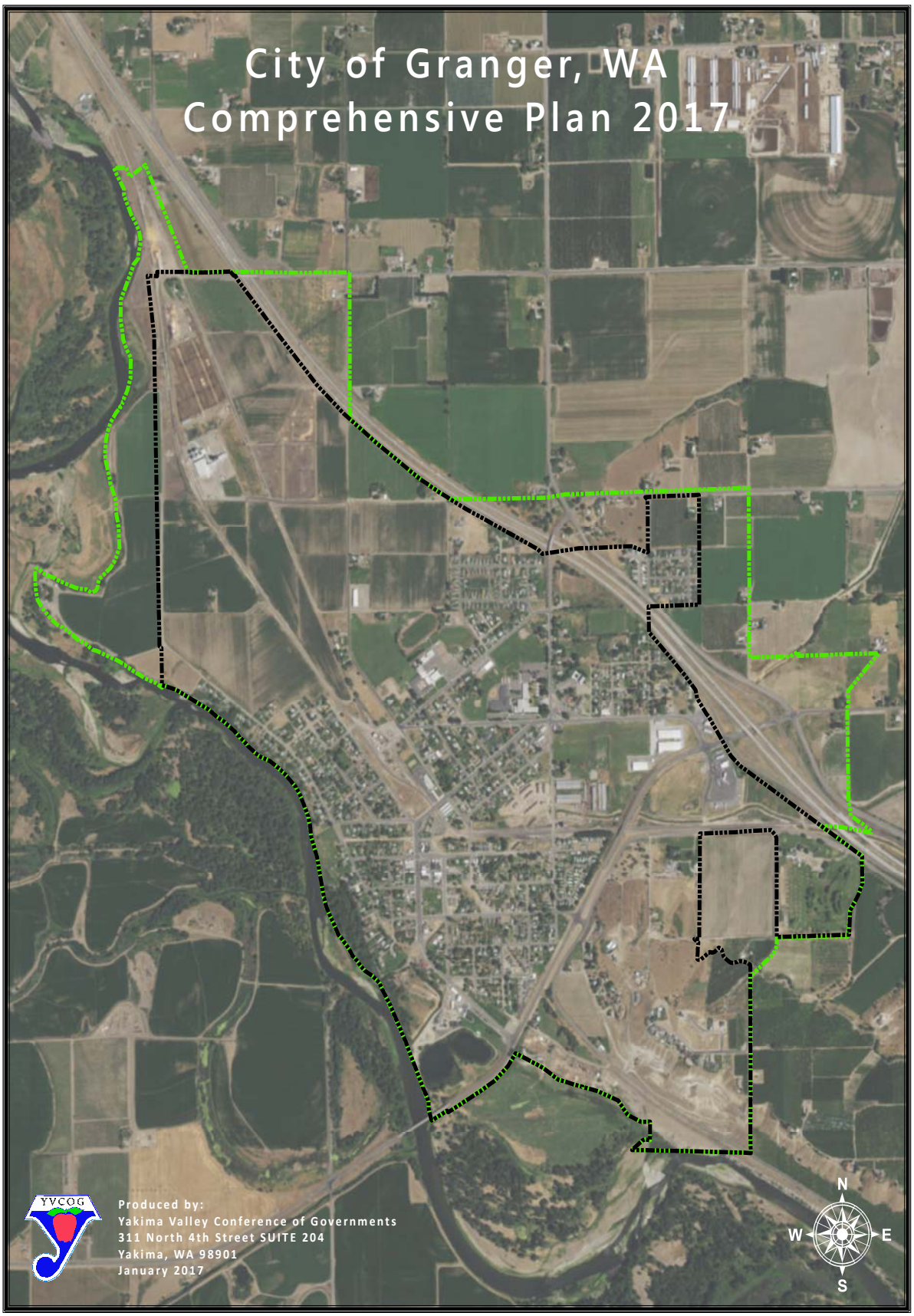
City of Granger, WA
Comprehensive Plan 2017
YVCOG
Produced by:
Yakima Valley Conference of Governments
311 North 4th Street SUITE 204
Yakima, WA 98901
January 2017
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CITY OF GRANGER
COMPREHENSIVE PLAN
JUNE 13, 2017
ADOPTED BY ORDINANCE 1294

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Chapter 1 Natural Systems Element

I. INTRODUCTION

Purpose

The Natural Systems Element describes the natural, physical and biological environment in terms of the opportunities and limitations it presents for growth and development. The opportunities or assets a community has include agricultural land, clean air and water, forest land, sand and gravel deposits, scenic areas, vegetation, wildlife, and wildlife habitat. Limitations or hazards include problems associated with floods, soils, and geology. Using this information, the City of Granger's Critical Areas Ordinance will explain how identified critical areas will be protected.

GMA Requirements

The Washington Growth Management Act (GMA) does not require a natural system element in the Comprehensive Plan, but does set several requirements regarding natural systems:

- Conservation of resource lands and fish and wildlife habitat
- Protection of the environment and critical areas
- Designation of resource lands and critical areas
- Provisions for the protection of the quality and quantity of groundwater used for public water supplies
- Where applicable, a review of drainage, flooding, and storm water run-off in the area covered by the plan and nearby jurisdictions, and guidance for corrective actions to mitigate or cleanse those discharges that pollute the waters of the state.

Note: The latter two requirements normally would be found under the land use element of the Comprehensive Plan; however, they are being addressed under this element as they are more applicable to natural systems.

Applicable Countywide Planning Policies

The Yakima Countywide Planning Policies are not specifically required by the Growth Management Act to address the physical character of the land or natural resource and critical areas. Nonetheless, several of the Countywide Planning Policies do specifically address natural resource issues. The following Countywide Planning Policies apply to discussion on the Natural Systems Element.

1. When determining land requirements for urban growth areas (UGAs), allowances will be made for greenbelt and open space areas and for protection of wildlife habitat and other environmentally sensitive areas [RCW 36.70A.110(2)] (Countywide Planning Policy: A.3.7.).

2. Encourage economic growth within the capacities of the region's natural resources, public services and public facilities.

    a. Identify current and potential physical and fiscal capacities for municipal and private water systems, wastewater treatment plants, roadways and other infrastructure systems.

    b. Identify economic opportunities that strengthen and diversify the county's economy while maintaining the integrity of our natural environment (G.3.1.).

3. Special districts, adjacent counties, state agencies, the tribal government and federal agencies will be invited to participate in comprehensive planning and development activities that may affect them, including the establishment and revision of UGAs; allocation of forecasted population; regional transportation, capital facility, housing and utility plans; and policies that may affect natural resources (I.3.).

Relationship to Other Elements or Land Uses

Natural systems are closely tied to both economic development and land use. In an area where the economy is based on the productive use of land for agriculture, the land resource must be protected to assure continued economic viability of the area. At the same time, land is needed for housing and economic development, including sites suitable for industries related to agriculture. Prevailing winds, flood potential, and soil types make some areas more suitable than others for various land uses. Land use planning needs to allow for protection of critical areas such as wetlands and wildlife habitat.

Critical Areas and Resource Lands

The GMA requires cities and counties to identify and protect critical areas, including the following areas or ecosystems:

- Wetlands
- Areas with a critical recharging effect on aquifers used for potable water
- Fish and wildlife habitat conservation areas
- Frequently flooded areas
- Geologically hazardous areas

In addition, the GMA requires cities and counties to designate natural resource lands, including agricultural, forest and mineral lands that have long-term commercial significance, and are not characterized by urban growth.

This chapter inventories natural systems and the type and potential location of critical areas and resource lands in the Granger UGA. The purpose is to identify critical areas that require protection and areas that may be either hazardous to development, or may impose limitations which can only be overcome with costly engineering and building techniques. This analysis allows the City to identify where development would be less efficient and economical, as opposed to areas where development could occur that would be more compatible with the natural environment.

Maps are based on the best data currently available. Because no on-the-ground field inventories of critical areas were conducted in Granger, the maps should be considered as a guide for the City and permit seekers when applying the Granger Critical Areas Ordinance (CAO) during development review processes. When needed, experts at the appropriate State agencies may be consulted. The exception is the flood hazard data, which is provided by the Federal Emergency Management Agency (FEMA) and is considered regulatory.

Best Available Science

The City of Granger adopted a Critical Areas Ordinance (CAO) on January 8, 2013 as Chapter 16.06 of the Granger Municipal Code (GMC). The Granger CAO includes standards and procedures for the protection of critical areas identified in this Natural Systems Element as falling within the City of Granger.

As required by the GMA (RCW 36.10A.172), protection of critical areas is based on the best available science (BAS), according to criteria set forth in WAC 365-195-905. The City of Granger will weigh the most current scientific information from agencies, scientific consultants and published sources to determine the values and functions of natural systems existing in or near the City. The City will base protection of critical areas upon evaluation of this best available science along with scientific studies made available by proponents and opponents of projects in determining how best to protect natural and critical areas. The City of Granger adopts Yakima County's *Review of Best Available Science for Inclusion in Critical Areas Ordinance,* October 2006, as amended as a basis for decisions to support protections required by the Critical Area Ordinance.

II. EXISTING CONDITIONS

This section of the Comprehensive Plan document analyzes natural conditions which are present in the area, and particularly which may be either hazardous to development or impose limitations which can only be overcome with costly engineering and building techniques. The purpose of this analysis is to identify areas where development would be less efficient and economical, as opposed to areas where development could occur that would be more compatible with the natural environment.

Soils

Area-wide soils analysis can provide a basis for determining the suitability of an area for different types of crops and urban development. The soil map in Figure 1-1, page 1-11 uses data from the Natural Resources and Conservation Service (NRCS) surveys which are conducted on a Countywide basis. Figure 1-1 should function as a general guide to soil types found in and near the City of Granger. If specific knowledge of any soil type or characteristics is needed for development purposes, the Yakima County Planning Department or the NRCS should be consulted. Table 1-1 summarizes each soil's agricultural capability, and limitations for septic tanks and homesite development.

Major Soil Types

Twenty-seven soils types occur in Granger UGA. Figure 1-1 illustrates the soils and a corresponding map

number for reference. Table 1-1 summarizes the soil types in the Granger UGA and their limitations for development.

Various soils within the City are also classified as “prime farmland,” “farmland of statewide importance,” or “unique farmland” (Table 1-1). “Prime farmland” has the optimal physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops. “Farmland of statewide importance” includes soils that do not meet the criteria of prime farmland, but produce high yields of crops when treated and managed according to acceptable farming methods. “Farmland of unique importance” includes soils that do not function as farmlands of prime, statewide or local importance, but may be used for the production of specialty crops.

Preservation of productive agricultural land is a high priority in Yakima County. As a result, non-farm use of this resource should be kept to a minimum in areas not already experiencing high density urban development, and where the combination of past trends and future population projections do not indicate a need for urban expansion in the near future. However, farmland preservation is less of a priority in UGAs, which are meant to reserve an appropriate amount and type of serviceable land for urban development within a 20-year timeframe.

Table 1-1 Soils Classifications and Limitations for Development, Granger UGA

SOIL CLASSIFICATION			LIMITATIONS		
Map #	**Series Names**	**Slope**	**Agricultural Capacity**	**Septic Tank**	**Suitability for Homesite Development**
69065	Outlook Silt Loam		Not prime farmland. Drained, leached, and irrigated soil: asparagus, corn, grain, hops, and mint. Grasses and legumes grown for hay, pasture, and seed.	Main limitation is wetness.	Poorly suited to homesite development due to hazard of flooding and soil wetness. Use dikes and channels with outlets to bypass floodwater. Installing drain tile around footings can reduce wetness.
68999	Esquatzel Silt Loam	2-5%	Prime farmland if irrigated. Asparagus, corn, grain, grapes, hops, mint, peas, and tree fruit. Grasses and legumes are grown for hay, pasture, and seed.	Main limitation is flood hazard	Poorly suited to homesite development. Land leveling should be restricted. Shallow cuts are possible in selected areas.
68999	Esquatzel Silt Loam	0-2%	Prime farmland if irrigated. Asparagus, corn, grain, grapes, hops, mint, peas, and tree fruit. Grasses and legumes are grown for hay, pasture, and seed. Few limitations for irrigated crops.	The main limitation is flood hazard.	Poorly suited to homesite development.
69026	Hezel Loamy Fine Sand	0-2%	Farmland of statewide importance. Grain, potatoes, and corn. Grasses and legumes are grown for hay, pasture, and seed.	Moderately slow permeability affects the rate of absorption of the effluent. Use of sandy backfill for the trench and long absorption lines helps to compensate.	Few limitations for homesite development. Building sites should be disturbed as little as possible.
69026	Hezel Loamy Fine Sand	2-15%	Farmland of statewide importance. The main irrigated crops are grain and potatoes. Grasses and legumes are grown for hay, pasture, and seed.	Moderately slow permeability affects the rate of absorption of the effluent. Use of sandy backfill for the trench and long absorption lines can help to compensate. Absorption lines should be installed on the contour.	Poorly suited to homesite development due to steepness of slope. Disturb building sites as little as possible.
68909	Scooteney Silt Loam	2-5%	Farmland of statewide importance. Corn, grapes, hops, and peas. Grasses and legumes are grown for hay, pasture, and seed.	Few limitations for septic tank absorption fields.	Well suited to homesite development.
68909	Scooteney Silt Loam	5-15%	Farmland of unique importance. Corn, grain, grapes, hops, and peas. Grasses and legumes are grown for hay, pasture, and seed.	Few limitations for septic tank absorption fields.	Well suited to homesite development.
68961	Warden Fine Sandy Loam	0-2%	Prime farmland if irrigated. Corn, grain, grapes, hops, mint, peas, and tree fruit. Grasses and legumes are grown for hay, pasture, and seed.	Few limitations for septic tank absorption fields.	Well suited to homesite development.

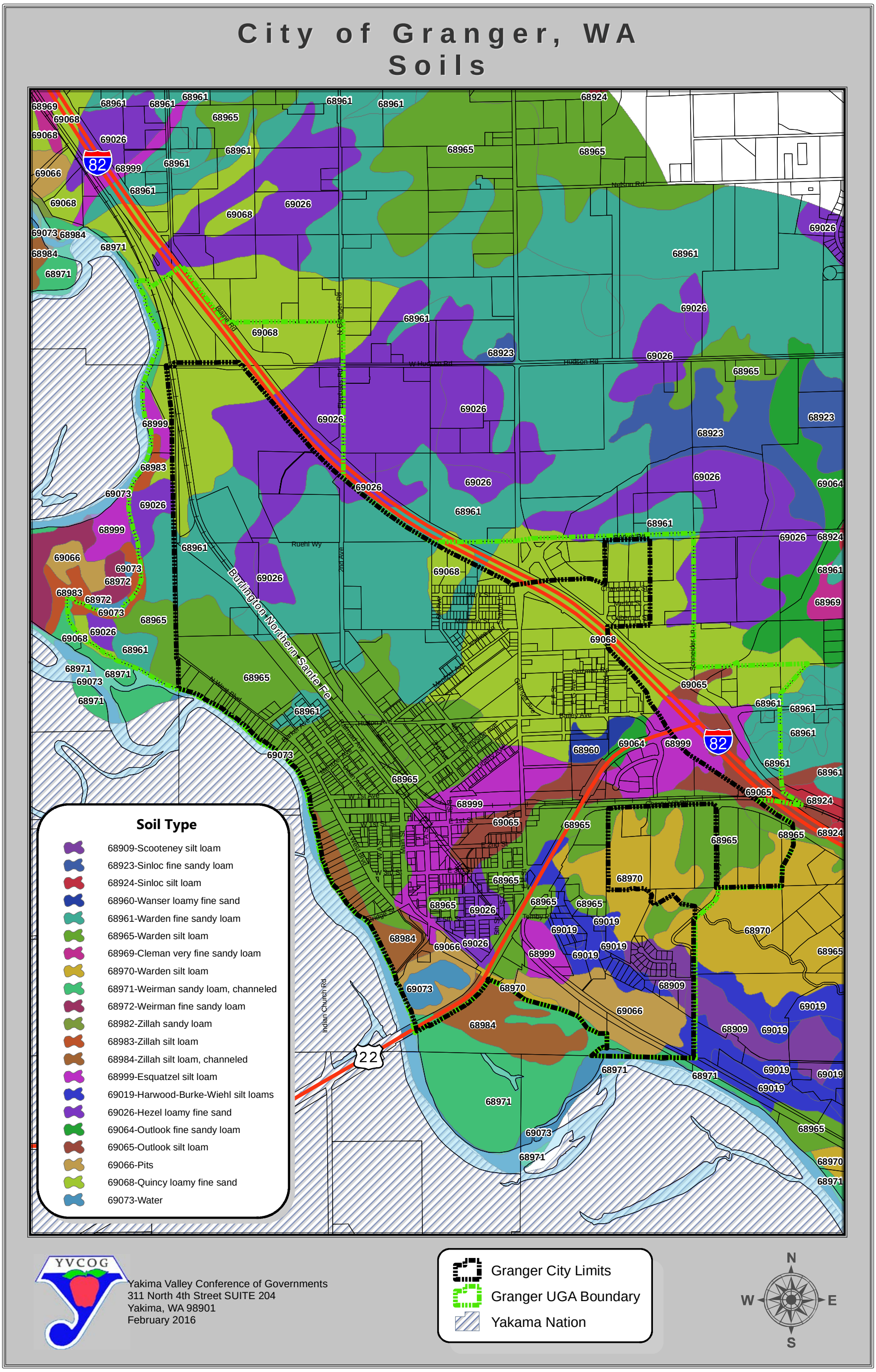
SOIL CLASSIFICATION			LIMITATIONS		
Map #	**Series Names**	**Slope**	**Agricultural Capacity**	**Septic Tank**	**Suitability for Homesite Development**
68961	Warden Fine Sandy Loam	2-5%	Farmland of statewide importance. Corn, grain, grapes, hops, mint, peas, and tree fruit. Grasses and legumes are grown for hay, pasture, and seed.	This unit has few limitations for septic tank absorption fields.	Well suited to homesite development.
68961	Warden Fine Sandy Loam	5-8%	Farmland of statewide importance. Irrigated field and orchard crops, rangeland, wildlife habitat, and homesites. Corn, grain, grapes, peas, and tree fruit. Grasses and legumes are grown for hay, pasture, and seed.	Few limitations for septic tank absorption fields.	Well suited to homesite development. Soil blowing is a concern during construction on large building sites; therefore, these sites should be disturbed as little as possible.
68961	Warden Fine Sandy Loam	8-15%	Farmland of unique importance. Irrigated field and orchard crops, nonirrigated crops, rangeland, wildlife habitat. Irrigated crops are grain, grapes, and tree fruit. Grasses and legumes are grown for pasture, hay, and seed. A cover crop is grown in orchards.	Steepness of slope can cause lateral seepage and surfacing of effluent in downslope areas. Avoid lateral seepage by installing absorption lines on the contour. Soil blowing may be a problem during construction on large building sites; sites should be disturbed as little as possible.	Suited to homesite development.
68965	Warden Silt Loam	0-2%	Prime farmland if irrigated. Corn, grain, grapes, hops, mint, peas, and tree fruit. Grasses and legumes are grown for hay, pasture, and seed.	Few limitations for septic tank absorption fields.	Well suited to homesite development.
68965	Warden Silt Loam	2-5%	Farmland of statewide importance. Corn, grain, grapes, hops, mint, peas, and tree fruit. Grasses and legumes are grown for hay, pasture, and seed.	Few limitations for septic tank absorption fields.	Well suited to homesite development.
68965	Warden Silt Loam	5-8%	Farmland of statewide importance. Irrigated field and orchard crops, rangeland, wildlife habitat, and homesites. Corn, grain, grapes, peas, and tree fruit. Grasses and legumes are grown for hay, pasture, and seed.	Few limitations for septic tank absorption fields.	Well suited to homesite development.
68965	Warden Silt Loam	8-15%	Farmland of unique importance. Irrigated field and orchard crops, nonirrigated crops, rangeland, wildlife habitat. Grapes and tree fruit. Grass and legumes grown for hay, pasture, and seed.	Steepness of slope can cause lateral seepage and surfacing of effluent in downslope areas. Avoid lateral seepage by installing absorption lines on the contour.	Well suited to homesite development.

SOIL CLASSIFICATION			LIMITATIONS		
Map #	**Series Names**	**Slope**	**Agricultural Capacity**	**Septic Tank**	**Suitability for Homesite Development**
68965	Warden Silt Loam	15-30%	Farmland of unique importance. Irrigated field and orchard crops, nonirrigated crops, rangeland, wildlife habitat, and homesites. Grain, grapes, and tree fruit. Grass and legumes are grown for hay, pasture, and seed. A cover crop is grown in orchards.	Steepness of slope can cause lateral seepage and surfacing of effluent in downslope areas.	Poorly suited to homesite development.
68983	Zillah Silt Loam		Prime farmland when drained. Where drained and protected from flooding, crops are asparagus, corn, grain, grapes, and peas. Grasses and legumes are grown for hay, pasture, and seed.	Wetness increases the possibility of failure of absorption fields. If the density of housing is moderate to high, community sewage systems are needed to prevent contamination of water supplies.	Poorly suited to homesite development due to wetness and the hazard of flooding. Deep drainage reduces wetness. Control flooding by using dikes and channels with outlets to bypass floodwater.
69019	Harwood-Burke-Wiel Silt Loam	2-5%	Farmland of statewide importance. Irrigated and nonirrigated crops, rangeland, homesites, and wildlife habitat. Irrigated crops are grain, grapes, and tree fruit. Grasses and legumes are grown for hay, pasture, and seed.	Depth to the hardpan in the Harwood and Burke soils and depth to soft sandstone in the Wiehl soil. The hardpan and sandstone limits the capacity of the absorption fields. Use of long absorption lines helps to compensate.	Poorly suited to homesite development due to depth to the hardpan in the Harwood and Burke soils and depth to soft sandstone in the Wiehl soil. The hardpan and sandstone hinder excavation.
69019	Harwood-Burke-Wiel Silt Loam	5-8%	Farmland of statewide importance. Crops, rangeland, wildlife habitat, and homesites. Grain, grapes, and tree fruit. Grasses and legumes are grown for hay, pasture, and seed.	The main limitations for septic tank absorption fields are depth to the hardpan in the Harwood and Burke soils and depth to soft sandstone in the Wiehl soil. The hardpan and sandstone limit the capacity of the absorption fields. Long absorption lines help to compensate for these limitations.	Poorly suited to homesite development due to depth to the hardpan in the Harwood and Burke soils and depth to soft sandstone in the Wiehl soil. The hardpan and soft sandstone hinder excavation.
69019	Harwood-Burke-Wiel Silt Loam	8-15%	Farmland of unique importance. Irrigated field and orchard crops, nonirrigated crops, rangeland, homesites, and wildlife habitat. Grain, grapes, and tree fruit. A cover crop is grown in orchards. Grasses and legumes are grown for hay, pasture, and seed.	Depth to the hardpan in the Harwood and Burke soils and depth to soft sandstone in the Wiehl soil. The hardpan and sandstone limits the capacity of the absorption fields. Use of long absorption lines helps to compensate. Install absorption lines on the contour. Slope can promote lateral seepage and surfacing of effluent in downslope areas.	Poorly suited to homesite development due to depth to the hardpan in the Harwood and Burke soils, depth to soft sandstone in the Wiehl soil, and steepness of slope. The hardpan and soft sandstone hinder excavation.

SOIL CLASSIFICATION			LIMITATIONS		
Map #	**Series Names**	**Slope**	**Agricultural Capacity**	**Septic Tank**	**Suitability for Homesite Development**
69019	Harwood-Burke-Wiel Silt Loam	15-30%	Farmland of unique importance. Irrigated hay, pasture, and orchard crops, for nonirrigated crops, as rangeland and homesites, and for wildlife habitat. Grasses, legumes, grapes, and tree fruit. A cover crop is grown in orchards.	Depth to the hardpan in the Harwood and Burke soils and depth to soft sandstone in the Wiehl soil. The hardpan and sandstone limits the capacity of the absorption fields. Use of long absorption lines helps to compensate. Slope can promote lateral seepage and surfacing of effluent in downslope areas.	Poorly suited to homesite development due to steepness of slope and depth to the hardpan in the Harwood and Burke soils and depth to sandstone in the Wiehl soil. The hardpan and sandstone hinder excavation.
69019	Harwood-Burke-Wiel Silt Loam	30-60%	Not prime farmland. This unit is used as rangeland and for wildlife habitat.	Poor.	Poorly suited to homesite development.
69064	Outlook Fine Sandy Loam		Not prime farmland. Irrigated crops, for wildlife habitat, and as homesites. In drained, leached, and irrigated areas: asparagus, corn, grain, hops, and mint. Grasses and legumes are grown for hay, pasture, and seed. Deep-rooted crops are suited to areas where the drainage is adequate or where a drainage system has been installed and is adequately maintained.	The main limitation for septic tank absorption fields is wetness.	Poorly suited to homesite development due to hazard of flooding and soil wetness. Dikes and channels that have outlets to bypass floodwater can be used to protect buildings from flooding. Wetness can be reduced by installing drain tile around footings.
68960	Wanser Loamy Fine Sand		Farmland of statewide importance. Irrigated crops, for wildlife habitat, and as homesites. Grain and corn. Grasses and legumes are grown for hay, pasture, and seed.	Wetness increases the possibility of the failure of the septic tank absorption fields. If the density of housing is moderate to high, community sewage systems are needed to prevent contamination of water supplies as a result of seepage.	Poorly suited to homesite development due to hazard of flooding. Control flooding with dikes and channels that have outlets to bypass floodwater. High soil blowing hazard; disturb construction sites as little as possible. Cutbanks are not stable and are subject to caving in.
69068	Quincy Loamy Fine Sand	0-10%	Farmland of statewide importance. Irrigated field and orchard crops, for wildlife habitat, and as homesites. Grain, potatoes, corn, and tree fruit. Grasses and legumes are grown for hay, pasture, and seed.	The main limitation for septic tank absorption fields is seepage. If the density of housing is moderate to high, community sewage systems are needed to prevent contamination of water supplies as a result of seepage.	Well suited to homesite development. Soil blowing can be a problem on large construction sites; therefore, these sites should be disturbed as little as possible. Cutbanks are not stable and subject to caving in.
68984	Zillah Silt Loam, Channeled		Not prime farmland. Rangeland and for wildlife habitat. The potential native vegetation is mainly basin wildrye, tufted hairgrass, sedges, and willows. The main limitation for the production of forage is wetness.	This unit is limited for livestock watering ponds and other water impoundments because of the seepage potential. Water tanks are a more effective means of storing water for livestock.	Poorly suited to homesite development due to severe flooding.

SOIL CLASSIFICATION			LIMITATIONS		
Map #	**Series Names**	**Slope**	**Agricultural Capacity**	**Septic Tank**	**Suitability for Homesite Development**
69066	Pits		Not prime farmland. Consists primarily of gravel pits, areas used for sanitary landfills, and areas used as a source of clay.		

Figure 1-1 Soils Types, Granger UGA



Water Resources

Groundwater

The Yakima River Basin is divided into six independent ground water basins. They are (from north to south): Roslyn, Kittitas, Upper Naches, Cold Creek, Upper Yakima and Lower Yakima basins. Additionally, the Yakima River Basin has three major aquifer systems: the shallow, unconfined aquifer, near the surface; the post basalt aquifer, somewhat deeper; and the basalt aquifer, the deepest. One or more of these systems may be present in a given sub-basin .

The relationships between surface and groundwater are important in managing water resources in the Yakima River Basin. Pumping groundwater from some aquifers at some locations may reduce flows in surface waters. This reduction in flow may affect fish and other aquatic resources, or may impair senior water rights. In other cases, pumping groundwater may have little effect on surface waters, or may have effects that are delayed in time or occur at locations far from the well.

At the same time, management of surface waters can affect groundwater supplies. Groundwater conditions are generally unconfined (at atmospheric pressure) and influenced (hydraulically connected) by water levels in nearby streams, lakes, or rivers. Where surface water is diverted, and applied to irrigated lands, some of the water may percolate down into underlying aquifers and raise the water table. Conservation measures in the agricultural sector can reduce infiltration, causing water tables to drop. Allowing too great a density of land uses, particularly residential, in areas using individual wells for water supply can result in a seasonal decline in the water table. Where septic tanks are used in conjunction with shallow wells, the problem may be more severe and long-lasting.

The main uses of groundwater in the Lower Yakima River Valley are irrigation for agriculture, livestock watering, domestic water supply, and commercial/industrial use. Use of groundwater for livestock is particularly high along the Yakima River in the Granger vicinity.

The United States Bureau of Reclamation, Washington State Department of Ecology (Ecology) and the Yakama Nation participated in a joint study of the groundwater resources of the Yakima River Basin and their interactions with surface water. Detailed analysis of existing data combined with analysis of the data collected during the study is expected to provide improved information for management of groundwater resources in the Granger area.

Critical Aquifer Recharge Areas

Areas of growing concern are the critical aquifer recharge areas (CARA), which store and recharge critical groundwater supplies, and where groundwater stands the greatest risk of contamination. The GMA requires that cities and counties identify and protect “areas with a critical recharging effect on aquifers used for potable water.” Land uses and density of development in these areas can affect the quality of groundwater.

“Aquifers” are geologic materials that are able to store and transmit groundwater. A shallow aquifer underlies most of the irrigated areas of the Lower Yakima River basin and the land immediately along the Yakima River. Flows are southeasterly (in the same direction as the Yakima River). In these shallow aquifers, potential for contamination from groundwater flowing into them is high, especially near ditches, canals, and the Yakima River. Care must be taken to avoid contamination of groundwater in aquifers when shallow wells are used in conjunction with septic tanks, as it is possible for septic effluent to seep into the well water supply. This condition typically occurs during peak irrigation periods in areas with high water tables.

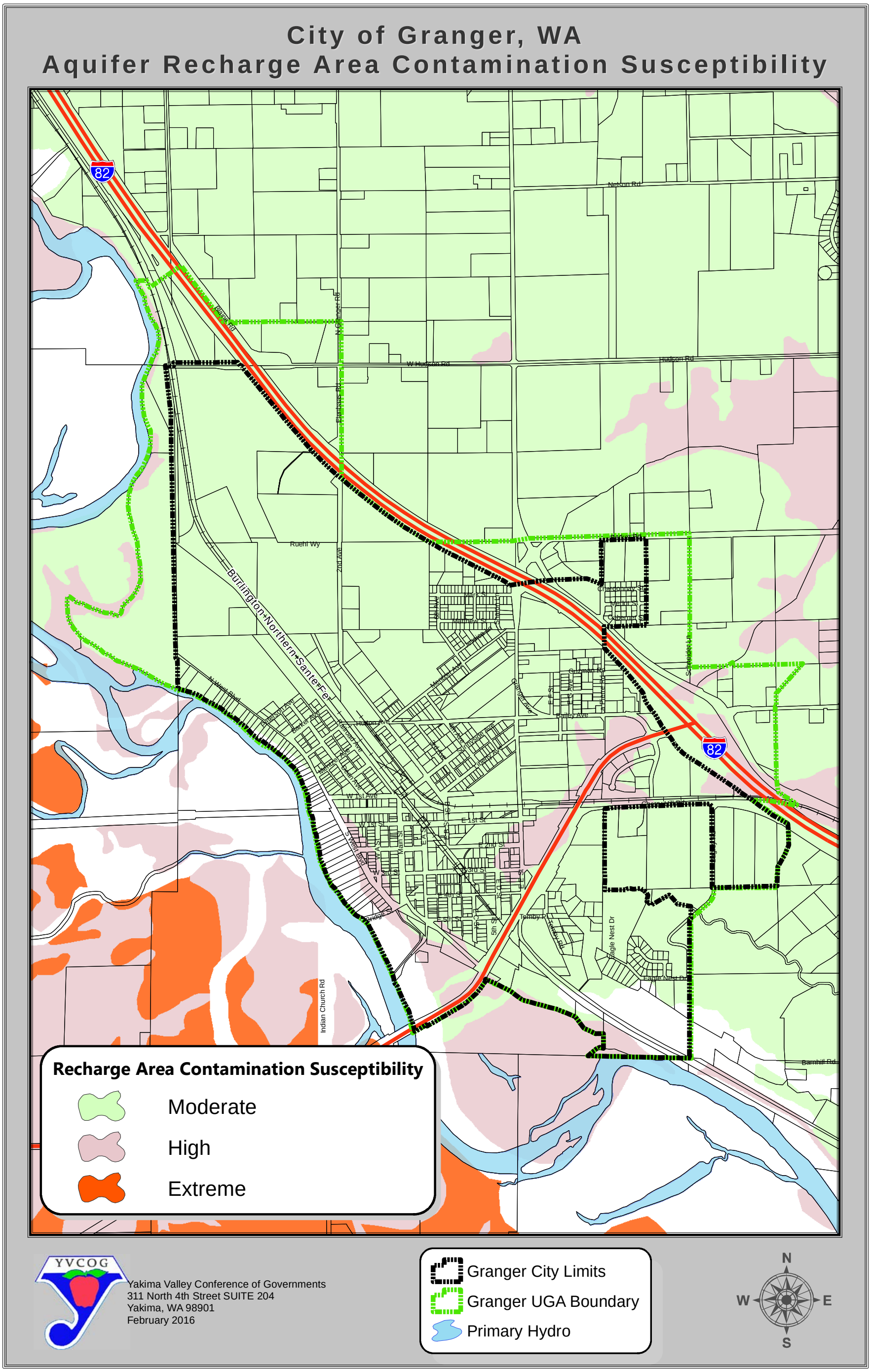
Water in aquifers are “recharged,” or replenished, by the addition of water to the aquifer through precipitation, runoff and infiltration from surface water bodies. A “recharge area” is an area in which water reaches an aquifer by surface infiltration, and where there is a downward component of hydraulic head (pressure head). “Recharge potential” is the likelihood that water will infiltrate and pass through the surface materials to recharge the underlying aquifer system. Recharge potential is dependent on a number of relatively static physical conditions, including soil permeability, geological materials at or near the Earth’s surface, depth to water, and topography.

In general, the aquifers in the Yakima River Basin are recharged by precipitation, infiltration of surface water, irrigation water, seepage losses from ditches, canals and rivers, and upward migration of water from lower aquifers. Groundwater discharges into rivers, lakes and streams, or through evapotranspiration, pumping, and upward flow of water into the shallower aquifers.

In the lower Yakima Basin, aquifers are the main source of groundwater for residences using individual wells. The depth of wells using aquifers ranges from approximately 10 to 200 feet below ground surface.

Figure 1-2 illustrates the critical aquifer recharge areas in the Granger UGA, and shows the level of susceptibility of these areas to contamination. This data was provided by Yakima County and illustrates areas with 1) aquifer recharge potential, 2) moderate or high susceptibility to contamination, and/or 3) wellhead protection areas. In Granger, the “moderate” susceptibility to contamination designation is prevalent, with some areas of “high” designation.

Figure 1-2 Critical Aquifer Recharge Areas Contamination Susceptibility, Granger UGA



Groundwater Quality

Groundwater is the main source of drinking water supplies in the Yakima River Basin, both for public water supplies, and individual domestic wells. With the exception of the Cities of Yakima and Cle Elum, all of the cities and unincorporated communities rely on groundwater for their indoor, domestic water supplies. Degradation of groundwater quality can pose public health threats, raise the cost of treating municipal supplies, and potentially force abandonment or limit the use of supplies.

The State's groundwater criteria serve as a baseline and reference to establish trends in water quality conditions. The State's regulation in WAC 173-200 establishes the criteria for all groundwater, based on the premise that it may be used for drinking water. In addition, the federal government has established National Primary Drinking Water Standards, which apply to water supplies delivered to the public by the public water systems.

A Watershed Assessment performed by the Yakima Basin Water Resources Association (YBWRA) in 2003 noted that groundwater quality can be affected by a wide variety of activities which introduce pollutants into the subsurface. Key parameters relative to drinking water supplies include fecal indicator bacteria, nutrients such as nitrate, and organic chemicals such as pesticides and industrial chemicals. Regulatory agencies across the U.S. have identified the categories of sources listed below:

- Natural contamination/dissolved salts and minerals (including arsenic and radon, which are the subject of current regulatory activity at the federal level).
- Point source contamination at the wellhead.
- Septic systems.
- Leaking underground storage tanks.
- Application of fertilizers or pesticides.
- Application of manure to agricultural lands or gardens.
- Chemical or fuel spills.
- Leaching from landfills.
- Burial or dumping of wastes.

Each of these sources is likely to be present in some degree within the Yakima River Basin. Groundwater quality problems such as elevated levels of nitrates occur in the Yakima River Basin in locales where the following two conditions are present: 1) there is relatively dense development that is not served by public sewer systems, and 2) there is a shallow water table. In addition, elevated nitrate levels may occur in areas where irrigated agriculture is present in combination with a shallow water table.

Large and medium-sized public water systems have the ability to monitor, manage and protect the quality of their groundwater supplies. Shallow and/or unprotected groundwater supplies are more susceptible to groundwater contamination than deep groundwater supplies. The USGS compiled well depth information for Yakima, Kittitas, and Benton Counties, and found that 50% of all wells were less than 151 feet deep. According to the YBWRA, wells in the Lower Yakima Valley, including Granger, tend to be shallow, with a depth of 51 to 250 feet.

Ecology estimates that for shallow well use, the size of lots should be greater than two acres. Deeper wells would help a great deal to prevent these problems, but the added cost of well drilling and lack of state legislation requiring it (except for community wells) have prevented this from occurring.

Surface Water

The Yakima River Basin occupies approximately 6,150 square miles. Its headwaters are situated along the crest of the Cascade Range. The mainstream Yakima River is joined by a number of tributaries and flows generally southeast until it joins the Columbia River.

Throughout the Basin precipitation is seasonal, with approximately 60 to 80 percent of annual precipitation occurring from October to March. Much of this precipitation falls as snow during the winter months and becomes stored in the Cascade Range as snow pack. As a result, runoff in the Yakima River Basin exhibits a pronounced spike from April to June, with lower levels of runoff occurring during the remaining months of the year.

WAC 22-16-031 establishes an "interim" water typing system to be used until a permanent typing system is established. This typing system was used to classify streams in Yakima County. With the exception of the Yakima River, no typed streams occur within the City of Granger UGA (Figure 1-3, page 1-17).

The Yakima River is classified as a Type 1 Stream and is designated as a "Shoreline of the State," falling under the purview of the Washington State Shoreline Management Act (SMA). Granger adopted the Yakima County Regional Shoreline Master Program (SMP), effective on January 28, 2010. A portion of the Yakima River shoreline runs just inside the southwest boundary of the City, and also cuts through the extreme southeast corner of the Granger city limits (Figure 1-4, page 1-18).

The City of Granger adopted a Critical Areas Ordinance (CAO) on January 8, 2013. The Granger CAO contains criteria for classifying water bodies and their associated buffer widths for each classification.

Figure 1-3 Waterways and Wetlands, Granger UGA

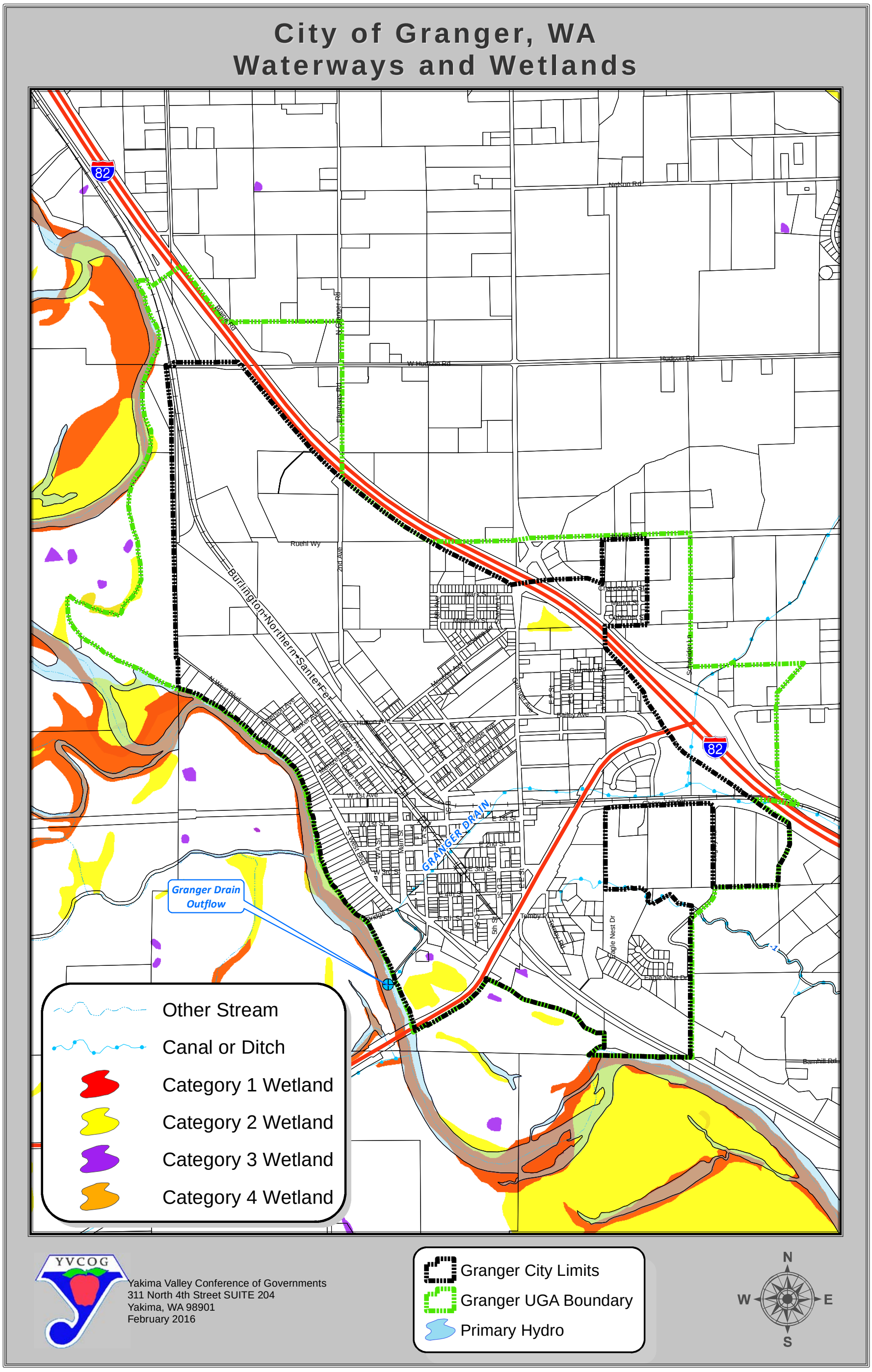
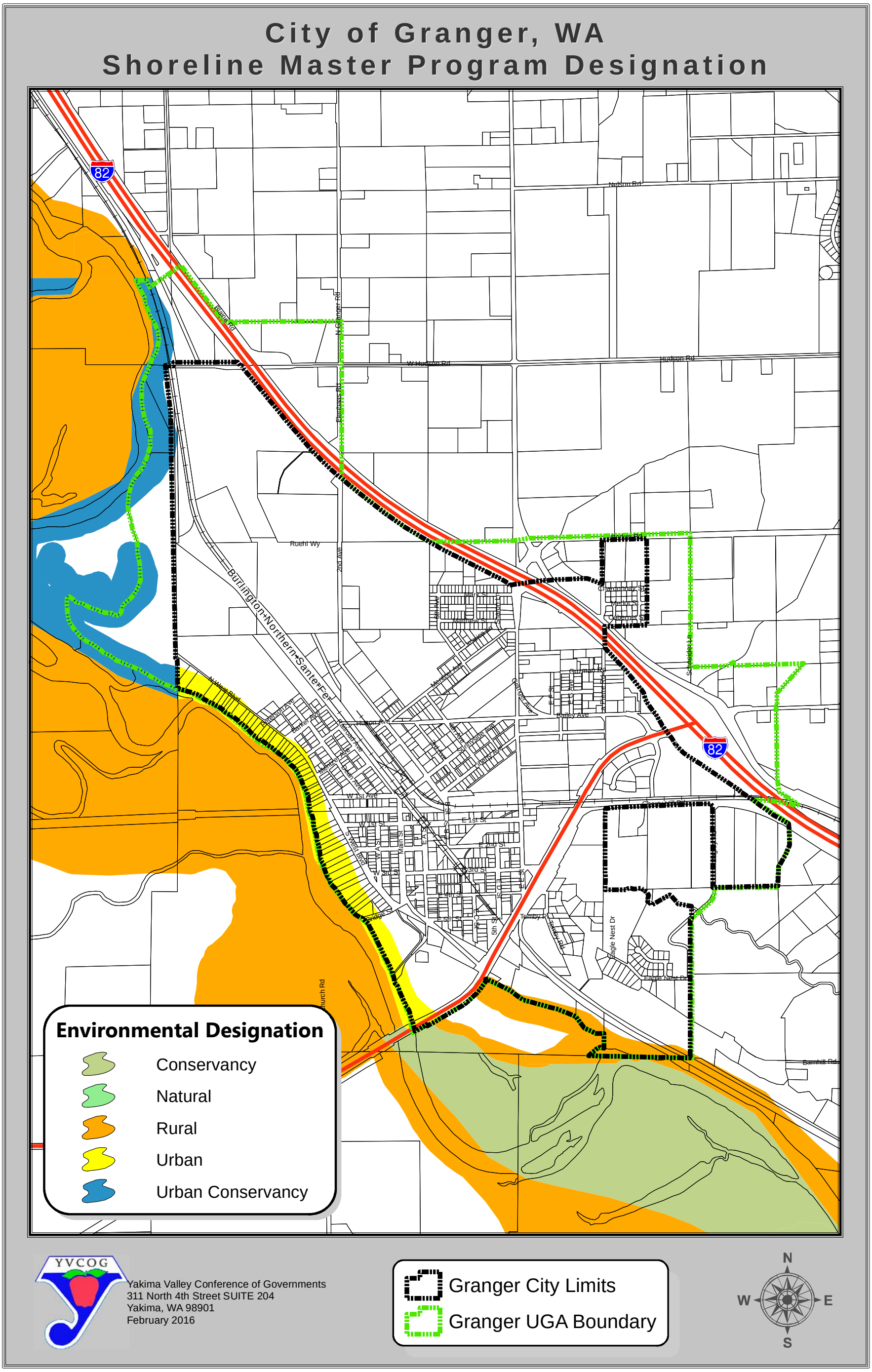


Figure 1-4. Shoreline Master Program Designations, Granger UGA



Surface Water Quality

Water quality is a key consideration in planning for the Yakima River Basin, and a wide variety of physical, chemical, and biological parameters have been studied with respect to surface water quality in the Basin. These include:

- Temperature
- Dissolved oxygen (DO)
- Nutrients (i.e. substances that stimulate growth of aquatic plants)
- Fecal indicator bacteria
- Suspended sediments and turbidity
- Pesticides

A number of previous studies and planning processes have addressed surface water quality in the Yakima River Basin. Reports prepared by the USGS under the National Water Quality Assessment (NWQA) program provide the most extensive study of surface water quality in the Yakima River Basin. This information was compiled by the YBWRA in their Watershed Plan, approved in 2003.

Yakima River: The studies found that Reach #5 of the Yakima River, the reach most closely associated with the City of Granger had some significant surface water quality problems. Water quality problems include fecal coliform and sediment loads from agricultural drains and associated pesticide residues. Portions of Reach #5 are channelized with deficient riparian cover. Of these problems, the YBWRA has classified instream flow and temperature as the most severe.

Irrigated cropland is the major source of pesticide residues. Water temperatures in the tributaries exceeding water quality standards contribute to thermal pollution. The federal Clean Water Act (CWA) includes provisions for addressing surface waters that do not meet established water quality standards. The State of Washington must identify surface-water bodies that do not achieve water quality standards. These water bodies comprise what is commonly known as the 303(d) list.

In the Yakima Basin, 150 listings have been placed on 70 water bodies listed on the 303(d) list, including many pollutants for the Yakima River. Ecology has a program to develop water quality cleanup plans for each listed stream segment. These cleanup plans are known as Total Maximum Daily Loads (TMDL).

Ecology will periodically review the 303(d) listings in the Yakima River Basin that are not currently addressed in any TMDLs. From these listings, more TMDL plans could result. Ecology will seek consultation with affected municipalities in the watershed throughout this process.

A variety of legal requirements exist related to the quantity of instream flows (water flowing in a stream) in the Yakima River Basin. Generally, these are based on court orders and federal legislation related to the Yakima Irrigation Project. The State of Washington has not established minimum instream flows for the Yakima River Basin. Instream flows in the Yakima River Basin mandated by the courts are not quantified. Rather, the amount of water necessary to maintain fish life is to be determined annually depending on existing prevailing conditions. Specific mandates from the state and federal courts include orders directed at United States Bureau of Reclamation's (USBR) operation of the Yakima Irrigation Project to reduce negative impacts on the fisheries resource, orders with respect to treaty reserved rights for fish, and orders with respect to instream flows to support treaty fishing rights at "usual and accustomed places."

In addition to the quantity of instream flows mandated by the courts, "target flows" have been defined and mandated by Congress in 1994 (Public Law 103-434). The legislation provides that the Yakima Irrigation Project Superintendent shall estimate the anticipated availability of water supply to meet water entitlements, and provide instream flows in accordance with the biological needs of fisheries.

Granger Drain: The Granger Drain watershed is approximately 6.4 miles long and 10 miles wide, and contains approximately 18,000 acres of primarily agricultural land. The watershed extends from southwest of Outlook, with its south border at the Yakima River at the southwest border of Granger. Irrigation water is delivered to the Granger Drain watershed via two canals operated by the Sunnyside Valley Irrigation District. In addition to diverting river water, the Sunnyside Valley Irrigation District canal also collects agricultural return flows from agricultural lands in the Roza Irrigation District to the north. These agricultural return flows are suspected of causing excessive fecal coliform pollution in the Granger Drain watershed's downstream section of the Sunnyside Valley Irrigation District canal.

The mainstem Granger Drain runs parallel to I-82 from south of Outlook, west to the City of Granger. In Granger, the mainstem drain turns southwest and passes through the City where it discharges into the Yakima River, immediately north of the Granger Hisey Park/pond boat ramp (see Figure 1-3, page 1-17).

The Granger Drain has historically been one of the prime sources of pesticides, suspended sediment, nutrients, and bacteria to the Yakima River. The high levels of fecal coliform have been associated with the numerous dairy establishments operated in the watershed; in 2001, there were an estimated 40,000 dairy cows in the watershed. Non-point sources, such as animal feeding operations, livestock pastures, direct access by livestock to surface waters, failing residential on-site septic tank systems, and urban runoff, account for the rest of the fecal coliform pollution. In recent years, the Granger Drain has seen improvement, largely due to improved irrigation techniques in the surrounding agricultural land.

TMDL Reports related to the Yakima River, completed by Ecology and accepted by EPA as of October 30, 2002 that are significant to the City of Granger include the Granger Drain Fecal Coliform Bacteria Total Maximum Daily Load Assessment and Evaluation, TMDL 01-10-012. The primary recommendations for reducing the fecal coliform load include manure management at dairy farms, management of overland runoff from manure fields, and subsurface drainage management.

Yakima River: TMDL Reports related to the Yakima River, completed by Ecology and accepted by EPA as of October 30, 2002 that are significant to the City of Granger include the Suspended Sediment and DDT Total Maximum Daily Load Evaluation Report for the Yakima River, TMDL 97-321.

Floodplains

Figure 1-5, page 1-22 shows the current Federal Emergency Management Agency (FEMA)-approved floodplain and floodway map for the Granger vicinity. The floodplain and floodway areas falling within the Granger city limits are associated with the Yakima River, in the south and southwest parts of the city. The FEMA floodplain definitions shown on the map are as follows:

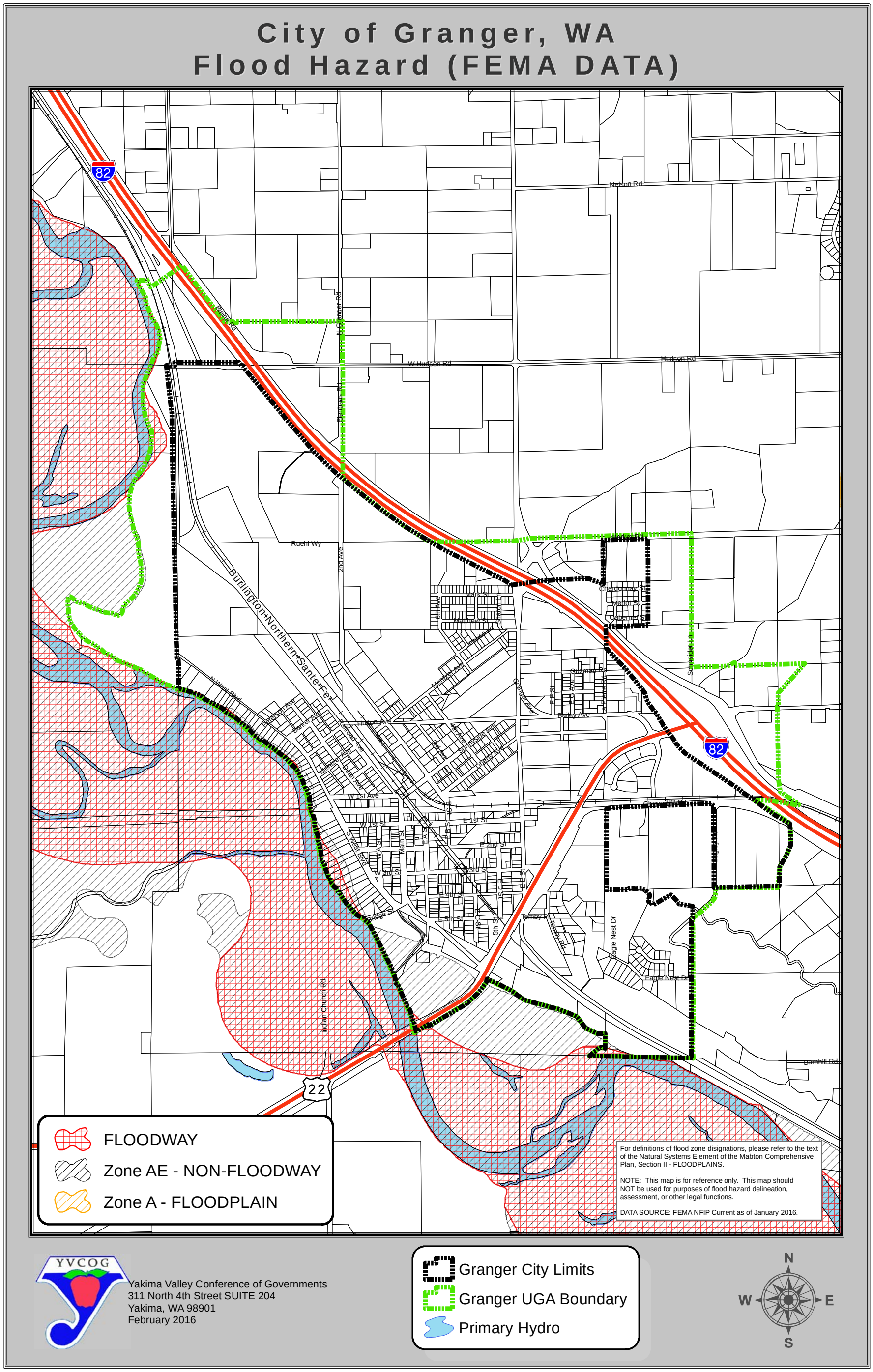
- Floodway: A "Regulatory Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Communities must regulate development in these floodways to ensure that there are no increases in upstream flood elevations. For streams and other watercourses where FEMA has provided Base Flood Elevations (BFEs), but no floodway has been designated, the community must review floodplain development on a case-by-case basis to ensure that increases in water surface elevations do not occur, or identify the need to adopt a floodway if adequate information is available.

- Zone AE: Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. Base Flood Elevations (BFEs) are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

- Zone A: Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

The 100-year floodplain designation is significant because it affects permitting, design, and development requirements for new buildings. Permits require that all development be flood proofed; i.e., the elevation of the first inhabited floor must be one foot above the 100-year flood elevation. Yakima County also requires obtaining a Flood Hazard Permit prior to development to insure that minimal effects occur to the floodplain and to the development itself.

Figure 1-5 FEMA Flood Hazard, Granger UGA



Wetlands

Wetlands provide a broad spectrum of natural and physical functions. Freshwater wetlands have flood storage capacity, serve as groundwater recharge areas, and tend to moderate flow regimes of associated drainages. Wetlands also work to remove suspended solids from water, absorb and recycle mineral and organic constituents, and otherwise contribute to improved water quality. Biological functions include food chain production, general habitat, nesting, spawning, rearing, and resting sites for aquatic and land species.

Efficiency of wetland functions can be broadly described according to wetland type. Primary productivity is low to moderate in streams and drainages and moderate to high in marshes and swamps. Relative export efficiency of nutrients is generally rated high for perennial riverine marshes, seasonally flooded riverine swamps, and overflow systems; moderate for freshwater wetlands adjacent to or linked to intermittently inland swamps and bogs, and freshwater wetlands adjacent to or linked to ephemeral riverine systems.

In Granger's CAO, wetlands are rated based on categories that reflect the functions and values of each wetland. Wetland categories are based on the criteria provided in the *Washington State Wetland Rating System for Eastern Washington, revised* August 2014 (Ecology Publication #04-06-030), as updated or amended.

Wetland data for the Granger vicinity was gathered from the United States Department of the Interior's Fish and Wildlife Service (USFWS). The USFWS gathers wetland data nationwide and compiles it in the National Wetland Inventory (NWI) map. The data contained in the NWI map for all of Yakima County and the Granger vicinity was gathered in the 1980s. NWI mapping was used by Yakima County in their recent update to the CAO.

NWI wetlands in the vicinity of Granger are mapped in Figure 1-3, page 1-17. There are two Category II wetlands identified in Granger city limits. One is on the City's northeast side between East E Street and I-82 in current agricultural land. The other is Granger Hisey Park, in the southwest corner of the City. There are also two Category III wetlands in the south end of Granger. In the unincorporated UGA, there are some Category II wetland areas that are associated with the Yakima River, that fall across the UGA's northwest border.

The City of Granger CAO contains standards to protect the viability and essential functions of wetlands.

Air Quality

During the winter months, overcast days with minimal sun result in periods of high pressure air stagnation and little air movement caused by thermal inversion. This thermal inversion condition, which can result in a build-up of pollutants, is accentuated in the Upper Yakima Valley (Yakima-Selah-Union Gap area) due to severe topography (hills rising 800 feet above the valley floor that tend to hinder air movement and increase the potential for thermal inversion). This set of circumstances combines to cause a build-up of particulate pollutants, resulting from space heating, burning from wood stoves, industrial and transportation activities, bringing PM_{10} and $PM_{2.5}$ particulate pollution levels within the Yakima metropolitan area in excess of National Ambient Air Quality Standards (NAAQS). A smaller portion of the Yakima metropolitan area also has had past NAAQS violations with regard to carbon monoxide (CO). These are the only pollutants and areas within Yakima County that have had a history of NAAQS violations. Levels of other pollutants in the Yakima Valley are well below national standards.

The absence of major topographical features in the Lower Yakima Valley allows for air movement that reduces the potential for thermal inversions, and thus these areas are outside of designated air quality maintenance areas. The frequency of occurrence and severity of thermal inversions varies from year to year. The National Weather Service issues an Air Stagnation Advisory when poor atmospheric dispersion conditions exist and are forecast to persist for 24 hours or more. These advisories, which are issued for all of eastern Washington, are generally issued once or twice a year and typically last one to two days.

Air Quality Regulations and Monitoring

Three agencies have air quality jurisdiction in Yakima County: The United States Environmental Protection Agency (EPA), Ecology, and the Yakima Regional Clean Air Authority (YRCAA). The YRCAA has primary air quality jurisdiction in Granger and all of Yakima County outside of the Yakama Nation reservation boundary. The YRCAA adopted the National Ambient Air Quality Standards (NAAQS) established by the EPA. The compounds listed in the NAAQS are called "primary pollutants." Three priority pollutants are of interest in the Yakima County area: particulates, carbon monoxide and ozone.

Particulate Matter: Particulate matter consists of fine particles of smoke, dust, pollen or other materials that remain suspended in the atmosphere for a substantial period of time. PM_{10} is fine particulate matter, defined as smaller than 10 micrometers in diameter; while $PM_{2.5}$ is fine particulate matter smaller than 2.5 micrometers in diameter. In 2012, the EPA strengthened the NAAQS for $PM_{2.5}$ to 12.0 micrograms per cubic meter (µg/m3), while retaining the existing standards of 150 µg/m3 for PM_{10}.

According to Ecology, the middle Yakima Valley does not exceed the NAAQS standards for $PM_{2.5.}$ The YRCAA maintains one air quality monitoring station in the middle Yakima Valley in Toppenish. These monitors are not intended to determine compliance with NAAQS standards.

Carbon Monoxide: Carbon monoxide (CO) is an air pollutant generally associated with transportation sources. Carbon monoxide also is generated by processes involving incomplete fuel combustion, including home heating appliances and residential wood burning. Carbon monoxide is a pollutant whose impact is usually localized. The highest ambient CO concentrations often occur near congested roadways and intersections during periods of low temperatures, light winds, and stable atmospheric conditions.

Because the EPA, WDOE and the YRCAA do not operate any CO monitoring stations in the lower Yakima Valley, it is not possible to determine CO concentrations for the Granger area. However, because the traffic volumes on surface streets in the immediate vicinity are low and rarely result in congestion, CO levels are not anticipated to exceed NAAQS standards. In addition, CO concentrations have been decreasing in many areas due to more stringent vehicle emission standards for newer cars and the gradual replacement of older, more polluting vehicles.

Ozone: Ozone is primarily a product of regional (urban) motor vehicle traffic. It is created during warm sunny weather when photochemical reactions occur involving hydrocarbons and nitrogen oxides. Unlike carbon monoxide, however, ozone and other reaction products do not reach their peak levels closest to the source of emissions, but rather at downwind locations affected by the urban air plume after the primary pollutants have had time to mix and react under sunlight. The EPA, WDOE and the YRCAA do not monitor ozone in the Lower Yakima Valley.

Regional NAAQS Violations: The upper Yakima Valley metropolitan area (Yakima, Selah, Union Gap) historically has had air quality problems related to PM_{10} and CO. The PM_{10} problems typically occur during the winter, months when wood smoke and transportation pollution builds up due to the metropolitan areas topography (valley surrounded by steep hills), and thermal inversions. This set of

circumstances causes a build-up of PM_{10} pollution levels in the Yakima metropolitan area that periodically exceeds NAAQS.

Historical violations of NAAQS have led to portions of the Yakima metropolitan area being designated as non-attainment for both PM_{10} and CO. The EPA re-designated both the Yakima CO nonattainment area and the PM_{10} nonattainment area to "maintenance" for the NAAQS and approved a Limited Maintenance Plan (LMP), effective December 31, 2002 for CO and March 10, 2005 for PM_{10}. Additionally, on March 9, 2005 an EPA-approved boundary changes to the PM_{10} maintenance area to exclude lands belonging to the Yakama Nation went into effect.

Both the PM_{10} and CO LMPs were developed by the YRCAA. Granger is located outside of the newly designated maintenance areas and is not included in the current LMPs for either PM_{10} or CO.

Plants and Wildlife

Plants

The Granger area lies within the Central Arid Steppe zone of the Columbia Basin Province ecoregion of the Pacific Northwest. The Central Arid Steppe zone is often referred to as the high desert, and encompasses the basins in the rain shadow east of the Cascade Mountain range. In the lower Yakima Valley, the zone is characterized by a habitat type called shrub-steppe, which the Washington Department of Fish and Wildlife (WDFW) identifies as a priority habitat. A priority habitat is one that has significant value to a diverse assemblage of species.

Shrub-steppe is characterized by sagebrush, bunchgrasses, and other perennial shrubs and grasses. Shrub-steppe contains important habitat features such as a diverse topography, canyons, and riparian areas. Farming practices such as cultivation, grazing of livestock, and introduction of exotic plant species have resulted in the alteration of the vegetation in the Granger area. The most arable lands are now under cultivation, and the less arable, formerly cultivated lands have been abandoned. In areas where arable lands lack sufficient moisture, irrigation has occurred through federal irrigation projects. Most of the remaining lands have been used for grazing by domestic and native livestock. Many of these lands have been overgrazed, resulting in environmental and soil degradation. Human-caused range fires have also contributed to the alteration of the shrub-steppe vegetation as invasive species have displaced native species after fire events.

Most farmed crops in the Yakima Valley include grapes, hops, alfalfa, corn, mint, apples, and cherries. Other crops that may be grown in the farmed portions of the City of Granger UGA include asparagus, other grains, peas, other tree fruits, potatoes, and asparagus, as well as grasses and legumes for hay, pasture, and seed. Little other vegetation is found among the crops. Other species that occur consist mainly of noxious weeds such as puncturevine (*Tribulus terrestris*), redroot, pigweed (*Amaranthus retroflexus*), morning glory (*Convolvulus arvense*), cheat grass (*Bromus Tectorum*) and Kochia (*Kochia scoparis*). Farmed lands offer fluctuating levels of food and cover for wildlife in correlation with crop types and harvest schedules.

The dominant major soils units in Granger include Harwood-Burke-Wiehl silt loams, Esquatzel silt loams, Zillah silt loams, Warden silt loams, and Scooteney silt loams. According to the NRCS, in areas where these soils dominate, the native vegetation is mainly composed of bluebunch wheatgrass (*Agropyron spicatum*, a preferred forage plant), Sandberg bluegrass (*Poa sandberii)*, needle and thread grass (*Hesperostipa comata*), big sagebrush (*Artemesia tridentata*), willows (*Salix* sp.), cottonwood (*Populus* sp.), sedges (*Carex* sp.), giant wildrye (*Elymus cinereus*), bunchgrasses (*Festuca* sp.), and various annuals.

Wetland vegetation provides habitat for food, cover, and breeding as well as a movement corridor for birds and mammals. Amphibians may find limited breeding sites within the stream and wetlands in the vicinity of the Granger UGA, though the runoff of agricultural chemicals renders this somewhat less than desirable. The Yakima River running along the southwest boundary of Granger's city limits and UGA provides the most significant wetland vegetation for food, cover and breeding opportunities for fish, birds and mammals.

Some wetlands are created as a consequence of irrigation practices. These wetlands may be used as pasture for grazing cattle, thus decreasing their value for wildlife species. Vegetation within these wetlands is limited to herbaceous species such as smartweeds (*Polygonum spp.*), and quackgrass (*Agropyron repens*) and have been heavily grazed, offering only limited cover and food. Other wetlands are formed from impoundments adjacent to roads and the railroad and receive runoff from these sources as well as irrigation, also decreasing their value for wildlife. These types of wetlands have very low functional ratings and are often heavily disturbed.

Information on rare plants was requested from the Washington State Department of Natural Resources (DNR) Natural Heritage Program. No endangered or threatened plant populations, or state sensitive species, were detected within Granger UGA through the use of the database. Little native vegetation is found within the Granger area and it is unlikely that rare plants would have survived the alternations of the habitat; however, it should be noted that no formal rare plant survey has been completed for the purpose of updating the Comprehensive Plan. Also, the DNR Natural Heritage Program clearly explains that in the absence of field inventories, DNR cannot state whether or not a given site contains high-quality ecosystems or rare plant species.

Wildlife

Information was requested from the WDFW Priority Habitats and Species Program concerning priority habitats and species in the Granger vicinity. The City of Granger falls within the breeding range of the ferruginous hawk (*Buteo regalis*), a state threatened species; however, the ferruginous hawk is not known to occur in the City of Granger UGA. The WDFW has not identified any priority species or habitats within the City of Granger UGA at this time. No endangered or threatened species (excluding fish), were reported to occur within the City of Granger UGA.

Non-endangered bird species that may be present in the Granger area are those species common in Eastern Washington grasslands and open areas. Species frequenting these areas include the American kestrel, western meadowlark, mourning dove, ruffed grouse, black-billed magpie, common snipe, California quail, killdeer, starlings, western kingbird, Brewer's blackbird, and ring-necked pheasant. Additionally, in the scrub/shrub habitat associated with the return flow ditches, ducks, yellow warblers and song sparrows are found. Eagles and great blue herons have also been observed along the Yakima River.

Amphibians or reptiles may be present within the irrigation canals supported on the food, cover, water, and marginal breeding habitat these areas provide. Small mammals such as mice and voles may be abundant throughout the area. Ground squirrels may also occasionally be seen. Larger mammals make use of the canals and ditches, particularly the more vegetated edges, as a corridor leading to the more sheltered habitat found elsewhere. Signs of deer, coyote, and raccoons are found throughout the more rural portions of the UGA. Portions of the area are particularly valuable as a foraging area for raptors. Red-tailed hawks can be seen circling agricultural properties and other raptors including eagles may make use of the habitat.

Fish

Fish have different habitat needs based in part on their life history stages. An anadromous fish is a fish which spawns in fresh water, migrates to the ocean to mature, and then returns to freshwater to spawn and complete its life cycle. Anadromous fish migrate and have unique needs throughout the aquatic system which may be frustrated by the presence of dams or other barriers, low stream flow, and high temperatures during times of passage. Resident fish have year round requirements as well as specific habitat needs during critical times such as spawning. Salmonids need colder temperatures than many non-game fish and require higher dissolved oxygen concentrations particularly over spawning gravels. Successful salmonid reproduction requires channel and substrate stability and adequate winter water flow to prevent freezing. Channels to accommodate fish moving between safe wintering areas and summer foraging areas are also necessary.

The YBWRA evaluated fish habitat conditions in the Yakima River Basin for a Watershed Assessment completed in 2003. Granger is most closely associated with Reach #5 of the Yakima River. This reach of the Yakima River runs from the Parker Dam north of Wapato, down to the confluence of Toppenish Creek and the Yakima River, just south of Granger. The YBWRA found that the Yakima River mainstream conditions were more suitable for fish habitat in Reaches #1-3, and generally deteriorate in a downstream direction. Reach #5 of the Yakima River is important as a migratory corridor for a number of fish species.

The WDFW maintains a database of the presence, spawning, and rearing locations of salmon species and other fish species of concern. Table 1-2 summarizes the salmon species, their location, and the type of presence identified by WDFW in the vicinity of the Granger UGA.

Table 1-2 Location and Presence of Fish Species of Concern, Granger UGA Vicinity

Species	Type of Presence	Water Body
Bull Trout	Presumed Presence	Yakima River
Coho	Documented Presence	Yakima River
Fall Chinook	Documented Spawning	Yakima River
Spring Chinook	Documented Rearing	Yakima River
Summer Steelhead	Documented Presence	Yakima River
Mountain Sucker	Documented Presence	Yakima River

III. NATURAL RESOURCE LANDS AND CRITICAL AREAS

The Growth Management Act (GMA) requires cities and counties to designate natural resource lands, including agricultural, forest and mineral lands that have long-term commercial significance, and are not characterized by urban growth. Under the GMA, cities and counties also must identify critical areas, including the following areas or ecosystems: a) wetlands, b) areas with a critical recharging effect on aquifers used for potable water, c) fish and wildlife habitat conservation areas, d) frequently flooded areas, and 5) geologically hazardous areas. The GMA also requires that counties and cities adopt development regulations that protect designated critical areas.

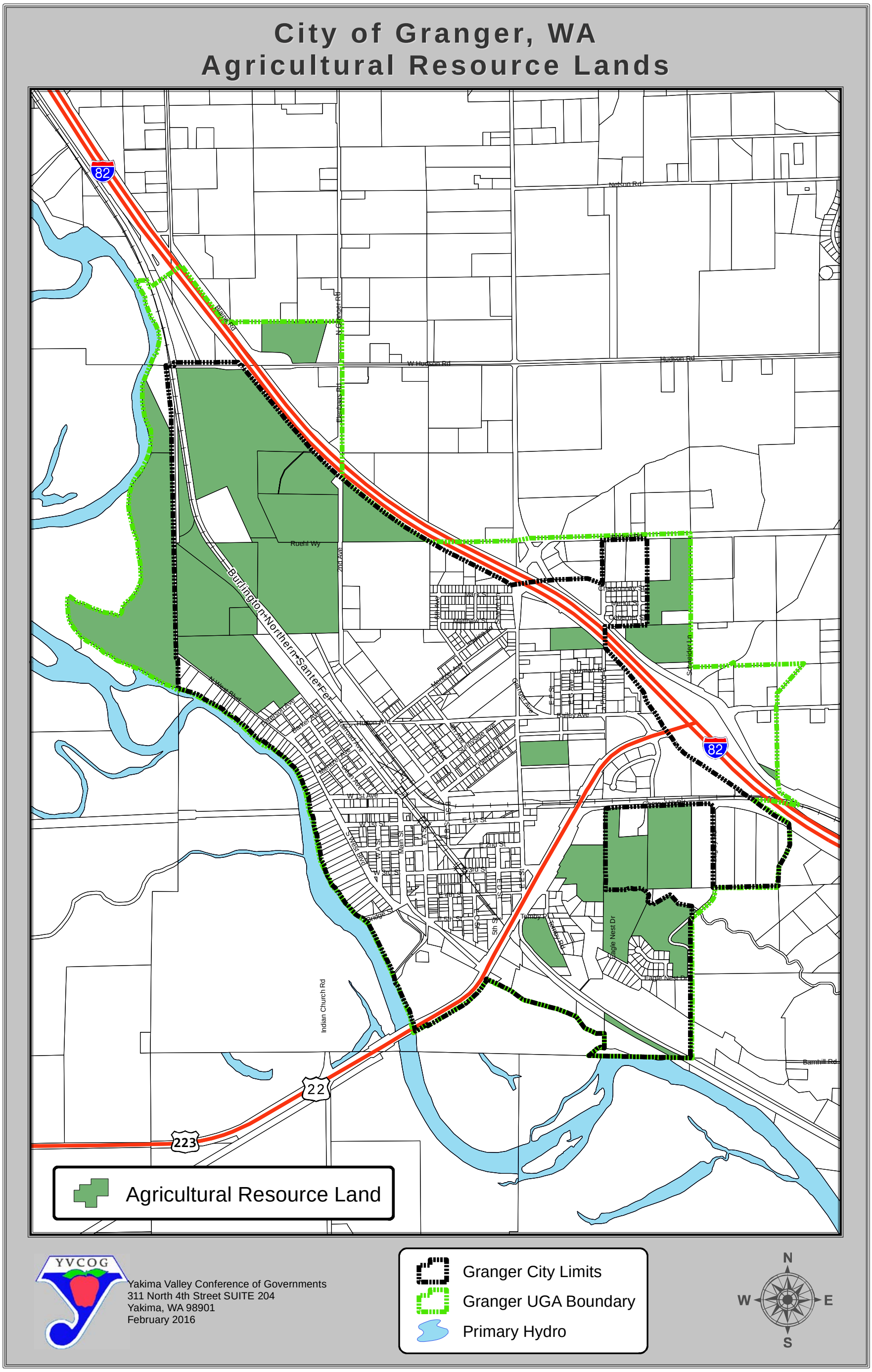
This section identifies any natural resource lands occurring in the Granger UGA and summarizes the critical areas identified as occurring with the UGA.

Agricultural Lands

As of March 2016, the Yakima County Assessor had identified 20 parcels within the City of Granger UGA totaling 272 acres that were in agricultural use (Figure 1-6).

While these lands are currently being utilized for agriculture purposes, they are not necessarily agricultural lands of long-term commercial significance. Infrastructure is available within the UGA in accordance with the Land Use Element and the Capital Facilities Element; and the City has the additional capacity to serve additional growth on these parcels. These parcels represent the next logical areas for residential, commercial, or light industrial/manufacturing urban growth. In addition, state law does not allow agricultural lands within a UGA to be designated as "agricultural lands of long-term commercial significance," unless the governing jurisdiction already has in place a program for purchase or transfer of development rights.

Figure 1-6 Agricultural Resource Lands, Granger UGA



Forest Lands

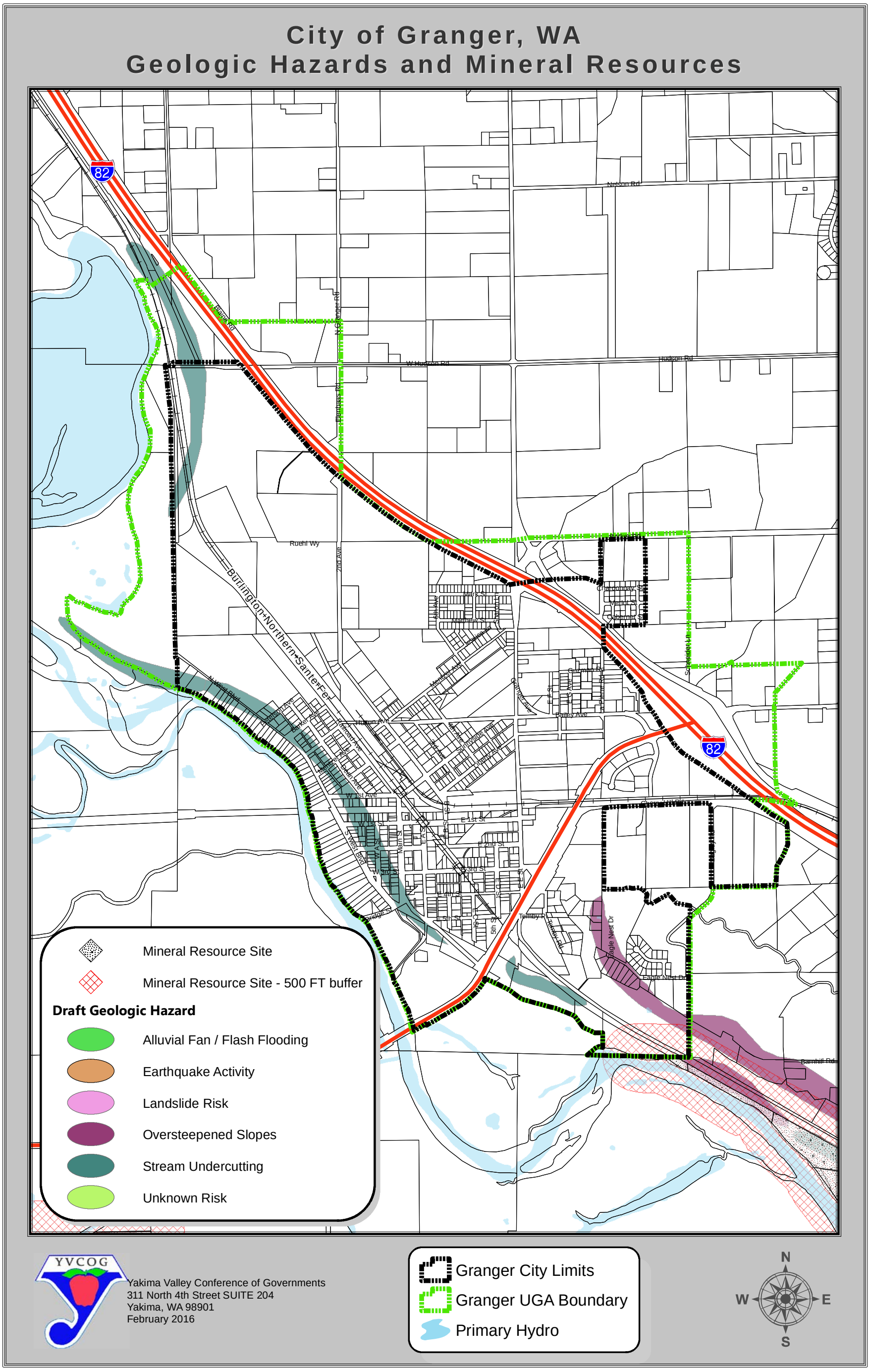
Within the City of Granger, there are no lands (commercial or noncommercial) that are used to grow trees, including Christmas trees. Thus, no forest lands of long-term commercial significance have been designated within the City. However, the Yakama Nation does harvest timber within the reservation border just to the west.

Mineral Lands

Mineral resource lands are those lands primarily devoted to the long-term commercial production of mineral products. Figure 1-7 below displays the approved mineral resource extraction sites in the vicinity of the City of Granger.

One existing mineral resource site is located just outside of the southeast corner of the City boundary. The 500-foot buffer on this site falls within the City limits. According to 36.70A.060 of the GMA, counties and cities must require that all plats, short plats, development permits, and building permits issued for development activities on, or within 500 feet of, lands designated as mineral resource lands contain a notice that the subject property is within or near the mineral resource lands, on which a variety of commercial activities may occur that are not compatible with residential development for certain periods of limited duration. The notice for mineral resource lands must also inform that an application might be made for mining- related activities, including mining, extraction, washing, crushing, stockpiling, blasting, transporting, and recycling of minerals. Responsibility for enforcement of this provision for the portion of the 500-foot buffer falling within the City boundary falls to Granger.

Figure 1-7 Geologic Hazards and Mineral Resources, Granger UGA



Wetlands

The National Wetland Inventory (NWI) map for the Granger UGA can be seen in Figure 1-3, page 1-17. There are two Category II wetlands identified in Granger city limits. One is on the City's northeast side between East E Street and I-82 in current agricultural land. The other is Granger Pond, in the southwest corner of the City. There are also two Category III wetlands in the south end of Granger. In the unincorporated UGA, there are some Category II wetland areas that are associated with the Yakima River, that fall across the UGA's northwest border.

The Granger CAO contains standards for protection of wetland areas.

Critical Aquifer Recharge Areas

Figure 1-2, page 1-14 shows the critical aquifer recharge areas in the Granger UGA, and the level of susceptibility of these areas to contamination. In Granger, the "moderate" contamination susceptibility designation is prevalent, with some areas of "high" susceptibility designation.

The Granger CAO contains standards for protection of critical aquifer recharge areas.

Fish and Wildlife Habitat Conservation Areas

No fish and wildlife habitat conservation areas have been identified within the City of Granger. Therefore, this type of critical area has not been designated.

The Granger CAO contains standards for protection of fish and wildlife habitat conservation areas.

Frequently Flooded Areas

Figure 1-7, page 1-31 shows the current FEMA approved floodplains map for the Granger vicinity. The floodplain and floodway areas falling within the Granger city limits are associated with the Yakima River, in the south and southwest parts of the city.

The Granger CAO contains standards for protection of flood hazard areas.

Geologic Hazard Areas

Yakima County has compiled geologic hazard data countywide. The geologic hazards inventory consists of areas of the county susceptible to hazardous geologic events. Geologic hazards are subdivided on the basis of risk. The categories used are high risk, intermediate risk, low risk, suspected risk, and unknown risk. The following hazards are depicted in the inventory: landslides, over steepened slopes, stream undercutting, alluvial fans/flash flooding, avalanche risk, and earthquake activity.

As Figure 1-7, page 1-31 illustrates, there are several potential geologic hazard areas in the City of Granger UGA. Two of the areas are stream undercutting hazard areas-high risk, and two are stream undercutting hazard areas-low risk. In stream undercutting hazard areas, there is a risk of undercutting of soft materials in the banks near streams and rivers, which could then be prone to collapse. The stream undercutting hazard areas run roughly parallel to and are set back from the Yakima River.

One area also is identified as an oversteepened slope hazard area-intermediate risk. Oversteepened slope hazard areas include areas with slopes steep enough to cause potential problems. Intermediate risk areas are less likely to fail than high risk areas, but are still potentially hazardous. The intermediate risk

category includes some slopes between 30-40%. This area is located roughly parallel to and set back from the Yakima River, in the southeast corner of the City.

The Granger CAO contains standards for protection of geologic hazard areas.

IV. NATURAL SYSTEMS GOALS AND POLICIES

GOAL 1: ***Establish critical areas protection measures to protect environmentally sensitive areas, and protect people and property from hazards.***

Policy 1.1: Use the best available science in a reasonable manner to develop regulations to protect the functions and values of critical areas. (WAC 365-195-900)

Policy 1.2: Ensure proposed subdivisions, other development, and associated infrastructure are designed at a density, level of site coverage, and occupancy to preserve the structure, values and functions of the natural environment or to safeguard the public from hazards to health and safety. (WAC 365-195-825(2) (b)

Policy 1.3: Use a preference-based system of mitigation sequencing for the County's stream, lake, pond, wetland, floodplain, and fish and wildlife habitat critical areas that reduces impacts using approaches ranging from avoidance to replacement. (See section 16A.03.10 Mitigation requirements, WAC 197-11-768)

Policy 1.4: To encourage critical area protection and restoration, the density and lot size limits stipulated in other policies may be adjusted or exceeded to accomplish clustering and bonus provisions adopted under the CAO. The use of incentive-based programs is encouraged.

Groundwater and Critical Aquifer Recharge Areas (CARAs)

GOAL 2: ***Maintain and manage the quality of the groundwater resources in the City of Granger as near as possible to their natural conditions and in compliance with state water quality standards.***

Policy 2.1: Identify and map important aquifers, critical aquifer recharge areas, and surface waters.

Policy 2.2: Develop performance standards and regulate uses for activities which adversely impact water quantity and quality in aquifers, wetlands, watersheds and surface waters.

Policy 2.3: Evaluate the potential impact of development proposals on groundwater quality, and require alternative site designs to reduce contaminant loading where site conditions indicate that the proposed action will measurably degrade groundwater quality.

Policy 2.4: Continue data collection and evaluation efforts to better understand the City's groundwater system and its vulnerability to contamination.

Policy 2.5: Encourage the retention of natural open spaces in development proposals overlying areas highly susceptible for contaminating groundwater resources.

Policy 2.6: Conduct and support educational efforts which inform citizens of measures they can take to reduce contaminant loading of groundwater systems.

Policy 2.7: Encourage development and expansion of community public water systems within the UGA to lessen the reliance on individual wells.

Policy 2.8: Ensure that abandoned wells are closed properly.

Policy 2.9: Ensure sufficient water quantity exists to support land use activities.

Surface Water

GOAL 3: ***Enhance the quantity and quality of surface water.***

Policy 3.1: Improve water conservation through education and incentives.

Policy 3.2: Protect water quality from the adverse impacts associated with erosion and sedimentation.

Policy 3.3: Encourage the use of drainage, erosion and sediment control practices for all construction or development activities.

Policy 3.4: Identify future needs and promote increased water supplies through coordinated development and conservation efforts.

Policy 3.5: Support local and regional cooperative efforts which help to accomplish this goal.

GOAL 4: ***Restore, maintain or enhance the quality of the Yakima River Basin's surface water.***

Policy 4.1: Maintain local control over water quality planning by: 1) providing guidance to state and federal agencies regarding water quality issues, priorities and needs; and 2) demonstrating progress in accomplishing the goals and objectives of locally developed water quality plans, thereby pre-empting externally-imposed solutions to water quality problems as much as possible.

Policy 4.2: Make use of local and regional data sources to assess water quality progress.

Policy 4.3: Participate in water quality improvement planning and implementation efforts by local, regional, state, federal, and tribal agencies, as well as coalitions such as local watershed planning efforts.

Stormwater

GOAL 5: ***Prevent increased flooding from stormwater runoff.***

Policy 5.1: Require on-site retention of stormwater.

Policy 5.2: Preserve natural drainage courses.

Policy 5.3: Minimize adverse storm water impacts generated by the removal of vegetation and alteration of land forms.

GOAL 6 ***Improve water quality through improved stormwater management.***

Policy 6.1: Review the recommendations of locally adopted stormwater management plans, and develop a realistic implementation schedule.

Policy 6.2: Control stormwater in a manner that has positive or neutral impacts on the quality of both surface and groundwater, and does not sacrifice one for the other.

Fish and Wildlife Habitat, Wetlands, and Frequently Flooded Areas

GOAL 7: ***Provide for the maintenance and protection of habitat areas for fish and wildlife.***

Policy 7.1: Encourage the protection of fish and wildlife habitat from a region-wide perspective to ensure that the best representation and distribution of habitats remains to protect the natural values and functions of those habitats. Fish and wildlife habitat protection considerations should include:

1. The physical and hydrological connections between different habitat types to prevent isolation of those habitats,
2. Diversity of habitat types both on a local and regional scale,
3. Large tracts of fish and wildlife habitat,
4. Areas of high species diversity,
5. Locally or regionally unique and rare habitats, and
6. Winter range and migratory bird habitat of seasonal importance.

Policy 7.2: Direct development away from areas containing significant fish and wildlife habitat areas, especially areas which are currently undeveloped or are primarily dominated by low-intensity types of land uses such as forestry.

Policy 7.3: Encourage retention of sustainable natural resource-based industries such as forestry and agriculture to protect important fish and wildlife habitat.

Policy 7.4: Coordinate fish and wildlife protection efforts with state and federal agencies and the Yakama Nation to:

1. Avoid duplication of effort;
2. Ensure consistency in protecting fish and wildlife habitat which crosses political boundaries;
3. Facilitate information exchanges concerning development proposals which may impact fish and wildlife habitat; and
4. Take advantage of any available financial, technical, and project review assistance.

Policy 7.5: Protect the habitat of Washington State Listed Species of Concern and Priority Habitats and Species to maintain their populations within the City of Granger.

Policy 7.6: Work with the resource agencies to prioritize habitats and provide appropriate measures to protect them according to their relative values.

GOAL 8: ***Conserve, protect and enhance the functions and values of stream corridors to provide for natural functions and protect hydrologic connections between features. (WAC 173-26-221(2)(C)(iv)(b))***

Policy 8.1: Development projects should not be authorized if they obstruct fish passage or result in the unmitigated loss or damage of fish and wildlife resources.

Policy 8.2: Encourage and support the retention of natural open spaces or land uses which maintain hydrologic functions and are at low risk to property damage from floodwaters within frequently flooded areas.

Policy 8.3: Protect public and private properties by limiting development within hazardous areas of the stream corridor.

Policy 8.4: Give special consideration to conservation and protection measures necessary to preserve or enhance anadromous fisheries. (RCW 36.70A.172, WAC 365-195-925)

Policy 8.5: Establish a system of vegetative buffers landward from the ordinary high water mark of streams, lakes, ponds, and the edge of wetlands.

Frequently Flooded Areas

GOAL 9: ***Prevent the loss of life or property and minimize public and private costs associated with repairing or preventing flood damages from development in frequently flooded areas.***

Policy 9.1: Support comprehensive flood control planning.

Policy 9.2: The City of Granger should conduct additional analysis and mapping of frequently flooded areas in cases where the 100-year floodplain maps prepared by the Federal Emergency Management Agency do not adequately reflect the levels of risk or the geographic extent of flooding.

Policy 9.3: Direct new critical facility development away from areas subject to catastrophic, life-threatening flood hazards where the hazards cannot be mitigated.

Policy 9.4: Where the effects of flood hazards can be mitigated, require appropriate standards for subdivisions, parcel reconfigurations, site developments and for the design of structures. {Amended 12/98}

Policy 9.5: Plan for and facilitate returning Shoreline rivers to more natural hydrological conditions, and recognize that seasonal flooding is an essential natural process. (WAC 173-26-221(3)(b)(v))

Policy 9.6: When evaluating alternate flood control measures on Shoreline rivers:

1. Consider the removal or relocation of structures in the FEMA 100-year floodplain;
2. Where feasible, give preference to nonstructural flood hazard reduction measures over structural measures;
3. Structural flood hazard reductions measures should be consistent with the County's comprehensive flood hazard management plan. (WAC 173-26-221(3)(b))

Wetlands

GOAL 10: ***Provide for long-term protection and no net loss of wetland functions and values.***

Policy 10.1: Preserve, protect, manage, and regulate wetlands for purposes of promoting public health, safety and general welfare by:

1. Conserving fish, wildlife, and other natural resources of the City of Granger;
2. Regulating property use and development to maintain the natural and economic benefits provided by wetlands, consistent with the general welfare of the City;
3. Protecting private property rights consistent with the public interest; and
4. Require wetland buffers and building setbacks around regulated wetlands to preserve vital wetland functions and values.

Policy 10.2: Adopt a clear definition of a regulated wetland and a method for delineating regulatory wetland boundaries.

Policy 10.3: Classify regulated wetland areas to reflect their relative function, value and uniqueness.

Policy 10.4: Develop a wetlands database.

Policy 10.5: Manage and mitigate human activities or actions which would have probable adverse impacts on the existing conditions of regulated wetlands or their buffers.

Policy 10.6 Require mitigation for any regulated activity which alters regulated wetlands and their buffers. Develop ratios, performance standards, monitoring, and long-term protection. (WAC 173-26-221(2)(c)(i)(F), Existing CAO principle)

Geologic Hazards

GOAL 11: ***Protect the public from personal injury, loss of life or property damage from geologic hazards.***

Policy 11.1: Ensure that land use practices in geologically hazardous areas do not cause or exacerbate natural processes which endanger lives, property, or resources.

Policy 11.2: Locate development within the most environmentally suitable and naturally stable portions of the site.

Policy 11.3: Classify and designate areas on which development should be prohibited, conditioned, or otherwise controlled because of danger from geological hazards.

Policy 11.4: Prevent the subdividing of known or suspected landslide hazard areas, side slopes of stream ravines, or slopes 40 percent or greater for development purposes.

Shorelines

The goals and policies of the Yakima County Shoreline Master Program, adopted by the City of Granger effective January 28, 2010, are hereby adopted by reference, as amended.

Chapter 2 Land Use Element

I. INTRODUCTION

Purpose

The Land Use Element establishes the desirable character, quality and pattern of the physical environment and represents the community's policy plan for growth over the next 20 years. In addition, because land is a limited resource, the Land Use Element acts as an overall check and balance system to provide a balance between people's use of land and lands left in a natural state to maintain natural systems functions

The Washington Growth Management Act (GMA) requires that the following be addressed by the Land Use Element:

- Designation of the proposed general distribution, extent and general location of a number of land uses for various activities.
- Establishment of population densities, building intensities and estimates of population growth.
- Provisions for the protection of the quality and quantity of groundwater used for public water supplies (This requirement is addressed in the Natural Systems Element.)
- Where applicable, the Land Use Element must review drainage, flooding and storm water runoff in the area covered by the plan and nearby jurisdictions and provide guidance for corrective actions to mitigate or cleanse those discharges that pollute the waters of the state (this requirement is addressed in the Natural Systems Element).

The Land Use Element describes how the GMA requirement for designation of an Urban Growth Area (UGA) is being met. It also addresses the GMA inventory requirements for identifying the lands that are useful for public purposes and open space corridors within and between UGAs.

Applicable Countywide Planning Policies

Under the Growth Management Act, cities, towns and their associated UGAs have been identified as the primary areas where future urban levels of growth will be permitted. To achieve the Act's goal of "inter-jurisdictional consistency," Countywide planning policies are integrated with the Land Use Element of Granger's Comprehensive Plan. The following Countywide planning policies apply to discussion on the Land Use Element.

The following Countywide policies are related to the process and criteria for establishing and amending Granger's UGA:

A.3.1. Areas designated for urban growth should be determined by preferred development patterns and the capacity and willingness of the community to provide urban governmental services.

A.3.2. All cities and towns will be within a designated urban growth area. Urban growth areas may include areas not contained within an incorporated city. [RCW 36.70A.110]

A.3.3. All urban growth areas will be reflected in County and respective city comprehensive plans.

A.3.4. Urban growth will occur within urban growth areas only and not be permitted outside of an adopted urban growth area except for new fully contained communities. [RCW 36.70A.350]

A.3.5. The baseline for twenty-year Countywide population forecasts shall be the official decennial Growth Management Act Population Projections from the State of Washington's Office of Financial Management (OFM) plus unrecorded annexations. The process for allocating forecasted population will be cooperatively reviewed.

A.3.6. Sufficient area must be included in the urban growth areas to accommodate a minimum 20-year population forecast and to allow for market choice and location preferences. [RCW 36.70A.110 (2)]

A.3.7. When determining land requirements for urban growth areas, allowance will be made for greenbelt and open space areas and for protection of wildlife habitat and other environmentally sensitive areas. [RCW 36.70A.110(2)]

A.3.8. The County and cities will cooperatively determine the amount of undeveloped buildable urban land needed. The inventory of the undeveloped buildable urban land supply shall be maintained in a regional GIS database.

A.3.9. The County and cities will establish a common method to monitor urban development to evaluate the rate of growth and maintain an inventory of the amount of buildable land remaining.

A.3.10. The local jurisdiction may initiate an amendment to an existing urban growth area through the normal comprehensive plan amendment process; however, in no case will amendments be processed more than once a year. [RCW 36.70A.130 (2)]

A.3.11. Prior to amending an urban growth area, the County and respective local jurisdiction will determine the capital improvement requirements of the amendment to ascertain that urban governmental services will be available within the forecast period.

A.3.12. Annexations will not occur outside established urban growth areas. [RCW 35.13.005]. Annexations will occur within urban growth areas according to the provisions of adopted inter-local agreements, if any.

The following policies relate to phasing growth and development with service and infrastructure provision:

B.3.1. Urban growth should be located first in areas already characterized by urban growth that have existing public facilities and service capacities to serve such development, and second 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. Further, it is appropriate that urban government services be provided by cities, and urban government services should not be provided in rural areas. [RCW 36.70A.110 (3)]

B.3.2. Urban growth management inter-local agreements will identify services to be provided in an UGA, the responsible service purveyors and the terms under which the services are to be provided.

B.3.3. Infill development, higher density zoning and small lot sizes should be encouraged where services have already been provided and sufficient capacity exists and in areas planned for urban services within the next 20 years.

B.3.4. The capital facilities, utilities and transportation elements of each local government's comprehensive plan will specify the general location and phasing of major infrastructure improvements and anticipated revenue sources. [RCW 36.70A.070(3)(c)(d)]. These plan elements will be developed in consultation with special purpose districts and other utility providers.

B.3.5. New urban development should utilize available/planned urban services. [RCW 36.70A.110(3)]

B.3.6. Formation of new water or sewer districts should be discouraged within designated UGAs.

G.3.2. Local economic development plans should be consistent with the comprehensive land use and capital facilities plans, and should:

a. Evaluate existing and potential industrial and commercial land sites to determine short and long term potential for accommodating new and existing businesses;
b. Identify and target prime sites, determine costs and benefits of specific land development options and develop specific capital improvement strategies for the desired option;
c. Implement zoning and land use policies based upon infrastructure and financial capacities of each jurisdiction;
d. Identify changes in UGAs as necessary to accommodate the land and infrastructure needs of business and industry;
e. Support housing strategies and choices required for economic development.

Relationship to Other Elements

The Land Use Element could be described as the "driver of the comprehensive plan" in that each of the other elements is interrelated with the Land Use Element, and the plan's goals will be implemented through land use policies and regulations.

This Land Use Element has the following components:

1) Summary of the UGA process and designation.

2) Summary of major land use considerations for the City.

3) Summary of historic trends and the physical setting for the community, and an inventory of existing land uses within the City and its UGA.

4) Analysis and forecasts, including analysis of population growth and demographics; economic conditions; physical conditions; infrastructure; public facilities and services; and projection of long-range land use needs.

5) Land use plan concept: discussion of the major plan concepts and growth management strategies.

6) Land use maps

7) Land use goals and policies

II. URBAN GROWTH AREA

Granger's UGA includes those lands to which the City may feasibly provide future urban services, and those surrounding areas which directly impact conditions within the City limits (Figure 2.1). The UGA was designated by the County Commissioners, after an extensive process involving coordination between the City and the County, in which the UGA boundary was identified and a interlocal agreement for the UGA were established. Countywide planning policies were taken into consideration in this process.

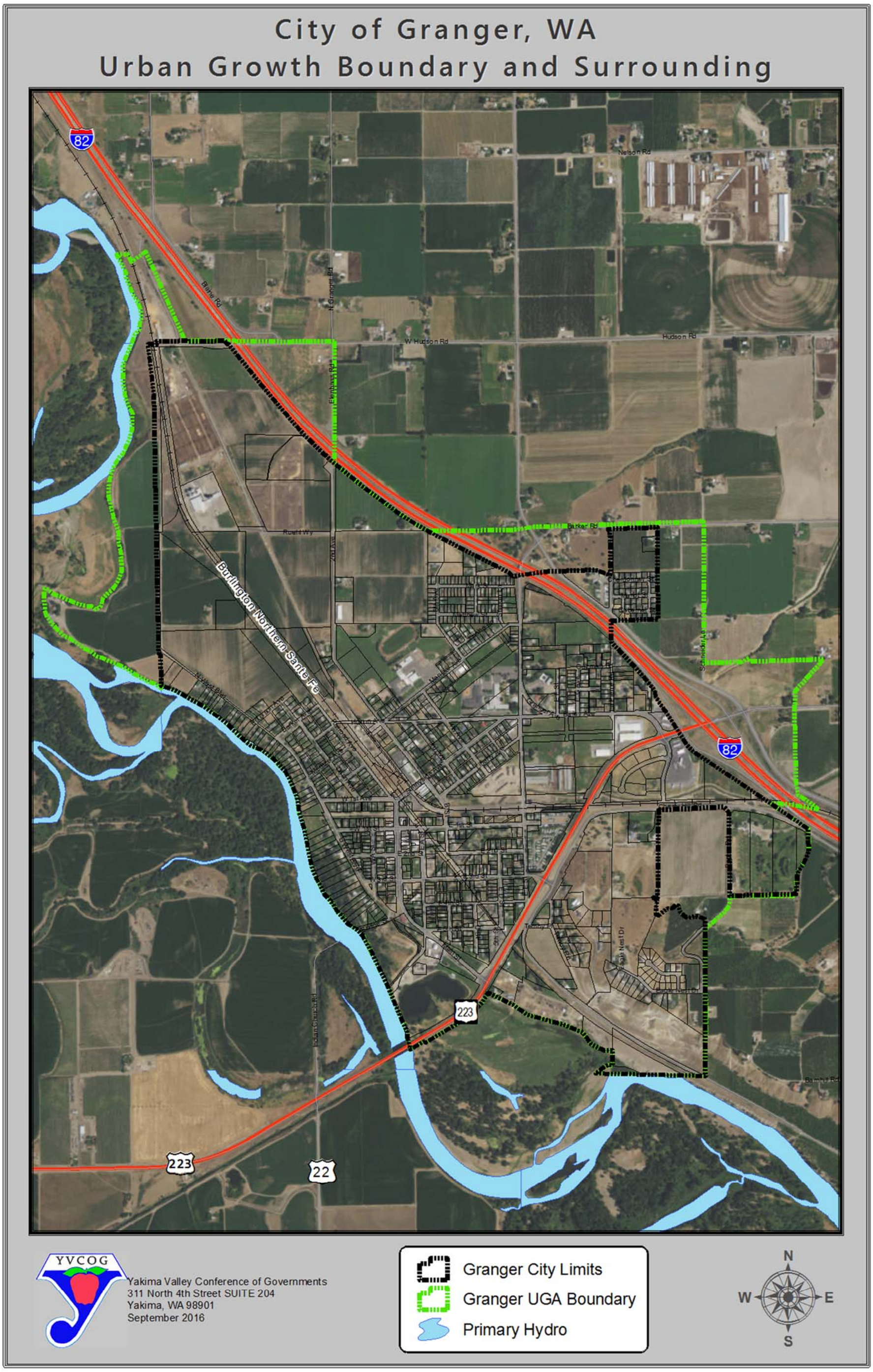
In the UGA boundary designation process, the County determines how much land a municipality will need by the end of a 20-year forecast period, based on the current acreage provided for each use, the amount of existing vacant land, and the amount of land that will be needed for each use to support the population projected at the end of the 20-year forecast period. The County also collaborates with cities to take into consideration cities' justifications for UGA boundary adjustments.

Yakima County last reviewed Granger's UGA in 2016. At that time, the County found that Granger would have a surplus of residentially-zoned and vacant commercially-zoned land within the City and its UGA for all non-industrial uses through 2040, and that expanding the UGA for the purposes of providing for commercial and residential uses was not justified.

III. MAJOR LAND USE CONSIDERATIONS

- What land use patterns are consistent with Granger's vision for economic development?
- How can the City encourage the construction of housing that will support an economically diverse community?
- What areas have the most capacity for development, in terms of the availability of water, sewer, and roads? What areas are currently experiencing development pressures?
- What can the City do to generate increased tourism from I-82 and other major transportation routes in the area?
- What land use changes are needed to support plans to revitalize the downtown business core?
- Should commercial development be encouraged along Bailey Avenue?
- Some of the land that is currently designated for industrial use is no longer being used for that purpose; would other land use designations now be more appropriate?
- Should the City encourage or discourage the conversion of agricultural land to other uses in the unincorporated portion of the UGA?

Figure 2-1. City of Granger Urban Growth Area



IV. EXISTING CONDITIONS

Early History[1]

In the late 1880s, the Northern Pacific Railroad Company contracted with Walter N. Granger to develop the Sunnyside Canal Project. Although the railroad had already built its major line through the County, it was not until the Sunnyside Canal Project was begun that the railroad decided to build a branch line through Granger. By 1892, irrigation water was flowing in stretches of the canal. While the project was not to be complete for nearly 20 more years, its influence was already having an effect on the railroad. Promoters joined with the railroad in plotting routes for branch lines and new areas to begin communities.

In 1904, with a limited settlement already existing, the Granger Land Company platted a City. The City was named after Walter N. Granger, the man who had organized the land company and had promised to build a City at the foot of Snipes Mountain. A flurry of development activity followed during the next five years. A cannery was constructed, a cider plant opened, and the Hotel Sheffler was operated. A photographic gallery, a millinery shop, and a doctor followed. Soon a baker, a general store, post office and meat market appeared. Completing the early City was a combination grocery store/pool hall/saloon-dance hall. On September 20, 1909, the young and growing community became incorporated as the "Town of Granger."

Growth Trends

Earliest Years

Irrigation projects were the greatest shaping force in the County during the late 1800s, followed closely by the presence of the railroad. The combined forces of water and rail service meant that the arid desert of the Lower Valley could be plowed and planted with crops or pasture land, and that produce or livestock could be shipped by rail to outside markets.

A familiar trend in Yakima County began, once again, to repeat itself. As the irrigation network of smaller ditches and canals expanded, due to the Sunnyside Canal Project, more and more dry land acreage was put into crops and pasture. As more farmers came to the area and put even more land into cultivation, the flourishing agricultural economy attracted the interests of land speculators and business entrepreneurs. Under this combined influence, a young settlement was platted into a City complete with rail service and a growing agricultural economy. The growth of Granger began as a service support center for the surrounding agricultural boom. Business and industry emerged and the small City's population began to grow.

1910 to 1920

Table 2-1 summarizes population growth in Granger between 1910 and 2008, while Table 2-2 summarizes the same for Yakima County. In 1910, one year after incorporation of the City, the population was 453 persons. An early fire that consumed a portion of the City, and the beginning of World War I, slowed early growth. These events caused a decrease in the City's population to 412 persons by 1920.

The Yakima Valley in general grew slowly but steadily between 1910 and 1940, reflecting reduced employment and growing scarcity of land. A slight population increase occurred as Great Plains farmers

[1] Granger, the City, the Land, the People, Granger Library Club; cited in Granger Sub-Area Comprehensive Plan, April 1981.

moved to Washington seeking new agricultural opportunities.

1920 to 1960

Starting in the 1920s, the City began a rapid and considerable growth trend, riding the wave of the agricultural boom and attracting the business, industry and population growth that accompanies such expansion.

The largest population growth occurred between 1940 and 1950 when the agricultural boom peaked (irrigation projects were finished and all the surrounding productive land was in irrigation) and World War II ended, returning many war veterans to their homes. The baby boom also began during this period and helps account for the high continued population growth between 1950 and 1960, even though the agricultural boom was over.

Other regional influences during the 1940s and 1950s included establishment of Hanford Atomic Works during World War II, expansion of the land area under irrigation, growth of food processing industries, and access to new markets. Growth slowed as construction concluded on major irrigation projects and agricultural activity slowed.

1960 to 2008

Growth was moderate, but fairly steady. During the 1960s, agricultural employment in the Yakima Valley was decreasing, while many new jobs were being created on the west side of the Cascades. During the 1960s, growth in Granger outpaced growth in the County as a whole, with Granger's population increasing by 143, or 10%, and the County as a whole increasing only 100, or 0.10%.

Agricultural patterns in the Yakima Valley changed significantly between 1970 and 1990, according to crop reports for the U.S. Bureau of Reclamation Yakima Project. Acreage in sugar beets, potatoes, and irrigated pasture declined, while acreage in hops, alfalfa, wheat, apples, and grapes increased. Sugar beet production ceased during the 1970s when the area's last sugar beet factory closed.

In the 1970s, growth in Yakima County followed a national trend toward decentralization of people and activities to suburban and exurban areas, and to many small cities and rural areas. The City of Granger's population increased 16.5% during the 1970s, 13.3% during the 1980s, 18% during the 1990s, and 20.6% between 2000 and 2008.

In the County, some of the growth that occurred during the 1980s has been attributed to the 'settling out' of the largely Hispanic migrant farm worker population. This trend received additional impetus with the passage of the Immigration Reform and Control Act of 1986.

Table 2-1. City of Granger Population Trend, 1910-2015

Year	Population	Change From Previous	% Change	Average Growth Rate (Persons per year)
1910	453		---	---
1920	412	-41	-9.1%	-4.1
1930	568	156	37.9%	15.6
1940	752	184	32.4%	18.4
1950	1,164	412	54.8%	41.2

Year	Population	Change From Previous	% Change	Average Growth Rate (Persons per year)
1960	1,424	260	22.3%	26.2
1970	1,567	143	10.0%	14.3
1980	1,812	245	15.6%	24.5
1990	2,053	241	13.3%	24.1
2000	2,530	477	23.2%	47.7
2010	3,246	520	20.6%	65
2015	3,640	394	12.1%	78.8

Source: 1910-2009 – U.S. Census Bureau, Census of Population and Housing; 2015 – Washington State Office of Financial Management

Table 2-2. Yakima County Population Trend, 1910-2015

Year	Population	Change from Previous	% Change	Average Growth Rate (Persons per year)
1910	41,709		---	---
1920	63,710	22,001	52.7%	2,200
1930	77,402	13,692	37.9%	1,369
1940	99,019	21,617	27.9%	2,161
1950	135,723	36,704	37.0%	3,670
1960	145,112	9,389	6.9%	938
1970	145,212	100	.1%	10
1980	172,508	15,808	10.1%	1,580
1990	188,823	16,315	9.5%	1,631
2000	222,581	33,758	15.1%	3,375
2010	243,231	20,650	9.3%	2,065
2015	249,970	6,739	2.8%	1,348

Source: 1910-2009 – U.S. Census Bureau, Census of Population and Housing; 2015 – Washington State Office of Financial Management

Physical Setting

The City of Granger is located in the south-central section of Washington State, in the southeastern portion of the Yakima Valley. Almost all of the City lies between I-82 and the Yakima River. The river forms the northern boundary of the Yakama Indian Reservation. The nearest major city is the City of Yakima, approximately 30 miles to the north.

According to a letter from FEMA dated June 15, 1979, "for all practical purposes no part of the community would be inundated by the base flood" from the Yakima River. Based on the 2009 FEMA map for unincorporated Yakima County (53077C185D), areas below the bluff and the Hisey Park area are in the 100-year floodplain.

The mean elevation of the City site is 720 feet above sea level. The ground slopes gently from Rattlesnake Ridge to the steep bluff that separates Granger from the Yakima River floodplain. At the southern edge of City on the north side of the Yakima River, Snipes Mountain extends approximately eight miles toward Sunnyside.

Most of the soils are loess formed in alluvium over gravel. Some building limitations due to soils occur east of SR 223, and along the river to the west of SR 223. Most of the soils in these areas are designated by the Natural Resources Conservation Service (NRCS) as "limited" or "very limited" for buildings with basements. Some of the soils in the area are prone to flooding, and others are limited due to 15% to 30% slopes. "Very limited" means that the soil limitations cannot be overcome without major soil reclamation, expensive installation procedures, or special designs (see the Natural Systems Element for more discussion of Granger soils).

Temperatures range from 110^0 F in summer to -25^0 F in winter. Average rainfall is approximately seven inches.

Irrigation in the Valley is made possible by water from the U.S. Bureau of Reclamation's Yakima Project. The Sunnyside Valley Irrigation District serves most of the City of Granger, with the exception of the portion of the City that lies south of Bailey and west of SR 223. The Granger Pond is not in an irrigation district.

Groundwater in the Granger drainage basin occurs in three major aquifer systems: the shallow, unconfined aquifer, near the surface; the post basalt aquifer, somewhat deeper; and the basalt aquifer, the deepest. The shallow unconfined aquifer occurs only in the immediate vicinity of the Yakima River, and flows southeast. The lower elevations of the drainage basin (not the Rattlesnake Hills) are underlain by the post basalt aquifer, which flows south-southwest (toward the Yakima River). The basalt aquifer underlies the entire drainage basin, and flows south. Canal leakage and irrigation are the main sources of recharge to the shallow aquifer.

The Granger Drain passes through the City of Granger and enters the Yakima River immediately upstream of Hisey Park. For many years, the drain has been identified as a source of pollutants to the Yakima River, including sediment, fecal coliform, nutrients, pathogens, DDT, Dieldrin, and endosulfan. Joint efforts by the Roza-Sunnyside Board of Joint Control, South Yakima Conservation District, Washington State Department of Ecology, and the United States Geological Survey are under way to address and correct water quality problems in the Granger Drain. Objectives are to reduce sediment loading and fecal coliform input to the Yakima River, and reduce nutrient loading to surface and groundwater.

Existing Zoning

The majority of the City is zoned either R-1 or M-1, Within the City, residential zoning is predominantly R-1 (Single-family Residential). There are two large areas of R-2 (Multifamily Residential) zoning: east of the central business district, between East A Street and E Street and south of East First Street; and south of I-82, between East E Street and La Pierre Road. Large tracts of M-1 (Manufacturing-Land Industrial) zoned land occur in the northwest and southwest portions of the City. C-1 (Commercial) zoned land primarily occurs along Main Street, the north side of East 1st Street, between East E Street and SR 223, south of the railroad tracks; and north of the railroad tracks, between SR 223 and I-82.

The unincorporated portion of the City of Granger's UGA is regulated by County zoning. Most of this acreage is either I (Industrial), R-1 (One-Family Residential), or HC (Highway/Tourist Commercial).

Urban Growth Area

Granger's Urban Growth Area (UGA) includes the incorporated City and those lands to which the City may feasibly provide future urban services (i.e. the City's urban service area). Figure 2-1, page 2-6 illustrates the UGA.

The City of Granger's UGA boundary and future land use designations in the unincorporated portions of the UGA were reviewed and update in 2016 after an extensive process involving coordination between the City and the County. The Land Capacity Analysis conducted by the County determined that Granger's existing UGA contained a surplus of 219 acres of vacant residential, commercial, and community facilities which could accommodate 40 years of growth in the City and 15 years of growth in the unincorporated portion of the UGA, for non-industrial purposes[2]. As a result of the UGA update process, Granger's UGA boundary remained unchanged. However, some comprehensive plan and zoning designations were changed to reflect more detailed comprehensive plan designations adopted by the County. The Future Land Use Map, Figure 2.7, illustrates the adopted designations.[3]

During the UGA boundary revision process, the following major findings or considerations contributed toward the final location of the boundary:

- Establishing a balance between allocating too much or too little land within the UGA. Allocating too much land may contribute to development that cannot be supported by public services or high costs for providing services, as well as unnecessary conversion of resource lands and farmlands to residential or other uses. Allowing too little land within the UGA may result in increased housing choices, limited housing choices, and few commercial services options. If there is an inadequate supply of industrial land, economic development efforts could be constrained and potentially cause a decrease in the tax base.

- Using physical features or environmental constraints to provide a clear separation between urban and rural area.

Existing Land Use Inventory

Figure 2-2, page 2-16 shows the general arrangement of existing land uses within the City and the UGA. Table 2-3 summarizes the acreage of each land use within the Granger UGA. The identification of existing land uses was based on 2016 Yakima County Assessor parcel records. There were 959 total acres in the UGA. The largest current land use category was agriculture with 343 acres, both inside City limits and in the unincorporated portion of the UGA. Setting aside transportation rights-of-way, the next largest use is residential of all types, accounting for approximately 25% of the City's total acreage. The next largest land use is undeveloped land, with 17.6%.

[2] Yakima County Public Services Department Planning Division, Long Range Planning Section. May 25, 2016. Staff Report: Yakima County's 2017 Review of its UGAs and Permitted Densities – Urban Growth Area for City of Granger.
[3] Board of Yakima County Commissioners. Ordinance 14-2016, December 27, 2016 – UGA adoption.

Table 2-3. Existing Land Use Inventory, Granger UGA

Land Use Type	# Parcels	Total Acreage	% Total
Agriculture	29	343.2	35.8%
Commercial	38	25.7	2.7%
Industrial	5	22.0	2.3%
Single-family Residential	620	198.6	20.7%
Multifamily Residential	27	33.1	3.5%
Other Residential	12	11.9	1.2%
Public Recreation	18	52.0	5.4%
Public Service	19	81.6	8.5%
Transportation	8	18.1	1.9%
Undeveloped	219	168.8	17.6%
Utility	7	3.7	0.4%
Total	**63**	**958.7**	**100.0%**

Source: Yakima County Assessor data, 2016

Residential Land Use

As indicated by Figure 5.3 in the Housing Element, population densities within 2010 U.S. Census blocks in Granger ranged from zero to more than 10,000 persons per square mile. Households averaged 4.0 persons per household. The largest concentration of relatively high population density is located in south Granger between the BNSF railroad tracks and Highway 223; there are also a few small areas of concentrated density in central and northeast Granger. In the older areas of Granger there are many small to very small nonconforming lots ranging in size from 0.04 acres (1,742 square feet) to approximately 0.15 acres (6,534 square feet).

Yakima County Assessor's records indicated that the Granger UGA has 620 parcels containing single-family housing on 198.6 acres, 27 parcels of multifamily housing on 33.1 acres, and 12 parcels of other residential housing on 11.9 acres.

According to OFM estimates for 2015, the City of Granger contains 918 total housing units, including 565 single family-housing units, 129 multifamily units, and 224 manufactured homes and other housing. The total vacancy rate as reported in the 2014 American Community Survey (the most recent source of vacancy data) was 3.4%. The vacancy rate for properties "for rent" alone was as 7.0%, while the rate for "for sale" properties alone was a very low 2.4%.

Commercial Land Use

There are 38 acres of land in commercial use within the Granger UGA, accounting for 2.7% of the total parcel acreage. Only one of these parcels occurs in the unincorporated portion of the UGA. The intensity of commercial development is measured by estimating the number of acres per 1,000 residents. At

Granger's estimated 2015 population of 3,640, this translates to 10 acres of commercial land per 1,000 residents. Comparison with other cities is difficult, but this appears to be in the medium portion of the range, nationally, for cities under 10,000.

Most of the commercial development in Granger is located along Bailey Avenue and in the central business district. The central business district is located along Main Street, west Sunnyside Avenue, and the west side of East A Street, between West First Avenue and Fourth Street.

Areas of commercial (C-1) zoning include the central business district, along both sides of Main Street; the north side of East 1st Street, between East E Street and SR 223, south of the railroad tracks; and north of the railroad tracks, between SR 223 and I-82.

The Yakima County Assessor's records show no commercial land use in the unincorporated portion of the UGA.

Industrial Land Use

Industrial land use, including manufacturing and warehousing, occupies 37.97 acres, or 3.48% of the acreage in parcels in the City of Granger.

The City contains large areas of manufacturing (M-1) zoning that are currently in agricultural use. These areas occur in the northwest and southwest portions of the City. Other areas that are currently zoned M-1 include along the railroad tracks west of SR 223, and the area bounded by Bailey Avenue, East E Street, the railroad tracks, and SR 223.

Agricultural Land

Over a third of the land within the City of Granger, or approximately 377.47 acres, is currently in agricultural use. In the remainder of the UGA, 171.59 acres is in agricultural use. The area surrounding the City of Granger produces hops, hay, tree fruit, mint, and wheat.

The Sunnyside Irrigation District serves all except the southwest portion of Granger. Crop reports from the Sunnyside Valley Irrigation District (1989 data for entire irrigation district) indicate that forage crops (such as alfalfa, other hay, irrigated pasture, and silage) are the major irrigated land use, followed by fruits, field crops, cereals, and vegetables. Of the forage crops, irrigated pasture is the major land use. Hops are the most important field crop, with corn the major cereal, and grapes the major fruit.

Parks and Recreation

The County Assessor data identifies 4.04 acres of land currently being used as parks. However, the County Assessor classified some areas that Granger considers park land as other uses; for example, the Granger Pond is classified as "government public." The City's 2003 Comprehensive Parks, Open Space, and Recreation Plan identifies 26 acres of park land in the City of Granger. These include Old Town Park with approximately two acres; Park of Memories with less than one acre; Hisey Park and the adjacent Granger Pond, approximately 22 acres total; and Well Park with approximately 0.4 acres. In addition, there is approximately 18 acres of school district-owned parks land at Roosevelt Elementary School and Granger High School.

Outside of the UGA, the Yakima Valley offer many recreational opportunities to residents and visitors alike, including picnicking at wineries, bicycling, fishing, hunting, and wildlife viewing. Pheasant hunting is popular in the wheat and corn fields of the valley. The Toppenish Wildlife Refuge offers duck hunting

and bird watching. The Yakima River and a number of small ponds along I-82 offer opportunities for fishing, boating and nature study. The Yakama Indian Nation's Heritage Center complex, located between Wapato and Toppenish, includes a museum, theater and restaurant.

Open Space Corridors

The Growth Management Act requires cities to identify open space corridors within and between UGAs. These corridors must include lands that are useful for recreation, wildlife habitat, trails and connection of critical areas.

Citizen groups and the staff of neighboring communities and Yakima County have discussed the possibility of eventually providing a continuous hiker-biker trail system through the lower Yakima Valley. At present, rail corridors are used for a trail from Sunnyside to Grandview, and another trail goes south from the Benton County line. The 2008 *Yakima County Trails Plan* proposes two trail segments crossing Granger: one that would pass into Granger from the southwest along SR 223, and one from the east near I-82. Both segments would merge at I-82 and continue northwest along the I-82 corridor.

The Yakima River is a major resource for providing a potential corridor for recreational travel. Access to the Yakima River is already available at Hisey Park. An asphalt trail circles the Granger Pond, and there is potential for extending the trail on the north end to run along the river and/or on the abandoned railroad right-of-way through the center of the City. Areas in the floodplain of the Yakima River provide wildlife habitat and recreational corridor potential. Steep slopes separate the river, riverine wetlands and floodplain from existing development on the plateau above the river along West Boulevard. The east side of the river presents obstacles to construction and maintenance of a recreation trail due to steep slopes along the river's edge, and the area along the bank is marshy. While some of the floodplain area may not be readily accessible, other areas may be suitable for wildlife viewing, nature study, or similar activities. Where development has not occurred along the river bank, the areas should be evaluated for such uses, or possibly recreational corridors, depending on accessibility.

Outside of the UGA, on the west side of the Yakima River, tribal trust lands of the Yakama Indian Reservation are likely to continue to provide wildlife habitat and open space aesthetic values.

Vacant or Underdeveloped Land

Vacant lands accounts for 145.2 acres or 13.31% of the City of Granger's total land area. Many of these vacant lands are small parcels scattered throughout areas dominated by residential uses, such as south of Peterson Avenue and west of Railroad Avenue, south of Bailey Avenue and east of Railroad Avenue, and north of Bailey Avenue to the east and west of East E Street. These areas present opportunities for residential infill development.

In the unincorporated portion of the UGA, the County Assessor's records show 44.0 acres or 3.5 percent of the total as vacant.

Cultural Resource Land Uses

<u>Historic Preservation</u>

Historic preservation may be defined as active protection of properties significant to Granger's past. Historic preservation can enhance the quality of life in the City through several means, including economic development, a revitalized downtown and neighborhoods, rehabilitated housing, cost-effective

reuse of the community's public and capital facilities, and enhanced urban design that protects existing community character. A variety of incentives are available for promoting historic preservation.

No structures or sites in the Granger area are listed on the state or national registers of historic places. Certain structures and places may hold historical or cultural significance for the citizens of Granger.

The City does not have a local historic preservation program at this time. The City has not attempted to become a Certified Local Government, which would be required for participation in the Federal Historic Preservation Program. However, a goal of the City is to develop a historic preservation program that would celebrate Granger's history, as well as identify structures, landscapes, and other places of historic or cultural significance and develop strategies for protecting them.

Additional Cultural Resources

Granger hosts several annual festivals that have a local and/or regional draw and help build a sense of community. These include:

- The Annual Cherry Festival, which has run for 68 years, is typically the first spring festival in the Valley each year. It includes a parade, carnival rides, a fishing derby, and other activities.
- Dino in a Day builds on the City's theme, "Where Dinosaurs Roam." The theme was created after mammoth bones were discovered in 1958 in a mine formerly owned by Granger Clay Company. During the festival, held annually on First Saturday in June, a new dinosaur sculpture is built with the help of festival participants, and added to the City's collection. The festival promotes a feeling of ownership and pride in the community.
- The Washington State Menudo Festival is a menudo-cooking competition that includes entertainment such as children's games, music, and dancers. The festival is also timed to celebrate Fiestas Patrias, Mexico's Independence Day.
- Movies at the park are held in the summer months at Granger Hisey Park. This event was kicked off in the summer of 2011. Admission is free and the concession stands are open for sale of goods.

Residents of Granger and the surrounding area can visit the Yakama Nation Cultural Heritage Center in Toppenish to learn more about the history of the Yakama Indian Nation. At the Center, tribal members tell stories of traditional legends, and the facility also possesses a museum, theater, restaurant and other recreational facilities.

Figure 2-2. Existing Land Use, City of Granger Urban Growth Area

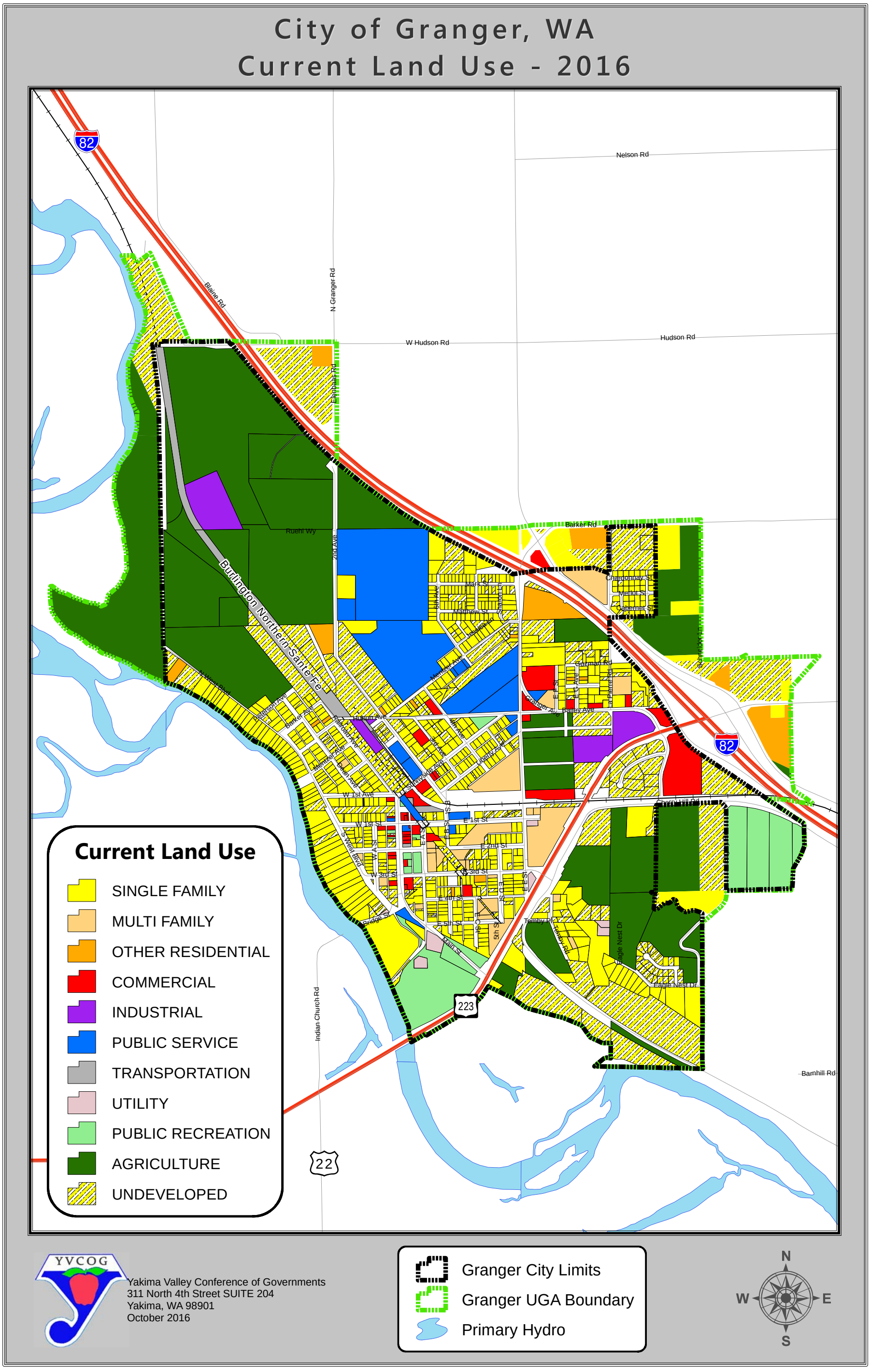
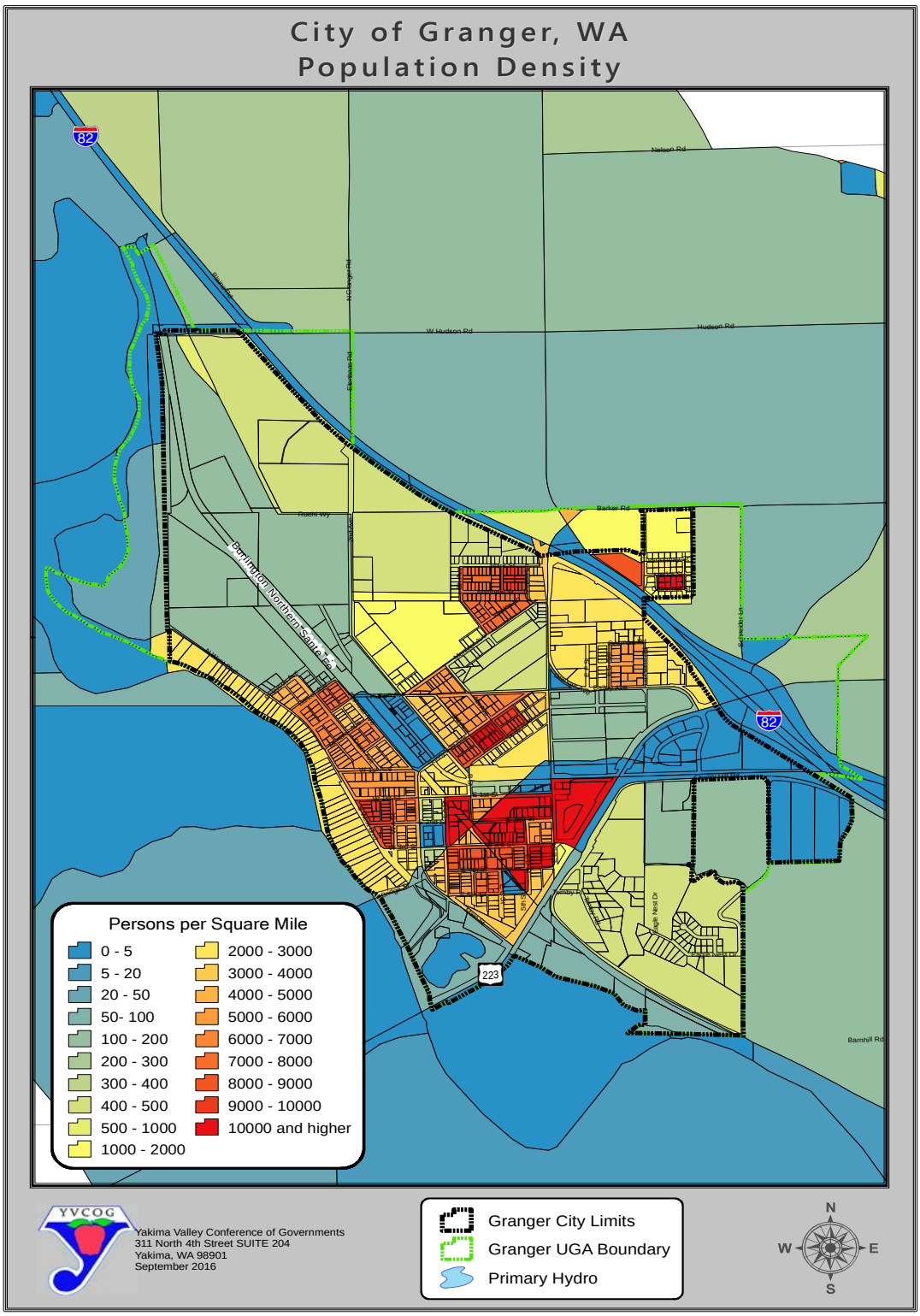


Figure 2.4. Population Density, 2010 Census, City of Granger Urban Growth Area



V. ANALYSIS/FORECASTS

Population Trends, Demographics and Projections

The City of Granger has grown from a population of 453 in 1910, the year after its incorporation, to a 2008 population of 3,050 (OFM). Tables 2-1 and 2-2 (page 2-9) show the Census population by decade for the City and Yakima County from 1910 through 2000, and the percent change.

The average rate of change per decade since 1950 within the City has ranged from a high of 2.2% per year between 1950 and 1960, to a low of 1.0% per year between 1960 and 1970. Except for the 1970s, Granger's share of the County's population has increased steadily during this period, growing from 0.9% in 1950 to 1.3% in 2008.

Possible explanations for this historic growth pattern were discussed in previous sections.

Demographics

Based on 2000 Census population data collected in 1999, 20.5% of Granger's population is white, 0.1% is black, 1.4% is American Indian, Eskimo or Aleut, 0% is Asian, and the remainder, 78.6%, is included under the Census classification of "other." Persons listed within the classification of "other" in Granger are primarily of Mexican or Spanish descent. The City's population includes 2,164 people, or 85.5%, who consider themselves to be of Hispanic origin (of any race). The 2000 Census noted that 77.5% of Granger's population of five years and older spoke Spanish, with 31.2% of Spanish speakers speaking English "not very well" or "not at all."

For decades, thousands of Hispanic migrant workers followed the crop harvest into Central Washington, beginning with the asparagus harvest in April and ending with apples in October, and leaving by early winter. By the mid-1980s, increasing numbers of migrant farm workers had started "settling out," creating a large, resident population of uneducated, unskilled, poorly-housed, seasonally unemployed individuals. With the passage of the Immigration Reform and Control Act of 1986, many migrant workers filed for permanent citizenship, giving Yakima County an increasing percentage of minority residents. Yakima County led the state in these filing, 80% of which were of Hispanic origin.

In Granger, the Hispanic population grew from 984 (54.3%) in 1980, to 1,444 (70.3%) in 1990, to 2,164 (85.5%) in 1999. The 2000 Census for Granger showed a foreign-born population of 992 (38.4% of the population), 490 of which had entered the United States between 1990 and 2000.

As of 1999, approximately 40.04% of the population of Granger was under the age of 18, and 5.22% of the population was 65 and older. Table 2-4 below provides age distributions for the Hispanic and non-Hispanic ethnic groups.

Table 2-4. Hispanic and Non-Hispanic Ethnic Groups by Age

	Age 0-17		Age 18-29		Age 30-49		Age 50-64		Age 65+	
	Total	***% Total Pop***	***Total***	***% Total Pop***	***Total***	***% Total Pop***	***Total***	***% Total Pop***	***Total***	***% Total Pop***
Hispanic	1,004	36.68%	485	19.17%	474	18.74%	132	5.22%	69	2.73%
Non-Hispanic	85	3.36%	52	2.06%	100	3.95%	68	2.69%	61	2.49%
Total	1,089	40.04%	537	21.23%	574	22.69%	200	7.91%	130	5.22%

Source: U.S. Census 2000

Population projections

Table 2-5 shows population projections for the City of Granger compared to Zillah, Toppenish, and County totals. Table 2-6 projects the City's population through the year 2040 without comparisons to other jurisdictions.

Table 2-5. Population Trends and Estimates Compared

Projected Growth - City of Granger, Zillah and Toppenish						
	2000	***2005***	***2010***	***2015***	***2020***	***2025***
	Census	***Medium***	***Medium***	***OFM***	***Medium***	***Medium***
Total County Population	222,581	225,622	237,435	249,970	269,401	283,884
Unincorporated Population	93,216	94,490	99,437	85,985	112,824	118,889
Incorporated Population	129,365	131,132	137,998	163,985	156,577	164,995
Zillah	2,198	2,228	2,345	3,140	2,660	2,803
Granger	**2,530**	**2,565**	**2,699**	**3,634**	**4,012**	**4,430**
Toppenish	8,946	9,068	9,543	8,965	10,828	11,410

Source: U.S. Census 2000; Yakima County Countywide Planning Policy Committee; OFM Population Projections April 1, 2015

The population projections were developed by the Yakima County Countywide Planning Policy Committee (CWPP) in 2015, based on projections for the County as a whole that were provided by the OFM. In developing these projections, the CWPP made the following strategy:

1) Use OFM's twenty-year medium annual growth rate for the County. OFM's growth rate for the County has a steady annual decline down to 0.77% at 2040. Yakima County will use that same rate of decline for all projections.

2) Use OFM's population estimates for each city from 2010-2014.

3) Compare both sets of OFM growth rates. If a city's annual growth rate over the last four years (from OFM estimates) is higher than OFM's twenty-year annual growth rate projected for the

County, then the higher of the two growth rates will be used. If a city's annual growth rate over the last four years is lower than OFM's twenty-year annual growth rate, then the County will adjust the city's growth rate to reflect the difference between the two rates.

4) Make the adjustments to all cities and then incorporate the same rate of decline mentioned in Step 1 above to all growth rates used. This will ensure that the projected growth rates used by Yakima County will still incorporate and be consistent with OFM's projected rate of decline countywide.

Present Situation

The OFM City's population projection for 2015 of 3,640 has already passed the County's medium projection of 3,561 for 2015, The 2040 medium population projection is 5,251. Table 2-6 summarizes the revised population forecasts. Population was forecasted through 2040 to complete a 20-year planning period, and YVCOG used these numbers to develop the assessment of future land use needs.

TABLE 2-6. Population Projections, City of Granger

Year	Low Projection (1.50% avg. annual growth rate, compounded)	Medium Projection (2.0% avg. annual growth rate, compounded)	High Projection (2.5% avg. annual growth rate, compounded)
2020	3,915	4,012	4,112
2025	4,217	4,430	4,652
2030	4,543	4,891	5,263
2040	4,894	5,400	5,955

Source: Yakima Valley Conference of Governments (YVCOG) 2015 base year population 3,634 (OFM April 1, 2015)

Analysis of Economic Conditions

Economic Status of the Population

According to the 2000 U.S. Census of Population and Housing, nearly a third (28.5%) of the population of Granger lived below the poverty level in 1999. In comparison, 14.8% of all persons in Yakima County and only 7.3% of all persons in the state of Washington live below the poverty level.

In 1999, Granger's median household income was $26,250, the second lowest in Yakima County. This compares with $34,826 for Yakima County ($45,776 for Washington State). Granger's median family income that year was $28,026, the third lowest in the County, and its per capita income was $8,111, also third lowest.

Employment of Granger Residents

The 2000 U.S. Census counted 2,530 Granger residents. On the basis of sample data, the Census Bureau estimated that 1,667 of these were persons 16 years and over, and that 1,157 or 69.4% were in the labor force. Of those persons in the civilian labor force (also 1,157), an estimated 1,004 were employed, while 153 or 9.2% were unemployed.

The Census sample data also indicates that the largest employment sector for Granger residents was agriculture/forestry/fisheries, with 34.0% of all employed persons. Similarly, the single largest occupation group was farming, forestry and fishing occupations, with 30.6%, followed by production, transportation, and material moving, with 21.3%. Private wage and salary workers made up 77.6% of employed Granger residents, while local, state and government workers made up 14.4%.

Employment Opportunities within Granger

According to 2000 Census (sample) data, an estimated 1,667 people over age 16 were working in Granger as of April 1, 1999. The distribution of these among industry sectors were as follows: 34.0% worked in agriculture, forestry, fishing and hunting, and mining; 18.7% worked in educational, health, and social services; and 14.2% worked in manufacturing. The remainder, in descending order by number of employees, worked in: retail trade; wholesale trade; transportation, warehousing and utilities; public administration; construction; professional, scientific, management, administrative, and waste management services; other services; finance, insurance, real estate, and rental and leasing; arts, entertainment, recreation, accommodation, and food services; and information.

Occupations of people working in Granger include farming, fishing, and forestry occupations, 30.6%; production, transportation, and material moving, 21.3%; management, professional, and related, 16.9%; sales and office, 13.0%; service, 12.5%; and construction, extraction, and maintenance, 5.7%.

Private wage and salary workers make up 80.7% of Granger's employment. Government workers make up 14.5%, self-employed workers make up 4.1%, and unpaid family workers make up 0.7%.

Economic Base

Granger's major sources of industry and employment include a feed mill (Cargill), a manufacturer of stained glass kits for lamps (H L Worden), Quality Liquid Feed, Yakima Bait Company, Yakima Neighborhood Health Medical and Dental Clinics and service venues such as the Granger Travel Plaza. Granger's economy is largely supported by agricultural activity in the surrounding area. Local business is also supported by Granger-area residents who work elsewhere.

Economic Forecasts

The Washington State Employment Security Department (ESD) performs economic forecasts for occupations in Washington by region. Table 2-7 summarizes the ESD forecasted average annual growth in occupations during two forecast periods across the south-central region of Washington, both for currently dominant occupations in Granger, as well as the occupations forecasted for greatest growth during the 2011-2016 forecast period.

For the south-central region, which is dominated by Yakima County, the ESD projects little decline but also little growth in Granger's dominant occupations during the period spanning 2006-2016. Most of these occupations also show slower growth during the 2011-2016 period, compared to the 2006-2011 period. The occupations forecasted to have the largest increases are office and administrative support, followed by management occupations, and transportation and material moving. Construction and extraction is forecasted to decrease slightly during 2006-2011, but then to grow relatively strongly during 2011-2016. Farming, fishing, and forestry as a whole is forecasted to have little growth. However, two sub-occupations within this occupation were projected to have relatively strong growth: graders and sorter, agricultural products (2.4% for 2006-2011, 0.6% for 2011-2016), and farm workers and laborers, crop nursery, and greenhouse (2.3% for 2006-2011, 0.7% for 2011-2016).

Most occupations in south-central Washington are forecasted to decline during the 2011-2016 forecast period, compared to the 2006-2011 forecast period.

Table 2-7. Forecasted Average Annual Growth in Occupations Across the South-Central Region of Washington

	Avg. Annual Growth Rate, 2014-2019	Avg. Annual Growth Rate, 2019-2024
Currently dominant occupations in Granger		
Construction and extraction	2.4%	0.7%
Farming, fishing, and forestry	1.9%	-0.1%
Production	1.5%	0.7%
Sales and related	1.4%	0.8%
Installation, maintenance, & repair	2.1%	0.7%
Transportation & material moving	2.3%	1.1%
Management	1.6%	0.8%
Office & administrative support	1.5%	0.9%
Other Occupations forecasts during 2014-2024 forecast period		
Education, support, and library	1.7%	1.3%
Protective services	1.9%	1.4%
Personal care services	1.5%	1.5%
Healthcare support	1.9%	1.9%
Healthcare practitioners & technical	2.0%	18%
Community and social services	1.3%	1.1%

Source: Washington State Employment Security Department, Labor Market and Economic Analysis Branch

Land Available for Economic Development

Figure 2.2 (page 2-12) illustrates the City's existing zoning. The majority of the City is zoned either R-1 (373 acres), or M-1 (363 acres). Within the City, residential zoning is predominantly R-1 (Single-family Residential). There are two large areas of R-2 (Multifamily Residential) zoning: east of the central business district, between East A Street and E Street and south of East First Street; and south of I-82, between East E Street and La Pierre Road. Large tracts of M-1 (Manufacturing-Land Industrial) zoned land occur in the northwest and southwest portions of the City. C-1 (Commercial) zoned land primarily occurs along Main Street, the north side of East 1st Street, between East E Street and SR 223, south of the railroad tracks; and north of the railroad tracks, between SR 223 and I-82.

Rail service to Granger is provided by Washington Central Railroad. Most parcels in the immediate vicinity of the railroad are zoned industrial to take advantage of freight transport opportunities.

Commercially zoned areas near I-82 provide opportunities for commercial development oriented to freeway travelers. The distance and route from the freeway to the central business district and the limited services available have tended to discourage freeway travelers from stopping in Granger. However, the Granger Travel Plaza opened in September 2008, at the intersection of SR 223 and I-82.

Analysis of Physical Conditions

The proximity of I-82, access to the Yakima River, amenities such as Hisey Park/Granger Pond, and Granger's unique community-building dinosaur theme and related activities, provide Granger with opportunities for enhancing the community's attractiveness to visitors, potential businesses and residents. These opportunities are not present in most of the cities of the lower Yakima Valley. By enhancing its community aesthetics, recreational amenities and quality of life, the City has the potential for assuming a new position in the regional economy.

The quality of a visitor's experience is highly dependent upon local sights, sounds and odors. Wetlands and other natural areas that provide wildlife habitat need to be preserved. To take advantage of the opportunities for growth in recreation and tourism, Granger will need to protect or enhance the natural environment. If the Yakima River is to be attractive for fishing and water sports, it must have high quality water to support sport fish populations, human health, and aesthetic values. The Hisey Park/Granger Pond site that provides access to the Yakima River is also near the City's wastewater treatment plant and the outfall of the Granger Drain. To be compatible with adjacent recreational use, the effluent from the plant and the drain should consistently fall within State water quality standards. Both local odors from the wastewater treatment plant and more generalized odors from the confined animal feed operations and other sources should be minimized.

Activities along the river should be coordinated with the Yakama Indian Nation to assure consistency of proposed land uses between both governments (City and Tribal).

Analysis of Infrastructure

Water System

The City's water system serves the existing City of Granger plus Cherry Hill and the La Pierre Road areas on the north side of I-82. The system can be expanded to serve additional areas on Cherry Hill and north of I-82. Currently, the City is completing about a mile of new 12" water main that has expanded the service area and provided better quality, pressure, and volume.

Wastewater Facilities

The sewage collection system currently serves all of the City of Granger except for approximately 10 residences on West Boulevard, which could also be served. No areas outside of the City are now sewered. Existing sewer lines cross I-82 and serve some homes. The current treatment facility was upgraded in 2015. The existing system is capable of supporting considerable economic development. The City is currently updating the Wastewater Facility Plan and will have estimates of sewer capacity at its completion.

The plant outfall to the Yakima River is located between the Granger Drain and the boat ramp at Hisey Park. The flow enters below the surface of the river, and is not noticeable.

Stormwater Facilities

The City has a few dry wells. A limited number of storm drains enter the Drainage Improvement District No. 3's subsurface irrigation drain. Storm drainage flooding occurred several years ago when a County drain plugged in the Panell Addition area, but this problem has been resolved. Minor local pooling has occurred on Railroad Avenue and near the high school, but not to a degree that impedes traffic flow. A more complete storm drainage system would be needed if considerable development were to occur.

Irrigation Canals and Drains

The Granger Drain poses safety concerns. The Sunnyside Valley Irrigation District (SVID) and the City of Granger have begun piping portions of the Granger Drain, such as discussed previously, the quality of the water coming from the drain into the Yakima River also reduces the appeal of recreational facilities in the Hisey Park area. According to one estimate, peak sediment loads run as high as 128 tons per day. However, due to SVID efforts, this has been cleaned up considerably in recent years.

Analysis of Public Facilities and Services

The GMA defines public facilities as streets, roads, highways, sidewalks, street and road lighting systems, traffic signals, domestic water systems, storm and sanitary sewer systems, parks and recreational facilities, and schools. Public services include fire protection and suppression, law enforcement, public health, education, recreation, environmental protection, and other governmental services.

Locations of public facilities and services, including educational, law enforcement, fire protection, parks and recreational, and governmental services facilities and services within the City of Granger are shown in Figure 2.5. The needs and future requirements for public facilities and services are addressed in the Transportation and Capital Facilities Elements.

Police Protection

The police station is located in City Hall, at 102 Main Street. Zoning allows police stations as a conditional use in any residential or commercial zone.

Library

The Granger Library, located at 500 Bailey Avenue, the property is owned by the City of Granger and the library is operated by the Yakima Valley Regional Library system. The building was constructed in 1984, and meets the City's needs very well. Libraries and art galleries are allowed as permitted uses in any residential or commercial zone, according to the City's zoning code.

City Shops

The City's maintenance shops are located at 503 Main Street, near Granger Hisey Park.

City Hall

Granger City Hall, at 102 Main Street, includes administrative services, council chambers and the police department.

Fire Protection

The fire station is located at 499 Main Street across from the Circle Inn, and is owned by the City. Volunteers gather at the station to respond to calls both in the City and in the surrounding area.

The old fire station, owned by Yakima County Fire District No. 5, is located at 101 West First Street. It is now being used by the District for storage of retired fire equipment.

Parks and Recreation
The City's parks are maintained by the Department of Public Works (503 Main Street) from the City shops. The City's zoning ordinance allows parks and playgrounds, including park buildings, in any residential or commercial zone.

Solid Waste Disposal

. Solid waste is deposited at a transfer facility that serves the lower Yakima Valley, including the City of Granger. Waste is hauled from the transfer facility to the Cheyne Road landfill in Zillah.

Public Education Facilities

Roosevelt Elementary School, located at 405 Bailey Avenue, serves grades K-4. As of the2012-2013 school year, the school had 33 teachers and an enrollment of 618 students. Granger Middle School, located at 501 Bailey Avenue, serves grades 5-8. It had 27 teachers and 459 students as of the 22012-2013 school year. Granger High School is located at 315 East Mentzer Avenue, and serves grades 9-12. Granger High School had 429 students and 29 teachers as of the 2012-2013 school year. The City's zoning has allowed schools as a conditional use in all residential and commercial areas.

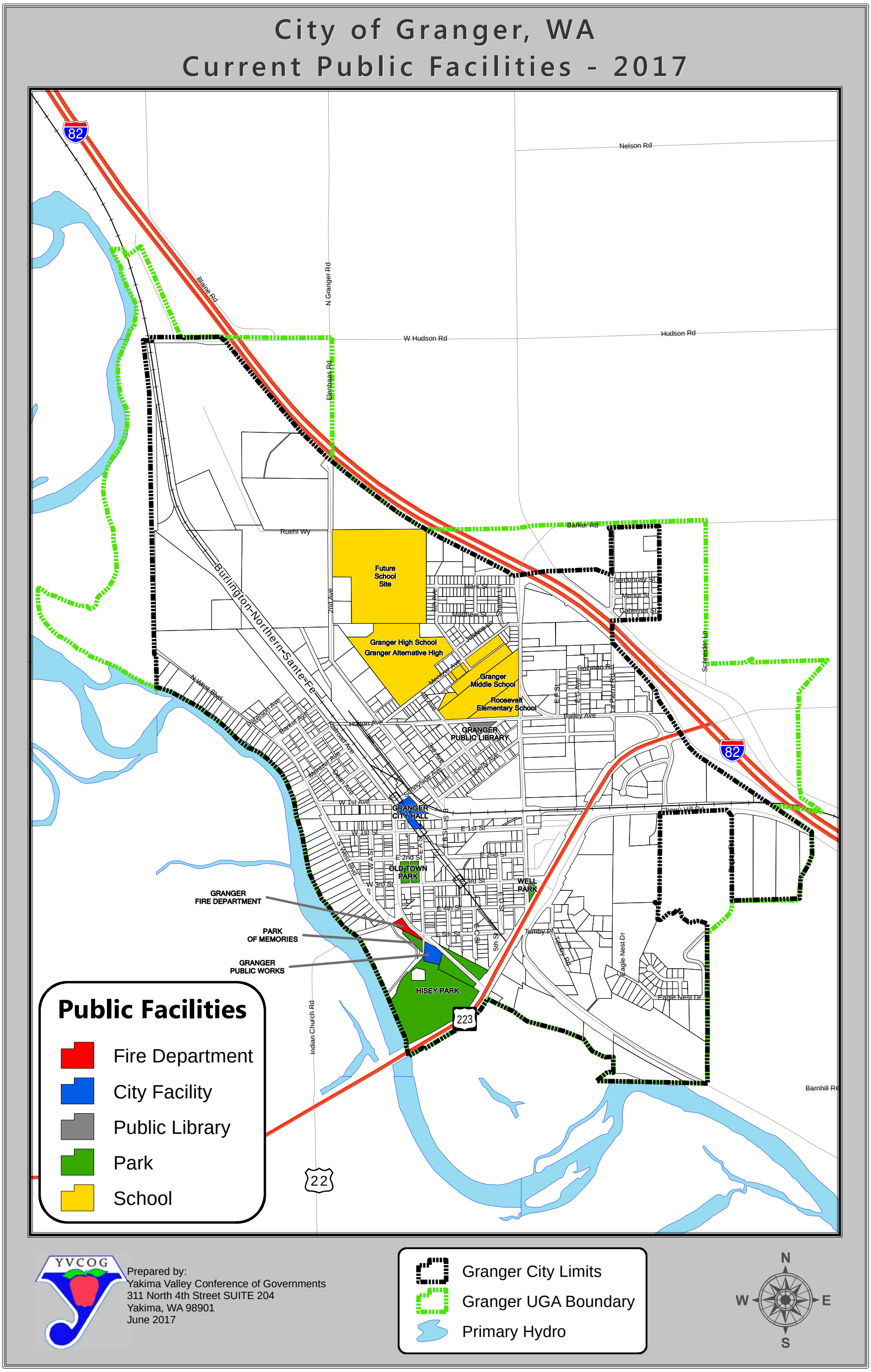
Medical and Emergency Facilities

Low-cost medical and dental services are available at Yakima Neighborhood Health Services and Yakima Valley Farm Workers urgent care facility. Ambulance service is available by Medic One in Toppenish, with the Sunnyside Fire Department as backup. The nearest hospitals are Sunnyside Community, Providence Hospital in Toppenish, and Yakima Valley Memorial Hospital and Providence/Yakima Medical Center, both located in Yakima. First aid is provided by the City of Granger volunteer fire fighters.

Churches, Social Organizations, and Other Community Facilities

Churches are in various locations, primarily in residential areas. Churches include Assembly of God Church at 225 3rd Avenue, Apostolic Assembly at 307 Main Street, Iglesia De Dios Vivo at 110 E. First Street, New Life Christian Fellowship at 201 Main Street, Our Lady of Guadalupe at 608 E Avenue, and Seventh Day Adventist Church at 200 Sunnyside Avenue, The City's zoning has allowed churches and other organizations as a conditional use in any residential or commercial zone.

Figure 2-3. Public Facilities and Services, City of Granger



VI. FUTURE LAND USE NEEDS

There are several factors which may limit build-out in the City. Developers may not be able to find land within the City limits that meets their criteria, and may seek properties within the unincorporated portion of the UGA that do. Landowners may not develop their properties for several reasons: speculation, wishing to keep properties within the family, or utilizing lots adjacent to their homes for gardens or other purposes. City lots may be more expensive than those within the remainder of the UGA, while promising less appreciation. Finally, persons interested in new home construction may perceive the City of Granger to be less desirable than outlying areas for various quality-of-life reasons (aesthetics, natural features, lot sizes, lifestyle opportunities, neighbor lifestyles, potential for crime, community status, etc.).

The City of Granger has determined that the revised medium population projection calculated by YVCOG is their preferred growth projection. Therefore, the following analysis is based on the revised medium growth projections.

Residential Land Use Needs

According to the Housing Element, by the year 2037, an additional 383 housing units will need to be added to the existing housing stock to accommodate the revised 2037 medium population projection of 5,226. The Housing Element also indicates that the estimated total land requirement for new housing to accommodate the 2037 medium projected population of is 63 acres. This requirement is based on an assumed average lot size of 10,890 square feet (0.25 acre) per single-family unit, and 7,200 square feet (0.17 acre) per unit for all other housing types, and assumes that the existing housing pattern would continue. It also includes land for alternative housing types such as foster and group homes.

Commercial Land Use Needs

Currently, the City maintains approximately 15.28 acres in commercial uses. The revised population forecast indicates a population increase of 49% between 2010 and 2037 (medium projection). If this population increase occurs, then numerous new businesses will be needed to serve that population. For the purpose of this analysis, we can assume that the additional population will need additional commercial acreage that is approximately proportionate to what is currently provided. Currently, the City provides approximately 5.01 acres of land in commercial uses per 1,000 residents. This is an increase of 1.95 acres per 1,000 residents over what was estimated in the previous 1995 Comprehensive Plan. To maintain the current proportion of commercial uses to residents, the City would need to add approximately 26.2 acres of land in commercial use by the year 2037 (based on the revised medium population projection).

Industrial/Manufacturing Land Use Needs

Manufacturing and warehousing currently occupy 37.97 acres. If the acreage were to increase at the same rate as the population, a total of 20.73 acres would be needed by the year 2030 (based on the revised medium population projection).

Data are not available regarding employment of Granger residents by type of industry located in Granger. Successful industrial development efforts require suitable locations and realistic expectations. A 1985 Target Industry Market Analysis for Yakima County (Bucher, Willis & Ratliff, November, 1985) identified the following primary criteria for a successful industrial park; visibility, access, flood control, utility availability, slope, and drainage. Secondary criteria include zoning, adjacent land uses, ownership, development guidelines, and phasing.

The 2008 Blueprint Yakima Valley report identified the following industrial sectors as well positioned for growth in the Yakima Valley: logistics and distribution, food processing, industrial machinery and supplies, business and professional services, health and medical, and aerospace. However, challenges remain, including low educational attainment, a need for focused entrepreneurship, the need to maintain and expand the young professional community, and the need to improve the aesthetic appearance of commercial corridors through efforts such as downtown revitalization.

While Granger would certainly welcome industrial development, and has the infrastructure in place to support it, the City tries to be realistic in its expectations. The City would like to preserve opportunities for industrial uses of sites with good access to rail lines and I-82, and have the flexibility to serve potential industrial development in the unincorporated portion of the UGA.

Public Land Use Needs

An approximately one-acre site is needed for recycling yard waste. The site should be isolated from residential areas and fenced to prevent dumping, but have adequate public access.

Agricultural Land Use Needs

Agricultural production within the UGA is expected to continue as is necessary to support Granger's agricultural industries. However, these lands will be considered to be transitional until future residential, commercial and industrial growth places pressures on these lands to be converted.

Recreational Land Use and Open Space Needs

Granger's UGA has a good supply of parks and recreational lands to meet the needs of the current population, with an average of 8.52 acres of developed open space per 1,000 residents. This figure includes the Granger Pond site and Hisey Park, but does not include schoolyards. To maintain this standard in the future (based on the revised medium estimated population forecast of 4,715 in 2030), approximately 14.17 acres of additional park land would be needed by 2030. If no additional park land is acquired, the City would have 5.51 acres per 1,000 residents by 2030. Since this is below the national standard of 6.25 to 10.5 acres per 1,000 residents[4], additional acquisitions of park land would be needed to maintain the national standard.

To maintain the minimum national standard of 6.25 acres of park land for 1,000 residents, Granger would need to provide 29.47 acres of park land by 2030; for the national high standard, 49.51 acres of park land would be required. Since the City currently has 26 acres in parks, this means that the City would need to add between 3.47 and 23.51 acres of park land by 2030 (based on the revised medium population projection).

National standards, while functioning as useful guidelines, do not necessarily reflect a city's unique situation and needs. Additional park land requirements may be determined by other needs, and how the community sees its park and open space lands fitting into its overall vision, goals and policies. For example, if the town decides to promote tourism, additional or improved recreational lands and facilities may be needed to attract visitors.

To identify park needs, maintaining citizen involvement throughout the park planning process is vital. The survey that City residents completed for the 2003 Granger Comprehensive Parks and Recreation Plan

[4] National Recreation and Park Association. *Recreation, Park and Open Space Standards and Guidelines*, 1983.

indicated that maintaining or improving existing facilities is residents' first priority, and that the addition of new recreational programs and parks is secondary. The survey indicated that new facilities should focus on a swimming facility, as well as more playground equipment and picnic areas.

The distance that residents have to travel to Granger's existing parks will increase as the City expands, and residents in the outlying areas may prefer neighborhood parks. As these areas come into the City, Granger should have the flexibility to take advantage of opportunities to acquire land in these areas for future park development. One way to do this would be for the City to acquire agricultural land as it comes on the market, and lease it for agricultural production until it is needed for parks and other public purposes. Mini-parks and neighborhood parks typically require from less than one acre to two acres, and serve an intensely developed area in the immediate vicinity.

Other Land Use Needs

Other land uses include transportation and communication facilities, utilities, and street rights-of-way. Currently, 215.34 acres (19.74% of total land area) is dedicated to these uses, the majority of which is composed of street rights-of-way only. However, this number is slightly inflated because it includes the portions of SR 223 and I-82 that fall within the City limits, and these streets are not locally owned. This analysis assumed that 15% of the total acreage needed for future uses would be composed of locally-owned street rights-of-way, communications facilities, and utilities. This means that approximately 18.59 more acres of land will be needed by 2030 for these uses (based on the revised medium population projection). Since many of the existing rights-of-way are narrower than the City is now requiring, however, some additional land may be needed to correct those deficiencies.

Market Choice

To facilitate flexibility in planning, some additional land area is needed to allow for market choice and locational preferences. This land area should be small enough to not encourage inefficient development and provision of public services, yet large enough to minimize speculation that may unnecessarily drive up prices.

Much discussion on this subject has yet to occur. In reality, many of the City's "vacant" parcels may actually be used as landscaped side yards that are unlikely to develop, and some of the agricultural land may also be unlikely to develop due to the amount of investment (irrigation systems, profitable permanent crops, etc.), or simply owner preference. For the purposes of discussion, an additional 25% of the total land area requirement has been assumed to be a reasonable figure to allow for market choice. This would add 40.97 more acres (i.e., 25% of the sum of the land requirements for all land uses except agriculture and vacant, plus an additional 15% for the streets and rights-of-way needed to serve the new land uses). This figure would include land that remains in agricultural production and vacant land.

Comparison of Additional Land Requirements to Future Land Use Designations

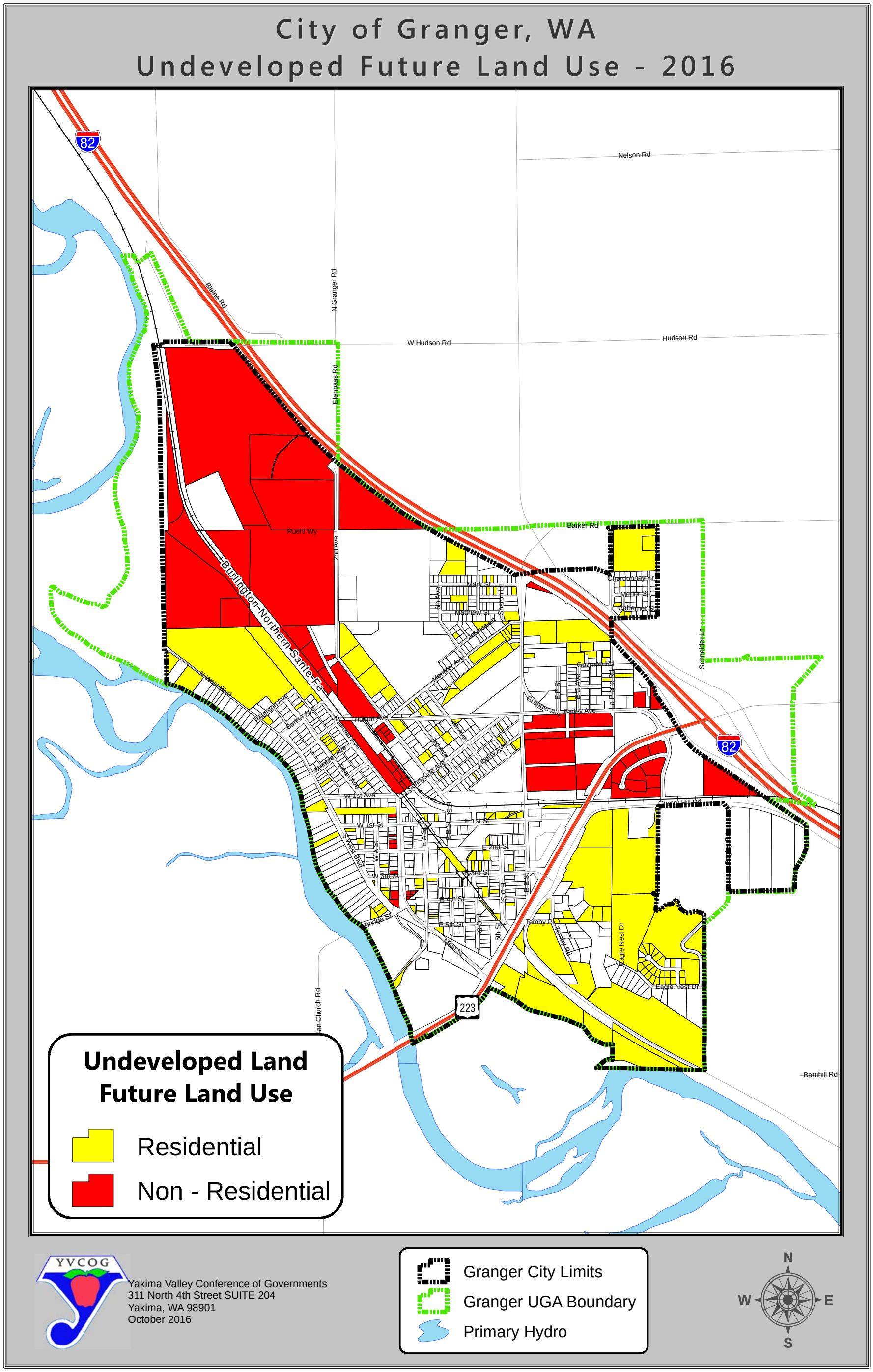
When market choice is added to the other land requirements, the City of Granger will need to add and/or develop a minimum of 186.47 acres to accommodate the anticipated 2030 medium population projection and accomplish its land use goals.

Table 2-9. Additional Acreage Needed by City of Granger for Land Use Types, by Forecast Horizon Year 2040 (Based on Revised Medium Population Projection of 5,484 for 2040)

Land Use Type	Additional Acres Needed
Industrial	20.73
Commercial	8.34
Public	1.11
Parks	3.47
Transportation	18.59
Market Choice	40.97
Sub-total Non-residential	***93.21***
Residential	93.26
Total Non-Residential and Residential	**186.47**

Figure 2.6 illustrates the distribution of land currently in vacant and agricultural uses that also have a future land use designation of non-residential, in both the City and the unincorporated UGA. The total acreage of these lands for both the City and UGA is 383 acres. Within the City, there are 308 acres available and allocated by future land use designation for non-residential uses. As illustrated in the Housing Element (Figure 5-4), within the City, there are 212 acres available and allocated by future land use designation for residential uses. Within the unincorporated UGA, 75 acres are available and allocated for non-residential uses, while 135 acres are available and allocated for residential uses.

Figure 2.6. Land Available for Potential Future Development, in City Limits and Unincorporated UGA



VII. FUTURE LAND USE

Figure 2.7 illustrates the City of Granger's Future Land Use Map. Comprehensive Plan future land use designations make up a vision of how the City of Granger will grow and develop in the future without compromising the quality of life or livelihoods of its residents. The Future Land Use Map will be implemented by the City of Granger zoning code, and indicates where new residential and nonresidential development will be located.

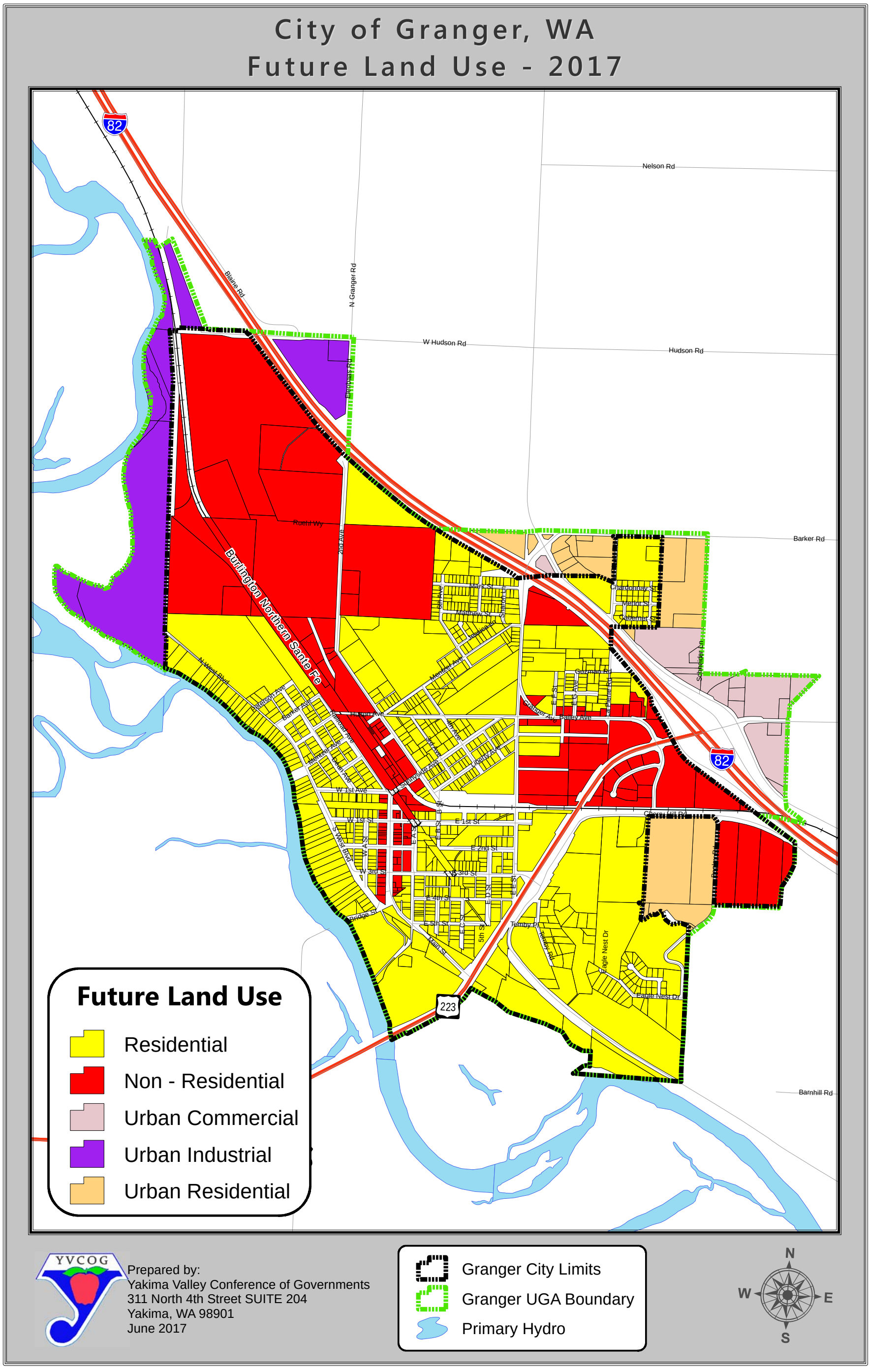
The Future Land Use Map includes Residential and Non-Residential categories, defined as follows:

Residential: Areas appropriate for residential uses and uses associated with residential uses, including single-family, multifamily, and foster/group home residential uses; parks/recreation, and public or institutional uses such as schools, churches, and government facilities.

Non-Residential: Areas appropriate for non-residential uses, including industrial and commercial.

The City of Granger values a mix of land uses, such as a mix of single- and multiple-family dwellings, and commercial with industrial. By providing two broad categories for future land use designations, the Future Land Use Map provides the City with the maximum flexibility in where sites future uses through its zoning code.

Figure 2.7. Future Land Use Map, City of Granger



VIII. GOALS AND POLICIES

GOAL 1: ***To create a balanced community by controlling and directing growth in a manner that enhances, rather than detracts from, community quality and values.***

Policy 1.1 In its land use management decisions, the City should strive to influence both rates and patterns of future growth in order to achieve goals of the Comprehensive Plan.

Policy 1.2 The City should seek and support development that would further the goals of the community.

Policy 1.3 The City should resist growth pressures that could adversely affect community values and amenities.

Policy 1.4 The City's land development regulations shall be consistent with the plan.

GOAL 2: ***To pursue well-managed, orderly expansion of the urban area.***

Policy 2.1 The Future Land Use Map adopted in this plan shall establish the future distribution, extent, and location of generalized land uses.

Policy 2.2 The categories on the Future Land Use Map are defined as follows:

- Residential: Areas appropriate for residential uses and uses associated with residential uses, including single-family, multifamily, and foster/group home residential uses; parks/recreation, and public or institutional uses such as schools, churches, and government facilities.

- Non-Residential: Areas appropriate for non-residential uses, including industrial and commercial.

Policy 2.3 Encourage future population growth to make maximum use of infilling and existing undeveloped subdivision lots. Conversion of agricultural land to residential, commercial or industrial use should occur after existing underutilized parcels have been built out.

Policy 2.4 Conserve rural amenities by coordinating with the County to limit development outside of the designated UGA.

GOAL 3: ***To actively influence the future character of the City by managing land use change and by developing City facilities and services in a manner that directs and controls land use patterns and intensity of use.***

Policy 3.1 Assess the growth impacts of major development proposals.

Policy 3.2 Coordinate new development with the provision of an adequate level of services and facilities, such as schools, water, transportation and parks, as established in the capital facilities element.

Policy 3.3 Coordinate future land uses with the Transportation Element of the Comprehensive Plan.

Policy 3.4 Control subdivision design and site layout of new development to improve traffic flow and to lessen traffic congestion.

Policy 3.5 Manage the location and design of new subdivisions and developments to minimize initial and future public and private costs.

GOAL 4: ***To influence the development of unincorporated land near the City, in a manner that minimizes adverse impacts upon the City and its residents.***

Policy 4.1 Support new development that does not outpace the City's ability to provide and maintain public facilities and services, by allowing new development to occur only when and where adequate facilities exist or will be provided.

Policy 4.2 The City will coordinate concurrency review. Developers shall provide information relating to impacts that the proposed development will have on public facilities and services. The City shall evaluate the impact analysis and determine where the development will be served by adequate public facilities.

Policy 4.3 Consistently use the medium population projections in the Comprehensive Plan as the guide for the amount of growth the City will accommodate through the year 2037.

Policy 4.4 The UGA shall be subject to joint planning by the City of Granger and Yakima County. Establish coordinated review with Yakima County of all development proposals within the UGA to ensure that the character of these areas remains consistent with the goals of the comprehensive plan.

Policy 4.5 Annexations of areas within the Urban Growth Boundary shall take place only after consultation by the City with residents of the areas proposed for annexation.

Policy 4.6 New urban development should be encouraged to locate first within City limits, and second within the UGA where municipal services and public facilities are already present.

Policy 4.7 New urban development should be encouraged to be contiguous to existing development to avoid the inefficient "leap-frog" pattern of growth.

GOAL 5: ***To improve the City's economic conditions in a manner that complements its natural resources, natural systems, physical location, and character.***

Policy 5.1 Recognize the important recreational and transportation roles played by regional bicycle systems, and support efforts to develop the abandoned railroad right-of-way as part of a regional trail system.

Policy 5.2 Encourage efforts to improve the appearance of Granger.

Policy 5.3 Seek to retain as open space wetlands, river and stream banks, and any other areas that provide essential habitat for endangered or threatened plant or wildlife species.

Policy 5.4 Define and protect environmentally fragile areas from adverse impacts by restricting incompatible land uses adjacent to parks and open space.

Policy 6.5 Encourage commercial and industrial development that provides year-round employment opportunities without adversely affecting the environment.

Policy 6.6 Expand the existing recycling program to include public education regarding recycling benefits and curbside pick-up services.

GOAL 6: ***To provide a desirable place to live that will attract persons of all income levels.***

Policy 6.1 Encourage innovation and excellence in the planning and design of proposed developments by educating the public and the development community about what constitutes good land planning, landscaping, building design, signage, and road access.

Policy 6.2 Ensure that new development enhances the "quality of life" within the community and that environmental problems that arise from such development are corrected by the developer through subdivision control enforcement, regulations, and fees.

Policy 6.3 Protect existing and proposed residential neighborhoods from intrusion of incompatible land uses.

Policy 6.4 Provide residential areas that offer a variety of housing densities, types, sizes, costs, and locations to meet future demand.

Policy 6.5 As additional housing becomes available, phase out the use of single-family housing by more than one family unit by developing and enforcing appropriate ordinances, allowing for a sufficient period of transition to avoid undue individual hardship.

Policy 6.8 Residential land uses shall be planned with the following guidelines:

1) Residential land uses shall be allowed if sufficient right-of-way for service vehicles is given.

2) Shall be served by interior streets or controlled access points if developed along arterials.

3) Shall be allowed if street design promotes future extension or provides adequate "turn around" (i.e. cul-de-sac).

4) Shall only be allowed to locate in areas where the existing interceptor sewer design capacity is capable of handling the load.

5) Shall only be allowed to locate in areas where the existing water supply and delivery system is capable of handling the increased load.

6) Shall provide adequate drainage for surface water runoff.

GOAL 7: ***To establish an appropriate balance between individual property rights and the overall good of the community.***

Policy 7.1 Review and update development regulations to make them consistent with the Plan and work to achieve the goals of the Growth Management Act, then maintain consistency.

Policy 7.2 Strive for the most efficient and predictable development process that provides for ample public discussion of proposals for development.

Policy 7.3 Strive to assure that basic community values and aspirations are reflected in the City's planning program, while recognizing the rights of individuals to use and develop private property in a manner consistent with City regulations.

GOAL 8: ***Establish strong planning and implementation ties with all applicable jurisdictions, i.e. the County, School Districts, adjacent cities, and special district – utility, fire, etc.***

Policy 8.1 Plan for the integration of local water, sanitary sewer, storm sewer, and street infrastructure with metropolitan-wide facilities.

Policy 8.2 Include school districts, utilities and other governmental entities in both planning and zoning review.

GOAL 9: ***To establish a pattern of development that supports a sense of community.***

Policy 9.1 Maximize the opportunities for joint development of school/park sites, fire/police/community centers and other community based facilities as a means of creating a public center to neighborhoods.

Policy 9.2 Establish criteria for locating housing for the elderly and retirement housing which maximizes mobility and self-sufficiency of the elderly population.

Policy 9.3 Develop a historic preservation program that would celebrate Granger's history, as well as identify structures, landscapes, and other places of historic or cultural significance and develop strategies for protecting them.

Policy 9.4 Preserve historically or architecturally significant structures where feasible as a means of strengthening community identity.

Policy 9.5 Preserve the Central Business District (CBD) as the primary shopping area.

Policy 9.6 Encourage new construction in the CBD to have a pedestrian focus.

Policy 9.7 Use urban design treatment to make the downtown a safe, comfortable, clean and convenient place for visitors to be and to go.

Policy 9.8 Utilize open space as a means of enhancing community image and the general quality of life.

Policy 9.9 Require adequate buffering whenever new commercial, or industrial uses abut residential neighborhoods.

GOAL 10: ***Provide sufficient amounts of governmental, religious, education and civic facilities in appropriate locations throughout the community.***

Policy 10.1 Encourage the location of public and semi-public facilities in a manner consistent with the sector of the community which they are intended to serve.

Policy 10.2 Require public and semi-public uses to be developed in a manner which does not detract from surrounding uses.

GOAL 11: ***To provide opportunities for development of industries, especially those that provide year-round employment.***

Policy 11.1 Industrial land uses shall be planned with the following guidelines:

1) They shall preferably be located in areas adjacent to rail lines and shall be served by an arterial.

2) They shall be located in areas served by a municipal sewer system only where sufficient design capacity is available, or

3) Shall be allowed if adequate waste-water facilities are provided by the industry

4) Industry shall be allowed if
    a) a development provides its own water system,
    b) will not compete with existing shallow wells for water supply, and
    c) adequate on-site disposal of surface water runoff is provided

Policy 11.2 Promote industrial park-like development of all light industrial and warehouse areas.

Policy 11.3 Aggressively seek to abate all potentially blighting influences in industrial areas, especially in areas that are highly visible to regional traffic flow.

GOAL 12: ***To support businesses that provide local residents and visitors with needed goods and services, offer employment opportunities, and contribute to the City's tax base.***

Policy 12.1 Commercial land uses shall be planned for with the following guidelines:

1) The commercial use shall be served by arterial access.

2) Shall only be allowed where adequate parking is provided

3) Shall locate in areas served by a municipal sewer system, and only in those areas where the system is designed to handle commercial sewage flow.

4) Shall provide for adequate surface water runoff drainage.

5) Shall be allowed if the development provides its own water system.

6) Shall be allowed if adequate on-site disposal of surface water runoff is provided.

7) Development pays for itself or grants are secured to pay for city infrastructure. The City may contribute if the development is considered essential.

GOAL 13: ***Maintain fringe area land use in agricultural or rural density residential use until there is sufficient demand for the City to expand its corporate limits through annexation.***

Policy 13.1 Maintain fringe area land use in agricultural or rural residential use, unless municipal services are planned to be available and property owners are willing to meet City requirements for receiving municipal services.

Policy 13.2 Municipal services and facilities will be planned for undeveloped areas, but not extended until the requirements of the City regarding service extensions are met.

GOAL 14: ***Encourage quality design while achieving economic growth patterns.***

Policy 14.1 Seek to establish and maintain an image appropriate for the community to assist in most effectively attracting the types of economic activities which best meet the needs and desires of the community.

Chapter 3 Transportation Element

I. INTRODUCTION

The Transportation Element considers the movement of people and goods in relation to existing land use and to the desired future development pattern as stated within the Land Use Element. The Transportation Element considers both motorized and non-motorized forms of transportation and private and public means of transportation. The Transportation Element also coordinates the needs of the local transportation system with the transportation network of adjoining jurisdictions and the larger region.

Growth Management Act Requirements

The goal of the Growth Management Act (GMA) is to encourage efficient multi-modal transportation systems that are based on regional priorities and coordinated with city and county Comprehensive Plans. The GMA requires that communities apply the concepts of consistency and concurrency when addressing transportation issues.

Consistency means that no feature of a plan or regulation is incompatible with any other feature of a plan or regulation. Consistency allows orderly integration with other elements in a system. Consistent features and elements of the plan are compatible to the extent that they can coexist and not preclude the accomplishment of other features or elements.

The City of Granger's Transportation Element must be consistent with the *Yakima Valley Metropolitan and Regional Transportation Plan 2016-2040* established by the Yakima Valley Conference of Governments (YVCOG), the Regional Transportation Planning Organization (RTPO) for Yakima County. The Transportation Element must also implement, and be consistent with, the City's Land Use Element, as well as the Yakima Countywide Planning Policies and state growth management goals.

Concurrency means that adequate capital facilities are available at the time that the impacts of development occur, or within six years of such development. Within the GMA, concurrency is required for transportation actions, such as development projects, that affect transportation routes that the Washington State Department of Transportation (WSDOT) has functionally classified as arterial streets or transit routes. Municipalities may optionally apply concurrency ordinances to other roadway classifications and to capital facilities.

The GMA requires that the Transportation Element include discussion of the following topics:

- Land use assumptions used in estimating travel;

- Facilities and service needs, including:
    - An inventory of air, water, and land transportation facilities and services, including transit alignments, to define existing capital facilities and travel levels as a basis for future planning;
    - Level of service (LOS) standards for all arterials and transit routes to serve as a gauge to judge performance of the system. These standards should be regionally coordinated;
    - Specific actions and requirements for bringing into compliance any facilities or services that are below established LOS standard;
    - Forecasts of traffic for at least 10 years based on the adopted land use plan to provide information on the location, timing and capacity needs of future growth;

- Identification of system expansion needs and transportation system management needs to meet future demands;

- Finance, including:
    - An analysis of funding capability to judge needs against probable funding resources;
    - A multi-year financing plan based on the needs identified in the Comprehensive Plan, the appropriate parts of which shall serve as the basis for the six-year street, road, or transit program required by RCW 35.77.010 for cities, RCW 36.81.121 for counties, and RCW 35.58.2795 for public transportation systems;
    - If probable funding falls short of meeting identified needs, a discussion of how additional funding will be raised or how land use assumptions will be reassessed to ensure that LOS standards will be met;

- Intergovernmental coordination efforts, including an assessment of the impacts of the transportation plan and land assumptions on the transportation systems of adjacent jurisdictions;

- Demand-management strategies; and

- Pedestrian and bicycle planning.

Communities with adopted LOS standards must adopt and enforce ordinances which prohibit development approval if the development causes the LOS on a transportation facility to decline below the standards adopted in the Transportation Element of the Comprehensive Plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. These strategies may include increased public transportation service, ride sharing programs, demand management, and other transportation systems management strategies.

Transportation Element Certification

The City of Granger's Transportation Element must be consistent with the *Yakima Valley Metropolitan and Regional Transportation Plan 2016-2040 (M/RTP)* established by the Yakima Valley Conference of Governments (YVCOG), the lead agency for the Metropolitan Transportation Organization (MPO) and the Regional Transportation Planning Organization (RTPO) for Yakima County. The Transportation Element must also implement, and be consistent with, the City's Land Use Element, as well as the Yakima County-Wide Planning Policy and State growth management goals. After review of the City of Granger's Transportation Element, it was determined that it is consistent with the M/RTP and the GMA, as follows:

- The plan was approved by the Planning Commission on 08/22/2016 and reviewed by YVCOG Staff.
- The MPO/RTPO Technical Advisory Committee reviewed the completed Transportation Element Review Checklist on 02/09/2017 and recommended approval to the Yakima Valley Transportation Policy Board.
- The Policy Board considered the recommendation of the Technical Advisory Committee on 02/15/2017 and approved the City of Granger's Transportation Element.
- A formal Transportation Element Consistency Certification Report was signed by YVCOG's Executive Director on 02/15/2017.

Relationship to Other Elements

The Transportation Element must be consistent with other elements of the Comprehensive Plan. It must support the desired development pattern and desired growth rates and in turn, the Transportation Element's goals and objectives must be in harmony with and supported by the Land Use Element, Capital

Facilities Element, Housing Element, and other portions of the Comprehensive Plan. The Transportation Element must support the concurrent development of transportation facilities as growth occurs.

Applicable Countywide Planning Policies

Countywide planning policies must be considered and incorporated into the Transportation Element for the plan to achieve "interjurisdictional consistency." The following Countywide Planning Policies apply to discussion of the Transportation Element:

1. The capital facilities, utilities, and transportation elements of each local government's Comprehensive Plan will specify the general location and phasing of major infrastructure improvements and anticipated revenue sources. [RCW 36.70A.070(3)(c)(d)] (Countywide Planning Policy: B.3.4.)

2. Major public capital facilities that generate substantial travel demand should be located along or near major transportation corridors and public transportation routes. (C.3.4.)

3. The multiple uses of corridors for major utilities, trails, and transportation rights-of-way is encouraged. (C.3.6.)

4. The Transportation Element for each jurisdiction will be consistent with and support the Land Use Element of its Comprehensive Plan. [RCW 36.70A.070(6)] (D.3.1.)

5. Transportation improvements or strategies to accommodate the impacts resulting from new development will be implemented concurrent with new development. "Concurrent with new development" means that improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within six years. [RCW 36.70A.070(6)(e)]

6. Local jurisdictions will coordinate transportation planning efforts through YVCOG, which is designated as the RTPO. This regional coordination will assure that an assessment of the impacts of each transportation plan and land use assumptions on the transportation systems of adjacent jurisdictions conducted and conflicts prevented. (D.3.5.)

7. Each interlocal agreement will require that common and consistent development and construction standards be applied throughout the UGA. These may include, but not be limited to, standards for streets and roads, utilities, and other infrastructure components. (F.3.5.)

II. MAJOR TRANSPORTATION FACILITIES CONSIDERATIONS

As the City of Granger expands into the unincorporated UGA, a number of important issues and questions arise regarding the City's vision of the future and preferred methods for accommodating growth and development. Issues related to the transportation system include the following:

- The City has identified road projects on its Six Year Transportation Improvement Program. If these projects are not funded through the state's Transportation Improvement Account or Rural Arterial Program, what other funding sources would be available?

- The unincorporated urban growth area is defined as those areas where the City is financially capable of providing urban services and those areas it may ultimately annex. If these areas request annexation, how will the City bring these areas up to its standards for streets, lighting, sidewalks, etc.?

- What improvements to the transportation network will support the City's goals in other areas, especially land use and economic development?

- To a significant degree, improved illumination and access deter crime and make it easier for the police to apprehend criminals. To what extent should local concerns for crime prevention influence the selection of improvements to the City's transportation system?

- Fire equipment requirements frequently determine minimum road widths and minimum radii for turnarounds. What road standards need to be met to ensure access for emergency vehicles?

- The characteristics of the City's population have changed over the past decade. Have the mobility needs in Granger also changed, and if so, how can they be met?

- Proximity to I-82 presents opportunities for traveler-oriented development. What improvements to the transportation network will help the City capitalize on those opportunities? If the City wished to maintain the traditional central business district, how can the transportation system further that goal?

- Should access to the Yakima River be encouraged through improvements to the boat ramp, parking, access road, and signage?

- What priority should be given to paving the City's gravel streets?

- Are additional sidewalks or other pathways needed for public safety, now or in the future? Is a sidewalk improvement program needed?

- Are curbs and gutters desired? If so, in what area?

III. TRANSPORTATION NETWORK CHARACTERISTICS

Roads and Streets

Figure 3-1, page 3-8 shows the existing transportation network. Granger is accessed from SR 223 and I-82. Primary access to the central business district from SR 223 is East 3rd Street. Additional access points to the City are available from SR 223, which marks the western City limits. Primary access from I-82 is SR 223. Roadways connecting Granger with other communities include SR 223, which leads south and west to SR 22 and the cities of Toppenish and Mabton; US 12 to the Sunnyside area, Yakima Valley Highway, an alternate route to Zillah on the northwest and Sunnyside on the east; and Emerald Road, a more southerly route to Sunnyside. Other roadways serve agricultural land that surrounds the City.

The majority of Granger's residential streets have at least two lanes, although parking sometimes reduces traffic flow to one travel lane. Most streets do not have curbs and gutters. Streets with curbs and gutters include Main Street, Mentzer Avenue, E Street, Harris Avenue, Matthew Avenue, Sixth Avenue, Mark Avenue, Sharon Lane, and the high school area.

Parking is generally adequate. On-street parking is available on both sides of Main Street between West 1st Avenue and Bridge Street, on both sides of East 1st Street between Main Street and East A Street, and on the west side of East A Street between 1st and 3rd Streets.

The City's unpaved (gravel or dirt) streets include:

- North West Boulevard
- "D" Street
- LaPierre Road, I-82 to Bailey Avenue
- Peterson Avenue
- Temby Place
- "C" Street, 5th Avenue south to end of street
- Guzman Avenue

Street lighting is provided throughout the City. In the unincorporated portion of a city's UGA, Yakima County usually installs street lighting when it improves a road. The County requires developers to pave streets when areas develop at urban densities, and sometimes requires street lighting for projects within UGA boundaries.

Rail Facilities and Locations

The Granger area has freight service via the Central Washington Railroad line (CWR). CWR operates several rail segments in south-central Washington. The CWR segments hook up with the BNSF railroad line outside the City. The BNSF line crosses into Yakima County at Byron, roughly parallels I-82 through the Yakima Valley, then heads through Stampede Pass to the Seattle area.

Currently, approximately three trains per week pass through Granger on the BNSF rail line. The BNSF rail line gives goods associated with area industries direct access to the Ports of Seattle and Tacoma.

Airports

Two commercial service airports are regionally accessible to the City of Granger, at Pasco/Tri-Cities and Yakima. These airports serve as commercial nodes for passenger and cargo aircraft. Both airports have at least one runway over 7,000 feet long which can accommodate most types of aircraft. They also serve private flying for business or recreation.

One commercial service airport, the 825 acre Yakima Regional Airport, is located in the City of Yakima. In February of 2010, an air service market analysis was conducted for the Yakima Airport entitled "True Market Estimate." This report identified the catchment area for the Airport as consisting of portions of Yakima, Lewis, King, and Kittitas Counties with a combined population of approximately 270,700 people. The Airport is owned by the City of Yakima and is managed by current Airport staff. Airport maintenance and operations are funded solely through revenues generated at the Airport. The Yakima Regional Airport has two active runways, one 7,604 feet in length and the other 3,835 feet in length. There are plans to extend the length of both runways. The Airport also has a full parallel taxiway system.

In 2005, the Yakima Airport ranked #5 in the State for air cargo tonnage. Between the years 1990 and 2020, the handling of air freight is expected to increase approximately 4.2% per year. This average annual growth rate would result in about 402 metric tons of air cargo being handled at the Airport in the year 2020. The Yakima urban area has a number of freight dependent industrial businesses and various other land uses that are located throughout the Yakima area. Connection to the Yakima Airport is a growing issue in the Yakima Valley as opportunities increase for freight movement by air.

Passenger service is available at the Airport via Horizon Air. Horizon Air provides four flights per day (in each direction) to and from the Seattle-Tacoma International Airport. Xtra Airways provides charter service to Wendover and other destinations in Nevada. The Airport also supports a general aviation community

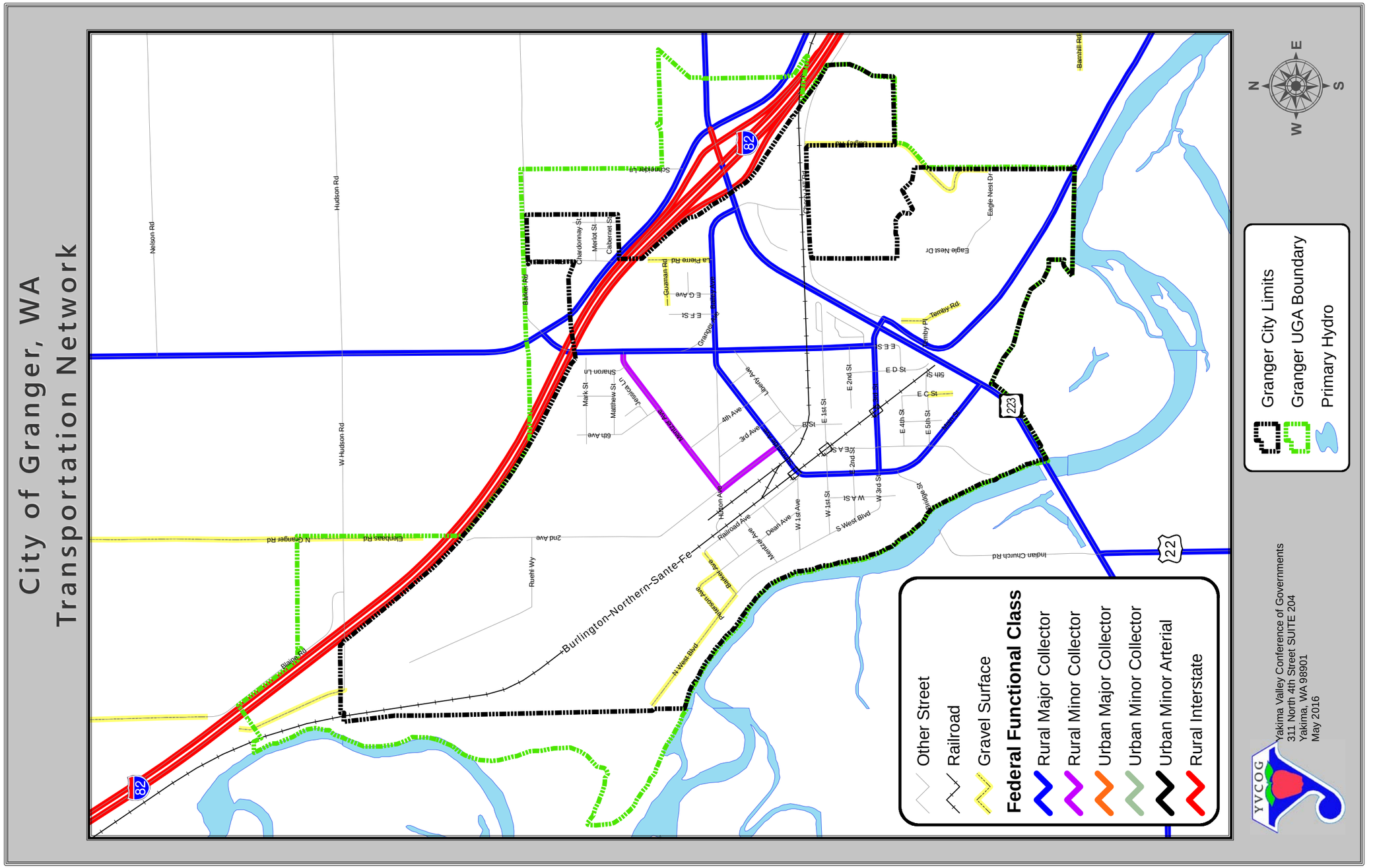
and there are three Fixed Base Operators on the airfield: McCormick Air Center, McAllister Museum (self-service 100LL fuel), and JR Helicopters. Other businesses and services located at the Airport include Airporter Shuttle, Cub Crafters (an aircraft manufacturer), Explore Aviation LLC (flight training), FedX, and the United Parcel Service (UPS).

Six commercial service airports currently operate in central Washington. Passenger traffic at Yakima has been relatively consistent, although Delta Airlines and United Express no longer serve the Yakima Valley. Total passenger levels have ranged from 92,409 in 1997 to a low of 53,155 in 2004.

The forecast from the Washington State Long-Term Air Transportation Study (July 2009) projects moderate growth of traffic and service at the Yakima Regional Airport over the 25 year forecast period. Enplanements are expected to reach 107,000 by 2030, a 55 percent increase over 2009 passenger traffic and 11 percent higher than Yakima Regional Airport's historic peak of 96,000 enplanements recorded in 1991.

The Tri-Cities Airport is owned by the Port of Pasco. It consists of six asphalt runways ranging from 1,348 to 7,700 feet long. The Tri-Cities Airport is an instrument airport utilizing a number of landing and navigational aids. The airport is served by Delta, Alaska Air/Horizon Air, United and Allegiant with flights to Seattle, Portland, San Francisco, Minneapolis/St. Paul, Denver, Salt Lake City, Los Angeles, Las Vegas and Mesa, Arizona. The Tri-Cities Airport is currently on Phase II of a major airport expansion and modernization project; construction is expected to be complete in 2017.

Figure 3-1. Transportation Network, City of Granger



Public Transportation

Like most of the rural communities in Yakima County, public transportation options in Granger are limited. The major transportation needs in Yakima County are for employment, nutrition, education, health care, and human services. Individuals most in need of public transportation include older adults, youth, and those with limited incomes. Without public transportation options, older adults may be forced to leave their homes or communities for assisted living options or for communities with ready access to transit. Youth may have difficulty accessing educational opportunities, particularly Yakima Valley Community College and Perry Technical Institute in Yakima, and Heritage University in Toppenish. Those with lower incomes may have difficulty maintaining employment without reliable transportation options.

Yakima Transit provides 10 fixed routes serving the City of Yakima. Yakima Transit also provides vanpool services. Yakima Transit vanpools must either begin or end in the Yakima urban area, and can provide service to residents of the Granger area who work in the Yakima area. Fees vary depending on the frequency of trips, number of riders, and distance of travel. Fees are shared among all riders, and Yakima Transit provides the van, insurance, maintenance, and fuel.

People for People (PFP) is a local non-profit organization that has provided transportation services throughout Yakima County since 1982. PFP is also the Medicaid Trip Broker for the Department of Social and Health Services (DSHS). With funding from the Washington State Department of Transportation (WSDOT), the organization provides the following services:

- Paratransit services to individuals with disabilities outside the City of Yakima. PFP requests 24-hour notification. Riders must complete a short telephone survey, but are not required to provide doctor verification.
- The Yakima-Prosser Community Connector provides fare-free weekday fixed-route service between Yakima and Prosser, stopping at Wapato, Toppenish, Zillah, Granger, Sunnyside, and Grandview. In Granger, the Community Connector stops three times a day, Monday through Friday, at KNDA radio station, 121 Sunnyside Ave.
- Job Access-Reverse Commute transportation for recipients of Temporary Assistance for Needy Families and their children. This service provides transportation to job training activities for eligible participants.
- Senior transportation to those 60 years and older and living outside Yakima city limits. The service provides transportation to nutrition or meal sites, necessary shopping, and medical appointments.
- People for People currently is exploring the possibility of partnering with Yakima Transit to provide wider vanpool services that do not require a beginning or ending stop in Yakima.

For enrolled members of the Yakama Nation living within the Granger area, the Yakama Tribal Council-Department of Human Services provides transportation services for medical appointments for eligible Yakama Nation clients. The Yakama Nation also provides transportation services for education needs and meals for its members.

Citizens of the Granger area do not have access to any other form of local public transportation other than private for-hire taxi service. The closest taxi services are located in Sunnyside, approximately 10 miles away. Granger contains no park-and-ride lots. The nearest park-and-ride lot is located in Sunnyside in the Sunnyside Shell station, just off I-82 on SR 241.

Regional bus service is provided by Greyhound Bus Lines, which has stations in Sunnyside and Yakima. Greyhound provides services to Seattle three times per day via I-82, the Tri-Cities, Pendleton, Oregon and points south via I-82 twice a day; and Portland via Goldendale on I-82 and SR 97 once a day.

The *Coordinated Public Transit-Human Services Transportation Plan*, updated in 2014, was created by PFP on behalf of YVCOG, which is the Regional Transportation Planning Organization (RTPO). The plan was developed in response to federal transportation legislation requiring a coordinated public transit and human services transportation plan to be eligible for certain Federal Transit Administration funding. The plan calls for the following:

- Preserve and expand transportation services for individuals with disabilities, older adults, youth veterans, and individuals with low incomes.
- Promote safe and accessible transportation services for individuals with special needs by educating and advocating for special needs transportation.
- Coordinate transportation and human services for increased efficiencies and utilization of resources.

The *Yakima Valley Metropolitan and Regional Transportation Plan 2016-2040* (M/RTP) was updated by YVCOG in 2016, in compliance with federal transportation legislation. The Plan includes strategies for expanding transit to meet future travel demands throughout the Yakima Valley region. The Plan recognizes a need to expand demand-response service in the South Central area where Granger is located, and to coordinate with and expand existing rural transit service to regional services and facilities. Strategies to reduce peak period travel demands also are included. The transit and transportation demand management strategies include:

- Expand and improve existing fixed-route transit service and fleets.
- Add demand-response service for developing areas that cannot support fixed-route service.
- Expand People for People Community Connector service to directly serve medical and educational facilities.
- Coordinate existing fixed-route transit service with existing and expanded rural transit services to community colleges, hospitals, and other regional facilities and attractions.
- Maintain existing paratransit services to provide transportation access for special needs populations.
- Purchase more vehicles for vanpool programs.
- Construct high-priority missing links in the regional non-motorized system.

Non-motorized Transportation

Non-motorized refers to pedestrian and bicycle modes of travel. Walking and bicycling are integral parts of the transportation system. Every trip begins and ends as a pedestrian trip. People use bicycles to commute to work and school, for utilitarian trips such as visiting friends and shopping, and to make connections to transit or other intermodal facilities. A benchmark of making a community a desirable place to live is its pedestrian access and bicycle facilities.

Sidewalks

Sidewalks are more prevalent around the downtown area in the southwest portion of the City, and around the schools to the north. More sidewalks have been built over time, building on existing linked sidewalks along Main Street, Sunnyside Avenue, and Bailey Avenue. In other areas, isolated segments of sidewalk may receive local use, but are less valuable as components in a linked pedestrian travel network.

Additional sidewalks could connect neighborhoods and services to the west and south of the railroad tracks with the neighborhoods and schools to the east and north of the tracks.

Figure 3-2, page 3-12 illustrates Granger's sidewalk locations and their condition. Most sidewalks are in good condition. However, poor quality sidewalks occur around Dean Avenue and West A Street, west of the railroad tracks. These sidewalks should be prioritized for reconstruction.

Bicycle and Pedestrian Pathways

In 2014, Yakima County updated the *Yakima County Trails Plan*, which calls for development of a regional bicycle/pedestrian network that would function as a viable transportation option, and not simply for recreation. One portion of the trail system, the Lower Yakima Trail, would be a multi-use, paved, 40-mile long trail connecting Benton County to the City of Yakima. Some portions of the trail system are completed. In the Sunnyside area, a completed segment of the Lower Yakima Trail uses an abandoned rail corridor for a bicycle/pedestrian pathway between Sunnyside and the northwestern part of Grandview, following the route of Yakima Valley Highway. Farther south, a completed segment called the Benton County/Prosser Pathway extends from near the Yakima/Benton County Line to Prosser.

The *Trails Plan* proposes two segments of the trail that would pass through Granger: one that would pass into Granger from the southwest along SR 223, and one from the east near I-82. Both segments would merge at I-82 and continue northwest along the I-82 corridor. The current Granger Pond trail, which is near SR 223, could connect to the Lower Yakima Trail, in addition to continuing north along the abandoned rail right-of-way through the City.

A standard classification for bikeways includes the following categories:

- *Class I: Bike paths*. Separate trails for the principle use of bicycles.
- *Class II: Bike lanes*. A portion of the street is designated by signs and/or pavement markings for preferential bicycle use.
- *Class III: Bike routes*. A street is designated with signs as a bicycle route and is shared with other transportation modes, but is not designated by pavement markings.
- *Class IV: Shared street.* No signs and/or pavement markings designate a bikeway, but street is accessible to bicyclists. Includes bicycle-friendly design standards such as bicycle-safe drains and wide curbs.

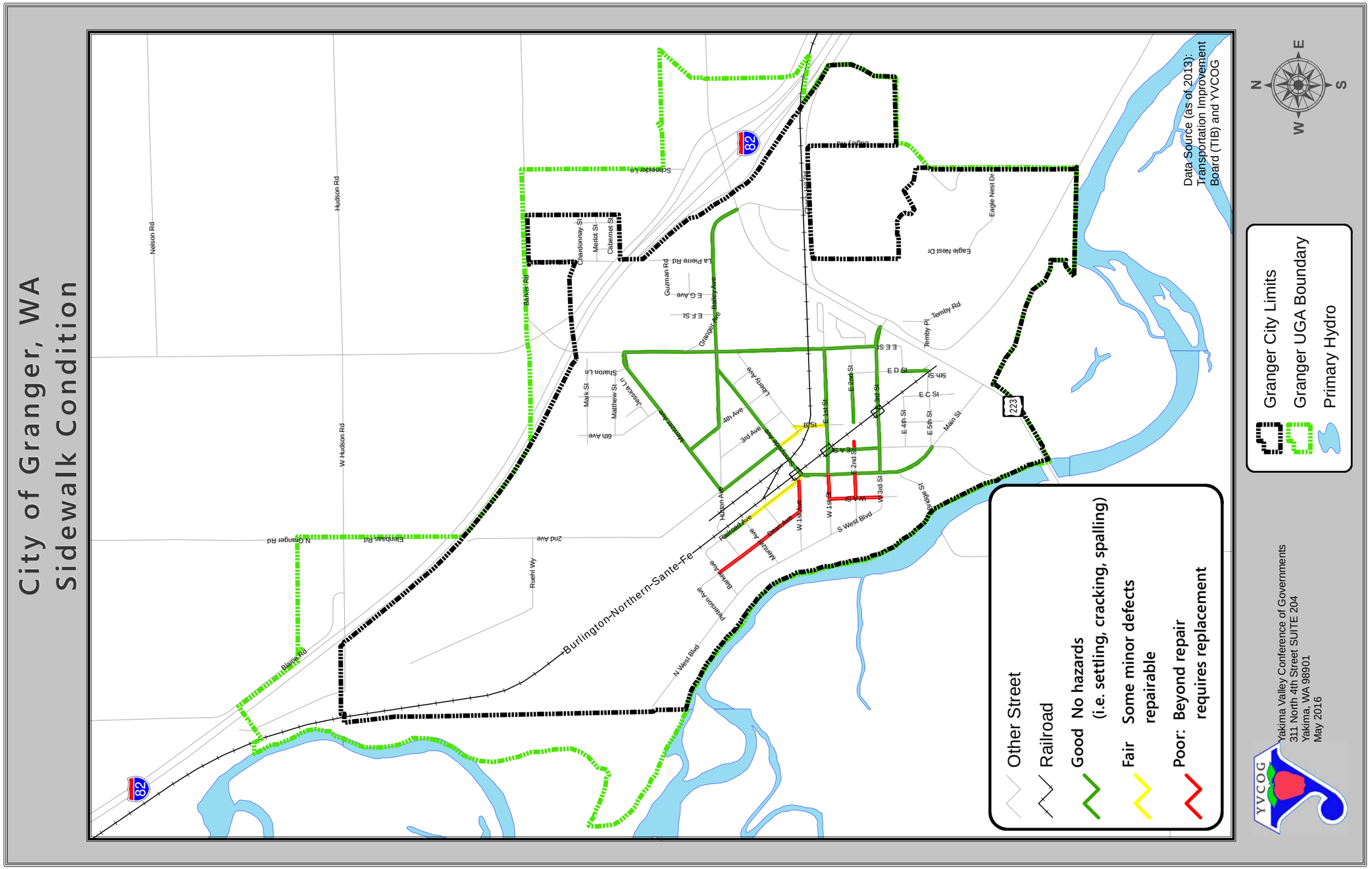
In Granger, there is potential to develop a Class III bikeway system, given the City's street widths and relatively low traffic volumes.

Transportation Demand Management

Transportation Demand Management (TDM) consists of strategies that seek to maximize the efficiency of the transportation system by reducing demand on the system. The results of successful TDM can include:

- Travelers switching from driving alone to high-occupancy vehicles modes such as transit, vanpools or carpools.
- Travelers switching from driving to non-motorized modes such as bicycling or walking.
- Travelers changing the time they make trips from more congested too less congested times of day.
- Travelers eliminating trips altogether either through means such as compressed workweeks, consolidation of errands, or telecommuting.

Figure 3-2. Sidewalk Condition, City of Granger



IV. ROADWAY CHARACTERISTICS

Functional Classification

All of the Granger UGA roadways and streets, both within the City of Granger and in Yakima County, have an assigned functional classification. Functional classification is the grouping of highways, roads and streets by the character of service they provide, for transportation planning purposes. Comprehensive transportation planning, an integral part of total economic and social development, uses functional classification to determine how travel can be channelized within the road network in a logical and efficient manner. Functional classification defines the part that any particular route should play in serving the flow of trips through a roadway network.

The Federal Highway Administration (FHWA) has delegated to state transportation agencies the primary responsibility for developing and updating the statewide highway functional classification in rural and urban areas. The state transportation agency must cooperate with responsible local officials in developing and updating the functional classification.

Roadways are classified as either rural or urban depending on the population of the municipality and its population density. In those places, which are designated by the U.S. Bureau of the Census as urban, urban areas must be established to meet the requirements of Title 23, Section 103, USC. State and local officials fix boundaries in cooperation with each other, subject to approval of the FHWA Division Administrator. An urban area may be one of two types: urbanized area or urban cluster. Urban clusters or small urban areas have populations of 5,000 to 49,999 and are not within an urbanized area. Urbanized areas include 1) a city or multiple cities that have, together, a population of 50,000 or more, and 2) surrounding incorporated and unincorporated areas that meet certain criteria for population size and density.

The Washington State Office of Financial Management (OFM) estimates Granger's 2015 population at 3,640 persons. Because the City of Granger is located outside of an urbanized area and has a population of less than 5,000, Granger is classified as a rural area for the purpose of transportation planning.

The City's functional street classification is defined below. It is based on standards developed by WSDOT. Figure 3-1, page 3-8 depicts the functional classification of roads within the City of Granger.

- *Principal Arterial:*
  A highway connecting major community centers and facilities, often constructed with partial limitations on access through intersections and common driveways. Principal arterials generally carry the highest traffic volumes and provide the best mobility in the roadway network. Since most principal arterials are intra-county, they serve both urban and rural areas. Regional and inter-county bus routes are generally located on principal arterials as well as transfer centers and park-and-ride lots.

- *Minor Arterial:*
  A highway connecting centers and facilities within the community and providing some access to abutting properties. The minor arterials stress mobility and circulation needs over providing specific access to properties. Minor arterials allow densely populated areas easy access to principal arterials, adjacent land uses (i.e. shopping, schools, etc.), and have lower traffic rates than principal arterials.

- *Collector Street:*

A highway connecting two or more neighborhoods as well as carrying traffic within neighborhoods. Collectors also channel traffic onto the minor and principal arterials. Typically, they carry moderate traffic volumes, have relatively shorter trips than arterials, and carry very little through traffic. Urban collectors and rural major collectors are the lowest classes of roadway classification eligible for federal funding.

- *Local Access Street:*
  This category comprises all roadways and streets not otherwise classified. Their main function is providing direct access to abutting properties, sometimes at the expense of traffic movement. Traffic generally moves slowly on these streets and delays are caused by turning vehicles.

Idealized Urban and Rural Roadway Capacities

For each of the functional classifications of roadway noted above, a corresponding idealized capacity is shown below. These idealized capacities are based on roadway capacities as used in the Highway Capacity Manual developed by the Transportation Research Board, a nonprofit transportation research organization that is a division of the National Research Council. The actual capacity of any specific roadway is affected by the roadway's speed limit, the number of intersecting roadways, the number of stops or other delays, and other factors. These definitions of capacity by functional class are consistent with those developed by the YVCOG, the RTPO for the Yakima Valley region.

Functional Class	*Capacity of Two Lane Roadway (Vehicles/Hour)*
Interstate	3,600
Principal Arterial (Urban/Rural)	2,200
Minor Arterial (Urban/Rural)	2,000
Major Collector (Rural)	2,400
Minor Collector (Rural)	2,000
Access/Local (Rural)	1,600

Traffic Volume History

Traffic volumes in the Granger area tend to be much lower than the capacities noted above
Available historical records on traffic flows in the Granger area are limited to a periodic counting of vehicular traffic on the major collectors and some of the local streets. In June 2016, YVCOG conducted a limited traffic count in the City that updated traffic volumes for nine road segments.

Table 3-1 shows the peak hour traffic volume and level of service for selected street segments within the City of Granger UGA. The measure of traffic volumes is "Average Annualized Daily Traffic" (AADT), which is the average daily traffic that can be expected throughout the year on each road segment. The AADTs were calculated using the "Average Weekday Traffic" (AWDT) gained from traffic counts. The AWDT is normalized for the month the count occurred using a "Monthly Normalization Factor" (MNF) provided by WSDOT to determine AADT, regardless of when the count occurs. The calculation is: *AWDT * MNF = AADT*. Peak hour volumes indicate a LOS designation of "A" for all streets.

Table 3-1. Roadways within Granger UGA**: Functional Classification, Peak Hour Volume and Level of Service**

Functional Class	Road Name	Start Location	End Location	Number of Lanes	AADT (Base Year-2017)	Peak Hour Volume (vph)	Idealized Roadway Capacity	Peak Volume as a Ratio of Roadway Capacity	Level of Service
Interstate	I-82	North City Limits at East E Street	East City Limits at Van Belle Road	4	21,315*	2,100	3,600	0.58	A
Principal Arterial	None								
Minor Arterial	None								
Major Collector	SR 223	South City Limits	Railroad Track	2	6,801*	670	2,400	0.28	A
		Railroad Track	I-82	2	7,004*	690	2,400	0.29	A
	SR 223	I-82	Yakima Valley Highway	2	7,511*	471.6	2,400	0.2	A
	Bailey Avenue	I-82	Sunnyside Avenue	2	2,689	286	2,400	0.12	A
	Main Street	Third Street	SR 223	2	1,122	129	2,400	0.05	A
Minor Collector	Second Avenue	Sunnyside Avenue	East Mentzer Avenue	2	514	59	2,000	0.03	A
	West Blvd	Barker Ave	W 2nd Ave	2	376	42	2,000	0.02	A
	West Blvd	W 2nd Ave	Main Street	2	297	31	2,000	0.02	A
Local Road	Cherry Hill Road	East Third Street	East City Limits	2	512	49	1,600	0.03	A
	Liberty Ave	5th Avenue	E Avenue	2	282	32	1,600	0.02	A
	Railroad Ave	Sunnyside Avenue	Zillah Avenue	2	286	32	1,600	0.02	A
	Emerald Road	Cherry Hill Road	South City Limits	2	647	70	1,600	0.04	A

*2015 WSDOT counts grown at 1.5% per year to 2017

Level of Service

The ease of traffic movement along a roadway is a function of the roadway's vehicular capacity, the number of vehicles using the roadway, the number of stops along the roadway, and the time spent waiting at each stop. To characterize the ease of traffic movement, transportation engineers have developed the concept of level of service (LOS), which measures the effectiveness of service on transportation infrastructure. Levels of service standards, as described in Table 3-2, are taken from the Highway Capacity Manual developed by the Transportation Research Board.

Roadway capacity refers to the maximum amount of traffic that can be accommodated by a given roadway facility. Roadway capacity is based on an analysis of roadway conditions, including the number and width of lanes, pavement and shoulder types, and the presence of controls at an intersection. LOS can be calculated in several ways. A simple measure, and the one used in this analysis, relates traffic volume to roadway capacity by dividing the observed traffic volume by the idealized roadway capacity. The resulting number is assigned one of six different levels of service from "A" to "F."

LOS "A" allows the maximum amount of freedom to select desired speeds and to maneuver within the traffic stream. LOS "B" describes stable flow, but the selection of speed is now affected by the presence of others. In LOS "C" there is stable flow, but speed and maneuverability within the traffic stream are reduced somewhat, and require vigilance on the part of the driver. In LOS "D," stable flow may be affected by operating conditions, and maneuverability may be restricted. LOS "E" represents operating conditions at or near the capacity of the highway, and is characterized by low speeds and serious difficulty maneuvering within the traffic stream. Any incident can be expected to produce extensive delays and lines of vehicles. LOS "F" describes operations characterized by stop-and-go traffic. Vehicles may progress at reasonable speeds for several hundred feet or more, and must stop and start again, in a cyclical fashion.

The City of Granger must maintain LOS C conditions or better on City streets. This standard is consistent with the LOS methodologies and thresholds established by YVCOG, the RTPO for the Yakima Valley region. RTPOs statewide are tasked with ensuring LOS methodologies are coordinated with surrounding jurisdictions to ensure a consistent regional evaluation of transportation facilities and corridors.

Table 3-2. Level of Service Categories

Level of Service	Description	Volume/Capacity Ratio
A	Free flow. Low volumes and no delays.	Less than 0.60
B	Stable flow. Speeds restricted by travel conditions, minor delays. Presence of other users in the traffic stream.	0.60 to 0.69
C	Stable flow. Speeds and maneuverability reduced somewhat by higher volumes.	0.70 to 0.79
D	Stable flow. Speeds considerably affected by change in operating conditions. High density traffic restricts maneuverability.	0.80 to 0.89
E	Unstable flow. Low speeds, considerable delay, volume at or near capacity. Freedom to maneuver is extremely difficult.	0.90 to 1.00
F	Forced flow. Very low speeds, volumes exceed capacity, long delays and queues with stop-and-go traffic.	Over 1.00

Communities with adopted LOS standards must adopt and enforce ordinances which prohibit development approval if the development causes the LOS on a transportation facility to decline below the standards adopted in the Transportation Element of the Comprehensive Plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. To accommodate the impacts of the development, local governments may change the phasing or timing of the new development, provide transportation facilities or services to serve the new development, reduce the LOS standard, or revise the Land Use Element.

Currently, all roads within the City of Granger fall within the LOS category "A" (Table 3-1).

Freight and Goods Transportation System

The WSDOT has designated a statewide Freight and Goods Transportation System (FGTS). WSDOT's most recent update of the FGTS occurred in 2015.

WSDOT used criteria based on the level of annual freight tonnage carried by a particular segment of road to identify road segments which play a significant role in the movement of freight and other goods throughout the state (Table 3-3). The FGTS is the first step in identifying and developing a year-round, all-weather system of routes serving truck travel and the economic needs of communities statewide.

Through the FGTS, the WSDOT estimates truck traffic on highways and roads used most heavily by trucks. Truck traffic count data is converted into average weights by truck type. The five truck route classes based on annual tonnage are listed below. Category T-5 accounts for roads subject to heavy use on a seasonal basis.

Table 3-3. Truck Route Classes Based on Annual Tonnage

Truck Route Class	Annual Tonnage
T-1	10,000,000 +
T-2	4,000,000 - 10,000,000
T-3	300,000 - 4,000,000
T-4	100,000 - 300,000
T-5	At least 20,000 in 60 Days

Table 3-4 lists the City of Granger FGTS streets and roads, and Table 3-5 lists Granger UGA FGTS streets and roads. Figure 3.3 illustrates the FGTS streets and roads for the City of Granger and UGA.

Table 3-4. City of Granger Freight and Goods Transportation System Classified Roads

Route Name	Start Location	End Location	FGTS Class
SR 223	South City Limits	I-82	T-2

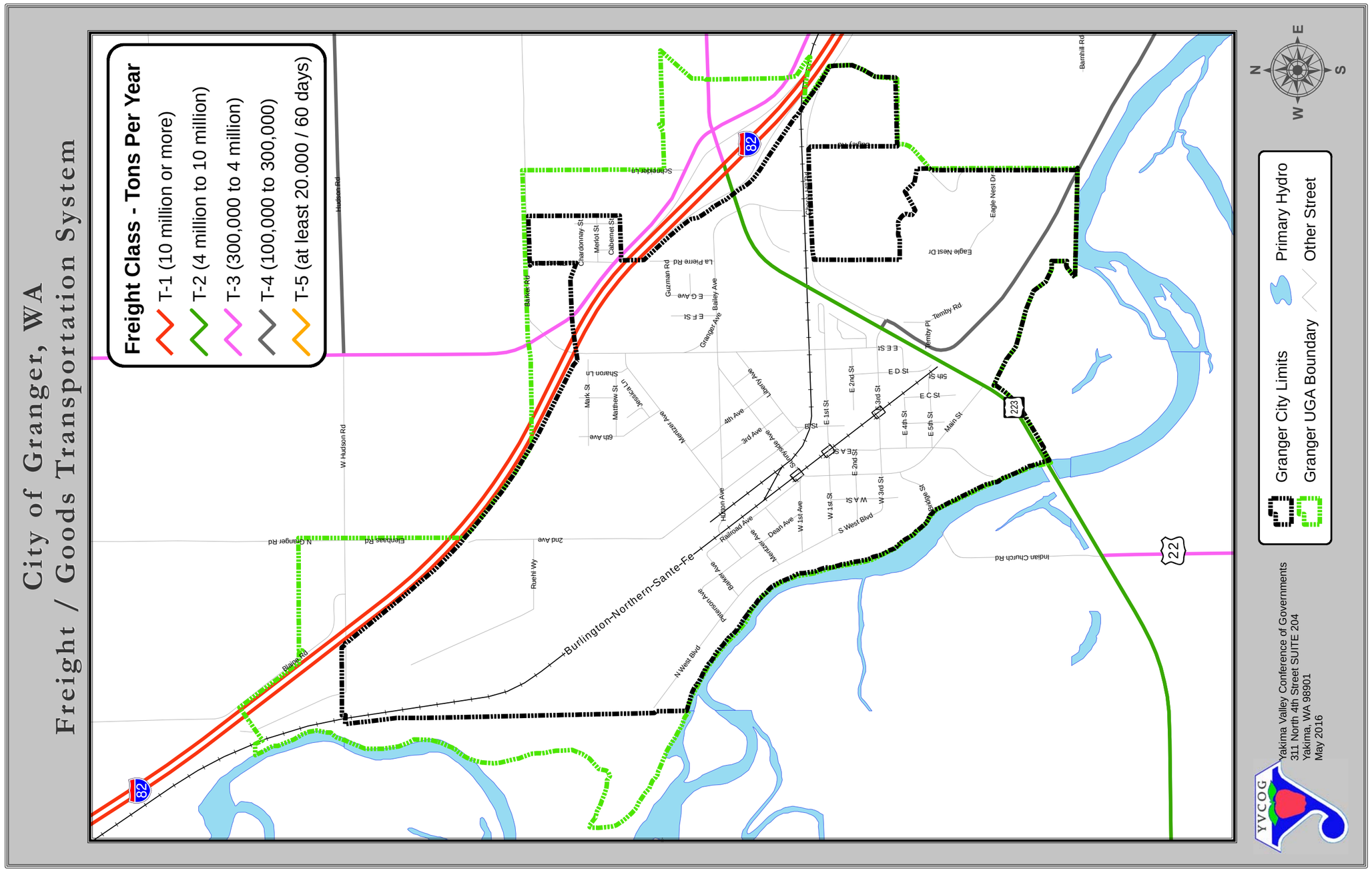
Table 3-5. Unincorporated UGA Freight and Goods Transportation System Classified Roads

Route Name	Start Location	End Location	FGTS Class
I-82	East UGA Boundary	Northwest UGA Boundary	T-1
Yakima Valley Highway	East UGA Boundary	North UGA Boundary	T-3

FGTS roads pass through lands that are currently used primarily for commercial, industrial, or agricultural uses, or that are vacant. However, the Future Land Use Map (see the Land Use Element), has designated the areas around SR 223 between the south City limits and Cherry Hill Road, and around Emerald Road, as future residential uses. Granger may need to consider mitigation measures addressing potential noise and safety issues along FGTS roads that pass through future residential neighborhoods, as development occurs in those areas. Due to the stress placed on these roads from additional tonnage, Granger also will need to pay close attention to these roads when planning for maintenance.

Residents familiar with truck travel in the City have noted that trucks frequently leave SR 223 or I-82, and pass through the City on local roads, generally traveling on Bailey Avenue and 2nd Avenue. Because this route brings trucks through public school and residential areas, safety concerns have been raised. This situation also places additional wear on local roads. The City has not designated any streets passing through the City as truck routes. According to RCW 46.44.080, local authorities can prohibit operation of trucks on certain routes, and impose limits on their weight. Cities may not prevent trucks from using state highways passing through their jurisdictions. Restrictions must be imposed by ordinance or resolution, and cities must erect and maintain signs indicating the provisions at each end of the street affected; until these signs are erected, the ordinance is not effective. To address the issue of trucks passing through the City on local roads, Granger needs to consider adopting such a resolution and erect signs indicating designated truck routes and restricted routes. Such a resolution could restrict truck travel through Granger to roads designated as major collectors or interstates, which already experience high truck volume.

Figure 3-3 City of Granger and UGA Roadways by Truck Tonnage Class



V. TRAFFIC FORECASTS

Demographics and Population Projections

As noted in the Land Use Element, the City of Granger 2037 population projection is 5,226 persons.

The 2010 Census indicated that 46.7% of Granger's population was age 19 or younger. An additional 4.3% were above the age of 65. 41.8% of Granger's households had an income of $34,999 or less. 28.2% of all families in Granger were considered below the poverty level. Granger's median household income was $39,850, below the Yakima County median household income of $43,956.

These populations – the young, elderly, and low-income – all are particularly in need of transportation options throughout Yakima County. In Granger, the number of young people and low-income families is of particular significance for transit.

Land Use Patterns and Population Distribution

Land uses in Granger tend to be relatively mixed. Multi-family residential uses are interspersed with single-family residential, and small commercial areas are scattered as well. The part of the City with the highest population density occurs north of the railroad tracks and south of Bailey Avenue.

Large tracts of agricultural land occur in the northwest portion of the City south of Barker Road, as well as in the southeast. Scattered, smaller agricultural tracts occur near I-82, near the intersection of the railroad tracks and East E Street, and south of Bridge Street. Granger and the area surrounding the City is expected to gradually change from agricultural to primarily residential, industrial, and commercial over the 20-year forecast period. Small divisions of land (short plats) and small subdivisions will continue to slowly increase the number of scattered residential, commercial, and industrial uses in areas that are currently used for agriculture.

Further single-family development is expected to occur in northwest and southeast Granger, while downtown, the railroad corridor, and the areas in the vicinity of the SR 223 and I-82 juncture are expected to continue to fill in with industrial and commercial uses. The potential development of a second I-82 interchange at West Hudson Road also is expected to encourage industrial development in the northwest corner of the City.

Public uses will continue to dominate between East E Street and the west railroad tracks, and additional parks are expected to develop in the north end of the City to complement the existing Hisey Park and Granger Pond in the south end of the City.

Forecasted Traffic Volumes

Traffic forecasts for Granger area roadways are being developed as part of the Countywide YVCOG Travel Demand Model set. The model set is using 2015 as the base year, includes a 2020 forecast for Metropolitan and Regional Transportation Improvement Program (RTIP) evaluation, and includes a 2040 forecast to align with the Long Range Regional Transportation Plan and the local comprehensive plan updates. The Countywide YVCOG Travel Demand Model set covers the metropolitan and regional planning areas and is administered by YVCOG. When development of the model set is completed, travel forecasts will predict growth in traffic volume on the basis of anticipated regional changes in land use and employment patterns.

To develop the land use assumptions, YVCOG worked in an iterative process with each jurisdiction to best represent the household inventory by type, employee information by business type and location,

student and employee information for schools, and amount of available agricultural land. Granger and each jurisdiction was asked to provide actual land use information for the year 2015 and forecasts for each of the described land use inputs for 2020 and 2040 according to their comprehensive planning assumptions. In this way, not only could YVCOG provide forecasted traffic volumes for Granger, transportation system changes could be evaluated for potential impacts before they are ever constructed or implemented.

For the current analysis, YVCOG assumed that growth in the AADT of 1.5% was reasonable and within expected bounds. This method was used to calculate traffic forecasts for Granger area roads. Table 3-6 shows traffic forecasts for road segments within the Granger UGA, at five-year intervals from 2017 to 2037. The base year of each estimate is the most recently available traffic count for each road segment that is functionally classified as an arterial or collector.

Setting aside I-82 and SR 223, which are not locally owned, the highest forecasted AADT within Granger City limits in 2037 is 2,649 vehicles for Bailey Avenue between I-82 and Sunnyside Avenue. At this AADT, this segment of road would have an estimated peak hour volume of 286 and a LOS volume/capacity ratio of 0.12, putting it well below the maximum volume/capacity ratio of 0.60 for LOS A (see Table 3-2). All roads for which forecasts were estimated can therefore be expected to remain at LOS A through 2037.

Table 3-6. Traffic Forecasts for Road Segments within Granger City Limits

Functional Class	Road Name	Start Location	End Location	AADT (Base Year - 2017)	AADT (2022)	AADT (2027)	AADT (2032)	AADT (2037)
Interstate	I-82	North City Limits at East E Street	East City Limits at Van Belle Road	21,315*	22,962	24,737	26,649	28,708
Principal Arterial	None							
Minor Arterial	None							
Major Collector	SR 223	South City Limits	Railroad Track	6,801*	7,326	7,892	8,502	9,159
		Railroad Track	I-82	7,004*	7,545	8,128	8,756	9,433
		I-82	Yakima Valley Highway	7,511	8,091	8,717	9,390	10,116
	Bailey Avenue	I-82	Yakima Valley Highway	2,689	2,897	3,120	3,362	3,621
	Main Street	Third Street	SR 223	1,122	1,208	1,302	1,402	1,511
Minor Collector	Second Avenue	Sunnyside Avenue	East Mentzer Avenue	514	521	529	537	545
	West Blvd	Barker Ave	W 2nd Ave	376	381	387	393	399
	West Blvd	W 2nd Ave	Main Street	301	306	311	315	320
Local Road	Cherry Hill Road	East Third Street	East City Limits	282	304	327	353	374
	Liberty Ave	5th Avenue	E Avenue	282	286	291	295	299
	Railroad Ave	Sunnyside Avenue	Zillah Avenue	286	291	295	299	304
	Emerald Road	Cherry Hill Road	South City Limits	647	656	666	676	686

*2015 WSDOT counts grown at 1.5% per year to 2017

VI. EXISTING DEFICIENCIES AND FUTURE NEEDS

Deficiencies and Issues

As the City of Granger's roadways are well below capacity, the existing deficiencies of the road network reflect maintenance, safety, and design concerns, rather than capacity problems. This situation is reflected in the City of Granger's 2017 to 2022 Transportation Improvement Program (TIP), which identifies improvements such as roadways reconstruction, guardrail construction, and bike lane, sidewalk, and curb construction. The TIP prioritizes roadway improvements during this six-year time period. The current TIP and any future revisions are hereby included by reference as part of the City's Comprehensive Plan. Table 3-7 lists the projects in the City's 2017 to 2022 TIP. Beyond the six years reflected in the TIP, the City of Granger would like to focus resources on updating outdated sidewalks, creating new sidewalks, and prepping existing non-paved streets to become compliant and eligible for grant applications.

Using the existing transportation conditions as a reference, the following issues and deficiencies have been identified:

1. *Rights-of-Way*: Local street rights-of-way vary from 35 feet to 100 feet in width. The narrower rights-of-way do not meet the City's current 60-foot minimum right-of-way standard for new residential development, and are not wide enough to accommodate both automobile traffic and on-street parking. At present, this is not considered a problem due to low traffic volumes.

2. *Sidewalks*: Many of Granger's streets do not have sidewalks, and existing sidewalks need work. Many of the existing sidewalks are cracked and uneven, and/or too narrow, and citizens have complained about this and expressed safety concerns. Residential neighborhoods are divided by the active railroad right-of-way with little means of connection. Sidewalks and railroad crossing on Hutton Avenue (Bailey Avenue Extension) could connect residential area to west of tracks with other residential areas, schools, and services to the east. Sidewalks and railroad crossing on B Street could connect residential areas to south of tracks to residential areas, services, and schools to the north. The City of Granger 2017 to 2022 TIP calls for sidewalk and railroad crossing construction on the Bailey Avenue Extension, and for sidewalks as part of Emerald Street reconstruction (Table 3-7).

3. *Specific Deficiencies*: Table 3-7 summarizes Granger's 2017 to 2022 TIP, which contains prioritized maintenance needs for Granger's transportation system for the next six years. The City of Granger developed the TIP through on-site analysis and public meetings.

4. *Lighting*: The entire City has street lights. Additional lighting will be provided as needed.

5. *Surfacing:*

    a. Asphalt vs. BST (Bituminous Surface Treatment). The type of pavement to be used is an important issue in terms of costs involved, life of the materials and the time involved in applying the materials. Asphalt and BST are the two best choices. With an asphalt, concrete surface (A/C), initial surfacing should include a minimum of two inches of asphalt. The BST would require about six applications to get the same effect from two inches of asphalt. The costs involved in paving with asphalt would, in the long run, be less expensive than in using the BST.

    b. Baserock - Baserock gives the roadway support and longer life with lower maintenance costs. While only the traveled portion of the road needs paving, the parking area portions

should also include baserock with a gravel surface. This composition will alleviate many problems with water run-off, access to utility lines without breaking into paved surfaces, and will lessen the tendency for the paved edge to break or crack as vehicles move from paved road to parking area. In residential areas, the baserock should be six to eight inches thick and eight to ten inches thick in commercial areas.

6. *Maintenance:* Adequate maintenance can prevent or postpone the need for costly reconstruction. Maintenance needs may exceed the operating budget available for meeting them, resulting in deferred maintenance.

7. *Alternative Transportation*: Few alternative transportation options are available to vulnerable populations in Granger, such as the young, the old, and lower-income groups. Facilitating currently available transportation options, such as the services provided by People for People, aggressively seeking funds for alternative transportation options, and partnering with organizations such as People for People to expand on existing options and explore new options will help Granger to address existing needs and be better positioned for future growth. Provision of a park-and-ride near the Yakima-Prosser Community Connector stop at KNDA Radio Station could help area residents take advantage of this connector. In addition, beginning to develop a linked bicycle system for both local and regional travel will make extension of the system during future development more feasible. The 2017 to 2022 TIP calls for sidewalk and railroad crossing construction on the Bailey Avenue Extension, and for sidewalks and bike lanes as part of Emerald Street reconstruction (Table 3-7).

Table 3-7 City of Granger 2017 to 2022 Transportation Improvement Program

Priority Number	Street	Start Location	End Location	Functional Class	Length (miles)	Anticipated Construction Start	Improvements Needed	Funding Status	Potential Funding Source
1	Second Avenue Grind and Overlay	Bailey Avenue	Sunnyside Avenue	Rural Major Collector	0.2	2017	Grind and overlay existing roadway; ADA compliance on sidewalks.	Planned	TIB[1]
2	Railroad Avenue Grind and Overlay	Sunnyside Avenue	End of pavement	Rural Minor Collector	0.32	2017	Grind and overlay existing roadway.	Planned	TIB
3	Fourth Avenue Grind and Overlay	Mentzer Avenue	Liberty	Rural Major Collector	0.26	2018	Grind and overlay existing roadway; ADA compliance on sidewalks.	Planned	TIB
4	2nd Ave, N. Granger Rd. and Ruehl Rd. Reconstruction Project	Mentzer Avenue	W. Hudson Road	Rural Minor Collector	0.81	2019	Reconstruct road with curb and gutter both sides, asphalt concrete paved roadway, drainage improvements and some sidewalk.	Planned	Local, PWTF[2], TIB
5	Bailey Avenue Extension	South of Bailey Avenue Extension	Cherry Hill Road	Rural Minor Collector	0.1	2020	Construct new road and intersection, curbs, gutters, sidewalks, and railroad and drain crossing	Planned	Local, PWTF, STP[3], TIB
6	Emerald Road Safety Improvements	County line	.41 miles from County line	Rural Major Collector	0.41	2020	Construct guard rail to protect steep embankment hazard.	Planned	Local, PWTF, STP, TIB

Priority Number	Street	Start Location	End Location	Functional Class	Length (miles)	Anticipated Construction Start	Improvements Needed	Funding Status	Potential Funding Source
7	Emerald Road Reconstruction	County line	SR 223	Rural Major Collector	0.8	2021	Reconstruct road including bike lanes, curbs, gutters and sidewalk on one side.	Planned	Local, PWTF, STP, TIB
8	Hudson Road - I-82 Interchange	North Granger Road	Blaine Road	Rural Interstate	2.0	2021	Construct freeway interchange at existing Hudson Road overpass, reconstruct Hudson Road.	Planned	Local, PWTF, STP

[1] TIB = Transportation Improvement Board [2] PWTF = Public Works Trust Fund [3] STP = FAST Act Surface Transportation Program

VII. FINANCING

A six-year Transportation Improvement Program (TIP) is reviewed and adopted by the City on an annual basis. The most recent program was adopted on June 28, 2016 and plans for the years 2017-2022. The transportation projects included in the TIP are typically funded by user fees. Initially, that funding came from a dedicated portion of the property tax, because property owners were the prime beneficiaries of the transportation system. Over time, other fees and taxes were imposed to supplement the revenues. Today, the major tax sources to fund transportation are the gas tax, the Motor Vehicle Excise Tax (MVET), and vehicle registration fees.

State and Federal Funding Sources

Larger projects have received funding assistance from the Washington State Transportation Improvement Board (TIB). As a federally designated urban area, there are three state-funded grant programs that the City can pursue through TIB, including the Urban Arterial Program (UAP), the Urban Sidewalk Program (SP) and the Arterial Preservation Program (APP). There are also federal grant programs such as the Surface Transportation Block Grant (STBG) and the Congestion Mitigation and Air Quality Improvement (CMAQ) programs, which the City can pursue through the authorization of FAST Act, the federal transportation legislation. In addition, the Washington State Public Works Trust Fund has loans available for road projects and anticipates having grant funding available in the future. The Washington State Safe Routes to School and Bicycle and Pedestrian Safety Programs, Washington State Traffic Safety Commission grant programs, as well as some federal programs, fund non-motorized transportation and safety improvements.

Local Funding Sources

In 1987, the Legislature created Transportation Benefit Districts (TBD) as an option for local governments to fund transportation improvements. Since 2005, the Legislature has amended the TBD statute to expand its uses and revenue authority. Most recently in 2007, the Legislature amended the TBD statute to authorize TBDs to impose vehicle and transportation impact fees without a public vote.

A TBD is a quasi-municipal corporation and independent taxing district created for the sole purpose of constructing, improving and funding transportation improvements within the district. The legislative authority of a county or city may create a TBD by ordinance following the procedures set forth in RCW 36.73. The county or city proposing to create the TBD may include other counties, cities, or transit districts through interlocal agreements.

A TBD can fund any transportation improvement contained in any existing state or regional transportation plan that is necessitated by existing or reasonably foreseeable congestion levels. TBD funds can be used for maintenance, preservation and reconstruction improvements to city streets and county roads. Funds can also be used for public transportation and transportation demand management strategies. TBDs have several revenue options that are subject to voter approval, and other revenue options that can be imposed without voter approval. However, to impose fees those are not subject to voter approval, the TBD boundaries must be countywide or citywide, or if applicable, unincorporated countywide.

Property owners in a particular area in need of infrastructure upgrades can also create a Local Improvement District (LID). A LID is a financial instrument that allows the property owners to share the costs of infrastructure improvements, including improving streets and constructing sidewalks.

Finance Plan

Proposed funding of the recommended projects is the continued use of a combination of tax monies (local funds), the state funding programs, federal funding programs, and other sources as they become available. Granger could also consider forming a Transportation Benefit District, which several other small cities in Yakima County have successfully implemented.

Granger's 2017 to 2022 Six Year TIP (summarized in Table 3-7) lists City of Granger prioritized roadway projects and financing, and is incorporated by reference.

VIII. RECOMMENDATIONS

1. Street maintenance in Granger has been and will continue to be based upon the greatest need. Budget constraints limit available funding for these projects, and maintenance needs should be identified and prioritized on a continual basis.

2. All new and existing streets needing reconstruction should be built to the City's street standards where possible. If this is not possible, alternative standards need to be developed.

3. All the streets in the City need seal coating on a regular basis to maintain their good quality. A maintenance schedule should be developed and followed.

4. Unpaved roads should be prioritized for paving.

5. Granger should consider pursuing a Transportation Benefit District to provide more local funding for transportation projects; this is especially important in a time when federal and state transportation funding sources are decreasing.

6. To ensure adequate emergency access and prevent future traffic problems, the City should discourage land uses that would generate high traffic volumes or increase parking requirements in areas where it is not possible to upgrade the street system to accommodate the additional volume.

7. The City's subdivision ordinance should require street paving to City standards, sidewalks, street lighting, and curb and gutter.

8. The City should seek an interlocal agreement with Yakima County that would require subdivisions in the unincorporated portion of the UGA to meet the standards of the City's subdivision ordinance. For existing subdivisions in the UGA that do not meet the City's standards, the agreement should specify how needed improvements would be accomplished.

9. As the City grows and traffic increases, separate facilities for non-motorized travel will become more important. Existing sidewalks should be repaired, and sidewalks should be built in older areas where the City has retained rights-of-way for sidewalks. New sidewalks should link existing sidewalks with downtown and the schools. Sidewalks should also be built that link the neighborhoods and services to the west and south of the railroad tracks with the neighborhoods and schools to the east and north of the tracks.

10. The City should aggressively seek funds earmarked for alternative transportation options, and partner with organizations such as People for People to expand on existing transportation options and explore new options. A public survey of transportation needs could help to focus efforts.

11. Biker/hiker pathway construction and river access improvements, with linkages to the Lower Yakima Trail and routes for local travel, should be developed as needed to meet the City's economic development and parks/recreation objectives, as well as to encourage biking as an alternative means of transportation.

IX. GOALS AND POLICIES

GOAL 1

To develop, maintain, and operate a balanced, safe, and efficient multimodal transportation system to serve all persons, special needs populations and activities in the community.

Policy 1.1 Develop a future transportation system which encourages flexible, adaptive and multiple uses of transportation facilities and services.

Policy 1.2 Implement measures that will relieve pressures on the existing transportation infrastructure by approaches that include, but are not limited to:

- Multimodal transportation alternatives
- Land use coordination
- Prioritized improvements

Policy 1.3 Integrate, coordinate and link the connections and transfer points between all modes of transportation.

Policy 1.4 Work with the WSDOT, Yakima County, the local Public Transit Benefit Area (PTBA) authority, and other local jurisdictions to adequately site park-and-ride lots in the Granger area.

Policy 1.5 Include the need to accommodate bicycle safety in the management and design of the City street network, including designating bicycle routes throughout the City.

Policy 1.6 Integrate, coordinate and link the connections and transfer points between all modes of transportation.

Policy 1.7 Minimize potential conflicts between bicycle and automobile traffic by providing signage at intersections of bike trails with roadways.

Policy 1.8 Encourage the location of bicycle racks at appropriate destination points, such as outside of downtown commercial businesses, parks, and schools.

Policy 1.9 Provide and promote the development of pedestrian and bicycle paths to schools, parks, and activity centers, as well as linkages between these paths.

GOAL 2

To ensure that transportation facilities and services needed to support development are available concurrent with the impacts of such development, which protects investments in existing transportation facilities and services, maximizes the use of these facilities and services, and promotes orderly compact growth.

Policy 2.1 Adopt a LOS standard C for arterial roadway facilities and services within the City to help maintain Granger's rural and small city character. Do not adopt a LOS for transit until such time that a PTBA is implemented and transit LOS definitions have been adopted.

Policy 2.2 For all other roadways within the City, LOS standards shall be strictly advisory and shall only serve as guidelines.

Policy 2.3 The City shall not issue development permits where the project requires transportation improvements that exceed the City's ability to provide these in accordance with the adopted LOS standards. However, those necessary improvements in transportation facilities and services, or development of strategies to accommodate the impacts of development, may be provided by the developer.

Policy 2.4 Produce a financially feasible plan in the Capital Facilities Element demonstrating its ability to achieve and maintain adopted LOS.

Policy 2.5 Accommodate design and improvements to Granger's transportation system based on both existing conditions and projected growth.

Policy 2.6 Allow new development only when and where all transportation facilities are adequate at the time of development, or unless a financial commitment is in place to complete the necessary improvements or strategies which will accommodate the impacts within six years; and only when and where such development can be adequately served by essential transportation facilities without reducing LOS elsewhere.

Policy 2.7 Actively solicit action by the State and Yakima County to program and construct those improvements to State and County arterial systems which are needed to maintain the adopted LOS standards for the City of Granger.

Policy 2.8 Require developers to construct streets directly serving new development, and pay a fair-share fee for specific off-site improvements needed to mitigate the impacts of development. Explore with developers, when appropriate, ways that new development can encourage van pooling, carpooling, public transit use and other alternatives and strategies to reduce single-occupant vehicle travel.

Policy 2.9 Coordinate land use and public works planning activities with an ongoing program of long-range financial planning, to conserve fiscal resources available to implement the TIP.

Policy 2.10 Encourage the maintenance and safety improvements of Granger's existing roads as a priority over the creation of new roads, wherever such use is consistent with other objectives.

Policy 2.11 Implement actions outlined under the Comprehensive Plan based in part on the financial resources available to fund the necessary public facilities.

Policy 2.12 Accord high priorities for funding to projects which are consistent with goals and objectives adopted by the City Council.

Policy 2.13 Fund projects only when incorporated into the City budget, as adopted by the City Council.

GOAL 3

To recognize pedestrian movement as a basic means of circulation and to assure adequate accommodation of pedestrian and handicapped persons' needs in all transportation policies and facilities.

Policy 3.1 Require developers to include sidewalks in new plats in conformance with Granger's subdivision regulations.

Policy 3.2 Promote the creation of a pedestrian-oriented downtown commercial area by:

- Creating an environment where development of pedestrian facilities is encouraged and automobile use is optional.
- Modifying the placement of new buildings in ways that encourage pedestrian activities by making streets more attractive routes for walking.
- Encouraging side and rear yard parking areas by restricting parking lots in front of commercial businesses.

Policy 3.3 Improve pedestrian access through public improvements, sign regulations, and development standards. The maintenance of public and private improvements should be given priority commensurate with downtown's role as the focal point of the community.

Policy 3.4 Work to develop mechanisms to increase public safety and enhance local mobility, yet maintain ease of traffic movement through the City.

Policy 3.5 Seek to improve the appearance of existing street corridors and incorporate high standards of design when developing new streets, including construction of sidewalks. Implement appropriate landscaping measures that enhance the appearance of City street corridors. Encourage trees along street rights-of-way to the extent feasible without impairing capacity, safety, or structural integrity of the roadway. Seek to construct sidewalks in existing areas where sidewalk rights-of-way have been maintained for future sidewalk construction.

Policy 3.6 Whenever the City contemplates reconstruction or major maintenance work on a City street not having sidewalks, the ability to provide sidewalks at that time should be fully explored. This may include the identification of potential funding sources; promotion of a local improvement district (LID) to finance the sidewalk portion of the work; and including sidewalks as an "alternate" in construction bid documents.

Policy 3.7 Seek to implement traffic-calming devices in residential neighborhoods to reduce speeds of automobiles passing through the neighborhoods. Examples might include speed bumps, speed humps, speed cushions, curb extensions, and chicanes.

GOAL 4

To ensure adequate parking in the downtown commercial area which supports economic growth, and is consistent with downtown design and pedestrian circulation goals.

Policy 4.1 Continue to allow on-street parking in the downtown area, which forms a buffer between pedestrians and street traffic; reduces the speed of traffic, and provides for short-term parking needs.

Policy 4.2 Explore alternative methods of ensuring the adequate provision of parking for new and existing commercial and residential development in the downtown commercial area, while reducing the amount of parking provided by individual developments and influencing the location and type of parking in ways that promote pedestrian mobility and minimize pedestrian/vehicular conflicts. This includes, but is not limited to:

- Installing directional signage to public parking areas.
- Encouraging the use of joint-use parking opportunities utilizing existing parking for churches, public buildings and stores. Separating short (< 2 hrs.), intermediate (2-5 hrs.) and long term (> 5 hrs.) parking uses; on street parking reserved for short term, and long term parking provided in lots on the periphery on the downtown commercial area.
- Adding public parking as part of the downtown development, which will serve both shoppers and visitors to downtown.

GOAL 5

To manage, conserve and protect Granger's natural resources through a balance of development activities complemented with sound environmental practices.

Policy 5.1 Design new transportation facilities in a manner which minimizes impacts on natural drainage patterns.

Policy 5.2 Promote the use and development of routes and methods of alternative modes of transportation, such as transit, bicycling and walking, which reduce Granger's consumption of non-renewable energy sources.

Policy 5.3 Implement programs to reduce the number of employees commuting by single-occupancy vehicles through such transportation demand strategies as preferential parking for carpools/vanpools, alternative work hours, bicycle parking, and distribution of transit and ridesharing information based on current federal and state policies aimed at reducing auto-related air pollution.

Policy 5.4 Site, design, and buffer (through screening and/or landscaping) transportation facilities and services that fit in harmoniously with their surroundings. Give special attention to minimizing noise, light and glare impacts when these facilities are sited within or adjacent to residential areas.

GOAL 6

To actively influence the future character of the City by managing land use change and by developing City facilities and services in a manner that directs and controls land use patterns and intensities.

Policy 6.1 Coordinate transportation and land use planning with the facility/utility planning activities of agencies and utilities identified in the Capital Facilities and Utilities Elements of this Comprehensive Plan. Adopt procedures that encourage providers of public services and private utilities to use the Land Use Element of this Comprehensive Plan when planning future facilities.

Policy 6.2 The cities and counties in the region should coordinate transportation planning and infrastructure development to:

- Ensure a supply of buildable land sufficient in area and services to meet the region's housing, commercial and employment needs; located so as to be efficiently provided with public facilities and services;
- Ensure protection of important natural resources;
- Avoid unnecessary duplication of services; and
- Avoid overbuilding of public infrastructure in relation to future needs.

Policy 6.3 Recognize the important role that public facilities and programs such as sidewalks and street lights play in providing a healthy family environment within the community.

Policy 6.4 Work with local, regional and state jurisdictions to develop land use development strategies that will support public transportation.

Policy 6.5 Consider the impacts of land use decisions on adjacent roads. Likewise, road improvements should be consistent with proposed land use densities.

GOAL 7

To provide a comprehensive system of parks and open spaces that responds to the recreational, cultural, environmental and aesthetic needs and desires of the City's residents.

Policy 7.1 Recognize the important recreational transportation roles played by regional bicycle/trail systems, and support efforts to develop a regional trail system through Granger.

Policy 7.2 Support the development of paths and marked roadways that link bicycle trails with Granger's other resources.

GOAL 8

Develop a transportation system that moves people and goods safely and efficiently.

Policy 8.1: Follow the existing street plan.

Objective: Use the following guidelines for new construction and reconstruction activities on arterial and collector streets:

1. Right-of-way - 60 feet.
2. Driving Lanes - 24 feet total. Use baserock and pave with 2.5 inches of asphaltic concrete (A/C).
3. Parking Lanes - 8 feet each side. Use baserock and pave.
4. Sidewalks - 5 feet each side.

Policy 8.2: Establish new arterials only when a need has been established.

Objective: A street should be designated an arterial only when:

1. An arterial is more appropriate than a local street to serve the desired land use pattern.

2. It will link with the existing arterial system.
3. It will maintain a desirable circulation pattern, and
4. It intercepts or connects with an existing county road, and it has been coordinated with Yakima County.

Policy 8.3: Maintain all other streets in the City as local streets.

Objective: All new local streets within the City limits should be constructed to City standards.

Objective: That the following should be used as general guidelines for new construction and reconstruction activities on local streets:

1. Right-of-Way - 52 feet
2. Driving Lanes - 22 feet total. Use baserock and pave with .2 feet of asphalt concrete.
3. Parking lanes - eight feet each side. Use baserock and pave.

Policy 8.4: Coordinate street improvements with other public or private improvement activities, such as utilities, sidewalks, telephone improvements and housing rehabilitation.

Objective: Local street improvement should be considered, as appropriate, in all block grant applications.

Policy 8.5: Designate and maintain truck routes in the City and restrict truck access to other City streets, to allow movement of goods through the City in a safe and efficient manner.

Chapter 4 Capital Facilities Element

I. INTRODUCTION

Purpose

The Capital Facilities Element sets policy direction for determining capital improvement needs and evaluating proposed capital facilities projects. Because it is the mechanism the city uses to coordinate its physical and fiscal planning, the Capital Facilities Element serves as a check on the practicality of achieving other elements of the Comprehensive Plan. It also establishes funding priorities and a strategy for utilizing various funding alternatives.

Growth Management Act Requirements

To comply with the Growth Management Act, the Comprehensive Plan must have a Capital Facilities Plan element consisting of:

- An inventory of publicly owned capital facilities, including their locations and capacities;
- A forecast of the future needs for such facilities;
- The proposed locations and capacities of new or expanded capital facilities;
- A six-year (minimum) plan for financing such facilities within projected funding capacities, clearly identifying sources of public money for such purposes; and
- A requirement to reassess the land use element if probable funding falls short of meeting existing needs and to ensure that the land use element, capital facilities plan element, and financing plan within the capital facilities plan element are coordinated and consistent.
- Park and recreation facilities must be included in the capital facilities plan element.

Applicable Countywide Planning Policies

The Yakima Countywide Planning Policy recognizes cities as the providers of urban governmental services as identified in the GMA and adopted urban growth management agreements. The following Countywide Planning Policies apply to discussion on the Capital Facilities Element:

1) Areas designated for urban growth should be determined by preferred development patterns and the capacity and willingness of the community to provide urban governmental services. (A.3.1.)

2) Prior to amending an urban growth area, the County and the respective City will determine the capital improvement requirements of the amendment to ascertain that urban governmental services will be present within the forecast period. (A.3.11.)

3) Urban growth should be located first in areas already characterized by urban growth that have existing public facilities and service capabilities to serve such development, and second 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. Further, it is appropriate that urban government services be provided by cities, and urban government services should not be provided in rural areas. (B.3.1., also RCW 36.70A.110(3))

4) Urban growth management interlocal agreements will identify services to be provided in an urban growth area, the responsible service purveyors and the terms under which the services are to be provided. (B.3.2.)

5) Infill development, higher density zoning and small lot sizes should be encouraged where services have already been provided and sufficient capacity exists and in areas planned for urban services within the next 20 years. (B.3.3.)

6) The capital facilities, utilities and transportation elements of each local government's Comprehensive Plan will specify the general location and phasing of major infrastructure improvements and anticipated revenue sources (RCW 36.70A.070(3)(c)(d)). These plan elements will be developed in consultation with special purpose districts and other utility providers. (B.3.4.)

7) New urban development should utilize available/planned urban services. (B.3.5., Also RCW 36.70A.110(3))

8) Formation of new special purpose districts should be discouraged within designated UGAs. (B.3.6.)

9) The County and the cities will inventory existing capital facilities and identify needed facility expansion and construction. (C.3.1., also RCW 36.70A.070(3)(a)(b))

10) From local inventory, analysis and collaboration with state agencies and utility providers, a list of Countywide and statewide public capital facilities needed to serve the Yakima County region will be developed. These include, but are not limited to, solid and hazardous waste handling facilities and disposal sites, major utility generation and transmission facilities, regional education institutions, airports, correctional facilities, in-patient facilities including hospitals and those for substance abuse and mental health, group homes and regional park and recreation facilities. (C.3.2.)

11) When a public facility of a countywide or statewide nature is proposed in the Yakima County region a Facility Analysis and Site Evaluation Advisory Committee including citizen members will be formed to evaluate the proposed public facility siting. At a minimum this evaluation shall consider:

    a. The potential impacts (positive or negative) of the proposed project on the economy, the environment and community character;
    b. The development of specific siting criteria for the proposed project;
    c. The identification, analysis and ranking of potential project sites;
    d. Measures to first minimize and second mitigate potential physical impacts including, but not limited to, those relating to land use, transportation, utilities, noise, odor and public safety; and
    e. Measures to first minimize and second mitigate potential fiscal impacts. (C.3.3.)

12) Major public capital facilities that generate substantial travel demand should be located along or near major transportation corridors and public transportation routes. (C.3.4.)

13) Some public facilities may be more appropriately located outside of UGAs due to exceptional bulk or potentially dangerous or objectionable characteristics. Public facilities located beyond urban growth areas should be self-contained or be served by urban governmental services in a manner that will not promote sprawl. Utility and service considerations must be incorporated into site planning and development. (C.3.5.)

14) The multiple use of corridors for major utilities, trails and transportation right-of-way is encouraged. (C.3.6.)

15) The County and cities will work with special purpose districts and other agencies to establish a process for mutual consultation on proposed comprehensive land use plan policies for lands within urban growth areas. Actions of special purpose districts and other public service providers shall be consistent with Comprehensive Plans of the County and the cities. (F.3.1., also RCW 56.08.020, RCW 57.16.010)

16) The use of interlocal agreements is encouraged as a means to formalize cooperative efforts to plan for and provide urban governmental services. (F.3.2.)

17) Joint financing ventures should be identified to provide services and facilities that will serve the population within the urban growth areas. (F.3.3.)

18) Each interlocal agreement will require that common and consistent development and construction standards be applied throughout that urban growth area. These may include, but are not limited to standards for streets and roads, utilities and other infrastructure components. (F.3.5.)

19) Encourage economic growth within the capabilities of the region's natural resources, public services and public facilities.

    a. Identify current and potential physical and fiscal capacities for municipal and private water systems, wastewater treatment plants, roadways and other infrastructure systems.
    b. Identify economic opportunities that strengthen and diversify the county's economy while maintaining the integrity of our natural environment. (G.3.1.)

20) Local economic development plans should be consistent with the comprehensive land use and capital facilities plans and should:

    a. Evaluate existing and potential industrial and commercial land sites to determine short and long-term potential for accommodating new and existing businesses;
    b. Identify and target prime sites, determine costs and benefits of specific land development options and develop specific capital improvement strategies for the desired option;
    c. Implement zoning and land use policies based upon infrastructure and financial capacities of each jurisdiction;
    d. Identify changes in UGAs as necessary to accommodate the infrastructure needs of business and industry;
    e. Support housing strategies and choices required for economic development. (G.3.2.)

21) Each local government will prepare a capital facilities plan consisting of:

    a. An inventory of existing capital facilities owned by public entities, showing the locations and capacities of the capital facilities;
    b. A forecast of the future needs for such capital facilities;
    c. The proposed locations, capacities and costs of expanded or new capital facilities;
    d. At least a six-year plan that will finance such capital facilities within projected funding capacities and clearly identifies sources of public money for such purposes; and
    e. A requirement to reassess the Land Use Element if probable funding falls short of meeting existing needs and to ensure that the Land Use Element, the capital facilities plan element and financing plan within the capital facilities plan element are coordinated and consistent. (H.3.1.)

22) As part of the planning process, the County and the cities should coordinate with capital facilities providers and other interested parties to ensure that consideration is given to all capital service requirements and the means of financing capital improvements. (H.3.2.)

23) The County and the cities should consider an impact fee process, as provided for in RCW 82.02.050-090, to insure that new development pays its fair share of the cost of improvements necessitated by growth and contributes to the overall financing of capital improvements. (H.3.3.)

24) To minimize the potential economic impacts of annexation activities on the County and cities, consideration will be given to negotiating agreements for appropriate allocation of financial burdens resulting from the transition of land from county to city jurisdiction. (H.3.4.)

25) Special districts, adjacent counties, state agencies, the tribal government and federal agencies will be invited to participate in Comprehensive Planning and development activities that may affect them, including the establishment and revision of urban growth areas; allocation of forecasted population; regional transportation, capital facility, housing and utility plans; and policies that may affect natural resources. (I.3.)

Relationship to Other Elements

Urban Growth Areas (UGAs)

Urban Growth Areas are those areas designated under the Growth Management Act where urban growth is encouraged and outside of which growth can occur only if it is not urban in nature.

Capital facilities are the physical structures owned or operated by a government entity which provide or support a public service. Capital facilities provide urban services. Urban growth typically requires urban governmental services, which include storm and sanitary sewer systems, domestic water systems, street cleaning services, fire and police protection services, public transit services, and other public utilities associated with urban areas and not normally associated with non-urban areas. It is appropriate for cities to provide urban government services.

Compatible Land Uses

Urban governmental services are generally not feasible unless there is intensive use of land for the location of buildings, structures, and impermeable surfaces. Those services should not be provided in rural areas.

Consistency with Land Use Element

The location, type and intensity of various future land uses, in conjunction with level of service standards, determine the needs for future capital facilities.

II. EXISTING CONDITIONS

Much of the information for this and following sections has been developed or verified by Spink Engineering, consulting engineers, as part of their update of the Granger Small Water Management Program and Wastewater Facility Plan (2011). These plans are hereby incorporated by reference.

The term ‘capital facilities’ is not specifically defined under the Growth Management Act; however, the Washington Administrative Code (WAC) does refer to public facilities as including "streets, roads, highways, sidewalks, street and road lighting systems, traffic signals, domestic water systems, storm and sanitary sewer systems, parks and recreational facilities, and schools.” WAC 365-196-200(14). The section which follows lists a variety of public services, most of which have associated capital facilities within the Granger area.

Types and Providers of Capital Facilities

Service providers for the City of Granger and the unincorporated portion of its UGA are listed in Table 4-1. In some cases, the capital facilities supporting the services listed are located outside of the UGA.

Table 4-1 Service Providers, Granger Urban Growth Area

Type of Service	City of Granger	Unincorporated UGA
General Government		
General Purpose Government	City of Granger	Yakima County
Education		
Schools	Granger School District (#204)	Granger School District (#204)
Protective Services		
Emergency/Rescue	City of Granger, Medic One, Sunnyside Fire Department	Fire District #5, Medic One
Fire Protection	City of Granger	Fire District #5
Law Enforcement	City of Granger	Yakima County Sheriff
Public Health		
Public Health	Yakima Health District	Yakima Health District
Public Transportation		
Transit	People for People	People for People
Recreation		
Libraries	City of Granger/Regional Library	City of Granger/Regional Library
Parks	City of Granger	City of Granger
Recreational Facilities	City of Granger, private sector	Yakima County, private sector
Solid Waste		
Residential and Commercial Solid Waste Collection	City of Granger	Yakima Waste Systems
Solid Waste Disposal	Yakima County Cheyne Road landfill	Yakima County Cheyne Road landfill
Streets and Roadways		
Arterial Streets and Roads	City of Granger, Yakima County	Yakima County
Local Streets	City of Granger	Yakima County
Highways	Washington DOT	Washington DOT
Sidewalks	City of Granger	Yakima County
Street Lighting	City of Granger via Pacific Power	Yakima County (none)
Traffic Control	City of Granger	WSDOT, Yakima County
Stormwater		
Stormwater Control	City of Granger	Yakima County
Water		
Irrigation Water	City of Granger, Sunnyside Valley Irrigation District	City of Granger, Sunnyside Valley Irrigation District
Potable Water	City of Granger	City of Granger or individual wells
Wastewater		
Sewage Collection	City of Granger	On-site disposal or City of Granger
Sewage Treatment and Wastewater Disposal	City of Granger	On-site disposal or City of Granger
Septage and Sludge Disposal	Septage: Private haulers/Yakima County landfill Sludge: City of Granger/Yakima County landfill	Private septage hauling to Cheyne Road Landfill

III. STREETS AND ROADWAYS

Characteristics of the street system and other transportation facilities and services, as well as current and projected traffic levels of service, are discussed in the Transportation Element. Granger reviews and adopts a six-year Transportation Improvement Program (TIP) on an annual basis. The most recent program was adopted June 18, 2016 for the years 2017-2022. See Section XVI for a list of transportation projects, their estimated costs, and funding sources.

IV. WATER SYSTEM

The City of Granger has a Small Water Management Program, adopted April 2016. This document is incorporated by reference, as amended. Because Granger has less than 1,000 water system connections, the City is not required by the Washington State Department of Health to complete a water system plan.

Water Supply Characteristics

Historically, Granger's drinking water has been supplied from four wells. Well No. 1 Old was constructed in 1913, and retired from service sometime between 1948 and 1968. A new well, Well No. 1, was drilled in 1968, and became the primary water source for the City.

Currently, there are three wells serving Granger. The water system consists of an all-looped water distribution system. Housing developments southeast of the City and on top of Cherry Hill are fed from booster stations, while the majority of the system is on a single pressure zone. The water system is served by two concrete reservoirs. Irrigation water is delivered by underground pipes, and the water is gravity fed through the system. However, most residents have private pumping facilities to boost water supply for irrigation.

Water service in Yakima County is provided by public purveyors and individual private water systems. The "public purveyors" are placed into four categories by the Washington State Department of Health and the Yakima County Health Department. These classifications are listed below.

- Class 1: A water system having 100 or more permanent services or serving a transitory population of one thousand or more people on any one day.
- Class 2: A water system having ten through ninety-nine permanent services or serving a transitory population of three hundred through nine hundred ninety-nine people on any one day.
- Class 3: A water system serving a transitory population of 25 through two hundred and ninety-nine on any one day.
- Class 4: A water system having two through nine permanent services or serving a transitory population of less than twenty-five people on any one day or any public water system that is not a Class 1, 2, or 3 systems.
- Private System: A water system having only one permanent service (i.e., individual well or storage tank) and is not regulated by state or local authorities.

The City of Granger's municipal water supply system is a Class 1 system owned and operated by the City. In 2016, the City had 867 total service connections. Of these connections, 787 were residential, 64 were commercial or schools, 9 were churches, and 7 were municipal. The City has no interties or service agreements with any other water systems.

Under WAC 246-290-230, Distribution Systems, the City of Granger's water system must meet the following criteria

for system pressure:

- New public water systems or additions to existing systems shall be designed with the capacity to deliver the design PHD quantity of water at 30 psi (210 kPa) under PHD flow conditions measured at all existing and proposed service water meters or along property lines adjacent to mains if no meter exists, and under the condition where all equalizing storage has been depleted.
- If fire flow is to be provided, the distribution system shall also provide maximum day demand (MDD) plus the required fire flow at a pressure of at least 20 psi (140 kPa) at all points throughout the distribution system, and under the condition where the designed volume of fire suppression and equalizing storage has been depleted.

Water Supply

The City is supplied with potable water by three interconnected wells which serve the entire City. Well #1 is the primary well, while Well #2 and Well #3 are used as emergency backup wells. Table 4-3 summarizes the wells' primary characteristics.

Table 4.2. Characteristics of City of Granger Wells

Characteristic	Well No. 1	Well No. 2	Well No. 3
Status	Primary	Emergency/Wholesale	Emergency/Wholesale
Location	South of Cherry Hill Road, between E Street and SR 223	West of East D Street, south of East 4th Street	East of Bailey Avenue, at end of Barker Avenue
Date Drilled/Redrilled	1968	1948/1988	1911
Wellhead Elevation (feet)	745	735	735
Well Depth (feet)	252	175/535	106
Rated Capacity (gpm)	850	425	280

Ecology has formally acknowledged water rights for the City amounting to 344 acre feet (ac-ft) per year. The City also believes it holds an additional water right for 50 ac-ft per year, which was obtained when the City purchased the railroad's well. While the City obtained rights decades ago for use of the City's purchased railroad right, and City officials are confident in the validity of the right, Ecology has yet to acknowledge that right, informally questioning the extent and validity of the railroad right at the time of the 1971 certificate. Therefore, the Small Water Management Program did not factor in use of those rights.

Currently, the City also has an application pending with Ecology for an additional water right that was submitted in 1998. Approvals of new groundwater rights on the Yakima River Basin were on hold until the recent completion of a United States Geological Survey water quality study that began in 1999. Now that the study is completed, Ecology has the information it needs to make groundwater management decisions. At this time, because water is currently over-appropriated in the Yakima Valley, Ecology anticipates denying most pending water rights applications, unless suitable water-for-water mitigation is offered.

City of Granger delivers irrigation water supplied by the Sunnyside Valley Irrigation District (SVID). Granger has a Class 3 irrigation water right and is entitled to 1,425 acre-feet of irrigation water from the SVID.

Delivery

The water distribution system has two pressure zones: the lower zone with pressure from two water tanks under gravity flow, and the upper zone with pressure from a booster pump station.

Storage

While the City of Granger historically owned, and operated two storage reservoirs, only one is currently in operation. Reservoir 1, a 150,000-gallon wooden reservoir in the southeast portion of the City, was removed from service in 1978 due to contamination potential from a leaky roof and has been demolished.

Reservoir 2 was constructed in 1976. It is a 500,000 gallon-capacity concrete structure located on Cherry Hill at an elevation of 889 meters above sea level (msl). Well #1 operation is controlled by a float system in Reservoir #2, in combination with radio telemetry between the well and reservoir.

Reservoir 3 was constructed in 2010 next to Reservoir 2. It provides an additional 200,000 gallons of storage. It is constructed at the same elevation as Reservoir 2 in order to be in the same pressure zone.

Telemetry

Well No. 1 is operated radio telemetry. Float switches in the reservoir control the pump to keep the reservoir full. Wells No. 2 and 3 are emergency wells, only used when Well No. 1 needs maintenance or when a large fire occurs. Wells No. 2 and 3 are not wired into the telemetry system, and their operation is manual. The control of the water system is very basic, with multiple manual-start items.

Fire Flow

In Granger, the fire flow standard is 500 gpm for one hour in residential areas, and 1,500 gpm for two hours in commercial or industrial areas. The greatest fire flow requirements in Granger are within the areas zoned industrial and commercial, in addition to some isolated large demand at the public schools.

Fire flow pressures are currently sufficient throughout the Granger water system. Fire flow is sufficient in all areas except at the intersection of West Boulevard North and Peterson Avenue, in the northwest corner of the residential portion of the city.

Current Domestic Water Demand

Table 4-3 below summarizes water use during 2016 for Granger.

Table 4-3 City of Granger 2016 Water Usage

MEASURE OF USE	WATER USE
Number of Residential Services in 2015	665 connections
Total Annual Residential Demand	480 gpd/ERU, 57,764,301 gallons
Average Daily Demand – Residential Total (gpd)	240 gpd/ERU, 158,258 gpd
Average Daily Demand/ ERU gpd	238 gpd/ERU
Maximum Day Demand (gpd)	480 gpd/ERU, 476 gpd/ERU

Total Demand	92,498,270 gallons
Total System ADD	253,419 gpd
Total ERUs (253,419 ÷238)	1,065 ERUs

Source: Spink Engineering, 2016

Projected Domestic Water Demand

Currently, the City has 344 acre feet/year of state certified water rights. The City filed applications with Ecology in 1998 to change the point of use of its water rights and to apply for additional water rights, but those applications have yet to be processed. While the City obtained rights decades ago for use of the City's purchased railroad right, Ecology has yet to acknowledge the validity of that right.

Table 4-4 shows the projected water system and storage demand for the City of Granger through the year 2037. The City of Granger has a projected 2037 population of 5,226 (see Land Use Element for further discussion).

Table 4-4 City of Granger Projected Water System Demand, 2037

	Demand, 2037
Population	5,226
ERUs[5]	1,714
Peak Hour Demand (gpm)	999 gpm
Average Daily Demand (gpd)	408,000 gpd
Maximum Daily Demand (gpd)	816,000 gpd
Standby Storage	342,800 gallons
Equalizing Storage	22,350 gallons
Operational Storage	53,000 gallons
Fire Suppression Storage[6]	180,000 gallons
Total Storage	598,100 gallons

Source: Spink Engineering, 2016

Table 4-5 City of Granger Projected Water System Capacity, 2037

System Component	Capacity Available (ERUs)	GPD
Source Average Daily Demand	33,857	9,141,390
Equalizing Storage	94	25,380
Standby Storage	1,440	388,800
Total Storage (excluding Fire Storage)	2,184	589,680
Water Rights	1,290	348,300

Source: Spink Engineering, 2016

Water System Needs

Needed water system improvements are listed and prioritized in Table 4-6.

Water Source

Wells No. 1, 2, and 3 have sufficient capacity to support Granger through 2037, assuming that water rights are secured for their continued use. However, Wells No. 2 and 3 are designated as emergency sources, leaving Well No. 1 as the only source in the City's water system. Wells No. 2 and 3 are tested for coliform and inorganic contaminants as required by the Department of Health (DOH). This increases the reliability of the City's water system. Further, as emergency sources require testing prior to use, this ensures City will have sufficient water in an emergency situation.

Water Rights

According to the City of Granger 2008 Water System Plan, the City's acknowledged level of water rights was insufficient to meet water needs by 2022. According to the City's engineering consulting firm, this situation remains

unchanged and the City remains without sufficient acknowledged water rights to meet water needs for the 2017-2037 planning period. The City feels confident that the question of the validity of the existing railroad water right ultimately will be settled in the City's favor. However, an alternative to the recognition of this right is to identify water rights sellers in the area and purchase water rights from them. This is particularly important since Ecology anticipates denying most currently pending water rights applications in the Yakima Valley. Water rights identified for purchase should be senior to May 1905. Ecology's Washington Water Exchange website as well as the Yakima County Water Conservancy Board can assist in matching those interested in purchasing water rights with eligible potential sellers.

Booster Stations

Presently, Booster Station No. 2 contains a propane fire pump that is started manually in case of a fire on the discharge side of the station. To increase reliability of the fire protection system, the City would have to upgrade the pump controls to automatically operate the pump.

Storage

Reservoir 2 has a 500,000-gallon capacity. Construction of Reservoir 3 was done in 2010. This reservoir will add to existing storage capacity and the potential to serve new growth. It also allows Reservoir 2 to be taken offline for cleaning and repair, rather than cleaning and repairing while the reservoir is online, which is difficult and very expensive. Reservoir 3 was built near Reservoir 2 and at the same elevation to allow both reservoirs to serve the same pressure zone.

Distribution System

A few areas of the City are deficient in fire flow. Improvements to the City's distribution grid include:

Ruehl Way Loop and Industrial Loop. This improvement would take place if an industrial user approaches the City that would like to install facilities in the northwest area of the City.

West Boulevard Improvements. Granger will upgrade the existing four-inch pipe to an eight-inch pipe from Peterson Avenue to the north to provide the minimum 500 gpm fire flow rates in this area.

Aging pipe replacement. The City will replace aging and undersized sections of the grid to prevent excessive inflow/infiltrations, and to remove fire flow bottlenecks.

Operation and Maintenance

Improvements will be made to the cross-connection control management to reduce potential contamination.

Telemetry

The City will acquire a new telemetry/SCADA system to control and monitor the water system. This new system will monitor and record reservoir levels and well production rates, turn the wells on and off depending on water levels, and provide automatic alarm notification. The new system will operate all of the wells equally, and record accurate water demand data.

Water Rates

The City will conduct a study of current and future water charges to ensure adequate finance of future water improvements.

Table 4-6 Water System Projects Priority Rankings

PRIORITY	PROJECT NAME	YEAR
1	Identify/purchase water rights	2017-2020
2	Replace service meters	2017-2020
3	MetorTech Locator	2018
4	Source Pressure Gauge	2020
5	Ruehl Way Loop	2022
6	Industrial Loop	2023
7	West Boulevard upsize	2020
8	Aging pipe replacement	2018-2024

Source: Spink Engineering, 2016

V. STORMWATER SYSTEM

In general, the City of Granger does not have a storm drainage system, although it maintains a multiple drain system in a limited area, and storm drains tap into a subsurface irrigation return drain, D.I.D. #3. A few dry wells provide additional drainage. Local flooding problems in the area of the Pinnell Addition (north Granger) were caused by blockage of the Yakima County drain, and have been resolved. The City is not currently experiencing storm water flooding. Portions of the UGA outside the City are subject to flooding by the Yakima River.

Cities in eastern Washington with a population of more than 10,000 are required to obtain a Phase II Municipal Stormwater Permit from the Department of Ecology. Granger's projected 2037 population is 5,226. As Granger gets closer to the 10,000 population threshold, the City will need to plan for obtaining a Phase II Municipal Stormwater Permit. To obtain this permit, Granger is currently working on developing minimum technical requirements for stormwater management as part of new development and redevelopment site standards.

VI. WASTEWATER SYSTEM

The City of Granger Wastewater Facility Plan was adopted in 2011, and is herein incorporated by reference, as amended.

The City of Granger provides sanitary sewer service within City limits, and wastewater treatment within its 650-acre service area. The sewage collection system and original wastewater treatment facilities were first constructed in 1952. The sewage collection system service area coincides with the City of Granger municipal boundary. No areas outside of the City are now sewered. Existing sewer lines cross I-82 and serve some homes. The service area is not expected to change until a significant amount of infill development occurs on vacant land in City limits.

Collection and Conveyance

The sanitary and storm sewers are separate systems. The collection system is composed of approximately seven miles of sewer line, including eight-inch collectors with 10-trunk mains closer to the treatment plant. City design standards currently require PVC construction; however, existing sewer pipes are largely concrete except newer pipes, which are PVC. The City also operates two lift stations.

No areas outside the City limits are currently being served.

Treatment Facilities

The wastewater treatment plant is located at the south end of East A Street, one-half block south of the Granger Public Works Department. The street address is 503 Main Street. This plant site is located immediately north of Granger Pond. The plant outfall to the Yakima River is located between the Granger Drain and the boat ramp at Hisey Park.

The wastewater treatment plant was upgraded in 2015. Upgrades included new headworks, a selector tank, a new aeration basin with aerators, new drying beds and a new shop that houses the new electrical service and controls. A SCADA system was also included in the upgrade to allow operations personnel to review and operate the WWTP at the computer screen.

Treatment facilities now include a 10" influent sewer, fine screen, Parshall flume, flow meter, two aeration basins with aerators, two secondary clarifiers, and UV disinfection. Biosolids handling consists of an aerobic digester and sludge drying beds. Facilities also include a laboratory. Treatment consists of biological conversion of the raw wastewater by activated sludge, followed by secondary clarification and UV disinfection. Excess sludge is naturally dewatered in a holding tank, dried in sludge beds and applied to agricultural land in Yakima County at a permitted biosolids land application site operated by Natural Selection Farms. Granger also has the capability of continued aerobic digestion, but has not exercised this option due to a lack of land application sites, and limited manpower and finances. Effluent is discharged into the Yakima River in the center of the deepest channel, approximately 200 feet southwest of the boat ramp in Hisey Park.

The City bills for wastewater services with the water bill. Charges are calculated based on water use.

Future Wastewater Demand

The City of Granger wastewater treatment plant improvement project was completed in fall 2015. Table 4-7 provides information on the wastewater flows over several months after the project was completed and the projected flows for year 2037.

Table 4-7 Projected City of Granger Wastewater Flow

Projected Wastewater Flow in Year	2016	2017	2037
Population Projection	3,246	3,696	5,226
Maximum Monthly Flow (gallons/day)	138,000	157,080	222,105

Source: City of Granger flow data, January through July 2016 with Yakima County population projections.

Wastewater System Needs

As part of the wastewater improvement project, Granger replaced sections of sewer trunk lines. The City will continue to replace sewer trunk lines as needed.

The City of Granger does not anticipate that any major wastewater ~~system~~ treatment plant improvements will be needed during the 20-year planning period.

VII. SOLID WASTE COLLECTION AND DISPOSAL

Solid Waste Disposal

The City of Granger operates its own garbage collection system. Weekly collection is provided throughout the City. No areas are served outside the City limits. Solid waste is deposited at the Snipes Mountain transfer facility which serves the lower Yakima Valley, including the City of Granger. Waste is hauled from the Snipes Mountain transfer facility to the Cheyne Road landfill in Zillah. The City currently charges residential customers $22.33 per month for a 90-gallon can, and $62.83 per month for a 300-gallon can. Each additional 90-gallon can pickup is $9.99, while each additional 300 gallon can pickup is $20.14. Tax is incorporated into these rates. Businesses are charged based on the number of pickups per week.

The City is rebuilding its existing garbage truck. The refurbished truck is expected to last for 10 years. The next year that the City needs to purchase a new truck is 2025.

Outside of the City of Granger, solid waste is hauled by franchise holders. Yakima Waste Systems serves the entire unincorporated portion of Granger's UGA. The Cheyne Road Landfill opened in 1968 and has been operated by Yakima County since 1972. The Landfill currently serves the cities of Grandview, Toppenish, Wapato and Zillah, Yakima Waste Systems, septage haulers, agricultural firms, construction and food processing businesses, self-haul businesses, and private residences. The Yakama Nation also transports its waste to the Cheyne Road Landfill, following closure of the Nation's landfill in October 1993.

The Cheyne Road Landfill currently occupies 40 acres of a 960-acre site, and this site could be expanded to provide additional capacity. Current projections suggest the remaining capacity is approximately 850,000 cubic yards for the currently permitted 40 acres. According to the Yakima County Solid Waste Management Plan developed in 2003, the Cheyne Road Landfill will be expanded prior to 2011 so that there will be enough capacity to handle the solid waste from the entire County. The expansion will extend the site life beyond 2021.

Recycling

Recycling is becoming an increasingly important aspect of waste disposal. Yakima County has defined urban and rural service zones using the U.S. Census Urbanized Area boundary. Areas defined as urban must put in place household collection programs ("curbside recycling") or must put in place alternative programs which exceed the waste diversion anticipated from a curbside recycling program. Granger is defined as a rural area, in which drop off centers and other methods can be used (*Yakima County Solid and Moderate Risk Waste Management Plan*, 2010).

Solid Waste System Needs

Table 4-8 presents improvements needed to the solid waste system.

Table 4-8 Solid Waste Collections and Disposal Projects Priority Rankings

PRIORITY	PROJECT NAME	YEAR
1	Purchase new garbage truck	2025

VIII. PUBLIC EDUCATION FACILITIES

Characteristics of Granger schools are summarized in Table 4-11. Granger's UGA is in Granger School District, No. 204. Roosevelt Elementary School, located at 405 Bailey Avenue, serves grades K-4. As of the end of the 2015-2016 school year, the school had 31 teachers and an enrollment of 634 students. Granger Middle School, located at 501 Bailey Avenue, serves grades 5-8. It had 24 teachers and 475 students at the end of the 2015-2016 school year. Granger High School is located at 315 East Mentzer Avenue, and serves grades 9-12. Granger High School had 442 students and 25 teachers at the end of the 2015-2016 school year.

In December 2015, the Granger School District completed construction of four new classrooms in Granger High School; the same was completed in Granger Middle School in February 2016. In addition, six new classrooms and a multipurpose room were added to Roosevelt Elementary in fall 2016. These improvements replaced portables that were previously being used as classrooms.

Table 4-9 Educational Facilities, Granger School District, 2015-2016

Name of School	Address	Grades	Teachers	Enrollment
Roosevelt Elementary School	405 Bailey Avenue	K-4	31	634
Granger Middle School	501 Bailey Avenue	5-8	24	475
Granger High School	315 East Mentzer Avenue	9-12	25	442

Source: Office of the Superintendent of Public Instruction, Washington State Report Card: Granger School District, Year 2015-2016; Granger School District.

* Includes portable units

IX. OPEN SPACE, PARKS, AND RECREATIONAL FACILITIES

Local parks and recreation facilities are provided by the City of Granger, the school district, and various private concerns. Table 4-10 lists public parks, while Table 4-13 lists Granger School District facilities.

Table 4-10. Recreation Facilities

Name of Park	Main City Park	Hisey Park	Granger Pond	Bell Memorial Park	Well Park	Veteran's Memorial Park	9/11 Memorial Park	Raptor Park
Acres	2	1.7	20	1	0.4	0.4		1.7
Baseball/softball/football/soccer fields	0	0	0	0	0	0	0	0
Open play fields	1	1	1	1	1	1	0	1
Basketball/other	1	0	0	0	0	0	0	0
Swimming pools	0	0	0	0	0	0	0	0

Name of Park	Main City Park	Hisey Park	Granger Pond	Bell Memorial Park	Well Park	Veteran's Memorial Park	9/11 Memorial Park	Raptor Park
Picnic tables	1	1	0	0	0	1	1	1
Picnic shelters	1	1	0	0	0	0	0	0
Camp sites	0	0	0	0	0	0	0	0
River/stream	0	0	Yakima River	0	0	0	0	0
Wetland/marsh	0	0	1	0	0	0	0	0
Lake/reservoir	0	0	Granger Pond	0	0	0	0	0
Linear feet of shoreline	0	0	3,588	0	0	0	0	0
Boat launch lanes	0	0	1	0	0	0	0	0
Playground equipment	0	1	0	0	0	0	0	1
Interpretive facilities	0	1	0	0	0	1	1	0
Trails	0	0	1*	1**	0	1**	1**	0
Fitness/jogging course	0	0	1*	0	0	0	0	0
Restrooms	0	1	0	0	0	0	0	0
Handicapped accessible facilities	1	1	0	0	0	0	1	0
Parking	1	1	1	1	0	1	1	1

*Paved path around pond with distances marked

** Paved, landscaped path through park

Table 4-11 Recreation Facilities, Granger School District

Type of Facility/Name of School	Roosevelt Elementary School	Granger High School
Acres	8	10
Gymnasium	Yes – basketball for youth and adults, volleyball	Special events only
Outdoor basketball	Yes	Yes
Tennis courts	No	Yes (4)
Soccer fields	Practice only	Practice only
Football fields	No	Yes
Baseball fields	Yes	Yes (2)
Softball fields	Yes, youth and adult	Yes
Running track	No	Yes
P.E. practice/open play areas	Yes – soccer	Yes – soccer, golf, etc.
Playground equipment	Yes	No

Park and Recreation Facilities Needs

The City of Granger has need of a functioning parks and recreation program. The City should look at forming a parks and recreation board and at parks and recreation grant funding for new facilities. In addition, the City could consider applying for a Community Development Block Grant planning grant to develop a park and recreation plan that is sustainable for the City. The City's last comprehensive parks and recreation plan was created in 2003.

The City has identified some capital improvements for parks and recreation during the next six years, including a splash park, a skate park, a community center, and updates to the Dino Store in Hisey Park.

Table 4-12 summarizes and prioritizes needed parks and recreation system improvements.

Table 4-12 Parks and Recreation Projects Priority Rankings

PRIORITY	PROJECT NAME	YEAR
1	Splash Park	2018
2	Municipal skate park	2019
3	Community Center	2020
4	Update to Dino Store	2018

X. POLICE AND FIRE PROTECTION

Law Enforcement

The police station is located in City Hall, at 102 Main Street. The police chief and six officers currently provide coverage. During unstaffed times, a county sheriff's office handles in-progress and emergency calls only, often with a long response time.

The Yakima County Sheriff's Office patrols the unincorporated portion of Granger's UGA.

Fire Protection

The Granger Fire Department station is located at 499 Main Street across from the Circle Inn, and is owned by the City. Volunteers gather at the station to respond to calls both in the City and the surrounding area. The old fire station, owned by Yakima County Fire District No. 5, is located at 101 West First Street. It is now used by the District for storage of retired fire equipment.

The department is virtually all volunteer. Some cost reimbursement is provided through a pay-per-call point system, and the chief, along with the officers, receive a nominal annual fee in additional to the point reimbursement. Seventeen volunteers serve both the City and the surrounding area, using City equipment in Granger and Yakima County Fire District No. 5 equipment outside the City. Medical training varies among the volunteers, ranging from first aid through intermediate emergency medical training. Mutual aid agreements are in place with all surrounding jurisdictions, including outlying County departments, the Department of Natural Resources, the Bureau of Land Management, and the Bureau of Indian Affairs.

Equipment available to the Granger Fire Department includes two County-owned vehicles, including a fire engine and a transport-capable aid vehicle; and two City-owned vehicles, including a fire engine and an off-road tender/brush truck.

Currently, the Fire Department has immediate need of a new fire engine with a two- or three-person cab, minimum 750 gpm pump, and minimum 1,000-gallon water tank capacity. The estimated cost is $280,000.

Table 4-13 Fire Department Priority Rankings

PRIORITY	PROJECT NAME	YEAR
1	Fire Engine	2017

XI. MEDICAL AND EMERGENCY SERVICES

The City of Granger operates an aid vehicle, which provides emergency first aid but not transport to medical facilities. The volunteer firefighters are trained and equipped to provide emergency medical services for victims off trauma or severe medical problems. Approximately 72% of calls to the Granger Fire Department are medical calls or motor vehicle accidents.

Ambulance Service

Ambulance service is available from AMR in Toppenish and Sunnyside Fire District, with transportation to hospitals in Toppenish, Sunnyside, or Yakima. Volunteer firefighters provide the first aid that ambulance crews would otherwise do prior to transport.

Medical Facilities

There are no private medical services in the City. Low-cost medical and dental services are available at the Yakima Valley Farm Workers Clinic. The Farm Workers Clinic has locations in Toppenish, Yakima and Grandview, and also constructed an urgent care clinic in Granger in 2016. In addition, Neighborhood Health Services of Yakima opened a medical and dental clinic in 2016, at the site of the former Granger Medical Clinic. The nearest hospitals are Sunnyside Community Hospital, Providence Hospital in Toppenish, and Virginia Mason Memorial Hospital and Providence/Yakima Medical Center, both located in Yakima. First aid is provided by the City of Granger volunteer fire fighters.

XII. CORRECTIONS

The City does not operate a jail. Criminal offenders are taken to the jail in Sunnyside. If that facility is full, they are taken to Wapato. If both are full, or if the offender is violent, the offender is transported to the County Jail in Yakima.

XIII. GOVERNMENT FACILITIES

Table 4-14 presents major government facilities and their locations in the City of Granger. The Granger Library, located at 508 Sunnyside Avenue, was constructed in 1984. The 3,960 sq. ft building is owned by the City of Granger, while the library is operated by the Yakima Valley Regional Library system. Building maintenance is a City responsibility. Private individuals have also provided support for building maintenance. The library is open 24 hours per week: Monday and Wednesday from 9:30-5:00, Tuesday and Thursday from 2:00 to 8:00, and Saturday from 2:00-5:00. The library is well suited to the City's needs. The County Assessor rates the Granger Library as average, meaning the condition of the building is typical for its age.

Granger City Hall, at 102 Main Street, is a newer facility that includes administrative services, council chambers and

the Police Department. The previous City Hall burned down in 1995. The County Assessor rates the Granger City Hall as average, meaning the condition is of the building is typical for its age.

Table 4-14 Government Facilities in the City of Granger

FACILITY	LOCATION
Federal	
U.S. Postal Service	104 Main Street
City	
Granger Library	508 Sunnyside Avenue
City Hall	102 Main Street
Police Department	102 Main Street
Fire Department	499 Main Street
Public Works Shop	503 Main Street
Scout Cabin	100 Sunnyside Avenue

Government Facilities Needs

Granger does not have an established parks and recreation office. Currently, the City's parks are maintained by the Department of Public Works (503 Main Street) from the City shops. A parks and recreation office would serve to manage Granger's significant acreage of parks and recreation facilities, engage in park planning, and promote the City's parks and area tourism. Upgrades to aging computers in most government facilities also are needed. Table 4-15 presents and prioritizes needed government facilities improvements.

Table 4-15 Government Facilities Projects Priority Rankings

PRIORITY	PROJECT DESCRIPTION	DATE
1	Records management software	2018
2	Tourism center/parks and recreation office	2019
3	Computer upgrades	2020

XIV. PUBLIC WORKS EQUIPMENT

Public works equipment and vehicles owned and operated by the City is summarized in Table 4-16.

Table 4-16 City of Granger Public Works Equipment and Vehicles

YEAR	DESCRIPTION	Department
	Vehicles	
2002	Dodge	City Hall
1986	Fire Pumper	Fire Department
1999	Dodge Dakota	Fire Department
2006	International 7400	Fire Department
1986	Amgen 2.5 Ton Cargo Truck	Police Department

YEAR	DESCRIPTION	Department
2003	Chevy Tahoe	Police Department
2005	Ford Crown Victoria	Police Department
2006	Chevrolet	Police Department
2008	Chevrolet Impala	Police Department
2013	Chevy Tahoe	Police Department
2014	Chevy Tahoe CT	Police Department
2015	Chevy Tahoe CT	Police Department
2016	Chevy Tahoe CT	Police Department
2017	Chevy Tahoe CT	Police Department
1963	GMC 5500 (vac truck)	Public Works
1966	Ford 750 4x4 dump truck (sand truck)	Public Works
1977	International dump truck	Public Works
1980	Freightliner dump truck (sweeper truck)	Public Works
1981	Ford G/EX (jet truck)	Public Works
1983	American LaFrance garbage truck	Public Works
1984	International cargo truck	Public Works
1985	M1009 Truck	Public Works
1990	Chevy CZ pickup	Public Works
1990	Ford pickup – service truck	Public Works
1991	Ford sweeper	Public Works
1991	GMC C3 D/EX pickup – 1-ton flatbed	Public Works
1992	Peterbilt garbage truck	Public Works
1993	International Tank	Public Works
1994	Ford van-video truck	Public Works
1994	GMC Pickup	Public Works
1997	Ford F150	Public Works
1999	Wilson trailer with generator	Public Works
2000	Ford F15/PK	Public Works
2001	Dodge 250/CB	Public Works
2003	Peterbilt garbage truck	Public Works
	Equipment	
Unknown	Air compressor 76 fix	Public Works
1948	Austin western road grader	Public Works
Unknown	Bomag asphalt roller	Public Works
Unknown	Case 1845B Uni Loader	Public Works
Unknown	Case backhoe	Public Works
2003	Case backhoe 580 K	Public Works
Unknown	Gravely lawn mower	Public Works
Unknown	John Deer 5205 tractor	Public Works
Unknown	Vermeet chipper	Public Works
Unknown	John Deere	Public Works
Unknown	John Deere	Public Works

YEAR	DESCRIPTION	Department
Unknown	Toro	Public Works

As equipment ages, new equipment is needed on a regular cycle. Needed equipment is summarized and prioritized in Table 4-17.

Table 4-17 Public Works Equipment Priority Rankings

PRIORITY	PROJECT DESCRIPTION	DATE
1	Purchase new pickup trucks (2)	2018
2	Purchase a new garbage truck	2025
3	Purchase used boom truck	2020
4	Purchase new park mower	2027
5	Purchase new tractor	2027
6	Purchase new or used water truck	2027

XV. CAPITAL FACILITIES FINANCING

Local Funding Sources

Local funding sources for capital facilities include multipurpose revenue sources: local property, sales, use and excise taxes. For smaller projects, these sources may be used directly, while for larger projects, they may be used as grant matching funds, or as debt repayment for bonds and loans.

In addition, special taxes and fees are available for the construction of various types of capital facilities. Like the multipurpose revenue sources, they may be used either directly or as funds to match grants or repay debt. Examples include fuel taxes, vehicle license fees, street utility charges, road impact fees, sewer user fees, solid waste user fees and special assessments, storm drain utility fees, and water user fees.

State and Federal Grant and Loan Funding Sources

Potential sources of grant and loan programs funds available to local governments for capital facilities include Washington State Public Works Trust Fund, Washington State Department of Ecology Water Quality Program, Washington State Department of Health Drinking Water State Revolving Fund, Washington State Recreation and Conservation Office, Washington State Transportation Improvement Board, Washington State Safe Routes to School and Pedestrian and Bicycle Safety programs, U.S. Department of Energy Efficiency and Conservation Block Grant, U.S. Library Services and Technology Act funds, U.S. Department of Housing and Urban Development Community Development Block Grant, U.S. Department of Commerce Economic Development Administration, U.S. Department of Agriculture-Rural Development, and U.S. Department of Transportation FAST Act motorized and non-motorized grant programs, among others.

Long-Term Bonded Debt

General obligation bonds are backed by the value of properties within the jurisdiction, the City's "full faith and credit." Revenue bonds are backed by the revenue received from the project that the bonds helped to fund, and are commonly used for utility improvements where the bonds are repaid out of utility charges. Special assessment bonds (Local Improvement Districts, Road Improvement Districts, and Utility Local Improvement Districts) are repaid by assessments against the properties benefited by the improvements.

The Washington State Constitution places limits on the amount of bonded indebtedness that any city may incur. No city may incur debt in excess of 0.75% of the taxable property unless 3/5 of the city's voters approve additional indebtedness. With such a vote, the additional indebtedness may be as much as 2.5% of the value of the taxable property for all types of capital projects. An additional 2.5% may be allotted for projects supplying the city with water, lights, or sewer. Additional debt can also be incurred for acquiring or developing open space or parks.

XVI. CAPITAL FACILITIES FINANCE PLAN

Granger's Six Year Transportation Improvement Program, Water System Plan, Wastewater Facility Plan, and staff identified recommended projects, cost estimates, potential funding sources, and timing for project completion. The documents are incorporated by reference.

Table 4-18 summarizes information for needs and projects in excess of $5,000 from the above referenced plans and documents. For more specific information, please refer to those documents.

Table 4-18 Capital Facilities Needs and Recommended Projects

Need / Recommended Project	Estimated Timing	Estimated Cost	Potential Funding Source(s)
Transportation			
Second Avenue Grind and Overlay	2017	191,000	TIB/DOT
Railroad Avenue Grind and Overlay	2017	270,000	TIB/DOT
Fourth Avenue Grind and Overlay	2018	233,000	TIB/DOT
2nd Ave, N. Granger Rd. and Ruehl Rd. Reconstruction Project	2019	1,500,000	TIB/DOT
Bailey Avenue Extension	2020	470,000	TIB/DOT
Emerald Road Safety Improvements	2020	150,000	TIB/DOT
Emerald Road Reconstruction	2021	1,500,000	TIB/DOT
Hudson Road - I-82 Interchange	2021	6,400,000	TIB/DOT
Water System			
Aging pipe replacement	2018-2024	400,000	CDBG/DWSRF/City
Identify/purchase water rights	2017-2020	230,000	CDBG
Replace service meters	2017-2020		City

Need / Recommended Project	Estimated Timing	Estimated Cost	Potential Funding Source(s)
MetorTech Locator	2018		City
Source Pressure Gauge	2020		City
Ruehl Way Loop	2022	280,000	CDBG/DWSRF
West Boulevard upsize	2020	100,000	CDBG/DWSRF
			CDBG/DWSRF/City
Wastewater System			
Aging Sewer Line Replacement	2022-2032	360,000	CDBG/SRF
Aging Lift Station Upgrade (2)	2022-2027	150,000	CDBG/SRF/Ecology
Parks and Recreation			
Splash Park	2018		
Municipal skate park	2019		
Community Center	2020		
Updates to Dino Store	2018		
Government Capital Facilities			
Records management software	2018		
Tourism center/parks and recreation office	2012		
Computer upgrades	2020		
Solid Waste Collections and Disposal			
Purchase new garbage truck	2013	$150,000	USDA-RD, local funds
Public Works Equipment			
Purchase new pickup trucks (2)	2016		
Purchase a new garbage truck	2025		
Purchase used boom truck	2020		
Purchase new park mower	2027		
Purchase new tractor	2027		
Purchase new or used water truck	2027		
Fire Department			
Fire Engine	2017	280,000	

1. STP = FAST Act Surface Transportation Program 2. WSDOT = Washington State Department of Transportation 3. SCP = Washington State Transportation Improvement Board Small City Arterial Program 4. CDBG = U.S. Department of Housing and Urban Development Community Development Block Grant 5. PSMP = Washington State Transportation Improvement Board Urban Sidewalk Program (formerly Pedestrian Safety Mobility Program) 6. SCPP = Washington State Transportation

Improvement Board Small City Preservation Program 7. EDA = U.S. Department of Commerce Economic Development Administration 8. PWTF = Washington State Public Works Trust Fund 9. USDA-RD = U.S. Department of Agriculture Rural Development Program 10. RCO = Washington State Recreation and Conservation Office (formerly IAC, Interagency Committee for Outdoor Recreation)

XVII. CAPITAL FACILITIES GOALS AND POLICIES

This section presents capital facilities goals and policies for the City of Granger.

GOAL 1: ***To actively manage land use change and protect the City's character by developing City facilities and services in a way that directs and controls land use patterns and intensities.***

Policy 1.1 Ensure that new development does not outpace the City's ability to provide and maintain adequate public facilities and services, by allowing new development to occur only when and where adequate facilities exist or will be provided.

Policy 1.2 Encourage development within the unincorporated portion of the UGA to occur only on a limited scale to prevent inefficient use and distribution of public facilities and services, and to discourage rural development from becoming urban in nature outside of the urban growth boundary.

Policy 1.3 Coordinate planning for future capital facilities with the Land Use and Transportation Elements of the Comprehensive Plan.

GOAL 2: ***Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use, without decreasing current service standards below locally established minimum standards.***

Policy 2.1 Encourage new urban development to locate first, within the City limits and second, within the UGA, where municipal services and public facilities are already present.

Policy 2.2 Allow development only when and where all public facilities are adequate, and only when and where such development can be adequately served by essential public services without reducing the levels of service elsewhere.

Policy 2.3 When the capital facilities plans are updated, and/or in the event that probable funding for required capital facility projects is lacking, the City should consider reassessing the Land Use Element to plan for a level of development that can be supported by funded capital facilities improvements.

GOAL 3: ***To facilitate planned growth through combined services.***

Policy 3.1 To facilitate planned growth, encourage combining and assisting in service areas such as fire protection, public transit, water/sewer, criminal justice and administration, where such combinations implement efficient, cost effective delivery of such services.

GOAL 4: ***Coordinate the orderly provision of public facilities with public and private development activities in a manner that is compatible with the fiscal resources of the City.***

Policy 4.1 Coordinate land use and public works planning activities with an ongoing program of long-range financial planning, in order to conserve fiscal resources available to implement the capital facilities plan.

Policy 4.2 Locate public facilities and utilities to: a) maximize the efficiency of services provided; b) minimize their cost; and c) minimize their impacts on the natural environment.

Policy 4.3 Encourage economic growth while maintaining quality development and controlling the cost of public improvements in its UGA.

Policy 4.4 If adequate facilities are currently unavailable and public funds cannot be committed to provide such facilities, require developers to provide such facilities at their own expense in order to develop.

Policy 4.5 Within the UGA, urban services shall be required when economically feasible. When services are not economically feasible, covenants should be used to require connections to those services when they become available.

Policy 4.6 The City will not preclude the siting of essential public facilities, however, it shall enforce its comprehensive plan and development regulations to ensure reasonable compatibility with other land uses.

GOAL 5: ***Expand the range of active recreational opportunities for the citizens of Granger to the fullest extent possible.***

Policy 5.1 Use preference identification as a basis for identifying what facilities are most needed in the community and as a basis for the development of capital programming.

Policy 5.2 Encourage multiple use of public facilities, where practical, for youth recreation, senior activities, meetings and other functions.

GOAL 6: ***Promote coordinated planning and balanced delivery of services among federal, state, county, municipal and tribal governments especially in areas of overlapping influence such as UGAs.***

Policy 6.1 Coordinate with those agencies providing other services in the City and UGA such as other local government, schools, churches, emergency services and the library to incorporate their future plans into the community planning process. Recognize that changes in population will affect these services and require planning of appropriate services.

Policy 6.2 Coordinate City and county capital facility planning.

Policy 6.3 Determine funding options for future City and county capital facility needs.

GOAL 7: ***Ensure the protection of groundwater from sources of contamination.***

Policy 7.1 Provide sufficient treatment to ensure that the discharge of wastewater meets state and federal standards applying to surface and groundwater.

Policy 7.2 Protect local groundwater supplies by increasing the awareness of local residents about the appropriate disposal techniques for hazardous materials.

GOAL 8: ***Identify future needs and promote increased water supplies through coordinated development and conservation efforts.***

GOAL 9: ***Establish a City of Granger Parks and Recreation Department to maintain, develop, and plan for Granger's parks and recreation facilities and infrastructure.***

Policy 9.1 Develop a program for sustainable funding of a parks and recreation department and parks and recreation facilities and infrastructure.

Policy 9.2. Actively seek grant or loan funding sources to plan for parks and recreation and to develop parks and recreation facilities and infrastructure.

Chapter 5 Housing Element

I. INTRODUCTION

Purpose

The Housing Element is intended to guide the location and type of housing that will be built over the next 20 years. This element establishes both long-term and short-term policies to meet the community's housing needs and achieve community goals. The Housing Element specifically considers the condition of the existing housing stock, the cause, scope and nature of any housing problems; and the provision of a variety of housing types to match the lifestyle and economic needs of the community.

The Washington State Growth Management Act (GMA) requires that the Housing Element address the following:

- Inventory and analysis of existing and projected housing needs.
- Adequate provisions for existing and projected housing needs for all economic segments of the community.
- Identification of sufficient land for housing, including government-assisted, low-income, manufactured, multifamily housing, and group homes and foster care facilities.
- Statement of goals, policies, and objectives for the preservation, improvement, and development of housing.

Applicable Countywide Planning Policies

The goals of the Management Act related to housing include encouraging the availability of affordable housing to all economic sectors, promoting a variety of residential densities and housing types, and encouraging the preservation of existing housing stock. The following Countywide Planning Policies established by Yakima County relate to this goal:

1. Areas designated for urban growth should be determined by preferred development patterns and the capacity and willingness of the community to provide urban governmental services. (A.3.1.)
2. The baseline for 20-year Countywide population forecasts shall be the official decennial Growth Management Act Population Projections from the State of Washington's Office of Financial Management (OFM) plus unrecorded annexations. The process for allocating forecasted population will be cooperatively reviewed. (A.3.5.)
3. Sufficient area must be included in the urban growth areas to accommodate a minimum 20-year population forecast and to allow for market choice and location preferences. [RCW 36.70A.110 (2)] (A.3.6.)
4. When determining land requirements for urban growth areas, allowance will be made for greenbelt and open space areas and for protection of wildlife habitat and other environmentally sensitive areas. [RCW 36.70A.110(2)] (A.3.7.)
5. The County and cities will cooperatively determine the amount of undeveloped buildable urban land needed. The inventory of the undeveloped buildable urban land supply shall be maintained in a regional Geographic Information Systems (GIS) database. (A.3.8.)

6. The County and cities will establish a common method to monitor urban development to evaluate the rate of growth and maintain an inventory of the amount of buildable land remaining. (A.3.9.)

7. Infill development, higher-density zoning and small lot sizes should be encouraged where services have already been provided and sufficient capacity exists and in areas planned for urban services within the next 20 years. (B.3.3.)

8. The County and the cities will inventory the existing housing stock and correlate with the current population and economic condition, past trends, and 20-year population and employment forecasts to determine short and long-range affordable housing needs. [RCW 36.70A.070(2)] (E.3.1.)

9. Local housing inventories will be undertaken using common procedures so as to accurately portray Countywide conditions and needs. (E.3.2.)

10. Each jurisdiction will identify specific policies and measurable implementation strategies to provide a mix of housing types and costs to achieve identified affordable housing goals. Affordable housing strategies should:

    a. Encourage preservation, rehabilitation and redevelopment of existing neighborhoods, as appropriate;
    b. Provide for a range of housing types such as multifamily and manufactured housing on individual lots and in manufactured housing parks;
    c. Promote housing design and siting compatible with surrounding neighborhoods;
    d. Facilitate the development of affordable housing (particularly for low-income families and persons) in a dispersed pattern so as not to concentrate or geographically isolate these housing types; and
    e. Consider public and private transportation requirements for new and redeveloped housing. (E.3.3.)

11. Housing policies and programs will address the provision of diverse housing opportunities to accommodate the elderly, physically challenged, mentally impaired, migrant and settled-out agricultural workers, and other segments of the population that have special needs. (E.3.4.)

12. Local governments, representatives of private sector interests, and neighborhood groups will work cooperatively to identify and evaluate potential sites for affordable housing development and redevelopment. (E.3.5.)

13. Public and private agencies with housing expertise should implement early and continuous cooperative education programs to provide general information on affordable housing issues and opportunities to the public including information intended to counteract discriminatory attitudes and behavior. (E.3.6.)

14. Mechanisms to help people purchase their own housing will be encouraged. Such mechanisms may include low-interest loan programs and “self-help” housing. (E.3.7.)

15. Local comprehensive plan policies and development regulations will encourage and not exclude affordable housing. [RCW 36.70A.070(2)(c)(d)] (E.3.8.)

16. Innovative strategies that provide incentives for the development of affordable housing should be explored. (E.3.9.)

17. The County and the cities will locally monitor the performance of their respective housing plans and make adjustments and revisions as needed to achieve the goal of affordable housing, particularly for middle- and lower-income persons. (E.3.10.)

Relationship to Other Elements or Land Uses

As a major user of land in urban areas, housing directly affects most Comprehensive Plan elements. Those elements in turn, especially land use, capital facilities and transportation, directly affect housing.

Urban Growth Areas

For the most part, the conversion of vacant and agricultural land to urban use means the subdivision of parcels for housing construction. The intensity of this development will largely determine the amount of land needed to serve future populations.

Land Use

Housing is a major consumer of land, and often a driving factor of land use patterns. The placement of schools, parks, and small commercial areas typically responds to needs generated by housing.

Capital Facilities

Availability of water, sewer and other public services makes possible denser, less costly types of housing. Conversely, low-density housing may make the provision of public services extremely expensive.

Transportation

As a major generator of traffic flow, housing affects the level of traffic on local roads, arterials and highways. Housing for special needs populations may require access to public transportation or special transportation services.

Growth and Development

Housing is a two-edged sword in the growth of a city. New housing generates new demands for infrastructure and services, but it also generates additional tax revenue.

II. MAJOR HOUSING CONSIDERATIONS

- Availability of Housing. The vacancy rate has a substantial impact on the availability, price, and quality of housing. Where there is a very low rate of vacancy (as is the case in Granger for single-family and multifamily homes), housing is not readily available, the price is inflated, and the quality may have a tendency to decline. An increase in the vacancy rates increases free market competition and thereby improves the situation of housing consumers.

  In Granger, increasing the vacancy rate will require developing undeveloped land, including vacant parcels in residential areas where residential infill development can occur. This situation raises a few issues.

  (a) What is the preferred role of the City in the development of land and the production of housing?

(b) How can City programs best be designed to stimulate activity in the private sector?

(c) How can City programs promote residential infill development to make use of underused or vacant parcels in current residential areas?

- Rural Residential Community. Should the City strictly adhere to its desire of being a small rural residential community or should policies be developed that allow for higher densities? If the preference is to maintain its rural character, how will the City house its future population at a reasonable cost?

- Housing Density. The City should consider all of the available alternative housing types (such as single family, multifamily, mobile homes, foster and group homes). In considering various housing types, the City will need to:

  (a) Determine an appropriate mix of housing types and densities to meet the current and future needs of the community; and

  (b) Determine the most appropriate location for these different types and densities to avoid the mixing of incompatible uses.

  (c) Determine the most appropriate location for these different types and densities to promote the mixing of compatible uses.

- Housing Rehabilitation. A rehabilitation program is an essential component of preserving existing housing stock, including units for occupancy by lower-income persons. A rehabilitation program can also serve to strengthen neighborhoods. A shortage of available vacant units increases the need to preserve existing housing stock.

- Housing Mix. An additional need beyond rehabilitation is the provision of new units to meet the needs of a growing population. New housing can focus on specific income groups. When new housing is focused toward the housing needs of higher-income groups, the provision of these higher-cost units may increase the alternatives of low-income groups through a trickle down or filtration process. The effectiveness of this trickle-down process, however, depends upon older, more affordable housing being rehabilitated when needed and maintained for livability, and preserving existing older homes instead of replacing them with new construction. Some activities that might facilitate this process are:

  (a) Monitoring housing needs in all income groups.

  (b) Keeping developers informed as to current housing needs and encouraging them to address those needs.

  (c) Providing information on loan programs to eligible persons seeking to improve their living situation.

- Aggressive Code Enforcement and/or Rental Licensing. Much of the deterioration of rental housing stock within Granger could be alleviated through aggressive code enforcement and a reduction in the number of illegal and substandard rental units. Adoption of a Rental Licensing Ordinance would achieve this through monitoring substandard housing, and ensuring that

landlords provide proper maintenance. An education program is also an important component, as fire and other hazards that residents may not be aware of would be eliminated.

III. EXISTING CONDITIONS

Characteristics

Granger officially changed from a town to a city in 2004. Since 1999, its population has increased an estimated 43.9%, while the number of housing units has increased 46.6%. The number of people per housing unit has decreased since 2010, possibly reflecting the increase in housing units. Table 5-1 summarizes general housing and population trends.

Table 5-2 summarizes trends regarding the mix of housing types in the City of Granger. The dominant housing type in Granger is conventional single-family homes, which comprised an estimated 61.5% of all housing units in 2015. Granger also contained an estimated 24.4% manufactured homes and other housing, indicating the presence of a relatively affordable housing option. Over time, the proportion of housing types has begun to shift. Multifamily homes have increased by 102% since 1999, while manufactured homes and other housing have increased by 68.4%. In contrast, conventional single-family homes increased by only 31.7% during the same time period. (Table 5-1).

Table 5-1 Population and Housing, City of Granger

Population and Housing Units	Population		Housing Units		Average Household Size	
	Number	***Percent Change***	***Number***	***Percent Change***	***Number***	***Percent Change***
2015	3,640	12.1%	918	12.9%	4.00	-3.38%
2009	3,246	28.3%	813	29.9%	4.14	2.5%
1999	2,530	2.3%	626	5.2%	4.04	17.1%
1989	2,053	13.3%	595	-4.2%	3.45	18.1%
1979	1,812	10.1%	621	37.1%	2.92	-19.1%
1969	1,636	____	453	____	3.61	____

Source: U.S. Census Bureau, Census of Population and Housing, 1970, 1980, 1990, 2000, and 2010. 2015 estimates from Washington State OFM, 2015 Population Trends for Washington State, September 2015.

Table 5-2 Housing Types

	2015		2010		1999	
Type of Housing Units	***Number***	***Percent of Total***	***Number***	***Percent of Total***	***Number***	***Percent of Total***
Conventional Single Family	565	61.5%	506	55.1%	429	68.5%
Multifamily	129	14.1%	95	10.3%	64	10.2%
Manufactured Homes and Other Housing	224	24.4%	212	23.1%	133	21.3%
Total Housing Units	918	100.0%	813	88.6%	626	100.0%

Source: U.S. Census Bureau, Census of Population and Housing, 2000. 2018 and 2015 estimates from Washington State OFM, 2015 Population Trends for Washington State, September 2015.

Table 5-3 Tenure of Occupied Housing Units

	2014		2010	
Tenure of Occupied Housing Units	***Number***	***Percent of Total***	***Number***	***Percent of Total***
Owner-occupied	423	57.2%	445	62.5%
Renter-occupied	316	42.8%	267	37.5%

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates and U.S. Census Bureau, 2006-2010 American Community Survey.

Vacancy Rate

Table 5-4 summarizes vacancy rates for housing types in Granger. Of the approximately 918 housing units in Granger in 2014, 31 were reported as vacant, for a total vacancy rate of 4.2%. This is lower than the Yakima County housing vacancy rate of 5.6%. When looking at rental versus "for sale" homes alone, the Census data showed a relatively large percentage of rental vacancies (7%). However, the vacancy rate for "for sale" homes alone was a very low 2.4%.

Housing studies indicate that a vacancy rate of 4.2% to 5% is desirable to provide both free movement in the market and adequate housing maintenance practices. Lower vacancy rates can drive up housing costs and inadequately provide for a community's housing needs. While Granger's overall vacancy rate is healthy, the City's vacancy rate for "for sale" homes is very low. This indicates a need for more construction of owner-occupied (typically single-family homes) in Granger.

Table 5-4 Vacancy Rate by Housing Types

	Total		For Rent		For Sale	
Year	***Number Vacant***	***Percent of Total***	***Number Vacant***	***Percent of Total Rental***	***Number Vacant***	***Percent of Total for Sale***
2014	31	3.4%	21	7%	10	2.4%
2010	35	4.9%	6	2%	15	3.4%

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates and U.S. Census Bureau, 2006-2010 American Community Survey.

Age of Housing

Table 5-5 illustrates the age of housing units in Granger as of 2014. Approximately 33.9% of all housing units within Granger were built prior to 1970. Today, those homes would be close to 50 years old. The largest percentage of rental homes were built during 2000-2009 (38.9%), and the largest percentage of owner-occupied home was built during the same time period (23.4%). While 43.3% of owner-occupied homes were built prior to 1970, only 21.5% renter-occupied homes were built prior to 1970. More renter-occupied homes were added after 2000 than owner-occupied homes.

These figures, coupled with data from Table 5-5, reflect increases in the number of renter-occupied homes being built over conventional single-family home construction, indicating that housing rehabilitation efforts undertaken by the City in the future should concentrate on making improvements to existing conventional single-family homes to maintain the adequate availability of this type of housing. Maintaining viable older homes helps retain affordable dwellings; therefore, Granger may need to focus housing rehabilitation efforts on homes built prior to 1970.

Table 5-5 Age of Housing Units, 2014

Year Housing Unit Was Built	**All Housing Units**		**Owner Occupied**		**Renter Occupied**	
	Number	***Percent of Total***	***Number***	***Percent of Total***	***Number***	***Percent of Total***
2010 or later	12	1.6%	0	0.0%	12	3.8%
2000 to 2009	231	30.0%	99	23.4%	123	38.9%
1990 to 1999	73	9.5%	43	10.2%	18	5.7%
1980 to 1989	56	7.3%	42	9.9%	14	4.4%
1970 to 1979	137	17.8%	56	13.2%	81	25.6%
1960 to 1969	107	13.9%	80	18.9%	27	8.5%
1950 to 1959	58	7.5%	39	9.2%	19	6.0%
1940 to 1949	49	6.4%	31	7.3%	18	5.7%

1939 or earlier	47	6.1%	33	7.8%	4	1.3%

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

The original components of many older homes, particularly the electrical, heating and plumbing systems, may have been installed during a period of less stringent codes. These systems may not have been intended to meet the requirements of modern appliances and lifestyles, or the added demands of overcrowding (see the Overcrowding section for more information on overcrowding in Granger). With the passage of time and the aging of these homes, many of these components have exceeded their design life. This creates potentially dangerous conditions for occupants, especially the low income and elderly who may not be able to afford maintenance or replacement of these systems, or may not be able to upgrade to newer homes.

Housing Condition Inventory

Table 5-6 summarizes the condition of Granger's current housing stock, using County Assessor determinations. Figure 5-1, page 5-11 maps the same data for the City of Granger. 38.4% of Granger's housing was designated "good," very good," or "excellent." The largest category was "average" or "fair" with 58.1%, while 3.5% was designated "poor," "very poor," or "salvage."

Table 5-6 Condition of Housing Stock, 2016

Condition	Number	Percent of Total
Excellent	87	13.4%
Very good	40	6.2%
Good	122	18.8%
Average	298	45.9%
Fair	79	12.2%
Poor	12	1.8%
Very poor	9	1.4%
Salvage	2	0.3%

Source: Yakima County Assessor, 2016

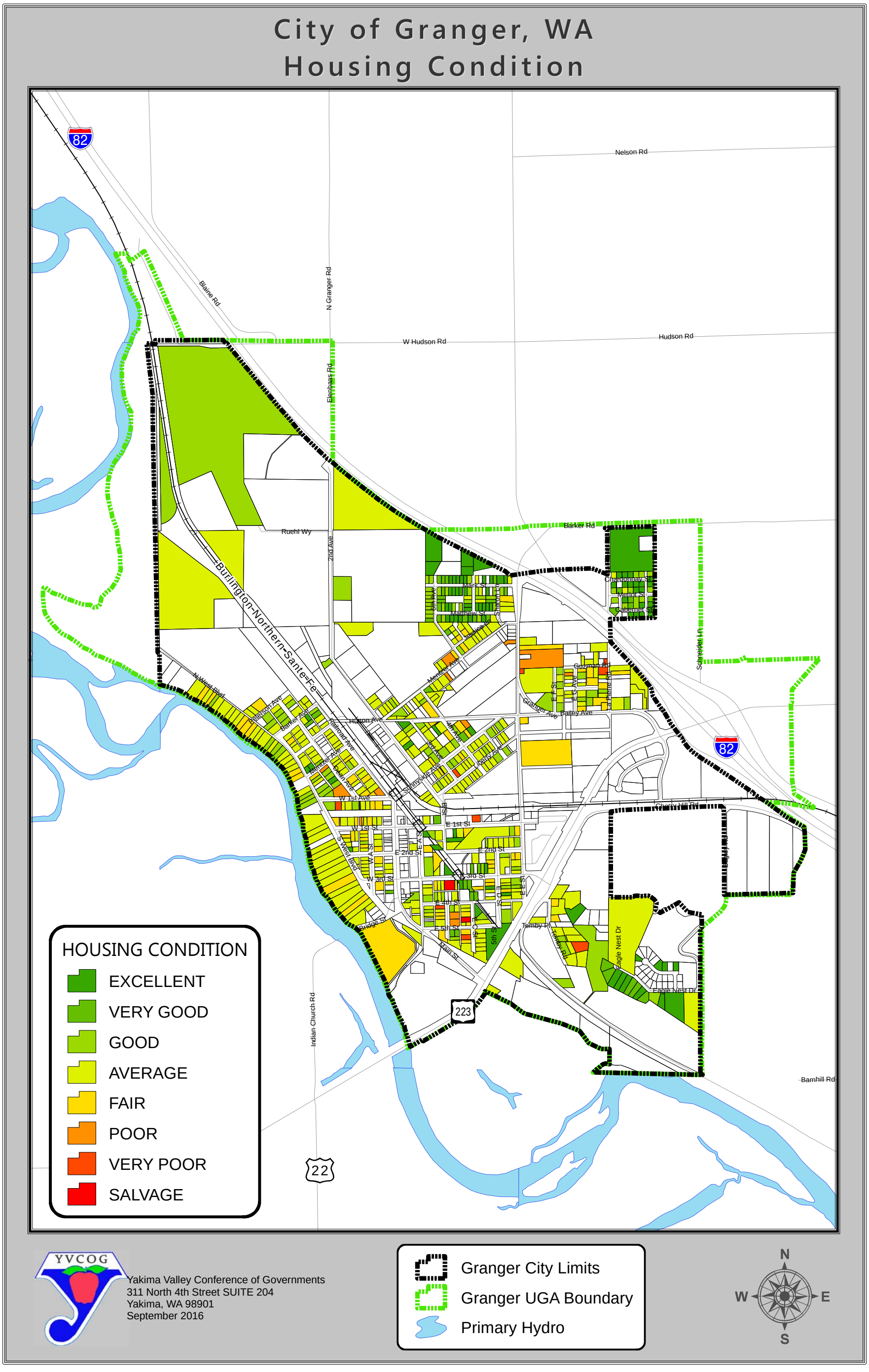
The following are descriptions of the categories of housing condition, as provided by the County Assessor:

- *Salvage:* A property in this condition is beyond repair and has salvage value only. It is uninhabitable and may need to be torn down to maximize the value of the parcel.
- *Very Poor:* A property in this condition is close to being beyond repair. All building components including structural components have reached the end of their economic life. The difference between this rating and Salvage Value is that the property may still be inhabited or used for some purpose.
- *Poor:* Most long and short-lived components of the structure are worn out and in need of replacement or repair. Structural components such as foundations and bearing walls may need repair but are still in sound condition. Major renovations or remodels are needed to bring these properties up to current standards.

- *Fair:* Properties that are in fair condition have received less than average maintenance and are not typical of the houses within their age range. There is a considerable amount of deferred maintenance. There are no apparent problems with any long-lived or structural components. Short-lived items such as paint, carpets, linoleum, trim, plumbing fixtures, etc. are in need of repair or replacement.
- *Average:* Average means the condition is typical for the age of the improvements. Older homes may have some evidence of deferred maintenance that would be typical for their age. If the condition of the residence is typical for the age group, the condition rating should be considered average.
- *Good:* These properties have received better than average maintenance and their appearance is better than what is typically found in their age range. No obvious deferred maintenance is present, but neither are the improvements in new condition. The majority of properties that have recently sold are found to be in good condition because of the work that has been done just prior to being put on the market.
- *Very Good:* All items have been well maintained. Most items are like new and show no sign of their actual age. Very little deterioration is evident in any building component. Many of these homes have been extensively remodeled or have had major additions.
- *Excellent:* All items are new or are in like-new condition. Building components show no sign of their actual age and cannot be distinguished from new. This is the typical condition rating for new houses, as they have no deferred maintenance and are not expected to have any for a minimum period of five years. Older homes in this condition have gone through a total renovation.

Some residents with strong knowledge of local housing conditions believe that some homes rated "average" by the County Assessor warrant a higher rating. In making housing decisions, County Assessor quality ratings can be tempered by local knowledge, until the City of Granger is able to complete its own housing quality inventory using its own criteria.

Figure 5-1. City of Granger Condition of Housing Stock, County Assessor 2016



Overcrowding

Another measure of living conditions is overcrowding. An accepted standard defines overcrowding as the presence of more than one person per room. Table 5-8 compares overcrowding in Granger with Yakima County in 2014. As indicated in this table, the percentage of housing units experiencing overcrowding is considerably higher in Granger than for the County. However, within Granger, overcrowding has decreased from 42.0% in 1999 to 22.1% in 2014. This decrease in overcrowding may be attributable to the corresponding increase in the number of housing units during the same time period.

Table 5-8 Persons per Room, City of Granger and Yakima County, 2014

Universe: Occupied Housing Units	1.01 or More Persons Per Room	% with 1.01 or More	1.00 or Fewer Persons Per Room	% with 1.00 or Fewer
City of Granger	163	22.1%	576	77.9%
Yakima County	6,085	7.6%	73,632	92.4%

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

To maintain a suitable housing stock and provide for the expected expansion of the population, it will be necessary to develop a database and municipal policy to address housing and related land use issues. Such information, plans and policies are essential to making housing decisions to suit the future needs of the City.

Value and Cost of Housing

As indicated in Table 5-8 below, approximately 65% of the owner-occupied homes in Granger in 2015 are valued between $50,000 and $100,000. The median value of an owner-occupied home in Granger was $63,700, compared to the Yakima County median value of an owner-occupied home of $129,400 (2016 Yakima County Assessor data).

Figure 5-2 maps the 2016 County Assessor single-family home value data. The geographic location of homes with various values appears to be mixed, with little geographic pattern, and may reflect the presence of neighborhoods with a variety of housing options.

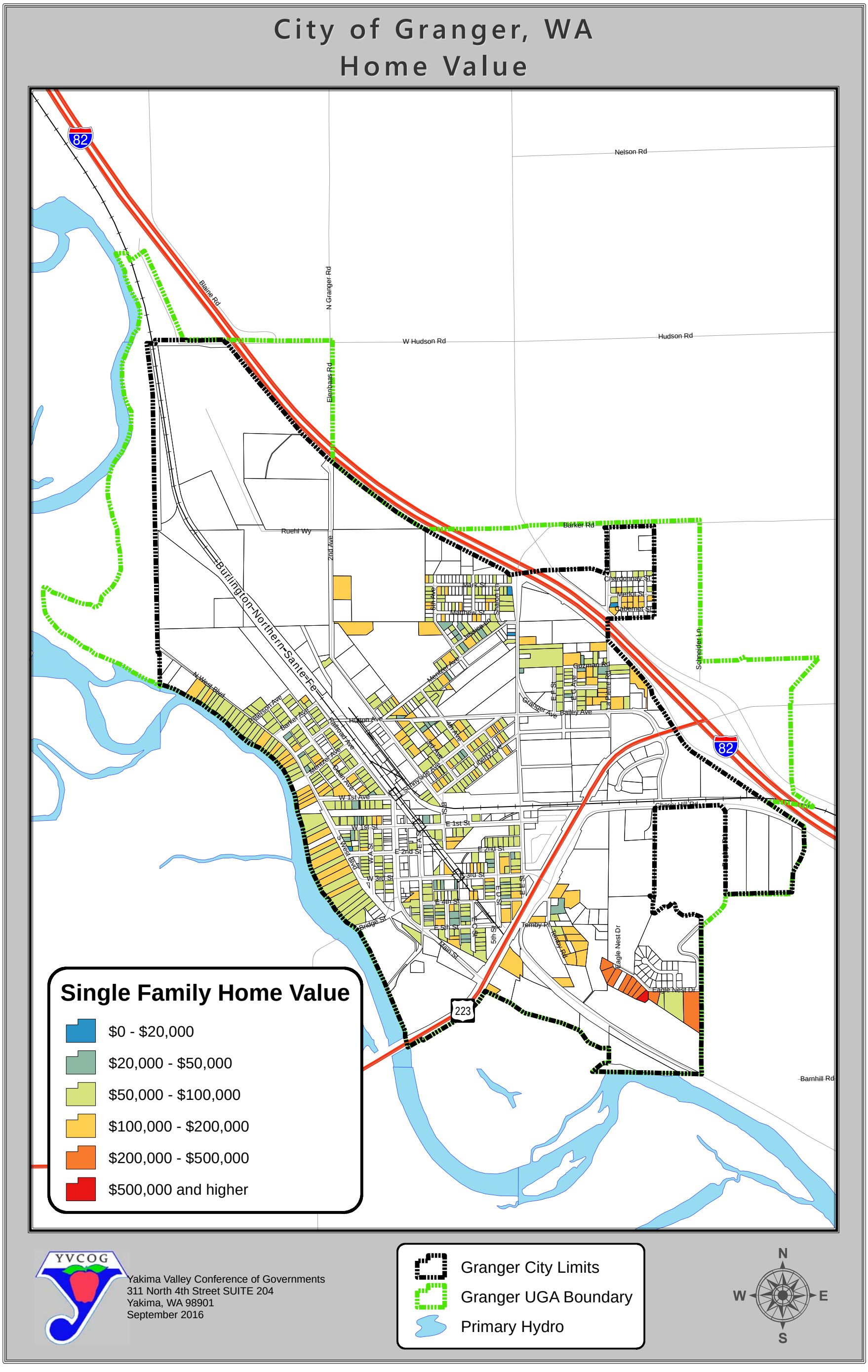
Table 5-8 Value of Owner-occupied Housing

Owner-occupied Housing Units	Number	Percent
$0 to $20,000	4	1%
$20,000 to $50,000	48	9%
$50,000 to $100,000	354	65%
$100,000 to $200,000	127	23%
$200,000 to $500,000	9	2%
$500,000 and higher	1	0%

Owner-occupied Housing Units	Number	Percent
Total	296	100.0%
Median Value	$63,700	

Source: Yakima County Assessor Office, 2016.

Figure 5-2. Value of Conventional Single-family Homes, City of Granger



Affordable Housing

"Affordable housing" is a term which applies to the adequacy of the housing stock to fulfill the housing needs of all economic segments of the population. The underlying assumption is that the marketplace will guarantee adequate housing for those in upper income brackets, but that some combination of appropriately zoned land, regulatory incentives, financial subsidies, and innovative planning techniques may be necessary to make adequate provisions for the needs of middle- and lower-income persons.

Income and Housing Costs

In 2015, the average household size (people per housing unit) in Granger was 4.00 (see Table 5-1). The U.S. Department of Housing and Urban Development (HUD) sets income limits that act as breaking points between low-, very low-, and moderate-income levels. For Yakima County, the income limit for low-income families for fiscal year 2015 was set by HUD at $46,300 for a family of four. Because the closest Census income data interval to this number is $49,999, the number of families with incomes of below $49,999 was used to approximate the number of low-income households in Granger as of the 2014 American Community Survey, the most recent source of income data for Granger. Using this measure, 479 households, or 64.8% of all households in Granger, can be considered low income.

Table 5-9 compares four income statistics and poverty rates for the City of Granger and Yakima County. Granger's median household and median family income are somewhat lower than those for Yakima County. Granger's poverty rate is higher than Yakima County's but remained nearly the same from 2000 to 2014.

Table 5-9 Comparison of Average Income Statistics for the City of Granger, Yakima County and Washington State

	Per Capita Income	Median Household Income	Median Family Income	Poverty Rate in Percent
City of Granger	$10,859	$39,850	$41,316	28.2%
Yakima County	$19,816	$43,956	$49,538	17.7%

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

According to HUD, a home is considered unaffordable if a household spends more than 30% of its annual income on housing, including utilities. Above 30%, households may have difficulty affording other necessities such as transportation, food, and medical care. The lower the income in a household, the greater the portion of earnings that is spent on housing and no other needs. Therefore, those with lower incomes are more affected by housing that is considered unaffordable.

In Granger, the number of owner-occupied households paying more than 30% of their income on housing increased very little from 26.7% in 1999 to 29.3% in 2014 (Table 5-12); only slightly higher than the Yakima County statistic of 26.4% in 2014. Possible explanations for the slight increase in the number of owner-occupied households spending more than 30% of their incomes on housing may be a relatively low income in Granger (see Table 5-9), long-term indirect effects of the economic recession, and low vacancy rates for single-family homes in Granger.

Currently, more renter-occupied homes can be considered unaffordable in Granger compared to renter occupied homes, although the percent of renter-occupied homes spending more than 30% of their income on housing in Granger in 2014 was still lower than the same for Yakima County (Table 5-10).

Table 5-10 Residents Spending More Than 30% of Income on Housing, City of Granger and Yakima County

	City of Granger	Yakima County
Owner-occupied	29.3%	26.4%
Renter-occupied	36.4%	50.1%

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

The American Community Survey produces statistics by sampling populations rather than 100% counts that are completed for the data points surveyed in the decennial census. As a result, for small municipalities and small categories of data, there is more likely to be significant error. The City of Granger could obtain a more accurate picture of the housing situation by conducting its own local housing survey to form a stronger foundation for future housing policy decisions.

The Countywide Planning Policies address housing. The purpose of these policies is to provide a common ground and some universally acceptable parameters to help guide decision-makers through the complex topic of affordable housing. The premises of these Countywide Planning Policies have been incorporated into the goals, policies and objectives contained within this Housing Element.

IV. HOUSING NEEDS ASSESSMENT

Existing Densities

As indicated by Figure 5-3, population densities within 2010 U.S. Census blocks in Granger ranged from 0 to more than 10,000 persons per square mile. As discussed previously, households averaged 4.0 persons per household. The largest concentration of relatively high population density is located in south Granger between the BNSF railroad tracks and Highway 223; there are also a few small areas of concentrated density in central and northeast Granger. In the older areas of Granger there are many small to very small nonconforming lots ranging in size from 0.04 acres (1,742 square feet) to approximately 0.15 acres (6,534 square feet). Many of the older homes built on a single lot in these areas are nonconforming, as Granger residential zoning requires a minimum lot size of 7,200 square feet (.17 acres). To comply with this zoning requirement, multiple lots would need to be combined to attain the minimum lot size required for each single-family structure. Adjacent vacant parcels for future residential development in some of these areas are nonexistent. However, Granger's zoning code section 18.32.060 allows lots that do not meet minimum area requirements but were in lawful existence prior to adoptions of the minimum area requirement adoption, to be developed provided that all other requirements are complied with.

Inventory of Vacant Buildable Land

Figure 2.6 in the Land Use Element illustrates parcels available for potential future residential development in the City and unincorporated UGA. Approximately 22.1% or 246 acres of Granger's total land area consists of vacant land. The term "undeveloped land" includes parcels designated by the County Assessor as "vacant," "residential land undeveloped," "current use agricultural," and "agricultural not current use." Many of these undeveloped lands are fallow fields, active agricultural fields on the east side of Granger, or parcels scattered throughout areas currently dominated by residential uses (see Existing Land Use Map, Land Use Element, Figure 2.2). The majority of this acreage is also designated as Residential on the Future Land Use Map (see Land Use Element, Figure 2.7).

Because there are scattered parcels of vacant buildable land throughout existing neighborhoods, there is a high potential for residential infill development. Other larger parcels have varying suitability for new residential development, based on their current land use (agriculture or vacant), their soil suitability for building homes with dwellings, their location relative to other land uses (within or adjacent to existing neighborhoods and roads to use existing infrastructure most efficiently), and their future land use designation (Residential).

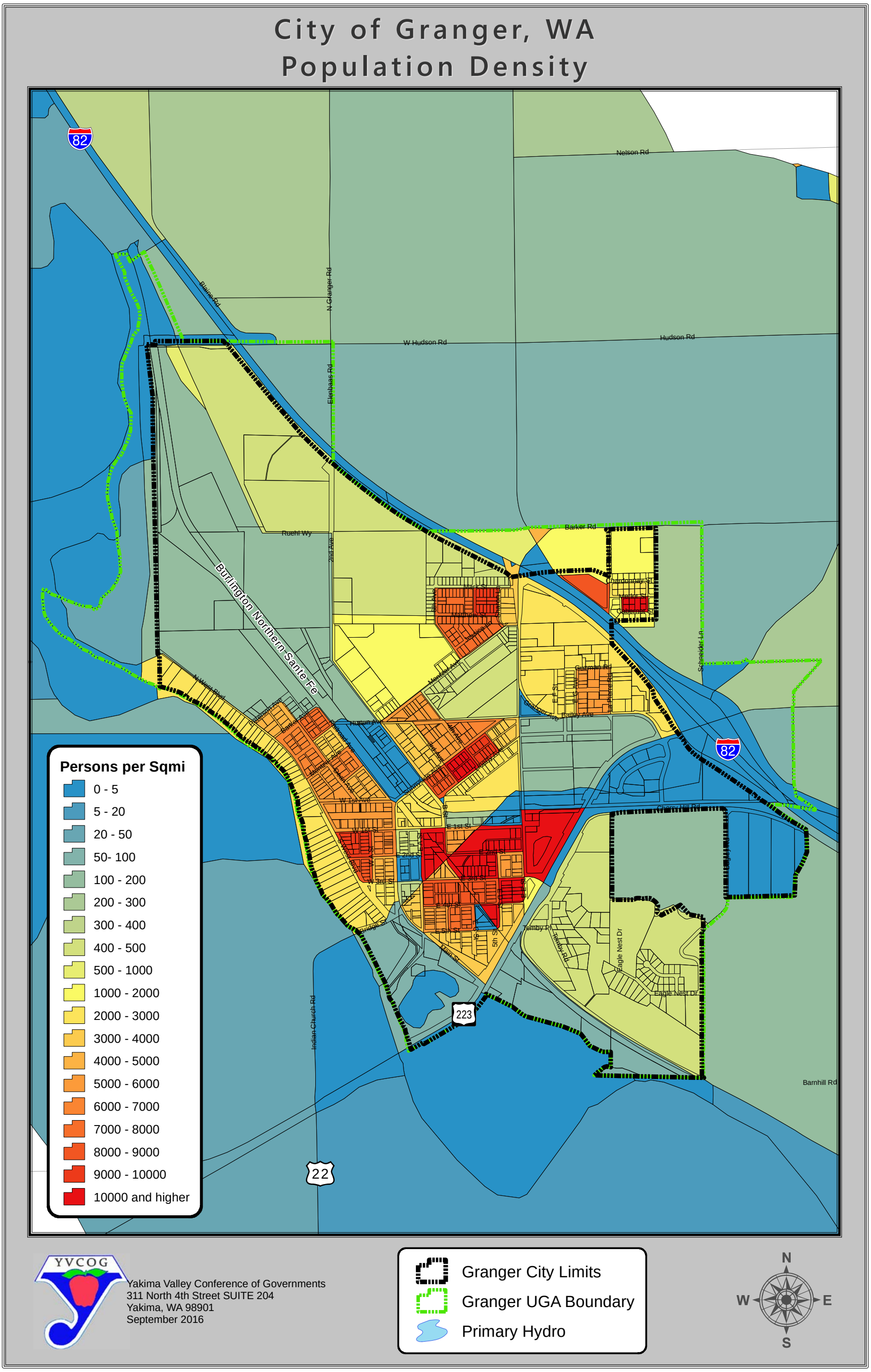
While potential for residential development exists in the portion of town east of SR 223 and between Cherry Hill Road and the far south City limits, most of the soils in this area designated by the Natural Resources Conservation Service (NRCS) as "very limited." Some of the soils in the area are prone to flooding, and others are limited due to 15% to 30% slopes. "Very limited" means that the soil limitations cannot be overcome without major soil reclamation, expensive installation procedures, or special designs (see the Natural Systems Element for more discussion of Granger soils). Housing can be targeted in this area, but may be more costly and have a higher possibility of flooding or erosion issues. The area contains approximately 96.54 acres of land that is either agricultural or vacant, and has a designated future land use of Residential. Finally, the agricultural parcel south of Bridge Street and west of Main Street (10.15 acres) has good transportation infrastructure access, but development in this parcel is less desirable because it is also in an area of limited soils and lies within a floodplain.

Population Growth

The City's population increased by 394 people, or 12.1% between 2009 and 2015 (U.S. Census and Washington State OFM figures), and gained 105 housing units, a 12.9% increase over the same period. The increase occurred primarily in single-family homes, which gained 59 units during the five-year period. However, multifamily units also gained 34 units, and manufactured housing and other housing gained 12 units.

As mentioned previously, the vacancy rate in Granger as of 2014 was approximately 4.2%. The vacancy rate for properties "for sale only" was 2.4%, and the rate for "for rent" properties was 7% (see Table 5-4).

Figure 5-3 Population per Square Mile in U.S. Census Blocks, 2010



V. FUTURE NEEDS

Summary

The planning period used for projections in this Comprehensive Plan is 2017-2037. Granger's 2037 population projection is 5,226. The 2017 Granger population estimate is 3,696. For a summary of population projections and how they were calculated, see the Land Use Element.

The following analysis assumes that the existing proportion of housing types (see Table 5-2) the number of people per household (see Table 5-1), and the density of homes will remain similar during the 20-year planning period. In addition, the analysis assumes: 1) 7,200 square feet per unit for all housing types, which is currently the minimum lot size per unit for single and multi-family dwellings in the R-1 and R-2 zoning districts, as per the GMC Chapter 18.08; and 2) and average household size of 4.0.

Granger's preferred vision of future growth is to realize the growth population projection of 5,226 in 2037. To achieve this, an estimated 383 additional housing units would be needed.

Table 5-11 below shows the breakdown of housing types and number of units needed to serve these future populations, if the existing pattern of housing types were to continue.

Table 5-11 Projections of 2037 Number of Units and Land Requirement by Housing Type, Granger UGA

	Single-family	Multifamily	Manufactured Home or Other	Total Additional Units Needed
Projected number of units	235	54	93	383
Projected residential land requirement	39	9	15	63

Land Requirements for Single-family Housing

To meet the housing needs of the year 2037 preferred population projection of 5,226 people, 383 additional single-family housing units on approximately 39 acres would need to be added to the existing housing stock.

Land Requirements for Multifamily, Manufactured and Other Housing Types

Developable land would be needed to accommodate the projection for multifamily and manufactured housing units. To satisfy the needs of the projected 2037 population, approximately 54 multifamily units on 9 acres would be needed, and 93 manufactured units on 15 acres would be needed. In addition, about three acres is needed for other types of housing, such as foster or group home housing.

Total Land Needed to Accommodate Projected Housing Growth

The estimated total land requirement for new housing to accommodate the 2037 medium projected population of 5,226 is 63 acres. This requirement is based on an assumed average lot size of 7,200 square feet per housing unit, and assumes that the existing housing pattern would continue.

As discussed in the Inventory of Vacant Buildable Land section, 262 acres are currently undeveloped and have a future land use designation of Residential. The total acreage of potentially suitable land for new future residential development is ample to fulfill housing needs estimates as well as providing for market choice and potentially raising the vacancy rate for single-family homes. Both facilitating and promoting residential infill as well as developing new residential housing will help to add to the existing housing stock and raise the low vacancy rates in Granger, and potentially increase housing affordability.

VI. A COORDINATED HOUSING STRATEGY FOR GRANGER

As is the case with most communities, Granger's housing issues are a result of complex physical, social, and economic realities. Because of the complexity of these issues, a coordinated approach is necessary to address them. A coordinated housing strategy for Granger should include:

1) Consideration and implementation of the housing goals, policies and objectives. Land use decisions, new municipal ordinances and the allocation of available resources should consider the goals, policies and objectives contained in this Comprehensive Plan.

2) Supporting and encouraging the construction of a variety of new housing units for all income levels, including moderate and lower income households and elderly market demand.

3) Future activities aimed at the improvement of existing housing stock should target rehabilitation efforts on conventional single-family homes built prior to 1960 to preserve the stock of older single-family homes, and households with a single female householder with young children.

4) To guide future activities aimed at the improvement of existing residential neighborhoods and increasing the housing stock, residential infill development efforts should first focus on Granger's older, underutilized residential neighborhoods where scattered vacant parcels occur.

5) Implementation of needed improvements in the Capital Facilities and Transportation Elements could result in a greater opportunity for growth in Granger. The addition of more people in Granger, particularly those active in the community work force, will add to the viability of the community.

6) To maintain affordable housing options, continue to allow manufactured home parks. Add design standards that address aesthetics and safety concerns to increase the acceptance of manufactured home parks in the community.

VII. GOALS, POLICIES, AND OBJECTIVES

GOAL 1

Encourage a variety of safe, sanitary, affordable and attractive housing options for all Granger residents.

Policy 1.1: Support and encourage the construction of a variety of new housing units for all income levels, including moderate and lower income households and elderly market demand.

Objective: Encourage the construction of new housing units based on local need in consideration of:

1) Existing vacancy rates of owner- and renter-occupied households;

2) The number of households expected to reside in Granger in the next 20 years;

3) The number of dwelling units that are dilapidated and not suitable for rehabilitation; and

4) Providing for a mixture of housing types and intensities (single family, multifamily) in appropriate areas.

Objective: Encourage and support the rehabilitation of older homes.

Objective: Encourage infilling in residential areas.

Objective: Establish provisions to ensure that possible future development of group homes and foster care facilities are provided in suitable areas.

Objective: Encourage mobile home parks and subdivisions that are well designed and compatible with neighboring land uses.

Objective: Allow, on individual lots, mobile homes that meet accepted standards for manufactured housing and are permanently fixed to a foundation.

Policy 1.2 Evaluate local development standards and regulations for effects on housing costs. Modify development regulations which unnecessarily add to housing costs.

Policy 1.3: Consider allowing accessory apartments as conditional uses in single-family residential zoning classifications.

Policy 1.4: Conserve the City's existing housing stock through code enforcement, appropriate zoning, participation in rehabilitation programs, and discouraging conversion to nonresidential use.

Policy 1.5: The density of new residential development shall be based on the existing land use pattern, the availability of public services, municipal service plans, and the provision of services by the developer.

Objective: Land use controls shall govern the distribution of housing types by establishing overall density.

Objective: New multifamily residential construction will be encouraged to address the need for additional rental housing.

Policy 1.6: Work cooperatively with other public agencies, private institutions and organizations to foster housing rehabilitation and neighborhood reinvestment in areas suitable for rehabilitation.

Objective: The City may seek outside sources of assistance to finance the rehabilitation of homes eligible for assistance.

Objective: The City will promote the involvement of local finance institutions and others to direct private capital to areas identified as needing rehabilitation and neighborhood reinvestment.

Policy 1.7: The City of Granger will encourage property maintenance and pride in the community.

Objective: The City may establish a voluntary residential inspection program to inform home occupants of the condition of structural, electrical, plumbing and other components of the home.

Objective: The City will work cooperatively with Pacific Power and Light Company to increase the number of energy audits performed for Granger households.

Objective: Encourage the presentation of workshops on low or no cost weatherization and energy conservation skills by qualified organizations.

Policy 1.8: Support the implementation of public housing programs in partnership with private developers that supplement the efforts of local developers in meeting the housing needs of the community.

Objective: Pursue programs to expand the housing options of low and moderate income groups and the elderly.

Objective: Coordinate public programs with the activities of local developers to provide for the optimal utilization of community resources.

Policy 1.9: Support housing availability to meet the needs of all income groups.

Objective: Make current housing information available to potential developers and encourage its use in the consideration of development alternatives.

Objective: Provide for the periodic updating of existing plans and the ongoing analysis of housing problems i.e., comprehensive plan and zoning ordinance.

Policy 1.10: Work cooperatively with public agencies and private institutions to implement programs that expand the housing opportunities of lower income households, particularly those on fixed incomes.

Objective: Support the provision of rental assistance to those lower income households that pay an excessive proportion of their income on housing.

Policy 1.11 Monitor housing availability.

Objective: Develop a record-keeping system to maintain accurate, current data.

Objective: Develop an evaluation system that accurately measures the impact of programs on local housing issues.

Objective: Provide for the periodic updating of existing plans and the ongoing analysis of housing issues.

Policy 1.12: Support the future development of regional plans and strategies to address the housing needs of the unincorporated areas of the County.

GOAL 2

Residential neighborhoods that are safe, sanitary and attractive places to live.

Policy 2.1: The City will ensure and facilitate the provision of municipal services appropriate to the density of residential development.

Objective: Criteria shall be developed for establishing levels of service required for different densities of development.

Objective: The cost of extending municipal services to serve new residential developments will be borne by the developer.

Objective: Local resources will be considered before all others in financing the improvement of municipal services. The following list is an example of some local resources that may be utilized for this purpose:

1) Revenue sharing funds

2) 1/2 cent gas tax allocation

3) Local Improvement District (LID)

4) Municipal bonds (revenue and/or general obligation bonds)

5) Taxation

Objective: The City will actively seek outside sources of assistance to upgrade municipal service facilities in existing residential areas that may require improvement when local resources are not available.

Chapter 6 Utilities Element

I. INTRODUCTION

Purpose of the Utilities Element

This Utilities Element has been developed in accordance with Section 36.70A.070 of the Growth Management Act (GMA) to address utility services in the City of Granger urban growth area (UGA). It represents the community's policy plan for growth over the next 20 years. The Utilities Element describes how the goals in the other plan elements will be implemented through utility policies and regulations, and is an important element in implementing the Comprehensive Plan.

The Utilities Element has also been developed in accordance with the Yakima County-Wide Planning Policy, and has been integrated with all other planning elements to ensure consistency throughout the Comprehensive Plan. The Utilities Element specifically considers the general location, proposed location, and capacity or all existing and proposed utilities, including, but not limited to, electrical lines, telecommunication lines, and natural gas lines. This Element also identifies general utility corridors.

Growth Management Act Requirements

The GMA's Procedural Criteria defines "utilities" as:

- Enterprises or facilities serving the public by means of an integrated system of collection, transmission, distribution, and processing facilities through more or less permanent physical connections between the plant of the serving entity and the premises of the customer. Included are systems for the delivery of natural gas, electricity, telecommunications services, and water, and for the disposal of sewage [WAC 365-195-200 (25)].

To comply with the GMA, the Comprehensive Plan must, at a minimum, include a Utilities Element consisting of:

- The general location, proposed location, and capacity of all existing and proposed utilities, including but not limited to, electrical lines, telecommunication lines, and natural gas lines [RCW 36.70A.070 (4)].

The GMA requires concurrency in the provision of public facilities and services. Public facilities and services must be available as development occurs without a reduction in the level of service provided. However, private utilities are not bound by the level of service and concurrency provisions of the GMA.

Applicable County-Wide Planning Policies

The Yakima County-Wide Planning Policy recognizes the need to promote orderly development with appropriate urban services provided to such development. The following County-Wide Planning Policies apply to discussion on the Utilities Element:

1. Areas designated for urban growth should be determined by preferred development patterns, residential densities, and the capacity and willingness of the community to provide urban governmental services. (Countywide Planning Policy: A.3.1.)

2. Urban growth should be located first in areas already characterized by urban growth that have existing public facilities and service capacities to serve such development, and second in areas already characterized by urban growth that will be served by a combination of existing public facilities and services and any additional needed public facilities and services that are provided by

either public or private sources. Further, it is appropriate that urban government service be provided by cities, and that urban government services should not be provided in rural areas. [RCW 36.70A.110(3)] (B.3.1.)

3. Urban growth management interlocal agreements will identify services to be provided in an UGA, the responsible service purveyors and the terms under which the services are to be provided. (B.3.2.)

4. The Capital Facilities, Utilities and Transportation Elements of each local government's Comprehensive Plan will specify the general location and phasing of major infrastructure improvements and anticipated revenue sources. [RCW 36.70A.070(3)(c)(d)]. These plan elements will be developed in consultation with special purpose districts and other utility providers. (B.3.4.)

5. New urban development should utilize available/planned urban services. [RCW 36.70A.110(3)] (B.3.5.)

6. Formation of new water or sewer districts should be discouraged within designated UGAs. (B.3.6.)

7. From local inventory, analysis and collaboration with state agencies and utility providers, a list of Countywide and statewide public capital facilities needed to serve the Yakima County region will be developed. These include, but are not limited to, solid and hazardous waste handling facilities and disposal sites, major utility generation and transmission facilities, regional education institutions, airports, correctional facilities, in-patient facilities including hospitals and those for substance abuse and mental health, group homes and regional park and recreation facilities. (C.3.2.)

8. Some public facilities may be more appropriately located outside of UGAs due to exceptional bulk or potentially dangerous or objectionable characteristics. Public facilities located beyond UGAs should be self-contained or be served by urban governmental services in a manner that will not promote sprawl. Utility and service considerations must be incorporated into site planning and development. (C.3.5.)

9. The multiple use of corridors for major utilities, trails and transportation right-of-way is encouraged. (C.3.6.)

10. The County and cities will work with special purpose districts and other agencies to establish a process for mutual consultation on proposed comprehensive land use plan policies for lands within UGAs. Actions of special purpose districts and other public service providers shall be consistent with Comprehensive Plans of the County and the cities. [RCW 56.08.020, RCW 57.16.010] (F.3.1.)

11. The use of interlocal agreements is encouraged as a means to formalize cooperative efforts to plan for and provide urban governmental services. (F.3.2.)

12. Joint financing ventures should be identified to provide services and facilities that will serve the population within the UGA. (F.3.3.)

13. Each interlocal agreement will require that common and consistent development and construction standards be applied throughout that UGA. These may include, but are not limited to, standards

for streets and roads, utilities and other infrastructure components. (F.3.5.)

14. The County and the cities will work with special purpose districts, adjacent counties, state tribal and federal governments to formalize coordination and involvement in activities of mutual interest. (I.1.)

15. Special districts, adjacent counties, state agencies, the tribal government and federal agencies will be invited to participate in Comprehensive Planning and development activities that may affect them, including the establishment and revision of UGAs; allocation of forecasted population; regional transportation, capital facility, housing and utility plans; and policies that may affect natural resources. (I.3.)

Urban Growth Area

The UGA boundary was selected to ensure that urban services will be available to all development, including the provision of utility facilities. The City recognizes that planning for utilities is the primary responsibility of the utility providers. However, the City will incorporate plans prepared by the providers into its comprehensive planning efforts to identify ways of improving the quality and delivery of services provided in the Granger UGA. All development requiring urban services will be located in the UGA, and will have these services extended to them in a timely and financially feasible manner. The Utility Element will guide decision making to achieve the community goals.

Federal and State Laws/Regulations

Utilities and transportation are regulated in Washington by the Washington Utilities and Transportation Commission (WUTC). The WUTC, composed of three members appointed by the governor, is empowered to regulate utilities (including, but not limited to, electrical, gas, irrigation, telecommunication, and water companies). State law (WAC 480) regulates the rates and charges, services, facilities, and practices of utilities. Any change in customer charges or service provision policy requires WUTC approval. The WUTC requires private utility providers to demonstrate that existing ratepayers will not subsidize new customers. The intent of the WUTC regulations is to ensure safe, reliable, and reasonably priced utility services for consumers.

Federal Communications Commission. The Federal Communications Commission (FCC) was created by the Communications Act of 1934 to regulate interstate and international radio, wire, satellite, cable, and television communications. The FCC is an independent five-member government agency.

Federal Energy Regulatory Commission. The Federal Energy Regulatory Commission (FERC) is an independent five-member commission with the U.S. Department of Energy. FERC establishes rates and charges for the interstate transportation and sale of natural gas, for the transmission and sale of electricity, and the licensing of hydroelectric power projects. In addition, the commission establishes rates or charges for the interstate transportation of oil by pipeline.

Natural Gas Policy Act of 1978. The central theme of the National Gas Policy Act (NGPA) is encouragement of competition among fuels and suppliers across the country. As a result, natural gas essentially has been decontrolled. The NGPA also contained incentives for developing new natural gas resources and a tiered pricing structure aimed at encouraging the development of nation-wide transmission pipelines.

1991 Clean Air Amendments. The passage of the Washington State Clean Air Act in 1991 indicates a

state intent to promote the diversification of fuel sources for motor vehicles. This is in response to a need to both reduce atmospheric emissions and reduce the nation's reliance on gasoline for strategic reasons. The Act called for encouraging the development of natural gas vehicle refueling stations.

Regional Power Plans

Northwest Power and Conservation Council. The Northwest Power and Conservation Council (NWPCC) develops 20-year electric power plans for the Northwest. In its Sixth Northwest Power and Conservation Plan, adopted February 2010, the Council calls for the following throughout the region:

- Develop cost-effective energy efficiency aggressively — at least 1,200 average megawatts by 2015, and equal or slightly higher amounts every five years through 2030.
- Develop cost-effective renewable energy as required by state laws, particularly wind power, accounting for its variable output.
- Improve power-system operating procedures to integrate wind power and improve the efficiency and flexibility of the power system.
- Build new natural gas-fired power plants to meet local needs for on-demand energy and backup power, and reduce reliance on existing coal-fired plants to help meet the power system's share of carbon-reduction goals and policies.
- Investigate new technologies such as the "smart-grid," new energy-efficiency and renewable energy sources, advanced nuclear power, and carbon sequestration.

II. INVENTORY AND ANALYSIS

Many public and private agencies are involved in regulation, coordination, production, delivery, and supply of utility services. This section of the element identifies those providers. The inventory includes:

- Natural Gas
- Electrical
- Telecommunications
- Cable Television

Providers of these utilities for the City of Granger and its UGA are listed in Table 6-1. Water and sewer utilities are discussed in the Capital Facilities Element of this Comprehensive Plan. Electrical, telecommunications, and natural gas are regulated by the WUTC. Cable television is regulated by the FCC, in cooperation with local governments.

Table 6-1 Utility Service Providers, City of Granger/Urban Growth Area

Type of Service	City of Granger	Remainder of UGA
Cable Television	Charter	Charter
Telecommunications	Charter Communications; Century Link Communications	Charter Communications; Century Link Communications
Cellular Telephone	Various providers	Various providers
Electric Utility	Pacific Power	Pacific Power
Natural Gas	Cascade Natural Gas	Cascade Natural Gas, where available

Cable Television

Cable generally follows the electrical and telephone lines. Only easements are needed, and are not usually a problem. The break-even point for economic feasibility for providing service is 30 potential customers per linear mile of cable. Anyone within 200 feet of the cable can hook up; otherwise, there would be an additional charge to the customer. TCI Cablevision would be more likely to serve the portion of the Granger UGA that lies north of the City and west of I-82 than the area north of City and east of I-82.

In addition, Northwest Cable Network offers "wireless cable," which originates from a transmitting antenna in the Union Gap area, on Rattlesnake Ridge. Service is available to customers within a 50-mile line-of-sight radius, which includes the City of Granger and its UGA. Northwest Cable is available in rural areas as well as in areas that are hard-line cabled for television. Wireless cable is regulated by the FCC, and does not come under local regulation since it does not use public rights-of-way.

At this time, various other private cable television providers are also available in Granger, including Charter Communications and CenturyLink. These cable services are often bundled with internet and phone services.

Telecommunications

The City of Granger is served by CenturyLink Communications. There are various facilities located throughout the County and the City. Many of the telecommunication facilities, including aerial and underground, are co-located with those of the electrical power provider.

CenturyLink Communications adequately meets existing demands of residential, commercial, and public customers at the present time. As a private utility, CenturyLink Communications is not bound by the level of service and concurrency requirements under the GMA.

Cellular Telephone

Various federally licensed cellular telephone communications companies serve Yakima County. These companies are regulated by FCC and the WUTC. The FCC regulates cellular telephones because radio signals are used for communications.

Electrical Utilities

The City of Granger is served by Pacific Power. The electrical utility has a very well developed backbone transmission system. Existing facilities place no restrictions on normal residential, commercial or industrial growth, and major industries and institutions can be readily accommodated. The utility takes a proactive approach to system capacity, developing its system in anticipation of eventual growth. In general, Pacific Power is very supportive of economic growth and diversification, and tries to avoid being an impediment to the area's economic growth and vitality. The utility has an active "Power Quality Program," and works with industries that have high reliability requirements to accommodate their needs.

While the utility has an abundant supply of energy, its demand-side resource management policy encourages conservation to assure continued availability of power to accommodate new growth and keep the cost low.

Transmission for a 115,000 volt system can be accommodated on a single pole structure that uses the road right-of-way. A substation capable of serving 10,000 residential customers typically requires no more than 2 acres, and is compatible with many adjacent land uses.

In 2009, Pacific Power built a new substation between Sunnyside and Grandview, upgrading capacity for the entire Yakima Valley and improving reliability. Pacific Power also plans to construct a new 40-mile, 230-kilovolt line connecting the Bonneville Power Administration substation near Vantage with Pacific Power's Pomona Heights power substation near Selah. The goal of the new line is to enhance operating flexibility and security of the regional electricity transmission grid. Alternatives under consideration for the project include routing the line around the northern or southern boundaries of the Yakima Training Center Military Reservation. Pacific Power estimates that the line will be constructed in early to mid 2018 .

As a private utility, Pacific Power is not bound by the level of service and concurrency requirements under the GMA.

State legislation passed in 2008 (480-108 WAC) established new rules for interconnecting small, alternative power generators of wind, solar, and other energy sources with established utility infrastructure. The intent of the regulations is to establish baseline rights of and responsibilities of both utilities and electric generation owners, and to ultimately connect more alternative power sources to the power grid for the benefit of both parties. The WUTC is exploring ways to ensure that these new rules are fully implemented.

Natural Gas

Granger is served by Cascade Natural Gas. The City's natural gas supply system meets existing demands of residential, commercial, and public customers.

Cascade Natural Gas serves areas along I-82. Cascade Natural Gas accommodates consumers in its service area that meet its criteria for financial feasibility. Cascade can serve customers outside its service area if the customer assumes some of the cost of extending the lines. Such contributions may be partly reimbursed only if additional customers connect to the same main. When deciding to serve development outside current service areas, utilities must expand their service area by applying for a "certificate of convenience" from the WUTC.

As a private utility, Cascade Natural Gas is not bound by the level of service and concurrency requirements under the GMA.

III. GOALS AND POLICIES

GOAL 1: ***To ensure that energy, gas, and communication facilities and services are provided in a cost-effective and efficient manner.***

Policy 1.1: Adopt procedures that encourage private utility providers to use the Land Use Element of this Comprehensive Plan when planning future facilities.

Policy 1.2: Discuss and exchange population forecasts, development plans, and technical data with the private utilities identified in this Utilities Element.

Policy 1.3: Promote whenever feasible the co-location of new public and private utility distribution facilities in shared trenches, and coordinate construction timing to minimize construction-related disruptions and reduce the cost of utility delivery.

Policy 1.4: For telecommunications, including telephone, cellular telephone and cable television, allow the development/maintenance of facilities necessary to provide services as needed to accommodate population growth and advancements in technology.

Policy 1.5: New development shall be allowed only when and where utilities are adequate, and only when and where such development can be adequately served by essential public utilities without significantly degrading level of service elsewhere.

Policy 1.6: Promote the joint use of transportation rights-of-way and utility corridors wherever possible.

Policy 1.7: To facilitate coordination of public and private trenching activities, notify affected utilities of construction, as well as maintenance and upgrades to existing roads, in a timely and effective manner.

Policy 1.8: Consider utility permits concurrent with proposals requesting service. Where possible, approve utility permits when the project to be served is approved.

Policy 1.9: Coordinate with adjacent jurisdictions to ensure consistency with each jurisdiction's Utilities Element and regional utility plans, and develop a coordinated process for siting regional utility facilities in a timely manner.

GOAL 2: ***Encourage resource conservation to delay the need for additional facilities for electrical utilities and improve the natural environment.***

Policy 2.1: Adopt development standards for solar and wind energy systems to enable and encourage their development and use.

Policy 2.2: Facilitate conversion to alternative energy technologies and renewable energy sources.

GOAL 3: ***Minimize impacts associated with the siting, development, and operation of utility services and facilities on adjacent properties and the natural environment.***

Policy 3.1: Site utility facilities away from critical areas, or site them in a manner that is compatible with critical areas. Address proper placement of utilities in Critical Areas Ordinance.

Policy 3.2: Electric power substations, recycling drop-off boxes, and similar facilities should be sited, designed and buffered as needed to fit in with their surroundings. When sited within or adjacent to residential areas, special attention should be given to minimizing noise, light and glare impacts. Visual and land use impacts resulting from electrical systems and other utility upgrades shall also be mitigated, as needed.

Policy 3.3: Establish a process for identifying and siting essential public facilities, such as solid waste or recycling handling facilities. Cooperatively work with other agencies, surrounding municipalities and Yakima County during the siting and development of facilities of regional significance.

GOAL 4: ***Develop an efficient utility system that supports the community vision (both public and private).***

Policy 4.1: Develop adequate rights-of-way and infrastructure improvements for future development through the planning process, including, but not limited to, public and private utilities.

Policy 4.2: Development within the unincorporated portion of the UGA should be encouraged to occur only on a limited scale to prevent the inefficient use and distribution of public facilities and services.

Policy 4.3: Utility extensions should be designed to provide service to the maximum area possible with the least length of extension.

Chapter 7 Administration Element

I. INTRODUCTION

Purpose

This Administration Element has been developed in accordance with Sections 36.70A.106, 36.70A.120, 36.70A.130 and 36.70A.140 of the Growth Management Act (GMA) to address amendment of the Comprehensive Plan and the maintenance of consistency with development regulations.

The Administration Element specifically considers the process for amendment to the Comprehensive Plan including timing, procedures, public participation, consistency with other City fiscal and regulatory processes and state review of amendments.

Growth Management Act Requirements

An Administration Element is necessary to comply with GMA, and should consist of procedures for:

- Evaluation of plans and development regulations;
- Review of urban growth areas and planned densities at least every ten years;
- Maintaining conformity with GMA requirements;
- Maintaining consistency within the Comprehensive Plan and with implementing regulations;
- Making amendments to the plan no more than once a year, and/or due to an emergency situation;
- Considering all amendments proposed to the Comprehensive Plan concurrently, so that the cumulative effects of the various proposals may be ascertained;
- Ensuring that the plan reflects accommodation of the urban growth projected to occur for the succeeding twenty-year period;
- Ensuring early and continuous public participation in the amendment of Comprehensive Plans; and
- Allowing state review and comment on proposed amendments as required under GMA.

II. AMENDMENTS

Following adoption of the revised Comprehensive Plan, the City shall monitor changes and needs within the community and document needed amendments to the Comprehensive Plan.

Timing

All proposals to amend the Comprehensive Plan shall be considered by the Planning Commission and City Council, so the cumulative effect of the various proposals can be ascertained. The City of Granger sets the month of June to begin advertising for requests to amend the Comprehensive Plan and October as the month for consideration of amendment proposals by the Planning Commission. City Council will consider Comprehensive Plan amendment proposals in the month of December.

Proposals for amendment to the Comprehensive Plan will be accepted at any time during the year, and will be scheduled along with all other proposals received for consideration as part of the Comprehensive Plan review and amendment process.

The Comprehensive Plan may be revised or amended outside of this normal schedule only if findings are adopted to show that the amendment was necessary, due to an emergency situation of a neighborhood-wide or community-wide significance. Examples of emergency situations include those which would present an imminent threat to public health and safety, an imminent danger to public or private property, or present an imminent threat of serious environmental degradation. A personal emergency on the part of a particular applicant or property owner is not considered to be an emergency situation. The nature of the emergency must be documented as part of written findings, and approved by the City Council prior to consideration of an emergency amendment. The City Council shall decide whether to allow the proposal to proceed ahead of the normal amendment schedule.

The City shall establish and broadly disseminate to the public a public participation program consistent with RCW 36.70A.035 and 36.70A.140 that identifies procedures and schedules whereby updates, proposed amendments, or revisions of the Comprehensive Plan are considered by the governing body of the City no more frequently than once every year. "Updates" means to review and revise, if needed. Amendments may be considered more frequently than once per year under the following circumstances:

(i) The proposed amendment concerns the initial adoption of a sub area plan that does not modify the Comprehensive Plan policies and designations applicable to the sub area;

(ii) The proposed amendment concerns the adoption or amendment of a shoreline master program under the procedures set forth in chapter 90.58 RCW;

(iii) The proposed amendment concerns the amendment of the Capital Facilities Element of a Comprehensive Plan that occurs concurrently with the adoption or amendment of a Yakima County or City budget;

(iv) The proposed amendment concerns the adoption of Comprehensive Plan amendments necessary to enact a planned action under RCW 43.21C.031(2), provided that amendments are considered in accordance with the public participation program established by the City and all persons who have requested notice of a Comprehensive Plan update are given notice of the amendments and an opportunity to comment. All proposals shall be considered by the governing body concurrently so the cumulative effect of the various proposals can be ascertained. However, after appropriate public participation the City may adopt amendments or revisions to its Comprehensive Plan whenever an emergency exists or to resolve an appeal of a Comprehensive Plan filed with a growth management hearings board or with the court.

Eight-Year Update

In compliance with RCW 36.70A.130, the City of Granger will establish a schedule to take action to review and, if needed, revise their Comprehensive Plan and development regulations to ensure the plan and regulations comply with the requirements of the Growth Management Act. The City of Granger's statutory deadline for the next comprehensive plan update is June 30, 2017. As allowed by RCW 36.70A.130(6)(f), the City of Granger may update its comprehensive plan within twenty-four (24) months following June 30, 2017 if the City has a population of no more than five thousand and has had its population increase by the greater of either no more than one hundred persons or no more than seventeen percent in the 10 years preceding June 30, 2017.

The annual amendments cannot occur separately in the year designated for the eight-year update. All annual updates coinciding with the eight-year update cycle must be submitted concurrently within that year.

However, any amendment to the zoning and other development regulations that are consistent with the adopted Comprehensive Plan can be made any time during a year.

Adoption and Initiation

The City Council may, after due notice and public hearing, amend, supplement or modify the text and maps of this Comprehensive Plan. An amendment may be adopted, amended, or supplemented by the City Council following a public hearing or hearings on the proposed amendment(s). Amendments may be initiated in the following manner:

a. By motion by the City Council or the Planning Commission;
b. By filing with the Planning Commission a petition by the owner of the property within the City, which petition shall be on a standard form prescribed by the Planning Commission, and available from the City Clerk's office;
c. A fee payable to the City at the time of filing of a petition shall be charged for advertising, mailing, and administrative expenses. No part of the fee shall be refundable. However, when a map amendment of the Comprehensive Plan is in conjunction with a rezone request for the same property, only a single fee need be paid for the rezone/Comprehensive Plan map amendment. The higher fee shall prevail; and,
d. Motions and/or petitions for amending, supplementing or modifying the text and maps of this Comprehensive Plan will be received by the City staff up until sixty (60) days prior to the Planning Commission's public hearing on such proposed amendments to the plan. This will allow adequate time for processing of the motion or petition, and will allow for proper public notification of the proposals. Motions and/or petitions received after this date will be processed in the following year's cycle.

Public Hearing

The Planning Commission shall hold a public hearing on any such amendments, supplements, or modification of this Comprehensive Plan, whether initiated by petition or motion in accordance with the provisions of this section. This public hearing shall be held and a recommendation made by the Planning Commission prior to the initial sixty (60) day State comment period on the proposed amendments.

Notice of the hearing and the nature of the proposed change shall be given by publication in the official newspaper of the City, at least 10 days prior to the date of the hearing. In addition, in cases of change of boundaries or of future land use designations, all owners of property, any part of which is within three hundred (300) feet of the boundary lines of the property to be changed, shall be notified of the proposed change and date of the hearing by United States mail. Notice mailed to the last known address of the person making the last tax payment shall be deemed proper notice; provided, however, that in the case of a future land use designation change affecting three or more parcels, that notice be given by publication in the official newspaper of the City, once a week for two (2) consecutive weeks prior to the hearing, with the last publication at least ten (10) days prior to the hearing on the proposed change. All notices shall contain the date, time, and place of the hearing, and a map which indicates the area of the proposed change and the effects of that change.

No decisions shall be made by the City Council on the recommendations for amendment until after the initial sixty (60) day State comment and review period has expired.

Planning Commission Recommendation

In recommending the adoption of any proposed amendment(s), or in concurring with the City Council on any proposed amendment(s), the Planning Commission shall set forth in writing its reasons for its recommendations, which document shall be forwarded to the City Council along with its recommendation.

In changing the future land use designation of any area, zoning shall also be changed as needed to maintain consistency between the Comprehensive Plan and the zoning ordinance.

State Review of Amendments, Supplements, and Modifications

Initial Review of Proposed Amendments

At least sixty (60) days prior to the adoption of an amendment to the Comprehensive Plan, an electronic copy of the proposed change/draft version shall be submitted to the Washington State Department of Commerce, Growth Management Division, for review and comment. One plan review checklist and any other supplementary documentation (relevant State Environmental Policy Act [SEPA] information, outline of public participation process, etc.) shall accompany the proposed amendment. Should the City of Granger not receive comments from any of the State agencies on the proposed amendment within sixty (60) days after receipt of the proposed amendment(s) by the State, the City shall be free to adopt the amendment(s) without further delay.

Final Review of Adopted Amendment

Within ten (10) days from the adoption of the amendment, two copies of the adopted amendment shall be submitted to the Washington State Department of Commerce, Growth Management Services Division for filing. An "Adopted Comprehensive Plan Submittal" form and any new or additional information shall accompany the adopted amendment. Any agency or jurisdiction which commented on the draft of the amendment shall also receive a copy of the adopted amendment.

The City will also publish a notice of adoption and availability of the amendment in its newspaper of record. A final sixty (60) day review and comment period will commence from the date of publication. Appeals of the adopted amendment to the Washington Growth Management Hearings Board would be filed during this final sixty (60) day review period.

III. APPEALS

Initiation

The action of the City Council shall be final unless appealed to the courts. For information on appealing a City Council decision, see the Appeals to Others section below.

Appeals to Others

Washington Growth Management Hearings Board

After exhausting any local appeals process, parties still aggrieved by the decision may appeal to the Washington Growth Management Hearings Board, if such decision is subject to review by the Hearings Board, and if the party has standing. Appeals to the Growth Management Hearings Board must be filed within sixty (60) days of the publication of the action by the City Council.

In general, the Growth Management Hearings Board shall hear only those petitions alleging either: a) that a State agency, County, or City is not in compliance with the requirements of the Growth Management Act, as amended or with environmental review as it relates to plans and regulations; or b) that the twenty-year growth management planning projections adopted by the Office of Financial Management (OFM) should be adjusted.

For a person[7] to have standing, they must have appeared before the County or City regarding the matter on which a review is being requested, or be certified by the Governor within sixty (60) days of filing the request with the Board, or be a person qualified pursuant to RCW 34.05.530.

Appeals of Growth Management Hearings Board decisions may be filed in Superior Court as provided in RCW 34.05.514 or 36.01.050 within thirty (30) days of the final order of the Board.

Superior Court

Appeals outside of the scope of the Growth Management Hearings Board may be appealed pursuant to RCW 34.05, the Administrative Procedures Act.

IV. CRITERIA APPROVING A CHANGE IN THE FUTURE LAND USE MAP

Standards

Changes in the future land use map shall only be granted after the Planning Commission and City Council have reviewed the proposed change to determine if it complies with the standards and criteria listed below. A change in the future land use map shall only be granted if such written findings are made:

1. The proposal is consistent with the provisions of the Growth Management Act (GMA) and other applicable state planning requirements;

2. The proposal is consistent with, and will help implement the goals, policies and objectives of this Comprehensive Plan;

3. Required changes to implementing regulations are identified prior to adoption of the proposed change, and are scheduled for revision, so that these implementing regulations remain consistent with the Comprehensive Plan;

4. The proposal will increase the development or use potential of a site or area without creating significant adverse impacts on existing sensitive land uses, or on other uses legally existing or permitted in the area;

[7] A "person" as defined in RCW 36.70A.280 - 3, means any individual, partnership, corporation, association, governmental subdivision or unit thereof, or public or private organization or entity of any character.

5. The proposal is an extension of similar adjacent use or is of sufficient size to make the proposal logical;

6. The traffic generated by the proposal will not unduly burden the traffic circulation systems in the vicinity. The collector and arterial system currently serves or can concurrently be extended to serve the proposal, as needed;

7. Adequate public facilities and services exist or can concurrently be developed to serve the proposal;

8. The other characteristics of the proposal are compatible with those of other uses in the vicinity;

9. The other uses in the vicinity of the proposal are such as to permit the proposal to function properly;

10. If the proposal has impacts beyond the City limits, the proposal has been jointly reviewed by Yakima County; and

11. Any other similar considerations that may be appropriate to the particular case.