City of Toppenish
2008 Comprehensive Plan Update

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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. This element identifies the area's resource lands and critical areas and explains how they will be protected.

In urban areas, the natural environment adds to the livability of a community. Local awareness of environmental issues and an appreciation for nature and what it has to offer are reasons to promote a compatible mix of nature and city. The urban parts of a community provide residents with a diversity of economic, social and cultural opportunities. The natural environment provides open space areas that are environmentally sensitive, such as floodway fringes or wetlands that are protected from development or more active open space areas such as parks, a golf course, a body of water, etc. Open space areas may also be a cemetery or an area left undeveloped within a private residential or commercial development. In the Yakima Valley, agricultural and forest lands on the fringe of the urban areas of its communities provide secondary scenic and open space values in addition to their primary use. With proper planning, it is possible to allow intense urban development on suitable land and still retain valuable islands and corridors of open space.

GMA Requirements

The Washington Growth Management Act (GMA) does not require a natural system element in the comprehensive plan, but does set a number of requirements with regard to 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 ground water 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, 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 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 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.

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 in which development could occur that would be more compatible with the natural environment.

Best Available Science

The protection of natural systems within the corporate limits and Urban Growth Area (UGA) of the City of Toppenish will be based on the best available science. The City of Toppenish 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.

Earth

Geographic Location

The City of Toppenish and its associated UGA are located in Yakima County, 21 miles southeast of the City of Yakima. Land in and around the city is located within the 500-year and 100-year floodplain of the Yakima River, at an altitude of approximately 770 feet above sea level. The land consists of an essentially flat area of loamy and silty loam soils underlain by an alluvial sand and gravel substrate. Accompanying drainage flows to the east and northeast in the direction of the Yakima River. The Yakima River flows eastward to its mouth on the Columbia River, 55 miles downstream in Richland, Washington.

Lands within the City of Toppenish and its associated UGA are primarily irrigated agricultural lands. These lands are flood irrigated from a system of canals and ditches.

Geology

The geologic setting of the Yakima Valley is mostly due to volcanic activity of the tertiary period that occurred in the Cascade Mountains and the Columbia Basin.

During the Miocene epoch (12-26 million years ago), basalts originating from large fissures in the earth's crust, situated in southeastern Washington, flowed westward covering the Columbia Basin and eventually lapping the eastern slope of the Cascade Mountains. Volcanic activity in the Cascade Mountains caused the overlaying of these basalts with the light colored, pumiceous sandstone and conglomerates that make up the Ellensburg Formation.

After the Ellensburg Formation, compressional forces pushed the Yakima basalts and overlying sediments into a series of parallel east-west ridges now referred to as Ahtanum, Manastash, Toppenish, Umptanum and Yakima Ridges, Cleman and Saddle Mountains, and the Rattlesnake and Horse Heaven Hills. These ridges were slow to form, enabling the Yakima River to cut gaps as the basalt uplifted. These water gaps are now known as the Selah Gap, through Yakima Ridge to the north, and the Union Gap through Ahtanum Ridge to the south.

The Quaternary Period, primarily the Pleistocene Epoch saw continued volcanic activity in the Cascades, as well as extensive glacial erosion. Glaciers flowed down the Yakima, Naches and Tieton River Valleys filling both the Upper and Lower Yakima Valleys with glacial sedimentary deposits. This glacial action has contributed largely to the Valley's existing drainage pattern.

However, not all drainage changes in the area were due to glaciation. Both the Columbia and the Yakima Rivers have left an impressive record of their wanderings over the area. During the tertiary period, the Columbia River skirted across the basin area strewing sand, pebbles, and volcanic debris. It is believed that Satus Pass was once the outlet of the Columbia River until subsequent uplifting of the land forced the river east to its present location. The Yakima River, however, was able to maintain its course, eventually cutting through Selah and Union Gap.

The surface geology of the Toppenish area consists mainly of unconfined young valley fill including unconsolidated alluvium and the upper part of the Ellensburg Formation of the Miocene age. The young valley fill is made up of silt, sand, gravel, and cemented gravel, and reaches a maximum thickness of about 500 feet near Wapato, although the thicknesses range typically from 50 to 250 feet.

Seismic Hazard

All of Washington State is subject to some degree of risk from seismic events. No seismic hazard areas have been identified within the City of Toppenish; however, the Toppenish area has been classified in seismic Zone C (International Building Code, 2006). Seismic zone classifications in the United States range from 0 to 4. Zones 0 and 1 have a low relative risk of strong earthquakes. Zone 4 has a high relative risk of strong earthquakes. Many areas of the Midwest are part of seismic zone 0 or 1. Most of western Washington is zone 3 and almost all of coastal and southern California is classified as part of zone 4.

Volcanic Hazard

The sources of volcanic hazards within the Toppenish area are composite volcanoes of the Cascade Range such as Mt. St. Helens and Mt. Rainier. Potential hazards from an eruption of a composite volcano include mudflows, floods and tephra (airborne volcanic ash or rock debris). Of these, only tephra from a Mt. St. Helens eruption has an identified potential to affect the area. Of the five principal volcanoes in Washington State, only Mt. St. Helens has experienced major tephra eruptions in the past 13,000 years. Mt. St. Helens has had at least eight large-scale eruptions during that time. During the May 18, 1980, major eruption of Mt. St. Helens, from 1 to 5 millimeters of tephra was deposited in the area.

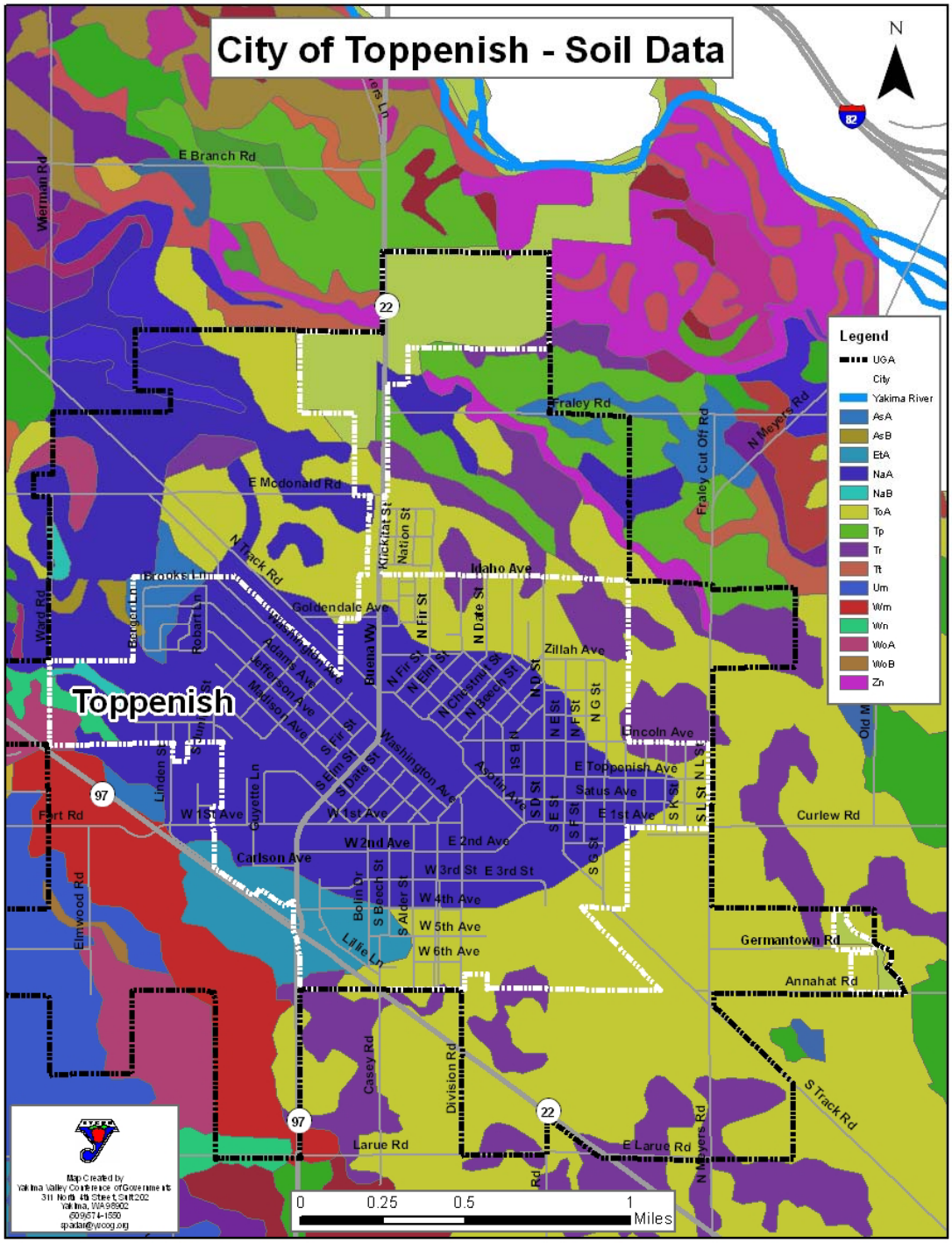
Tephra, ejected during another major volcanic eruption of Mt. St. Helens could fall on the Toppenish area depending on the wind direction at the time of the eruption. It is likely that the size of the tephra would be very fine-grained (ash) and cooled because of the distance to Mt. St. Helens. The ash deposit could be up to 5 centimeters thick and would pose a low potential hazard to human life and health. Injury to humans occurs when ash-contaminated air is inhaled. Property damage occurs from the abrasiveness of ash and resulting impacts on machinery. An ash fall in Toppenish could result in a temporary shutdown of operations, but is not likely to significantly damage the facilities.

Mt. Adams is dormant, not extinct, but it is still potentially active. Future eruptions from Mt. Adams will probably follow patterns set by previous events and will thus be flank lava flows of andesite or basalt. Since the interior of the main cone is little more than a pile of fragmented lava and hydrothermally-altered rock, there is a potential for very large landslides and other debris flows, but with little chance of affecting the City of Toppenish.

Soils

Area-wide soils analysis can provide a basis for determining the suitability of an area to certain crop types, as well as for urban development. The soil map in Figure 1.1 below was developed using information from the Natural Resources and Conservation Service (NRCS) (formerly the Soil Conservation Service) and are conducted on a countywide basis. Figure 1.1 is to be used only as a general guide to soil types found in and near the City of Toppenish. 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.

FIGURE 1.1 City of Toppenish Soil



Map

Major Soil Types Within the Toppenish UGA

There are fifteen soil types found within the City of Toppenish and its associated UGA. The predominant soil is Naches loam (NaA) on which most of the central city is located. This unit is a well-drained soil that formed in old alluvium. Included in this mapping are small very gravelly areas and small areas of Ashue, Toppenish, Track, and Weirman soils. Slopes range from 0 to 2 percent, and in most areas this soil has been leveled, producing an average slope of about 1 percent. Elevations range from 700 to 900 feet, however in the Toppenish area, the elevation is 200 feet north of Fort Road. Permeability of this soil is moderately slow in the surface layer, the subsoil, and the upper part of the substratum and very rapid in the lower part of the substratum. The soil holds 6 to 8 inches of water that plants can use. Runoff is slow, and the hazard of water erosion is slight. Most of the acreage of Naches soils is irrigated.

The next most predominant soil found in Toppenish is Toppenish silt loam (ToA). This soil can be found mainly in the eastern portion of city and the southeastern UGA, near the Rodeo grounds and Del Monte Foods U.S.A. The Toppenish series consists of deep, somewhat poorly drained soils that formed in alluvium. This soil is on alluvial plains somewhat parallel to the lower Toppenish and Satus Creeks and the Yakima River. Included with this soil in mapping are small areas of Fiander, Kittitas, Naches, and Track soils, a few areas of poorly drained soils, and a few areas of saline-alkali soils. Slopes range from 0 to 2 percent, and in most places the slope is about 1 percent or less. Elevations range from 700 to 900 feet. Permeability of this soil is moderate. Runoff is very slow, and the hazard of water erosion is none to slight. In general, the seasonal high water table is at a depth of 3 to 5 feet by deep drains. This soil holds 8 to 10 inches of water that plants can use. Most areas of Toppenish soil have been drained and are irrigated.

Other soil types found scattered throughout the city and UGA include Ashue loams, Esquatzel silt loams, Toppenish silt loams, and Toppenish silty clay loams, to name a few. These soils are all well drained, with the majority considered to be prime farmland if irrigated. The majority of these soils are also poorly suited for homesite development due to the seasonal high water table leading to possible ground water contamination, and potential for flooding for low buildings without basements.

Determination of a soil's agricultural capability, limitations for septic tanks or buildings, roads and streets, is made through information available from the United States Department of Agriculture (USDA) NRCS. The soil information gleaned from the NRCS is summarized in Table 1.1 below, and comes from the original Soil Survey report of Yakima County, Washington issued in May 1985. For each soil type and unit, this NRCS document provides soil characteristic information. Table 1.1 below summarizes these interpretations for soil types and units found in the City of Toppenish and UGA.

TABLE 1.1 Soil Classifications and Limitations for the City of Toppenish and Vicinity

SOIL CLASSIFICATION			LIMITATIONS		
Soil Map Symbol	**Series Names**	**Slope**	**Agricultural Capacity**	**Septic Tank**	**Foundations for low buildings without basements**
AsA	Ashue Loam	0-2%	If irrigated, these soils are suited to corn, small grain, grapes, tree fruits, and truck crops, and to grasses and legumes for hay and pasture. Prime farmland if irrigated.	Slight: possible contamination of ground water.	Slight: land leveling should be closely checked for depth to gravelly material. Shallow cuts are possible in selected areas.
AsB	Ashue Loam	2-5%	These soils are suited to small grain and hay and pasture crops, and to tree fruits and grapes if a cover crop can be established.	Slight: possible contamination of ground water.	Slight: land levelling should be restricted. Shallow cuts are possible in selected areas.
EtA	Esquatzel Silt Loam	0-2%	Among the irrigated crops grown are asparagus, corn, grapes, hops, mint, peas, sugar beets, tree fruits, and grasses and legumes for hay, pasture and seed. These are the most productive and least limited of any soils within the Toppenish area. All climatically adapted crops that require good drainage do well. Prime farmland if irrigated.	Slight: except in areas where water table is seasonally high. Limitation is moderate or severe in those areas.	Slight.
NaA	Naches Loam	0-2%	Among the irrigated crops grown are asparagus, corn, grapes, mint, peas, sugar beets, tree fruits, and grasses and legumes for hay and pasture. All climatically adapted crops that require good drainage do well. Prime farmland if irrigated.	Slight: possible contamination of ground water.	Slight: land leveling should be closely checked. Shallow cuts are possible in selected areas.

NaB	Naches Loam	2-5%	The main irrigated crops grown include asparagus, corn, grain, grapes, hops, mint, peas, sugar beets, tree fruits, and grasses and legumes for hay, pasture and seed. All climatically adapted crops that require good drainage do well. Prime farmland if irrigated.	Slight: possible contamination of ground water.	Slight: land leveling should be closely checked in the soils that have a gravelly substratum. Shallow cuts are possible in selected areas.
ToA	Toppenish Silt Loam	0-2%	If drained and irrigated, this soil is suited to asparagus, corn, grain, hops, mint, peas, sugar beets, and grasses and legumes for hay and pasture. Prime farmland if irrigated.	Severe: seasonal high water table.	Severe: seasonal high water table.
Tp	Toppenish Silty Clay Loam	0-2%	If drained and irrigated, this soil is suited to asparagus, corn, grain, hops, mint, peas, sugar beets, and grasses and legumes for hay and pasture. Prime farmland if irrigated.	Severe: seasonal high water table.	Severe: seasonal high water table.
Tr	Track Loam	0-2%	If drained and irrigated, this soil is suited to sweet corn, field corn, small grain, peas, sugar beets, and to grasses and legumes grown for hay and pasture.	Severe: seasonal high water table. Possible contamination of ground water.	Severe: seasonal high water table. Land leveling should be restricted. Shallow cuts are possible in selected areas.
Um	Umapine Silt Loam	0-2%	If drained, freed of excessive salts, and irrigated, these soils are suited to asparagus, corn, peas, and sugar beets, and to grasses and legumes for hay and pasture.	Severe: seasonal high water table.	Moderate: seasonal high water table.
Wm	Weirman Sandy Loam	0-2%	These soils are best suited to grazing and wildlife. Additionally, these soils are better suited to grasses that tolerate flooding than to other plants.	Severe: flooding; seasonal high water table. Possible contamination of ground water.	Severe: seasonal flooding.
Wn	Weirman Gravelly Sandy Loam	0-2%	If irrigated, this soil is suited to grasses and legumes for pasture and hay, and to tree fruits and grapes.	Moderate: seasonal high water table. Possible contamination of ground water.	Slight: land leveling should be restricted. Shallow cuts are possible in selected areas.
WoA	Weirman Fine Sandy Loam	0-2%	If irrigated, these soils are suited to corn, small grain, grapes, tree fruits, and truck crops, and to grasses and legumes for hay and pasture.	Moderate: seasonal high water table. Possible contamination of ground water.	Slight: land leveling should be closely checked for depth to the gravelly material. Shallow cuts are possible in selected areas.

WoB	Weirman Fine Sandy Loam	2-5%	These soils are suited to small grain and hay and pasture crops, and to tree fruits and grapes if a cover crop can be established.	Moderate: seasonal high water table. Possible contamination of ground water.	Severe: land leveling should be restricted. Shallow cuts are possible in selected areas.
Zn	Zillah Silt Loam, Channeled	0-2%	This unit is used as 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.	Severe: severe flooding

As indicated in Table 1.1, the best soils for agricultural production are the Ashue, Esquatzel, Naches, and Toppenish series. All of these soils can be found both within Toppenish's city limits and its urban growth area.

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.

Air

Climate

The climate for the Yakima Valley, including the Toppenish area is generally characterized as being mild and dry, influenced by both maritime and continental climates, and modified by the Cascades to the west and Rocky Mountains to the east.

Summers are dry and hot, with about 85% of the possible sunshine, while winters are usually cloudy with only a third of the possible sunshine. Daily temperatures for the summer months range from 65 to 90 degrees, but dry air results in rapid temperature drops after sunset, providing cool evening temperatures, generally in the 50's. Temperatures of 100 degrees frequently occur in the months of July and August. The mean annual temperature is between 47E and 51E F., and the frost-free season is 130 to 180 days.

The growing season in the Yakima Valley varies depending on the immediate topography and the type of crops grown. The average date of the last freezing temperature in the spring is May 15, and the first day in the fall is October 3. Temperatures below freezing (32 degrees) are infrequent during the period from May 29 through September 20.

Irrigation is a basic necessity for nearly all crops grown in the Yakima Valley. In years of normal snowmelt and rainfall, ample water is available from snowmelt and collected in storage reservoirs in the Cascade Mountains for summer use throughout the Valley.

Precipitation

Precipitation is fairly minimal, with a mean annual precipitation of 7 inches. The evaporation rate in the

Toppenish Creek basin is approximately 41 inches per year. Most of this precipitation occurs between October and March. Snowfall is light, with average cumulative seasonal snowfall ranging from 10 to 15 inches.

Wind

Winds are generally light, averaging about seven miles per hour on an annual basis. Stronger winds ranging from 30 to 65 miles per hour will occasionally occur during the spring months. The prevailing wind direction is from the northwest and west in the winter and the west-northwest in the summer. "Chinook" winds characteristically occur several times a year, and are most noticeable in the winter. These winds result in a 20 to 30 degree rise in temperature within a space of a few hours.

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, 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, particularly in the Toppenish area, 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 1 to 3 days.

Air Quality Regulations and Monitoring

Three agencies have air quality jurisdiction in Yakima County: the United States Environmental Protection Agency (EPA), the Washington State Department of Ecology (WDOE), and the Yakima Regional Clean Air Authority (YRCAA).

The EPA has primary air quality jurisdiction in Toppenish, and all lands within the exterior boundaries of the Yakama Indian Reservation. For reservation lands the EPA has developed and adopted the Federal Air Rules for Reservations (FARR). The FARR are a basic set of federal air rules that apply within the exterior boundaries of 39 Indian Reservations in Idaho, Oregon and Washington in order to protect human health and the environment. These rules ensure that residents within the boundaries of the reservations enjoy air quality protection similar to that existing outside the reservations. The final FARR was published in the Federal Register on April 8, 2005 (67 FR 18074). These rules were effective on June 7, 2005.

The FARR and NAAQS have both identified the same "priority 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.

The WDOE recently installed an air quality monitoring station in Toppenish off of Ward Road that can monitor particulate pollution. While the station will provide valuable air quality information to the City of Toppenish, the station was installed in late 2006 and currently there is not enough data to provide valid long-range trends.

The YRCAA maintains one air quality monitoring station in the lower Yakima Valley. This station is located in Sunnyside at Harrison Middle School (approximately 15 miles southwest of Toppenish's city center). Based on 111 samples between 2000 – 2006, annual PM_{10} average varied between 25 and 28 ug/m3, and the 2005 average was 25 ug/m3. 2005 was the last full year of sampling at this site. This average is close to the Yakima metropolitan area annual average, but there are significant differences in the seasonal values with the Yakima metropolitan area routinely exceeding NAAQS standards in the winter months.

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 Toppenish area. However, because the traffic volumes on surface streets in the immediate vicinity are relatively low and rarely result in congestion, CO levels are not anticipated to exceed NAAQS or FARR 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.

Because the City of Toppenish is not located in the proximity to an ozone producing urban area, 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 to periodically exceed NAAQS.

Historical violations of NAAQS have led to portions of the Yakima metropolitan area to be designated as non-attainment for both PM_{10} and CO. The EPA redesignated both the Yakima CO nonattainment area and the PM_{10} nonattainment area to "attainment" 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

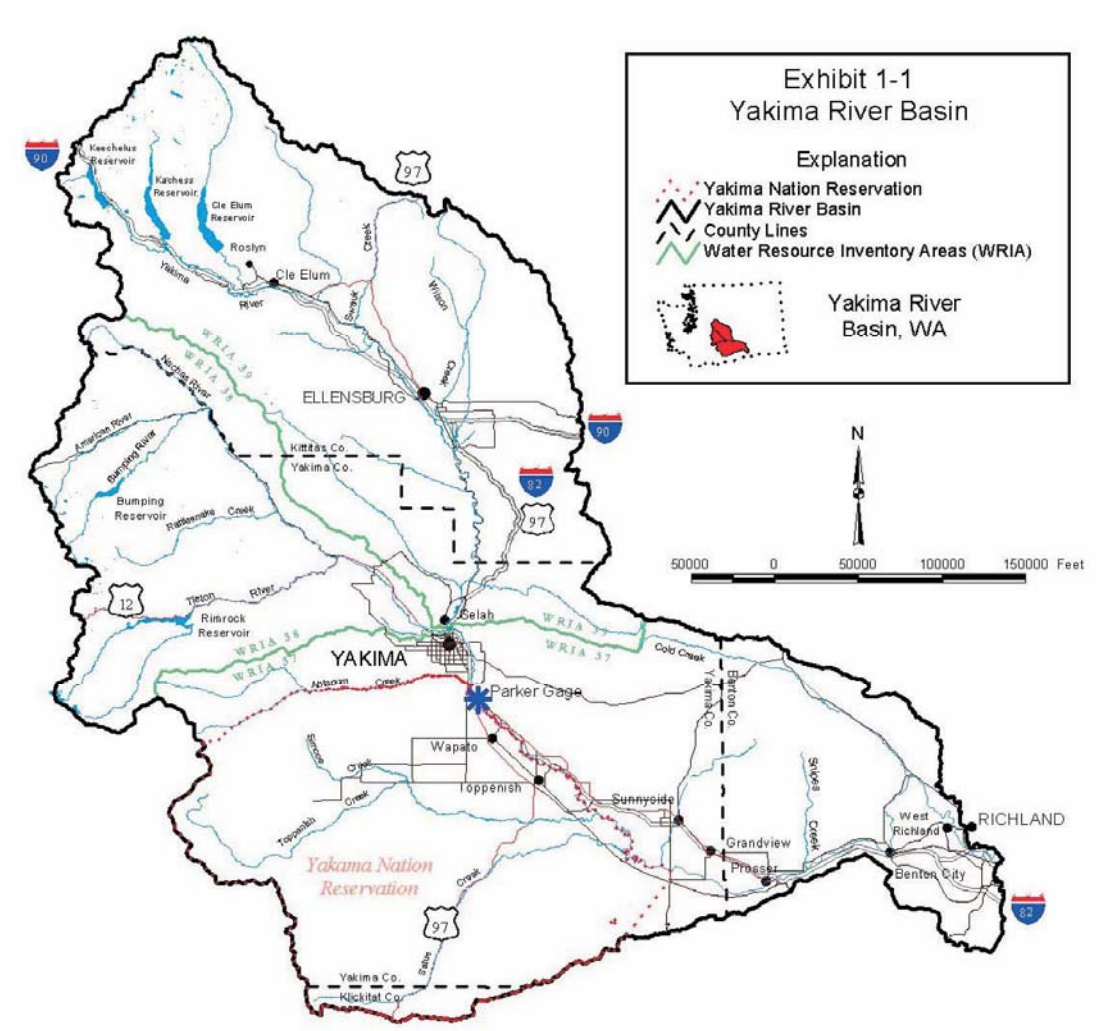
9, 2005 an EPA approved boundary change to the PM_{10} maintenance area to exclude lands belonging to the Yakama Nation went into effect.

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

Water Resources

The Yakima River Basin is divided into six mainstream river reaches (Yakima Basin Water Resources Agency, 2003). Toppenish is most closely associated with Reach #5. 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 the City of Granger.

FIGURE 1.2 Yakima River Basin Map



Ground Water

Geologic materials that are able to store and transmit ground water are considered to be aquifers. Ground water occurs within the unconsolidated surficial deposits in most of the major stream and river valleys in the Yakima Basin. The primary ground water resources of the Yakima River Basin are aquifers associated with the Columbia River Basalt Group, including basalt aquifers such as the Saddle Mountains, Wanapum and Grande Ronde Formations; and sedimentary deposits such as the Ellensburg

Formation.

The relationships between surface and ground water are important in managing water resources in the Yakima River Basin. Pumping ground water 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 ground waters 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 ground water supplies. Ground water 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.

The shallow aquifer underlies most of the irrigated areas of the Toppenish Creek subbasin and the land immediately along the Yakima River. Flows are southeasterly (in the same direction as the Yakima River). The post basalt aquifer underlies the entire subbasin, except for the areas under Ahtanum Ridge, the Cascades, and the lower ridge dividing the Toppenish Creek and Satus Creek subbasins. The basalt aquifer underlies the entire subbasin, flowing northeasterly.

Potential for ground water contamination in these shallow aquifers is high, especially near ditches, canals, and the Yakima River. This ground water is not considered to be a safe source for domestic water usage. Care must be taken to avoid contamination of ground water 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.

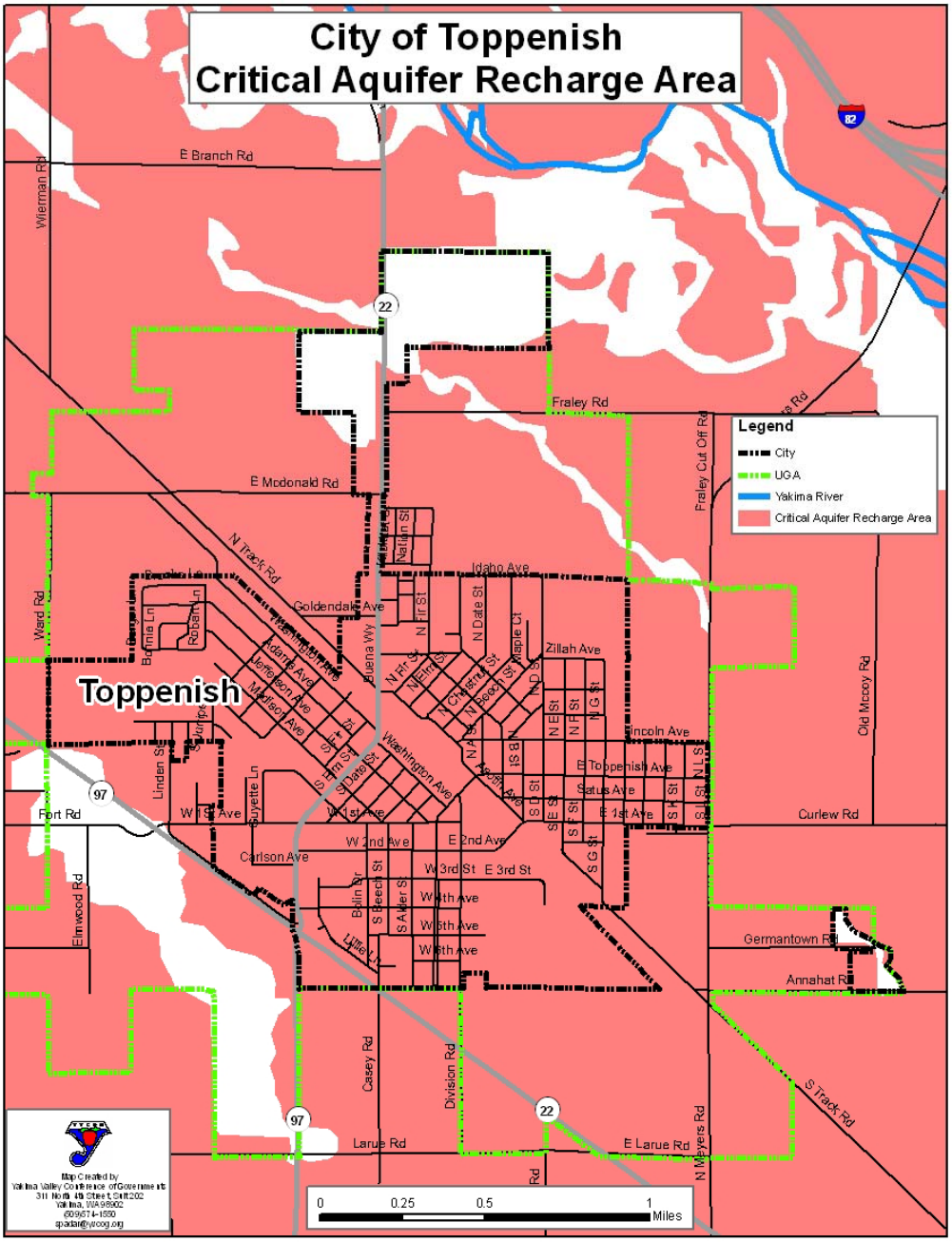
The United States Bureau of Reclamation, Washington State Department of Ecology and the Yakama Nation are currently participating in a joint study of the ground water resources of the Yakima River Basin and their interactions with surface water. The United States Geological Survey has been contracted to take the lead role in gathering and analyzing data. This study is currently anticipated to be complete in 2008. Detailed analysis of existing data combined with analysis of the data collected during this study is expected to provide improved information for management of ground water resources in the Toppenish area.

Critical Aquifer Recharge Areas

Ground water systems are replenished (recharged) by the addition of water to the zone of saturation (aquifer) through precipitation, runoff and infiltration from surface water bodies. An area in which water reaches an aquifer by surface infiltration, and where there is a downward component of hydraulic head (pressure head), is considered a recharge area. 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. These conditions include soil permeability, surficial geological materials, 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. Ground water discharges into rivers, lakes and streams, or through evapotranspiration, pumping and upward flow of water into the shallower aquifers. As Figure 1.3 shows, a large portion of the Toppenish Creek subbasin has a high recharge potential, especially in the recharge zones for the basalt aquifers along ridges and upland areas, where the basalt is exposed to the surface.

FIGURE 1.3 Critical Aquifer Recharge Areas in the Toppenish Vicinity



Ground Water Quality

Ground water in the Yakima River Basin is used for agricultural, municipal, domestic, and other purposes. Water quality considerations vary for these different uses. For example, the quality of ground water in the Yakima Basin is rarely a limitation if the water is used for agricultural purposes. However, ground water quality must be much higher for drinking water purposes, and in some cases requires treatment to meet state and federal drinking water standards.

Ground water 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 ground water for their indoor, domestic water supplies. Degradation of ground water 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 ground water criteria serve as a baseline and as a reference to establish trends in water quality conditions. The State's regulation in WAC 173-200 establishes the criteria for all ground water, 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 Agency in 2003 noted that ground water 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. Ground water 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.

Yakima County does not actively track ground water quality, and ground water quality monitoring is not occurring on a regional basis within the Yakima River Basin. Where localized problems have been identified, monitoring activities have sometimes been implemented. In the absence of more comprehensive, long-term monitoring data, trends are unlikely to be quantifiable. In addition, if certain parameters have received little attention, they may pose a threat to drinking water supplies that goes undetected. This may be a limitation for watershed planning in terms of determining a safe and reliable water supply for municipal and domestic purposes.

Large and medium-sized public water systems, like the City of Toppenish, have the ability to monitor, manage and protect the quality of their ground water supplies. However, small water systems and individual households relying on their own wells for drinking water are likely to be more susceptible to threats from ground water contamination. In addition, shallow and/or unprotected ground water supplies are more susceptible to ground water contamination than deep ground water supplies.

While less data exists for ground water quality than surface water in the Yakima River Basin, it is

documented that overall ground water quality in the Toppenish Creek subbasin is good to excellent. However, land use impacts may cause minor degradation to ground water quality conditions in the future. A typical example of contamination in residential areas is bacterial (fecal coliform) contamination of shallow aquifer supplies caused by septic system effluent seeping into the ground water. In very limited areas, contamination is caused by industrial/commercial sources.

The main uses of ground water in the Toppenish Creek subbasin are the domestic water supply, fire protection, commercial/industrial use, railway use, irrigation, frost protection, stock watering, recreation

and beautification, and heat exchange. According to the Yakima Basin Water Resources Agency, in the year 2000 approximately 8% of the estimated uses of ground water were for public water systems.

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. For a map of the Yakima River Basin see Figure 1.2 above.

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.

Following the Yakima River in significance, the next stream of regional importance located within close proximity to the City of Toppenish is Toppenish Creek. Simcoe Creek and its tributary Agency Creek are the two major systems that contribute to Toppenish Creek. Toppenish Creek flows 68.5 miles from its headwaters on Lost Horse Plateau to its mouth at the Yakima River. Toppenish Creek is located south of the Marion Drain, well beyond the southern UGA boundary of the City of Toppenish.

Two perennial streams or ditches can be found within the City of Toppenish UGA. Wanity Slough is located south of SR-22 in the southwestern portion of the UGA, and was previously classified as a Type 3 Stream under the Yakima County Shoreline Master Program (SMP). A vegetative buffer of 25 to 50 feet (50 feet is the standard buffer width and a minimum buffer width of 25 feet is possible subject to additional review) is typically associated with Type 3 Streams. The second stream or ditch found within the UGA is the Toppenish Drain. The Toppenish Drain enters the UGA in the northwestern corner and traverses southeasterly, then eastern along Annahat Road for 3 miles before draining into the Yakima River. The Toppenish Drain was also previously classified as a Type 3 Stream.

The Yakima River and Toppenish Creek are the only waterways within the vicinity of Toppenish that are classified as Type 1 Streams and designated as “Shorelines of the State” and under the prevue of the Washington State Shoreline Management Act (SMA). Conversely, while both the Wanity Slough and Toppenish Drain were previously classified as Type 3 Streams and subject to all the requirements set forth for Type 3 Streams, they are not classified as “Shorelines of the State”.

On December 18, 2007 Yakima County adopted an updated SMP and Critical Areas Ordinance (CAO). It is anticipated that multiple municipalities throughout Yakima County may use Yakima County’s SMP and CAO as a template for their own local CAO. This approach would provide regional consistency in implementing a comprehensive CAO throughout the Yakima Valley. The updated Toppenish CAO will contain criteria for classifying water bodies and their associated buffer widths for each classification.

However, it is important to reference Yakima County's vegetative buffers for streams because this standard will be enforced outside of the Toppenish city limits, but within the Toppenish UGA in unincorporated Yakima County (Table 1.2).

TABLE 1.2 Vegetative Stream Buffers for Yakima County

Type 1 Streams (standard/minimum)	**Type 2 Streams** (standard/minimum)	**Type 3 Streams** (standard/minimum)	**Type 4 Streams** (standard/minimum)	**Type 5 Streams** (standard/minimum)
100'	75'/25'	50'/25'	25'/15'	Not Regulated

Surface Water Quality

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

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

A number of previous studies and planning processes have addressed surface water quality in the Yakima River Basin. Reports prepared by the U.S. Geological Survey (USGS) under the National Water Quality Assessment (NAWQA) program provide the most extensive study of surface water quality in the Yakima River Basin. This information was compiled by the Yakima Basin Water Resources Agency 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 Toppenish (see Figure 1.2) had some significant surface water quality problems. This reach suffers from instream flow significantly lower than upstream reaches. Also, water quality problems include fecal coliform, temperature, sediment loads from agricultural drains and associated pesticide residues. Portions of Reach #5 are channelized with deficient riparian cover. Of these problems the Yakima Basin Water Resources Agency has classified instream flow and temperature as the most severe.

A variety of legal requirements exist related to instream flows 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 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 water supply which is anticipated to be available to meet water

entitlements, and provide instream flows in accordance with the biological needs of fisheries.

Toppenish Creek: Toppenish Creek, located south of the City of Toppenish UGA, was listed on the WDOE 303(d) list for DDT, Fecal Coliform, DDI, Parathion and Dieldrin. The federal Clean Water Act (CWA) includes provisions for addressing surface waters that do not meet established water quality standards. The State of Washington is directed to identify surface-water bodies that do not achieve water quality standards. These water bodies are 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). TMDL Reports completed by Ecology in the Yakima Basin Watershed, and accepted by EPA as of October 30, 2002, and of significance to the City of Toppenish, include the Lower Yakima River DDT and Suspended Sediment TMDL 97-321.

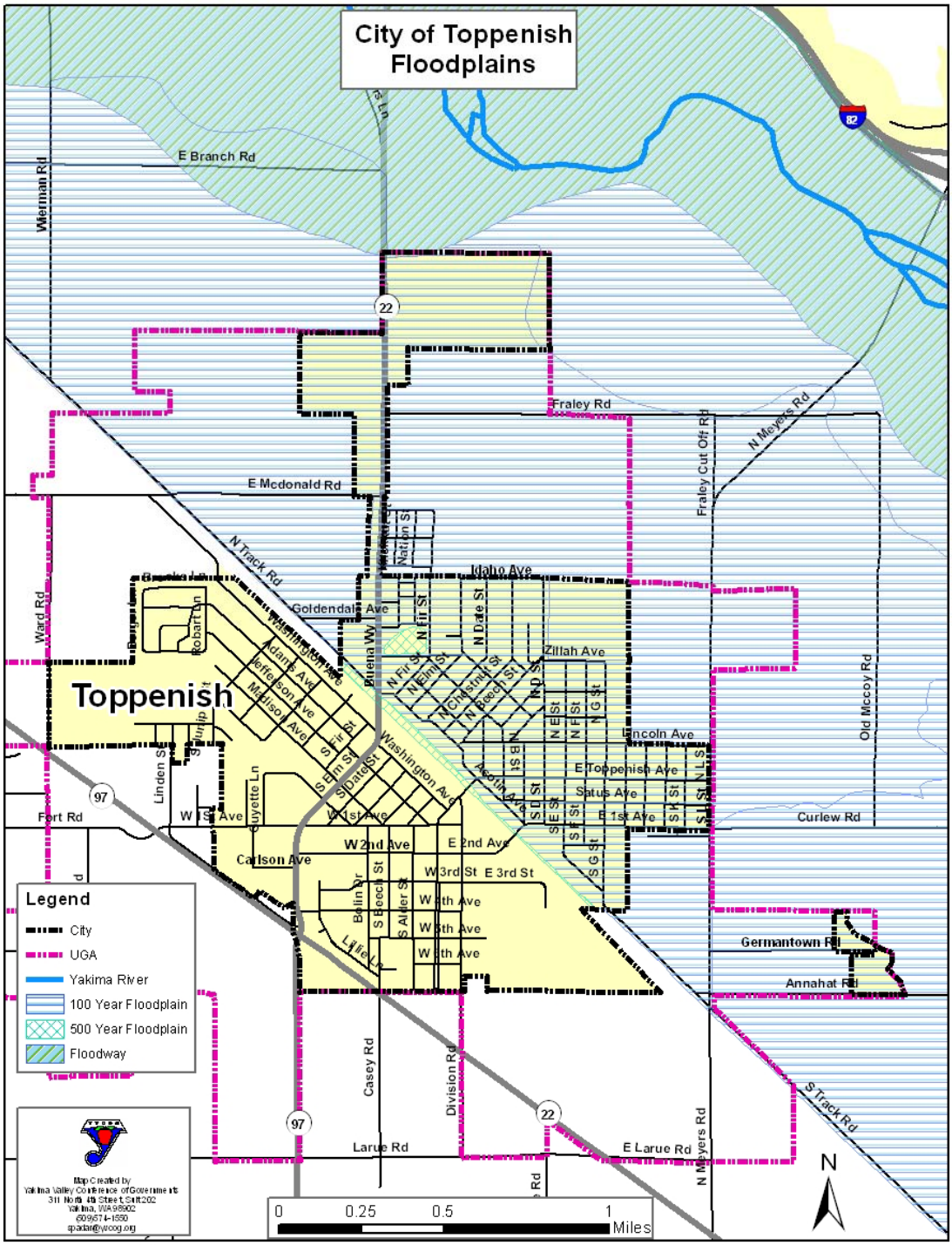
Ecology will be periodically reviewing the 303(d) listings in the Yakima River Basin that are not currently being addressed in any TMDLs. From these listings, more TMDL plans could result. Consultation with affected municipalities in the watershed will be sought throughout this process.

Floodplains

The Federal Emergency Management Agency (FEMA) has frequently revised the flood zone designations around the City of Toppenish. In March 1994, FEMA rescinded the flood zone designation on the flood maps (Community Panel No. 530228 0001 B, and No. 530217 1445 B) for the City of Toppenish and Yakima County (for portions within the UGA). Prior to this change, the entire east side of the city from Wapenish Road to the northern and eastern city limits was designated as being in the 100-year floodplain or Zone A, which is considered to be a special flood hazard area.

Most recently, on February 2, 2007, a FEMA mandated change took effect that switched most of the area northeast of North Track Road from the 500-year floodplain to the 100-year floodplain. Figure 1.4 below shows the current FEMA approved floodplains map for the Toppenish vicinity.

FIGURE 1.4 City of Toppenish Floodplain



Map

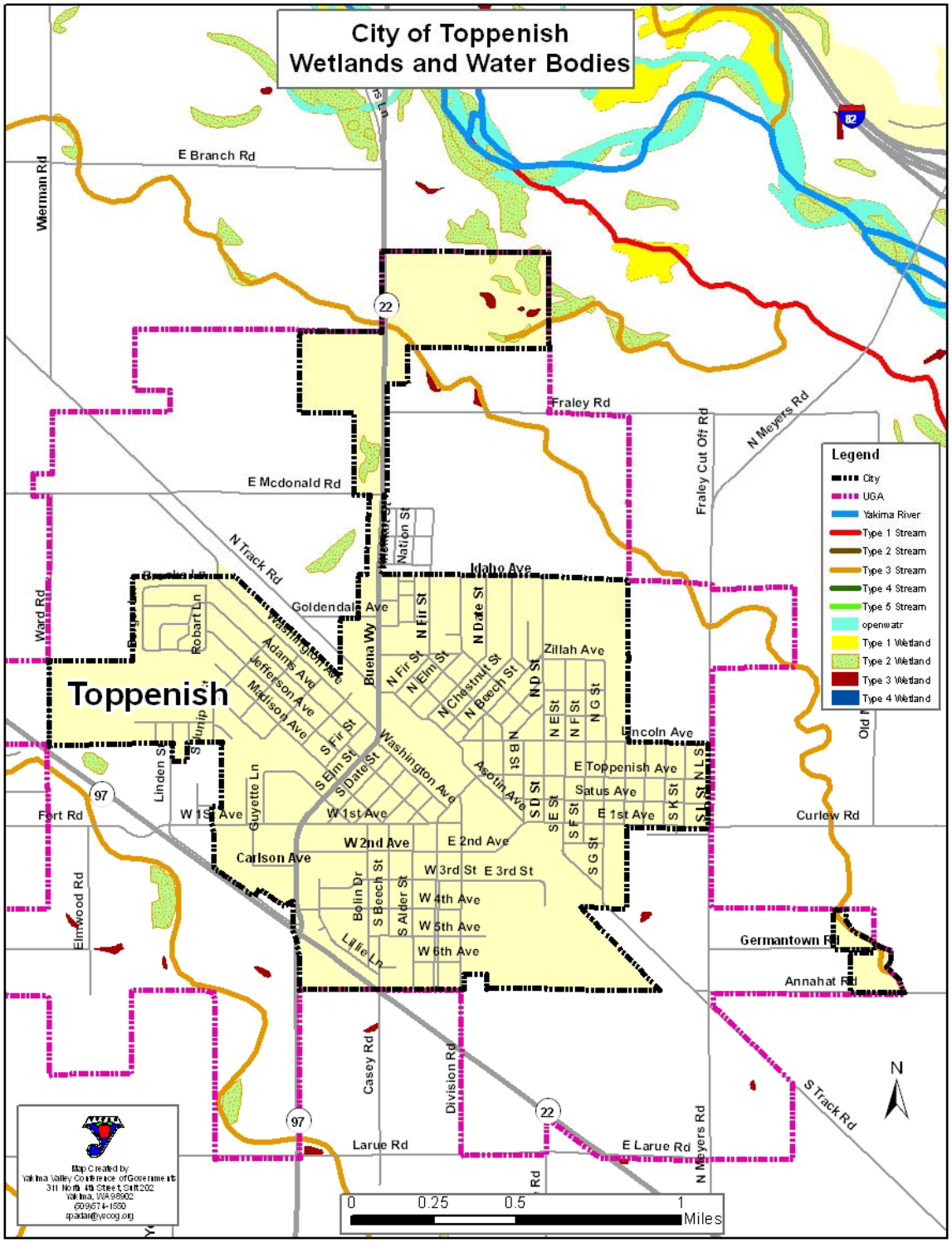
Neither the 100-year or 500-year floodplain extends southwest of North Track Road. Also, a small portion of land near SR 22 and North Fir Street retains the 500-year floodplain designation. The revised floodplain designation is significant because it affects permitting, design and development requirements for new buildings. Permits require that all development be floodproofed, i.e., the elevation of the first inhabited floor must be one foot above the 100-year flood elevation. Yakima County also requires that a Flood Hazard Permit must be obtained prior to development in order to insure that minimal impacts occur to the floodplain and to the development itself.

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.

Wetland data for the Toppenish 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 Toppenish vicinity was gathered in the 1980's. NWI mapping was used by Yakima County in their recent update to the CAO. The NWI map for the City of Toppenish and associated UGA can be seen in Figure 1.5 below.

FIGURE 1.5 City of Toppenish Wetlands and Waterbodies Map



The NWI map displayed in Figure 1.5 indicates that within the city limits of Toppenish there are very few high quality wetlands. The entire central area of the City does not contain any wetlands. There are 7 wetlands in the northern part of the city that are most likely associated with the Yakima River. The southern section of the UGA does contain a few high quality wetlands and numerous low quality Type III Wetlands.

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.

Many wetlands such as swamps, wet meadows, and riverine- and drainage-related, serve as groundwater discharge/recharge zones. Hydrologically isolated wetlands do not provide those functions unless linked to the groundwater system. Assessing water purification capabilities for wetlands is complicated, but in general, those wetlands with greater vegetative cover and an optimal ratio of aerated water surface to total wetland size have the most value.

In Yakima County's CAO adopted on December 18, 2007, 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 2004. These categories are summarized as follows:

Type I wetlands: Those that represent a unique or rare wetland type, are more sensitive to disturbance than most wetlands, are relatively undisturbed and contain ecological attributes that are impossible or too difficult to replace within a human lifetime, and provide a high level of functions. Generally, these wetlands are not common and make up a small percentage of the wetlands within Yakima County.

Type II wetlands: Are difficult, though not impossible, to replace, and provide high levels of some functions. These wetlands occur more commonly than Category I wetlands, but still need a relatively high level of protection.

Type III wetlands: Those wetlands that are often smaller, less diverse and/or more isolated from other natural resources in the landscape than Category II wetlands.

Category IV wetlands: Those wetlands that have the lowest levels of functions, scoring less than 30 points in the Eastern Washington Wetland Rating System, and are often heavily disturbed. These are wetlands that should be able to be replaced, and in some cases be improved. These wetlands may provide some important functions, and also need to be protected.

Yakima County has established vegetative buffers within their CAO to protect the viability and essential functions of wetlands. It is anticipated that multiple municipalities throughout Yakima County may use Yakima County's SMP and CAO as a template for their own local CAO. The updated Toppenish CAO will contain criteria for classifying wetlands and their associated buffer widths for each classification. It is important to reference Yakima County's vegetative buffers for wetlands because this standard will be enforced outside of the Toppenish city limits, but within the Toppenish UGA in unincorporated Yakima County (Table 1.3).

TABLE 1.3 Vegetative Wetland Buffers for Yakima County

Type I Wetlands (standard/minimum)	Type II Wetlands (standard/minimum)	Type III Wetlands (standard/minimum)	Type IV Wetlands (standard/minimum)
200'/25'	100'/25'	75'/25'	50'/25'

Plants and Wildlife

Plants

The Toppenish area lies within the shrub-steppe region of the Columbia Basin Province of the Pacific Northwest. The shrub-steppe region often referred to as the high desert, encompasses the basins in the rain shadow east of the Cascade Mountain range, is characterized by sagebrush and bunch grasses. Farming practices such as cultivation, grazing of livestock, and introduction of exotic plant species have resulted in the alteration of the vegetation in the Toppenish 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.

The farmed portions of the City of Toppenish and UGA may be used for the growing of asparagus, hops, mint, sugar beets, grapes, corn, peas, small grain, truck crops, tree fruits, and grasses and legumes grown for hay and pasture. 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 native vegetation found in the Toppenish area consists mainly of grasses, narrow-leaved forbs and shrubs. According to the NRCS, in areas where the Toppenish-Umapine soil association is predominant, like the Toppenish area, the native vegetation is mainly composed of big sagebrush (*Artemesia tridentata*), black greasewood (*Sarcobatus*), rabbitbrush (*Chrysothamnus nauseosus*), inland saltgrass, and water-tolerant shrubs, grasses and forbs. Cottonwood and willow trees grow along perennial streams, including the Wanity Slough in the southwestern Toppenish UGA. In addition to these plants, the following native vegetation may also be found as they are characteristic of the specific types of soils found within the City of Toppenish and its UGA.

- Grasses and Forbs: Basin wildrye grass, Big bluegrass, Bluebunch wheatgrass (*Agropyron spicatum*, a preferred forage plant), Carey balsamroot, Needle and thread grass, Sandberg bluegrass (*Poa sandberii*) and Thurber needlegrass.

- Shrubs and Trees: Big sagebrush (*Artemesia tridentata*), Rabbitbrush (*Chrysothamnus nauseosus*), both of the latter plants are found in areas where overgrazing has occurred, and are considered to be less desirable forage plants. Trees include: willow (*Salix exigua spp. exigua*), western sumac, red elderberry, hard hack spirea, and russian olive (*Elaiagnus angustifolia*), with elm (*Ulnus sp.*), alder, or in some areas black cottonwood (*Populus trichocarpa*).

Emergent marsh vegetation within wetlands or on the banks of the Yakima River, Toppenish Creek or

Wanity Slough may include the following:

- American bulrush, Curly dock, Canadian bull thistle, Cattail (*Typha latifolia*), Field mustard, Hardstem bulrush, Jointed rushes, Manna grass, Marshelder (*Iva xanthifolia*), Medic, Orchard grass (*Dactylis glomerata*), Quackgrass (*Agrpyron repens*), Reed canarygrass (*Phalaris arundiances*), Sedges, Smartweeds (*Polygonum spp.*), Spikerush (*Eleocharis spp*.), Tall fescue, Watercress (*Rorripa nasturtium-aquaticum*), Water foxtail, and Willowweed.

The 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 streams and wetlands within the Toppenish UGA, though the runoff of agricultural chemicals renders this somewhat less than desirable. The Yakima River north of the City of Toppenish UGA provides the most significant wetland vegetation for food, cover and breeding 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, scoring less than 30 points in the Eastern Washington Wetland Rating System, 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 were detected within Toppenish or its UGA through the use of the database. Little native vegetation is found within the 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 Washington State Department of Fish and Wildlife (WDFW) Priority Habitat and Species Program concerning priority habitats and species in the Toppenish vicinity. No endangered or threatened species (excluding fish), were reported to occur within the City of Toppenish or the UGA.

The area along the Yakima River corridor, north of the City of Toppenish and associated UGA, did contain some Priority Habitat and Wildlife Heritage Points. Northeast of the City of Toppenish a large Great Blue Heron nesting site was confirmed. The Great Blue Heron is not a federally listed endangered species, but is classified as a State Monitor species by the WDFW. Also, approximately 10 miles south of the City of Toppenish, the Toppenish National Wildlife Refuge serves an important ecological function. The Toppenish National Wildlife Refuge was too far south from the City of Toppenish to be included in the WDFW Priority Habitat and Species request, but its wetland habitat attracts thousands of wintering waterfowl, and during the summer months provides breeding grounds for an array of wetland-dependent birds, mammals, and plants. Toppenish Creek runs through the Refuge and serves an important role as one of the last remaining streams where Columbia River steelhead, one of America's endangered species, still reproduce in good numbers.

Non-endangered bird species that may be present in the Toppenish 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 within the Yakima River and Toppenish Creek subbasin. The Greater Sage Grouse (*Centrocercus urophasianus*), which is a Candidate species for listing under the federal Endangered Species Act (ESA) and common in some areas of Yakima County, is not found within the City of Toppenish or associated UGA.

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 habitat conditions in the Yakima River Basin were performed for a Watershed Assessment completed by the Yakima Basin Water Resources Agency in 2003. Fish have different habitat needs based in part on their life history stages. 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.

Toppenish 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 the City of Granger. The Yakima Basin Water Resources Agency found that the Yakima River mainstream conditions were more suitable for fish habitat in the upper three reaches and generally deteriorate in a downstream direction. Habitat conditions are better in the reach between Keechelus Dam and Wilson Creek than in the lower area below Sunnyside Dam.

Reach #5 of the Yakima River is important as a migratory corridor and of secondary importance for spawning. Bull trout were listed as threatened in the Columbia River watershed by the USFWS in June 1997. Steelheads were listed as threatened in the mid Columbia River watershed by the National Marine Fisheries Service (NMFS) in March 1999. Coho salmon were listed as threatened in the Lower Columbia River Watershed by the NMFS in June 2005. Spring Chinook Salmon have not been listed as either threatened or endangered, but were considered for listing in March 1998 and are considered a species of interest.

The two primary creeks located with the City of Toppenish's UGA are the Wanity Slough and Toppenish Drain. Substrates of these water bodies consist of sand and fine mud. Vegetative cover consists mainly of weedy herbaceous species or low brush, though trees are found along the canals in some areas. Water levels and flow can be dependent upon controlled irrigation demands and may not be significantly influenced by natural water injection in all but the heaviest rain or runoff from snow melt. A review of

materials provided by WDFW in the Priority Habitat and Species request shows that Wanity Slough does contain some Coho salmon, and summer steelhead. The Toppenish Drain also contains summer steelhead, but only from the point east of the current wastewater treatment plant on Annahat Road.

The Yakima River and Toppenish Creek, both located outside of the City of Toppenish and the UGA, include prime habitat for salmon spawning, rearing and migration. Anadromous fish found in this river and creek, include spring Chinook salmon, fall Chinook salmon, Coho salmon, and summer steelhead.

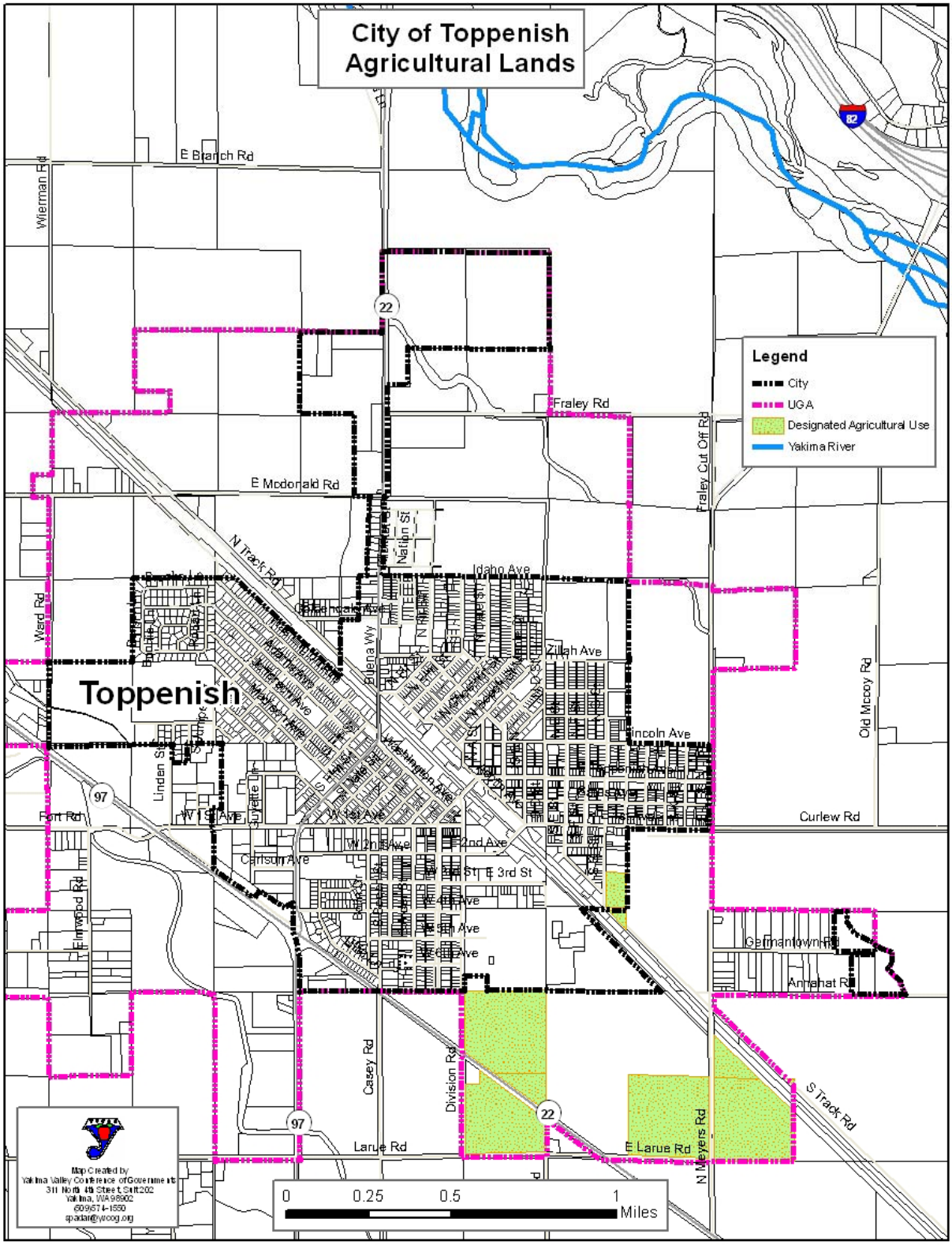
III. NATURAL RESOURCE LANDS AND CRITICAL AREAS

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, and 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. GMA also requires that counties and cities adopt development regulations that protect designated critical areas.

Agricultural Lands

In December 2007 an analysis of agricultural lands was completed using data from the Yakima County Department of Assessments. As Figure 1.6 displays below, there are 6 parcels within the City of Toppenish UGA that are currently designated for an agriculture use.

FIGURE 1.6 City of Toppenish Agriculture Lands



While these lands are currently being utilized for agriculture purposes, they are not necessarily agricultural lands of long-term commercial significance. The majority of the City of Toppenish is already built-up and these agriculture parcels within the UGA may be zoned for a more intensive land use in the future. 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.

Forest Lands

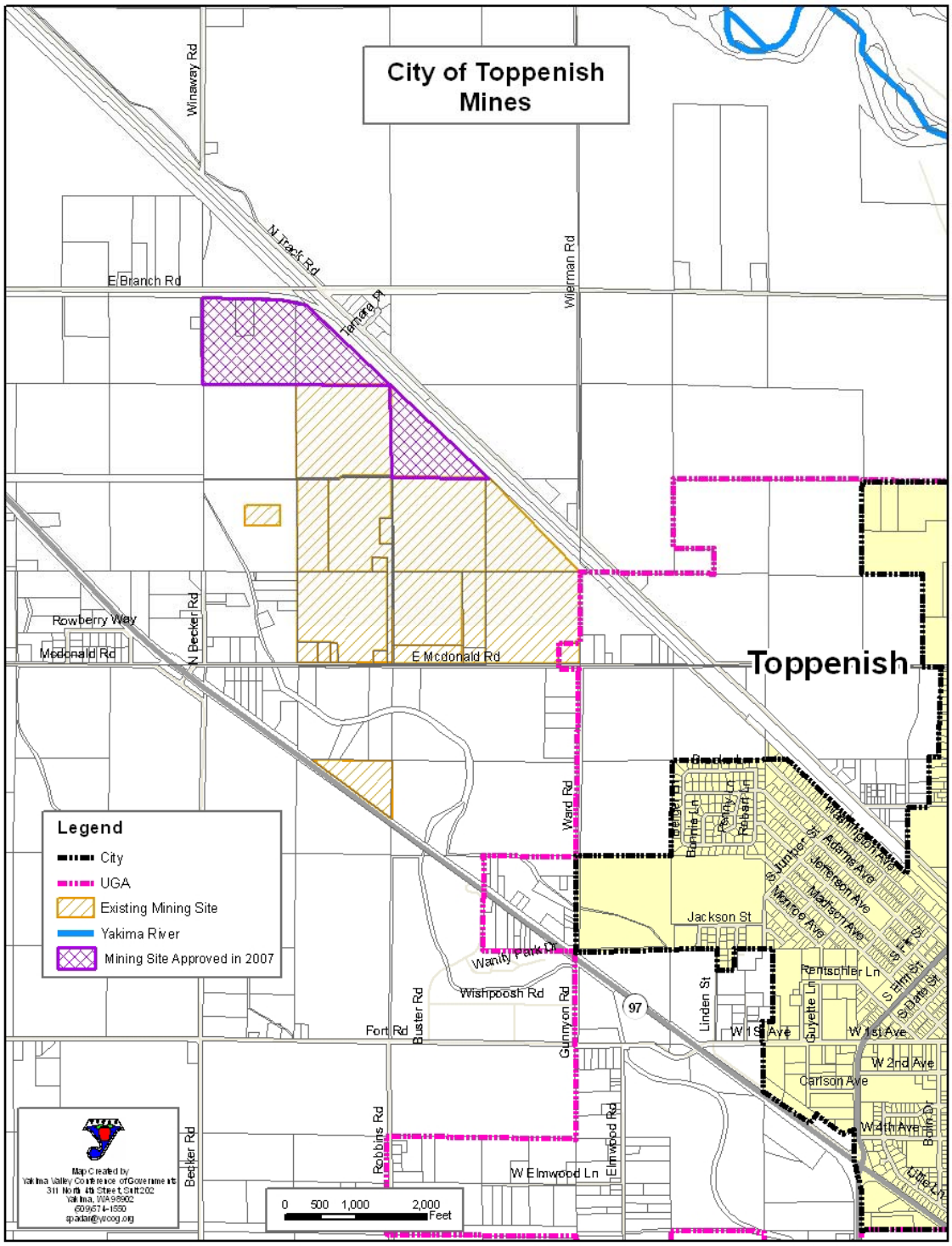
Within the City of Toppenish, there are no lands (commercial or noncommercial) that are used to grow trees, including Christmas trees. Thus, no forest lands of long-term commercial significance have been designated within the city. The Yakama Nation does harvest timber within the reservation border, but this occurs far from the City of Toppenish and associated UGA.

Mineral Lands

On December 13, 2007 the Board of Yakima County Commissioners approved the long-range Mineral Resources Plan for Yakima County. The intent of Yakima County's Mineral Resources Plan is to implement the GMA planning goal related to maintaining and enhancing natural resource-based industries, which includes commercially viable mineral resource industries. This category is intended to identify, preserve and protect the mineral resource land base which is intended to be used for the continued production of aggregate products such as concrete or asphalt, while allowing the underlying land use to provide interim land use direction until such time that mineral extraction is anticipated.

Mineral resource lands are those lands primarily devoted to the long-term commercial production of mineral products. Areas designated as mineral resource lands comprise the Mineral Resource Overlay. The overlay designation provides protection from the encroachment of competing land uses by applying a buffer that places restrictions on adjacent properties. The existing or underlying use designation is intended to remain in effect until such time that the area is rezoned to Mining in anticipation of pending mining operations. Figure 1.7 below displays the approved mineral resource extraction sites in the vicinity of the City of Toppenish.

FIGURE 1.7 Mineral Resource Sites near the City of Toppenish



The actual location (area of deposition) of the mineral resource is the primary factor in determining the future location of a mining site. Other factors that influence the location of a mineral resource area include: quality of the resource, volume of the resource, access suitability, the compatibility with existing or planned land uses, and the proximity to existing or planned market areas, environmental sensitivity and

cultural resources. These criteria are based on WAC 365-190-070 – "Minimum guidelines to Classify Agriculture, Forest and Mineral Resource Lands."

Wetlands

Wetland data for the Toppenish 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 Toppenish vicinity was gathered in the 1980's. NWI mapping was used by Yakima County in their recent update to the CAO. The NWI map for the City of Toppenish and associated UGA can be seen in Figure 1.5 above.

Critical Aquifer Recharge Areas

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. Ground water discharges into rivers, lakes and streams, or through evapotranspiration, pumping and upward flow of water into the shallower aquifers. As Figure 1.3 above shows, a large portion of the Toppenish Creek subbasin has a high recharge potential, especially in the recharge zones for the basalt aquifers along ridges and upland areas, where the basalt is exposed to the surface.

Fish and Wildlife Conservation Areas

No fish and wildlife habitat conservation areas have been identified within the City of Toppenish. Therefore, this type of critical area has not been designated. Information was requested from the Washington State Department of Fish and Wildlife (WDFW) Priority Habitat and Species Program concerning priority habitats and species in the Toppenish vicinity. No endangered or threatened species (excluding fish), were reported to occur within the City of Toppenish or the UGA.

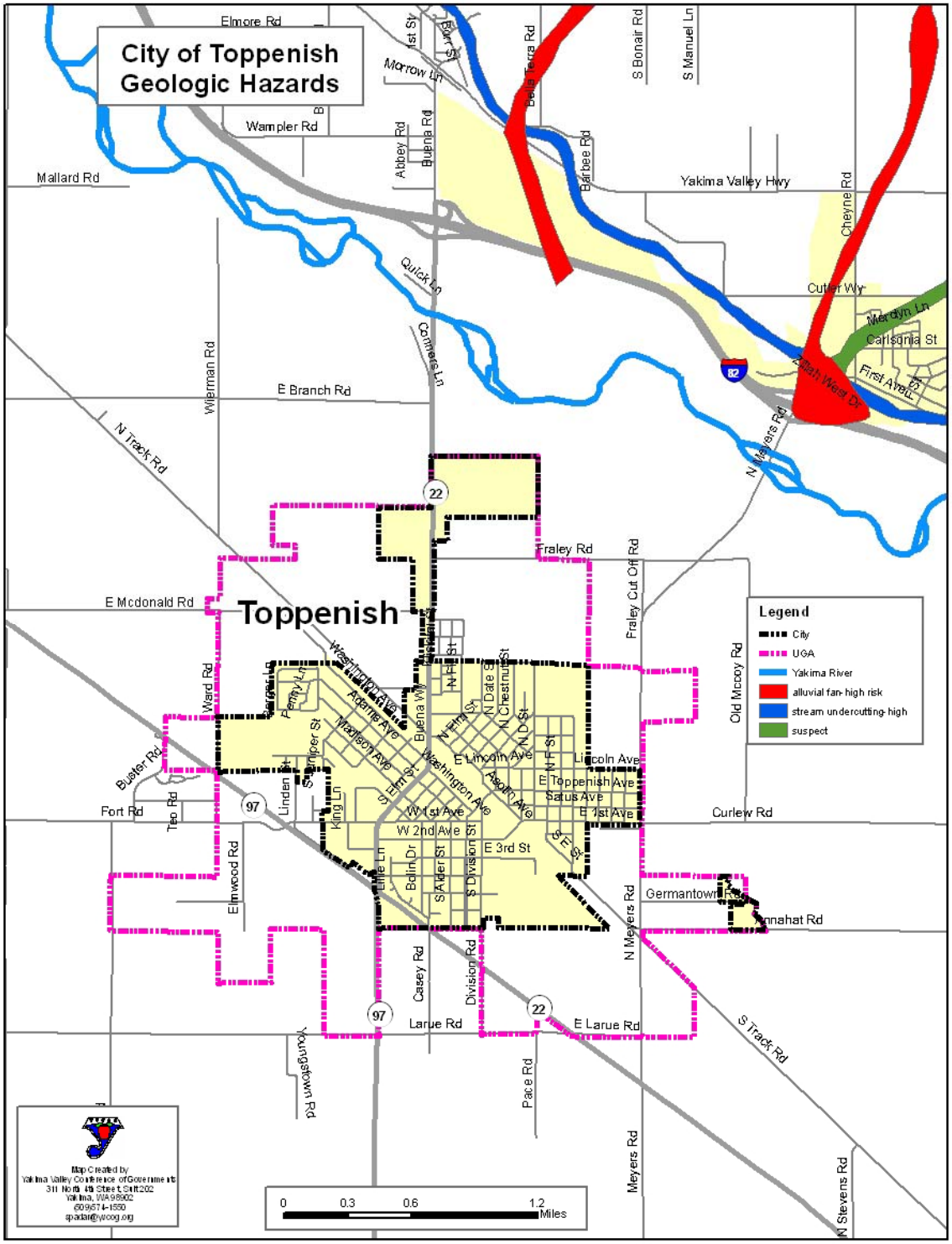
Frequently Flooded Areas

Most recently on February 2, 2007 a FEMA mandated change took effect that switched most of the area northeast of North Track Road from the 500-year floodplain to the 100-year floodplain. Figure 1.4 above shows the current FEMA approved floodplains map for the Toppenish vicinity.

Geologic Hazard Areas

According to data compiled by Yakima County during the update to the Yakima County CAO, the City of Toppenish does not contain any geologically hazardous areas. 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, earthquake activity. As Figure 1.8 below displays, there are no geologic hazards within the City of Toppenish or associated UGA. The closest geologic hazards are located to the north, across the Yakima River from the City of Toppenish.

FIGURE 1.8 Geologic Hazard Areas near the City of Toppenish



IV. GOALS AND POLICIES

Critical Areas are an important part of the natural setting in City of Toppenish. Their protection is required by the Growth Management Act and important to the quality of life of the residents of The City. Critical Areas include groundwater, fish and wildlife habitat (which includes surface waters), wetlands, frequently flooded areas, and geologic hazards. The protection of critical areas must include certain general approaches, which are provided for in the goals and policies below.

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: In order 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)

Groundwater is the primary source of drinking water for most rural County residents. Toppenish currently uses groundwater (wells) as its primary source of water. Once groundwater is contaminated it is difficult, costly, and often impossible to clean up. Some contaminants like microbial organisms can cause sickness and discomfort while others like organic chemicals, inorganic metals, and radio-nuclides can cause neurological disorders, cancer, mutations and death.

Wells provide a potential source of contamination of both the shallow and deeper aquifers. The proliferation of individual domestic and irrigation wells increases the risk that contamination may find its way into the groundwater. Although the quality of groundwater resources used for drinking water in City of Toppenish is generally good, the potential for problems exists because many wells tap shallow aquifers (less than 100 feet) which are extremely susceptible to surface contamination. The following goal and policies address these concerns by encouraging the identification of aquifers and taking steps to reduce potential contamination.

WATER QUALITY AND QUANTITY

GOAL 2: ***Maintain and manage the quality of the groundwater resources in City of Toppenish 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 Urban Growth Area 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

The Yakima River and its many tributaries are perhaps the most dynamic and used natural features in Yakima County. Throughout its 200-mile course, water from the Yakima is withdrawn to feed agricultural operations that drive our economy. Irrigation and other water uses developed both inside and outside the Yakima Irrigation Project, developed under the 1903 Reclamation Act, are relatively unique in that all of the water for irrigation is generated, stored and distributed in the Valley. The tributaries, the Naches River and the Yakima River are used as the conduit for the water distributions system in the Valley. The Yakima River is used as the trunk of the water distributions system, is the most important component of the Yakima Project, and probably is the most important piece of infrastructure in the Valley. Agriculture, industry, recreation and the City of Toppenish are dependent on this distribution system for water supply for industrial, agricultural and residential uses. The demands of this economy are continuing to increase, while existing operations return flows of a far lesser quality. The combined historic actions of over withdrawal, pollution and vegetation removal have produced a waterway that exits near the City of Toppenish is completely altered from the condition in which it begins near Snoqualmie Pass. To deal with the situation, efforts by many parties have been made to improve stream corridors

within the County, especially in the areas of water quality and habitat. The following goals and policies address actions and attitudes that should guide decisions related to 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

While stormwater management may be of less concern in City of Toppenish than in areas that receive more precipitation, localized flooding does occur in certain areas. If the amount of impervious area in a watershed increases, and provisions are not made for retaining stormwater on-site, up-watershed areas can contribute to the flooding hazards of their down-stream neighbors, and flooding becomes more frequent and more severe. If the natural drainage courses are obstructed with fill material, buildings, or roads that lack adequately-sized culverts, storm water can cause localized flooding, with property damage and disruption of services.

City of Toppenish is subject to state and federal water quality and Underground Injection Control (UIC) regulations. Some Urban Areas within City of Toppenish are also subject to state and federal stormwater regulations.

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

The area surrounding Toppenish contains some of the most diverse and unique fish and wildlife habitat found anywhere in the country. These environments provide places where animals can find food, water, shelter, and security, and act as gene pools to assure continued genetic diversity. The following goal and supporting policies encourage the protection of fish and wildlife habitat in order to protect the environment for multiple uses. While fish and wildlife habitat includes upland habitat, state administrative code (WAC 365-190-080(5)) focuses on habitat that is related to water.

Stream corridors, lakes, ponds, wetlands, flood plains and other areas subject to flooding perform important hydrologic functions including storing and slowly releasing flood waters, reducing floodwater velocities, settling and filtering of sediment and nutrients, shading surface waters, and other functions. These areas also provide natural areas for wildlife and fisheries habitat, recreation areas and rich agricultural lands. Development in these areas diminishes their functions and values and can present a risk to persons and property on the development site and/or downstream from the development. Building in frequently flooded areas also results in high costs for installing flood protection measures to protect life and property and to repair flood damages.

Wetlands are an economically, biologically, and physically valuable resource. They are the most biologically productive ecosystems in nature, even though they constitute only a small percentage of the total landscape. They provide important nursery and spawning areas, which in turn support a strong commercial and recreational industry. Wetlands also play an important function in local and regional hydrologic cycles.

The following goals and policies work toward preserving, protecting and managing fish and wildlife habitat and wetlands by adopting, boundaries, and a data system to track them, and establishing development regulations for their protection. These goals and policies also seek to reduce the hazards and impacts of development through comprehensive flood control planning, directing facility development away from these areas, and developing site development standards.

FISH AND WILDLIFE HABITAT

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 the retention of sustainable natural resource based industries such as forestry and agriculture in order 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 in order to maintain their populations within City of Toppenish.

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 and 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 City of Toppenish 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 City of Toppenish;

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

Geologic hazards pose a threat to the health and safety of City of Toppenish residents when incompatible commercial, residential, or industrial development and associated infrastructure is sited in areas of significant hazard. The following goal and policies address the risk associated with these areas by encouraging engineering designs or modified construction practices that will mitigate problems, and prohibiting building where problems cannot be mitigated.

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 Shoreline Master Program are directed towards land and water uses and their impact on the environment. As the population continues to increase, the pressures upon our shorelines will also increase. The goal of the Shoreline Master Program is to protect the shorelines of the state.

GOAL 12: ***Implement the general policy goals of the Shoreline Management Act as listed below (WAC 173-26-176(3)):***

a. Utilize Shorelines for economically productive uses that are particularly dependent on Shoreline location or use.
b. Utilize Shorelines and the waters they encompass for public access and recreation.
c. Protect and restore the ecological functions of Shorelines.
d. Protect the public right of navigation and corollary uses of waters of the state.
e. Protect and restore buildings and sites having historic, cultural, and educational value.
f. Plan for public facilities and uses correlated with other shoreline uses.
g. Prevent and minimize flood damages.
h. Recognize and protect private property rights.
i. Preferentially accommodate single-family uses.
j. Coordinate shoreline management with other relevant local, state, and federal programs.

GOAL 13: ***Protection measures for local Shorelines should use the following Shoreline Management Act principles in order of preference as listed below (RCW 90.58.020):***

k. Recognize and protect the state-wide interest over local interest;
l. Preserve the natural character of the shoreline;
m. Result in long term over short term benefit;
n. Protect the resource and ecology of the shoreline;
o. Increase public access to publicly owned areas of the shorelines;
p. Increase recreational opportunities for the public in the shoreline;
q. Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary.

GOAL 14: ***Maintain, restore and where necessary improve the shoreline terrestrial and aquatic ecosystems so that they maintain viable, reproducing populations of plants and animals while providing the maximum public benefit of limited amounts of shoreline areas. Accomplish this through the policies in the required shoreline elements listed below.***

SHORELINE ENVIRONMENTS

GOAL 15: ***Shorelines areas should be classified into specific environmental designations. The designation system should be based on the existing and future land use pattern as well as the biological and physical character of the shoreline. These environments should include the Urban, Rural, Conservancy, Urban Conservancy, Natural and Floodway / Channel Migration Zone (CMZ) environments. Land uses and activities should be limited to those that are consistent with the character of the environment designation.***

URBAN ENVIRONMENT POLICIES

Policy 16.1: The Urban environment is to be used for the most intensely developed areas, or areas where intensive development is desirable or tolerable. The basic principle in an Urban

Environment is oriented toward quality of development in harmony with the shoreline. The Urban Environment should insure optimum utilization of shorelines occurring within urbanized areas by providing for public access and by managing development so that it enhances and maintains the shorelines for a multiplicity of uses.

Policy 16.2: The following criteria should be used for the designation of Urban Environments.

1. Areas presently supporting high intensity land use including residential, commercial, industrial and recreational uses.
2. Areas which are planned to accommodate urban expansion of residential, commercial, industrial and recreational uses.
3. High land values.
4. Major public or private capital investments.
5. Close proximity to services and utilities.
6. Few biophysical limitations to development.
7. Potentially low flood hazard.

Policy 16.3: Water-oriented commercial, industrial, and recreation uses should be given high priority in the Urban Environment, and may be accompanied by non-water oriented uses in mixed-use developments. Residential uses should be discouraged. Recreational uses are preferred uses within the urban environments.

RURAL ENVIRONMENT POLICIES

Policy 17.1: The Rural Environment should restrict intensive development along undeveloped shoreline areas that might interfere with the normal operations or economic viability of an agricultural activity located on adjacent associated shoreline areas. The Rural Environment maintains open spaces and provides opportunities for recreational uses compatible with agricultural activities.(SMP p. 10)

Policy 17.2: The following criteria should be used for the designation of Rural Environments (SMP p. 10):

1. Intensive agricultural or recreational uses.
2. Those areas with potential for agricultural use.
3. Those undeveloped natural areas that lie between agricultural areas.
4. Low-density residential development.
5. Moderate land values.
6. Potential low demand for services.

Policy 17.3: Generally, allowed uses in the Rural environment should focus on resource and recreation uses. Commercial and industrial uses should be carefully limited. Residential uses should sustain shoreline functions (SMP 15.00, WAC 173-26-211 (5)(b)).

CONSERVANCY ENVIRONMENT POLICES

Policy 18.1: The Conservancy Environment classification should be used for areas where maintenance of the existing character of the area is desirable. This does not necessarily mean preservation, but rather a use of natural resources on a sustained yield basis. Thus, the harvesting of timber as well as recreational activities are to be the primary uses permitted Also, areas that are isolated from services, have poor drainage, high flood danger, poor

ground for septic tanks, unstable earth, or steep slopes should be designated Conservancy.

Policy 18.2: The following criteria should be used for the designation of Conservancy Environments.

1. Very low intensity land uses; primarily sustained-yield activities or pasture-range land.
2. Larger acreages.
3. Relatively low land values.
4. Relatively minor public or private capital investment.
5. Considerable biophysical limitations, making commercial, industrial, or medium to high-density residential development unsuitable.

Policy 18.3: Generally, commercial and industrial uses should not be allowed in the Conservancy Environment, except when they are water oriented. Resource uses should be of low enough intensity to sustain shoreline functions with preference for non-permanent structures. Low-density residential development should sustain the character of the shoreline. Diffuse recreational uses are preferred use. Uses should avoid hazardous areas.

NATURAL ENVIRONMENT POLICIES

Policy 19.1: The Natural Environment should protect those shoreline areas which are considered unique by virtue of their existence and valuable only to the extent that the natural integrity is preserved for the benefit of future, as well as, present generations. Prime targets for classification into the Natural Environment will be certain shorelands owned or controlled by the various Federal and Tribal wildlife management agencies with limited access and certain private lands which are seen to be proper for Natural classification, and the owner of which will be interested in the promise of very low taxation.

Policy 19.2: The following criteria should be used for the designation of Natural Environments

1. The presence of a natural, historical, cultural, scientific, or educational feature considered valuable by virtue of its existence in a natural or original state and thereby warranting preservation for the benefit of present and future generations.
2. Those areas generally intolerant of intensive human use.
3. Areas with severe biophysical limitations.
4. Natural areas with strong limits on access.

Policy 19.3: Generally, commercial, industrial, mining, non-water oriented recreation, roads, utilities, and parking areas should not be located in Natural Environment. Other uses, including residential, should be carefully limited in the Natural environment. Restrict activities that may degrade the actual or potential value of this environment, and severely restrict development in hazardous areas (SMP 15.00, WAC 173-26-211(5))

Policy 19.4: The Floodway/Channel Migration Zone environment should protect the water areas; islands, associated overflow channels, and channel migration areas. This environment acknowledges the river's need to move within parts of its floodplain, and emphasizes the

preservation of the natural hydraulic, geologic and biological functions of the county's shorelines that are constrained by severe biophysical limitations.

Policy 19.5: A Floodway/Channel Migration Zone designation should be assigned to shoreline areas that are within mapped Channel Migration Zones and/or within a designated FEMA Floodway. The extent of the Floodway/Channel Migration Zone should never extend beyond the 100-year flood plain.

Policy 19.6: Generally, commercial, industrial, mining, non-water oriented recreation, roads, utilities, parking areas, and residences should not be located in the Floodway/Channel Migration Zone Environment. Other uses (recreation, resource uses, etc.) should be carefully limited to protect shoreline functions. Restrict activities that may degrade the actual or potential value of this environment, and severely restrict development in hazardous areas. Modifications that harden or fix stream banks and channels should be discouraged.

URBAN CONSERVANCY ENVIRONMENT POLICIES

Policy 20.1: The Urban Conservancy environment should protect and restore ecological functions of open space, floodplain and other sensitive lands where they exist in urban and developed settings, while allowing a variety of compatible uses.

Policy 20.2: The following criteria should be used for the designation of Urban Conservancy Environments;
1) areas that lie in incorporated municipalities and urban growth areas;
2) areas appropriate and planned for development that is compatible with maintaining or restoring of the ecological functions of the area;
3) areas that are suitable for water-enjoyment uses;
4) areas that are open space or floodplain, or that retain important ecological functions that should not be more intensively developed;

Policy 20.3: Generally, allowed uses should focus on recreational uses. Commercial, industrial and residential uses should be carefully limited, and when allowed should result in restoration of ecological functions. Uses that preserve the natural character of the area or promote the preservation of open space, floodplain or sensitive lands (either directly or over the long term) should be the primary allowed uses. Public access and public recreation objectives should be implemented whenever feasible and significant ecological impacts can be mitigated.

GENERAL SHORELINE POLICIES

Policy 21.1: New development or new uses, including the subdivision of land, should not be established when it would be reasonably foreseeable that the development or use would require structural flood hazard reduction measures within the channel migration zone or floodway.

Policy 21.2: Only allow new structural flood hazard reduction measures in shoreline jurisdiction when it can be demonstrated that they are necessary to protect existing development, that nonstructural measures are not feasible, that impacts on ecological functions and priority species and habitats can be successfully mitigated so as to assure no net loss, and that appropriate vegetation conservation actions are undertaken.

Policy 21.3: Protect all shorelines of the state so that there is no net loss of ecological functions from both individual permitted development and individual exempt development.

Policy 21.4: In development of the Shoreline Master Program, evaluate and consider cumulative impacts of reasonably foreseeable future development on shoreline ecological functions and other shoreline functions to ensure no net loss of ecological function. Develop a means to allocate the burden of addressing cumulative effects.

Policy 21.5: Provide, where feasible and desirable, restoration of degraded areas along the shorelines of Yakima County.

Policy 21.6: Critical areas within shoreline jurisdiction should be protected with the critical area policies and standards protecting all of the County's critical areas, including those for CMZ's and Flood Control.

Policy 21.7: Protect shoreline streams, lakes, ponds, and wetlands with a vegetative buffer as described in the Critical Areas Ordinance.

Policy 21.8: For existing agriculture encourage through a variety of voluntary means the maintenance of a permanent vegetative buffer between tilled areas and associated water bodies to reduce bank erosion, retard surface runoff, reduce siltation, improve water quality and provide habitat for fish and wildlife. For new agriculture, buffer requirements should be applied.

Policy 21.9: Natural vegetation within shoreline jurisdiction should be retained to the greatest extent feasible. This should be accomplished by applying the stream corridor and wetland buffer requirements. Activities covered by the State Forest Practices Act should not be subject to vegetation conservation standards, but should be subject to buffer requirements when under County jurisdiction. Require developers to indicate how they plan to preserve shore vegetation and control erosion (WAC 173-26-221(5)(a-b)).

Policy 21.10: Selective pruning of trees for safety and view protection, and the removal of noxious weeds should be allowed. (WAC 173-26-221(5)(c))

Policy 21.11: Upon completion of construction/maintenance projects on shorelines, disturbed areas should at a minimum be restored to pre-project configuration wherever possible, replanted with native species and provided maintenance care until the newly planted vegetation is established.

PUBLIC ACCESS POLICIES – PHYSICAL AND VISUAL

Policy 22.1: Protect navigation of waters of the state, the space needed for water-dependent uses, and views of the water through development standards. (WAC 173-26-221(4)(b)(ii-iv)).

Policy 22.2: Transportation and parking plans within Shoreline jurisdiction shall include systems for public access, including pedestrian, bicycle, and public transportation where appropriate.

Policy 22.3: To provide public access planning in conformance with WAC 173-26-221(4), Yakima County uses the following approach to provide public access to Shoreline areas:
1) Yakima County has a very high proportion of federal, state and other publicly owned

or conservancy owned lands in Shoreline areas. These publicly owned Shoreline areas constitute a large portion of the county's total shoreline area. Yakima County emphasizes the use of those public lands to provide public access.
2) Many of the above lands have improved sites and locations to promote physical access to shorelines. Yakima County relies on these agencies to develop new public access facilities as they deem appropriate.
3) Many of the above lands are open to unimproved public access, as well.
4) Many Shoreline areas are also along transportation corridors which provide visual access to much of the County's shoreline areas.
5) Due to the nature of Yakima County's shorelines, commercial water oriented uses, existing and new, tend to be highly related to water enjoyment uses and recreation.
6) Due to the nature of Yakima County's shorelines, recreational uses, existing and new, tend to be highly oriented toward the water, thereby providing access to shoreline areas.
(7) Yakima County relies on the development of commercial water oriented uses and recreational uses to provide additional public access opportunities.
(8) Development standards for dedicated and improved public access to the shoreline and visual quality should be required for public developments, with few exceptions. Public projects should provide public access, except where it is demonstrated to be infeasible due to reasons of safety, security, or impact to the shoreline environment. Private projects should provide public access in limited situations. (WAC 173-26-221(4)(d)(ii-iii))

Policy 22.4: Promote and enhance diversified types of public access to shorelines in Yakima County which may accommodate intensified use without significantly impacting fragile natural areas intolerant of human use and without infringing on rights of private ownership.

Policy 22.5: Access to recreational areas should emphasize both areal and linear access (parking areas and trails or bicycle paths, for example) to prevent concentrations of use at a few points. Linkage of shoreline parks and public access points by means of linear access should be encouraged.

Policy 22.6: Development standards should be established to assure preservation of unique, fragile, and scenic elements and to protect existing views from public property or large numbers of residences. . Where aesthetic impacts are not avoidable, provide mitigation. (WAC 173-26-221(4)(d)(iv))

Policy 22.7: Where there exists a conflict between public access or a water-dependent use, and the maintenance of an existing view from adjacent properties, the physical public access or water dependent use should have priority unless there is a compelling reason to the contrary. (WAC 173-26-221(4)(d)(iv)).

Policy 22.8: Proper design, location, and construction of road and railroad facilities should be exercised to provide to the degree practical, scenic corridors, rest areas, view points, and other public oriented facilities in public shoreline areas.

Policy 22.9: Wherever feasible, utility facilities should be placed underground.

Policy 22.10: Outdoor sign size, spacing and lighting should conform to the Scenic Vistas Act (RCW 47.42) and standards in the Zoning Ordinance.

ARCHAEOLOGICAL AND HISTORIC RESOURCES

Policy 23.1: Encourage the protection and restoration of areas and sites in Yakima County having historic, archaeological, cultural, educational or scientific value. Wherever possible, sites should be permanently preserved for scientific study and public observation.

Policy 23.2: Development along shorelines should include consultation with professional archaeologists, historians, and biologists to identify areas containing potentially valuable data, and to establish procedures for salvaging the data or maintaining the area in an undisturbed condition.

Policy 23.3: Shoreline permits should contain special provisions which require developers to immediately stop work and notify local governments, the Office of Archeological and Historic Preservation, and affected tribes, if any possible archaeological or historic resources are uncovered during excavations (WAC 173-26-221(1)(c)(i))

Policy 23.5: Development which would destroy archaeological or historical sites or data may be delayed for a reasonable time to allow the appropriate agency or organization to purchase the site or to recover the data.

WATER QUALITY, STORMWATER, AND POLLUTION

Policy 24.1: Shoreline water quality should be protected as follows:

1. Rely on a County stormwater program meeting state and federal stormwater control requirements where possible;

2. Use Critical Aquifer Recharge Area protection measures in the Critical Areas Ordinance;

3. Control drainage and surface runoff from all non-agricultural facilities requiring large quantities of fertilizers and pesticides (such as golf courses and play fields) to prevent contamination of water areas;

4. All developments shall comply with County Health regulations, when applicable;

5. Handle and dispose of pesticides in accordance with provisions of the Washington Pesticide Application Act (RCW 17.21) and the Washington Pesticide Act (RCW 14.47);

6. Proper design, location, and construction of all facilities should be exercised to prevent the entry of pollutants or waste materials into the water body.

7. When earthen materials are moved within shoreline areas, measures to adequately protect water quality should be provided.

8. Water quality protection measures should not impact recreation opportunities (WAC 173-26).

Policy 24.2: Agricultural erosion control measures should conform to rules and standards established by the Conservation Districts of Yakima County.

Policy 24.3: In planning for marina location and design, special water quality considerations should be given to:

1. Fuel handling and storage facilities to minimize accidental spillage;

2. Proper water depth and flushing action for any area considered for overnight or long-term moorage facilities;
3. Adequate facilities to properly handle wastes from holding tanks.

Policy 24.4: Prohibit sanitary landfills along shoreline areas. Otherwise the disposal of all solid wastes should proceed in accordance with the Yakima County Solid Waste Management Plan.

SHORELINE USE POLICIES

Policy 25.1: Establish a system of shoreline uses that (WAC 173-26-241(2)):
Gives preference to uses with minimal impacts and that are dependant on the proximity to the water; Protects the public's health, safety, and welfare; ecological functions; and property rights; Establishes conditional uses to provide extra protection for the shoreline.

Policy 25.2: Assure that new shoreline development in Yakima County is consistent with a viable pattern of use suitable to the character and physical limitations of the land and water.

Policy 25.3: Encourage sound management of renewable and nonrenewable natural resources.

Recreation

Policy 25.4: Assure the preservation and expansion of diverse, convenient recreational opportunities along the public shorelines of Yakima County for public use, consistent with the capacity of the land to accommodate such activity. Accomplish this by ensuring that shoreline recreational development is given priority and is primarily related to access, enjoyment and use of the water and Shorelines of the State (WAC 173-26-241(3)(i)).

Policy 25.5: Where the uses designated for a specific recreational area are planned to satisfy a diversity of demands, these uses must be compatible with each other and the environment of the area.

Policy 25.6: Where feasible and desirable, encourage the use of public lands for recreational facilities as a more economical alternative to new acquisitions by local agencies.

Policy 25.7: Locate, design, construct and operate recreational facilities to prevent undue adverse impacts on natural resources of an area and on adjacent or nearby private properties.

Transportation and Parking

Policy 25.8: Encourage a transportation network in Yakima County capable of delivering people, goods, and services, and resulting in minimal disruption of the shorelines' natural system.

Policy 25.9: When it is necessary to locate major highways, freeways and railways along stream drainages or lake shores, such facilities should be sufficiently set back so that a useable shoreline area remains. Care should also be taken to insure that a minimum land area is consumed.

Policy 25.10: To avoid wasteful use of the limited supply of shore land, locate access roads and parking areas upland, away from the shoreline whenever such options are available. Access to the water should be provided by pathways or other methods. Parking facilities in shorelines are not a preferred use and should be allowed only as necessary to support an authorized use. (WAC 173-26-241(3)(k))

Policy 25.11: Proper design, location, and construction of road and railroad facilities should be exercised to:
1. Minimize erosion and permit the natural movement of water;
2. Use existing topography to maximum advantage and preserve natural conditions to the greatest practical extent.

Policy 25.12: Extensive loops or spurs of old highways with high aesthetic quality or bicycle route potential should be kept in service as pleasure bypass routes.

Agriculture

Policy 25.13: Allow lawfully established agricultural activities occurring on agricultural lands to continue as they historically have. New agricultural activities on land not currently used for agriculture, conversion of agricultural lands to other uses, and other development on agricultural land that does not meet the definition of agricultural activities (including any agricultural development not specifically exempted by the provisions of RCW 90.58.030(3)(e)(iv)) should meet shoreline requirements. (WAC 173-26-241(3)(a)(ii, iii, & v))

Policy 25.14: Encourage animal feedlot operations to locate away from shorelines.

Aquaculture

Policy 25.15: Consider aquaculture a preferred shoreline use when consistent with the control of pollution and prevention of damage to the environment. (WAC 173-26-241(3)(b))

Policy 25.16: Ensure that aquacultural uses do not conflict with other water-dependent uses or navigation, spread disease, establish non-native species that cause significant ecological impact, or significantly impact the aesthetic qualities of the shoreline. Protect spawning areas designated by the Department of Fish and Wildlife from conflicting uses. (WAC 173-26-241(3)(b))

Boating Facilities and Marinas

Policy 25.17: Ensure that boating facilities are located only at sites with suitable environmental conditions, shoreline configuration, access, and neighboring uses. All marinas should be developed and operated in accordance with all state and local requirements (WAC 173-26-241(3)(c)(i))

Policy 26.18: In planning for marina location and design, special consideration should be given to necessary facilities such as adequate access, parking, and restroom facilities for the public. Such facilities should be located away from the immediate water's edge.

Forest Practices

Policy 25.19: Shoreline areas having well-known scenic qualities (such as those providing a diversity of views, unique landscape contrasts, or landscape panoramas) should be maintained as scenic views in timber harvesting areas. Timber harvesting practices, including road construction and debris removal, should be closely regulated so that the quality of the view and viewpoints along shorelines of statewide significance in the region are not degraded.

Policy 25.20: Forest management shall proceed in accordance with regulations established by the Washington State Forest Practices Act, including coordination with Yakima County on forest practice conversions and other Class IV-forest practices where there is a likelihood of conversion to non-forest uses.

Policy 25.21: Ensure that timber harvesting on shorelines of statewide significance does not exceed the limitations established in RCW 90. 058.150 (regarding selective harvest requirements), except as provided in cases where selective logging is rendered ecologically detrimental or is inadequate for preparation of land for other uses.

Mining

Policy 25.22: Remove sand, gravel, and minerals from only the least sensitive shoreline areas. Due to the risk of avulsion and mine pit capture by the river, mining within the stream channel and channel migration zone should not be allowed. In special cases where it is allowed, it should be a conditional use. Restoration or enhancement of ecological function is encouraged. (WAC 173-26-241(h)(ii)(d-e), WAC 173-26-211(5)(c), WAC 173-26-221 (2)(c)(iv), SMP 15.04, SMP 15.16)

Policy 25.23: Require land reclamation plans of any mining venture proposed within a shoreline. Mining reclamation shall be done in conformance with the Washington State Surface Mining Act (RCW 78.44).

Policy 25.24: Ensure that mining and associated activities are designed and conducted consistent with the applicable environment designation and the applicable critical areas ordinance. (WAC 173-26-241(h)(ii)(a))

Policy 25.25: Ensure that proposed subsequent use of mined property and the reclamation of disturbed shoreline areas is consistent with the applicable environment designation and that appropriate ecological functions are provided consistent with the setting. (WAC 173-26-241(h)(ii)(C))

Residential Development

Policy 25.26: Design subdivisions at a density, level of site coverage, and occupancy compatible with the physical capabilities of the shoreline and water, and locate them to prevent the need for new shore stabilization or flood hazard reduction measures. (WAC 173-26-241(3)(j))

Policy 25.27: Restrict subdivisions in areas subject to flooding.

Policy 25.28: Encourage cluster development wherever feasible to maximize use of the shorelines by residents, maximize both on-site and off-site aesthetic appeal, and minimize disruption of the natural shorelines.

Commercial Development

Policy 25.29: Limit commercial development to those activities that are particularly dependent upon a shoreline location. Other commercial uses should be encouraged to locate upland. Give first preference to water-dependent commercial uses over non-water-dependent commercial uses; and give second preference to water-related and water-enjoyment commercial uses over non-water-oriented commercial uses. Allow non-water-oriented commercial uses in limited situations. (WAC 173-26-241(3)(d)).

Utilities

Policy 25.30: New utility production and processing facilities, such as power plants and sewage treatment plants, or parts of those facilities that are non-water-oriented should not be allowed in shoreline areas unless it can be demonstrated that no other feasible option is available. Expansion, updating, and maintenance of existing facilities is allowed but should be designed to minimize the impacts as much as possible. (WAC 173-26-241(3)(l))

Policy 25.31: Wherever possible, transmission facilities for the conveyance of services, such as power lines, cables, and pipelines, should be located outside of the shoreline area. If location within the shoreline cannot be prevented, confine utilities in a single corridor or within an existing right-of-way. (WAC 173-26-241(3)(l))

Policy 25.32: Locate new sewage treatment, water reclamation, and power plants where they do not interfere with and are compatible with recreational, residential or other public uses of water and shore lands. New waste treatment ponds for industrial waste should be located upland when feasible. (Note: this policy was originally in the Industrial Facilities section, but is proposed to be located here.)

Industry

Policy 25.33: Allocate sufficient quantities of suitable land for water related industry. Give preference to water-dependent industrial uses over non-water-dependent industrial uses; and second, give preference to water-related industrial uses over non-water-oriented industrial uses. Allow non-water-oriented industrial development in limited situations. (WAC 173-26-241(3)(f))

Policy 25.34: Discourage industries which have proven to be environmentally hazardous from locating along the shorelines.

In-stream Structural Uses

Policy 25.35: The location and planning of in-stream structures should give due consideration to the full range of public interests, watershed functions and processes, and environmental concerns, with special emphasis on protecting and restoring priority habitats and species. (WAC 173-26-241(3)(g))

Policy 25.36: All in-stream structures should provide for the protection and preservation of ecosystem-wide processes, ecological functions, and cultural resources, including, but not limited to, fish and fish passage, wildlife and water resources, shoreline critical areas, hydrogeological processes, and natural scenic vistas. (WAC 173-26-241(3)(g))

SHORELINE MODIFICATION POLICIES

General Shoreline Modification Policies

Policy 26.1: Allow shoreline modifications only where they are shown to be necessary to support or protect an allowed primary structure or a legally existing shoreline use that is in danger of loss or substantial damage, or they are necessary for mitigation or enhancement work. (WAC 173-26-231(2)(a))

Policy 26.2: Limit shoreline modifications to the minimum necessary to accomplish the objective, while still protecting ecological functions. Give preference to shoreline modifications that have a lesser impact on ecological functions. (WAC 173-26-231(2)(b-d))

Shore Stabilization

Policy 26.3: New structural stabilization measures should only be allowed for the following instances, and then only when meeting specific criteria:

1. When necessary to protect an existing primary structures;
2. In support of new and existing development;
3. To protect projects for the restoration of ecological functions or hazardous substance remediation projects. (WAC 173-26-231(3)(a)(iii))

Policy 26.4: Avoid flood protection and stabilization measures which result in or tend toward channelization of streams such as, hardening of stream banks, or fixing channel locations.(WAC 173-26-211(5)(C) & (WAC 173-26-221(2)(C)(iv)

Policy 26.5: All shore stabilization activities must be designed and constructed to accepted engineering standards.

Fill

Policy 26.6: Allow normal and reasonable land grading and filling where necessary to develop a land area for a permitted use. There should be no substantial changes made in the natural drainage patterns and no reduction of flood water storage capacity that might endanger other areas. Allow fill within the ordinary high water mark only when necessary to support water dependent uses, public access, transportation facilities, mitigation, restoration, enhancement, and certain special situations listed in WAC 173-26-231(3)(c).

Policy 26.7: In evaluating fill projects, such factors as total water surface reduction, navigation restriction, impediment to water flow and circulation, impediment to irrigation systems, reduction of water quality, and destruction of fish and wildlife habitat should be examined.

Policy 26.8: Locate and design shoreline fills or cuts to avoid creating a hazard to adjacent life, property, and natural resources systems, and to provide all perimeters of fills with vegetation, retaining walls, or other mechanisms for erosion prevention.

Dredging

Policy 26.9: Dredging should only be permitted for maintaining existing navigation uses, not for obtaining fill material or mining. (WAC 173-26-231(3)(f); SMP 15.16)

Policy 26.10: Permit deposit of spoils in water areas only to improve habitat or when the alternative is

more detrimental than depositing in water areas.

Piers and Docks

Policy 26.11: Piers and docks should only be allowed for water dependent uses and public access, except that water enjoyment and water related uses may sometimes be included as part of a mixed use development. New piers and docks must have a specific need and must be the minimum size necessary. (WAC 173-26-231(3)(b)) Encourage the cooperative use of shared docks.

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 a check and balance by establishing which areas are suitable or unsuitable for development. Unsuitable lands include: those that pose significant health hazards, areas with development limitations, and lands that perform important natural systems functions.

The Washington State 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 ground water used for public water supplies (this requirement is addressed in the natural systems element); and
- 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).

Designation of an Urban Growth Area (UGA), integration with countywide planning policies, and identification of lands useful for public purposes and open space corridors within and between UGAs are also GMA requirements, and will also be addressed within this element.

Applicable Countywide Planning Policies

Under the Growth Management Act, cities, towns and their associated urban growth areas have been identified as the primary areas where future urban levels of growth will be permitted. In order to achieve the Act's goal of "inter-jurisdictional consistency", countywide planning policies need to be considered as part of the development of the land use element of Toppenish's comprehensive plan. The following countywide planning policies apply to discussion on the land use 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. All cities 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.3.2.).

3. All urban growth areas will be reflected in County and respective city comprehensive plans (A.3.3.).
4. Urban growth will occur within urban growth areas only and will not be permitted outside of an adopted urban growth area, except for new fully contained communities [RCW 36.70A 110 (2)] (A.3.4.).

5. 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 preference [RCW 36.70A.110 (2)] (A.3.6.).

6. When determining land requirements for urban growth areas, 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)] (A.3.7.).

7. 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 data base (A.3.8.).

8. 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.).

9. 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.3.10.)

   [However, according to RCW 36.70A.130 (2) (a) (i) – (iii) & (v) there may be exceptions where amendments may be considered more frequently than once for the following circumstances:

   (i) The initial adoption of a subarea plan that does not modify the comprehensive plan policies and designations applicable to the subarea;
   (ii) The adoption or amendment of a shoreline master program under the procedures set forth in chapter 90.58 RCW;
   (iii) The amendment of the capital facilities element of a comprehensive plan that occurs concurrently with the adoption or amendment of a county or city budget;
   (v) 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 county or city under this subsection (2) (a) and all persons who have requested notice of a comprehensive plan update are given notice of the amendments and an opportunity to comment.]

10. Prior to amending an urban growth area, the County and 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.).

11. 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 interlocal agreements, if any (A.3.12.).

12. 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 governmental services be provided by cities, and urban governmental services should not be provided in rural areas [RCW 36.70A.110(3)] (B.3.1.).

13. 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.).

14. 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.).

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

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

    a. Consider the goods, services and employment requirements of the projected population;
    b. Consider export opportunities for locally produced goods;
    c. Identify areas most suitable for industrial development; and
    d. Anticipate and accommodate the infrastructure needs of business and industry within UGAs (G.3.2.).

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 are interrelated with the land use element and the plan element goals will be implemented through land use policies and regulations.

This land use element has the following components:

1) Summary of the urban growth area 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 urban growth area.

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

5) Land use plan concept

6) Land use goals and policies

7) Land use maps
8) Appendices
    - Process for siting essential public facilities (to be completed and coordinated as part of the countywide process)

II. URBAN GROWTH AREA

Toppenish's Urban Growth Area (UGA), includes those lands to which the city may feasibly provide future urban services (i.e., the city's urban service area), and those surrounding areas which directly impact conditions within the city limits. This area is defined by an Urban Growth Area Boundary (Figure 2.1). An interim Urban Growth Area Boundary (IUGA) was designated by the Board of Yakima County

Commissioners, after an extensive process involving coordination between the city and the county, in which an interim Urban Growth Area Boundary was identified and interim management policies for the IUGA were established. Countywide planning policies were taken into consideration in this process.

After further review of the IUGA by the city of Toppenish, three areas were identified and proposed for addition to the IUGA and were recommended for use as the final urban growth area boundary of the city of Toppenish. The decision to include these areas as part of the final urban growth area boundary was based on three considerations. First, the city can easily provide or has already extended urban services to these areas, including water and sewer.

The second consideration was that the city wished to identify open space lands within the urban growth area, including lands useful for recreation, wildlife habitat, trails and connection of critical areas.

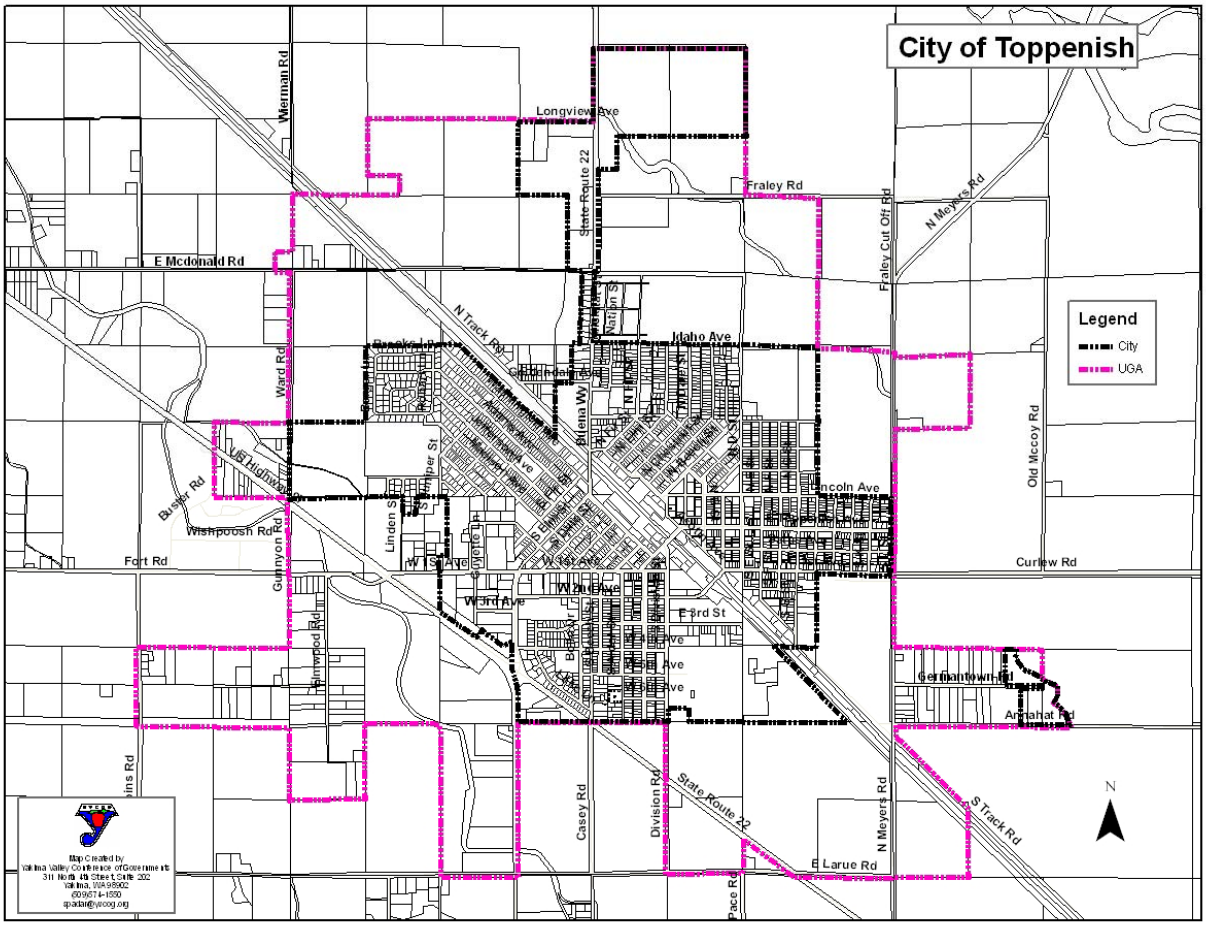
Third, requests by landowners who were not included in the IUGA, but desired inclusion into the final UGA were considered. Based on these considerations, three additional areas were identified and included as part of the final urban growth area boundary for the city.

In the Urban Growth Area Boundary designation process, the following major findings or considerations contributed toward the final location of the boundary.

- Establishing a balance between too much land within the UGA which may contribute to urban sprawl, high costs for public services, and the unnecessary conversion of resource lands and farmlands to residential or other uses, and too little land for residential uses which can increase housing costs and limit housing choices. Allowing an inadequate supply of industrially zoned lands may constrain economic development efforts and may potentially adversely affect the city's future tax base.

- Physical features or environmental constraints should be used to provide a clear separation between urban and rural areas.

Figure 2.1: UGA and City boundary



III. MAJOR LAND USE CONSIDERATIONS

- How will Toppenish achieve a balance between encouraging new industrial development, and retaining existing businesses within its commercial core?
- Should the city of Toppenish examine ways to enhance its downtown in order to attract new commercial businesses?
- Toppenish has a significant number of persons[1] (approximately 38.8% of the total population) under the age of 18 within the community, with the next largest group (about 35.4% of the total population) between the ages of 20 and 44. This has implications in terms of potential future demand for educational, health and social services, as well as for the recreational needs of these age groups. What kinds of actions need to be taken by the city to meet this potential increase in demand for services, and impacts on schools and parks? Should the city consider the use of impact fees as being appropriate for new development to help reduce the potential impacts on the provision of city and educational services?

1 According to 2000 Census data.

IV. EXISTING CONDITIONS

Physical setting

The city of Toppenish lies in the central portion of the Yakima River Valley, in Central Washington State. Toppenish, an Indian word meaning "sloping downward and spreading", accurately describes the city's location as the Yakima Valley spreads down to form its floor. The city is approximately 22 miles south of the city of Yakima, and about 60 miles north of the Tri-Cities. Toppenish is located within the boundaries of the Yakama Indian Reservation, a fact that both limits the direction that future land growth will take, and provides a rich cultural heritage and special opportunities. The city has a little under 1,300 acres of land within its boundaries. In comparison, there are approximately 154,000 acres of Yakama Indian Nation land and over 300,000 acres of irrigable agricultural land in surrounding Yakima County. The lands around the city of Toppenish consist mainly of Yakama Indian Nation Trust lands, agricultural lands, and some scattered residential development. Varied crops can be found within the urban growth area including wheat and other grains, hops, corn, mint, and grapes. Small orchards are also present.

History

The present Yakama Indian Reservation was established in 1855 by a treaty between Washington Territory Governor Isaac I. Stevens and Chief Kamiakin. The provisions of the treaty set forth that reservation lands would be solely owned and occupied by the several tribes of Indians that were congregated with common rights under this treaty. White men could only enter the reservation by permission of the Indians and the superintendent of the agency. The legal effect of this treaty was that it constituted a small, but separate, nation under one common government.

By 1883, reservation land was still under Indian control, but none of it was owned individually. To convey ownership to the Indians, the Indian Department issued an order to survey the land into eighty acre tracts to allot to people who were native Indians or who had Indian blood in them (in accordance with the treaty). When word of this was released, Indian families moved into the areas they preferred and "squatted" (squatters' claims were generally accepted) until the surveying was completed.

During this year the railroad passed through reservation land (leaving behind a depot honoring the Indian name Toppenish) on its way to Yakima. By 1884, the railroad had been built to Yakima and by 1886 the railroad established a terminus at Puget Sound. With rail service from Puget Sound through Yakima Valley established, the lush open range in the reservation began looking more attractive to settlement, but was still unavailable.

Of the Indian families making squatters claims, Josephine Lillie and her family became the most important to Toppenish history. The eighty acre parcel she squatted in 1889 became the original townsite sixteen years later. By 1904 there was still no deeded land on the reservation, but, in 1905, by a special Act of Congress, Mrs. Lillie was granted the first patent on an eighty acre parcel. Mrs. Lillie quickly platted the north 40 acres into lots and put these lots on the market. To serve these lots she dedicated streets for public use. Her plat was called the "City of Toppenish," and for two years thereafter remained the only deeded land on the reservation. In early 1907, other patents to land adjacent to Mrs. Lillie's plat were granted and further platting occurred, resulting in more lots for sale. Population growth experienced short booms every time lots were put on the market. By April 1907, the train depot of Toppenish had grown into a community of nearly 800 people. Toppenish became incorporated later that month.

The growth of Toppenish from depot to municipality was a result of deeded land. The expansion of Toppenish has and continues to be based on the availability of additional land.

Inventory

Residential development, commercial development, agriculture, and manufacturing/industrial development comprise the most predominant land uses in Toppenish, accounting for 46.2%, 11.0%, 10.6%, and 7.5% of the city's total acreage respectively. Undeveloped or currently vacant land or buildings account for approximately 2.5% of the total land area. These vacant lands are not confined to any one area within the city, and can be found scattered throughout the city.

The existing pattern of land use has been shaped by agriculture and its related industries. The introduction of rail transportation and intensification of irrigation efforts have also encouraged growth within the community. Table 2.1 summarizes the existing land uses within the city limits.

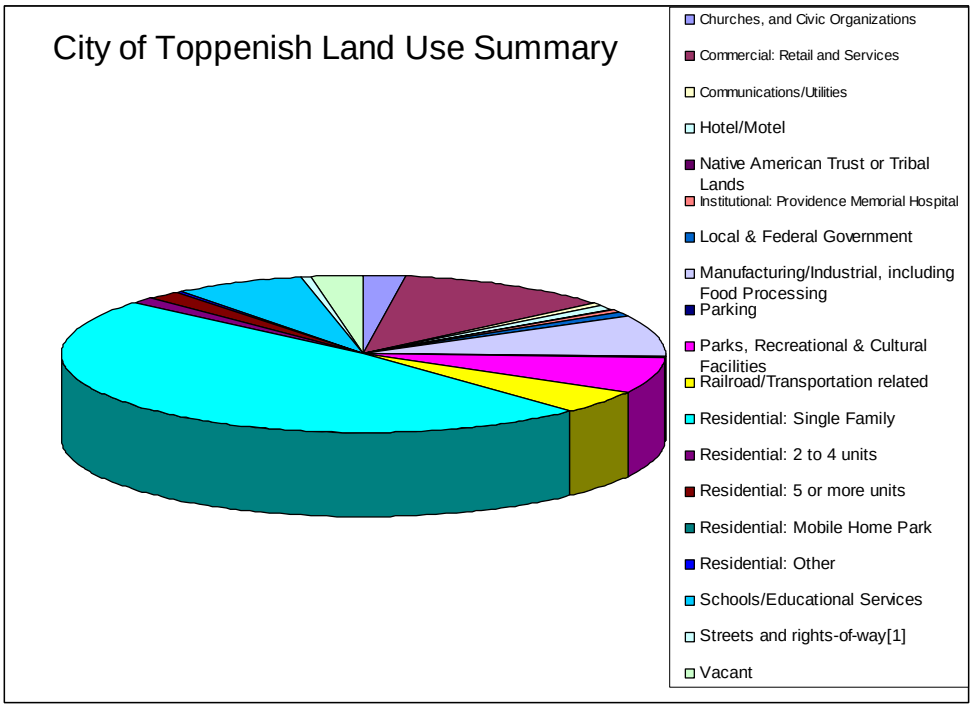


TABLE 2.1 City of Toppenish - Existing Land Use Summary

Land Use Type	# of Parcels in This Use	Total Acreage
Agricultural/Mineral Lands	6	189.16
Churches, and Civic Organizations	20	10.63
Commercial: Retail and Services	226	105.28
Communications/Utilities	8	198.8
Hotel/Motel	3	4.49
Native American Trust or Tribal Lands	18	8.57
Institutional: Toppenish Community Hospital/Yakima HMA, Inc	8	5.05
Local & Federal Government	69	67.44
Manufacturing/Industrial, including Food Processing	10	54.38
Parking	18	3.38
Parks, Recreational & Cultural Facilities	18	60.58
Railroad/Transportation related	21	37.13
Residential: Single Family	1,735	324.75
Residential: 2 to 4 units	48	9.98
Residential: 5 or more units	44	22.84
Residential: Mobile Home Park	1	0.58

Residential: Other	28	3.83
Schools/Educational Services	22	124.39
Streets and rights-of-way[2]	2	3.90
Vacant	44	64.05
Totals	**2,349**	**1299.21**
Sources: Yakima County Assessor Records (Use Code and Organization Name Field)		

Residential Land Use

Approximately 417 acres are devoted to residential use. Residential development is concentrated in three areas of the city. Figure 2.3 - City of Toppenish, Existing Property Use Map shows these residential areas. These three areas consist of the area located north and northwest of W. First Avenue, the area located south of W. Third Avenue near Toppenish Community Hospital, and the area located north of E. First Avenue extending north and northeast to the city limits.

The platting in the first area is made up of lots ranging in size from 6,250 sq. ft. (50' x 125' lots) such as those found in the Mountain View Addition to 12,500 sq. ft. (100' x 125' lots) such as those found in the Berger Lane Addition. Lot sizes in other subdivisions within this area also tend to fall within this range.

The majority of residential zoning in this area is R-1: Residential which allows one and two-family dwellings, on a minimum lot size of 7,200 sq. ft. with a minimum width of 60' for single family, and a minimum lot size of 8,200 sq. ft. with a minimum width of 80' for two-family dwellings. There are scattered lots within this area with R-2: Residential zoning, which allows one, two and multiple family dwellings and apartment dwellings. The minimum lot size in the R-2 zone is the same as for the R-1 zone for one and two-family dwellings, and is 9,200 sq. ft. with a minimum width of 90' for multifamily dwellings with three or more units.

This area is the least dense in terms of population within the city, with population densities ranging from 1,281 to 20,875 persons per square mile. The average range of population density tends to fall within the 4,481 to 8,960 persons per square mile range. The highest concentrations of people are found in three blocks located between Adams and Washington Avenues south of S. Ivy Street, the block between Adams and Jefferson Avenue on the southwest side of Olney Park, and in Olney's Addition in four blocks between S. Date and S. Beech Streets. Population densities in these blocks range from 8,961 to 20,875 persons per square mile. Figure 2.4 - Population Density Map shows the various densities throughout the city and urban growth area. Household sizes in this area range from 1.78 to 3.86 persons per household. The average number of units per acre is 4.12.

Homes built around Toppenish Community Hospital, south of W. Third Avenue extending east to S. Toppenish Avenue make up the second area of residential development. This area is characterized by lot sizes ranging from 7,000 sq. ft. (50' x 140' lots) such as those found in Parker's 2nd Addition to 9,100 sq. ft. (65' x 140' lots) such as those found in Bolin's Green Addition. Lot sizes in other subdivisions within this area also tend to fall within this range. Residential zoning in this area is the same as the first area consisting of predominately R-1 zoning. The population density in this area is within the same range as the first area, from 1,281 to 20,875 persons per square mile. Out of 13 census blocks, 7 blocks have a population density of 8,961 to 20,875 persons per square mile. Household sizes in this area range from 2.25 to 4.24 persons per household. The average number of units per acre is 3.93.

The third area of housing, is located northeast of Track Road, extending north (to Idaho Avenue) and northeast (S. `L', N. `G', and N. `D' Streets) of E. First Avenue to the city limits. There is also a small

residential sub-area located south of E. First Avenue and north and northeast of S. `E' Street consisting primarily of multi-family housing. Original platting in many of the subdivisions in this area consisted of very small lots averaging 3,000 sq. ft. (25' x 120' lots) in size. Because of this, many of the lots have been consolidated, and the average home sits on a parcel made up of 2 to 3 lots. Other lots in this area possess an average width of 50' and vary in length from 110' to 165' in length (5,500 to 8,250 sq. ft.). There are a few exceptions to this pattern, they are: the Woodlawn Addition, where the average lot size is 60' x 98' (5,880 sq. ft.), Adam's Rainier Addition, where the average lot size is 95' x 150' (14,250 sq. ft.), and the Eudora Addition -- a planned unit development, where the average lot size is 40' x 138' (5,513 sq. ft.). Zoning throughout this area is predominantly R-1: Residential. The residential sub-area south of E. First Avenue possesses R-2: Residential zoning.

The average household size in this area is 3.84 persons, with population densities ranging from 1,281 to 20,875 persons per square mile. The average number of units per acre is 4.14. This area of housing has three sub-areas where pockets of population density occur, and the number of persons per square mile ranges from 8,961 to 20,975 persons. The most overcrowded of these three sub-areas is that area located south of E. Toppenish Avenue to E. First Avenue and east of S. `D' Street to S. `L' Street, including the area lying east of N. `H' Street between E. Toppenish Avenue and Lincoln Avenue. Household sizes in this sub-area range from 3.56 to 5.15 persons. The second most overcrowded sub-area lies east of Lincoln School, with household sizes ranging from 2.90 to 4.45 persons. In that area located west of Lincoln School to just south of Toppenish Middle School is the third most overcrowded sub-area. Household sizes in this sub-area range from 2.05 to 4.60 persons.

Residential development accounts for approximately 46.2% of the city's total acreage. The majority of the housing stock in Toppenish consists of single family homes. Multifamily housing accounts for 5.9% of the total housing stock consisting primarily of duplexes and low-rise apartment houses.

Commercial Land Use

There are roughly 105 acres of commercial land within the city limits, accounting for 11.0% of the city's total acreage. Toppenish's commercial core is divided into two parts. The first part consists primarily of tourist oriented retail businesses and lies along two streets -- W. First Avenue from U.S. 97 to its intersection with S. Toppenish Avenue, and along S. Toppenish Avenue from its intersection with the railroad tracks heading south to W. Sixth Avenue. Typical businesses found within this portion of the commercial core consist of: restaurants (9); clothing stores ranging from thrift shops to specialty clothing shops (5); antique stores or art galleries (4); secondhand stores (3); grocery stores (5); auto parts stores (4); video stores (3); insurance agencies (3); retail food stands (3); taverns (3); mini-marts (3); athletic/exercise studios (2); and beauty salons (2).

From the railroad tracks heading east along E. Toppenish Avenue lies the second portion of the commercial core, which is made up of mainly service oriented businesses such as auto repair shops (5), a car wash, a laundromat, restaurants (2), a newspaper, an electric utility, a beauty salon, an appliance repair shop, a glass company, a mini-mart, and an auto accessories store. Toppenish also has approximately 5.4 acres devoted to motels. The majority of these motels are located on S. Elm Street.

Industrial Land Use

Within Toppenish, industrial land use primarily consists of food manufacturing -- Del Monte Foods U.S.A. and Folklore Foods (espresso syrups), and container manufacturing (i.e., metal cans) -- Silgan Containers Corporation. Other industries include: construction contractors -- about six businesses; a trucking company; a metal fabricator; and a bio twine manufacture. Approximately 54 acres or 7.5% of the city's total acreage are devoted to industrial land use. Additionally, approximately another 37 acres (4.5%) are utilized for railroad or transportation related activities.

Agricultural and Mineral Lands

Agricultural and mineral lands account for approximately 189 acres or 10.6% of the city's total land area. These agricultural lands consist of an abandoned lime field (made up of two parcels), and a peony farm located on N. Fir Street.

Local and Federal Government Lands and Facilities

About 67 acres, or less than 1.0% of the city's total acreage are devoted to government facilities. Within Toppenish, these facilities include city hall, the police station, the fire station, the public works facility, the Armory National Guard, the Department of Corrections, the Toppenish License Agency, the Vocational Rehabilitation Division of DSHS, and the post office. In addition, approximately 3.8 acres are devoted to Toppenish Community Hospital.

Churches/Civic Organizations

Within Toppenish city limits, there are about 10.63 acres devoted to churches and civic organizations. Toppenish has 20 churches that meet the spiritual needs of residents, and the following civic organizations: the American Legion Club - Post 50; the Central Valley Senior Citizens Center; the Toppenish Chamber of Commerce; the Fraternal Order of the Eagles; the Republican Women's Club; The Rotary Club; and the Toppenish Garden Club.

Schools

Acreage devoted to schools accounts with the inclusion of the recently constructed Valley View School is approximately 124 acres. See the Capital Facilities Element for a more detailed discussion of school facilities and future improvements.

Recreational Lands and Open Space Corridors

Parks and Recreation

Toppenish has about 60 acres or 2.3% of its total acreage devoted to recreational lands, not including school district recreational facilities. Toppenish's recreational lands consist of 9 parks, 9 "Urban Beautification Areas", a swimming pool with a bathhouse, the rodeo grounds, 18 hole golf course, karate studios, and a health studio and nautilus exercise center. The city is also in close proximity to the Toppenish Wildlife Refuge, and a 40-acre private park leased by the Fraternal Order of the Eagles.

Open Space Corridors

The Growth Management Act (GMA) requires cities to identify open space corridors within and between urban growth areas. These corridors shall include lands that are useful for recreation, wildlife habitat, trails and connection of critical areas. Within the city's boundaries, there are no open space corridors as defined by GMA. To the west of SR-22 in the urban growth area, there are a few open water wetlands associated with Wanity Slough which may contain suitable wildlife habitat, and the slough itself also may contain a small number of salmonids spawning and rearing[3]. The Wanity Slough also could potentially be considered as an open space corridor as defined by GMA.

[3] As indicated in the 1993 Draft Yakima River Basin Water Quality Plan, the Wanity Slough supports small populations of steelhead and rainbow trout, and may have some fall Chinook spawning.

Cultural Resource Uses

In the Toppenish vicinity, there is one historic building listed on the National Register of Historic Places. This building is the former Yakima Indian Agency Building which now houses the Mary L. Goodrich Library and the Toppenish Museum.

Historic preservation may be defined as active protection of properties significant to Toppenish's past. In the city, there may be historically or culturally significant places that are important to the city residents, but not protected as the city does not have a local historic preservation program. These historic places range from houses associated with people who were instrumental in the shaping of the city and greater Toppenish area, to houses that represent a particular architectural or vernacular style found only in this area, to buildings associated with Toppenish's agricultural past.

There are additional cultural facilities in Toppenish, which are not housed in historical buildings, but are devoted to Toppenish's agricultural and transportation history. The Yakima Valley Rail & Steam Museum, the Toppenish Mural Society, and the American Hops Museum make up these cultural facilities.

Vacant or Underdeveloped Land

Vacant lands account for 64 acres, or 2.5% of Toppenish's total land area. The majority of these vacant parcels are not concentrated in any one area, but are scattered throughout the city. Some of the city's vacant lands inventory includes vacant commercial buildings.

Table 2.2

Zoning	Total Acres Within city Limits	Undeveloped Acres in city limits only	Potential housing units minus 1/3 for right of way.	Potential housing units after developing UGA R-1 Residential
R-1	315.42	32.46	130	2869
R-2	13.55	3.11	45	
PD	7.75	5.96		
B-1	57.01	7.03		
B-2	82.31	12.94		
B-3	4.63	2.16		
M-1	51.37	22.33		
M-2	221.53	157.99		
SP	7.44			

Zoning

Toppenish currently has nine types of zoning classifications:

R-1: Residential, which allows for one and two-family dwellings, with a minimum lot size of 7,200 sq. ft. for a one-family dwelling, and 8,200 sq. ft. for a two-family dwelling;

R-2: Residential, which allows for multiple family dwellings and apartment houses, with a minimum lot size of 9,200 sq. ft.

SP: Public/Semi-Public, which allows for churches, clubs, schools, police and fire stations, governmental buildings, parks and rodeo grounds, fair and livestock exhibition grounds, cemeteries, and airports; this zone has a three-story height (or a maximum height of 45 feet) limit;

B-1: Local Business, which allows for the type of residential development found in both the R-1 and R-2 zones, automobile service stations, business or professional offices, financial institutions, kindergarten and nursery schools, medical or dental clinics, motels, laundromats or dry cleaners, personal service shops, retail stores or businesses, restaurants, veterinary clinics, florist shops, and automobile sales agencies;

B-2: General Business, this zone allows for many of the uses allowed in the B-1 zone, except single family and duplex dwellings. Additional uses allowed in this zone include agricultural and machinery sales, amusement parks, drive-in theaters, skating rinks, etc., businesses: both retail and wholesale or service, feed, seed and garden supplies, frozen food lockers, fuel distributors, glass sales and installation, hotels, motels, and apartment buildings, nurseries or greenhouses, outdoor advertising, pet shops, plumbing or sheet metal shops, research, experimental or testing laboratories, trailer parks and trailer sales;

B-3: Professional Office District, which allows for residential development allowed in the R-1 and R-2 zones, as well as for medical and dental clinics, and professional office buildings;

M-1: Light Industry, this zone allows for some of the more intense uses found in the B-2 zone, such as agricultural and trailer sales, fuel distributors, nurseries and greenhouses, and veterinary clinics, and it also allows for light industrial or manufacturing uses such as food processing, wholesale businesses, storage buildings and warehouses, and the manufacture, assembly, compounding or treatment of articles or merchandise made from bone, cellophane, canvas, cloth, cork, feathers, felt fiber, fur, glass, hair, horn, leather, metal, paper, plastics, precious or semi-precious metals or stones, shell, textiles, tobacco, wood (except planing mills), yarns and paint;

M-2: Heavy Industry, is a zone that allows for all of the uses allowed in the M-1 zone, and may allow for more intensive industrial uses through a conditional use permit. Some examples of these type of uses are livestock feeding yards, sales yards, or slaughter-houses, cement, lime, gypsum or plaster of paris manufacture, fertilizer manufacture, automobile wrecking or junkyards, and asphalt manufacture, mixing or refining.

PD: Planned Development is a zone that encourages flexibility in design and development that will promote a more creative approach in the development of land and which will result in a more efficient, aesthetic and desirable use of the land. It permits flexibility of design, placement of buildings, use of required open spaces, circulation patterns, off-street parking areas and otherwise to better utilize the potentials of sites characterized by special features of geography, topography, size or shape; facilitates the adequate and economical provision of streets and utilities, and preserve the natural and scenic qualities of open areas and the city.

Figure 2.2

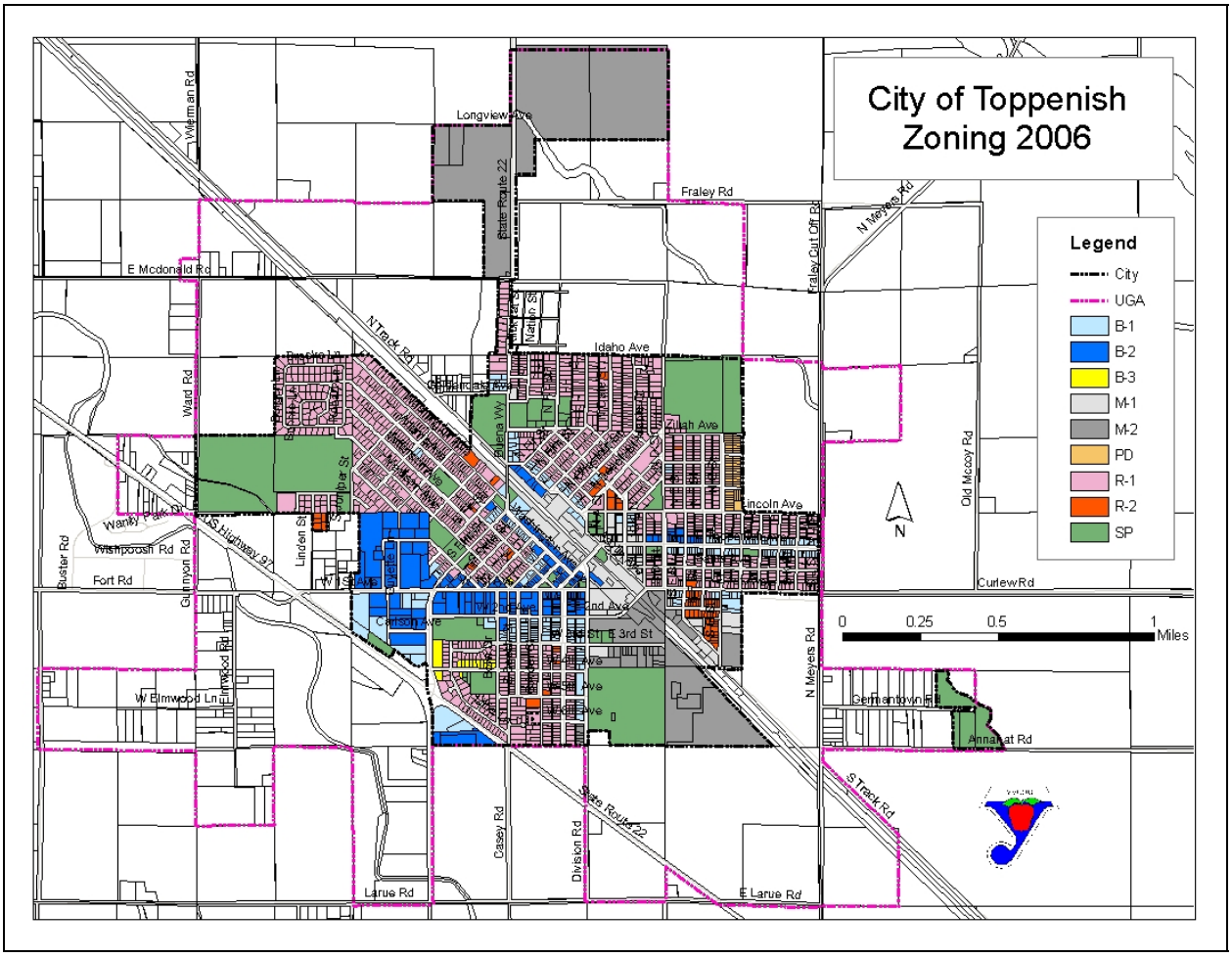


TABLE 2.3 Toppenish Urban Growth Area - Existing Land Use Summary

Zoning	# of Parcels	Acreage
B-1	265	25.80
B-2	186	85.24
B-3	16	4.87
M-1	73	89.66
M-2	50	277.96
PD	15	7.44
R-1	1743	328.19
R-2	72	15.71
SP	55	269.52

Future Land Use (area between the city limits and UGA boundary)	# of Parcels	Acreage
Commercial	7	108.32
Industrial/Manufacturing	27	549.00
Public	6	39.78
Residential	210	933.79
Recreational/Open Space	2	40.60

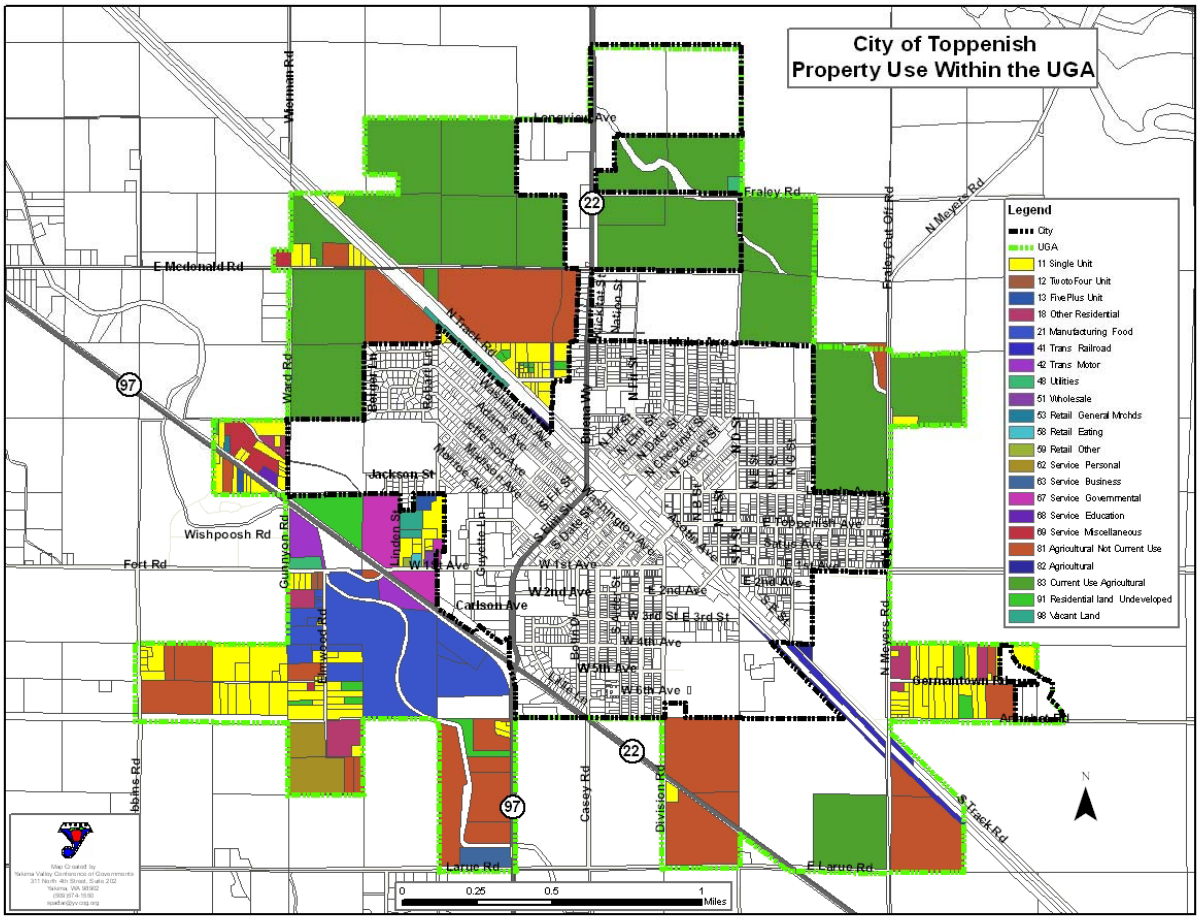
Transitional	20	325.04
Tribal	12	136.03

Streets and R.O.W.	N/A	716.99
Vacant Land	59	70.63
Taxable Parcels	2735	8059.14
Agriculture Use	50	1247.24

UGA Inventory

The City of Toppenish is surrounded by diversified farmland consisting of corn and orchards to the northwest, and hops, mint and wheat surrounding the city as farm economics dictates (see Figure 2.3). Approximately 62% of the total acreage in the urban growth area is devoted to agricultural lands, 11% is devoted to food manufacturing (Washington Beef and Del Monte Foods U.S.A.), 9.2% is devoted to Native American trust or tribal lands (estimate of total known acreage), and 7.5% is devoted to large lot residential development, which is predominately single family. This residential development is located mainly in five portions of the UGA: along Germantown Road; along Cemetery Road and Cemetery Lane; on Shearer Lane; along Ward Road where it intersects with SR-97; and on Goldendale Avenue adjacent to where it intersects with Wapenish Road. Vacant lands comprise 2.9% of UGA lands. Table 2.3 summarizes the existing land uses within the urban growth area.

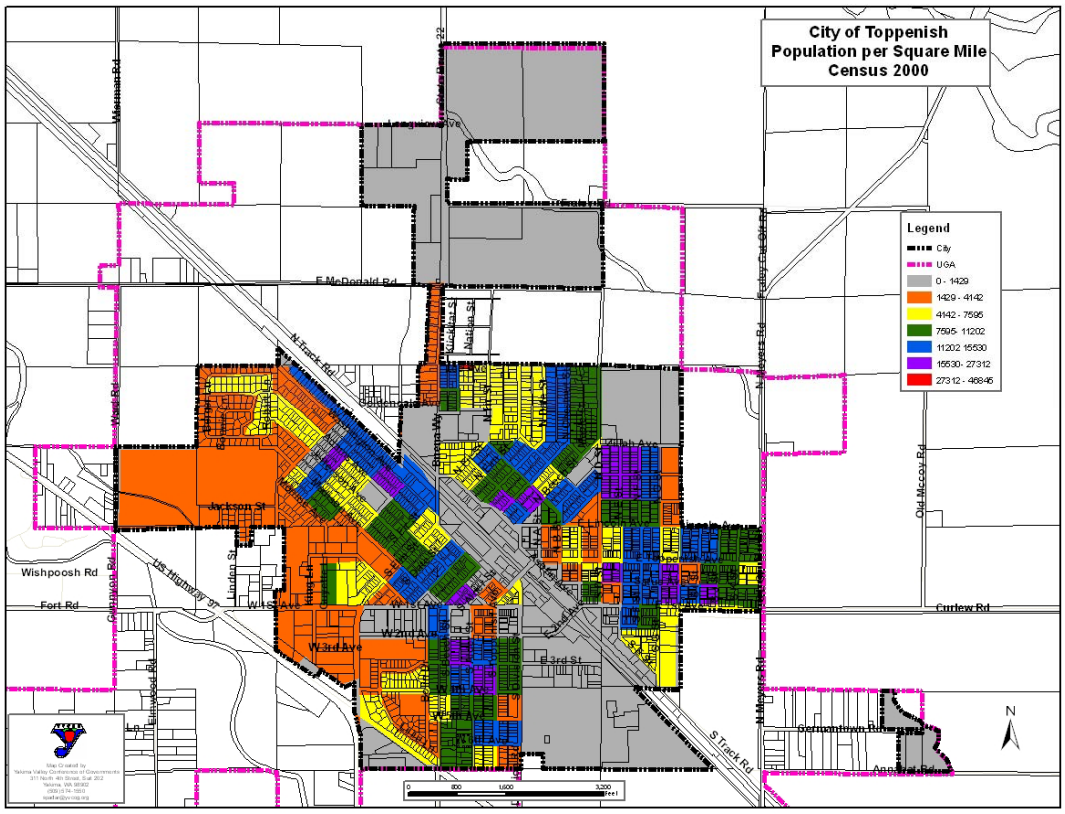
Figure 2.3



Toppenish's urban growth area has four areas where One-family Residential (R-1) zoning is present. The first area is located east of N. `D' Street extending to Toppenish-Zillah Road, consisting primarily of corn fields. Southwest of the intersection of SR-97 with McDonald Road, extending past the Berger Addition to Ward Road, lies the second area. This area also consists of primarily crops of either mint or wheat. The third area is located where W. First Avenue intersects with SR-97, on the north side of that intersection. About half of the total land area within this area consists of Indian trust lands. Directly adjacent to the south side of the Rodeo Grounds, fronting the east side of S. Division Street, is one parcel that makes up the fourth area. This parcel is currently vacant Indian trust land. The R-1 zone has been established to provide for lower density residential development in outlying fringes of existing cities, towns or other intensely urbanized areas. This zone also acts as a transitional area between low and high density developments. The minimum lot size in this zone is 7,200 sq. ft.

There are five areas within Toppenish's urban growth area zoned Industrial (I). All of these areas are either directly adjacent to existing industrial development or already have industrial uses of the land. The first area lies directly adjacent to west side of the former U&I Sugar Plant (Faithful Enterprises) on the north side of McDonald Road. Mint is currently growing on this parcel. Between SR-97 and Fort Road, west of Hospital Road, lies the second area. Pistoresi Trucking, a parcel in agricultural use, and Indian trust lands make up the land uses in this area. West of SR-97, on both sides of the Wanity Slough, lies the third area. Washington Beef has a slaughter house, and pasture associated with it, on this land. The fourth area is part of the Del Monte Foods U.S.A. food processing plant, extending east to Wapenish Road. East of Myers Road, extending to Wapenish Road, lies the fourth area. It is also in industrial use. The purpose of the Industrial zone is to provide areas for necessary industrial and related uses that could create problems of compatibility with other land uses, and to make provisions for those commercial uses which will serve the needs of the people in these areas.

Figure 2.4



V. ANALYSIS/FORECASTS

Population Trends, Demographics and Projections

Growth in Toppenish

The city of Toppenish has grown steadily since its incorporation in 1907. The annexation history for the city indicates that its growth has been predominantly to the north and south sides of W. First Avenue. Toppenish experienced the majority of its growth in population between 1960 and 1990 when the population increased by 1,752 people. The rate of growth during this period averaged 0.96% per year (uncompounded). Natural increases in population (a greater birth rate than death rate) and in-migration accounted for all of the growth during the above period. Annexations in Toppenish over this period consisted of raw land or businesses and did not add population. Future annexations of portions of the urban growth area, when they occur, will change this trend and add more persons to the city.

Table 2.4 shows the Census population by decade and the associated rate of increase. It also includes OFM population estimates for 2006.

TABLE 2.4 City of Toppenish - Population Trends

City of Toppenish Population Trends 1940 - 2000						
Year	**Census Population**[4]	**OFM Population Estimate**[5]	**Total Change Per Decade**	**Average Change Per Year**	**Percent Change Per Decade**	**Average Percent Change Per Year**
1940	3,683			---	---	---
1950	5,265		1,582	---	___	___
1960	5,667		402	---	7.635%	0.76%
1970	5,744		77	---	1.359%	0.14%
1980	6,517		773	---	13.458%	1.35%
1990	7,419		902	---	13.841%	1.38%
2000	8,946		1527	152.7	17.06%	1.70%
2006*		9,015		11.5		

* OFM estimation

Currently, the city is undergoing a rate of growth that is slightly greater than the 1.7% growth per year (average percent change) seen during the 1990 to 2000 period. This number may be somewhat low, as the average multifamily unit size ranges from 2 to 4 bedrooms, and the average household size within these units is likely to be higher than the 3.88 average as indicated in the 2000 Census.

Demographics

Based on 2000 Census population data, 75.7% of Toppenish's population is classified as being of Hispanic origin and 24.3% not of Hispanic origin. 31.5% of the population is classified as being white, 7.9% as American Indian, 0.6% as black, and 0.4% as being Asian or Pacific Islander.

[4] 1960 - 2000: Data from the U.S. Census Bureau, Census of Population and Housing

Approximately 38.8% of the population is under the age of 18, and 7.9% of the population is over 65. The majority of Toppenish's population, approximately 53.3%, is between the ages of 19 and 64. Most of that majority, (about 35.4% of the total population) is between the ages of 20 and 44. The trend of a large percentage of a city's population being under the age of 18 is consistent countywide, where approximately 31.8% of the total population falls in this age group. This has implications in terms of the potential future demand for educational and social services, as well as for the recreational needs of these age groups.

Population Projections

In derivation of the growth estimates listed below, the following assumptions were made:

1) The rate of growth corresponds to a rate of growth seen in Toppenish for a specific time. The rate of growth over a 30-year period (1970-2000) was approximately 0.90% per year compounded which corresponds to the medium projection. The high and low projections add and subtract 0.50% growth per year respectively. All three growth projections utilize the same extrapolation techniques based on these average rates of change and compounding of the base population over the projection period.

2) All estimates assume the future rate of natural population increase will be similar to that found during the base periods. These estimates also assume that the rate of in-migration, out-migration and annexation will be similar to that found in the base period.

3) Population growth in Toppenish is dependent not only on local economic trends, but also on regional, statewide and national economic trends.

4) The comprehensive plan update is anticipated for adoption in 2008. The twenty-year forecast period, therefore, extends through the year 2025.

Low Growth Projection

The low growth projection for the area within the present city limits uses a compounded average percentage change of 0.40% per year. The percentage increase in population is added to the previous year's population for each year of the forecast period. Therefore, the base from which the percentage increase is calculated is continually growing. Using this technique, the year 2005 city population is estimated to be 8,647 persons, the year 2010 city population would be 8,656 persons, the year 2015 city population would be 9,243 persons, the 2020 city population would be 9,528 and 2025 city population would be 9,761.

Medium Growth Projection

The medium growth projection for the city of Toppenish uses an average rate of population increase of 0.90% per year compounded. The percentage increase in population is added to the previous years population for each year of the forecast period. Therefore, the base from which the percentage increase is calculated is continually growing. Using this technique, the year 2005 city population is estimated to be 9,068 persons, the year 2010 city population would be 9,543 persons, the year 2015 city population would be 10,219 persons, the 2020 city population would be 10,828 and 2025 city population would be 11,410.

High Growth Projection

The high growth projection for the area within the present city limits uses a compounded average percent change of 1.40% per year. The percentage increase in population is added to the previous year's

population for each year of the forecast period. Therefore, the base from which the percentage increase is calculated is continually growing. Using this technique, the year 2005 city population is estimated to be 9,542 persons, the year 2010 city population would be 10,273 persons, the year 2015 city population would be 11,249 persons, the 2020 city population would be 12,181 and 2025 city population would be 13,113.

Population projections for the city of Toppenish are summarized in Table 2.5 below.

TABLE 2.5 City of Toppenish - Population Projections

City of Toppenish Population Projections 2000 - 2025			
Year	**Low Projection (1995 Projections)**	**Medium Projection (1995 Projections)**	**High Projection (1995 Projections)**
2000 Census	8,946 (7,922)	(8,162)	(8408)
2005	8,746 (8,083)	9,068 (8,537)	9,542 (9,014)
2010	8,865 (8,247)	9,543 (8,929)	10,273 (9,664)
2015	9,243 (8,414)	10,219 (9,339)	11,249 (10,361)
2020	9,528	10,828	12,181
2025	9,761	11,410	13,113

At this point in time, based on published OFM population estimates, it would appear that the rate of growth in Toppenish exceeded the 2000 OFM high projections. Other indicators in the 2000 US census showed that 13% of the population growth from 1990 to 2000 was due to immigration from foreign countries. The city could potentially suffer a lower population increase if the regional economy continues to be relatively stagnant and doesn't benefit from statewide economic expansion.

Growth in the Urban Growth Area

The unincorporated urban growth area (UGA) surrounding the city of Toppenish is expected to grow more slowly than the city. The primary reasoning behind this assumption is that agricultural lands will be slow to convert to residential development, and that future growth is most likely to occur within the city where services can be readily provided. It is anticipated that the rate of growth for this area will average 1.0% per year which is similar to the 1990 to 2000 average for Yakima County overall. Census block data, aerial photos, USGS topographic maps, and assessors parcel data of the area were used to estimate the number of housing units within the UGA. Using this data, it is estimated that 121 housing units are within census blocks wholly contained within the UGA. Another 94 housing units exist within census blocks partially within the UGA.

To estimate the number of persons within the urban growth area, the number of housing units for each census block was multiplied by the average number of persons per housing unit reported within that block. The number of persons within all blocks identified within the UGA was then added to obtain the total number of persons within the UGA. Using this methodology results in an estimated 215 housing units and 641 persons within the UGA. The outcome of applying a 1.0% compounded growth rate over the next twenty years is a year 2015 population of 744 persons, and a year 2025 population of 782 persons within the urban growth area.

Analysis of Economic Conditions

Economic Status of the Population

In Toppenish, the 2000 Census showed a slight increase of poverty 32% from 1990's 29% of the population below the poverty level. The city of Toppenish is ranked fourth in Yakima County in terms of the number of persons living below poverty level. In comparison, 19.7 % (20.2% - 1990) of all persons in Yakima County and only 10.6 (10.9% - 1990) of all persons in the state of Washington live below poverty level.

Of all families living below the poverty level in Toppenish, female-headed households are the largest group experiencing poverty. Approximately 48.2% of female-headed households are living below poverty level. Of this group, 62.4% have related children under 18 years old. This has implications in terms of the potential future demand for medical and social services by this group.

In 2000, Toppenish's median household income was $26,950; the median household income in Yakima County was $34,828, and the median income in Washington State was $45,776.

Employment of Toppenish Residents

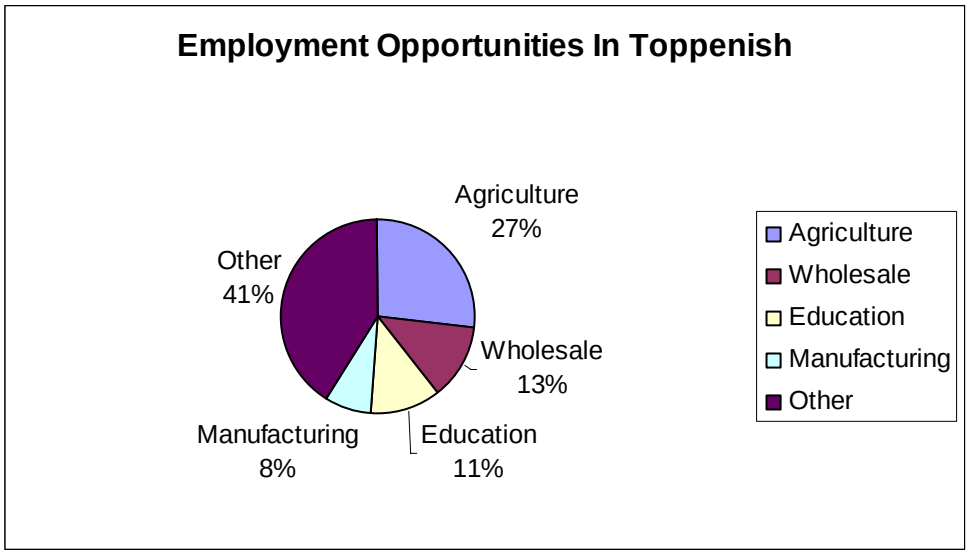
In 2000, the U.S. Census counted 8,946 Toppenish residents. On the basis of sample data, the Census Bureau estimated that 5,777 of these were persons 16 years and over, and of that 3,391 or 58.7% were in the labor force. Of those persons in the civilian labor force, approximately 3,391persons, an estimated 2,772 were employed, while 619 or 10.7% were unemployed.

The largest employment sector for Toppenish residents as indicated by Census sample data was Educational health and social services trade, with 20.5%% of all employed persons. Manufacturing was the second largest employment sector representing 16.9% of all employed persons, and retail trade was a close third with 13.8%. The single largest occupation group was Production, transportation and material moving occupations 25.9%, followed by service occupations with 19 % and sales and office occupations with 19.1%. Private for profit wage and salary workers made up 80.1% of employed Toppenish residents, while government workers accounted for 13.1%. Approximately 6.1% of Toppenish residents were self-employed.

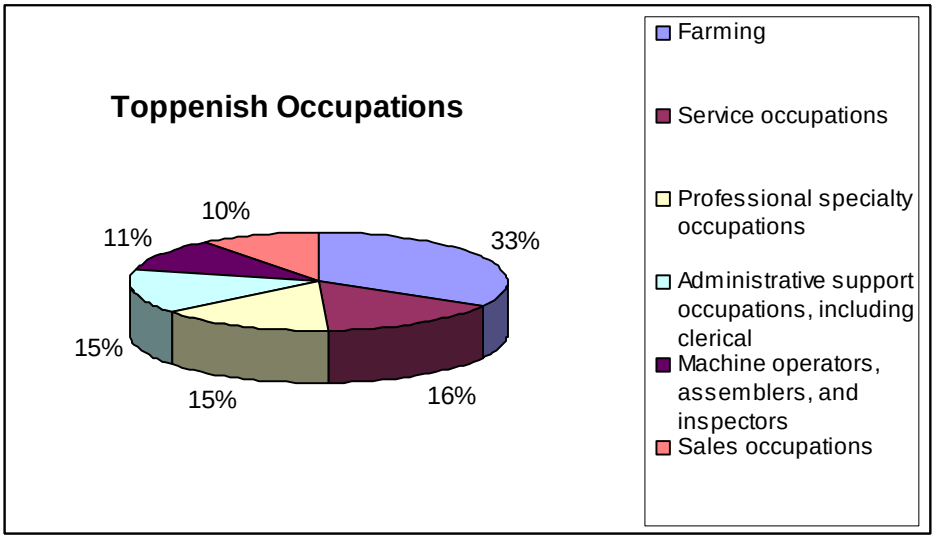
Employment Opportunities in Toppenish

The overall economy in Toppenish is good in terms of retail trade, provision of government and health services, and food processing and related agricultural businesses. Intense agricultural production can be found in the urban growth area, mainly to the north.

By April 1, 1999, as indicated by 2000 Census data and shown in the chart below, there were an estimated 2,779 persons employed within Toppenish's city limits. Of these, 27% work in agriculture, 12.6% in wholesale trade, 11.4% in educational services, 7.6% in manufacturing of nondurable goods, and the remainder in the following fields: other professional and related services; transportation; public administration; health services; construction; wholesale trade; manufacturing of durable goods; personal services; business and repair services; communications and other public utilities; entertainment and recreation services; finance, insurance and real estate; and mining (in descending order by number of employees).



Occupations of people working in Toppenish are represented in the chart below: farming occupations, 25%; service occupations, 11.8%; professional specialty occupations, 11.3%; administrative support occupations, including clerical, 11.1%; machine operators, assemblers, and inspectors, 7.9%; sales occupations, 7.8%; and, to a lesser degree, handlers/equipment cleaners/helpers/laborers; precision production, craft, and repair occupations; executive, administrative, and managerial occupations; transportation and material moving occupations; protective service occupations; technicians and related support occupations; and private household occupations.



Private, for profit wage and salary workers, self-employed workers, and unpaid family workers added together make up 80.8% of Toppenish's employment. Local, state, and federal government workers make up the remaining 19.2%.

Economic Base

Toppenish's major employer is Yakima Valley Farm Workers Clinic with approximately 260 employees. Other industries in Toppenish (in descending order by number of full-time employees), include the Washington Beef, The Yakama Legends Casino, Department of Social and Health Services, Silgan Containers Corporation -- a manufacturer of cans, Del Monte Foods U.S.A. (70 full-time, expanding up to about 200 employees in summer months), Safeway, and Toppenish Community Hospital. The Toppenish

School District, although it only employs 7 people within their district office, has approximately 380 teachers and support staff located at its schools throughout the city.

Toppenish School District located in the heart of the Yakima Valley. TSD serves approximately 3,300 students. Of that number, seventy-five percent are Hispanic and another eighteen percent are Yakama Nation Native Americans with the remainder of the students being non-Hispanic and Non-Indian.

The district operates seven schools including four elementary schools, a middle school, an alternative school for grades 7-12, and a high school which houses grades 9-12. There are over 200 certificated staff members working in the district and more than 180 classified employees.

This would make the School District among the largest employer in Toppenish. In the Urban Growth Area the Yakama Nation Headquarter employs an estimated 200 people

Economic Forecasts

Within Yakima County, agricultural activities, manufacturing and wholesale trade activities related to agriculture are expected to remain strong over the five year forecast period. The wholesale trade sector is expected to show the highest rate of growth over the next five years at approximately 3.5% per year. Slight increases in the service sector also should develop as the population grows and demands for services occur. This rate of growth is estimated to be about 3.0% per year. Tourism should continue to be fairly strong.

Retail businesses, especially small businesses, tend to be sensitive to demographic and population changes and the accompanying demand for goods. Toppenish's small retail businesses tend to show this sensitivity to change and respond to local needs.

Analysis of Physical Conditions

There are few natural constraints to development in Toppenish and its urban growth area. Few critical areas can be found within Toppenish and in the unincorporated lands in the urban growth area. Critical areas examined included steep slopes, other geologic hazards, floodplains, wetlands, and fish and wildlife conservation areas. Wetland data for the Toppenish 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. NWI mapping was used by Yakima County in their recent update to the CAO. The NWI map for the City of Toppenish and associated UGA can be seen in Figure 1.5 in the Natural System element. Most of the wetlands are open water wetlands, and are associated with the Wanity Slough, located in the urban growth area. The entire central area of the City does not contain any wetlands. There are 7 wetlands in the northern part of the city that are most likely associated with the Yakima River. The southern section of the UGA does contain a few high quality wetlands and numerous low quality Type III Wetlands.
These wetlands were identified from the U.S. Fish and Wildlife Service National Wetlands Inventory and placed into four categories or types by Yakima County in their Critical Areas Ordinance for regulatory purposes. This classification system is used by the county and by the city of Toppenish, and is based on

Washington State's Four-Tier Wetland Rating System. It has also been calibrated to emphasize the local nature of wetlands found within Yakima County.

Land in and around the city is located within the 500-year and 100-year floodplain of the Yakima River in an essentially flat area of loamy and silty-loam soils underlain by an alluvial sand and gravel substrata.

Most of the soils found within the city of Toppenish and its urban growth area are prime farm land soils which may be associated with a severe/seasonal high water table which can create some of the limitations mentioned above. Most recently on February 2, 2007 a FEMA mandated change took effect that switched most of the area northeast of North Track Road from the 500-year floodplain to the 100-year floodplain. Figure 1.4 in the natural system element shows the current FEMA approved floodplains map for the Toppenish vicinity.

Manmade physical constraints may limit development (but more often create opportunities) in terms of access to new development for potential clientele and shipping functions. These constraints include: the Washington Central Railroad tracks which divide the city into eastern and western halves; the canals and drainage ditches; and State Routes 22 and 97. These barriers must be crossed or bridged at a cost generally higher than that for normal roadway construction.

Analysis of Infrastructure

Water System

The domestic water system in Toppenish consists of a municipal water supply system made up of five operating deep wells with a combined pumping capacity of approximately 4,075 gallons per minute (gpm) or 5.87 million gallons per day (mgd). Water storage occurs in two elevated steel reservoirs with a combined capacity of 700,000. The city also has a standpipe reservoir with a 1,000,000 gallon capacity (of which 668,900 gallons are available). See the Capital Facilities Element for a more complete description of water system facilities and capacities.

The water supply currently meets the needs of the residents and businesses in Toppenish, as well as some county residents. At the present time, private wells provide potable water to most of the county residents within the UGA. As part of the 1994 update of the comprehensive water plan, a water conservation program is being developed where public education will play a large role in encouraging water consumers to decrease their water usage by implementing water conservation measures such as Xeroscaping. As the current rate schedule does not encourage water conservation, the city has proposed a rate structure which will help to discourage residential water usage beyond 1,000 cubic feet per month.
In 2005, the City of Toppenish applicated and were granted 10 year Existing Use Permits for each well from the Yakama Nation Water Code Department. These Existing Use Permits are renewable and are for the same production capacity as applied for the state certified water rights via Department of Ecology. Tables 3.7 and 3.8 in the Capital Facilities Element elaborates the improvements to water system facilities that were identified by city staff in 2007 as being necessary to support additional connections on an estimated growth rate of 1.0% per year.

Wastewater Disposal Facilities

Toppenish's sewage treatment facilities and drying beds are located on Germantown Road on three parcels totaling about 17.6 acres. The wastewater treatment system is a rotating biological contractor (RBC) system.

The present capacity of the treatment plant is approximately 12,950 persons. With a current population of approximately 9,015 persons (2006 OFM Population Estimate), the treatment plant is operating above the approved design capacity. In 2007, the city began making improvements to the treatment plant to bring it into compliance with EPA requirements for the water quality of its discharge.

When the treatment plant reaches 85% capacity, a new round of wastewater treatment planning is triggered. The improved treatment facility should adequately serve Toppenish without reaching 85% capacity until about the year 2025 based on the high growth projection (see the Capital Facilities Element

for a more complete description of wastewater treatment processes, facilities, and capacities).

Storm Water Facilities

Most of the storm water in Toppenish flows into 18.2 miles of storm sewer collector pipe and 5.6 miles of the larger interceptors. The city has also installed a pumping station devoted exclusively to storm water. The city completed an infiltration and inflow study that looked for sources of increased flow and volume of water being treated at the wastewater treatment plant. In areas where infiltration was found, the city has replaced pipe and has been able to decrease flow.

Analysis of Public Facilities and Services

Public services are an integral part of land use planning to accommodate future growth in Toppenish, as the amount of land area that these uses consume can be considerable. Included within this category are: public facilities and services, such as local and federal government facilities, institutional uses, medical and emergency facilities, parks and recreational facilities, and cultural facilities such as libraries, museums and Yakama Nation Facilities. Other uses include lands and facilities devoted to public and private utilities.

The city has a total of 168.1 acres or 18.7% of the city's total land area devoted to public facilities and services. Local, state, and federal government facilities include: the city hall; the Department of Social and Health Services (DSHS); the National Guard Armory; and the post office. Institutional buildings include: six schools and the administrative offices for the Toppenish School District; and nineteen churches. Medical and emergency facilities, include: Toppenish Community Hospital; the fire and police stations; and, parks and recreational facilities include: and eight parks. Cultural facilities include: the library; the Toppenish Museum; the American Hops Museum; and the Yakima Valley Rail & Steam Museum. Within the urban growth area (UGA), about 49.6 acres or 3.1% of the UGA's total land area are devoted to public facilities. These public facilities consist primarily of the Elmwood Cemetery, the city's wastewater treatment plant and drying beds, and other utilities. The location of public services should be determined carefully, as there are important health, safety, environmental and aesthetic considerations associated with their location.

Police and Fire Protection/Medical and Emergency Facilities

Fire protection for city residents is provided by the city of Toppenish. The fire department is located at 514 W. 2nd Avenue. Police protection is provided by the city of Toppenish within the city limits and by the Yakima County Sheriff's Office for the remainder of Toppenish's urban growth area. The city, county and state have a mutual aid agreement for protection services.

The Toppenish Fire Department also provides emergency medical services for victims of trauma or severe medical problems within the city and it’s UGA. The firefighters do an evaluation of the victim, provide first aid, and prepare for transport by American Medical Response Company Ambulance.

Toppenish Community Hospital provides 24-hour emergency service. Emergency helicopter services are provided by Medical Assistance and Safety for Transportation (M.A.S.T.).

Public Education Facilities

Educational services for the city are provided by the Toppenish School District No. 202. There are four elementary schools, one day care, one middle school, one high school, and one alternative school within the city. The administrative and special services offices and the bus garage and maintenance facility for

the School District are also located in the city. Also within Toppenish city limits is the Yakima Valley College Adult Education Center. In the urban growth area, on Linden Way, is the Smartlowit Education Center which administers the Head Start Program for the Yakama Indian Nation.

Government Facilities

To provide basic support facilities to Toppenish residents, there is a city hall and the library. The city hall is open 40 hours per week, and the library is open approximately 42 hours per week. City Hall is experiencing overcrowding, and the city is looking at potential solutions to this problem. The Yakama Tribal Library and Museum is located at the Cultural Heritage Center and is open to the public.

Parks and Recreational Facilities

The city has nine parks and nine "Urban Beautification Areas". Other recreational facilities include facilities provided by the Toppenish School District, and several commercial facilities: an 18-hole golf course, the rodeo grounds, karate and health studios. At the present time, there is a lack of soccer fields for use by youth and adult soccer leagues. The Toppenish School District has no plans at this point in time to make any improvements to its soccer fields, as improvements to increase school capacity and reduce safety hazards are a greater priority.

Currently, the city has approximately 20.8 acres of developed open space (this figure does not include school district or private commercial facilities) per a 2006 OFM population estimate of 9,015 persons. The Elmwood Cemetery located on approximately 24.8 acres in the urban growth area is also described as open space in the 1992-1997 City of Toppenish Parks & Recreation Comprehensive Plan. The National Park and Recreation Association Guidelines recommend that a park system, at a minimum, be composed of a "core" system of park lands, with a total of 6.25 to 10.50 acres of developed open space per 1,000 population. The city of Toppenish's park system has a ratio equivalent to 2.31 acres of developed open space per 1,000 persons, and is deficient in this regard. This ratio does not include the cemetery which is not considered to be a developed open space and is located in the urban growth area, or facilities provided by the School District.

Population Projection

As shown in Table 2.6, the year 2025 projected population of 11,410 persons for the city is about 26% greater than the current 2006 population (OFM estimation). Approximately 704 housing units[6] would need to be built within the city limits by the year 2025 to satisfy the additional population of 2,395 for the city. As indicated previously, the majority of these units would need to be built in the urban growth area as there is insufficient capacity within the city limits.

TABLE 2.6 City of Toppenish: Population Projections for the City limits + UGA

Year	2006	2015	2025
Current City Limits	9015	10,219	11,410
Urban Growth Area	674	744	782
Total	**9,689**	**10,963**	**12,192**

In the above analysis, the city of Toppenish's population projection includes both 1) the current city limits, and 2) potential annexation of most of lands within the urban growth area (UGA) into the city.

Comparison of Build-Out Scenario and Population Projection

Table 2.7 below shows a comparison of Toppenish's population at build-out and the projected population for the year **2025**, under the high growth scenario. The high growth projection is approximately 14% greater than the potential population at build-out for the city and its urban growth area.

TABLE 2.7 Comparison of Build-Out Scenario and High Growth Population Projections for the Year 2025

	Population at Build-Out	High Growth Population Projection
Current City Limits	11,410	13,113
City Limits + UGA	12,192	13,895

VI. LAND USE PLAN CONCEPT

The Land Use Plan Concept is a vision of how the city of Toppenish will grow and develop in the future. The Plan Concept will indicate where new commercial and industrial development will go, and where new homes for residents will be located. The Land Use Plan Concept will also show where recreation and open space lands, which includes resource and other environmentally sensitive lands are, and how they will be protected while encouraging economic development for the city.

The Plan Concept for Toppenish is based on the Future Land Use map for the City of Toppenish and UGA (Figure 2.5). The Land Use Plan Concept map for the city and its urban growth area show the distribution of land which currently supports urban uses or is zoned for urban uses. The map also

includes those lands which are surrounded by more intensive urban uses or have been platted into smaller lot parcels. These areas are noted on the map as "urban".

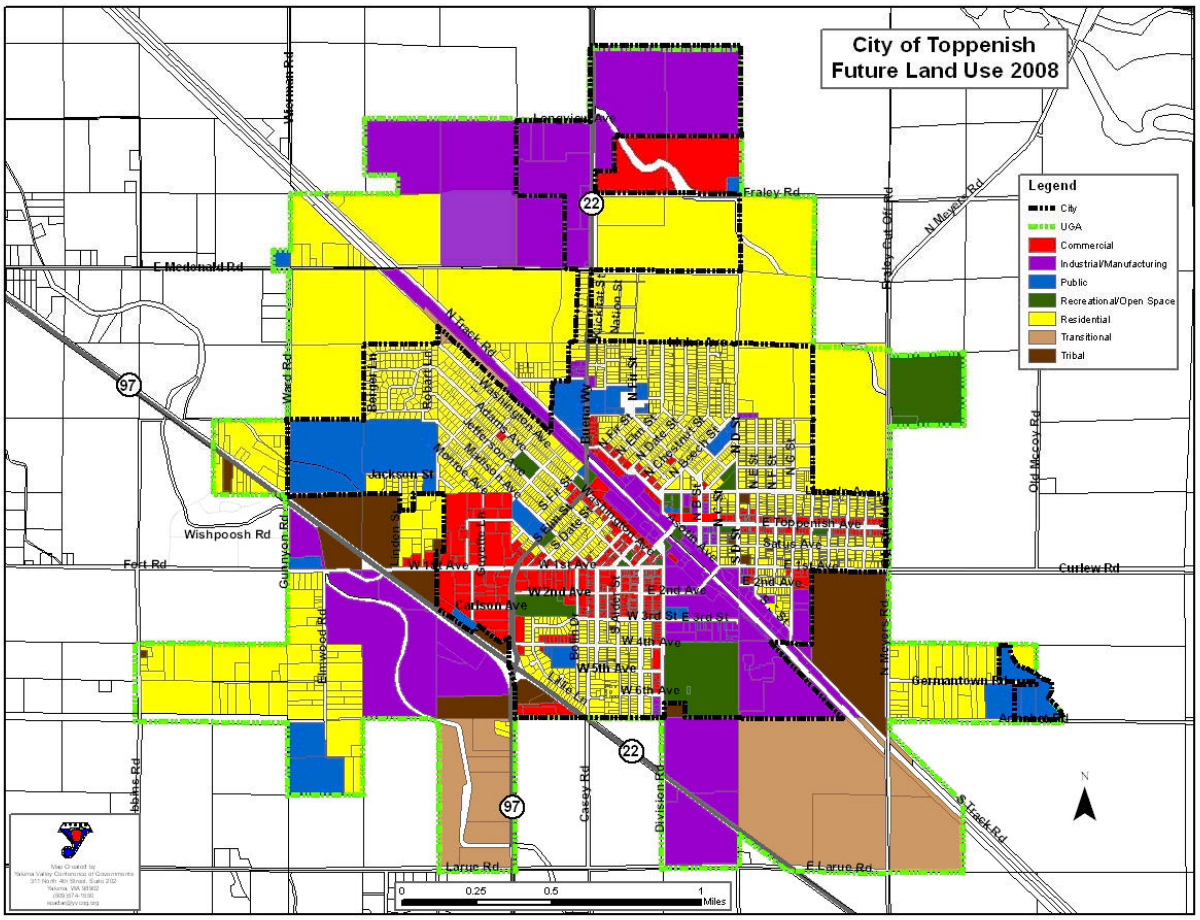
The Plan Concept map for the city of Toppenish and the urban growth area also shows the distribution of land which is currently zoned for less intensive or more rural uses. These areas are noted on the map as "transitional". The concept of urban and transitional lands is explained in greater detail throughout this section.

The Future Land Use maps for the city of Toppenish and its urban growth area show the anticipated type of future development and the potential location of this future development within these two areas. The city of Toppenish will use these maps to guide future development and to assist in evaluating development proposals. These maps may change over time to reflect changing development patterns, landowner or developer requests, or other factors. If development pressures are less than anticipated, then some of the areas shown on these maps will not transition into more intensive urban uses shown over the 20 year planning horizon.

It is intended that the transitional areas identified in the Land Use Plan Concept map act as urban reserve areas. These areas act like a savings account where lands are set aside for urban development and are withdrawn as needed to accommodate future growth. The transitional areas will keep their less intensive and rural zoning until such time that they are proposed for development, annexation or rezone. At that time, the city of Toppenish will use the Future Land Use maps to guide the determination of the appropriate zoning for the area. The use of the Land Use Plan Concept and Future Land Use maps in this way should allow current uses to continue until such time that the land is needed for development.

Implementation of these future land use designations are planned to be developed over the next few years, and as such may not currently be reflected in the existing zoning ordinance and subdivision requirements.

Figure 2.5



Urban Areas

Urban areas are those areas where most of the new housing, jobs in industry, commercial and professional businesses and services will be concentrated, and where the majority of public spending for facilities, services, and recreational facilities and parks will occur. Urban areas are areas where infill development, small lot sizes and higher density zoning are encouraged, where services have already been provided or planned for within the next twenty years, and where sufficient capacity exists. A variety of housing types of different sizes and character, as well as residential densities, can also be found within urban areas. Educational, cultural, community facilities and recreational resources such as parks, natural open space and other amenities will be provided in these areas where most of Toppenish's population resides.

Urban area designations are based on the following factors:

1) Urban development shall occur where natural features and land characteristics are capable of supporting it, without significant environmental degradation.

2) Public facilities and services (such as sewers, water, fire and police protection and transportation) are in place, or can be provided at reasonable cost to accommodate urban growth.

Urban area designations on the Future Land Use maps are categorized as follows:

Residential Lands

Residential development as shown on the Future Land Use map consists of the following subcategories:

- Rural Residential/Residential Suburban: Areas appropriate for rural residential living (low-density residential development) are areas close enough to permit commuting to work, that also includes small-scale farming or hobby farms, which can be used to buffer nearby resource lands (large scale farms, orchards and mineral resource areas) from more intense residential and other urban development. Density for this residential subcategory does not exceed 3 dwelling units per acre, depending on the suitability of the land for development, and the availability of water and sewer services, and police and fire protection services.

- Low/Moderate Density Residential: This land use category is intended for residential uses at a density ranging from 4 to 7 dwelling units per units per acre, and for lands within the urban growth boundary that have environmental constraints and are not suitable for higher density development. Examples of this type of residential use, includes single family residences, duplexes, triplexes, fourplexes, apartments, condominiums, manufactured home subdivisions, planned developments, and mobile home parks. Public water, sewer, police and fire protection services are available.

- High Density Residential: Areas consisting of residential uses at a density of 8 units per acre or greater. Examples of this type of residential use, includes apartment complexes, condominiums, planned unit developments, and mobile home parks, as well as residential lands that are adjacent to the commercial core or to critical public facilities.

Related nonresidential uses

In addition to residential uses, public facility and institutional uses such as schools, churches, parks, and other public uses which support residential land use may also be found in this land use category.

Commercial Lands

This land use category includes retail and wholesale, as well as medical and professional businesses. It may also include public and institutional uses such as city buildings, city-owned parking lots, community centers, schools, and parks. Commercial areas should provide for the continuance and/or expansion of existing businesses within the city. Development within the city shall be encouraged that promotes the development of, and/or retention of retail businesses in Toppenish.

Industrial Lands

Industrial lands consist of areas for industrial development, including manufacturing, processing, packaging, or storage of products or articles. These areas may also be appropriate for large commercial

development and for public facilities such as public works shops, water and wastewater facilities, and facilities of regional or statewide significance.

Light industrial development does not involve the use of materials, processes or machinery likely to cause undesirable effects on nearby residential or commercial property. Industrial businesses related to agriculture which causes little or no environmental impacts on surrounding land uses are encouraged in this category.

Heavy industry includes all types of manufacturing, assembly, fabrication, processing, distribution and

storage that are likely to generate high levels of noise, light, odor, fumes or smoke.

These industrial areas should allow for the continuance and expansion of existing industry in a manner that preserves areas near designated truck routes and the railroad, directs heavy truck traffic away from residential areas, and has minimal impact on surrounding land uses.

The city may in the future consider revising the classification of permitted and conditional uses both in their M-1 (Light Industrial District) and M-2 (Heavy Industrial District) zones to allow for a better fit for the types of industries coming to Toppenish that do not fall under either zone. The other option the city is considering is revision of the section of the code that addresses special property uses [Chapter 17.56]. The industries that do not fit under either of the industrial zones would then be classified as special property uses.

Public Lands & Facilities

This land use category consists of lands and facilities that are suitable and desirable for public and institutional uses necessary to meet the needs and requirements of the residents of Toppenish and surrounding areas. Existing public facilities and lands are usually found in residential and commercial areas of Toppenish. As the need for expansion of these existing facilities arises, it is likely that they will also be located in these areas. Examples of these types of facilities and lands include: churches, schools, recreational facilities and lands including parks, trails, etc., fire and police stations, city buildings, city-owned parking lots, water and wastewater facilities, libraries, community centers, and other similar public uses.

Transitional Areas

Transitional areas are those lands within the urban growth area that are physically suitable for urban or rural development, and which currently have very low service and development levels, mainly consisting of farms or undeveloped agricultural lands. The purpose of the Transitional Area designation and its implementing measures is to allow agricultural uses to continue, while setting aside large tracts of land for future urban development through interim low densities and clustering. In addition, these transitional areas will preserve appropriate areas for a more rural lifestyle. This designation will help phase growth by limiting growth in these areas until urban facilities and services can be provided.

Transitional area designations on the Future Land Use Map meet, or are based on the following factors:

1) Lands within these areas are currently rural or developed at very low densities.

2) Urban development shall occur only where natural features and land characteristics are capable of supporting it, without significant environmental degradation.

3) No major physical barriers exist to providing urban services in the future at reasonable cost.

4) Significant amounts of vacant lands in large parcels are already present in these areas which allow the options of either further urbanization or long-term rural densities.

Open Space Areas

Open space lands that possess valuable scenic, recreational or environmentally sensitive characteristics make up this land use category. Natural open spaces such as hilltops that offer scenic vistas - mountains, or shelter wildlife are examples of other open space lands.

Open space designations in Toppenish and the Toppenish vicinity include natural and other areas in

public ownership that enhance the quality of life in, or character of, the city. Also included in this category are those private lands protected through voluntary efforts such as land trusts or through open space tax assessments as defined in RCW 84.34. RCW 84.34 states that property owners who preserve natural resources to be enjoyed for their scenic beauty and our economic and social well-being will be given property tax breaks, and their lands will carry the current open space classification. The following types of lands will carry the open space designation:

1) Lands strategically located to provide scenic amenity and community identity within and between areas of urban development.

2) Environmentally sensitive areas protected by regulation, including wetlands, floodways, and steep slopes.

In determining the future land use needs to project Toppenish's preferred future, the following assumptions and preferences, as shown in Table 2.9, were made.

Long-range Land Use Needs

This section outlines how much land will be needed to accommodate the growth projected for Toppenish and its urban growth area by the year 2025. The Land Use Plan Concept and this analysis provide the basis for the city's future land use map, see Figure 2.5. This future land use analysis also ensures that adequate amounts of land are allocated for various land uses.

Residential land use needs

At the high growth rate, 1073 additional units would be needed to service a year 2025 population of 13,113. The amount of land needed to accommodate these projected housing needs depends on several factors, such as whether the city wishes to continue to encourage the predominately single family development pattern or wants to provide its residents with more housing choices by encouraging multifamily development at higher densities to locate in Toppenish through comprehensive plan goals and policies. Currently, about 77.9% of the housing units within the city consist of single family dwelling or manufactured housing units, and 22.1% consists of multifamily units.

TABLE 2.8 Assumptions and Preferences Used in Projecting Toppenish's Preferred Future

Basis of Year 2025 Land Use Need Projections	
Year 2025 Population Projection = 13,113 (High Projection)	
Residential	Assumes an average household size of 3.84 persons (from the 2000 Census); also assumes an overall average of 0.18 net acres per single family or manufactured housing unit and 0.21 net acres per multifamily structure.
Commercial	Presently, Toppenish has approximately 6 acres (B-1 & B-2) of commercially zoned vacant land, which is insufficient to meet its future commercial needs. The future economic development efforts in the city will focus on retaining and/or expanding existing businesses and creating and/or attracting new businesses.

Light Industrial/Heavy Industrial	Based on location and size of existing industrially zoned sites, regional economic development evaluations, and suitable local sites. Within the city, there are about 2.58 acres of M-1: Light Industry and 49.29 acres of M-2: Heavy Industry zoned vacant land. This amount of vacant industrial lands is also insufficient to meet the city's future industrial and local industries' expansion needs. The future economic development efforts in the city will focus on retaining and/or expanding existing businesses and creating and/or attracting new businesses.
Public Land Use	Based on the estimated land requirements of capital facilities needs.
Agricultural	Considers all agricultural land transitional; and assumes continued agricultural use until conversion to other uses takes place.
Recreational Land Use/Open Space	Based on National Parks & Recreation Association Guidelines of 6.25 to 10.50 acres of developed open space per 1,000 population. Areas and acreage dedicated strictly to open space are dependent on opportunities presented by natural conditions.
Streets and Rights-of-Way	25% of the total land requirement listed above is needed for streets and rights-of-way, plus the potential need to increase the widths of existing rights-of-way.
Market Choice/Locational Preference	Allow 25% of the total land requirement above, including streets and rights-of-way for market choice and location preference.

For the purpose of determining the total land requirement for new housing in the city, two scenarios are possible. The first assumes that housing densities will remain fairly constant in the future, and the average lot size for single family or manufactured housing developments will be similar to the current average lot size. The second scenario looks at the amount of land required for single family, manufactured housing, and multifamily developments if built to the minimum lot sizes of each existing residential zone.

For the first scenario, out of 1,073 additional housing units needed, 764 units will consist of single family homes, and 72 units will be manufactured housing units on single lots or in mobile home parks. For single family units, about 137.52 acres will be needed, and for manufactured housing units roughly 12.86

acres will be needed, both at an average parcel size of 0.18 acres. Multifamily development (3 or more units) would require about 11.85 acres for 237 multifamily units based on an average parcel size of 0.21 acres (0.05 acres per unit). Sufficient acreage and units now exist to accommodate the projected need for nonstandard housing types. This scenario yields a total land requirement of 162.23 acres as needed to support the additional 1,073 housing units.

The second scenario would require about 122.24 acres to support the 764 single family units, 11.52 acres to support 72 manufactured housing units on single lots or in mobile home parks, and about 11.85 acres for 237 multifamily housing units based on an average lot size of 0.21 acres (0.05 acres per unit). This scenario results in a total land requirement of 145.61 acres as needed to support the additional 1,073 housing units.

Commercial land use needs

The city currently maintains approximately 103 acres in commercial types of uses. About 69 acres are devoted to service oriented businesses and 34 acres to retail trade. If a 33% increase in the population of the city of Toppenish in twenty years is projected, then it is likely that new businesses will be needed to serve that population. For the purpose of this discussion, and not based on a specific analysis, we can assume that the additional population will require about the same ratio of commercial acreage to

population, i.e., approximately 34 additional acres. The city has identified approximately 51.4 acres (consisting of 2 parcels currently in agricultural use) along Fraley Road for future large scale commercial development.

Industrial/Manufacturing land use needs

In Toppenish, approximately 350 acres are devoted primarily to food manufacturing activities and warehousing that supports those activities. Another 11.42 acres is devoted to other manufacturing activities, and 2.14 acres are devoted to contract construction activities. The city's approach to economic development, including industrial development, is based on Yakima County Development Association's guidelines, which are to retain and/or expand existing industries and to create opportunities for new industries to locate within Toppenish. Below are some of the actions the city intends to take to accomplish these goals.

The city would like to attract additional food manufacturing and other industries to Toppenish, and has identified on its Future Land Use Map, about 287 acres within the city, and 625 acres in the urban growth area (the majority of this acreage is currently in agricultural use) for this type of development. The acreage that is set aside for this purpose is intended to accommodate medium density industries (roughly 8 employees per acre) and would allow for the development of 5,928 new manufacturing jobs in Toppenish[7], if all available industrial acreage in these areas were developed.

An additional 280.79 acres (not including Native American lands) has been designated transitional on the Future Land Use map. These lands are currently made up two parcels totaling 42.97 acres used by Del Monte Foods U.S.A. as spray fields, and two parcels owned by Burlington Northern Railroad (7.15 acres). The city anticipates that these parcels will transition to industrial use in the future, as the proposed

industrial park complex develops. This area would allow for the development of 1,684 new manufacturing jobs (based on about 8 employees per acre).

The city also supports the expansion of existing industries within the Toppenish area, such as Del Monte Foods U.S.A. and Washington Beef. Both of these companies are currently undergoing expansions of their operations, which will provide more jobs to the city.

Public land use needs

At the present time, the city has not identified any lands as needed for public land uses. Other public land use needs will be assessed on a yearly basis during the budget cycle, and the six year capital facilities plan will be updated accordingly.

Agricultural land use needs

Agricultural production within the urban growth area is expected to continue as is necessary to support Toppenish's agricultural base. However, these lands will be considered to be transitional. These lands may be developed for future residential, commercial or industrial uses in compliance with local land development regulations and at the landowner's discretion.

[7] To accommodate utilities, parking and streets, 25% of the total acreage set aside for future manufacturing industries was subtracted from the total acreage. The remaining figure was then multiplied by 8 employees per acre to arrive at the total number of new manufacturing jobs.

Recreational land use and Open Space needs

Toppenish has 27.53 acres of recreational lands, including "Urban Beautification Areas", but not including school recreational or private commercial facilities. The city has an inadequate supply of parks and recreation lands to meet the needs of the current population. To serve recreational needs in the future, an additional 65.7 acres of recreational lands has been identified as needed for the anticipated year 2025 population of 11,410 persons. This is based on a recommended ratio of 7.72 acres of developed open space per 1,000 persons by the National Park and Recreation Association Guidelines. This recommended ratio falls approximately in the middle of the recommended range of 6.25 to 10.50 acres of developed open space per 1,000 persons.

The city has identified one 36.3 acre parcel in the northeastern portion of the urban growth area, on the east side of Toppenish-Zillah Road, for a potential city-county park that would serve the East Toppenish area.

Streets and Rights-of-Way

At the present time, the estimate of how much of Toppenish's total land area that is used for streets and rights-of-way is low. As a rule of thumb, an additional 25% of land area will be for future streets and rights-of-way. To support residential, commercial, industrial, public land uses and other land uses, an estimated 514 acres will be needed. In addition, 128 acres will be required for streets, which will make this future land area requirement a total of 642 acres.

Other land use needs

Some additional land area is probably needed to allow for market choice and locational preferences. This land area should be small enough as to not encourage the inefficient development and provision of city services; yet large enough to minimize speculation that may increase land prices. When the need arises

these lands could transition into any of the above land uses. For the purposes of discussion, an additional 25% of the total land area requirement has been assumed to be a reasonable figure for other land uses, which represents an additional 193 acres.

VII. GOALS AND POLICIES

This section presents the land use goals and policies for the city of Toppenish. Table 2.10: Land Use Element Goals & Policies shows the relationship between the city's goals and policies and GMA Goals, Countywide Planning Policies and Focus 2010 goals and objectives.

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 growth in order to achieve goals of the Comprehensive Plan.

Policy 1.2 The City should resist growth pressures that could adversely affect community values and amenities, and support development that furthers community goals.

Policy 1.3 Encourage urban infill where possible to avoid sprawl and the inefficient leapfrog pattern of development.

Policy 1.4 Educate the public about the long-term benefits of concentrating urban development vs. sprawl development.

Policy 1.5 Accommodate future population growth primarily through infilling and utilization of undeveloped subdivision lots. Conversion of agricultural land to residential, commercial, or industrial use will be encouraged to occur only after existing undeveloped parcels have been built out.

Policy 1.6 Adopt the high population projection in the Comprehensive Plan as the guide for the amount of growth the City will accommodate through the year 2015.

Policy 1.7 Revise the urban growth area as needed, and ensure that the urban growth area includes all lands within current city limits and sufficient land contiguous to the city limits to be able to support Toppenish's growth through the year 2015 without major environmental impacts.

Policy 1.9 Revise development regulations as needed to be consistent with the adopted Comprehensive Plan.

GOAL 2

Coordinate land uses to minimize the loss of natural resources due to urbanization, and reduce uncertainty and unpredictable development which sacrifices conservation and sound land management.

Policy 2.1 Preserve and expand natural resource lands and support occupations associated with agriculture, farming, and tourism within agricultural areas adjacent to the city and its urban growth area.

Policy 2.2 Support the protection of agricultural and other resource lands within the Toppenish area from incompatible development, keeping them available for recreational use, wildlife habitat, and economic purposes.

Policy 2.3 Establish an ongoing education program which begins in area schools, and promotes awareness of the value of area resources, including defining the necessary steps for their protection.

GOAL 3

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 3.1 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 3.2 New urban development shall be encouraged to locate first, within the city limits and second, within the urban growth area where municipal services and public facilities are already present.

Policy 3.3 Development within the unincorporated portion of the urban growth area shall be

encouraged 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 area boundary.

Policy 3.4 To facilitate planned growth, the City encourages 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.

Policy 3.5 Future land uses will be coordinated with the Transportation and Capital Facilities Elements of the Comprehensive Plan.

GOAL 4

To pursue well-managed, orderly expansion of the urban area in a manner that is within the sustainable limits of the land.

Policy 4.1 The future distribution, extent, and location of generalized land uses will be established by the Future Land Use map contained within this plan.

Policy 4.2 Develop predictable, coordinated land use regulations including a transitional process (rural to urban) which minimizes conflicts between rural and urban land uses.

Policy 4.3 Provide residential areas that offer a variety of housing densities, types, sizes, costs and locations to meet future demand.

Policy 4.4 Ensure that new residential development makes efficient use of the existing transportation network and provides adequate access to all lots.

Policy 4.5 Prevent incompatible uses from locating adjacent to each other. Encourage protection of other land uses from the negative impacts of industrial uses through appropriate siting, setbacks, landscaping and buffering.

Policy 4.6 Provide ample opportunities for light industrial development at locations with suitable access and adequate municipal services. At these locations, encourage industrial park-like development.

Policy 4.7 Attempt 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.

Policy 4.8 Provide an efficient and predictable development process that provides for ample public discussion of proposals for development.

GOAL 5

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

Policy 5.1 Develop a clean physical appearance as part of an appropriate image for the community. Encourage property maintenance and clean vacant lots. This will be accomplished

through code enforcement and the city's rental licensing program.

Policy 5.2 Make revitalization of the downtown core one of the priorities in establishing an appropriate image for the community. As part of the revitalization effort, use urban design treatment (consistent with the city's western theme) to make the downtown a safe, comfortable, clean and convenient place for visitors to be and go. Consider improvements that provide some kind of amenity for shoppers, such as: canopies or marques to protect pedestrians from the climate, large display windows, wide sidewalks with trees, flowers, and occasional benches for people to rest.

Policy 5.3 Identify, preserve and protect archaeologically, architecturally, and historically significant structures and sites where feasible as a means of strengthening the community's identity and image.

GOAL 6

To preserve the character, agricultural heritage, and quality of life in Toppenish and the surrounding rural areas that are part of the community.

Policy 6.1 Encourage land use decisions that are sensitive to Toppenish's historical theme, history and culture.

Policy 6.2 Establish a pattern of development that supports a sense of community.

Policy 6.3 Ensure that new development in Toppenish enhances the "quality of life" within the community, and that any environmental problems that arise from such development are corrected by the developer through enforcement of subdivision control, regulations and fees.

Policy 6.4 Utilize recreation facilities and open space lands as a means of enhancing community image and the general quality of life. Strive to accomplish the following:

- Providing a balance of active and passive recreational uses in both existing and proposed parks with a priority on pedestrian access to the natural environment. Active recreational uses include programmed parks with play grounds, play fields and ball courts. Passive parks feature shaded areas, pathways, benches and picnic tables.

- Encouraging the development of recreational activities that meet the needs of the residents of Toppenish. Where feasible use existing public schools as neighborhood parks and recreation/community center locations.

- Continuing to work with the Toppenish School District No. 202 to establish joint use agreements to increase available park land and facilities.

- Developing baseball/softball and soccer fields and volleyball courts in the community that serve local needs.

- Limiting the use of open lands designated to remain in their natural state to those activities which will: A) Maintain their scenic beauty and aesthetic qualities; and B) Provide for recreational activities compatible with these goals.

Policy 6.5 Upgrade existing parks and recreation facilities to include additional rest rooms, lighting and automated irrigation systems.

Policy 6.6 Build upon Toppenish's rural characteristics by facilitating the necessary agricultural services and facilities that support surrounding agricultural land uses.

GOAL 7

Continue to make tourism a major component of Toppenish's economic base.

Policy 7.1 Provide activities to attract tourists, and make continuing identification of tourist preferences a basis for defining the focus of Toppenish's tourist programs and facilities by using the Tourism Development Fund and nongovernmental community sources.

Policy 7.2 Advance and promote the western theme and slogan "Where the West Still Lives". Update the Design Review Ordinance and related ordinances.

Policy 7.3 Support the murals project provided by the Toppenish Mural Society.

Policy 7.4 Support local museums, including the Toppenish Museum, American Hops Museum, and the Yakima Valley Rail & Steam Museum.

Policy 7.5 Maintain attractive appearance of city facilities (parks, streets, and other public areas).

GOAL 8

Develop an economic development program to attain the highest level of economic well being for the City and its residents that achieves the following:

- ***Creates a stable and diversified economy with a wide range of goods and services.***
- ***Recruits new industry and businesses to the community to diversify Toppenish's economy and provide a wide variety of year-round employment.***
- ***Encourages new industrial and business development and supports the retention and expansion of existing businesses and industries with a predictable development atmosphere.***
- ***Creates balanced employment and a range of housing opportunities as the economy changes.***

Policy 8.1 Develop an industrial park, including acquisition of appropriate sites, and developing the infrastructure, facilities and access (transportation facilities), and develop a "shell" building to assist start-up businesses and support diversified industry and value added agricultural products.

Policy 8.2 Encourage annexation and development of property (including expansion of existing industries) for environmentally sound and sustainable commercial, industrial and residential growth.

Policy 8.3 Establish a strong working relationship with the Yakima County Development Association (YCDA) to accomplish implementation of economic development goals and complement the city's Community Development function in economic development

activities.

Policy 8.4 Seek legislation to create a Port District in Toppenish, which will help the city implement its goals of retaining and/or expanding existing industries and creating opportunities for new industries to locate in Toppenish.

Chapter 3 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.

To comply with the Growth Management Act (GMA), the following must be addressed by the capital facilities element:

- Inventory of publicly owned capital facilities, including their locations and capacities;
- Forecast of the future needs for such facilities;
- 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
- Reassessment of the land use element. The land use element must be reassessed if the probable funding falls short of meeting existing needs. In addition, the land use element must be reassessed to ensure that the land use plan, capital facilities plan, and financing plan are coordinated and consistent.

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, residential densities, 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 urban growth areas (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 urban growth areas 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 uses of corridors for major utilities, trails and transportation rights-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 urban growth areas as necessary to accommodate the infrastructure needs of business and industry; and

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 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 or Land Use Development

Urban Growth Areas

Urban Growth Areas (UGAs) 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.

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. Capital facilities are the physical structures owned or operated by a government entity which provide or support a public service.

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.

Major Capital Facilities Considerations

- At what point in time will it be feasible for the city to extend water and sewer lines to those areas of the urban growth area not currently within the utility service area boundary? With an increase in future population, to what extent will the city need to install new trunk lines?

- What types of improvements need to be made to the water system to accommodate the projected population of 13,113 for the year 2027?

- What types of improvements need to be made to the wastewater system to accommodate the population projected for the year 2027?

- Are impact fees appropriate for new development and large expansions to existing development in Toppenish?

II. TYPES & PROVIDERS OF CAPITAL FACILITIES

Service providers for the city of Toppenish and the unincorporated portions of its urban growth area are listed in Table 3.1. In some cases, the capital facilities supporting the services listed are located outside of the UGA.

TABLE 3.1 Service Providers, City of Toppenish/Urban Growth Area

Type of Service	City of Toppenish	Remainder of UGA
Fire Protection	City of Toppenish	Fire District No. 5, Station #9
Emergency/Rescue	City has a mutual aid pact with Fire District No. 5 and the Zillah Fire Department	Fire District No. 5, Station #9
General Purpose Government	City of Toppenish	Yakima County
State Highway	Washington State Dept. of Transportation	Washington State Dept. of Transportation
County Roads	N/A	Yakima County
Arterial Streets and Roads	City of Toppenish	Yakima County
Local Streets	City of Toppenish	Yakima County

Irrigation	Bureau of Indian Affairs	Wapato Irrigation Project/Bureau of Indian Affairs
Law Enforcement	City of Toppenish, Yakama Nation	Yakima County Sheriff; Washington State Patrol, Yakama Nation
Libraries	Mary L. Goodrich Library	Yakima Regional Library
Parks	Toppenish Park and Recreation District	None
Potable Water	City of Toppenish	City of Toppenish to limited county residents, or individual private wells
Public Health	Yakima County Health District	Yakima County Health District
Recreational Facilities	Toppenish Park & Recreation District; Toppenish District No. 202 for school facilities	None
Sewage Collection	City of Toppenish	City of Toppenish for portions of UGA, or on-site disposal
Sewage Treatment and Wastewater Disposal	City of Toppenish	City of Toppenish for portions of UGA, or on-site disposal, i.e. private septic tanks
Biosolids Disposal	City of Toppenish (on premises); utilizes drying beds	private septage hauling to Cheyne Road Landfill or Yakima Regional Wastewater Treatment Facility
Schools	Toppenish School District No. 202	Toppenish School District No. 202
Sidewalks	City of Toppenish	Yakima County
Residential and Commercial Solid Waste Collection	City of Toppenish	Waste Management, Inc. contracted with citizens and with the Yakama Nation
Solid Waste Disposal	Cheyne Road Landfill	Cheyne Road Landfill
Storm Water Control	City of Toppenish	None
Street Lighting	City of Toppenish	None
Traffic Signals	City of Toppenish	None
Transit	None, or very limited Medicaid only from People for People on a broker basis	None, or very limited Medicaid only from People for People on a broker basis

III. STREETS AND ROADWAYS

Characteristics of the street system and other transportation facilities and services are discussed in greater detail in the Transportation Element which follows as Chapter 4.

In 2005 the Washington State Department of Transportation (WSDOT) updated the Freight & Goods Transportation System (FGTS) for the City of Toppenish. In this update the most heavily traveled roads in Toppenish and those that are most important to the regional road system are functionally classified as Principle Arterials (State Route 22) and Minor Arterials (Toppenish Ave., W. 1st Ave., Division St.). Key roads, but of lesser importance than the Minor Arterials, are those roads classified as Collectors (N. Track Rd., Washington Ave., Adams Ave., Madison Ave., Franklin Ave., Chehalis Ave., Asotin Ave., W. 4th Ave., S. G St.). The remaining streets in Toppenish are functionally classified as local access.

The functional class of a roadway is important because it is a good indicator of what type of surface the roadway is paved with. Flexible pavements are those that are surfaced with bituminous (or asphalt) materials. These can be either in the form of a chip seal, which is generally found on lower volume (lower traffic) roads or hot mix asphalt pavements which are typically used on medium to high volume roadways. Chip seal is generally used on lower volume local roadways and has an expected life of 6 to 8

years, while hot mix asphalt pavement is typically designed for 20 to 50 year lives with routine overlays every 10 to 15 years.

Included in the roadway system is the City's storm drainage system. When roadway improvements are made, the associated drainage facilities are evaluated and the necessary improvements are incorporated into the street project.

Roadway Funding

A six year Transportation Improvement Program (TIP) is adopted by the City on an annual basis. The most recent program was adopted on July 17, 2006, and covers the years 2007-2012. In the past, Toppenish has relied upon personal property taxes, real estate taxes, and motor vehicle fuel taxes to finance minor street maintenance and improvement projects. 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: Urban Arterial Program (UAP), Urban Corridor Program (UCP), and the Sidewalk Program (SP). There are also federal grant programs that the City can pursue through the authorization of the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

Proposed funding of the recommended roadway projects is the continued use of a combination of tax monies (local funds), the State TIB programs, and the federal SAFETEA-LU and other sources. Over the past several years, the TIB has been an attractive source of funds, but this attractiveness has increased competition for funding. In addition to this, actions by the Governor and Legislature in 2006 now prohibit federal Surface Transportation Program (STP) Regional funds authorized by SAFETEA-LU from being distributed by direct allocation to local agencies in Washington State. Yakima Valley Regional Transportation Planning Organization (RTPO) must now distribute funds based on a prioritized competitive basis effective with development of the 2008 TIP. Over the past three Federal Fiscal Years (FFY) Toppenish has received $277,868 in direct STP Regional allocations that it must now compete for with other local agencies in Yakima County. The street budget should be reviewed annually and adjustments made to optimize the use of available funds and ensure competitiveness when competing for funds.

TABLE 3.2 Six-Year Street Capital Improvement Program

PROJECT TITLE	2007	2008	2009	2010	2011	2012	TOTAL
Berger Lane Street Project	$754,000	$0	$0	$0	$0	$0	$754,000
Toppenish & E. 2nd Ave. Railroad Crossings	$644,000	$0	$0	$0	$0	$0	$644,000
Rentschler & King Lane Improvements	$533,000	$0	$0	$0	$0	$0	$533,000
L Street Improvement Project	$0	$0	$0	$756,000	$0	$0	$756,000

Source: 2007-2012 Six-Year Transportation Improvement Program

Note: Project cost estimates are for total project cost and include any federal, state, or private funding the project has already received.

TABLE 3.3 Transportation Projects Priority Rankings

PRIORITY	PROJECT TITLE	TOTAL PROJECT SCORE
1	Toppenish & E. 2nd Ave. Railroad Crossings	160
2	Berger Lane Street Project	145
3	Rentschler & King Lane Improvements	90
4	L Street Improvement Project	75

Source: CTED Capital Facilities Planning Template

IV. WATER SERVICE

Water service in Yakima County is provided by public purveyors and individual private water systems. The "public purveyors" are placed into 4 categories by the Washington State Department of Social and Health Services (DSHS) and the Yakima County Health Department. These various classifications are listed below.

Class 1 A water system having one hundred 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 twenty-five 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 system.

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 Toppenish's municipal water supply system is a Class 1 system that the city owns. The city has approximately 2,264 services, including 74 connections outside of the city limits. The average daily demand is 1.92 million gallons (1994 Average daily flow). All households within the city are metered. At present, there are no customers who are being served only by private wells. Additionally, about 50 residents use private wells as a source for lawn watering, although the city provides water for that purpose.

Water System Development History

In 1912, the municipal water supply system for the city of Toppenish was completed through a L.I.D., with installation of cast iron water mains. Prior to this, water was supplied through community and individual wells. Deteriorating water quality due to contamination led to the decision to put in a municipal well to protect the health of city residents. The city has a comprehensive water plan, which was developed in 1988. The comprehensive water plan is currently being updated, with adoption anticipated during the winter of 1995.

Due to relatively slow growth up until 1988, only four major water extensions or distribution system improvements had been made. These improvements include: 1) In 1979, extending service to Germantown Road via an 8" ductile iron water main in order to provide adequate service to the wastewater treatment plant; 2) Also in 1979, a L.I.D. was used to finance construction of a 12" AC water pipe (from S. Elm Street to the vicinity of the Branding Iron Cafe) for the benefit of four participants; 3) A 12" AC main was constructed in the summer of 1979 (West side water/sewer project), to serve the new Safeway store and to provide better looping of the distribution system; and 4) In about 1978, the installation of an 8" AC water main was completed to serve the Pheasant Hills Apartments.

Recent improvements based on recommendations made in the 1988 Comprehensive Water Plan include: 1) Construction of a 1,000,000 gallon standpipe reservoir in 1993; 2) Replacement of Well No. 6 (now Well No. 8) in 1994; 3) Well No. 3 Pumphouse and Electrical refurbishing in 1994; and 4) Replacement of the Telemetering System in 1993. The draft 1994 Comprehensive Water System Plan by Taylor Engineering listed system improvements that are included in Table 3.4: City of Toppenish: Water System Facilities Inventory.

Water Supply: Domestic and Irrigation

Domestic (Potable) Water System

The domestic water system in Toppenish consists of a municipal water supply made up of five operating deep wells with a combined total pumping capacity of 4,075 gallons per minute (gpm). These present water sources are listed in Table 3.4: Water System Facilities Inventory, where the location of, depth, pumping rate, and pumping capacities for these wells are indicated.

TABLE 3.4 Water System Facilities Inventory

Facility	Location	Status	Year Built	Depth	Capacity	Estimated Present Value
Pumphouse No. 3	18 Asotin Avenue	Active	1994	188’	495 gpm	$96,900
Pumphouse No. 5	Olney Park near the intersection of Adams Ave. & S. Hawthorne St.	Active	1952	291’	810 gpm	$24,195
Pumphouse No. 6	W. Second St. adjacent to the Fire Station	Active	1994	863'	195 gpm	$40,800
Pumphouse No. 7	West side of Magnolia St. south of the intersection with Jackson St.	Active	1974	1,024'	2,200 gpm	$78,397
Pumphouse No. 8	Next to Well No. 6 on W. Second Street	Active	1993	250'	375 gpm	$110,246
Reservoir No. 2 an elevated steel reservoir	18 Asotin Avenue	Active	1937	N/A	200,000 gallons	$338,477
Reservoir No. 3 an elevated steel reservoir	510 W. Second Avenue	Active	1954	N/A	500,000 gallons	$676,954
Reservoir No. 7 a standpipe reservoir	503 Magnolia Avenue	Active	1992	N/A	1,000,000 gallons	$669,733
Chlorine Building No. 3	18 Asotin Avenue	Active	1994	N/A	N/A	$12,240
Chlorine Building No. 5	717 Adams	Active	1970	N/A	N/A	$7,613
Control House No. 7	503 Magnolia Avenue	Active	1974	N/A	N/A	$44,465
Vault Pit No. 3	18 Asotin Avenue	Active	1937	N/A	N/A	$39,779

The static pressure within the water system is 55 psi throughout the city. The city of Toppenish currently has one pressure zone. WAC 248-54-135 - Distribution Systems, requires that "New public water systems or additions to existing systems shall provide a design quantity of water at a positive pressure of at least 30 psi under maximum instantaneous demand (MID) flow conditions measured at any customer's water meter or at the property line if no meter exists." Additionally, this article further states "If fire flow is to be provided, the distribution system shall be designed to provide the required fire flow at a pressure of at least 20 psi during MID conditions."

Telemetering & Control

For efficient operation of a water system, a dependable and accurate telemetering system which controls the pumps and reservoir levels is necessary. It is also important for collecting and recording accurate flow data for planning future water system needs. The city of Toppenish's telemetering system was replaced in 2004 by upgrading the telemetry system from telephone to radio. The City also added a central data acquisition and control computer with system control and data acquisition software (SCADA). The central control for this system is in the city's public works office. From this location, the

operator has complete control of all remote sites. The system has six (6) programmable logic controllers and operator interfaces, each well site has new reservoir level transducers. New smoke detectors, chlorine leak detectors at Wells No. 5 and 7, Spreda Spectrum Radios, telemetry panels, instrumentation equipment and miscellaneous related equipment, surge arrestors and software.

Chemical Feed Facilities

Water pumped from each of Toppenish's five present sources is chlorinated and fluoridated. To ensure the proper disinfection of groundwater by elimination of pathogenic organisms that occur in nature chlorination is necessary. Chlorination equipment is located at each well and is of the vacuum feed type which is widely accepted as being the safest method for handling gaseous chlorine. Fluoridation is accomplished by the use of up flow saturators and metering pumps. The fluoridation system requires at least one man-hour of labor per day.

Distribution

The existing distribution system consists of 32.3 miles (170,555 linear feet) of pipe, with approximately 19.9 miles (62%) of pipe made of cast iron, 10.2 miles (32%) made of asbestos concrete, 1.9 miles (5.9%) made of ductile iron, and 0.29 miles (less than 1%) made of PVC pipe. About 15% of the pipe is 10"-12" in diameter, with the balance fairly evenly divided between 4", 6" and 8" pipe. Currently the physical quality of Toppenish's water distribution piping is good and there are no areas of frequent leaking. The city has recently completed a comprehensive study of about 81% of the distribution system including leak detection and has corrected any deficiencies. The system has 218 fire hydrants, spaced such that there is an adequate number for the system's size. The average spacing of the total fire hydrants in the system is approximately 782 feet, which is quite good.

Storage

Water is pumped from the source wells directly into the water system pipe network, which in turn feeds into the storage reservoirs and standpipe. The city has two elevated steel reservoirs (Reservoirs No. 2 & 3) with a combined holding capacity of 700,000 gallons. The level in Reservoir No. 2 is monitored by a pressure transducer and is used to control Well No. 3. A pressure transducer is also used to monitor the level in Reservoir No. 3, which can be used to control Well No. 5 and Well No. 7. In 1993, the city replaced Reservoir No. 1 with a standpipe reservoir (Reservoir #7). The standpipe has a capacity of

1,000,000 gallons, of which only 668,900 is available (see the Comprehensive Water Plan for more detail).

It should be pointed out that not all of the existing 1,368,900 gallon capacity is actually usable even during periods of fire demand. For 15 feet drawdown, the pump control zone represents 253,500 gallons of the 1,368,900 total existing volume. Therefore, the actual existing volume available for Standby, Equalization, and Fire Storage is 1,368,900 - 253,500 = 1,115,400 gallons.

Fire Flow

For the most part, the greatest fire flow requirements within the boundaries of the city of Toppenish are within commercial and industrial areas. Large isolated demands occur at the elementary schools, the middle school and the high school, at Toppenish Community Hospital, and at the Del Monte Foods U.S.A. and the Silgan Can plants. Within the urban growth area, the Washington Beef processing plant, and the Yakama Indian Nation Tribal Housing Project also have the potential for large isolated demands should a fire event occur. The City of Toppenish Fire Department has requested a minimum of 3,000 gallons per minute (gpm) flow with a minimum pressure of 20 psi at any location in the system. For residential areas, a minimum of 1,500 gpm flow with a minimum pressure of 20 psi is required. In addition, the Fire Department requires fire flow storage of 540,000 gallons which would be adequate for a 3,000 gallon per minute (gpm) fire for a duration of 3 hours.

Irrigation Water System

Irrigation water service is provided by the Bureau of Indian Affairs to three parcels within the Toppenish area. These parcels consist of the following: one parcel by Well No. 7 (which does not use the water); one agricultural parcel in Germantown; and the Elmwood Cemetery. The city pays a nominal annual fee for this irrigation water which has been allocated for these parcels between April and October each year.

Current Water Demand

During 2004, total volume of water withdrawn was approximately 2,148 acre feet, and the average daily consumption was 1.92 million gallons per day (gpd). Approximately 60% of residential water consumption is for lawn watering. Table 3.5 summarizes water use per service, by type of service. The update of the city's comprehensive water plan uses a twenty year planning horizon and projects up to the year 2014 based on an estimated growth rate of 1.0% per year over that period. This growth rate is lower than the growth rate used in this plan. Based on this growth rate, the city has enough storage and source capacity for anticipated demand increases over the next eleven years or until the year 2006. After the year 2006 the city will not have enough storage reservoirs if an additional 1,000 gpm supply well is not provided. Approximately 2,762 total connections are anticipated in the year 2014, representing a 22% increase in the total number of people served.

TABLE 3.5 City of Toppenish, Water Use per Service, 2004

Type of Service	Residential Services	Commercial Services	Industrial	Public Authority	Total
Number of Services, 1994	1,971	245	3	45	2,264
Average Daily Consumption/ Service, 1994	1.06 million gallons	0.34 million gallons	0.19 million gallons	0.11 million gallons	1.92 million gallons
Maximum Daily Flow - All Services	4,334,100 gallons				

Projected Water Demand

The city has applied for state certified water rights for the appropriation of groundwater at each of its wells on May 12, 1972. According to Department of Ecology officials, these applications have not been resolved and water rights allocated to the city of Toppenish, due to a backlog of applications and shortage of staff. Table 3.4 shows the water system needs for the city of Toppenish through the year 2015.

In 2005, the City of Toppenish applicated and were granted 10 year Existing Use Permits for each well from the Yakama Nation Water Code Department. These Existing Use Permits are renewable and are for the same production capacity as applied for the state certified water rights via Department of Ecology.

TABLE 3.6 City of Toppenish Water System Needs

	Demand, 2004	Demand, 2008	Demand, 2012	Demand, 2015	Demand, 2020
Population[8]	7,734	8,177	8,766	9,140	10,217
Service Connections	2,644	2,356	2,476	2,551	2,762
Total Source Production Rate (gpm)	4,075 gpm	4,075 gpm	4,075 gpm	4,075 gpm	4075 gpm
Maximum Instantaneous Demand (gpm)	3,860 gpm	4,058 gpm	4,260 gpm	4,493 gpm	4,760 gpm
Standby Storage: # connections X 200 gallons/connection/day	446,400 gal	464,600 gal	488,200 gal	512,800 gal	553,400 gal
Fire Protection Storage	540,000 gal	540,000 gal	540,000 gal	540,000 gal	540,000 gal
Equalizing Storage (Maximum Instantaneous Demand minus source production rate (Q) x 150 minutes)	0 gal	0 gal	27,750 gal[9]	62,600 gal	102,750 gal
Total Storage required in millions of gallons (mg)	0.99 mg	1.00 mg	1.06 mg	1.11 mg	1.20 mg

[8] These population figures are the estimated population based on the high growth projection of 1.40% used throughout the comprehensive plan. The population estimates would be higher than what would be seen if using the 1.0% growth projection that was used in the 1994 Comprehensive Water System Plan Update.

[9] If additional water supply is obtained, i.e. through a new 1,000 gpm well, then the amount for equalization storage can be reduced. Assuming 1,000 gpm is obtained, then there would be no equalizing storage required.

Water demand is clearly influenced by temperature. All peak water usage in Toppenish has occurred during extended periods of hot weather. Another factor which influences water usage is the cost of water. Consumption is influenced by the user's perceptions of the cost of water. If a user feels the cost of water is too high, then conservation usually occurs. As part of the 1994 update of the comprehensive water plan, a water conservation program is being developed where public education will play a large role in encouraging water consumers to decrease their water usage by implementing water conservation measures such as Xeroscaping. As the current rate schedule does not encourage water conservation, the city has proposed a rate structure which will help to discourage residential water usage beyond 1,000 cubic feet per month.

Water System Improvements Capital Improvement Program

The following improvements to water system facilities were identified by city staff in 2007 as being necessary to support additional connections on an estimated growth rate of 1.0% per year.

TABLE 3.7 City of Toppenish Water System Improvements

Project	Estimated Time of Completion	Cost	Estimated Funding Source
Water System Improvements – Design	2007	$192,000	PWTF
Water System Improvements – Construction	2008	$2,700,000	DWSRF
Water System Plan Update	2008	$60,000	City Reserves
Pull and Inspect Well Pumps	2008	$7,000	City Reserves
Well Video and Decommission	2008	$40,000	2007 Reserves
Developer Standards	2008	$10,000	2007 Reserves
Well No. 7 Electrical Improvements	2009	$200,000	2008 Reserves
South Chestnut Water Improvements	2009	$250,000	N/A
Pearne Street Improvements	2009	$150,000	N/A
Well No. 9 Design	2008	$200,000	PWTF
Well No. 9 Construction	2009	$1,600,000	PWTF
12" Industrial Pipeline Phase 1	2009	$572,000	PWTF
12" Industrial Pipeline Phase 2	2010	$342,000	PWTF
12" Industrial Pipeline Phase 3	2011	$394,000	PWTF
Total Probable Costs for Water System Improvements for the Years 2006 to 2011 = **$6,717,000**			

TABLE 3.8 City of Toppenish Prioritized Water System Improvements

Program Area	Project Name	Project Score	Project Ranking
Water System	Well No. 9 Construction	160	1
Water System	Well No. 9 Design	105	2
Water System	Water System Plan Update	90	3
Water System	Water System Improvements – Design	85	4
Water System	Water System Improvements – Construction	75	5
Water System	Pearne St. Improvements	75	6
Water System	12" Industrial Pipeline Phase 1	70	7
Water System	12" Industrial Pipeline Phase 2	70	8
Water System	12" Industrial Pipeline Phase 3	70	9
Water System	Well No. 7 Electrical Improvements	65	10
Water System	South Chestnut Water Improvements	60	11
Water System	Pull and Inspect Well Pumps	40	12
Water System	Developer Standards	35	13
Water System	Well Video and Decommission	30	14

V. STORM WATER MANAGEMENT

Existing Facilities

Most of the storm water in Toppenish flows into 18.2 miles of storm sewer collector pipe and 5.6 miles of the larger interceptors. The city has also installed a pumping station devoted exclusively to storm water. Much of the City's storm drain system is included in the roadway system. When roadway improvements

are made, the associated drainage facilities are evaluated and the necessary replacements or modifications are incorporated into the street project.

Storm Water System Improvements

Currently the city measured levels in its catch basins, and recently completed an infiltration and inflow study that looked for the sources of increased flow and volume of water being treated at the wastewater treatment plant. A result of this study is that infiltration was found in the Clayton Fields area, and the city has replaced the defective sewer pipe and has been able to decrease flow.

VI. WASTEWATER COLLECTION, TREATMENT & DISPOSAL

The city of Toppenish does not have a comprehensive wastewater treatment plan, thus recommended improvements to the system have been identified in engineering reports. Toppenish, in the last four years, has experienced additional growth and increased wastewater loadings which have caused the plant to operate at or above the currently approved design capacity.

Collection and Conveyance

Toppenish has a dual sewer system, consisting of sanitary and under drain sewers (see Figure 3.2: City of Toppenish Sewer System map). The purpose of the sanitary sewer system is to carry wastewater from residences and commercial buildings to the sewage treatment plant. The under drains remove groundwater from the area of the sanitary sewers and provide storm drainage. The majority of Toppenish's collection and conveyance system was installed in two periods of construction, prior to 1920 and 1952. Initial construction provided sewers for the central, northeast, and southwest portions of the city, and consisted of vitrified clay pipes with mortar joints. Larger sewers were provided with under drains constructed of open joint clay pipe imbedded in gravel below the sanitary sewers. In 1952, sewers were provided to areas of the city previously not served. Two trunk sewers were installed to handle flows from new laterals and to intercept previously existing sewers where possible. The pipes installed during this period consisted of concrete with bituminous caulked joints, underlain by open joint concrete pipe under drains.

Throughout the city, there are approximately 27.3 miles of collector sanitary sewer lines, 3.3 miles of interceptor sewers and six pumping stations. The sewer system has been modestly updated since 1952, with the exception of the West Side Sewer Project and Carlson Lift Station completed in 1979. This project involved connecting the northern and southern parts of the city through provision of sewer mains and the lift station. Primarily, updates of the sewer system have focused on rehabilitation and the elimination of infiltration, which is defined as the flow of groundwater into sanitary sewer manholes.

The city completed the Combined Manhole Project in 1992. The emphasis of this project was to eliminate combined under drain and sanitary sewer manholes and potential groundwater and freshwater contamination that could occur during a sanitary sewer overflow. Additionally, the city has been performing annual video inspections on different sections of the existing sanitary piping over the past several years, replacing those sections found to have serious deterioration, breaks or infiltration problems. See the wastewater system deficiencies portion of this section for more detail.

New collection system improvements began in 2003. 22,000’ of the existing collection system was replaced.

Treatment Facilities

The city of Toppenish's sewage treatment facilities and sludge drying beds are located on three parcels

totaling approximately 17.6 acres on Germantown Road. The treatment plant was constructed in 1953, with a design capacity of about 7,400 people. The original treatment plant consisted of a head works structure, operating house, clarifier, trickling filter, primary and secondary anaerobic digesters, sludge drying beds, and a 4' diameter, 180' long conduit that served as the chlorine contact tank. The operating house was built over a large wet well that pumped pretreated sewage and trickling filter effluent to the clarifier. Clarifier effluent was split with a portion going to the trickling filter for recycling back to the wet well. A degree of treatment between the primary and secondary was being achieved, and the treatment plant was classified as "intermediate".

Modification to the treatment plant occurred in 1977 and 1978 in order to meet more stringent effluent standards. The major changes to the plant included: 1) Construction of a new Operations Building over the existing wet well; 2) Removal of the trickling filter, with the installation of six rotating biological contactors (RBCs) to provide secondary treatment; 3) Additions of a new secondary clarifier and new chlorine contact tank; 4) Addition of the ability to mix and heat sludge to the primary anaerobic digester; 5) Rebuilding of the sludge drying beds; and 6) Changing the location of the outfall. More recently, additional sludge drying beds have been added west of the ones constructed in 1977-78. With these modifications, the treatment plant now provides true secondary treatment as defined by the city's NPDES permit.

Treatment Process

Toppenish's wastewater flows to the treatment plant through the city's sanitary sewer system and is pumped up into the treatment plant units upon entrance to the plant. Raw sewage is received at the headworks where grit settling and comminution take place. Settled grit is removed from the headworks by a grit screw. Wastewater flows from the headworks into a large wet well located beneath the Operations Building. It is then pumped to the primary clarifier where settleable and floating solids are removed. Primary clarifier effluent flows by gravity to the RBCs where soluble and colloidal organic material is removed through biological treatment. The wastewater then flows to the secondary clarifier for removal of sloughed biological solids. Secondary clarifier effluent flows to the chlorine contact tank for disinfection prior to disposal to the drainage canal.

Secondary clarifier sludge is recycled back to the headworks where it will eventually settle out in the primary clarifier. Sludge from the primary clarifier is pumped to the anaerobic digesters for stabilization prior to disposal to the sludge drying beds.

The present treatment plant capacity is approximately 7,400 persons. With a current city population of 9,01510, the treatment plant is operating above the approved design capacity.

Disposal

The treatment facilities produce 8011 dry tons of biosolids[12] per year. The biosolids are disposed at the

[10] Based on the 2006 Washington State Office of Financial Management population estimate.

[11] Based on a reported average of 137.5 cubic yards of dried sludge from drying beds at a 60% solids concentration.

[12] Solids residuals produced at waste water treatment facilities have typically been referred to as sludge. When these materials are stabilized they can provide fertilizer and soil enhancement properties. The term "biosolids" has been adopted in the industry for these stabilized residuals which provide beneficial reuse opportunities. The term "sludge" is used for the residual material prior to completion of the stabilization process. These terms are used throughout the Capital Facilities Element section of the Comprehensive Plan.

Natural Selection composting site. The City has a contract for five years for biosolids disposal.

TABLE 3.9 Wastewater System Facilities Inventory

Facility	Location	Status	Date Acquired	Estimated Present Value
Wastewater Treatment Facility	501 Annahat Road	Active	1978	$620,841
Sludge Beds	501 Annahat Road	Active	1984	$37,400
Garage	501 Annahat Road	Active	1979	$36,868
Headworks	501 Annahat Road	Active	1979	$278,593
Mixers	501 Annahat Road	Active	1979	$39,998
6 Rotating Biological Contactors	501 Annahat Road	Active	1979	$624,169
Primary Clarifier	501 Annahat Road	Active	1952	$356,296
Digester Control Building	501 Annahat Road	Active	1952	$206,544
Primary Digester	501 Annahat Road	Active	1952	$208,391
Secondary Digester	501 Annahat Road	Active	1952	$208,391
Final Clarifier	501 Annahat Road	Active	1979	$356,974
Submerged Contactors	501 Annahat Road	Active	1998	$642,779
Blower Building	501 Annahat Road	Active	1998	$382,138
Clarifier – Backup	501 Annahat Road	Active	1998	$328,959
Lift Station No. 5 Idaho	102 Idaho Street	Active	1991	$140,000
Lift Station No. 3 Linden	507 Linden Street	Active	1972	$50,000
Lift Station No. 2 Penny	1306 Hammond	Active	1964	$50,000
Lift Station No. 1 South Beech	614 South Beech	Active	1978	$125,000
Lift Station No. 6	212 Carlson	Active	1978	$150,000
Lift Station No. 4	61309 Hwy. 97	Active	1979	$140,000
Lift Station No. 7 to Del Monte Plant	715 Wishkoski Way	Active	1996	$150,000

Future Wastewater Demand

Although the rate of growth for the city of Toppenish over a thirty year period has been about 0.96% per year, the city has experienced the greatest amount of that growth between 1980 and 1990. The population growth stabilized for a few years, and has begun to steadily increase starting in 1993. For its projected growth rate, the city is anticipating that it will continue to grow at or near the same rate (see Land Use Element for further discussion on population projections) experienced during the 1980 to 1990 period. The growth rate for this period is approximately equal to the high population projection of 1.40% per year. The city would reach the design population of 12,950 by the year 2030 based on this population projection.

The information shown in Table 3.6 was taken from the 1994 Wastewater Treatment Facilities Engineering Report Update by Gray & Osborne, Inc. To predict future annual loading levels in the city, the consulting engineers assumed no new industrial loads and a 2.0% per year population increase. This data is still current as of 2007.

TABLE 3.10 Projected Wastewater Flow, BOD and TSS

	Demand, 2004	Demand, 2008	Demand, 2014
Population	9,243	9,428	9,616
TSS Loading as expressed in lbs/day			
Peak month	1,870 lbs/day	2,024 lbs/day	2,234 lbs/day
Average month	1,508 lbs/day	1,632 lbs/day	1,802 lbs/day
Plant Capacity as expressed in lbs/day	1,700 lbs/day	1,700 lbs/day[13]	1,700 lbs/day
% Capacity Used (based on Average Month)	88.7%	96.0%	106.0%
BOD Loading as expressed in lbs/day			
Peak month	1,691 lbs/day	1,830 lbs/day	2,020 lbs/day
Average month	1,386 lbs/day	1,500 lbs/day	1,656 lbs/day
Plant Capacity as expressed in lbs/day	1,500 lbs/day	1,500 lbs/day	1,500 lbs/day
% Capacity Used (based on Average Month)	92.4%	100.0%	110.4%

When comparing these yearly average projections to existing capacity, it appears that the treatment plant only modestly exceeds its current design capacity. This, however, is not actually the case since the months from May to October have loadings 50% higher than the yearly average. Projecting the peak loading levels forward, it can be seen that the treatment plant is significantly overloaded during these periods.

Wastewater System Deficiencies

Since the City is contained within the boundary and resides on deeded lands of the Yakama Indian Nation, the waste water treatment facility is regulated by the United States federal government - U.S. Environmental Protection Agency (EPA). The facility is presently authorized to discharge to the Toppenish Drain in accordance with the conditions in its current National Pollution Discharge Elimination System (NPDES) waste discharge permit, which was issued in November 2003 and expires in November 2008.

The City's NPDES permit was issued with new effluent limits for ammonia, a pollutant that is regulated due to its toxicity to aquatic life in the receiving waters (Toppenish Drain and the Yakima River). The permit requires that, by May 2008, the treatment facility shall comply with an average monthly effluent

[13] The plant capacity figures for TSS and BOD loading represent capacity if no improvements were made to the treatment plant. However, this is not the case, as the city has a 1995 Farmers Home Administration (FmHA) loan with which they plan to make the needed improvements to the treatment plant to increase these capacities.

ammonia limit of 1.23 mg/L and a daily maximum limit of 2.04 mg/L. The existing facility is not designed to remove ammonia from the waste water, and consequently the WWTF will not be capable of meeting the new ammonia limits required by the US EPA in the City's new NPDES without plant modifications.

By the conditions of the NPDES discharge permit, the City is also required to monitor the facility effluent for phosphorus concentration. Though the existing permit does not contain an effluent limit for phosphorus, the monitoring requirement in the permit indicates that the regulatory agencies are considering the need for a future effluent phosphorus limit for the Toppenish WWTF. It is likely that all waste water facilities in the Yakima River watershed will be required in the future to remove phosphorus from waste water to prevent this nutrient from stimulating algae growth in the receiving waters. As is the case for treatment of ammonia, the existing Toppenish WWTF is not designed to remove phosphorus.

In order to meet its commitment to EPA's orders, the City of Toppenish proceeded with final engineering to meet new National Pollution Discharge Elimination System (NPDES) permit requirements for ammonia limits by May 2008. The City proposes to install a nitrification system and ultraviolet (UV) disinfection, construct a secondary clarifier and upgrade old and outdated components of the waste water treatment facility. The project also includes relocation of the fine screen at the head works component of the treatment facility.

Wastewater System Improvements

The city of Toppenish has identified the following improvements to wastewater treatment facilities and the sanitary sewer system as necessary to support the future projected population and to meet government mandates. Table 3.11 on this page shows these improvements, the estimated time of completion, and associated costs.

TABLE 3.11 Wastewater System Improvements

Project	Estimated Time of Completion	Cost	Estimated Fund Source
Linden Lift Station Improvements	2006	$150,000	Reserves
Penny Lane Lift Station Improvements	2007	$150,000	Reserves
Wastewater Treatment Facility – Design	2006-2007	$940,000	PWTF
Wastewater Treatment Facility – Construction	2007-2008	$12,500,000	PWTF Dept. of Ecology

TABLE 3.12 Prioritized Wastewater System Improvements

Program Area	Project Name	Project Score	Project Ranking
Wastewater System	Wastewater Treatment Facility – Construction	225	1
Wastewater System	Wastewater Treatment Facility – Design	190	2
Wastewater System	Linden Lift Station Improvements	110	3
Wastewater System	Penny Lane Lift Station Improvements	110	4

VII. SOLID WASTE COLLECTION & DISPOSAL

The city of Toppenish provides solid waste collection for its residents. Service is provided to roughly 2,265 residential and commercial accounts. The Solid Waste Utility employs two full-time operators using two automated refuse collector vehicles to conduct its collection services. The city also has one backup refuse collector vehicle. The solid waste is transported to the Cheyne Road Landfill located about 15 miles northeast of Toppenish. Service is received several times a week for commercial accounts and once a week for residential accounts. About 89% of the solid waste utility accounts are residential, representing 60% of the workload as represented by volume and billing.

The city began implementing a recycling program in 1994, in accordance with state regulations. Some of the components of this program include a pilot project which provides bins for recyclables at the Rite Choice Market, and a voluntary yard waste program where residents are provided with a 90 gallon yard waste container and receive a 40% reduction in their solid waste bill for their participation. Presently, Toppenish has an informal policy of encouraging the purchase of products made from recycled materials and the recycling of computer paper from City Hall offices. The computer paper is taken by the local Boy Scout troop, which subsequently sells it to the Central Washington Recycling Center in Yakima to help fund troop activities. Toppenish was included in the Yakima County Solid Waste Management Plan adopted in the fall of 1993.

The City of Toppenish has a compost program. An average of 180 residential customers participates in the program which costs have the monthly refuse rate. The Compost season typicality runs from April 1st of each year to November 30th. A leaf collection program runs the month of December on Fridays.

Transfer Facilities

Yakima Waste Systems provides 20 and 30 cubic yard roll-off containers (drop boxes) for major commercial and industrial accounts such as Providence Memorial Hospital, Del Monte Foods U.S.A., Safeway, Kentucky Fried Chicken and 7-Eleven in Toppenish. The city bills these customers and subcontracts with a commercial hauler for drop box service. There are no transfer facilities located in the Lower Yakima Valley. As mentioned in the 1993 Yakima County Solid Waste Management Plan, the county is considering construction of either a transfer station or mixed waste processing facility to serve the Lower Valley. This type of facility would be convenient for Toppenish residents as well as assisting the county to achieve its waste reduction/recycling goal.

Solid Waste Deficiencies

As a new refuse truck was purchased in 2004 to replace worn-out equipment, the city does not have any additional solid waste deficiencies at this time. The next refuse truck replacement is scheduled for 2009.

VIII. PUBLIC EDUCATION FACILITIES

Educational services for the city are provided by the Toppenish School District No. 202. The school district boundary extends well beyond Toppenish's city limits. All of the District's public school facilities lie within the city of Toppenish. At the present time, the Toppenish School District has an enrollment of approximately 3,298 students. Table 3.13 on this page lists the school facilities within Toppenish, the grades served and enrollments.

Parks and recreation facilities owned by the Toppenish School District are listed in Table 3.14. The School District recreation facilities provide mainly active recreational opportunities.

TABLE 3.13 Toppenish Area School Facilities

Name of School	Address	Grades	Enrollment
Garfield Elementary	505 Madison Avenue	K - 2	395
Kirkwood Elementary	403 S. Juniper Street	3 - 5	437
Lincoln Elementary	309 N. Alder Street	K - 2	406
Valley View Elementary	515 Zillah Ave.	K - 5	397
Eagle Alternative	1210 Jackson Avenue	7 - 12	199
Toppenish Middle School	104 Goldendale Avenue	6 - 8	754
Toppenish Senior High School	141 Ward Road	9 - 12	710
Bus Garage	405 Asotin Avenue	N/A	N/A
Business Office	106 Franklin Avenue	N/A	N/A
Special Services Office	407 S. Juniper Street	N/A	N/A
Heritage College	3240 Fort Road	4 year college and Graduate programs	N/A
Yakima Valley College: Adult Education Center	516 W. 1st Avenue	Adult basic education, G.E.D., ESL, etc.	N/A
Northwest Rural Opportunities Toppenish Migrant Child Development Center	Fort Road	Pre-School & Kindergarten	N/A
Smartlowit Education Center	Linden Way	Yakama Nation Head Start Program (ages 3-5 years)	N/A
Yakama Tribal School	P.O. Box 151	7-9	74

Source: Educational Service District 105, Educational Directory, 1995-1996 Edition; the Yakima Community Services Directory, 1992-94 Edition; and GreatSchools.net

TABLE 3.14 Toppenish School District No. 202: Parks and Recreation Facilities

Name of School	Garfield Elementary	Kirkwood Elementary	Lincoln Elementary	Toppenish Senior High School	Toppenish Middle School	Valley View Elementary
Total Site Acreage	4 acres	25 acres	2 acres	35 acres	20 acres	26 acres
Baseball/Softball Fields	No	varsity baseball field, and youth (j.v.) softball field	No	1 baseball and 1 softball field	No	Space available
Football/Soccer Fields	No	2 soccer practice fields	No	football and varsity soccer field	football stadium	Space available
Track	No	No	No	No	Yes	No
Hard or Sport Court	No	paved game court area (basketball)	No	No	paved game court area (basketball)	Paved game court area (basketball)
Swimming Pool	No	No	No	No	No	No
Tennis Courts	No	3 tennis courts	No	No	2 tennis courts	No

Playground Equipment	playground apparatus	playground apparatus	playground apparatus	No	No	Yes
Gymnasium	No	2 gymnasiums	No	1 small gymnasium	A.J. Strom Gym and 1 smaller gym	Yes
Other Facilities	open free play area and multipurpose room	open free play area	open free play area and multipurpose room	weight room and athletic practice and physical education area. Brand new Football/Track stadium.	wrestling practice room	Open free play area

IX. PARKS & RECREATION FACILITIES

Local parks and recreation facilities are provided by the city of Toppenish and the Toppenish School District No. 202. Table 3.15 on the following page lists city or railroad owned parks and recreation

facilities located within the city and its urban growth area. The parks mentioned in this table provide both passive and active recreational opportunities. Some of the parks are considered to be "Urban Beautification Areas" by the community.

The city of Toppenish has nine areas adjacent to public buildings or roadways that are available primarily for aesthetic purposes and can also be considered to be passive recreation sites. These places are known as "Urban Beautification Areas". In addition to the "Urban Beautification Areas" mentioned in the above table, the following represent the remainder of these types of places found within the city: The South Toppenish Greenway, the Library grounds, the Water Plant, Well No. 7 grounds, the Triangle Area, and the Goldendale Intersection. The Elmwood Cemetery is also regarded by the citizens of Toppenish to be open space. Within the community, there are also several commercial recreation facilities including: an 18-hole golf course, the rodeo grounds, karate studios, a health studio and nautilus exercise center.

Four miles south of the city, additional recreational opportunities can be found at the Toppenish Wildlife Refuge, which is open for public hunting and sightseeing on a regulated basis. Yakima County Parks & Recreation is currently developing a 30 acre park site which is intended to provide more recreation facilities for the cities of Grandview and Sunnyside as well as county residents. This park is located about 25 miles east of Toppenish. Northeast of the city, along the Yakima River is a 40 acre private park owned by the Fraternal Order of the Eagles.

Parks & Recreation Facility Deficiencies

Presently within the City of Toppenish and vicinity there is a lack of soccer fields for use by youth and adult soccer leagues. The Toppenish School District has no plans at this point in time to make any improvements to its soccer fields, as improvements to increase capacity and reduce safety hazards are a greater priority.

Additionally there is a lack of funds to maintain and operate the swimming pool without the assistance of community groups.

Community Facilities & Services

Within the city of Toppenish and vicinity are the Toppenish, American Hops, and the Yakima Valley Rail

& Steam Museums, the American Legion Club - Post 50, the Central Valley Senior Citizen's Center, the Toppenish Chamber of Commerce, the Yakama Nation Cultural Center, the Fraternal Order of Eagles, the Older American Nutrition Program, the Republican Women's Club, the Rotary Club, and the Toppenish Garden Club, as well as nineteen churches that meet varied interests and spiritual needs of city residents.

TABLE 3.15 Existing Parks and Recreation Facilities

Name of Park or Facility	Allen Park	Bouchey Park	Lane Park	Old Timers Plaza	Olney Park	Patterson Park	Penny Mall	Pioneer Park	Post Office Park	Railroad Park	Swimming Pool Park
Total Site Acreage	2.16 acres	0.40 acres	0.66 acres	0.50 acres	2.58 acres	0.83 acres	0.30 acres	9.52 acres	0.51 acres	0.50 acres	---
Hard or Sport Court	No	No	(1) basketball court	No	No	No	No	2 basketball courts	No	No	No
Swimming Pool	No	No	No	No	No	No	No	No	No	No	Yes, 50 meter
Tennis Courts	No	No	No	No	No	No	No	Yes (2)	No	No	No
Restrooms	No	No	No	No	Yes (1)	No	No	Yes (1)	No	No	No
Playground Equipment	swing set, slide & teeter totter	No	swing set, slide & buck-about	No	swing set, slide & teeter totters	swing set, slide & teeter totters	No	swing set, log climber, balance beam, climbing pole, fitness climber, spring tires	No	No	No
Picnic Tables/Benches	5 picnic tables	12 benches	No	12 benches	12 picnic tables	2 picnic tables	2 benches	11 picnic tables	5 picnic tables, and 2 benches	(1) picnic table	(1) picnic table
Predominately Greenspace	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Other Facilities	Picnic Shelter	None	None	None	Picnic Shelter	None	None	(1) softball field, (1) gazebo, (1) picnic shelter, 6 horseshoe pits,	(1) Bandstand	Leased from Railroad	(1) Bathhouse, (1) 1,000 sq. ft. multi-purpose activity room
Comments:		Urban Beautification Area & tourist area		Urban Beautification Area			Urban Beautification Area				

X. FIRE & POLICE PROTECTION

Fire Protection

Toppenish has adequate water and hydrants to ensure safety against fire for the residents of the city. The city has a fire department located at 514 W. 2nd Avenue, which currently employs a fire chief, 5 paid firefighters and approximately 21 volunteer firefighters. The Toppenish Fire Department utilizes three pumper trucks: one 1968 Van Pelt Ford 850 with a pumping capacity of 1,000 gallon per minute (gpm); one 1974 Van Pelt Ford 850 with a pumping capacity of 1,250 gpm; and one 1991 Emergency 1 with a pumping capacity of 1,250 gpm. All of these pumper trucks have a water tank capacity of 500 gallons. The Fire Department also has one 1984 Econoline (Rescue 101). The city has a mutual aid pact with Yakima County Fire District No. 5 - Station No. 9 and with the Zillah Fire Department.

The Toppenish Fire Department has an average rating of 5 with the Washington State Fire Rating Bureau. Fire District No. 5 - Station No. 9 which serves the unincorporated areas has an average rating of 8. Fire District No. 5 is divided into 5 zones, with zone 1 being the zone closest to an incorporated area. The average fire ratings tend to be slightly lower the closer they are to an incorporated area, so for citizens within the unincorporated area close to Toppenish city limits, the fire rating would be about a 6. The range for rating of fire departments or districts is from 1 to 10, with 1 being the highest rating. Many factors are built into the criteria used to establish these ratings including, examining the water system -- size of water mains, water pressure, storage capacity and capability, the age of the fire fighting equipment and pumper trucks, etc.

TABLE 3.16 Fire Protection Facilities Inventory

Facility	Location	Status	Date Acquired	Estimated Present Value
Fire Station Building	514 W. 2nd Ave.	Active	1999	$1,938,000
Fire Storage Building	514 W. 2nd Ave.	Active	1979	$8,470
Fire Apparatus No. 13	514 W. 2nd Ave.	Active	1974	$5,000
Fire Apparatus No. 12	514 W. 2nd Ave.	Active	1991	$40,000
Fire Apparatus No. 11	514 W. 2nd Ave.	Active	2002	$250,000
Ladder Truck No. 18	514 W. 2nd Ave.	Active	2000	$250,000

Fire Protection Facility Deficiencies and Improvements

The life expectancy of a fire engine is 20 years. After that time the replacement of parts for pumps, motors and transmissions becomes obsolete and extremely difficult to locate. The industry recommends replacement after 20 years for any engine especially if it is designated as a first or second responding apparatus.

To continue to provide adequate fire protection for Toppenish residents, the city's Fire Chief has identified the following deficiencies and needed improvements over a six year period from the year 2007 to the year 2013.

TABLE 3.17 Fire Protection System Improvements

Project	Estimated Time of Completion	Cost	Estimated Fund Source
Rescue / Ambulance	2007	$80,000	Unknown
Fire Station Parking Lot	2008	$4,500	General Fund
Fire Station Re-Roof	2008	$18,000	General Fund
Fire Station Sleeping Quarters	2010	$76,000	CIP Fund
New Fire Engine	2011	$300,000	Unknown
Fire Station Remodel	2012	$75,000	General Fund

Ambulance Service

Medic One Ambulance responds to medical emergency calls within the city and unincorporated areas. The firefighters provide first aid to the victim(s) that the ambulance crews would otherwise do prior to transport. Twenty-four hour emergency services are available to Toppenish area residents at Providence Memorial Hospital. Emergency helicopter services are provided by Medical Assistance and Safety for Transportation (M.A.S.T.).

Police Protection

Police protection is provided by the city of Toppenish within the city limits and the Yakima County Sheriff's Office for the remainder of Toppenish's urban growth area. The Washington State Patrol covers the state highways. The city, county and state have a mutual aid agreement for protection services. The police department is located at 1 W. First Avenue, and consists of 16 sworn police officers and 6 civilian employees. The Police Department Facility also includes the Sally Port. Animal control is provided through a contract with the Humane Society of Central Washington Animal Control. Fleet vehicles include: one Chevrolet Impala, two Chevrolet S-10 Blazer's, 5 Ford Crown Victoria's, one Ford Expedition, and one Ford Econoline Van.

Police Protection Facility Deficiencies

The Toppenish Police Department building including the corrections facility is currently experiencing overcrowding both within the offices and in the jail itself. The building underwent a minor remodeling project in 1981 to better serve the needs of the community, however, due to the size, age and arrangement of the interior spaces the facility is still considered to be inadequate to serve current community needs and meet federal correctional facility standards. The Police Department is currently investigating sources of funding to correct these deficiencies.

TABLE 3.18 Police Protection System Improvements

Project	Estimated Time of Completion	Cost	Estimated Fund Source
El Paso Building Remodel	2007	$90,700	CIP Fund
New Police Department Building	2012	$17,500,000	Unknown
Enclose Police Department Bullpen	2008	$3,750	General Fund

XI. GOVERNMENT FACILITIES

TABLE 3.19 Government Facilities in the City of Toppenish

Facility	Location	Condition
Federal		
U.S. Postal Service	14 Jefferson Avenue	N/A
State		
Aging & Adult Field Services Child & Family Services Economic & Medical Services Social & Health Services	306 Bolin Drive	N/A
Armory National Guard	326 S. Division Street	N/A
Corrections Dept of	604 W. 4th Avenue	N/A
Vehicle Licensing	218 S. Toppenish Street	N/A
Vocational Rehabilitation Division of DSHS	308 Monroe Avenue	N/A
Regional		
Mary L. Goodrich Library (a branch of the Yakima Regional Library)	306 Toppenish Avenue	Received grant to make bathrooms ADA accessible
County		
Yakima County Sheriff's Office	N/A	N/A
City		
City Hall	21 W. First Avenue	Fair, building beyond capacity
City Reservoirs	Reservoir No. 2: Swimming Pool Park, Asotin Ave./ S. Alder St. intersection Reservoir No. 3 Pioneer Park, near the Fire Station Reservoir No. 4 Magnolia Avenue	Fair Good Excellent
City Wells	Well No. 1, 2, and 4, near City Shop Bldg. Well No. 3 Swimming Pool Park, near Asotin Ave. / S. Alder St. intersection Well No. 5 Olney Park, near intersection of Adams Ave. & S. Hawthorne Street Well No. 6 W. Second St., near Fire Station Well No. 7 West side of Magnolia St. south of intersection with Jackson St. Well No. 8 Adjacent to Well No. 6 on W. Second Street	Not used Fair Good Good Fair Excellent
Elmwood Cemetery	Cemetery Road	
Fire Department	514 W. 2nd Avenue	Fair, ADA deficient
Parks & Recreation Department	20 Asotin Avenue	Good
Police Department	1 W. First Avenue	Fair, presently overcrowded
Public Works Department	8 Buena Way	Good

Sewage Treatment Plant	Germantown Road	Fair, expansion planned
Swimming Pool	Lincoln & North Avenues	Good
Toppenish Museum	1 S. Elm Street	ADA deficient

Government Facilities Deficiencies

Toppenish City Hall houses the following offices: City Attorney; City Clerk & Finance; City Council Meeting Chambers; City Manager (Administration); Community Development (Building, Code Enforcement and Housing Rehabilitation Program); and the Municipal Court. There are presently up to 14 employees working in this facility and all space is being utilized. There is overcrowding in the office areas, and a need for more office area, meeting rooms and storage space. In addition, the City Council Chambers are heavily used by the City Council, Board of Adjustment, Planning Commission, community groups and for other agency meetings, as well as for general staff use. If the Municipal Court caseload increases substantially, there will be a need for additional storage and office space to accommodate at least one additional employee. Since this building is beyond capacity, the situation requires that something be done. Possible remedies include the relocation of one or more departments, building expansion, etc.

To address city growth needs, steps need to be taken to develop a plan of action, including identification of alternatives and potential sources of funding.

Toppenish's Police and Fire Departments have also identified improvements that need to be made in order to continue to provide effective police and fire protection. See the Police Protection, and Fire Protection Sections of this narrative for more detail on the type of improvements needed.

XII. 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.

Grants, Loans, and Other Financial Tools

Grant and loan programs available to local governments for capital facilities include: the Public Works Trust Fund; the Centennial Clean Water Fund; the State Revolving Loan Fund; Department of Health Water Grants; Farmers Home Administration Community Facilities Program; Farmers Home Administration Water and Waste Development Program; Aquatic Land Enhancement Account (ALEA) grants; and Outdoor Recreation Grant-in-Aid Funding, 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. A city may incur general purpose indebtedness up to 1.5% of its current taxable property value without a vote of the people. The city may incur debt, for general purposes with a 3/5 vote of the people, up to 2.5% of its taxable property value. This 2.5% limitation includes the non-voted capacity of 1.5%. In addition to the general purpose indebtedness a city may incur, with a vote of the people, an additional 2.5% (total of 5.0%) of indebtedness for utility purposes, such as capital improvements to water, sewer, and light facilities may be incurred. In addition to the general purpose and utility debt a city may incur, an additional 2.5% (total 7.5%) of indebtedness is available for open space and park facilities.

XIII. GOALS AND POLICIES

This section presents the capital facilities goals and policies for the city of Toppenish. Table 3.16: Capital Facilities Element Goals & Policies shows the relationship between the city's goals and policies and GMA Goals, Countywide Planning Policies and Focus 2010 goals and objectives.

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 Development within the unincorporated portion of the urban growth area shall be encouraged 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 Future land uses will be coordinated 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 New urban development shall be encouraged to locate first, within city limits and second, within the urban growth area where municipal services and public facilities are already present.

Policy 2.2 Development shall be allowed 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.

GOAL 3

To facilitate planned growth through combined services.

Policy 3.1 To facilitate planned growth, the City encourages 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 pubic 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 Public facilities and utilities shall be located to: a) maximize the efficiency of services provided; b) minimize their cost; and c) minimize their impacts on the natural environment.

Policy 4.3 The City will encourage economic growth while maintaining quality development and controlling the cost of public improvements in its urban growth area.

Policy 4.4 If adequate facilities are currently unavailable and public funds are not committed to provide such facilities, developers must 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 Toppenish 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 The City will encourage multiple use of public facilities which could be used for day care, youth facilities, 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 urban growth areas.

Policy 6.1 The City will coordinate with those agencies providing social services in the city. The City

recognizes that changes in population will affect these services and require planning of appropriate services. The agents managing these facilities (local government, education, churches, emergency services and the library), need to work with the city to incorporate their future plans.

Policy 6.2 Coordinate city and county utility plans.

Policy 6.3 Determine funding options for future city and county utility 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 does not lower the quality of 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

Chapter 4 Transportation Element

I. INTRODUCTION

Purpose

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 city of Toppenish's transportation element must be consistent with the regional transportation plan established by 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.

GMA requires that communities apply the concepts of consistency and concurrency when discussing transportation issues.

Consistency means that no feature of a plan or regulation is incompatible with any other feature of a plan or regulation. Consistency is indicative of a capacity for orderly integration or operation 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.

Concurrency means that adequate capital facilities are available when the impacts of development occur, or within six years of such development. With GMA, concurrency is required for transportation impacts affecting arterial streets and transit routes (it may be applied optionally to other roadway classifications and to capital facilities).

The Growth Management Act requires that the transportation element include discussion on 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 standards for all arterial and transit routes to serve as a gage 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 level of service standard;
    - forecasts of traffic for at least ten 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 need 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;

- A discussion of how additional funding will be raised or how land use assumptions will be reassessed to insure that level of service 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; and demand managements strategies.

- Communities with adopted level of service standards must adopt and enforce ordinances which prohibit development approval, if the development causes the level of service 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, ridesharing programs, demand management, and other transportation systems management strategies.

Applicable Countywide Planning Policies

Countywide planning policies must be considered and incorporated into the transportation element for the plan to achieve "inter-jurisdictional consistency." The following countywide planning policies apply to discussion on 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 (B.3.4., also RCW 36.70A.070 (3)(c)(d).

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 are encouraged (.3.6.).

4. Local jurisdictions will coordinate transportation planning efforts through the Yakima Valley Conference of Governments, which is designated as the Regional Transportation Planning Organization (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 is conducted and conflicts are prevented (D.3.5.).

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

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 facility element, housing element and other portions of the plan. The transportation element must support the concurrent development of transportation facilities as growth occurs.

II. TRANSPORTATION FACILITIES CONSIDERATIONS

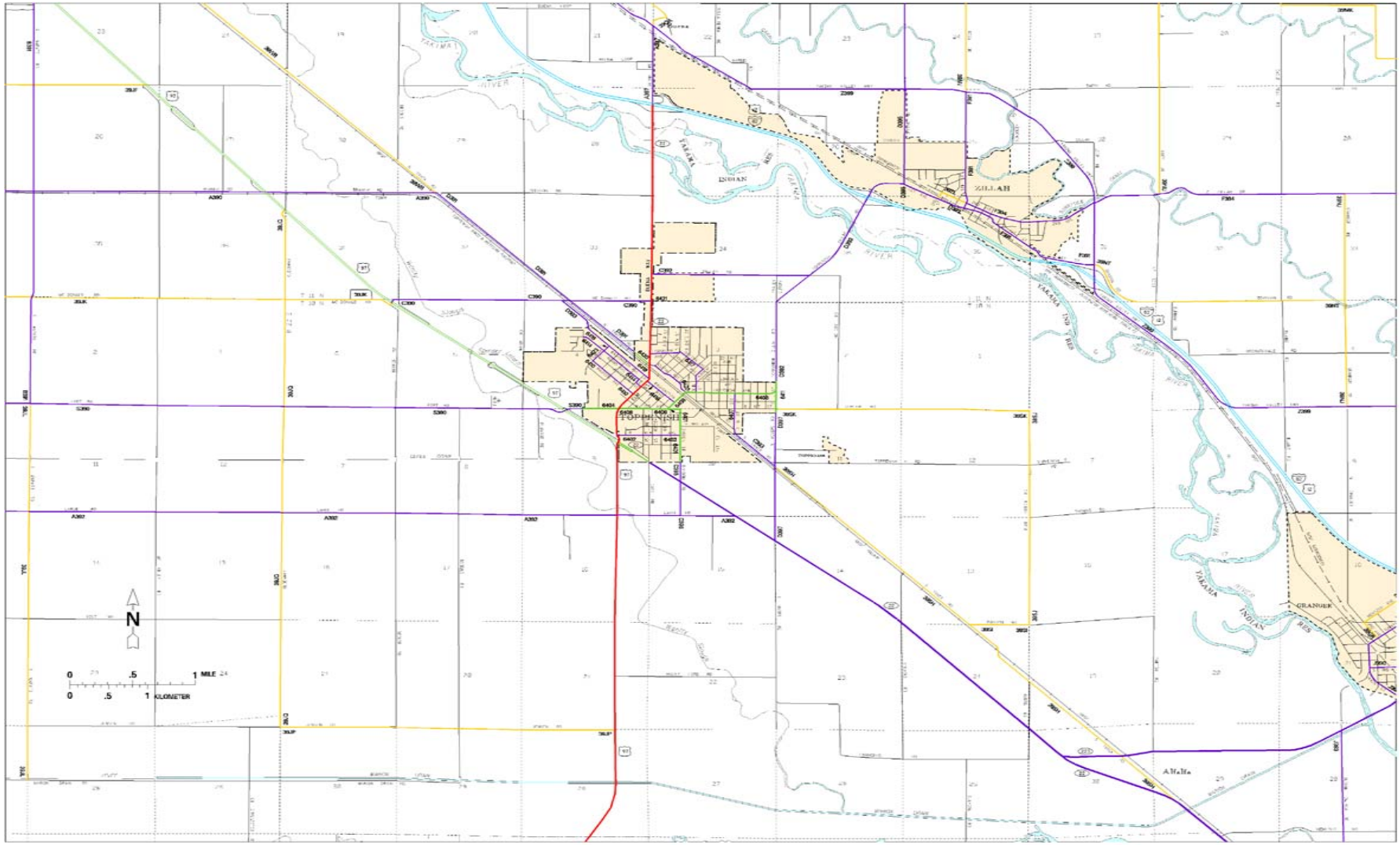
Should the city of Toppenish seek funding for the development of a pedestrian/bicycle trail from the downtown area to the Yakama Nation Cultural Center? What route would be most appropriate for this trail?

III. TRANSPORTATION NETWORK CHARACTERISTICS

Roads and Streets

The Toppenish area is served by a network of roadways and streets. Roadways and streets within the city of Toppenish are categorized under the Federal Urban Arterial Classification System. In surrounding unincorporated Yakima County, roadways and streets are categorized under the Federal Rural Arterial Classification System. Figure 1 shows the existing transportation network.

The main arterials serving the city of Toppenish are: SR-97 connecting Toppenish with the cities of Yakima and Goldendale; and SR-22 connecting the city with the town of Granger and City of Mabton. Other major streets and roadways serving the city, include: Fort Road and McDonald Road providing access from the west; Wapenish Road (Old Track Road) connecting Toppenish with the city of Wapato; Buena Way (SR-22) providing access from the north; and Toppenish-Zillah Road providing access from the city of Zillah.



FUNCTIONAL CLASSIFICATION
PROGRAMMATIC UPDATE
SUPPLEMENT NO: 9300
APPROVAL DATE: 04-01-1993

URBAN AREA
APPROVAL DATE: 06-30-2003

YAKIMA COUNTY

Functional Classification
of public roads

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
Strategic Planning and Programming Division

Prepared in cooperation with the
U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration

URBAN AREA BOUNDARY
CITY LIMITS
UNINCORPORATED URBAN AREA
INCORPORATED (URBAN OR RURAL)

FUNCTIONAL CLASSIFICATION
URBAN / RURAL
INTERSTATE (01)
OTHER FREEWAY (02)
OTHER PRINCIPAL (06)
ARTERIAL
MINOR ARTERIAL (07)
MAJOR COLLECTOR
COLLECTOR (08)
MINOR COLLECTOR

CLASSIFIED ROUTE IDENTIFIER
ROADS UNDER CONSTRUCTION OR PROPOSED

YAKIMA

Sheet 1 of 1
TOPPENISH URBAN AREA

Most of Toppenish local streets are paved. Unpaved streets account for about a ½ mile of Toppenish's total acreage devoted to streets, and include roughly 800' of King Lane, 200' of Rentschler Lane, 200' of Idaho Avenue, 600' of Berger Lane, 300' of Brooks Lane, and 200' of Adams Avenue Extension. The majority of the residential streets are paved curb to curb. Where there are no curbs, parking is found on one or both sides of the street on either dirt or gravel areas. Retail core area streets are paved curb to curb, with sidewalks and parallel parking on both sides of the street. Angle parking can be found on South Toppenish Avenue from West First Avenue to West Third Avenue. Street rights-of-way vary throughout the city from 30 to 85 feet in width, with 60 feet being the most typical width. Approximately half the streets within Toppenish city limits have full or partial sidewalks on at least one side of the street.

Rail Facilities and Locations

The Toppenish area is served by rail via the Washington Central main line which runs from the Tri-Cities north through Yakima County into Kittitas County, where it eventually connects with the Burlington Northern line that goes to Seattle. Toppenish is also the starting point for a spur rail line, which extends 20.6 miles from Wesley Junction near Toppenish, due west through the Yakama Indian Reservation, to White Swan. In June 1993, the Washington State Department of Transportation purchased approximately 22 miles of track from the Washington Central Railroad Company, and transferred the title to the Yakima County Board of Commissioners. In 2005 the Yakima County Board of Commissioners signed a contract with Columbia Basin Short Line which currently hauls freight for three businesses - Husch & Husch Fertilizer Co. in Harrah, and Yakama Forest Products and Jeld -Wen Fiber in White Swan.

The line is in fair to good condition at present. Maintenance and repairs to the line are the responsibility of the Columbia Basin Short Line.

Airports

The Yakima Municipal Airport is located within 40 minutes of the city of Toppenish. The Yakima Air Terminal is located within the city of Yakima. The airport is owned by Yakima County and the city of Yakima. It consists of two main runways, both of which have an asphalt surface. The primary runway is 7,603 feel in length and 150 feet wide. It uses a High Intensity Runway Lighting System (HIRL). The second runway is 3,835 feet in length and 150 feet wide. The second runway uses a Medium Intensity Runway Lighting System (MIRL). The Yakima Air Terminal is an instrument airport utilizing a number of landing and navigational aids.

The airport at Yakima has been designated as a Port of Entry for a Foreign Trade Zone. In 1990, the Yakima Air Terminal enplaned 56,745 passengers on 6,345 departing commercial flights. It is estimated that an average of 17 commercial flights departed daily from the Air Terminal. Each departing commercial passenger flight enplaned an average of 8.9 passengers. In 1990, the Yakima Air Terminal handled 117 metric tons of air cargo. Based on a 1990 estimate, 111 private general aviation aircraft are based at this airport.

Between 1990 and the year 2020, the total enplanements per year at the Yakima Air Terminal are estimated to grow at 4.8% per year. This average annual growth rate would result in 260,009 total enplanements in the year 2020. Enplanement forecasts by the Washington State Air Transportation

Commission range from a low of 180,556 enplanements in the year 2020 to a high of 375,734 enplanements in this same year.

Between 1990 and the year 2020, the handling of air freight is expected to increase 4.2% per year. This

average annual growth rate would result in 402 metric tons of air cargo being handled at the Yakima Air Terminal in the year 2020.

Without expansion, the Yakima Air Terminal is anticipated to be at 60% of its annual service volume capacity in the year 1999 and 100% of its capacity in the year 2018.

Sunnyside Municipal Airport

The Airport is located two miles east of Sunnyside. There are 20 single-engine aircraft based at the general aviation airport and it experiences about 24,000 annual operations. The single runway is 3,543 feet long, 60 feet wide and has an asphalt runway, and is equipped with low intensity runway lights.

Public Transportation

Currently, fixed route bus service is not provided within the Toppenish area. Demand response transportation services are provided for eligible elderly and handicapped citizens by People For People Transit Elderly and Handicapped, a private nonprofit organization. Demand response transportation service allows users of this service to call ahead to arrange for transportation services at an agreed upon day and time. These transportation services are provided for elderly persons for trips involving nutrition, medical attention, and shopping. Trip requests are prioritized based on need, with trips involving nutrition or medical services given the highest priority. People or People also acts as a broker for Medicaid clients, and arranges the most appropriate and cost effective transportation service only for Medicaid-related travel.

Other transportation services are available to Yakama Indian Nation members living in the Toppenish area. For eligible Indian clients, transportation services to medical, dental and health service appointments are provide by the Yakama Tribal Council – Department of Human Services. In general., other citizens of the Toppenish area do no have access to any form of public transportation other than private for-hire taxi service.

The Yakama Nation plans to establish a Tribal transit system to serve the Yakama Reservation and surrounding communities. Project planning and transit startup funds will provide the opportunity to serve tribal and non-tribal members that live on the reservation that consists of 1.4 million acres and is an economically distressed area in Washington State. The Yakama Nation will contract with People for People to provide a fixed route transportation service.

Discussion on a public transportation system to service all of Yakima County has been ongoing over the last couple of years. This discussion involves the formation of a Public Transportation Benefit Area (PTBA) within the county. Initially, Yakima County and all incorporated Yakima County jurisdictions, including the city of Toppenish, had opted into the planning process for the development of a PTBA system. In the Fall of 1995, the PTBA was reconfigured to focus on the Yakima Metropolitan Area. At this time, the future of the PTBA is uncertain. As Toppenish is a Central Valley community, it was not

included in the reconfigured area, but may have the opportunity to annex into the PTBA at some future date, if the PTBA is not dissolved, funding for the PTBA is approved, and the communities between Toppenish and the PTBA also annex into the PTBA.

The ability for city and country jurisdictions to create a Public Transportation Benefit Area was granted by the Washington State Legislature in 1975. A PTBA operates independently from other governmental bodies, and the only function of a PTBA is to provide public transportation for all citizens within the public transportation benefit area.

IV. ROADWAY CHARACTERISTICS..

This section examines Toppenish area roadways more closely.

The city of Toppenish has 28.5 miles of roadway within the city limits.

Functional Classifications

The streets and roadways in the Toppenish area do not function independently, but rather form a network through which traffic flows. Roads within the network serve two primary functions: 1) mobility to move traffic, goods, and people from one location to another quickly and efficiently; and 2) to provide access to parcels of land. The primary purpose of arterial streets is to provide mobility. Land access from arterial streets is secondary and numerous access points along an arterial may serve to impede its mobility function. A local streets primary purpose is to provide access to surrounding parcels of land. Mobility is secondary. Collector streets provide both land access and mobility, and link arterial and local streets.

Roadways are classified as either rural or urban depending on the population of the city. If a city is 5,000 persons or greater then its roadways are classified as urban. Unincorporated areas and cities of less than 5,000 persons compose the area classified as rural for the purpose of transportation planning.

With a 2000 Census population of 8,946 persons, the city of Toppenish is classified as an urban area for the purpose of transportation planning. Table 4.1 shows the functional classification of roadways within the city of Toppenish. Table 4.2 shows the functional classification of roadways within the surrounding urban growth area.

Table 4.1. Roadways Within Toppenish City Limits.

Functional Class	Roadway Name	Start Location	End Location	# of Lanes	AADT (1992)	Estimated Peak Hour Volume (vph) [AADT * 10%]	Idealized Roadway Capacity	Peak Volume as a Ratio of Roadway Capacity	Level of Service
Principal Arterial	SR-22	milepost 2.07 milepost 2.91 milepost 3.68	milepost 2.91 milepost 3.68 milepost 4.00	2	5,919 6,965 5,196	592 696 520	2,200	.269 .316 .236	A
Minor Arterial	SR-22	Milepost 4.00	Milepost 4.29	2	3,486	349	2,000	.174	A
	Division St.	South UAB 3rd Ave.	3rd Ave. 1st Ave.	2	2,154 1,573	215 157	2,000	.107 .078	A
	1st Ave.	Toppenish Ave. SR-22 (Elm St.) Elm St.	Division St. West C/L Toppenish Ave.	4	3,264 9,766 9,766	326 977 977	4,000	.081 .244 .244	A
	Toppenish Ave.	1st Ave. Asotin Ave. 'I' Street	Asotin Ave. 'I' Street 'L' Street	4	11,040 8,033 4,139	1,104 803 414	4,000	.276 .201 .103	A
	'L' Street	South C/L Toppenish Ave.	Toppenish Ave. N. UA Bndry	2	729 1,944	73 194	2,000	.036 .097	A
	Asotin Ave.	W. UA Bndry	Buena Way (SR-22)	2	2,329	233	2,000	.116	A
Collector	W. 4th Ave.	SR-22	Division Street	2	3,132	313	1,800	.174	A
	'G' Street	S. UA Bndry	Toppenish Ave.	2	3,214	321	1,800	.178	A
	Madison Ave.	Juniper Street	Elm Street	2	2,082	208	1,800	.115	A
	Adams Ave.	Robart Lane	Fir Street	2	1,693	169	1,800	.094	A
	Fir Street	Adams Ave.	Jefferson Ave.	2	2,201	220	1,800	.122	A
	Jefferson Ave.	Fir Street	Elm Street	2	2,123	212	1,800	.118	A
	Washington Ave.	Elm Street Beech Street N. UA Bndry	Beech Street Toppenish Ave. Elm Street	2	2,073 3,210 1,794	207 321 179	1,800	.115 .178 .099	A
	N. 'B' Street	Toppenish Ave.	N. Alder Street	2	331	33	1,800	.018	A
	N. Alder Street	N. 'B' Street	Dayton Avenue	2	2,868	287	1,800	.159	A

Table 4.2 Roadways Within Toppenish's Urban Growth Area

Functional Class	Roadway Name	Start Location	End Location	# of Lanes	AADT (1991)	Estimated Peak Hour Volume (vph) [AADT * 10%]	Idealized Roadway Capacity	Peak Volume as a Ratio of Roadway Capacity	Level of Service
Principal Arterial	SR-97	Ward Rd – West UGA line	Fort Road	4	5,429	543	4,400	.123	A
	SR-97	Fort Road	Ward Rd – West UGA line	4	8,800	880	4,400	.200	A
Minor Arterial	SR-22	milepost 4.29	milepost 4.6	2	3,468	347	2,000	.173	A
	Division Road	SR-22	South City Limits	2	1,703	170	2,000	.085	A
Major Collector	Division Road	LaRue Road	SR-22	2	265	26	2,400	.011	A
	Fort Road	West UGA line	SR-22	2	No counts				
	Fraley Road	SR-22	Fraley Cut Off Road – west leg	2	1,877	188	2,400	.078	A
	LaRue Road	Division Road	West UGA line	2	932	93	2,400	.039	A
	McDonald Rd. E.	Ward Road	Track Road N. – east leg	2	1,827	183	2,400	.076	A
	McDonald Rd E.	Track Road N.	Ward Road- west leg	2	2,251	225	2,400	.094	A
	McDonald Rd E.	Track Road N.	West City Limits, east leg	2	625	62	2,400	.026	A
	N. Meyers Rd	Anahat Road	Germantown Road	2	982	98	2,400	.041	A
	N. Meyers Rd	Germantown Road	Curlew Road	2	1,148	115	2,400	.048	A
	N. Meyers Rd	South City Limits/Curlew Road	North UGA line	2	2,667	267	2,400	.111	A
	Track Road N.	Goldendale Avenue	E. McDonald Road	2	2,133	213	2,400	.089	A
	Track Road N.	McDonald Road E.	Northwest UGA line	2	1,803	180	2,400	.075	A
Minor Collector	Track Road S.	N. Meyers Road	Southeast City Limits	2	1,055	105	2,400	.052	A

The city's functional street classification is defined below. It is based on standards followed by the Washington State Department of Transportation.

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 amount of 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 facility stresses 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 trip than arterials, and carry very little through traffic. Urban Collectors and rural major collectors are the lowest class of urban roadway classifications 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 TMODEL2 traffic analysis and forecast model. 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.

Functional Class	*Capacity of Two Lane Roadway (Vehicles/Hour)*
Principal Arterial (Urban/Rural)	2,200
Minor Arterial (Urban)	2,000
Collector Arterial (Urban)	1,800
Access/Local (Urban)	1,600
Major Collector (Rural)	2,400
Minor Collector (Rural)	2,000
Access/Local (Rural)	1,600
Other	1,600

Traffic Volume History

Traffic volumes in the Toppenish area tend to be much lower than the capacities noted above. Traffic volumes can either be expressed in terms of “Average Annualized Daily Traffic” (AADT), which is the volume of traffic over a 24-hour time period, or in terms of “peak hour” traffic volume which is the highest single hour traffic volume within a 24-hour period. Most of the recorded historical traffic volumes within the Toppenish area are in the form of AADT. Within the last 6 years, a limited number of

traffic counts have been conducted by YVCOG for the city of Toppenish, using computerized traffic counters. Traffic counters plot traffic volume against time and thus can be used to determine peak hour flow.

Available historical records on traffic flows within the Toppenish area are limited to a periodic counting of vehicular traffic. This analysis used traffic volumes recorded over the past 12 years for unincorporated Yakima County and over the past 6 years for the city of Toppenish.

The Yakima County Public Works Department maintains a series of set street and roadway locations from which counts are conducted every three to four years. Most of the counts listed in the previous tables are from 1991. Except for Fraley Road within the urban growth area traffic count data was taken from counts between 1984 through 1991. Minor arterials and major collectors in unincorporated Yakima County were examined to see if traffic volumes on Toppenish area roads had noticeably increased over this period of time. For all of the major collectors, traffic volumes showed increases ranging from 3% to 60%, with increases around 30% as the average during the 1984 to 1991 period.

The following arterial and major collectors comprise the available traffic count data, and percent increases for the above period are shown for each: Division Road/SR-22: as a minor arterial (34%); Division Road/LaRue Road: as a major collector (3%); Fraley Road/SR-22 (17%); LaRue Road/Division Road (39%); McDonald Road E. intersecting with Ward Road or N. Track Road in both directions (47%, 46% and 60%); N. Meyers Road intersecting with Annahat Road, Germantown Road, and Curlew Road (44% and 38%). Considerable fluctuation can occur between years and also within a single year. Where additional data exists, it was also examined. Again, considerable fluctuation even between consecutive years was observed, calling into question one’s ability to specify a trend in the data.

The city of Toppenish has a fairly limited collection of traffic data, which only goes back to 1988. In 1988, the city contracted with YVCOG to have traffic count conducted every two years for the follow streets: Adams Avenue between Robart Lane & S. Elm Street, Madison Avenue between S. Juniper Street and S. Elm Street; E. Toppenish Avenue between ‘I’ Street and ‘L’ Street; W. Fourth Avenue between Elm Street and Division Street; and Washington Avenue between the northwest city limits and S. Elm Street. Traffic volumes for these streets during the period between 1988 to 1992, showed either very small increases or decreases – about 4 to 5% in volumes, or fluctuated greatly between the counts, with fairly sizable increases or decreases between 1988 to 1990, followed by just the opposite in the next period 1990 to 1992. The exception to this, is traffic counts for Adams Avenue and Washington Avenue, which showed steady counts – the former, or consistent decreases of 4% - the latter. As such, most of the traffic volume data for these streets tends to be sporadic than that seen for adjacent unincorporated Yakima County. Other than the above observations, no trends were discernable from this limited data.

Level of Service

The ease of traffic movement along a roadway is a function of the roadway's vehicular capacity, the number of vehicles actually using the roadway, the number of stops along the roadway, and the time spent waiting at each stop. To characterize the ease of movement of traffic, transportation engineers have developed the concept of "level of service". Level of service has been categorized in a range from "A" to "F". Level of service standards, as described in the table below are taken from the 1985 federal Highway

Capacity Manual.

Level of service can be calculated in several ways. One of the simplest measures and the one used in this analysis, is one of traffic volume to roadway capacity. Other more complex measures include interruptions to traffic flow such as signals, stop signs, turning traffic, and other factors.

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, the presence of controls at an intersection, and whether the roadway is in an urban or rural area.

The level of service can be calculated by dividing the observed traffic volume by the idealized roadway capacity. The ratio which results relates to one of the five different levels of service. Level of service in the Toppenish area for arterials and collectors has been calculated utilizing TMODEL2, a computerized traffic model, which uses traffic count information coupled with population, employment and land use information to approximate future traffic volumes and levels.

Level of Service "A" allows the maximum amount of freedom to select desired speeds and to maneuver within the traffic stream. Level of Service "C" describes stable flow, but the selection of speed is now affected by the presence of others, and maneuvering within the traffic stream requires vigilance on the part of the driver. Level of Service "E" represents operating conditions at or near the capacity of the highway. Low speeds and extreme difficulty in maneuvering within the traffic stream are characteristics of roads with level of service “E”. Any incident on a level of service “E” road can be expected to produce extensive delays and lines of vehicles. Level of Service “F” describes operations characterized by stop-and-go traffic. Vehicles may progress at reasonable speeds for several hundred feet or more, then be required to stop in a cyclic fashion. Long delays can be expected on roads with level of service “F”. Table 4.3 below shows level of service categories.

Table 4.3 Level of Service

Level of Service	Description	Volume/Capacity Ratio
A	Free flow. Low volumes and n delays.	Less than 0.60
B	Stable flow. Speeds restricted by travel conditions, minor delays. Presence of other users in the traffic the traffic stream.	0.61 to 0.70
C	Stable flow. Speeds and maneuverability reduced somewhat by higher volumes.	0.71 to 0.80
D	Stable flow. Speeds considerably affected by change in operating conditions. High density traffic restricts maneuverability.	0.81 to 0.90

E	Unstable flow. Low speeds, considerable delay, volume at or near capacity. Freedom to maneuver is extremely difficult.	0.91 to 1.00
F	Forced flow. Very low speeds, volumes exceed capacity, long delays and queues with stop-and-go traffic.	Over 1.00

Toppenish views "Levels of Service" for roadways other than arterial streets as advisory. The Washington State Department of Transportation will mitigate congestion on urban highways in cooperation with local and regional jurisdictions when the peak period Level of Service fall's below LOS "D". The city of Toppenish has two state highways passing through its boundaries: SR-22 and SR-97, both of which are classified as urban.

V. TRAFFIC FORECASTS

Population and Demographic Projections

As noted in the land use element, the city of Toppenish anticipates a year 2025 population of 11,410 persons based on the medium growth population projection.

Land Use Patterns and Population Distribution

To support this population growth, new residential areas will be needed to provide housing for new families and individuals; new commercial areas will be needed to provide goods and services to these persons; and new industrial/manufacturing areas will be needed to provide employment opportunities. In addition, land area will be needed to support growth in public and institutional facilities, parks and other related activities.

The portions of the urban growth area envisioned for future residential development are the area east and northeast of the present city limits, the area northwest of the present city limits and south of E. McDonald Road, and the area south and southwest of SR-97 and Fort Road. Presently, these areas are composed of winter wheat and other field crops, and scattered residential housing.

Light industrial expansion will be associated with the surrounding agricultural base and will be based on changing crop patterns, additional expansion of crop acreage and increases in yields, and changes in technology and processing. In potential siting of light industrial facilities, the following criteria were taken into account; site access from minor arterials such as SR-22 and S. Division Road, or other major collectors such as N. Meyers Road, E. McDonald Road, and N. Track Road, and rail access; visibility from thoroughfares; availability of utilities on site; parcel size; slope and drainage with flooding; availability of police, fire and flood protection; and zoning. Given these criteria, there are two appropriate areas for light industrial development, both of which possess large parcels currently in agricultural use fronting minor arterials and major collectors, and are also located adjacent to the Washington Central Railroad lines.

The first area is located southeast of the city, west of N. Meyers Road between N. Meyers Road and S. Division Road extending south to LaRue Road. This area is already characterized by some industrial/manufacturing development, i.e., [the Del Monte Foods U.S.A. Plant, which completed expansion and annexation into the city of Toppenish.] The second area is located west of the Pacific Aqua Tech property and north of E. McDonald Road, and consists entirely of farmlands.

A limited amount of land area is expected to develop as new commercial use as the population of the community and the surrounding area increases. This development will most likely be associated with the

existing downtown or along SR-22 adjacent to existing commercial development.

Forecasted Traffic Volumes

Traffic forecasts for Toppenish area roadways are being maintained as part of the Yakima Valley Regional Model. The modeling software used is VISUM. These forecasts will predict average daily vehicle miles traveled (ADVMT). The basis of the model are land use and employment patterns. The forecast period for this model is the horizon years 2008, 2015 and 2023.

VI. EXISTING DEFICIENCIES FUTURE NEEDS AND ALTERNATIVES

As the city of Toppenish'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 Toppenish's 2006 to 2012 Transportation Improvement Program (TIP), which identifies improvement such as resurfacing of roadways, roadway widening, and sidewalk and drainage improvements. The TIP prioritizes roadway improvements over a six-year time period. Table 4.4 identifies these roadway needs within the city of Toppenish.

Within the unincorporated portion of Toppenish's urban growth area, Yakima County is responsible for the identification and scheduling of roadway improvements. Identified needs and improvements are reflected in Yakima County's 2006 to 2012 Transportation Improvement Program (TIP). The types of improvements are similar to those identified in the City of Toppenish with the exception of a number of roadways that are identified for transition from a gravel roadway surface to a paved surface. The Yakima County TIP also prioritizes roadway improvements over a six-year period. North Track Road – a major collector, is scheduled in 1996 for an overlay and to be widened to 28' from McDonald Road to the Toppenish city limits. The total cost of this construction project is estimated to be $125,000. Two other funded projects which are adjacent to Toppenish's urban growth area have also been funded for a total estimated cost of $260,000. Both of these projects involve constructing signalization at an existing intersection with minor widening. The two intersections are: Track Road S. with Meyers Road N.; and Meyers Road N. with Fraley Cutoff Road. The first of these projects is scheduled for construction in 1996, and the second in 1997.

Several unfounded projects dealing with local access roads exist in Toppenish's urban growth area, they are: 1) Branch Road E. (from Track Rd. N. to SR-22), reconstruct gravel road to a standard bituminous surface treatment (BST) roadway, at an estimated cost of $320,000; and 2) Germantown Road (between N. Meyers Road to the End), reconstruct gravel road to a standard BST roadway, at an estimated cost of $120,000.

Table 4.4 Roadway Conditions and Maintenance Needs from 1996 to 2001

Functional Class	Roadway Name	Start Location	End Location	Number of Lanes	AADT (1992)	Estimated Peak Hour Volume (vph) [AADT*10%	Idealized Roadway Capacit	Peak Volume as a Ratio of Roadway	Level of Service

						]	y (vph)	Capacity	
Collector	Dayton Avenue	N. Alder Street	N. Elm Street	2	366	37	1,800	.020	A
	N. Elm Street	Dayton Avenue	Franklin Avenue	2	2,128	213	1,800	.118	A
	Franklin Avenue	N. Elm Street	Buena Way (Sr-22)	2	3,955	395	1,800	.219	A
	Asotin Avenue	Buena Way (Sr-22)	Toppenish Avenue	2	3,960	396	1,800	.220	A
	S. Juniper Street	Madison Avenue	Washington Avenue	2	1,276	128	1,800	.071	A
Local Roads	All Streets and roadways not listed above			2	393	3939	1,600	.246	A

VII. RECOMMENDATIONS

1. Street maintenance in Toppenish has been and will continue to be based upon the greatest need. Budget constraints limited available funding for these projects, and maintenance needs should be identified and prioritized on a continual basis.
2. All new streets and existing streets needing reconstruction shall be built to City standards.
3. All the streets in the city need seal coating on a regular basis in order to maintain their good quality. A ten-year maintenance schedule has been developed for this purpose and should be followed.

VIII. FINANCING

Finance Sources

As shown in Appendix C: Grants, Loans, Bonds and Other Financial Tools: Transportation, the city of Toppenish has a number of options for financing roadway improvements.

Finance Plan

Toppenish's Six-Year Transportation Improvement Program shows the city of Toppenish roadway projects and their associated financing. The Six-Year Transportation Improvement Program for Toppenish is incorporated by reference.

The City of Toppenish recognizes the importance of Yakima County Road Projects within its Urban Growth area and those affecting the movement of freight to and out of the City. Yakima County's Six-Year Transportation Program is incorporated by reference.

IX. TRANSPORTATION GOALS AND POLICIES

This section presents the transportation goals and policies for the city of Toppenish. Transportation Element Goals & Policies shows the relationship between the city's goals and policies and GMA goals, Countywide Planning Policies and Focus 2010 goals and objectives.

GOAL 1

To develop, maintain, and operate a balanced, safe, and efficient multimodal transportation system to serve all people, 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:

a. Multimodal transportation alternatives
b. Land use coordination
c. Prioritized improvements
d.

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

Policy 1.4 Work with the Washington State Department of Transportation, Yakima County, the PTBA authority, and other local jurisdictions in adequately sitting park and ride lots in the Toppenish area.

Policy 1.5 Minimize potential conflicts between bicycle and automobile traffic by providing signage at intersections of bike trails with roadways.

Policy 1.6 Encourage the location of bicycle racks at appropriate destination points, such as outside of downtown commercial businesses, parks, and schools.

Policy 1.7 Provide and promote the development of pedestrian and bicycle paths to schools, parks, and activity centers, as well as linkages between these paths.

Policy 1.8 The City shall encourage safely accommodating bicycles in its management and design of the city street network, including designating bicycle routes where appropriate.

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 To maintain its historic and small city character, Toppenish adopts a level of service tandard C for arterials within its jurisdiction. It also concurs with the state's level of service standard C for state highways passing through the city and urban growth area.

Policy 2.2 For all other roadways within the city, level of service standards shall be strictly advisory and shall only be used 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 level of service standards. However, these 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 The City shall produce a financially feasible plan in for capital improvements which are needed to maintain levels of service.

Policy 2.5 The design and improvements to Toppenish's transportation system should accommodate not only existing conditions, but projected growth based on realistic evaluation of the impact of national, state, regional, and local planning policies.

Policy 2.6 New development shall be allowed 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 level of service elsewhere.

Policy 2.7 The City should 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 level of service for arterials within Grandview.

Policy 2.8 The City shall 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. The City shall also explore with developers ways that new development can encourage vanpooling, 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, in order to conserve fiscal resources available to implement the Transportation Improvement Program (TIP).

Policy 2.10 The timing of implementing actions under the comprehensive plan and elements shall be based in part on the financial resources available to fund the necessary public facilities.

Policy 2.11 High priority for funding shall be granted to projects which are consist with goals and objectives adopted by the City Council.

Policy 2.12 Projects shall be funded only when incorporated into the city budget, as adopted by the City Council.

Policy 2.13 The City will encourage the maintenance and safety improvements of existing roads as a priority over the creation of new roads, wherever such use is consistent with other objectives.

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 The City will require that developers provide sidewalks along all new streets in new plats.

Policy 3.2 Toppenish will 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.

a. Modifying the placement of new buildings in ways that encourage pedestrian activities by making streets more attractive routs for walking.
b. Encouraging side and rear yard parking areas by restricting parking lots in front of commercial businesses.

Policy 3.3 The City will 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 Toppenish will work to develop mechanisms to increase public safety and enhance local mobility, yet maintain ease of movement of traffic through the city.

Policy 3.5 The design and management of the street network shall seek to improve the appearance of existing street corridors and shall incorporate high standards of design when developing new streets, including construction of sidewalks. Where appropriate, landscaping measures should be implemented to enhance the appearance of city street corridors. To the extent feasible without impairing street capacity, safety, or structural integrity, trees along street right-of-way should be encouraged.

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; aggressive promotion of a LID to finance the sidewalk portion of the work; and including sidewalks as an "alternate" in construction bid documents.

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 On-street parking should be allowed in the downtown area to form a buffer between pedestrians and street traffic, reduce the speed of traffic, and provide for short-term parking needs.

Policy 4.2 Toppenish will 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;

a. Installing directional signage to public parking areas.
b. 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; and
c. 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 Toppenish's natural resources through a balance of development activities complemented with sound environmental practices.

Policy 5.1 New transportation facilities should be designed in a manner which minimizes impacts on natural drainage patterns and soil profiles

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 Toppenish's consumption of non-renewable energy sources.

Policy 5.3 Based on current federal and state policies aimed at reducing auto-related air pollution, employers affected by these policies must 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.

Policy 5.4 Transportation facilities and services should be sited, designed, and buffered (through screening and/or landscaping) to fit in harmoniously with their surroundings. When sited within or adjacent to residential areas, special attention should be given to minimizing noise, light and glare impacts.

GOAL 6

Policy 6.1 Coordinate land use planning with the facility/utility planning activities of agencies and

utilities identified in this comprehensive plan element. Adopt procedures that encourage providers of public services and private utilities to utilize the Land Use Element of this Plan in planning future facilities.

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

a. 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;
b. Ensure protection of important natural resources;
c. Avoid unnecessary duplication of services; and
d. 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.

Policy 6.6 Work closely with the Washington State Department of Transportation to remedy land use conflicts in regard to State Routes 22 and 97.

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 trails where appropriate through Toppenish as part of a regional trail system.

Policy 7.2 Support the development of paths and marked roadways which link any pedestrian/bicycle trails with Toppenish's other resources.

Chapter 5 Housing Element

I. INTRODUCTION

Purpose

The housing element is intended to guide the location and type of housing that will be built in the city of Toppenish over the next twenty years. This element establishes both long-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 following be addressed by the housing element:

- 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; and
- Statement of goals, policies, and objectives for the preservation, improvement, and development of housing.

Applicable Countywide Planning Policies

A goal of the Growth Management Act is to encourage the availability of affordable housing to all economic sectors, promote a variety of residential densities and housing types, and encourage the preservation of existing housing stock. The following countywide planning policies 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. (Countywide Planning Policy: A.3.1.)

2. The baseline for twenty-year County-wide population forecasts shall be the official decennial Growth Management Act Population Projections from the State of Washington's Office of Financial Management 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 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 twenty 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

Housing, as the major user of land in urban areas, directly affects most plan elements. Those elements in turn, especially land use, capital facilities, and transportation, directly affect housing.

Urban Growth Areas

In large part, the conversion of vacant and agricultural land to urban use will mean 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 the major determinant 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 a denser, less costly type of housing. Conversely, low density housing may make the provision of public services extremely expensive.

Transportation

As a major generator of traffic flow, housing sets 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 an extremely low rate of vacancy housing is not generally 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 the housing consumer.

In Toppenish, affecting an increase in the vacancy rate is going to involve the development of vacant land. This situation raises two 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?

Rural Residential Community. Should the city strictly adhere to its desire of being a small city surrounded by rural areas with a small city character or should policies be developed that allow for higher densities? If the preference is to maintain its small city 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 (single-family, multifamily, manufactured homes, etc.) In considering housing types the city will have 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 so as to avoid the mixing of incompatible 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 be specifically focused at a variety of 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. 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 encourage them to address these needs.

(c) Providing information on loan programs to eligible persons seeking to improve their living situation.

III. EXISTING CONDITIONS

CHARACTERISTICS

The number of housing units in Toppenish has grown from 7,765 total housing units in 1995 to 8,946 units in 2000 per the 2000 US Census. Table 5.1 shows this growth in housing units over twenty year period. The mix of housing types has also changed significantly over this period, showing a shift away from the construction of single family conventional homes to multifamily units and manufactured homes. Table 5.2 below shows the changes in the overall housing mix.

Table 5.1: Population and Housing in the City of Toppenish

City of Toppenish: Population and Housing Units	Population		Housing Units		Persons per Housing Unit	
	Number	Percent Growth	Number	Percent Growth	Number	Percent Change
2000	8,946	13.2%	2,440	7.60%	3.88	14.69%
1995	7,765	4.7%	2,346	4.10%	3.31	0.61%
1990	7,419	12.2%	2,254	0.85%	3.29	12.70%
1980	6,517	----------	2,235	---------	2.92	----------

Source: U.S. Census Bureau, Census of Population and Housing, 1980, 1990 and 2000.

Table 5.2: Housing Types in the City of Toppenish

City of Toppenish: Type of Housing Units	2000		1990		1980	
	Number	Percent	Number	Percent	Number	Percent
Single Family	1728	71.2%	1,606	71.3%	1,818	81.3%
Multifamily	538	22.1	420	18.6%	367	16.4%
Manufactured Homes and Other Housing	161	6.7	228	10.1%	50	2.3%
Total Housing Units	2,427	100%	2,254	100.0%	2,235	100.0%

Vacancy Rate

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. The city of Toppenish has very few vacancies. The 2000 Census indicated a 6.9% vacancy rate (169 units) in housing units of all types.

The age of housing units in Toppenish is shown in Table 5.3. Roughly 73.8% of all housing units within Toppenish were built prior to 1960. More renters are living in housing units built after 1970 (28.5%) than homeowners (20.2%), and slightly more homeowners are living in housing units that are more than 45 years old (37.1% for homeowners vs. 23.2% for renters). The number of renters living in newer housing units can be attributed to the fact that the majority of rental housing units were built since 1970 when compared to the owner occupied units.

Table 5.3: Age of Housing Units in the City of Toppenish

City of Toppenish: Year Housing Unit Was built	All Housing Units[1]		Owner Occupied		Renter Occupied	
	Number	Percent	Number	Percent	Number	Percent
Total Units	2,427	100%	1,370	56.4%	888	36.6%
1999 to March 2000	23	0.9%	23		0	0%
1995 to 1998	137	5.6%	56		50	
1990 to 1994	130	5.4%	33		69	
1980 to 1989	219	9.0%	38		166	
1970 to 1979	273	11.2%	166		104	
1960 to 1969	439	18.1%	257		148	

1950 to 1959	586	24.1%	334		210	
1940 to 1959	305	36.7%	253		52	
1939 or earlier	315	13.0%	210		89	

Source: U.S. Census Bureau, Census of Population and Housing, 2000

The percentage of owner occupied units in Toppenish decreased from 58.1% of all occupied housing units in 1990 to 56.4% in 2000. The percentage of renter occupied units in Toppenish decreased from 41.9 of all occupied housing units in 1990 to 36.6% in 2000.

TABLE 5.4: Age of Housing Stock, a Comparison between the City of Toppenish, Yakima County and Washington State.

Universe: All Housing Units	Built Prior to 1940	% Built Prior to 1940	Built 1940 to 1959	% built 1940 to 1959	Built 1960 or later	Percent Built 1960 or later
City of Toppenish	315	13.0%	891	36.7%	1,221	50.3%
Yakima County	10,114	12.8%	19,424	24.5%	49,636	62.7%
Washington State	307,078	12.5%	414,555	16.9%	1,729,442	70.6%

Source: U.S. Census Bureau, Census of Population and Housing, 2000.

When compared with the county and the state, the city of Toppenish has a greater percentage of its total housing stock built between 1940 and 1959. With approximately half of its year round housing units built before 1960, this large percentage of older homes in Toppenish is significant, as the aging of housing stock has a direct relationship with the need for housing rehabilitation.

The time when many of the original components, particularly the electrical, heating and plumbing systems, were installed was a period when less stringent codes were used, and these systems were not intended to meet the requirements of modern appliances and lifestyles, or the added demands of overcrowding (see the Inventory section for more information on overcrowding). With the passage of time and the aging of these homes, many of these components have exceeded their design life creating potentially dangerous conditions for occupants, especially the low income and elderly who may not be able to afford maintenance or replacement of these systems.

Inventory

The City of Toppenish continues to experience serious problems with the physical integrity of its existing housing stock. Sixty-nine percent of the City's current inventory of single-family dwellings distributed throughout Toppenish are in poor condition or are in a state of deterioration. This situation was verified by a windshield study of single-family housing in Toppenish on October 26th and October 27th, 2006 by Yakima Valley Conference of Governments' staff. All Toppenish single-family housing units were surveyed with the exception of apartment units and manufactured homes. Categories of housing conditions were based on former CDBG General Purpose Handbook criteria with a summary of results being as follows:

Category	Number of Units	Percent of total Units
Standard	252	19.28%
Substandard	142	10.86%
Poor Condition Units	569	43.53%

Deteriorated Units	344	26.32%
Total Units	1307	100%

The severity of defects varies with individual houses but many significant defects are readily apparent among a majority of the homes surveyed (See photographic examples Attachment 4.) Common problems are dilapidated roofs, inappropriate and dangerous electrical systems, faulty heating systems, lack of weatherization, deteriorating structural components and weathered paint. The housing problems in Toppenish are not isolated in a particular section but are located throughout the community (See Housing Condition Map) and cause a detrimental affect to the safety and well being of the entire City.

A multitude of factors contribute to the poor condition of Toppenish's housing stock. According to the 2000 U.S. Census of Population and Housing, 49.7 percent of Toppenish's housing units were built prior to 1960 and with 13 percent built before 1939. With the passing of each additional decade, homes that pass the 50-year mark without major remodeling become dilapidated.

The 2000 census shows 36.6% of the houses are overcrowded using the standard of more than one person per room. The State of Washington average, according to the 2000 US Census, is 2.0 persons per occupied home while Toppenish averages 3.88 per occupied home. Overcrowding increases wear and tear on a home and is very hard on aging houses in a state of decline. Overcrowding is, in large part, due to Toppenish's extremely short supply of available affordable housing.

The 2000 Census reported that of the 2,440 total housing units 2,275 were reported as occupied and 165 were reported as vacant. Owner occupied housing was 1,381 or 60.7 percent while the renter occupied housing unit was 894 or 39.3 percent. The vacancy rate for properties for rent, including those "for sale or for rent", was 5.5%. Additionally, the 2000 Census showed that while population increased 17.9% between 1990 and 2000, housing only increased 8.25%.

The 2000 Census showed that there was a 1.6% homeowner vacancy rate. These vacancy figures from the April 1, 2000 Census survey may not represent the average vacancy rate, as it occurs before many farm workers arrive for late spring and fall harvests in this agricultural region. The Office of Rural and Farm Worker Housing interviewed realtors, growers, clergy, and school district personnel as part of a February 1999 report assessing the need for agricultural worker housing in the Toppenish area. All indicate that housing is currently in very short supply with demand far exceeding supply. 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.

Overcrowding

Another measure of living conditions is overcrowding. The accepted standard defines overcrowding as the presence of more than one person per room. Overcrowding is a concern, as the presence of more occupants than a house is designed for places added stress on a home's systems and structural components reducing their design life. Table 5.5 compares overcrowding in Toppenish with Yakima County and Washington State. As indicated in this table, overcrowding in Toppenish is over two times greater when compared with Yakima County, and about seven times greater than the overall state average.

TABLE 5.5: Person per Room, City of Toppenish, Yakima County and Washington State

Universe: Occupied Housing Units	1.01 or more persons Per Room	% with 1.01 or More	1.00 or less Persons Per Room	% with 1.00 or Less
City of Toppenish	825	36.5	1,433	63.5
Yakima County	10,522	14.2	63,471	85.8
Washington	115,884	5.1	2,155,514	94.9

Source: U.S. Census Bureau, Census of Population and Housing, 2000.

In order to maintain suitable housing stock and provide for the expected expansion of the population, it will be necessary to develop a data base and municipal policies 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 5.6 on the next page, approximately 79.6% of the owner occupied homes in Toppenish in 1989 were valued at less than $50,000 per the 2000 Census. The median value of an owner occupied home in Toppenish is $38,600. Due to the demand for housing within Yakima County over the past four years, these values may have changed significantly, as many communities have experienced increases in the value of owner occupied homes amounting to around 7 to 9% per year as shown in Table 5.7.

Table 5.6: Value of Owner Occupied Housing in 1999

Universe: Specified Owner Occupied Housing Units	City of Toppenish		Yakima County		Washington State	
	Number	Percent	Number	Percent	Number	Percent
Less than $50,000	109	8.8	1999	5.6	19,062	1.6
$50,000 to $99,999	771	62.2	12,198	35.1	155,140	13.4
$100,000 to $149,999	315	25.4	11,345	32.6	296,818	25.6
$150,000 to $199,999	19	1.5	5,268	15.2	265,104	22.9
$200,000 to $299,999	25	2.0	2,827	8.1	247,284	21.4
$300,000 to $499,999	-	-	894	2.6	128,147	11.1
$500,000 to $999,999	-	-	242	0.7	38,523	3.3
$1,000,000 or more	-	-	32	0.1	7,384	0.6
Median (dollars)	$87,900	(X)	$113,800	(X)	$168,300	(X)

Source: U.S. Census Bureau, Census of Population and Housing, 2000.

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 (see Appendix D: Glossary of terms, for a more precise definition). 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 provision for the needs of middle and lower income persons.

Income and Hosing Costs

Based on U.S. Department of Housing and Urban Development (HUD) criteria, 66% of all Toppenish households are low income. Table 5.7 below compares four income statistics for the city of Toppenish, Yakima County and Washington State. Among the 14 cities in the county, Toppenish ranked the third lowest in terms of per capita income in 2000. Additionally, the percentage of persons living below the poverty level in Toppenish grew from 27.8% in 1990 to 29.2% in 2000 (1990 and 2000 Census).

As a result of these low income levels, occupants of at least 25.3% of the city's housing units spent 30% or more of their 1999 income on housing, including utilities (2000 Census). Among those who rent, 40.2% pay more than 30% for housing and utilities. When the percentage of income on housing costs exceeds 30%, the remaining income available to many low-income households is often inadequate to meet life's other basic necessities such as food and clothing.

Table 5.7: Comparison of Average Income Statistics for the City of Toppenish, Yakima County and Washington State.

	Per Capita Income	Medium Household Income	Median Family Income	Poverty Rate in Percent (Family)
City of Toppenish	9,101	29,950	28,228	29.2
Yakima County	15,606	34,828	39,746	19.7
Washington	22,973	45,776	53,760	7.3

Source: U.S. Census Bureau, Census of Population and Housing, 2000.

Local residents throughout Yakima County have discussed housing problems through the countywide visioning effort. The results of this effort have been used as a basis for the Countywide Planning Policies that 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 Conditions

Existing Densities

As indicated by Figure 2.4 – Population Density Map in the land use element of this plan, population densities in Toppenish range from near 0 to 8,961 or more persons per square mile, with an average household size of 3.43 persons per household. The area with the most density in the city, can be found within a three block area located between Adams and Washington Avenues south of S. Ivy Street, the block between Adams and Jefferson Avenue on the southwest side of Olney Park, and in Olney's Addition in the four blocks between S. Date and S. Beech Streets. Population densities in these blocks range from 8,961 to 20,875 persons per square mile. Household sizes in these areas range from 1.76 to 3.86 persons per household. In general, the farther away one goes from the areas with original platting (small lots), fewer persons per square mile can found in residential areas.

In Toppenish, approximately 46.2% of the total land area, or roughly 417 acres is devoted to housing.

Inventory of Vacant Buildable Land

In Toppenish, approximately 2.5% of the parcel acreage, or 22.3 acres are vacant. Of this vacant acreage,

about 9.2 acres are residentially zoned. The majority of this acreage (7.9 acres) is in the R-1: Residential District, with the remainder in the R-2: Residential District. Approximately 11.5% of the R-1 zoned lots and 65.2% of the R-2 zoned lots are nonconforming and do not meet the minimum lot size requirements for a single family dwelling (7,200 sq. ft. minimum). These lots are typically 25' x 100' lots in the older parts of the city. Single family homes or single-wide mobile homes would be permitted on these lots if all setback requirements are met. However, this limits the size of the home that could be built and the number of units that could potentially be provided.

Population Growth

While the city's population increased by 1,181 people, or 13.2% between 1995 and 2000, it gained 94 housing units, a 7.6% increase over this same period. The increase in population was absorbed by increases in the number of persons per household, 3.43 in 1990 (1995's number of persons per household has not been calculated) to 3.85 in 2000, and a decrease in the vacancy rate from 5.8% in 1990 to 1.6% in 2000.

Future Needs

At the medium growth rate, it is estimated that 635 additional units would be needed to serve the projected year 2025 population of 11,410 persons. At the high growth rate, 1073 additional units would be needed to service a year 2025 population of 13,113. Table 5.8 below shows the breakdown of housing types and number of units needed to serve either of this future population, if the existing pattern of housing type were to continue. In additional to those needs displayed by the current housing stock, new construction will be needed to increase the vacancy rate and to provide for population growth.

TABLE 5.8: Projects of Housing types and Number of Units needed in the City of Toppenish by the Year 2025.

Population Projection	Single Family	Multifamily	Manufactured Homes or Other	Total Additional Units Needed
Medium Projection	**452**	**140**	**42**	**635**
High Projection	**764**	**237**	**72**	**1073**

Source: Based on 2000 Census average occupancy County-wide Planning Committee Population Allocation

Land Requirements for Single Family Housing

Using the medium growth projection, 452 additional single family units would be required to meet the 2025 population projection of 11,410 people. This would consume approximately 81.36 acres (at 0.18 acres per unit) of vacant or agricultural land area.

If the high growth projection were realized, 764 additional single family units would be required to meet the 2025 population projection of 13,113 people. This would consume roughly 137.52 acres (at 0.18 acres per unit) of vacant or agricultural land area.

If all the vacant residentially zones land within the city (about 71.85 acres) were developed as single family units, neither of these growth projection requirements for single family units could be met, which indicates that in order to meet either growth projection, residential development would need to occur in Toppenish's urban growth area. As mentioned previously in the Land Use Element, allowances should be made for restrictions on development, preferences for larger lot sizes, landowner speculation, market choice, and properties kept from development for other reasons.

Land Requirements for Multifamily, Manufactured and Other Housing Types

Developable land would be needed to accommodate the projection for multifamily and manufactured housing units. Using the medium growth projection, about 7 acres (at 0.05 acre per unit or a density of 20 DU/AC) would be needed to accommodate 140 additional multifamily units. An additional 7.56 acres (at 0.18 acres per unit) would be needed to accommodate another 42 manufactured housing units with the city.

Using the high growth projection, approximately 11.85 acres would be needed to accommodate 237 additional multifamily units (at 0.05 acres per unit or a density of 20 DU/AC). An additional 12.86 acres would be needed to accommodate another 72 manufactured home (at 0.18 acres per unit) within the city.

Potential exists within the city for mixed use building (residential units above existing commercial in the downtown core), duplexes, triplexes, four-plexes, and small scale apartment buildings.

Total Land Needed to Absorb Housing

The total land requirement for new housing to accommodate the high population projection of 13,113 persons in the year 2025 would be 162.23 acres. This requirement is based on an overall average parcel size of 7,841 sq. ft. (0.18 net acres) per single family or manufactured housing unit, and an overall average parcel size of 9,200 sq. ft. (0.05 net acres per unit) for multifamily units (duplexes and larger). These calculations assume that the housing pattern existing in 2000 will continue throughout the planning period. As stated previously in this chapter, if the trend toward increases in the amount of manufactured housing development in Toppenish continues, then additional acreage would need to be set aside for this housing type.

V. A COORDINATED HOUSING STRATEGY FOR TOPPENISH

As is the case with most communities, Toppenish's housing problems are a result of complex physical, social, and economic realities. Because of the complexity of these problems, a coordinated approach is necessary to address them. A coordinated housing strategy for Toppenish 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 be made in consideration the goals, policies and objectives contained in this comprehensive plan;

2) A target area or areas for housing rehabilitation should be indicated with the plan and used to guide future activities aimed at improvement of the existing housing stock: and

3. Implementation of needed improvements in the Capital Facilities and Transportation Elements could result in greater opportunity for growth in Toppenish. The addition of more people in Toppenish, particularly those active in the community work force will add to the viability of the community.

VI. GOALS AND POLICIES

GOAL 1

Encourage a variety of affordable, well-designed and attractive housing for all Toppenish residents.

Policy 1.1 Support the development of a housing stock that meets the varied needs of the present community while attracting high income residents.

Objective: Encourage the construction of new units to increase the housing supply. New construction should provide for moderate to low income households, and elderly market demand as well as upscale residences. It should also provide for an appropriate mix of housing types and intensities (single family, and multifamily)

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 Toppenish in the next twenty years; and

3) The number of dwelling units that are dilapidated and not suitable for rehabilitation.

Objective: Allow, on individual lots in all residentially zoned areas, manufactured housing that meet accepted standards for site built homes.

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 The city should consider allowing accessory apartments as conditional uses in single family residential zoning classifications.

Policy 1.4 Monitor housing availability.

Objective: Develop a record keeping and evaluation system that accurately measures the impact of programs on local housing problems.

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.

Policy 1.5 Work cooperatively with public agencies, private institutions, and private enterprise to involve the private sector in new housing construction.

Objective: Provide information regarding housing needs to local finance institutions and developers.

Objective: Support the construction of new housing funded by federal and state programs, by private enterprise, public agencies, nonprofit corporations, and other eligible parties.

Objective: Support the management and administration of public housing programs by a local public housing authority.

Objective: Endorse private sector efforts to secure federal and/or state funds to provide housing for elderly and disabled citizens.

Policy 1.6 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 1.7 Support the future development of regional plans and strategies to address the housing needs of the unincorporated areas of the County.

GOAL 2

Encourage a mixture of housing types and densities throughout the sub-area that are compatible with public service availability.

Policy 2.1 Support the development of regional strategies to address the housing needs of Toppenish and its urban growth area.

Objective: Land use controls shall govern the distribution of housing types by establishing overall density.

Objective: 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: New multifamily residential construction will be encouraged to address the need for additional rental housing.

Objective: Criteria shall be developed for establishing levels of service required for different densities of development.

GOAL 3

Establish and maintain neighborhoods in Toppenish that are safe, sanitary and well-maintained.

Policy 3.1 The City will ensure and facilitate the provision of municipal services appropriate to the density of residential development.

Objective: The cost of extending municipal services to serve new residential developments will be borne by the developer

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 (see Appendix B: Capital Facilities Funding Sources for information regarding these sources of assistance).

Policy 3.2 Conserve the city's existing housing stock through code enforcement, rental licensing, appropriate zoning, participation rehabilitation programs, and discouraging conversion to nonresidential use.

Policy 3.3 The city of Toppenish will work cooperatively with other public agencies, private institutions and organizations to foster housing rehabilitation and neighborhood reinvestment in areas suitable for rehabilitation.

Objective: The housing target area map will serve as a guideline for the commitment of public and private financial resources for housing 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 3.4 The city of Toppenish 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: Work cooperatively with Pacific Power and Light Company to increase the number of energy audits performed for Toppenish households.

Objective: Encourage the presentation of workshops on low or no cost weatherization and energy conservation skills by qualified organizations.

Chapter 6 Administration

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 in order 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 Toppenish sets the month of July to begin advertising for requests to amend the comprehensive plan and September as the month for consideration of amendment proposals by the planning commission. City Council will issue final decisions on comprehensive plan amendment proposals before the end of the calendar year, anticipated 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 initial adoption of a sub area plan that does not modify the comprehensive plan policies and designations applicable to the sub area;

(ii) The adoption or amendment of a shoreline master program under the procedures set forth in chapter 90.58 RCW;

(iii) The amendment of the capital facilities element of a comprehensive plan that occurs concurrently with the adoption or amendment of a county or city budget;

(iv) 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.

Seven Year Update

In compliance to RCW 36.70A.130 the City of Toppenish will establish a schedule every seven years beginning December 1, 2006 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 annual amendments cannot occur separately in the year designated for the seven year update. So all annual updates coinciding with the seven year update cycle has to be submitted concurrently within that year.

However, any amendment to the zoning and other development regulations can be made anytime 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 manager's office;

c. A fee, as required by Section 17.24.020, 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 planning commission up until twenty-one (21) 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 ten 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, the zoning shall also be changed 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 Community, Trade and Economic Development, 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 Toppenish 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 Community, Trade and Economic Development, 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 Eastern 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

Eastern Washington Growth Management Hearings Board

After exhausting any local appeals process, parties still aggrieved by the decision may appeal to the Eastern 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, and must be filed in the office of the appropriate board.

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[14] 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;

5. The proposal is an extension of similar adjacent use or is of sufficient size to make the proposal logical;

[14] 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.

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.