Prescott.
- Sanitation is generally provided by a private onsite standard septic system. It is known that other alternative septic systems are utilized throughout the county, but the standard septic system is reported to be the typical system as shown below. Columbia County Land Development Services imposes transportation & parks SDC fees, that are charged at initial development of the site.
- Multi-family properties in the rural areas are limited, with the assumption that they are only separately metered for electric and not water & sewer. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	\$17,100	\$17,100	\$17,100	\$17,100
Power (Columbia River PUD)	\$4,282	\$5,267	\$6,268	\$7,270
Community Water Hook Up	\$500	\$1,000	\$1,500	\$2,000
Sanitation (Standard Septic) w/permits	\$11,408	\$11,408	\$11,408	\$11,408
LDS Transportation SDC	\$2,273	\$2,273	\$2,273	\$2,273
LDS Parks SDC	\$750	\$750	\$750	\$750
TOTAL	\$36,313	\$37,798	\$39,299	\$40,801

Conclusions

The collected cost data, provided above, is deemed to be credible and reliable indicators of on site development costs for residential dwellings, for 2018, the new OSD costs are listed below.

2018 City of Prescott OSD	
Single Family Dwelling	\$36,000
Multi-Family – Duplex	\$38,000
Multi-Family – Triplex	\$39,000
Multi-Family – Fourplex	\$41,000

Maintenance Area 5, City of Clatskanie On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the City of Clatskanie. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner, or developer, for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of 5-10k square foot lot.
- Power costs are provided by the local governing utility company Clatskanie PUD. Clatskanie PUD offers a line credit for new installations that generally cover the costs.
- All the necessary SDC fees associated with water & sewer are charged at initial development of a site.
- Multi-family properties in this area generally opt not to separately meter for water and sewer, but do separately meter for electric. It should be noted that contractors indicated no real increase in excavation costs for up to a typical 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.
-

Description	SFD	Duplex	Triplex	Fourplex
Excavation	\$11,000	\$11,000	\$11,000	\$11,000
Power (Clatskanie)	\$50	\$50	\$50	\$50
Sanitary services SDC + connection	\$1,500	\$2,250	\$3,000	\$3,750
Water SDC + connection	\$1,250	\$1,900	\$2,550	\$3,200
TOTAL	\$13,800	\$15,200	\$16,600	\$18,000

Conclusions

The collected cost data, provided above, is deemed to be credible and reliable indicators of on site development costs for residential dwellings, for 2018, the new OSD costs are listed below.

2018 City of Clatskanie OSD	
Single Family Dwelling	\$14,000
Multi-Family – Duplex	\$15,000
Multi-Family – Triplex	\$17,000
Multi-Family – Fourplex	\$18,000

Maintenance Area 5, Rural Clatskanie On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the rural areas of Clatskanie. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner or developer for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of less than an acre.
- Power costs are provided by the local governing utility company Clatskanie PUD. Clatskanie PUD offers a line credit for new installations that generally cover the costs.
- Water is generally provided by drilled domestic water wells on each property at an average well depth of 280' deep (per local drillers).
- Sanitation is generally provided by a private onsite standard septic system. Its known that other alternative septic systems are utilized throughout the county, but the standard septic system is reported to be the typical system as shown below. Columbia County Land Development Services imposes transportation & parks SDC fees, that are charged at initial development of the site.
- Multi-family properties in the rural areas are limited, with the assumption that they are only separately metered for electric and not water & sewer. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	\$17,100	\$17,100	\$17,100	\$17,100
Power (Clatskanie PUD)	\$50	\$50	\$50	\$50
Well Drilling & Pump System 280' @\$65	\$18,500	\$18,500	\$18,500	\$18,500
Sanitation (Standard Septic) w/permits	\$11,408	\$11,408	\$11,408	\$11,408
LDS Transportation SDC	\$2,273	\$2,273	\$2,273	\$2,273
LDS Parks SDC	\$750	\$750	\$750	\$750
TOTAL	\$50,081	\$50,081	\$50,081	\$50,081

Conclusions

The collected cost data, provided above, is deemed to be credible and reliable indicators of on site development costs for residential dwellings, for 2018, the new OSD costs are listed below.

2018 Rural Clatskanie OSD	
Single Family Dwelling	\$50,000
Multi-Family – Duplex	\$50,000
Multi-Family – Triplex	\$50,000
Multi-Family – Fourplex	\$50,000

Maintenance Area 5, Fishhawk Lake On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the rural areas of Clatskanie (Fishhawk Lake). The categories listed below are market related costs and supplemental development charges (SDC) required by the owner or developer for site development of a new structure.

- Excavation costs include clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of less than an acre.
- Power costs estimates are provided by the local governing utility company West Oregon Electric Co-op (WOEC).
- Water & sewer are provided by a community system operated by Fishhawk homeowners association. Columbia County Land Development Services imposes transportation & parks SDC fees, that are charged at initial development of the site.
- Multi-family properties in the rural areas are limited, with the assumption that they are only separately metered for electric and not water & sewer. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	\$17,100	\$17,100	\$17,100	\$17,100
Power (Western Oregon Electric)	\$6,896	\$8,222	\$9,548	\$10,875
LDS Transportation SDC	\$2,273	\$2,273	\$2,273	\$2,273
LDS Parks SDC	\$750	\$750	\$750	\$750
Fishhawk Community Water/Sewer Hook Up	\$2,000	\$2,000	\$2,000	\$2,000
TOTAL	\$29,019	\$30,345	\$31,671	\$32,998

Conclusions

The collected cost data, provided above, is deemed to be credible and reliable indicators of on site development costs for residential dwellings, for 2018, the new OSD costs are listed below.

2018 Fishhawk Lake OSD	
Single Family Dwelling	\$29,000
Multi-Family – Duplex	\$30,000
Multi-Family – Triplex	\$32,000
Multi-Family – Fourplex	\$33,000

Maintenance Area 6, City of Columbia City On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the City of Columbia City. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner, or developer, for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of 5-10k square foot lot.
- Power costs are provided by the local governing utility company, Columbia River PUD (CRPUD), these cost estimates are based on CRPUD's flat rate fee schedule.
- All the necessary SDC fees associated with; water, sewer, parks, streets, and storms are SDC fees that are charged only at initial development of a site.
- Multi-family properties in this area generally opt to have each unit separate metered for water and sewer, because of the cost of water & sewer rates. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	\$11,000	\$11,000	\$11,000	\$11,000
Power (Columbia River PUD)	\$1,740	\$1,880	\$2,030	\$2,190
Water SDC + connection	\$5,477	\$10,954	\$16,431	\$21,908
Sanitary services SDC + connection	\$5,840	\$11,680	\$17,520	\$23,360
Parks SDC	\$1,495	\$2,990	\$4,485	\$5,980
Storm SDC	\$250	\$300	\$450	\$600
Transportation SDC	\$4,575	\$5,604	\$8,406	\$11,208
TOTAL	\$30,377	\$44,408	\$60,322	\$76,246

Conclusions

The collected cost data, provided above, is deemed to be credible and reliable indicators of on site development costs for residential dwellings, for 2018, the new OSD costs are listed below.

2018 City of Columbia City OSD	
Single Family Dwelling	\$30,000
Multi-Family – Duplex	\$44,000
Multi-Family – Triplex	\$60,000
Multi-Family – Fourplex	\$76,000

Maintenance Area 6, Rural Saint Helens On-Site Development (OSD) Study

Analysis

The cost figures below are cost estimates associated with the development of a residential structure within the rural areas of Warren, Scappoose, & St Helens. The categories listed below are market related costs and supplemental development charges (SDC) required by the owner or developer for site development of a new structure.

- Excavation costs include; clearing, driveway, excavation, backfill, grading, & utility trenching. The site development cost is based on an overall typical site of less than an acre.
- Power costs are provided by the local governing utility company, Columbia River PUD (CRPUD), and are based on CRPUD's flat rate fee schedule.
- Water is generally provided by drilled domestic water wells on each property at an average well depth of 280' deep (per local drillers).
- Sanitation is generally provided by a private onsite standard septic system. Its known that other alternative septic systems are utilized throughout the county, but the standard septic system is reported to be the typical system as shown below. Columbia County Land Development Services imposes transportation & parks SDC fees, that are charged at initial development of the site.
- Multi-family properties in the rural areas are limited, with the assumption that they are only separately metered for electric and not water & sewer. It should be noted that contractors indicated no real increase in excavation costs for the typical up to 4 unit multi-family. These cost figures have been acquired and refreshed annually to keep up with market related development costs of residential dwellings.

Description	SFD	Duplex	Triplex	Fourplex
Excavation	\$17,100	\$17,100	\$17,100	\$17,100
Power (Columbia River PUD)	\$4,282	\$5,267	\$6,268	\$7,270
Well Drilling & Pump System 280' @\$65	\$18,500	\$18,500	\$18,500	\$18,500
Sanitation (Standard Septic) w/permits	\$11,408	\$11,408	\$11,408	\$11,408
LDS Transportation SDC	\$2,273	\$2,273	\$2,273	\$2,273
LDS Parks SDC	\$750	\$750	\$750	\$750
TOTAL	\$54,313	\$55,298	\$56,299	\$57,301

Conclusions

The collected cost data, provided above, is deemed to be credible and reliable indicators of on site development costs for residential dwellings, for 2018, the new OSD costs are listed below.

2018 Rural Saint Helens OSD	
Single Family Dwelling	\$54,000
Multi-Family – Duplex	\$55,000
Multi-Family – Triplex	\$56,000
Multi-Family – Fourplex	\$57,000

2018 Local Cost Modifiers (LCM) Analysis and Conclusions

Countywide Local Cost Modifier (LCM) Study for Conventional Dwellings

This study establishes a modifier to be applied to construction costs found in the 2005 Cost Factors for Residential Buildings, to adjust the factors for conventional dwellings to the base appraisal date of 1/1/17.

Analysis

This analysis for the 2018 LCM set up year was based on sales of homes built in 2016. The initial raw data included 162 properties to review for use in the study. After an initial review of these properties, many were removed from this study for the following reasons:

- Sales of properties that included carriage houses, farm buildings, or additional structures.
- Sales of properties that had notable value influences due to topography, views, etc.
- Sales of properties in areas that there were not enough vacant land sales to establish a land schedule.
- Sales of properties where it was difficult to accurately determine the quality of construction as compared to our cost factor book and class benchmarks.
- Cost of new homes where the owners were the general contractor.

Of the remaining 28 sales, 10 were properties where the new home and land were marketed and sold together, and 18 were homes where the owner had previously purchased the land and hired a general contractor to build. Sales that included land were time trended to the base appraisal date of January 1, 2017. All sites were field inspected by appraisers to verify class and gather data on the cost to build, if appropriate.

For the 10 homes that sold with the land, the land and OSD are calculated using the new factors from our land and OSD studies, and then subtracted from the time trended sale price of the property to extract the value of the dwelling. This residual value is then compared to a replacement cost new (RCN) calculated from the 2005 Residential Cost Factor Book. The ratio between the residual value and the RCN is an indicated Local Cost Modifier (LCM). The average LCM using this method was 1.30. For the 18 homes that were the contractor's total cost to build on the buyer's land, the ratio between the contractor's cost and the RCN is an indicated LCM. The average LCM using this method was 1.16.

Conclusions

The overall LCM mean calculated at 1.22; the sales extraction was higher at 1.30; the cost method indicated an LCM of 1.16; and the weighted mean calculated for a total of 1.21 with the cost method accounting for 64% and sales extraction method 36%. Columbia County has a mix of contractor, site and homeowner built residences. Therefore, the weighted mean is the best indicator for Columbia County's current market condition.

The 2018 Conventional Dwelling LCM to be applied to the 2005 Residential Cost Factor Book is 1.21.

Countywide Local Cost Modifier (LCM) Study Manufactured Dwellings

This study establishes a modifier to be applied to construction costs found in the 2004 Cost Factors for Manufactured Structures, to adjust the factors for manufactured dwellings to the base appraisal date of 1/1/17.

Analysis

For the previous year's study, three manufactured home dealers were visited, Factory Expo/Fleetwood, Palm Harbor Homes and J&M Homes/Goldenwest. Cost data was collected on various models of varying qualities and the dealer cost including delivery and setup were included. For this year's study, two of the dealers were contacted by telephone to determine if costs have changed since last year. Palm Harbor Homes reported that prices have increased by 5% over the last year, and may continue to increase due to demand as well as the increased cost of materials caused by the hurricanes. J&M Homes/Goldenwest indicated an increase of approximately 4-5% in the last year.

Based on the data provided by the dealers, last year's study was used for the two dealerships that were contacted and 5% was added to each of the homes in that study. The revised dealer prices were compared to the RCN as calculated from the 2004 Cost Factors for Manufactured Structures, resulting in an average LCM of 1.47.

Conclusions

The overall mean, overall median and the weighted mean all gave an indicated LCM of 1.47.

The 2018 Manufactured Dwelling LCM to be applied to the 2004 Cost Factors for Manufactured Structures is 1.47.

Countywide Local Cost Modifier (LCM) Study for Floating Property

The Oregon Department of Revenue does not provide a separate cost factor book to be used on floating property, however, the primary difference between conventional dwellings and floating homes is the foundation structure, so the same factor book is used. The costs to build a floating home are much higher than to build a home on land, so the calculated LCM is expected to reflect those higher costs. This study establishes a modifier to be applied to construction costs found in the 2005 Cost Factors for Residential Buildings to adjust the factors for floating property to the base appraisal date of 1/1/17.

Analysis

This analysis for the floating property LCM uses sales of new floating homes from 2014 through 2017. Due to a lack of sales in Columbia County, the majority of sales used were from Multnomah County. The sales were all time adjusted to the base appraisal date of January 1, 2017. There were 13 sales that occurred in Multnomah County and 4 sales that occurred in Columbia County. An appropriate quality class was determined for each of the floating homes. All 17 of the sales have been included in the analysis and the time adjusted sales price was compared with the calculated cost from the 2005 Cost Factors for Residential Buildings. The Multnomah County sales indicated an average LCM of 2.52 and the Columbia County sales indicated an average LCM of 2.51. With all 17 sales combined the overall average LCM was 2.52. In order to adequately reflect a local LCM, the 4 Columbia County sales were weighted at 75% and the 13 Multnomah County sales were weighted at 25%, which gives a weighted mean of 2.51.

Conclusions

Based on the data available, it was determined that the weighted mean is the most reliable indicator for the floating property LCM at 2.51.

The 2018 Floating Property LCM to be applied to the 2005 Cost Factors for Residential Buildings is 2.51.

Countywide Local Cost Modifier (LCM) for Farm Buildings

This study establishes a modifier to be applied to construction costs found in the 2009 Cost Factors for Farm Buildings, to adjust the factors for farm buildings to the base appraisal date of 1/1/17. The majority of farm buildings in Columbia County are general purpose pole frame type buildings.

Analysis

A sales extraction method for determining a Farm Building LCM was not done, properties are not generally sold with a new pole building. The best method of determining a local cost modifier for these types of buildings is by collecting data on the actual market cost to build. Three knowledgeable pole building companies, ECON-O-FAB Buildings Inc., Parker Buildings Inc., and M&W Building Supply Co., were contacted to get estimates for the typical cost of the most common pole buildings found in Columbia County. Although these contractors are located outside of Columbia County, they are widely used by Columbia County residents seeking a pole building contractor. The costs given included material, labor and concrete floor costs. Local permit fees were estimated and added to these costs in order to directly compare with the cost factors found in the 2009 Cost Factors for Farm Buildings. A total of 7 cost estimates were given for various sized pole buildings. The contractor cost, with permit fees added, were compared to the calculated cost of the same building from the 2009 Cost Factors for Farm Buildings. The average LCM indicated was 1.45, the median LCM was 1.44, and the weighted mean LCM indicated was 1.44.

Conclusions

The data collected is considered to be reliable building cost for farm buildings in Columbia County. These buildings are common for the area and represent a reasonable direct comparison of the 2009 Cost Factors for Farm Buildings. The mean, median and weighted mean indicate a tight pattern of indicated farm LCM based on current data. It is therefore recommended, that the 2009 Oregon DOR Farm Cost Factor Book be adjusted with an LCM of 1.44.

The 2018 Farm Building LCM to be applied to the 2009 Cost Factors for Farm Buildings is 1.44.

2018 Depreciation Schedules Analysis and Conclusions

Countywide Depreciation Study for Conventional Single Family Dwellings

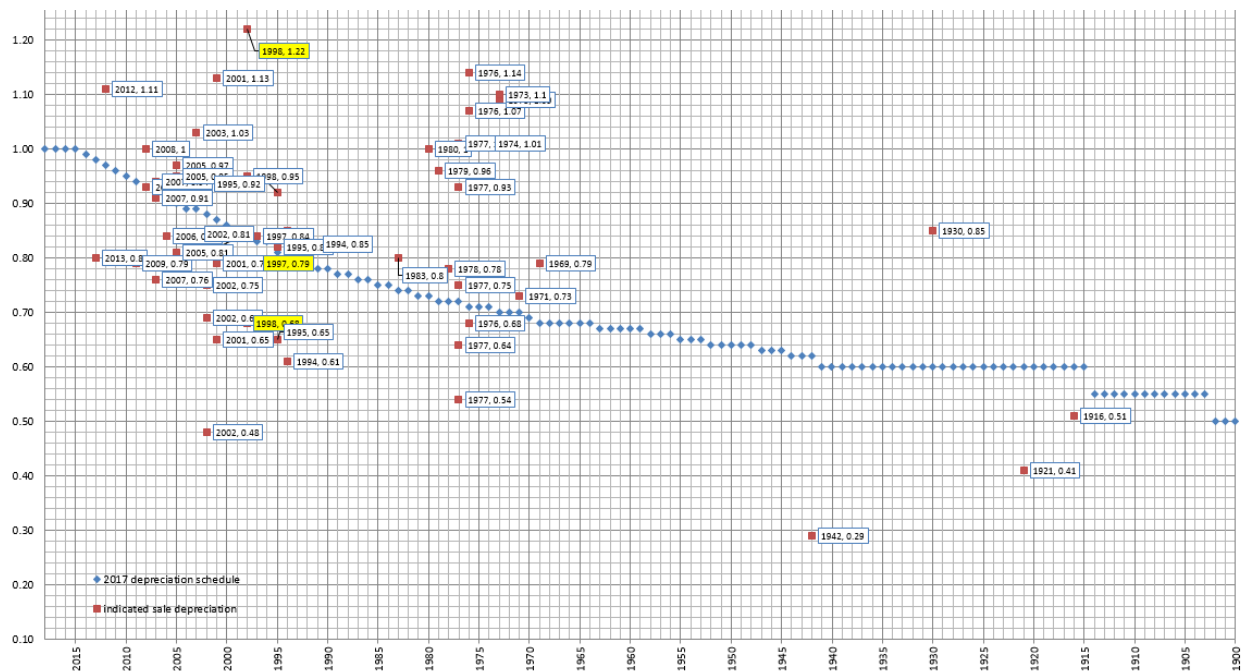
Analysis

There were a total of 872 sales of conventional single family dwellings during the past year. The first step in evaluating the sales was to narrow down the results to a more manageable number. Sales of properties that were eliminated included:

- Sales with dwellings in better or worse than average condition for their physical age.
- Sales of properties that had notable value influences due to topography, views, etc.
- Sales of properties in areas that there were not enough vacant land sales to establish a land schedule.
- Sales of properties with a high percentage of additional structures or accessory improvements where it would be difficult to adequately determine and extract the contributory value of these improvements.

The remaining 52 accounts were site inspected to verify quality class and condition of improvements for use in the depreciation study. An indicated depreciation of the dwelling was calculated for each sale by subtracting the scheduled land value and OSD from the time adjusted sale price. The residual value was divided by the calculated RCN (including the LCM) to determine the 'percent good' of the dwelling for its age. These percentages were then graphed with the previous year depreciation to determine if the current depreciation schedule needed adjustments.

Countywide Conventional Single Family Dwelling Depreciation Sales Graph



Conclusions

The data collected and analyzed for the 2018 Depreciation Study showed no changes from the depreciation schedule developed for 2017. Based on this analysis, the depreciation schedule from 2017 will continue to be used for 2018.

Countywide Conventional Single Family Dwelling Depreciation Schedule for 2018

Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent
2017	100	1985	75	1953	64	1921	60
2016	100	1984	74	1952	64	1920	60
2015	99	1983	74	1951	64	1919	60
2014	98	1982	73	1950	64	1918	60
2013	97	1981	73	1949	64	1917	60
2012	96	1980	72	1948	63	1916	60
2011	95	1979	72	1947	63	1915	55
2010	94	1978	72	1946	63	1914	55
2009	93	1977	71	1945	62	1913	55
2008	92	1976	71	1944	62	1912	55
2007	91	1975	71	1943	62	1911	55
2006	90	1974	70	1942	60	1910	55
2005	89	1973	70	1941	60	1909	55
2004	89	1972	70	1940	60	1908	55
2003	88	1971	69	1939	60	1907	55
2002	87	1970	68	1938	60	1906	55
2001	86	1969	68	1937	60	1905	55
2000	85	1968	68	1936	60	1904	55
1999	84	1967	68	1935	60	1903	50
1998	83	1966	68	1934	60	1902	50
1997	83	1965	68	1933	60	1901	50
1996	81	1964	67	1932	60	1900	50
1995	80	1963	67	1931	60	1899	50
1994	80	1962	67	1930	60	1898	50
1993	79	1961	67	1929	60	1897	45
1992	78	1960	67	1928	60	1896	45
1991	78	1959	66	1927	60	1895	40
1990	77	1958	66	1926	60	1894	40
1989	77	1957	66	1925	60	1893	40
1988	76	1956	65	1924	60	1892	30
1987	76	1955	65	1923	60	1891	20
1986	75	1954	65	1922	60	1890	10

Countywide Effective Year Built Based on Condition For Conventional Single Family Dwellings
for 2018

Poor	Fair	Avg	Good	Exc
1995	2005	2018	2018	2018
1990	2000	2017	2017	2018
1985	2000	2016	2016	2016
1980	1995	2015	2015	2016
1975	1995	2014	2014	2016
1975	1995	2013	2013	2016
1970	1990	2012	2013	2016
1970	1990	2011	2013	2016
1965	1990	2010	2013	2016
1965	1985	2009	2013	2015
1960	1985	2008	2013	2015
1960	1985	2007	2013	2015
1955	1980	2006	2013	2015
1955	1980	2005	2010	2015
1950	1980	2004	2010	2015
1950	1975	2003	2010	2015
1945	1975	2002	2010	2015
1945	1975	2001	2010	2015
1945	1970	2000	2005	2015
1940	1970	1999	2005	2015
1940	1970	1998	2005	2015
1940	1965	1997	2005	2015
1935	1965	1996	2005	2015
1935	1965	1995	2000	2010
1935	1960	1994	2000	2010
1930	1960	1993	2000	2010
1930	1960	1992	2000	2010
1930	1955	1991	2000	2010
1925	1955	1990	1995	2010
1925	1955	1989	1995	2010
1925	1955	1988	1995	2010
1925	1955	1987	1995	2010
1925	1950	1986	1995	2010
1925	1950	1985	1995	2010
1925	1950	1984	1995	2010
1925	1950	1983	1995	2010
1925	1950	1982	1995	2010
1925	1950	1981	1995	2010
1925	1950	1980	1995	2010
1925	1950	1979	1995	2010
1925	1950	1978	1995	2010
1925	1950	1977	1995	2010
1925	1950	1976	1995	2010

Poor	Fair	Avg	Good	Exc
1920	1945	1975	1990	2005
1920	1945	1974	1990	2005
1920	1945	1973	1990	2005
1920	1945	1972	1990	2005
1920	1945	1971	1990	2005
1920	1945	1970	1990	2005
1920	1945	1969	1990	2005
1920	1945	1968	1990	2005
1920	1945	1967	1990	2005
1920	1945	1966	1990	2005
1915	1940	1965	1985	2000
1915	1940	1964	1985	2000
1915	1940	1963	1985	2000
1915	1940	1962	1985	2000
1915	1940	1961	1985	2000
1915	1935	1960	1985	2000
1915	1935	1959	1985	2000
1915	1935	1958	1985	2000
1915	1935	1957	1985	2000
1915	1935	1956	1985	2000
1915	1930	1955	1980	2000
1915	1930	1954	1980	2000
1915	1930	1953	1980	2000
1915	1930	1952	1980	2000
1915	1930	1951	1980	1995
1910	1925	1950	1975	1995
1910	1925	1949	1975	1995
1915	1925	1948	1975	2000
1915	1925	1947	1975	2000
1915	1925	1946	1975	2000
1915	1925	1945	1970	2000
1915	1925	1944	1970	2000
1915	1925	1943	1970	2000
1915	1925	1942	1970	2000
1915	1925	1941	1970	2000
1910	1920	1940	1970	1995
1910	1920	1939	1970	1995
1910	1920	1938	1970	1995
1910	1920	1937	1970	1995
1910	1920	1936	1970	1995
1910	1915	1935	1965	1995
1910	1915	1934	1965	1995
1910	1915	1933	1965	1995

Poor	Fair	Avg	Good	Exc
1910	1915	1932	1965	1995
1910	1915	1931	1965	1995
1905	1915	1930	1965	1990
1905	1910	1929	1965	1990
1905	1910	1928	1965	1990
1905	1910	1927	1965	1990
1905	1910	1926	1965	1990
1905	1910	1925	1960	1990
1905	1910	1924	1960	1990
1905	1910	1923	1960	1990
1905	1910	1922	1960	1990
1905	1910	1921	1960	1990
1905	1910	1920	1955	1990
1905	1905	1919	1955	1990
1905	1905	1918	1955	1990
1905	1905	1917	1955	1990
1905	1905	1916	1955	1990
1905	1905	1915	1950	1990
1905	1905	1914	1950	1990
1905	1905	1913	1950	1990
1905	1905	1912	1950	1990
1905	1905	1911	1950	1990
1905	1905	1910	1950	1990
1910	1910	1909	1950	1990
1905	1905	1908	1950	1990
1905	1905	1907	1945	1985
1905	1905	1906	1945	1985
1905	1905	1905	1945	1985
1905	1905	1904	1945	1985
1900	1900	1903	1945	1985
1900	1900	1902	1940	1980
1900	1900	1901	1940	1980
1900	1900	1900	1940	1980
1900	1900	1899	1940	1980
1895	1895	1898	1940	1980
1895	1895	1897	1935	1975
1895	1895	1896	1935	1975
1895	1895	1895	1935	1975
1895	1895	1894	1935	1975
1890	1890	1893	1935	1975
<i>min</i>	<i>value</i>	1892	<i>min</i>	<i>value</i>
<i>stg</i>	<i>value</i>	1891	<i>stg</i>	<i>value</i>
<i>salv</i>	<i>value</i>	1890	<i>salv</i>	<i>value</i>

Note: Highlighted year is actual year built. Appraiser selects effective year based on condition for physical year in order to calculate depreciation.

Countywide Depreciation Study for Multi-Family Dwellings

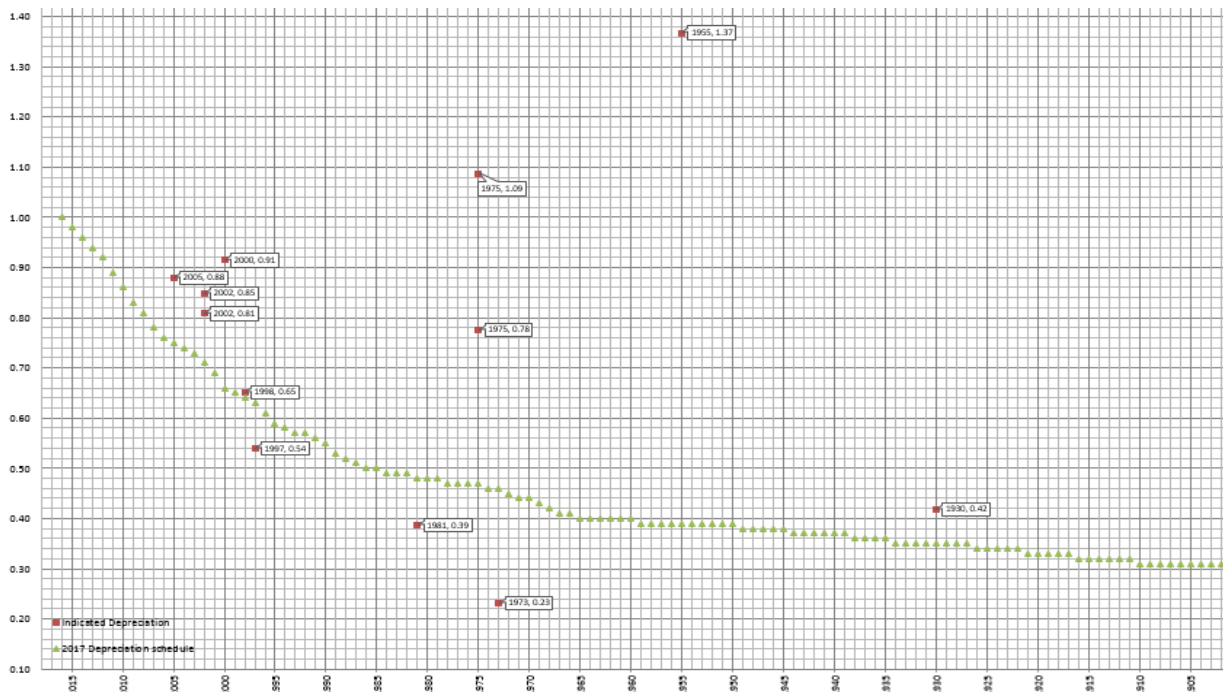
Analysis

There were a total of 28 sales of multi-family dwellings during the past year of which only 8 were useable for this study. Sales of properties that were eliminated from this total included:

- Sales with dwellings in better or worse than average condition for their physical age.
- Sales of properties that had notable value influences due to topography, views, etc.
- Sales of properties in areas that there were not enough vacant land sales to establish a land schedule.
- Sales of properties with a high percentage of additional structures or accessory improvements where it would be difficult to adequately determine and extract the contributory value of these improvements.

Due to the limited number, 4 additional sales were selected from the previous year. These 12 accounts were site inspected to verify quality class and condition of improvements for use in the depreciation study. An indicated depreciation of the multi-family dwelling was calculated for each sale by subtracting the scheduled land value and OSD from the time adjusted sale price. The residual value was divided by the calculated RCN (including the LCM) to determine the 'percent good' of the dwelling for its age. These percentages were then graphed with the previous year depreciation to determine if the current depreciation schedule needed adjustments.

Countywide Multi-Family Dwellings Depreciation Sales Graph



Conclusions

The data collected and analyzed for the 2018 Depreciation Study showed no changes from the depreciation schedule developed for 2017. Based on this analysis, the depreciation schedule from 2017 will continue to be used for 2018.

Countywide Multi-Family Dwelling Depreciation Schedule for 2018

Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent
2017	100	1985	50	1953	39	1921	33
2016	100	1984	49	1952	39	1920	33
2015	98	1983	49	1951	39	1919	33
2014	96	1982	49	1950	39	1918	33
2013	94	1981	48	1949	38	1917	33
2012	92	1980	48	1948	38	1916	32
2011	89	1979	48	1947	38	1915	32
2010	86	1978	47	1946	38	1914	32
2009	83	1977	47	1945	38	1913	32
2008	81	1976	47	1944	37	1912	32
2007	78	1975	47	1943	37	1911	32
2006	76	1974	46	1942	37	1910	31
2005	75	1973	46	1941	37	1909	31
2004	74	1972	45	1940	37	1908	31
2003	73	1971	44	1939	37	1907	31
2002	71	1970	44	1938	36	1906	31
2001	69	1969	43	1937	36	1905	31
2000	66	1968	42	1936	36	1904	31
1999	65	1967	41	1935	36	1903	31
1998	64	1966	41	1934	35	1902	31
1997	63	1965	40	1933	35	1901	31
1996	61	1964	40	1932	35	1900	31
1995	59	1963	40	1931	35	1899	30
1994	58	1962	40	1930	35	1898	30
1993	57	1961	40	1929	35	1897	30
1992	57	1960	40	1928	35	1896	30
1991	56	1959	39	1927	35	1895	30
1990	55	1958	39	1926	34	1894	30
1989	53	1957	39	1925	34	1893	30
1988	52	1956	39	1924	34	1892	30
1987	51	1955	39	1923	34	1891	20
1986	50	1954	39	1922	34	1890	10

Countywide Effective Year Built Based on Condition For Multi-Family Dwellings for 2018

Poor	Fair	Avg	Good	Exc	Poor	Fair	Avg	Good	Exc	Poor	Fair	Avg	Good	Exc
1995	2005	2018	2018	2018	1920	1945	1975	1990	2005	1910	1915	1932	1965	1995
1990	2000	2017	2017	2018	1920	1945	1974	1990	2005	1910	1915	1931	1965	1995
1985	2000	2016	2016	2016	1920	1945	1973	1990	2005	1905	1915	1930	1965	1990
1980	1995	2015	2015	2016	1920	1945	1972	1990	2005	1905	1910	1929	1965	1990
1975	1995	2014	2014	2016	1920	1945	1971	1990	2005	1905	1910	1928	1965	1990
1975	1995	2013	2013	2016	1920	1945	1970	1990	2005	1905	1910	1927	1965	1990
1970	1990	2012	2013	2016	1920	1945	1969	1990	2005	1905	1910	1926	1965	1990
1970	1990	2011	2013	2016	1920	1945	1968	1990	2005	1905	1910	1925	1960	1990
1965	1990	2010	2013	2016	1920	1945	1967	1990	2005	1905	1910	1924	1960	1990
1965	1985	2009	2013	2015	1920	1945	1966	1990	2005	1905	1910	1923	1960	1990
1960	1985	2008	2013	2015	1915	1940	1965	1985	2000	1905	1910	1922	1960	1990
1960	1985	2007	2013	2015	1915	1940	1964	1985	2000	1905	1910	1921	1960	1990
1955	1980	2006	2013	2015	1915	1940	1963	1985	2000	1905	1910	1920	1955	1990
1955	1980	2005	2010	2015	1915	1940	1962	1985	2000	1905	1905	1919	1955	1990
1950	1980	2004	2010	2015	1915	1940	1961	1985	2000	1905	1905	1918	1955	1990
1950	1975	2003	2010	2015	1915	1935	1960	1985	2000	1905	1905	1917	1955	1990
1945	1975	2002	2010	2015	1915	1935	1959	1985	2000	1905	1905	1916	1955	1990
1945	1975	2001	2010	2015	1915	1935	1958	1985	2000	1905	1905	1915	1950	1990
1945	1970	2000	2005	2015	1915	1935	1957	1985	2000	1905	1905	1914	1950	1990
1940	1970	1999	2005	2015	1915	1935	1956	1985	2000	1905	1905	1913	1950	1990
1940	1970	1998	2005	2015	1915	1930	1955	1980	2000	1905	1905	1912	1950	1990
1940	1965	1997	2005	2015	1915	1930	1954	1980	2000	1905	1905	1911	1950	1990
1935	1965	1996	2005	2015	1915	1930	1953	1980	2000	1905	1905	1910	1950	1990
1935	1965	1995	2000	2010	1915	1930	1952	1980	2000	1910	1910	1909	1950	1990
1935	1960	1994	2000	2010	1915	1930	1951	1980	1995	1905	1905	1908	1950	1990
1930	1960	1993	2000	2010	1910	1925	1950	1975	1995	1905	1905	1907	1945	1985
1930	1960	1992	2000	2010	1910	1925	1949	1975	1995	1905	1905	1906	1945	1985
1930	1955	1991	2000	2010	1915	1925	1948	1975	2000	1905	1905	1905	1945	1985
1925	1955	1990	1995	2010	1915	1925	1947	1975	2000	1905	1905	1904	1945	1985
1925	1955	1989	1995	2010	1915	1925	1946	1975	2000	1900	1900	1903	1945	1985
1925	1955	1988	1995	2010	1915	1925	1945	1970	2000	1900	1900	1902	1940	1980
1925	1955	1987	1995	2010	1915	1925	1944	1970	2000	1900	1900	1901	1940	1980
1925	1950	1986	1995	2010	1915	1925	1943	1970	2000	1900	1900	1900	1940	1980
1925	1950	1985	1995	2010	1915	1925	1942	1970	2000	1900	1900	1899	1940	1980
1925	1950	1984	1995	2010	1915	1925	1941	1970	2000	1895	1895	1898	1940	1980
1925	1950	1983	1995	2010	1910	1920	1940	1970	1995	1895	1895	1897	1935	1975
1925	1950	1982	1995	2010	1910	1920	1939	1970	1995	1895	1895	1896	1935	1975
1925	1950	1981	1995	2010	1910	1920	1938	1970	1995	1895	1895	1895	1935	1975
1925	1950	1980	1995	2010	1910	1920	1937	1970	1995	1895	1895	1894	1935	1975
1925	1950	1979	1995	2010	1910	1920	1936	1970	1995	1890	1890	1893	1935	1975
1925	1950	1978	1995	2010	1910	1915	1935	1965	1995	<i>min</i>	<i>value</i>	1892	<i>min</i>	<i>value</i>
1925	1950	1977	1995	2010	1910	1915	1934	1965	1995	<i>stg</i>	<i>value</i>	1891	<i>stg</i>	<i>value</i>
1925	1950	1976	1995	2010	1910	1915	1933	1965	1995	<i>salv</i>	<i>value</i>	1890	<i>salv</i>	<i>value</i>

Note: Highlighted year is actual year built. Appraiser selects effective year based on condition for physical year in order to calculate depreciation.

Countywide Depreciation Study for Real Property Manufactured Dwellings

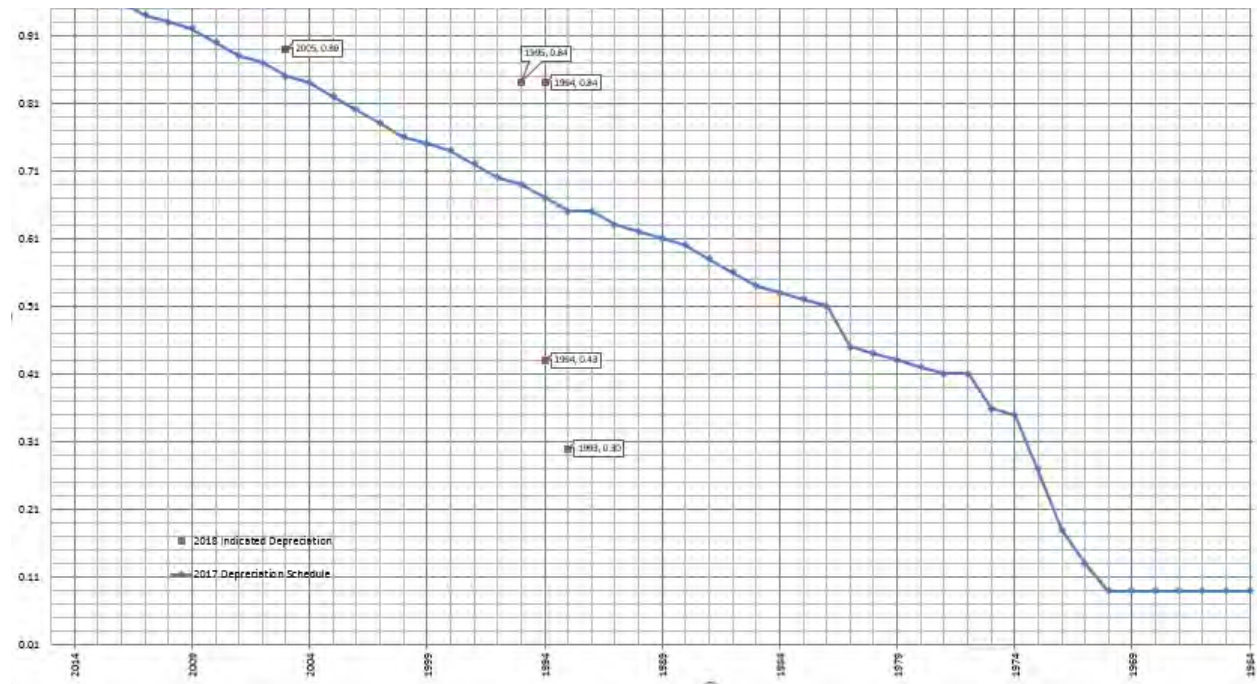
Analysis

There were a total of 88 sales of real property manufactured dwellings during the past year of which only 6 were useable for this study. Sales of properties that were eliminated from this total included:

- Sales with dwellings in better or worse than average condition for their physical age.
- Sales of properties that had notable value influences due to topography, views, etc.
- Sales of properties in areas that there were not enough vacant land sales to establish a land schedule.
- Sales of properties with a high percentage of additional structures or accessory improvements where it would be difficult to adequately determine and extract the contributory value of these improvements.

These 6 accounts were site inspected to verify quality class and condition of improvements for use in the depreciation study. An indicated depreciation of the manufactured dwelling was calculated for each sale by subtracting the scheduled land value and OSD from the time adjusted sale price. The residual value was divided by the calculated RCN (including the LCM) to determine the 'percent good' of the dwelling for its age. These percentages were then graphed with the previous year depreciation to determine if the current depreciation schedule needed adjustments.

Countywide Real Property Manufactured Dwellings Depreciation Sales Graph



Conclusions

The data collected and analyzed for the 2018 Depreciation Study showed no changes from the depreciation schedule developed for 2017. Based on this analysis, the depreciation schedule from 2017 will continue to be used for 2018.

Countywide Real Property Manufactured Dwelling Depreciation Schedule for 2018

Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent
2017	100	2003	73	1989	53	1975	47
2016	100	2002	71	1988	52	1974	46
2015	98	2001	69	1987	51	1973	46
2014	96	2000	66	1986	50	1972	45
2013	94	1999	65	1985	50	1971	44
2012	92	1998	64	1984	49	1970	44
2011	89	1997	63	1983	49	1969	43
2010	86	1996	61	1982	49	1968	42
2009	83	1995	59	1981	48	1967	41
2008	81	1994	58	1980	48	1966	41
2007	78	1993	57	1979	48	1965	40
2006	76	1992	57	1978	47	1964	40
2005	75	1991	56	1977	47	1963	40
2004	74	1990	55	1976	47		

Countywide Effective Year Built Based on Condition For Real Property Manufactured Dwellings
for 2018

Poor	Fair	Avg	Good	Exc		Poor	Fair	Avg	Good	Exc		Poor	Fair	Avg	Good	Exc
2008	2012	2018	2018	2018		1982	1990	1999	2004	2010		1966	1970	1980	1982	1990
2006	2012	2017	2017	2017		1982	1990	1998	2004	2010		1966	1970	1979	1982	1990
2006	2010	2016	2016	2016		1982	1990	1997	2004	2010		1966	1970	1978	1982	1990
2004	2010	2015	2015	2015		1982	1990	1996	2004	2010		1966	1970	1977	1982	1990
2004	2010	2014	2014	2014		1982	1984	1995	2000	2010		1966	1970	1976	1982	1990
2004	2010	2013	2014	2014		1982	1984	1994	2000	2010		1966	1966	1975	1980	1986
2004	2010	2012	2012	2014		1982	1984	1993	2000	2010		1966	1966	1974	1980	1986
2000	2004	2011	2012	2014		1976	1984	1992	2000	2010		1966	1966	1973	1980	1986
1994	2004	2010	2012	2014		1976	1984	1991	2000	2010		1966	1966	1972	1980	1986
1990	2000	2009	2012	2014		1976	1982	1990	1994	2004		1966	1966	1971	1980	1986
1990	2000	2008	2012	2014		1976	1982	1989	1994	2004		1966	1966	1970	1974	1982
1990	2000	2007	2012	2014		1976	1982	1988	1994	2004		1966	1966	1969	1974	1982
1990	2000	2006	2012	2012		1970	1982	1987	1994	2004		1966	1966	1968	1974	1982
1984	1994	2005	2010	2012		1970	1982	1986	1994	2004		1966	1966	1967	1974	1982
1984	1994	2004	2010	2012		1970	1976	1985	1990	2000		1964	1964	1966	1974	1980
1984	1994	2003	2010	2012		1970	1976	1984	1990	2000		1964	1964	1965	1972	1980
1984	1994	2002	2010	2012		1970	1976	1983	1990	2000		1963	1963	1964	1972	1978
1984	1994	2001	2010	2012		1970	1976	1982	1990	2000		1963	1963	1963	1970	1978
1982	1990	2000	2004	2010		1966	1976	1981	1990	2000						

Note: Highlighted year is actual year built. Appraiser selects effective year based on condition for physical year in order to calculate depreciation.

Countywide Depreciation Study for Personal Property Manufactured Dwellings

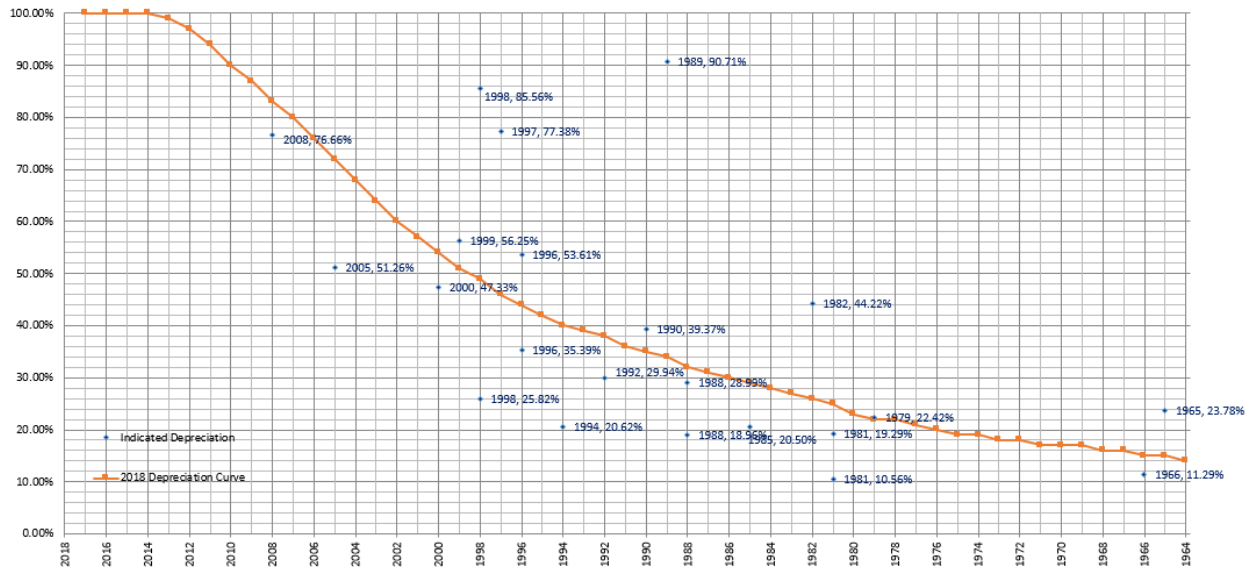
Analysis

There were a total of 40 sales of personal property manufactured dwellings during the past year of which only 29 were useable for this study. Sales of properties that were eliminated from this total included:

- Sales with dwellings in better or worse than average condition for their physical age.
- Sales of properties with a high percentage of additional structures or accessory improvements where it would be difficult to adequately determine and extract the contributory value of these improvements.

These 29 accounts were site inspected to verify quality class and condition of improvements for use in the depreciation study. The time adjusted sales price was divided by the calculated RCN (including the LCM) to determine the 'percent good' of the dwelling for its age. These percentages were then graphed to identify a potential depreciation curve.

Countywide Personal Property Manufactured Dwellings Depreciation Sales Graph



Conclusions

The data collected and analyzed for the 2018 Depreciation Study was determined to be sufficient to develop a new depreciation schedule for 2018.

Countywide Personal Property Manufactured Dwelling Depreciation Schedule for 2018

Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent
2017	100	2003	60	1989	32	1975	19
2016	100	2002	57	1988	31	1974	18
2015	100	2001	54	1987	30	1973	18
2014	99	2000	51	1986	29	1972	17
2013	97	1999	49	1985	28	1971	17
2012	94	1998	46	1984	27	1970	17
2011	90	1997	44	1983	26	1969	16
2010	87	1996	42	1982	25	1968	16
2009	83	1995	40	1981	23	1967	15
2008	80	1994	39	1980	22	1966	15
2007	76	1993	38	1979	22	1965	14
2006	72	1992	36	1978	21	1964	14
2005	68	1991	35	1977	20	1963	14
2004	64	1990	34	1976	19		

Countywide Effective Year Built Based on Condition For Personal Property Manufactured Dwellings for 2018

Poor	Fair	Avg	Good	Exc	Poor	Fair	Avg	Good	Exc	Poor	Fair	Avg	Good	Exc
2008	2012	2018	2018	2018	1982	1990	1999	2004	2010	1966	1970	1980	1982	1990
2006	2012	2017	2017	2017	1982	1990	1998	2004	2010	1966	1970	1979	1982	1990
2006	2010	2016	2016	2016	1982	1990	1997	2004	2010	1966	1970	1978	1982	1990
2004	2010	2015	2015	2015	1982	1990	1996	2004	2010	1966	1970	1977	1982	1990
2004	2010	2014	2014	2014	1982	1984	1995	2000	2010	1966	1970	1976	1982	1990
2004	2010	2013	2014	2014	1982	1984	1994	2000	2010	1966	1966	1975	1980	1986
2004	2010	2012	2012	2014	1982	1984	1993	2000	2010	1966	1966	1974	1980	1986
2000	2004	2011	2012	2014	1976	1984	1992	2000	2010	1966	1966	1973	1980	1986
1994	2004	2010	2012	2014	1976	1984	1991	2000	2010	1966	1966	1972	1980	1986
1990	2000	2009	2012	2014	1976	1982	1990	1994	2004	1966	1966	1971	1980	1986
1990	2000	2008	2012	2014	1976	1982	1989	1994	2004	1966	1966	1970	1974	1982
1990	2000	2007	2012	2014	1976	1982	1988	1994	2004	1966	1966	1969	1974	1982
1990	2000	2006	2012	2012	1970	1982	1987	1994	2004	1966	1966	1968	1974	1982
1984	1994	2005	2010	2012	1970	1982	1986	1994	2004	1966	1966	1967	1974	1982
1984	1994	2004	2010	2012	1970	1976	1985	1990	2000	1964	1964	1966	1974	1980
1984	1994	2003	2010	2012	1970	1976	1984	1990	2000	1964	1964	1965	1972	1980
1984	1994	2002	2010	2012	1970	1976	1983	1990	2000	1963	1963	1964	1972	1978
1984	1994	2001	2010	2012	1970	1976	1982	1990	2000	1963	1963	1963	1970	1978
1982	1990	2000	2004	2010	1966	1976	1981	1990	2000					

Note: Highlighted year is actual year built. Appraiser selects effective year based on condition for physical year in order to calculate depreciation.

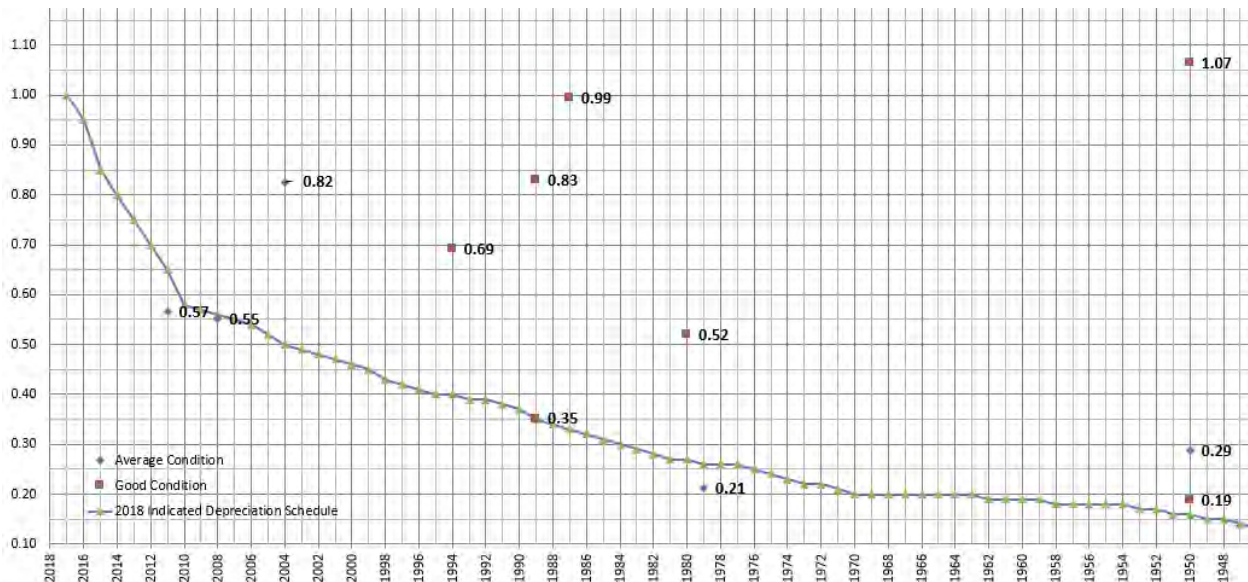
Countywide Depreciation Study for Floating Property

Analysis

There were only 6 useable sales of floating property that occurred during 2016, of which only 2 were in average condition. Due to the limited sales, 6 additional floating properties that sold during 2015 were included. All sales were time trended to the base appraisal date of 1/1/2017.

Each property was inspected to verify quality class and condition. Properties in better than average condition were not removed from the study, but rather included on the graph due to the limited number of sales available. The time adjusted sales price of each property was divided by the calculated RCN (including the LCM) to determine the 'percent good' of the dwelling for its age. These percentages were then graphed to identify a potential depreciation curve.

Countywide Personal Property Manufactured Dwellings Depreciation Sales Graph



Conclusions

Floating property has a much higher LCM than conventional dwellings, indicating a much higher cost of construction. However, they appear to depreciate rapidly in the first few years before leveling out as they get older. Based on the supporting data, a new depreciation schedule for floating property has been developed.

Countywide Floating Property Depreciation Schedule for 2018

Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent
2017	100	1985	31	1953	17	1921	10
2016	95	1984	30	1952	16	1920	10
2015	85	1983	29	1951	16	1919	10
2014	80	1982	28	1950	15	1918	10
2013	75	1981	27	1949	15	1917	10
2012	70	1980	27	1948	14	1916	10
2011	65	1979	26	1947	13	1915	10
2010	58	1978	26	1946	13	1914	10
2009	57	1977	26	1945	12	1913	10
2008	56	1976	25	1944	12	1912	10
2007	55	1975	24	1943	12	1911	10
2006	54	1974	23	1942	12	1910	10
2005	52	1973	22	1941	11	1909	10
2004	50	1972	22	1940	11	1908	10
2003	49	1971	21	1939	11	1907	10
2002	48	1970	20	1938	11	1906	10
2001	47	1969	20	1937	11	1905	10
2000	46	1968	20	1936	11	1904	10
1999	45	1967	20	1935	11	1903	10
1998	43	1966	20	1934	10	1902	10
1997	42	1965	20	1933	10	1901	10
1996	41	1964	20	1932	10	1900	10
1995	40	1963	20	1931	10		
1994	40	1962	19	1930	10		
1993	39	1961	19	1929	10		
1992	39	1960	19	1928	10		
1991	38	1959	19	1927	10		
1990	37	1958	18	1926	10		
1989	35	1957	18	1925	10		
1988	34	1956	18	1924	10		
1987	33	1955	18	1923	10		
1986	32	1954	17	1922	10		

Countywide Effective Year Built Based on Condition For Floating Property for 2018

Poor	Fair	Avg	Good	Exc
2017	2017	2018	2018	2018
2016	2016	2017	2017	2017
2014	2015	2016	2017	2017
2012	2014	2015	2017	2017
2010	2013	2014	2017	2017
2004	2011	2013	2017	2017
1998	2009	2012	2016	2017
1997	2007	2011	2016	2017
1997	2005	2010	2016	2017
1996	2004	2009	2016	2016
1996	2003	2008	2015	2016
1995	2002	2007	2015	2016
1994	2002	2006	2015	2016
1992	2001	2005	2015	2016
1990	2001	2004	2014	2016
1989	2000	2003	2014	2016
1988	2000	2002	2014	2016
1987	1999	2001	2014	2016
1987	1998	2000	2013	2016
1986	1996	1999	2013	2015
1985	1994	1998	2013	2015
1985	1992	1997	2013	2015
1984	1991	1996	2013	2015
1983	1990	1995	2012	2015
1983	1989	1994	2012	2015
1982	1988	1993	2012	2015
1980	1987	1992	2012	2015
1978	1986	1991	2012	2015
1977	1986	1990	2011	2015
1976	1985	1989	2011	2014
1974	1985	1988	2010	2014
1972	1984	1987	2010	2014
1970	1984	1986	2009	2014
1968	1983	1985	2009	2014
1966	1982	1984	2008	2014
1964	1980	1983	2006	2014
1962	1978	1982	2004	2013
1960	1976	1981	2003	2013
1958	1975	1980	2002	2013
1956	1974	1979	2001	2013
1954	1973	1978	2000	2013
1952	1972	1977	1999	2013
1950	1971	1976	1998	2013

Poor	Fair	Avg	Good	Exc
1948	1970	1975	1997	2013
1946	1968	1974	1996	2013
1944	1965	1973	1995	2012
1942	1961	1972	1994	2012
1942	1957	1971	1993	2012
1942	1952	1970	1992	2012
1942	1950	1969	1991	2012
1941	1948	1968	1990	2012
1941	1947	1967	1989	2012
1941	1946	1966	1988	2012
1940	1945	1965	1987	2012
1940	1944	1964	1986	2012
1940	1944	1963	1985	2011
1940	1943	1962	1984	2011
1940	1943	1961	1983	2011
1940	1942	1960	1982	2011
1940	1942	1959	1981	2011
1940	1942	1958	1980	2011
1940	1941	1957	1980	2011
1940	1941	1956	1978	2011
1940	1940	1955	1978	2011
1940	1940	1954	1976	2011
1940	1940	1953	1976	2011
1940	1940	1952	1976	2011
1940	1940	1951	1976	2011
1940	1940	1950	1975	2011
1940	1940	1949	1975	2010
1940	1940	1948	1975	2010
1940	1940	1947	1974	2010
1940	1940	1946	1974	2010
1940	1940	1945	1973	2010
1940	1940	1944	1973	2010
1940	1940	1943	1973	2010
1940	1940	1942	1972	2010
1940	1940	1941	1972	2010
1940	1940	1940	1971	2010
1939	1939	1939	1971	2010
1938	1938	1938	1971	2010
1937	1937	1937	1971	2010
1936	1936	1936	1971	2010
1935	1935	1935	1970	2010
1934	1934	1934	1970	2010
1933	1933	1933	1970	2010

Poor	Fair	Avg	Good	Exc
1932	1932	1932	1970	2010
1931	1931	1931	1970	2010
1930	1930	1930	1970	2010
1929	1929	1929	1970	2010
1928	1928	1928	1970	2010
1927	1927	1927	1970	2010
1926	1926	1926	1970	2010
1925	1925	1925	1970	2010
1924	1924	1924	1970	2010
1923	1923	1923	1970	2010
1922	1922	1922	1970	2010
1921	1921	1921	1970	2010
1920	1920	1920	1970	2010
1919	1919	1919	1970	2010
1918	1918	1918	1970	2010
1917	1917	1917	1970	2010
1916	1916	1916	1970	2010
1915	1915	1915	1970	2010
1914	1914	1914	1970	2010
1913	1913	1913	1970	2010
1912	1912	1912	1970	2010
1911	1911	1911	1970	2010
1910	1910	1910	1970	2010
1909	1909	1909	1970	2010
1908	1908	1908	1970	2010
1907	1907	1907	1970	2010
1906	1906	1906	1970	2010
1905	1905	1905	1970	2010
1904	1904	1904	1970	2010
1903	1903	1903	1970	2010
1902	1902	1902	1970	2010
1901	1901	1901	1970	2010
1900	1900	1900	1970	2010

Note: Highlighted year is actual year built. Appraiser selects effective year based on condition for physical year in order to calculate depreciation.

Countywide Depreciation Study for Farm Buildings

Analysis

It is not feasible to use an extraction method to determine a market-based depreciation schedule for farm buildings. In most cases, these structures represent a minimal portion of the overall real market value of a property.

Conclusions

Farm buildings are depreciated using a straight-line depreciation method. The appraiser uses judgment in determining the effective age of the structure.

Countywide Farm Building Depreciation Schedule for 2018

Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent	Eff Yr Built	2018 Percent
2017	100	1985	68	1953	36	1921	10
2016	99	1984	67	1952	35	1920	10
2015	98	1983	66	1951	34	1919	10
2014	97	1982	65	1950	33	1918	10
2013	96	1981	64	1949	32	1917	10
2012	95	1980	63	1948	31	1916	10
2011	94	1979	62	1947	30	1915	10
2010	93	1978	61	1946	29	1914	10
2009	92	1977	60	1945	28	1913	10
2008	91	1976	59	1944	27	1912	10
2007	90	1975	58	1943	26	1911	10
2006	89	1974	57	1942	25	1910	10
2005	88	1973	56	1941	24	1909	10
2004	87	1972	55	1940	23	1908	10
2003	86	1971	54	1939	22	1907	10
2002	85	1970	53	1938	21	1906	10
2001	84	1969	52	1937	20	1905	10
2000	83	1968	51	1936	19	1904	10
1999	82	1967	50	1935	18	1903	10
1998	81	1966	49	1934	17	1902	10
1997	80	1965	48	1933	16	1901	10
1996	79	1964	47	1932	15	1900	10
1995	78	1963	46	1931	14		
1994	77	1962	45	1930	13		
1993	76	1961	44	1929	12		
1992	75	1960	43	1928	11		
1991	74	1959	42	1927	10		
1990	73	1958	41	1926	10		
1989	72	1957	40	1925	10		
1988	71	1956	39	1924	10		
1987	70	1955	38	1923	10		
1986	69	1954	37	1922	10		

2018 Land Adjustments Analysis and Conclusions

MA 01 and MA 06 (City) Adjustment Study for Premium Location

Analysis

The neighborhoods in St. Helens and Columbia City that are considered by market perception to be more desirable than older city lots that our land values are initially based on have been identified. The assumption is made that neighborhoods where homes are similar in style, quality and age, and usually located in areas with curbs, sidewalks and underground utilities will command a higher sales price than areas where there is a mix of old and new homes of varying qualities with overhead utilities and few curbs and sidewalks.

There were a total of 15 sales selected for use in this study based on their location and newer dwellings to minimize variables in attempting to extract the value attributable to their location in a more desirable neighborhood. All sales were time adjusted to the base appraisal date of 1/1/17. 6 of the sales resulted in a negative value and were eliminated from the study. The remaining 9 sales indicated a 37% adjustment. By trimming the highest and lowest ratios from these 9, the indicated adjustment was 34%.

Sales in Premium Locations in MA 01 and MA 06 (City)

Sale #	Time Adj. Sales Price	2018 Land Value	2018 OSD Value	2018 Impr DRC	Residual Value	Indicated Premium % of Land
1	359,900	59,457	27,000	218,617	54,826	0.9221
2	461,734	73,346	27,000	316,195	45,193	0.6162
3	314,033	51,309	27,000	205,443	30,281	0.5902
4	262,221	47,471	27,000	169,421	18,329	0.3861
5	379,900	83,578	30,000	243,513	22,809	0.2729
6	272,162	47,575	27,000	188,193	9,394	0.1975
7	277,120	47,701	27,000	193,790	8,629	0.1809
8	321,800	67,980	27,000	216,721	10,099	0.1486
9	260,000	55,934	27,000	175,028	2,038	0.0364
Overall Average:						0.3723
Trimmed Average:						0.3418

Conclusions

Based on the supporting data and averages ranging from 34% to 37%, the Premium Location adjustment to be applied to land values of properties within selected neighborhoods in the cities of Saint Helens and Columbia City is 35%.

MA 3 SA 03 Adjustment Study for Non-Elevated Homes in the Floodplain

Analysis

There were 6 sales of homes within the floodplain in the City of Vernonia that had not been elevated. For this study, the difference between the residual dwelling value from the time adjusted sale and the calculated depreciated replacement cost (DRC) using the cost factor book, LCM and depreciation schedule was used to determine an estimated cost to cure. This difference was converted to a percentage of the DRC. The average percentage value loss to the non-elevated dwelling resulted in -23.17%.

Sales in MA 3 SA 03 with Non-Elevated Dwellings

Sale#	Time Adj. Sales Price	2018 Land Value	2018 OSD Value	Residual Impr Value	2018 DRC of Impr	Cost vs Sale Difference	Indicated % Adj.
1	197,902	29,330	27,000	141,572	154,171	(12,599)	-0.08
2	157,200	34,140	27,000	96,060	165,854	(69,794)	-0.42
3	128,674	26,890	27,000	74,784	88,725	(13,941)	-0.16
4	123,789	31,620	27,000	65,169	92,129	(26,960)	-0.29
5	124,516	26,890	27,000	70,626	76,262	(5,636)	-0.07
6	119,468	26,890	27,000	65,578	103,428	(37,850)	-0.37
Average Indicated % Adj:							-0.2317

Conclusions

Based on the supporting sales data, an adjustment of -25% will be used on the depreciated replacement cost of the dwelling for all non-elevated dwellings in MA 3 SA 03. This adjustment is only applied to non-elevated dwellings in the floodplain area.

Countywide Adjustment Study for Topography

Analysis

The data collected was located in MA 6, but the extracted % difference is considered reasonable to be applied to the remaining MA areas. There were 5 usable sales available for analysis of topography adjustments. All sales analyzed were time trended to the base appraisal date of 1/1/17. Of the 5 usable sales 3 were considered minimal topography, with 2 considered severe topography. The minimal topography adjustment was ranging from 19 % to -16%. The severe topography adjustment was ranging from -58% to -61%. The data collected appears to support the percentage adjustments used during the previous year.

Conclusions

Based on the data collected, the percentage reductions for topography adjustments will remain the same as last year. This percentage is to be applied to the entire land value unless otherwise noted in the appraisal.

Countywide Topography Adjustment		
Code	Description	Rate %
411	Topo- Minimal impact	-10%
412	Topo- Low Impact	-20%
413	Topo- Moderate Impact	-30%
415	Topo- Severe Impact	-40%

Maintenance Area 4 and 5 Adjustment Study for Views

Analysis

The data collected for extracting view adjustments for MA 4 and MA 5 was first analyzed individually by each maintenance and study area, but due to limited sales data of view properties, a decision was made to combine areas that are geographically similar (North County) in market perception. The extraction method was utilized by time adjusting the sales price then subtracting the depreciated improvement value, subtracting OSD and subtracting the base land value from the 2018 land schedule for the remaining residual contributory value associated with a market view. Previously views were broken down into 4 different categories fair, good, very good and excellent. During analyzation of the data for all areas, it appears that market perception is recognizing only 2 view categories Fair/Good and Very Good/Excellent. There was a total of 17 sales of which 8 were considered unusable because of the difficulty to adequately identify other characteristics that affected the value. The remaining 9 sales analyzed were time trended to the base appraisal date of 1/1/17.

Sales in MA 4 and MA 5 with Fair to Good Views

SALE #	MA	SA	DESCRIPTION	Time Adj Sales Price	Dep Impr Value	OSD	Land/View Residual Value	Schedule Land Value	Residual Value for View
1	04	00	VIEW - FAIR	180,378	130,750	15,000	34,628	32,848	1,780
2	04	00	VIEW - GOOD	115,483	88,027	15,000	12,456	10,775	1,681
3	04	41	VIEW - FAIR	411,100	171,889	54,000	185,211	141,627	43,584
4	04	41	VIEW - FAIR	406,358	241,401	54,000	110,957	82,574	28,383
5	04	41	VIEW - FAIR	283,910	117,034	54,000	112,876	82,500	30,376
6	05	51	VIEW - GOOD	327,740	204,512	50,000	73,228	48,919	24,309
7	04	00	VIEW - FAIR	161,789	85,155	15,000	61,634	23,393	38,241
Average Value for View:									24,051

Sales in MA 4 and MA 5 with Very Good to Excellent Views

SALE #	MA	SA	DESCRIPTION	Time Adj Sales Price	Dep Impr Value	OSD	Land/View Residual Value	Schedule Land Value	Residual Value for View
1	04	00	VIEW - V GOOD	279,751	202,897	15,000	61,854	29,375	32,479
2	04	00	VIEW - EXCEL	100,210	52,182	15,000	33,028	23,205	9,823
Average Value for View:									21,151

Conclusions

Based on the data collected for view adjustments in North Columbia County, it did not appear the current market recognizes a difference in the type of view. The results for the two categories were both very similar in value. Therefore, it's recommended that for 2018, all view adjustments for MA 4 and MA 5 be applied as a lump sum of \$23,000.

MA 4 and MA 5 View Adjustments for 2018	
Fair/Good View	\$23,000
Very Good/Excellent View	\$23,000

Maintenance Area 1, 2 and 6 Adjustment Study for Views

Analysis

The data collected for extracting view adjustments for MA 1, MA 2 and MA 6 was first analyzed individually by each maintenance and study area, but due to limited sales data of view properties, a decision was made to combine areas that are geographically similar (South County) in market perception. The extraction method was utilized by time adjusting the sales price then subtracting the depreciated improvement value, subtracting OSD and subtracting the base land value from the 2018 land schedule for the remaining residual contributory value associated with a market view. Previously views were broken down into 4 different categories fair, good, very good and excellent. During analyzation of the data for all areas, it appears that market perception is recognizing only 2 view categories Fair/Good and Very Good/Excellent. There was a total of 21 sales of which 8 were considered unusable because of the difficulty to adequately identify other characteristics that affected the value. The remaining 13 sales analyzed were time trended to the base appraisal date of 1/1/17.

Sales in MA 1, MA 2 and MA 6 with Fair to Good Views

SALE #	MA	SA	DESCRIPTION	Time Adj Sales Price	Dep Impr Value	OSD	Land/View Residual Value	Schedule Land Value	Residual Value for View
1	06	01	VIEW - FAIR	151,834	61,641	30,000	60,193	47,250	12,943
2	06	01	VIEW - GOOD	363,488	224,482	30,000	109,006	71,924	37,082
3	06	01	VIEW - FAIR	266,812	145,704	30,000	91,108	47,250	43,858
4	02	21	VIEW - GOOD	640,375	334,739	54,000	251,636	182,592	69,044
5	06	61	VIEW - GOOD	674,434	279,892	54,000	340,542	225,563	114,979
6	06	61	VIEW - GOOD	299,754	95,979	54,000	149,775	141,737	8,038
7	02	21	VIEW - GOOD	545,100	255,961	54,000	235,139	115,816	119,323
Average Value for View:									\$ 57,895

Sales in MA1, MA 2 and MA 6 with Very Good to Excellent Views

SALE #	MA	SA	DESCRIPTION	Time Adj Sales Price	Dep Impr Value	OSD	Land/View Residual Value	Schedule Land Value	Residual Value for View
1	01	00	VIEW - EXCELLENT	441,632	325,691	27,000	88,941	50,136	38,805
2	01	00	VIEW - VERY GOOD	279,963	129,923	27,000	123,040	42,424	80,616
3	01	00	VIEW - VERY GOOD	544,243	282,598	27,000	234,650	77,661	156,969
4	01	00	VIEW - VERY GOOD	474,669	291,652	27,000	156,017	50,858	105,159
5	06	01	VIEW - VERY GOOD	430,568	322,565	30,000	78,003	59,660	18,343
6	06	01	VIEW - VERY GOOD	694,584	462,746	30,000	201,838	72,227	129,611
Average Value for View:									\$ 88,250

Conclusions

Based on the data collected for view adjustments in South Columbia County, it appears the current market recognizes a difference in the type of view. The results for the two categories are shown in the table below.

MA 1, MA 2 and MA 6 View Adjustments for 2018	
Fair/Good View	\$60,000
Very Good/Excellent View	\$90,000

Maintenance Area 4 Adjustment Study for City of Rainier Slide Area

Analysis

The slide area in Rainier is an area east of Fox Creek and South of Columbia River Highway. In addition, any piece of land within the city limits that has a slope of 20% or more west of Fox Creek. The City of Rainier is currently working on an overlay map of the slide area.

For undeveloped lots in the slide area, there is approximately \$500 worth of planners time and application fee to review the required 'Geological Technical Report' prior to building.

Several Geological Engineers were contacted to determine the cost of having a Geological Technical Study and Report done for a property within the slide area of Rainier. The average cost is \$8,150.

Conclusions

Following are the slide area adjustments that should be applied to all vacant properties in the slide area and to all older improved properties that appear to have problems due to being located within the slide area of Rainier.

MA 4 City of Rainier Slide Area Adjustments for 2018	
Rainier Slide – City Fees	\$500
Rainier Slide – Engineering Fees	\$8,150

MA 04 SA 47 Adjustment Study for Riverfront Properties

Analysis

The data collected for extracting a Riverfront location adjustment in MA 4 SA 47 was based on a sales comparison of 2 identical homes with one being riverfront and the other an interior lot for a difference of \$44,000. Also included were 2 bare land sales of similar size with one riverfront and the other interior which indicated a difference of \$60,000. An average of these sales would indicate a \$52,000 adjustment for riverfront properties.

2018 MA 4 SA 47 Riverfront Paired Sales Study

Sale #	Property Description	Time-Adj Sales Price
1	Interior Lot - Vacant	90,149
2	Riverfront Lot - Vacant	149,885
Sales Price Difference for Riverfront:		59,736
3	Interior Lot - Improved 1686 sf dwelling	212,397
4	Riverfront Lot - Improved 1686 sf dwelling	256,053
Sales Price Difference for Riverfront:		43,656
Average Sales Price Difference:		51,696

Conclusions

Based on the data available for analysis it is recommended that an average of both figures be used in the 2018 setup, for a Riverfront adjustment of \$52,000.

Other Adjustments Where a Study was Not Completed for 2018

Creek Adjustment

There is no measurable data at to support a percentage or fixed amount adjustment for this area identifiers at this time in the following areas.

MA 1 SA 00	MA 1 SA 30	MA 1 SA 31	MA 1 SA 43
MA 6 SA 01	MA 6 SA 21	MA 6 SA 31	MA 6 SA 44

Busy Street Adjustment

There is no measurable data at to support a percentage or fixed amount adjustment for this area identifiers at this time in the following areas.

MA 1 SA 00	MA 1 SA 30	MA 1 SA 31	MA 1 SA 43
MA 6 SA 01	MA 6 SA 21	MA 6 SA 31	MA 6 SA 44

Transmission Lines - Countywide

A 50% adjustment is made to the value of the portion of land that lays directly under a major transmission line easement. This adjustment is not based on market sales, but rather is made to recognize the limited use and negative market perception of land that lies beneath major transmission lines.

2 Parcels/Taxlot, 3 Parcels/Taxlot - Countywide

These adjustments are used on non-platted properties where the highest and best use of the property based on location, zoning and access is to divide the property through the partition plat process and sell each parcel individually.

2 Parcels/Taxlot adds 50% of the land value 3 Parcels/Taxlot adds 90% of the land value

Partition Costs - Countywide

This adjustment is added to all properties that have either a 2 or 3 Parcels per Taxlot adjustment. It reduces the total land value by the typical partitioning costs.

2018 Partition Costs adjustment is -\$10,280.

Appeal Adjustments

This adjustment is used on properties where the value has been reduced by the Board of Property Tax Appeals or by the Oregon Tax Court (either Magistrate or Regular Division), to maintain the same percentage of reduction over the 5 year adjudication period while continuing to recalculate the values using current setup factors.