

Memorandum

July 14, 2026

To: Susan Dretke and Deanna Walter, Chelan County

From: Shirley Schultz and Josh Jensen, Anchor QEA

cc: Kevin Overbay, Chelan County Board of County Commissioners
Brian Points, Dylan Kluss, and Robyn Player, Points Consulting
Matt Covert and Donna Keeler, Facet NW

Re: Malaga Urban Growth Area (UGA) Plan

The Malaga community, located in unincorporated Chelan County along the Columbia River, is experiencing development patterns and growth pressures that are no longer consistent with its designation as a Limited Area of More Intensive Rural Development (LAMIRD). For the purposes of this memorandum, "Malaga" refers to that LAMIRD and not the broader Malaga-Colockum area, which is planned to remain rural with a focus on agriculture and with more limitations on residential development. The broader community identifies its greatest asset as the rural character of the community with mixtures of open space, housing, agricultural land, and small-town services, with limited commercial/industrial intrusions to the central core of the community, providing the following stated vision:

The citizens of the Malaga-Colockum area envision future development that will complement and enhance, not unreasonably impact our rural character, our agricultural economy, and natural resource-based industries. We foresee maintaining the area's high quality of life while sustaining growth of both housing developments, downtown businesses, and expanded infrastructure services within the community, with the large commercial and industrial businesses set away from residential areas. The community will be served with the necessary public services, infrastructure, and businesses, such as a grocery store with fresh fruits and vegetables, small locally owned restaurants, salons, specialty stores, and churches to accommodate our growth. However, preservation of open spaces, wildlife conservation, resource lands and recreation opportunities surrounding our community will serve as a priority.

Over the past several decades, the area has experienced substantial increases in population, housing density, and limited employment activity, supported in part by the LAMIRD designation (over the last 20 years) and associated denser residential zoning.

Currently, the corresponding urban infrastructure for planned industrial, commercial, and housing developments within the LAMIRD is not available. Under the Washington Growth Management Act (GMA), this level of growth should occur within Urban Growth Areas (UGAs), where jurisdictions can plan land capacity, infrastructure, and public services to accommodate 20-year population and employment forecasts. Malaga's existing conditions, including continued residential expansion and emerging economic activity tied to regional industry, indicates that it must function as an urban area and to warrant planning consistent with that role.

At the same time, the absence of urban infrastructure, particularly sewer service, has created increasing environmental and public health concerns. All development in Malaga relies on on-site septic systems (OSS), and recent data appear to show that the cumulative effect of these systems at current densities contributes to rising nitrate concentrations in the underlying aquifer, which serves as the community's primary drinking water source. An increase in nitrates conflicts with state groundwater protection requirements and creates the potential for significant long-term treatment costs if regulatory thresholds are exceeded. Soil and site constraints further limit the feasibility of septic-based development at higher densities. Conversion to a UGA would enable coordinated infrastructure planning, including provision of sewer service, allowing Chelan County to accommodate growth while protecting groundwater quality, supporting economic development, and ensuring compliance with state planning and environmental requirements.

The proposed UGA boundary includes areas currently zoned Rural Village, Rural Residential Recreational, and Rural Industrial. The boundary excludes agricultural and resource lands and includes land along the Columbia River from approximately Stemilt Creek Road to an area encompassing the former Alcoa site, while excluding agricultural and resource lands within the Malaga Vision Plan planning area. Proposed zoning within the UGA would align with zoning currently applied in Peshastin, subject to community input. See Attachment A for a map of the proposed UGA. The "Malaga UGA Zoning" section below also includes more detail.

Purpose of the Malaga UGA Plan

This Malaga UGA Plan provides the basis for evaluating and justifying conversion of Malaga from a LAMIRD to a UGA as part of the 2026 to 2046 Comprehensive Plan update process. The information and analysis presented herein are consistent with the requirements and standards of Chelan County Code Title 10 and the GMA.

This plan summarizes the basis for conversion, including background information on applicable GMA requirements and Chelan County procedures for UGA designation, followed by an evaluation of Malaga's existing conditions and future role. The analysis demonstrates that Malaga exhibits urban levels of development, is expected to accommodate future population and employment growth, and is currently underserved by rural infrastructure. The memorandum also evaluates the feasibility of

providing urban services to the area and concludes with a proposed UGA boundary and supporting rationale. The following attachments are included to support this plan:

- **Attachment A:** Proposed UGA Map
- **Attachment B:** Malaga Vision Plan (2017)
- **Attachment C:** Malaga Land Capacity Analysis (LCA)
- **Attachment D:** Wellhead Protection from Nitrate Contamination Memorandum (2026)
- **Attachment E:** Soil Mapping and Employment Forecasting Findings (2026)
- **Attachment F:** Revised Code of Washington and Washington Administrative Code UGA criteria compliance
- **Attachment G:** Case Law memorandum (2025)

Background

Chelan County is undertaking the Comprehensive Plan periodic review process, which is supported by a Periodic Update Grant by the Washington State Department of Commerce (Commerce). The Malaga area has been the subject of multiple planning and community efforts since the adoption of Chelan County's first GMA Comprehensive Plan in the 1990s. The area was officially designated as a LAMIRD in the 2006–2007 planning period. The 2017–2037 Comprehensive Plan included a thorough review of the area that was summarized in a 2017 Malaga Vision Plan, which is included as Attachment B. Large portions of the area were upzoned to "Rural Village" following the Comprehensive Plan update.

Since 2017, multiple residential subdivisions have been proposed or fully built out to current development standards, including public water services and full street sections. Sewer services are provided with community or individual OSS. That period of continued growth has also seen the closure of the Alcoa plant and the construction of a Microsoft data center, as well as proposals for additional residential and industrial development (e.g., the Helion fusion power plant).

A LCA was prepared for the 2026–2046 Comprehensive Plan to ensure that sufficient land is available to meet future housing needs, based on projected population growth and the corresponding housing demand for the range of income segments within the county (Points 2025). A separate LCA was prepared for the Malaga LAMIRD and included as Appendix C of the countywide LCA. An inventory of land within the proposed UGA is included in the Malaga LCA and included with this memorandum as Attachment C. Maps prepared showing re-developable, vacant, and underutilized residential parcels in and around the Malaga LAMIRD are also included in Attachment C.

The significant growth in Malaga has also been monitored by Malaga Water District (MWD), the entity that manages municipal groundwater supply for ongoing and proposed residential development using individual OSS within the District's Wellhead Protection Areas (WHPAs). MWD has monitored and documented increased nitrate loading to the Malaga aquifer over time and

correlates it with increased development in the area (see Attachment D). This issue is described further in the following sections to justify the need for urban services in Malaga.

The area has been reviewed with the current periodic update of the Comprehensive Plan; employment and population estimates have been updated and additional studies regarding water quality and septic carrying capacity have been completed. The compiled materials clarify that urban services are required in Malaga and that they can be provided.

Designation of UGA

GMA Requirements

The Revised Code of Washington (RCW) Chapter [36.70A.110](#) outlines the requirements for designation of UGAs. The statute describes the planning, procedures and criteria required for initial adoption of UGA boundaries. Per the RCW,

"Urban growth" refers to growth that makes intensive use of land for the location of buildings, structures, and impermeable surfaces to such a degree as to be incompatible with the primary use of land for the production of food, other agricultural products, or fiber, or the extraction of mineral resources, rural uses, rural development, and natural resource lands designated pursuant to RCW [36.70A.170](#). A pattern of more intensive rural development, as provided in RCW [36.70A.070](#)(5)(d), is not urban growth. When allowed to spread over wide areas, urban growth typically requires urban governmental services. "Characterized by urban growth" refers to land having urban growth located on it, or to land located in relationship to an area with urban growth on it as to be appropriate for urban growth.

The statute directs the county to designate UGAs in consultation with local jurisdictions, including federally recognized tribes, though it does not define a limit on what level of density is "urban." An analysis of the RCW and WAC related to UGAs is included in Attachment E.

Chelan County UGA Procedures

In Chelan County, proposals to designate UGAs must comply with procedural and substantive requirements under the GMA, as outlined in RCW 36.70A, and shaped by WAC rules, case law, and the Comprehensive Plan and development regulations (Attachment E). The County's consultant team conducted a case law review and has prepared this plan consistent with previous cases involving UGA creation or conversion (Attachment F).

Countywide planning policies and the Land Use Element of the Comprehensive Plan include criteria for UGA designations. The Comprehensive Plan notes that "Urban growth areas are to be located

first in areas already characterized by urban development where existing public facility and service capacity is available and second, in areas where public or private facilities or services are planned or could be provided in an efficient manner” (Chelan County [forthcoming]). Malaga’s level of development places it between the first and second tiers for urban growth.

The most directly related policies are as follows (emphasis added):

- Policy LU 5.1: Designated urban growth areas should include those areas **already characterized by urban growth** as well as those areas projected to accommodate future growth.
- Policy LU 5.2: Designate and size urban growth areas in accordance with the Growth Management Act (RCW 36.70A.110) based on population growth; **existing land use and transportation systems; capacity of public facilities and services; capacity to fund the necessary infrastructure and capital facilities**. Consideration should also be given to addressing grossly irregular corporate boundaries during the process of designating urban growth boundaries.

Malaga As a UGA

The Malaga LAMIRD Is Characterized by Urban Levels of Development

Malaga is the center of a growing community along the Columbia River. The Malaga LAMIRD has always been characterized by its rural surroundings and focus on agriculture, with local businesses and a history of manufacturing. The area has potential for an increase in commercial and retail businesses resulting from economic and population growth in the region (see Attachment G). This population growth has occurred as planning and zoning for Malaga has evolved from a vision to the current LAMIRD, allowing for denser housing and more affordable housing types (e.g., duplexes). Since 2017, the Malaga LAMIRD has added 149 new single family residences and 11 new duplexes as of January 2026. The potential for new employment and new housing can support a balanced community in an area that can be served efficiently.

Even though recently developed lots are large enough to meet minimum sizes for septic (12,000 square feet), they are served with other typical urban services. The lots have full road sections, including sidewalks, and are laid out in a neighborhood street grid. The lots are served by MWD, which draws from a municipal groundwater supply. The community is also home to a fire station, there are public parks, and the limited commercial area is served by transit.

It should also be noted that the area within the proposed UGA boundary is not suitable for resource uses and has seen declines in agricultural uses as orchards are converted to residential or other uses within the LAMIRD. This distinguishes Malaga from its rural surroundings and other rural areas of the county. While agriculture uses can continue or be re-established in the community, the trends have been toward conversion of agricultural land to other uses throughout the County. The majority of

Malaga within the UGA boundary is zoned Rural Village, which is not a resource or agricultural land use designation. By increasing density in these areas through UGA zoning, there is less pressure to develop outside of these areas and convert more agricultural resource lands into residential or other zoning types.

Malaga Is Projected to Accommodate Future Growth

The LCA for the 2026–2046 Comprehensive Plan update contains a detailed analysis of the growth expected in Chelan County, including Malaga. In Malaga, the LCA shows approximately 10 percent population growth over the 20-year planning period and demand for an additional 100 housing units, or about 15 percent housing growth. Malaga has the zoning capacity in vacant and underutilized land to accommodate approximately 277 additional housing units. Growth targets are based on population allocations made at the county level based on estimates provided by the State Office of Financial Management. Chelan allocates population to UGAs and then to the rural county areas.

For housing in the county (outside the UGAs), including in Malaga, the County is planning for housing that is affordable to all income levels. Malaga property prices are slightly lower than the surrounding area, and the ability for the community to accommodate additional housing units at higher densities can benefit housing provision for the county. To support the Comprehensive Plan periodic update, a Housing for All Planning Tool analysis was completed, which includes countywide housing need projections. Through this analysis, the County apportioned a percentage of the low-income housing allocation for the Malaga UGA in response to the continued population growth and employment opportunities in the area.

Industrial property, which comprises about 68 percent of the proposed UGA's area, continues to develop and redevelop, with demand for utilities and employees. This includes the Helion power station, which is under construction, as well as the Microsoft data centers that have been built in the area. Approximately 90 jobs are expected to be created within 5 years, with continued growth over the planning period. See Attachment G for a detailed jobs analysis.

Malaga Is Currently Underserved by Rural Services

Residential development in Malaga is currently served by individual or community septic systems, with new lots that are sized to accommodate individual septic. In 2024, two new subdivisions were reviewed by MWD for confirmation that the MWD could serve the new residences (44 lots total). These new subdivisions have been put on hold due to environmental concerns related to groundwater contamination. This included an independent review of the proposals' wellhead protection studies, which showed that there is a direct correlation between on-site septic and increased nitrate concentrations in MWD wells. Therefore, while there is water available to serve development, continued reliance on septic systems endangers water quality to the detriment of human health. MWD informed the County that, even with enhanced septic systems, development at

the current densities is not allowable. Further, providing nitrate treatment for the water system is not tenable for a small system and would be counter to affordability in the community. Either lots must be much larger (2.5 acres) or sewer must be provided. See Attachment D for documentation of water quality concerns.

Further studies have shown that many soils in the area are not conducive to supporting septic, due to soil type and groundwater travel toward MWD's wellheads. Given that much of the land area in the proposed Malaga UGA is a "Type 4" soil, the minimum lot size for septic should be approximately 19,000 square feet—larger than the infill densities that the County has desired for Malaga. See Attachment G for soils information.

Given existing development patterns in Malaga and the County's stated interest in infill of the area at something denser than 2.5-acre lots, policies should support sewer provision as an urban service within a UGA. This would allow development at a range of densities consistent with recent and historic development patterns in the area and aligned with other UGA zoning in the county (the County has proposed adopting Peshastin UGA zoning, with possible modifications, for Malaga).

Urban Services Can Be Provided to Malaga

Currently, the MWD serves approximately 660 customers via municipal groundwater supplies and can serve up to twice as many under current health department regulations and water rights. The MWD has committed to planning appropriately to finance water improvements and maintenance projects into the future, including developing a sewer plan (RH2 Engineering 2018).

Existing zoning in the proposed UGA has the capacity for approximately 277 additional residential units and demand could be met by the current water system. However, those units would need to be served by off-site sewer in order to protect the community's drinking water from increased nitrate contamination.

Capital improvements like a sewer treatment plant can be funded in many ways, including developer fees, water quality grants and loans, or tools such as tax increment financing via the Port. The Port, Chelan County, and MWD have all committed funds to conducting a sewer study and plan for the central area of Malaga, should the LAMIRD be redesignated as a UGA. While financing options are not yet confirmed, the Chelan Douglas Regional Port Authority board designated the Malaga area as a Tax Increment Financing District, with the first listed funding item being a sewer plan and wastewater treatment.

Malaga UGA Zoning

The conversion of Malaga from LAMIRD to UGA gives the community the opportunity to transition from more broad zoning categories to more specific zoning, such as Campus Industrial; Industrial; Highway Commercial; Downtown Commercial; and Low, Medium, and High Density Residential.

Proposed zoning within the UGA would align with zoning currently applied in Peshastin. The range of zoning being considered for Malaga is intended to reflect existing development patterns and concentrate land uses. Figures 1 and 2 include the currently proposed zoning maps of the proposed Malaga UGA.

Figure 1
Malaga UGA (West)

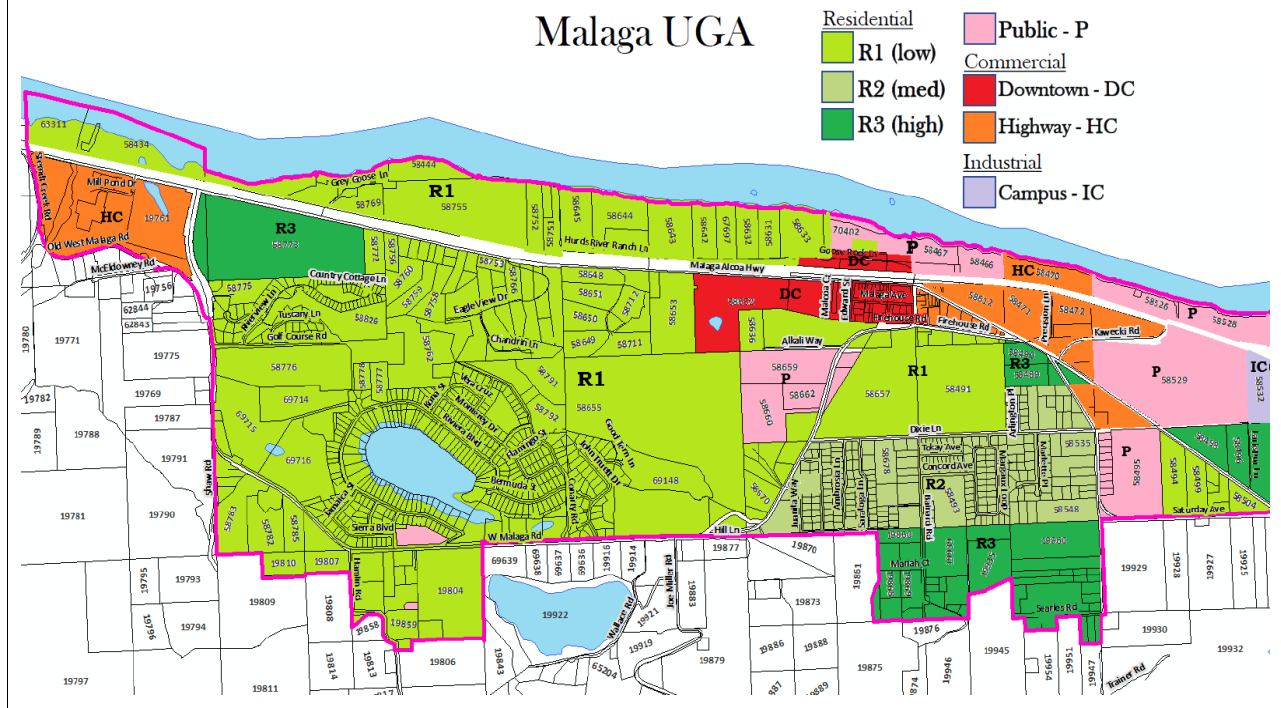
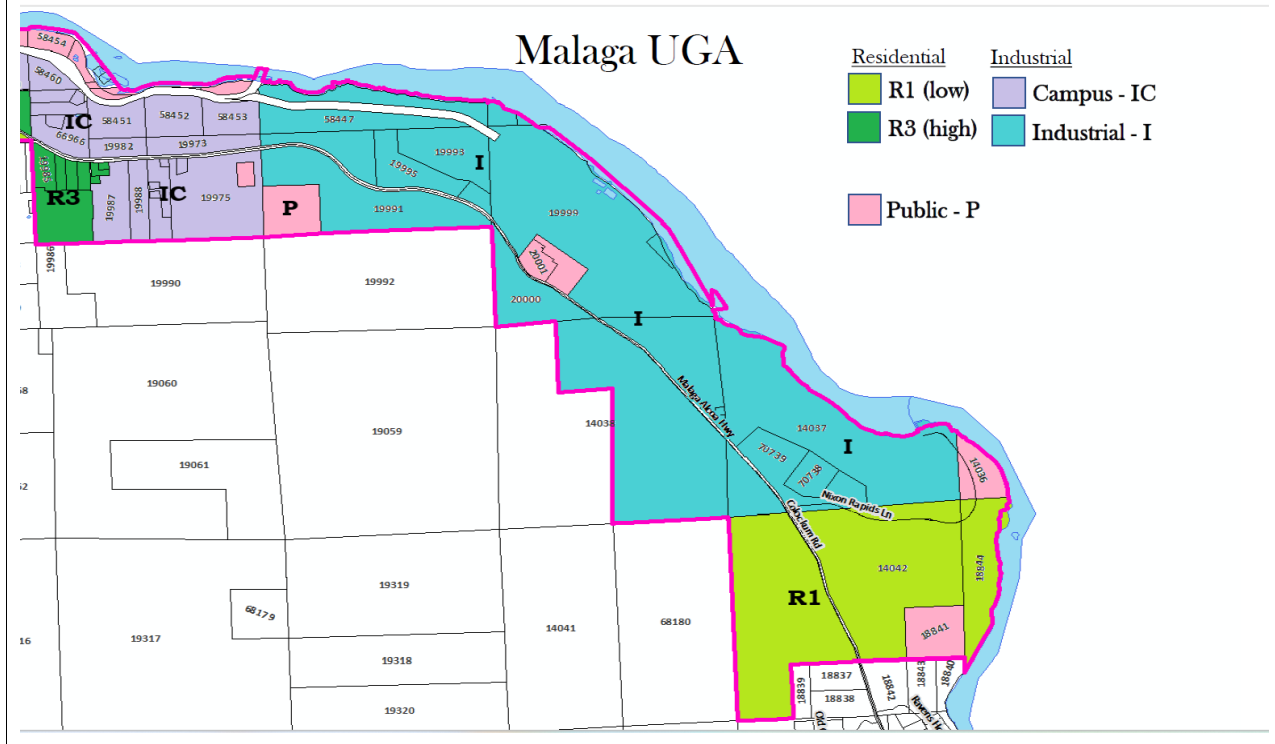


Figure 2
Malaga UGA (East)



Conclusion

Chelan County can consider UGAs and their boundaries this year, along with the periodic update of the Comprehensive Plan. In considering Malaga as a UGA, the following rationale, goals, and policies could be added to the Comprehensive Plan, demonstrating consistency with the RCW and WAC (Attachment E).

Rationale

- The proposed Malaga UGA is characterized by urban levels of development within a larger community of rural and agricultural uses.
- Malaga is projected and planned to accommodate future growth, including a percentage of the County's low income housing stock.
- Malaga is currently underserved by the existing rural services, resulting in nitrate contamination to groundwater from existing septic systems.
- Urban services can be provided to Malaga. Several entities have earmarked funds and are prepared to pursue a planning process for installing sewer in Malaga once the conversion to UGA is approved and this critical urban service can be provided.

- By defining the boundary of the UGA and increasing development potential in town will ease development pressure on surrounding RR5 and RR10 and help preserve the surrounding rural and agricultural resource lands.

Goals/Policies

- Increase density of development in central part of Malaga.
- Zone UGA appropriately, looking to other UGAs for compatible zoning.
- Encourage further economic development in underutilized commercial and industrial lands.
- Plan for and implement utility construction and extensions, especially sewer.
- Adjust rural population allocations commensurate with new UGA and allocated growth in Malaga.
- Add Malaga infrastructure to the capital facilities plan and utilities elements of the Comprehensive Plan.

References

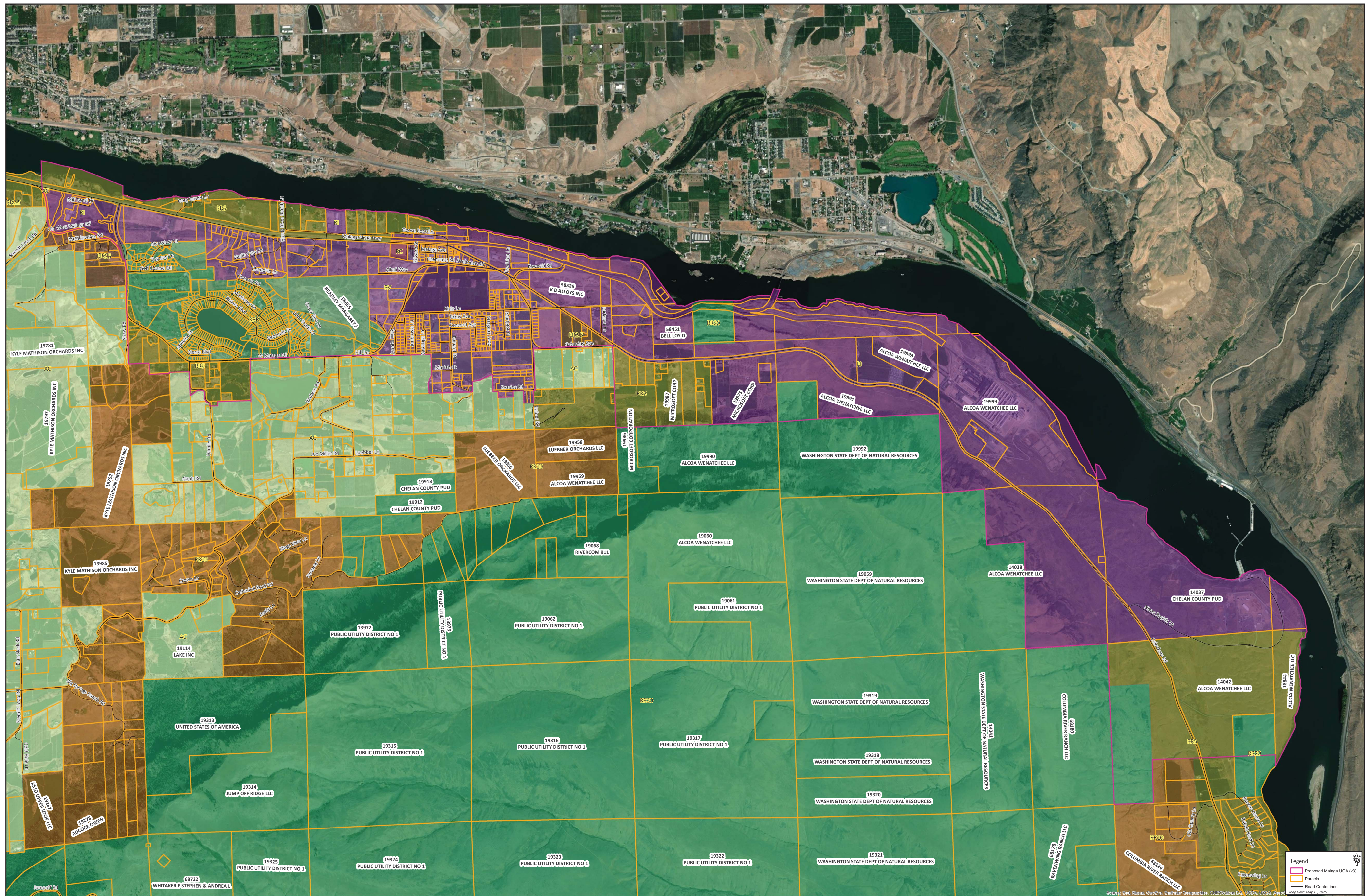
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RH2 Engineering, 2018. *Malaga Water District 2018 Comprehensive Water System Plan*. September 17, 2018.

Points Consulting (Points), 2025. *Draft Chelan County 2026–2046 Comprehensive Plan Land Capacity Analysis*. Prepared for Anchor QEA and Chelan County. June 2025.

Attachment A

Proposed UGA Map



Attachment B

Malaga Vision Plan (2017)

Malaga Vision Plan

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I. Introduction

Purpose

Overall...

The purpose of this project was multi-faceted. Below are bulleted statements of the overall project goals, as developed through the Board of County Commissioners, the Malaga Community Council and the Chelan County Planning staff.

Project Goals:

- Provide a Forum for Malaga Residents to discuss issues
- Create a Vision for the Malaga Community
- Review Basic Demographic Data
- Introduce Planning Concepts-LAMIRD Designation, Housing Needs
- Make Course of Action Recommendation to Chelan County Commissioners

In 2005/2006, the Malaga Planning Area visioning process was undertaken by the Malaga Community Council and the Chelan County Commissioners. In addition, it identifies the possible tools with which to implement the Vision. The Introduction provides information on the background and conception of the Malaga Coordinating Committee that directed the work on this Plan. The second section describes the public process, where local residents were given the opportunity to freely express their opinions and views regarding important emerging issues. The information gathered from that process was reviewed and incorporated into the substance of the Malaga Vision Plan, including the Key Recommendations.

In 2016/17, the Malaga Community Council requested that the Rural Commercial land use designation and zoning be reviewed and considered for removal within the historically residential area.

This document concludes with suggested Next Steps section where specific recommended actions are provided that will assure the needs and desires of the Malaga community are incorporated into local government planning. As the Vision is the first step, the next step is to incorporate and coordinate with the Chelan County Plan.

The final three sections address the Public Participation Summary provides a compilation of the specific questionnaire results and the input that was received at the two public participation meetings, which is the un-synthesized information that provides the basis for this Malaga Vision Plan; the Background information about the community in 2005; and, finally, the criteria used by the Community to designate the LAMIRD boundary.

Coordination of County and Community Planning Process...

"The legislature finds that ... It is in the public interest that citizens, communities, local governments, and the private sector cooperate and coordinate with one another in comprehensive land use planning." RCW 36.70A.010

Within the context of planning under the Growth Management Act, intergovernmental coordination and cooperation is seen as a paramount feature. Section 36.70A.100 RCW states:

"The comprehensive plan of each county or city that is adopted pursuant to RCW 36.70A.040 shall be coordinated with, and consistent with, the comprehensive plans adopted pursuant to RCW 36.70A.040 of other counties or cities with which the county or city has, in part, common borders or related regional

issues.”

Because many components of the growth and development of a community overlap political and jurisdictional boundaries, it is imperative that there is a coordinated process among adjoining jurisdictions to address these issues. Transportation facilities, critical areas, utilities and capital facilities are examples of items making up our communities, the planning for which cannot be done in isolation: the decisions made by Chelan County regarding transportation facilities have the potential to affect not only each of the cities, but also unincorporated communities such as Malaga. Through coordination and consistency, each community gains benefit through economies of scale achieved when pooling resources, lowering unit costs and avoiding duplication of tasks. The primary, underlying purpose of coordination and consistency is to provide a predictable atmosphere for the development community, as well as the respective local governments and decision makers: knowing the expectations and requirements upfront provides valuable costs savings information to land developers.

To further the practice and implementation of the ideas behind coordination and consistency, the GMA requires Counties and their cities to have developed and adopted county-wide planning policies. These policies are to be the framework for the development of city and county comprehensive plans. The topics required to be covered in the county-wide planning policies include such things as implementing urban growth boundaries, promoting the orderly provision of urban services into developing areas, providing for county-wide transportation and affordable housing, and to encourage county-wide economic development.

Another tool for ensuring coordination and consistency is through a detailed community Vision, as is presented in this document for the Malaga Planning Area. Where the county-wide planning policies are a plan for how local governments will coordinate activities, a community Vision, crafted through an intense public process, is a statement by the citizens about how they would like growth and development to occur in their area while preserving desired features. By considering and implementing the key recommendations provided later in this document, as well as adhering to the stated desires of the community, Chelan County will be helping to realize the Vision voiced by the citizens of the Malaga Planning Area.

2005-06 Planning Process

Malaga Coordinating Committee...

In recent years, Chelan County Commissioners have been approached by a number of community members who expressed concerns over development in the Malaga area. Issues raised covered the gamut of land uses matters, from over development of land to the inability to develop private property.

In consultation with the Malaga Community Council, the Commissioners decided that Malaga community residents and property owners should be approached to evaluate local preferences for the future direction of the community. These preferences serve as the basis for future planning processes for the Malaga Planning Area. An initial public meeting held in August 2005 was well attended by the local residents. The community showed great enthusiasm in planning for its own interests; the Malaga Area Planning Coordinating Committee was appointed from this initial public meeting. This process continued with full support from the Malaga Community Council and the Chelan County Board of Commissioners.

The Malaga Planning Area Coordinating Committee was the driving force behind the Vision Plan. As a group, they worked with a consultant and Chelan County Planning staff to craft and implement the public participation process. The Committee developed a questionnaire that was mailed out to all residents and absentee property owners. The coordinating committee then hosted two community meetings, giving the residents additional opportunities to discuss the future of Malaga. Committee members generated

information and interest in the meetings, as well as in the overall process, and can be credited with the extensive degree of public participation that went into the development of this Vision Plan.

Community Meetings...

The key component to the drafting of this Vision Plan is the public participation that occurred to direct the general outcomes and key recommendations. This participation occurred in two main ways: through community outreach meetings and through a questionnaire that was distributed both at these meetings as well as through a number of other sources. In mid-November two community outreach meetings were held at the Malaga Fire Hall, one was held in the afternoon, the next in the evening. The meetings were well attended, with a total of approximately 45 residents participating

At these meetings, the participants were asked three questions:

- What do you value most about the Malaga area?
- What things do you believe may have a negative effect on the quality of life in the Malaga area?
- What would you like to see in the next 15-20 years in the Malaga area?

Through both of these avenues (meetings and questionnaire), a significant amount of information was generated about how Malaga area residents feel about growth and development in their community.

The information from the public process was synthesized by the Malaga Planning Area Coordinating Committee. Draft text and maps were generated by staff and the consultants in a form that could be reviewed by the community. The Malaga Community Council hosted a Community Picnic in May where the compilation of the work of the Coordinating Committee was presented to the community at large. The community was afforded the opportunity to make additional comments on the Vision Plan and land use designations during the Community Picnic. Because of the amount of comment at the Picnic, the Community Council determined it was best to continue the discussion of the Committee's recommendation at their next regular meeting on June 6, 2006.

After much deliberation at their regular meeting, the Malaga Community Council modified the Malaga Planning Area Coordinating Committee's recommendations, which are incorporated into this document and the accompanying maps. In total, the result of this months-long Malaga Area Visioning Process is a vision plan, including proposed comprehensive plan land use designations map and zoning map amendments. The Malaga Community Council now forwards this document to the Chelan County Planning Commission, for consideration during the required 2006 Comprehensive Plan Update. Should this Vision Plan be incorporated into the Chelan County Comprehensive Plan, it will be implemented through the development regulations adopted by Chelan County.

2016-17 Planning Process

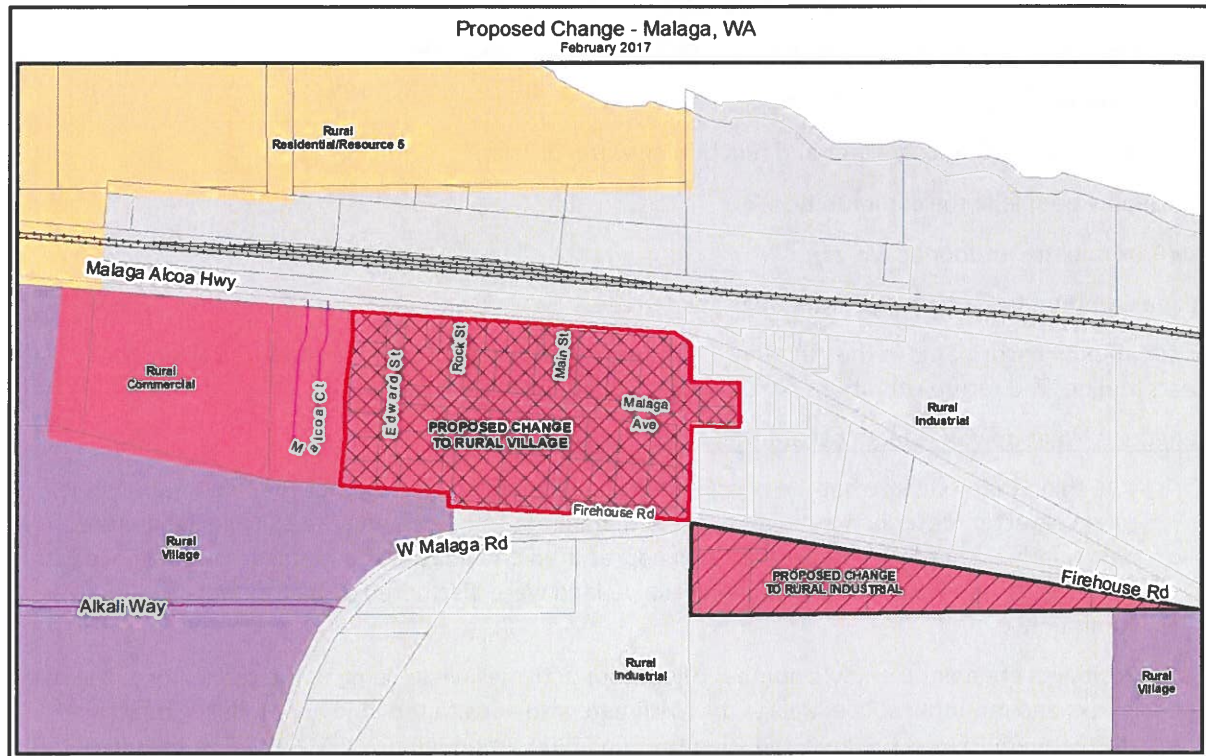
In recent years, Chelan County Commissioners have been approached by a number of community members who expressed concerns regarding development in the Malaga area. Issues raised covered the gamut of land use matters, from over development of land to the inability to develop property.

Chelan County staff met with the Malaga Community Council during their regularly scheduled meeting on August 2, 2016 to review the Rural Commercial zoning district which includes a residential neighborhood.

On November 1, 2016 staff returned to the Malaga Community Council to review draft alternatives with the intent of permitting new or redeveloped of residential structures within the Malaga Rural Commercial zoning district. The Council agreed on three options, to be presented at a public meeting on February 6, 2017.

The February meeting resulted in a Community recommendation for modifying the land use designation

and zoning of the Rural Commercial. While there was not full consensus, the following map was reviewed by the Community Council and is forwarded to the County for consideration of adoption:



II. Community Outreach

Overview

The community outreach meetings were very successful from a number of perspectives. The attendance and participation can be characterized as excellent. Typically, it is difficult to attract public attention to issues that don't seem immediate or pressing. Furthermore, the amount and quality of input received at each meeting was substantial, making the Committee's work crafting detailed key recommendations that much easier.

The success of these meetings is directly attributable to the support and cooperation from coordinating committee members in getting the word out and Chelan County staff in providing notice of the meetings.

The following sections describe general themes that were discussed at each meeting, (detailed documentation of input is included in the Malaga Planning Area Public Participation Summary). This information, in conjunction with the information contained in the questionnaires, is the basis for the foundation statements and key recommendations that constitute the substance of the Vision Plan presented later.

Outcomes

General...

The high turnout at each of the community meetings was reflective of the Malaga area's tradition of self-sufficiency and independence. The following topics were overall themes discussed by the residents:

- A great appreciation for the natural environment and fantastic views;
- Retention of rural character and open spaces;
- Available clean drinking water and functioning water district;
- Quality people in the community;
- Proximity to outdoor activities;

Malaga Community Participation Meetings and Survey...

The community participants in the meetings and surveys had a variety of ideas about the strengths, threats and desired future conditions for the Malaga Planning Area.

Strengths: "What do you value most about the Malaga area?"

One thing that's clear, what the people of Malaga appreciate most about their community is its rural character, described as being open, with minimal development. The existing agriculture, particularly orchards, in the area is much appreciated and adds to the fantastic views enjoyed by most residents. The open spaces and available land were also noted as being assets to the community.

Residents are able to enjoy a number of outdoor activities while being in the proximity of the river, creeks and mountains. The Malaga micro-climate also adds to the enjoyment, as regional rain storms seem to miss the area and even the wind blows more gently in Malaga. The beauty of the natural environment, clean air, wide open spaces are what the area residents most want to retain. With a tip of the hat to Robert Frost, a common sentiment seems to be "separation makes close neighbors."

Malaga residents appreciate the basics. Along with the land, water is recognized as a valuable asset to the community's current and future quality of life. The Malaga Water District maintains the infrastructure that brings quality drinking water to the residents.

The residents of Malaga enjoy the advantage of close proximity to the greater Wenatchee area, without noise, traffic congestion and other tribulations of city living. This gives them easy access to medical facilities, shopping and employment opportunities, while still living in the rural environment that is so valued.

Among Malaga's most valued treasures are its people. They manage to demonstrate the same independent traits of its original pioneers and settlers maintaining "a live and let live" attitude, while remaining community minded, caring and friendly to neighbors, who may also be multi-generational family or friends. It was also noted that Malaga's leaders, those on the Community Council are very proactive.

Threats: "What things do you believe may have a negative effect on quality of life in the Malaga area?"

Water ~ Community members have concerns regarding the availability of water quality and availability for both domestic use and irrigation as development increases. It was stated that the Stemilt Irrigation District has limited resources to support new agricultural activities, due mainly to

increased costs.

Development pressures are strong in the entire region, over development and depletion of water sources add to the rising level of concern regarding the future of the community.

Residents noted that the water supply at Three Lakes system has already been reduced. This is demonstrated in the increased costs to users, as compared to the recent past.

Agricultural economy ~ Perceived to be the biggest threat to the local economy and future land uses is the most difficult issue to influence at the local level; that is the condition of the agricultural economy in today's market. Producers are faced with rising costs, particularly irrigation water and property taxes, as well as the proclivities of the weather and other market forces.

Respondents noted producers are dealing with increased taxes on agricultural operations and water. Of particular concern are property tax assessments, which are based on highest and best use, rather than the existing agricultural use. Additionally, new agricultural operations are difficult to start as existing orchards are being pushed out of production by increased regulations, costs and corporate farms.

Junk ~ Residents noted an increase in the number of instances of illegal dumping in the area, along with unscreened wrecking yards and gravel pits. The perception is that there is little enforcement of the existing codes, raising concerns from many that if allowed to continue, these activities will detract from the aesthetic value of the area, leaving Malaga vulnerable to becoming a regional junk yard.

Planning ~ Land use planning, or lack of adequate planning was noted as being a particular threat to the area. It was recommended that a plan be developed identifying where growth should be encouraged, and that there be fewer zoning options. There were also concerns that zoning changes were taking place without appropriate notification.

Evidently there have been developments permitted in the area where the developers haven't fulfilled their responsibilities, in addition to the haphazard development that has been permitted without appropriate planning in place. Some of these have been large housing developments while in other instances commercial development has been placed in rural areas. The concern with this is the potential impacts and incompatibility with the farm and orchard activities.

Housing ~ Housing choices in the Malaga area are limited; some respondents state that if multi-family units were available, they would provide an affordable housing option. Conversely, others are concerned that permitting condominiums will detract from the highly-valued views, particularly on or near the water.

Transportation ~ Deficiencies have been identified in the local transportation system. The increased traffic raises additional concerns regarding the single access/entry to the Malaga area from the rest of the County.

Miscellaneous ~ The Malaga Planning Area residents recognize what they value most about the community are the exact characteristics that will draw others to the community. The fact that Malaga has managed to retain its sense of "community" even as the churches and school moved out of the area speaks volumes about the people. The quiet, pastoral environment, with little traffic congestion and other city problems is still very attractive. The Malaga area has an abundance of affordable undeveloped land which presents many opportunities for development. There seems to be an acceptance among most of the residents that the area is on the verge of development that will make the forty percent growth of the nineties pale in comparison. The fear

is that this next growth spurt is beyond the carrying capacity of the rural lands, and that it will in fact destroy the rural characteristics the community values and wishes to retain. Though tempered by a reticence to infringe upon private property rights, most Malaga residents want to see a process developed that retains the rural atmosphere and provides for limited opportunities for development of the area.

Desires: “What would you like to see in the next 15-20 years in the Malaga area?”

The dreams of Malaga residents come in all sizes, with desired improvements ranging from 4-H kids program to building a bridge across the Columbia to Rock Island, or even East Wenatchee.

There was a diversity of opinion about new residential growth and development expressed by the community. While many people stated that new growth was inevitable (as demonstrated by recent population growth) and should be managed and controlled for the least amount of impact, others were opposed to any more residential development. Most recognized that concentrating newer, higher intensity residential uses into clearly identified areas would be most beneficial in maintaining a balance between accommodating growth and preserving the community’s characteristics.

More along the middle of the road, residents hope to see the industrial area develop more and expand the job base. The larger companies are appreciated, but there’s room for smaller industries also.

Additionally, there is a need to increase the commercial service and retail sector. It was noted that commercial uses would be compatible with uses along the Malaga-Alcoa Highway.

The Community desires to strengthen the local infrastructure, especially the road system. There are severe limitations to crossing the railroad tracks, and there aren’t many public roads on the river side of the tracks. Also desired are more formal recreation facilities for active recreation, such as camping, hunting, and creating water access through a boat launch or marina for recreational boating and fishing.

Housing affordable to families with a wider range of income levels is needed in Malaga. A limiting factor to housing development may be the need for a sanitary sewer. Some assessment should be made to quantitatively assess at what point or even the need for a community wastewater disposal system will be triggered.

Locating an elementary school in the Malaga Planning Area is again at top of the “desires” list for many community members. As of this writing, it appears that the elementary school age population in Malaga has reached the point where the school district will consider adding another elementary school.

Community members desire to continue to be involved in local development activities. They envision opportunities for a commercial center, similar to a “Main Street” design, as well as industrial areas and recreation facilities to exist alongside small homesteads with agricultural uses.

Other Comments Received:

Some believed there was a strong need for buffers between agriculture and other types of land uses. This was seen as necessary not only based on where there were commercial agricultural land use designations, but anywhere there were intensely farmed areas.

Some also expressed concern that the Malaga Planning Area Visioning process was merely being

implemented in order to advance someone's or some group's hidden or existing agenda. Similarly, people were adamant that during this on-going process that there be adequate notice of meetings.

Rural Character...

In addition to the questions asked at the public meetings, survey respondents were asked to define "Rural Character" through a series of questions. Malaga residents responded to these questions in terms of physical characteristics, functionality, as well as in terms of quality of life measures.

Physical Rural Character ~ The rural physical character of the Malaga Planning Area is characterized by large expanses of open space and the natural environment, interspersed with residential and agricultural uses. Unobstructed views of fields, orchards, pastures, gardens, plant nurseries, homes, barns and community facilities such as churches and schools make up the physical rural character.

Rural housing is built at a lower density, where the preference is for large lots, keeping space between neighbors, and allowing humans to connect with nature. While it is not expected that there would be a proliferation of city-size subdivisions, some new residential development would be likely, preferably in concentrated areas that don't negatively impact large open space and/or natural environments. Farms and orchards are welcome, as well as lots large enough to park all necessary equipment and toys.

Many commented that commercial or industrial development in the rural areas should be oriented primarily toward services that support the community and the families within, as well as supporting agricultural activities. The rural environment is as much identified by what does not exist as what is located there. Items common in the city, such as sidewalks, street lights, tall buildings, are missing in the rural areas. The low profile buildings keep the views open to everyone. The rural areas are located where residents have to drive into town to conduct most of their business.

Functional Rural Character ~ Functionally, the rural area provides space conducive to flora and fauna, wildlife habitat and corridors, as well as small farms, orchards and other agricultural activities. The natural features also support many recreation opportunities. Wildlife is welcome and expected in the rural environment, and that they coexist with humans is appreciated.

Space, the main feature in the rural environment, keeps the neighbors friendly, and close. Enough space is needed to be able to appreciate the natural landscapes and distant views. People who are attracted to the rural lifestyle also make up its character, a community unencumbered by city tribulations. The rural areas provide the opportunity for people to participate in small scale agricultural activities including farm animals. Even those families whose incomes are not 100 percent derived from the land, often contribute to their households by gardening or raising livestock in small quantities.

Quality of Life Rural Character ~ Due to the dispersed population density, peace and quiet can be enjoyed in the rural area. While traveling on rural roads, one is more likely bothered by a slow farm vehicle than traffic congestion. The days and nights are quiet and peaceful and this is an area where one can appreciate the "clear skies," unobstructed by either light or air pollution. The night stars will be part of childhood memories as city lights don't interfere with the views.

The lower densities of concentrated development contributes to the feeling of community, as where there are few people, there are few strangers. People who enjoy "country living" spend more of their home time outdoors, enjoying the views, recreation activities, chores, good neighbors and quality of life. The well-kept houses and yards give an impression that life is calm yet lively, pleasant to look at, pleasant to live in. The rural area needs to retain larger properties with space between for scenery, animals, agriculture and the slower pace with more opportunity to appreciate and observe nature.

The rural areas maintain quality water and air, as well as clean and safe neighborhoods. New developments are concentrated and contained to keep the open spaces. Children have room to run and

play, exploring their world, in a neighborhood where they are known and safe.

Aesthetics are very important to the rural residents. They expect existing county codes to be enforced, not only to maintain the quality of life, but also to keep property values. The proliferation of junk cars, junk piles and abandoned buildings are becoming more of a concern, as is the concern that permitting more development will require the area to be more regulated.

III. The Malaga Vision

A Community's Vision should be the foundation for the development of comprehensive plan goals and policies for the local government charged with implementing that vision. A Vision Plan is one tool that can be used to paint a picture of a community's desired future, expressing the hopes and aspirations of the citizens within that community. With a clear and concise description of the community's vision, better decisions and actions can be made and taken to ensure that desired future outcome is achieved.

The purpose of this Malaga Planning Area Vision is to describe what the citizens of Malaga see as important qualities in their community that need to be preserved and maintained over the course of time, as well as the changes that need to be made to achieve their vision.

As both long-term and short-term decisions are made by the Community Council and County Commissioners, the key recommendations described in this document should be continuously referenced for guidance and direction to ensure the Malaga Community area grows and develops through a better decision making process that takes into account the needs and desires of the Malaga residents.

Following is the existing Vision Statement developed for the Malaga-Stemilt-Squilchuck area that was included in Chelan County's Comprehensive Plan adopted in 2000.

MALAGA-STEMILT-SQUILCHUCK STUDY AREA

The citizens of the Malaga-Stemilt-Squilchuck Study Area believe that their greatest asset is the rural character of the community. Rural character may be defined as that mixture of open space, housing, and agricultural land uses which are believed to express and preserve the quality of life desired by the residents.

The citizens of the Malaga-Stemilt-Squilchuck Study Area envision future development that will complement and enhance, and not unreasonably impact, our rural character, our strong agricultural economy, and natural resource based industries.

We foresee maintaining the area's high quality of life while sustaining growth that can be served with the necessary public services and, facilities. Open spaces, wildlife conservation, and recreational opportunities will be encouraged.

We foresee expansion of transportation systems to allow efficient movement of goods, services and people within the planning area and connecting with the rest of Chelan County.

We foresee the establishment of quality educational facilities to meet the needs of community growth.

We foresee varied levels of development with suitable mitigation between different land uses. We envision that the expansion of our existing residential, commercial and industrial land uses will take place in those areas already characterized by that type of use.

We foresee the requirement to support sustainable hydroelectric power generation to maintain and meet our community growth.

In recognition of the importance of preservation of existing water rights and future need for water for our community and its agricultural base; we foresee the continued support, development and expansion, and maintenance of water supplies and their associated sources.

In conclusion we envision growth that will maintain the continuity of our rural character and quality of life while protecting the private property rights of the citizens of this area.

Source: Community Vision Statement, Chelan County Comprehensive Plan 2000, Last Amended 2-14-05

This most recent process in many ways confirmed the sentiments expressed in the existing Vision Statement. However, through the process, other issues came to light that may affect the future development potential of the Malaga area. The issue that may most significantly affect the future development in Malaga refers to the statement “our strong agricultural economy”. The changing agricultural economy may have a direct impact on whether or not the Malaga area will be able to meet the desires of the community. Following are some key recommendations for the community based on the results of this public participation process.

IV. Key Recommendations

From the Public Participation process, as well as through many coordinating committee meetings, a number of recommendations have been developed that help forward the vision of the Malaga Planning Area residents. These recommendations are categorized into two components: recommended comprehensive plan land use map designation and zoning map designation changes and next steps that should be undertaken by Chelan County in the near future to carry forward this process.

Recommended Comprehensive Plan Land Use Designation Map and Zoning Map Changes

The following narrative and accompanying maps located at the end of this document describe what proposed comprehensive plan land use designation map and zoning map changes are being recommended to Chelan County by the Malaga Planning Area, and why. The first two maps show the proposed changes in the context of the overall Malaga Planning Area. It shows the entire area (10,874 acres), including areas not proposed for a change in the land use designation, such as the Industrial land to the east and the Three Lakes area. The second map is a close-up view of the areas that are proposed to be changed. The final map is intended to help the reader understand the different proposed changes, and is keyed to the narrative description below. Only the areas the Malaga Coordinating Committee has proposed for change in designation are discussed below. A detailed Background Report of existing conditions within the overall Malaga Planning Area was completed as part of the overall project and used by the Coordinating Committee to assist them in their process. It is available at the Chelan County Planning Department.

The Malaga Planning Area is a rural area in Chelan County with a variety of rural land use and zoning designations. Additionally, there are a variety of rural residential densities, including the Rural 5, Rural 2.5, and Rural Residential Recreational districts. Given the variety of densities, uses in the area, and the development pressures occurring throughout the region, the Malaga residents desired to take a hands-on approach in planning for the community's future land uses. The Malaga Community Council coordinated with Chelan County Commissioners to facilitate the planning process. Chelan County reviewed its Comprehensive Plan's rural element and established the land use designations that constitute Limited Areas of More Intensive Rural Development (LAMIRDs) concurrently with Malaga's planning process.

Chelan County has adopted five different land use designations and zones that are consistent with LAMIRD designations, as described below.

Rural Waterfront (RW): This designation implements a Type 1 LAMIRD. The RW provides the

opportunity for the development, redevelopment and infill of existing intensely developed shoreline areas for residential, and water related/water dependent recreational and tourist development consistent with the rural character and rural development provisions outlined in the goals and policies of this comprehensive plan. These areas provide a distinct water related lifestyle. These areas must be clearly identifiable as existing intensely developed rural shorelines, where a logical boundary can be established by the built environment. Such a boundary is not to permit or encourage a new pattern of sprawling low density or urban type development.

Uses appropriate for the RW designated areas include: open space and developed open space; residential; agriculture; and forestry. Additional uses may be considered with supplemental provisions. Such uses may include: intensification of existing development or new development of small scale water related/water dependent recreational or tourist uses, including commercial facilities to serve those recreational or tourist uses, that rely on a rural location or setting but that do not include a new residential component; intensification of development on lots containing existing isolated nonresidential uses; home occupations; bed and breakfasts; and community facilities.

Density: The density in the RW designation allows for less than one acre per dwelling unit, when consistent with the Health District standards. The provision of necessary public facilities and services shall not permit or encourage low density sprawl or urban type development outside of the designation boundary. Existing urban governmental services in some areas may allow for higher densities than those with rural governmental services.

Rural Recreational/Residential (RRR): This designation implements a Type 1 LAMIRD, consistent with the Growth Management Act.

Purpose: The RRR designation provides the opportunity for the development, redevelopment and infill of existing intensely developed rural recreational/residential areas for residential, recreational and tourist development consistent with the rural character and rural development provisions outlined in the goals and policies of the comprehensive plan. These areas provide a distinct rural lifestyle closely associated with the many natural amenities found within Chelan County. These areas must be clearly identifiable as existing intensely developed rural recreational development; where a logical boundary can be delineated and set by the built environment. Such a boundary shall not permit or encourage a new pattern of sprawling low density or urban type development.

Uses appropriate for these areas include: open space and developed open space; residential; agriculture; and forestry. Additional uses may be considered with supplemental provisions. Such uses may include: intensification of existing development or new development of small scale recreational or tourist uses, including commercial facilities to serve those recreational or tourist uses that rely on a rural location or setting but that do not include a new residential component; intensification of development on lots containing existing isolated nonresidential uses; home occupations; bed and breakfasts; and community facilities.

Density: The density in the RRR areas allow for less than 1 acre per dwelling unit, when consistent with Health District standards. The provision of necessary public facilities and services shall not permit or encourage low-density sprawl or urban type development outside of the designation boundary.

Rural Village (RV): This designation implements a Type 1 LAMIRD, consistent with the Growth Management Act.

Purpose: This designation recognizes the existence of intensely developed rural residential developments and communities, with densities less than 2.5 acres per dwelling unit, which typically

will not have sewer service. The RV designation provides the opportunity for the development, redevelopment and infill of existing intensely developed rural residential areas for residential and other rural development consistent with the rural character and rural development provisions outlined in the goals and policies of this comprehensive plan. These areas must be clearly identifiable as existing intensely developed rural residential development; where a logical boundary can be delineated and set by the built environment. Such a boundary shall not permit or encourage a new pattern of sprawling low density or urban type development.

Uses appropriate for RV designation include: developed open space; residential; agriculture; and forestry. Additional uses may be considered with supplemental provisions. These provisions shall address performance standards, impacts to the surrounding area, and be consistent with the goals and policies of the comprehensive plan. Such uses may include: intensification of existing small scale recreational or tourist uses that rely on a rural location or setting but that do not include a new residential component; intensification of development on lots containing existing isolated nonresidential uses; home occupations; bed and breakfasts; and community facilities.

Density: The RV density may allow for less than 2.5 acres per dwelling unit. The establishment of densities shall consider pre-existing development patterns, Health District standards, proximity to resource lands, existence of critical areas and the availability of necessary public facilities and services. The provision of necessary public facilities and services shall not permit or encourage low density sprawl or urban type development outside of the designation boundary.

Rural Commercial (RC): The RC designation implements a Type 1 LAMIRD consistent with the Growth Management Act where it is applied to existing mixed use areas. Additionally, this designation is considered an implementation of Type 2 and Type 3 LAMIRDs, consistent with the Growth Management Act, where the existing uses consist of only commercial activities, whether general retail or tourist recreational in nature.

Purpose: The RC designation provides for a range of commercial uses to meet the needs of local residents, and small-scale tourist or recreational uses including commercial facilities to serve those recreational or tourist uses within the rural areas to meet the needs of local residents and visitors. RC provides the opportunity for the development, redevelopment and infill of commercial uses in existing rural commercial developments, mixed use areas or intensely developed residential areas consistent with the rural character and rural development provisions outlined in the goals and policies of this comprehensive plan. These areas must be clearly identifiable as existing rural commercial developments, mixed use areas or intensely developed residential developments; where a logical boundary can be delineated and set by the built environment. Such a boundary shall not permit or encourage new rural commercial development outside of these boundaries.

Uses appropriate for RC designated areas include: commercial facilities and services; developed open space; above ground floor residential housing; agriculture; forestry; natural resource support facilities and services, tourist or recreational uses; home occupations; bed and breakfasts; and community facilities.

Rural Industrial (RI): This designation implements a Type 1 LAMIRD, consistent with the Growth Management Act.

Purpose: The RI designation recognizes the need for rural industrial and resource based industrial activities within the rural areas. This designation provides the opportunity for the development, redevelopment and infill of existing rural industrial developments or former industrial sites consistent with the rural character and rural development provisions outlined in the goals and policies of this comprehensive plan. These areas must be clearly identifiable as existing rural industrial developments or former industrial sites; where a logical boundary can be established by

the built environment. Such a boundary shall not permit or encourage new industrial development outside of these boundaries.

Uses appropriate for RI designation include: industrial facilities and services; intensification of development on lots containing isolated nonresidential uses; agriculture; forestry; caretaker residence for industrial facilities; and natural resource support facilities and services. Additional uses may be considered with supplemental provisions. Such uses may include: mineral resource activities.

New industrial sites may be designated during yearly comprehensive plan amendments if consistent with criteria and requirements outlined in RCW 36.70A.365 and the goals and policies of this comprehensive plan. Such a new industrial area would be designated as an urban growth area and have the potential to receive urban services.

The Washington State Legislature amended the Growth Management Act to allow for the designation of LAMIRDs in 1997. The legislative intent in allowing for the designation of LAMIRDs was an effort to recognize the existence of development and activities in the rural areas of counties; and confirm their importance to the local economy and lifestyles of residents. The Legislature directed Counties to contain and control this more intensive rural development while preserving its rural character by defining and limiting the areas. One of the main criteria in order for an area to be designated as a LAMIRD, is that the designation must be applied to areas built as of July 1, 1990. This represents the date that the County was required to plan under the GMA. In addition to structures, the built environment includes infrastructure. This is significant in the Malaga area, with three different water districts, two of which provide strictly domestic water.

The Coordinating Committee struggled in its charge of balancing past land use practices with determining a land pattern for future uses under existing requirements. The proposal, including as it is proposed from the Malaga Community Council, attempts to encourage compact rural development in areas where such development currently exists and to contain the development within a logical outer boundary. The Community first looked at the existing built environment, which includes not only existing structures, but also existing patterns of land division and infrastructure already in place to serve the rural community. In addition to the water service, rural services such as a fire and ambulance service and facility, a post office, commercial area and a transportation system are in place.

The proposed map amendments attempt to identify where infill development will be appropriate, make efficient use of the existing infrastructure, and contain and control development, while remaining consistent with the expressed desire of the community to retain its rural character. There are 863 acres proposed for changes within the planning area, which is approximately 8% of the overall planning area.

Actual land suitable for development is further decreased by 51 acres because of critical areas, including geologically hazardous areas. Additionally, there are at least 52 acres affected by overhead power lines where development is not likely to occur within the right-of-way. The remaining 760 acres, 7% of the entire area, is on land suitable for development. Of this area, development of infill densities will be affected by soil suitability for on-site septic systems.

Though unincorporated, Malaga has the characteristics of a Rural Village, in that it has both a significant amount of existing infrastructure and rural services, as well as a sense of community among its residents. The Malaga area has developed to-date as a rural area containing a mix of residential, commercial, industrial, waterfront and agricultural uses. The community believes that Malaga currently meets the legislative definition as an existing LAMIRD. The attached map depicts areas where the Malaga community expects infill to make use of the existing infrastructure.

Initially, the Community only considered changes to the property bounded by West Malaga Road and the

Malaga-Alcoa Highway to the North (known locally as the Malaga Loop). The majority of land within this area is currently designated as Rural Residential Recreational (RRR); however, there is a significant amount of property designated as Rural Residential/Resource 5 (RR5) and a lesser amount designated as Rural Residential/Resource 2.5 (RR2.5). These two rural designations permit densities at one dwelling unit per five acres and one dwelling unit per 2.5 acres, respectively, while the RRR allows three units per acre if requirements for septic systems could be met.

The Three Lakes area developed at a density higher than is typical in rural areas. The residential development is located near and around the golf course. When originally platted, Three Lakes was intended to provide recreational or second home sites. Given its proximity to Wenatchee, Alcoa and other employment centers, the development became a desirable option for year round, permanent residences. The Three Lakes Water District provides potable water to this area. The Chelan County Comprehensive Plan map and zoning map designates this area as Rural Residential Recreational.

The Community has proposed to expand the Rural Residential Recreation (RRR) designation in the area adjacent to Three Lakes (the current RRR designation) as shown on the map as "Area B". This area consists of 239 acres including 21 acres that are already designated RRR. Along the Malaga-Alcoa Highway and behind the town site of Malaga, "Area A", which is 617 acres, is proposed to be designated as Rural Village (RV). This area includes 118 acres that are already designated RV. Both of these new proposed designations require that new lots meet the Department of Health requirements for septic systems, with the absolute minimum lot size being 12,000 square feet. These designations encourage more compact development within this area than the current designation permits. Additionally, the proposed designations are consistent with the existing rural character and density of the area.

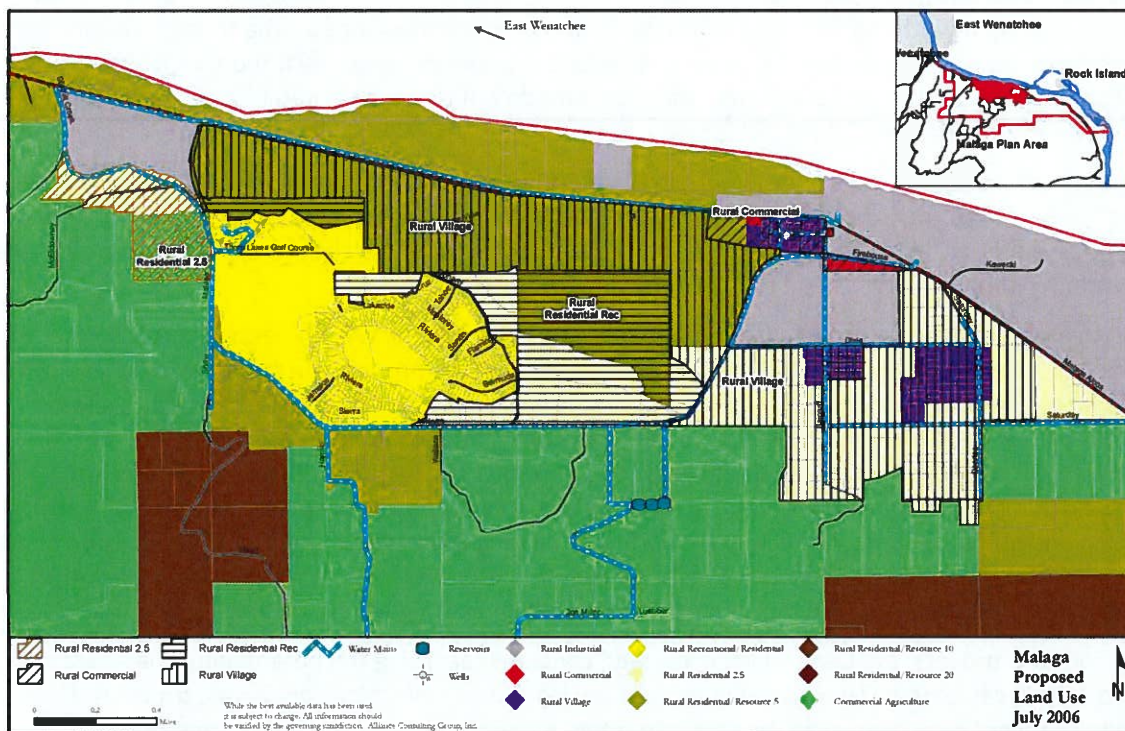
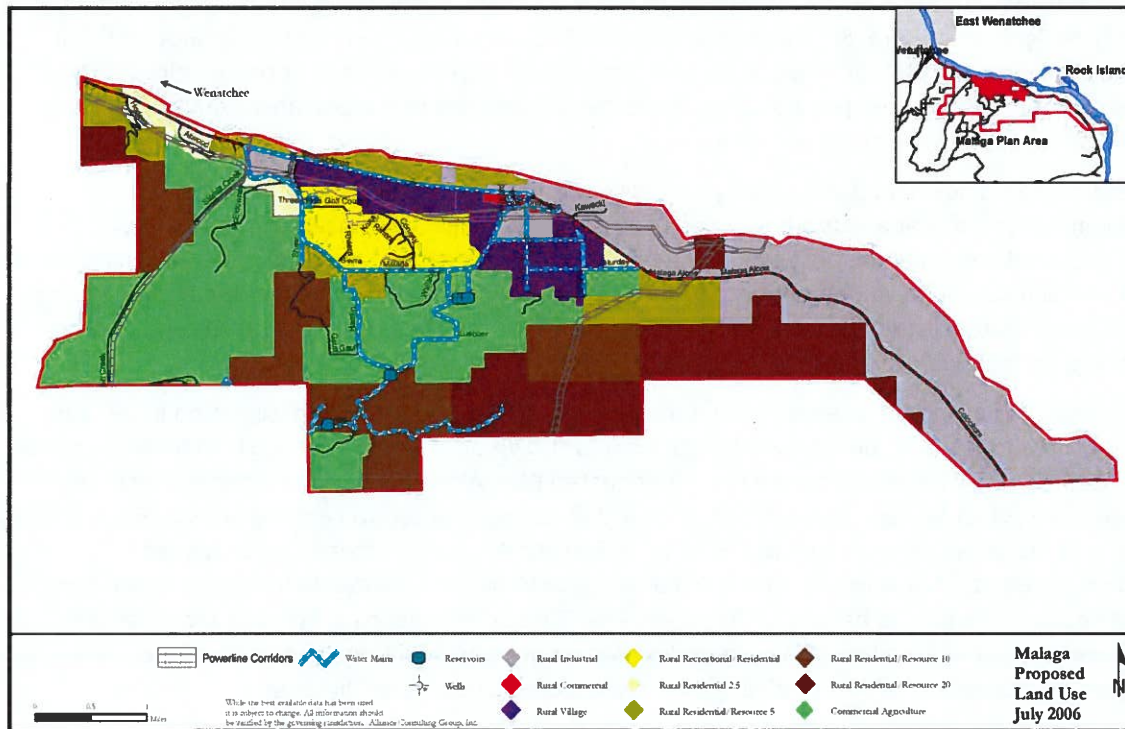
In the area behind the Malaga town site, determining factors for recommending the RV designation include the numerous pockets of existing, scattered, small lots as well as existing infrastructure, all of which are consistent with the definition of the built environment. In particular, the Malaga Water District delivers domestic water throughout this area. With regard to the existing, scattered subdivisions, most of them contain lots less than an acre in size, and therefore do not meet the criteria for the current designation of Rural Residential 2.5 (RR 2.5).

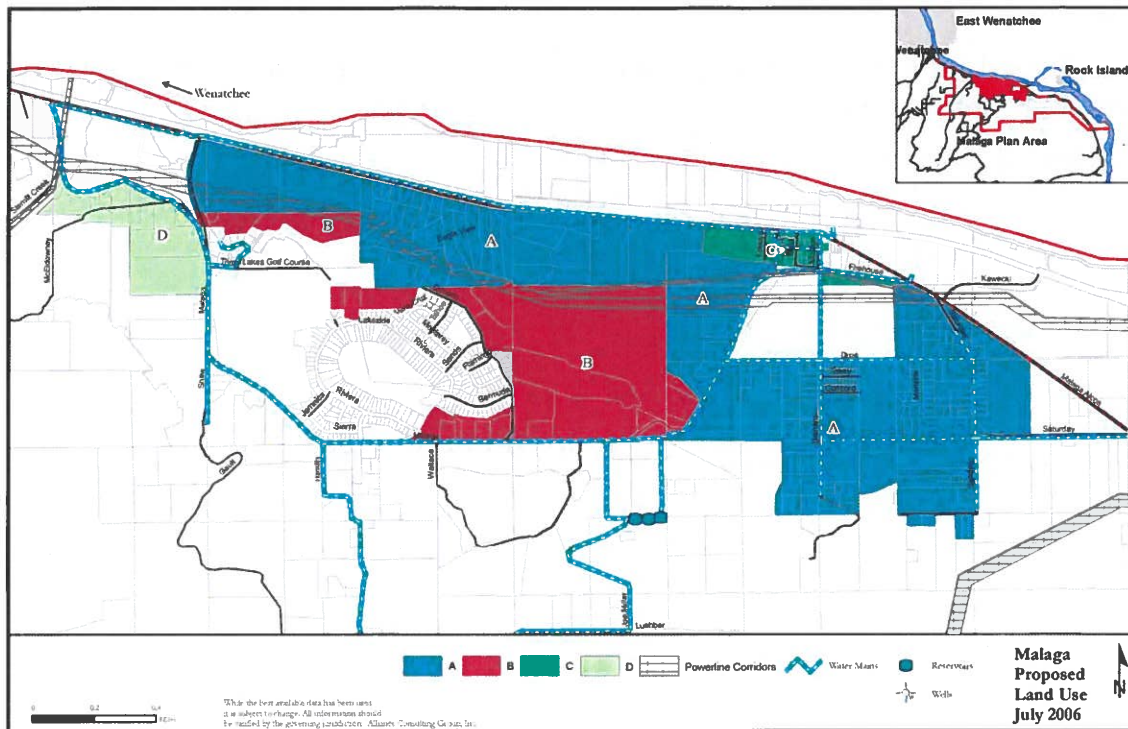
The Community recommends expansion of the Rural Commercial (RC) designation to 32 acres, shown as "Area C", adjacent to the existing Rural Commercial designated property. This includes 15 acres that are already designated RC. This will provide an area of concentrated commercial activity where currently there is a spattering of building types and uses.

Finally, to examine the best use of current built infrastructure, existing water lines and the well-developed road system, the Community decided to propose changes to some property on the southwest side of West Malaga Road. The designation for "Area D" on the map is proposed to be Rural Resource 2.5, a lower density than that shown within the Malaga Loop. There are a total of 71 acres proposed RR 2.5 designation, 36 of which are already designated RR 2.5, while the remaining 35 acres are currently designated Commercial Agriculture (AC). Designating this area at the lower density provides for a logical transition and buffer between the more compact rural development within the West Malaga Loop Road at Three Lakes and the lower density Commercial Agriculture designated to the south. As with the other proposals, this change would also make more efficient use of existing infrastructure.

Throughout this process, the Community expressed concerns regarding the potential for the area to explode with development. Though reluctant to place legislative restrictions on private property, the Community consistently expressed the desire to retain its rural character. Therefore, acting within the framework of the Growth Management Act and the ability to designate a LAMIRD, the Community proposes the land use designation changes as portrayed on the attached map. It is their finding that the proposal meets the definition of a LAMIRD, in that it contains mixed uses, preserves rural character and it

contains and controls development.





Next Steps

To further the results of the Malaga Planning Area visioning process, the community believes it is vital to take the below-identified steps within the near future.

- 1) Develop an Agricultural Issues Committee appointed by the Malaga Community Council. This committee will initially be charged with three tasks:
 - a) Review the Commercial Agriculture designations in the Malaga area;
 - b) Study the issue of retaining agriculture as a desired component of the community, while overcoming difficult economic issues.
 - c) Retention of water and water rights to the area should agriculture activities cease.
- 2) Initiate contact with the Wenatchee School District, ensure the Malaga community is involved from the beginning, should the District begin siting an elementary school in the area.
- 3) Commercial/Industrial areas
 - a) Develop landscaping, buffering, and screening standards to minimize visual impact of commercial and industrial uses.
 - b) Develop artificial lighting standards to minimize effect of artificial lighting in commercial/industrial areas.
- 4) Cluster development. Educate the community regarding the use of clustering development as a land

preservation tool, then reassess to see if there is still opposition to using clustering as a development option.

- 5) Designate residential lands in a way that preserves useful and contiguous open space and wildlife habitat and migration routes.
- 6) Increase code enforcement efforts.

Attachment C

Malaga Land Capacity Analysis

Appendix C. Malaga UGA LCA

At the request of the County, PC conducted an LCA on residential land in the Malaga LAMIRD. The Malaga LAMIRD currently follows Chelan County's zoning code and has multiple areas of residential development. A detailed map of the Malaga LAMIRD can be found in [Appendix B](#).

In addition to the LCA conducted for the Malaga LAMIRD area, our team attempted to identify the changes that would occur to the County's supply and demand of residential land if the Malaga LAMIRD were to become an Urban Growth Area. This process followed the methodology from Chapters 2 through 4 as close as possible. However, the lack of data in Malaga was a limiting factor. Malaga is currently considered a part of the unincorporated county, and as such has no distinction as a city or UGA in datasets, either within the State of Washington or federally. Consequently, the project team decided to estimate supply and demand without AMI levels, or an estimate on current housing production from 2021 – 2026, instead opting to build upon the previous steps taken earlier in this report and the parcel data available.

Malaga Population and Housing Estimates

The project team estimated the population and housing supply in the Malaga LAMIRD using a combination of sources, including the County's population and housing allocations, current vacancy and occupancy rates, and average people per household (PPHH). This approach provided the information needed to assess the exiting housing stock and project future demand based on expected population growth of the rural county areas. Although the State does not provide or endorse these estimates, the methodology offers a useful snapshot of current conditions in Malaga.

The Malaga LAMIRD area currently has a large portion of single-family units, which are mostly found in Rural Recreational/Residential (RRR) or Rural Village (RV) zones. These two zoning types make up more than 85% of the Malaga LAMIRD's housing units. The Rural Village zone also holds an estimated 6 multi-family housing units, which range from duplexes to quadplexes. Assuming an average of 3 housing units per multi-family parcel, these lots provide 18 additional housing units to the current supply in the Malaga LAMIRD.

Using the estimated number of housing units in Malaga from parcel data, the population of the area can be derived using the surveyed occupancy rate of those units, and the PPHH in the area. Unincorporated Chelan County was found to have a PPHH of 1.75, and the Malaga Census County Division vacancy rate was approximately 12.3%. Knowing this, the 699 housing units likely hold a population around 1,073 in the Malaga LAMIRD.

Table C.1: Malaga LAMIRD Current Housing and Population Estimates

Zone	Unit type	Count	Unit Estimate
RI	Single-Family Units	6	6
RR5	Single-Family Units	12	12
RRR	All Other Residential	50	50
	Single-Family Units	305	305
RV	Household 2-4 Units	6	18
	Single-Family Units	308	308
Subtotal	--	687	699
Occupancy Rate	--	--	87.7%
Estimated Occupied Households	--	--	613
PPHH in rural county	--	--	1.75
Estimated Population	--	--	1,073

Source: Washington Office of Financial Management, Chelan County, US Census Bureau ACS 5-year Estimates

Table C.2 shows the Malaga LAMIRD population projection. This estimate was derived from the County estimate found in [Chapter 2](#), which utilized the Washington Office of Financial Management's projections and were adopted March 5, 2024. The Malaga LAMIRD area accounts for approximately 4.4% of the rural Chelan County's population. If this share remains constant over time, the population is projected to grow by 168 people. The area will need an estimated 109 additional housing units to accommodate this growth.

Table C.2: Malaga LAMIRD Population and Housing Projections, 2024 - 2046

	2024	2026	2030	2035	2040	2046	Change
Malaga Population Estimate	1,073	1,085	1,120	1,161	1,198	1,241	168
Estimated Malaga Housing Demand	699	707	729	756	781	808	109

Source: Washington Office of Financial Management, Chelan County, US Census Bureau ACS 5-year Estimates

Residential Land Capacity Analysis

Tables C.3 through C.5 show the results of the Land Capacity Analysis, which was conducted using the methodology found in [Chapter 4](#). Using the same density assumptions, the RV zones have the most housing unit potential in the LAMIRD area. There are also 42 acres of vacant RR land available, which provides space for single-family housing at a low density. RV can also be utilized for single-family housing if needed. Overall, the Malaga LAMIRD area has an additional capacity for approximately 549 housing units if it is built to a higher density in the RV zoned areas.

Table C.3: Malaga LAMIRD Vacant Land

Zone	Adjusted Acreage	Housing Unit Potential
RC	4	2
RR5	5	1
RRR	42	42
RV	56	169
Total	107	214

Source: City and County of Chelan, 2024

Table C.4: Malaga LAMIRD Potentially Redevelopable Land

Zone	Adjusted Acreage	Housing Unit Potential
RR5	6	1
RV	19	57
Total	25	58

Source: City and County of Chelan, 2024

Table C.5: Malaga LAMIRD Underutilized Residential Land

Zone	Adjusted Acreage	Housing Unit Potential
RV	92	277

Source: City and County of Chelan, 2024

Tables C.6 and C.7 show the new relationship between a possible future Malaga UGA and the updated rural Chelan County totals without Malaga's contributions. With these changes, rural Chelan County has an updated demand of 1,595 units, which is lower than the initial 1,704 units found in the County's LCA.

The Malaga LAMIRD area currently holds around 31% of the rural County's multi-family (RV) land supply, meaning that if the County lost this land to the Malaga UGA, it would be important to build at higher densities for the remaining RV zones in the rural areas to meet the projected demand. Single-family housing remains a non-issue for both the Malaga LAMIRD and rural county areas.

It is important to remember that these changes reflect a constant rate of growth from Malaga, assuming that its share of the population within Chelan County remains stable. Given the Malaga LAMIRD is a place of more intense development and focus, it is possible that there is a higher demand for housing in the area than presented in this sub study. However, an increase in demand by even hundreds of housing units would not change the outlook for rural Chelan County over the next 20 years. The County should still have a large enough supply of land to account for future demand. The only possible situation in which the County comes short of demand needs is if the Rural Village areas are not built to accommodate multi-family housing. If the supply of RV land is shifted to single-family housing, the County could then run short of lower-income housing opportunities for the population.

Table C.6: Malaga UGA Supply and Demand

Place	Multi-family Supply	Single-family Supply	Total No. of Units Demanded	Total No. of Units Supplied
Malaga UGA	503	46	109	549

Source: City and County of Chelan, 2024, Washington OFM, US Census Bureau ACS 5-year Estimates

Table C.7: Rural Chelan County without Malaga UGA

Place	Total No. of Units Demanded	Multi-family Supply	Single-family Supply
Rural Chelan County	1,595	1,127	3,883

Source: City and County of Chelan, 2024, Washington OFM, US Census Bureau ACS 5-year Estimates

Attachment D

Wellhead Protection from Nitrate
Contamination Memorandum (2026)



TECHNICAL MEMORANDUM

Client: Malaga Water District
Project: General Engineering Services
Project File: MAL 0220186.00.0004
Project Manager: Ryan Peterson, PE
Composed by: Adam Neff, LHG, and Ryan Peterson, PE
Subject: Wellhead Protection from Nitrate Contamination
Date: January 26, 2026



1/26/2026

1.0 Executive Summary

This technical memorandum evaluates the risks posed to the Malaga Water District's (District) municipal groundwater supply by ongoing and proposed residential development using individual on-site septic systems within the District's Wellhead Protection Areas (WHPAs). Accelerating residential density—enabled by Chelan County (County) zoning decisions and the creation of a large Limited Area of More Intensive Rural Development (LAMIRD)—is increasing nitrate loading to the Malaga aquifer and threatens long-term drinking water quality.

1.1 Regulatory Framework and District Authority

Federal and state laws require water systems to protect groundwater sources. Under the Safe Drinking Water Act and Washington Administrative Code (WAC) 246-290-135, the District must maintain a Wellhead Protection Program and delineate WHPAs. Chapter 57.08 Revised Code of Washington (RCW) assigns water-sewer districts the authority and obligation to minimize or eliminate pollutants entering state waters. The state's antidegradation policy (WAC 173-200-030) prohibits allowing contaminants to degrade groundwater unless strict public-interest and treatment thresholds are met.

1.2 Wellhead Protection Areas and Past Errors

The District's WHPAs were historically calculated using the Washington State Department of Health's (DOH) Calculated Fixed Radius (CFR) method. However, key updates based on increasing pumping volumes were inadvertently omitted in earlier Water System Plans (1994, 2004, 2012, 2019), resulting in WHPAs that were too small. Updated WHPAs developed during the 2025 well approval process show significantly larger capture zones, especially for Well Nos. 1 and 2, which now pump nearly triple the annual volume as when early WHPAs were defined.

1.3 Chelan County Land Use Actions and LAMIRD Concerns

The County's zoning and land-use decisions have enabled dense residential development (12,000 square-foot (sf) lots) within areas designated by state code as "Critical Aquifer Recharge

Areas” (CARAs). The County has previously approved subdivisions in District WHPAs without requiring aquifer vulnerability assessments. The County’s LAMIRD expansion around Malaga increased dense residential zoning areas by 500%, contrary to Growth Management Act requirements that LAMIRDs be tightly limited to pre-1993 development. As a result, hundreds of homes—and their septic systems—now overlie portions of the aquifer that feed District wells.

1.4 Nitrate Trends and Evidence of Septic Influence

District nitrate test results dating back to 1981 show a clear long-term upward trend at Wells 1 and 2, with a notable acceleration since approximately 2015. Comparative data from a nearby private well (Malaga Market) show parallel increases, indicating consistent aquifer-wide changes rather than laboratory variability. The United States Geological Survey found that residential development utilizing on-site septic systems for waste disposal at densities greater than 1 housing unit per acre had a strong correlation to nitrate contamination.

Simple comparisons of nitrate levels with home construction timelines—adjusted 4 years for vertical and horizontal travel time—show compelling correlation between new septic systems and increasing nitrates at both the upper (Wells 5 through 8) and lower (Wells 1 and 2) wellfields. Approximately 100 acres of vacant, upgradient land remains zoned for continued dense development.

1.5 Review of Developer-Prepared CARA Studies

CARA reports prepared for recent subdivisions have underestimated aquifer vulnerability as follows:

- Treating septic contributions as “minimal” despite evidence that nitrates will measurably increase.
- Reducing decades of nitrate data to a single average value, obscuring clear upward trends.
- Omitting readily available groundwater data required by County Code 11.82.050(2)(C).
- Misinterpreting DOH guidance by asserting that increases less than 2 mg/L are “minor”; DOH has clarified that this claim is incorrect and context-dependent.
- Understating aquifer susceptibility despite DOH’s high susceptibility ratings for District wells.
- Failing to address cumulative impacts of multiple subdivisions within the same WHPA.

Additionally, the proposed mitigation—household-level advanced septic treatment units—lacks a plan for maintenance, monitoring, compliance verification, or enforcement.

1.6 Regulatory and Financial Risks

If nitrate levels exceed 7.5 mg/L, DOH may require the District to implement a nitrate management plan. At 10 mg/L (the federal Maximum Contaminant Level), the District would

need to provide treatment, blending, or alternative water, at substantial expense. A nitrate treatment facility is estimated to cost \$3 to \$5 million in capital and \$200k to \$500k annually, which is unsustainable for a small district and inconsistent with County goals for affordable housing.

1.7 Recommended Actions

1. Encourage construction of infrastructure to convey sewage out of the WHPA, enabling both development and groundwater protection.
2. Limit or prevent additional septic-based development within WHPAs unless verifiable advanced treatment or sewer conveyance is provided.
3. Require larger minimum lot sizes (approximately 2.5 acres) for any new septic-served parcels within CARAs.
4. Seek state and federal funding for sewer planning and construction; utilize Utility Local Improvement District/Local Improvement District financing mechanisms for cost recovery.
5. Ensure future CARA studies undergo independent technical review, as allowed by County code.

1.8 Conclusion

The current trajectory of dense, septic-served development in the District's WHPAs is incompatible with long-term protection of the drinking water supply. Existing data show rising nitrate contamination concurrent with increasing residential density. Regulatory frameworks require that groundwater of higher quality be protected from degradation, and the financial consequences of inaction could be severe. To safeguard the District's wells—now and for future decades—development densities and wastewater practices within WHPAs must be substantially revised.

2.0 Introduction

This technical memorandum has been prepared to summarize concerns related to the recent and proposed development of single-family residences utilizing individual on-site septic systems within the designated WHPA for the District's municipal water supply wells. This document describes the risks to groundwater quality from existing and future development, discusses the applicable regulatory framework for development within the WHPA, and suggests approaches to protect the long-term public drinking water supply.

2.1 Authority of Enforcement

The Federal Safe Drinking Water Act requires every state to develop a Wellhead Protection Program. The state DOH administers the program. Other state agencies such as the Departments of Ecology (Ecology) and Agriculture integrate wellhead protection into their programs.

The District has the duty and authority to protect the groundwater resource.

WAC 246-209-100 requires all Group A water systems to include a wellhead protection plan in their Water System Plan (WAC 246-290-135).

RCW Title 57 Water-Sewer Districts, Chapter 57.08 outlines the powers of water and sewer districts. Specifically, RCW 57.08.005 states the following (emphasis added):

A district shall have the following powers:

(10) Where a district contains within its borders, abuts, or is located adjacent to any lake, stream, groundwater as defined by RCW 90.44.035, or other waterway within the state of Washington, to provide for the reduction, minimization, or elimination of pollutants from those waters in accordance with the district's comprehensive plan, and to issue general obligation bonds, revenue bonds, local improvement district bonds, or utility local improvement bonds for the purpose of paying all or any part of the cost of reducing, minimizing, or eliminating the pollutants from these waters;

Additionally, RCW Title 90.54 Water Resources Act of 1971, Chapter 90.54.090 states the following (emphasis added):

State, local governments, municipal corporations to comply with chapter.

All agencies of state and local government, including counties and municipal and public corporations, shall, whenever possible, carry out powers vested in them in manners which are consistent with the provisions of this chapter.

3.0 Background

The District is a municipal water service provider located southeast of Wenatchee along the west bank of the Columbia River in Chelan County, Washington. The District's service area covers approximately 23 sections (14,000 acres) and serves approximately 1,800 people based

on the growth projections from the 2019 *Water System Plan* (WSP) (RH2 Engineering, Inc., 2019).

The District's groundwater supply wells are summarized in **Table 1**.

Table 1 - Well Construction Details

	Well 1	Well 2	Well 5	Well 6	Well 7	Well 8
Diameter (in)	12	12	8	12	16	16
Wellhead Elev. ¹ (ft)	688 ²	688 ²	757 ²	745.2	754.1	756.7
Depth (ft)	118	125	210	242	230	217
Screen Diameter (in)	12-tel	12-tel	7	10	14	14
Screen Length (ft)	15	17	15	48	35	25
Screen Details	60-slot 103'-118'	60-slot 108'-110' 80-slot 110'-115' 100-slot 115'-125'	100-slot 179'-184' 80-slot 184'-194'	60-slot 191'-215' 100-slot 215'-239'	100-slot 188'-223'	80-slot 181'-206'
Static Water (ft) ³	77	74	142	128	136	136
Tested gpm	1,000	75	300	1,200	1,600	1,600
Tested Drawdown (ft)	4	0	1	2.75	1	12
Test Duration (hrs)	4	4	7	290	4	4
Operational gpm	370	340	300	--	1,200	1,200

¹ Based on NAVD 88

² Estimated

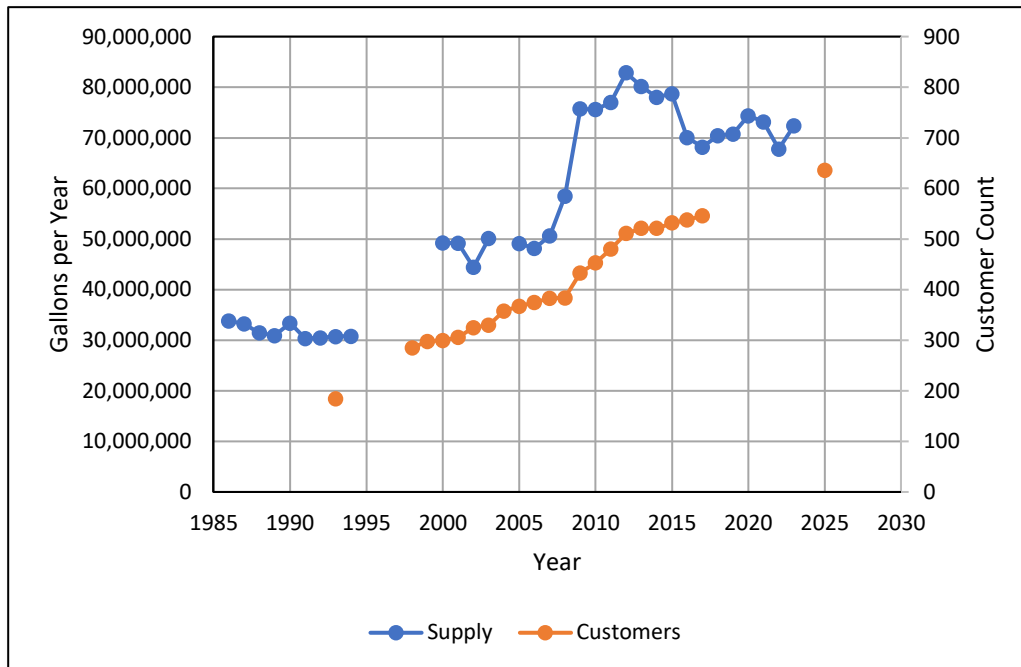
³ Water level below ground surface from original well logs.
gpm = gallons per minute

4.0 Water Use

4.1 Historical and Forecasted Demands

A history of annual water supply and customer connections is shown on **Chart 1**. The information was pulled from past WSPs; no efforts were made to research the data gaps since the trends are clear.

Chart 1 - Water Use and Customer Count History



Well meter data from 2021 through 2023 was collected in mid-2024. The results are shown in **Table 2**.

Table 2 - Recent Water Use

	2021	2022	2023
Annual (gallons)	73,150,000	67,811,000	73,400,000
Annual (cf)	9,780,000	9,066,000	9,813,000
Average Day (gpd)	200,400	185,800	198,400
Maximum Day (gpd)	430,000	400,000	380,000

cf = cubic feet

gpd = gallons per day

The WSP also forecasted growth within the District through 2040 (**Table 3**). Values shown are average day demand (ADD), maximum day demand (MDD), and peak hour demand (PHD). ADD can be multiplied by 365 to get the total forecasted annual demand.

Table 3 - Water Demand Forecast

	2020			2025			2040		
	ADD (gpd)	MDD (gpd)	PHD (gpm)	ADD (gpd)	MDD (gpd)	PHD (gpm)	ADD (gpd)	MDD (gpd)	PHD (gpm)
Zone 1	155,935	365,462	545	170,110	398,683	594	207,575	486,490	725
Zone 2	4,742	12,193	51	5,173	13,302	55	6,312	16,232	67
Zone 3	12,437	34,273	93	13,567	37,388	102	16,555	45,622	124
Zone 4	22,962	61,666	184	25,049	67,272	201	30,566	82,088	245
Zone 5	12,077	20,544	64	13,175	22,411	69	16,077	27,347	85
Zone 6	2,074	2,884	28	2,262	3,147	30	2,760	3,840	37
Zone 7	1,537	5,705	38	1,677	6,224	42	2,046	7,594	51
Total	211,764	502,727	1,002	231,014	548,426	1,093	281,892	669,212	1,334

As shown, the estimated annual use was forecasted to increase from 77 million gallons (MG) (211,764 gpd multiplied by 365 days) in 2020, to 103 MG in 2040. The WSP forecasted these demands could be met by Wells 1, 2, and 5.

About a year after completion of the WSP, Microsoft (MSFT) proposed a facility requiring water service from the District. As a condition of said service, the District required that MSFT construct improvements to both equal MSFT's anticipated needs and provide capacity for future District customers. New customers supported by this extra capacity would provide revenue to offset the District's costs to operate and maintain the new infrastructure.

MSFT's estimated ultimate water demands are 18,700,000 gallons per year and 540,000 gpd MDD as presented in the Project Report, Wells 7 and 8, Ford Property Reservoirs, and Transmission Mains (RH2 Engineering, Inc., 2025).

The estimated annual MSFT demand equates to approximately 200 single family homes, 25% of recent District demand, and 18% of the estimated 2040 demand. Upon completion of the MSFT development and assuming modest growth within the District (2% annually), the District's total annual water use may increase beyond what was forecasted in the WSP, to 122 MG by 2040.

5.0 Wellhead Protection Areas

The federal Safe Drinking Water Act (1974) requires that all states develop a wellhead protection program (WHPP). Washington State's WHPP is administered by DOH. This wellhead requirement is intended to PREVENT the contamination of groundwater used for drinking water, as described in DOH's *Wellhead Protection Program Guidance Document* (2017). The DOH requires that all Group A water systems create a WHPP, that establishes a WHPA around each source.

DOH suggested that most systems can use the Calculated Fixed Radius (CFR) method for estimating the WHPA.

The calculated fixed radius method draws a circular protection area for a specified time-of-travel threshold. A simple volumetric flow equation is used to calculate the radius. The

calculated fixed radius method is part of the basic Washington State susceptibility assessment (DOH, 2017).

The CFR is a simple tool used by most water systems to establish their WHPAs. It utilizes some very basic information on well construction and water use, then makes some very generalized assumptions on groundwater flow. Effectively, the radius for any specific duration is based on a steady state assumption that all of the water within the aquifer (the pore space between soil clasts) flows radially toward the well for the entire height/thickness of the well screen. **Figure 1** is a snapshot of reported by the DOH Source Water Assessment Program (SWAP) online mapper.

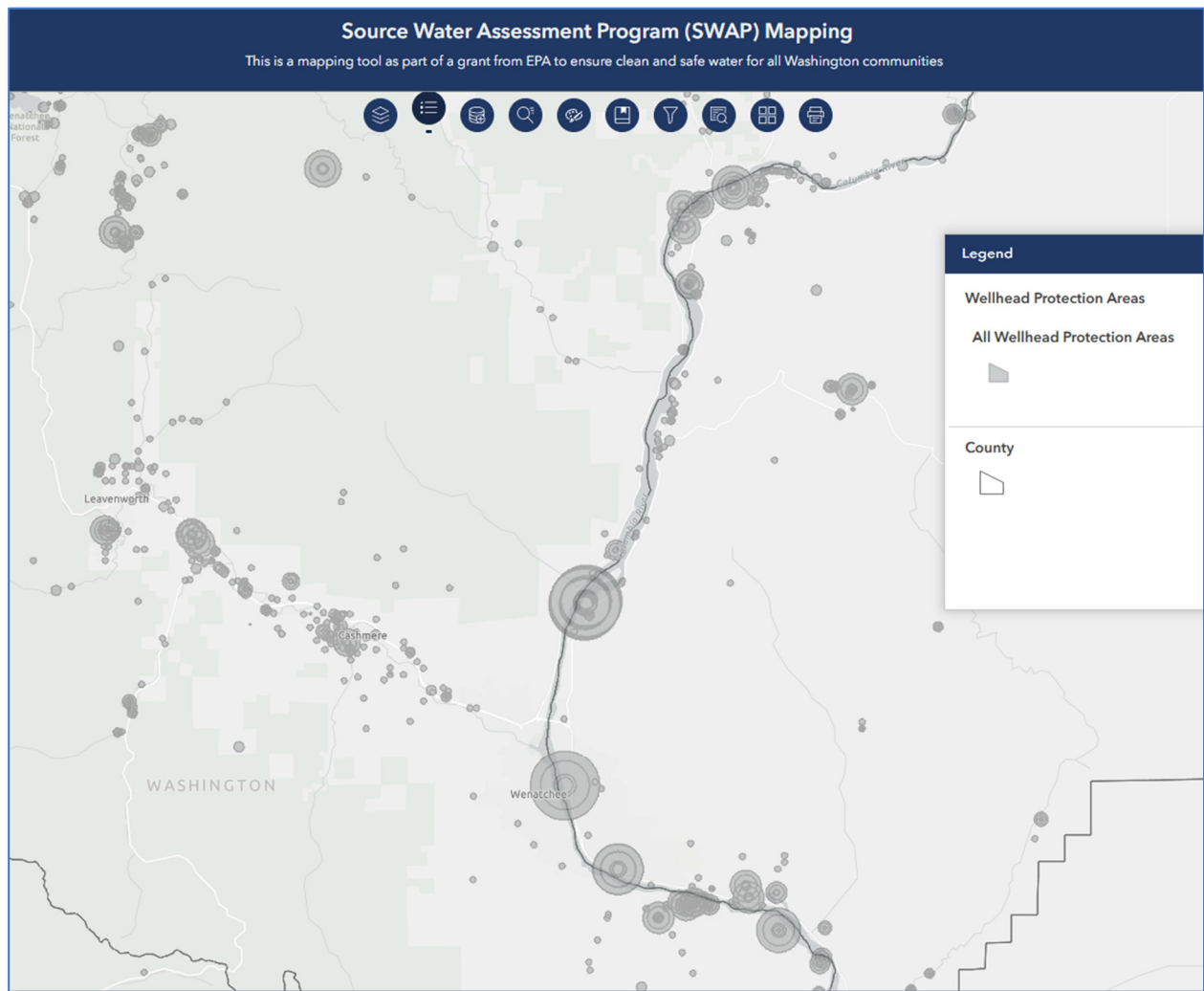


Figure 1 – Wellhead Project Areas – Greater Wenatchee Region

As shown in **Figure 1**, the water systems within the greater Wenatchee valley area show the typical circular concentric ring pattern resulting from the CFR method.

The 1994 WSP by Forsgren Associates depicted a 2,000 foot radius for Wells 1 and 2 (**Figure 2**).

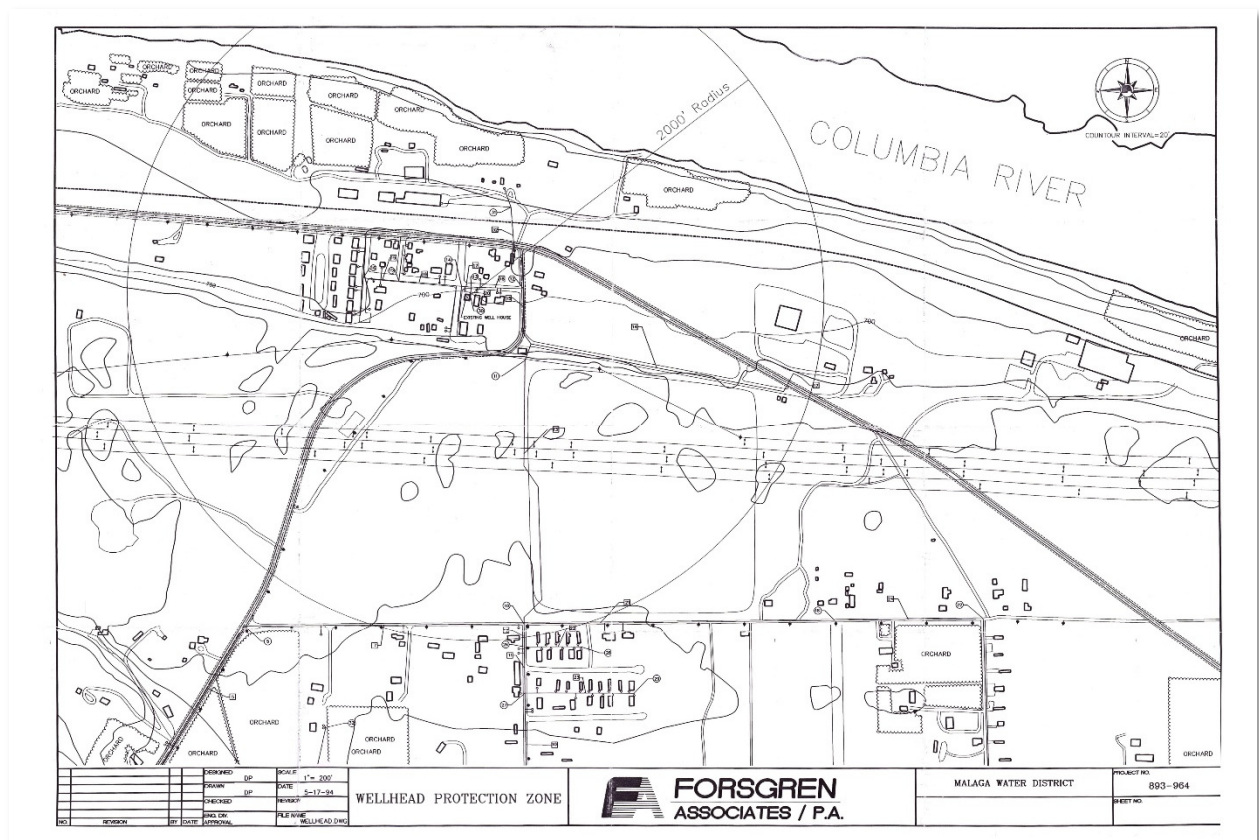


Figure 3 – District Wellhead Protection Area (1994)

The susceptibility assessment for Well 1, included as part of the appendices for the 1994 WSP, states the 10-year travel time radius at 1,240 feet. It is unclear what factored into the discrepancy between the assessment and the figure. The assessment was based on an annual water quantity of 30,750,300 gallons in 1993 (see **Chart 1** earlier).

The next WSP update was completed in 2004 by RH2 and brought forward the results from the 1994 WSP, including the discrepancy.

The 2012 WSP, also prepared by RH2 Engineering, Inc., (RH2) revised the WHPA to 1,240 feet as presented in the 1994 susceptibility assessment. However, the CFR results were not updated for actual water use, which was 50 to 75 MG at that time. This should have resulted in a WHPA radius of 1,497 feet.

Later in 2012, RH2 prepared a project report for Well 5, which included a WHPA using 120 acre-feet (39 MG) for annual flow, resulting in a 10-year radius of 2,107 feet. This area encompasses the Malaga Meadows Subdivision (approved by the County in 2024) and the proposed Malaga Meadows West and Malaga Ridge developments. This was based on the annual water rights attributed to Well 5 at that time, though the well is physically capable of producing about 150 MG annually. Since then, Well 5 has been associated with other District water rights, allowing it to legally produce more than 39 MG per year.

The 2019 WSP (RH2) includes WHPAs around Wells 1 and 2, and Well 5 (**Figure 3**). The Well 1 and 2 radius was again shown as 1,240 feet without revisions for increased use. The Well 5

radius is listed as 2,107 feet, as used in the 2012 Well 5 project report. Reviewing the archived files, the formulas used for Well 5 were inadvertently not populated into the Well 1 and 2 spreadsheet cells.

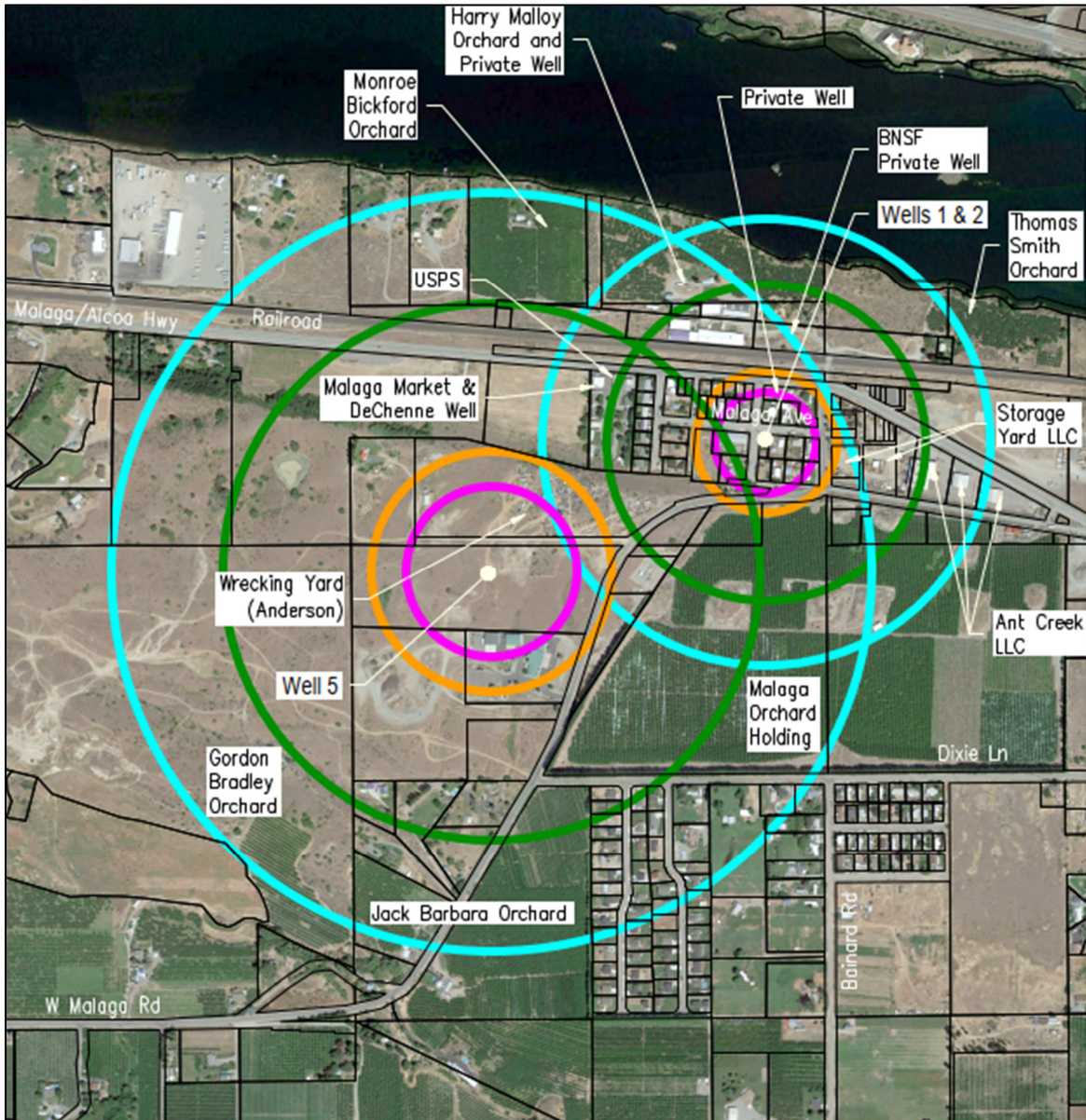


Figure 4 – 2019 WSP District Wellhead Protection Areas

Chapter 5 in the 2019 WSP includes a statement that the groundwater flow is to the southeast generally parallel with the river. This text was from the original preliminary WHPP for Well 5 and is an out of context excerpt of the 2006 *Hydrogeologic Evaluation for Wenatchee Regional Water Supply – Malaga-Alcoa Area* (RH2), which describes in a much larger Wenatchee area regional context that flow near the river may exhibit this behavior. The *Hydrogeologic Opinion CHEL 09-06, Malaga Water District – Ford Technical Memorandum* (RH2, 2009), associated with an Ecology-approved water right change, characterizes flow in Malaga as generally from southwest to northeast, consistent with current assessments.

As part of the 2025 source approval process for Wells 6, 7, and 8, the District updated its WHPP, and the associated WHPAs for all wells. Because there is no defined operational limitations on the District's sources and to preserve District operation flexibility, each source was assumed to provide the District's total current estimated annual supply (74 MG). These updates resulted in WHPA's as identified in **Table 4** and **Figure 4**.

Table 4 - 2025 Wellhead Protection Area Radii

WHPA Radii (ft)	Travel Time (years)			
	0.5	1	5	10
MWD 1 and 2	647	916	2,049	2,897
MWD 5	647	916	2,049	2,897
MWD 6	354	501	1,122	1,587
MWD 7	424	599	1,341	1,897
MWD 8	501	709	1,587	2,244

MWD = Malaga Water District

For Wells 1 and 2, the larger of the two (Well 1) was reported. The largest change in WHPAs is for Wells 1 and 2, reflecting the actual tripling of annual water supply from 1994 to 2023.

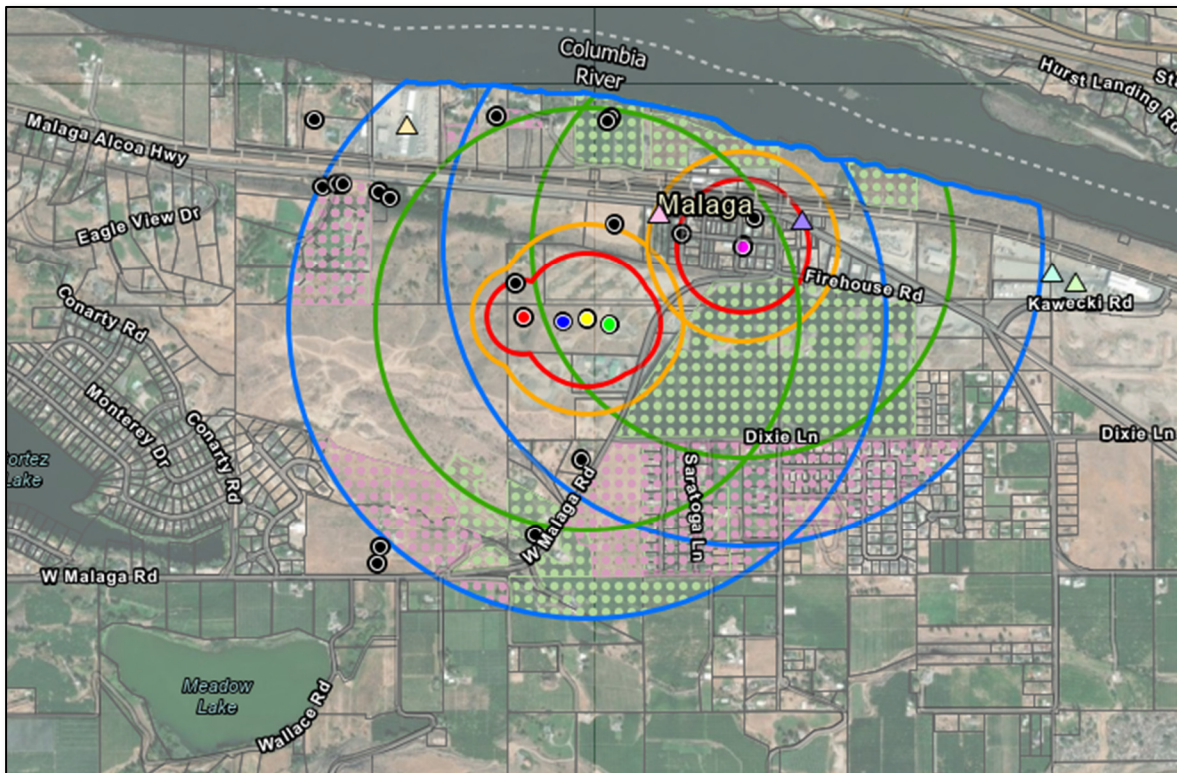


Figure 4 - District Wellhead Protection Areas (2025)

The future WHPAs will increase in size proportional to annual water use increases. The WHPAs will be reviewed during each WSP update at a minimum, typically every 6 to 10 years.

6.0 Critical Aquifer Recharge Area

Per Chapter 11 of the DOH *Wellhead Protection Program Guidance Document*, “*Wellhead protection areas meet the definition of critical aquifer recharge areas.*”

Chapters 11.77 and 11.82 of the Chelan County Code (CCC), updated in 2007, establish the Aquifer Recharge Areas Overlay District. The regulations are intended to protect groundwater quality from contamination due to human actions.

CCC 11.77.010(5) Critical Aquifer Recharge Areas states the following:

The availability of good quality, potable water is essential to the citizens of Chelan County in order to maintain a high quality of life. Identification and protection of aquifer recharge areas that are highly susceptible to potential contamination risks is essential in maintaining the quality of available potable water supplies. This district is intended to identify and protect areas vulnerable to contamination and protect potable groundwater supplies by reducing the possibility of groundwater contamination.

CCC 11.82.040 states the following:

The Administrator shall require an aquifer vulnerability evaluation for any development permit, not otherwise exempted from the chapter, if the site or development meets one of the criteria (1) through (7) below:

(1) Within a wellhead protection area designated under WAC 246-290-135...

WAC 246-290-135 directs water system purveyors to develop a WHPP and establish WHPAs as described by the DOH guidance.

As part of every District WSP approval process the County was provided a copy of the WSP and given the opportunity to comment. For the current WSP, on April 30, 2019, the County Planning Director David Kuhl signed and returned the DOH Local Government Consistency Determination Form, confirming the County had reviewed the plan and that it was consistent with adopted plans and regulations. The 2019 WSP specified a WHPA around the wells shown in **Figure 4**.

Unfortunately, the County appears to have historically ignored this designation. Malaga Meadows, a 41-lot housing development built by Real Homes, was approved on March 6, 2024, within the District’s WHPA without any vulnerability analysis, as was Red Cliff Estates (40 lots, approved in 2008). When RH2 asked how the County administers WHPAs, the County responded that it was for aquifers, not wells, and that the County did not have any aquifers (email communications July 3, 2024).

Subsequently, the County revised that position and required CARA reports for two new developments proposed by Real Homes that are within the 6-month and 1-year travel time zones of the Well 5 property, and 5- to 10-year travel time zones of Wells 1 and 2.

CCC 12.04.020 Suitability for Land Division includes the following statements (emphasis added):

(1) Each proposed land division shall be reviewed to ensure that:

(F) Identified hazards and limitations to development have been considered in the design of roads and lot layouts to assure roads and building sites are not located

in critical areas or on geologically unstable soils, considering the stress and loads to which the soil may be subjected;

(3) Lack of compliance with the suitability for land division or the criteria set forth in this title shall be grounds for denial of a proposed land division, or for the issuance of conditions necessary to more fully satisfy the criteria.

RH2 is unclear on how CCC 12.04.020 applies, and will defer to legal opinion. Nevertheless, it is RH2's opinion that conditions proposed to date by the developer and recommended by the County from the CARA studies are insufficient to satisfy the requirements of this code. Refer to the **Review of CARA Studies** section later in this technical memorandum.

6.1 Susceptibility and Vulnerability

The first two sections of CCC 11.82.010 Aquifer Recharge Areas Overlay District state the following, indicating that "vulnerability" is the primary concern:

(1) Classification is based on an evaluation of the aquifer vulnerability defined as the combination of potential for contaminant loading of a proposed land use, and the susceptibility of aquifer to contamination at the proposed site.

(2) Sites identified by this chapter as having a medium or high aquifer vulnerability rating shall be subject to the performance standards of this chapter

CCC 14.98.1845 states "'Susceptibility' means the condition of being especially sensitive and open to contamination."

CCC 14.98.1940 states "'Vulnerability' means the combined effect of susceptibility to contamination and the presence of potential contaminants."

CCC 11.82.040 and .050 allows a developer to prepare the vulnerability evaluation, upon which the County and Health District will consider while making their decision. This creates a situation of unavoidable and inherent bias as it is in the developer's own interest to define low vulnerability, while it is the County's obligation to protect the aquifer. Of special importance is CCC 11.82.050(2)(c), which requires:

(C) Review of readily available existing groundwater quality information to characterize existing water quality conditions.

The CARA studies prepared by the developer, outlined later in this technical memorandum, did an insufficient evaluation of the existing water quality, failing to accurately represent the current nitrate levels by reducing them to singular average values, and commenting only once in passing that "RH2 notes an increasing trend dating to at least 2015." The author makes no other statements about the increasing trend, and does not appear to have used the information when developing their conclusions. The author dismissed septic systems as a meaningful contaminant, thereby enabling the conclusion that the aquifer has low vulnerability.

CCC 11.77.060(2) states:

The county may retain independent qualified consultants, at the expense of the applicant, to assist in review of critical area reports.

To RH2's knowledge, the County did not retain a consultant for an independent review of the CARA studies and instead moved forward with recommendations for subdivision approval based solely on the CARA studies.

7.0 Malaga Land Use

Malaga is not incorporated and not within an Urban Growth Area (UGA), it lies entirely within unincorporated Chelan County. Because it is outside of a UGA, no sewer services are available. All developments use on-site septic systems.

The District's WHPAs encompass lands zoned by the County as follows: Rural Residential 5 – RR5, Rural Industrial – RI, Rural Commercial – RC, Rural Village – RV, and Rural Residential/Resource – RRR.

7.1 Appendix D of the Chelan County Comprehensive Plan, Malaga Vision Plan

The 2017 *Chelan County Comprehensive Plan* discusses multiple public meetings held and includes an extensive discussion of maintaining “*rural character*,” with said term described over multiple pages in many ways, including low density, with open space, and without “*a proliferation of city-size subdivisions*.” The subsequent vision statement provides little specificity about how this might be implemented.

The County recommended that development in the RRR zone may allow lots smaller than 1 acre and lots smaller than 2.5 acres within the RV zone. No mention is made that lots as small as 0.28 acres (12,000 sf) will be allowed until further into the document. The claim is also made that 12,000 sf lots are “*consistent with the existing rural character and density of the area*” which contradicts earlier descriptions of “*rural character*”.

Appendix D includes no mention of the existing aquifer, groundwater wells, the WHPA, or how unsewered development might impact water quality.

Consequently, Appendix D set the stage for the County to create a Limited Area of More Intensive Rural Development (LAMIRD) to allow urban or near-urban density development without a sewer disposal plan or groundwater protection plan.

7.2 LAMIRD and Lot Sizes

Current zoning descriptions for RRR and RV allow for a minimum lot size of 12,000 sf, if the development can obtain a septic permit from the Chelan Douglas Health District.

This zoning density, more typical of urban settings, appears to be inconsistent with the Growth Management Act (GMA) (1990). The Malaga area was rezoned following the adoption of the 2006 *Comprehensive Plan*. That plan, and the update in 2017, discusses RRR and RV as implementations of a Type I LAMIRD. The codified criteria for the GMA, WAC 365-196-425(6), describes LAMIRDs as identifying areas of pre-existing development that do not comply with the GMA (e.g., Three Lakes, original Malaga townsite), and specifies that the County needs to define a logical outer boundary. That boundary can contain some vacant land so long as it does

not create a significant amount of new development, but that the *“fundamental purpose of the logical outer boundary is to minimize and contain the LAMIRD to the area of existing development as of the date the county became subject to the planning requirements of the act.”* The County, became subject to the requirements in 1993.

The creation of the LAMIRD in 2006 increased the RV zoning from approximately 118 acres to 615 acres, an approximate 500% increase. In 1993, based on a historic aerial photo review, approximately 320 homes were within what would later be the Malaga LAMIRD area. As of 2024, there are about 730 homes. A significant amount of vacant land remains and is zoned for dense development within the LAMIRD.

The Malaga LAMIRD does not appear to be consistent with the intent of the GMA. This discrepancy is the main driver for development (on septic), without which significantly fewer homes would have been constructed, fewer septic systems would have been built, and less nitrates would have been discharged into the aquifer.

The County’s 2017 *Comprehensive Plan*, in describing the RV zoning, acknowledges the potential impacts of such high-density development in a rural setting: *“Potential impacts to the surrounding area, critical areas, and water quality shall be addressed”* (emphasis added). However, neither the plan nor appendices appear to follow through. There is no analysis of water quality impacts from high-density septic discharge or mitigation to prevent contamination.

8.0 Nitrate Regulations

The United States Environmental Protection Agency (EPA) and DOH enforce water quality limits for drinking water. WAC 246-290-310 sets the Maximum Contaminant Level (MCL) for nitrate at 10 mg/L. The existing nitrate MCL is based on the potential for developing methemoglobinemia, also known as blue baby syndrome. This condition results from nitrate inhibiting the formation of hemoglobin and ultimately restricting oxygen circulation throughout the body, which can occur due to both acute or chronic exposure to elevated nitrates.

Since this standard was set in 1992, a growing body of literature has linked chronic nitrate exposure to several additional health effects (Ward et al., 2018). For example, multiple epidemiologic studies have indicated a relationship between nitrate ingestion and colorectal cancer (Schullehner et al., 2018), thyroid disease (Ward et al., 2010), and neural tube defects (Brender et al., 2004). Many of these additional health impacts arise at nitrate levels below current regulatory limits (Temkin et al., 2019; Ward et al., 2018); levels as low as 2 mg/L of nitrate in drinking water could result in gastrointestinal cancers, thyroid dysfunction, birth defects, and premature births (Hamlin et al., 2020; Minnesota Department of Health, 2025).

The EPA is currently in the early stages of thoroughly reevaluating its guidelines and regulations surrounding nitrate in drinking water (EPA, 2023).

While most documented instances of groundwater nitrate contamination are associated with livestock and agriculture, like the Sumas-Blaine and the lower Yakima Valley, some areas of widespread nitrate contamination are strictly associated with septic discharge, like La Pine, Oregon (Hinkle, et. al., 2006).

When septic systems are used for waste disposal, there becomes an increasing correlation between housing density and nitrate contamination. The United States Geological Survey found that densities greater than 1 unit per acre had a strong correlation to nitrate contamination above 5 mg/L (Persky, 1986). EPA also expresses that groundwater nitrate levels over 1 mg/L indicate human activity (Dubrovsky, 2010).

8.1 Antidegradation Policy

WAC 173-200-030 is the State's Antidegradation Policy. Various opinions have been provided regarding the applicability to this situation, so it is included in its published state with minimal added commentary. Underlines were added for emphasis.

(1) The antidegradation policy of the state of Washington, is generally guided by chapter 90.48 RCW, the Water Pollution Control Act, and chapter 90.54 RCW, the Water Resources Act of 1971. The goal of this policy is to ensure the purity of the state's groundwaters and to protect the natural environment.

(2) The antidegradation policy is as follows:

(a) Existing and future beneficial uses shall be maintained and protected and degradation of groundwater quality that would interfere with or become injurious to beneficial uses shall not be allowed.

(b) Degradation shall not be allowed of high quality groundwaters constituting an outstanding national or state resource, such as waters of national and state parks and wildlife refuges, and waters of exceptional recreational or ecological significance.

(c) Whenever groundwaters are of a higher quality than the criteria assigned for said waters, the existing water quality shall be protected, and contaminants that will reduce the existing quality thereof shall not be allowed to enter such waters, except in those instances where it can be demonstrated to the department's satisfaction that:

(i) An overriding consideration of the public interest will be served; and

(ii) All contaminants proposed for entry into said groundwaters shall be provided with all known, available, and reasonable methods of prevention, control, and treatment prior to entry.

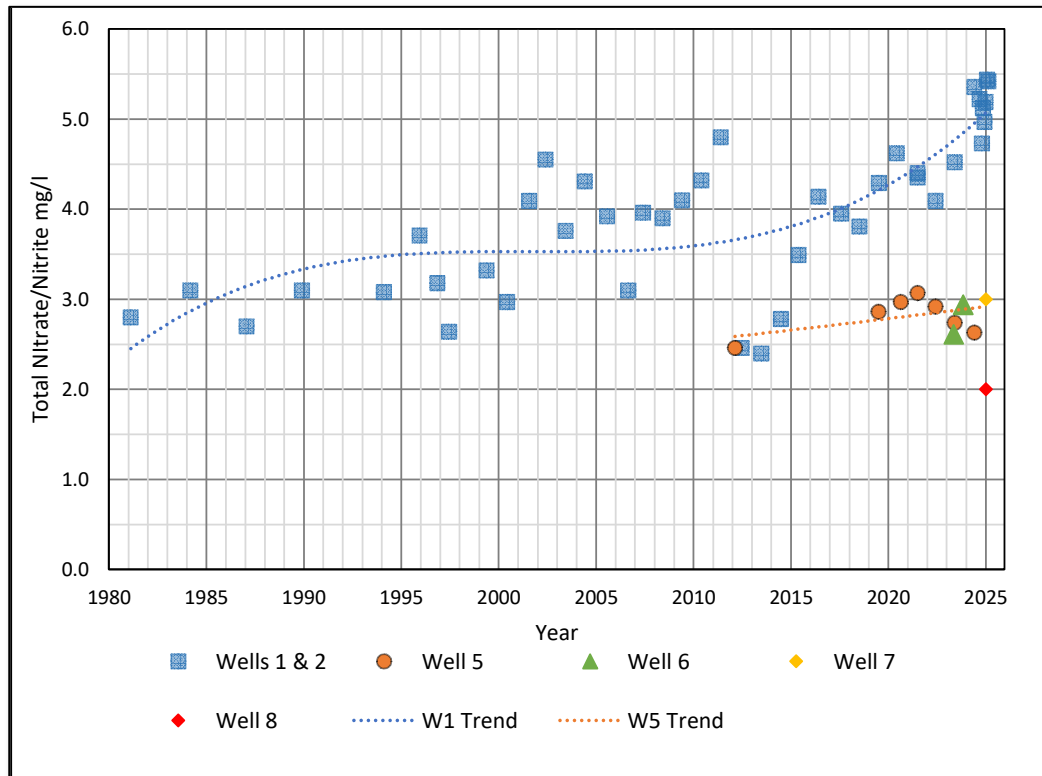
"Criteria assigned" means MCL, which for nitrates is 10 mg/L. Therefore, the Malaga aquifer is of "higher quality" since nitrate levels are below 10 mg/L. WAC 173-200-030(c)(i) and (ii) are inclusive, not exclusive, meaning both conditions must be met.

WAC 173-200-030(2)(a) is also quite clear that no proposed use impacts the groundwater in such a way as to prevent the future use of the groundwater for a beneficial use. Once nitrate levels exceed 10 mg/L, they become injurious to future drinking water uses.

9.0 Comparison of Nitrates to Home Construction

The District has tested its water sources for nitrates for over 40 years. Test results dating back to 1981 were available from the DOH website. **Chart 2** shows test results from all District wells.

Chart 2 – Nitrate Test History



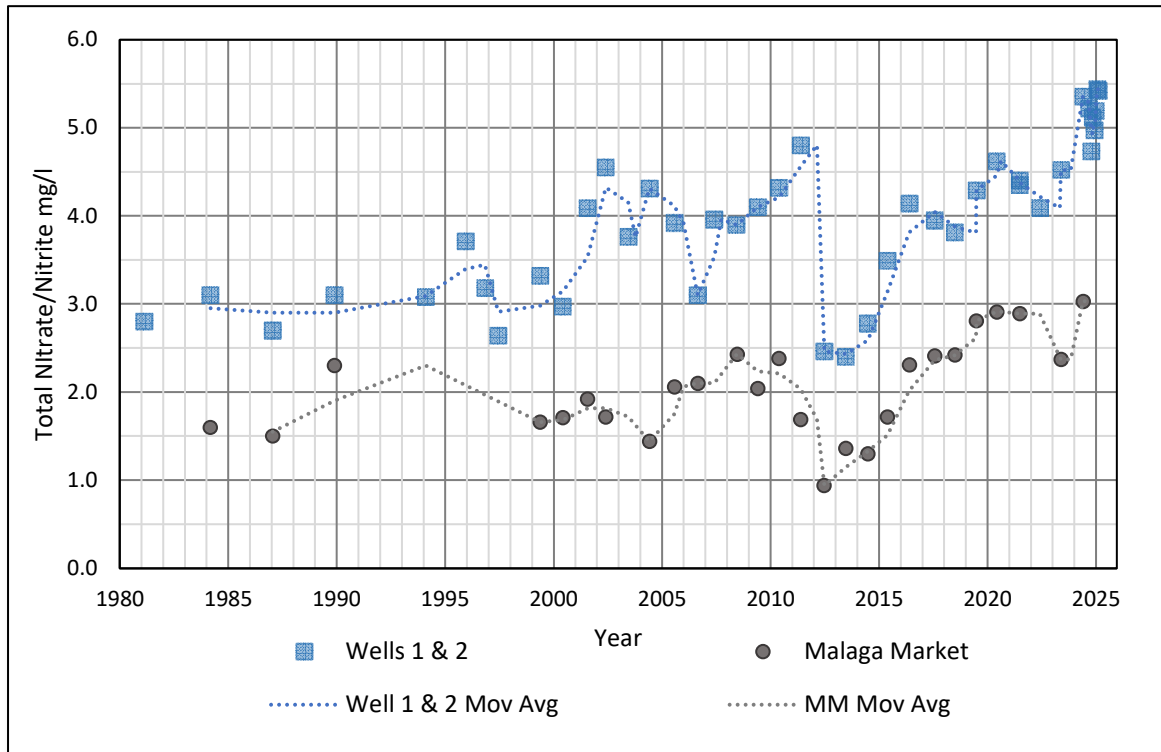
9.2 Wells 1 and 2

There is a long-term increasing trend at Wells 1 and 2, with a concerning rapid increase over the last few years. The developer's consultant, Bill Sullivan of American Land and Water, opined verbally in a 2025 County meeting that the test result variability imparts a lack of trust in the data. Causes for the variability in the data have been only minimally researched by RH2 due to time constraints. RH2 did review test data for Wells 4 and 5 in East Wenatchee, about 3 miles away on the other side of the Columbia River. The wells were chosen because they are not subject to Malaga aquifer conditions, have high nitrates, and tests were usually performed by the same labs. While variations in those tests were seen, the East Wenatchee variations from the mean were +/- 20% and averaged 9% where District variations were +/-40% and averaged 18%. This implies the nitrate levels are likely affected far more by local aquifer conditions than laboratory methods, otherwise we would expect to see similar variations.

Section 10.1.2 of the 2020 DOH *Water System Design Manual*, states: "Nitrate in groundwater may fluctuate seasonally due to rainfall, irrigation practices, and other land use practices."

For a second comparison, tests for the Malaga Market Well were obtained from DOH (**Chart 3**).

Chart 3 – Wells 1 and 2, Malaga Market Well

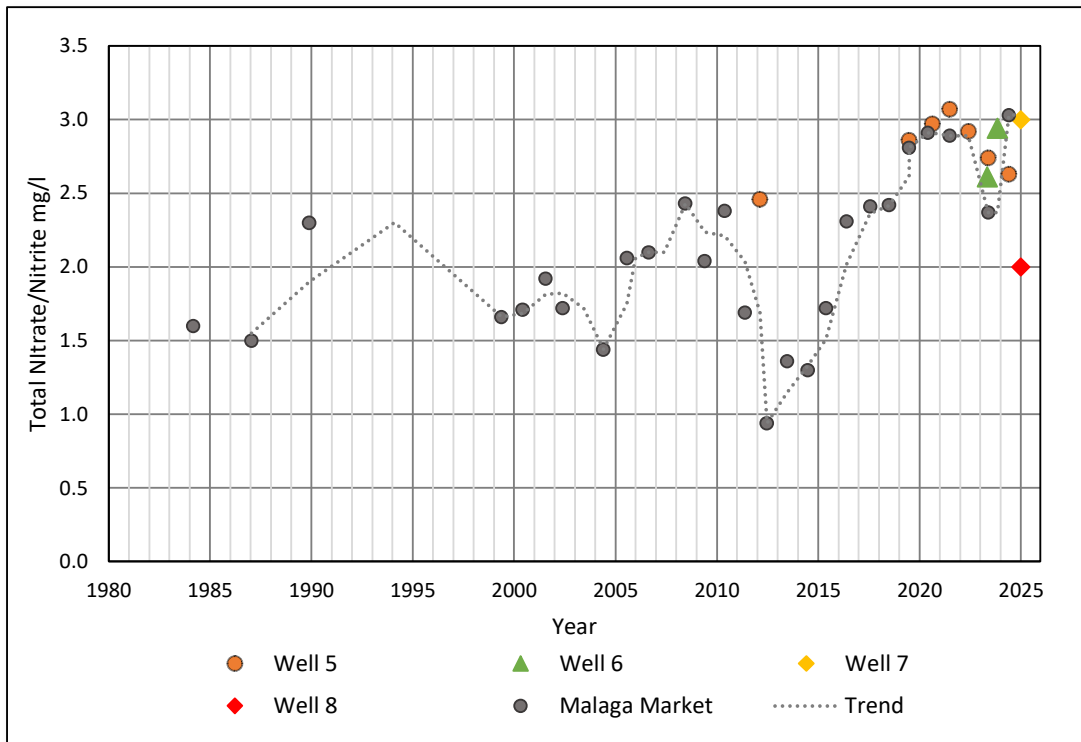


The Malaga Market well is about 1,000 feet west of Wells 1 and 2 and draws from the same aquifer. Being further west from most residential development than Wells 1 and 2, the nitrate levels are expected to be lower than Wells 1 and 2. However, the rise and fall pattern mimics nearly exactly that of Wells 1 and 2, implying that there are no data quality issues, but that local or regional conditions are affecting short term nitrate fluctuations.

9.3 Well 5, 6, 7, and 8

Only recent test data is available for wells 5, 6, 7, and 8, so trends are unlikely to be discernable. The Malaga Market tests are included in **Chart 4** since that well is in line with the assumed aquifer flow path under the Well 5 property, so similar nitrate levels are expected.

Chart 4 - Wells 5-8, Malaga Market Well



As expected, the Well 5 test results match very closely with Malaga Market.

9.4 Home Construction

Home construction records were obtained from the County's website for properties within the WHPAs. The dates of construction were plotted against the nitrate test records for Wells 1 and 2, and Well 5 (Charts 5 and 6).

Chart 5 – Wells 1 and 2

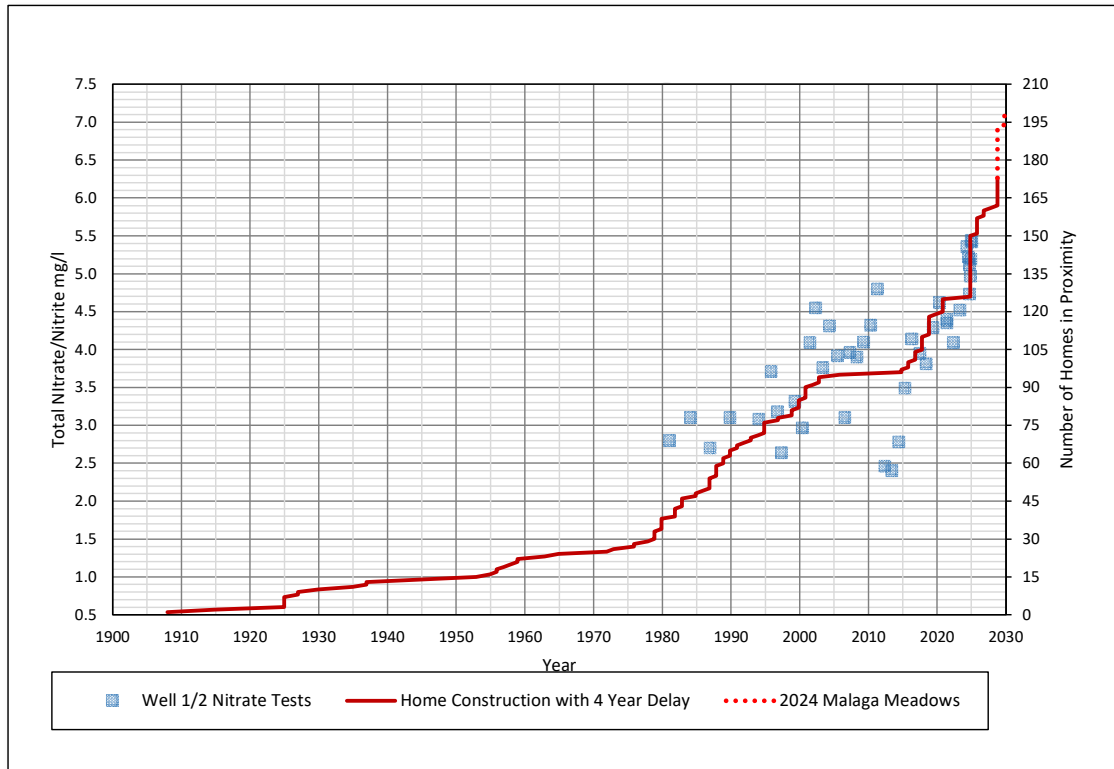
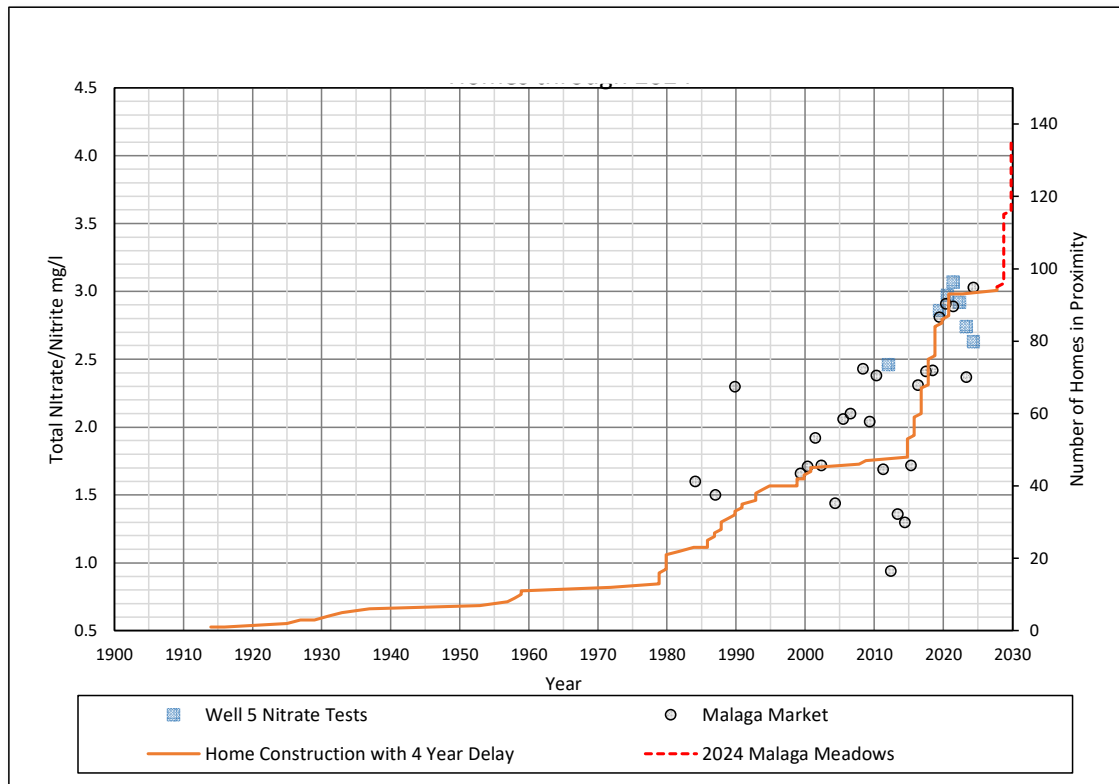


Chart 6 – Well 5



On both charts, the recently built 40 lot Malaga Meadows subdivision is shown as a different dashed line-type since it is not built-out and septic effluent from those lots likely has not have reached the wells yet.

These are simple comparisons with no individual adjustments for distance or bearing. The only adjustment was to offset all home construction by 4 years as an estimated average time for septic effluent to pass vertically through the varying geologic layers to reach the aquifer and then horizontally to the wells.

While this does not prove nitrate increases from septic systems, the comparison seems difficult to dismiss as a coincidence.

9.5 Proximity Effect

The closer a septic system is to the well, the less the effluent will be dispersed, diffused, or diluted to lower concentrations before being withdrawn. The angular offset (bearing) from the general aquifer flow direction has a similar effect. RH2 performed estimations of the effect of distance and bearing of each home from the wells, but the results were similar enough to the simple comparison presented in **Charts 5 and 6** that they provided no additional insight.

Nitrate levels at Wells 5 through 8 are lower than Wells 1 and 2 likely because the existing dense residential development is closer to Wells 1 and 2. Real Homes has proposed two subdivisions near the Well 5 site and in-line with the assumed aquifer flow direction, more so than existing developments, with the exception of the original town site around Wells 1 and 2. Therefore, contamination from septic effluent may be higher per lot from these proposed subdivisions than from most existing lots. There are about 100 acres of vacant land zoned for development on septic system directly upgradient from Wells 5 through 8 in the WHPA.

10.0 Review of CARA Studies

Real Homes hired American Land and Water to prepare CARA reports for the proposed Malaga Ridge and Malaga Meadows West subdivisions. The two reports are essentially identical, except for the specifics related to lot count. RH2 reviewed those reports on behalf of the District and discussed the review with the author. The author made some revisions per the discussions but made no change to the conclusions. RH2 agrees with much of the content, but disagrees on several important points.

As discussed in the **Critical Aquifer Recharge Area** section, the County code centers on an evaluation of aquifer vulnerability.

10.1 Aquifer Vulnerability.

The CARA author provided estimates of potential nitrate increases measured at the property line (point of compliance) that could result from the development. However, these estimates are highly sensitive to assumptions used for the aquifer hydraulic gradient, orientation and location of septic fields, treatment system effectiveness, and aquifer transmissivity at any given location. What is important is the acknowledgement that septic systems may cause a

measurable increase in nitrate levels, contradicting the author's own conclusions that septic systems are an insignificant risk and of "*de minimus*" and "*minimal impact*".

Historical nitrate test data only after 1995 is mentioned. The data is then condensed to singular average values. The author notes the increasing trend in passing with no follow-up.

Wells 5 and 6 (upgradient): Nitrate concentrations from six samples collected between 2012 and 2023 ranged from 2.5 to 3.1 milligrams per liter (mg/L) and averaged 2.9 mg/L.

Wells 1 and 2 (downgradient): Nitrate concentrations from 30 samples collected between 1995 and 2024 ranged from 2.5 mg/L to 5.3 mg/L and averaged 3.9 mg/L. RH2 Engineering (2024) notes an increasing trend in these wells dating to at least 2015.

The CARA is not in compliance with CCC 11.82.050(2)(C), which states the CARA must include the following:

(C) Review of readily available existing groundwater quality information to characterize existing water quality conditions;

Nitrate test data is readily available to anyone through the DOH Sentry website.

By not including all nitrate test data, not displaying the data graphically, and condensing the results to a single average value, the CARA could be interpreted as the author does not believe there is an upward trend, and such trend is only RH2's opinion. The increasing trend is not an opinion; it is a fact (**Charts 2 and 3**).

The Author inaccurately describes the aquifer vulnerability as follows:

The vulnerability of the flood deposit aquifer to impacts from the proposed Project is assessed to be low considering low to moderate aquifer susceptibility and relatively minor impacts typically associated with properly designed and permitted residential developments and OSS.

Considering the low to moderate susceptibility of the aquifer to contamination and low aquifer vulnerability to the proposed residential development, we assess the risk of potential impacts to the environment and public health from the Project to be low.

Considering the low to moderate susceptibility of the aquifer to contamination and low risk of contamination from the proposed residential development, we assess the vulnerability of the aquifer to potential impacts from the Project to be low.

Stating a low risk of contamination is inaccurate. There is a high, or even 100% chance of contamination from septic effluent. The magnitude of contamination is the only issue subject to interpretation.

The author seems to dismiss the State's well susceptibility ratings and disconnects the wells from the aquifer, consequently qualifying the aquifer as having low to moderate susceptibility.

DOH's source susceptibility assessments are rated as high for District Wells 1, 2, and 5 and moderate for Malaga Market's well. This rating is based on the presence of coarse-grained soils and depth to groundwater less than 150 feet (DOH, 2005). DOH's source susceptibility rating

addresses individual supply wells while an aquifer susceptibility and vulnerability rating under Chapter 11.82 CCC addresses potential impacts to the underlying aquifer from proposed development.

In multiple locations the author states that DOH considers any increase of less than 2.0 mg/l nitrate levels to groundwater to be minor. This 2.0 mg/l value is then used by the author as the basis to establish vulnerability.

(Malaga Ridge CARA) Applying DOH's Level I nitrate loading screening tool to the Project indicates aquifer loading from the Project estimated at 1.2 mg/l will be within the criterion of 2 mg/l considered by DOH to be a minor increase.

The 2 mg/L value comes from a single sentence within instructions on how to use a Large On-Site Sewage System (LOSS) spreadsheet. The specific text from those instructions states: *"In general, a moderate impact is an increase greater than 2 mg/l above background."*

Each CARA is written independently for each subdivision, without acknowledging the cumulative effect of the two subdivisions which could be more than 2 mg/L.

Stating that any increase less than 2 mg/L is acceptable without a reference baseline is inappropriate. For example, if adding less than 2 mg/L results in exceeding regulatory levels or triggers, that is not a minor increase by any definition.

RH2 emailed Ashley Beebe, the DOH Nitrate and LCR Program Manager, to ask if DOH would opine on this position. Based on the following excerpt from Ashley's email, it is clear that 2.0 mg/L is not considered by DOH to be a minor impact. Underlines are added for emphasis.

Ashley Beebe: This may be a question better suited for our LOSS team, which is where the referenced publication comes from. I've never seen any such statement in our drinking water publications on nitrate. I will let Sheri chime in if she has seen it in any DOH engineering guidance. And I agree with your point that if a 2.0 mg/l increase causes a trigger exceedance (5.0 mg/l) or an MCL exceedance (>10.0 mg/l) it would consider a more than moderate impact. The document references a Level 1 analysis, so I would use this a reference to the LOSS team on how they make these determinations.

A subsequent response from Andrew Jones, DOH LOSS Program and Reclaimed Water Supervisor, included the following:

Andrew Jones: In compliance with the Washington State Water Antidegradation Act, the DOH LOSS Program aims to limit nitrogen impacts at the point of compliance. We want the impacts to be less than 2 mg/l above background, or no more than 5 mg/l total. In areas with pristine groundwater, this effectively means limiting impacts to 2 mg/l total nitrogen at the point of compliance.

The 2 mg/l total nitrogen value is not an effluent limit, but a calculated value to identify Large On-Site Septic Systems (LOSS) that may have a nutrient impact to unconfined or semi-confined aquifers. The value is calculated using a simple nitrate balance that predicts effluent nitrogen concentration at a chosen point of compliance. DOH uses the value to identify LOSS that require additional study and/or treatment. Existing groundwater nitrogen values are also considered when evaluating the potential impact

from LOSS. Areas with high groundwater nitrogen levels require additional studies to determine the potential nutrient impact. Nitrogen treatment for a LOSS is required on a case-by-case basis and there is no set value for treatment limits. Setting effluent limitations for nitrogen effluent values is based on an environmental review that at a minimum considers the dispersal area soil type, flow analyses, depth to groundwater, topography, and the presence of environmentally sensitive areas that may be impacted. Septic systems most likely to require nitrogen treatment are those with high nitrogen in the waste stream, large flows, vulnerable aquifers, and areas with high background nitrogen.

Regarding multiple systems, the DOH considers each LOSS on an individual basis to evaluate the environment and public health impact of an area. The nitrate balance is used as a first-pass conservative assessment. It's only one tool we use to determine treatment limits. Sometimes, if a LOSS is proposed in sensitive areas, we also require full Hydrogeological Report to fully assess downstream impacts. The impact at point of compliance informs the permitted treatment requirements. We may determine that a LOSS must meet a treatment limit of 20 mg/l total nitrogen, in order to limit total nitrogen impacts at the point of compliance to 2 mg/l.

The CARA author has verbally opined that the State Antidegradation policy does not apply to this situation. Andrew Jones of DOH opines otherwise (see previous).

Following a discussion of geology overlaying the aquifer, the CARA states the following:

In consideration of these factors, the flood deposit aquifer is considered to have a low to moderate susceptibility to contamination.

When approached in the context of isolated contamination events, such as a fuel spill that can be responded to, this opinion is not unreasonable as the geology provides a time buffer. However, susceptibility to a perpetual source of contamination (septic systems) is high because the geology is not a true barrier. This is evident from the existing nitrate contamination.

Regarding aquifer vulnerability the CARA concludes the following:

Considering the low to moderate susceptibility of the aquifer to contamination and low risk of contamination from the proposed residential development, we assess the vulnerability of the aquifer to potential impacts from the Project to be low.

The underlined text appears to be a direct conclusion from the assertion in their preceding paragraphs that a nitrate increase from any one subdivision expected to be less than 2.0 mg/L is not consequential.

The CARAs include proposals to provide individual septic treatment systems at each household to reduce nitrates by an estimated 60% to 70%. The following are several issues with this proposal and questions that are not addressed.

- The proposed systems are not specifically for nitrate treatment: it is a side effect. The percentages are averages claimed by the manufacturer and individual results vary significantly.

- How will the systems be maintained?
- How will nitrate levels be verified?
- What is the mitigation if test results fail? Who is responsible?
- Who is responsible for tracking and enforcement?

11.0 Financial Impacts

The financial impact of allowing this contamination issue to go unresolved or not taking it seriously enough is significant. Should nitrate levels continue to increase, the District must develop a plan for how to manage the water quality once levels reach 7.5 mg/L (DOH 2020 *Water System Design Manual*, section 5.1.2). At 10 mg/L, typical approaches are blending with other sources (potentially unavailable to the District), providing bottled water (an interim mitigation), or constructing a treatment facility plus perpetual operation. Other drinking water wells (Malaga Market, exempt private wells, etc.) drawing from the aquifer may have similar impacts.

A nitrate water treatment plant is roughly estimated at \$3 to \$5 million in capital costs and another \$200k to \$500k annually to operate. Such high costs must be borne by a relatively small number of customers, contradicting one of the County's stated goals of providing affordable housing. The District already receives concerns from citizens over the cost of their water bill, and has received requests to create "Senior" rates for those who are on a fixed income who cannot afford their existing bill.

This would also be categorized as an "injurious to [this] beneficial use" as stipulated in the Antidegradation Policy per WAC 173-200-030(2)(a).

11.1 Conditional Water Availability

Table XI of WAC 246-272A-0340 (1)(d) is typically used to establish minimum lot sizes. Though it also includes a provision that:

... The local health officer may require larger lot sizes than the minimum standards established in Table XI or Table XII of this section.

Minimum Land Area Requirement For Each Single-Family Residence or Unit Volume of Sewage and Minimum Usable Land Area							
		Soil Type (defined by WAC 246-272A-0220)					
		1	2	3	4	5	6
Minimum Land Area	Public Water Supply	21,780 sq. ft. (0.5 acre)	13,000 sq. ft.	16,000 sq. ft.	19,000 sq. ft.	21,000 sq. ft.	23,000 sq. ft.
		2.5 acres ¹					
	Nonpublic Water Supply	1.0 acre	1.0 acre	1.0 acre	1.0 acre	2.0 acres	2.0 acres
		2.5 acres ¹					
Minimum Usable Land Area		2,000 sq. ft.	2,000 sq. ft.	2,500 sq. ft.	3,333 sq. ft.	5,000 sq. ft.	10,000 sq. ft.

¹ OSS consisting of only sewage tanks and gravity SSAS must have a minimum land area of 2.5 acres per WAC 246-272A-0234(7).

The requirements are more stringent for non-public water supply because this assumes each lot has its own well, so larger lots are prudent to protect small drinking water wells from the septic systems on each lot (WAC 246-272A-0340(1)(d)). In the case of the District, the large public wells are not remote, and the septic systems are proposed within the WHPA of the public wells. So, the Nonpublic Water Supply category is more applicable by intent. The District wells produce about 600 times the annual amount of water as a typical single family private well, thus drawing water in from further distances. Even this prescriptive 2.5 acre lot density may be insufficient to protect water quality. If more information about nitrate levels and health risks is obtained, the District might modify its position.

On August 21, 2025, the District provided a letter to Chelan Douglas Health District stating the District can provision water availability to single-family lots within the WHPAs, assuming they are allowed at all, no smaller than 2.5 acres and with advanced septic systems capable of reducing effluent nitrate rates to 15 mg/L or less. Smaller lots would be acceptable if the sewage effluent was collected and conveyed outside of the WHPA. While the District is concerned about any new nitrate loading to the aquifer, WAC 246-272A-0320 establishes 2.5 acres as the largest minimum size, though it does give discretion to the local Health Officer to adjust this value.

On November 13, 2025, CDHD sent memos to the two Chelan County Community Development planners overseeing the proposed developments and advised them that the CDCH's approval of the developments was conditional on 2.5 acre minimum lot sizes. That requirement was accepted by both planners in the revised staff reports to the hearings examiner.

Depending on the type of treatment systems, assuming full buildout at 2.5 acres per lot (about 130 lots), the home construction to nitrate level comparison (**Charts 3 and 4**) is a correlation and not a coincidence, and there are no other existing remote nitrate sources yet incoming. The District might expect to see an increase of approximately 1 mg/L to 3 mg/L over the current levels at full build out.

12.0 Conclusions

The LAMIRD established by the County does not follow the intent and may outright conflict with WAC 365-196. The LAMIRD as established currently allows an urban, or near urban, level of housing density without providing a plan for sewage disposal or protection of the drinking water aquifer.

Though the comparison of nearby home construction to nitrate levels appears compelling, there is an unquantifiable chance that nitrates from more remote areas could also be seen in the future, leading to further increases of nitrate loading into the aquifer. Septic effluent from recent construction (Malaga Meadows) has likely not yet reached the wells. Because of this, construction of additional septic systems within the aquifer recharge area should be prevented, or at least severely limited and mitigated with advanced treatment systems.

Construction of systems to transport sewage out of the aquifer recharge area would allow for development at the maximum density allowed by code and protect the groundwater. This also provides easy points of connection should a future conventional sewer system be constructed.

State grants exist to study this type of situation and there may be other funding sources to build sewer systems. Mechanisms such as reimbursement agreements (Chapter 57.22 RCW) and LID or ULID (Chapters 35.43 and 57.16 RCW) allow for reimbursement of up-front costs when benefiting properties connect to the systems. Multiple public agencies and private cooperation would be the best approach to expedite the efforts.

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Attachment E

Revised Code of Washington and Washington Administrative Code UGA Criteria Compliance

RCW <u>36.70A.110</u>	Malaga / Chelan County
Comprehensive plans—Urban growth areas.	
(1) Each county that is required or chooses to plan under RCW <u>36.70A.040</u> shall designate an urban growth area or areas within which urban growth shall be encouraged and outside of which growth can occur only if it is not urban in nature. Each city that is located in such a county shall be included within an urban growth area. An urban growth area may include more than a single city. <i>An urban growth area may include territory that is located outside of a city only if such territory already is characterized by urban growth whether or not the urban growth area includes a city, or is adjacent to territory already characterized by urban growth,</i> or is a designated new fully contained community as defined by RCW <u>36.70A.350</u>. When a federally recognized Indian tribe whose reservation or ceded lands lie within the county or city has voluntarily chosen to participate in the planning process pursuant to RCW <u>36.70A.040</u>, the county or city and the tribe shall coordinate their planning efforts for any areas planned for urban growth consistent with the terms outlined in the memorandum of agreement provided for in RCW <u>36.70A.040</u>(8).	Malaga exhibits existing urban characteristics, including increased housing density, population growth, and concentrated development patterns within the existing LAMIRD. These conditions indicate the area is already characterized by urban growth and is appropriate for UGA designation. Specifically, Malaga allows up to 3.5 dwelling units per acre, while surrounding rural areas have densities of less than one dwelling unit per 2.5 acres.
(2) Based upon the growth management population projection made for the county by the office of financial management, <i>the county and each city within the county shall include areas and densities sufficient to permit the urban growth that is projected to occur in the county or city for the succeeding twenty-year period,</i> except for those urban growth areas contained totally within a national historical reserve. As part of this planning process, each city within the county must include areas sufficient to accommodate the broad range of needs and uses that will accompany the projected urban growth including, as appropriate, medical, governmental, institutional, commercial, service, retail, and other nonresidential uses.	Malaga is projected to accommodate future population and employment growth, supported by regional economic drivers such as energy and technology industries. The Malaga LAMIRD boundaries have been drawn to accommodate the projected residential and employment growth that is expected to occur, and countywide allocations have been made accordingly. Urban services (i.e., sewer) are necessary to allow for this growth, and may, allow additional uses as appropriate for a small town.
<i>Each urban growth area shall permit urban densities and shall include greenbelt and open space areas.</i> In the case of urban growth areas contained totally within a national historical reserve, the city may restrict densities, intensities, and forms of urban growth as determined to be necessary and appropriate to protect the physical, cultural, or historic integrity of the reserve. An urban growth area determination may include a reasonable land market supply factor and shall permit a range of urban densities and uses. In determining this market factor, cities and counties may consider local circumstances. Cities and counties have discretion in their comprehensive plans to make many choices about accommodating growth.	Existing zoning and development patterns already reflect urban scale densities. Zoning in Malaga would be applied similar to that in the Peshastin UGA, allowing residential urban densities, supporting and requiring open space provision, and allowing for a range of commercial and industrial uses.

RCW 36.70A.110 Within one year of July 1, 1990, each county that as of June 1, 1991, was required or chose to plan under RCW 36.70A.040, shall begin consulting with each city located within its boundaries and each city shall propose the location of an urban growth area. Within sixty days of the date the county legislative authority of a county adopts its resolution of intention or of certification by the office of financial management, all other counties that are required or choose to plan under RCW 36.70A.040 shall begin this consultation with each city located within its boundaries. The county shall attempt to reach agreement with each city on the location of an urban growth area within which the city is located. If such an agreement is not reached with each city located within the urban growth area, the county shall justify in writing why it so designated the area an urban growth area. A city may object formally with the department over the designation of the urban growth area within which it is located. Where appropriate, the department shall attempt to resolve the conflicts, including the use of mediation services.	Malaga / Chelan County This section is not applicable; Malaga is not currently in a city or its UGA.
(3) Urban growth should be located first in areas already characterized by urban growth that have adequate existing public facility and service capacities to serve such development, <i>second in areas already characterized by urban growth that will be served adequately by a combination of both existing public facilities and services and any additional needed public facilities and services that are provided by either public or private sources</i>, and third in the remaining portions of the urban growth areas. Urban growth may also be located in designated new fully contained communities as defined by RCW 36.70A.350.	Malaga represents an existing concentration of development where urban growth has already occurred. Conversion to a UGA allows growth to be directed to this area rather than expanding into undeveloped rural or resource lands. Malaga should be considered a "tier 2" urban growth area: residential densities and industrial development are at or approaching urban levels; urban services are needed to continue those uses in a way that protects public health.
(4) In general, cities are the units of local government most appropriate to provide urban governmental services. In general, it is not appropriate that urban governmental services be extended to or expanded in rural areas <i>except in those limited circumstances shown to be necessary to protect basic public health and safety and the environment</i> and when such services are financially supportable at rural densities and do not permit urban development and as authorized in RCW 36.70A.830.	The current reliance on on site septic systems has contributed to rising nitrate levels in the aquifer, creating a documented public health and environmental concern. Providing sewer in Malaga will protect public health and the environment for existing as well as planned residential and commercial/industrial development.

RCW 36.70A.110	Malaga / Chelan County
(5) On or before October 1, 1993, each county that was initially required to plan under RCW 36.70A.040 (1) shall adopt development regulations designating interim urban growth areas under this chapter. Within three years and three months of the date the county legislative authority of a county adopts its resolution of intention or of certification by the office of financial management, all other counties that are required or choose to plan under RCW 36.70A.040 shall adopt development regulations designating interim urban growth areas under this chapter. Adoption of the interim urban growth areas may only occur after public notice; public hearing; and compliance with the state environmental policy act, chapter 43.21C RCW, and under this section. Such action may be appealed to the growth management hearings board under RCW 36.70A.280 . Final urban growth areas shall be adopted at the time of comprehensive plan adoption under this chapter.	This section is not applicable.
(6) Each county shall include designations of urban growth areas in its comprehensive plan.	The Malaga UGA is proposed as part of the 2026 to 2046 Comprehensive Plan update, consistent with GMA requirements for formal designation through the planning process.
(7) An urban growth area designated in accordance with this section may include within its boundaries urban service areas or potential annexation areas designated for specific cities or towns within the county.	Urban service area(s) is not proposed for Malaga; this would be a standalone UGA not specifically affiliated with an existing city or town.
(8) If, during the county's annual review under RCW 36.70A.130 (2)(a), the county determines revision of the urban growth area is not required to accommodate the population projection for the county made by the office of financial management for the succeeding 20-year period, but does determine that patterns of development have created pressure for development in areas exceeding the amount of available developable lands within the urban growth area, then the county may revise the urban growth area or areas based on identified patterns of development and likely future development pressure if the following requirements are met:	
(a) The revised urban growth area would not result in a net increase in the total acreage or development capacity of the urban growth area or areas;	Where would the UGA be reduced in order to accommodate Malaga?
(b) The areas added to the urban growth area are not designated by the county as agricultural, forest, or mineral resource lands of long-term commercial significance;	The proposed UGA boundary explicitly excludes designated agricultural and resource lands, including those identified within the <i>Malaga Vision Plan</i> (2017) planning area, ensuring compliance with resource land protection requirements.

RCW <u>36.70A.110</u>	Malaga / Chelan County
(c) If the areas added to the urban growth area have previously been designated as agricultural, forest, or mineral resource lands of long-term commercial significance, either an equivalent amount of agricultural, forest, or mineral resource lands of long-term commercial significance must be added to the area outside of the urban growth area, or the county must wait a minimum of two years before another swap may occur;	The Malaga LAMIRD has never been designated for agricultural or resource use.
(d) Less than 15 percent of the areas added to the urban growth area are critical areas other than critical aquifer recharge areas. Critical aquifer recharge areas must have been previously designated by the county and be maintained per county development regulations within the expanded urban growth area and the revised urban growth area must not result in a net increase in critical aquifer recharge areas within the urban growth area;	Critical aquifer recharge areas within Malaga will continue to be regulated under existing county development regulations. UGA designation enables improved management through infrastructure planning, particularly sewer service, which reduces groundwater contamination risks.
(e) The areas added to the urban growth areas are suitable for urban growth;	The proposed Malaga UGA is characterized by urban-type growth and is suitable for additional growth, provided that sewer is made available.
(f) The transportation element and capital facility plan element of the county's comprehensive plan have identified the transportation facilities and public facilities and services needed to serve the urban growth area and the funding to provide the transportation facilities and public facilities and services;	Chelan County has included Malaga and its proposed growth in both its CFP and TMP.
(g) The areas removed from the urban growth area are not characterized by urban growth or urban densities;	Land area is not being removed from any UGA in association with this proposal.
(h) The revised urban growth area is contiguous, does not include holes or gaps, and will not increase pressures to urbanize rural or natural resource lands;	Malaga would be a new UGA, with the contiguous boundaries drawn to encompass all land in the LAMIRD, including industrial lands. It focuses growth within an already developed area, thereby reducing pressure on surrounding rural and resource lands.
(i) The county's proposed urban growth area revision has been reviewed according to the process and procedure in the countywide planning policies adopted and approved according to RCW <u>36.70A.210</u> ; and	The proposal is for a new UGA, not a revision, but it will be reviewed and determined based on the CWPPs.
(j) The revised urban growth area meets all other requirements of this section.	The new UGA meets RCW requirements.
(9)(a) At the earliest possible date prior to the revision of the county's urban growth area authorized under subsection (8) of this section, the county must engage in meaningful consultation with any federally recognized Indian tribe that may be potentially affected by the proposed revision. Meaningful consultation must include discussion of the potential impacts to cultural resources and tribal treaty rights.	Chelan County has developed the comprehensive plan as well as the Malaga UGA proposal in consultation with affected tribes.

RCW 36.70A.110	Malaga / Chelan County
(b) A county must notify the affected federally recognized Indian tribe of the proposed revision using at least two methods, including by mail. Upon receiving a notice, the federally recognized Indian tribe may request a consultation to determine whether an agreement can be reached related to the revision of the county's urban growth area. If an agreement is not reached, the parties must enter mediation pursuant to RCW <u>36.70A.040</u> .	This will take place when the County determines whether or not to pursue the UGA designation as part of its overall comprehensive plan update.
(10)(a) Except as provided in (b) of this subsection, the expansion of an urban growth area is prohibited into the one hundred year floodplain of any river or river segment that: (i) Is located west of the crest of the Cascade mountains; and (ii) has a mean annual flow of one thousand or more cubic feet per second as determined by the department of ecology.	This site is east of the Cascades.
(b) Subsection (10)(a) of this section does not apply to:	Not applicable
(i) Urban growth areas that are fully contained within a floodplain and lack adjacent buildable areas outside the floodplain;	Not applicable
(ii) Urban growth areas where expansions are precluded outside floodplains because:	Not applicable
(A) Urban governmental services cannot be physically provided to serve areas outside the floodplain; or	Not applicable
(B) Expansions outside the floodplain would require a river or estuary crossing to access the expansion; or	Not applicable
(iii) Urban growth area expansions where:	Not applicable
(A) Public facilities already exist within the floodplain and the expansion of an existing public facility is only possible on the land to be included in the urban growth area and located within the floodplain; or	Not applicable
(B) Urban development already exists within a floodplain as of July 26, 2009, and is adjacent to, but outside of, the urban growth area, and the expansion of the urban growth area is necessary to include such urban development within the urban growth area; or	Not applicable
(C) The land is owned by a jurisdiction planning under this chapter or the rights to the development of the land have been permanently extinguished, and the following criteria are met:	Not applicable
(I) The permissible use of the land is limited to one of the following: Outdoor recreation; environmentally beneficial projects, including but not limited to habitat enhancement or environmental restoration; stormwater facilities; flood control facilities; or underground conveyances; and	Not applicable

RCW 36.70A.110	Malaga / Chelan County
(II) The development and use of such facilities or projects will not decrease flood storage, increase stormwater runoff, discharge pollutants to fresh or salt waters during normal operations or floods, or increase hazards to people and property.	Not applicable
(c) For the purposes of this subsection (10), "one hundred year floodplain" means the same as "special flood hazard area" as set forth in WAC 173-158-040 as it exists on July 26, 2009.	Not applicable
(11) If a county, city, or utility has adopted a capital facility plan or utilities element to provide sewer service within the urban growth areas during the twenty-year planning period, nothing in this chapter obligates counties, cities, or utilities to install sanitary sewer systems to properties within urban growth areas designated under subsection (2) of this section by the end of the twenty-year planning period when those properties:	Noted. While the City, Water District, and Port have all prioritized the study and provision of sanitary sewer in Malaga, on-site septic will be allowed to remain as long as periodic reviews of nitrates show that the concentrations are reducing. Comprehensive Plan policies should provide a pathway for transitioning septic systems to sewer service over time.
(a)(i) Have existing, functioning, nonpolluting on-site sewage systems;	See above
(ii) Have a periodic inspection program by a public agency to verify the on-site sewage systems function properly and do not pollute surface or groundwater; and	See above
(iii) Have no redevelopment capacity; or	See above
(b) Do not require sewer service because development densities are limited due to wetlands, floodplains, fish and wildlife habitats, or geological hazards.	See above

WAC 365-196-310 Urban growth areas.	
(1) Requirements.	
(a) Each county planning under the act must designate an urban growth area or areas within which urban growth must be encouraged and outside of which growth can occur only if it is not urban in nature. Each county must designate an urban growth area in its comprehensive plan.	The proposed Malaga UGA would encourage urban levels of growth within the proposed boundaries.
(b) Each city that is located in such a county shall be included within an urban growth area. An urban growth area may include more than a single city.	Not applicable.
(c) An urban growth area may include territory that is located outside a city if such territory already is characterized by urban growth or is adjacent to territory already characterized by urban growth.	Malaga is already characterized by urban-type growth and has urban services other than sewer.
(d) Based upon the growth management planning population projection selected by the county from within the range provided by the office of financial management, and the resulting allocations of housing need, and based on a countywide employment forecast developed by the county at its discretion, <i>the urban growth areas shall include areas and densities sufficient to permit the urban growth that is projected to occur in the county for the succeeding 20-year period.</i> Counties and cities may provide the office of financial management with information they deem relevant to prepare the population projections, and the office shall consider and comment on such information and review projections with counties and cities before they are adopted. Counties and cities may petition the office to revise projections they believe will not reflect actual population growth.	The boundary of the Malaga LAMIRD is currently drawn to allow sufficient land area for planned urban levels of growth. The UGA would be the same. However, the provision of sewer may permit and incentivize even denser development (or more multifamily or middle housing), allocations for the remainder of the rural county would be adjusted.
(e) The combined urban growth area may not exceed the areas necessary to accommodate the growth management planning projections, plus a reasonable land market supply factor, or market factor. In determining this market factor, counties and cities may consider local circumstances. Counties and cities have discretion in their comprehensive plans to make many choices about accommodating growth. Each urban growth area shall permit urban densities and shall include greenbelt and open space areas.	Chelan County has followed allocation recommendations and CWPPs in determining the expected housing and employment growth in the Malaga area. These recommendations are detailed in the Comprehensive Plan update.
(f) Counties and cities should facilitate urban growth within urban growth areas as follows:	See below.
(i) Urban growth should be located first in areas already characterized by urban growth that have existing public facilities and service capacities adequate to serve urban development.	See below.

WAC 365-196-310 Urban growth areas.	
(ii) Second, urban growth should be located in areas already characterized by urban growth that will be served by a combination of both existing public facilities and services and any additional needed public facilities and services that are provided by either public or private sources.	Malaga should be considered a (ii) urban growth area. Development is at or nearing urban densities and needs extension of public facilities to serve both existing and proposed development.
(iii) Third, urban growth should be located in the remaining portions of the urban growth area.	See previous.
(g) In general, cities are the units of local government most appropriate to provide urban governmental services. In general, it is not appropriate that urban governmental services be extended to or expanded in rural areas except in those limited circumstances shown to be necessary to protect basic public health and safety and the environment and when such services are financially supportable at rural densities and do not permit urban development. Recommendations governing the extension of urban services into rural areas are found in WAC <u>365-196-425</u> .	Not applicable
(h) Each county that designates urban growth areas must review, according to the time schedule specified in RCW <u>36.70A.130</u> (5), periodically its designated urban growth areas, the patterns of development, and the densities permitted within both the incorporated and unincorporated portions of each urban growth area (see WAC <u>365-196-610</u>).	Designation of Malaga as a UGA, along with all other UGAs, will be reviewed and adjusted with each periodic update of the Chelan County Comprehensive Plan.
(2) General procedure for initial designation of new urban growth areas.	
(a) The designation process shall include consultation by the county with each city located within its boundaries. The adoption, review and amendment of the urban growth area should reflect a cooperative effort among jurisdictions to accomplish the requirements of the act on a regional basis, consistent with the countywide planning policies and, where applicable, multicounty planning policies.	Chelan County will work with the incorporated cities as well as representatives of unincorporated communities to ensure that the designation of Malaga meets the needs of the county as a whole.
(b) Each city shall propose the location of an urban growth area.	This is completed with the current periodic update.
(c) The county shall attempt to reach agreement with each city on the location of an urban growth area within which the city is located.	This is completed with the current periodic update.
(d) If an agreement is not reached with each city located within the urban growth area, the county shall justify in writing why it so designated an urban growth area.	This is completed with the current periodic update.

WAC 365-196-310 Urban growth areas.	
(e) As growth occurs, most lands within the urban growth area should ultimately be provided with urban governmental services by cities, either directly or by contract. <i>Other service providers are appropriate</i> within urban growth areas for regional or countywide services, or <i>for isolated unincorporated pockets characterized by urban growth</i> . Counties and cities should provide for development phasing within each urban growth area to ensure the orderly sequencing of development and that services are provided as growth occurs.	Services for Malaga would be provided by utility district(s) unless or until it is incorporated as a city or town in the future.
(f) Counties and cities should develop and evaluate urban growth area proposals with the purpose of accommodating projected urban growth through infill and redevelopment within existing municipal boundaries or urban areas. In some cases, expansion will be the logical response to projected urban growth.	The LAMIRD boundary around Malaga has been drawn to accommodate projected infill and urban levels of growth and is not proposed to change; the UGA designation would be to allow urban services and any increase in density/growth would be incidental to that.
(g) Counties, cities, and other municipalities, where appropriate, should negotiate interlocal agreements to coordinate land use management with the provision of adequate public facilities to the urban growth area. Such agreements should facilitate urban growth in a manner consistent with the cities' comprehensive plans and development regulations, and should facilitate a general transformation of governance over time, through annexation or incorporation, and transfer of nonregional public services to cities as the urban area develops.	No interlocal is necessary at this time, as all services would remain under county jurisdiction or through special purpose districts.
(h) The initial effective date of an action that expands an urban growth area is the latest of the following dates per RCW <u>36.70A.067</u> :	See below
(i) Sixty days after the publication of notice of adoption of the comprehensive plan, development regulation, or amendment to the plan or regulation, implementing the action, as provided under RCW <u>36.70A.290</u> (2); or	Noted.
(ii) If a petition for review to the growth management hearings board is timely filed, upon issuance of the board's final order.	Noted.
(3) Urban growth area swaps.	This section is not applicable for a new UGA.
(a) An urban growth area swap refers to the process by which a county may change an urban growth area even if it is determined that an urban growth area expansion is not required to accommodate 20-year growth projections. This may be done during county's periodic update under RCW <u>36.70A.130</u> (3)(c), or as an annual amendment under RCW <u>36.70A.110</u> (8).	Not applicable

WAC 365-196-310 Urban growth areas.	
(b) If, during the county's periodic update review under RCW <u>36.70A.130</u> (3)(c), the county determines expansion of the urban growth area is not required to accommodate the urban growth projected to occur in the county for the succeeding 20-year period, but does determine that patterns of development have created pressure in areas that exceed available, developable lands within the urban growth area, the urban growth area or areas may be revised to accommodate identified patterns of development and likely future development pressure for the succeeding 20-year period if the following requirements are met:	Not applicable
(i) The revised urban growth area may not result in an increase in the total surface areas of the urban growth area or areas;	Not applicable
(ii) The areas added to the urban growth area are not or have not been designated as agricultural, forest, or mineral resource lands of long-term commercial significance;	Malaga is not, and has not been, designated as agricultural or resource lands.
(iii) Less than 15 percent of the areas added to the urban growth area are critical areas;	Portions of the area are mapped as landslide hazard areas and would be confirmed / addressed at time of development.
(iv) The areas added to the urban growth areas are suitable for urban growth;	Given existing residential development and proximity to existing and proposed employment growth, the area is suitable for growth (as demonstrated with the LAMIRD designation)
(v) The transportation element and capital facility plan element have identified the transportation facilities, and public facilities and services needed to serve the urban growth area and the funding to provide the transportation facilities and public facilities and services;	The Comprehensive Plan, CFP, and TMP have all considered necessary projects in Malaga.
(vi) The total area of all urban growth areas in the county is not larger than needed to accommodate the growth planned for the succeeding 20-year planning period and a reasonable land market supply factor;	The growth expected in Malaga has already been considered in countywide growth projections and population allocations.
(vii) The areas removed from the urban growth area do not include urban growth or urban densities; and	No reduction in other UGAs would occur in conjunction with this proposal.
(viii) The revised urban growth area is contiguous, does not include holes or gaps, and will not increase pressures to urbanize rural or natural resource lands.	The new UGA for Malaga is contiguous and joins two relatively densely-developed residential areas, allowing for infill and creation of a more cohesive and complete community.
(c) If considering an urban growth area swap as an annual amendment under RCW <u>36.70A.110</u> (8), the following requirements must be met before a revision of the urban growth area is allowed:	A UGA swap is not proposed.

WAC 365-196-310 Urban growth areas.	
(i) The revised urban growth area would not result in a net increase in the total acreage or development capacity of the urban growth area or areas;	Not applicable
(ii) The areas added to the urban growth area are not designated by the county as agricultural, forest, or mineral resource lands of long-term commercial significance;	Not applicable
(iii) If the areas added to the urban growth area have previously been designated as agricultural, forest, or mineral resource lands of long-term commercial significance, either an equivalent amount of agricultural, forest, or mineral resource lands of long-term commercial significance must be added to the area outside of the urban growth area, or the county must wait a minimum of two years before another swap may occur;	Not applicable
(iv) Less than 15 percent of the areas added to the urban growth area are critical areas other than critical aquifer recharge areas. Critical aquifer recharge areas must have been previously designated by the county and be maintained per county development regulations within the expanded urban growth area and the revised urban growth area must not result in a net increase in critical aquifer recharge areas within the urban growth area;	Not applicable
(v) The areas added to the urban growth areas are suitable for urban growth;	
(vi) The transportation element and capital facility plan element of the county's comprehensive plan have identified the transportation facilities and public facilities and services needed to serve the urban growth area and the funding to provide the transportation facilities and public facilities and services;	Not applicable
(vii) The areas removed from the urban growth area are not characterized by urban growth or urban densities;	Not applicable
(viii) The revised urban growth area is contiguous, does not include holes or gaps, and will not increase pressures to urbanize rural or natural resource lands;	Not applicable
(ix) The county's proposed urban growth area revision has been reviewed according to the process and procedure in the countywide planning policies adopted and approved according to RCW 36.70A.210 ; and	Not applicable
(x) The revised urban growth area meets all other requirements of RCW 36.70A.110 (8).	Not applicable
(4) Urban growth areas and 100-year floodplains.	Noted. Malaga is not located west of the Cascade Mountains.

WAC 365-196-310 Urban growth areas.	
(a) Except as provided in (b) of this subsection, counties and cities may not expand the urban growth area into the 100-year floodplain of any river or river segment that:	Not applicable
(i) Is located west of the crest of the Cascade mountains; and	Not applicable
(ii) Has a mean annual flow of 1,000 or more cubic feet per second as determined by the department of ecology.	Not applicable
(b) Subsection (4)(a) of this section does not apply to:	Not applicable
(i) Urban growth areas that are fully contained within a floodplain and lack adjacent buildable areas outside the floodplain;	Not applicable
(ii) Urban growth areas where expansions are precluded outside floodplains because:	Not applicable
(A) Urban governmental services cannot be physically provided to serve areas outside the floodplain; or	Not applicable
(B) Expansions outside the floodplain would require a river or estuary crossing to access the expansion; or	Not applicable
(iii) Urban growth area expansions where:	Not applicable
(A) Public facilities already exist within the floodplain and the expansion of an existing public facility is only possible on the land to be included in the urban growth area and located within the floodplain;	Not applicable
(B) Urban development already exists within a floodplain as of July 26, 2009, and is adjacent to, but outside of, the urban growth area, and the expansion of the urban growth area is necessary to include such urban development within the urban growth area; or	Not applicable
(C) The land is owned by a jurisdiction planning under this chapter or the rights to the development of the land have been permanently extinguished, and the following criteria are met:	Not applicable
(I) The permissible use of the land is limited to one of the following: Outdoor recreation; environmentally beneficial projects including, but not limited to, habitat enhancement or environmental restoration; stormwater facilities; flood control facilities; or underground conveyances; and	Not applicable
(II) The development and use of such facilities or projects will not decrease flood storage, increase stormwater runoff, discharge pollutants to fresh or salt waters during normal operations or floods, or increase hazards to people and property.	Not applicable

WAC 365-196-310 Urban growth areas.	
(c) Under this subsection (4), "100-year floodplain" means the same as "special flood hazard area" as set forth in WAC <u>173-158-040</u> as it exists on July 26, 2009.	Not applicable
(5) Recommendations for meeting requirements.	
(a) Selecting and allocating countywide growth forecasts. This process should involve at least the following:	
(i) The total countywide population is the sum of the population allocated to each city; the population allocated to any portion of the urban growth area associated with cities; the population allocated to any portion of the urban growth area not associated with a city; and the population growth that is expected outside of the urban growth area. Counties and cities should use consistent growth forecasts, allocations, and planning horizons. The planning horizon should start on the relevant deadline specified in RCW <u>36.70A.130</u> (5) and encompass 20 years.	Chelan County has followed allocation recommendations in determining the expected housing and employment growth in the Malaga area. These recommendations are detailed in the Comprehensive Plan update.
(ii) RCW <u>43.62.035</u> directs the office of financial management to provide a reasonable range of high, medium and low 20-year population forecasts for each county in the state, with the medium forecast being most likely. Counties and cities must plan for a total countywide population that falls within the office of financial management range.	Noted
(iii) Consideration of other population forecast data, trends, and implications. In selecting population forecasts, counties and cities may consider the following:	Not applicable. Chal
(A) Population forecasts from outside agencies, such as regional or metropolitan planning agencies, and service providers.	Not applicable
(B) Historical growth trends and factors which would cause those trends to change in the future.	Not applicable
(C) General implications, including:	Not applicable

WAC 365-196-310 Urban growth areas.	
(I) Public facilities and service implications. Counties and cities should carefully consider how to finance the necessary facilities and should establish a phasing plan to ensure that development occurs at urban densities; occurs in a contiguous and orderly manner; and is linked with provision of adequate public facilities. These considerations are particularly important when considering forecasts closer to the high end of the range. Jurisdictions considering a population forecast closer to the low end of the range should closely monitor development and population growth trends to ensure actual growth does not begin to exceed the planned capacity.	Not applicable
(II) Overall land supplies. Counties and cities facing immediate physical or other land supply limitations may consider these limitations in selecting a forecast. Counties and cities that identify potential longer term land supply limitations should consider the extent to which current forecast options would require increased densities or slower growth in the future.	Not applicable
(III) Implications of short term updates. The act requires that 20-year growth forecasts and designated urban growth areas be updated at a minimum during the periodic review of comprehensive plans and development regulations (WAC 365-196-610). Counties and cities should consider the likely timing of future updates, and the opportunities this provides for adjustments.	Growth forecasts and UGA designations are being updated during the periodic review.
(D) Counties and cities are not required to adopt forecasts for annual growth rates within the 20-year period, but may choose to for planning purposes. If used, annual growth projections may assume a consistent rate throughout the planning period, or may assume faster or slower than average growth in certain periods, as long as they result in total growth consistent with the 20-year forecasts selected.	Noted.
(iv) Selection of a countywide employment forecast. Counties, in consultation with cities, should adopt a 20-year countywide employment forecast to be allocated among urban growth areas, cities, and the rural area. The following should be considered in this process:	A 20-year employment forecast has been selected as part of the Comprehensive Plan periodic update.
(A) The countywide population forecast, and the resulting ratio of forecast jobs to persons. This ratio should be compared to past levels locally and other regions, and to desired policy objectives; and	A jobs to persons ratio is included with the Comprehensive Plan periodic update.

WAC 365-196-310 Urban growth areas.	
(B) Economic trends and forecasts produced by outside agencies or private sources.	Economic trends and data have been collected as part of the study of the designation of the Malaga UGA to understand growth in Malaga over the planning period, including from outside sources.
(v) Projections for commercial and industrial land needs. When establishing an urban growth area, counties should designate sufficient commercial and industrial land. Although no office of financial management forecasts are available for industrial or commercial land needs, counties and cities should use a countywide employment forecast, available data on the current and projected local and regional economies, and local demand for services driven by population growth. Counties and cities should consider establishing a countywide estimate of commercial and industrial land needs to ensure consistency of local plans.	Commercial and industrial land needs is a substantial part of the case for designating the Malaga UGA.
Counties and cities should consider the need for industrial lands in the economic development element of their comprehensive plan. Counties and cities should avoid conversion of areas set aside for industrial uses to other incompatible uses, to ensure the availability of suitable sites for industrial development.	Commercial and industrial land needs is a substantial part of the case for designating the Malaga UGA.
(vi) Selection of community growth goals with respect to population, commercial and industrial development and residential development.	A vision plan was created as part of the last periodic update and is attached to the Malaga UGA Plan. The growth goals have been determined with the periodic update, and conversations with affected community members are ongoing as part of the comprehensive plan update. Prior to plan approval, the County will hold meetings with the Malaga stakeholders to discuss zoning and final UGA boundaries.
(vii) Selection of the densities a county or city seeks to achieve in relation to its growth goals. Inside the urban growth areas, densities must be urban. Outside the urban growth areas, densities must be rural.	Densities within the proposed Malaga UGA would be similar to the Peshastin UGA.
(b) Per subsection (1)(h) of this section and RCW <u>36.70A.130</u> (5), each county that designates urban growth areas must review periodically its designated urban growth areas.	This is occurring as part of the review of urban growth areas required under this statute.
The purpose of the urban growth area review is to assess the capacity of the urban land to accommodate population growth projected for the succeeding 20-year planning period.	Noted
(i) This review should be conducted jointly with the affected cities.	This periodic update is happening in coordination with the cities.

WAC 365-196-310 Urban growth areas.	
(ii) In conjunction with this review by the county, each city located within an urban growth area shall review the densities permitted within its boundaries, and the extent to which the urban growth occurring within the county has located within each city and the unincorporated portions of the urban growth areas.	Noted (city responsibility)
(c) Counties and cities must use the selected population projection identified in subsection (1)(d) of this section to determine the countywide projection of housing need by economic segment provided by the department as prescribed in RCW <u>36.70A.070</u> (2)(a). Counties and cities must determine the countywide projected housing need using data and methodology provided by the department. When allocating projected housing needs for each jurisdiction within a county, counties and cities should use the minimum standards described in WAC <u>365-196-410</u> (2)(c)(iii).	Chelan County is using an appropriate population projection.
(d) General considerations for determining the need for urban growth areas expansions to accommodate projected population and employment growth.	See below
(i) Estimation of the number of new persons and jobs to be accommodated based on the difference between the 20-year forecast and current population and employment.	The LCA associated with the Comprehensive Plan periodic update included an analysis of Malaga as both a LAMIRD and as a UGA. The analysis found that Malaga can accommodate significant multifamily housing if services are available and zoning is applied appropriately – development that is not currently possible without urban services despite zoning that allows multifamily. The Malaga population is expected to grow by about 170 people under either scenario, though employment growth could drive residential demand. A 5- and 20-year industry growth projections were calculated as part of the Malaga UGA Plan. The industry growth projections were calculated using a combination of business interviews and forecasted six-digit NAICs employment data provided by Data Tactical Group.
(ii) Estimation of the capacity of current cities and urban growth areas to accommodate additional population and employment over the 20-year planning period. This should be based on a land capacity analysis, which may include the following:	An LCA has been created that meets the requirements of this section.
(A) Identification of the amount of developable residential, commercial, and industrial land, based on inventories of currently undeveloped or partially developed urban lands.	

WAC 365-196-310 Urban growth areas.	
(B) Identification of the appropriate amount of greenbelt and open space to be preserved or created in connection with the overall growth pattern and consistent with any adopted levels of service. See WAC <u>365-196-335</u> for additional information.	
(C) Identification of the amount of developable urban land needed for the public facilities, public services, and utilities necessary to support the likely level of development. See WAC <u>365-196-320</u> for additional information.	
(D) Based on allowed land use development densities and intensities, a projection of the additional urban population and employment growth that may occur on the available residential, commercial and industrial land base. The projection should consider the portion of population and employment growth which may occur through redevelopment of previously developed urban areas during the 20-year planning period.	
(E) The land capacity analysis must be based on the assumption that growth will occur at urban densities inside the urban growth area and is consistent with the housing types specified in the analysis of housing need developed pursuant to RCW <u>36.70A.070</u>(2). In formulating land capacity analyses, counties and cities should consider data on past development, zoning to meet minimum housing requirements, as well as factors which may cause trends to change in the future. For counties and cities subject to RCW <u>36.70A.215</u>, information from associated buildable lands reports should be considered. If past development patterns have not resulted in urban densities, or have not resulted in a pattern of desired development, counties and cities should use assumptions aligned with desired future development patterns. Counties and cities should then implement strategies to better align future development patterns with those desired.	

WAC 365-196-310 Urban growth areas.	
(F) The land capacity analysis may also include a reasonable land market supply factor, also referred to as the "market factor." The purpose of the market factor is to account for the estimated percentage of developable acres contained within an urban growth area that, due to fluctuating market forces, is likely to remain undeveloped over the course of the 20-year planning period. The market factor recognizes that not all developable land will be put to its maximum use because of owner preference, cost, stability, quality, and location. If establishing a market factor, counties and cities should establish an explicit market factor for the purposes of establishing the amount of needed land capacity. Counties and cities may consider local circumstances in determining an appropriate market factor. Counties and cities may also use a number derived from general information if local study data is not available.	
(iii) An estimation of the additional growth capacity of rural and other lands outside of existing urban growth areas compared with future growth forecasted, and current urban and rural capacities.	Growth capacity of rural lands has been considered as part of this comprehensive plan update.
(iv) If future growth forecasts exceed the current combined capacities of unincorporated county and city lands, counties and cities should first consider the potential of increasing capacity of existing urban areas through allowances for higher densities, or for additional provisions to encourage redevelopment. If counties and cities find that increasing the capacity of existing urban areas is not feasible or appropriate based on the evidence they examine, counties and cities may consider expansion of the urban growth area to meet the future growth forecast.	Capacities of all other UGAs have been considered.
(e) Determining the appropriate locations of new or expanded urban growth area boundaries. This process should consider the following:	See below
(i) Selection of appropriate densities. For all jurisdictions planning under the act, the urban growth area should represent the physical area where that jurisdiction's urban development vision can be realized over the next 20 years. The urban growth area should be based on densities which accommodate urban growth, served by adequate public facilities, discourage sprawl, and promote goals of the act. RCW <u>36.70A.110</u> requires that densities specified for land inside the urban growth area must be urban densities. See WAC <u>365-196-300</u> for recommendations on determining appropriate urban densities.	Proposed densities within a Malaga UGA would be similar to the Peshastin UGA.

WAC 365-196-310 Urban growth areas.	
(ii) The county should attempt to define urban growth areas to accommodate the growth plans of the cities. Urban growth areas should be defined so as to facilitate the transformation of services and governance during the planning period. However, physical location or existing patterns of service make some unincorporated areas which are characterized by urban growth inappropriate for inclusion in any city's potential growth area.	Not applicable (no city affiliated with this proposed UGA)
(iii) Identifying the location of any new lands added to the urban growth area. Lands should be included in the urban growth area in the following priority order:	The land to be designated as a UGA is concurrent with the current boundaries of the Malaga LAMIRD.
(A) Existing incorporated areas;	See below
(B) Land that is already characterized by urban growth and has adequate public facilities and services;	See below
(C) Land already characterized by urban growth, but requiring additional public facilities and urban services; and	Malaga falls under this category.
(D) Lands adjacent to the above, but not meeting those criteria.	See above
(iv) Designating industrial lands. Counties and cities should consult with local economic development organizations when identifying industrial lands to identify sites that are particularly well suited for industry, considering factors such as:	Malaga already has commercial and industrial lands designated.
(A) Rail access;	
(B) Highway access;	
(C) Large parcel size;	
(D) Location along major electrical transmission lines;	
(E) Location along pipelines;	
(F) Location near or adjacent to ports and commercial navigation routes;	
(G) Availability of needed infrastructure; or	
(H) Absence of surrounding incompatible uses.	
(v) Consideration of resource lands issues. Urban growth areas should not be expanded into designated agricultural, forest or resource lands unless no other option is available. Prior to expansion of the urban growth area, counties and cities must first review the natural resource lands designation and conclude the lands no longer meet the designation criteria for resource lands of long-term commercial significance. Designated agricultural or forest resource lands may not be located inside the urban growth area unless a county or city has enacted a program authorizing transfer or purchase of development rights.	The Malaga UGA would not expand into resource lands.

WAC 365-196-310 Urban growth areas.	
(vi) Consideration of critical areas and wildfires. Although critical areas exist within urban areas, counties and cities should avoid expanding the urban growth areas into areas with known critical areas extending over a large area. Counties and cities should also consider the potential risk of wildland fires when expanding the urban growth area into areas where structures and other development intermingles with undeveloped wildland or vegetative fuels. See RCW <u>36.70A.110</u>(8) for legislative direction on expansion of urban growth areas into the 100-year floodplain of river segments that are located west of the crest of the Cascade mountains and have a mean annual flow of 1,000 or more cubic feet per second.	Portions of the area are mapped as landslide hazard areas and would be confirmed / addressed at time of development.
(vii) Consideration of patterns of development within urban growth areas under RCW <u>36.70A.130</u> (3)(a) and <u>36.70A.110</u>(8). Evaluating patterns of development can help identify growth pressures and the viability of existing and proposed urban growth areas. Local governments may want to consider one or more methods for evaluating patterns of development from the following nonexclusive list:	Noted
(A) Based on population, permit data, types of development, and a land capacity analysis, identify growth rates and patterns for the preceding 10 years. Calculate rates separately for the unincorporated urban growth areas, and areas within incorporated cities and towns. Cities and towns may identify subareas within their corporate boundaries for individual analysis. Counties and cities should not rely on an evaluation of averages across the overall urban growth area or city boundary.	
(B) Make a determination as to consistency or inconsistency with the growth rates and patterns that were envisioned in adopted countywide planning policies, comprehensive plans and development regulations, and actual development that has occurred.	
(C) Make a determination as to consistency or inconsistency with assumed housing densities as established under WAC <u>365-196-410</u> (2)(d).	
(D) Determine development capacity, building types, and patterns of development within each identified area. Based on this analysis, determine the availability of land to serve projected growth within each identified area for the 20-year planning period.	

WAC 365-196-310 Urban growth areas.	
(E) Compare the identified areas to determine areas of high development pressure, areas of low development pressure, and areas with inadequate capacity to absorb their projected growth, including projected housing need.	
(F) Make determinations on the viability of urban growth areas experiencing low development pressure by considering barriers to growth such as:	
(I) Lack of available or planned infrastructure, including transportation facilities, as determined through the capital facilities plan element and the transportation element.	
(II) Lack of adequate development regulations to ensure urban standards and levels of service.	
(III) Incompatible uses within or adjacent to the urban growth area. Examples include mining sites, industrial sites, wastewater treatment facilities, brownfields, airports, military bases, and other uses that produce high impacts.	
(IV) Parcelization and multiple ownerships that may limit redevelopment.	
(V) Site constraints including parcel access, steep slopes, floodplains, and other environmental constraints.	
(VI) Market conditions that may deter development.	
(viii) Consideration of urban growth area swaps under RCW <u>36.70A.130</u> (3)(a). During a periodic update counties may consider removal of a portion of the urban growth area and replacement with a new area location if it is consistent with the requirements of RCW <u>36.70A.130</u> (3)(c) or <u>36.70A.110</u> (8), as applicable, and subsection (3) of this section.	No UGA swaps are proposed with this action.
(A) Areas removed from the urban growth area must not include existing urban development. Areas with public sewer, or other urban governmental services such as public water, transportation, and stormwater facilities should not be removed from the UGA.	No UGA reductions are proposed with this action.
(B) Counties and cities should consider (e)(vii) of this subsection when conducting an urban growth area swap.	Noted.
(C) Counties and cities should coordinate on revisions to the urban growth area.	Noted.

WAC 365-196-310 Urban growth areas.	
(ix) If there is physically no land available into which a city might expand, it may need to revise its proposed urban densities or population levels in order to accommodate growth on its existing land base.	Not applicable
(f) Evaluating the feasibility of the overall growth plan. Counties and cities should perform a check on the feasibility of the overall plan to accommodate growth. If, as a result of this evaluation, the urban growth area appears to have been drawn too small or too large, the proposal should be adjusted accordingly. Counties and cities should evaluate:	
(i) The anticipated ability to finance the public facilities, public services, and open space needed in the urban growth area over the planning period. When conducting a review of the urban growth areas, counties and cities should develop an analysis of the fiscal impact of alternative land use patterns that accommodate the growth anticipated over the succeeding 20-year period. Counties and cities should identify revenue sources and develop a reasonable financial plan to support operation and maintenance of existing facilities and services, and for new or expanded facilities to accommodate projected growth over the 20-year planning period. The plan should ensure consistency between the land use element and the capital facilities plan, and demonstrate that probable funding does not fall short of the projected needs to maintain and operate public facilities, public services, and open space. This provides the public and decision makers with an estimate of the fiscal consequences of various development patterns. This analysis could be done in conjunction with the analysis required under the State Environmental Policy Act.	It is expected that the County will have the capacity to serve increased density within the Malaga UGA. Financing sources for sanitary sewer have been identified, and it is expected that new development will pay its share of new infrastructure needs.
(ii) The effect that confining urban growth within the areas defined is likely to have on the price of property and the impact thereof on the ability of residents of all economic strata to obtain housing they can afford.	A Housing Needs Assessment has been prepared as part of this plan that documents housing affordability challenges in Chelan County.
(iii) Whether the level of population and economic growth contemplated can be achieved within the capacity of available land and water resources and without environmental degradation.	Environmental analysis will occur through SEPA.
(iv) The extent to which the comprehensive plan of the county and of adjacent counties and cities will influence the area needed.	
(g) County actions in adopting urban growth areas.	

WAC 365-196-310 Urban growth areas.	
(i) A change to the urban growth area is an amendment to the comprehensive plan and requires, at a minimum, an amendment to the land use element. Counties and cities should also review and update the transportation, capital facilities, utilities, and housing elements to maintain consistency and show how any new areas added to the urban growth area will be provided with adequate public facilities. A modification of any portion of the urban growth area affects the overall urban growth area size and has countywide implications. Because of the significant amount of resources needed to conduct a review of the urban growth area, and because some policy objectives require time to achieve, frequent, piecemeal expansion of the urban growth area should be avoided. Site-specific proposals to expand the urban growth area should be deferred until the next comprehensive review of the urban growth area.	This is being done as part of the periodic update.
(ii) Counties and cities that are required to participate in the buildable lands program must first have adopted and implemented reasonable measures as required by RCW 36.70A.215 before considering expansion of an urban growth area.	Not applicable
(iii) Consistent with countywide planning policies, counties and cities consulting on the designation of urban growth areas should consider the following implementation steps:	
(A) Establishment of agreements regarding land use regulations and the provision of services in that portion of the urban growth area outside of an existing city into which it is eventually expected to expand.	Not applicable. The Malaga UGA is not associated with a City.
(B) Negotiation of agreements for appropriate allocation of financial burdens resulting from the transition of land from county to city jurisdiction.	Not applicable. The Malaga UGA is not associated with a City. Should Malaga ever incorporate as a city, the financial burdens would be resolved at that time.
(C) Provision for an ongoing collaborative process to assist in implementing countywide planning policies, resolving regional issues, and adjusting growth boundaries.	It is not expected that the growth boundary would change; however, the Malaga community will be consulted on county land use and other decisions just as the residents of Peshastin or Manson.

Attachment F

Case Law Memorandum (2025)

TECHNICAL MEMORANDUM

Date:	September 29, 2025
To:	Deanna Walter, Planning Director, County of Chelan Susan Dretke, Senior Planner, County of Chelan
Cc:	Josh Jensen Principal Planner, Anchor QEA
From:	Matt Covert Senior Planner
Project Name:	Chelan Co Comp Plan Update
Project Number:	2406.0322

LAMIRD to UGA Conversion – DRAFT Case Law Analysis

Introduction

As part of the 2026 comprehensive plan periodic update, Chelan County has asked the consultant team to review and summarize information pertaining to the feasibility of converting all or a portion of the Malaga Limited Area of Intensive Rural Development (LAMIRD) into an Urban Growth Area (UGA). This technical memorandum constitutes the project deliverable of a Case Law White Paper evaluating case law relevant to the parameters of whether and how such a conversion can take place.

This memorandum is organized into the following major sections:

- 1) Statutory and WAC requirements pertaining to UGA designation and LAMIRDs
- 2) Relevant case law summary and conclusions
- 3) Outline of critical questions and next steps

Please note that nothing in this memorandum should be construed to constitute legal advice.

Statutory and WAC Requirements

The requirements for designation of UGAs can be found in RCW 36.70A.110. This section of the GMA spells out the criteria for initial adoption of UGA boundaries. It is the responsibility of the County, in consultation with the cities, to designate UGAs of a size consistent with the need to accommodate the 20-year population and employment growth forecast.

[RCW 36.70A.110\(1\)](#)

Each county that is required or chooses to plan under RCW **36.70A.040** shall designate an urban growth area or areas within which urban growth shall be encouraged and outside of which growth can occur only if it is not urban in nature. Each city that is located in such a county shall be included within an urban growth area. An urban growth area may include more than a single city. An urban growth area may include territory that is located outside of a city only if such territory already is characterized by urban growth whether or not the urban growth area includes a city, or is adjacent to territory already characterized by urban growth, or is a designated new fully contained community as defined by RCW **36.70A.350**. [...]

[RCW 36.70A.110\(2\)](#)

Based upon the growth management population projection made for the county by the office of financial management, the county and each city within the county shall include areas and densities sufficient to permit the urban growth that is projected to occur in the county or city for the succeeding twenty-year period, except for those urban growth areas contained totally within a national historical reserve. As part of this planning process, each city within the county must include areas sufficient to accommodate the broad range of needs and uses that will accompany the projected urban growth including, as appropriate, medical, governmental, institutional, commercial, service, retail, and other nonresidential uses.

Each urban growth area shall permit urban densities and shall include greenbelt and open space areas. In the case of urban growth areas contained totally within a national historical reserve, the city may restrict densities, intensities, and forms of urban growth as determined to be necessary and appropriate to protect the physical, cultural, or historic integrity of the reserve. An urban growth area determination may include a reasonable land market supply factor and shall permit a range of urban densities and uses. In determining this market factor, cities and counties may consider local circumstances. Cities and counties have discretion in their comprehensive plans to make many choices about accommodating growth. [...]

[RCW 36.70A.110\(3\)](#)

Urban growth should be located first in areas already characterized by urban growth that have adequate existing public facility and service capacities to serve such development, second in areas already characterized by urban growth that will be served adequately by a combination of both existing public facilities and services and any additional needed public facilities and services that are provided by either public or private sources, and third in the remaining

portions of the urban growth areas. Urban growth may also be located in designated new fully contained communities as defined by RCW [36.70A.350](#).

[WAC 365-196-310](#) (Urban Growth Areas)

This chapter of the Washington Administrative Code (WAC) outlines requirements for urban growth areas, including the criteria and process by which land can be designated within an urban growth area.

Key elements of this section of WAC include:

(c) An urban growth area may include territory that is located outside a city if such territory already is characterized by urban growth or is adjacent to territory already characterized by urban growth.

(d) Based upon the growth management planning population projection selected by the county from within the range provided by the office of financial management, and the resulting allocations of housing need, and based on a countywide employment forecast developed by the county at its discretion, the urban growth areas shall include areas and densities sufficient to permit the urban growth that is projected to occur in the county for the succeeding 20-year period. Counties and cities may provide the office of financial management with information they deem relevant to prepare the population projections, and the office shall consider and comment on such information and review projections with counties and cities before they are adopted. Counties and cities may petition the office to revise projections they believe will not reflect actual population growth.

(e) The combined urban growth area may not exceed the areas necessary to accommodate the growth management planning projections, plus a reasonable land market supply factor, or market factor. In determining this market factor, counties and cities may consider local circumstances. Counties and cities have discretion in their comprehensive plans to make many choices about accommodating growth. Each urban growth area shall permit urban densities and shall include greenbelt and open space areas.

[...]

(5) Recommendations for meeting requirements.

(a) Selecting and allocating countywide growth forecasts. This process should involve at least the following:

(i) The total countywide population is the sum of the population allocated to each city; the population allocated to any portion of the urban growth area associated with cities; the population allocated to any portion of the urban growth area not associated with a city; and the population growth that is expected outside of the urban growth area. Counties and cities should use consistent growth forecasts, allocations, and planning horizons. The planning horizon should start on the relevant deadline specified in RCW [36.70A.130](#)(5) and encompass 20 years.

(ii) RCW [43.62.035](#) directs the office of financial management to provide a reasonable range of high, medium and low 20-year population forecasts for each county in the state, with the medium forecast being most likely. Counties and cities must plan for a total countywide population that falls within the office of financial management range.

(iii) Consideration of other population forecast data, trends, and implications. In selecting population forecasts, counties and cities may consider the following:

(A) Population forecasts from outside agencies, such as regional or metropolitan planning agencies, and service providers.

(B) Historical growth trends and factors which would cause those trends to change in the future.

(C) General implications, including:

(I) Public facilities and service implications. [Counties and cities should carefully consider how to finance the necessary facilities and should establish a phasing plan to ensure that development occurs at urban densities; occurs in a contiguous and orderly manner; and is linked with provision of adequate public facilities.](#) These considerations are particularly important when considering forecasts closer to the high end of the range. Jurisdictions considering a population forecast closer to the low end of the range should closely monitor development and population growth trends to ensure actual growth does not begin to exceed the planned capacity.

(II) Overall land supplies. Counties and cities facing immediate physical or other land supply limitations may consider these limitations in selecting a forecast. Counties and cities that identify potential longer term land supply limitations should consider the extent to which current forecast options would require increased densities or slower growth in the future.

(III) Implications of short term updates. The act requires that 20-year growth forecasts and designated urban growth areas be updated at a minimum during the periodic review of comprehensive plans and development regulations (WAC [365-196-610](#)). Counties and cities should consider the likely timing of future updates, and the opportunities this provides for adjustments.

(D) Counties and cities are not required to adopt forecasts for annual growth rates within the 20-year period, but may choose to for planning purposes. If used, annual growth projections may assume a consistent rate throughout the planning period, or may assume faster or slower than average growth in certain periods, as long as they result in total growth consistent with the 20-year forecasts selected.

(iv) [Selection of a countywide employment forecast. Counties, in consultation with cities, should adopt a 20-year countywide employment forecast to be allocated among urban growth areas, cities, and the rural area.](#) The following should be considered in this process:

(A) The countywide population forecast, and the resulting ratio of forecast jobs to persons. This ratio should be compared to past levels locally and other regions, and to desired policy objectives; and

(B) Economic trends and forecasts produced by outside agencies or private sources.

(v) Projections for commercial and industrial land needs. When establishing an urban growth area, counties should designate sufficient commercial and industrial land. Although no office of financial management forecasts are available for industrial or commercial land needs, counties and cities should use a countywide employment forecast, available data on the current and projected local and regional economies, and local demand for services driven by population growth. Counties and cities should consider establishing a countywide estimate of commercial and industrial land needs to ensure consistency of local plans.

Counties and cities should consider the need for industrial lands in the economic development element of their comprehensive plan. Counties and cities should avoid conversion of areas set aside for industrial uses to other incompatible uses, to ensure the availability of suitable sites for industrial development.

(vi) Selection of community growth goals with respect to population, commercial and industrial development and residential development.

(vii) Selection of the densities a county or city seeks to achieve in relation to its growth goals. Inside the urban growth areas, densities must be urban. Outside the urban growth areas, densities must be rural.

More code can be found in [WAC 365-196-310](#).

WAC 365-196-425

This section of the WAC contains code related to the Rural element. Subsection 6 deals with LAMIRDs. By the definitions established in these sections, the Malaga LAMIRD would be considered a Type 1 LAMIRD (isolated area of existing more intense development).

(6) Limited areas of more intense rural development. The act allows counties to plan for isolated pockets of more intense development in the rural area. These are referred to in the act as limited areas of more intense rural development or LAMIRDs.

(a) LAMIRDs serve the following purposes:

(i) To recognize existing areas of more intense rural development and to minimize and contain these areas to prevent low density sprawl;

(ii) To allow for small-scale commercial uses that rely on a rural location;

(iii) To allow for small-scale economic development and employment consistent with rural character; and

(iv) To allow for redevelopment of existing industrial areas within rural areas.

(b) An existing area or existing use is one that was in existence on the date the county became subject to all of the provisions of the act:

(i) For a county initially required to fully plan under the act, on July 1, 1990.

(ii) For a county that chooses to fully plan under the act, on the date the county adopted the resolution under RCW [36.70A.040](#)(2).

(iii) For a county that becomes subject to all of the requirements of the act under RCW [36.70A.040](#)(5), on the date the office of financial management certifies the county's population.

(c) Counties may allow for more intensive uses in a LAMIRD than would otherwise be allowed in rural areas and may allow public facilities and services that are appropriate and necessary to serve LAMIRDs subject to the following requirements:

(i) Type 1 LAMIRDs - Isolated areas of existing more intense development. Within these areas, rural development consists of infill, development, or redevelopment of existing areas. These areas may include a variety of uses including commercial, industrial, residential, or mixed-use areas. These may be also characterized as shoreline development, villages, hamlets, rural activity centers, or crossroads developments.

(A) Development or redevelopment in LAMIRDs may be both allowed and encouraged if it is consistent with local character and if existing providers of public facilities and public services confirm there is sufficient capacity of existing public facilities and public services to serve new or additional demand. Counties may allow new uses of property within a LAMIRD, including development of vacant land.

(B) Allowed commercial development or redevelopment. Any commercial development or redevelopment within a mixed use area must be principally designed to serve the existing and projected rural population and must meet the following requirements:

(I) Any included retail or food service space must not exceed the footprint of previously occupied space or 5,000 square feet, whichever is greater, for the same or similar use; unless the retail space is for an essential rural retail service and the designated limited area is located at least 10 miles from an existing urban growth area, then the retail space must not exceed the footprint of the previously occupied space or 10,000 square feet, whichever is greater; and

(II) Any included retail or food service space must not exceed 2,500 square feet for a new use unless the new retail space is for an essential rural retail service and the designated limited area is located at least 10 miles from an existing urban growth area, then the new retail space must not exceed 10,000 square feet; and

(III) For the purposes of this section, "essential rural retail services" means services including grocery, pharmacy, hardware, automotive parts, and similar uses that sell or provide products necessary for health and safety, such as food, medication, sanitation supplies, and products to maintain habitability and mobility as defined in RCW [36.70A.070](#).

(C) When establishing a Type I LAMIRD, counties must establish a logical outer boundary. The purpose of the logical outer boundary is to minimize and contain the areas of more intensive rural development to the existing areas. Uses, densities or intensities not normally allowed in a rural area may be allowed inside the logical outer boundary consistent with the existing character of the LAMIRD. Appropriate and necessary levels of public facilities and services not otherwise provided in rural areas may be provided inside the logical outer boundary.

(D) The logical outer boundary must be delineated primarily by the built environment as it existed on the date the county became subject to the planning requirements of the act.

(I) Some vacant land may be included within the logical outer boundary provided it is limited and does not create a significant amount of new development within the LAMIRD.

(II) Construction that defines the built environment may include above or below ground improvements. The built environment does not include patterns of vesting or preexisting zoning, nor does it include roads, clearing, grading, or the inclusion within a sewer or water service area if no physical improvements are in place. Although vested lots and structures built after the county became subject to the act's requirements should not be considered when identifying the built environment, they may be included within the logical outer boundary as infill.

(III) The logical outer boundary is not required to strictly follow parcel boundaries. If a large parcel contains an existing structure, a county may include part of the parcel in the LAMIRD boundary without including the entire parcel, to avoid a significant increase in the amount of development allowed within the LAMIRD.

(E) The fundamental purpose of the logical outer boundary is to minimize and contain the LAMIRD. Counties should favor the configuration that best minimizes and contains the LAMIRD to the area of existing development as of the date the county became subject to the planning requirements of the act. When evaluating alternative configurations of the logical outer boundary, counties should determine how much new growth will occur at build out and determine if this level of new growth is consistent with rural character and can be accommodated with the appropriate level of public facilities and public services. Counties should use the following criteria to evaluate various configurations when establishing the logical outer boundary:

(I) The need to preserve the character of existing natural neighborhoods and communities;

(II) Physical boundaries such as bodies of water, streets and highways, and land forms and contours;

(III) The prevention of abnormally irregular boundaries; and

(IV) The ability to provide public facilities and public services in a manner that does not permit low-density sprawl.

(F) Counties should not propose or accept applications that would expand or create a new Type-1 LAMIRD. Once a logical outer boundary has been adopted, counties may consider

changes to the boundary in subsequent amendments if there was an error in application of the original criteria. When doing so, the county must use the same criteria used when originally designating the boundary. Counties should avoid adding new undeveloped parcels as infill, especially if doing so would add to the capacity of the LAMIRD.

[...]

(d) The initial effective date of an action that creates or expands a limited area of more intense development is the latest of the following dates per RCW [36.70A.067](#):

(i) Sixty days after the publication of notice of adoption of the comprehensive plan, development regulation, or amendment to the plan or regulation, implementing the action, as provided under RCW [36.70A.290](#)(2); or

(ii) If a petition for review to the growth management hearings board is timely filed, upon issuance of the board's final order.

(e) Major industrial developments and master planned resorts governed by other requirements. Counties may not use the provisions of RCW [36.70A.070](#) (5)(d)(iii) to permit a major industrial development or a master planned resort. These types of development must comply with the requirements of RCW [36.70A.360](#) through [36.70A.368](#). For more information about major industrial developments, see WAC [365-196-465](#). For more information about master planned resorts, see WAC [365-196-460](#).

While the Legislature has not weighed in specifically on whether a LAMIRD can be converted to a UGA, it is our opinion that any expansion of UGA land within a fully planning county would be subject to all the RCWs and WACs related to UGA designation.

Case Law

There are several relevant Growth Management Hearings Board (GMHB) cases and related cases in the courts related to potential redesignation of the Malaga LAMIRD. Those cases are summarized below, with takeaways for Chelan County listed after each summary.

KITTITAS COUNTY CONSERVATION ET AL. V. KITTITAS COUNTY (CASE NO. 07-1-0004C)

This case dealt with a number of issues, one of which is Issues No. 5, 12, and 14, which involve the question of whether Kittitas County appropriately show its work regarding sizing and locational criteria for UGAs and whether its use of so-called Urban Growth Nodes was valid since they were not designated as either UGAs or LAMIRDs and did not clearly meet the criteria of either.

The petitioners argued that Kittitas County's UGAs were oversized (contained more than enough capacity to account for projected growth) and that therefore the County needed to revisit the designation of its Urban Growth Nodes and either size them down, or define them as LAMIRDs instead.

The County argued that its Urban Growth Nodes were intended to recognize communities with “urban characteristics” but acknowledged that these five areas could be classified as either UGAs or LAMIRDs.

The GMHB concluded that Kittitas County erred in how it adopted Urban Growth Nodes. It did not conduct a proper land capacity analysis and did not adopt an updated Capital Facilities Plan to designate and accommodate UGA expansions. It noted that Urban Growth Nodes are not an acknowledged mechanism within the UGA and that the County would need to conduct a land capacity analysis and capital facilities planning and re-designate the five Urban Growth Nodes as either UGAs or LAMIRDs as appropriate and comply with the relevant provisions for each.

Takeaways for Chelan County

- There is no “both/and” option between LAMIRDs and UGAs. An area of intensive development must either be a LAMIRD or a UGA.
- The sizing of a UGA must be sufficient to accommodate 20 years of growth plus a reasonable market factor (as determined by a land capacity analysis). The sizing of a LAMIRD must be based on the logical outer boundary of a pre-existing area of more intense development within a rural area and cannot be expanded beyond this boundary.

KITTITAS COUNTY CONSERVATION AND FUTUREWISE V. KITTITAS COUNTY (CASE NO. 11-1-0001)

This case dealt with a challenge to Kittitas County’s expansion of the Thorp LAMIRD in the county’s 2010 comprehensive plan. In this matter, Kittitas County expanded the Thorp LAMIRD from 12 to 30.5 acres to develop a travel center, which also involved map changes (comprehensive plan and zoning). The GMHB cited *Gold Star Resorts, Inc. v. Futurewise, et al.*, 167 Wn 2n 723, 727-28 (2009), in which the Washington Supreme Court held that LAMIRDs are not intended for continued use as a planning device but are “intended to be a one-time recognition of existing areas and uses and are not intended to be used continuously to meet needs (real or perceived) for additional commercial and industrial lands.”

The GMHB decided that Kittitas County’s expansion of the Thorp LAMIRD violated the GMA on a number of grounds.

The Legislature has since clarified this matter – in 2022, SB 5275 amended RCW 36.70A.070 to include flexibility for development and redevelopment in LAMIRDs subject to confirmation from all public services providers that sufficient facilities and services exist to serve any new demand from development or redevelopment.

Takeaways for Chelan County

- The takeaway for Chelan County from this case is that expansion within a LAMIRD can only be allowed to the extent that it complies with new provisions within RCW 36.70A.070(5) as well as that the uses being developed or redeveloped within the LAMIRD comply with the case law

and WACs regarding whether those uses and the size of those uses are appropriate within the type of LAMIRD in question.

- Notwithstanding the flexibility added to the RCWs by SB 5275, major expansion of commercial, industrial, or residential uses within a LAMIRD would run afoul of the Supreme Court's ruling that a LAMIRD is not intended for continued use as a planning device. Any major growth that occurs in Malaga would have to occur as a UGA.

WILMA ET AL. V. STEVENS COUNTY (CASE NO. 06-1-0009C)

In this case, the petitioners raised 23 separate issues regarding the 2006 comprehensive plan update in Stevens County. The relevant issues were Issue No. 2, which pertained to whether some of the UGAs designated by the County in its adopted plan were appropriately designated or whether they should have been designated as LAMIRDs, Issue No. 5, which pertained to greenbelts and open spaces not being designated on the comprehensive plan map for the new UGAs, and Issue No. 6, which pertained to non-contiguous areas being designated as a LAMIRD in Loon Lake and whether these boundaries meet the definition of "logical outer boundary" of a LAMIRD.

In its analysis of this issue, the Board considered that Stevens County followed a process to determine whether some areas already characterized by urban-type growth (within the local context of a rural county) should be designated as either UGAs or LAMIRDs. It ruled that Stevens County erred in not providing a capital facilities plan and financial plan for urban services within the new UGAs but was valid in its designation of the new UGAs based on the objective criteria developed by staff.

A related issue is that the petitioners in this case argued that the County did not show greenbelts and open spaces on its comprehensive plan maps of the new UGAs. The GMHB decided that the County is *"required to at least analyze the potential for greenbelt and open space within specific UGAs. The County can base its decision on a variety of criteria, including population, size, and need of the individual UGAs, factor that analysis into its planning and show designated greenbelts and open space on the County's maps. Some UGAs may not need greenbelts and open spaces, some may need both. Regardless, the County must include greenbelt and open space areas or show its work on why greenbelts and open spaces are not necessary when it designates UGAs."*

The other issue related to the sizing and logical outer boundaries of LAMIRDs, where the Board agreed with Stevens County that it had shown its work and had appropriately designated the Loon Lake LAMIRD but raised questions about why the County included some areas within a logical outer boundary in some LAMIRDs but did not include similar areas in similar circumstances in other LAMIRDs.

Takeaways for Chelan County

- While Malaga is not necessarily the same type of LAMIRD as considered in *Wilma et al. v. Stevens County*, the takeaway from how the GMHB decided this case for Chelan County is that Stevens County had a logical set of criteria to distinguish whether an area should be a LAMIRD or a UGA that were defensible to the Hearings Board.
- If Chelan County proposes to re-designate all or a portion of the Malaga LAMIRD as a UGA, the GMHB decision makes it clear that the UGA must meet all the requirements of a UGA, including

(but not limited to) capital facilities (see below) as well as designation (or consideration of the need for) of open space and greenbelts.

- Chelan County must develop a capital facilities plan (including a financing plan) as part of this comprehensive plan update for the proposed Malaga UGA to ensure the UGA can be provided with the full range of urban services within the planning period to accommodate the projected growth.

Outline of Critical Questions and Next Steps

Critical questions that will need to be answered include:

- 1) Is this an area where future growth is likely?
- 2) Does Chelan County need additional land to accommodate housing or employment growth that cannot be accommodated within the existing UGAs?
- 3) Does the LAMIRD have the necessary urban governmental services, or can they be feasibly provided?

Key next steps include:

- 1) Enumerate the future growth that is likely specifically in the Malaga area that will require designation of an urban growth area.
- 2) Conduct capital facilities planning, including financing plan.
- 3) Give proposed Malaga UGA a growth target. This will need to be part of an overall process of countywide growth forecasts consistent with [WAC 365-196-310\(5\)](#).
- 4) Conduct a land capacity analysis on the existing land in the proposed UGA.

Attachment G

Soil Mapping and Employment Forecasting Findings (2026)

To: Anchor QEA

From: Points Consulting

Date: 2/23/2026

Subject: Soil Mapping and Employment Forecasting Findings

Anchor QEA,

Soils

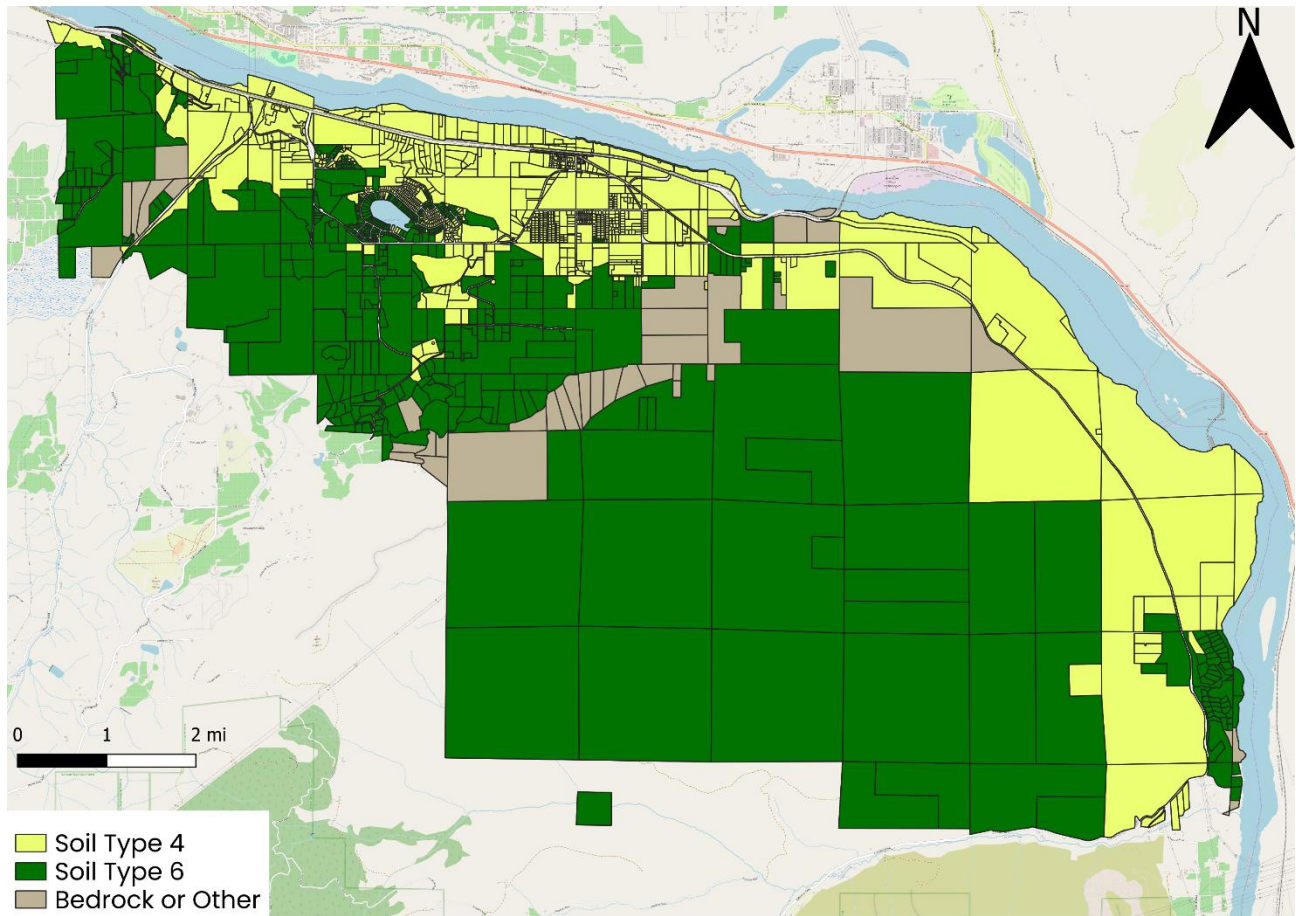
According to the State of Washington and the Chelan-Douglas Health District, new or existing undeveloped lots must have a certain land area that is usable for septic system installation and repairs, if the lot will not be served by public sewer. This land must be continuous and not have any impediments. The Minimum Land Area rows show what is required for an on-site septic (OSS) depending on if the lot is on a public or non-public water supply.

The minimum land area is only one aspect though, as there must be a baseline amount of land available for an OSS, shown in row three of the table below. For example, if a Malaga lot is tested and found to be on soil type 4, then it would require 19,000 square feet of space on the lot if served by public water, and 1 acre of space if served by a well. There must also be 3,333 square feet of usable land on the lot away from other improvements.

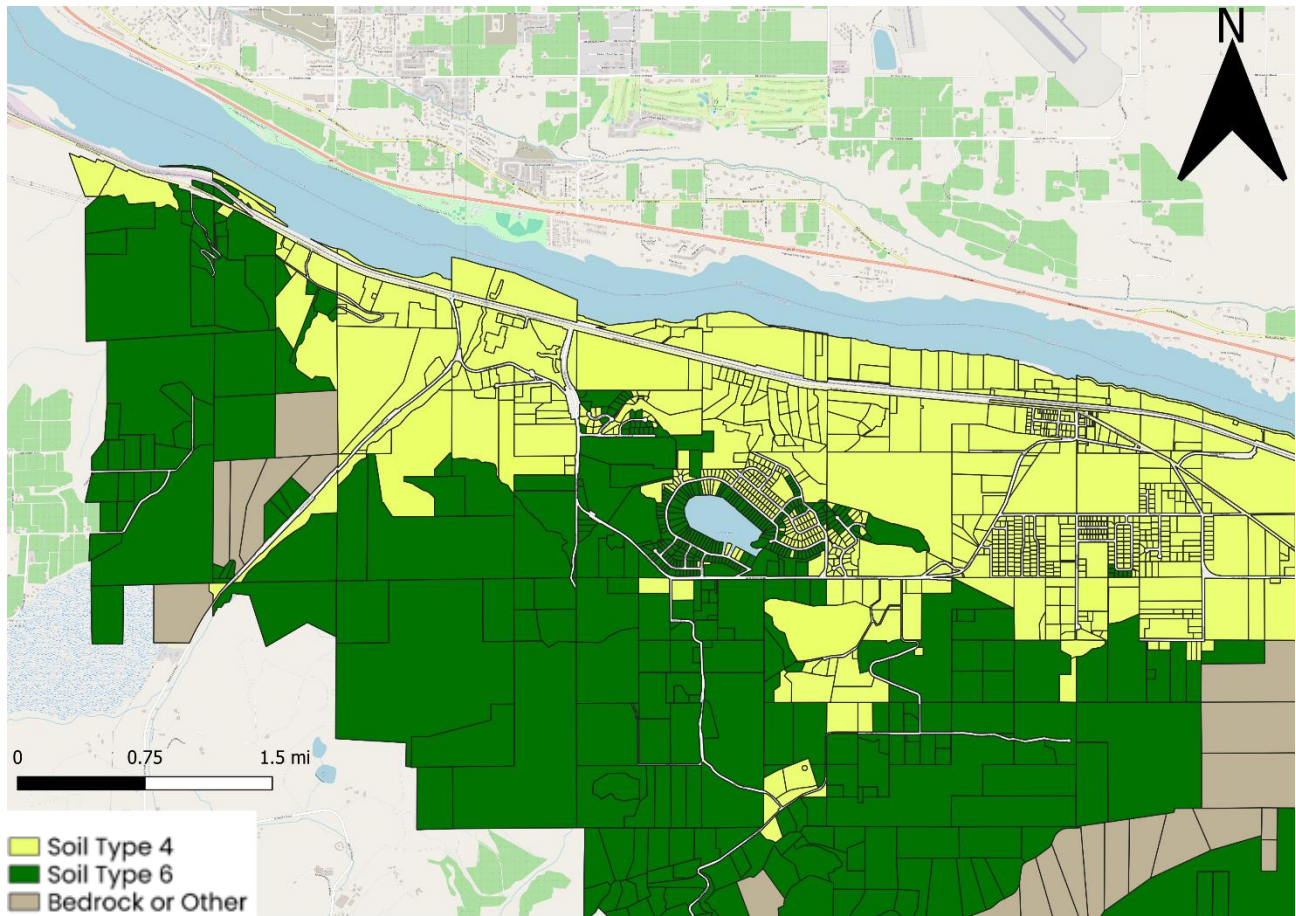
		Soil Type					
		1	2	3	4	5	6
Minimum Land Area (sq. ft.)	Public Water Supply	21,780	13,000	16,000	19,000	21,000	23,000
Minimum Land Area (acres)	Nonpublic Water Supply	1	1	1	1	2	2
Minimum Usable Land Area (sq. ft.)		2,000	2,000	2,500	3,333	5,000	10,000

Source: Chelan-Douglas Health District

The following two maps show Malaga's soils by type. Near the river, Malaga generally has higher density soil that is less permeable. Further away, the soil decreases in density, which requires more space for an OSS. Bedrock layers are categorized in this analysis separately and require further testing. Data for these maps came from the United States Geological Survey.



Source: Points Consulting using data from USGS



Source: Points Consulting using data from USGS

Employment

To identify active businesses in the Malaga, Washington area, Points Consulting reviewed online business directories and coordinated with Chelan County staff to verify that the businesses included were currently operating. Each firm was assigned a six-digit NAICS code based on its primary line of business.

To estimate five-year growth rates for individual businesses, we contacted listed businesses directly to determine their current employment levels and expected employment five years into the future. While respondents did not provide formal projections, they offered informed estimates based on internal expectations and operational plans. Using these figures, we calculated the implied growth rate for each responding firm to estimate Malaga-specific five-year growth trends.

Additional five-year and 20-year industry growth projections were derived from historical and forecasted six-digit NAICS employment data provided by Data Tactical Group (DTG). According to DTG projections, most primary industries represented in Malaga are expected to experience modest growth or small decline over the next two decades. One notable exception is Helion, a company developing a commercial fusion power facility in Malaga to supply electricity to Microsoft's data center operations. While the Malaga site currently has no active employees, the broader industry is projected to grow at an average annual rate of approximately 3.1% in Central Washington and 4.4% statewide over the next 20 years. As data center capacity expands and demand for reliable power generation increases, industries associated with advanced energy production may experience stronger sectoral growth relative to other local sectors.

Company	NAICS	5-Year Growth Rate (Central WA)	5-Year Growth Rate (State)	Business-Reported 5-Year Growth Assumptions	20-Year Growth Rate (Central WA)	20-Year Growth Rate (State)
Micah's Custom Trailer Works	811111	3.8%	5.9%	250.0%	1.2%	3.0%
Helion	541715	5.2%	9.9%	97.4%	3.1%	4.4%
Microsoft	518210	3.0%	-9.3%	51.6%	3.2%	-6.4%
NuClear Property Care	561790	5.4%	10.0%	50.0%	3.7%	5.7%
Malaga Water District	221310	0.0%	-2.0%	50.0%	-1.2%	-9.9%

Malaga Fire Department	922160	0.9%	5.2%	40.0%	1.3%	4.0%
U.S. Post Office	491110	-1.4%	1.4%	20.0%	-2.2%	1.1%
Three Lakes Golf Course	713910	2.8%	6.2%	0.0%	3.7%	3.9%
Good Tern LLC	236118	1.1%	3.7%	0.0%	-1.7%	0.4%
Elevation Gear & Suspension	811111	3.8%	5.9%	0.0%	1.2%	3.0%
Malaga RV Storage	531130	2.3%	-7.8%	0.0%	1.4%	-11.6%
El Chacharas Auto Repair	811111	3.8%	5.9%	0.0%	1.2%	3.0%
S.H. Prodigy Painting LLC	238320	-2.1%	0.2%	0.0%	0.9%	3.0%

Points Consulting Using Data Tactical Group, Points Consulting Calculations, and engaging with local business community