



# Residential Appraisal Process

REAL PROPERTY

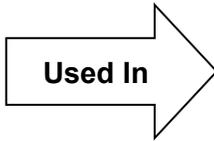
Snohomish County Assessor 

Linda Hjelle – Assessor  
3000 Rockefeller Ave. M/S 510  
Everett, WA 98201  
Phone: 425-388-6555  
<http://www.snohomishcountywa.gov/assessor>

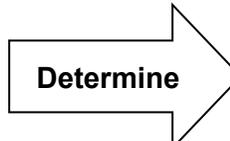
## The Residential Appraisal Process:



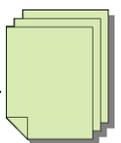
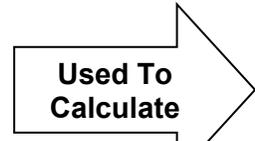
Market Sales  
In 2015



Mass Appraisal  
Process



Appraised Value  
As of January 1st, 2016



Taxes Payable  
In 2017

### Introduction

#### Purpose of this Document

The purpose of this document is to briefly outline the procedures used by the Snohomish County Assessor's Office to appraise residential properties for *ad valorem*<sup>1</sup> tax purposes and to satisfy the legal requirement to supply documentation as to how an individual property value was determined when such documentation is requested by a property owner as part of the property value appeal process. *RCW* 84.48.150

#### Role of the Assessor

It is the responsibility of the Assessor to administer the property assessment system. A component of that responsibility is the appraisal of all property at 100% of its market value. The Snohomish County Assessor's office performs the appraisals on an annual basis.

#### Mission Statement

Our mission is to administer a property assessment system that meets legal requirements and to serve our customers in an efficient and professional manner.

The Snohomish County Assessor established the following set of goals in support of the office mission statement:

- fair and equitable appraisals that meet the market value standard as prescribed by the Revised Code of Washington (*RCW*) and the Washington Administrative Code (*WAC*)
- appraisals that meet the International Association of Assessing Officers (*PRD*) performance standards for appraisal level and uniformity
- comply with the Uniform Standard of Appraisal Practices (*USPAP*) published by The Appraisal Foundation

### Appraisal Methodology

#### Mass Appraisal

The annual appraisal of properties in Snohomish County is performed using a technique known as 'mass appraisal'. Mass appraisal is defined as:

The process of valuing a group of properties as of a given date, using standard methods, employing common data, and allowing for statistical testing.<sup>2</sup>

#### Market Models

Mass appraisal utilizes market models that explain the relationship between sales prices and the property characteristics that produce value such as: property location, utility, property size, amount and type of waterfront, type and scope of view,

<sup>1</sup> Items in *blue* italics can be found in the Glossary at the end of this document.

<sup>2</sup> *Glossary for Property Appraisal and Assessment*, IAAO, 1997.

## Mass Appraising Residential Properties

improvement quality, improvement square footage, age, condition, etc.

### Why Assessor's Use Mass Appraisal

It is cost prohibitive for the Assessor's office to appraise 240,000 residential properties each year by performing single property appraisals utilizing three comparable sales. Assessors instead use mass appraisal techniques to arrive at the *appraised values*.

### Who Performs the Mass Appraisal Process

The mass appraisal is performed by appraisers trained in mass appraisal techniques and property assessment administration. They are accredited through the State of Washington.

### Inspection of Properties

A component of the appraisal process is the inspection of properties. The Revised Code of Washington (RCW 84.41.041) tells assessors how frequently properties must be inspected for tax purposes (more frequent is allowed):

Each county assessor shall cause taxable real property to be physically inspected and valued at least once every six years in accordance with RCW 84.41.030, and in accordance with a plan filed with and approved by the Washington State Department of Revenue.

Snohomish County appraisers inspect one sixth of the residential properties in the county, or approximately 40,000 properties, every year. Over a six year period, all properties are inspected.

Property inspections for existing properties are primarily a verification of data previously collected on a property. It is also a time to note changes that may have occurred since the last inspection such as declining condition, the obstruction of a view due to new structures that have been built, or trees encroaching into the view. Inspections are generally done from the street or driveway unless a change in the property is noted that requires an appraiser to set foot on the property.

### Appraisal Date

RCW 84.40.020, instructs Assessors to appraise property as of January 1st of each year.

All real property in this state subject to taxation shall be listed and assessed every year, with reference to its value on the first day of January of the year in which it is assessed.

### Market Models

All Snohomish County residential properties are appraised as of January 1st, of each year using mass appraisal techniques, i.e. market models.

The market model used for residential properties in Snohomish County is a sales adjusted *cost approach*, adjusted annually (*calibrated*) to local market conditions. At its most basic, the model is the value of land plus the value of *improvements*.

### Compiling Sales

Mass appraisal model *calibration* begins with compiling a list of the properties that sold prior to the appraisal date. These sales are reviewed to determine if they are valid, open market, willing buyer / willing seller transactions. Only valid market transactions as defined by Washington Administrative Code (WAC 458-53-080(2)) are considered in the appraisal process.

### Sales Used in the Appraisal Process

RCW 84.40.030 permits Assessors to use sales that occurred in the five years prior to the appraisal date. Value shall be based on the following criteria:

- (1) Any sales of the property being appraised or similar properties with respect to sales made within the past five years.

When sufficient sales are available, the Snohomish County Assessor prefers to limit the sales used in calibrating the market model to those that occurred in the year prior to the appraisal date however this is not always possible as some areas experience very few sales in any given year. Appraisers will, as needed, consider all sales available as allowed by law.

## Adjustments for Time

Property values both increase and decrease over time. All sales used in the model *calibration* process are adjusted for time in relation to the appraisal date to reflect changes in market conditions that occurred subsequent to the original sales date.

## Stratification for Analysis

The valid market transactions are grouped into categories based on property characteristics such as property location, property type, quality, age, square footage, etc. and the value model results compared to the sales prices on a category by category basis. The value models are then modified until they produce the required appraisal level and uniformity; that is, until they are good predictors of market value.

When appraisers are satisfied that the value models are accurately predicting sales prices, the models are applied to all of the residential properties in Snohomish County and finalized or 'certified' values created.

## Value Model Output

Completion of the market model *calibration* process results in a set of tables and formulas that constitute the value model. A set of land tables is created for each neighborhood (AKA Benchmark Area) appraised. Additionally there are cost tables, depreciation tables and neighborhood market adjustment tables. These tables and formulae, when applied to an individual property's characteristics, (i.e. neighborhood, land type, land size, improvement type, improvement size, age, etc.) result in an appraised value of the individual property.

## Allocation of Value to Land and Improvements

RCW 84.40.030 requires Assessors to allocate the appraised values to land and improvements based upon the following criteria:

- (3) In valuing any tract or parcel of real property, the true and fair value of the land, exclusive of structures thereon shall be determined; also the true and fair value of structures thereon, but the valuation shall not exceed the true and fair value of the total property as it exists. In valuing agricultural land, growing crops shall be excluded.

The allocation of value to land is accomplished by reviewing both land sales and land *residuals* which is an appraisal technique used in the absence of vacant land sales. In the residual technique, improvement value as determined from the market calibrated *cost approach* is subtracted from sales prices of improved properties to yield residual land values.

## Sales Comparison Approach / Direct Comparable Sales Not Used

The mass appraisal process does not use a *sales comparison* approach / direct comparable sales to establish value. It does not identify a set of comparable sales for each property, track which sales were selected, adjust them for differences, and use the results to establish the appraised value. As noted earlier in this document this methodology is cost prohibitive. Rather the mass appraisal process employs sales to calibrate the market model until it accurately predicts sales prices.

### Appraised Value vs. Assessed Value

The following terms, 'mass appraisal value', 'finalized value', 'certified value', 'market value', all refer to the same value, appraised value. Appraised value is converted into '*assessed value*', i.e. taxable value, by applying any applicable tax exemptions. When no tax exemptions apply, appraised value and *assessed value* are the same.

### Special Manufactured Homes Model

All manufactured homes, whether they are on owned land, leased land or situated in a manufactured home park are appraised annually just like all other properties in the county. Like single family residences, manufactured homes are appraised using a sales adjusted *cost approach*.

The appraisal process begins with an analysis of sales of manufactured homes. The sales are grouped by location, manufactured home style, grade, condition, etc. so that similar properties are compared to each other. For example, manufactured homes located in parks are not compared to manufactured homes on owned land.

Once the sales have been compiled and grouped, we begin the process of adjusting the cost model to reflect local market conditions. The process is complete when the calibrated model is able to

accurately and uniformly predict the sales prices. When the value models have been verified, they are then applied to the manufactured home properties.

### Special Duplex / Triplex Model

Duplexes and triplexes located in residential neighborhoods are appraised using one of two valuation models, either a sales adjusted *cost approach* or a direct market approach, an appraisal technique that uses the relationship between sales prices and rent. Which model is used for any given neighborhood or property type is determined by the performance of the model in predicting sales prices for that area or property type.

The *calibration* of the sales adjusted *cost approach* for duplexes and triplexes is identical to that employed for single family residences. Development and *calibration* of the direct market approach begins by researching sales prices and rental income for duplex and triplex properties from which we can develop a relationship between sales price rental and rental income. This analysis results in tables that also quantify the relationship between property location, unit size, age, and amenities such as number of bedrooms, garages, fireplaces, etc.

### Comparable Sales vs. Sales Lists

#### Requests for Comparable Sales

A common request to the Snohomish County Assessor's office is for a list of the specific comparable sales used in establishing the value of a specific property. The Assessor's office is unable to comply with these requests as we do not perform three comparable, single property appraisals to arrive at appraised values but rather, as previously noted, we employ mass appraisal techniques. Assessors rely on value models to determine the appraised values.

#### Lists of Sales

A list of the sales that were used in calibrating the market model(s) is available upon request.

Please refer to the section of this document titled "Appraisal Documents" for information on how to acquire sales lists and other appraisal documents.

### Comparable Sales for Appeals

As previously noted, the Assessor does not maintain a file of comparable sales for each individual property. The Assessor may however, in a few cases, identify comparable sales to document the validity of a value produced by the mass appraisal process when responding to an appeal to the Board of Equalization. It should be noted that it is not a legal requirement to include comparable sales in an Assessor's response to an appeal. A more typical response includes all or part of a mass appraisal report which documents the performance of the valuation model for the neighborhood in which the appealed property is located.

### Appraisal Level: Market Value

#### Statutory Authority

RCW 84.40.030 directs assessors as to the level at which all property is to be appraised.

All property shall be valued at one hundred percent of its true and fair value in money as assessed on the same basis unless specifically provided otherwise by law.

The definition of "true and fair value" can be found in the Washington Administrative Code (WAC 458-07-030) (emphasis added).

All property must be valued and assessed at one hundred percent of true and fair value unless otherwise provided by law. **"True and fair value" means market value and is the amount of money a buyer of property willing but not obligated to buy would pay a seller of property willing but not obligated to sell, taking into consideration all uses to which the property is adapted and might in reason be applied.**

## Measuring Appraisal Level

Assessors measure appraisal level, that is the relationship of appraised values to sales prices, by comparing appraised values to sales prices. This relationship is commonly referred to as the 'ratio' and is calculated by dividing the appraised value by the sales price as shown in the following example:.

Appraised Value .....\$ 95,000  
Sales Price ..... \$ 100,000  
 $\$95,000 \div \$100,000 = 0.95$  or 95% Ratio

A ratio of 1.00 means that a property is appraised at 100% of market value.

## Measuring Appraisal Level & Uniformity: Ratio Studies

Assessors insure that properties are appraised fairly and equitably by performing 'ratio studies', that is, they examine the relationship between appraised values and sales prices for all of the sold properties in the county that precede the appraisal date.

As noted earlier, Snohomish County prefers to limit ratio study analysis to the sales in the year immediately preceding the *statutory* appraisal date in order to reflect the most current market conditions, however when there are insufficient sales in the prior year to produce a reliable valuation model, sales up to five years prior to the appraisal date may be used.

For ratio studies, as is done in the *calibration* process, sold properties are grouped into like property types using multiple criteria including but not limited to property location, land type, improvement type, improvement size, age, style and quality, etc.

We then calculate a number of statistics for each stratification including; mean (average) and median ratio, the Coefficient of Dispersion (*COD*) and the Price Related Differential (*PRD*).

## Appraisal Statistics - Definitions

The mean (average) and median ratios are measures of central tendency that measure appraisal level. The mean ratio is the average of a list of ratios. A median ratio is the middle number in a list of ratios *arrayed* according to size.

The *COD* measures how uniform the appraisals are in relation to the median ratio. The lower the number the more uniform the appraisals.

The *PRD* measures uniformity of appraisals between high value and lower value properties.

## Mass Appraisal Reports

At the conclusion of the appraisal process, Snohomish County's appraisal staff creates point-in-time ratio studies known as Mass Appraisal Reports that document the performance of the valuation models. The reports document before and after *revaluation* appraisal statistics, including aggregate appraised value change, percentage of change, mean, median and weighted mean ratios (appraisal level), *COD* and *PRD*.

Mass Appraisal Reports are created for the county as a whole and for Snohomish County's five residential appraisal management regions. All of the reports include a map identifying the study area, an analysis of county wide market trends (Time Trend Study), and property profiles. The regional reports also include a listing of the sales that were and were not used in preparing the report.

Mass Appraisal Reports are published annually in PDF format and are available on the Assessor's web site or by request.

## Fair and Equitable Appraisals

Uniformity, or equity in appraisals, is measured by comparing the average and median ratios and the *COD* between groups of properties.

The target values for each of these measures of uniformity are set either by statute or by other published standards. The Assessor's office works diligently to meet the published standards.

## IAAO Appraisal Standards

The International Association of Assessing Officers (*IAAO*) is a nonprofit, educational and research

association whose mission is to promote innovation and excellence in property appraisal, assessment administration, and property tax policy through professional development, education, research, and technical assistance. The *IAAO* publishes standards for Assessors to use in measuring how well they are achieving the required level and uniformity of appraised values. The *IAAO* standards for the measures of central tendency (mean and median ratio) and the *COD* are shown in the following table:

**IAAO Ratio Study Performance Standards**

Type of Property	Measure of Central Tendency	COD	PRD
<b>Single Family Residential</b>			
<b>Newer, More Homogenous Areas</b>	0.90 – 1.10	10.0 or less	0.98 – 1.03
<b>Older, Heterogeneous Areas</b>	0.90 – 1.10	15.0 or less	0.98 – 1.03
<b>Rural Residential And Seasonal</b>	0.90 – 1.10	20.0 or less	0.98 – 1.03
<b>Smaller, Rural Jurisdictions</b>	0.90 – 1.10	20.0 or less	0.98 – 1.03
<b>Vacant Land</b>	0.90 – 1.10	20.0 or less	0.98 – 1.03

**Real Property Performance in Washington State**

Each year the Washington State House of Representatives Office of Program Research evaluates the performance of the *revaluation* program in each of Washington's 39 counties and publishes their findings in a report titled "Measuring Real Property Appraisal Performance in Washington's Tax System". The report describes the performance indicators evaluated and reports on the performance of the individual counties. The table below summarizes the report's findings for Snohomish County for the past six years:

Assessment Year	2010	2011	2012	2013	2014	2015
Median Ratio Residential	0.94	0.93	0.97	0.99	0.96	.96
Coefficient of Dispersion (Residential)	9	12	12	10	10	8
Price Related Differential	1.00	1.03	1.07	1.08	1.04	1.01

Ratio Study Reports for each assessment years 1997 through 2015 are available at:

[http://dor.wa.gov/content/aboutus/statisticsandreports/stats\\_realproperty.aspx](http://dor.wa.gov/content/aboutus/statisticsandreports/stats_realproperty.aspx)

The Ratio Study Reports for 2015 is available at:

<http://dor.wa.gov/docs/reports/2015RatioReport.pdf>

## On-Line Appraisal Resources – SCOPI

SCOPI is an acronym for Snohomish County On-line Property Information system. It is an interactive internet site that allows you to view and research property characteristics and sales information using an inter-active map.

There is a direct link to SCOPI at:

<http://gis.snoco.org/maps/property/index.htm>

Instructions for using SCOPI are located on the first page of the SCOPI web site.

**Property Sales Search Tool is available at:**

<http://assessor.snoco.org/services/salessearch.aspx>

## Appraisal Documents

As an aid to property owners reviewing their appraised values, the following are available on the Snohomish County Assessor's web site or Snohomish County's *FTP* web site, as printed documents, on DVD, or as email attachments:

### Mass Appraisal Reports

Point in time ratio studies that document the performance of the valuation models.

### Sales Files

The Assessor's office creates a sales file in Microsoft Excel® format the last week of every month. The files include sale prices, dates and property characteristics.

### Assessor's Rolls

An Assessor's Roll is a listing of all of the real property parcels in the county. It includes legal descriptions, appraised values, and owners and taxpayer's name and address. They are updated the last week of every month.

Assessor's Rolls are available as pipe (|) delimited text files, or in Access or dBase format. Note that Assessor's Rolls can be extremely large in size.

Acquiring Appraisal Documents

**Mass Appraisal Reports** are available on-line at:

[www.snohomishcountywa.gov/Archive.aspx?AMID=44](http://www.snohomishcountywa.gov/Archive.aspx?AMID=44)

**Sales Files** are available at:

<ftp://ftp.snoco.org/assessor/PropertySales/>

**Assessor's Rolls** are available at:

[ftp://ftp.snoco.org/Assessor/Assessor\\_roll/](ftp://ftp.snoco.org/Assessor/Assessor_roll/)

Mass Appraisal Reports, Sales Files and Assessor's Rolls can also be requested:

In writing: Snohomish County Assessor  
3000 Rockefeller Ave, M/S 510  
Everett, WA 98201

By E-mail: [contact.assessor@snoco.org](mailto:contact.assessor@snoco.org)

By phone: (425) 388-3530

Printed reports cost \$0.25 per page (pre-paid).

Documents provided on DVD cost \$5.00 per disk.

There is no charge for documents distributed by email.

## Assessor's Office Contact Information

**General Information .. 425-388-3433**

**Residential Appraisal . 425-388-6555**

**Email**

[Contact.Assessor@snoco.org](mailto:Contact.Assessor@snoco.org)

**Website**

<http://www.snohomishcountywa.gov/assessor>

## Glossary

**Ad Valorem**.....According to value.

**Appraised Value** .....Market Value. The estimate of the value of a property before application of any fractional assessment ratio, partial exemption, or other adjustments.

**Arrayed** .....An ordered arrangement of data, such as a listing of sales ratios, in order of magnitude.

**Assessed Value** .....A value set on real estate and personal property by a government as a basis for levying taxes. Taxable Value (Market Value adjusted for any exemptions).

**Calibration**.....The process of estimating the coefficients in a mass appraisal model.

**COD**.....Coefficient of Dispersion. The average deviation of a group of numbers from the median expressed as a percentage of the median.

**Cost Approach** .....One of three approaches to value, the cost approach is based on the principle of substitution – that a rational, informed purchaser would pay no more for a property than the cost of building an acceptable substitute with like utility. The cost approach seeks to determine the replacement cost new of an improvement less depreciation plus land value.

**FTP**.....File Transfer Protocol. Web site that enables users to copy files from the County network to their own computer.

**Improvements** .....Anything done to raw land with the intention of increasing its value. A structure erected on the property constitutes one very common type of improvement.

**IAAO**.....International Association of Assessing Officers

**PRD** .....Price Related Differential. Measures the uniformity of

appraisals between high value and lower value properties.

**Residuals**.....Method of arriving at the unknown value of a property component by subtracting the know value of other components from a known overall value.

**RCW**..... Revised Code of Washington

**Revaluation**..... Systematic reappraisal of property for property tax purposes.

**Sales Comparison** ..... One of three approaches to value, the sales comparison approach estimates a property's value by reference to comparable sales.

**Stratified** ..... Organized into groups according to some criteria or set of criteria for purposes of analysis.

**Statutory**..... required or authorized by law.

**USPAP**..... Uniform Standards of Professional Appraisal Practice

**WAC**..... Washington Administrative Code

Note: Basic definitions of the appraisal terms in the glossary derived or paraphrased from "*The Glossary for Property Appraisal and Assessment*", IAAO, 1997