

City of Wapato

2009 Comprehensive Plan Update

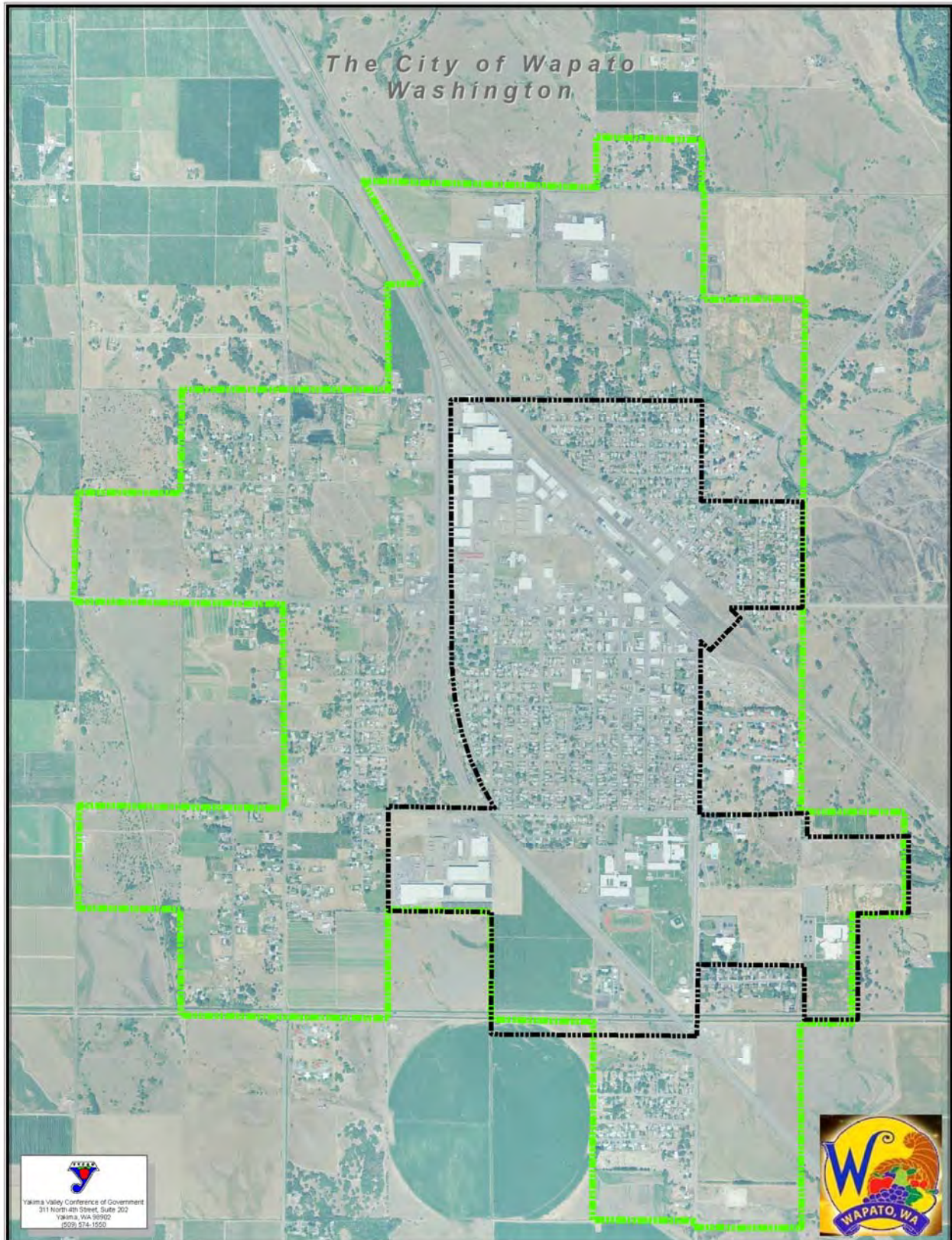


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Chapter 1 Administration Element

I. INTRODUCTION

Purpose

This Administration Element has been developed in accordance with the requirements of the Washington State Growth Management Act including RCW 36.70A.106, 36.70A.120, 36.70A.130 and 36.70A.140 to address amendment of the Comprehensive Plan and the maintenance of consistency with development regulations.

The Administration Element has also been developed in accordance with the Countywide Planning Policies. 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

To comply with the Growth Management Act, the Comprehensive Plan needs an Administration Element consisting of procedures for:

- Evaluation of plans and development regulations;
- Evaluation of urban growth areas and the densities permitted at least every 10 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 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 20-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 change and needs within the community and document needed amendments to the Comprehensive Plan.

Timing

All proposals shall be considered by both the Planning Commission and City Council, so the cumulative effect of the various proposals may be ascertained. 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 to form a docket of proposed plan changes for consideration as part of the Comprehensive Plan's yearly review and amendment process. The City of Wapato sets January as the month of the year for consideration by the City Council and November for consideration by the Planning Commission in which amendments to the Comprehensive Plan will be scheduled.

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:

1. The initial adoption of a sub area plan that does not modify the comprehensive plan policies and designations applicable to the sub area;
2. The adoption or amendment of a shoreline master program under the procedures set forth in chapter 90.58 RCW;
3. 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;
4. 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 with RCW 36.70A.130, the City of Wapato will establish a schedule every seven years to take action, to review and, if needed, revise their comprehensive plan and development regulations to ensure the plan and regulations comply with the requirements of the Growth Management Act. The City of Wapato's statutory deadline for the next comprehensive plan update is December 1, 2013, seven years after the previous statutory deadline of December 1, 2006. As allowed by RCW 36.70A.130(5)(c), the City of Wapato may update its comprehensive plan within thirty-six (36) months following December 1, 2013 if the City has a population of no more than five thousand and has had its population increase by the greater of either no more than one hundred persons or no more than seventeen percent in the ten years preceding December 1, 2013. 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 that are consistent with the adopted Comprehensive Plan can be made anytime during a year.

III. 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 upon the recommendation of or with the concurrence of the planning commission following a public hearing by the planning commission. Amendments may be initiated in the following manner:

1. By motion of the city council or planning commission;
2. By filing with the planning commission a petition by the owner of property within the City, which petition shall be on standard form prescribed by the planning commission and available from the city clerk;
3. A fee of one hundred fifty dollars (\$150) plus the cost of required engineering review or study payable to the City at the time of filing the petition shall be charged for advertising and mailing expenses. No part of the fee shall be returnable. 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.

4. Motions and/or complete applications for amending, supplementing, or modifying the text and maps of this comprehensive plan will be received by the planning commission up until twenty-eight 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 application and will allow for proper public notification of the proposals. Motions and/or applications 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 annual amendments, supplements, or modification, or seven-year updates of this Plan, whether initiated by petition or motion. This public hearing shall be held and a recommendation will be made by the Planning Commission prior to the initial State sixty (60) day comment period on the proposed amendments.

Notice of hearing and the nature of the proposed change shall be given by publication in the official newspaper of the City at least fifteen (15) 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 within 300 feet of the boundary lines of the property proposed to be changed shall be notified of the proposed change and the date of hearing by United States mail. Notice mailed to the last known address of the person making the tax payment shall be deemed proper notice. However, in the case of a boundary change or a future land use designation change affecting three or more parcels, notice of hearing on the proposed change(s) may be given by publication in all local newspapers published in the City for two consecutive weeks. The notice shall contain the date, time and place of the hearing and a description that identifies the area of the proposed change(s) and the effects of the change(s).

Upon receiving the findings and recommendations from the Planning Commission from this public hearing, the City Council will conduct a public hearing to consider the recommended amendments. No decisions shall be made on the recommendations for amendment until after the initial 60 day state review and comment period has expired.

Planning Commission Recommendation

In recommending the adoption of any proposed amendment or in concurring with the City Council on any proposed amendment, the Planning Commission shall state fully its reasons at the public hearing before the City Council, describing any change in conditions that it believes makes the amendment advisable and specifically setting forth the manner in which the Planning Commission is of the opinion that the amendment is in harmony with the purposes set forth in the Plan.

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

Commerce, Growth Management Division, for review and comment. One plan review checklist and any other supplementary documentation (relevant State Environmental Policy Act [SEPA] information, outline of public participation process, etc.) shall accompany the proposed amendment. Should the city of Wapato not receive state comments on the proposed amendment within sixty (60) days after receipt of the proposed amendment by the State, the City shall be free to adopt the amendment without further delay.

Final Review of Adopted Amendment

Within ten (10) days from the adoption of the amendment, an electronic copy of the adopted amendment and a signed copy of the resolution adopting the amendment shall be submitted to the Washington State Department of Commerce, Growth Management 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 amendments shall also receive a copy of the adopted amendment.

The City will also publish a notice of adoption and availability in its newspaper of record. A final 60-day review and comment period will commence from the date of publication. Appeals of the adopted amendment to the Eastern Washington Growth Hearings Board would be filed during this final 60-day review period.

III. APPEALS

Initiation

Any interested citizen or administrative agency or commission may appeal to the City Council from any ruling, interpretation or decision of the Planning Commission adverse to his interest, by filing with the city clerk within fourteen (14) days from the ruling, a written notice of appeal. Thereupon, the City Clerk shall forthwith transmit to the City Council all petitions, minutes of meetings, and other documents constituting a record upon which action appealed from was taken.

Time and Place of Hearing

Upon filing of the notice of appeal, the City Council shall fix the time of hearing and advise the appellant thereof. The time fixed for hearing of the appeal shall not be more than thirty (30) days subsequent to the filing.

Authority to Rule

The City Council may, at its hearing, receive such additional evidence as it deems to be relevant and shall have the power to affirm, alter, or overrule any ruling, decision or interpretation of the planning commission.

Appeals to Others

Eastern Washington Growth Hearings Board

After exhausting any local appeals process, parties aggrieved by the decision may appeal to the Eastern Washington Growth Hearings Board if such decision is subject to review by the Growth Hearings Board and if the party has standing. Appeals to the Growth 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 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 20-year growth management planning projections adopted by the Office of Financial Management (OFM) should be adjusted.

For a person 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 Hearings Board decisions may be filed in Superior Court.

Superior Court

Appeals outside of the scope of the Growth Hearings Board may be appealed pursuant to RCW 34.05.

V. CRITERIA APPROVING A CHANGE IN THE FUTURE LAND USE DESIGNATION MAP

Standards

A change in the future land use designation 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 designation 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, objectives and policies of this 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.
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 be concurrently 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 significant adverse impacts beyond the City limits, the proposal has been jointly reviewed by Yakima County.
11. Any other similar considerations that may be appropriate to the particular case.

Chapter 2 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, or body of water. 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 groundwater used for public water supplies
- Where applicable, a review of drainage, flooding, and storm water run-off in the area covered by the plan and nearby jurisdictions, and guidance for corrective actions to mitigate or cleanse those discharges that pollute the waters of the state.

Note: The latter two requirements normally would be found under the Land Use Element of the comprehensive plan; however, they are being addressed under this element as they are more applicable to natural systems.

Resource Lands and Critical Areas

An inventory of natural resource lands and critical areas was prepared in November 1991, and was submitted to the Washington Department of Community Development on February 7, 1992 as part of the city's Annual Report on progress toward meeting the comprehensive planning requirements of the GMA as amended. This document is incorporated here by reference.

On April 6, 1992, the Wapato City Council passed and approved Resolution No., 7-1992, "A Resolution of the City Council of the City of Wapato, Washington, with Regard to the Designation, Conservation, and Protection of Agricultural Lands, Forest Lands, Mineral Resource Lands, and Critical Areas." That resolution is incorporated here by reference. The City concluded that it was not appropriate to designate any agricultural lands, forest lands, mineral resource lands, wetlands, areas with a critical recharging effect on aquifers used for potable water, fish and wildlife habitat conservation areas, or geologically hazardous areas. It designated the area within the 100-year floodplain, as shown on the Federal Emergency Management Agency National Flood Insurance Rate Map, as a frequently flooded area. The resolution referenced Section 17.09.020 of the city's Zoning Ordinance No. 911, with regard to "Special Development Standards in the Floodplain Overlay Districts," together with the City of Wapato Flood Damage Prevention Ordinance," and adopted those documents as development regulations for the designated frequently flooded area.

The City of Wapato will update the 1992 Critical Areas Ordinance to comply with GMA requirements that critical areas designations be based on the current best available science.

Applicable Countywide Planning Policies

The Yakima Countywide Planning Policies are not specifically required by the GMA 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 where development could occur that would be more compatible with the natural environment.

Best Available Science

The protection of natural systems within the corporate limits of the City of Wapato will be based on the best available science. The City of Wapato will weigh the most current scientific information from agencies, scientific consultants and published sources to determine the values and functions of natural systems existing in or near the City. The City will base protection of critical areas upon evaluation of this best available science along with scientific studies made available by proponents and opponents of projects in determining how best to protect natural and critical areas. The City of Wapato adopts Yakima County's review of best available science as a basis for decisions to support protections required by the Critical Area Ordinance.

Earth

Physiography

The City of Wapato and its urban growth area are located in Yakima County, approximately 14 miles southeast of the city of Yakima. The land in and around the city is located near the floodplain of the Yakima River, at an elevation of about 856 feet above sea level. The land consists of an essentially flat area of loess over lacustrine or glaciolacustrine deposits. 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, approximately 52 miles downstream at Richland.

The lands surrounding the City of Wapato and its 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.

Today, the surface geology of the Wapato 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. In addition, there is moderate to strong potential for seismic activity in the Yakima Valley. On the Toppenish Ridge in the past 165,000 years, there have been three to five earthquakes of up to magnitude 7.1, while Rattlesnake Hills/Ahtanum Ridge has seen three or more seismic events of up to magnitude 6.1 in the past 109,000 years. Both faults are considered active.

The U.S. Geological Survey (USGS) produces shaking hazard maps, which depict the level of earthquake shaking that have a 10% chance of being exceeded in a 50-year period. The numbers are expressed in as a percentage of *g*, or the acceleration of a falling object due to gravity, and range from 0 %*g* (lowest hazard) to 32 %*g* (highest hazard). The City of Wapato's %*g* is approximately nine. Western Washington ranges from 25 to 30 %*g*, while eastern Washington ranges from six to nine %*g*.

Volcanic Hazard

The sources of volcanic hazards within the Wapato 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 one to five millimeters of tephra was deposited in the area.

Tephra ejected during another major volcanic eruption of Mt. St. Helens could fall on the Wapato 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 five 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 Wapato could result in a temporary shutdown of operations, but is not likely to significantly damage the facilities.

Mt. Adams is dormant, not extinct, and 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 Wapato.

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 2.1 below was developed using information from the Natural Resources and Conservation Service (NRCS) (formerly the Soil Conservation Service) surveys that are conducted on a countywide basis. Figure 2.1 should function as a general guide to soil types found in the City of Wapato and its UGA. If specific knowledge of any soil type or characteristics is needed for development purposes, the Yakima County Planning Department or the NRCS should be consulted. Table 2.1 summarizes each soil's agricultural capability, and limitations for septic tanks and homesite development.

Major Soil Types Within the Wapato UGA

Eleven major soils types occur in Wapato and its UGA. The City is dominated by AsA (Ashue loam, 0-2% slopes) in the south and central areas, and WoA (Weirman fine sandy loam, 0-2% slopes) in the north. AsA also dominates of the UGA, with the northern end of the UGA dominated by WoA. AsA soils occur only in south-central Washington state. It is a very deep, well-drained soil that is formed on alluvium and occurs in low terraces. Ashue soil contains very gravelly sand substratum. Permeability in Ashue soil is moderately slow until water reaches the gravelly sand portion, at which permeability is very rapid. Water runoff is slow, with only a hazard of water erosion. Ashue soil is used for irrigated field and orchard crops, wildlife habitat, and is poorly suited to homesite development. The main irrigated crops are corn, grapes, mint, peas, tree fruit, and asparagus. Grasses and legumes are grown for hay, pasture, and seed. WoA soil is a very well-drained soil that forms in mixed alluvium and occurs on low terraces. Water runoff is slow, with only a slight water erosion hazard. The WoA soil has a high hazard of blowing soil. It is used for irrigated agriculture and wildlife habitat, and is poorly suited to homesite development due to flood hazard. The main irrigated crops are corn, grain, grapes, and peas. Grasses and legumes are grown for hay, pasture, and seed.

Other scattered soil types occur in the UGA. Six of the soils (Wm, Wn, WoA, WoB, Wr, and Zh) are very limited for dwellings with basements, and all occur in the north end of the City and/or its UGA. Limitations for homesite development in these soils are primarily related to flood hazard, cutbanks, and dustiness.

TABLE 2.1 City of Wapato and UGA Soils Type Limitations

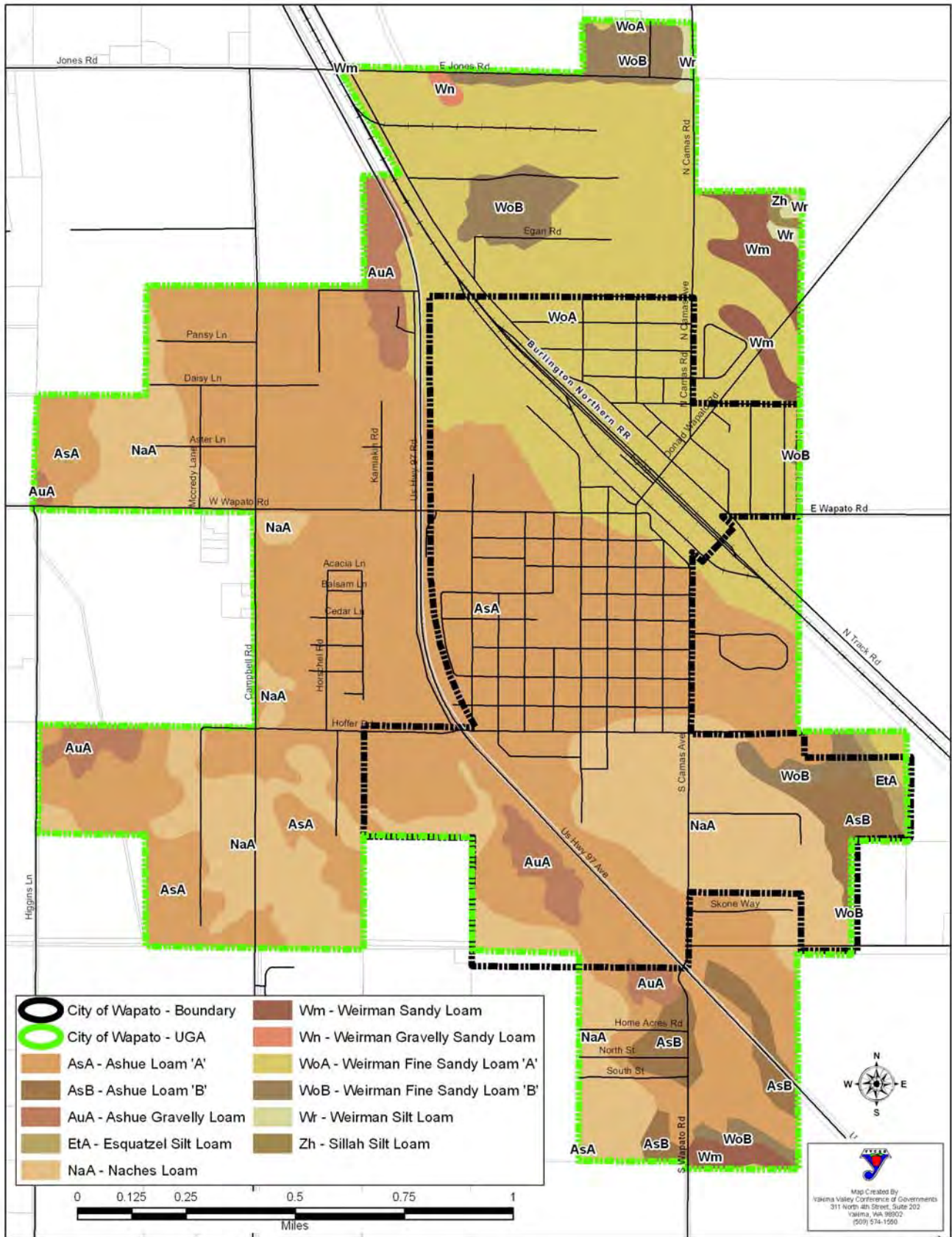
SOIL CLASSIFICATION		LIMITATIONS		
Series Names	Slope	Agricultural Capacity	Septic Tank	Homesite Development
AsA Ashue Loam	0-2%	Corn, grapes, mint, peas, tree fruit, and asparagus. Grasses and legumes are grown for hay, pasture, and seed. Prime farmland if irrigated.	Seepage in septic tank absorption fields if density of housing is moderate to high. Community sewage systems are needed to prevent contamination. Large stones can interfere with the installation of absorption fields.	Poorly suited to homesite development due to content of gravel and large stones. Building sites should be disturbed as little as possible to reduce dustiness. Cutbanks are not stable and are subject to caving in.
AsB Ashue Loam	2-5%	Corn, grapes, mint, peas, tree fruit, and asparagus. Grasses and legumes are grown for hay, pasture, and seed. Prime farmland if irrigated.	Seepage in septic tank absorption fields if density of housing is moderate to high. Community sewage systems are needed to prevent contamination. Large stones can interfere with the installation of absorption fields.	Poorly suited to homesite development due to content of gravel and large stones. Building sites should be disturbed as little as possible to reduce dustiness. Cutbanks are not stable and are subject to caving in.
AuA Ashue Gravelly Loam	0-2%	Corn, grapes, mint, peas, tree fruit, and asparagus. Grasses and legumes are grown for hay, pasture, and seed. Prime farmland if irrigated.	Seepage in septic tank absorption fields if density of housing is moderate to high. Community sewage systems are needed to prevent contamination. Large stones can interfere with the installation of absorption fields.	Poorly suited to homesite development due to content of gravel and large stones. Building sites should be disturbed as little as possible to reduce dustiness. Cutbanks are not stable and are subject to caving in.
EtA Esquatzel Silt Loam	0-2%	Asparagus, corn, grain, grapes, hops, mint, peas, and tree fruit. Grasses and legumes are grown for hay, pasture, and seed. Prime farmland if irrigated.	Flood hazard limitation for homesites and septic tanks.	Poorly suited to homesite development. Use dikes and channels that have outlets to bypass floodwater to protect buildings and onsite sewage disposal systems from flooding. Disturb sites as little as possible to minimize dustiness.
NaA Naches Loam	0-2%	Corn, grain, grapes, hops, mint, peas, and tree fruit. Grasses and legumes are grown for hay, pasture, and seed. Prime farmland if irrigated.	Seepage in septic tank absorption fields if density of housing is moderate to high. Community sewage systems are needed to prevent contamination.	Well suited to homesite development. Disturb sites as little as possible to minimize dustiness. Cutbanks unstable and subject to caving in.
Wm Weirman Sandy Loam		Not prime farmland. Low available water capacity, high hazard of soil blowing.	Very limited. Seepage in septic tank absorption fields if density of housing is moderate to high. Community sewage systems are needed to prevent contamination.	Very limited. Use dikes and channels that have outlets to bypass floodwater. Disturb sites as little as possible to minimize dustiness.
Wn Weirman Gravelly Sandy Loam		Not prime farmland. Low available water capacity, high hazard of soil blowing.	Very limited. Seepage in septic tank absorption fields if density of housing is moderate to high. Community sewage systems are needed to prevent contamination.	Very limited. Use dikes and channels that have outlets to bypass floodwater. Disturb sites as little as possible to minimize dustiness.

SOIL CLASSIFICATION		LIMITATIONS		
Series Names	Slope	Agricultural Capacity	Septic Tank	Homesite Development
WoA Weirman Fine Sandy Loam	0-2%	Not prime farmland. Low available water capacity, high hazard of soil blowing.	Very limited. Seepage in septic tank absorption fields if density of housing is moderate to high. Community sewage systems are needed to prevent contamination.	Very limited. Use dikes and channels that have outlets to bypass floodwater. Disturb sites as little as possible to minimize dustiness.
WoB Weirman Fine Sandy Loam	2-5%	Not prime farmland. Low available water capacity, high hazard of soil blowing.	Very limited. Seepage in septic tank absorption fields if density of housing is moderate to high. Community sewage systems are needed to prevent contamination.	Very limited. Use dikes and channels that have outlets to bypass floodwater. Disturb sites as little as possible to minimize dustiness.
Wr Weirman Silt Loam		Not prime farmland. Low available water capacity, high hazard of soil blowing.	Very limited. Seepage in septic tank absorption fields if density of housing is moderate to high. Community sewage systems are needed to prevent contamination.	Very limited. Use dikes and channels that have outlets to bypass floodwater. Disturb sites as little as possible to minimize dustiness.
Zh Zillah Silt Loam		Where drained and flood-protected, crops are asparagus, corn, grain, grapes, and peas. Grasses and legumes grown for hay, pasture, and seed. Prime farmland if drained and either protected from flooding or not frequently flooded during growing season.	Wetness increases possibility of absorption field failure. If density of housing is moderate to high, community sewage systems are needed to prevent water supply contamination from seepage.	Poorly suited to homesite development due to wetness and flood hazard. Deep drainage reduces wetness. Use dikes and channels with outlets to bypass floodwater.

As indicated in Table 2.1, The only soil indicated as well suited to homesite development is NaA, which occurs in the primarily in the southeast portion of the city, and in the far west and southwest portions of the UGA. Five of the soils (AsA, AsB, AuA, EtA, and NaA) are identified by the NRCS as soils that are considered prime agricultural farmland if irrigated, or are farmlands of statewide importance. AsA and NaA dominate to the west of the UGA and in the south and central portions of the City.

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.

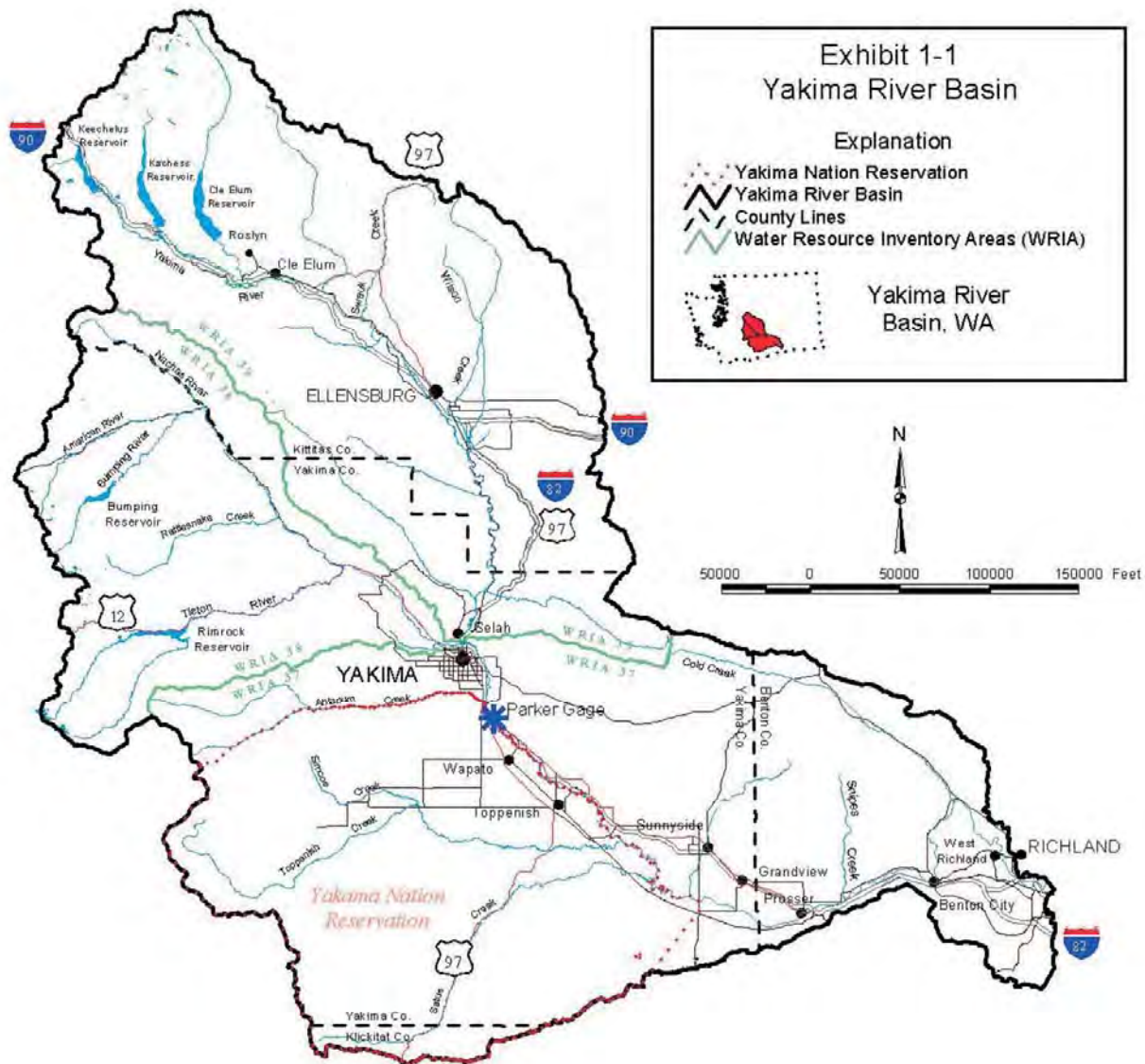
Figure 2.1. City of Wapato and UGA Soils Data



Water Resources

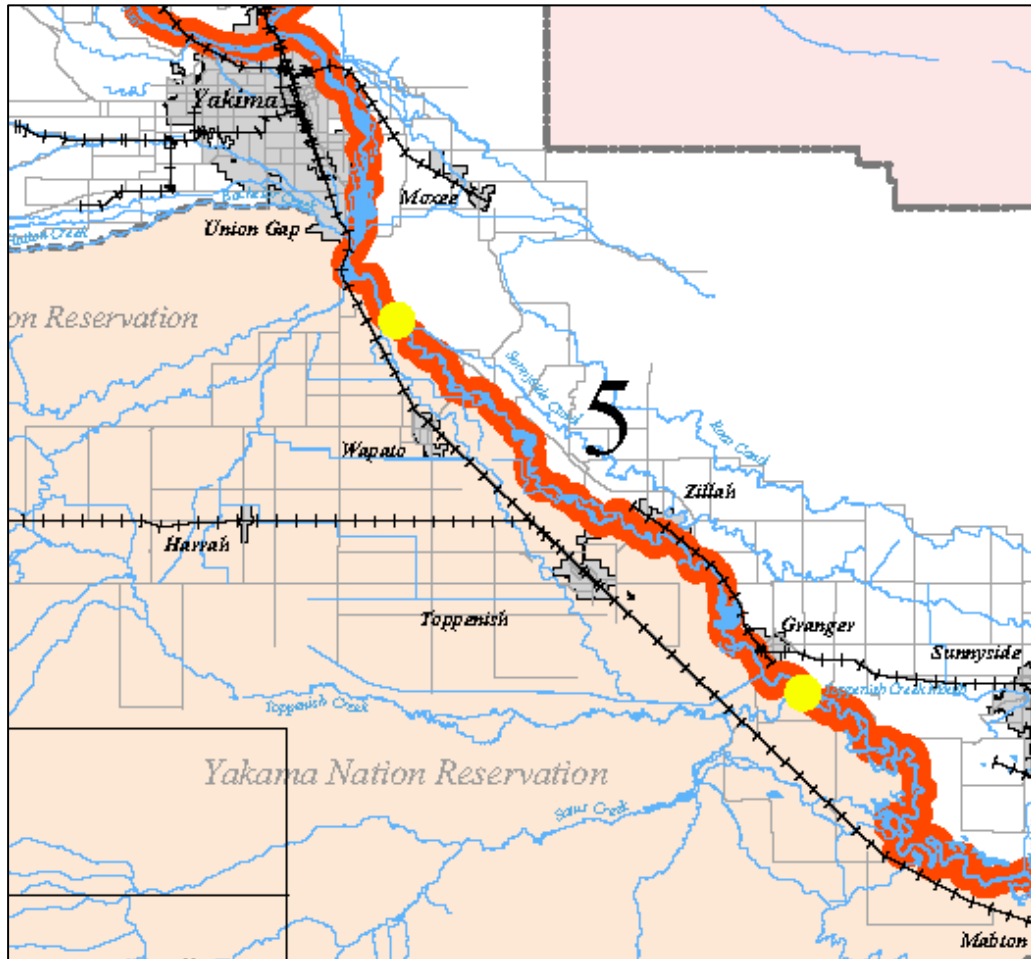
The Yakima Basin Water Resources Agency (YBWRA) divides the Yakima River Basin into six mainstream river reaches (Figure 2.2). Wapato is most closely associated with Reach #5 (Figure 2.3). This reach of the Yakima River runs from the Parker Dam north of Wapato, down to the confluence of Toppenish Creek and the Yakima River, just south of the City of Granger. The City of Wapato and its UGA are located in the Wanity Slough Sub-basin of the Yakima River Basin. The YBWRA divides the Yakima River Basin into 15 tributary sub-basins. However, the City of Wapato and its UGA fall entirely within the Yakama Indian Nation, which by request is not included in the YBWRA's Watershed Plan. Therefore, this area is not designated a planning unit by the YBWRA.

Figure 2.2. Yakima River Basin Map



Source: Yakima River Basin Watershed Management Plan - Yakima Basin Water Resources Agency

Figure 2.3. Reach #5, Yakima River Basin



Source: Yakima River Basin Watershed Management Plan - Yakima Basin Water Resources Agency

Groundwater

Geologic materials that are able to store and transmit groundwater are called aquifers. Groundwater occurs within the unconsolidated surficial deposits in most of the major stream and river valleys in the Yakima Basin. The primary groundwater 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 groundwater are important in managing water resources in the Yakima River Basin. Pumping groundwater from some aquifers at some locations may reduce flows in surface waters. This reduction in flow may affect fish and other aquatic resources, or may impair senior water rights. In other cases, pumping groundwaters may have little effect on surface waters, or may have effects that are delayed in time or occur at locations far from the well.

At the same time, management of surface waters can affect groundwater supplies. Groundwater conditions are generally unconfined (at atmospheric pressure) and influenced (hydraulically connected) by water levels in nearby streams, lakes, or rivers. Where surface water is diverted and applied to irrigated lands, some of the water may percolate down into underlying aquifers and raise the water table. Conservation measures in the agricultural sector can reduce infiltration, causing water tables to drop.

Allowing too great a density of land uses, particularly residential, in areas using individual wells for water supply can result in a seasonal decline in the water table. Where septic tanks are used in conjunction with shallow wells, the problem may be more severe and long-lasting.

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

A shallow aquifer underlies most of the irrigated areas of the Lower Yakima River sub-basin and the land immediately along the Yakima River. Flows are southeasterly (in the same direction as the Yakima River). In these shallow aquifers, potential for contamination from groundwater flowing into them is high, especially near ditches, canals, and the Yakima River. This groundwater is not considered a safe source for domestic water use. Care must be taken to avoid contamination of groundwater 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 (WDOE) and the Yakama Nation are currently participating in a joint study of the groundwater resources of the Yakima River Basin and their interactions with surface water. The United States Geological Survey (USGS) has been contracted to take the lead role in gathering and analyzing data. Detailed analysis of existing data combined with analysis of the data collected during the study is expected to provide improved information for management of groundwater resources in the Wapato area.

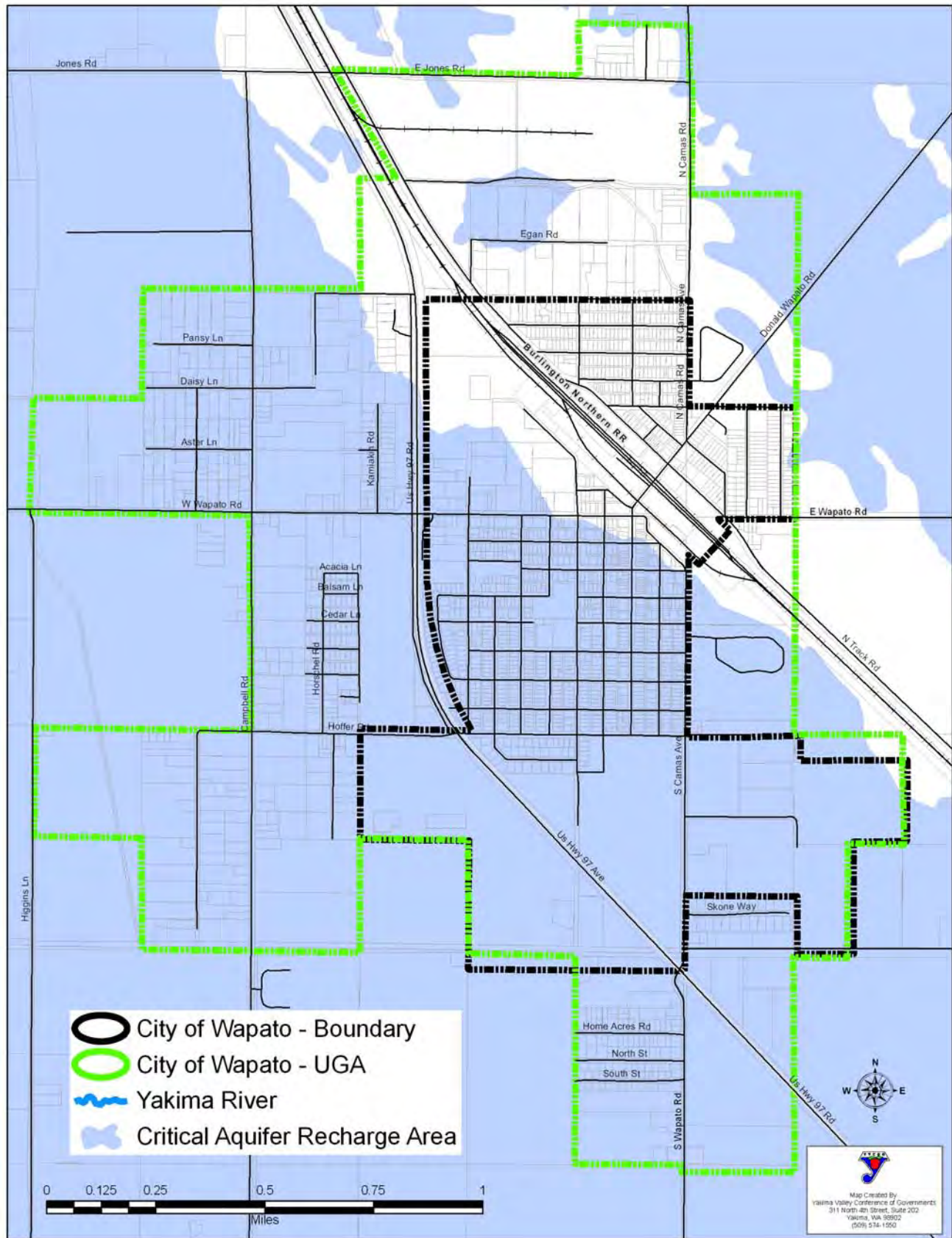
Critical Aquifer Recharge Areas

Groundwater systems are replenished (recharged) by the addition of water to the zone of saturation (aquifer) through precipitation, runoff, and infiltration from surface water bodies. A recharge area is an area where surface water resulting from precipitation reaches an aquifer by surface infiltration. 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. Groundwater discharges into rivers, lakes and streams, or through evapotranspiration, pumping, and upward flow of water into the shallower aquifers. As Figure 2.4 shows, the areas west of the UGA and in the south and central parts of the City all have high aquifer recharge potential.

The ground water system is continually recharged by rain and snowfall in the Cascades draining toward the Yakima River. Wapato is geographically positioned at the low point of the drainage basin. This position gives the Wapato area a promising outlook for future ground water supplies for both domestic and industrial usage. Municipal and industrial water systems would need to drill in the “high heads” (average flows) characteristics of the Priest Rapids Basalt aquifer. This is the deepest aquifer in the area, approximately 1,000 feet under the surface. Since it is both blown (filled with gas holes from rapid cooling) and highly fractured on its upper area, it is saturated with ground water. Flows of 2,500 gallons per minute are possible. Artesian wells come from this aquifer.

Figure 2.4. Critical Aquifer Recharge Areas in the Wapato Vicinity



Groundwater Quality

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

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

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

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

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

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

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

Yakima County does not actively track groundwater quality, and groundwater 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 have the ability to monitor, manage and protect the quality of their groundwater supplies. However, small water systems, like the City of Wapato's, and individual households rely on their own wells for drinking water. Wapato is situated at a relatively low point in the drainage basin, where the groundwater table is quite high. Consequently, water consumers can drill very shallow wells to reach enough water to supply their needs. The USGS compiled well depth information for Yakima, Kittitas, and Benton Counties, and found that 50% of all wells were less than 151 feet deep. According to the YBWRA, wells in the Lower Yakima Valley, including Wapato, tend to be shallow, with a depth of 20 to 250 feet.

Shallow and/or unprotected groundwater supplies are more susceptible to groundwater contamination than deep groundwater supplies because septic effluent can migrate into the well water supply. Wells are only required to be cased to a shallow depth. Since the upper aquifer is a sediment bed (gravel, sand, and clay), reports of well holes collapsing underneath the cased portion have been documented. This occurs when well pumps lower the water table below the cased area leaving no support for the well home. Finally, septic tanks have contributed to pollution of the upper aquifer. When very shallow wells of 20-30 feet are used in conjunction with septic tanks, it is possible for septic effluent to migrate into the well water supply. This condition has occurred most frequently during peak irrigation times. As residential density increases (using shallow wells and septic tanks) the problem compounds itself.

A common solution to both well collapse and contamination prevention would be to drill wells into the aquifer beneath the shallow aquifer since the basalt layer is impervious and acts as a "shield" (from the upper aquifer). Two problems with this approach are the added cost of deeper well depths (100-300 feet deep), and lack of legislation requiring it.

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 2.2 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.

Several Type 3 streams occur within the City of Wapato and its UGA (Figure 2.5). Wanity Slough flows southeast through the north portion of the UGA and just past the northeast corner of the City. The Yakima Rivers flow to the northeast of Wapato's UGA.

In compliance with the SMA, the Yakima County Regional Shoreline Master Program (SMP) currently is being updated. The Yakima River is designated as a "Shoreline of the State," falling under the purview of the Washington State Shoreline Management Act (SMA). According to the draft SMP available for public comment, a portion of the Yakima River designated shoreline cuts through the northeast corner of the City and its UGA (Figure 2.6).

A perennial stream flows through the southwest portions of the UGA and the City. Another perennial stream flows through the southwest corner of the UGA. Type 3 waters are natural waters that have a moderate to slight fish, wildlife, or human use. These waters have some undergone a degree of diversion for domestic use, and are used by fish for spawning, rearing, or migration.

The Yakima River passes the City of Wapato approximately one mile to the northeast. The Yakima River is classified as a Type 1 Stream and is designated as a Shoreline of the State. While the river does not occur within the City of Wapato or its UGA, it is a consideration for the City of Wapato when considering flood control and water quality measures.

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. When adopted, the City of Wapato CAO will contain criteria for classifying water bodies and their associated buffer widths for each classification (Table 2.2).

Figure 2.5. City of Wapato and UGA Wetlands and Waterbodies

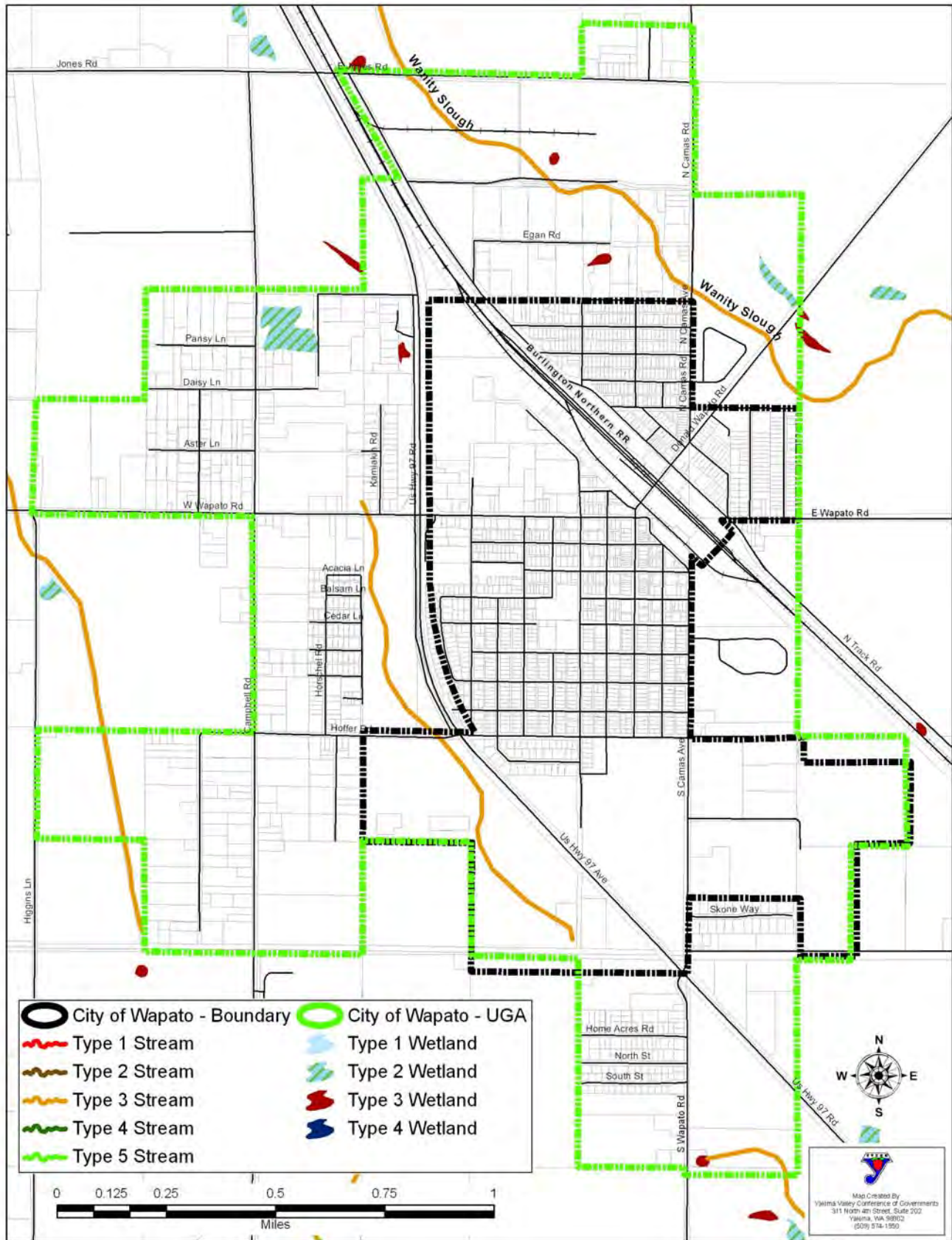
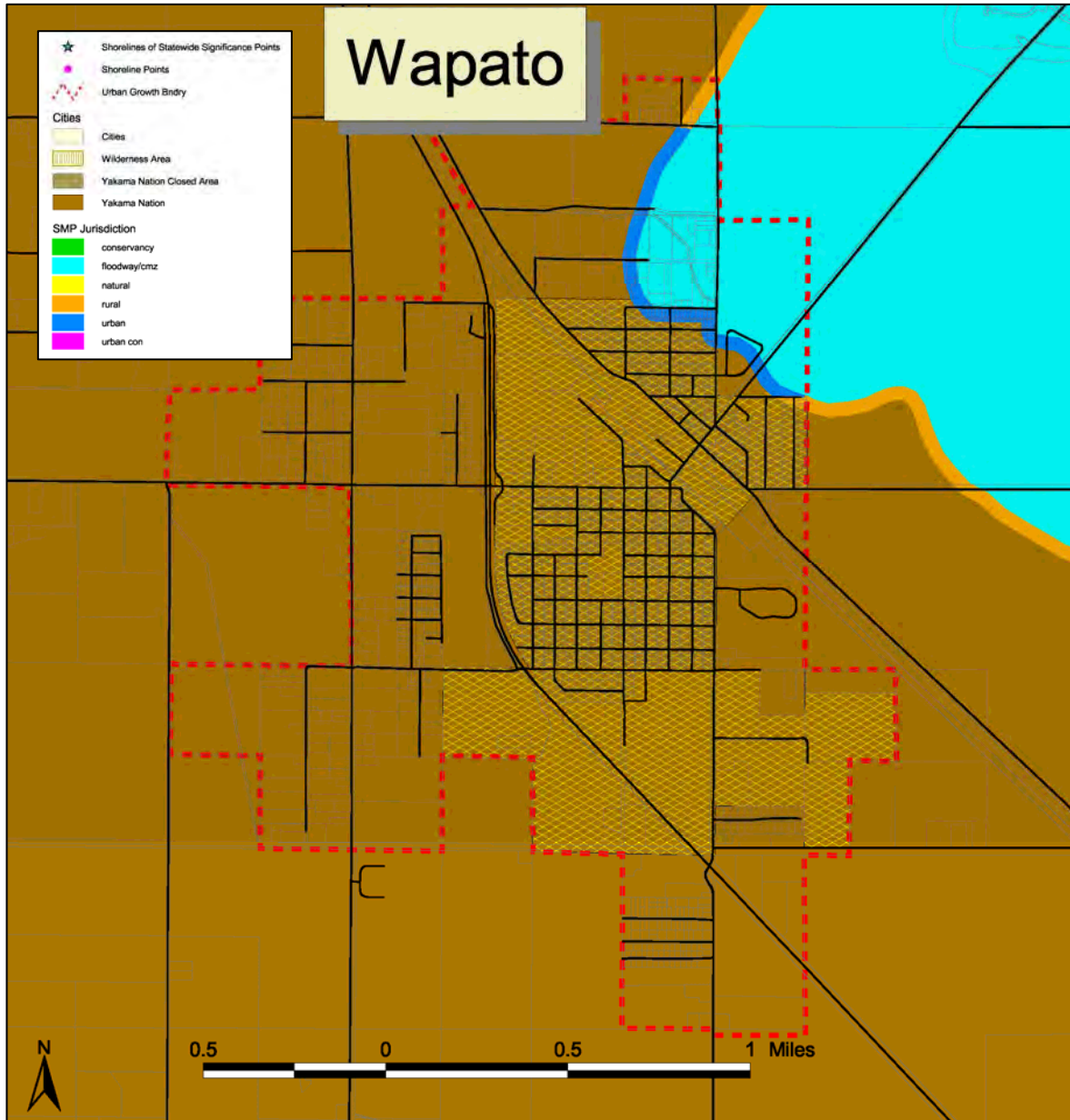


Figure 2.6. City of Wapato Shoreline, As Designated by the Draft Yakima County Regional Shoreline Master Program Update - Lower Yakima Draft Shoreline Jurisdiction Map



Source: Draft Yakima County Regional Shoreline Master Program: Lower Yakima Draft Shoreline Jurisdiction Map

Table 2.2. 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, and a wide variety of physical, chemical, and biological parameters have been studied with respect to surface water quality in the Basin. These include:

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

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

Yakima River: The studies found that Reach #5 of the Yakima River, the reach most closely associated with the City of Wapato (see Figure 2.3 above) had some significant surface water quality problems. Water quality problems include fecal coliform and sediment loads from agricultural drains and associated pesticide residues. Portions of Reach #5 are channelized with deficient riparian cover. Of these problems, the Yakima Basin Water Resources Agency has classified instream flow and temperature as the most severe.

Irrigated cropland is the major source of pesticide residues. Water temperatures in the tributaries exceeding water quality standards contribute to thermal pollution. However, the creeks and drains that form tributaries to the lower Yakima River are considered to have good to excellent water quality.

The federal Clean Water Act (CWA) includes provisions for addressing surface waters that do not meet established water quality standards. The State of Washington must identify surface-water bodies that do not achieve water quality standards. These water bodies comprise what is commonly known as the 303(d) list.

In the Yakima Basin, 150 listings have been placed on 70 water bodies listed on the 303(d) list, including many pollutants for the Yakima River. The WDOE 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). There are no water bodies in the Wapato vicinity included on the 303(d) list. TMDL Reports completed by the WDOE in the Yakima Basin Watershed, and accepted by EPA as of October 30, 2002 that are significant to the City of Wapato include the Suspended Sediment and DDT Total Maximum Daily Load Evaluation Report for the Yakima River, TMDL 97-321.

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

A variety of legal requirements exist related to the quantity of instream flows (water flowing in a stream) in the Yakima River Basin. Generally these are based on court orders and federal legislation related to the Yakima Irrigation Project. The State of Washington has not established minimum instream flows for the Yakima River Basin. Instream flows in the Yakima River Basin mandated by the courts are not

quantified. Rather, the amount of water necessary to maintain fish life is to be determined annually depending on existing prevailing conditions. Specific mandates from the state and federal courts include orders directed at United States Bureau of Reclamation's (USBR) operation of the Yakima Irrigation Project to reduce negative impacts on the fisheries resource, orders with respect to treaty reserved rights for fish, and orders with respect to instream flows to support treaty fishing rights at "usual and accustomed places."

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

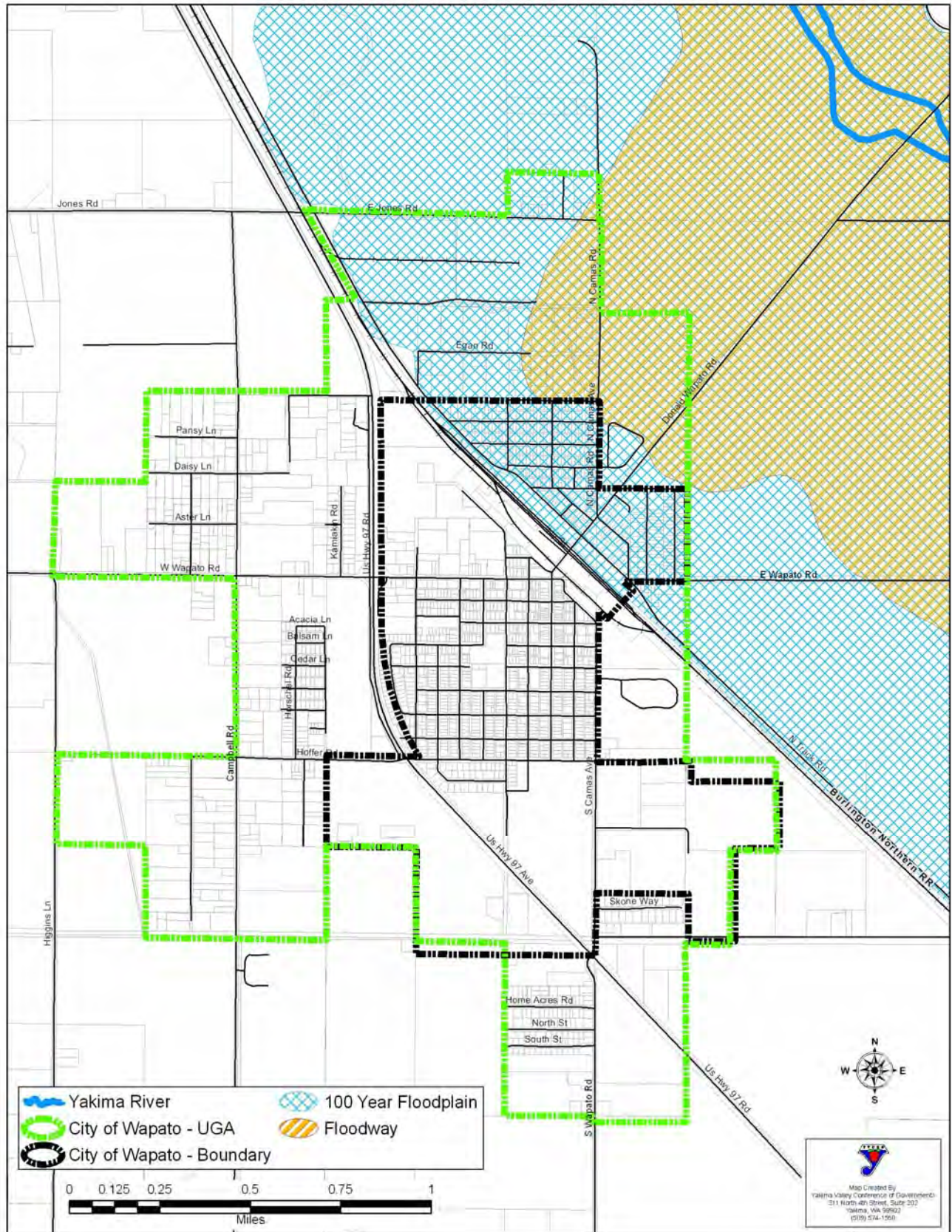
Floodplains

Figure 2.7 below shows the current FEMA-approved floodplains map for the Wapato vicinity. The 100-year floodplain crosses through the northeast corner of the City and its UGA, with the boundary of the floodplain paralleling the railroad tracks. This portion of the City is currently used primarily for residential with some interspersed commercial. The northeast portion of the UGA is residential just north of the city, with the balance composed of the Yakama Indian Nation Industrial Park and other tribal lands.

The 100-year 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 obtaining a Flood Hazard Permit prior to development to insure that minimal effects occur to the floodplain and to the development itself.

Flooding is a problem that can have significant impact on the use of land and poses the greatest threat to urban density development. In the Wapato area, the past history of flooding from the Yakima River indicates a reasonable threat of flooding in the northeast portions of the city and urban growth area. To minimize the public and private costs associated with flood damage, the City of Wapato has adopted development regulations to control development on lands designated as frequently flooded areas. These regulations are contained in the City of Wapato Flood Damage Prevention Ordinance and in the City of Wapato Zoning Ordinance section titled "Special Development Standards in the Floodplain Overlay District." Yakima County regulates shoreline management along the Yakima River as part of their flood hazard ordinance and the implementation of the Shoreline Management Act.

Figure 2.7. City of Wapato and UGA Floodplains



Wetlands

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

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

Many wetlands such as swamps, wet meadows, and riverine- and drainage-related wetlands, 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 31, 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 March 2007. 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, 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 Type 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 Type II wetlands.
- Type 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 improved. These wetlands may provide some important functions, and also need to be protected.

Wetland data for the Wapato 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 Wapato vicinity was gathered in the 1980s. NWI mapping was used by Yakima County in their recent update to the CAO.

NWI wetlands in the vicinity of Wapato are mapped in Figure 2.5. There are no wetlands within the City of Wapato. However, there are two Type 2 wetlands in the UGA. One is west of the City, near the intersection of Truck Garden Lane and Campbell Road; the other is east of the City on tribal land, near Donald Wapato Road. There are also several Type 3 wetlands identified in the north, west, and south portions of the UGA.

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 Wapato 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 Wapato city limits, but within the Wapato UGA in unincorporated Yakima County (Table 2.3).

Table 2.3. 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’

Air

Climate

The climate in the Yakima Valley, including the Wapato area, is generally 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 50s. Temperatures of 100 degrees frequently occur in the months of July and August. The mean annual temperature is between 47 degrees and 51 degrees 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 Lower Yakima River Tributaries sub-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, burning from wood stoves, industrial and transportation activities, bringing PM₁₀ and PM_{2.5} particulate pollution levels within the Yakima metropolitan area in excess of National Ambient Air Quality Standards (NAAQS). A smaller portion of the Yakima metropolitan area also has had past NAAQS violations with regard to carbon monoxide (CO). These are the only pollutants and areas within Yakima County that have had a history of NAAQS violations. Levels of other pollutants in the Yakima Valley are well below national standards.

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

Air Quality Regulations and Monitoring

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

The EPA has asserted jurisdiction over the air quality in Wapato due to its location; however, Wapato is not subject to Yakama Nation jurisdiction, but subject to Washington State jurisdiction as a city formed under the laws of the State of Washington. 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 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. PM₁₀ is fine particulate matter, defined as smaller than 10 micrometers in diameter; while PM_{2.5} is fine particulate matter smaller than 2.5 micrometers in diameter.

The WDOE maintains an air quality monitoring station in Toppenish off of Ward Road that monitors PM_{2.5} particulate matter. For the years 2007 and 2008, the average daily PM_{2.5} load at this site was 9.28 ug/m³. 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 2006- 2008, annual PM₁₀ average varied between 25 and 28 ug/m³, while the 2005 average was 25 ug/m³. 2008 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 Wapato area. However, because the traffic volumes on surface streets in the immediate vicinity are low and rarely result in congestion, CO levels are not anticipated to exceed NAAQS 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. 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 PM₁₀ and CO. The PM₁₀ 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 PM₁₀ pollution levels in the Yakima metropolitan area that periodically exceeds NAAQS.

Historical violations of NAAQS have led to portions of the Yakima metropolitan area being designated as non-attainment for both PM₁₀ and CO. The EPA redesignated both the Yakima CO nonattainment area and the PM₁₀ nonattainment area to "maintenance" for the NAAQS and approved a Limited Maintenance Plan (LMP), effective December 31, 2002 for CO and March 10, 2005 for PM₁₀. Additionally, on March 9, 2005 an EPA-approved boundary change to the PM₁₀ maintenance area to exclude lands belonging to the Yakama Nation went into effect.

Both the PM₁₀ and CO LMPs were developed by the YRCAA. Wapato is located outside of the newly designated maintenance areas and is not included in the current LMPs for either PM₁₀ or CO.

Plants and Wildlife

Plants

The Wapato area lies within the Central Arid Steppe zone of the Columbia Basin Province ecoregion of the Pacific Northwest. The Central Arid Steppe zone is often referred to as the high desert, and encompasses the basins in the rain shadow east of the Cascade Mountain range. It 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 Wapato 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 Wapato and its 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 arvensis*), 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.

According to the NRCS, in areas where the Weirman soil series is predominant, like the Wapato area, the native vegetation is mainly composed of bluebunch wheatgrass (*Agropyron spicatum*, a preferred forage plant), basin wildrye, (*Leymus cinereus*), big bluegrass (*Poa sp.*), big sagebrush (*Artemisia tridentata*), scattered willow (*Salix sp.*), and black cottonwood (*Populus balsamifera L. ssp. Trichocarpa*) along stream channels. The Ashue soils series, which is also dominant in the area, is primarily irrigated and associated with crops. Other plant species that are characteristic of the soils found within the City of Wapato and its UGA include Sandberg bluegrass (*Poa secunda*), giant wildrye (*Elymus cinereus*), sedges (*Carex sp.*), and annuals.

Emergent marsh vegetation within wetlands or on the banks of the Yakima River may include the following:

- American bulrush (*Isolepis sp.*), curly dock (*Rumex crispus*), Canadian bull thistle (*Cirsium sp.*), cattail (*Typha latifolia*), field mustard (*Brassica rapa*), hardstem bulrush (*Schoenoplectus acutu*), jointed rushes, manna grass (*Torreyochloa sp.*), marshelder (*Iva xanthifolia*), medic (*Medicago sp.*), orchard grass (*Dactylis glomerata*), quackgrass (*Agropyron repens*), reed canarygrass (*Phalaris arundiances*), sedges (*Carex sp.*), smartweeds (*Polygonum sp.*), spikerush (*Eleocharis sp.*), tall fescue (*Festuca sp.*), watercress (*Rorripa nasturtium-aquaticum*), water foxtail (*Alopecurus geniculatus*), and (*Alopecurus geniculatus*).

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 stream and wetlands in the vicinity of the Wapato UGA, particularly the Type 2 wetland in the UGA west of the City, though the runoff of agricultural chemicals renders this somewhat less than desirable. The Yakima River to the northeast of the UGA provides the most significant wetland vegetation for food, cover and breeding opportunities for fish, birds and mammals.

Some wetlands are created as a consequence of irrigation practices. These wetlands may be used as pasture for grazing cattle, thus decreasing their value for wildlife species. Vegetation within these wetlands is limited to herbaceous species such as smartweeds (*Polygonum sp.*), 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 Wapato or its UGA through the use of the database. One state sensitive plant species, miner's candle (*Cryptantha scoparias*), is known to occur in the vicinity of northeast Wapato and its UGA. A state sensitive species is any wildlife species native to the state of Washington that is vulnerable or declining and is likely to become endangered or threatened throughout a significant portion of its range within the state without cooperative management or removal of threats (WAC 232-12-297, Section 2.6). The miner's candle is known to have less than five recent occurrences in the state. It is a small, slender annual with narrow leaves that grows on south facing slopes and ridges between small canyons, and is associated with common species such as cheatgrass (*Bromus tectorum*), big sagebrush (*Artemisia tridentata*), and bluebunch wheatgrass (*Pseudoroegneria spicata*).

Little native vegetation is found within Wapato and its UGA and it is unlikely that rare plants would have survived the alterations 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 Wapato vicinity. The City of Wapato falls within the breeding range of the ferruginous hawk (*Buteo regalis*), a state threatened species. No endangered or threatened species (excluding fish), were reported to occur within the City of Wapato or the UGA.

Non-endangered bird species that may be present in the Wapato area are those species common in Eastern Washington grasslands and open areas. Species frequenting these areas include the American kestrel, western meadowlark, mourning dove, ruffed grouse, black-billed magpie, common snipe, California quail, killdeer, starlings, western kingbird, Brewer's blackbird, and ring-necked pheasant. Additionally, in the scrub/shrub habitat associated with the return flow ditches, ducks, yellow warblers and song sparrows are found. Eagles and Great Blue herons have also been observed along the Yakima River. The Greater Sage Grouse (*Centrocercus urophasianus*), is a candidate species for listing under the federal Endangered Species Act (ESA). The Sage Grouse was common in pre-settlement times throughout central and eastern Yakima County; however, its known range in the County is now limited to the northeast corner of the County. The Sage Grouse is not known to occur in the City of Wapato or its 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

The YBWRA evaluated fish habitat conditions in the Yakima River Basin for a Watershed Assessment completed 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.

Wapato 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 (Figure 2.3). The YBWRA found that the Yakima River mainstream conditions were more suitable for fish habitat in Reaches #1-3, and generally deteriorate in a downstream direction. Reach #5 of the Yakima River is important as a migratory corridor for a number of fish species. According to the WDFW, the reach is a known spawning ground for fall chinook, and a known rearing ground for spring chinook. Coho and summer steelhead salmon are also documented in Reach #5. Bull trout are presumed to occur in the reach, but are not documented.

The National Marine Fisheries Service (NMFS) divides watersheds into evolutionary significant units (ESUs) for purposes of listing threatened or endangered fish species. The City of Wapato is located in the Mid-Columbia River ESU. The USFWS listed bull trout as threatened in the Columbia River Watershed in June 1997. The NMFS listed steelheads as threatened in the Mid-Columbia River ESU in March 1999. In June 2005, the NMFS listed coho salmon as threatened in the Lower Columbia River ESU. Spring chinook salmon are listed as endangered or threatened by the NMFS in some ESUs of the Columbia River Watershed. However, spring chinook salmon is not listed in the Mid-Columbia River ESU.

III. NATURAL RESOURCE LANDS AND CRITICAL AREAS

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

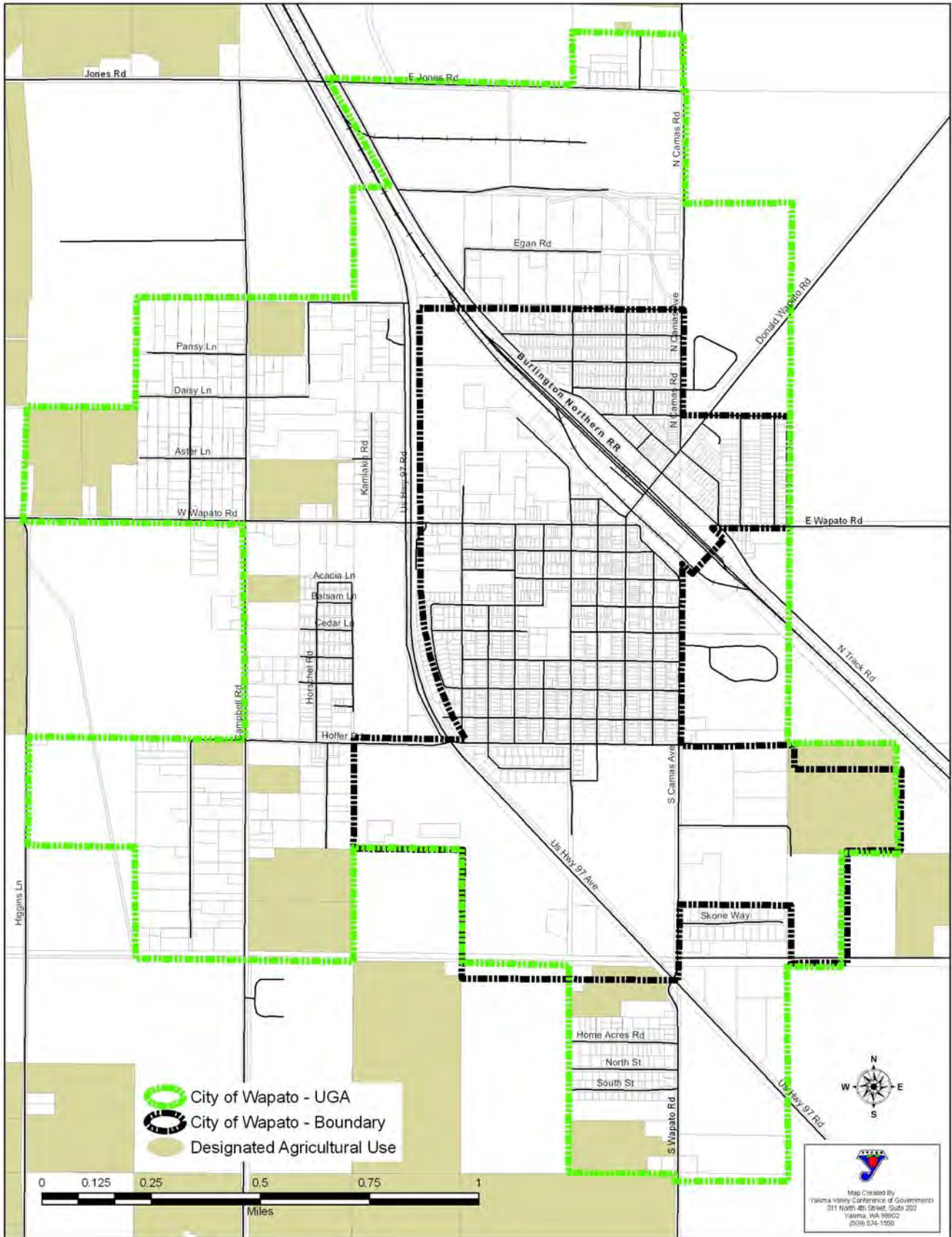
Agricultural Lands

As of November 2008, the Yakima County Department of Assessments had identified 17 parcels within the City of Wapato and its UGA that were in agricultural use (Figure 2.8).

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 Wapato 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.

Figure 2.8. City of Wapato Agriculture Lands



Forest Lands

Within the City of Wapato, 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.

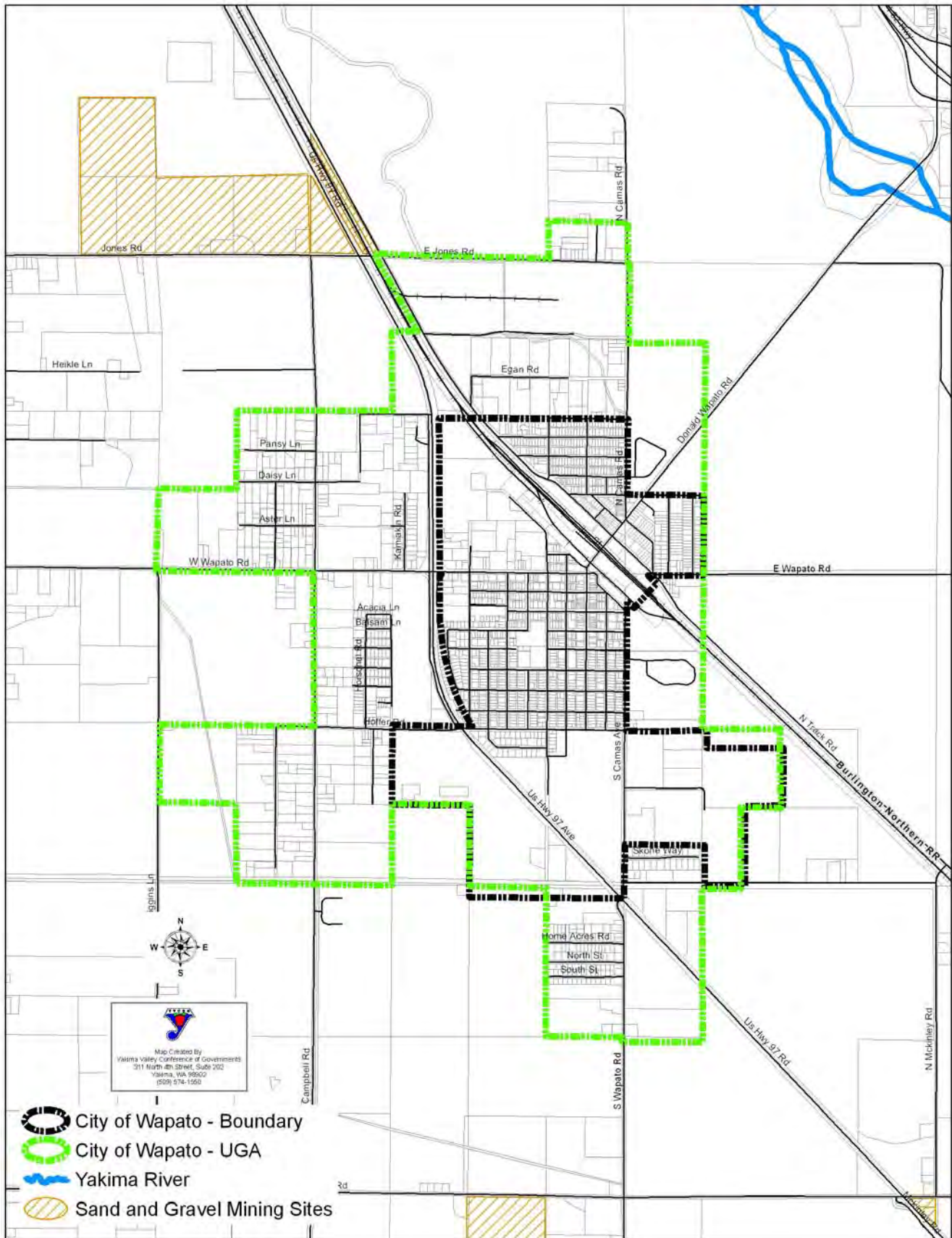
Mineral Lands

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 2.9 below displays the approved mineral resource extraction sites in the vicinity of the City of Wapato.

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."

Figure 2.9. Mineral Resource Sites near the City of Wapato



Wetlands

The United States Department of the Interior's Fish and Wildlife Service (USFWS) provided wetland data for the Wapato vicinity. 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 Wapato vicinity was gathered in the 1980s. NWI mapping was used by Yakima County in their recent update to the CAO. The NWI map for the City of Wapato and associated UGA can be seen in Figure 2.5 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. Groundwater discharges into rivers, lakes and streams; or through evapotranspiration, pumping, and upward flow of water into the shallower aquifers. As Figure 2.4 above shows, much of the City of Wapato area has a high recharge potential.

Fish and Wildlife Conservation Areas

No fish and wildlife habitat conservation areas have been identified within the City of Wapato. 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 Wapato vicinity. No endangered or threatened wildlife species (excluding fish), were reported to occur within the City of Wapato or the UGA.

Geologic Hazard Areas

Yakima County compiled geologic hazard data during the update to the Yakima County CAO. 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 considered in the inventory: landslides, over steepened slopes, stream undercutting, alluvial fans/flash flooding, avalanche risk, and earthquake activity. No geologic hazards were identified in the City of Wapato or its UGA.

IV. GOALS AND POLICIES

Critical Areas are an important part of the natural setting in City of Wapato. 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: 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. Wapato 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. The potential for groundwater quality issues in the Wapato area 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.

GOAL 2: *Maintain and manage the quality of the groundwater resources in the City of Wapato 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 River 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 Wapato 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. 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 the City of Wapato 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 can become 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.

The City of Wapato is subject to state and federal water quality and Underground Injection Control (UIC) regulations. Some urban areas within City of Wapato 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 following goal and supporting policies encouraging protection of fish and wildlife habitat 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, floodplains and other areas subject to flooding perform important hydrologic functions, including storing and slowly releasing flood waters, reducing floodwater velocities, settling and filtering 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 retention of sustainable natural resource-based industries such as forestry and agriculture to protect important fish and wildlife habitat.

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

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

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

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

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

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

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

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

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

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

Frequently Flooded Areas

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

Policy 9.1 Support comprehensive flood control planning.

Policy 9.2 The City of Wapato 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:

12. Consider the removal or relocation of structures in the FEMA 100-year floodplain,
13. Where feasible, give preference to nonstructural flood hazard reduction measures over structural measures, and

14. Structural flood hazard reductions measures should be consistent with the County's comprehensive flood hazard management plan. (WAC 173-26-221(3)(b))

Wetlands

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

- Policy 10.1 Preserve, protect, manage, and regulate wetlands for purposes of promoting public health, safety and general welfare by:
1. Conserving fish, wildlife, and other natural resources of the City of Wapato,
 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 the City of Wapato 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)):*

1. Utilize shorelines for economically productive uses that are particularly dependent on shoreline location or use,
2. Utilize shorelines and the waters they encompass for public access and recreation.
3. Protect and restore the ecological functions of shorelines,
4. Protect the public right of navigation and corollary uses of waters of the stat,
5. Protect and restore buildings and sites having historic, cultural, and educational value,
6. Plan for public facilities and uses correlated with other shoreline uses,
7. Prevent and minimize flood damages,
8. Recognize and protect private property rights,
9. Preferentially accommodate single-family uses, and
10. 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):*

1. Recognize and protect the state-wide interest over local interest,
2. Preserve the natural character of the shoreline,
3. Result in long term over short term benefit,
4. Protect the resource and ecology of the shoreline,
5. Increase public access to publicly owned areas of the shorelines,
6. Increase recreational opportunities for the public in the shoreline, and
7. 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 15.1: 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 emphasizes 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 15.2: 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, and
7. Potentially low flood hazard.

Policy 15.3: 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 16.1: 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 16.2: The following criteria should be used for the designation of Rural Environments (SMP p. 10):

1. Intensive agricultural or recreational use,
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, and
6. Potential low demand for services.

Policy 16.3: 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 Policies

Policy 17.1: 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 17.2: 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, and
5. Considerable biophysical limitations, making commercial, industrial, or medium to high-density residential development unsuitable.

Policy 17.3: 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 18.1: 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 18.2: 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, and
4. Natural areas with strong limits on access.

- Policy 18.3: 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 18.4: 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 18.4: 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 18.6: 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 19.1: 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 19.2: 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, and
 4. Areas that are open space or floodplain, or that retain important ecological functions that should not be more intensively developed.
- Policy 19.3: 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 20.1: 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 20.2: 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 20.3: 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 20.4: 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 20.5: Provide, where feasible and desirable, restoration of degraded areas along the shorelines of Yakima County.
- Policy 20.6: 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 CMZs and Flood Control.
- Policy 20.7: Protect shoreline streams, lakes, ponds, and wetlands with a vegetative buffer as described in the Critical Areas Ordinance.
- Policy 20.8: 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 20.9: 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 20.10: 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 20.11: 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 21.1: 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 21.2: Transportation and parking plans within shoreline jurisdiction shall include systems for public access, including pedestrian, bicycle, and public transportation where appropriate.

Policy 21.3: 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 21.4: 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 21.5: Access to recreational areas should emphasize both area-wide 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 21.6: 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 21.7: 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 21.8: 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 21.9: Wherever feasible, utility facilities should be placed underground.
- Policy 21.10: 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 22.1: 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 22.2: 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 22.3: 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 22.5: 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 23.1: 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, and
8. Water quality protection measures should not impact recreation opportunities (WAC 173-26).

Policy 23.2: Agricultural erosion control measures should conform to rules and standards established by the Conservation Districts of Yakima County.

Policy 2324.3: 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, and
3. Adequate facilities to properly handle wastes from holding tanks.

Policy 23.4: 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 24.1: Establish a system of shoreline uses that (WAC 173-26-241(2)):

1. Gives preference to uses with minimal impacts and that are dependant on the proximity to the water,
2. Protects the public's health, safety, and welfare; ecological functions, and property rights, and
3. Establishes conditional uses to provide extra protection for the shoreline.

Policy 24.2: 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 24.3: Encourage sound management of renewable and nonrenewable natural resources.

Recreation

Policy 24.4: 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 24.5: 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 24.6: 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 24.7: 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 24.8: 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 24.9: 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 24.10: 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 24.11: 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 24.12: 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 24.13: 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 24.14: Encourage animal feedlot operations to locate away from shorelines.

Aquaculture

Policy 24.15: 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 24.16: 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 24.17: 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 24.19: 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 24.20: 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 24.21: 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 24.22: 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 24.23: 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 24.24: 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 24.25: Ensure that proposed subsequent use of mined property and the reclamation of disturbed shoreline areas are 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 24.26: 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 24.27: Restrict subdivisions in areas subject to flooding.

Policy 24.28: 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 24.29: 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 24.30: 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 24.31: 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 24.32: 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.

Industry

- Policy 24.33: 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 24.34: Discourage industries which have proven to be environmentally hazardous from locating along the shorelines.

In-stream Structural Uses

- Policy 24.35: 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 24.36: 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 25.1: 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 25.2: 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 25.3: 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 25.4: 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 25.5: All shore stabilization activities must be designed and constructed to accepted engineering standards.

Fill

- Policy 25.6: 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 25.7: 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 25.8: 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 25.9: 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 25.10: 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 25.11: 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 3 Land Use Element

I. INTRODUCTION

Purpose of Element

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

GMA Requirements

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

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

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

Applicable Countywide Planning Policies

Under the Growth Management Act, cities, towns and their associated UGAs have been identified as the primary areas where future urban levels of growth will be permitted. To achieve the Act's goal of "interjurisdictional consistency," countywide planning policies need to be considered as part of the development of the Land Use Element of Wapato'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 UGA. UGAs may include areas not contained within an incorporated City [RCW 36.70A.110] (A.3.2.).
3. All UGAs will be reflected in County and respective City comprehensive plans (A.3.3.).
4. Urban growth will occur within UGAs only and will not be permitted outside of an adopted UGA, except for new fully contained communities [RCW 36.70A 110 (2)] (A.3.4.).

5. Sufficient area must be included in the UGAs 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 UGAs, allowances will be made for greenbelt and open space areas and for protection of wildlife habitat and other environmentally sensitive areas [RCW 36.70A.110 (2)] (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 County, City, or interested citizens may initiate an amendment to an existing UGA 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.).
10. Prior to amending an UGA, 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 UGAs. [RCW 35.13.005] Annexations will occur within UGAs 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 UGA, 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 inter-related 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 UGA process and designation.
- 2) Summary of major land use considerations for the City.
- 3) Summary of historic trends and the physical setting for the community and a survey of existing land uses within the City and its UGA.
- 4) Analysis and forecasts, including analysis of population growth and demographics; economic conditions; physical conditions; infrastructure; public facilities and services; UGA build-out scenarios; and projection of long-range land use needs.
- 5) Land Use Plan Concept: discussion of the major plan concepts and growth management strategies.
- 6) Land use goals and policies
- 7) Summary of land use implementation strategies
- 8) Land use maps

Urban Growth Area

Wapato’s Urban Growth Area (UGA) includes those lands to which the City may feasibly provide future urban services and those surrounding areas which directly impact conditions within the City limits. This area is defined by an UGA Boundary (Figure 3.1). The UGA Boundary was designated by the County Commissioners, after an extensive process involving coordination between the City and the county, in which the UGA Boundary was identified. County-wide planning policies were taken into consideration in this process.

In the UGA Boundary designation process, several factors were considered in locating an appropriate UGA boundary. The first factor was the presence of existing development with densities consistent with urban/suburban growth. Developments such as the Skone Addition, Northwest Manor, Home Acres, McCredy Tracts and Horschel’s Tracts are already subdivided and largely developed at urban densities. Figure 3.2 shows the location of these developments and compares the intensity of development within each of these subdivisions with that of the City proper. Other areas such as the Hoffer Road Development and the Jones Road Development are developed at suburban densities. None of these areas currently rely on City water and sewer services.

A second factor considered in the location of UGA boundaries was the location of existing development within the UGA where the City already has provided urban services. Three areas meet these criteria. These areas are located on Yakama Indian Nation trust land. The Yakama Indian Nation Industrial Park lies approximately 1/4 mile north of the City limits and covers approximately 100 acres. The Mamachat Indian Housing Development consists of 38 owner-occupied housing units. The Apas Goudy Indian Housing Development consists of 96 renter occupied units. In addition to these three areas, the area immediately north of the Skone Addition has been purchased by the Wapato School District with the intent of using this site for future school development. This site has City services immediately adjacent to it on Camas Way. Figure 3.3 shows the location of developments in the UGA where the City has provided urban services.

A third factor considered in the location of UGA boundaries was the location of the existing utility service area. This area reflects the City's ability to provide water, sewer, and other public services in the future. This area also reflects the area where the City believes that urban services will be needed in the future to service existing urban level development that currently rely on individual wells and septic systems. Such services will be needed as problems arise which limit, or foreclose, the continued use of these individual systems. In light of the urban development which has long existed within the area surrounding the City of Wapato, the UGA closely reflects the Utility Service Area agreed to by Yakama County and the City of Wapato as part of the County's 1988 Rural Water and Sewerage General Plan.

A fourth factor considered in the location of UGA boundaries was the area that would be required to accommodate anticipated growth. According to County population projections for the year 2025, the City of Wapato would need to accommodate an additional 650 persons. Assuming the average number of persons per housing unit remains constant over the planning period at 3.2 persons per housing unit, approximately 203 additional housing units would be needed to accommodate the population anticipated in the year 2025. At 4 housing units per developed acre, approximately 50 acres would be needed to accommodate this anticipated growth. Vacant land area within the City proper that is available for residential development is very limited. At the time of the land use survey conducted in 2006, only 14 lots were available for residential development within the City. Any other residential development would need to occur in what is now the City's UGA. The City also anticipates and greatly desires growth in commerce and industry within the City. Such growth would be provide a means for additional employment opportunities for City residents and would hopefully allow for an improved quality of life within the City.

The presence of deeded land, as opposed to tribal trust land, within the UGA is essential for the continued growth of the City of Wapato and for continued increases in the City's tax base. This formed the fifth factor that was considered in the development of Wapato's UGA.

Figure 3.1. Wapato Urban Growth Area

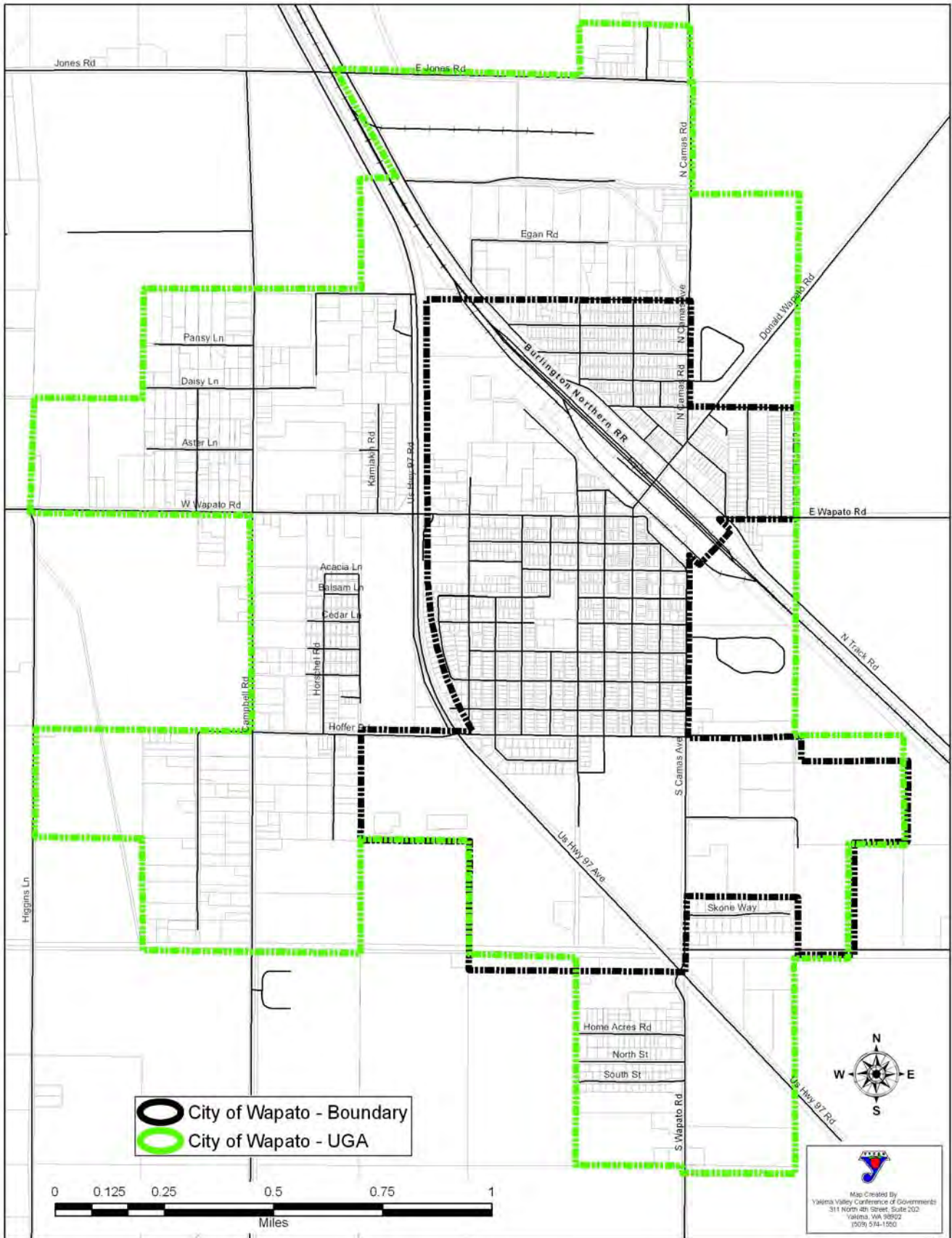


Figure 3.2. Intensity of Residential Developments within Subdivisions, Wapato UGA

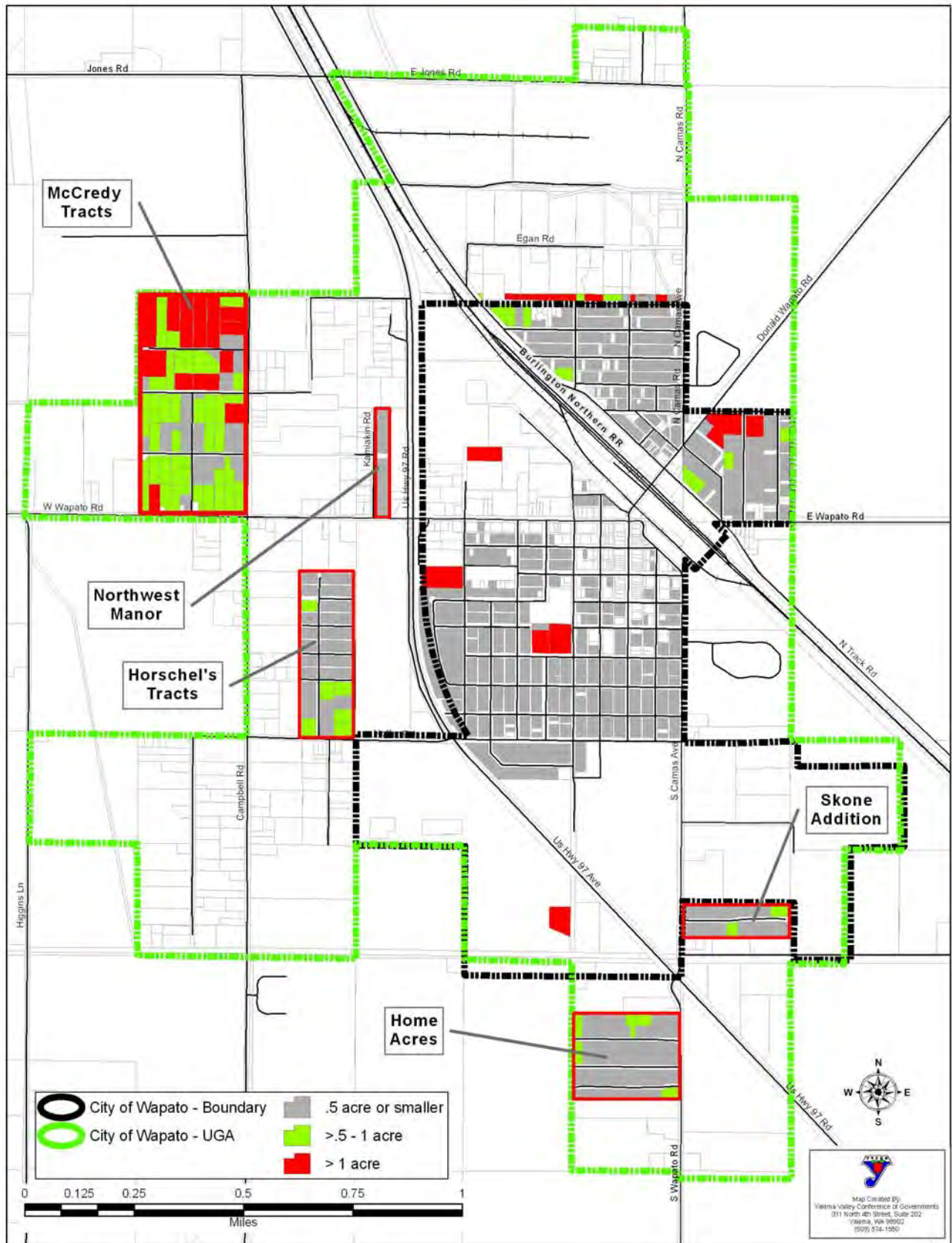
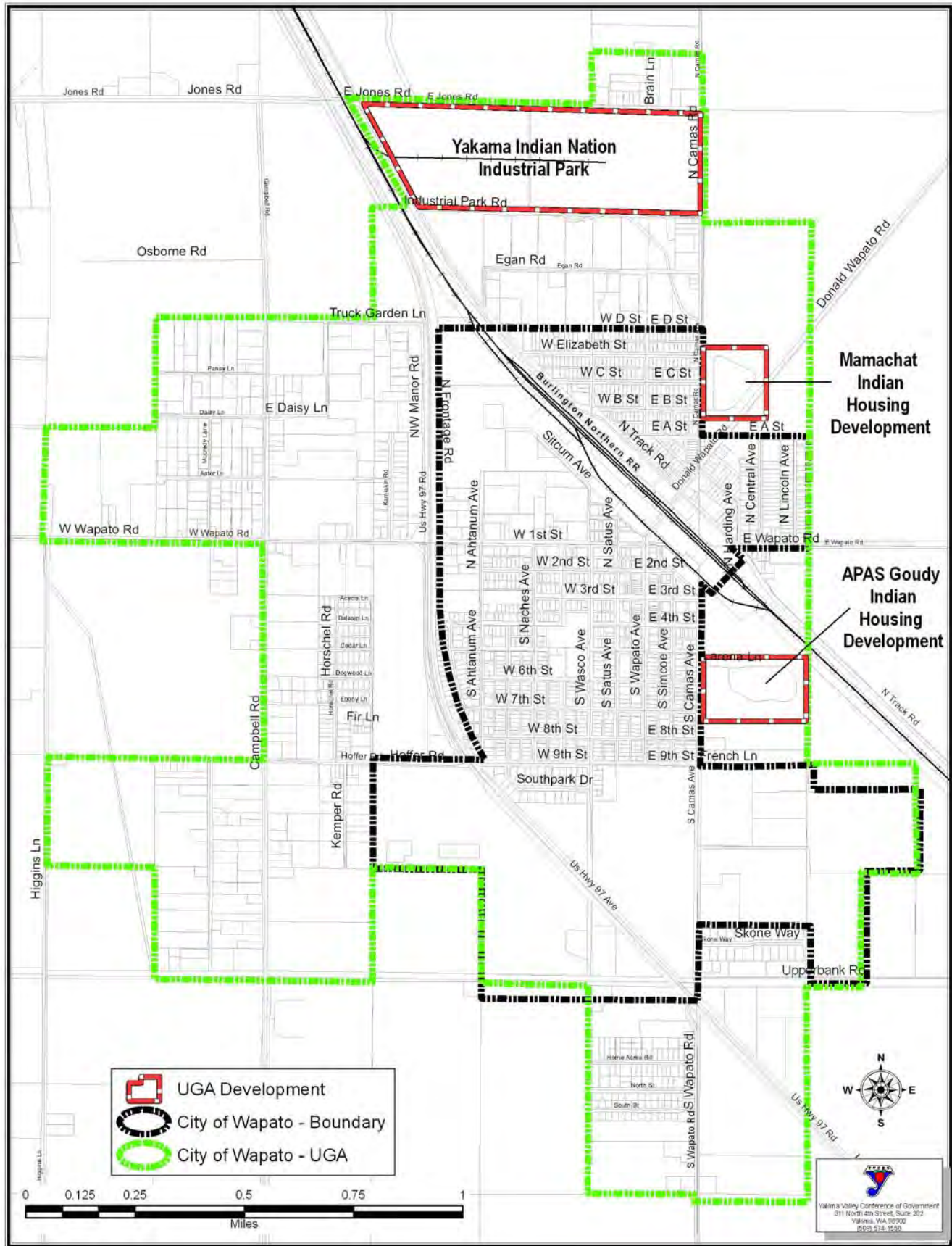


Figure 3.3. Development with City-provided Services, Wapato UGA



Although the City considered the location of resource lands and critical areas as part of the development of the UGA, only the area posing a significant development constraint is within the floodplain of the Yakama River. The floodplain area in the vicinity of Wapato lies north and east of the Burlington Northern rail line. North Wapato, the Yakama Indian Nation Industrial Park and the Mamachat Indian Housing Development all are within the floodplain area. Wapato's UGA in the area covered by the floodplain is largely limited to these already developed areas. Other development constraints are small in comparison and do not limit the UGA to the west and south of the City.

To the extent possible, parcels boundaries were used in the location of UGA boundaries. The use of parcel boundaries as UGA boundaries simplifies the process of administration and development of the UGA.

Area residents who attended the City's hearings on a proposed interim UGA were generally supportive of the proposal. Yakima County also held hearings as part of the formal process for adoption of interim UGAs. The UGA shown in Figure 3.1 was adopted by Yakima County in December 1993 as part of Ordinance 4-1993. The City affirmed its intent to use this area as its UGA when it adopted the City of Wapato Comprehensive Plan on December 5, 1994. In 2006 the City of Wapato reviewed its UGA and recommended to Yakima County remain the same. Yakima County, as adopting authority as provided within the Growth Management Act, also affirmed the City's UGA when they reviewed UGAs in 2007.

III. MAJOR LAND USE CONSIDERATIONS

- How does a City that is constrained by jurisdictional and physical barriers plan for population growth that is likely to exceed historical trends?
- Is "clustering" an appropriate tool for Wapato to use as a way of conserving land?
- How can the City plan to have public services available to serve anticipated population growth (roads, water, sewer)?
- How can the City encourage the construction of housing that will support an economically diverse community?

IV. EXISTING CONDITIONS

History

Beginnings. The present Yakama Indian Reservation was established in 1855 by a treaty between Washington Territory Governor Isaac I. Stevens and Chief Kamiakin. The treaty provided 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.

When Indians received their allotments (through the Allotment Act of 1887), the new owners could obtain fee patents, removing trust restrictions, and sell their land to any buyer.

Wapato came into being when 80 acres was acquired by Alex McCredy and the Wapato Development Company in 1905. In September 1906, another 80 acres was added as the first addition to the Wapato township and was platted in 1907. The City was incorporated in 1908 under the laws of the State of Washington.

The area in general grew slowly but steadily between 1910 and 1940, reflecting reduced employment and growing scarcity of land. A slight population increase occurred as Great Plains farmers moved to Washington seeking new agricultural opportunities.

Since Wapato was landlocked by Indian property, the borders established in 1906 remained until the 1940s, when Wapato's population more than doubled.

Regional influences during the 1940s and 1950s included establishment of Hanford Atomic Works during World War II, expansion of the land area under irrigation, growth of food processing industries, and access to new markets. Growth slowed as construction concluded on major irrigation projects and agricultural activity slowed. These regional influences may be reflected in the changes during the 1950s in Wapato's labor force, which did not decline significantly, but shifted slightly from craft and construction occupations to professional, managerial, and farm labor categories.

During the 1960s, local agricultural employment was decreasing, while many new jobs were being created on the west side of the Cascades. Wapato's population declined, following a nationwide rural to urban migration pattern.

Agricultural patterns in the Yakima Valley changed significantly between 1970 and 1990, according to crop reports for the Yakima Project as a whole. Acreage in sugar beets, potatoes, and irrigated pasture declined, while acreage in hops, alfalfa, wheat, apples, and grapes increased. Sugar beet production ceased during the 1970s when the sugar beet factory in Moses Lake closed.

In the 1970s, growth in Yakima County followed a national trend toward decentralization of people and activities to suburban and exurban areas, and to many small towns and rural areas. The City of Wapato's population again grew during the 1970s and 1980s, while its physical size stayed the same except for the addition of the middle school and City park land to the southeast. According to Census figures, the City grew by 486 people between 1980 and 1990, but added only 11 housing units.

In both the City and the county, some of the growth that occurred during the 1980s has been attributed to the "settling out" of the largely Hispanic migrant farm worker population. This trend received additional impetus with the passage of the Immigration Reform and Control Act of 1986. Yakima County led the state in filings for permanent resident status. Tables 3.1 and 3.2 show the growth in the City of Wapato and Yakima County from 1910 to 2010.

Table 3.1. Population Trends, City of Wapato

City of Wapato Population Trend, 1910-2000				
Year	Population	Change from Previous Decade	% Change	Average Growth Rate (Persons/Year)
1910	400			
1920	1,128	+728	+182.0%	+72.8
1930	1,222	+94	+8.3%	+9.4
1940	1,483	+261	+21.3%	+26.1
1950	3,185	+1,702	+114.0%	+170.2
1960	3,137	-48	-1.5%	-4.8
1970	2,841	-296	-9.4%	-29.6
1980	3,307	+466	+16.4%	+46.6
1990	3,795	+488	+14.8%	+48.8
2000	4,583	+788	+20.7%	+78
2010 *	4,888	+305	+6.2%	+30.5

* OFM estimate

Table 3.2. Population Trends, Yakima County.

Yakima County Population Trend, 1910-2000				
Year	Population	Change from Previous Decade	% Change	Average Growth Rate (Persons/Year)
1910	41,709			
1920	63,710	22,001	52.7%	2,200.1
1930	77,402	13,692	21.5%	1,369.0
1940	99,019	211,617	27.9%	2,161.7
1950	135,723	36,704	37.0%	3,670.4
1960	145,112	9,389	6.9%	938.9
1970	145,212	100	.1%	10.0
1980	172,508	15,808	10.1%	1,580.8
1990	188,823	16,315	9.5%	1,631.5
2000	222,581	33,758	17.8%	3,375.8
2010 *	237,435	14,854	6.7%	1,485.4

* OFM estimate

Physical Setting

The City of Wapato is located in the south-central section of Washington State, within the outer boundaries of the Yakama Indian Reservation, but not subject to Yakama Nation jurisdiction. The City lies along State Highway 97 roughly 14 miles south of the City of Yakima. The City of Toppenish is seven miles to the south. The Yakima River and I-82 pass approximately three miles to the northeast. The area on the northeast side of the Washington Central Railroad tracks is designated by the Federal Emergency Management Agency (FEMA) as being within the 100-year flood plain, flood insurance zone A4. On the southwest side of the tracks, flood hazard is low.

The City lies on alluvial deposits within the fertile Yakima River Valley, one of the top agricultural producing areas of the nation. Major soils associations are generally Logy-Simcoe to the northeast of the City, and Ashue-Naches to the south.

Total precipitation averages approximately seven inches per year. Between 60% and 80% of the precipitation falls between October and March.

Irrigation in the valley is made possible from water from the U.S. Bureau of Reclamation's Yakima Project. The Wapato Irrigation Project serves the Wapato area and other irrigated lands of the Yakama Indian Reservation.

Canal leakage and irrigation are the main sources of recharge to the shallow aquifer. Groundwater flow is generally to the southeast in the shallow aquifer.

Land Use Inventory

Figure 3.4 shows the general arrangement of existing land uses within the City and the UGA. Table 3.3 summarizes the acreages for each use within the City, and Table 3.4 summarizes the acreages for each use in the unincorporated portion of the UGA. Residential uses account for approximately 29% of the City's total acreage. The next largest land uses are public and industrial, each with 25% of the total acreage.

Outside of the City, the lands within the remainder of the UGA are a mixture of Indian trust lands, residential lands, outlying tracts that have been subdivided but not yet developed, and large undeveloped deeded parcels currently in agricultural use. Residential uses account for approximately 44% of the total acreage of the UGA outside of the City, while agriculture accounts for 13%.

274 acres (26%) of the total unincorporated area is trust and tribal allotment lands of the Yakama Indian Nation. The largest of the tribal parcel groups is the 117-acre area to the north, which includes virtually all of the Yakama Indian Nation's industrial park. Other trust lands include the Apas Goudy (Larena Lane) and Mamachat housing projects.

Of the total UGA (incorporated and unincorporated), residential is the largest land use with 73% of the total acreage. Tribal lands compose 27% of the total UGA and are not subject to Wapato City Planning.

Table 3.3. City of Wapato Incorporated Area: Existing Land Use Summary*

Land Use Designation	Acres	% Total Acres
Industrial	140	25%
Residential	166	29%
Public	143	25%
Commercial	44	8%
Communications & Utilities	6.7	1%
Agriculture	34	6%
Vacant	27	5%
Tribal	6	1%
Total	567	

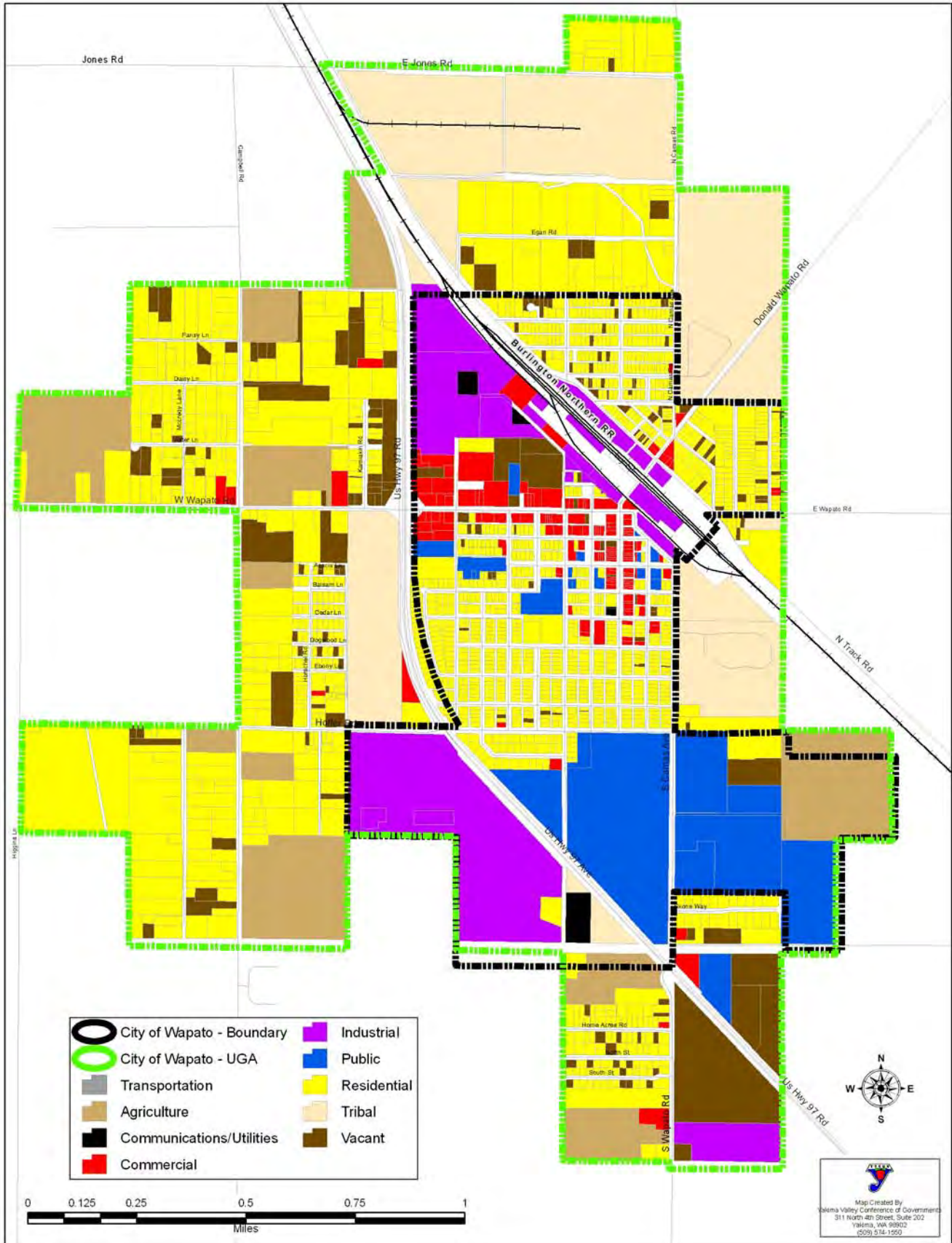
*Numbers exclude transportation uses. Percentages may not total to 100% due to rounding.

Table 3.4. City of Wapato UGA, Unincorporated Area: Existing Land Use Summary*

Land Use Designation	Acres	% Total Acres
Industrial	15	1%
Residential	460	43%
Public	8	1%
Commercial	11	1%
Communications & Utilities	0	0%
Agriculture	153	14%
Tribal	274	26%
Vacant	141	13%
Total	1,062	

*Numbers exclude transportation uses. Percentages may not total to 100% due to rounding.

Figure 3.4. City of Wapato Existing Land Use 2009



Residential Land Use

Approximately 166 acres of the City is devoted to residential use. The areas with the highest population density are located northeast of Track Road and in the area between W. First Street and W. Ninth Street. In particular, the area immediately north of W. 9th Street and west of S. Camas Avenue has both high population densities and high housing unit densities (up to 14 units per acre).

The Wapato housing stock has been in decline for many years. In a 2005 windshield survey, the Yakima Valley Conference of Governments inventoried the condition of 825 single-family dwellings within the City of Wapato, and identified 80% of these as needing minor to extensive rehabilitation.

The City of Wapato has been attempting to reverse this decline. Since 1986, the City has received six Community Development Block Grants from the Washington Department of Community Development totaling \$4 million to rehabilitate housing stock within Wapato. The most recent of these is a \$500,000 single family home rehabilitation project for owner-occupied housing rehabilitation Citywide.

In the unincorporated area outside the City, several areas have been subdivided, with lot sizes ranging from less than one-fifth acre to five acres. In most of these areas, a majority of the subdivided parcels are already in residential land use.

Figure 3.5 at the end of the Land Use Inventory section (page III-20) depicts zoning within the City. Residential zoning is predominantly R-1, single family residential. R-2 zoning is located mainly on the near north side and east of South Ahtanum Avenue. Additional areas of R-2 zoning and R-3 zoning are dispersed throughout the City. Zoning in the remainder of the UGA is mainly R-1 west of the City and General Rural (GR) to the south and southwest. An additional R-1 zone is located immediately north of the City limits. Additional GR zones are located immediately east of the City limits and north of the Yakama Indian Nation's industrial park. Rural residential (RR) zones are located north and west of the R-1 zones.

The UGA includes the Yakama Indian Nation's Apas Goudy (Larena Lane) and Mamachat Drive housing projects. The Apas Goudy project has 92 housing units on 43 acres, while the Mamachat Drive project has 37 units on 39 acres.

Commercial Land Use

There are 44 acres of commercial land within the City limits, accounting for 8% of the total acreage within the City. The intensity of commercial development can be measured by estimating the number of acres per 1,000 residents. Wapato has approximately 10 acres of commercial land per 1,000 residents, based on the 2008 OFM population estimate of 4,555 residents. While comparison with other cities is difficult, this appears to be on the low end of the range, nationally, for cities under 10,000.

Most of the commercial development in Wapato is located in the central business district and along West Wapato Road, the main entrance to the City from US 97. Additional commercial development is located northeast of the Washington Central Railroad tracks, along the Wapato-Donald Road.

The scattered commercial development along US 97 tends to be highway-oriented.

Central business district development is mainly along the four blocks of South Wapato Avenue south of West First Street, and in the area east of Wasco Avenue and north of East Third Street. Several buildings are vacant or underutilized.

On-street parking is available. In addition, several businesses provide their own off-street parking. At present, parking appears adequate to the level of activity.

Commercial use outside of the City includes eating and drinking establishments, service businesses, and retail sales. These businesses are located on US 97, West Wapato Road, and South Wapato Road. Approximately 11 acres of the unincorporated portion of the UGA is in commercial use.

Industrial Land Use

Approximately 140 acres or 25% of the total acreage within the City limits is occupied by industrial uses, the majority of which area fruit and produce packing plants and warehouses. These “Warehouse Row” facilities are located along the transportation corridors, SR 97 and the Washington Central Railroad tracks. The following summary indicates the activity level of these facilities:

- Inland Fruit packs close to three million boxes of apples and soft fruit a year, and employs approximately 225 people year-round and up to 325 people during part of the summer. The firm packs and sells fruit for area growers under contract, and does not own any orchards.
- Yakima Fruit & Cold Storage is located on a 10-acre site next to Inland Fruit on Frontage Road. The firm packs primarily apples, as well as some pears. Facilities include cold storage and controlled atmosphere storage. A new six-room controlled atmosphere facility was completed in spring of 1994. Additional packing facilities are located in Yakima.
- Skone and Connors handles between 12,000 and 15,000 tons of potatoes per year in its Wapato sheds, and completed an addition in 1991. Although the Yakima Valley does not produce the russett and burbank potatoes that it was once known for, the valley still has up to 1,200 acres of potatoes, mostly red varieties and Norkotah.
- Valley Fruit, one of Wapato’s newer firms (1982), handles cherries, prunes, pears, and several varieties of apples. It has a capacity of approximately 40,000 bins, with 58 employees.
- Wapato Fruit and Cold Storage is a grower-packer-shipper of apples, cherries and pears, selling through Yakima Fruit and Cold Storage. It operates two warehouses, one 32,000 square feet and the other 62,000 square feet (the latter purchased from Premium Fruit and Cold Storage).
- Perham Fruit came to Wapato in 1991, purchasing the old Sno-Kist pear processing facility. Perham packs and markets its own and some other growers’ golden delicious apples, as well as pears. The Wapato plant has four controlled-atmosphere storage rooms handling about 4,000 bins and two large cold storage rooms handling 7,000 bins. The firms sell up to 25,000 tons per year. As of 1992, the firm’s intention was to operate nine to ten months per year.
- Calhoun Produce took over the vegetable operation and warehouse that Associated Grocers closed in the mid-1970s. The firm handles about \$4 million worth of vegetables per year, as well as some fruit, in a 20,000 square-foot warehouse. While it handles some apples and melons, Calhoun’s major emphasis is on row-crop vegetables, including corn, tomatoes, peppers, pumpkins, squash, cabbage, and peas. The firm has a year-round work force of five employees, and provides seasonal employment for up to 100 people.

The City of Wapato has approximately 31 acres of industrial land per 1,000 residents.

Outside of the City, one 45-acre industrial parcel is located at the southeastern most tip of the UGA. Although the Calhoun Produce warehouse (20,000 square feet) occupies part of it, most of the parcel is in agricultural production.

The county's industrial zones are east and southeast of the City, along the railroad and US 97 corridors.

The UGA also includes virtually all of the Yakama Indian Nation's industrial park. According to the Nation's Economic Development Office, the 80-acre park is located south of Jones Road, and is bounded on the west by North Track Road and on the east by Slough Road, plus a small (+/- 1/2 acre) triangular parcel on the west side of US 97 (not in the proposed UGA). Considerable land is still available in the park. Of the four buildings on the site, at least one is currently vacant.

Agricultural Lands

Thirty-four acres inside City limits are identified by the County Assessor as land that is agricultural, but not currently being used for agriculture. These acres are all within a portion of one parcel that falls within the City on the south east side.

In the remainder of the UGA, 153 acres are in agricultural use, mainly cropland and pasture. This does not include agricultural use of Yakama Nation trust allotment parcels. The Butler Avenue area is approximately 37 acres, while the area north of Mamachat Drive is approximately 40 acres.

Crop reports from the Wapato Irrigation Project (1989 data for entire Project area) indicate that forage crops (such as alfalfa, other hay, irrigated pasture, and silage) are the major irrigated land use, followed by field crops, cereals, fruits and vegetables. Important field crops include hops and mint, while sweet corn and asparagus dominate acreage in vegetables, with apples and grapes the major fruits.

Recreational Lands and Open Space Corridors

Parks and Recreation. Wapato has four parks within the City on a total of 60.7 acres, or 11% of the total parcel acreage for the City. This represents approximately 13 acres of park land per 1,000 residents in 2008. The National Recreation and Park Association Guidelines suggest that a park system, at a minimum, be composed of a "core" system of parklands, with a total of 6.25 to 10.5 acres of developed open space per 1,000 residents. This figure lies above the minimum recommended for developed open space, which is consistent with the City's emphasis on developing existing parks and improving existing facilities, rather than acquiring additional land for parks (see Wapato Comprehensive Parks and Recreation Plan, January 1993).

In addition to the City parks, the Wapato School District provides approximately 50 additional acres for unstructured public recreation. District facilities are not used for organized City recreation programs, but City athletic fields are used for school district activities.

The City parks and school district recreational facilities include an Olympic size swimming pool, regulation-size fields for soccer, football, baseball and softball, and other fields for less formal team sports, as well as playgrounds, picnic areas, and open play areas. Specific parks, school grounds and facilities are described in the Capital Facilities Element. The City operates recreation programs, and the district uses the City pool for summer school swim lessons.

Within the City, other indoor recreational facilities are limited. The Wapato Youth Center offers supervised recreation, dances, and a place for social interaction and unstructured play. The Liberty

Theatre is now a video rental store, and no longer shows movies. Filipino Hall and other social organizations periodically host community events.

Wapato residents also have access to other recreational facilities not within City limits. The Yakima Valley offers many recreational opportunities to residents and visitors alike, including picnicking at wineries, bicycling, fishing, hunting, and wildlife viewing. Pheasant hunting is popular in the wheat and corn fields of the valley. The Toppenish Wildlife Refuge offers duck hunting and bird watching. To the north and east of Wapato, the Yakima River and a number of small ponds along I-82 offer opportunities for fishing, boating and nature study. The Yakama Indian Nation's Heritage Center complex, located between Wapato and Toppenish, includes a museum, theater and restaurant.

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

No open space corridors have been identified within the City of Wapato. One potential recreation corridor is east-west across the public land at the high school and City park, although these areas are divided by S. Camas Avenue.

Outside of the UGA, Wanity Slough and other wetlands and frequently flooded areas northeast of North Track Road form a natural open space corridor between the City and the I-82 ponds and wildlife areas along the Yakima River, three miles to the northeast. This area is mainly Indian trust allotment land, and much of it is in agricultural use.

Vacant or Underdeveloped Land

Vacant lands and structures account for 27 acres or five percent of the City of Wapato's total land area. The largest area of vacant land consists of three parcels to the north of the central business district. Very few other parcels are vacant, and tend to be scattered throughout the City, especially in the residential areas on the north side.

Approximately 141 acres, or 13 percent of the unincorporated portion of the UGA, is vacant land.

Cultural Resource Land Uses

Wapato is a multi-ethnic community, with a blend of Anglo-European, Mexican, American Indian, Japanese, and Filipino cultures. At various times of the year, residents of the Yakima Valley have the opportunity to participate in the Japanese Sukiaki Dinner, the Filipino Dinner, Cinco de Mayo, the Wapato Middle School Cultural Fair, and other activities sponsored by these diverse cultures.

The City of Wapato is entirely within the exterior boundary of the Yakama Indian Reservation, and the City's history is closely intertwined with the history of the Yakama Indian Nation. Residents of the City and surrounding area can visit the Yakama Nation Cultural Heritage Center in Toppenish to learn more about the history of the Yakama Indian Nation. At the Center, tribal members tell stories of traditional legends, and the facility also possesses a museum, theater, restaurant and other recreational facilities.

Historic Preservation. Historic preservation may be defined as active protection of properties significant to a City's past. The quality of life in a City can be enhanced through historic preservation through several means, including economic development, a revitalized downtown and neighborhoods, rehabilitated housing, cost effective re-use of the community's capital facilities, and enhanced urban

design that protects existing community character. A variety of incentives are available for promoting historic preservation.

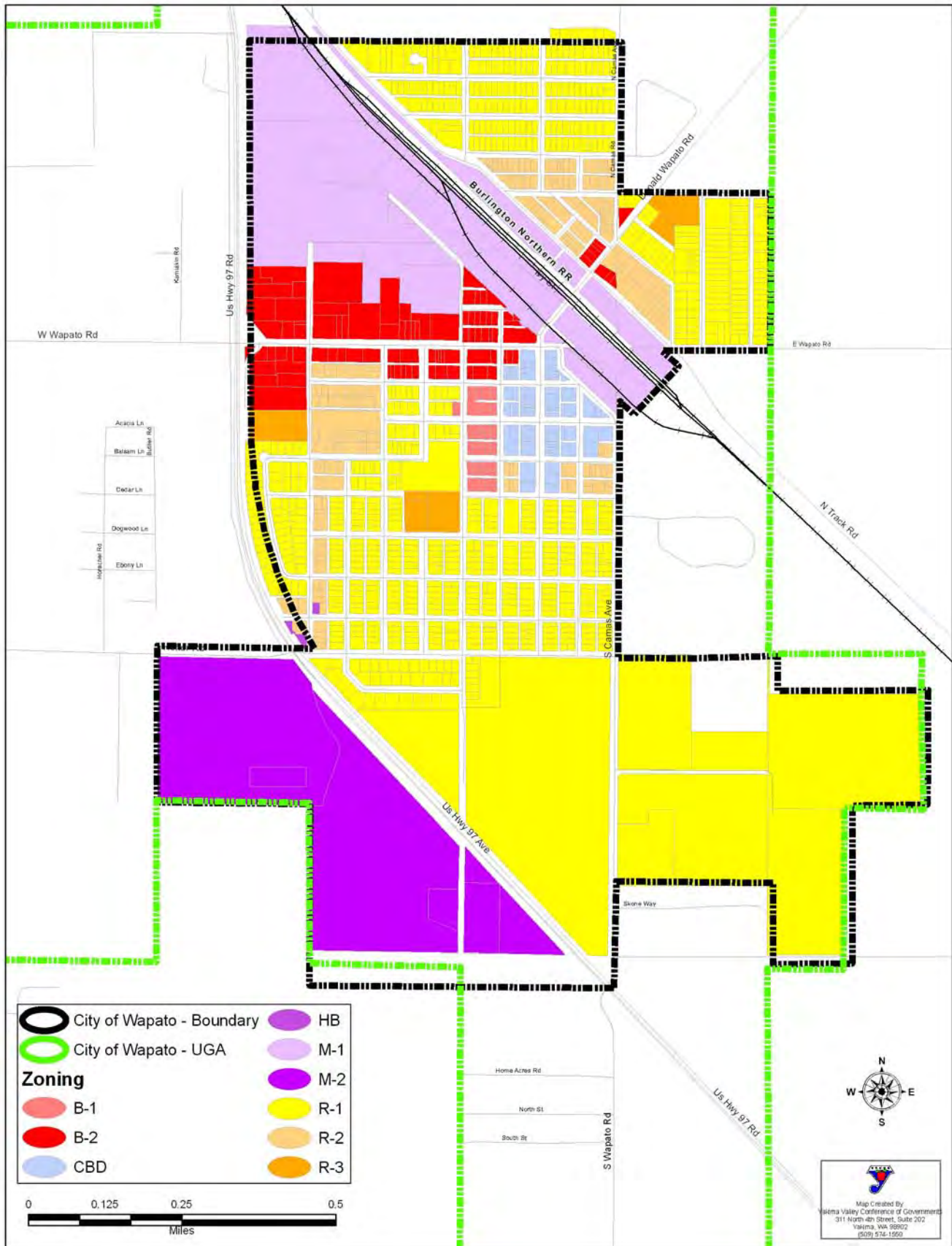
Certain structures and places may hold historical or cultural significance for the citizens of Wapato. The police station building dates back to 1908, the year that the City was incorporated. At one time, it also housed the City hall, fire department, and library.

As of 2008, Wapato had no structures listed on the National Register of Historic Places or the State Register of Historic Places, and none had been determined eligible for the National Register of Historic Places.

The City does not have a local historic preservation program at this time, although some interest has been expressed in developing a local historic preservation ordinance. The City has not attempted to become a Certified Local Government.

Preservation efforts in Wapato should focus on identifying its structures, landscapes, and other places of historic or cultural significance and developing a local historic preservation program.

Figure 3.5. City of Wapato Zoning 2009



V. ANALYSIS/FORECASTS

Population Trends, Demographics and Projections

Growth in Wapato

The City of Wapato has grown from a population of 354 at its incorporation in 1908 to a 2008 population of 4,555 (OFM estimate). Table 3.5 shows the Census population by decade for the City and Yakima County from 1940 through 2008, and the associated rates of change.

The average rate of growth over the past 50 years within the City has ranged from a high of 11.5% per year between 1940 and 1950 to a low of -0.9% per year between 1960 and 1970 and 20.7% between 1990 and 2000. Wapato's share of the County's population has remained relatively constant during this period, at about 2%.

1910 to 1940. Area population growth during the period 1910 to 1940 was dramatic and reflected the rapid advance of the agricultural industry. The introduction of rail transportation and extensive irrigation projects intensified agricultural development and the related industries which support agricultural activity. Yakima County grew from 41,709 persons in 1910 to 99,019 in 1940. During the same period, Wapato grew from 400 to 1,483.

1940 to 1950. From 1940 to 1950, the continuation of irrigation efforts increased the amount of agriculturally productive land and, consequently, the number of available employment opportunities. Also during this period, the Hanford Atomic Works began operations, further adding to the number of jobs available in the area.

In response to this economic stimulus, the County population increased significantly. From 1940 to 1950, Yakima County's population increased by 36,704 persons, or 37% for the decade. Wapato shared in this area wide growth trend with a population increase of 1,702 persons or 115%. During this decade, Wapato accounted for 4.64% of the population increase in Yakima County.

1950 to 1960. In the period from 1950 to 1960, Wapato's growth trend came to a halt and there was a net decline of 48 persons or -1.5%. During this same period, the County's population growth slowed significantly, with a gain of only 9,389 or 7% for the decade.

The completion of some irrigation projects and a general slowdown in agricultural activity have been noted as contributing to this area wide slowing in population growth. Although Wapato's labor force did not shrink significantly, there was some movement away from craft and construction occupations and minor gains made in professional, managerial, and farm labor categories.

1960 to 1970. From 1960 to 1970, Wapato's population declined by 296 or -9.4%. Yakima County as a whole experienced a virtual standstill in population growth, increasing by only 100 persons (or .07%) during the decade.

A nationwide rural to urban migration pattern may have been a significant factor in this decline. During this period, the state experienced a great deal of urban industrial expansion, with a large number of jobs being created in the Puget Sound area. In the local area, there was a general decrease in agricultural employment. Increased urban opportunities, coupled with a further decline in agricultural expansion, may have enhanced the effect of the rural to urban migration pattern in the area.

1970 to 1980. The City's population grew during the 1970s, going from 2,841 in 1970 to 3,307 in 1980, an increase of 466 people or 16.4%. During the same period, Yakima County's population went from

145,212 to 172,508, an increase of 27,296 or 18.8%. Nearly half of this growth (14,272 people) was attributable to in-migration. This growth followed a national trend toward decentralization of people and activities to suburban and exurban areas, and to many small towns and rural areas. The City did not expand its area during this period.

1980 to 1990. Growth continued during the 1980s, with population increasing from 3,307 to 3,795, an increase of 488 people or 14.8%. During this period the County grew from 172,508 to 188,823, an increase of 16,315 or 9.5%. Thus, the City of Wapato accounted for 3% of the total increase in Yakima County during this period, making this the first decade since the 1940's that Wapato increased its share of the total county population. The City did not annex any land during this decade, and added only 11 housing units, according to Census figures. This increase has been attributed to the "settling out" of the migrant farm worker population.

Present Situation. The Washington State Office of Financial Management's estimates show Wapato's population at 4,555 in 2001, 4,500 in 2002, and 4,525 in 2003, slightly below the 2000 Census figure of 4,582. These estimates indicated growth in Yakima County at 33,758 people or 17.8% during the same period.

Table 3.5. Population Trends, City of Wapato

Population Trends by Decade, 2000 Census Bureau Data			
Year	Population	Change/Decade	Avg % Change/Year
1940	1,483		
1950	3,185	1,702	11.48%
1960	3,137	-48	-0.15%
1970	2,841	-296	-0.94%
1980	3,307	466	1.64%
1990	3,795	488	1.48%
2000	4,582	787	2.07%
Population Estimates, Washington State Office of Financial Management			
Year	Population	Change/Year	% Change/Year
2001	4,555	-27	-.5%
2002	4,500	-55	-1.2%
2003	4,525	+25	+.5%
2004	4,525	+0/-0	+0%/-0%
2005	4,535	+10	+.2%
2006	4,540	+5	+.1%
2007	4,540	+0/-0	+0%/-0%
2008	4,555	+15	+.3%

Demographics

Based on 2000 Census population data, 25.5% of Wapato's population is white, 0.5% is black, 9.3% is American Indian, Eskimo or Aleut, 1.5% Asian and the remaining 57.6 is included under the Census classification of "other." Persons listed within the classification of "other" in Wapato are primarily of Mexican or Spanish descent. The City's population includes 3,492 people, or 76.2%, who consider themselves to be of Hispanic origin (of any race).

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

In Wapato, the Hispanic population went from 47.4% in 1980 to 76.2% in 2000. The 2000 Census for Wapato showed a foreign born population of 1,540 (32.9% of the population), of which 1,388 were Latin American born. Of all foreign born, 634 had entered between 1990 and 2000.

Approximately 38.2% of the population of Wapato is under the age of 18, and 8.4% of the population is over 65. For the total population, the median age is 24.8.

Population Projections

Historic population trends for Wapato are shown in Table 3.5. Table 3.6 projects the City's population through the year 2025.

Projection Method

Population projections are based on 2007 OFM Yakima County Population Projections, which are based on historic growth and projected economic conditions. The Countywide Planning Policy Committee designed a method of allocating growth based on low, medium and high projections, and 2000 population ratios of each city and town and unincorporated Yakima County.

The City has a very limited supply of vacant or underutilized land to absorb the projected increase. The City's future population growth will depend in large part on the timing of future annexations and the intensity with which they are developed. These, in turn, will depend upon the economic conditions and quality of life.

Table 3.6. Population Projections, City of Wapato

City of Wapato Population Projections 2000 - 2025			
Year	Low Projection	Medium Projection	High Projection
2000	4,582	4,582	4,582
2005	4,429	4,645	4,887
2010	4,541	4,888	5,262
2015	4,734	5,234	5,761
2020	4,880	5,546	6,239
2025	5,000	5,844	6,716
% Change, 2000-2025	9%	28%	47%

Source: State of Washington Office of Financial Management, 2007.

Analysis of Economic Conditions

Wapato’s packing facilities handle tens of thousands of bins of fruit, potatoes, hops and vegetables each year. In explaining why so many packing facilities are located in Wapato, officials of local firms cite Wapato’s plentiful labor force, good transportation, and its central location for serving areas throughout the Yakima Valley.

Employment. At the time of the 2000 Census, 1,732 residents over age 16 were employed, while 1,335 over age 16 were not employed. An estimated 617 people are employed within the City limits. Approximately 31% of these jobs are in services, 25% in retail trade, 24% in schools, 13% in public use, and 8% in industry and manufacturing. In addition to the school system, major employers include the convalescent center, the City of Wapato, Meads Thriftway, the Washington State Migrant Council, Wapato Medical Center, Washington State Department of Social and Health Services, and Skone & Connors Produce (Source: TAZ, a transportation analysis computer program, using data from Washington State Department of Labor and Industries and other sources; Yakima Valley Conference of Governments).

More than half of Wapato’s workers older than 16 years work outside the City. At the time of the 2000 Census, the largest employment sectors for Wapato residents working either inside or outside the City were agriculture, educational, health, and social services; wholesale trade, and construction, in that order. Approximately half of the working population of Wapato was employed in one of these sectors in 2000.

Employment varies with age, race and ethnicity, sex, and educational level, based on sample data from the 2000 Census. Many of the older, white residents receive Social Security or retirement income. Many of the Hispanics are employed seasonally and/or part-time.

Economic Forecasts. Within the 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 occur as the population grows and demands for services occur. This rate of growth is estimated to be about 3% 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. Demographic shifts within Wapato may require some adjustments in the retail sector to accommodate changing lifestyles and preferences.

Land Available for Economic Development. Within the City of Wapato, the largest areas of vacant land is zoned M-1. The 27-acre parcel located along the Washington Central Railroad corridor would provide some sites for long, thin buildings, but the shape of the parcel is limiting. In general, the land along the rail corridor has been intentionally kept vacant to protect railroad operations. The other parcels within the City are relatively small, with the largest just over five acres, and are back from the highway and railroad, mainly in the Naches Avenue area. One party owns the 3.44 acre parcel, and another owns three parcels totaling less than 12 acres. These parcels are zoned M-1, but are not likely to be developed for that use in the near future, and may have greater market potential for commercial development.

The 68-acre Yakama Indian Nation Industrial Park site is designated for industrial use, with internal access roads, storm sewers and utilities in place. Municipal water is available on-site, with excess capacity. Private sewage disposal is available on-site, with excess sewage treatment capacity. Gas is also available on site. Rail service is provided by Washington Central Railroad. While this site is far larger than any within the City of Wapato, the 1991 site selection study considered it somewhat small for long-term industrial development. The major site limitations are its location within the floodplain and that it is available on a lease-only basis.

Two other potential industrial sites in the UGA are located southeast of the City, south of Evans Road and East of South Wapato. The Pistoresi site, 17 acres on the north side of SR 97, is zoned B-2, but has industrial potential. No City services are available at this site. The Calhoun Fruit parcel, 45 acres on the south side of SR 97, also lacks City services, but has private wells with 850,000 gpd capacity, and is already zoned M-1. Although Calhoun Fruit occupies a building on US 97, most of the parcel is in agricultural use.

Analysis of Physical Conditions

The City's location offers easy access to US 97 and I-82, rail transportation, and the economic and cultural opportunities provided by the City of Yakima. Wetlands located northeast of the City are also in the 100-year floodplain of the Yakima River, and could pose significant deterrents to development. Most of the wetlands shown on the National Wetlands Inventory map appear to be associated with irrigation and drainage structures. Location within the Yakama Indian Reservation limits opportunities for expansion into surrounding areas due to the presence of trust lands.

FEMA designation of the land lying northeast of the Washington Central Railroad tracks presents a limitation for development. For example, construction or rehabilitation of homes in the area is considerably more expensive due to the flood protection requirements. When the Yakima County Development Association evaluated the county's nine major development sites, the Indian Nation Site received a poor rating under the "Environmental Constraints" criterion because of the floodplain.

Analysis of Infrastructure

Water System. The City of Wapato's domestic water system includes five wells, a storage tank reservoir, a standpipe reservoir, and a distribution system serving all parts of the City plus the Larena Lane and Mamachat Lane developments. The City of Wapato and the Yakama Indian Nation operate a joint use water facility. The water system including two domestic water wells serve the Yakama Indian Nation

industrial park are owned by the Nation and operated by the City, and is directly linked to and fully integrated with the Wapato municipal system.

Water quantities are adequate to meet current needs at peak day demand. While pressures throughout the system are adequate for meeting peak day demand, the fire flow capacity needs to be improved in the school and industrial areas. Projects are identified in the Capital Facilities Element.

Washington State Department of Health requires protective covenants creating a 100-foot sanitary radius around each well.

Wastewater Disposal Facilities. The collection system serves all of Wapato and the Yakama Indian Nation industrial area to the north. The original gravity flow system has been supplemented with four municipal lift stations. The gravity flow system serves most of the older areas of the City south of First Street, except for the area west of Naches Avenue and north of Fourth Street, which is served by Lift Station #2, which also serves the area southwest of the railroad tracks and north of First Street. Lift Station #1 serves the area northeast of the railroad tracks plus the Yakama Nation industrial park. Lift Station #3 serves the Larena Lane housing project, which is outside of the City. Lift Station #4 serves the middle school, Adams elementary and some residential use in unsewered residential areas that have developed in the vicinity of Wapato. Capital facilities evaluations by the City's engineering consultant should provide a detailed analysis of the existing system, topography, soils, etc., and may identify the areas that would be easiest/cheapest to serve in the future, as well as areas that may require connection to the City's system.

The treatment plant is located southwest of US 97 on a 4.06-acre site. Discharge is to the Yakima River via a drainage ditch.

During the late 1990s, improvement upgrades were completed at the City's wastewater treatment facilities. In 2003, upgrades to the plant's chlorine system were completed. The increased capacity in terms of loading and overall capacity has provided the City with the ability to extend services as needed for new residential, commercial and industrial areas.

Due to EPA permit requirements, the wastewater treatment facility will need additional major improvements within the next five years. These improvements are based upon environmental requirements affecting the water quality of the effluent discharge and are imposed by the federal government. Capacity is adequate.

An updated comprehensive wastewater plan is planned for the 2010. This study, by the City's engineering consultant, will detail future wastewater needs. The study will take into account potential residential growth and future commercial and industrial needs.

Storm Water Facilities. With few exceptions, the streets southwest of the railroad tracks have curb and gutter, while those northeast of the tracks are blacktop without curb and gutter. Streets on the southwest side that lack curb and gutter include Naches Avenue from West First Street to Fifth Street, and parts of South Camas Avenue. Streets on the northeast side that do have curb and gutter include Paschke Avenue, Donald Road, and one block on N. Camas, between Donald Road and "A" Street.

The City has no plans for improving the storm water system at this time. Stormwater has usually been given a lower priority than streets, sanitary sewer, and water supply. The City would like to eliminate discharges to groundwater.

Analysis of Public Facilities and Services

The police station and the library have deficiencies that interfere with their function, and may not be cost-effective to remedy in their present location. Most of the other public facilities are generally adequate, although some improvements are needed. These needs and future requirements are described in the Capital Facilities Element.

Police Protection. The police station, across from City Hall on the corner of South Simcoe Avenue and E. 3rd Street (entrance on Third Street), also houses a 44-bed jail and courtroom. The central location provides good access to all areas of the City. As discussed in the Capital Facilities Element, the building has deficiencies which limit functional efficiency, and it is not feasible to solve these problems by rehabilitating the existing structure. If well-designed, new administrative offices and jail would not need to be larger than the present building. If the police station is relocated, another central location is desirable. As areas to the west of US 97 develop and annex to the City, a substation may be needed on that side of the highway.

Library. The library building at 109 East 3th Street is owned by the City and operated by the Yakima Valley Regional Library system.

Public Works Service Center. Public Works is located at the back of the City park off French Lane, next to the stand pipe. Public Works is responsible for water service, wastewater collection and treatment, local streets and roads, contract refuse pickup and park, swimming pool and cemetery maintenance.

City Hall. The Wapato City Hall, located at 205 East Third Street, was constructed in 1963, and appears to be in good condition.

Fire Protection and Building Department. The Building Department and the Fire Department share facilities at 205 South Frontage Road. The City purchased these facilities from a church in 1989, and has occupied them since April 1990. The site provides good access for the fire department, and ample parking for current activities. However the building at this time is not ADA compliant and lacks the much need space for a proper training room for the firefighters. One other critical need is a proper Haz-Mat decontamination site within the truck bay away from the office area. The truck bay area is at maximum capacity and allows no room for future growth. To improve the City's fire insurance rating, some building modifications would be needed.

Parks and Recreation. Parks and Recreation operates from 1001 South Camas Avenue, in the Lions Community Park next to the Community Center.

Solid Waste Disposal. In January 1994, solid waste collection service was taken over from the City by a private hauler, Basin Disposal Inc.

Solid waste is transported to the Cheyne Road Landfill, a county facility located 4-1/2 miles north of the City of Zillah. The Cheyne Road Landfill currently serves the cities of Grandview, Toppenish, Wapato and Zillah, Yakima Waste Systems, septage haulers, agricultural firms, construction and food processing businesses, self haul businesses, and private residences.

The Cheyne Road Landfill currently occupies 40 acres of a 960 acre site, and this site could be expanded to provide additional capacity. Current projections suggest the remaining capacity is approximately 850,000 cubic yards for the currently permitted 40 acres. The landfill is projected to reach capacity after 2012.

Public Education Facilities. Wapato School District No. 207 (Administration office located at 212 W. 3RD St.), operate six schools serving the City of Wapato: Satus Elementary School at 910 South Camas, Adams Elementary at 1101 South Camas; Camas Elementary School at 1002 South Camas Avenue, Wapato Middle School at 505 Dove Lane; Wapato High School, at 1103 South Wasco Avenue; and the PACE Alternative School, at 310 South Wasco. This means that students in all parts of the City must travel, at some time, to each of these schools.

Medical and Emergency Facilities. Wapato Medical Center is located at 620 W 1st Street. Family Medical Clinic is located at 114 W. 3rd Street. Low cost medical and dental services are available at the Yakima Valley Farm Workers Clinic locations in Toppenish, Yakima and Grandview. The nearest hospitals are Toppenish Community Hospital, in Toppenish, and Memorial and Regional hospitals in Yakima.

The City operates a rescue truck, but not an ambulance. Two City vehicles are licensed first aid vehicles, and are based in the Fire Station at 205 South Frontage Road. The County provides similar service in the unincorporated area. First aid services of both the City and County Fire District No. 5 are based in the Fire Station. The volunteer firefighters are trained and equipped to provide emergency medical services for victims of trauma or severe medical problems. AMR and ALS respond to medical emergency calls within the City of Wapato and the surrounding unincorporated area, with Medic-1 providing primary coverage. Medic-1 ambulances come from Toppenish.

Churches, Social Organizations, and Other Community Facilities. Most of the City's churches are located in the original townsite area of Wapato, in and around the Central Business District. None are on the northeast side of the railroad tracks. All but two of the parcels owned by churches are less than 1/2 acre.

The American Legion Hall is located on East Third Street, across the street from the City Hall.

Urban Growth Area Land Use Needs

Residential Land Use Needs

The 2008 population estimate for the City of Wapato is 4,555. Using the Census 2000 average household size of 3.73 individuals per household, the estimated number of Wapato households in 2008 is 1,221. In 2008, the County Assessor identified 887 single-family homes within the City of Wapato. The 887 homes account for 74% of the total 2008 households. The remaining 28% of households includes multifamily, manufactured homes, and other residential types.

Based on these assumptions, an additional 345 housing units will need to be added to the existing housing stock by the year 2025, to accommodate the OFM's medium population projection of 5,844 for that year.

Assuming that single-family homes each require .5 acres, and all other homes require .25 acres per unit, the total land area required for new housing within the City would be approximately 152 acres. Approximately four acres more would be needed for group and institutional housing, bringing the total to 156 acres. Of this area, approximately 128 acres would be needed for single-family housing, and 24 acres would be needed for all other housing types.

Commercial Land Use Needs

The City currently maintains approximately 44 acres in commercial use types (8% of total land area). If Wapato's population increases by 28% between 2000 and 2025 (see Table 3.6), then numerous new businesses will be needed to serve that population. For the purpose of this discussion only, and not based

on a specific analysis, we can assume that the additional population will need at least a proportionate amount of additional commercial acreage, or approximately 13 acres. Some of this need can be accommodated by commercial land that is currently underutilized. As the City's area increases, however, and the population becomes more dispersed geographically, new commercial areas are likely to be oriented to shoppers arriving by car. These sites are far larger than traditional downtown businesses, since they provide for ample off-street parking, with easy access. The City's proposed policy regarding aesthetically pleasing commercial nodes may also increase the area needed to provide if landscaping is required.

Sites along the frontage road that cater to travelers and are accessible from SR 97 also need to be made available. This could require considerable land area, especially if the potential clientele includes truckers.

Industrial/Manufacturing Land Use Needs

In Wapato, all of the industrial/manufacturing acreage, 140 acres, is devoted to food preparation, processing, storage or transportation. This represents 31 acres per 1,000 residents. Based on the City's goals and policies, this acreage will need to increase at a faster rate than the City's population. Based on the past proportion of industrial land per 1,000 residents, 10 additional industrial acres would be required by the year 2025 to serve OFM's projected medium population of 5,844 for that year.

Data are not available regarding employment of Wapato residents by type of industry located in Wapato. Wapato's employers provide approximately 617 jobs currently, of which 46 are in industry and manufacturing (Source: TAZ, a transportation analysis computer program, using data from Washington State Department of Labor and Industries and other sources; Yakima Valley Conference of Governments). Early and preliminary estimates indicate that areas with high food processing industry concentrations employ about 10 to 12 persons per acre. Based on the present ratio of all basic employment to all nonbasic employment in Wapato, each job in this basic sector can be expected to generate an additional job in a nonbasic employment sector.

Successful industrial development efforts require suitable locations and realistic expectations. A Target Industry Market Analysis for Yakima County (Bucher, Willis & Ratliff, November, 1985) identified the following primary criteria for a successful industrial park: visibility, access, flood control, utility availability, slope, and drainage. Secondary criteria include zoning, adjacent land uses, ownership, development guidelines, and phasing. Regional studies indicate that the only potential site in the vicinity of Wapato was the Yakama Nation Industrial Park, and even that rated low on many of the criteria. Other types of industrial development, such as additional or expanded warehousing, packing and processing of agricultural products, may be more suitable for Wapato. Sites with easy access to SR 97 and/or the railroad should be available for this type of development, with the acreage based on the size of the sites that would be most conducive to this type of development. If the rail line over Stampede Pass is reopened, rail access could become even more important.

Public Land Use Needs

Police Station/Jail. While the current location is good for a police department, the Police Chief believes that a properly designed jail at another location would be less costly than remodeling or maintaining the existing facility, and would pay for itself in improved efficiency of operations. In addition, a substation may be required west of US 97.

Library. The existing library building is adequate to meet the needs of the community.

Wastewater Treatment Plant. Land use requirements will depend on the level of treatment required and the facilities needed to meet that level. For example, additional sludge drying beds could require considerable land area. Depending on the type of treatment facilities selected and how well they function, undesirable odors could be generated which could affect neighboring land uses, making location an issue.

Community Center. The community center located at 1005 South Camus is considered adequate.

Land use requirements for these facilities are difficult to estimate at this time. For the purpose of this analysis, one-acre sites are assumed for the police station, library and community center, and 10 more acres are assumed for the treatment plant. A police substation could occupy a smaller site, possibly 0.5 acre.

Agricultural Land Use Needs

Agricultural production within the UGA is expected to continue as is necessary to support Wapato's food processing industry. However, these lands will be considered to be transitional until future residential, commercial and industrial growth places pressures on these lands to be converted. With market choice the main determinant of which agricultural lands will be converted, and when, no specific areas have been identified as agricultural.

Recreational Land Use and Open Space Needs

Wapato currently has a good supply of parks and recreational lands to meet the needs of the current population, with an average of 13 acres of developed open space (not including school property) per 1,000 residents. To maintain this standard in the future (based on an estimated medium population of 5,844 in 2025); approximately 15 acres of additional park land would be needed. If no additional park land is acquired, the City would have 12 acres per 1,000 residents by 2025. Since this is still above the national standard of 6.25 to 10.5 acres per 1,000 residents, no additional acquisitions of park land are needed in terms of total acreage.

A survey of City residents conducted for the 1993 Wapato Comprehensive Parks and Recreation Plan indicated a preference for more facilities at City Park, rather than limited facilities in neighborhood parks. The needs and preferences of residents in the unincorporated portion of the UGA have not been documented. The distance that residents have to travel to Wapato City Park will increase as the City expands, and residents in the areas to the west and north may prefer neighborhood parks. As these areas come into the City, the City should have the flexibility to take advantage of opportunities to acquire land in these areas for future park development. One way to do this would be for the City to acquire agricultural land as it comes on the market, and lease it for agricultural production until it is needed for parks and other public purposes. Mini-parks and neighborhood parks typically require from less than one acre to two acres, and serve an intensely developed area in the immediate vicinity.

The Wapato UGA offers limited opportunities for open space corridors. At present, parks and schoolyards, wetlands, vacant land and agricultural land provide open space. Planning for protection of a linked system of open space corridors will require additional analysis and the joint efforts of numerous owners and jurisdictions, including the City, the county, and the Yakama Indian Nation. Since open space in general and open space corridors in particular have numerous functions, the purpose of designating such space should be clearly understood before the land is so designated. Meanwhile, the presence of wetlands and the 100-year flood plain provide some protection.

Other Land Use Needs

Other land uses include transportation and communication facilities, utilities, government, cultural uses, public assembly uses, and schools. Based on the 2008 OFM population estimate of 4,555, and assuming a constant ratio of population to land area for these land uses, approximately 37 acres of land will be needed for all of these uses combined by 2025.

Streets and Rights-of-Way

An additional 30% of land area is allowed for streets and rights-of-way. While 21% is currently used for these purposes within City of Wapato, many of the streets and rights-of-way are narrower than those being built now.

Residential, commercial, industrial, and other land uses will require an estimated 212 acres of additional land to serve OFM's projected medium population of 5,844 in 2025. An additional 30% of this total, or 64 acres, will be required for streets, which will bring the total future land area requirement to 276 acres.

Market Choice

Some additional land area is probably needed to allow for market choice and locational preferences. This land area should be small enough that it does not encourage the inefficient development and provision of City services, and yet large enough to minimize speculation that may unnecessarily drive up prices.

Much discussion on this subject has yet to occur. For the purposes of discussion, an additional 30% of the total land area requirement has been assumed to be a reasonable figure for other land uses, which represents an additional 64 acres. This would include land that remains in agricultural production and vacant land.

Indian Trust Lands

The 274 acres of Indian Trust Lands and Indian Trust Allotment lands within the UGA are in various land uses, including residential, industrial, public/institutional, and agricultural. Although these lands are outside the jurisdiction of the City, county and state, the present and future uses of these lands should be considered in planning for Wapato's future. This analysis assumes that the total acreage in these lands will remain constant.

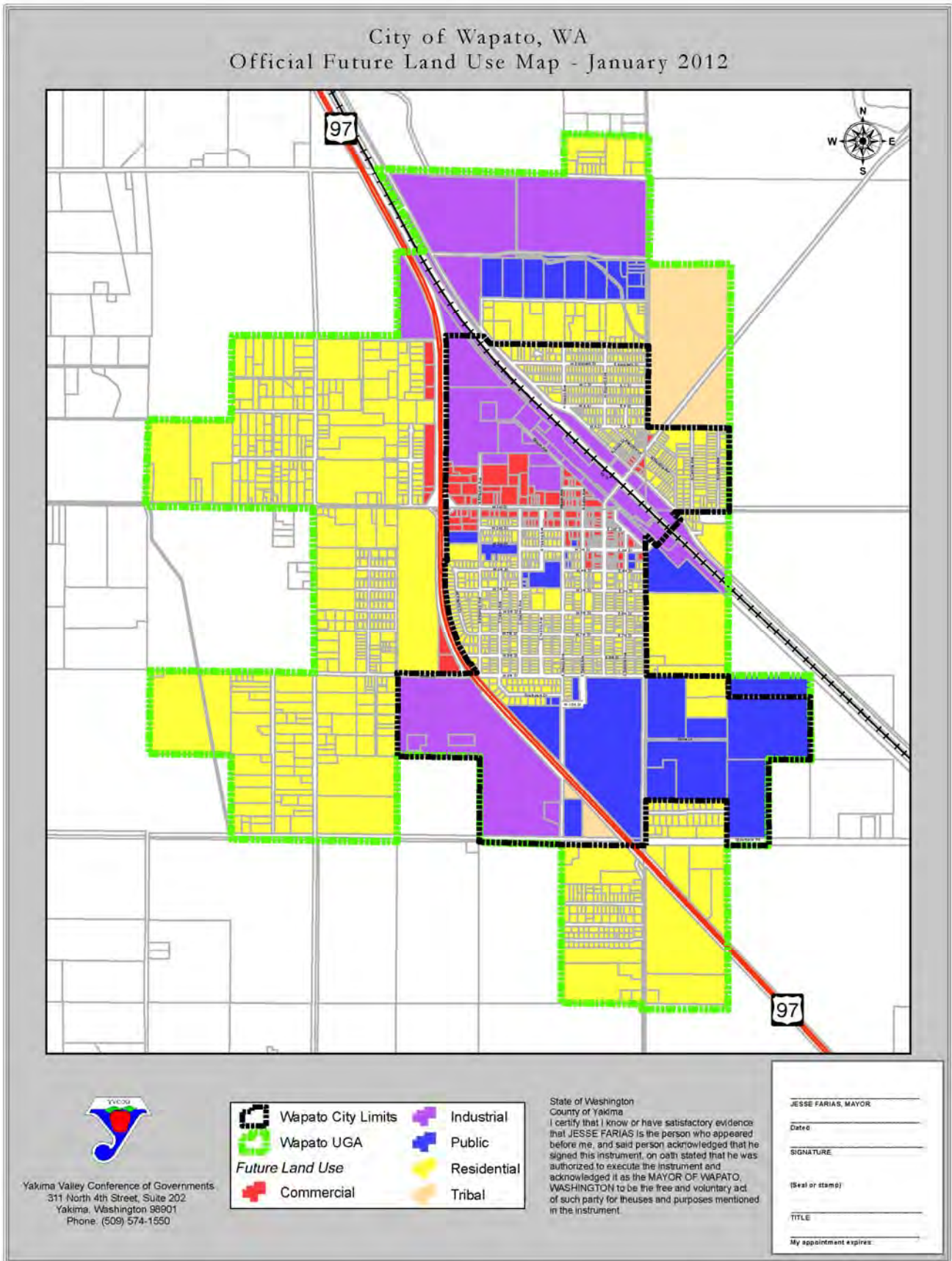
The Yakama Indian Nation Land and Natural Resources Policies Plan, which was adopted by Tribal Council on May 7, 1987, stated the Nation's intention to develop a housing plan that will provide for coordination with other jurisdictions and agencies on housing location and development standards, and has been adopting its own development standards. The Policies Plan also stated that in managing its commercial and industrial zones, the Nation intends to implement a policy of water and sewer management control standards for commercial and industrial uses, including planning and coordination with Wapato, Toppenish and other jurisdictions on water and sewer needs. (For additional policies, please refer to the Policies Plan.)

VI. FUTURE LAND USE PLAN CONCEPT

The future land use plan concept is a vision of how the City of Wapato will grow and develop in the future without compromising the quality of life or livelihoods of its residents. The plan concept will indicate where new commercial and industrial development will go, and where new homes for residents will be located. The Comprehensive Plan's plan concept will also show how resource lands, rural areas,

farmlands, open spaces and critical areas will be protected while encouraging economic development for the City. Figure 3.6 is a graphic representation of the future land use plan concept. There are three overall categories into which the land area within the City and its UGA are divided. Those categories are urban areas, transitional areas and recreation and open space areas. Each of these areas is defined below.

Figure 3.6. City of Wapato Future Land Use



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 open space 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, and 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 the City's population resides.

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

Residential Lands

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

- **Residential Suburban**: Areas appropriate for rural residential living (low-density residential development) 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 residential use ranges from less than one to 7 dwelling units per acre, depending on the suitability of the land for development and availability of water and sewer services.
- **Single Family Residential**: This land use category is intended for residential subdivisions that have been platted at a density of seven or fewer dwelling units per acre. Lot coverage is 45%. Water and sewer services are generally available.

Land Use Plan Concept

- **Multifamily Residential**: Areas consisting of high density multifamily development, such as duplexes, triplexes and fourplexes, and mobile home parks, as well as residential lands that are adjacent to the commercial core or to critical public facilities. Density exceeds 12 dwelling units per acre. Public water, sewer, police and fire protection services are available.
- **Two-Family Residential**: Areas with both single family homes and duplexes at densities typically ranging from seven to 12 dwelling units per acre. Public water, sewer, police and fire protection services are available. Lot coverage is 50%.

Commercial Lands

This land use category includes retail and wholesale, as well as medical and professional businesses. Commercial areas should provide for the continuance and/or expansion of existing businesses within the City. New development within the City shall be encouraged that:

- a) Promotes the development of retail businesses in Wapato, or
- b) Provides the opportunity for expansion of neighborhood businesses in the area.

Industrial Lands

Areas devoted exclusively to industrial development including manufacturing, processing, packaging, or storage of products or articles.

Light industry does not involve use of materials, processes or machinery likely to cause undesirable effects on nearby residential or commercial property. Industrial businesses related to agriculture are encouraged in this category. These industrial areas should allow for the continuance and expansion of existing industry in a manner that:

- a) Does not degrade the living environment of the area.
- b) Does not conflict with surrounding agricultural operations.
- c) Preserves areas near designated truck routes and the railroad and directs heavy truck traffic away from residential areas.

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.

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 Wapato and surrounding areas. These uses include areas devoted to 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 UGA 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:

- a) Lands within these areas are currently rural or developed at very low densities.
- b) Urban development shall occur only where natural features and land characteristics are capable of supporting it, without significant environmental degradation.
- c) There are not major physical barriers to providing urban services in the future at reasonable cost.
- d) 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 areas are usually comprised of valuable scenic, recreational, and environmentally sensitive lands. Desirable communities often contain a variety of types of open spaces:

- More natural open spaces, such as hilltops and shorelines that offer scenic vistas (mountains and water, for example), undeveloped ravines, river corridors, and wetlands that form natural greenbelts and shelter wildlife
- More urban open spaces that provide recreational opportunities or serve community functions (such as trails or public squares).

Open space lands that possess valuable scenic, recreational or environmentally sensitive characteristics make up this land use category. Natural open spaces such as hilltops, ravines, water courses, wetlands, and other wild areas are examples.

Open spaces contribute to a community by providing visual variety and beauty to complement developed areas, and in this way add to the quality of life in the City.

Open space designations in Wapato will include parks, natural and other areas in public and private ownership that enhance the livability in the City. The following types of land will carry the open space designation:

- Lands strategically located to provide scenic amenity and community identity within and between areas of urban development.
- Environmentally sensitive areas protected by regulation, including wetlands, floodways, and steep slopes.
- Lands physically suitable for recreation.

VII. GOALS AND POLICIES

OVERALL LAND USE GOAL:

Ensure that the character and location of land uses optimizes the combined potentials for economic benefit and the enjoyment and the protection of natural resources while minimizing the threat to health, safety and welfare posed by hazards, nuisances, incompatible land uses and environmental degradation.

GOAL 1: *Manage growth so that the delivery of public facilities and services will occur in a fiscally responsible manner to support development and redevelopment.*

Policy 1.1 Upon adoption of this plan, the area outlined in Figure 3.1 shall be designated as the Wapato UGA.

Policy 1.2 The City's annexation policy will address immediate and long term plans for growth within logical boundaries and reasonable service areas, on land which can physically accommodate development.

GOAL 2: *Coordinate growth and development with adjacent jurisdictions to promote and protect inter-jurisdictional interest.*

Policy 2.1 The City will coordinate inter-jurisdictional review of land use activities in the adopted UGA.

Policy 2.2 The City will coordinate the review and approval of development proposals with applicable federal, tribal, state and local environmental agencies within the adopted UGA.

GOAL 3: *Achieve a well balanced and well organized combination of open space, commercial, industrial, recreation and public uses served by a convenient and efficient transportation network while protecting the fabric and character of residential neighborhoods.*

Policy 3.1 The City will encourage the distribution and general location of land use density and intensity by applying the following land development policies.

Developed Land: This category should include stable neighborhoods with sound housing stock, retail business, manufacturing, and office areas that are economically viable.

Redevelopment Areas: Areas within the broad category of developed land may be appropriate for redevelopment. This would include blighted areas, and over looked or under utilized lands. Existing infrastructure capacity may be a factor.

Land Currently Available for Development: This category should include areas where approvals could be granted within six years. Utilities and services should be available or currently programmed within these areas. They should be zoned for the appropriate uses.

Land Probably Available in the Long Term: This category should include land scheduled for development after the initial six year period use to twenty years. No public funding should presently be available for community facilities or services. These areas should be zoned for agriculture or resource conservation use. Clustered development at very low residential densities may be allowed as a conditional use.

Land Not to be Developed: These areas should be protected through critical area ordinances and performance zoning to protect scenic areas. Areas with a demonstrated viable agriculture may be zoned for agricultural use.

Policy 3.2 The City will eliminate incompatible land uses or blighting influences from potentially stable, viable residential neighborhoods through active code enforcement or available regulatory rescues.

Policy 3.3 The City will encourage the location of businesses near commercial nodes or intersections of arterial streets to promote the type of aesthetic that is desired by the community.

Actions:

- Action 1 The City will adopt an annexation policy to address immediate and long term plans for growth which creates logical boundaries and reasonable service areas on land which can physically accommodate development.

- Action 2 The City planning commission shall conduct an annual forum on planning to discuss the direction of the City with all planning entities, including those in adjacent jurisdictions, to exchange information, review issues, establish an ad hoc working committee to resolve those issues, and serve as an education tool to the public.

- Action 3 The City will annually review and update the zoning ordinance to allocate enough land for a variety of necessary sites and uses including varying densities for commercial, industrial, residential and mixed use development.

- Action 4 The City will adopt a plan amendment containing policy for the phased conversion of agricultural land in the UGA.

- Action 5 The City will develop and adopt a Concurrency Management System.

- Action 6 The City will develop additional acreage necessary for the expansion of the waste water treatment facility located in the adopted UGA.

- Action 7 The City will develop additional acreage necessary for a future wellhead protection and potable water treatment facility located in the adopted UGA.

- Action 8 The City will initiate a study for assessing the amount of land in public ownership that is being considered for the development of pedestrian/bicycle trails to increase opportunities for physical activity.

Additional Land Use Goals and Policies

Additional goals, policies, and recommended actions related to land use may be found in other sections.

ECONOMIC DEVELOPMENT GOALS AND POLICIES

In the future, the City of Wapato hopes to be able to add a complete Economic Development Element. In the interim, the City has developed a set of Economic Development Goals and Policies which are based on the needs identified in other elements, and which affect many areas of concern.

GOAL 1: *Attain the highest level of economic well-being possible for all citizens in Wapato through the achievement of a stable and diversified economy offering a wide variety of employment opportunities.*

Policy 1.1 The City will encourage the local economy by providing a predictable development atmosphere, emphasize diversity in the range of goods and services, and ensure that as the economy changes employment opportunities are balanced with a range of housing opportunities. More specifically, the City will:

- 1.1.1 Maintain the City’s centralized development permitting system.
- 1.1.2 Encourage development of a wide range of commercial uses to support local and regional needs, including those of the traveling public.
- 1.1.3 Encourage the redevelopment/revitalization of rundown and/or underutilized commercial areas through a combination of regulatory techniques, incentives and land use planning.

Policy 1.2 The City will continue to coordinate and seek economic development assistance from Wapato Chamber of Commerce, Yakima County Development Association, State Department of Community Development Small Business office, State Department of Trade and Economic Development, Trade Commissions, and other entities in the economic development arena.

Action 1 The City will initiate an economic development program in coordination with the Wapato Chamber of Commerce.

HISTORIC PRESERVATION

Policy 1.1 The City will encourage the protection of special historic, architectural, aesthetic or cultural resources through the designation of historic landmarks and districts and the adoption of appropriate incentives.

Policy 1.2 The City will encourage the restoration and rehabilitation of historic sites through increased densities, grants, loans, technical assistance adaptive reuse and others.

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 Growth Management Act requires that communities apply the concepts of consistency and concurrency when addressing transportation issues.

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

The City of Wapato's Transportation Element must be consistent with *Yakima Valley Metropolitan and Regional Transportation Plan 2007-2027* established by the Yakima Valley Conference of Governments (YVCOG), the Regional Transportation Planning Organization (RTPO) for Yakima County. The Transportation Element must also implement, and be consistent with, the City's Land Use Element, as well as the Yakima Countywide Planning Policies and state growth management goals.

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

The Growth Management Act requires that the Transportation Element include discussion of the following topics:

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

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

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

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.

Applicable Countywide Planning Policies

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

1. The capital facilities, utilities, and Transportation Elements of each local government's Comprehensive Plan will specify the general location and phasing of major infrastructure improvements and anticipated revenue sources. [RCW 36.70A.070(3)(c)(d)] (Countywide Planning Policy: B.3.4.)
2. Major public capital facilities that generate substantial travel demand should be located along or near major transportation corridors and public transportation routes. (C.3.4.)
3. The multiple uses of corridors for major utilities, trails, and transportation rights-of-way is encouraged. (C.3.6.)
4. The transportation plan element for each jurisdiction will be consistent with and support the Land Use Element of its Comprehensive Plan. [RCW 36.70A.070(6)] (D.3.1.)

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

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

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

II. MAJOR TRANSPORTATION FACILITIES CONSIDERATIONS

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

- The City has identified the need for improvements to 15 road segments in its Six Year Transportation Improvement Program. Of these, two projects have funding secured, one will be funded through the RTPO, and four are planned for funding through the RTPO. If the City’s remaining nine projects are not funded through the state’s Transportation Improvement Account, are the needs sufficiently pressing that the City should seek other funding sources?
- The UGA defines where the City is financially capable of providing urban services and the areas it may ultimately annex. If these areas request annexation, how will the City bring these areas up to the City’s standards for streets, lighting, sidewalks, etc.?
- In Wapato as in virtually every other city, crime is a major concern. To a significant degree, improved illumination and access deter crime and make it easier for the police to apprehend criminals. To what extent should local concerns for crime prevention influence the selection of improvements to the City’s transportation system?
- Fire equipment requirements frequently determine minimum road widths and a minimum radius for turnarounds. What road standards need to be met to ensure access for emergency vehicles?
- The ethnic mix, educational level and income level in the City has changed dramatically over the past decade. What are the mobility needs of the changing population, and how can they be met without further stressing the limited municipal budget?
- With the development of regional malls and discount stores, many small cities have experienced a decline in local business activity and decay of the central business district. If the City of Wapato wishes to maintain the traditional central business district, how can the transportation system be used to further that goal?
- Most of the fruit warehouses are located either along US 97 or the railroad right-of-way. What land use controls are needed to maintain the rail and highway access needed for economic vitality and development?

III. TRANSPORTATION NETWORK CHARACTERISTICS

Roads and Streets

The City of Wapato contains approximately 16.5 miles of roads and streets within the City limits. Figure 1-4 shows the existing transportation network. Wapato is accessed from US 97 and I-82. Primary access to the central business district from US 97 is West First Street. Additional access points to the City are available from US 97, which marks the western City limits. Primary access from I-82 is along the Wapato-Donald Road. Other roadways which connect with Wapato, such as Campbell Road, East and West Wapato Road, Hoffer Road, and Brooks Road, serve the areas which surround the City.

Virtually all of Wapato's local streets are now paved, the remaining exceptions being Doris Street and the lane located along the park at the west end of West Third Street. With few exceptions, the streets southwest of the railroad tracks have curb and gutter. Streets on the southwest side that lack curb and gutter include Naches Avenue from West First Street to Fifth Street, and parts of South Camas Avenue.

On the northeast side of the tracks, most streets are blacktop without curb and gutter. Streets on the northeast side that do have curb and gutter include Paschke Avenue, Donald Road, and one block on N. Camas, between Donald Road and "A" Street.

Street rights-of-way range from 50 feet to 80 feet wide. Pavement width averages 30 feet, ranging from approximately 24 feet in some residential areas to 60 feet on Wapato Avenue and West First Street. Street lighting is provided throughout the City. Most of the northeast side is very well illuminated. The only major street with inadequate lighting is South Camas along the school area.

On-street parking is available on Wapato Avenue. The City has received some complaints about inadequate parking from merchants and customers of the central business district, and is trying to improve enforcement of two-hour parking restrictions. No additional parking is considered necessary at this time.

In unincorporated areas within the future service area of a city, Yakima County usually installs street lighting when it improves a road. The county requires developers to pave streets when areas develop at urban densities, and sometimes requires street lighting for projects within UGA boundaries. Currently, a number of local streets in the Wapato UGA are gravel, and either do not have funding secured, or are not included in the RTPO's TIP. These include Track Road (Phase 2), Central Street, Lincoln Street, Harding Street, and Ahtanum Avenue (Table 4.8).

Rail Facilities and Locations

The Wapato area has freight service via the Burlington Northern-Santa Fe railroad line (BNSF). The BNSF line crosses into Yakima County at Byron, roughly parallels I-82 through the Yakima Valley, then heads through Stampede Pass to the Seattle area.

Intermodal trains run from the BNSF facility in Auburn, through Kittitas and Yakima Counties, including the City of Wapato, to its facility in Pasco, then on to BNSF train yards in Spokane. Currently, approximately six trains per day pass through Wapato on the BNSF rail line. The BNSF rail line gives goods associated with area industries direct access to the Ports of Seattle and Tacoma.

Airports

One commercial service airport, the Yakima Regional Airport, is located in the City of Yakima, within 35 minutes of the City of Wapato. The 825-acre Yakima Air Terminal serves Yakima County and portions of Kittitas, Klickitat and Lewis Counties. The airport is owned by the City of Yakima and Yakima County and is managed and operated by an independent Board of Directors and airport staff. Airport maintenance

and operations are funded solely through revenues generated at the airport. The Yakima Regional Airport has two runways, one approximately 7,603 feet in length and the other approximately 3,835 feet in length.

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. The Yakima urban area has a number of freight dependent industrial uses, such as Yakima Regional Wood Products (formerly Boise Cascade), Federal Express (located at the Yakima Airport), UPS, and various other land uses that are located throughout the Yakima area. Connection to the Yakima Airport is a growing issue in the Yakima Valley as opportunities increase for freight movement by air.

Passenger service is available at the airport via Horizon Air. Six flights (three round trip) per day are provided to and from the Seattle-Tacoma International Airport. Casino Express/Xtra Airways also provides intermittent charter service to Elko and other destinations in Nevada. The airport also supports a general aviation community and there are two full service Fixed Base Operators on the airfield, McCormick Air Center and Noland-Decoto Flying Service.

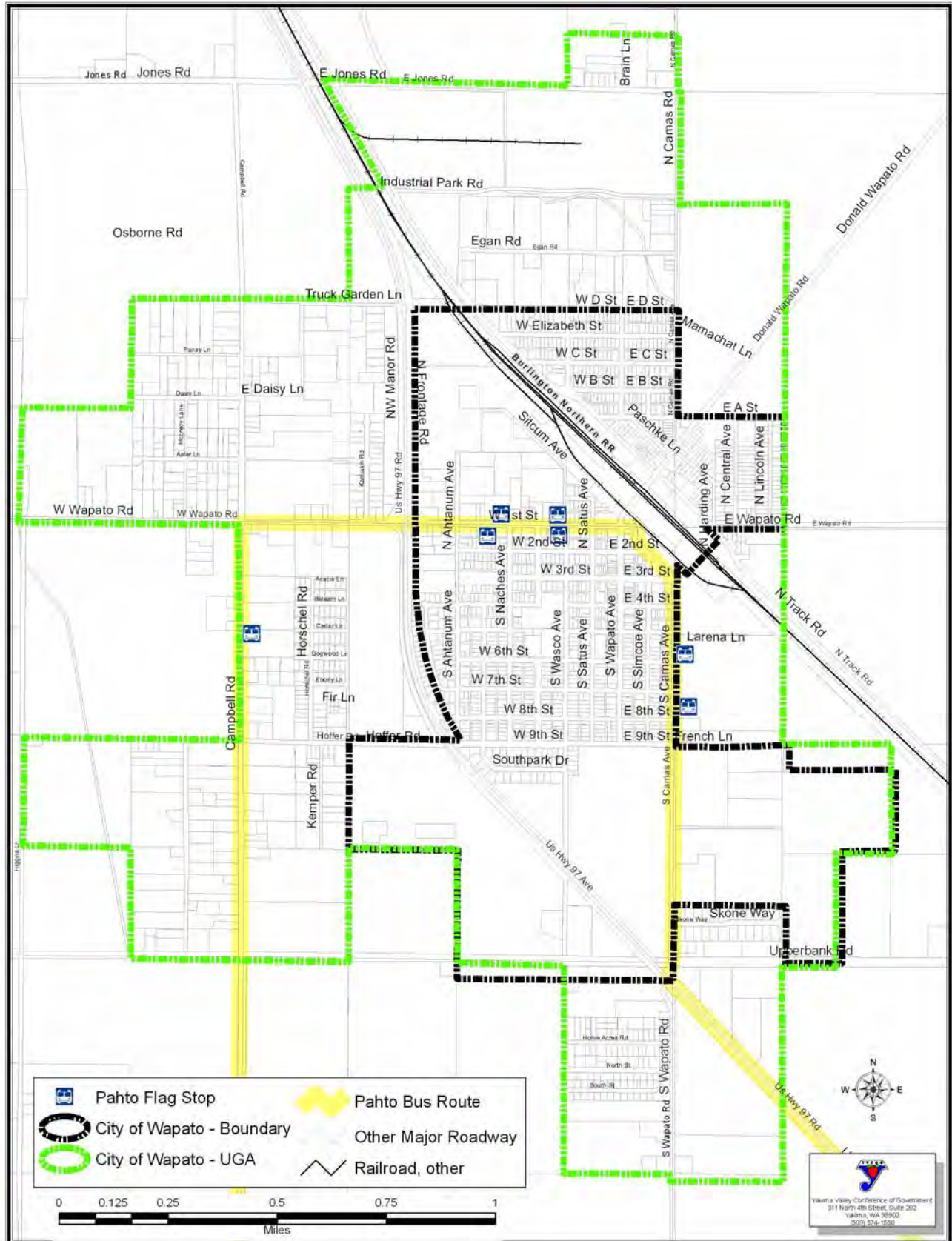
Until June 2007, Yakima was served by a single airline, HorizonAir, with regularly scheduled flights and services feeding Alaska Airlines' hub at Sea-Tac. In July 2007, SkyWest began to provide services to Delta Airlines' Salt Lake City hub. The addition of this second carrier was expected to enhance competition and travel options for area passengers, and was forecasted, by 2030, to result in 11 percent more enplanements than Yakima Regional Airport's historic peak of 96,000 enplanements recorded in 1991. However, Delta Airlines ceased operations at Yakima Regional Airport a little over a year later, in September 2008, citing high fuel prices.

Yakima is the 5th ranked commercial service airport in Washington State in terms of passenger traffic, with an estimated 57,483 enplanements in 2008. At present, Horizon offers 42 weekly departures using Dash 8 turboprop equipment. Yakima has lost a substantial amount of traffic and service since the early 1990s. At its peak in 1992, Horizon offered 213 weekly departures, and United Express offered an additional 45. Subsequently, Horizon reduced its service frequency by more than 80 percent – although this has been offset somewhat by the carrier's use of larger 37-seat Dash-8s from the mid-1990s on to replace 19-seat Metros – and United Express exited Yakima entirely after 2001. These declines were not isolated to the Yakima Regional Airport, as all of Washington's six non-hub airports experienced an aggregate capacity decline of nearly 29 percent.

As a result of these service reductions, passenger traffic at Yakima fell 42 percent between 1991 and 2006. 2008 enplanements were slightly lower than the 58,000 enplanements the airport accommodated in 1976. Real income is expected to grow at about 2.4 percent per year in Yakima County between 2005 and 2030, providing an important driver of air travel demand and service growth.

The forecast from the Washington State Long-Term Air Transportation Study projects moderate growth of traffic and service at the Yakima Regional Airport over the 25 year forecast period. On average, enplanements are forecast to grow at an average annual rate of 2.5 percent between 2005 and 2030. Commercial operations are forecast to grow 36 percent overall (1.2 percent per year) from about 4,300 in 2005 to 5,800 by 2030. This forecast remains somewhat more conservative than Yakima's Airport Master Plan forecast of 128,000 enplanements by 2022. However, these numbers reflect the addition of Delta Airlines at the Yakima Regional Airport. Delta Airlines pulled out of Yakima in September 2008, well after the report was written. The Washington State Long-Term Air Transportation Study had estimated that the addition of Delta Airlines would increase Yakima's scheduled seats by more than 40%.

Figure 4.1. Transportation Network, City of Wapato



Public Transportation

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

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

Wapato is served by the Yakama Nation Tribal Transit Program, which the Yakama Nation launched in 2007. The Yakama Nation funded the Tribal Transit Program through SAFETEA-LU. To create the Tribal Transit Program, the Yakama Nation partnered with People for People to establish a fixed-route bus system consisting of one route, Pahto Public Passage, which operates from 6 a.m. to 6 p.m. Monday-Friday. Pahto Public Passage connects Toppenish, Wapato, Harrah, Brownstown, and White Swan. Pahto Public Passage has stops at three locations in Wapato: the APAS Goudy housing development, the International Market 512 West First Street, and the Wolf Point housing development (Figure 4.1). The service is free to the public. Ridership was 549 in September of 2007, and was 1,671 in March of 2009.

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

- Paratransit services to individuals with disabilities outside the City of Yakima. PFP requests 24-hour notification. Riders must complete a short telephone survey, but are not required to provide doctor verification.
- The Yakima-Prosser Community Connector provides fare-free weekday fixed-route service between Yakima and Prosser, stopping at Wapato, Toppenish, Zillah, Granger, Sunnyside, and Grandview. In Wapato, the Yakima-Prosser Connector stops at the International Market at 512 West 1st Street, four times per day for the southbound route, and three times per day for the northbound route.
- Job Access-Reverse Commute transportation for recipients of Temporary Assistance for Needy Families and their children. This service provides transportation to job training activities for eligible participants.
- Senior transportation to those 60 years and older and living outside Yakima city limits. The service provides transportation to nutrition or meal sites, necessary shopping, and medical appointments.
- People for People currently is exploring the possibility of partnering with Yakima Transit to provide wider vanpool services that do not require a beginning or ending stop in Yakima.

For enrolled members of the Yakama Nation living within the Wapato area, the Yakama Tribal

Council-Department of Human Services provides transportation services for medical appointments for eligible Yakama Indian Nation clients. The Yakama Indian Nation also provides transportation services for education needs and meals for its members.

Citizens of the Wapato area do not have access to any other form of local public transportation other than private for-hire taxi service. The closest taxi services are located in Yakima, approximately eight miles away. Wapato contains no park-and-ride lots. The nearest park-and-ride lot is located in Yakima in the K-Mart parking lot at 2304 East Nob Hill Boulevard, and there are other park-and-ride lots in Yakima as well.

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

The *Coordinated Public Transit-Human Services Transportation Plan* was created by PFP on behalf of YVCOG, the RTPO. The plan was developed in response to the federal Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users Act (SAFETEA-LU) of 2005, which required that communities develop a coordinated public transit and human services transportation plan by federal fiscal year 2007 to be eligible for certain Federal Transit Administration funding. The plan calls for the following:

- Preserve and expand demand-response paratransit services for special needs populations.
- Preserve and expand intercity connections throughout the Yakima County region.
- Coordinate transportation services for special needs populations.

The *Yakima Valley Metropolitan and Regional Transportation Plan 2007-2027* was updated by YVCOG in 2007, in compliance with SAFETEA-LU. The Plan includes strategies for expanding transit to meet future travel demands throughout the Yakima Valley region. The Plan recognizes a need to expand demand-response service in the South Central area where Wapato is located, and to coordinate with existing and expanded rural transit service to regional services and facilities. Strategies to reduce peak period travel demands also are included. The transit and transportation demand management strategies include:

- Encourage alternative to driving alone such as transit, carpools, vanpools, walking, and bicycling.
- Support transportation investments that serve a range of travel modes.
- Expanded demand-response transit services to developing areas outside of the metropolitan area.
- Improve transit services to educational and medical facilities.
- Support expansion of paratransit services for special needs populations.
- Improve systems for pedestrian and bicycle travel as part of capital roadway projects and maintenance programs.
- Complete key links of the regional bicycle system, sidewalks, pathways, or trails.

Non-motorized Transportation

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

Sidewalks

A linked system of sidewalks is the most obvious and economical pedestrian pathway network for the City of Wapato. About half of the streets in Wapato have sidewalks, including areas on both sides of the railroad tracks. All of the commercial areas have sidewalks. Some sidewalks are available in the vicinity of parks and schools. Dove Lane has sidewalk on the park side, and 9th Street has sidewalk on the side opposite the school. South Camas has sidewalks from 1st Street to 9th Street and on the same side of the street as the park, but further south near the schools.

Bicycle Pathways

A standard national classification for bikeways includes categories ranging from: Class I, bike paths, which are a separate trails for the principle use of bicycles; Class II, bike lanes, in which a portion of the street is designated by sign and/or pavement markings for preferential bicycle use; Class III, bike routes, in which a street is designated with signs as a bicycle route and is shared with other transportation modes; and Class IV, shared street with no designation, in which a publicly maintained facility is not designated with signs and/or pavement markings as a bikeway, but is accessible to bicyclists.

No designated pathways exist within the City of Wapato and the surrounding UGA, however, potential to develop a Class III bikeway system, given street widths and relatively low traffic volumes.

IV. ROADWAY CHARACTERISTICS

This section examines Wapato area roadways more closely. The City of Wapato contains approximately 16.5 miles of roadway within the City limits. An additional 16.8 miles of roadway exists within the unincorporated portion of the UGA.

Functional Classification

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

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

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

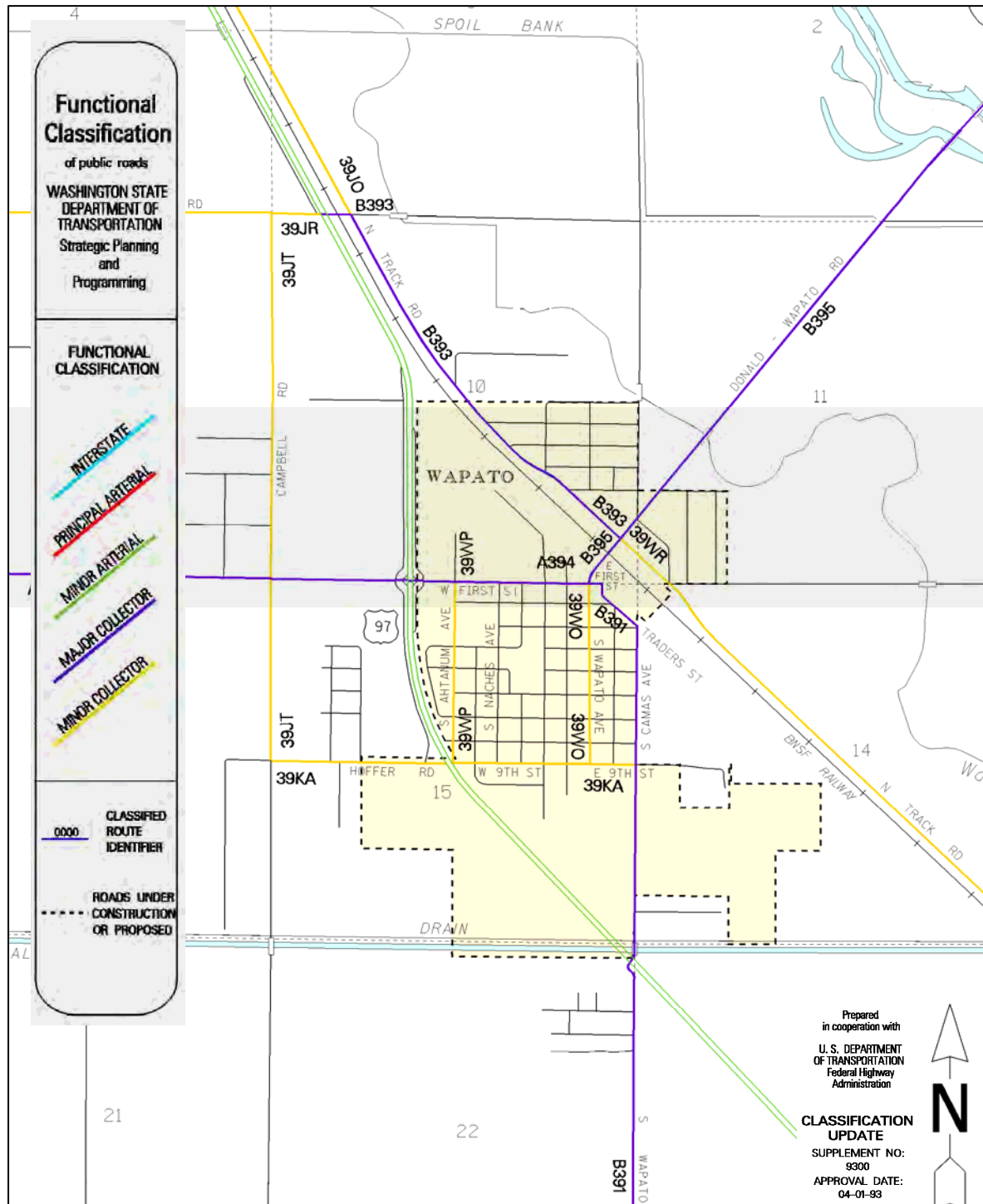
The Washington State Office of Financial Management (OFM) estimates Wapato's 2008 population at 4,555 persons. Because the City of Wapato is located outside of an urbanized area and has a population of less than 5,000, Wapato is classified as a rural area for the purpose of transportation planning.

The City's functional street classification is defined below. It is based on standards developed by WSDOT. Figure 4.2 depicts the functional classification of roads within the City of Wapato.

- *Principal Arterial:* A highway connecting major community centers and facilities, often constructed with partial limitations on access through intersections and common driveways. Principal arterials generally carry the highest traffic volumes and provide the best mobility in the roadway network. Since most principal arterials are intra-county, they serve both urban and rural areas. Regional and inter-county bus routes are generally located on principal arterials as well as transfer centers and park-and-ride lots.
- *Minor Arterial:* A highway connecting centers and facilities within the community and providing some access to abutting properties. The minor arterials stress mobility and circulation needs over providing specific access to properties. Minor arterials allow densely populated areas easy access to principal arterials, adjacent land uses (i.e. shopping, schools, etc.), and have lower traffic rates than principal arterials.
- *Collector Street :*A highway connecting two or more neighborhoods as well as carrying traffic within neighborhoods. Collectors also channel traffic onto the minor and principal arterials. Typically, they carry moderate traffic volumes, have relatively shorter trips than arterials, and carry very little through traffic. Urban collectors and rural major collectors are the lowest classes of roadway classification eligible for federal funding.
- *Local Access Street:* This category comprises all roadways and streets not otherwise classified. Their main function is providing direct access to abutting properties, sometimes at the expense of traffic movement. Traffic generally moves slowly on these streets and delays are caused by turning vehicles.

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

Figure 4.2. Functional Classification of Public Roads, City of Wapato



Source: Washington State Department of Transportation

Idealized Urban and Rural Roadway Capacities

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

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

Traffic Volume History

Traffic volumes in the Wapato 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 total volume of traffic for a year divided by 365 days; 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 Wapato area are in the form of AADT.

Available historical records on traffic flows within the Wapato area are mainly limited to a periodic counting of vehicular traffic on the major collectors that pass through the City. In all cases, the most recent available data was used. Traffic volume data from 1988, 1993, and 1994 had previously been provided by Yakima County. In May 2009, YVCOG conducted a limited traffic count in the City that updated traffic volumes for six road segments. Traffic counters were placed in locations that 1) had been used in previous 1997 counts by the County, 2) were road segments included in the City's Six Year Transportation Improvement Program, 3) were functionally classified as arterials or collectors (see Figure 4.2), and/or were truck routes (see Figure 4.3).

Table 4.1 shows the peak hour traffic volume and level of service for selected street segments within the City of Wapato. The traffic volume data for the unincorporated portion of the UGA was taken from the traffic counts that Yakima County completed most recently for the area, which was 1997, with the exception of the US 97 data, which was collected in 1988. Table 4.2 shows the peak hour traffic volume and level of service for selected street segments within the unincorporated UGA.

Three of the six collection points for the 2009 count were in the same location that the County used for their 1997 count. On Hoffer Road between the west City limits and South Wasco Avenue, traffic volume increased by approximately 15% between 1998 and 2009. However, at the other points – South Camas between 9th Street and south City limits, and North Track Road between Donald Road and east City limits – traffic decreased by 16% and 45%, respectively. The total daily traffic volumes on North Track Road between Donald Road and east City limits fluctuated widely, between 117 and 2,208 vehicles on a given day.

Table 4.1. Roadways within Wapato City Limits – Peak Hour Volume and Level of Service

Functional Class	Road Name	Start Location	End Location	Number of Lanes	AADT (Base Year)	Peak Hour Volume (vph) ¹	Idealized Roadway Capacity	Peak Volume as a Ratio of Roadway Capacity	Level of Service
Principal Arterial	None								
Minor Arterial	None								
Major Collector	1 st St.	US 97	Wapato Ave.	2	9,812****	867	2,400	0.36	A
		Wapato Ave.	Trader St.	2	3,000*	300	2,400	0.31	A
	Trader St.	1 st St.	Camas Ave.	2	3,000*	300	2,400	0.31	A
	S. Camas Ave.	Trader St.	9 th St.	2	3,000*	300	2,400	0.31	A
		9 th St.	South City Limits	2	3,706****	385	2,400	0.16	A
	N. Camas Ave.	E. "A" St.	North City Limits	2	1,055****	103	2,400	0.04	A
	North Track Rd.	West City Limits	Wasco Ave.	2	900*	90	2,400	0.04	A
		Wasco Ave.	Donald Rd.	2	900*	90	2,400	0.04	A
	Donald Rd.	1 st St.	Track Rd.	2	1,700*	170	2,400	0.07	A
		Track Rd.	North City Limits	2	6,024****	493	2,400	0.21	A
Minor Collector	9 th St.	Camas Ave.	Ahtanum Ave.	2	2,600**	260	2,000	0.07	A
	Wapato Ave.	9 th St.	5 th St.	2	1,100*	110	2,000	0.06	A
		5 th St.	1 st St.	2	5,100***	510	2,000	0.26	A
	Ahtanum Ave.	9 th St.	5 th St.	2	1,100**	110	2,000	0.06	A
		5 th St.	1 st St.	2	3,900****	390	2,000	0.20	A
	North Track Rd.	Donald Rd.	East City Limits	2	897****	102	2,400	0.04	A
	Hoffer Rd.	West City Limits	S. Wasco Ave.	2	1,751****	205	2,000	0.10	A
Local Road	All streets and roadways not listed above								

*Based on 1988 AADT counts (rounded)

***Based on 1994 AADT counts (rounded)

**Based on 1993 AADT counts (rounded)

****Based on 2009 AADT counts

¹ Unknown peak volumes estimated as 10% of the AADT.

Table 4.2. Roadways in Wapato’s Unincorporated Urban Growth Area – Peak Hour Volume and Level of Service

Functional Class	Road Name	Start Location	End Location	Number of Lanes	AADT (Base Year)	Estimated Peak Hour Volume (vph) [AADT*10%]	Idealized Roadway Capacity	Peak Volume as a Ratio of Roadway Capacity	Level of Service
Principal Arterial	None								
Minor Arterial	US 97	Jones Rd.	Hoffer Rd.	4	10,233*	1,023	2,400	.51	A
Major Collector	S. Wapato Rd.	Hoffer Rd.	Progressive Rd.	2	8,523*	852	2,400	.43	A
		US 97	South UGA Boundary	2	2,775**	278	2,400	.14	A
	W. Wapato Rd.	Higgins Ln.	N. Frontage Rd.	2	6,448**	645	2,400	.27	A
Minor Collector	Jones Rd. Jones Rd.	US 97	N. Frontage Rd.	2	2,456**	246	2,000	.12	A
		N. Frontage Rd.	East UGA Boundary	2	533**	53	2,000	.03	A
	Campbell Rd.	North UGA Boundary	Hoffer Rd.	2	1,199**	120	2,000	.06	A
	Hoffer Rd.	Hoffer Rd.	South UGA Boundary	2	815**	82	2,000	.04	A
		US 97	West UGA Boundary	2	679**	68	2,000	.03	A
Local Road	All streets and roadways not listed above								

*Based on 1988 AADT counts (rounded) **Based on 1997 AADT counts (rounded)

Level of Service

The ease of traffic movement along a roadway is a function of the roadway’s vehicular capacity, the number of vehicles using the roadway, the number of stops along the roadway, and the time spent waiting at each stop. To characterize the ease of traffic movement, transportation engineers have developed the concept of level of service (LOS), which measures the effectiveness of service on transportation infrastructure. Levels of service standards, as described in Table 4.3, are taken from the 2000 Highway Capacity Manual developed by the Transportation Research Board.

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

LOS “A” allows the maximum amount of freedom to select desired speeds and to maneuver within the traffic stream. LOS “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. LOS “E” represents operating conditions at or near the capacity of the highway. LOS “E” is characterized by low speeds and serious difficulty maneuvering within the traffic stream. Any incident can be expected to produce extensive delays and lines of vehicles. LOS “F” describes operations characterized by stop-and-go traffic. Vehicles may progress at reasonable speeds for several hundred feet or more, and must stop and start again, in a cyclical fashion.

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

Table 4.3. Level of Service Categories

Level of Service	Description	Volume/Capacity Ratio
A	Free flow. Low volumes and no delays.	Less than 0 .60
B	Stable flow. Speeds restricted by travel conditions, minor delays. Presence of other users in the traffic stream.	0.60 to 0.69
C	Stable flow. Speeds and maneuverability reduced somewhat by higher volumes.	0.70 to 0.79
D	Stable flow. Speeds considerably affected by change in operating conditions. High density traffic restricts maneuverability.	0.80 to 0.89
E	Unstable flow. Low speeds, considerable delay, volume at or near capacity. Freedom to maneuver is extremely difficult.	0.90 to 1.00
F	Forced flow. Very low speeds, volumes exceed capacity, long delays and queues with stop-and-go traffic.	Over 1.00

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

However, per RCW 36.70A.070(B), LOS is only required for locally-owned roadways functionally classified by WSDOT as arterials and transit routes, to serve as a gauge to judge performance of the system. While US 97 is functionally classified as a minor arterial, the City of Wapato has no jurisdiction over a state route. Therefore, Wapato’s LOS for its roadways is advisory only, since no locally-owned arterial streets or fixed route transit services exist within the community or the associated UGA.

Currently, all roads within the City of Wapato and the unincorporated UGA fall within the LOS category “A” (Table 4.2).

Freight and Goods Transportation System

The WSDOT has designated a statewide Freight and Goods Transportation System (FGTS). WSDOT’s most recent update of the FGTS occurred in 2007.

WSDOT used criteria based on the level of annual freight tonnage carried by a particular segment of road to identify road segments which play a significant role in the movement of freight and other goods throughout the state (Table 4.4). The FGTS is the first step in identifying and developing a year-round, all-weather system of routes serving truck travel and the economic needs of communities statewide.

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

Table 4.4. Truck Route Classes Based on Annual Tonnage

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

Table 4.5 lists the City of Wapato FGTS streets and roads, and Table 4.6 lists Wapato UGA FGTS streets and roads. Figure 4.3 illustrates the FGTS streets and roads for the City of Wapato and UGA.

Table 4.5. City of Wapato - Freight and Goods Transportation System Classified Roads

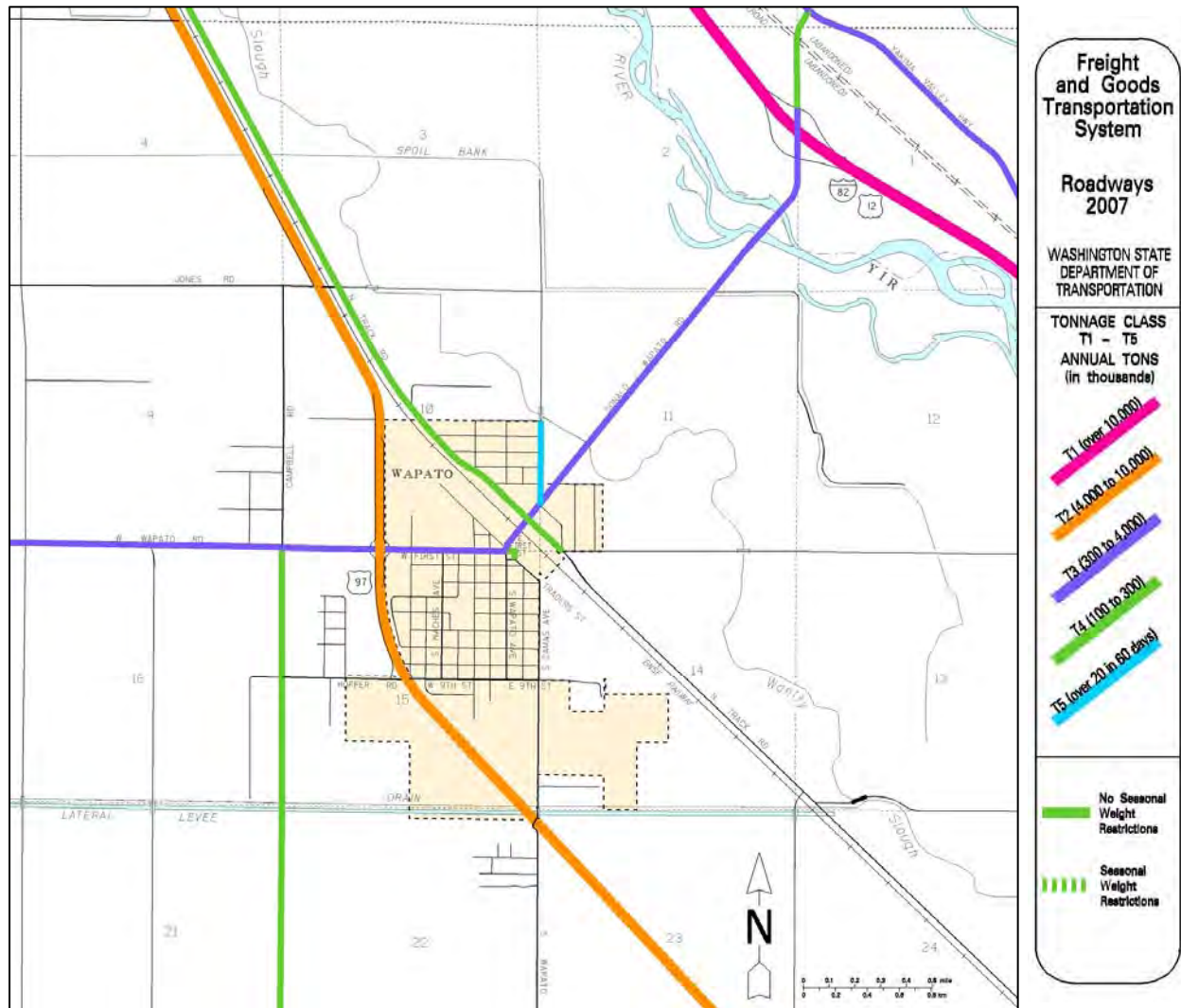
Route Name	Start Location	End Location	FGTS Class
1st Street	US 97	South Wapato Avenue	T-3
Donald-Wapato Road	1st Street	A Street	T-3
North Track Road	D Street	East Wapato Road	T-4
Trader Street	South Wapato Avenue	280 ft. from South Wapato Avenue (at curve to SE)	T-4
Mamachat Lane	Donald-Wapato Road	D Street	T-5

Table 4.6. Unincorporated UGA - Freight and Goods Transportation System Classified Roads

Route Name	Start Location	End Location	FGTS Class
US 97	North UGA Boundary	East UGA Boundary	T-2
Donald-Wapato Road	A Street	East UGA Boundary	T-3
West Wapato Road	Higgins Road	US 97	T-3
North Track Road	North C/L	Truck Garden Lane	T-4

Several FGTS roads pass through and around Wapato’s downtown area residential neighborhoods (Figure 4.3). Due to the stress placed on these roads from additional tonnage, Wapato will need to pay close attention to these roads when planning for maintenance. Wapato may also consider mitigation measures addressing potential noise and safety issues along FGTS roads that pass through residential neighborhoods, particularly in the residential neighborhood to the northeast of the railroad tracks, which is bordered on two sides by FGTS routes.

Figure 4.3. City of Wapato and UGA, Roadways by Truck Tonnage Class



Source: Washington State Department of Transportation

V. TRAFFIC FORECASTS

Demographics and Population Projections

The City of Wapato anticipates a 2025 population of up to 6,716 persons. This number is based on the “high projection” provided by the Yakima County Public Services Department, and is consistent with the population figure used in the Land Use Element and in the development of the City of Wapato UGA.

The 2000 Census indicated that nearly 42% of Wapato’s population was age 19 or younger. An additional 8% were above the age of 65. In addition, as of the 2000 Census, 49% of Wapato’s households had an income of \$24,999 or less. 28% of all families in Wapato were considered below the poverty level. These populations all are particularly in need of transportation options throughout Yakima County. In Wapato, the number of young people and low-income families is of particular significance for transit.

Land Use Patterns and Population Distribution

The area surrounding Wapato is expected to gradually change from agricultural to primarily residential, industrial, and public over the 20-year forecast period. Small divisions of land (short plats) and small subdivisions will continue to slowly increase the number of scattered low-density residential uses that are currently interspersed with agricultural uses. As agricultural land within the UGA is sold for development and subdivided, annexations will gradually increase the size of the City.

Single-family residential development has already occurred in large areas in the unincorporated portion of the UGA, including south of the City, west of East Wapato Road; east of South Camas Avenue on Skone Way, to the east and west sides of Campbell Road, both north and south of West Wapato Road (Pansy Lane, Daisy Lane, Aster Lane on the north, and a mobile home park on the south); both north and south of Hoffer Road, north of Truck Garden Lane, east of US 97; north of East Jones Road, and in other areas at lower densities (see Figure III-4, Existing Land Use, Land Use Element).

Additional land is expected to develop for 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 West 1st Street and US 97. The City wants to encourage commercial development oriented to the traveling public along US 97. Although the state has acquired access rights and established partial access control on the segment of US 97 between Union Gap and Toppenish, the frontage roads along portions of US 97 provide some opportunities for commercial visibility and access. The Future Land Use Map (Figure III-6, Land Use Element) targets the following areas for future commercial development: along the west side of North Frontage Road, around the intersection of US 97 and Hoffer Road, along and north of West 1st Street, and between South Wasco Avenue and South Carmen Avenue north of East 4th Street.

Industrial expansion will be associated with the surrounding agricultural base and will be based on changing crop patterns, additional expansion of crop acreages and increases in yields, market opportunities and access to markets, and changes in technology and processing. Some industrial expansion is anticipated adjacent to existing industrial developments which capitalize on their location and truck and rail access. Areas with the greatest potential for industrial growth are located along US 97 south of Hoffer Road.

Public uses will continue to dominate the areas north of West 5th street, and east of US 97 between Upperbank Road and Hoffer Road. Schools, playgrounds and parks are major land uses along both sides of South Camas Avenue, south of East 9th Street. Additional public land is proposed between Egan Road and Industrial Park Road.

Forecasted Traffic Volumes

Traffic forecasts for Wapato area roadways are being developed as part of the Yakima County Regional Travel Demand Model. This model will include all of Yakima County except the Yakima metropolitan area, which is modeled with the Metropolitan Area Model administered by YVCOG. When development of the Regional Travel Demand Model is completed, travel forecasts will predict growth in traffic volume on the basis of anticipated regional changes in land use and employment patterns. The forecast period for the model is 2006, the base year, through the year 2027.

For the current analysis, YVCOG assumed that a growth in vehicle miles traveled (VMT) of two percent was reasonable and within expected bounds for the metropolitan area. This method was used to calculate traffic forecasts for Wapato area roads. Table 4.6 shows traffic forecasts for road segments within City limits, at five-year intervals from 2010 to 2025. The base year of each estimate is the most recently

available traffic count for each road segment that is functionally classified as an arterial or collector. Table 4.7 shows the same forecasts for road segments in the unincorporated UGA.

Within Wapato city limits, the highest forecasted AADT in 2025 is 10,621 for 1st Street between US 97 and Wapato Avenue. At this AADT, this segment of road would have an estimated peak hour volume of 1,062 and a LOS of volume/capacity ratio of 0.44, putting it well below the maximum volume/capacity ratio of 0.60 for LOS A (see Table 4.3). All roads for which forecasts were estimated can therefore be expected to remain at LOS A through 2025.

Table 4.6. Traffic Forecasts for Road Segments within Wapato City Limits.

Functional Class	Road Name	Start Location	End Location	AADT (Base Year)	AADT (2010)	AADT (2015)	AADT (2020)	AADT (2025)
Principal Arterial	None							
Minor Arterial	None							
Major Collector	1 st St.	US 97	Wapato Ave.	9,812*****	10,008	10,208	10,412	10,621
		Wapato Ave.	Trader St.	3,000*	4,638	5,121	5,654	6,242
	Trader St.	1 st St.	Camas Ave.	3,000*	4,638	5,121	5,654	6,242
	S. Camas Ave.	Trader St.	9 th St.	3,000*	4,638	5,121	5,654	6,242
		9 th St.	South City Limits	3,706*****	3,780	3,855	3,933	4,011
	N. Camas Ave.	E. "A" St.	North City Limits	1,055*****	1,076	1,097	1,119	1,141
	North Track Rd.	West City Limits	Wasco Ave.	900*	1,391	1,536	1,696	1,873
		Wasco Ave.	Donald Rd.	900*	1,391	1,536	1,696	1,873
	Donald Rd.	1 st St.	Track Rd.	1,700*	2,628	2,902	3,204	3,537
		Track Rd.	North City Limits	6,024*****	6,145	6,268	6,393	6,521
Minor Collector	9 th St.	Camas Ave.	Ahtanum Ave.	2,600**	3,641	4,020	4,438	4,900
	Wapato Ave.	9 th St.	5 th St.	1,100*	1,701	1,878	2,073	2,289
		5 th St.	1 st St.	5,100***	7,001	7,730	8,534	9,423
	Ahtanum Ave.	9 th St.	5 th St.	1,100**	1,540	1,701	1,878	2,073
		5 th St.	1 st St.	3,900***	5,354	5,911	6,526	7,206
	North Track Rd.	Donald Rd.	East City Limits	897*****	915	933	952	971
	Hoffer Rd.	West City Limits	S. Wasco Ave.	1,751*****	1,786	1,822	1,859	1,896
Local Road	All streets and roadways not listed above							

*Based on 1988 AADT counts (rounded)

***Based on 1994 AADT counts (rounded)

**Based on 1993 AADT counts (rounded)

*****Based on 2009 AADT counts (rounded)

Table 4.7. Traffic Forecasts for Road Segments within the City of Wapato’s Unincorporated UGA.

Functional Class	Road Name	Start Location	End Location	AADT (Base Year)	AADT (2010)	AADT (2015)	AADT (2020)	AADT (2025)
Principal Arterial	None							
Minor Arterial	US 97	Jones Rd.	Hoffer Rd.	10,233*	15,820	17,467	19,285	21,292
		Hoffer Rd.	Progressive Rd.	8,523*	13,176	14,548	16,062	17,734
Major Collector	S. Wapato Rd.	US 97	South UGA Boundary	2,775**	3,590	3,963	4,376	4,831
	W. Wapato Rd.	Higgins Ln.	N. Frontage Rd.	6,448**	8,341	9,209	10,168	11,226
Minor Collector	Jones Rd.	US 97	N. Frontage Rd.	2,456**	3,177	3,508	3,873	4,276
	Jones Rd.	N. Frontage Rd.	East UGA Boundary	533**	689	761	840	928
	Campbell Rd.	North UGA Boundary	Hoffer Rd.	1,199**	1,551	1,712	1,891	2,087
		Hoffer Rd.	South UGA Boundary	815**	1,054	1,164	1,285	1,419
	Hoffer Rd.	US 97	West UGA Boundary	679**	878	970	1,071	1,182
Local Road	All streets and roadways not listed above							

*Based on 1988 AADT counts (rounded)

**Based on 1997 AADT counts (rounded)

VI. EXISTING DEFICIENCIES, FUTURE NEEDS AND ALTERNATIVES

As the City of Wapato'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 Wapato's 2010-2015 Transportation Improvement Program (TIP), adopted July 20, 2009 (Res. #2009-24), which identifies needs such as road resurfacing, road widening, and drainage improvements. The TIP prioritizes roadway improvements during this six-year time period. Table 4.8 (pages 27-29) summarizes the TIP.

Deficiencies and Issues

As the City of Wapato'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 Wapato's 2010 to 2015 Transportation Improvement Program (TIP) which identifies improvements such as resurfacing and reconstruction of roadways, and roadway widening. The TIP prioritizes roadway improvements during this six year time period. The current TIP and any future revisions are hereby included by reference as part of the City's Comprehensive Plan. Table 4.8 lists the projects in the City's 2010 to 2015 TIP.

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

Issues and Deficiencies

1. Right-of-Way. Local street rights-of-way vary from 50 feet to 80 feet in width. While most of the streets are adequate, the narrower rights-of-way are not wide enough to accommodate automobile traffic and on-street parking, as well as potential bike lanes, without serious conflict. Wapato needs to develop desirable right-of-way standards to address such current problems and prevent similar ones from occurring in the future.

2. Street Widths. Pavement width averages 30 feet. Parking is restricted to one side of streets where the paved area is less than this. Wapato needs to develop standards that will require a minimum width that will allow vehicles to pass in both directions when vehicles are parked on both sides of the street, unless adequate provision has been made for off-street parking.

3. Sidewalks. Sidewalks are lacking or only on one side of the street in the vicinity of some parks and schools. South Camas Avenue south of East 9th Street is of special concern in that it is a major collector that separates the high school/primary school complex from the City park.

4. Lighting. Lighting is lacking on South Camas Avenue south of West Ninth Street. Given the presence of schools and parks in this area, lack of adequate lighting is of concern both for pedestrian safety and crime prevention.

5. Surfacing.

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

(b) Baserock - Baserock gives the roadway support and longer life with lower maintenance costs. While only the traveled portion of the road needs paving, the parking area portions should also include baserock with a gravel surface. This composition will alleviate many problems with water run-off, access to utility lines without breaking into paved surfaces, and will lessen the tendency for the paved edge to break or crack as vehicles move from paved road to parking area. In residential areas, the baserock should be six to eight inches thick and eight to ten inches thick in commercial areas.

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

7. Specific Deficiencies. Table 4.8, as mentioned earlier, shows Wapato's 2010 to 2015 TIP, which contains maintenance needs for Wapato's streets as identified by local citizens through public meetings and on-site analysis. Streets are listed by priority for needed improvements.

8. Alternative Transportation. Few alternative transportation options are available to vulnerable populations in Wapato, such as the young, the old, and lower-income groups. Facilitating currently available transportation options, such as the services provided by People For People, aggressively seeking funds for alternative transportation options, and partnering with organizations such as People For People to expand on existing options and explore new options will help Wapato to address existing needs and be better positioned for future growth. Provision of a park-and-ride near the Yakima-Prosser Community Connector stop at 512 West 1st Street (International Market) could help area residents take advantage of this connector.

In the UGA outside of the City of Wapato, Yakima County has identified a number of gravel roads which need to be reconstructed to standard 30-foot BST roadways. All are considered local roadways, and all were listed in the Six Year Transportation Improvement Program for 2009 to 2014.

Table 4.8. City of Wapato 2010 to 2015 Transportation Improvement Program

Priority	Project Name	Street	Start Location	End Location	Functional Class	Length (miles)	Anticipated Construction Start Date	Improvements Needed	Estimated Cost	Funding Source	Funding Status
1	Track Road Improvement Phase 1	Track Road	Donald Road	West A Street	Major Collector	0.65	6/1/2010	Install curb, gutter, sidewalk, lighting, and paving	\$815,000	State: SCP ¹	Secured
2	Track Road Improvement Phase 2	Track Road	Donald Road	East Wapato Road	Minor Collector	0.22	2/1/2010	Install curb, gutter, sidewalks, lighting, drainage and paving	\$775,000	Federal: STP(C) ² State: WSDOT	Planned
3	Intersection Signal	Donald Road	Donald Road	Track Road	Minor Collector	0.05	1/1/2010	Rebuild curb, gutter, sidewalk, and install new signal	\$60,000	State: SCP	Secured
4	Asphalt Overlay on Local Streets	Satus & others	2 nd , 3 rd , 4 th , and 5 th Streets	9 th Street	Local Access	1.5	3/1/2011	Overlay local access streets as prioritized by surface rating system	\$10,000	State: WSDOT	Planned
5	Central Street Improvements	Central Street	East A Street	East Wapato Road	Local Access	0.25	6/1/2012	Curb, gutter, sidewalk, drainage, lighting, and paving	\$565,000	Federal: CDBG ³ State: Other	Planned
6	Lincoln Street Improvements	Lincoln Street	East A Street	East Wapato Road	Local Access	0.25	6/1/2013	Curb, gutter, sidewalk, drainage, lighting, paving	\$510,000	Federal: CDBG State: Other	Planned

Priority	Project Name	Street	Start Location	End Location	Functional Class	Length (miles)	Anticipated Construction Start Date	Improvements Needed	Estimated Cost	Funding Source	Funding Status
7	Harding Street Improvements	Harding Street	Donald Road	Track Road	Local Access	0.20	6/1/2012	Curb, gutter, sidewalk, drainage, lighting, paving	\$425,000	Federal: CDBG State: Other	Planned
8	East A Street	East A Street	Donald Road	Lincoln Street	Local Access	0.25	6/1/2014	Curb, gutter, sidewalk, lighting, drainage, construction roadway	\$630,000	Federal: CDBG State: Other	Planned
9	Ahtanum Avenue Improvements Phase 1	Ahtanum Avenue	1 st Street	4 th Street	Minor Collector	0.17	5/5/2013	Install curb, gutter, sidewalk, and paving	\$325,000	Federal: STP(C) State: Other	Planned
10	ADA Improvements	Various Intersections	NA	NA	Local Access	0.05	3/5/2010	Replace or install ramps for handicapped at intersections	\$25,000	State: Other	Planned
11	Ahtanum Avenue Improvement Phase 2	Ahtanum Avenue	4 th Street	9 th Street	Minor Collector	0.32	5/1/2014	Reconstruct curb, gutter, sidewalk, paving	\$303,000	Federal: STP(C) State: Other	Planned
12	Trader Street Improvements	Trader Street	West 1 st Street	East 3 rd Street	Major Collector	0.20	5/1/2011	Reconstruction curb, gutter, sidewalk, illium	\$225,000	Federal: STP(C) State: SCPP ⁴	Planned
13	Resurface South Camas Avenue	Camas Avenue	7 th Street	9 th Street	Local Access	0.25	5/1/2010	Resurface street	\$160,000	Federal: ARRA ⁵	Secured
14	Traffic Congestion Study	Donald Road	Track Road	Harding Street	Major Collector	0.1	1/1/2010	Traffic congestion study	\$25,000	State: Other	Planned

Priority	Project Name	Street	Start Location	End Location	Functional Class	Length (miles)	Anticipated Construction Start Date	Improvements Needed	Estimated Cost	Funding Source	Funding Status
15	Intersection Improvement	West 1 st Street	West 1 st Street	Ahtanum Avenue	Major Collector	0.05	3/15/2013	Install new traffic control signal	\$250,000	Federal: STP(S) ⁶ State: SCP	Planned
16	Pedestrian Improvements	9 th Street	South Camas	South Wasco Avenue	Local Access	0.50	6/15/2012	Install curb gutter, sidewalk, ADA ramps for schoolchildren	\$265,000	State: SCP	Planned
17	Resurfacing Yakima Avenue	Yakima Avenue	South 1 st Street	South 3 rd Street	Local Access	0.25	5/15/2013	Resurface and rebuild the roadway as needed; curb gutter and sidewalk	\$480,000	State: SCP	Planned
18	Intersection School Signal	Camas Avenue	Dove Lane	Dove Lane	Major Collector	0.05	8/1/2013	Install a school signal at this intersection	\$200,000	State: Other	Planned

VII. FINANCING

A six-year Transportation Improvement Program (TIP) is reviewed and adopted by the City on an annual basis. The most recent program was adopted on July 20, 2009, and covers the years 2010-2015. The transportation projects included in the TIP are typically funded by use fees. Initially, that funding came from a dedicated portion of the property tax, because property owners were the prime beneficiaries of the transportation system. Over time, other fees and taxes were imposed to supplement the revenues. Today, the major tax sources to fund transportation are the gas tax, the Motor Vehicle Excise Tax (MVET), and vehicle registration fees.

State and Federal Funding Sources

Larger projects have received funding assistance from the Washington State Transportation Improvement Board (TIB). As a federally designated rural area, there are three state-funded grant programs that the City can pursue through TIB, including the Small City Arterial Program (SCAP), the Small City Preservation Program (SCPP) and the Small City Sidewalk Program (SC-SP). There are also federal grant programs that the City can pursue through the authorization of 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, the federal SAFETEA-LU, and other sources as they become available. Over the past several years, the TIB has been an attractive source of funds, but this attractiveness has increased competition for funding. In addition, 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. The Yakima Valley RTPO must now distribute funds on a prioritized competitive basis, effective with development of the 2009 TIP. The street budget should be reviewed annually and adjustments made to optimize the use of available funds and ensure competitiveness when competing for funds.

Local Funding Sources

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

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

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

Finance Plan

Wapato's 2010 to 2015 Six Year Transportation Improvement Program shows City of Wapato roadway projects and financing. The Six Year Transportation Improvement Program for Wapato, displayed in Table 4.8, is incorporated by reference.

In the MPO/RTPO Final Metropolitan and Regional Transportation Improvement Program, YVCOG's 2009 to 2012 four-year TIP, two City of Wapato transportation projects are listed as planned (currently unfunded) projects. The MPO/RTPO TIP identifies projects from locally adopted TIPs that 1) are ready for implementation for which federal funding has been secured, 2) are WSDOT projects, or 3) are regionally significant regardless of the funding source. The City of Wapato projects included in the MPO/RTPO TIP include the Lincoln Street improvements, East "A" Street improvements, Ahtanum Avenue (Phase 2) improvements, Donald Road traffic congestion study, West 1st Street improvements, and the Dove Lane improvements (Table 4.8).

IX. RECOMMENDATIONS

1. Street maintenance in Wapato has been and will continue to be based upon the greatest need. Budget constraints limit available funding for these projects, and maintenance needs should be identified and prioritized on a continual basis.
2. All new streets and existing streets needing reconstruction should be built to the City's street standards where possible. If this is not possible, alternative standards need to be developed.
3. All the streets in the City need seal coating on a regular basis to maintain their good quality. A maintenance schedule should be developed and followed.
4. The City's subdivision ordinance should require street paving to City standards, sidewalks, street lighting, and curb and gutter.
5. The City should seek an interlocal agreement with Yakima County that would require subdivisions in the unincorporated portion of the UGA to meet the standards of the City's subdivision ordinance. For existing subdivisions in the UGA that do not meet the City's standards, the agreement should specify how needed improvements would be accomplished.
6. The City should aggressively seek funding for pavement repairs on South Wapato Avenue, and railroad crossings should be upgraded as necessary for safety and improved traffic ride.
7. The City should aggressively seek funds earmarked for alternative transportation options, and partner with organizations such as People For People to expand on existing transportation options and explore new options. A public survey of transportation needs could help to focus efforts.

XIII. GOALS AND POLICIES

GOAL 1: *To develop, maintain, and operate a balanced, safe, and efficient multimodal transportation system to serve all persons, special needs populations and activities in the community.*

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

- Policy 1.2 Implement measures that will relieve pressures on the existing transportation infrastructure by approaches that include, but are not limited to:
- Multimodal transportation alternatives
 - Land use coordination
 - Prioritized improvements
- Policy 1.3 Integrate, coordinate and link the connections and transfer points between all modes of transportation.
- Policy 1.4 Work with the Washington State Department of Transportation, Yakima County, the PTBA authority, and other local jurisdictions to adequately site park-and-ride lots in the Wapato area.
- Policy 1.5 Include the need to accommodate bicycle safety in the management and design of the City street network, including designating bicycle routes throughout the City.
- Policy 1.6 Integrate, coordinate and link the connections and transfer points between all modes of transportation.
- Policy 1.7 Minimize potential conflicts between bicycle and automobile traffic by providing signage at intersections of bike trails with roadways.
- Policy 1.8 Encourage the location of bicycle racks at appropriate destination points, such as outside of downtown commercial businesses, parks, and schools.
- Policy 1.9 Provide and promote the development of pedestrian and bicycle paths to schools, parks, and activity centers, as well as linkages between these paths.
- GOAL 2:** *To ensure that transportation facilities and services needed to support development are available concurrent with the impacts of such development, which protects investments in existing transportation facilities and services, maximizes the use of these facilities and services, and promotes orderly compact growth.*
- Policy 2.1 Adopt a LOS standard C for arterial roadway facilities and services within the City to help maintain Wapato’s rural and small City character. Do not adopt a LOS for transit until such time that a Public Transit Benefit Area (PTBA) is implemented and transit LOS definitions have been adopted.
- Policy 2.2 For all other roadways within the City, LOS standards shall be strictly advisory and shall only 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 LOS 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 Produce a financially feasible plan in the Capital Facilities Element demonstrating its ability to achieve and maintain adopted levels of service.

- Policy 2.5 Accommodate design and improvements to Wapato’s transportation system based on both existing conditions and projected growth.
- Policy 2.6 Allow new development only when and where all transportation facilities are adequate at the time of development, or unless a financial commitment is in place to complete the necessary improvements or strategies which will accommodate the impacts within six years; and only when and where such development can be adequately served by essential transportation facilities without reducing LOS elsewhere.
- Policy 2.7 Actively solicit action by the State and Yakima County to program and construct those improvements to State and County arterial systems which are needed to maintain the adopted LOS standards for the City of Wapato.
- Policy 2.8 Require developers to construct streets directly serving new development, and pay a fair-share fee for specific off-site improvements needed to mitigate the impacts of development. Explore with developers, when appropriate, ways that new development can encourage van pooling, car pooling, public transit use and other alternatives and strategies to reduce single-occupant vehicle travel.
- Policy 2.9 Coordinate land use and public works planning activities with an ongoing program of long range financial planning, to conserve fiscal resources available to implement the Transportation Improvement Program (TIP).
- Policy 2.10 Encourage the maintenance and safety improvements of Wapato’s existing roads as a priority over the creation of new roads, wherever such use is consistent with other objectives.
- Policy 2.11 Implement actions outlined under the Comprehensive Plan based in part on the financial resources available to fund the necessary public facilities.
- Policy 2.12 Accord high priorities for funding to projects which are consistent with goals and objectives adopted by the City Council.
- Policy 2.13 Fund projects only when incorporated into the City budget, as adopted by the City Council.
- GOAL 3:** *To recognize pedestrian movement as a basic means of circulation and to assure adequate accommodation of pedestrian and handicapped persons’ needs in all transportation policies and facilities.*
- Policy 3.1 Require developers to include sidewalks in new plats in conformance with Wapato’s subdivision regulations.
- Policy 3.2 Promote the creation of a pedestrian-oriented downtown commercial area by:
- Creating an environment where development of pedestrian facilities is encouraged and automobile use is optional.
 - Modifying the placement of new buildings in ways that encourage pedestrian activities by making streets more attractive routes for walking.
 - Encouraging side and rear yard parking areas by restricting parking lots in front of commercial businesses.

- Policy 3.3 Improve pedestrian access through public improvements, sign regulations, and development standards. The maintenance of public and private improvements should be given priority commensurate with downtown’s role as the focal point of the community.
- Policy 3.4 Work to develop mechanisms to increase public safety and enhance local mobility, yet maintain ease of movement of traffic through the City.
- Policy 3.5 Seek to improve the appearance of existing street corridors and incorporate high standards of design when developing new streets, including construction of sidewalks. Implement appropriate landscaping measures that enhance the appearance of City street corridors. Encourage trees along street rights-of-way to the extent feasible without impairing capacity, safety, or structural integrity of the roadway. Seek to construct sidewalks in existing areas where sidewalk rights-of-way have been maintained for future sidewalk construction.
- Policy 3.6 Whenever the City contemplates reconstruction or major maintenance work on a City street not having sidewalks, the ability to provide sidewalks at that time should be fully explored. This may include the identification of potential funding sources; promotion of a local improvement district (LID) to finance the sidewalk portion of the work; and including sidewalks as an “alternate” in construction bid documents.
- Policy 3.7 Seek to implement traffic-calming devices in residential neighborhoods to reduce speeds of automobiles passing through the neighborhoods. Examples might include speed bumps, speed humps, speed cushions, curb extensions, and chicanes.
- GOAL 4:** *To ensure adequate parking in the downtown commercial area which supports economic growth, and is consistent with downtown design and pedestrian circulation goals.*
- Policy 4.1 Continue to allow on-street parking in the downtown area. which forms a buffer between pedestrians and street traffic, reduces the speed of traffic, and provides for short-term parking needs.
- Policy 4.2 Explore alternative methods of ensuring the adequate provision of parking for new and existing commercial and residential development in the downtown commercial area, while reducing the amount of parking provided by individual developments and influencing the location and type of parking in ways that promote pedestrian mobility and minimize pedestrian/vehicular conflicts. This includes, but is not limited to:
- Installing directional signage to public parking areas.
 - Encouraging the use of joint-use parking opportunities utilizing existing parking for churches, public buildings and stores. Separating short (< 2 hrs), intermediate (2-5 hrs) and long term (> 5 hrs) parking uses; on street parking reserved for short term, and long term parking provided in lots on the periphery on the downtown commercial area.
 - Adding public parking as part of the downtown development, which will serve both shoppers and visitors to downtown.
- GOAL 5:** *To manage, conserve and protect Wapato’s natural resources through a balance of development activities complemented with sound environmental practices.*

- Policy 5.1 Design new transportation facilities in a manner which minimizes impacts on natural drainage patterns.
- Policy 5.2 Promote the use and development of routes and methods of alternative modes of transportation, such as transit, bicycling and walking, which reduce Wapato's consumption of non-renewable energy sources.
- Policy 5.3 Implement programs to reduce the number of employees commuting by single-occupancy vehicles through such transportation demand strategies as preferential parking for carpools/vanpools, alternative work hours, bicycle parking, and distribution of transit and ridesharing information based on current federal and state policies aimed at reducing auto-related air pollution.
- Policy 5.4 Site, design, and buffer (through screening and/or landscaping) transportation facilities and services that fit in harmoniously with their surroundings. Give special attention to minimizing noise, light and glare impacts when these facilities are sited within or adjacent to residential areas.
- GOAL 6:** *To actively influence the future character of the City by managing land use change and by developing City facilities and services in a manner that directs and controls land use patterns and intensities.*
- Policy 6.1 Coordinate 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 to:
- Ensure a supply of buildable land sufficient in area and services to meet the region's housing, commercial and employment needs; located so as to be efficiently provided with public facilities and services;
 - Ensure protection of important natural resources;
 - Avoid unnecessary duplication of services; and
 - Avoid overbuilding of public infrastructure in relation to future needs.
- Policy 6.3 Recognize the important role that public facilities and programs such as sidewalks and street lights play in providing a healthy family environment within the community.
- Policy 6.4 Work with local, regional and state jurisdictions to develop land use development strategies that will support public transportation.
- Policy 6.5 Consider the impacts of land use decisions on adjacent roads. Likewise, road improvements should be consistent with proposed land use densities.
- GOAL 7:** *To provide a comprehensive system of parks and open spaces that responds to the recreational, cultural, environmental and aesthetic needs and desires of the City's residents.*

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

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

GOAL 8: *Develop a transportation system that moves people and goods safely and efficiently.*

Policy 8.1: Follow the existing street plan.

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

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

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

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

1. An arterial is more appropriate than a local street to serve the desired land use pattern.
2. It will link with the existing arterial system.
3. It will maintain a desirable circulation pattern, and
4. It intercepts or connects with an existing county road, and it has been coordinated with Yakima County.

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

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

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

1. Right-of-Way - 52 feet
2. Driving Lanes - 22 feet total. Use baserock and pave with .2 feet of asphalt concrete.
3. Parking lanes - 8 feet each side. Use baserock and pave.

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

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

Chapter 5 Capital Facilities Element

I. INTRODUCTION

Purpose

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

Growth Management Act Requirements

To comply with the GMA, the Comprehensive Plan must have a Capital Facilities Element consisting of:

- an inventory of publicly owned capital facilities, including their locations and capacities;
- a forecast of the future needs for such facilities;
- the proposed locations and capacities of new or expanded capital facilities;
- a six-year (minimum) plan for financing such facilities within projected funding capacities, clearly identifying sources of public money for such purposes; and
- a reassessment of the Land Use Element. The Land Use Element must be reassessed if the probable funding falls short of meeting existing needs. Also, the Land Use Element must be reassessed to ensure that the land use plan, the capital facilities plan, and the 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 of 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 (UGA), 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 UGA, the responsible service purveyors and the terms under which the services are to be provided. (B.3.2.)
5. Infill development, higher density zoning and small lot sizes should be encouraged where services have already been provided and sufficient capacity exists and in areas planned for urban services within the next 20 years. (B.3.3.)
6. The capital facilities, utilities and transportation elements of each local government's comprehensive plan will specify the general location and phasing of major infrastructure improvements and anticipated revenue sources (RCW 36.70A.070(3)(c)(d)). These plan elements will be developed in consultation with special purpose districts and other utility providers. (B.3.4.)
7. New urban development should utilize available/planned urban services. (B.3.5., Also RCW 36.70A.110(3))
8. Formation of new special purpose districts should be discouraged within designated UGAs. (B.3.6.)
9. The County and the cities will inventory existing capital facilities and identify needed facility expansion and construction. (C.3.1., also RCW 36.70A.070(3)(a)(b))
10. From local inventory, analysis and collaboration with State agencies and utility providers, a list of Countywide and statewide public capital facilities needed to serve the Yakima County region will be developed. These include, but are not limited to, solid and hazardous waste handling facilities and disposal sites, major utility generation and transmission facilities, regional education institutions, airports, correctional facilities, in-patient facilities including hospitals and those for substance abuse and mental health, group homes and regional park and recreation facilities. (C.3.2.)
11. When a public facility of a Countywide or Statewide nature is proposed in the Yakima County region, a Facility Analysis and Site Evaluation Advisory Committee including citizen members will be formed to evaluate the proposed public facility siting. At a minimum this evaluation shall consider:
 - a. The potential impacts (positive or negative) of the proposed project on the economy, the environment and community character;
 - b. The development of specific siting criteria for the proposed project;
 - c. The identification, analysis and ranking of potential project sites;
 - d. Measures to first minimize and second mitigate potential physical impacts including, but not limited to, those relating to land use, transportation, utilities, noise, odor and public safety; and
 - e. Measures to first minimize and second mitigate potential fiscal impacts. (C.3.3.)
12. Major public capital facilities that generate substantial travel demand should be located along or near major transportation corridors and public transportation routes. (C.3.4.)

13. Some public facilities may be more appropriately located outside of UGAs due to exceptional bulk or potentially dangerous or objectionable characteristics. Public facilities located beyond UGAs should be self-contained or be served by urban governmental services in a manner that will not promote sprawl. Utility and service considerations must be incorporated into site planning and development. (C.3.5.)
14. The multiple use of corridors for major utilities, trails and transportation right-of-way is encouraged. (C.3.6.)
15. The County and cities will work with special purpose districts and other agencies to establish a process for mutual consultation on proposed comprehensive land use plan policies for lands within UGAs. 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 UGAs. (F.3.3.)
18. Each interlocal agreement will require that common and consistent development and construction standards be applied throughout that UGA. These may include, but are not limited to standards for streets and roads, utilities and other infrastructure components. (F.3.5.)
19. Encourage economic growth within the capabilities of the region's natural resources, public services and public facilities.
 - a. Identify current and potential physical and fiscal capacities for municipal and private water systems, wastewater treatment plants, roadways and other infrastructure systems.
 - b. Identify economic opportunities that strengthen and diversify the County's economy while maintaining the integrity of our natural environment. (G.3.1.)
20. Local economic development plans should be consistent with the comprehensive land use and capital facilities plans and should:
 - a. Evaluate existing and potential industrial and commercial land sites to determine short and long- term potential for accommodating new and existing businesses;
 - b. Identify and target prime sites, determine costs and benefits of specific land development options and develop specific capital improvement strategies for the desired option;
 - c. Implement zoning and land use policies based upon infrastructure and financial capacities of each jurisdiction;
 - d. Identify changes in UGAs as necessary to accommodate the infrastructure needs of business and industry;
 - e. Support housing strategies and choices required for economic development. (G.3.2.)
21. Each local government will prepare a capital facilities plan consisting of:

- a. An inventory of existing capital facilities owned by public entities, showing the locations and capacities of the capital facilities;
 - b. A forecast of the future needs for such capital facilities;
 - c. The proposed locations, capacities and costs of expanded or new capital facilities;
 - d. At least a six-year plan that will finance such capital facilities within projected funding capacities and clearly identifies sources of public money for such purposes; and
 - e. A requirement to reassess the Land Use Element if probable funding falls short of meeting existing needs and to ensure that the Land Use Element, the capital facilities plan element and financing plan within the capital facilities plan element are coordinated and consistent. (H.3.1.)
22. As part of the planning process, the County and the cities should coordinate with capital facilities providers and other interested parties to ensure that consideration is given to all capital service requirements and the means of financing capital improvements. (H.3.2.)
23. The County and the cities should consider an impact fee process, as provided for in RCW 82.02.050-090, to insure that new development pays its fair share of the cost of improvements necessitated by growth and contributes to the overall financing of capital improvements. (H.3.3.)
24. To minimize the potential economic impacts of annexation activities on the County and cities, consideration will be given to negotiating agreements for appropriate allocation of financial burdens resulting from the transition of land from County to city jurisdiction. (H.3.4.)
25. Special districts, adjacent counties, State agencies, the tribal government and federal agencies will be invited to participate in comprehensive planning and development activities that may affect them, including the establishment and revision of UGAs; allocation of forecasted population; regional transportation, capital facility, housing and utility plans; and policies that may affect natural resources. (I.3.)

Relationship to Other Elements

Urban Growth Areas

Urban Growth Areas are those areas designated under the Growth Management Act (GMA) 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.

II. CAPITAL FACILITIES CHARACTERISTICS

The term ‘capital facilities’ is not specifically defined under the GMA, but the term has been defined by the Washington State Department of Commerce as part of “procedural criteria” developed under the GMA. As defined in WAC 365-195-210, capital facilities are defined as, “a physical structure owned or operated by a government entity which provides or supports a public service.” The section which follows lists a variety of public services, most of which have associated capital facilities within the Wapato area.

Types and Providers of Capital Facilities

Service providers for the City of Wapato and the unincorporated portion of its UGA are listed in Table 5.1. In some cases, the capital facilities supporting the services listed are located outside of the UGA.

Table 5.1. Service Providers, City of Wapato and Unincorporated UGA

Type of Service	City of Wapato	Unincorporated UGA
General Government		
General Purpose Government	City of Wapato	Yakima County
Education		
Schools	Wapato School District (No. 207)	Wapato School District (No. 207)
Protective Services		
Emergency/Rescue	City of Wapato/Medical/Care	Fire District #5/Medical/Care
Fire Protection	City of Wapato	Fire District #5
Law Enforcement	City of Wapato; Yakima County Sheriff; Washington State Patrol/Yakama Indian Nation	Yakima County Sheriff; Washington State Patrol/ Yakama Indian Nation
Public Health		
Public Health	Yakima Health District	Yakima Health District
Public Transportation		
Transit	People for People	People for People
Recreation		
Libraries	City of Wapato/ Regional Library	City of Wapato/ Regional Library
Parks	City of Wapato	None
Recreational Facilities	City of Wapato; private sector	Yakima County; private sector
Solid Waste		
Residential & Commercial Solid Waste Collection	Basin Disposal Inc. (contract with City)	Yakima Waste Systems (franchise holder)
Solid Waste Disposal	Yakima County	Yakima County
Streets and Roadways		

Type of Service	City of Wapato	Unincorporated UGA
Arterial Streets and Roads	City of Wapato/Yakima County	Yakima County
Local Streets	City of Wapato	Yakima County
Sidewalks	City of Wapato	Yakima County
Street Lighting	City of Wapato	Yakima County
Traffic Control	City of Wapato	WSDOT, Yakima County
Stormwater		
Stormwater Control	City of Wapato	Yakima County
Water		
Irrigation Water	City of Wapato, Sunnyside Valley Irrigation District	City of Wapato, Sunnyside Valley Irrigation District
Potable Water	City of Wapato	City of Wapato or individual wells
Wastewater		
Sewage Collection	City of Wapato	City of Wapato or on-site disposal
Sewage Treatment and Wastewater Disposal	City of Wapato	City of Wapato or on-site disposal
Biosolids Disposal	City of Wapato (on premises)	City of Wapato (on premises); private septage hauling to Yakima Wastewater Treatment Plant or Cheyne Road Landfill

III. STREETS AND ROADWAYS

Characteristics of the street system and other transportation facilities and services are discussed in the Transportation Element.

The City of Wapato owns and maintains approximately 15.7 miles of roadway within the City limits. The most heavily traveled roads and those that are most important to the regional road system are functionally classified as major collectors (Donald Wapato Road, First Street, South Camas Avenue, North Track Road from north City limits to Donald Wapato Road). Key roads, but of lesser importance than the major collectors, are those roads classified as minor collectors (North Track Road between Donald Wapato Road and east City limits, South Wapato Avenue, South Ahtanum Avenue, and Hoffer Road). The rest of the streets in Wapato are functionally classified as local access. A minor arterial, US 97, runs through the south end of Wapato and along the west border; however, this road is not owned or maintained by the City of Wapato.

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 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.

The City's storm drainage system is included in the roadway 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 reviewed and adopted by the City on an annual basis. The most recent program was adopted on July 20, 2009, for the years 2010-2015. In the past, Wapato 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 rural area, there are three State-funded grant programs that the City can pursue through TIB: the Small City Arterial Program (SCP), which provides funding for projects that improve safety and roadway conditions; the Small City Preservation Program (SCPP), which provides funding for rehabilitation and maintenance of the small city roadway system; and the Small City Sidewalk Program (SCSP), which provides funding for sidewalk projects that improve safety and connectivity. 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 includes the continued use of a combination of tax monies (local funds), the State TIB programs, federal SAFETEA-LU funds, 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. The Yakima Valley Regional Transportation Planning Organization (RTPO) must now distribute funds based on a prioritized competitive basis effective with development of the 2009 TIP. 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 5.2. City of Wapato 2010 to 2015 Transportation Improvement Program

Priority	Project Name	Street	Start Location	End Location	Functional Class	Length (miles)	Anticipated Construction Start Date	Improvements Needed	Estimated Cost	Funding Source	Funding Status
1	Track Road Improvement Phase 1	Track Road	Donald Road	West A Street	Major Collector	0.65	6/1/2010	Install curb, gutter, sidewalk, lighting, and paving	\$815,000	State: SCP ¹	Secured
2	Track Road Improvement Phase 2	Track Road	Donald Road	East Wapato Road	Minor Collector	0.22	2/1/2010	Install curb, gutter, sidewalks, lighting, drainage and paving	\$775,000	Federal: STP(C) ² State: WSDOT	Planned
3	Intersection Signal	Donald Road	Donald Road	Track Road	Minor Collector	0.05	1/1/2010	Rebuild curb, gutter, sidewalk, and install new signal	\$60,000	State: SCP	Secured
4	Asphalt Overlay on Local Streets	Satus & others	2 nd , 3 rd , 4 th , and 5 th Streets	9 th Street	Local Access	1.5	3/1/2011	Overlay local access streets as prioritized by surface rating system	\$10,000	State: WSDOT	Planned
5	Central Street Improvements	Central Street	East A Street	East Wapato Road	Local Access	0.25	6/1/2012	Curb, gutter, sidewalk, drainage, lighting, and paving	\$565,000	Federal: CDBG ³ State: Other	Planned
6	Lincoln Street Improvements	Lincoln Street	East A Street	East Wapato Road	Local Access	0.25	6/1/2013	Curb, gutter, sidewalk, drainage, lighting, paving	\$510,000	Federal: CDBG State: Other	Planned

Priority	Project Name	Street	Start Location	End Location	Functional Class	Length (miles)	Anticipated Construction Start Date	Improvements Needed	Estimated Cost	Funding Source	Funding Status
7	Harding Street Improvements	Harding Street	Donald Road	Track Road	Local Access	0.20	6/1/2012	Curb, gutter, sidewalk, drainage, lighting, paving	\$425,000	Federal: CDBG State: Other	Planned
8	East A Street	East A Street	Donald Road	Lincoln Street	Local Access	0.25	6/1/2014	Curb, gutter, sidewalk, lighting, drainage, construction roadway	\$630,000	Federal: CDBG State: Other	Planned
9	Ahtanum Avenue Improvements Phase 1	Ahtanum Avenue	1 st Street	4 th Street	Minor Collector	0.17	5/5/2013	Install curb, gutter, sidewalk, and paving	\$325,000	Federal: STP(C) State: Other	Planned
10	ADA Improvements	Various Intersections	NA	NA	Local Access	0.05	3/5/2010	Replace or install ramps for handicapped at intersections	\$25,000	State: Other	Planned
11	Ahtanum Avenue Improvement Phase 2	Ahtanum Avenue	4 th Street	9 th Street	Minor Collector	0.32	5/1/2014	Reconstruct curb, gutter, sidewalk, paving	\$303,000	Federal: STP(C) State: Other	Planned
12	Trader Street Improvements	Trader Street	West 1 st Street	East 3 rd Street	Major Collector	0.20	5/1/2011	Reconstruction curb, gutter, sidewalk, illum	\$225,000	Federal: STP(C) State: SCPP ⁴	Planned
13	Resurface South Camas Avenue	Camas Avenue	7 th Street	9 th Street	Local Access	0.25	5/1/2010	Resurface street	\$160,000	Federal: ARRA ⁵	Secured

Priority	Project Name	Street	Start Location	End Location	Functional Class	Length (miles)	Anticipated Construction Start Date	Improvements Needed	Estimated Cost	Funding Source	Funding Status
14	Traffic Congestion Study	Donald Road	Track Road	Harding Street	Major Collector	0.1	1/1/2010	Traffic congestion study	\$25,000	State: Other	Planned
15	Intersection Improvement	West 1 st Street	West 1 st Street	Ahtanum Avenue	Major Collector	0.05	3/15/2013	Install new traffic control signal	\$250,000	Federal: STP(S) ⁶ State: SCP	Planned
16	Pedestrian Improvements	9 th Street	South Camas	South Wasco Avenue	Local Access	0.50	6/15/2012	Install curb gutter, sidewalk, ADA ramps for schoolchildren	\$265,000	State: SCP	Planned
17	Resurfacing Yakima Avenue	Yakima Avenue	South 1 st Street	South 3 rd Street	Local Access	0.25	5/15/2013	Resurface and rebuild the roadway as needed; curb gutter and sidewalk	\$480,000	State: SCP	Planned
18	Intersection School Signal	Camas Avenue	Dove Lane	Dove Lane	Major Collector	0.05	8/1/2013	Install a school signal at this intersection	\$200,000	State: Other	Planned

1. SCP = Washington State Transportation Improvement Board Small City Arterial Program 2. STP(C) = SAFETEA-LU Surface Transportation Program Statewide Competitive Program
3. CDBG = U.S. Department of Housing and Urban Development Community Development Block Grant 4. SCPP = Washington State Transportation Improvement Board Small City Preservation Program 5. ARRA = American Recovery and Reinvestment Act of 2009 6. STP(S) = SAFETEA-LU Surface Transportation Program Safety Including Hazard and RR

IV. WATER SERVICE CHARACTERISTICS

Much of the information for this and other sections has been developed or verified by Huibregtse, Louman Associates, Inc., consulting engineers, as part of their development of a Comprehensive Water Plan (2005) for the City. This plan is hereby incorporated by reference.

Historical records of the City of Wapato's early water system have not been maintained. However, major early improvements are listed in Table 5.3.

Table 5.3. Early improvements to Wapato's water system

Year	Improvement
1947	Well #3 developed
1947	Water distribution system
1947	500,000 gallon elevated storage tank
1963	Well #4 developed
1965	Investigation and report on well #3
1989	Well #5 developed
1990	900,000 gallon standpipe constructed

Source: City of Wapato Comprehensive Water Plan, 1992

Currently, there are five wells serving Wapato. The water system consists of one distribution pressure level, served by two reservoirs – a storage tank, and a standpipe. The system is looped where possible, and no interties exist with neighboring water purveyors.

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

Class 1: A water system having 100 or more permanent services or serving a transitory population of one thousand or more people on any one day.

Class 2: A water system having ten through ninety-nine permanent services or serving a transitory population of three hundred through nine hundred ninety-nine people on any one day.

Class 3: A water system serving a transitory population of 25 through two hundred and ninety-nine on any one day.

Class 4: A water system having two through nine permanent services or serving a transitory population of less than twenty-five people on any one day or any public water system that is not a Class 1, 2, or 3 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 Wapato's municipal water supply system is a Class 1 system owned and operated by the City. In 2003, the City had 1,261 total service connections. Of these connections, 1,801 were residential, and 33

were residential services outside City limits; 101 were commercial, eight were industrial, 13 were municipal, 13 were school services, 18 were church services, and four were lawn-only services.

Water Supply

Five wells are available to provide water for the City of Wapato. Wells No. 3, 4, and 5 are City-owned, while Wells No. 1 and 2 are Yakama Indian Nation source wells.

- *Well No. 1* is 765 feet deep and is located in the unincorporated UGA north of City limits, in the Yakama Nation Industrial Park. The well's maximum capacity is 1,100 gpm.
- *Well No. 2* is 765 feet deep and located approximately 1,000 feet west of Well No. 1, also in the Yakama Nation Industrial Park. The well's maximum capacity is 1,000 gpm.
- *Well No. 3* was drilled in 1947. It is 765 feet deep and draws water from the Columbia River Basalt Group, Overburden Unit. It is located just south of the railroad tracks on Sitcum Avenue west of Wasco Avenue, on City property. The well's maximum capacity is 625 gallons per minute (gpm); however, the City is throttling the flow to 450 gpm to minimize sand production.
- *Well No. 4* was drilled in 1963. It is 725 feet deep and draws water from the Columbia River Basalt Group, Overburden Unit. The well is located just southwest of Well No. 1, on the same parcel. The well's maximum capacity is 675 gpm.
- *Well No. 5* was drilled in 1989. It is 1,004 feet deep and draws water from the Columbia River Basalt Group, Overburden Unit. It is located just east of Camas Avenue at 9th Street. While the well's maximum capacity is 750 gm, it is currently in limited production due to the water's high manganese level. This well is currently used as an emergency backup water source.

Current certified water rights allow withdrawal of 712 acre feet (as reported by the Department of Ecology), or approximately 73 million gallons (mg) annually. During 2003, total volume withdrawn was 462.95 mg; average daily demand was 1.268 million gallons per day (mgd).

Delivery

Water pressures of 45-90 psi are recommended for best service delivery. All of Wapato's water system delivers water via a single distribution pressure level. Static service pressures within the water system range from 46-64 pounds per square inch (psi).

Storage

Wapato maintains an elevated steel storage tank reservoir and a steel standpipe reservoir with a total capacity of 1.47 million gallons (mg). The operational capacity of the reservoirs is 993,700 gallons when above the 30 psi static pressure level, and 1,150,600 gallons when above the 20 psi static pressure level.

The elevated reservoir was built in 1947, and renovated in 1997. It is located just south of the railroad tracks on Sitcum Avenue, west of Wasco Avenue, on the same parcel as Well No. 3 and Well No. 4. The capacity of the elevated reservoir is 500,000 gallons, and it is connected to the water system via a 16-inch transmission main. The standpipe reservoir was built in 1990 east of Camas Avenue at 9th Street, on the same parcel as Well No. 5, and has a capacity of 970,000 gallons. Well No. 5 pumps directly into the standpipe reservoir, which connects to the water system by a 12-inch transmission main.

Fire Flow

Under the Uniform Fire Code, residential areas of the City need a minimum fire flow of 1,000 gallons per minute (gpm). Commercial and multifamily areas need a minimum fire flow of 1,500 gpm for 120 minutes. Wapato's water system design standards call for enough storage to provide 6,500 gallons per minute (gpm) for two hours, which totals 780,000 gallons. The greatest fire flow requirements in Wapato are within the areas zoned industrial and commercial, in addition to some isolated large demand at the public school.

Current Domestic Water Demand

During 2003, total volume withdrawn was 462.95 million gallons (mg); average daily demand was 1.268 million gallons per day (mgd). Table 5.4 below summarizes water use for Wapato in 2003.

Table 5.4. City of Wapato 2003 Water Usage

MEASURE OF USE	WATER USE
Number of Services	1,271 connections
Total Annual Demand (mg/year)	462.95
Average Daily Demand (mg/day)	1.268
Maximum Day Demand (mg/day)	2.767
Peak Hour Demand (gpm)	3,844

Source: Adapted from Huibregtse, Louman Associates, Inc., City of Wapato Comprehensive Water Plan (2005).

Projected Domestic Water Demand

Wapato's water system has an existing source capacity of 5.22 mgd. Currently, the City has 712 acre feet (1,859 gpm) of State-certified water rights for Wells No. 4 and 5. The City applied to the Department of Ecology ("Ecology") for additional water rights for Wells No. 4 and 5 in 1988 and 1989; to date, no action has been taken on these applications. The City has relied on "water use" authorization from the Yakama Indian Nation for Wells No. 4 and 5, and on a historical agreement to use Yakama Indian Nation Wells No. 1 and 2. The City's permitted and applied-for water rights are adequate to satisfy the projected demand.

Table 5.5 shows the projected water system and storage needs for the City of Wapato through the year 2024.

Table 5.5. City of Wapato Projected Water System Demand

	Demand, 2003	Demand, 2010	Demand, 2014	Demand, 2024
ERUs ²	2,911	3,118	3,228	3,544
Projected Hour Demand (gpm)	3,844	4,389	4,553	4,983
Average Daily Demand (mgd)	1.268	1.500	1.549	1.706
Maximum Daily Demand (mgd)	2.767	3.184	3.303	3.617
Standby Storage ³ (mg)	0.582	0.624	0.646	0.709
Equalizing Storage ⁴ (mg)	0.025	0.107	0.106	0.170
Operational Storage ⁵ (mg)	0.076	0.080	0.080	0.080
Fire Protection Storage ⁶ (mg)	0.198	0.156	0.134	0.071
Total Storage (mg)	0.881	0.967	0.966	1.030
Total Existing Storage Capacity (mg)	1.46	1.46	1.46	1.46

Source: Adapted from Huibregtse, Louman Associates, Inc., City of Wapato Comprehensive Water Plan (2005).

Water System Needs

Water Source Covenants – The Washington State Department of Health requires that public water suppliers protect public drinking waters sources through the use of covenants. When the water supplier owns the property, the type of covenant required is a declaration of covenant. The declaration of covenant prohibits any activity that could contaminate a well within a 100-foot radius. The City owns Wells No. 3, 4, and 5, but has a declaration of covenant is recorded only at Well No. 5. Covenants are also required at Wells No. 3 and 4. The City plans to prepare and execute the covenants at Wells No. 3 and 4 in 2012.

Water Supply – Based on an analysis completed by Huibregtse, Louman Associates, Inc., the City of Wapato needs an additional well to increase system reliability, increase fireflow, and replace the water supply from Well No. 5, which has consistently exceeded the maximum contaminant level for manganese. The new well is planned for approximately 2015. The analysis recommends several actions in the meantime for addressing the high manganese levels in Well No. 5, including using Well No. 5 solely for park irrigation, and closing off lower depths of the well to reduce the manganese supply. The City

² Equivalent Residential Units – the amount of water consumed by a typical full-time single-family residence.

³ Standby storage: water reserves needed to provide a measure of reliability should sources fail or unusual conditions impose higher demands than anticipated.

⁴ Equalizing storage: water reserves needed to meet the portion of the system’s maximum instantaneous demand (peak hour) that exceeds the existing water supply source capacity.

⁵ Operational storage: volume of distribution storage associated with source or booster pump normal cycling times under normal operating conditions.

⁶ Fire protection storage: water reserves needed to maintain the system’s highest fire flow requirement with no assistance from existing water supply sources.

plans to connect Well No. 5 to the park irrigation system in approximately 2012. In the meantime, Well No. 5 is used as an emergency backup only.

Water Rights – The City applied for additional water rights for Wells No. 4 and 5 in 1988 and 1989; to date, no action has been taken on these applications. The City’s permitted and applied-for water rights are adequate to satisfy the projected demand; however, the City will need approval of its existing water rights applications.

Ecology has indicated that there currently is a hold on approvals of new groundwater rights in the Yakima River Basin until a United States Geological Survey water quality study that began in 1999 is completed later in 2009. The study is a joint effort among Ecology, the U.S. Bureau of Reclamation, and the Yakama Nation to better understand interactions between ground and surface water sources, protect senior water rights when making water right decisions, support efforts to improve instream flows, and to determine the degree to which groundwater pumping affects stream flows. Once that study is completed, Ecology will have the information it needs to make groundwater management decisions. Until the study is complete, Ecology cannot predict the timeline for approving pending applications.

An alternative to depending upon approval of existing water rights applications is to identify water rights sellers in the area and purchase water rights from them. These water rights should be senior to May 1905. Ecology’s Washington Water Exchange website as well as the Yakima County Water Conservancy Board assist in matching those interested with purchasing water rights with eligible potential sellers.

A Comprehensive Water Plan update is planned for 2012. As part of that plan, water rights needs will be re-assessed and strategies identified to ensure future water rights needs are met.

Storage – The analysis completed by Huibregtse, Louman Associates, Inc. identified a need for an additional reservoir by 2014. However, constructing a duplex 3,000 gpm fire pump station will postpone the need for an additional reservoir by boosting water from the standpipe reservoir into the water system. This improvement also will improve the situation of “dead” storage water quality that occurs in standpipe reservoirs.

Fire Protection – Some locations within the City have insufficient fire flow capacities, including the public schools and fruit warehouse industrial areas. These areas have significant fire protection demands, but are deficient due to undersized and/or single, dead-end water mains.

The following system improvements are needed to increase flow capacities:

- 12-inch transmission main loop to the elementary and high school area to increase fire flows from approximately 2,800 gpm to approximately 3,900 gpm
- New Well No. 6 and 16-inch transmission main in Hoffer road (near Valley Fruit Warehouse) to increase fire flows from approximately 1,000 gpm to 2,250 gpm
- New 12-inch transmission main loop along SR 97 at City fire station to increase fire flow capacities from approximately 2,000 gpm to 5,000 gpm
- 3,000 gpm duplex fire pump station to boost water from standpipe reservoir into City water system based on the water level in the existing elevated reservoir.

Comprehensive Water Plan Update

The City plans to update the Comprehensive Water Plan in 2012. This plan will inventory the existing water system, determine the capacity and needs of the system and its components, identify and prioritize what is needed for the City to continue to provide for the water needs of the forecasted population, and

provide a schedule of water system improvements. As a result of this plan’s findings, some water system priorities could change.

Table 5.6 ranks currently planned water projects by importance. Table 5.7 presents a summary of water system deficiencies and yet-to-be-completed improvements identified by the City’s 2005 Comprehensive Water Plan.

Table 5.6. Water System Projects Priority Rankings

PRIORITY	PROJECT NAME	DATE
1	Wells No. 3 and 4 – Declarations of covenant	2012
2	Well No. 5 – Connection to park irrigation system	2012
3	Elementary and high schools 12” transmission main	2012
4	New Well No. 6 and 16” transmission main	2015-2016
5	Comprehensive Water Plan update	2012
6	East 3 rd Street and North Track Road 12” transmission main	2011-2024
7	West 1 st Street and Fire Station 12” transmission main	2011-2024
8	Stand pipe reservoir – fire pump station	2011-2024

Table 5.7. Summary of System Deficiencies and Proposed Improvements

System Deficiency	Proposed Improvement
<i>Water Supply</i>	
City of Wapato needs an additional well to increase system reliability, increase fireflow, and replace the water supply from Well No. 5.	A new well is planned for 2015.
<i>Water Rights</i>	
The City’s permitted and applied-for water rights are adequate to satisfy the projected demand; however, the City will need approval of its existing water rights applications.	The City will work to obtain approval for the applied-for water rights; if necessary and possible, the City will purchase water rights from an eligible seller.
<i>Water Quality</i>	
Well No. 5 which has consistently exceeded the maximum contaminant level for manganese.	The City plans to connect Well No. 5 to the park irrigation system in 2012. In the meantime, Well No. 5 will be reserved for emergency backup use only.
<i>Source Protection</i>	
Covenants are needed at Wells No. 3 and 4.	The City plans to prepare and execute declarations of covenant at Wells No. 3 and 4 in 2012.

System Deficiency	Proposed Improvement
<i>Storage</i>	
An additional reservoir is needed by 2014. Constructing a duplex 3,000 gpm fire pump station will postpone this need.	The City will construct a duplex 3,000 gpm fire pump station after 2011.
<i>Telemetry</i>	
The City's telemetry system is adequate for its needs.	No improvements to the City's telemetry system are planned.
<i>Treatment</i>	
The City's water supply is currently treated with chlorine disinfection.	No improvements to the City's treatment strategy are planned.
<i>Fire Protection</i>	
Some locations have insufficient fire flow capacities, including the public schools and fruit warehouse industrial areas. These have significant fire protection demands, but are deficient due to undersized and/or single, dead-end water mains. Several transmission main loops needed.	New transmission mains planned for 2012, 2015, and between 2011 and 2024. New duplex 3,000 gpm fire pump station after 2011.

Source: Adapted from Huibregtse, Louman Associates, Inc., City of Wapato Comprehensive Water Plan (2005).

V. STORMWATER MANAGEMENT

With few exceptions, the streets southwest of the railroad tracks have curb and gutter, while those northeast of the tracks are blacktop without curb and gutter. Streets on the southwest side that lack curb and gutter include Naches Avenue from West First Street to Fifth Street, and parts of S. Camas Avenue. Streets on the northeast side that do have curb and gutter include Paschke Avenue, Donald Road, and one block on N. Camas, between Donald Road and "A" Street.

The City has no plans for improving the storm water system at this time. Stormwater has usually been given a lower priority than streets, sanitary sewer, and water supply. The City would like to eliminate discharges to groundwater.

Cities in eastern Washington with a population of more than 10,000 are required to obtain a Phase II Municipal Stormwater Permit from Ecology. Wapato's projected 2025 high population is 6,716. As Wapato gets closer to the 10,000 population threshold, the City will need to plan for obtaining a Phase II Municipal Stormwater Permit. To obtain this permit, Wapato will need to plan for minimum technical requirements for stormwater management at new development and redevelopment sites.

VI. WASTEWATER COLLECTION, TREATMENT & DISPOSAL

Sewage Collection, Treatment, and Disposal

Collection and Conveyance

The collection system serves all of Wapato and the Yakama Indian Nation industrial area to the north. The original gravity flow system has been supplemented with three municipal lift stations. The gravity flow system serves most of the older areas of the City south of First Street, except for the area west of Naches Avenue and north of Fourth Street, which is served by Lift Station #2, which also serves the area southwest of the railroad tracks and north of First Street. Lift Station #1 serves the area northeast of the railroad tracks plus the Yakama Nation industrial park. Lift Station #3 serves the Larena Lane housing project, which is outside of the City. Lift Station # 4 serves the middle school, Adams elementary and some residential use in unsewered residential areas have developed in the vicinity of Wapato.

Wastewater Disposal Facilities

The wastewater treatment plant is located southwest of US 97 on a 4.06-acre site. Its last major upgrade occurred in 1998. As of 2005, according to the Environmental Protection Agency (EPA), the plant's flow capacity was 1.16 million gallons per day (mgd), while the actual average daily flow rate was 0.524 mgd. Discharge is to the Yakima River via a drainage ditch. Raw sewage is transported to Cheyne Road Landfill for disposal. The EPA is the permitting authority for the Wapato wastewater treatment plant. The EPA issued the current National Pollution Discharge Elimination System (NPDES) permit for wastewater effluent discharge in 2005. The permit will expire and need to be reauthorized on March 31, 2010.

In 2003, upgrades to the plant's chlorine system were completed to meet EPA effluent limits for chlorine. The new system is a chlorination/dechlorination system.

Wastewater System Needs

Wastewater Facilities Plan Update

The City needs an updated and comprehensive wastewater facilities plan. This plan will inventory the existing wastewater system, including conveyance and treatment of wastewater and sewage; determine the capacity and needs of the system and its components, identify and prioritize what is needed for the City to continue to provide for the wastewater needs of the forecasted population, and identify potential funding sources. This plan will also aid in determining the most suitable areas of the City to serve in the future. Further, the plan will identify improvements needed to maintain compliance with the City's NPDES permit.

NPDES Permit

The City's NPDES permit will need to be authorized by March 31, 2010. Needed improvements and plans to maintain compliance with the permit should be identified and completed prior to that date.

Treatment Plant Improvements

The treatment plant's last major upgrade was in 1998. The wastewater facilities plan will identify major improvements needed to the wastewater treatment plant.

Wastewater Facilities Equipment

A camera truck is needed to film sewer mains. Filming sewer mains allow internal inspection of sewers, to assess defects and identify needed repairs.

Table 5.8 summarizes Wapato's wastewater system needs.

Table 5.8. Wastewater System Projects Priority Rankings

PRIORITY	PROJECT NAME	YEAR
1	Wastewater Facilities Plan	2010
2	Wastewater Treatment Plant Improvements	2013

VII. SOLID WASTE COLLECTION & DISPOSAL

Solid Waste Disposal

In January 1994, solid waste collection service was taken over from the City by a private hauler, Basin Disposal Inc. Solid waste is transported to the Cheyne Road Landfill, a County facility located 4.5 miles north of the City of Zillah. The Cheyne Road Landfill opened in 1968 and has been operated by Yakima County since 1972. The Landfill currently serves the cities of Grandview, Toppenish, Wapato and Zillah, Yakima Waste Systems, septage haulers, agricultural firms, construction and food processing businesses, self haul businesses, and private residences.

The Cheyne Road Landfill currently occupies 40 acres of a 960 acre site, and this site could be expanded to provide additional capacity. Current projections suggest the remaining capacity is approximately 850,000 cubic yards for the currently permitted 40 acres. The landfill is projected to reach capacity after 2012. Prior to that point, the Landfill will be expanded to provide enough capacity to handle the solid waste from the entire County.

Recycling

Recycling is becoming an increasingly important aspect of waste disposal. The Washington State Department of Ecology maintains guidelines for local solid waste management plans which require the definition of urban and rural service zones for residential recycling collection services. Yakima County through the development of the *Yakima County Solid Waste Management Plan* has defined urban and rural service zones using the U.S. Census Urbanized Area boundary. Areas defined as urban must put in place household collection programs ("curbside recycling") or must put in place alternative programs which exceed the waste diversion anticipated from a curbside recycling program. Areas defined as rural are required to have at least one recycling drop-off site for every 5,000 to 10,000 population, including drop-off sites at all disposal facilities. Recycling collection efforts must target certain types of plastics (#1 and #2), and glass; aluminum, non-ferrous metals, and tinned cans; cardboard, newspaper, and magazines; motor oil and vehicle batteries; and yard debris.

The City of Wapato and its UGA are several miles outside of the U.S. Census Urbanized Area (i.e. the Yakima, Selah, Union Gap urban area) and are therefore classified as rural for the purpose of recycling collection. For drop-off locations in the City of Wapato, the County would provide recycling bins for

plastic milk jugs, clear plastic two-liter bottles, clear glass, aluminum, tin, cardboard, newspaper, and magazines.

Currently, Mid Valley Recycling maintains a drop-off recycling facility in Wapato at 302 West 2nd Street. The recycling center accepts paper, tin cans, aluminum cans, cardboard, and scrap metal.

VIII. PUBLIC EDUCATION FACILITIES

Wapato School District No. 207 (Administration office located at 212 West 3rd St.), operates six schools serving the City of Wapato: Satus Elementary School at 910 South Camas, Adams Elementary at 1309 South Camas; Camas Elementary School at 1010 South Camas Avenue, Wapato Middle School at 1309 South Kateri Lane; Wapato High School, at 1103 South Wasco Avenue; and the PACE Alternative School, at 310 South Wasco. This means that students in all parts of the City must travel, at some time, to each of these schools.

Enrollment in the Wapato School District has been slowly decreasing. Between 1999 and 2009, enrollment in the Wapato School District has decreased by 2.8%, from 3,438 in October 1999 to 3,341 in May 2009. During the past five years, enrollment has decreased by 4.3%, from 3,490 in October 2004, to 3,341 in May 2009.

Table 5.9 summarizes characteristics of Wapato’s schools.

Table 5.9. Wapato School District Facilities, 2008-2009.

Name of School	Address	Grades	Teachers	Enrollment
Adams Elementary	1309 S. Camas Ave.	K-5	21	389
Camas Elementary School	1010 S. Camas Ave.	K-5	37	581
Pace Alternative High School	310 S. Wasco Avenue	6-12	10	121
Satus Elementary	910 S. Camas Avenue	PK-5	37	711
Wapato High School	1103 S. Wasco Avenue	9-12	46	794
Wapato Middle School	1309 S. Kateri Lane	6-8	46	745

Source: Office of the Superintendent of Public Instruction. Washington State Report Card: Wapato School District, Year 2008-2009

IX. PARKS & RECREATIONAL FACILITIES

Local parks and recreation facilities are provided by the City of Wapato, the School District, and various private concerns.

The City's Parks and Recreation Department and the Wapato School District have cooperated to allow the district to use City facilities for home games and practice for the High School and Middle School Slo-Pitch girls and for Middle School physical education classes. In exchange, the City uses district equipment to maintain the fields during league and tournament play. The City of Wapato does not schedule games or other programmed recreational activities on school facilities.

The Northwest Learning and Achievement Group, a community youth center, is located at 209 S. Wapato Avenue. The facility provides programs and supervised activities for at-risk youth. The owner of the building makes the space available rent-free. The City of Wapato Community Center, located at 1005 South Camas, houses the City Parks and Recreation Department, an Olympic-sized swimming pool and other recreational facilities. The school district uses the City pool for summer school swim lessons. The pool is in need of remodeling for ADA compliance, and needs a filtration system and boiler replacement. The pool and Community Center have not been in use for a couple of years due to a lack of funding. The Community Center is currently leased for events and other purposes.

Park land in Wapato totals 60.7 acres, consisting of Lions Community Park, City Hall Park, McCreedy Park, and Wapato Softball Park, as well as other parks and recreation lands associated with schools. Attributes and locations of the City parks are summarized in Table 5.10.

Table 5.10. Wapato Public Parks and Recreation Facilities

	Lions Community Park	City Hall Park	McCreedy Park	Wapato Softball Park
Total Site Acreage	20 ac	1/2 ac	3 ac	30 ac
Baseball/Softball Fields			sandlot only	2 backstops/ dugouts
Football/soccer fields				
Swimming Pools	Olympic 50-meter; pool building			
Volleyball Court	1 sand court			
Playground Equipment	slide, horse	slide	bars and tunnel	Jungle gym, tire swing, 2 regular swings
Fitness/Jogging Course				1/2 mile, paved
Picnic Facilities	30 tables, 2 sinks	1 table		
Restrooms	2* (park & pool)		2*	1*
Other	stage & bleachers			
Parking	curb parking	curb parking	curb parking	gravel lot

Existing Needs

The City’s 53-plus acres of public parks are sufficient in quantity for the entire planning period. A survey of City residents conducted for the 1993 Wapato Comprehensive Parks and Recreation Plan indicated a preference for more facilities at Lions Community Park, rather than limited facilities in neighborhood parks. Current and anticipated future needs are for a 17-acre expansion to Lions Community Park that would include additional recreational facilities such as basketball courts, baseball fields and soccer fields. Additional small neighborhood parks are also planned for later in the planning period.

Table 5.11 prioritizes planned improvements to the parks and recreation system, including the Lions Community Park addition, major improvements to the existing pool, and two new, smaller parks. Funding sources for parks improvement projects will come from the City General Fund, community donations in the form of monies, materials, and in-kind services; and State, federal or other matching grant funds.

Table 5.11. City of Wapato Parks and Recreation Facilities Priority Rankings

PRIORITY	PROJECT DESCRIPTION	DATE
1	Additional 17 acre park: land leveling	2010
2	Additional 17 acre park: irrigation system	2012
3	Additional 17 acre park: soccer fields	2010
4	Additional 17 acre park: baseball fields	2012
5	Pool: Full ADA remodel	2013
6	Additional 17 acre park: restrooms	2013
7	Additional 17 acre park: basketball courts	2014
8	Pool: replace filtration system	2015
9	Pool: boiler replacement	2016
10	Additional 17 acre park: concession buildings	2020
11	New park at Donald Road and North Camas Avenue	2015
12	Pool: water slide	2020
13	New park at Track Road and West Wapato Road	2016

X. POLICE & FIRE PROTECTION

Police and Corrections

The Wapato Police Station also houses a 44-bed jail and courtroom. The Police Station is located across East 3rd Street from the City Hall, at 205 Simcoe Avenue. The building was constructed in 1908, and an addition to the jail was built in 1963 to increase capacity. According to the Yakima County Assessor, the building is in average condition for its age. At that time, the City Hall functions were moved across the street, and the vacated space was made into a courtroom. The central location provides good access to all areas of the City.

Most criminal offenders are misdemeanor offenders, and trustees perform work on the premises. Major offenders are transported to the Yakima County Jail as soon as possible. Juveniles are transported directly to the Yakima County jail. The jail is a revenue source, since the City of Wapato has a contract with the City of Yakima to house 20 of their offenders. The City also has contracts with several other providers to house offenders.

Police vehicles include nine Ford Crown Victorias, years ranging from 1997 to 2007; two 2006 Chargers, three 2006 Chevrolet Equinox SUVs, one 2006 Ford Econoline, which is also used for the jail; and one 2006 Suzuki SUV.

Police and Corrections Needs

The building housing the jail has deficiencies which limit functional efficiency, and it is not feasible to solve these problems by rehabilitating the existing structure. A new Law and Justice Center, which will house the Police Department, court, and jail, is planned for 2025. This center will provide updated and expanded facilities.

Fire

The Building Department and the Fire Department share facilities at 205 South Frontage Road. The City purchased these facilities from a church in 1989, and has occupied them since April 1990. The site provides good access for the fire department, and ample parking for current activities. However, the building lacks the much-needed space for a proper training room for the firefighters. One other critical need is a proper hazmat decontamination site within the truck bay away from the office area. The truck bay area is at maximum capacity and allows no room for future growth. To improve the City's fire insurance rating, some building modifications would be needed. The building has recently been reroofed. According to the Yakima County Assessor, the Fire Station is in average condition for its age.

City-owned equipment designated for the fire department includes a 1978 fire truck, which will need replacement in the next two to three years; a 1997 fire truck, which will need replacement by approximately 2025; a 2004 command vehicle, which will need replacement by approximately 2014; and a 1998 rescue rig, which will need replacement by approximately 2020.

The Wapato Fire Department is the fourth busiest in the County; only the YCFPD #5, the City of Yakima, and the City of Sunnyside are busier. Average response time within the Wapato City limits is approximately five minutes.

The Washington Survey and Rating Bureau assigns ratings to fire districts ranging from one to 10, with one representing the highest score. Fire protection ratings are a measure of the available water supply system, fire department staff and equipment, fire alarm system, fire protection program, building

department enforcement of building laws, and structural condition of buildings. The City’s ISO rating has dropped from five to six. To get it back to five, the City will need to obtain and equip aerial apparatus, and modify the fire station to accommodate it. It will also need a new pumper. Fire District No. 5 has an ISO rating of 8a within Wapato’s UGA.

The volunteer fire fighters are trained and equipped to provide emergency medical services for victims of trauma or severe medical problems. At present, 17 are EMT qualified, and 7 or 8 have Advanced First Aid training. The City would like to have all firefighters trained at the EMT level. The County provides similar service in the unincorporated area.

Table 5.12 summarizes Wapato police and fire protection needs.

Table 5.12. City of Wapato Police and Fire Protection Priority Rankings

PRIORITY	PROJECT DESCRIPTION	DATE
1	Replace all police vehicles on a one to three year rotation with new beginning in 2011	2011
2	Replace two fire trucks	2013 & 2019
3	Replace fire chief pickup	2015
4	New Law and Justice Center	2025

XI. MEDICAL & EMERGENCY FACILITIES

Ambulance Service

AMR and ALS alternate medical emergency calls within the City and the unincorporated area. AMR ambulances come from Toppenish, and ALS ambulances come from Yakima. This works well, with City volunteer firefighters providing the first aid that the ambulance crews would otherwise do prior to transport.

Medical Facilities

Residents of Wapato have access to Memorial Hospital or Yakima Regional Medical & Cardiac Center, both located in the City of Yakima. Both are approximately 15-20 minutes away for medical and emergency services and provide a variety of other medical specialties. Wapato has no physicians or dentists practicing within the City limits. The closest primary care facilities are in the City of Yakima.

XII. GOVERNMENT FACILITIES

The Wapato City Hall is located at 205 East 3rd Street. The building was constructed in 1963, and is in good condition. The only need at this time is to rebuild the HVAC system.

The Wapato Department of Public Works moved from West 1st Street to French Lane behind Lions Community Park in 1994. Public Works is responsible for water service, wastewater collection and treatment, local streets and roads, and park and cemetery maintenance.

The Building Department and Fire Department share facilities at 205 South Frontage Road. The site provides good access for the fire department, and ample parking for current activities.

Parks and Recreation operates from 1009 South Camas Avenue, in the Lions Community Park next to the Community Center, which is at 1005 South Camas Avenue. The Community Center is owned by the City but is not currently in use.

The City cemetery is located 3.5 miles west of the City at 5161 West Wapato Road.

Table 5.13 summarizes City of Wapato government facilities, while Table 5.14 ranks needed government facilities projects. These include new restrooms and maintenance equipment for the cemetery, increased land, office, and storage space for Public Works; and an addition to the Community Center building. Additional repair/maintenance projects for government facilities for which capital facilities funds can be used may be identified during the annual budget planning period.

Table 5.13. Government Facilities in the City of Wapato

FACILITY	LOCATION
Federal	
U.S. Postal Service	307 South Satus Avenue, 401 West 2 nd Street
State	
Department of Agriculture	715 West 1 st Street
Department of Health	620 West 1 st Street
City	
Wapato Library	119 East Third Street
City Hall	205 East Third Street
Fire Department	205 Frontage Road
Public Works Shop	100 French Lane
Parks and Recreation Department	1001 South Camas Avenue
Community Center	1005 South Camas Avenue
Early Learning Center	607 West 3 rd Street
Swimming Pool	South Camas and French Lane
Cemetery Building	5651 West Wapato Road

Table 5.14. General Government Capital Facility Projects Priority Rankings

PRIORITY	PROJECT DESCRIPTION	DATE
1	Public Works building: additional storage sheds at Service Center	2012
2	Rebuild HVAC for City Hall	2010
3	Cemetery: new restroom facilities	2015
4	Public Works building: additional office space at Service Center	2015
5	Cemetery: replace storage shed and well house roof	2010
6	Cemetery: Install automatic sprinkler controllers	2012
7	Cemetery: new small lawn mower	2011
8	Public Works Building: Purchase five acres land for additional public works use	2015
9	Cemetery: large mower tractor	2017
10	Conversion or expansion of Community Center	2015
11	Cemetery: purchase additional 10 acres to expand	2020

XIII. PUBLIC WORKS EQUIPMENT

Table 5.15 summarizes the City of Wapato equipment currently available for public works. This includes equipment used for maintenance on streets, parks, the cemetery, and the water/sewer system. Some major equipment dates to the 1960s and 1970s and needs replacement, and many of the pickup trucks have outlived their useful lives. Table 5.16 ranks needed equipment by priority.

Table 5.15. Public Works Equipment, City of Wapato

YEAR	DESCRIPTION
1988	Sulail air compressor
1990	Portable engine generator set with welder
1999	Generator Generac 240K model
1999	Northstar Gen/8000PPG
1999	Northstar 10,000 PPG
1989	John Deere Riding mower 420
1999	PTO cement mixer
--	Sod cutter
2001	Brush Hog 1500 mower
1994	850 Dresser Grader
1967	Payloader model 90CM
--	Case loader backhoe
1993	480 roller

YEAR	DESCRIPTION
2004	Model 395 Graco Ultra airless sprayer
2006	Graco Lazer liner and driver
1989	Mobil Athey sweeper
2001	John Deere 5105 tractor with loader
1973	Jacobson tractor/mower
1991	John Deere 970 tractor
--	Trencher
1993	Case 580 3WD Extendhoe
--	Massey 235 tractor
2000	John Deere 1032 snowblower (2)
1970	International 1 ½ ton
1974	Ford dump
1974	International dump
1976	International truck
1980	Ford van with bucket
1997-2007	Chevrolet pickups (4)
1995	Ford E150 pickup
1991, 1998	Dodge 2500 pickups (2)
1997	GMC Sonoma pickup
1991	International truck tractor
1999	Utility trailer Levison
--	Utility trailer
1999	Utility dump trailer
1970	Two ton GMC tilt bed

Table 5.16. Public Works Equipment Priority Rankings

PRIORITY	PROJECT DESCRIPTION	DATE
1	Eight new pickups: replace old on one-year schedule beginning in 2007	2010-2016
2	Replace tractor truck	2012
3	Replace 1980 bucket truck	2010
4	Purchase camera truck	2011
5	Replace street sweeper	2012

PRIORITY	PROJECT DESCRIPTION	DATE
6	Replace two dump trucks	2010 & 2013
7	Replace two large flat bed dump trucks	2011 & 2014
8	Replace backhoe for Water Department	2011
9	Replace front loader for Wastewater Department	2012

XIV. 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 are available from the Public Works Trust Fund, Centennial Clean Water Fund, State Revolving Loan Fund, Department of Health Water, Farmers Home Administration Community Facilities Program, Farmers Home Administration Water and Waste Development Program, Aquatic Land Enhancement Account, Library Services and Construction Act funds, Outdoor Recreation Grant-in-Aid Funding, Land and Water Conservation Fund, Washington State Transportation Improvement Board, Safe Routes to Schools, and SAFETEA-LU Transportation Enhancement Program, among others.

Long-Term Bonded Debt

General obligation bonds are backed by the value of properties within the jurisdiction, the City's "full faith and credit." Revenue bonds are backed by the revenue received from the project that the bonds helped to fund, and are commonly used for utility improvements where the bonds are repaid out of utility charges. Special assessment bonds (Local Improvement Districts, Road Improvement Districts, and Utility Local Improvement Districts) are repaid by assessments against the properties benefited by the improvements.

The Washington State Constitution places limits on the amount of bonded indebtedness that any city may incur. No city may incur debt in excess of 0.75% of the taxable property unless 3/5 of the city's voters approve additional indebtedness. With such a vote, the additional indebtedness may be as much as 2.5% of the value of the taxable property for all types of capital projects. An additional 2.5% may be allotted for projects supplying the city with water, lights, or sewer. Additional debt can also be incurred for acquiring or developing open space or parks.

XV. CAPITAL FACILITIES FINANCE PLAN

Wapato's Six Year Transportation Improvement Program, Comprehensive Water Plan, and staff identified recommended projects, cost estimates, potential funding sources, and timing for project completion. The documents are incorporated by reference.

Table 5.17 summarizes the City of Wapato's capital improvements program, including the costs, timing, and potential funding sources for needed projects in excess of \$5,000, from the above referenced plans and documents. For more specific information, please refer to these documents.

Table 5.17. Capital Facilities Needs and Recommended Projects

Need / Recommended Project	Estimated Timing	Estimated Cost	Potential Funding Source(s)
Transportation			
Track Road Improvement Phase 1	6/1/2010	\$815,000	State: SCP ¹
Track Road Improvement Phase 2	2/1/2010	\$775,000	Federal: STP(C) ² State: WSDOT
Intersection Signal	1/1/2010	\$60,000	State: SCP
Asphalt Overlay on Local Streets	3/1/2011	\$10,000	State: WSDOT
Central Street Improvements	6/1/2012	\$565,000	Federal: CDBG ³ State: Other
Lincoln Street Improvements	6/1/2013	\$510,000	Federal: CDBG State: Other
Harding Street Improvements	6/1/2012	\$425,000	Federal: CDBG State: Other
East A Street	6/1/2014	\$630,000	Federal: CDBG State: Other
Ahtanum Avenue Improvements Phase 1	5/5/2013	\$325,000	Federal: STP(C) State: Other
ADA Improvements	3/5/2010	\$25,000	State: Other
Ahtanum Avenue Improvement Phase 2	5/1/2014	\$303,000	Federal: STP(C) State: Other
Trader Street Improvements	5/1/2011	\$225,000	Federal: STP(C) State: SCPP ⁴
Resurface South Camas Avenue	5/1/2010	\$160,000	Federal: ARRA ⁵
Traffic Congestion Study	1/1/2010	\$25,000	State: Other
Intersection Improvement	3/15/2013	\$250,000	Federal: STP(S) ⁶ State: SCP
Pedestrian Improvements	6/15/2012	\$265,000	State: SCP
Resurfacing Yakima Avenue	5/15/2013	\$480,000	State: SCP
Intersection School Signal	8/1/2013	\$200,000	State: Other
Water System			
Wells No. 3 and 4 – Declarations of covenant	2012	\$10,000	Local Funds
Well No. 5 – Connection to park irrigation system	2012	\$52,000	Local Funds

Need / Recommended Project	Estimated Timing	Estimated Cost	Potential Funding Source(s)
Elementary and high schools 12" transmission main	2012	\$92,000	PWTF ⁷
New Well No. 6 and 16" transmission main	2015-2016	\$1,254,400	PWTF
Comprehensive Water Plan update	2012	\$60,000	Local Funds
East 3 rd Street and North Track Road 12" transmission main	2011-2024	\$219,600	Local Funds, Grants, Loans
West 1 st Street and Fire Station 12" transmission main	2011-2024	\$184,000	Local Funds, Grants, Loans
Stand pipe reservoir – fire pump station	2011-2024	\$634,300	Local Funds, Grants, Loans
Wastewater System			
Wastewater Facilities Plan	2010	\$100,000	EDA ⁸ , PWTF, USDA-RD ⁹ , grants, loans, local funds
Wastewater Treatment Plant Improvements	2013	\$4,000,000	EDA, PWTF, USDA-RD, grants, loans, local funds
Parks and Recreation			
Additional 17 acre park: land leveling	2010	\$250,000	Local Funds, RCO ¹⁰ , other
Additional 17 acre park: irrigation system	2012	\$350,000	Local Funds, RCO, other
Additional 17 acre park: soccer fields	2010	\$230,000	Local Funds, RCO, other
Additional 17 acre park: baseball fields (2)	2012	\$250,000	Local Funds, RCO, other
Pool: Full ADA remodel	2013	\$25,000	Local Funds, RCO, other
Additional 17 acre park: restrooms	2013	\$100,000	Local Funds, RCO, other
Additional 17 acre park: basketball courts (2)	2014	\$40,000	Local Funds, RCO, other
Pool: replace filtration system	2015	\$25,000	Local Funds, RCO, other
Pool: boiler replacement	2016	\$75,000	Local Funds, RCO, other
Additional 17 acre park: concession buildings	2020	\$150,000	Local Funds, RCO, other
New park at Donald Road and North Camas Avenue	2015	\$50,000	Local Funds, RCO, other
Pool: water slide	2020	\$250,000	Local Funds, RCO, other
New park at Track Road and West Wapato Road	2016	\$65,000	Local Funds, RCO, other
Police and Fire			
Replace all police vehicles on a one to three year rotation with new beginning in 2011	2011	13@\$20,000 each	Local Funds, Criminal Justice Sales Tax
Replace two fire trucks	2013 & 2019	2@\$250,000 each	Local Funds

Need / Recommended Project	Estimated Timing	Estimated Cost	Potential Funding Source(s)
Replace Fire Chief pickup	2015	\$22,000	Local Funds
New Law and Justice Center	2025	\$3,800,000	Local Funds, Criminal Justice Sales Tax
General Capital Facilities			
Public Works building: additional storage sheds at Service Center	2008	\$10,000	Local Funds
Rebuild HVAC for City Hall	2010	\$30,000	Local Funds
Cemetery: new restroom facilities	2015	\$30,000	Local Funds
Public Works building: additional office space at Service Center	2015	\$125,000	Local Funds, PWTF
Cemetery: replace storage shed and well house roof	2010	\$15,000	Local Funds
Cemetery: Install automatic sprinkler controllers	2012	\$15,000	Local Funds
Cemetery: new small lawn mower	2008	\$10,000	Local Funds
Public Works Building: Purchase five acres land for additional public works use	2011	\$30,000	Local Funds
Cemetery: large mower tractor	2017	\$25,000	Local Funds
Conversion or expansion of Community Center	2012	\$75,000- \$500,000	Local Funds, CDBG
Cemetery: purchase additional 10 acres to expand	2020	\$150,000	Local Funds, PWTF
Public Works Equipment			
Eight new pickups: replace old on one-year schedule beginning in 2007	2010-2016	8@ \$15,000 each	Local Funds
Replace vactor truck	2012	\$250,000	Local Funds
Replace 1980 bucket truck	2010	\$10,000	Local Funds
Purchase camera truck	2011	\$75,000	Local Funds
Replace street sweeper	2012	\$150,000	Local Funds
Replace two dump trucks	2010 & 2013	2@ \$20,000 each	Local Funds
Replace two large flat bed dump trucks	2011 & 2014	2@ \$25,000 each	Local Funds
Replace backhoe for Water Department	2011	\$65,000	Local Funds
Replace front loader for Wastewater Department	2012	\$65,000	Local Funds

1. SCP = Washington State Transportation Improvement Board Small City Arterial Program 2. STP(C) = SAFETEA-LU Surface Transportation Program Statewide Competitive Program 3. CDBG = U.S. Department of Housing and Urban Development Community Development Block Grant 4. SCPP = Washington State Transportation Improvement Board Small City Preservation Program 5. ARRA = American Recovery and Reinvestment Act of 2009 6. STP(S) = SAFETEA-LU Surface Transportation Program Safety Including Hazard and RR 7. PWTF = Washington State Public Works Trust Fund 8. EDA = U.S. Department of Commerce Economic Development Administration 9. USDA-RD = U.S. Department of Agriculture Rural Development Program 10. RCO = Washington State Recreation and Conservation Office (formerly IAC, Interagency Committee for Outdoor Recreation)

XVI. CAPITAL FACILITY GOALS AND POLICIES

This section presents capital facilities goals and policies for the City of Wapato.

GOAL 1: *To actively manage land use change and protect the City's character by developing City facilities and services in a way that directs and controls land use patterns and intensities.*

Policy 1.1 Ensure that new development does not outpace the City's ability to provide and maintain adequate public facilities and services, by allowing new development to occur only when and where adequate facilities exist or will be provided.

Policy 1.2 Encourage development within the unincorporated portion of the UGA to occur only on a limited scale to prevent inefficient use and distribution of public facilities and services, and to discourage rural development from becoming urban in nature outside of the urban growth boundary.

Policy 1.3 Coordinate planning for future capital facilities with the Land Use and Transportation Elements of the Comprehensive Plan.

GOAL 2: *Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service standards below locally established minimum standards.*

Policy 2.1 Encourage new urban development to locate first, within the City limits and second, within the UGA, where municipal services and public facilities are already present.

Policy 2.2 Allow development only when and where all public facilities are adequate, and only when and where such development can be adequately served by essential public services without reducing the levels of service elsewhere.

GOAL 3: *To facilitate planned growth through combined services.*

Policy 3.1 To facilitate planned growth, encourage combining and assisting in service areas such as fire protection, public transit, water/sewer, criminal justice and administration, where such combinations implement efficient, cost effective delivery of such services.

GOAL 4: *Coordinate the orderly provision of public facilities with public and private development activities in a manner that is compatible with the fiscal resources of the City.*

Policy 4.1 Coordinate land use and public works planning activities with an ongoing program of long-range financial planning, in order to conserve fiscal resources available to implement the capital facilities plan.

Policy 4.2 Locate public facilities and utilities to: a) maximize the efficiency of services provided; b) minimize their cost; and c) minimize their impacts on the natural environment.

Policy 4.3 Encourage economic growth while maintaining quality development and controlling the cost of public improvements in its UGA.

Policy 4.4 If adequate facilities are currently unavailable and public funds cannot be committed to provide such facilities, require developers to provide such facilities at their own expense in order to develop.

Policy 4.5 Within the UGA, urban services shall be required when economically feasible. When services are not economically feasible, covenants should be used to require connections to those services when they become available.

Policy 4.6 The City will not preclude the siting of essential public facilities, however, it shall enforce its Comprehensive Plan and development regulations to ensure reasonable compatibility with other land uses.

GOAL 5: *Expand the range of active recreational opportunities for the citizens of Wapato to the fullest extent possible.*

Policy 5.1 Use preference identification as a basis for identifying what facilities are most needed in the community and as a basis for the development of capital programming.

Policy 5.2 Encourage multiple use of public facilities, where practical, for youth recreation, senior activities, meetings and other functions.

GOAL 6: *Promote coordinated planning and balanced delivery of services among federal, State, County, municipal and tribal governments especially in areas of overlapping influence such as UGAs.*

Policy 6.1 Coordinate with those agencies providing other services in the City and UGA such as other local government, schools, churches, emergency services and the library to incorporate their future plans into the community planning process. Recognize that changes in population will affect these services and require planning of appropriate services.

Policy 6.2 Coordinate City and County capital facility planning.

Policy 6.3 Determine funding options for future City and County capital facility needs.

GOAL 7: *Ensure the protection of groundwater from sources of contamination.*

Policy 7.1 Provide sufficient treatment to ensure that the discharge of wastewater meets State and federal standards applying to surface and groundwater.

Policy 7.2 Protect local groundwater supplies by increasing the awareness of local residents about the appropriate disposal techniques for hazardous materials.

GOAL 8: *Identify future needs and promote increased water supplies through coordinated development and conservation efforts.*

Chapter 6 Housing Element

I. INTRODUCTION

Purpose of Element

The Housing Element is intended to guide the location and type of housing that the City of Wapato will build over the next 20 years. This element establishes both long-term and short-term policies to meet the community's housing needs and achieve community goals. The Housing Element specifically considers the condition of the existing housing stock, the cause, scope and nature of any housing problems; and the provision of a variety of housing types to match the lifestyle and economic needs of the community.

Growth Management Act Requirements

The Washington 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.
- 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, residential densities, and the capacity and willingness of the community to provide urban governmental services. (Countywide Planning Policy: A.3.1.)
2. 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.3.5.)
3. Infill development, higher density zoning and small lot sizes should be encouraged where services have already been provided and sufficient capacity exists and in areas planned for urban services within the next twenty years. (B.3.3.)
4. 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.)

5. Local housing inventories will be undertaken using common procedures so as to accurately portray countywide conditions and needs. (E.3.2.)

6. 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.)

7. 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.)

8. 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.)

9. 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.)

10. 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.)

11. Local comprehensive plan policies and development regulations will encourage and not exclude affordable housing. [RCW 36.70A.070(2)(c)(d)] (E.3.8.)

12. Innovative strategies that provide incentives for the development of affordable housing should be explored. (E.3.9.)

13. 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 land use in many 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 land consumer, and often the foremost determinant of land use patterns. The placement of schools, parks, and small commercial areas typically respond 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 traffic flow generator, housing affects the level of traffic on local roads, arterials and highways. Housing for special needs populations may require access to public transportation or special transportation services.

Growth and Development

Housing is a two-edged sword in the growth of a city. New housing generates new demands for infrastructure and services, but it also generates additional tax revenue.

II. HOUSING ISSUES

- (1) Vacancy Rate. The vacancy rate has a substantial impact on the availability, price, and quality of housing. Where there is a low vacancy rate (as in Wapato), 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 Wapato, effecting an increase in the vacancy rate is going to involve the development of vacant land and the redevelopment of older neighborhoods. This situation raises several 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?
- (2) Housing Intensity. Since the quantities of both housing and land are limited, the City should consider all of the available alternative housing types (single family, multi-family, mobile homes, etc.). In considering housing types, the City will have to:

- (a) Determine an appropriate mix of housing intensities to meet the current and future needs of the community.
 - (b) Determine the most appropriate location for different intensity housing types to avoid mixing incompatible uses.
- (3) Relocation. A workable relocation program is an essential component of both a major rehabilitation and a renewal program. This aspect of the housing program will probably present a variety of problems due to the shortage of available vacant units. To both maximize benefits and provide for timely results in reference to public housing programs, the City of Wapato should develop a viable relocation strategy. This suggests a number of possible actions:
- (a) The City should thoroughly examine relocation options, with consideration given to financial and logistical feasibility.
 - (b) The City should keep federal agencies informed of local problems and consult with federal agencies regarding program options and requirements.
 - (c) The City should closely coordinate the various aspects of the housing program to provide for optimal use of program resources.
- (4) Housing Mix. An additional need beyond rehabilitation and renewal is the provision of new units to meet the needs of higher income groups. Apart from satisfying the housing needs of higher income groups, providing these higher-cost units could increase the alternatives of low income groups through the filtration process. Some activities that might facilitate this process are:
- (a) Monitoring housing needs in all income groups.
 - (b) Keeping developers informed regarding current housing needs and encouraging them to address these needs.
 - (c) Providing information on loan programs to eligible persons seeking to improve their living situation.
- (5) Organizational Structure. To effectively deal with the complex requirements associated with public housing programs, the City should develop an organizational structure that can provide efficient program administration. Although the mix of programs that the City becomes involved with will probably indicate the most desirable structure, some alternatives are:
- (a) Creation of a City department or bureau.
 - (b) Creation of an independent authority.
 - (c) Contract with private non-profit group or consulting group.
 - (d) Contract with an existing authority.

III. EXISTING CONDITIONS

Characteristics

The number of housing units within Wapato has grown from 1,047 total housing units in 1970 to an estimated 1,267 units in 1999, a 21.4% increase. Over this same time period, the population of Wapato has grown by approximately 61.2%. In 1970, Wapato had 2,841 residents. By 1999, Wapato had grown to an estimated 4,582 persons. Table 6.1 shows these trends.

Table 6.1. Population and Housing within the City of Wapato

City of Wapato: Population and Housing Units	Population		Housing Units		Persons per Housing Unit	
	Number	Percent Growth	Number	Percent Growth	Number	Percent Change
2000	4,582	20.7%	1,267	5.23%	3.78	18%
1990	3,795	14.8%	1,204	1.2%	3.2	10.3%
1980	3,307	16.4%	1,190	13.6%	2.9	7.4%
1970	2,841	---	1,047	---	2.7	---

Source: U.S. Census Bureau, Census of Population and Housing, 1970, 1980, 1990 and 2000.

Vacancy Rate

The total vacancy rate for the City of Wapato reported in the 2000 Census was 5.4%. Of the 1,267 housing units in Wapato in 2000, 1,198 were reported as occupied and 69 were reported as vacant. The vacancy rate for properties “for sale only” was reported as 0.7%. The vacancy rate for properties for rent, including those “for sale or for rent” was 5.6%. However, 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 U.S. Department of Housing and Urban Development (HUD) collected vacancy data for 2007 and the first six months of 2008, for use in the Neighborhood Stabilization Program, a program that operates under the federal Housing and Economic Recovery Act of 2008. HUD obtained the data from the United States Postal Service for addresses that had been vacant for 90 days or longer. According to these data, of 1,192 housing units in Wapato, 55 were reported vacant for more than 90 days. The total 90-day vacancy rate was 4.5%.

Housing Types

Table 6.2 shows the mix of housing types in 1980, 1990, and 2000. The mix of housing types has not changed significantly over this period, although the percentage of multifamily homes within the City has decreased slightly.

Single family units within Wapato increased from 896 units in 1980 to 952 units in 2000. Multifamily units within Wapato decreased from 278 housing units in 1980 to 236 units in 2000. Manufactured homes increased from 16 to 68 units from 1990 to 2000. The manufactured and other homes category in this inventory mainly refers to manufactured homes, as there are currently no group homes or foster care homes in Wapato.

Table 6.2. Housing Types within the City of Wapato

City of Wapato: Type of Housing Units	2000		1990		1980	
	Number	Percent	Number	Percent	Number	Percent
Single-Family	952	75.8%	882	73.3%	896	75.3%
Multifamily	236	18.8%	245	20.3%	278	23.4%
Manufactured Home and Other Housing	68	5.4%	77	6.4%	16	1.3%
Total Housing Units	1,256	100.0%	1,204	100.0%	1,190	100.0%

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

Table 6.3 shows the age of housing units within Wapato. Almost half (48.8%) of all housing units within Wapato are more than 40 years old (built prior to 1960), as shown in Table 6.3.

Table 6.3. Age of Housing Units within the City of Wapato

City of Wapato: Type of Housing Units	2000	
	Number	Percent
1999 to March 2000	11	0.9%
1995 to 1998	134	10.7%
1990 to 1994	49	3.9%
1980 to 1989	67	5.3%
1970 to 1979	198	15.8%
1960 to 1969	185	14.7%
1940 to 1959	434	34.6%
1939 or earlier	178	14.2%

* Includes both occupied housing units and vacant housing units.

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

When compared with the County and the State, the age of housing stock within the City of Wapato is slightly older than either that found countywide or statewide. Table 6.4 compares the housing stock of Wapato with that of Yakima County and Washington State.

Table 6.4. Age of Housing Stock, City of Wapato, Yakima County and Washington State

Universe: All Housing Units	Built Prior to 1940	Percent Built Prior to 1940	Built 1940 to 1959	Percent Built 1940 to 1959	Built 1960 or Later	Percent Built 1960 or Later
City of Wapato	178	14.2%	434	34.6%	644	51.3%
Yakima County	10,738	15.2%	21,252	30.0%	38,862	54.8%
Washington State	319,183	15.7%	430,028	21.2%	1,283,167	63.4%

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

Housing Condition

In 2005, housing staff from the Yakima Valley Conference of Governments (YVCOG) conducted a Windshield Housing Conditions Survey of Wapato’s single family housing stock (825 units surveyed), with the exception of apartment units and manufactured homes. At that time, 680 homes, or 79.8% of the housing stock, were in need of rehabilitation. Of this total, 319 homes or 37.4% were categorized as Substandard, 266 (31.2%) as Poor Condition, and 95 (11.2%) as Deteriorated.

Table 6.5. Housing Condition, City of Wapato

Category	Number of Unit	Percent of Total Units
Standard	172	20.2%
Substandard	319	37.4%
Poor Condition	266	31.2%
Deteriorated	<u>95</u>	<u>11.2%</u>
Total Units	825	100%

The City of Wapato received a CDBG Housing Rehabilitation Block Grant in 2006, and used the funds to improve and rehabilitate 16 homes in the City. Work included correcting major defects, including deteriorated foundations, health and safety problems, electrical and plumbing system deficiencies, energy efficiency problems, aesthetics, and overcrowding.

Overcrowding

Another measure of living conditions is overcrowding. The accepted standard defines overcrowding as the presence of more than one person per room. Table 6.6 compares the number of persons per room between Wapato, Yakima County and Washington State. Overcrowding in Wapato is more than double the rate found countywide and is six times the rate seen statewide. Within Wapato, overcrowding has increased from 16.6% in 1980 to 34.1% in 2000 (1980, 1990 and 2000 Census).

Table 6.6. Persons per Room, City of Wapato, Yakima County and Washington State

Universe: Occupied Housing Units	1.01 or More Persons Per Room	Percent with 1.01 or More	1.00 or Less Persons Per Room	Percent with 1.00 or Less
City of Wapato	408	34.1%	789	65.9%
Yakima County	10,510	14.2%	63,483	85.8%
Washington State	115,884	5.1%	2,155,514	94.9%

Source: Bureau of the Census, 2000 Census of Population and Housing

Value and Cost of Housing

As indicated in Table 6.7, the 2000 Census indicated that approximately 10.5% of the owner-occupied homes in Wapato in 1999 were valued at less than \$50,000, and that the median value of an owner-occupied home in Wapato was \$81,300.

Table 6.7. Value of Owner Occupied Housing in 1999, City of Wapato, Yakima County and Washington State

Universe: Specified Owner Occupied Housing Units	City of Wapato		Yakima County		Washington State	
	Number	Percent	Number	Percent	Number	Percent
Less than \$50,000	60	10.5%	1,944	5.6	19,062	1.6
\$50,000 to \$99,999	389	68.1%	12,198	35.1	155,140	13.4
\$100,000 to \$149,999	92	16.1%	11,345	32.6	296,818	25.6
\$150,000 to \$199,999	24	4.2%	5,268	15.2	265,104	22.9
\$200,000 to \$299,999	6	1.1%	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)	\$81,300	(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 that applies to the adequacy of the housing stock to fulfill the housing needs of all economic segments of the population. The underlying assumption is that the marketplace will guarantee adequate housing for those in upper income brackets, but that some combination of appropriately zoned land, regulatory incentives, financial subsidies, and/or innovative planning techniques may be necessary to make adequate provisions for the needs of lower income persons.

Income and Housing Costs

Based on HUD criteria, 69.9% of all Wapato households were low income in 1999. Table 6.8 compares four income statistics for the City of Wapato with Yakima County and the State of Washington. Wapato's median household income and median family income are much lower than either that found Countywide or Statewide. In addition, the percentage of persons living below the poverty rate in Wapato remains very high. Between 1980, 1990, and 2000, the percentage of persons living below the poverty rate was very stable, dropping only incrementally from 33.7% in 1980 to 33.6% in 1990 to 34.3% in 2000 (1980, 1990 and 2000 Census). Table 6.9 and 6.10 present the breakdown of expenditures on housing costs by tenure and age.

As a result of these low income levels, rental occupants of at least 50.5% of Wapato's households spent 30% or more of their 1999 income on housing, including utilities (2000 Census). Interestingly, a majority of occupants in owner-occupied housing units spent less than 30% of their income on monthly owner costs. Presumably this results from the average value of housing within Wapato also being lower than the rest of Yakima County. Significant are those householders who rent and are between 15 to 64 years of age. Within this group, 35.3% pay more than 30% for housing and utilities. When the percentage of income expended on housing costs exceeds 30%, the remaining income available to many low income households is often inadequate to meet life's other basic necessities.

Local residents throughout Yakima County discussed housing problems through the Countywide Plan visioning effort. The results of this effort have been used as the 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.

Table 6.8. Comparison of Average Income Statistics City of Wapato, Yakima County, and Washington State

	Per Capita Income	Median Household Income	Median Family Income	Poverty Rate in Percent
City of Wapato	\$9,451	\$25,804	\$26,378	34.3%
Yakima County	15,606	34,828	39,746	19.7%
Washington State				

Source: Bureau of the Census, 2000 Census of Population and Housing

Table 6.9. Age of Householder by Selected Monthly Owner Costs as a Percentage of Income in 1999: City of Wapato, Yakima County and Washington State

Universe: Specified Renter Occupied Housing Units	City of Wapato		Yakima County		Washington State	
	Number	Percent	Number	Percent	Number	Percent
All Householders*						
Less than 30%	219	40.0%	13,071	50.8%	437,766	55%
30% or more	277	50.5%	10,230	39.7%	311,056	39%
Householders: 15 to 64 Years of Age*						
Less than 30%	211	43.2%	11,806	53.6%	400,495	57.3%
30% or more	225	46.1%	8,330	37.8%	260,041	37.3%
Householders: 65 Years and Over*						
Less than 30%	8	13.3%	1,265	33.9%	37,271	38.4%
30% or more	52	86.7%	1,900	51.0%	51,015	52.6%

Table 6.10. Age of Householder by Gross Rent as a Percentage of Income in 1999: City of Wapato, Yakima County and Washington State

Universe: Specified Owner Occupied Housing Units	City of Wapato		Yakima County		Washington State	
	Number	Percent	Number	Percent	Number	Percent
All Householders*						
Less than 30%	394	69.0%	26,550	76.4%	852,316	73.6%
30% or more	177	31.0%	7,939	22.8%	298,405	25.8%
Householders: 15 to 64 Years of Age*						
Less than 30%	275	64.7%	19,438	75.2%	658,975	72.4%
30% or more	150	35.3%	6,229	24.1%	245,907	27.0%
Householders: 65 Years and Over*						
Less than 30%	119	81.5%	7,112	79.8%	193,341	78.0%
30% or more	27	18.5%	1,710	19.2%	52,498	21.2%

*Totals may not equal 100% because the statuses of certain units were not able to be determined.
Source: U.S. Census Bureau, Census of Population and Housing, 2000

IV. HOUSING NEEDS ASSESSMENT

Existing Densities

As indicated by Figure 6.1, population densities in Wapato range from near zero to more than 28,000 persons per square mile (2000 Census). The areas of greatest density are in the older sections of the City, immediately south and northeast of the downtown business and industrial core. These areas average more than 10,000 persons per square mile with pockets of much higher density. In general, the farther from the downtown core, the fewer persons per square mile are found in residential areas. Other areas of Wapato and the urban growth area vary in population density reflecting commercial and industrial areas, and a mixture of more rural housing and agricultural uses.

Approximately 20% of the total land area within Wapato, or 206 acres, is devoted to housing.

Inventory of Vacant Buildable Land

The City of Wapato's current UGA provides 123 acres of residentially zoned land that is vacant or not developed for residential use, for future housing developments. This land is adequate for future housing needs of 2025, considering the low and medium population projections. A total of 351.62 acres in the City are residentially zoned. These acres are fairly well distributed between the R-1, R-2, and R-3 zones. Moreover, 52% of the residentially zoned parcel acres, or 185 acres in the City, have a density of 0.30 to 3.86 dwelling units/acre, whereas the recommended density is four dwelling units/acre on average. Therefore, the City also could use these areas to meet the future housing need by increasing the density.

Population Growth

While the City's population increased by 787 people, or 20.7%, between 1990 and 2000 (U.S. Census), it gained 63 housing units, a 5.3% increase over this same period. The increase in population was absorbed by increases in the number of persons per household (3.2 in 1990 to 3.78 in 2000).

Future Needs

To determine future housing needs, projected 2025 population projections were subtracted from the 2000 Census population, and divided by 3.2 persons per household. This assumed that the average number of persons per housing unit remained constant over the planning period at 3.2 persons per housing unit. Proportions of single-family homes, multifamily, and manufactured or other homes were then calculated using the proportions of each type as of the 2000 Census (Table 6.2).

At the medium growth rate, an estimated 394 additional housing units would be needed to serve the projected year 2025 population of 5,844. At the high growth rate, 667 additional housing units would be needed to serve the projected year 2025 population of 6,719. Table 10 shows the breakdown of housing types and number of units needed to serve either of these future populations, if the existing pattern of housing types were to continue. In addition to those needs displayed by the current housing stock, new construction will be needed to both increase the vacancy rate and to provide for population growth.

Figure 6.1. Population Density Map, City of Wapato

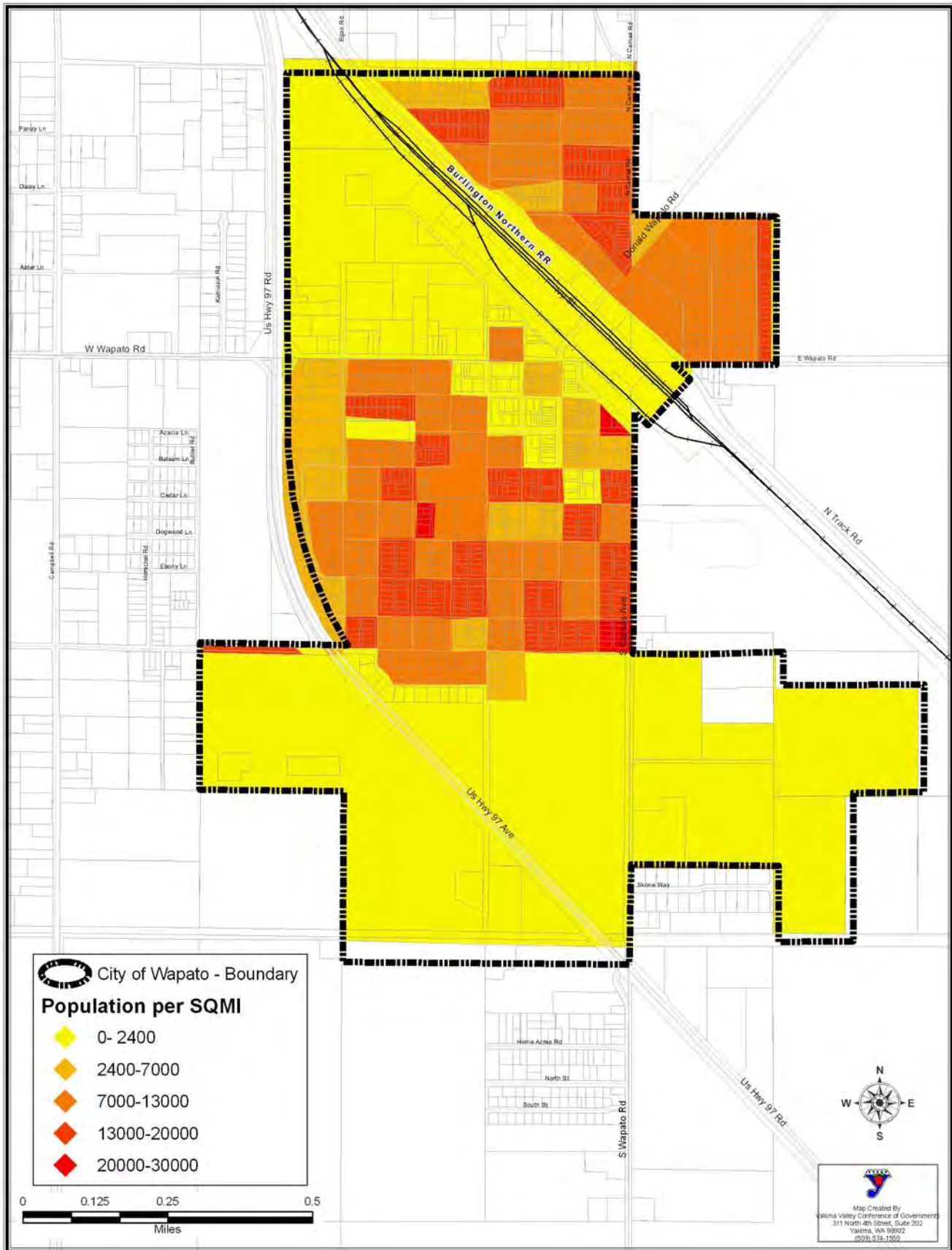


Table 6.11. Projections of Housing Types and Number of Units Needed in the City of Wapato by the Year 2025

Population Projection	Single-Family	Multifamily	Manufactured Home or Other	Total Additional Units Needed
Medium projection	299	74	21	394
High projection	506	125	36	667

Source: Projections made utilizing 2000 Census baseline information and Yakima County population projections.

Land Requirements for Single-Family Housing

Using the medium growth projection, 299 additional single-family units would be required to meet the 2025 population projection of 5,844 people. This would consume approximately 64.75 acres (at .25 acres per unit) of vacant land area.

Using the high growth projection, 506 additional single-family units would be required to meet the 2025 population projection of 6,719 people. This would consume approximately 126.5 acres (at .25 acres per unit) of vacant land area.

In either case, the City would need to find additional developable land within the urban growth area.

Land Requirements for Multi-Family, Manufactured and Other Housing Types

Developable land is also needed to accommodate housing growth projections for multifamily units and manufactured housing units. Using the medium growth projection, approximately 10 acres would be needed to accommodate 74 additional multifamily units (at .14 acres per unit). An additional 5.25 acres would be needed to accommodate another 21 manufactured homes (at .25 acres/unit) within the City.

Using the high growth projection, approximately 17.5 acres would be needed to accommodate 125 additional multifamily units (at .14 acres per unit). An additional nine acres would be needed to accommodate another 36 manufactured homes (at .25 acres/unit) within the City.

Total Land Needed to Accommodate Projected Housing Growth

The total land requirement for new housing to accommodate the medium population projection of 5,844 persons in the year 2025 is 78.21 acres. This requirement is based on the assumptions listed in Table 11 of the Land Use Element. These calculations assume that the housing pattern existing in 1990 will continue throughout the planning period.

If the high population projection is realized, the total land requirement for new housing to accommodate a year 2025 population of 6,719 persons is 132.45 acres. This land requirement is also based on Table 11 of the Land Use Element. These calculations again assume that the housing pattern existing in 1990 will continue throughout the planning period.

V. A COORDINATED HOUSING STRATEGY FOR WAPATO

As is the case with most communities, Wapato's housing situation is a result of complex physical, social, and economic realities. Because of the complexity of the problems, a coordinated approach is necessary to address them. A coordinated housing strategy for Wapato 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 of the goals, policies and objectives contained in this comprehensive plan.
- 2) A target area or areas for housing rehabilitation should be indicated within the plan and used to guide future activities aimed at improvement of the existing housing stock.
- 3) Implementation of needed improvements in the Capital Facilities and Transportation Elements could result in greater opportunity for growth in Wapato. The addition of more people in Wapato, particularly those active in the community workforce, will add to the viability of the community.

VI. GOALS AND POLICIES

GOAL 1: *Provide safe and sanitary housing for all persons within the community.*

Policy 1.1 Support the development of a housing stock that meets the varied needs of the present community while attracting higher income residents.

Objective 1: Encourage the construction of new units to increase the local housing supply. New construction should provide for a moderate, to low income and elderly market demand as well as upscale residences. It should also provide for an appropriate mix of housing types and intensities (single-family, multifamily).

Objective 2: Encourage manufactured housing parks and subdivisions that are well designed and compatible with neighboring land uses.

Objective 3: Allow, on individual lots in appropriately zoned areas, manufactured housing that meet accepted standards and are permanently affixed to a foundation.

Objective 4: Encourage and support the rehabilitation of older homes.

Objective 5: Encourage infilling in residential areas.

Objective 6: Establish provisions to ensure that possible future development of group homes and foster care facilities are provided in suitable areas.

Policy 1.2: Support the implementation of public housing programs, in partnership with private developers that supplement the efforts of local developers in meeting the housing needs of the community.

Objective 1: Pursue programs to expand the housing options of low and moderate income groups and the elderly.

Objective 2: Coordinate public programs with the activities of local developers to provide for the optimal utilization of community resources.

Policy 1.3: Monitor housing availability.

Objective 1: Develop a record keeping system that accurately measures the impact of programs on local housing problems.

Objective 2: Develop an evaluation system that accurately measures the impact of programs on local housing problems.

Objective 3: Make current housing information available to potential developers and encourage its use in the consideration of development alternatives.

Objective 4: Provide for the periodic updating of existing plans and the ongoing analysis of housing problems.

GOAL 2: *Residential areas that are safe, sanitary and attractive places to live will be established and maintained in Wapato.*

Policy 2.1: The City of Wapato will ensure and facilitate the provision of municipal services appropriate to the density of residential development.

Objective 1: The initial cost of providing municipal services to serve new residential developments will be borne by the developer.

Policy 2.2: The City of Wapato will work cooperatively with other public agencies, private institutions, and organizations to foster housing rehabilitation in suitable areas.

GOAL 3: *Encourage a mixture of housing types and densities throughout the sub-area that are compatible with public service availability.*

Policy 3.1: Support the development of regional strategies to address the housing needs of Wapato and its urban growth area.

Objective 1: Land use controls shall govern the distribution of housing types by establishing overall density.

Objective 2: Density of 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 3: Criteria shall be developed for establishing levels of services required for different densities of development.

Chapter 7 Utilities Element

I. INTRODUCTION

Purpose of the Utilities Element

This Utilities Element has been developed in accordance with Section 36.70A.070 of the Growth Management Act (GMA) to address utility services in the City of Wapato and the adjacent urban growth area (UGA). It represents the community's policy plan for growth over the next 20 years. The Utilities Element describes how the goals in the other plan elements will be implemented through utility policies and regulations, and is an important element in implementing the Comprehensive Plan.

The Utilities Element has also been developed in accordance with the County-wide planning policies, and has been integrated with all other planning elements to ensure consistency throughout the Comprehensive Plan. The Utilities Element specifically considers the general location, proposed location, and capacity or all existing and proposed utilities, including, but not limited to, electrical lines, telecommunication lines, and natural gas lines. This element also identifies general utility corridors.

Growth Management Act Requirements

The Growth Management Act's Procedural Criteria defines "utilities" as:

- enterprises or facilities serving the public by means of an integrated system of collection, transmission, distribution, and processing facilities through more or less permanent physical connections between the plant of the serving entity and the premises of the customer. Included are systems for the delivery of natural gas, electricity, telecommunications services, and water, and for the disposal of sewage [WAC 365-195-200 (25)].

To comply with the Growth Management Act, the Comprehensive Plan must, at a minimum, include a Utilities Element consisting of:

- the general location, proposed location, and capacity of all existing and proposed utilities, including but not limited to, electrical lines, telecommunication lines, and natural gas lines [RCW 36.70A.070 (4)].

The Growth Management Act requires concurrency in the provision of public facilities and services. Public facilities and services must be available as development occurs without a reduction in the level of service provided. However, private utilities are not bound by the level of service and concurrency provisions of the GMA.

Applicable Countywide Planning Policies

The Yakima Countywide Planning Policy recognizes the need to promote orderly development with appropriate urban services provided to such development. The following Countywide Planning Policies apply to discussion on the Utilities Element:

1. Areas designated for urban growth should be determined by preferred development patterns, residential densities, and the capacity and willingness of the community to provide urban governmental services. (Countywide Planning Policy: A.3.1.)
2. Urban growth should be located first in areas already characterized by urban growth that have existing public facilities and service capacities to serve such development, and second in areas already characterized by urban growth that will be served by a combination of existing public

facilities and services and any additional needed public facilities and services that are provided by either public or private sources. Further, it is appropriate that urban government services be provided by cities, and urban government services should not be provided in rural areas. [RCW 36.70A.110(3)] (B.3.1.)

3. Urban growth management interlocal agreements will identify services to be provided in an UGA, the responsible service purveyors and the terms under which the services are to be provided. (B.3.2.)
4. The Capital Facilities, Utilities and Transportation Elements of each local government's Comprehensive Plan will specify the general location and phasing of major infrastructure improvements and anticipated revenue sources. [RCW 36.70A.070(3)(c)(d)]. These plan elements will be developed in consultation with special purpose districts and other utility providers. (B.3.4.)
5. New urban development should utilize available/planned urban services. [RCW 36.70A.110(3)] (B.3.5.)
6. Formation of new utility special purpose districts should be discouraged within designated UGAs. (B.3.6.)
7. From local inventory, analysis and collaboration with state agencies and utility providers, a list of Countywide and statewide public capital facilities needed to serve the Yakima County region will be developed. These include, but are not limited to, solid and hazardous waste handling facilities and disposal sites, major utility generation and transmission facilities, regional education institutions, airports, correctional facilities, in-patient facilities including hospitals and those for substance abuse and mental health, group homes and regional park and recreation facilities. (C.3.2.)
8. Some public facilities may be more appropriately located outside of UGAs due to exceptional bulk or potentially dangerous or objectionable characteristics. Public facilities located beyond UGAs should be self-contained or be served by urban governmental services in a manner that will not promote sprawl. Utility and service considerations must be incorporated into site planning and development. (C.3.5.)
9. The multiple use of corridors for major utilities, trails and transportation right-of-way is encouraged. (C.3.6.)
10. The County and cities will work with special purpose districts and other agencies to establish a process for mutual consultation on proposed comprehensive land use plan policies for lands within UGAs. Actions of special purpose districts and other public service providers shall be consistent with Comprehensive Plans of the County and the cities. [RCW 56.08.020, RCW 57.16.010] (F.3.1.)
11. The use of interlocal agreements is encouraged as a means to formalize cooperative efforts to plan for and provide urban governmental services. (F.3.2.)
12. Joint financing ventures should be identified to provide services and facilities that will serve the population within the UGA. (F.3.3.)
13. Each interlocal agreement will require that common and consistent development and construction

standards be applied throughout that UGA. These may include, but are not limited to, standards for streets and roads, utilities and other infrastructure components. (F.3.5.)

14. The County and the cities will work with special purpose districts, adjacent counties, state tribal and federal governments to formalize coordination and involvement in activities of mutual interest. (I.1.)
15. Special districts, adjacent counties, state agencies, the tribal government and federal agencies will be invited to participate in Comprehensive Planning and development activities that may affect them, including the establishment and revision of UGAs; allocation of forecasted population; regional transportation, capital facility, housing and utility plans; and policies that may affect natural resources. (I.3.)

Urban Growth Area

The UGA boundary was selected to ensure that urban services will be available to all development, including the provision of utility facilities. The City recognizes that planning for utilities is the primary responsibility of the utility providers. However, the City will incorporate plans prepared by the providers into its Comprehensive Planning efforts to identify ways of improving the quality and delivery of services provided in the City and its designated UGA. All development requiring urban services will be located in the UGA, and will have these services extended to them in a timely and financially feasible manner. The Utility Plan in this element will guide decision making to achieve the community goals.

Federal and State Laws/Regulations

Washington Utilities and Transportation Commission. Utilities and transportation are regulated in Washington by the Washington Utilities and Transportation Commission (WUTC). The WUTC, composed of three members appointed by the governor, is empowered to regulate utilities (including, but not limited to, electrical, gas, irrigation, telecommunication, and water companies). State law (WAC 480) regulates the rates and charges, services, facilities, and practices of utilities. Any change in customer charges or service provision policy requires WUTC approval. The WUTC requires private utility providers to demonstrate that existing ratepayers will not subsidize new customers. The intent of the WUTC regulations is to ensure safe, reliable, and reasonably priced utility services for consumers.

Federal Communications Commission. The Federal Communications Commission (FCC) was created by the Communications Act of 1934 to regulate interstate and international radio, wire, satellite, cable, and television communications. The FCC is an independent five-member government agency.

Federal Energy Regulatory Commission. The Federal Energy Regulatory Commission (FERC) is an independent five-member commission with the U.S. Department of Energy. FERC establishes rates and charges for the interstate transportation and sale of natural gas, for the transmission and sale of electricity, and the licensing of hydroelectric power projects. In addition, the commission establishes rates or charges for the interstate transportation of oil by pipeline.

Natural Gas Policy Act of 1978. The central theme of the National Gas Policy Act (NGPA) is encouragement of competition among fuels and suppliers across the country. As a result, natural gas essentially has been decontrolled. The NGPA also contained incentives for developing new natural gas resources and a tiered pricing structure aimed at encouraging the development of nation-wide transmission pipelines.

1991 Clean Air Amendments. The passage of the Washington State Clean Air Act in 1991 indicates a state intent to promote the diversification of fuel sources for motor vehicles. This is in response to a need to both reduce atmospheric emissions and reduce the nation’s reliance on gasoline for strategic reasons. The Act called for encouraging the development of natural gas vehicle refueling stations.

Regional Power Plans

Northwest Power and Conservation Council. The Northwest Power and Conservation Council (NWPCC) develops 20-year electric power plans for the Northwest. In its Fifth Northwest Power and Conservation Plan, the Council calls for the following throughout the region:

- Increased energy conservation and efficiency.
- A greater role for demand-response systems, where customers agree to reduce consumption of power during periods of limited power supply.
- Greater provision of wind energy.
- Proactively preparing sites for developing plants using alternative energy technologies, such as coal-gasification.

The NWPCC’s draft Sixth Northwest Power and Conservation Plan is scheduled to be released in 2009. Major issues that will be identified in the Plan include climate change policies, meeting energy capacity, increasing energy sources and efficiency, and energy transmission constraints.

II. INVENTORY AND ANALYSIS

Many public and private agencies are involved in regulation, coordination, production, delivery, and supply of utility services. This section of the element identifies those providers. The inventory includes:

- Natural Gas
- Electrical
- Telecommunications
- Cable Television

Providers of these utilities for the City of Wapato and its UGA are listed in Table 7.1. Water and sewer utilities are discussed in the Capital Facilities Element of this Comprehensive Plan. Electrical, telecommunications, and natural gas are regulated by the WUTC. Cable television is regulated by the FCC, in cooperation with local governments.

Table 7.1. Utility Service Providers, City of Wapato/Urban Growth Area

Type of Service	City of Wapato	Remainder of UGA
Cable Television	TCI Cablevision; Direct TV (satellite); Northwest Cable Network (wireless cable)	TCI Cablevision where available; Direct TV (satellite); Northwest Cable Network (wireless cable)
Electric Utility	Pacific Power	Pacific Power
Natural Gas	Cascade Natural Gas	Cascade Natural Gas, where available
Telecommunications	United Telephone Systems Northwest	United Telephone Systems Northwest

Natural Gas

Wapato is served by Cascade Natural Gas. The City’s natural gas supply system meets existing demands of residential, commercial, and public customers.

Cascade Natural Gas serves areas along I-82. Cascade Natural Gas accommodates consumers in its service area that meet its criteria for financial feasibility. Cascade can serve customers outside its service area if the customer assumes some of the cost of extending the lines. Such contributions may be partly reimbursed only if additional customers connect to the same main. When deciding to serve development outside current service areas, utilities must expand their service area by applying for a “certificate of convenience” from the WUTC. As a private utility, Cascade Natural Gas is not bound by the level of service and concurrency requirements under the GMA.

The WUTC is currently studying the possible need for improved safety standards on small gas pipeline systems in Washington state, to improve public safety while avoiding unnecessary regulation.

Electrical Utilities

The City of Wapato is served by Pacific Power, which has a very strong transmission framework. Transmission for a 115,000-volt system can be accommodated on a single pole structure that uses the road right-of-way. A substation capable of serving 10,000 residential customers typically requires no more than two acres, and is compatible with virtually any adjacent land use. One possible exception to this is ballfields. Although substations are fenced and not energized below nine feet, and are generally impenetrable, persons attempting to retrieve stray balls might be tempted to try to circumvent these protections.

Pacific Power is currently building a new substation between Sunnyside and Grandview. The company expects that the new substation will upgrade capacity for the entire Yakima Valley and improve reliability. Various other power facilities are also located throughout the County and the City. Pacific Power has no plans for additional facilities in the Wapato vicinity, and expects no difficulty in meeting existing and future demand for electricity in the lower Yakima Valley. The utility will provide power services as market conditions demand. As a private utility, Pacific Power is not bound by the level of service and concurrency requirements under the GMA.

State legislation passed in 2008 (480-108 WAC) established new rules for interconnecting small, alternative power generators of wind, solar, and other energy sources with established utility infrastructure. The intent of the regulations is to establish baseline rights of and responsibilities of both utilities and electric generation owners, and to ultimately connect more alternative power sources to the power grid for the benefit of both parties. The WUTC is exploring ways to ensure that these new rules are fully implemented.

Telecommunication Utilities

The City of Wapato is served by United Telephone Company of the Northwest. There are various facilities located throughout the County and the City. Many of the telecommunication facilities, including aerial and underground, are co-located with those of the electrical power provider.

According to the WUTC, ongoing changes in telecommunications technology have fundamentally changed the structure of the telecommunications industry. Companies once could provide telephone service only, and operate essentially as regulated monopolies. However, today much competition exists from Internet, cable, wireless, and other industry sectors. The WUTC expects to review and implement policies to protect consumers as the industry transitions from monopolies to competitive service.

United Telephone Company of the Northwest adequately meets existing demands of residential, commercial, and public customers at the present time. As a private utility, United Telephone Company of the Northwest is not bound by the level of service and concurrency requirements under the GMA.

Cable Television

TCI Cablevision has franchise agreements with both the City of Wapato and Yakima County. TCI has head-ends, where signals originate, in Toppenish, Sunnyside, and Grandview. The Toppenish head-end (located on C Street in Toppenish) serves Wapato.

Cable follows electrical and telephone lines, and requires easements. Thirty customers per linear mile of cable are generally needed to make the service financially feasible. Potential customers within 200 feet of the cable can access the service; otherwise, the customer incurs additional charges. TCI Cablevision already serves the Herschel tracts area located west of Wapato, and lines follow the railroad tracks southeast of the City.

Wireless Cable also is available to Wapato through the Northwest Cable Network. The cable transmits from antennae on Rattlesnake Ridge in the vicinity of Union Gap. Service is available to customers within a 50-mile line-of-sight radius, which includes the City of Wapato and its Urban Growth Area. Northwest Cable is available in rural areas as well as in areas that are hard-line cabled for television. Wireless cable is regulated by the FCC, and does not come under local regulation since it does not use public rights-of-way.

At this time, the only alternative to TCI or Northwest Cable would be a satellite dish, which requires a costly installation. As technology improves, other choices will become available.

III. GOALS AND POLICIES

GOAL 1: *To ensure that energy gas, and communication facilities and services are provided in a cost-effective and efficient manner.*

Policy 1.1: Adopt procedures that encourage private utility providers to use the Land Use Element of this Comprehensive Plan when planning future facilities.

Policy 1.2: Discuss and exchange population forecasts, development plans, and technical data with the private utilities identified in this Utilities Element.

Policy 1.3 Promote whenever feasible the co-location of new public and private utility distribution facilities in shared trenches, and coordinate construction timing to minimize construction-related disruptions and reduce the cost of utility delivery.

Policy 1.4: For telecommunications, including telephone, cellular telephone and cable television, allow the development/maintenance of facilities necessary to provide services as needed to accommodate population growth and advancements in technology.

Policy 1.5: New development shall be allowed only when and where utilities are adequate, and only when and where such development can be adequately served by essential public utilities without significantly degrading level of service elsewhere.

Policy 1.6: Promote the joint use of transportation rights-of-way and utility corridors wherever possible.

- Policy 1.7: To facilitate coordination of public and private trenching activities, notify affected utilities of construction, as well as maintenance and upgrades to existing roads, in a timely and effective manner.
- Policy 1.8: Consider utility permits concurrent with proposals requesting service. Where possible, approval utility permits when the project to be served is approved.
- Policy 1.9: Coordinate with adjacent jurisdictions to ensure consistency with each jurisdiction's Utilities Element and regional utility plans, and develop a coordinated process for siting regional utility facilities in a timely manner.
- GOAL 2:** *Encourage resource conservation to delay the need for additional facilities for electrical utilities and improve the natural environment.*
- Policy 2.1: Adopt development standards for solar and wind energy systems to enable and encourage their development and use.
- Policy 2.2: Facilitate conversion to alternative energy technologies and renewable energy sources.
- GOAL 3:** *Minimize impacts associated with the siting, development, and operation of utility services and facilities on adjacent properties and the natural environment.*
- Policy 3.1: Site utility facilities away from critical areas, or site them in a manner that is compatible with critical areas. Address proper placement of utilities in Critical Areas Ordinance.
- Policy 3.2: Electric power substations, recycling drop-off boxes, and similar facilities should be sited, designed and buffered as needed to fit in with their surroundings. When sited within or adjacent to residential areas, special attention should be given to minimizing noise, light and glare impacts. Visual and land use impacts resulting from electrical systems and other utility upgrades shall also be mitigated, as needed.
- Policy 3.3: Establish a process for identifying and siting essential public facilities, such as solid waste or recycling handling facilities. Cooperatively work with other agencies, surrounding municipalities and Yakima County during the siting and development of facilities of regional significance.
- GOAL 4:** *Develop an efficient utility system that supports the community vision (both public and private).*
- Policy 4.1: Develop adequate rights-of-way and infrastructure improvements for future development through the planning process, including, but not limited to, public and private utilities.
- Policy 4.2: Development within the unincorporated portion of the UGA should be encouraged to occur only on a limited scale to prevent the inefficient use and distribution of public facilities and services.
- Policy 4.3: Utility extensions should be designed to provide service to the maximum area possible with the least length of extension.