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**August 23, 2006**

**TO:** **Terry Galvin**
**FROM:** **Bob Parker and Beth Goodman**
**SUBJECT:** **CITY OF BLAINE POPULATION FORECAST REVIEW**

## SUMMARY


ECO was asked to answer two questions in this memorandum. This summary poses those questions and presents ECO's conclusions with respect to the questions. Implicit in these questions are several other issues that we also comment on. The remainder of the memorandum provides supporting data and analysis.

1. **Is it likely that the City will experience the amount of growth forecast by the City's growth projections?**

   Based on recent residential development applications, City staff forecast that Blaine would grow by about 8% annually between 2006 to 2012. The staff forecast is mathematically correct, but makes some implicit assumptions that are worth discussion.

   **The local market can absorb nearly 1,600 units between 2007 and 2012.** This forecast is based on the implicit assumption that the market can absorb all of the housing that could be developed on the approved sites. This essentially places an upper bound on the amount of residential development that could occur (assuming that all of the development could be serviced). It, however, represents a major increase in housing activity in Blaine when compared to historical averages.

   **National, state and local factors that affect housing markets will continue to be favorable.** Such increases are not unprecedented in small cities like Blaine. This increase assumes, however, that past housing development trends will continue—and accelerate considerably. The volume of development applications is a strong indicator of future development potential, but is not the only indicator. A number of factors external to the local housing market may have a profound influence on rates of development in Blaine. We discuss these factors in more detail below.

   **Interest rates will remain low.** Change in interest rates and expected changes in interest rates have driven the market over the last five years or so. The total price of purchasing a house includes a combination of the cost of the property and the cost of the mortgage—the interest rate on the loan. When interest rates decline, the price of housing can rise, which is what happened in the national housing market starting in about 2000. When

interest rates rise, as they have since 2005, then housing prices rise more slowly or decline. The market for mortgages is a national market. Rising interest rates affect people with adjustable rate mortgages most heavily. Adjustable rate mortgages have only begun to rise and are likely to rise more by the year's end.

Starting in 2000, housing prices nationally (and locally) increased sharply as interest rates declined. This prompted some people to sell their existing house and purchase a larger, more expensive home. As interest rates have risen and housing prices have stabilized, people will be less likely to sell their current home. Moreover, Blaine has a significant second home market. The second home market is more sensitive to total housing price than the primary home market because secondary homes are considered more of a luxury and primary homes are considered a necessity.

There is some evidence that these factors are already influencing the national housing market. Sales of previously owned homes fell in July to the lowest level in 2.5 years The number of homes sold in July was 11% lower than sold in July 2005. Moreover, the inventory of unsold homes climbed to a new record high, with a 7.3-month supply of unsold homes in July, the largest supply since April 1993. Price increases for homes have also slowed. In July, prices were up 0.9% from July 2005. This was the smallest year-over-year increase since 1995.[1]

**Natural economic and development cycles will not affect the local housing market.** Ultimately, we are left to make a judgment about what the most likely future is. Historical trends suggest that Blaine has grown at rates within the high end of the 2002 County allocation. Recent development applications suggests that this rate could climb substantially over the next five years—to a sustained rate of more than 8% annually. The data in Blaine (as well as Whatcom County and Washington) clearly show that growth rates are cyclical. Blaine has achieved annual growth rates of 10% in the past, but has never sustained an annual rate of more than 3.3% over a five-year period. A 3.3% average annual growth rate would result in a 2012 population of 5,320 persons.

**Wastewater treatment capacity is a key concern.** A key concern of the City is that it is forced to cap or place a moratorium on wastewater hook-ups. This issue is a legitimate concern, but even if population increases exceed the capacity of the wastewater treatment facility, there is probably little the City could do to bring more capacity online in the short term. Even if the City could speed up the schedule for the facility, it would be appropriate to question whether it is worth the cost.

ECO's assessment is that, based on historic population trends, regional development trends, and trends in the housing market, it seems unlikely that Blaine will sustain an 8% average annual growth rate between 2006 and 2012. It seems likely, however, that Blaine will grow faster than the rates forecast by ECONorthwest in 2002. Without conducting a technical analysis, our best estimate, assuming no major disturbances in economic conditions, is that a sustained growth rate between 3% and 4% would be reasonable.

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[1] "Sales of Existing Homes Drop to Lowest Levels Since 2004" Accessed 8/23/06
http://www.realestatejournal.com/buysell/markettrends/20060823-wsj.html

2. **If the City's population projections describe a likely future, should the City of Blaine work with Whatcom County and the cities within the County to modify the County adopted projections?**

   Blaine has seen a significant increase in applications for residential building permits since 2002. The number of approved or projected building permits shows a significant increase for 2006 to 2012 over the previous five years. However, changes in the regional, national, or international economy may result in a weaker housing market, which may depress residential development.

   Moreover, the city faces some political risks on moving forward with a revised forecast. The process will require a considerable amount of effort on the City's part—effort to get county buy-in to revise the forecasts, and effort to develop a set of defensible forecasts. There is no guarantee that the County will agree to revise the forecasts, and there is the possibility that Blaine might experience public opposition to a revised set of forecasts.

In summary, ECO's evaluation is that the current forecasts are still appropriate if considered in a 20-year time frame. We think it is premature to revise the forecasts at this time. The City should closely monitor development activity and population growth over the next 1-2 years and re-evaluate the forecasts if development is occurring at rates that exceed 4% annually.

# I. BACKGROUND

In 2003, Whatcom County adopted a 20-year population forecast and small area population allocation which included the City of Blaine. The 2002-2022 forecasts, developed by ECONorthwest, were intended to guide local planning efforts. As a follow-up to the County-level forecast and allocations, the City of Blaine contracted with Sehome Planning to develop subarea allocations for the City.

Blaine, like most cities, is monitoring its rate of population growth. The City is concerned that population growth in the near future might significantly exceed the projections. The volume of recent development applications has been higher than expected and may suggest that the City will grow at rates faster than the 2002-2022 projections and the 2003 sub-area allocations by Sehome Planning.

Moreover, the rate of growth is stretching the City's ability to provide wastewater service to new residents. If the current rate of population growth continues, the City may exceed the capacity of their current wastewater treatment plant. The City is in the process of building a new $31 million wastewater treatment plant, which should be completed in 2009 and have sufficient capacity to provide wastewater service to new residents.

In 2006, the City developed a set of alternative population projections that consider recent development applications that forecast population change from 2007 to 2012. The purpose of this effort was to determine whether population growth is likely to exceed the current wastewater treatment facility's capacity before the new facility is completed in 2009. If the population forecasts the City has developed are accurate, the City may have to consider instituting a moratorium on wastewater connections until the new wastewater treatment plant is in service. The City is reluctant to institute a development moratorium without further consideration of the accuracy of the population projections.

Like all forecasts, the City's alternative projections make assumptions about key factors that will influence the rate of growth. The foundation for the City's estimates are development applications that are either approved or under review. The City has applied a set of assumptions about household size and occupancy rates to produce projections for population growth for Blaine until 2012. If the City's population forecast is correct, growth in Blaine will exceed the population forecasts adopted in 2003 and may require that the City take measures to limit growth until the new wastewater facility is operational in 2009.

## PURPOSE

Given the implications of the City's figures, the City hired ECONorthwest to conduct an independent evaluation of their 2006 alternative population projections. This memorandum provides an evaluation of growth trends in Blaine and Whatcom County, as well as factors that may affect growth in Blaine. This memorandum is intended to answer the following questions:

1. Is it likely that the City will experience the amount of growth forecast by the City's 2006 population projections?

2. If the City's population projections describe a likely future, should the City of Blaine work with Whatcom County and the cities within the County to modify the County adopted projections?

In this memorandum we provide a quick evaluation of whether a more detailed analysis is warranted and whether the City should initiate a process to revise the population projections. The evaluation presented in this memorandum relies on existing data sources and a set of interviews with local experts. In short, we focused narrowly on the two questions and did not gather data intended to lead to a validation of the specific figures developed by the city, or to a different forecast.

### ORGANIZATION OF THE MEMORANDUM

The remainder of this memorandum is organized as follows:

- **Section II, Review population forecasts** describes previous population forecasts for Whatcom County and Blaine.
- **Section III, Factors affecting growth in Blaine** describes the local and regional factors that may affect growth in Blaine.
- **Appendix A, Issues With Small Area Forecasts** describes common problems observed with small area population forecasts.
- **Appendix B, Additional data** presents additional data that supports ECO's analysis.

## II. REVIEW OF POPULATION FORECASTS

This section presents the adopted population forecasts for Whatcom County and the City of Blaine.

1. Whatcom County: In 2002 ECONorthwest developed population forecast for Whatcom County and eleven sub-areas within the County. The period covered by the forecasts was 2002 to 2022.
2. City of Blaine: In 2003 Sehome Planning developed population allocations for the City of Blaine, based on ECONorthwest's 2002 forecast for the City. Sehome Planning allocated population to three sub-areas within the City limits and four areas located in Blaine's UGA.

### ECONORTHWEST FORECASTS

In November 2001 the City of Bellingham hired ECO to forecast population, economic conditions, and land use demand in Whatcom County through 2022. ECO analyzed these issues for the City of Bellingham, the City of Lynden, the City of Blaine, the other cities in Whatcom County, Whatcom County, and the Port of Bellingham. ECO generated population, employment, and labor force forecasts for Whatcom County and allocated those forecasts to the cities and urban growth areas within Whatcom County.

ECONorthwest developed a countywide population forecast that was based on an econometric model and used employment forecasts to drive population growth. ECO developed employment forecasts by industry and total employment. Then ECO developed population forecasts based on the employment forecast, historic population growth, State growth forecasts, demographic data, and other available data.

Table 1 shows the three growth scenarios for Whatcom County: high, baseline, and low. By 2022 ECO forecast that Whatcom County would grow to at least 215,850 residents but not greater than 261,084 residents. ECO's forecast was within the Washington State Office of Financial Management's (OFM) range of population growth for the County.

**Table 1. ECONorthwest forecast of population growth, Whatcom County, 2002-2022**

| | Population Levels | | |
|---|---|---|---|
| Year | High Growth Scenario | Baseline Scenario | Low Growth Scenario |
| **2002** | 174,501 | 173,471 | 171,066 |
| **2007** | 195,931 | 187,980 | 182,901 |
| **2012** | 217,426 | 202,848 | 194,248 |
| **2017** | 238,636 | 217,574 | 204,916 |
| **2022** | 261,084 | 231,928 | 215,850 |
| **Average Annual Growth Rates** | | | |
| **2002** | - | - | - |
| **2007** | 2.34% | 1.62% | 1.35% |
| **2012** | 2.10% | 1.53% | 1.21% |
| **2017** | 1.88% | 1.41% | 1.08% |
| **2022** | 1.81% | 1.29% | 1.05% |
| **Average Annual Net Changes** | | | |
| **2002** | - | - | - |
| **2007** | 4,286 | 2,902 | 2,367 |
| **2012** | 4,299 | 2,974 | 2,269 |
| **2017** | 4,242 | 2,945 | 2,134 |
| **2022** | 4,490 | 2,871 | 2,187 |

Source: Whatcom County Population and Economic Forecasts, May 2002, and Washington Office of Financial Management

ECO estimated that population in Whatcom County would increase from an estimated 173,000 residents in 2002 to 232,000 residents in 2022. The forecast average annual growth rate for the Baseline Scenario was 1.46% over the twenty-year period.

After completing development of the countywide forecast, ECO developed population estimates for sub-areas within the County, including the City of Blaine. ECO used the countywide population forecast as the control total and allocated population to the eleven sub-areas of the County.[2] The process of allocating population to the sub-areas included the following steps:

[2] The sub-areas included: Bellingham, Blaine, Everson, Ferndale, Lyden, Nooksack, Sumas, Columbia Valley UGA, Point Roberts Rural Area, Birch Bay UGA, and all other unincorporated areas. The sub-areas for the cities included their UGAs.

analyzing historic population trends in city population growth, estimating the population of each the UGAs, and examining the relationship between population change for each sub-area and change in the County's population.

Table 2 shows ECO's 2002 population forecasts scenarios for the City of Blaine UGA from 2002 to 2022. Table 2 shows three scenarios of growth for the City of Blaine and its UGA. Over the twenty-year period, ECO forecast that Blaine would growth to between 5,775 residents to 7,942 residents.

Between 2002 and 2007, the high growth scenario in Table 2 shows Blaine growing by 727 residents at an average annual rate of 2.75%. The low growth scenario shows Blaine growing by 250 residents over the five-year period, at an average annual growth rate of 1.0%. The baseline scenario estimates that Blaine would grow at an annual rate of 1.45% from 4,959 residents in 2002 to 5,328 residents in 2007, an increase of 369 people.

**Table 2. ECONorthwest forecasts of population growth, City of Blaine UGA, 2002-2022**

| | High growth scenario | | | Baseline | | | Low growth scenario | | |
|---|---|---|---|---|---|---|---|---|---|
| Year | Pop. | Change | AAGR | Pop. | Change | AAGR | Pop. | Change | AAGR |
| 2002 | 5,011 | -- | -- | 4,959 | -- | -- | 4,886 | -- | -- |
| 2007 | 5,738 | 727 | 2.75% | 5,328 | 369 | 1.45% | 5,136 | 250 | 1.00% |
| 2012 | 6,465 | 727 | 2.41% | 5,711 | 383 | 1.40% | 5,364 | 228 | 0.87% |
| 2017 | 7,171 | 706 | 2.09% | 6,085 | 374 | 1.28% | 5,565 | 201 | 0.74% |
| 2022 | 7,942 | 771 | 2.06% | 6,440 | 355 | 1.14% | 5,775 | 210 | 0.74% |

Source: Whatcom County Population and Economic Forecasts, May 2002, and Washington Office of Financial Management

## CITY OF BLAINE'S 2006 POPULATION AND HOUSING FORECASTS

In 2003, the City of Blaine hired Sehome Planning to develop more detailed population forecasts for the City and UGA, based on ECONorthwest's forecasts. Sehome Planning developed population forecasts for seven City-defined planning areas at five-year intervals.[3] The forecasts were based on ECONorthwest's high population growth scenario, which was allocated to the seven planning areas. Table B-1 in Appendix B shows the Sehome population forecast for the seven sub-areas of Blaine.

As a result of recent growth in Blaine, city staff have recently started to reconsider whether the population forecasts by ECONorthwest and Sehome Planning adequately account for residential growth between 2006 to 2012. Based on approved and projected residential building permits, the City developed new population projections for the Blaine and the sub-areas within the city limits.

Table 3 shows existing and expected changes in residential development within the Blaine city limits for 2000 to 2012. The number of dwelling units for 2000 to 2005 represents existing dwelling units. The number of dwelling units for 2006 to 2012 represents approved building

[3] The seven planning areas included three areas within the Blaine city limits (Central Blaine, East Blain, and Semiahmoo) and four areas outside the city limits but within Blaine's UGA ( East Blaine UGA, Loomis UGA, South Drayton Harbor UGA, and West Semiahmoo UGA).

permits and building permits that the City expects will be submitted, based on applications for building permits.

Table 3 shows that between 2000 and 2005, Blaine experienced about 4% annual growth in the number of residential dwelling units, an increase of nearly 400 dwelling units. Between 2006 and 2012, the City expects that the number of residential dwelling units will grow by more than 8% annually, adding more than 1,400 dwelling units over the period. Table B-2 in Appendix B shows a breakdown of existing and expected changes in residential development for the three sub-areas within the city limits.

**Table 3. Existing and expected changes in housing units, Blaine city limits, 2006 to 2012**

| Year | Dwelling Units | Change | Annual Growth Rate |
|---|---|---|---|
| 2000 | 1,847 | -- | -- |
| 2001 | 1,886 | 39 | 2.1% |
| 2002 | 1,930 | 44 | 2.3% |
| 2003 | 1,998 | 68 | 3.5% |
| 2004 | 2,117 | 119 | 6.0% |
| 2005 | 2,239 | 122 | 5.8% |
| 2006 | 2,377 | 138 | 6.2% |
| 2007 | 2,632 | 255 | 10.7% |
| 2008 | 2,907 | 275 | 10.4% |
| 2009 | 3,192 | 285 | 9.8% |
| 2010 | 3,422 | 230 | 7.2% |
| 2011 | 3,632 | 210 | 6.1% |
| 2012 | 3,832 | 200 | 5.5% |
| **AAGR 2000 to 2005** | | | 3.9% |
| **AAGR 2006 to 2012** | | | 8.3% |

Source: City of Blaine, 2006
Note: The number of dwelling units for 2000 to 2005 is based on the actual number of existing dwellings. The number of dwelling units for 2006 to 2012 is based on approved and anticipated building permits.

Based on the projected change in dwellings units shown in Table 3, the City developed new population forecasts for Blaine. The City used the following assumptions to develop the forecasts: (1) East and Central Blaine would have 2.4 people per dwelling unit and in West Blaine would have 1.75 people per dwelling unit, and (2) the average occupancy rate would be 85%.

These assumptions are generally consistent with data from the 2000 Census. According to the Census, the average household size for the Blaine City Limits was 2.48 persons in 2000. According to the Census Bureau, about 15% of the dwellings in Blaine were vacant in 2000; about 56% of the vacant units were seasonal dwellings.

Table 4 shows the City's population for 2000 to 2005 and the City's estimate of population for 2006 to 2012. Blaine's population grew from 3,770 people to 2,239 people between 2000 and

2005, an increase of 470 residents at an average annual rate of nearly 4%. The City of Blaine's population forecast for 2006 to 2012 projects that population will grow by 2,593 people at an average annual rate of more than 8%. Table B-3 in Appendix B shows a breakdown of existing and expected changes in population for the three sub-areas within the city limits.

**Table 4. Existing population and forecasted population, Blaine, 2000 to 2012**

| Year | Pop. | Change | Annual Growth Rate |
|---|---|---|---|
| 2000 | 3,770 | -- | -- |
| 2001 | 3,855 | 85 | 2.3% |
| 2002 | 3,975 | 120 | 3.1% |
| 2003 | 4,024 | 49 | 1.2% |
| 2004 | 4,115 | 91 | 2.3% |
| 2005 | 4,240 | 125 | 3.0% |
| 2006 | 4,480 | 240 | 5.7% |
| 2007 | 4,945 | 465 | 10.4% |
| 2008 | 5,440 | 495 | 10.0% |
| 2009 | 5,938 | 499 | 9.2% |
| 2010 | 6,341 | 403 | 6.8% |
| 2011 | 6,714 | 373 | 5.9% |
| 2012 | 7,072 | 358 | 5.3% |
| **AAGR 2000 to 2005** | | | 2.4% |
| **AAGR 2006 to 2012** | | | 7.9% |

Source: City of Blaine, 2006
Note: Population for 2000 to 2005 is based on estimates of existing population from the Census and the Office of Financial Management. Population for 2006 to 2012 is the City's forecast for population growth based on expected housing growth.

# III. FACTORS AFFECTING GROWTH IN BLAINE

Population change in Blaine will be affected by local conditions as well as regional, state, national and international trends. Factors that may affect growth in Blaine include: growth trends in Blaine, barriers to growth in Blaine, the characteristics of people moving to Blaine, commuting patterns of people living and working in Blaine, and regional development trends and housing values.

## GROWTH TRENDS IN BLAINE

Recent growth trends in Blaine may be predictive of future growth trends. Blaine grew from 1,955 residents in 1970 to 4,240 residents in 2005, an increase of 2,285 residents. The City's average annual growth rate over the 35-year period was 2.24%. Whatcom County grew at nearly the same rate (2.29%) as Blaine between 1970 and 2005. During this period, Blaine accounted for a little more than 2% of Whatcom County's total population.

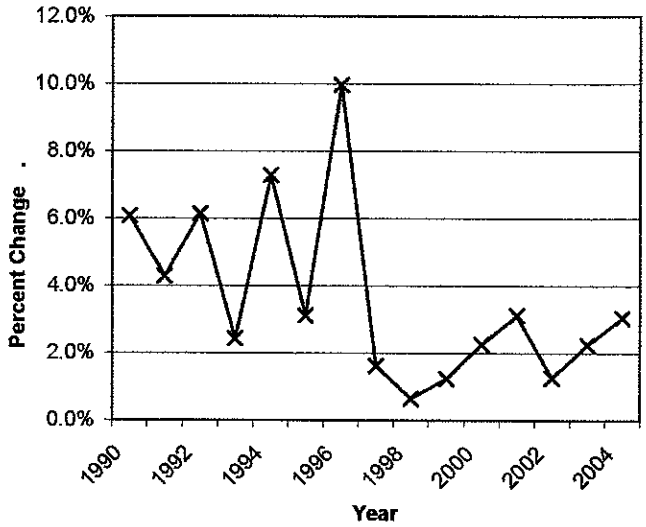
Table 5 shows changes in population for Blaine from 1990 to 2005. Blaine grew from 2,489 residents in 1990 to 4,240 residents in 2000, an increase of 1,751 residents at an average annual rate of 3.62%. Table 5 shows that Blaine's population has increased every year since 1990. Blaine has experienced several spikes in population over the last fifteen years, such as an increase of 330 residents between 1996 and 1997 (see Figure 1).

**Table 5. Historic population growth, City of Blaine, 1990 to 2005**

| Year | Population | Change | Percent Change |
|---|---|---|---|
| 1990 | 2,489 | – | -- |
| 1991 | 2,640 | 151 | 6.1% |
| 1992 | 2,753 | 113 | 4.3% |
| 1993 | 2,922 | 169 | 6.1% |
| 1994 | 2,993 | 71 | 2.4% |
| 1995 | 3,211 | 218 | 7.3% |
| 1996 | 3,311 | 100 | 3.1% |
| 1997 | 3,641 | 330 | 10.0% |
| 1998 | 3,700 | 59 | 1.6% |
| 1999 | 3,724 | 24 | 0.6% |
| 2000 | 3,770 | 46 | 1.2% |
| 2001 | 3,855 | 85 | 2.3% |
| 2002 | 3,975 | 120 | 3.1% |
| 2003 | 4,025 | 50 | 1.3% |
| 2004 | 4,115 | 90 | 2.2% |
| 2005 | 4,240 | 125 | 3.0% |

Source: Washington Office of Financial Management and ECONorthwest

**Figure 1. Annual percent change, population, City of Blaine, 1990 to 2005**




Comparing recent actual growth in Blaine to the forecasts for growth in Table 2 is difficult because the forecast in Table 2 included population in Blaine's UGA. The population estimates from the OFM in Table 5 only include population within Blaine's city limits. However, between 2002 and 2005 population in the Blaine city limits has grown by an average annual rate of 2.17%. Table 2 shows that the high grow scenario for Blaine projects growth between 2002 and 2005 at an average annual rate of 2.75%. For the first three years of the five-year period, Blaine has grown 0.58% slower than the high growth scenario projected.

Table 6 shows the number and type of residential building permits approved by the City of Blaine between 2000 and 2005 for the three sub-areas within the City limits. Over the five-year period, the City issued 419 permits, including 277 permits for single family dwellings.

The sub-area with the most single-family building permits was West Blaine, with 145 permits issued. The area with the greatest number of multifamily permits issued was Central Blaine, with 108 permits issued. East Blaine generally had fewer residential permits of any kind than the other sub-areas for the five-year period.

**Table 6. Number and type of residential building permits approved, City of Blaine, 2000 to 2005**

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | Total |
|---|---|---|---|---|---|---|---|
| West Blaine | | | | | | | |
| Single-family dwellings | 16 | 17 | 22 | 19 | 41 | 30 | **145** |
| Multifamily dwellngs | 0 | 0 | 0 | 0 | 14 | 16 | **30** |
| Central Blaine | | | | | | | |
| Single-family dwellings | 9 | 14 | 12 | 19 | 19 | 39 | **112** |
| Multifamily dwellngs | 18 | 6 | 10 | 13 | 28 | 33 | **108** |
| East Blaine | | | | | | | |
| Single-family dwellings | 0 | 2 | 0 | 1 | 13 | 4 | **20** |
| Multifamily dwellngs | 0 | 0 | 0 | 0 | 4 | 0 | **4** |
| **Total dwelling units** | **43** | **39** | **44** | **52** | **119** | **122** | **419** |

Source: City of Blaine

ECO's interviews with stakeholders suggests that the areas within Blaine that are growing may change over time. Stakeholders indicated that West Blaine, especially along Semiahmoo Drive, will continue growing rapidly. Stakeholders also indicated that East Blaine will start growing more as infrastructure to support development, such as wastewater, is available.

## Barriers to growth in Blaine

Stakeholder interviews indicated that the main barrier to growth in Blaine is availability of wastewater infrastructure. The City of Blaine's existing wastewater treatment plant has the capacity to treat 800,000 gallons of waste per day. The wastewater treatment plant treats an average of 450,000 gallons of waste per day, well within the plant's treatment capacity. However, wintertime waste demand exceeds the treatment facility's capacity because of rainwater infiltration into the system. The result is that the wastewater treatment plant's discharge sometimes exceeds the allowable amount of effluents. The City of Blaine is building a new wastewater treatment plant with capacity to treat 3.1 million gallons of waste per day. The plant is expected to be operational in 2009 and should address existing wastewater problems.

Other barriers to growth that stakeholders identified include: the effect on Blaine's housing market if the national economy slows, the presence of wetlands and critical areas on land within the Blaine UGA make some land less attractive to developers, and possible increases in gasoline prices that may effect the ability of people to live in Blaine and commute to jobs in other cities. Only one stakeholder identified lack of land as a barrier to growth.

## Characteristics of people moving to Blaine

Data detailing the characteristics of the people who have moved to Blaine in the last five years is not readily available. Anecdotal data from stakeholder interviews indicate the following about new residents:

- Retired or semi-retired people with substantial wealth are moving to Blaine. They are generally purchasing houses on the waterfront in West Blaine.

- Canadians are buying homes in Blaine because of the strength of the Canadian dollar and comparatively high home prices in Vancouver, British Columbia. Some of the Canadians are purchasing second homes, generally along the waterfront in West Blaine. Some Canadians may be living full-time in Blaine and commuting to work in Vancouver.

- New residents with children are more likely to have high school aged children, rather than younger children.

## Commuting patterns

Table 7 shows where workers in Blaine live. Most people who work in Blain live in Whatcom County, with 25% living in Blaine. About 11% of people working in Blaine commuted from Bellingham and another 8% commuted from King County. About 7% of Blaine's workforce commuted from locations other than Whatcom or King Counties.

**Table 7. Where workers in Blaine lived, 2003**

| Location | Number | Percent |
|---|---|---|
| Whatcom County | 1,035 | 84% |
| Blaine, WA | 307 | 25% |
| Bellingham, WA | 136 | 11% |
| Ferndale, WA | 56 | 5% |
| Lynden, WA | 47 | 4% |
| Other areas | 489 | 40% |
| King County | 103 | 8% |
| Snohomish County | 18 | 1% |
| Skagit County | 14 | 1% |
| All other locations | 60 | 5% |
| **Total** | **1,230** | **100%** |

Source: U.S. Census

Table 8 shows where residents of Blaine work. About three-quarters of residents of Blaine have jobs in Whatcom County, about 30% of whom work in Blaine. Eleven percent of residents of Blaine commute to King County for work, and 7% of residents commute to Skagit, Pierce, or Snohomish Counties. Five percent of Blaine residents work in other locations.

**Table 8. Where residents of Blaine work, 2003**

| Location | Number | Percent |
|---|---|---|
| Whatcom County | 761 | 76% |
| Blaine | 297 | 30% |
| Bellingham | 199 | 20% |
| Ferndale | 50 | 5% |
| Lynden | 41 | 4% |
| All Other Locations | 174 | 17% |
| King County | 115 | 11% |
| Skagit County | 30 | 3% |
| Pierce County | 24 | 2% |
| Snohomish County | 22 | 2% |
| All Other Locations | 50 | 5% |
| **Total** | **1,002** | **100%** |

Source: U.S. Census

The information presented in Tables 7 and 8 indicate that the majority of Blaine's workforce lives in Whatcom County and that most people who live in Blaine work within Whatcom County. A significant number of people commute to or from Blaine from other areas of the County. Fewer than one-quarter of people living or working in Blaine commute outside of Whatcom County for work.

## REGIONAL DEVELOPMENT TRENDS

Regional development trends can affect population growth in Blaine. Comparatively high housing cost or scarcity of housing in Blaine could cause people considering moving to Blaine to move to a neighboring community with similar amenities in Whatcom County.

Table 9 shows the number of building permits for single-family dwelling units for cities within Whatcom County between 1996 to 2005. The cities with the greatest growth in single family residential development were Bellingham, Lynden, and Ferndale.

All the cities in Table 9 show an increase in the number of building permits issued in 2004, compared with 2003. The number of building permits issued in Ferndale and Blaine continued to increase in 2005. This change may represent the beginning of a trend for increased residential development in Ferndale and Blaine or it may represent a temporary increase in residential development.

**Table 9. Number of building permits issued for new single-family dwellings, cities in Whatcom County, 1996 to 2005**

| Year | Bellingham | Lynden | Ferndale | Blaine | Sumas | Everson |
|---|---|---|---|---|---|---|
| 1996 | 308 | 108 | 63 | 25 | 3 | 8 |
| 1997 | 78 | 85 | 82 | 32 | 6 | 4 |
| 1998 | 277 | 103 | 78 | 29 | 1 | 6 |
| 1999 | 276 | 83 | 68 | 29 | 3 | 4 |
| 2000 | 272 | 96 | 150 | 22 | 4 | 3 |
| 2001 | 275 | 99 | 48 | 27 | 1 | 3 |
| 2002 | 223 | 93 | 94 | 34 | 2 | 10 |
| 2003 | 266 | 177 | 92 | 52 | 11 | 6 |
| 2004 | 333 | 125 | 136 | 78 | 14 | 8 |
| 2005 | 200 | 118 | 195 | 81 | 23 | 8 |
| Total | 2,508 | 1,087 | 1,006 | 409 | 68 | 60 |

Source: City-Data.com

## Housing values in the region

Table 10 shows the average cost of newly build single-family dwelling units, shown in Table 9, for cities in Whatcom County between 1996 to 2005. The cities with the highest average prices for newly build single-family dwellings were Blaine, and Bellingham. Table 10 shows that housing prices have generally risen in Bellingham steadily over the nine year period. Housing prices in Blaine have fluctuated over the period from a low of $193,800 to a high of $242,200. The fluctuation is possibly caused by the relatively low number of houses build in Blaine annually. If a few of the houses are especially expensive, this can change the average price for the year substantially.

**Table 10. Average cost of newly built single-family dwellings, cities in Whatcom County, 1996 to 2005**

| Year | Bellingham | Lynden | Ferndale | Blaine | Sumas | Everson |
|---|---|---|---|---|---|---|
| 1996 | $143,800 | $98,600 | $89,200 | $198,400 | $89,900 | $92,900 |
| 1997 | $147,500 | $108,400 | $85,500 | $216,800 | $109,000 | $101,600 |
| 1998 | $152,800 | $114,600 | $93,900 | $208,600 | $90,000 | $108,200 |
| 1999 | $152,700 | $113,900 | $88,600 | $242,200 | $98,300 | $102,200 |
| 2000 | $152,700 | $124,600 | $41,100 | $218,200 | $91,600 | $117,800 |
| 2001 | $152,700 | $130,600 | $106,500 | $240,700 | $94,000 | $129,200 |
| 2002 | $162,400 | $158,800 | $155,500 | $212,400 | $114,000 | $150,800 |
| 2003 | $174,800 | $154,800 | $165,300 | $193,800 | $137,000 | $156,900 |
| 2004 | $178,000 | $162,800 | $157,600 | $200,700 | $146,200 | $156,900 |
| 2005 | $197,100 | $206,000 | $165,500 | $200,700 | $141,700 | $156,900 |

Source: City-Data.com

A recent article in the Bellingham Herald said that housing prices in Whatcom County rose over the last year but that the average time to sell a house also increased.[4] The article indicated that

[4] David Gallagher, "County housing prices up 17% from last year," Bellingham Herald, 13 July 2006.

Bellingham was the most expensive community for housing, with an average sales price of $362,860. The average sales price in Blaine and Birch Bay was $324,638, an increase of more than 25% over the last year. The article also indicates that, although house prices have increased, the housing market is slowing and houses are taking longer to sell.

Several stakeholders indicated that Blaine has two separate markets for housing: (1) high amenity houses costing more than $300,000 and (2) more moderate houses costing around $250,000. The people purchasing the high amenity houses are generally not from Blaine. These houses are generally located in West Blaine along the waterfront. The people purchasing the more moderately priced houses are generally people who work in Blaine or Bellingham.

Stakeholder interviews indicate that housing prices for newly build, high amenity houses have increased over the last five years and continue to increase. However, stakeholders indicated that the resale market for existing houses is not as strong as the market for new houses.

# APPENDIX A: ISSUES WITH SMALL AREA FORECASTS

Planning implies forecasting. To use policies to change the future in ways that decision makers think their constituents would find beneficial, one must first have an idea of what could or is likely to occur in the absence of those policy changes.

Forecasting is usually better, and better received, if it is based on a model of how the world works. In the context of housing and economic development, that understanding must certainly include how households and businesses make decisions about where to locate, and what types of buildings to occupy.

In the context of land use and growth management, the main variables that one must forecast are population and employment, which are then used to forecast the demand for new built space (housing, offices, warehouses, retail stores, and so on). The demand for built space creates a derived demand for land on which to build that space.

The amount of land needed depends on the type and density of space that will be built to accommodate population and employment growth. The type and density of development will be a function of market factors (demand and supply conditions) and public policy (especially about density and infrastructure, but also about transportation, economic development, environmental protection, and so on). This function of forecasting is central to Thurston County and its cities: it will allow cities to determine whether they have sufficient land available to accommodate 20 years of population and employment growth.

The main point is that (1) forecasting growth requires a consideration of many variables that interact in complicated ways, and (2) any forecast of a single future is bound to be inexact—there are many possible futures that are more or less likely depending on one's assessment of the likelihood of the assumptions.

It is useful to understand the limitations of small areas forecasts. Following is a discussion of why small area forecasts are highly uncertain:

- Projections for population in most cities and counties are not based on deterministic models of growth; they are simple projections of past growth rates into the future. They have no quantitative connection to the underlying factors that explain why and how much growth will occur.

- Even if planners had a sophisticated model that links all these important variables together (which they frequently do not), they would still face the problem of having to forecast the future of the variables that they are using to forecast growth (in, say, population or employment). In the final analysis, all forecasting requires making *assumptions* about the future.

- Comparisons of past population projections to subsequent population counts have revealed that even sophisticated methods "are often inaccurate even for relatively large

populations and for short periods of time."[5] The smaller the area and the longer the period of time covered, the worse the results for any statistical method.

- Small areas start from a small base. A small change in the absolute number of population or housing in a small city produces a large percentage change. For example, a new subdivision of 100 homes in Olympia would have an effect on total population of 0.6%. That same subdivision in Blaine would increase the community's housing stock by more than 5%—and population by a similar percentage.

- Especially for small cities in areas that can have high growth potential (e.g., because they are near to concentrations of demand in neighboring metropolitan areas, or because they have high amenity value for recreation or retirement), there is ample evidence of very high growth rates in short-term; there are also a few cases of high growth rates sustained over 10 to 30 years. Growth rates for small cities tend to decrease over time because the population base increases.

- Public policy makes a difference. Cities can affect the rate of growth through infrastructure, land supply, incentives and other policies. Such policies generally do not have an impact on growth rates in a region, but may cause shifts of population and employment among cities.

Because of the uncertainty associated with small area forecasts, many forecasts present ranges of future population. That is the case with the OFM forecasts. Estimating demand for land in UGAs and comparing that with land capacity, however, requires a point forecast. Cities have many reasons to use point forecasts: among the most important are projections of future revenues, need for infrastructure, and need for land. Moreover, GMA requires cities to demonstrate "need" for lands in UGAs. These factors provide sufficient rational for cities to develop and adopt point forecasts. That fact, however, does not mean they are more accurate.

In summary, the longer the forecast, the greater the potential that actual population growth will vary from the forecast. This implies that cities should closely monitor actual population growth so that either (1) plans can be modified to account for variations, or (2) policies can be implemented that increase the likelihood of achieving the population growth.

One final comment on forecasts: population forecasts are often viewed as "self-fulfilling prophecies." In many respects they are intended to be; local governments create land use, transportation, and infrastructure plans to accommodate the growth forecast. Those planning documents represent a series of policy decisions—and influence public investments for infrastructure and services. Thus, how much population a local government (particularly cities) chooses to accommodate is also a policy decision. In short, the forecast and the plans based on the forecast represent the city's future vision.

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[5]Murdock, Steve H., *et. al.* 1991. "Evaluating Small-Area Population Projections." *Journal of the American Planning Association*, Vol. 57, No. 4, page 432.

# APPENDIX B: ADDITIONAL DATA

This appendix presents data to supplement information presented in the main part of the memorandum.

Table B-1 shows the Sehome Planning allocation of population to seven sub-areas within Blaine. The total population for the City was taken from the high growth scenario from ECONorthwest's 2002 forecast.

**Table B-1. Population forecasts for sub-areas of Blaine, 2002 to 2012**

| Planning Area | 2002 | 2007 | 2012 |
|---|---|---|---|
| Central Blaine | 3,002 | 3,146 | 3,284 |
| East Blaine | 327 | 378 | 436 |
| Semiahmoo | 627 | 997 | 1,354 |
| East Blain UGA | 362 | 391 | 420 |
| Loomis UGA | 113 | 128 | 144 |
| South Drayton Harbor UGA | 365 | 401 | 437 |
| West Semiahmoo UGA | 216 | 296 | 389 |
| **Total** | **5,011** | **5,738** | **6,465** |

Source: Sehome Planning, 2003
Note: The number of residents for the planning areas do not sum exactly to the "Total" number, possibly as a result of rounding errors. The population numbers were copied verbatim from the Sehome report.

Table B-2 shows the number of residential build permits approved between 2000 and 2005 and the expected number of residential building permits for 2006 to 2012 by three sub-areas with Blaine's city limits.

## Table B-2: Housing forecast by area, Blaine, 2006 to 2012

| | East Blaine | | | Central Blaine | | | West Blaine | | |
|---|---|---|---|---|---|---|---|---|---|
| Year | Dwelling Units | Change | Annual Growth Rate | Dwelling Units | Change | Annual Growth Rate | Dwelling Units | Change | Annual Growth Rate |
| 2000 | 108 | -- | -- | 1,353 | -- | -- | 386 | -- | -- |
| 2001 | 109 | 1 | 0.9% | 1,374 | 21 | 1.6% | 403 | 17 | 4.4% |
| 2002 | 109 | 0 | 0.0% | 1,396 | 22 | 1.6% | 425 | 22 | 5.5% |
| 2003 | 111 | 2 | 1.8% | 1,436 | 40 | 2.9% | 451 | 26 | 6.1% |
| 2004 | 122 | 11 | 9.9% | 1,489 | 53 | 3.7% | 506 | 55 | 12.2% |
| 2005 | 126 | 4 | 3.3% | 1,561 | 72 | 4.8% | 552 | 46 | 9.1% |
| 2006 | 129 | 3 | 2.4% | 1,621 | 60 | 3.9% | 627 | 75 | 13.5% |
| 2007 | 179 | 50 | 38.8% | 1,726 | 105 | 6.5% | 727 | 100 | 16.0% |
| 2008 | 254 | 75 | 41.9% | 1,806 | 80 | 4.6% | 847 | 120 | 16.5% |
| 2009 | 354 | 100 | 39.4% | 1,841 | 35 | 1.9% | 997 | 150 | 17.7% |
| 2010 | 429 | 75 | 21.2% | 1,876 | 35 | 1.9% | 1,117 | 120 | 12.0% |
| 2011 | 504 | 75 | 17.5% | 1,911 | 35 | 1.9% | 1,217 | 100 | 9.0% |
| 2012 | 579 | 75 | 14.9% | 1,946 | 35 | 1.8% | 1,307 | 90 | 7.4% |
| **AAGR** | **2000 to 2005** | | **3.1%** | **2000 to 2005** | | **2.9%** | **2000 to 2005** | | **7.4%** |
| **AAGR** | **2006 to 2012** | | **28.4%** | **2006 to 2012** | | **3.1%** | **2006 to 2012** | | **13.0%** |

Source: City of Blaine, 2006

Table B-3 shows population growth between 2000 and 2005 and the expected population growth for 2006 to 2012 by three sub-areas with Blaine's city limits, based on residential growth shown in Table B-2.

## Table B-3: Population forecast by area, Blaine, 2006 to 2012

| | East Blaine | | | Central Blaine | | | West Blaine | | |
|---|---|---|---|---|---|---|---|---|---|
| Year | Pop. | Change | Annual Growth Rate | Pop. | Change | Annual Growth Rate | Pop. | Change | Annual Growth Rate |
| 2000 | 313 | -- | -- | 2,951 | -- | -- | 506 | -- | -- |
| 2001 | 315 | 2 | 0.6% | 2,997 | 46 | 1.6% | 543 | 37 | 7.3% |
| 2002 | 315 | 0 | 0.0% | 3,057 | 60 | 2.0% | 603 | 60 | 11.0% |
| 2003 | 317 | 2 | 0.6% | 3,086 | 29 | 0.9% | 622 | 19 | 3.2% |
| 2004 | 325 | 8 | 2.5% | 3,126 | 40 | 1.3% | 664 | 42 | 6.8% |
| 2005 | 329 | 4 | 1.2% | 3,200 | 74 | 2.4% | 711 | 47 | 7.1% |
| 2006 | 335 | 6 | 1.8% | 3,323 | 123 | 3.8% | 822 | 111 | 15.6% |
| 2007 | 437 | 102 | 30.4% | 3,537 | 214 | 6.4% | 971 | 149 | 18.1% |
| 2008 | 590 | 153 | 35.0% | 3,700 | 163 | 4.6% | 1,149 | 178 | 18.3% |
| 2009 | 794 | 204 | 34.6% | 3,772 | 72 | 1.9% | 1,372 | 223 | 19.4% |
| 2010 | 947 | 153 | 19.3% | 3,843 | 71 | 1.9% | 1,551 | 179 | 13.0% |
| 2011 | 1,100 | 153 | 16.2% | 3,914 | 71 | 1.8% | 1,700 | 149 | 9.6% |
| 2012 | 1,253 | 153 | 13.9% | 3,986 | 72 | 1.8% | 1,833 | 133 | 7.8% |
| **AAGR** | **2000 to 2005** | | **1.0%** | **2000 to 2005** | | **1.6%** | **2000 to 2005** | | **7.0%** |
| **AAGR** | **2006 to 2012** | | **24.6%** | **2006 to 2012** | | **3.1%** | **2006 to 2012** | | **14.3%** |

Source: City of Blaine, 2006