DEMAND FOR & VALUE OF DENSITY (HERITAGE) CREDITS

PREPARED FOR

SKAGITONIANS TO PRESERVE FARMLAND
CITY OF BURLINGTON
SKAGIT COUNTY PLANNING DEPARTMENT

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LAND VALUE ANALYSIS

Introduction

The land value analysis consists of two components. First, an analysis of agricultural lands to determine if there is a component of agricultural land prices that represents an "urban" premium. That is, is there an amount paid over and above the value of the land strictly for agricultural purposes? If there is such a premium, then how much is it and what are the "urban" factors influencing the premium?

Second, an analysis to estimate the market value of land selling in the urban area of Burlington (both residential and non-residential [commercial] unimproved land) and the value of commercial land in the airport vicinity.

Agricultural Lands

Forty-three agricultural land sales were obtained from the Skagit County Assessors office covering the period from 2006 to current. All of these transactions were mapped, inspected, photographed and various information such as soil types, urban influences, and number of allowed dwelling units were obtained for each sale. In the end there were 39 "arms-length" transactions that were used. This data was analyzed in two independent ways; summary statistics (means, medians, etc.) and a hedonic (multiple regression) analysis.

SUMMARY STATISTICS.

As a part of the field work when the sale properties were analyzed various data was obtained **on** each property that, in our opinion might have an influence on the properties selling price. Those variables were:

- Sale date;
- Improvements;
- Size;
- Dwelling units allowed;
- Land productivity;
- Urban influences, such as
  - Proximity to an urban area;
  - Proximity to a freeway interchange.

The data was sorted into various categories and means and medians calculated. This data is shown in Appendix A (Table A-1, Agricultural Land Sales, Summary Statistics) indicates the following:

- Agricultural land. Land devoted strictly to agricultural purposes, of the best quality (Skagit and/or Nargar soil types), where no dwelling unit would be allowed through either zoning or because of a conservation easement has a value of approximately $4,000 per acre. For example, a 40 acre parcel would have a value of $160,000. (40 acres x $4,000/acre).

  The vast majority of the land analyzed was in the Skagit/Nargar land classification. However, there was some land to the east of Burlington in the Sedro Wooley area of a lower productivity where the land value was approximately $3,000/acre.

- Agricultural land with an Urban Influence. Agricultural land that can be developed for "urban" purposes, such as adding a home-site, is influenced in two ways. First, there is the per unit value of the home-site. Second, there is a per acre premium.

  - Home-sites. One home-site entitlement adds some $130,000 to an agricultural parcel. The 40 acre parcel with one allowable home-site would have a value of $290,000 (40 x $4,000/acre + $130,000).

- Per acre Premium. In addition to the value of the home-site itself, there is an overall "spillover" benefit to the remaining land. The market evidence indicates this per acre spillover benefit is approximately $3,000/acre. For the 40 acre example this would add another $120,000. Therefore, the total benefit from having a 40 acre parcel entitled for one dwelling unit is $250,000 ($130,000 + 40 acres x $3,000/acre).

- Urban Influence. This is land that is in close proximity to an urban area, for example the Burlington city limits, or to one of the several freeway interchanges. These lands were classified as having either a "high" urban influence which is within one-quarter (1/4) mile of the influence or a "moderate" level of influence, which is between ¼ mile and ½ mile. The per acre urban influence affect was estimated at:

High:	$4,000/acre
Moderate:	$2,000/acre.

Therefore, a 40 acre agricultural parcel with one home-site allowed and within ¼ mile of a freeway interchange would have a value of $570,000.[1].

1. Calculated as: [(40 x $4,000)+($130,000 + 40 x $3,000) + (40 x $4,000)]

HEDONIC ANALYSIS

Frequently called multiple regression, this is a statistical technique that hypothesizes that the selling price of a property (the dependent variable) is a function of a set of independent variables such as the size of a property, sale date, and other factors such as proximity to an urban area. Several analyses were done with varying results. The one model that had the proper signs of the independent variables, an r-squared of 0.35 (about 35% of the variability in the data was explained by the model) and was statistically significant at the 0.001 level (an acceptable level of statistical significance), suggested that the 40 acre parcel with one home-site allowed and a high level of urban influence would have a value of $572,000 (rounded). The results of this analysis are shown in Appendix A (Table A-2, Hedonic Analysis). Therefore, the hedonic analysis adds validity to the statistical analysis.

One of the significant differences between the hedonic and statistical analysis is that the hedonic analysis takes into consideration the effect of time, whereas there was no adjustment made in the statistical analysis for sales that took place in different time periods. The hedonic analysis indicates that agricultural land with urban potential was appreciating at about 2.5% between mid-2007 and mid-2008. Therefore, adjusting for time in the statistical analysis would not have a great effect on the values indicated above.

RENT ANALYSIS

Another way to view the value of strictly agricultural land is based on the amount farmers are paying for the rental of it, then converting that rental stream into value through the use of a rate. Therefore, interviews were conducted with five Skagit Valley farmers and two real estate appraisers knowledgeable with Skagit Valley agricultural land markets and value. From these interviews we concluded the following regarding rents:

- Potato ground: $275/acre/year;
- Non-potato ground (potato ground in the non-potato year of a rotation): $175/acre/year;
- Weighted average:
  - 1/3 year rotation: $208/acre/year;
  - 1/4 year rotation: $200/acre/year.
  - Conclusion: $205/acre/year on average.

Expenses to the property owner were considered negligible.

An analysis of rates (capitalization) lead us to conclude that a 6% rate would be appropriate. Therefore, the indicated value of strictly agricultural land would be $3,417/acre, say about $3,500. This compares favorably with our agricultural land value estimate above of $4,000/acre.

URBAN LANDS.

An analysis of selling prices and values of both residential and non-residential (commercial, retail, light industrial) land (unimproved) was also made. Once again, transactions between January 2006 and December 2008 were gathered and analyzed. The nature of our analysis and conclusions are discussed in the following paragraphs.

RESIDENTIAL.

Several hundred residential transactions were provided by Land Title and Escrow. These were sorted into vacant and improved sales. The vacant sales were further scrutinized and thirteen were finally selected to provide an indication of the value of unimproved single family residential lots. This data and analysis is shown in Appendix A (Table A-3, Residential Land Sales). The median lot value was $170,000 (rounded) and the average was $221,200 (rounded). There were several high outlier values in the average analysis therefore the median value is relied on. We therefore conclude the typical value of unimproved (but with all urban services available such as water and sewer) single family detached lots is $170,000.

NON-RESIDENTIAL.

Non-residential (which include retail, commercial such as office, and light industrial/business park) transactions were also provided by Land Title. These commercial (we will identify all non-residential transactions as "commercial" for simplicity sake) transactions, which were located within the Burlington city limits and in the Port of Skagit, were analyzed. This data is shown in Appendix A (Table A-4, Non-residential Land Sales).

From this data we conclude commercial land values are as follows:

- Cascade Mall (within and immediately outside): $12.00 - $15.00/Square foot (SF), say $13.50.
- Commercial land proximate to the Cascade Mall and I-5/SR20 interchange: $4.00 - $8.00/SF, say $6.00/SF.
- Airport area: $4.50/SF.

THE DEMAND FOR DENSITY

POPULATION & HOUSING UNITS

Over the 25 year period 1980 through 2005, Skagit County's population grew from 64,138 to 110,900 persons, an average annual compound rate of growth of 2.2 percent. Most recently, between 1995 and 2005, population growth slowed to an average annual compound rate of 1.7 percent.

The county's urban/rural mix was relatively stable between 1980 and 1995, with incorporated areas accounting for between 53 and 54 percent of total population. Since 1995 urban areas have been growing more rapidly, and residents of incorporated areas grew from 53 percent to 57 percent of total population.

Table 1

	Skagit	**Burlington**
1980	64,138	3,894
1985	69,472	4,043
1990	79,545	4,349
1995	93,584	5,899
2000	102,979	6,757
2005	110,900	7,550
av ann % change	2.2%	2.7%
since 1995	1.7%	2.5%

Source: OFM

The City of Burlington's population grew more rapidly than the county's, but followed a similar trend. Between 1980 and 2005 Burlington's population grew from 3,894 to 7,550 persons, an annual average compound growth rate of 2.7 percent. During the more recent ten-year period, 1995 through 2005, its average annual compound growth rate declined to 2.5 percent.

Over the next 25 years, OFM projects Skagit County to grow at an average annual compound growth rate of 1.9 percent, reaching a total population of 178,036 persons by 2030.

Table 2

	Census	Estimate	Projections				
	2000	2005	2010	2015	2020	2025	2030
State	5,894,121	6,256,400	6,792,318	7,255,672	7,698,939	8,120,510	8,509,161
Skagit County	102,979	110,900	123,888	135,589	150,305	164,643	178,036

Source: OFM, Forecast Division

OFM doesn't allocate its county projections to local jurisdictions. County and local jurisdiction representatives make these allocations. However they have not yet done so for the latest OFM projections. Table 3 shows the population allocations made by county and local jurisdiction representatives based on the 2002 OFM county projection – which went to 2025. OFM's most recent 2007 projection goes to 2030. Table 3 allocates the 2025 OFM projection the same as was made five years ago, only it uses the updated 2025 county totals and extends them forward to 2030. Under these allocations, Burlington's projected average annual compound growth rate is 2.6 percent and its 2030 population is projected to be 14,331.

Burlington had 2,531 housing units in 2000 according to the Census, and the average number of persons per housing unit was 2.67. Using the same number of persons per housing unit and dividing into Burlington's 2030 population of 14,331 produces a projected 5,368 housing units in 2030 – or a more than doubling of the housing units now contained within Burlington's city limits. Population density in Burlington's 4.06 square mile area is projected to increase from it current 2,082 persons per square mile to 3,527 in 2030.

Table 3

	original OFM 2025 population	2025 updated population	2030 updated population
Burlington	12,000	13,253	14,331
Bayview	5,600	6,185	6,688

Source: OFM and TLA, Inc

Bayview's 2030 population based on the OFM projection (as allocated by county and local jurisdiction representatives and adjusted by TLA to the year 2030) is 6,688. The Bayview Ridge Subarea Plan (prepared by Reid Middleton (RM) in 2003 and updated by Skagit County Planning & Developmental Services (SCPDS) in 2008) however contains the "proposed action" projections shown in Table 4. The difference between the OFM and RM population projections comes from different geographic boundaries for the Bayview Ridge subarea.

Table 4

	Existing	Future Total
Bayview Ridge Subarea Dwelling Units	709	2,025
Bayview Ridge Subarea Population	1,701	5,600

Source: Reid Middleton and Skagit County Planning & Developmental Services

Using the RM/SCPDS estimates and projections, both population and the number of housing units in the subarea will more than double between now and future build out (assumed to be 2025). Population per housing unit will remain constant at 2.40 persons. As shown in Table 5, the RM subarea plan distinguishes between total areas and developed acres. Of the subarea's residential acres, the total is 1,088 of which 4554 are developed by the plan's build out (2025). Population density in the developed parts of the subarea increases from 2,204 currently to 4,966 in the 2025 future. Acres per housing lot decrease from its current level of approximately three-quarter acre lots to one-quarter acre lots.

Table 5

	Total Acres	Developed Acres
Residential	710	350
Residential Rural Reserve	78	35
Residential Urban Reserve	304	70
total	1,088	455
square miles	1.70	0.71

Source: Reid Middleton and Skagit County Planning & Developmental Services

JOBS & BUSINESSES

The ratio of labor force to population in Skagit County has been very stable over the past 15 years. Since 1990 it averaged 50 percent with a standard deviation of 0.01 percent. Employment averaged 93 percent of the labor force (standard deviation: 0.02), and private employment average 78 percent of total employment (standard deviation 0.08 percent).

Table 7 (on the following page) shows the distribution of private sector jobs in Skagit County between 1990 and 2008.

Using the relationships between jobs, labor force and population and applying them to the OFM population forecast for Skagit County generates the employment forecast shown in Table 6.

Table 6

	Estimate	Projections				
	2005	**2010**	**2015**	**2020**	**2025**	**2030**
Skagit Population	110,900	123,888	135,589	150,305	164,643	178,036
Skagit Employment	51,717	57,774	63,230	70,093	76,779	83,025
Burlington Employment	6,166	6,888	7,539	8,357	9,154	9,899

Source: TLA

The distribution of private employers and jobs is given in Table 8

Table 7

	Total Pv't Nonfarm	Pv't Goods Producing			Pv't Service Providing				
		Total	Manufacturing	Nat'l Res. & Mining	Total	Retail	Transportation & Utilities	Leisure & Hospitality	Other Pv't Services
1990	100.0%	26.4%	13.6%	12.8%	73.6%	21.5%	7.4%	13.6%	31.0%
1991	100.0%	28.2%	15.7%	12.5%	71.8%	20.4%	7.1%	14.5%	29.8%
1992	100.0%	27.2%	15.4%	11.8%	72.8%	20.1%	7.5%	14.2%	31.1%
1993	100.0%	25.9%	14.7%	11.2%	74.1%	20.5%	6.9%	15.1%	31.7%
1994	100.0%	25.7%	14.2%	11.6%	74.3%	20.5%	7.1%	15.3%	31.3%
1995	100.0%	27.8%	16.7%	11.1%	72.2%	20.7%	7.0%	15.9%	28.5%
1996	100.0%	25.8%	16.1%	9.7%	74.2%	21.1%	7.5%	17.6%	28.0%
1997	100.0%	26.9%	16.5%	10.4%	73.1%	19.2%	7.1%	17.5%	29.3%
1998	100.0%	26.9%	16.6%	10.3%	73.1%	19.6%	7.3%	15.6%	30.6%
1999	100.0%	26.9%	16.2%	10.7%	73.1%	18.8%	7.1%	16.6%	30.5%
2000	100.0%	28.2%	17.1%	11.1%	71.8%	19.2%	6.9%	15.0%	30.6%
2001	100.0%	26.9%	16.4%	10.5%	73.1%	18.9%	7.4%	14.9%	31.9%
2002	100.0%	26.3%	15.6%	10.6%	73.8%	19.7%	7.2%	14.7%	32.2%
2003	100.0%	26.4%	15.8%	10.6%	73.6%	20.9%	6.7%	13.3%	32.7%
2004	100.0%	25.7%	14.8%	10.9%	74.3%	21.3%	6.5%	13.6%	32.8%
2005	100.0%	26.3%	14.6%	11.8%	73.7%	21.3%	6.4%	13.4%	32.5%
2006	100.0%	27.3%	14.9%	12.4%	72.7%	21.3%	6.4%	13.0%	32.0%
2007	100.0%	27.5%	15.9%	11.6%	72.5%	20.8%	6.7%	12.7%	32.3%
2008	100.0%	26.5%	15.4%	11.1%	73.5%	20.0%	7.0%	13.0%	33.5%
average	100.0%	26.8%	15.6%	11.2%	73.2%	20.3%	7.0%	14.7%	31.2%
st. dev.	0.0%	0.8%	0.9%	0.8%	0.8%	0.9%	0.4%	1.5%	1.5%

Source: data from WSES, Workforce Explorer, percentage distribution calculated by TLA

Table 8

Industry	2002				1997			
	Number of establishments	Sls, shps, rcpts, rev ($1,000)	Annual payroll ($1,000)	Number of employees	Number of establishments	Sls, shps, rcpts, rev ($1,000)	Annual payroll ($1,000)	Number of employees
Manufacturing	31	$ 130,562	$ 26,904	869	28	$ 154,654	$ 30,404	1,298
Wholesale trade	22	$ 67,229	$ 7,610	243	28	$ 82,888	$ 9,384	349
Retail trade	179	$ 676,560	$ 65,139	2,946	174	$ 402,170	$ 38,876	2,342
Motor vehicle & parts dealers	28	$ 232,632	$ 22,475	660	13	$ 90,085	$ 7,216	256
Furniture & home furnishings stores	10	$ 11,277	$ 1,398	99	12	$ 9,415	$ 1,100	74
Electronics & appliance stores	7	$ 3,326	$ 444	27	7	$ 4,436	$ 792	36
Building material & garden equipment/supplies	12	$ 16,531	$ 2,534	73	10	$ 25,943	$ 2,593	86
Food & beverage stores	12	$ 38,769	$ 4,890	252	9	$ 32,016	$ 3,074	157
Gasoline stations	9	$ 51,833	$ 2,388	136	13	$ 41,995	$ 1,868	141
Clothing & clothing accessories stores	49	$ 48,130	$ 6,191	461	59	$ 42,318	$ 5,043	427
Sporting goods, hobby, book, & music stores	16	$ 11,242	$ 1,262	93	13	$ 8,056	$ 876	75
Department stores	5	$ 72,686	$ 8,509	478	5	n/a	n/a	n/a
Office supplies, stationery, & gift stores	6	$ 5,364	$ 679	46	5	$ 4,235	$ 454	21
other retail trade	25	$ 184,770	$ 14,369	621	28	$ 143,671	$ 15,860	1,069
Services	204	119,301	$ 41,094	2,108	166	61,207	18,710	1,251
Information	6	n/a	$ 3,547	133	4	n/a	n/a	n/a
Real estate & rental & leasing	22	$ 19,408	$ 2,700	148	20	$ 11,232	$ 1,715	79
Professional, scientific, & technical services	32	$ 20,467	$ 8,105	312	23	$ 4,074	$ 1,282	80
Administrative & waste management service	11	$ 9,593	$ 2,557	102	15	$ 5,238	$ 1,038	59
Health care & social assistance	39	$ 24,618	$ 10,768	475	29	$ 12,747	$ 5,201	249
Accommodation & food services	50	$ 28,150	$ 8,492	722	42	$ 19,253	$ 5,633	610
Other services (except public administration)	44	$ 17,065	$ 4,925	216	33	$ 8,663	$ 3,841	174

n/a = not available
Source: Economic Census

By the year 2030, Burlington is projected to have almost 700 private trade and service businesses employing almost 10,000 workers. The most rapid growth is expected to be in the professional and technical services category and health and social services. These are the major drivers that will exert pressure for increased commercial density within the City.

VALUE OF HERITAGE CREDITS

The value of a heritage credit for Burlington was calculated using Skagit County Assessor's data on actual sales of vacant lots in Burlington for the years 2006 through 2008 (Table 10). There were 15 sales during the three year period, of which three were were atypical because they were very small (1,742 sq, ft. and 3,920 SF) or very expensive ($1.6 million – $113/SF). These excluded parcel sales are shown as the shaded entries at the bottom of Table 10.

Table 9

Sales Price	Date of Sale	Lot Size [SF]	Price Per SF
$ 122,400	08/16/2007	23,087	$ 5.30
$ 133,719	01/18/2007	31,363	$ 4.26
$ 169,719	06/30/2006	16,553	$ 10.25
$ 350,000	04/30/2008	20,473	$ 17.10
$ 192,000	11/17/2006	17,424	$ 11.02
$ 160,000	08/20/2007	22,216	$ 7.20
$ 136,719	06/29/2007	13,939	$ 9.81
$ 246,000	10/15/2007	27,007	$ 9.11
$ 270,000	07/17/2008	10,019	$ 26.95
$ 265,000	07/10/2008	8,276	$ 32.02
$ 265,000	10/08/2008	14,375	$ 18.43
$ 309,719	06/12/2008	8,712	$ 35.55
$1,874,719	09/24/2007	16,553	$ 113.26
$ 125,000	01/26/2007	1,742	$ 71.76
$ 60,000	12/26/2006	3,920	$ 15.31

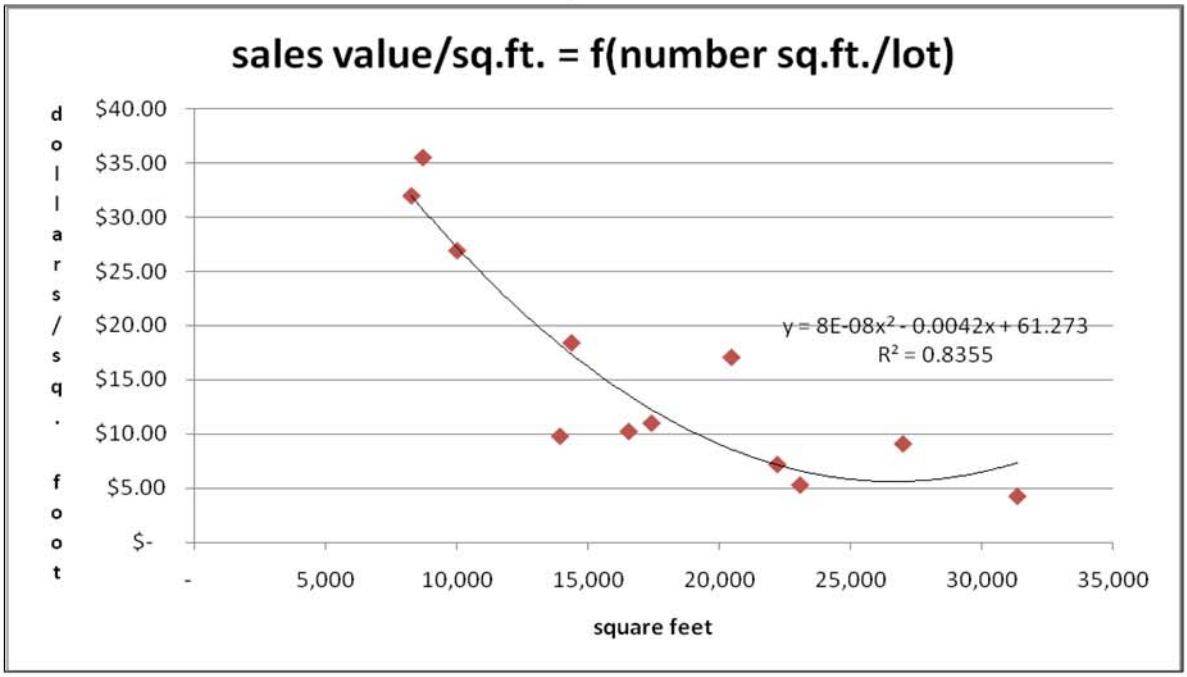
Source: Skagit County Assessor

The remaining 12 sales were analyzed using a statistical method known as ordinary least squares (OLS) regression. The value per square foot in each parcel was statistically related to

the number of square feet in the parcel. The analysis showed that the value per suare foot increases as the number of square feet in a parcel goes down – which means that the value of acreage goes up as more parcels can be developed from any given amount of acreage, i.e., the value of acreage increases as density of use increases.

The statistical relationship was strong and explained just over 83 percent of the variation in property sales values over the three year period. It is shown in Figure 1

Figure 1



Combining the relationship shown in Figure 1 with Burlington's current zoning requirement for a minimum residential lot size of 8,400 SF per dwelling unit, Bayview Ridge's current quarter acre zoning and the current average selling price for a residential lot allows the calculation of how increased residential density increases the value of a parcel and provides a basis for calculating the value of a heritage credit.

BURLINGTON: SMALL PARCEL RESIDENTIAL DEVELOPMENTS

Table 11 shows the value of an 8,400 SF lot at different density levels of development ranging from from one to four units. The value differential between different density levels was calculated from the statistical relationship shown in Figure 1, adjusted to a base value for an 8,400 lot containing one dwelling unit calculated from actual property sales in Burlington between 2006 and 2008.

A buildable 8,400 SF lot on which a single dwelling unit is to be constructed has an average value of $130,905. If the developer purchases a heritage credit and builds a duplex, the value of the lot goes up to $179,815 – and increase in value of the lot with no heritage credits of $48,910. Building a triplex on the same lot increases the value of the land to $199,223, and by purchasing three heritage credits and building a four-plex the developer increases the value of the 8,400 SFlot to $209,510.

It should be noted that the value of a density (i.e., heritage) credit increases at a less than proportionate rate as the density goes up. Adding one density credit to an 8,400 SF lot increases the value of the land by $48,910. Adding second density credit increases the value of the lot by another $19,409. Adding a third density credit increases it by an additional $10,287. It is the increased value of land as density increases, that sets the basis for pricing the value of density credits. The calculation stops at four dwelling units per 8,400 SF lot since a 4-plex is likely the highest density that would occur in a zoned small parcel area in the foreseeable future.

Table 10

Number of DU's/ 8,400 SF Lot	SF/DU	Adjusted Value of 8,400 SF Lot	Cumulative Change in Value of 8,400 SF Lot	Cumulative Percent change in value
1.0	8,400	$130,905		
2.0	4,200	$179,815	$ 48,910	16.4%
3.0	2,800	$199,223	$ 68,318	21.3%
4.0	2,100	$209,510	$ 78,605	23.8%

Source: TLA

Table 12 shows the revenues that might be collected from the sale of density credits if developers were charged 10 percent, fifteen percent, twenty percent or twenty five percent of the increased value resulting from higher density development.

Table 11

Number of DU's/ 8,400 SF Lot	value of density credit/8,400 SF lot at 10%	value of density credit/8,400 SF lot at 15%	value of density credit/8,400 SF lot at 20%	value of density credit/8,400 SF lot at 25%
1.0	$ -	$ -	$ -	$ -
2.0	$ 4,891	$ 7,336	$ 9,782	$ 12,227
3.0	$ 6,832	$ 10,248	$ 13,664	$ 17,080
4.0	$ 7,860	$ 11,791	$ 15,721	$ 19,651

Source: TLA

BURLINGTON: LARGE PARCEL RESIDENTIAL DEVELOPMENTS

Table 13 shows the value of one acre lot at different density levels of development ranging from five to twenty units per acre. The value differential between different density levels was calculated from the statistical relationship shown in Figure 1, adjusted to a base value for an approximately one acre parcel[2] containing five dwelling units (each on a 8,400 SF lot) calculated from actual property sales in Burlington between 2006 and 2008.

Current zoning allows for 8,400 SF lots, so a developer can locate five dwelling units on an acre of land without having to purchase a density (heritage) credits. At 20 units per acre, the average number of sq. ft per dwelling unit is about 2,200 which is about what townhouse development would require. For the foreseeable future, there is little likelihood of any higher density being economically feasible. At this density of development, the increase in the value of a one acre parcel would be almost $402,000.

2. 1 acre = 43,560 SF. 5 8,400 SF lots = 42,000 SF.

Table 12

units/acre	SF/unit	adjusted value of land/unit	value/acre	change in value per acre
5.2	8,400	$ 130,905	$ 678,836	
6	7,260	$ 123,419	$ 740,514	$61,678
7	6,223	$ 114,466	$ 801,264	$122,428
8	5,445	$ 106,216	$ 849,727	$170,891
9	4,840	$ 98,793	$ 889,139	$210,303
10	4,356	$ 92,175	$ 921,751	$242,915
11	3,960	$ 86,286	$ 949,150	$270,314
12	3,630	$ 81,039	$ 972,474	$293,638
13	3,351	$ 76,351	$ 992,559	$313,723
14	3,111	$ 72,145	$ 1,010,030	$331,194
15	2,904	$ 68,357	$ 1,025,362	$346,525
16	2,723	$ 64,933	$ 1,038,922	$360,086
17	2,562	$ 61,823	$ 1,050,999	$372,163
18	2,420	$ 58,990	$ 1,061,823	$382,987
19	2,293	$ 56,399	$ 1,071,578	$392,742
20	2,178	$ 54,021	$ 1,080,415	$401,578

Source: TLA

Table 14 shows the revenues that might be collected from the sale of density credits if developers were charged 10 percent, fifteen percent, twenty percent or twenty five percent of the increased value resulting from higher density development.

Table 13

units/acre	value of density credit per acre at 10%	value of density credit per acre at 15%	value of density credit per acre at 20%	value of density credit per acre at 25%
5.2	$ -	$ -	$ -	$ -
6	$ 6,168	$ 9,252	$ 12,336	$ 15,419
7	$ 12,243	$ 18,364	$ 24,486	$ 30,607
8	$ 17,089	$ 25,634	$ 34,178	$ 42,723
9	$ 21,030	$ 31,545	$ 42,061	$ 52,576
10	$ 24,292	$ 36,437	$ 48,583	$ 60,729
11	$ 27,031	$ 40,547	$ 54,063	$ 67,578
12	$ 29,364	$ 44,046	$ 58,728	$ 73,409
13	$ 31,372	$ 47,058	$ 62,745	$ 78,431
14	$ 33,119	$ 49,679	$ 66,239	$ 82,798
15	$ 34,653	$ 51,979	$ 69,305	$ 86,631
16	$ 36,009	$ 54,013	$ 72,017	$ 90,021
17	$ 37,216	$ 55,824	$ 74,433	$ 93,041
18	$ 38,299	$ 57,448	$ 76,597	$ 95,747
19	$ 39,274	$ 58,911	$ 78,548	$ 98,185
20	$ 40,158	$ 60,237	$ 80,316	$ 100,395

Source: TLA

BURLINGTON: NON-RESIDENTIAL DEVELOPMENTS

Currently the only constraint to non-residential development is:

1. Parking requirements
2. Height restrictions.

With these two constraints it would be very difficult, possibly impossible, to control development from a density or intensity of development approach. Many cities, i.e., Seattle, Redmond, etc. control the intensity of land use through floor area ratios (FAR's). Controlling intensity of development (density) with FAR's provides a natural avenue to the use of density credits (Heritage Credits, TDR's, etc.).

Many suburban cities have FAR requirements for commercial land (office, business park) in the range of 1:0.5, that is one square foot of land to one-half square foot of floor area, excluding parking requirements. (Typically there are no height requirements in suburban areas as FAR tends to set a maximum height due to construction costs for multiple story buildings when land values are relatively low).

It is our experience that non-residential developers desire to use land just as intensely as residential developers. Therefore, one would expect to find a negatively sloping demand curve for added commercial (non-residential) density, just as with residential density.

Table 15 calculates the benefit of increased density and shows the manner in which the efficiency of land use increases with increased FAR. In the table we assume that 30% of that benefit must be purchased to fund the Heritage Credit program. Therefore, for a 40,000 SF site with land values running at $13.50/SF a developer desiring to increase the intensity of land use from a base FAR of one to 0.5 to an FAR of one to 1.5 would need to buy $216,000 in density (Heritage) credits[3].

3. *Calculated as 40,000 SF x 5.40/SF*

Table 14

Land	Bldg	Land $	FAR $	Efficiency[1]	30% of Efficiency
1	0.5	$ 13.50	$ 27.00	[1]	
1	0.6	$ 13.50	$ 22.50	$ 4.50	$ 1.35
1	0.7	$ 13.50	$ 19.29	$ 7.71	$ 2.31
1	0.8	$ 13.50	$ 16.88	$ 10.13	$ 3.04
1	0.9	$ 13.50	$ 15.00	$ 12.00	$ 3.60
1	1.0	$ 13.50	$ 13.50	$ 13.50	$ 4.05
1	1.1	$ 13.50	$ 12.27	$ 14.73	$ 4.42
1	1.2	$ 13.50	$ 11.25	$ 15.75	$ 4.73
1	1.3	$ 13.50	$ 10.38	$ 16.62	$ 4.98
1	1.4	$ 13.50	$ 9.64	$ 17.36	$ 5.21
1	1.5	$ 13.50	$ 9.00	$ 18.00	$ 5.40
1	1.6	$ 13.50	$ 8.44	$ 18.56	$ 5.57
1	1.7	$ 13.50	$ 7.94	$ 19.06	$ 5.72
1	1.8	$ 13.50	$ 7.50	$ 19.50	$ 5.85
1	1.9	$ 13.50	$ 7.11	$ 19.89	$ 5.97
1	2.0	$ 13.50	$ 6.75	$ 20.25	$ 6.08

[1] Efficiency due to increased density

Source: Bill Mundy & Associates, Inc.

BAYVIEW RIDGE: RESIDENTIAL DEVELOPMENTS

Bayview Ridge subarea zoning currently allows quarter acre lots. Skagit County is considering allowing property developers to purchase density (Heritage) credits that increase allowed density of up to six lots per acre. Using the relationship between sales value per SF and the number of SF in a lot illustrated in Figure 1 (above), and adjusting Bayview Ridge land values

based on sales data provided by the Skagit County Assessor's Office the change in the value of an acre as density increases from four to six lots per acre is shown in Table 16.

Table 15

units/acre	SF/unit	adjusted value/acre	change in value per acre	cumulative change in value per acre
4	10,890	$252,162		
5	8,712	$297,066	$ 44,904	$ 44,904
6	7,260	$331,854	$ 34,788	$ 79,692

Source: TLA

The value of one acre of land increases by $79,692 (going from $$252,162 to $331,864 per acre) as density of development goes from four single family residential lots per acre to six. Table 17 shows the revenues that might be collected from the sale of density credits if the County were to charge ten, fifteen, twenty or twentyfive percent of the increased value from higher density development.

Table 16

units/acre	10% of cumulative change in value per acre	15% of cumulative change in value per acre	20% of cumulative change in value per acre	25% of cumulative change in value per acre
4				
5	$ 4,490	$ 6,736	$ 8,981	$ 11,226
6	$ 7,969	$ 11,954	$ 15,938	$ 19,923

Source: TLA

CONCLUSIONS & RECOMMENDATIONS

CONCLUSIONS

The national economy has "gone south" and it will take one or more years for it to recover. So long as the national economy is depressed, development in the regional Skagit economy will also be depressed. Taking a longer term, multi-year view however we conclude that the there will be significant growth in population, employment and number of businesses in Skagit County and the City of Burlington – sufficient growth to create pressure for higher levels of density than can be accommodated under current zoning. This will create a market for density (heritage) credits.

For small parcel residential developments in the City of Burlington (those with four or fewer single family dwelling units on a 8,400 SF lot), the value of each 8,400 SF lot will go from $130,905 when it has one dwelling unit on it – as current zoning allows – to $209,520 when it has four dwelling units.

For large parcel residential developments in Burlington (those with five or more dwelling units on one acre of land), the value of an acre goes from $678,836 when it has one dwelling unit to $1,080,415 when it has twenty units on it.

There are two limits on non-residential development in Burlington: the City's parking requirements and its height restrictions. These two constraints are not sufficient to control the density of non-residential development or create a market for density (heritage) credits.

In the Bayview Ridge subarea, the value of one acre of land increases by $79,692 (from $$252,162 to $331,864) as density increases from four single family residential lots per acre to six.

RECOMMENDATIONS

Density credits should be sold to developers at 15 percent of the increased value of the land as density increases.[4]

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4. Meetings with staff from the *Cascade Land Conservancy plus a literature review indicated that the feasible range of fees for the sale of density (Heritage) credits is between 10 and 25 percent of the increased value.*

For small parcel residential developments in the City of Burlington this would involve the following schedule (based in 2008 land values) of charges based on an 8,400 SF lot:

Table 17

DENSITY LEVEL	COST OF DENSITY CREDIT
One dwelling unit	
Duplex	$ 7,336
Triplex	$ 10,248
4-plex	$ 11,791

Source: TLA & Bill Mundy & Associates, Inc.

For large parcel residential developments in the City of Burlington this would involve the following schedule (based in 2008 land values) of charges based on a one acre parcel:

Table 18

DENSITY LEVEL	COST OF DENSITY CREDIT
up to five dwelling units	
6 DU	$ 9,252
7 DU	$ 18,364
8 DU	$ 25,634
9 DU	$ 31,545
10 DU	$ 36,437
11 DU	$ 40,547
12 DU	$ 44,046
13 DU	$ 47,058
14 DU	$ 49,679
15 DU	$ 51,979
16 DU	$ 54,013
17 DU	$ 55,824
18 DU	$ 57,448
19 DU	$ 58,911
20 DU	$ 60,237

Source: TLA & Bill Mundy & Associates, Inc.

The City of Burlington should amend its zoning ordinance to create a base floor area ratio (FAR) for non-residential units of 1.0 to 0.5 and then charge density (heritage) credits for higher ratios as shown in Table 15, above.

For increasing residential density from four to six single family dwelling units per acre in the Bayview Ridge subarea, this would involve the following schedule (based in 2008 land values) of charges:

Table 19

units/acre	15% of cumulative change in value per acre
4	
5	$ 6,736
6	$ 11,954

Source: TLA & Bill Mundy & Associates, Inc.

Appendix A

Statistical Tables

Table A-1
Agricultural Land Sales

Parcel #	Location	Land Price	Bldg Price	Acres	Price per Acre	Land Use	Dwelling Units[1]	Productivity[2]	Urban Influence
P15324	Dry Slough R	$ 230,000	$ -	46.4	$ 4,960	Ag	0	1	
P15667	Bradshaw Rd	$ 350,000	$ -	43.6	$ 8,026	Ag	0	1	
P15672	Fir Island Rd	$ 262,500	$ -	40.5	$ 6,478	Ag	0	1	
P15690	Moore Rd	$ 518,200	$ -	76.2	$ 6,803	Ag	0	1	
P16059	Fir Island Rd	$ 208,700	$ -	41.7	$ 5,000	Ag	0	1	
P16714	E Johnson Rd	$ 226,840	$ -	43.9	$ 5,166	Ag	0	1	
P17519	Pioneer Hwy	$ 108,000	$ -	26.0	$ 4,159	Ag	0	1	
P21150	Bayview Edison Rd	$ 524,000	$ -	78.5	$ 6,672	Ag	0	1	none
P21151	Bayview Edison Rd	$ 483,000	$ -	58.8	$ 8,213	Ag	0	1	none
P34347	Thomas Rd	$1,060,000	$60,000	159.5	$ 6,647	Ag	0	1	
P37000	Cook Rd	$ 300,000	$ -	38.7	$ 7,744	Ag	0	1	
P38132	Pulver Rd	$ 220,000	$ -	38.3	$ 5,746	Ag	0	1	
P48464	Chuckanut Drive	$ 185,000	$ -	77.4	$ 2,391	Ag	0	1	
P67814	Breier Ln	$ 245,000	$ -	37.5	$ 6,533	Ag	0	1	
P100033	Church Rd	$ 317,641	$ -	73.9	$ 4,300	Ag	0	1	
P127504	Bradshaw Rd	$ 170,000	$ -	34.4	$ 4,948	Ag	0	1	
P21096	1389 Ovenell	$ 445,000	$ -	60.4	$ 7,374	Ag	1	1	
P21424	Avon Allen Rd	$ 359,000	$ -	49.7	$ 7,231	Ag	1	1	
P22172	Downey Rd	$ 270,000	$ -	19.7	$ 13,733	Ag/Res	1	1	
P22768	Kamb Rd	$ 150,000	$ -	19.9	$ 7,557	Ag	1	1	
P34024	Sunset Rd	$ 653,000	$ -	58.3	$ 11,195	Ag	1	1	
P34323	8539 Chuckanut Dr	$ 565,000	$181,300	55.9	$ 6,860	Ag/Res	1	1	
P37011	Cook Rd	$ 320,100	$ -	35.9	$ 8,926	Ag	1	1	
P39159	27733 Hoehn Rd	$ 250,000	$ -	19.2	$ 13,055	Ag/Res	1	2	
P33709	Ershig Rd	$ 437,765	$ -	17.2	$ 25,437	Ag/Res	1	3	
P106330	16571 Bradley Rd	$ 280,000	$ -	9.8	$ 28,718	Ag/Res	1	3	
P34237	8357 Ershig Rd	$ 800,000	$180,200	72.9	$ 8,506	Ag/Res	2	1	
P33805	Bayview Edison Rd	$ 643,500	$ -	88.0	$ 7,312	Ag	2	2	
P61792	Chillberg Rd	$ 175,000	$ -	19.0	$ 9,206	Ag	0	1	Moderate
P16997	Cedardale Road,	$ 200,000	$ -	19.3	$ 10,373	Ag	1	1	Moderate
P22637	McLean Rd	$ 225,000	$ -	24.3	$ 9,252	Ag	1	1	Moderate

Parcel #	Location	Land Price	Bldg Price	Acres	Price per Acre	Land Use	Dwelling Units[1]	Productivity[2]	Urban Influence
P37934	10126 District Line Rd	$ 295,000	$ -	10.0	$ 29,500	Res	1	1	Moderate
P22386	Barrett Rd	$ 250,000	$ -	3.3	$ 76,687	Res	1	1	High
P23131	17747 Bradshaw Rd	$ 212,500	$ -	2.0	$106,250	Res	1	1	High
P49811	23521 Prairie Rd	$ 260,000	$ -	16.4	$ 15,873	Res	1	3	High
P50066	Prairie Lane	$ 200,000	$ -	5.5	$ 36,364	Res	1	3	High
P62594	Pulver Rd	$ 830,970	$ -	13.2	$ 62,857	Res	3	1	High
P62593	Pulver Rd	$1,000,000	$ -	15.7	$ 63,857	Res	4	1	High
P24341	3600 Swan Rd	$ 800,000	$220,000	19.0	$ 30,526	Res	4	3	High
P27647	Knapp Rd	$ 549,000	$ -	70.7	$ 7,765	Res	14	3	High
Total		$15,579,716		1,640.2					
Average		$ 389,493		41.0	$ 9,499				

1 Dwelling units allowed by zoning, legal & practical.

2 Productivity Codes:
1 = Skagit
2 = Nargar
3 = Wooded, overgrown

Table A-2
Hedonic Analysis

REGRESSION STATISTICS

Multiple R	0.661865394
R Square	0.4380658
Adjusted R Square	0.355428417
Standard Error	193169.1123
Observations	40

ANOVA

	df	SS	MS	F	Significance F
Regression	5	9.89027E+11	1.97805E+11	5.301060937	0.001048569
Residual	34	1.26869E+12	37314305951		
Total	39	2.25771E+12			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	4655.14	397176.84	0.01	0.99	-802505.32	811815.59	-802505.32	811815.59
Acres	5231.75	1228.66	4.26	0.00	2734.80	7728.69	2734.80	7728.69
Date	12835.52	51348.35	0.25	0.80	-91516.89	117187.92	-91516.89	117187.92
DU	15679.77	18547.31	0.85	0.40	-22012.90	53372.44	-22012.90	53372.44
Prod	-3938.18	49433.63	-0.08	0.94	-104399.39	96523.03	-104399.39	96523.03
UI	118640.80	54788.17	2.17	0.04	7297.84	229983.76	7297.84	229983.76

Value - a+(X1*Acres)+(X2*Date)+(X3*DU)+(X4*Prod)+(X5*UI).

Value(Price)	a	X1	acres	X2	Date	X3	DU	X4	Prod	X5	UI
	4655.14	5231.75	40.0	12835.52	8.5	15679.77	1	-3938.18	1	118640.80	2

Est. Value	$ 572,050
Acres	40
Value/Acre	$ 14,301

Table A-3
Residential Land Sales

PARCEL	CURRENT OWNER (FIRST)		ADDRESS	SALE DATE	PRICE	MULTIPLE PARCEL	ACRES	SF	SP/SF
P109092	Greg & Barbara A	896	N Burlington Blvd	01/23/2008	$ 63,700		0.445	19,384	$ 3.29
P117041	Pci Construction Llc	1032	Hillcrest Dr	08/16/2007	$ 122,400		0.53	23,087	$ 5.30
P117041	Pci Construction Llc	1032	Hillcrest Dr	08/16/2007	$ 122,400		0.53	23,087	$ 5.30
P117060	Alexander & Young	887	Bella Vista Ln	06/30/2006	$ 169,719		0.38	16,553	$ 10.25
P117061	Rajiv & Joyce	3706	Portage Ln #103	04/30/2008	$ 350,000		0.47	20,473	$ 17.10
P117096	William C & Won Y	15210	3rd Dr SE	11/17/2006	$ 192,000		0.4	17,424	$ 11.02
P117116	Charles T & Marcia L	3228	Maryland Pl	08/20/2007	$ 160,000		0.51	22,216	$ 7.20
P117117	Scott D & Mistry M	818	Overlook Ln	06/29/2007	$ 136,719		0.32	13,939	$ 9.81
P117118	Property Investors Llc	848	Bella Vista Ln	10/15/2007	$ 246,000	Yes	0.62	27,007	$ 9.11
P125616	Sound Energy & Elec		Po Box 90868	12/26/2006	$ 60,000		0.09	3,920	$ 15.31
P126112	Nancy H	1005	Aspen Ln	10/08/2008	$ 265,000		0.33	14,375	$ 18.43
P23670	Gary A & Diane M	680	State Route 20	11/21/2006	$ 235,224		0.41	17,860	$ 13.17
P23986	Wrb Enterprises Llc	17624	15th Ave SE #112	06/02/2006	$ 663,500	Yes	1.17	50,965	$ 13.02
						Averages	0.48	20,792	$ 10.64

Table A-4
Non-Residential Land Sales

OWNER	ADDRES	SALE DATE	PRICE	LAND USE	LOT - SF	LOT ACRES	SP/SF
Transactions inside Burlington City Limits.							
Daniel R Mitzel	Peterson Rd Burlington 98233	02/08/2008	$ 504,000	VACANT,UNIMPROVED LAND	138,085	3.17	$ 3.65
PERICOWEST LLC	314 Cascade Pl Burlington 98233	05/22/2007	$ 280,000	RETAIL,MOTOR VEHICLES,AUTO/MARINE	24,394	0.56	$11.48
EWING IRRIGATION PRODUCTS INC	555 E George Hopper Rd Burlington 98233	12/08/2006	$ 433,600	SERV,MISCELLANEOUS SERVICES	55,757	1.28	$ 7.78
AXIS VENTURES LLC	1641 Port Dr Burlington 98233	02/15/2006	$ 238,000	SERV,MISCELLANEOUS SERVICES	63,598	1.46	$ 3.74
BRIAR DEV CO LLP	878 Haggen Dr Burlington 98233	10/05/2006	$ 119,719	RETAIL,MISCELLANEOUS	20,909	0.48	$ 5.73
Dennis & Kristine Geissler	856 S Alder St Burlington 98233	06/29/2007	$ 271,000	SERV,CONTRACT CONSTRUCTION SERVICE	17,860	0.41	$15.17
Transactions Outside the City Limits.							
Jonathan D & Katherine D Gunderson	21020 Lafayette Rd Burlington 98233(East)	11/21/2007	$ 226,900	VACANT,UNIMPROVED LAND	43,560	1	$ 5.21
MUNSON PROPERTIES LLC	15782 Preston Pl Burlington 98233 (A/P)	06/01/2007	$ 357,378	VACANT,UNIMPROVED LAND	79,279	1.82	$ 4.51
JRW INVESTMENTS LLC	15889 Preston Pl Burlington 98233(A/P)	06/18/2007	$ 306,023	SERV,MISCELLANEOUS SERVICES	67,954	1.56	$ 4.50
S & G PROPERTIES	1389 Ovenell Rd Burlington 98233(A/P & Ag)	03/20/2008	$ 445,000	AGR,OPEN SPACE,FARM AND AG	624,650	14.34	$ 0.71

Appendix B

Updating the Assessor's Valuation Data

Updating the Assessor's Valuation Data

There is no sophisticated updating procedure (such as exists in King County) currently available for Skagit County. However the Skagit County Assessor's Office is in the process of contracting for better software that will give them greater updating capacity. Right now they can provide annual overall changes, but disaggregation of the data (i.e., by property type or location) will be possible with the new software.

Until the Assessor has a better system within the next one to two years we recommend that Burlington either use the data contained in the report or update based on the annual overall changes for which data are available,