

## MEMORANDUM

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To: Michael Green – Superintendent  
Woodland Public Schools

From: Eric Hovee

Subject: Enrollment Analysis & Forecast Scenarios (REVISED DRAFT)

Date: January 8, 2019

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Woodland Public Schools (District) is facing the possibility of new residential development that could substantially affect K-12 school enrollment in the years immediately ahead and extending over the next 20 years. On behalf of the District, the economic and development consulting firm E. D. Hovee & Company, LLC (E.D. Hovee) has prepared this enrollment analysis together with baseline and alternative (or high growth) forecast scenarios covering a 20-year time frame from 2018-38.

This memorandum report is organized to cover the following topics:

Historic Context & Recent Trends  
Potential Residential Development  
Other Factors Affecting Future School Enrollment  
Baseline & High Growth Enrollment Scenarios  
School Facility Implications

Information for this analysis is drawn from a range of sources including the U.S. Census, Washington State Office of Financial Management, District provided enrollment data, the proprietary data source Environics/Claritas, and information from both City of Woodland and developer sources regarding anticipated development.

*Please consider this as a draft report for District review. E. D. Hovee is prepared to make analysis and forecast refinements to address questions and comments received.*

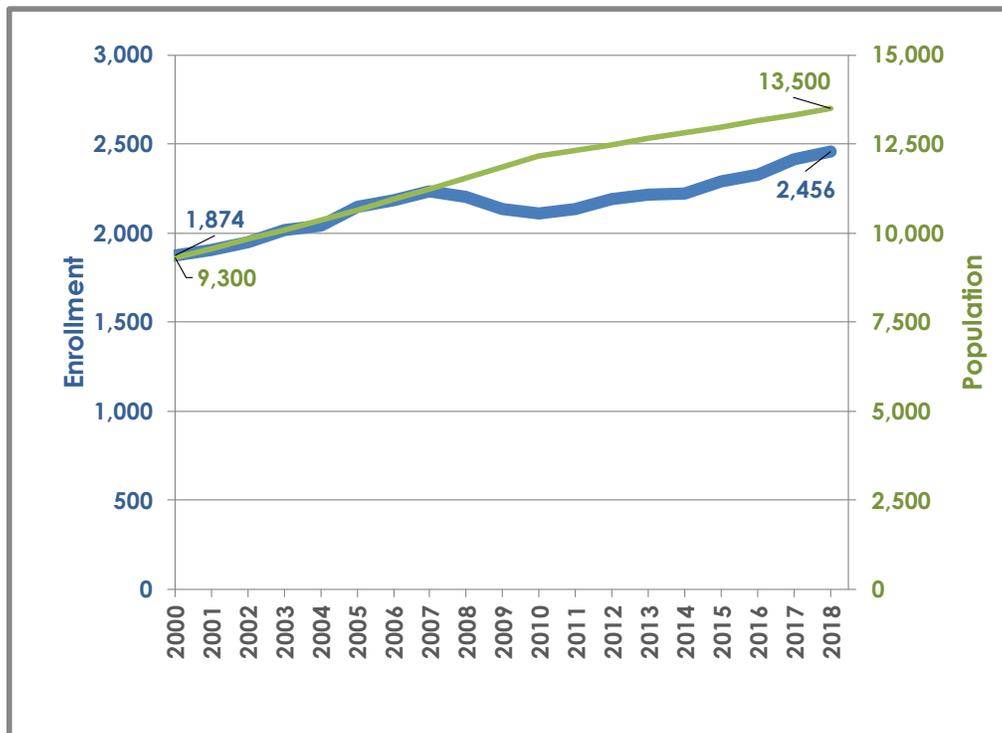
## HISTORIC CONTEXT & RECENT TRENDS

At the outset, it is useful to briefly review the historic context of the Woodland School District together with trends related to population and employment growth.

### School Enrollment & Population Trends

As shown by the following chart, enrollment in the Woodland district has increased from an October 1 headcount of 1,874 students in 2000 to 2,456 as of 2018 – a gain of 31%. In comparison, population within the district has increased from about 9,300 residents in 2000 to 13,500 in 2018 – for an 18-year increase of 45%.

**Comparative District Enrollment & Population Trends (2000-18)**



Source: Census-based allocation estimates by Environics and E. D. Hovee to school district boundaries.

Woodland’s experience with population growth outpacing school enrollment is typical of what is occurring elsewhere in southwest Washington and nationally.

### In-City & Rural Development

The Woodland district extends from the Columbia River to the Skamania County line. In 2000, the rural portion of the district accounted for 59% of district-wide population, a figure reduced to 54% by 2018. In-city residents are likely to become the majority in the years ahead.

## POTENTIAL RESIDENTIAL DEVELOPMENT

Two scenarios of future enrollment are provided for comparative purposes with this analysis:

- **A baseline forecast** – assuming continuation of growth trends for both the in-town and rural portions of the district – also consistent with the City’s Comprehensive Plan.
- **An alternative high growth scenario** – reflecting residential development interests currently being considered by the City of Woodland which could result in dramatically increased new single- and multi-family development in the years immediately ahead.

### Baseline Expectations

The baseline forecast assumes a slight increase in recent population growth rates – going from about 1.3% per year for the full district from 2010 to present to 1.4% through 2038. In recent years, the rate of population growth in-town has been more than double the unincorporated portion of the district – a pattern expected to continue with the baseline projection.

Over the next 20 years, about 60+/- households would be added per year in Woodland – a figure consistent with City of Woodland baseline planning. Rural area development might average about 20 housing units per year. Based on these assumptions, the City share of district-wide population would increase from 46% of the total in 2018 to about 54% by 2038.

### High Growth with Major Residential Developments Planned

A substantially different set of residential development outcomes is possible, depending on pending City Planning and Council decisions regarding potential residential development projects both in and outside the current city limits. The maximum case outcomes outlined by the City (with Scenarios 5 and 6) would involve development of up to 4,060 housing units – assuming approval of all applications including an enlarged Urban Growth Area (UGA).

The chart on the next page is generally consistent with Scenario 5 –with two key modifications:

- The City assumes that an initial 520 phase of the Aho development would be spread out over the 2020-23 time period; the high growth scenario is consistent with what may be a more rapid development build-out expectation of this first phase – in perhaps as little as two years (from 2020-21).
- The City’s analysis does not assign any specific timeline to about 1,450 units associated with the Burke Road UGA line and South Woodland fill-up; this analysis assumes that these units are developed within a 20-year time frame (or by 2038).

The chart on the next page provides a year-by-year listing of potential residential developments by project. This listing and resulting enrollment scenarios are subject to refinement based on input and actions by the Woodland Planning Commission and City Council in the months ahead.

### Woodland UGA Planned Residential Projects (2019-38)

Applicant	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	Totals
Woodland Commerce Center	-	21	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43
BYRV, Inc. (B. Young)	-	-	44	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	89
Aho Construction I, Inc. (Donald Farm - Project 1)	-	130	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	520
Saxony Pacific, LLC	-	-	-	-	88	88	88	-	-	-	-	-	-	-	-	-	-	-	-	-	264
Tsugawa	-	-	-	-	-	-	-	67	68	-	-	-	-	-	-	-	-	-	-	-	135
Saxony Pacific, LLC	-	-	-	-	-	-	-	-	88	88	88	-	-	-	-	-	-	-	-	-	264
Green Mountain	-	-	-	-	-	-	-	-	-	-	-	-	74	74	-	-	-	-	-	-	148
Woodland Creek	-	-	-	-	-	-	-	-	-	-	-	69	35	35	-	-	-	-	-	-	139
Aho Construction I, Inc. (Projects 2-7, 168 du each project)	-	-	-	170	170	170	170	170	158	-	-	-	-	-	-	-	-	-	-	-	1,008
Burke Road UGA Line	-	-	-	-	-	-	-	-	-	30	31	31	-	-	-	-	-	-	-	-	92
South Woodland UGA Fill-up	-	-	-	-	-	-	-	-	-	98	90	90	90	90	150	150	150	150	150	150	1,358
<b>Total Housing Units</b>	-	<b>151</b>	<b>456</b>	<b>215</b>	<b>258</b>	<b>258</b>	<b>258</b>	<b>237</b>	<b>314</b>	<b>216</b>	<b>209</b>	<b>190</b>	<b>199</b>	<b>199</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>4,060</b>

Source: E. D. Hovee & Company, adapted from City of Woodland Scenario 5, December 2018.  
Project information is preliminary and subject to change.

Of the added 4,060 units identified as currently planned, over 3,250 units (or 80%) are anticipated to be single family residences. This is above the approximately 62% share of the current in-city Woodland housing inventory represented by single family units. District-wide, single family homes account for about 74% of occupied residences.

## **OTHER FACTORS AFFECTING FUTURE SCHOOL ENROLLMENT**

In addition to population and residential growth, there are other demographic factors that have and likely will continue to affect future school enrollment. These factors include demographic shifts, birth rates, grade-to-grade enrollment change – and resulting student generation.

### **Demographic Shifts**

Smaller communities as well as neighborhoods tend to go through demographic cycles over time. As is the case throughout the nation, the median age of the population within the Woodland School District has been getting older. However, the demographics of a community may change over time – for a variety of reasons:

- Residents who age in place eventually sell or move from their homes – often giving way to a younger demographic.
- This change may become more pronounced for the Woodland area, especially if a high growth scenario materializes – with affordably priced housing likely attracting a high proportion of younger families.
- Also noted is that different communities (or neighborhoods) may prove more attractive for younger families than for more established households with older children – or vice versa – depending on such factors as housing type, sizes, pricing and affordability.

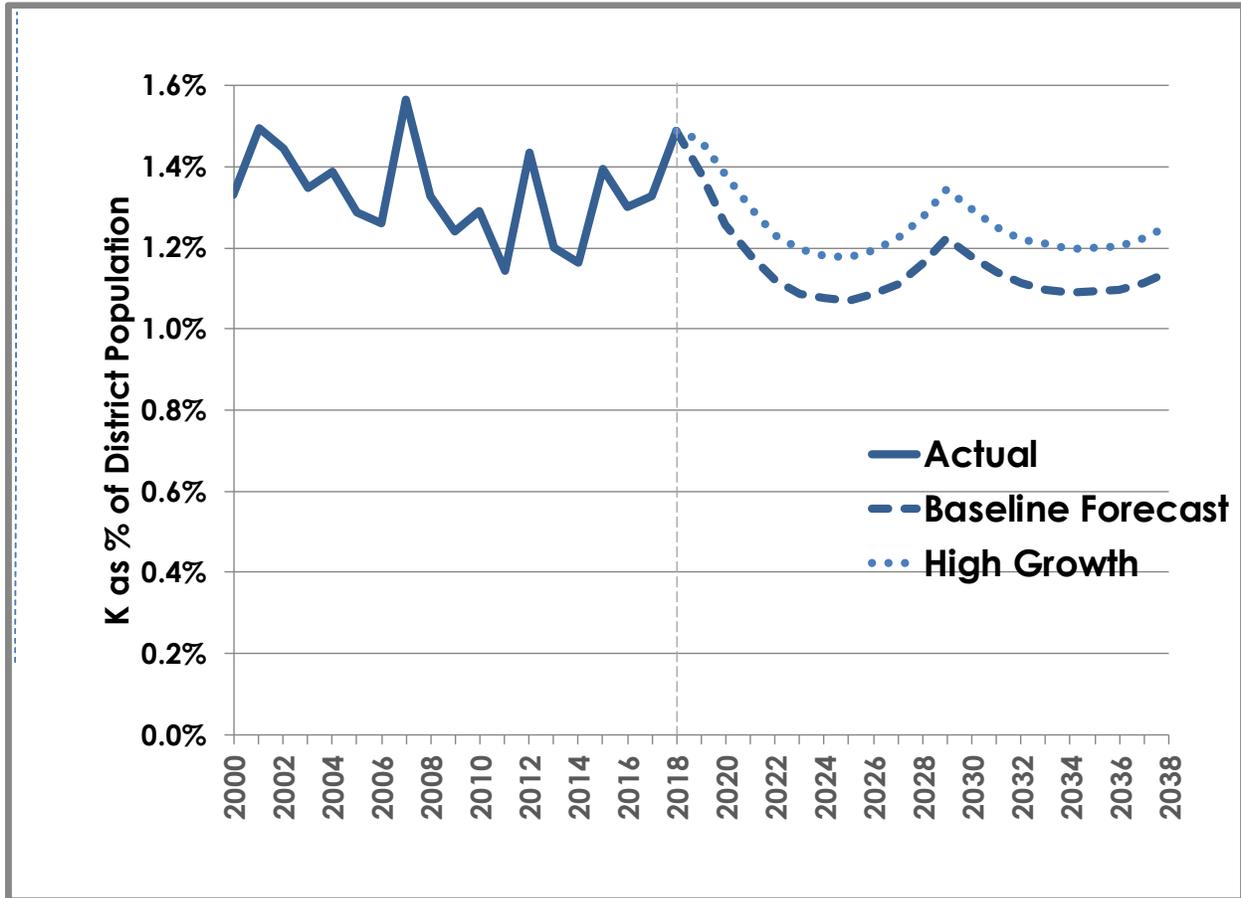
### **Birth Rates & Kindergarten Enrollment**

Birth rates have an approximately 5-year delayed effect on student enrollments – starting at kindergarten and then working through in subsequent years to higher grade levels. Birth rates have generally been on the decline but with some small uptick with economic recovery from the Great Recession of the last decade. The Washington State Office of Financial Management (OFM) forecasts a continuation of gradually declining birth rates in the years ahead (including downgrades of its newest 2017 projection as compared to what was previously forecast in 2012).

The number students who actually show up in kindergarten will be affected not only by birth rates in a community – but also by ensuing patterns of in- and out-migration in the five years leading up to kindergarten enrollment.

For the Woodland district, the proportion of the local population that enrolls in kindergarten can vary considerably from year to year – as illustrated by the graph on the next page.

## Kindergarten Enrollment as % of Woodland School District Population (2000-38)



Sources: E. D. Hovee from enrollment data and census/OFM-based population.

Even with substantial year-to-year variability, there appear to be some longer-term cycles at play – as illustrated by the forecast conditions going forward. In October 2018, kindergarten enrollment equated to 1.49% of in-district population. This is the second highest proportion experience since 2000 (with the highest peak occurring in 2007 – just before the recession – at 1.57% of district population).

Since 2000, each peak to date has been followed by an immediate downturn. While there undoubtedly will be some unpredictability to the cycles ahead, the overall pattern is expected to be toward somewhat lower rates of kindergarten students as a proportion of the total population – if birth rates continue to decline consistent with OFM projections as shown with the baseline projection above.

The alternative high growth scenario assumes similar cycles but with overall K-enrollments 10% above the baseline condition. This could occur if new housing development proves to attract a higher proportion of younger families than has been the case in recent years. In effect, this scenario would maintain birth rates at patterns consistent with recent experience, rather than continuing to decline in the years ahead as is projected by OFM.

## Grade-to-Grade Enrollment Change

The enrollment forecast process also takes into account the number of students who transition from one grade level to the next – as a proportion of the total population. Woodland schools tend to attract more students with each year than would be expected from the number of incoming students from the prior grade. In other words, more 1<sup>st</sup> graders showing up than were in the prior year’s kindergarten, etc.

The only two grade level changes associated with enrollment loss appear to occur in the transition from 6<sup>th</sup> to 7<sup>th</sup> grades, with a greater rate of loss experienced between 10<sup>th</sup> and 11<sup>th</sup> grades. The loss of students in the transition from 10<sup>th</sup> to 11<sup>th</sup> grade may a combination of factors ranging from transfers out of district to high school drop-outs.

Forecast scenarios reflect weighted grade-to-grade change experienced over the last 5-6 years (post-recession). The baseline forecast is based on experience averaged over the last 6 years. The high growth scenario reflects slightly more positive experience averaged over the last 5 years.

## Student Generation Rates

An analysis of student generation rates conducted for the District this past summer indicates an overall generation rate of 0.47 students per residential unit in the Woodland district. Unlike many districts in Southwest Washington, the generation rate for multi-family units was double that of single-family residents. It is possible that this experience may transition to more normal patterns if new single-family residential construction proves to be more attractive and affordable to a higher proportion of younger families with children.

With the forecast scenarios of this report, anticipated generation (for all housing district-wide as of 2038) could range between 0.45 – 0.49 students per residential unit – as compared to the 0.47 rate associated with development to date. Going forward, the higher (0.49) rate of student generation is anticipated with the high growth scenario while the lower (0.45) rate would be associated with baseline conditions.

## **BASELINE & HIGH GROWTH ENROLLMENT SCENARIOS**

Enrollment forecasts take into account the residential and population growth assumptions as described in this report – together with forecasting of other key demographic factors including birth rates/kindergarten enrollment and grade-to-grade enrollment change.

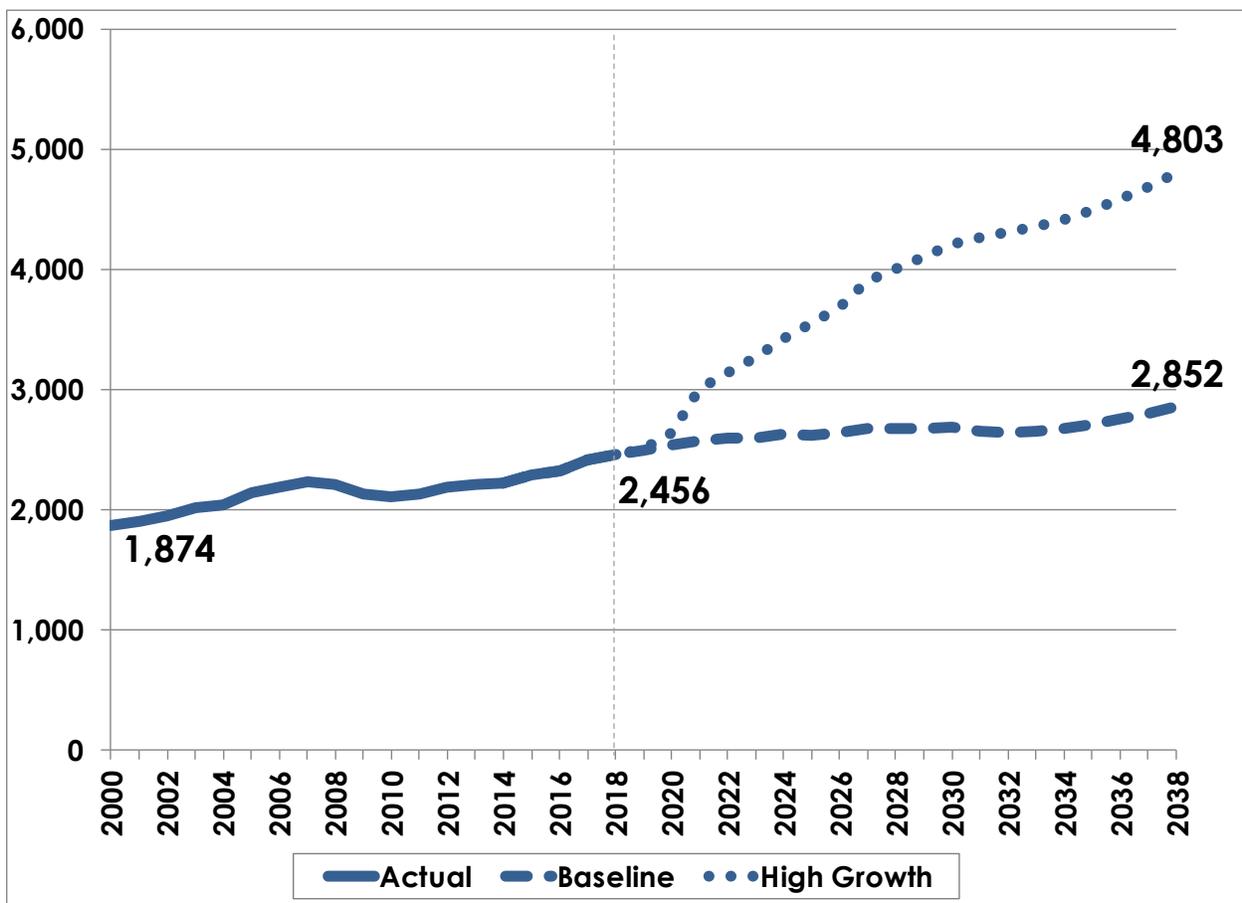
Results are provided first for the full K-12 school system, then separately for the primary (K-4), middle (5-8) and high school (9-12) levels.

## K-12 Forecast Summary

The observed enrollment trends from 2000-18 for the full K-12 Woodland School District together with alternative 2018-38 baseline and high growth scenarios are depicted by the following graph. Over the last 18 years from 2000-18, enrollment has increased from 1,874 students in 2000 to 2,456 as of October 2018. This equates to a net enrollment increase of 582 students (or a gain of 31%). This equates to a growth rate averaging 1.5% per year.

Enrollment was affected by the Great Recession – peaking out at 2,235 students in 2007, followed by modest declines for the next three years, with subsequent enrollment increases since 2010.

**K-12 All Grade Enrollment Trend & Forecast Scenarios (2000-38)**



Source: E. D. Hovee as of January 2019.

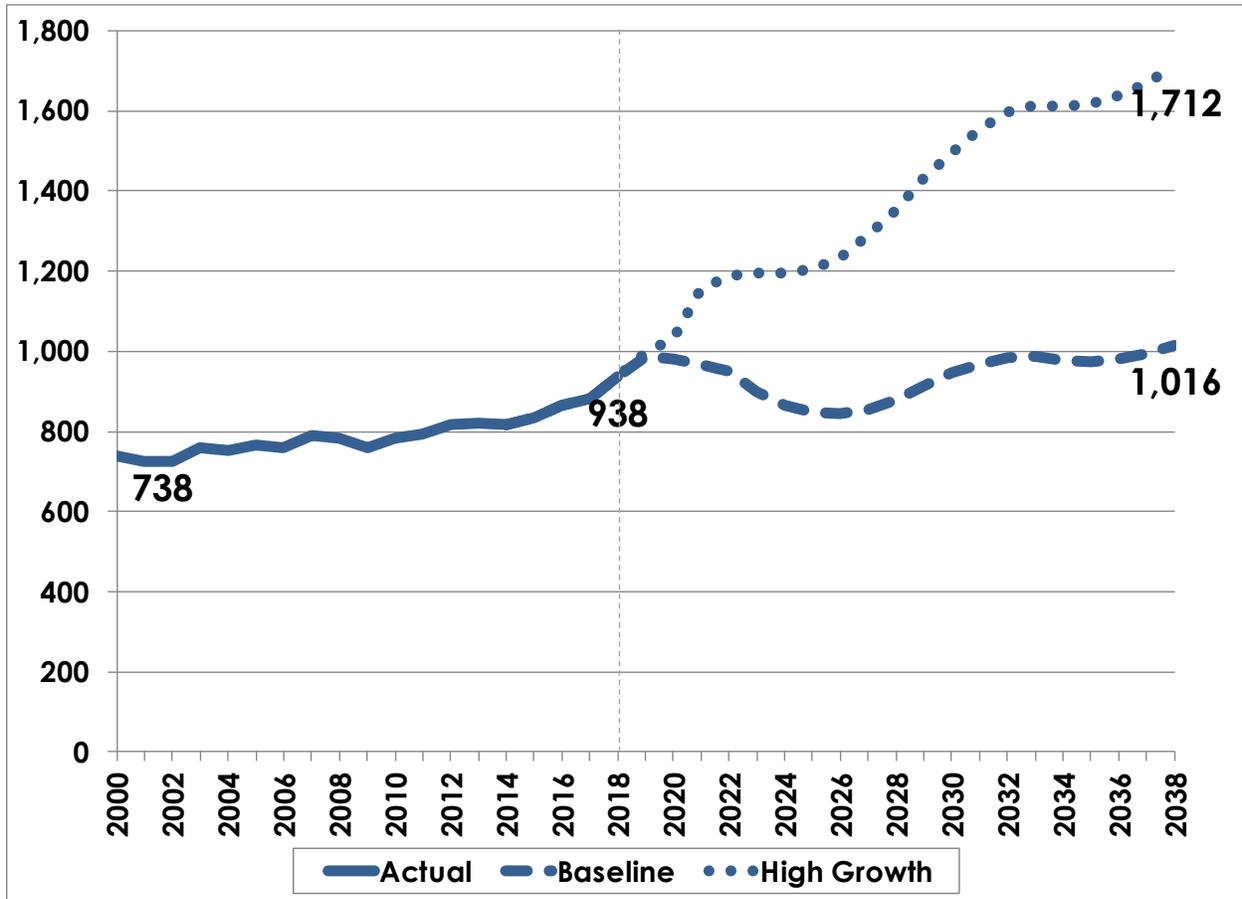
With **baseline growth**, enrollment is projected to increase by 396 students for a gain of 16% over the next 20 years through 2038. This equates to an enrollment growth rate averaging 0.8% per year. This reflects a lower rate of growth than previously, due in part to reduced birth rates.

With **high growth** predicated primarily on substantial new residential development, enrollment could nearly double in 20 years, reflecting headcount increases averaging 3.4% per year.

## Primary Enrollment (Grades K-4)

From 2000-18, primary (with intermediate) school enrollment has increased by 200 students from 738 to a 938 student headcount. This equates to a 27% increase (averaging 1.3% per year) – a slower rate of student increase than at the middle and high school levels. Enrollment increased slowly through 2008 before stalling out, then returning to renewed and then accelerated growth starting about 2010.

### Primary/Intermediate Enrollment Trend & Forecast Scenarios (2000-38)



Source: E. D. Hovee as of January 2019.

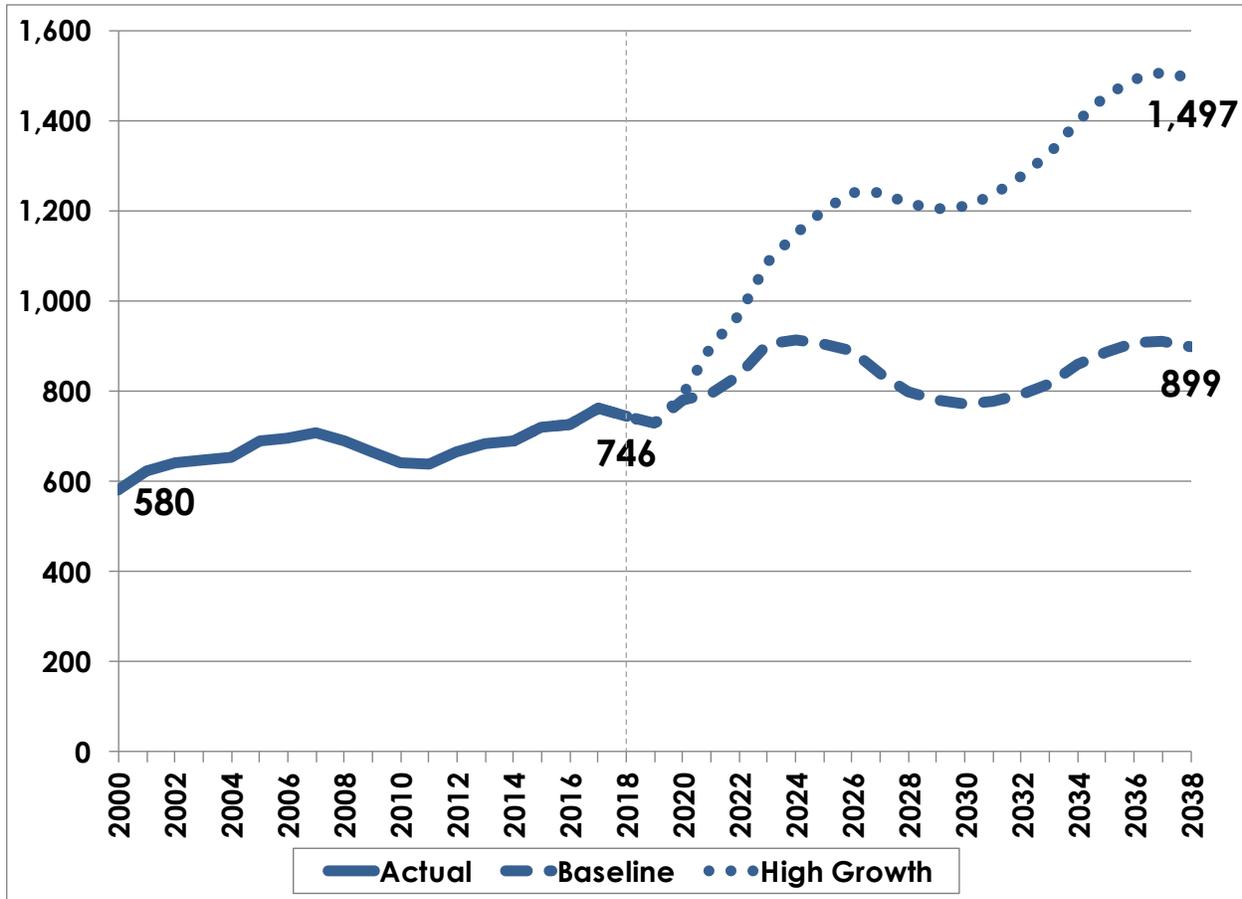
Looking forward, **baseline conditions** could be associated with flat to declining enrollment after about 2019-20 due to declining birth rates, dropping by as many as 140 students through the mid-2020s then picking up again over the remainder of the forecast period to 2038 – for a net gain of 78 students (+8%) in 20 years. Noted is that the timing of dampened (or resurgent) birth rates will be affected by economic conditions and changing family preferences over time.

With **high growth**, primary enrollment could increase by as much as 774 students to a 2038 student count of 1,712 by 2038. This equates to an 83% increase in primary school students, albeit a not as rapid a percentage increase as could occur at the middle and high schools.

## Middle School Enrollment (Grades 5-8)

Patterns of middle and high school enrollment have been and are expected to be more variable than at the primary level, but with different time cycles. From 2000-18, middle school enrollment increased from 580 to 746 students – a gain of 166 students (or 29% increase). After peaking at 708 students in 2007, middle school enrollment dropped over the next four years to 2011, before returning to a growth pattern extending to 2017, then dropping some in 2018.

**Middle School Enrollment Trend & Forecast Scenarios (2000-38)**



Source: E. D. Hovee as of January 2019.

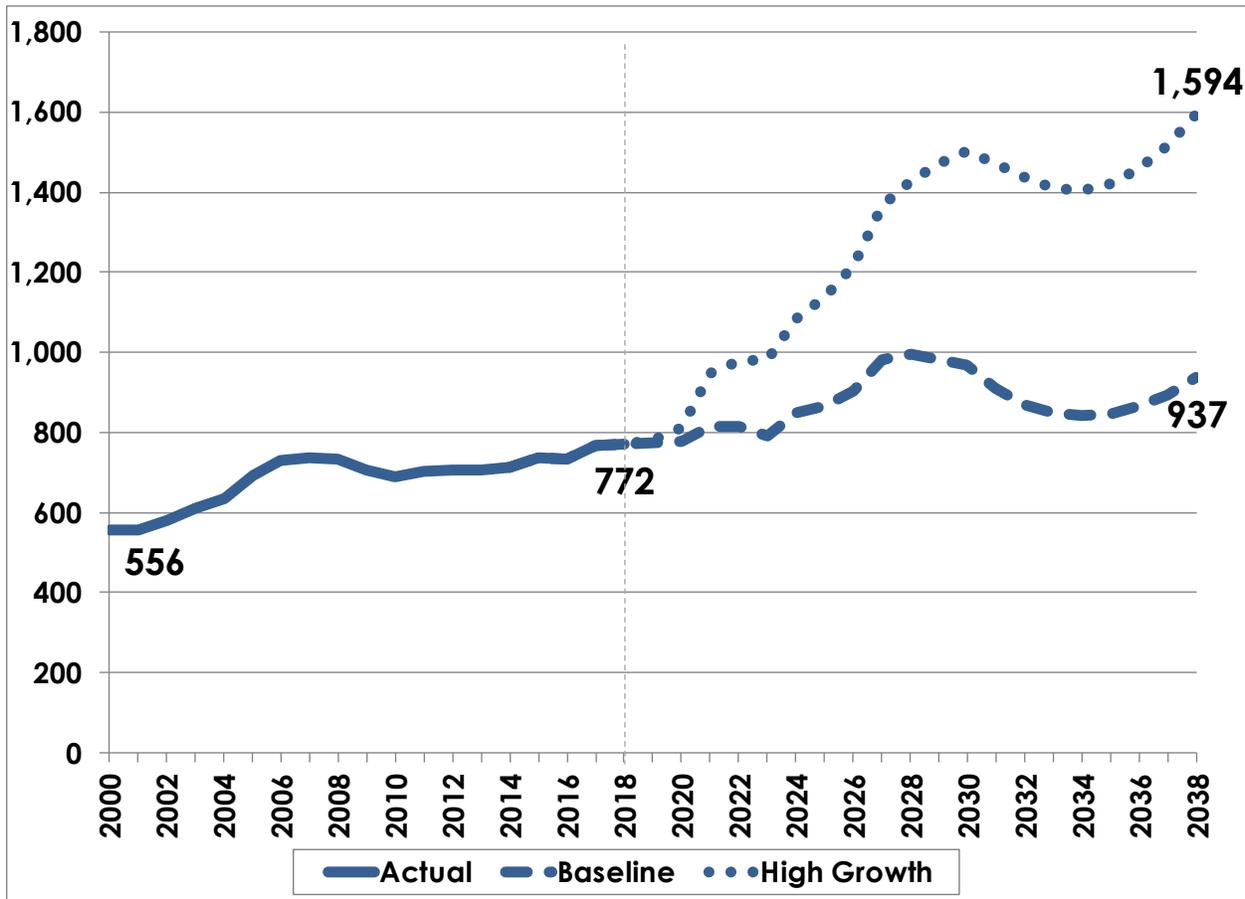
With **baseline growth**, enrollment likely returns to a pattern of increased student counts, peaking about 2024, followed by decline over several years of up to 140 students, then returning to sustained increases through 2038. Over the full 20-year forecast period, middle school enrollment could increase by 153 students to an 899 headcount (a 21% increase).

With a residentially driven **high growth** scenario, enrollment could more than double over 20 years, increasing by as much as an estimated 751 students to a 1,497 headcount figure by 2038. Rapid enrollment growth could occur in two waves with a mid-term lull over about the 2028-30 time period.

## High School Enrollment (Grades 9-12)

High school grades experienced rapid enrollment gains from 2000 to a peak count of 738 students in 2007. Enrollment has been fairly flat since 2007, with a 2018 head count of 772, up by 34 students above the headcount 11 years earlier. Overall, high school enrollment has increased by 216 students over the last 18 years, up by 39%.

**High School Enrollment Trend & Forecast Scenarios (2000-38)**



Source: E. D. Hovee as of January 2019.

Looking ahead, **baseline** high school enrollment changes can be expected to remain fairly modest through about 2023 due to flattened numbers of incoming middle school students. Enrollment would then pick up through to about 2028, then turn down (four years behind the projected middle school downturn). Over the full 2018-38 time period, high school enrollment could increase by an estimated 165 students to 937 by 2038 (a 21% increase).

With **high growth** conditions, high school enrollment could start to increase rapidly by 2021 with a lull from about 2032-34, then again increasing to 2038. Over the full 20-year horizon, enrollment would more than double to a 2038 headcount of 1,594. This equates to enrollment increases averaging 3.7% per year – for faster growth than at primary or middle school levels.

## SCHOOL FACILITY IMPLICATIONS

In summary, several observations emerge from this forecast analysis with potentially significant implications for facilities of Woodland Public Schools:

- 1) **First and foremost, the in-City portion of the Woodland district may be about to enter a pattern of residential growth unlike anything experienced in recent years.** If currently identified residential development plans are approved, it is possible that the population of the district could double over the next 20 years – with ramped up growth starting about the 2020-21 school years. This could result in a near doubling of school enrollment over the same 20-year period – requiring potentially significant expansion of school facilities to keep pace.
- 2) **The pace of residential development and resulting impacts may be especially pronounced in the years immediately ahead.** This could occur if some major projects such as those of Aho Construction are essentially front-loaded to capture as yet unmet demand for affordable home ownership opportunities. With the current high-growth scenario, the district could experience a net increase of as many as 800+ new students by 2023 – as much as a 33% increase five years from now.
- 3) **School enrolment impacts will be affected not only by the number of new units, but by the mix of units – in terms of such factors as single/multi-family, unit size, and pricing.** Of particular importance will be the extent to which residential units prove attractive to younger families (as starter homes) versus other demographics such as middle age families or empty nesters. The high growth scenario with this forecast analysis assumes a strong orientation to younger families with somewhat above baseline increases in kindergarten enrollment as a percentage of the population coupled with strong grade-to-grade growth as students advance – resulting in overall higher student generation than currently experienced.
- 4) **There is considerable difference between the baseline scenario (predicated on the City's adopted Comprehensive Plan) and the high growth scenario.** With high growth, enrollment nearly doubles in 20 years; with baseline conditions, enrollment increases by an estimated 16%. More certainty about the likely pace of development can be expected over the course of Woodland Planning Commission and City Council reviews and decisions in the next several months. It may then be useful for forecast numbers to be modified and refined accordingly.
- 5) **Finally, as development plans are approved or modified now or over the next several years, it will also be worthwhile to actively monitor the pace of development and resulting actual student generation associated with new single- and multi-family units.** Adjustments may also be needed if there are major changes in economic conditions such as timing of a national or regional economic downturn – as this could affect the area's job market, housing availability and affordability.

E. D. Hovee appreciates the opportunity to provide this enrollment analysis and forecast scenarios report on behalf of Woodland Public Schools.