CITY OF TOPPENISH
2018
COMPREHENSIVE
PLAN
UPDATE

"Where the West Still Lives"

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Appendix A Countywide Planning Policies

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"Where the West Still Lives"

APPENDIX A *COUNTYWIDE PLANNING POLICIES*

A. URBAN GROWTH AREAS

The following countywide policies are related to the process and criteria for establishing and amending urban growth areas in Yakima County:

POLICY	Nat. Systems	Land Use	Capital Facilities	Transportation	Housing	Parks & Recreation
A.3.1. Areas designated for urban growth should be determined by preferred development patterns and the capacity and willingness of the community to provide urban governmental services.		X	X		X	
A.3.2. All cities and towns will be within a designated urban growth area. Urban growth areas may include areas not contained within an incorporated city. [RCW 36.70A.110]		X				
A.3.3. All urban growth areas will be reflected in County and respective city comprehensive plans.		X				
A.3.4. Urban growth will occur within urban growth areas only and not be permitted outside of an adopted urban growth area except for new fully contained communities. [RCW36.70A.350]		X				
A.3.5. The baseline for twenty-year Countywide population forecasts shall be the official decennial Growth Management Act Population Projections from the State of Washington's Office of Financial Management plus unrecorded annexations. The process for allocating forecasted population will be cooperatively reviewed.		X				X
A.3.6. Sufficient area must be included in the urban growth areas to accommodate a minimum 20-year population forecast and to allow for market choice and location preferences. [RCW 36.70A.110 (2)]		X				
A.3.7. When determining land requirements for urban growth areas, allowance will be made for greenbelt and open space areas and for protection of wildlife habitat and other environmentally sensitive areas. [RCW 36.70A.110(2)]	X	X			X	X
A.3.8. The County and cities will cooperatively determine the amount of undeveloped buildable urban land needed. The inventory of the undeveloped buildable urban land supply shall be maintained in a Regional GIS database.		X				
A.3.9. The County and cities will establish a common method to monitor urban development to evaluate the rate of growth and maintain an inventory of the amount of buildable land remaining.		X				
A.3.10. The local jurisdiction may initiate an amendment to an existing urban growth area through the normal comprehensive		X				

plan amendment process, however in no case will amendments be processed more than once a year. [RCW 36.70A.130 (2)].						
A.3.11. Prior to amending an urban growth area, the County and respective local jurisdiction will determine the capital improvement requirements of the amendment to ascertain that urban governmental services will be available within the forecast period		X	X			
A.3.12. Annexations will not occur outside established urban growth areas. [RCW 35.13.005]. Annexations will occur within urban growth areas according to the provisions of adopted interlocal agreements, if any.		X				

B. CONTIGUOUS AND ORDERLY DEVELOPMENT AND THE PROVISION OF SERVICES IN URBAN GROWTH AREAS

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

POLICY	Nat. Systems	Land Use	Capital Facilities	Transportation	Housing	Parks & Recreation
B.3.1. Urban growth should be located first in areas already characterized by urban growth that have existing public facilities and service capacities to serve such development, and second in areas already characterized by urban growth that will be served by a combination of both existing public facilities and services and any additional needed public facilities and services that are provided by either public or private sources. Further, it is appropriate that urban government services be provided by cities, and urban government services should not be provided in rural areas. [RCW 36.70A.110 (3)]		X	X			
B.3.2. Urban growth management interlocal agreements will identify services to be provided in an urban growth area, the responsible service purveyors and the terms under which the services are to be provided.		X	X			
B.3.3. Infill development, higher density zoning and small lot sizes should be encouraged where services have already been provided and sufficient capacity exists and in areas planned for urban services within the next 20 years.		X	X	X	X	
B.3.4. The capital facilities, utilities and transportation elements of each local government's comprehensive plan will specify the general location and phasing of major infrastructure improvements and anticipated revenue sources. [RCW 36.70A.070(3)(c)(d)]. These plan elements will be developed in consultation with special purpose districts and other utility providers.			X	X		X
B.3.5. New urban development should utilize available/planned urban services. [RCW 36.70A.110(3)]		X	X			

B.3.6. Formation of new water or sewer districts should be discouraged within designated urban growth areas.			X			

C. SITING PUBLIC FACILITIES OF A COUNTY-WIDE OR STATEWIDE NATURE

The following policies relate to the identification of needed facilities:

POLICY	Nat. Systems	Land Use	Capital Facilities	Transportation	Housing	Parks & Recreation
C.3.1. The County and the cities will inventory existing capital facilities and identify needed facility expansion and construction. [RCW 36.70A.070(3)(a)(b)]			X	X		
C.3.2. 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, mental health, group homes and secure community transition facilities; and regional park and recreation facilities.			X			X

The following policies relate to establishing a process and review criteria for the siting of facilities that are of a countywide or statewide nature:

C.3.3. 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; e. Measures to first minimize and second mitigate potential fiscal impacts.	X	X	X	X		
C.3.4. Major public capital facilities that generate substantial travel demand should be located along or near major transportation corridors and public transportation routes.		X	X	X		

C.3.5. Some public facilities may be more appropriately located outside of urban growth areas due to exceptional bulk or potentially dangerous or objectionable characteristics. Public facilities located beyond urban growth areas should be self-contained or be served by urban governmental services in a manner that will not promote sprawl. Utility and service considerations must be incorporated into site planning and development.			X			X
C.3.6. The multiple use of corridors for major utilities, trails and transportation right-of-way is encouraged.			X	X		X

D. COUNTY-WIDE TRANSPORTATION FACILITIES & STRATEGIES

The following policies relate to the development of an integrated multi-modal transportation system within Yakima County:

POLICY	Nat. Systems	Land Use	Capital Facilities	Transportation	Housing	Parks & Recreation
D.3.1. 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)]		X		X		
D.3.2. Each transportation plan element will include the following sub-elements: a. Land use assumptions used in estimating travel; b. A statement of facilities and service needs, including: i. An inventory of air, land and water transportation facilities and services to define existing capital facilities and travel levels as a basis for future planning; ii. Level of service standards for arterials, collectors and transit routes, which will be regionally coordinated; iii. Specific actions and requirements for bringing into compliance any facilities or services that are below an established level of service standard; iv. Forecasts of traffic for at least ten years based on the adopted land use plans to provide information on the location, timing and capacity needs of future growth; and v. Identification of system expansion needs, and transportation system management needs to meet current and future demands. [RCW 36.70A.070(6)(a)(b)]		X	X	X		
D.3.3. Comprehensive plans for each jurisdiction will contain a multi-year financing plan which includes an analysis of the jurisdiction's ability to fund existing or future transportation improvements and identifies existing and new revenue sources, which may include impact fees. If identified funding falls short, the jurisdiction will reassess land use assumptions to assure that level of service standards will be met. [RCW 36.70A(6)(c)]		X	X	X		

D.3.4. 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)]		X	X	X		
D.3.5. Local jurisdictions will coordinate transportation planning efforts through the Yakima Valley Conference of Governments, which is designated as the Regional Transportation Planning Organization (RTPO). This regional coordination will assure that an assessment of the impacts of each transportation plan and land use assumptions on the transportation systems of adjacent jurisdictions is conducted and conflicts prevented.		X	X	X		

E. AFFORDABLE HOUSING

The following policies relate to the provision of affordable housing:

POLICY	Nat. Systems	Land Use	Capital Facilities	Transportation	Housing	Parks & Recreation
E.3.1. The County and the cities will inventory the existing housing stock and correlate with the current population and economic condition, past trends, and twenty-year population and employment forecasts to determine short and long range affordable housing needs. [RCW 36.70A.070(2)]					X	
E.3.2. Local housing inventories will be undertaken using common procedures so as to accurately portray countywide conditions and needs.					X	
E.3.3. 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 multi-family 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.		X		X	X	
E.3.4. Housing policies and programs will address the provision of diverse housing opportunities to accommodate the elderly,		X			X	

physically challenged, mentally impaired, migrant and settled out agricultural workers, and other segments of the population that have special needs.						
E.3.5. 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.		X			X	
E.3.6. 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.					X	
E.3.7. Mechanisms to help people purchase their own housing will be encouraged. Such mechanisms may include low interest loan programs and "self-help" housing.					X	
E.3.8. Local comprehensive plan policies and development regulations will encourage and not exclude affordable housing. [RCW 36.70A.070(2)(c)(d)]		X			X	
E.3.9. Innovative strategies that provide incentives for the development of affordable housing should be explored.						
E.3.10. 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.					X	

F. JOINT PLANNING WITHIN UGA'S

The following policies relate to coordinated planning for land use, capital facilities and infrastructure within urban growth areas:

POLICY	Nat. Systems	Land Use	Capital Facilities	Transportation	Housing	Parks & Recreation
F.3.1. The County and cities will work with special purpose districts and other agencies to establish a process for mutual consultation on proposed comprehensive land use plan policies for lands within urban growth areas. Actions of special purpose districts and other public service providers shall be consistent with comprehensive plans of the County and the cities. [RCW 56.08.020, RCW 57.16.010]		X	X			
F.3.2. The use of interlocal agreements is encouraged as a means to formalize cooperative efforts to plan for and provide urban governmental services.		X	X	X		X
F.3.3. Joint financing ventures should be identified to provide services and facilities that will serve the population within the urban growth area.		X	X	X		X

The following policy relates to the process for comprehensive plan amendments, zone changes and development review and approval within urban growth areas:

F.3.4. While it is recognized that nothing in the county-wide planning policy will be construed as altering the land use planning authority of the County or the cities, adopted interlocal agreements shall specify the process by which affected local governments may review and comment on comprehensive plan amendments, zone changes and development applications processed by another jurisdiction within urban growth areas.		X				

The following policy relates to the establishment of common and consistent development and construction standards:

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

G. COUNTYWIDE ECONOMIC DEVELOPMENT POLICY STATEMENTS

The following policies relate to a general strategy to help ensure future economic vitality, broaden employment opportunities to meet the needs of projected future growth while maintaining a high-quality environment:

POLICY	Nat. Systems	Land Use	Capital Facilities	Transportation	Housing	Parks & Recreation
G.3.1. 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.	X		X	X		
G.3.2. Local economic development plans should be consistent with the comprehensive land use and capital facilities plans, and should: a. Evaluate existing and potential industrial and commercial land sites to determine short and long-term potential for accommodating new and existing businesses; b. Identify and target prime sites, determine costs and benefits of specific land development options and develop specific capital improvement strategies for the desired option; c. Implement zoning and land use policies based upon infrastructure and financial capacities of each jurisdiction; d. Identify changes in urban growth areas as necessary to accommodate the land and infrastructure needs of business and industry;		X	X	X		X

e. Support housing strategies and choices required for economic development.						
G.3.3. Coordination of efforts between the many diverse economic development organizations and other related agencies within Yakima County should be encouraged by: a. Identifying linkages between economic development issues and strategies and other growth planning elements (i.e. housing, transportation, utilities and land use); and b. Defining roles and responsibilities for carrying out economic development goals, objectives and strategies.		X	X	X	X	

H. FISCAL IMPACT ANALYSIS

The following policies are related to the provision of cost-effective urban infrastructure:

POLICY	Nat. Systems	Land Use	Capital Facilities	Transportation	Housing	Parks & Recreation
H.3.1. 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.		X	X	X		
H.3.2. 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.			X	X		X
H.3.3. The County and the cities should consider an impact fee process, as provided for in RCW 82.02.050-090, to ensure that new development pays its fair share of the cost of improvements necessitated by growth and contributes to the overall financing of capital improvements.			X	X		X
H.3.4. 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.			X	X		

I. POLICIES PERTAINING TO COORDINATION WITH SPECIAL PURPOSE DISTRICTS, ADJACENT COUNTIES AND STATE, TRIBAL AND FEDERAL GOVERNMENTS

POLICY	Nat. Systems	Land Use	Capital Facilities	Transportation	Housing	Parks & Recreation
I.1. 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.			X	X		X
I.2. Jurisdictions will be encouraged to coordinate plans among and between governments and agencies to make plans consistent and compatible for lands over which they have authority.		X	X			
I.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.	X		X			X
I.4. Each of the governmental entities will be included in the normal public notice and comment procedures of other agencies and kept informed of matters of interest to them.		X				

Appendix B
Shoreline Management Goals and Policies

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APPENDIX B SHORELINE MANAGEMENT GOALS AND POLICIES

PURPOSE STATEMENT

NS 7 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 NS 7.1: Implement the general policy goals of the Shoreline Management Act as listed below (WAC 173-26-176(3)):

a. Utilize Shorelines for economically productive uses that are particularly dependent on Shoreline location or use.

b. Utilize Shorelines and the waters they encompass for public access and recreation.

c. Protect and restore the ecological functions of shoreline natural resources.

d. Protect the public right of navigation and corollary uses of waters of the state.

e. Protect and restore buildings and sites having historic, cultural, and educational value.

f. Plan for public facilities and uses correlated with other shoreline uses.

g. Prevent and minimize flood damages.

h. Recognize and protect private property rights.

i. Preferentially accommodate single-family uses.

j. Coordinate shoreline management with other relevant local, state, and federal programs.

GOAL NS 7.2: 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;

7. Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary.

GOAL NS 7.3: 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 NS 7.4: 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, Natural Floodway / Channel Migration Zone (CMZ), and Urban Conservancy environments. Land uses, and activities should be limited to those that are consistent with the character of the environment designation.

Urban Environment Policies:

NS 7.5 The Urban Environment is to be used for the most intensely developed areas or areas where intensive development is desirable or tolerable. The basic principle in an Urban Environment is oriented toward quality of development in harmony with the shoreline. The Urban Environment should insure optimum utilization of shorelines occurring within urbanized areas by providing for public access and by managing development so that it enhances and maintains the shorelines for a multiplicity of uses.

NS 7.6 The following criteria should be used for the designation of Urban Environments:

1. Areas presently supporting high intensity land use including residential, commercial, industrial and recreational uses.

2. Areas which are planned to accommodate urban expansion of residential, commercial, industrial and recreational uses.

3. High land values.

4. Major public or private capital investments.

5. Close proximity to services and utilities.

6. Few biophysical limitations to development.

7. Potentially low flood hazard.

NS 7.7 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:

NS 7.8 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.

NS 7.9 The following criteria should be used for the designation of Rural Environments:

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

NS 7.10 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.

Conservancy Environment Policies:

NS 7.11 The Conservancy Environment classification is 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. Areas that are isolated from services, have poor drainage, high flood danger, poor ground for septic tanks, unstable earth, or steep slopes should also be designated Conservancy.

NS 7.12 The following criteria should be used for the designation of Conservancy Environments:

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

NS 7.13 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:

NS 7.14 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.

NS 7.15 The following criteria should be used for the designation of Natural Environments:

1. The presence of a natural, historical, cultural, scientific, or educational feature considered valuable by virtue of its existence in a natural or original state and thereby warranting preservation for the benefit of present and future generations.

2. Those areas generally intolerant of intensive human use.

3. Areas with severe biophysical limitations.

4. Natural areas with strong limits on access.

NS 7.16 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.

Floodway / Channel Migration Zone (CMZ) Environment Policies:

NS 7.17 The Floodway/Channel Migration Zone environment should protect the water areas, associated vegetation; 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.

NS 7.18 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.

NS 7.19 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:

NS 7.20 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.

NS 7.21 The following criteria should be used for the designation of Urban Conservancy Environments;

1. areas that lie in incorporated municipalities and urban growth areas;

2. areas appropriate and planned for development that is compatible with maintaining or restoring of the ecological functions of the area;

3. areas that are suitable for water-enjoyment uses;

4. areas that are open space or floodplain, or that retain important ecological functions that should not be more intensively developed;

NS 7.22 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:

Critical Areas, Restoration, And Vegetation Conservation Policies:

NS 7.23 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.

NS 7.24 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.

NS 7.25 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. Encourage protections that incorporate substantive fish habitat elements or follow Stream Bank Protection Guidelines.

NS 7.26 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.

NS 7.27 Provide, where feasible and desirable, restoration of degraded areas along the shorelines of Yakima County.

NS 7.28 Critical areas within shoreline jurisdiction should be protected with the critical area policies and standards protecting all of the County's critical areas, including those for CMZ's and Flood Control.

NS 7.29 Protect shoreline streams, lakes, ponds, and wetlands with a vegetative buffer as described in the Shoreline Master Program.

NS 7.30 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.

NS 7.31 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 in a long-term management plan.

NS 7.32 Selective pruning of trees for safety and view protection, and the removal of noxious weeds should be allowed.

NS 7.33 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 – Physical and Visual Policies:

NS 7.34 Protect navigation of waters of the state, the space needed for water-dependent uses, and views of the water through development standards.

NS 7.35 Transportation and parking plans within shoreline jurisdiction shall include systems for public access, including pedestrian, bicycle, and public transportation where appropriate.

NS 7.36 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. All projects should provide public access, except where it is demonstrated to be infeasible due to reasons of safety, security, impact to the shoreline environment, or constitutional or legal limitations.

NS 7.37 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.

NS 7.38 Access to recreational areas should emphasize both areal and linear access (parking areas and trails or bicycle paths, for example) to prevent concentrations of use at a few points. Linkage of shoreline parks and public access points by means of linear access should be encouraged.

NS 7.39 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.

NS 7.40 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.

NS 7.41 Proper design, location, and construction of road and railroad facilities should be exercised to provide to the degree practical, scenic corridors, rest areas, viewpoints, and other public oriented facilities in public shoreline areas.

NS 7.42 Wherever feasible, utility facilities should be placed underground.

NS 7.43 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 Policies:

NS 7.44 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.

NS 7.45 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.

NS 7.46 Shoreline permits should include special provisions that 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.

NS 7.47 Development which could destroy archaeological or historical sites or data may be delayed allowing the appropriate agency or organization to purchase the site or to recover the data.

Water Quality, Stormwater, and Pollution Policies:

NS 7.48 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);

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

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

8. Water quality protection measures should be balanced with recreation opportunities

NS 7.49 Agricultural erosion control measures should conform to rules and standards established by the Conservation Districts of Yakima County.

NS 7.50 In planning for marina location and design, special water quality considerations should be given to:

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

2. Proper water depth and flushing action for any area considered for overnight or long-term moorage facilities;

3. Adequate facilities to properly handle wastes from holding tanks.

NS 7.51 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:

General Use Policies:

NS 7.52 Establish a system of shoreline uses that:

1. Gives preference to uses with minimal impacts and that are dependent on the proximity to the water;

2. Protects the public's health, safety, and welfare; ecological functions; and property rights;

3. Establishes conditional uses to provide extra protection for the shoreline.

NS 7.53 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.

NS 7.54 Encourage sound management of renewable and nonrenewable natural resources.

Recreation Policies:

NS7.55 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.

NS 7.56 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.

NS 7.57 Where feasible and desirable, encourage the use of public lands for recreational facilities as a more economical alternative to new acquisitions by local agencies.

NS 7.58 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 Policies:

NS 7.59 Encourage a transportation network in Yakima County capable of delivering people, goods, and services, and resulting in minimal disruption of the shorelines' natural system.

NS 7.60 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 ensure that a minimum land area is consumed.

NS 7.61 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.

NS 7.62 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.

NS 7.63 Extensive loops or spurs of old highways with high aesthetic quality or bicycle route potential should be kept in service.

Agriculture Policies:

NS 7.64 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.

NS 7.65 Encourage animal feedlot operations to locate away from shorelines.

Aquaculture Policies:

NS 7.66 Consider aquaculture a preferred shoreline use when consistent with the control of pollution and prevention of damage to the environment.

NS 7.67 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.

Boating Facilities and Marinas Policies:

NS 7.68 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.

NS 7.69 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 Policies:

NS 7.70 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.

NS 7.71 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.

NS 7.72 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 Policies:

NS 7.73 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.

NS 7.74 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).

NS 7.75 Ensure that mining and associated activities are designed and conducted consistent with the applicable environment designation and the applicable critical areas ordinance.

NS 7.76 Ensure that proposed subsequent use of mined property and the reclamation of disturbed shoreline areas is consistent with the applicable environment designation and that appropriate ecological functions are provided consistent with the setting.

Residential Development Policies:

NS 7.77 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.

NS 7.78 Restrict subdivisions in areas subject to flooding.

NS 7.79 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 Policies:

NS 7.80 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.

Utilities Policies:

NS 7.81 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.

NS 7.82 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.

NS 7.83 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 Policies:

NS 7.84 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.

NS 7.85 Discourage industries which have proven to be environmentally hazardous from locating along the shorelines.

In-stream Structural Uses Policies:

NS 7.86 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.

NS 7.87 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, hydro-geological processes, and natural scenic vistas.

SHORELINE MODIFICATION:

General Shoreline Modification Policies:

NS 7.88 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.

NS 7.89 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.

Shore Stabilization Policies:

NS 7.90 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 structure;
2. In support of existing development;
3. To protect projects for the restoration of ecological functions or hazardous substance remediation projects.

NS 7.91 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.

NS 7.92 All shore stabilization activities must be designed and constructed to accepted engineering standards.

Fill Policies:

NS 7.93 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).

NS 7.94 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.

NS 7.95 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 Policies:

NS 7.96 Dredging should only be permitted for maintaining existing navigation uses, not for obtaining fill material or mining.

NS 7.97 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 Policies:

NS 7.98 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. Such structures in stream are not reasonable to site at all locations and the effects of winter ice on a structure must be considered in design and deployment. Encourage the cooperative use of shared docks.

Chapter 1
Natural Systems

2018
COMPREHENSIVE
PLAN
UPDATE

"Where the West Still Lives"

Chapter 1 *NATURAL SYSTEMS ELEMENT*

A. INTRODUCTION

1. Purpose

Chapter 1 The natural systems element describes the natural, physical and biological environment in terms of the opportunities and limitations it presents for growth and development. The opportunities or assets a community has include agricultural land, clean air and water, forest land, sand and gravel deposits, scenic areas, vegetation, wildlife and wildlife habitat. Limitations or hazards include problems associated with floods, soils and geology. This element identifies the area's resource lands and critical areas and explains how they will be protected.

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

2. GMA Requirements

The Washington Growth Management Act (GMA) requires the comprehensive plan address the following aspects of natural systems:

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

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. When planning for natural hazards, the city must balance public safety with the protection of individual property rights. Goal (6) of the Growth Management Act (GMA) states:

> *"(6) Property rights. Private property shall not be taken for public use without just compensation having been made. The property rights of landowners shall be protected from arbitrary and discriminatory actions".*

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.

B. EXISTING CONDITIONS

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

1. Best Available Science

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

2. Earth

a. Geology

i. Geographic Location

The City of Toppenish and its associated UGA are located approximately 21-miles southeast of the City of Yakima. The City is bisected by the Burlington Northern Santa Fe Railroad corridor. Lands southeast of this corridor have been designated by the Federal Emergency Management Agency (FEMA) as a special flood area subject to inundation by the 1-percent annual chance flood. This designation has been generically termed the 100-year floodplain. The source of the floodwaters is the Yakima River. The elevation of the City ranges from approximately 750 feet to 775-feet above sea level over roughly 2-miles. Lands throughout

the city are essentially flat with loamy and silty loam soils underlain by an alluvial sand and gravel substrate. Drainage predominantly flows to the east and northeast in the direction of the Yakima River. The Yakima River flows eastward to its confluence with the Columbia River, 55-miles downstream near Richland, Washington.

Lands within the City of Toppenish and its associated UGA are primarily irrigated agricultural lands. The irrigation water is sourced from a system of canals and ditches.

ii. Geologic History

The geologic setting of the Yakima Valley is heavily influenced by volcanic activity in the Cascade Mountains and the Columbia Basin during the Tertiary Period together with continued volcanic activity accompanied by glacial erosion during the Pleistocene Epic of the Quaternary Period.

During the Miocene epoch (12-26 million years ago) basalts, originating from large fissures in the earth's crust 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 covered the basalts with a layer of light colored pumiceous sandstone and conglomerates that make up the Ellensburg Formation.

After deposition of the Ellensburg Formation, compressional forces caused uplifting of 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.

In the Quaternary Period, primarily during the Pleistocene Epoch, volcanic activity continued in the Cascades, accompanied with 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 to the Valley's existing drainage pattern.

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

The surface geology of the Toppenish area consists mainly of unconfined young valley fill including unconsolidated alluvium deposited in the upper part of the Ellensburg formation during 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.

iii. Seismic Hazard

All of Washington State is subject to some degree of risk from seismic events. Seismic zone classifications in the United States range from A to E. Zones A and B have a low relative risk of strong earthquakes. Zone E has a high relative risk of strong earthquakes. Many areas of the Midwest are part of seismic zone A or B. Most of western Washington is zone D and almost all coastal and southern California is classified as part of zone D. The State of Washington Department of Natural Resources has published seismic risk maps for the state of Washington. Geologic faults have been identified south of the city in Toppenish Ridge and north of the city in the Rattlesnake Hills. No geologic faults have been identified in the city of Toppenish or its urban area. For residential construction such as single and two-family homes lands in Toppenish and its urban area are classified as a seismic design category C. However, non-residential construction such as commercial buildings and schools are subject to a seismic design category D.

iv. Volcanic Hazard

Toppenish area is subject to volcanic hazards of composite volcanoes in the Cascade Range. Mt. St. Helens, Mt. Rainier and Mt. Adams are all composite volcanoes. The eruption of a composite volcano may create potentially hazardous mudflows, floods and tephra (airborne volcanic ash or rock debris). Of these, only tephra from an eruption of Mt. St. Helens has the potential to impact 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. During this period there have been at least eight large-scale eruptions of Mt. St. Helens. The most recent major eruption occurred on May 18, 1980. This eruption resulted in the deposition of 1 to 5-millimeters of tephra in this area.

Another major eruption of Mt. St. Helens could result in the deposition of additional Tephra in the Toppenish area. The extent of the deposition would depend on the wind direction and wind speed at the time of the eruption but could be up to 5-centimiters thick. 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 has a low potential of immediate hazards to human life and health. However, long-term injury to humans could occur if ash-contaminated air is inhaled. Most property damage will be due to the abrasiveness of ash and resulting impacts on machinery. An ash fall in Toppenish could result in a temporary shutdown of operations, but is not likely to significantly damage the facilities.

Mt. Adams is dormant but not extinct. Although this mountain is potentially active an eruption will probably follow patterns set by previous events which consisted of 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 there is little chance that the landslides or debris flows will affect the City of Toppenish.

b. 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 NS-1below was developed using information from the Natural Resources and Conservation Service (NRCS) (formerly the Soil Conservation Service) and are conducted on a countywide basis. Figure NS-1 is intended as a general guide to soil types found in and near the City of Toppenish. If specific knowledge of any soil type or characteristics is needed for development purposes, the Yakima County Planning Department or the NRCS should be consulted.

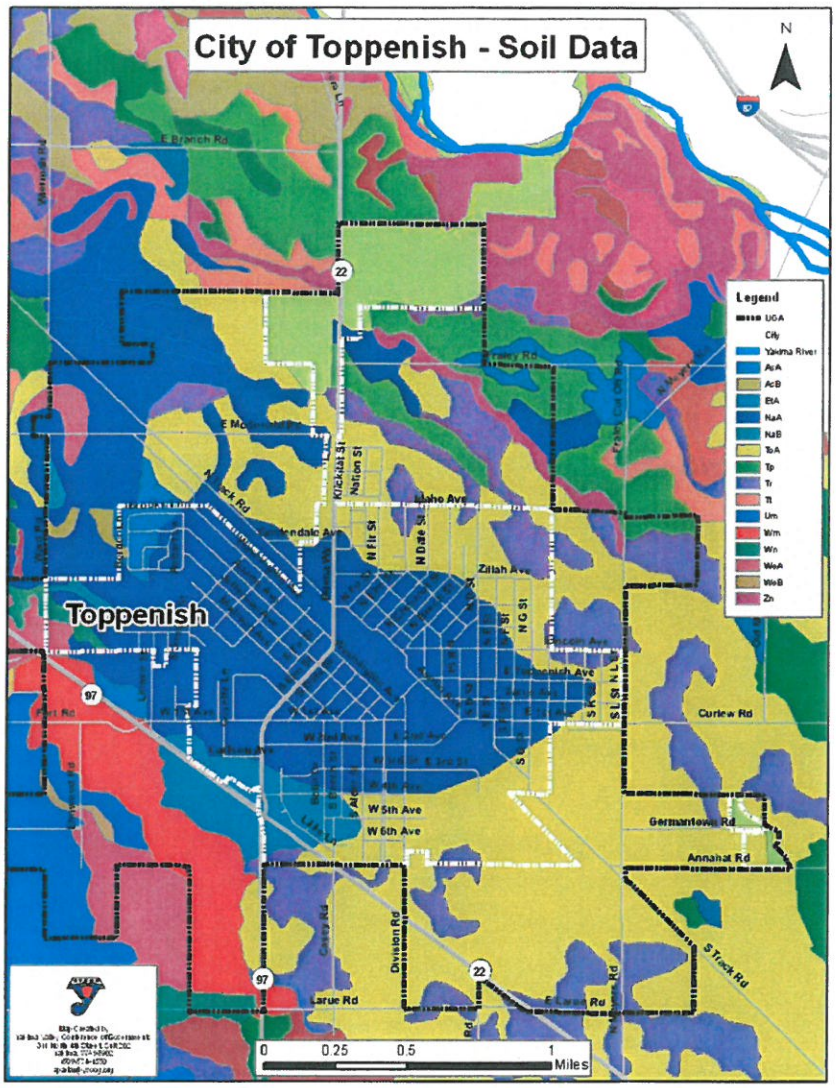


Figure NS-1

i. *Major Soil Types Within the Toppenish UGA*

There are fifteen soil types found within the City of Toppenish and its associated UGA. The predominant soil is Naches loam (NaA) on which most of the central city is located. Included in this mapping are small very gravelly areas and small areas of Ashue Loam,

Toppenish Silty Clay Loam, Track Loam and a range of Weirman Loams. This unit is a well-drained soil that formed in old alluvium. Natural slopes of this unit throughout Toppenish range from 0 to 2 percent, but in most areas, soils have been leveled, producing an average slope of about 1 percent. Permeability is moderate to moderately slow in the surface layer, the subsoil, and the upper part of the substratum but is very rapid in the lower part of the substratum. The soil holds 6 to 8 inches of water that plants can use. Runoff is slow, and the hazard of water erosion is slight. Most of the acreage of Naches soils is irrigated.

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

Other soil types found scattered throughout the city and UGA include Ashue Loams, Esquatzel Silt Loams, and Toppenish Silty Clay Loams, to name a few. These soils are all well drained, with the majority considered to be prime farmland if irrigated. Most of these soils have a seasonal high-water table leading to possible ground water contamination, and potential flooding of low buildings and buildings with basements.

ii. Agricultural Capacity

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

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

SOIL CLASSIFICATION			**LIMITATIONS**		
Soil Map Symbol	**Series Names**	**Slope**	**Agricultural Capacity**	**Septic Tank**	**Foundations for low buildings without basements**

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

			truck crops, and to grasses and legumes for hay and pasture.	Possible contamination of ground water.	Shallow cuts are possible in selected areas
WoB	Weirman Fine Sandy Loam	2-5%	These soils are suited to small grain and hay and pasture crops, and to tree fruits and grapes if a cover crop can be established.	Moderate: seasonal high-water table. Possible contamination of ground water	Severe: land leveling should be restricted. Shallow cuts are possible in selected areas.
Zn	Zillah Silt Loam, Channeled	0-2%	This unit is used as rangeland and for wildlife habitat. The potential native vegetation is mainly basin wildrye, tufted hairgrass, sedges, and willows. The main limitation for the production of forage is wetness.	This unit is limited for livestock watering ponds and other water impoundments because of the seepage potential. Water tanks are a more effective means of storing water for livestock.	Severe: severe flooding

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

Preservation of productive agricultural land is a high priority in Yakima County. As a result, non-farm use of this resource should be kept to a minimum in areas not already experiencing high density urban development, and where the combination of past trends and future population projections do not indicate a need for urban expansion in the near future.

3. Air

a. Climate

The climate for the Yakima Valley, including the Toppenish area is generally characterized as 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 generally dry and hot, with about 85% of the possible sunshine, while winters are usually cloudy with about 33% of the possible sunshine. In the summer months daily temperatures generally range from 65 to 90 degrees, but dry air results in rapid temperature drops after sunset, providing cool evening temperatures, generally in the 50's. Temperatures of 100 degrees frequently occur in the months of July and August. The mean annual temperature is between 51.6 degrees Fahrenheit, 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 crop. 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 essential for nearly all crops grown in the Yakima Valley. The Yakima Valley depends on an accumulation of snow in the Cascade Mountains for an adequate supply of irrigation water throughout the summer. In years of normal snow accumulation, ample water is available from snowmelt and storage reservoirs for summer use throughout the Valley. However, when snow accumulation is below normal irrigation water must be appropriated based on seniority of water rights.

b. Precipitation

Precipitation is minimal, with an annual average approximately 7.2-inches. The evaporation rate in the Toppenish Creek basin is approximately 47-inches per year. Most precipitation occurs between October and March. Snowfall is generally light, with average cumulative seasonal total of 11-inches.

c. Wind

Winds are generally light, averaging about 7-miles per hour on an annual basis. Stronger winds ranging from 30 to 65 miles per hour 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 occasionally occur and are most noticeable in the winter. These winds result in a 20 to 30 degree rise in temperature within a period of a few hours.

d. 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). The metropolitan Yakima Valley area, in and around the cities of Selah, Yakima, and Union Gap, is currently a designated maintenance area for both Carbon Monoxide (CO) and particulates of 10 micrometers or less (PM10) that exceed National Ambient Air Quality Standards (NAAQS). Sources of particulate pollutants include emissions due to space heating together with transportation, farming and industrial activities. Levels of other pollutants in the Yakima Valley are normally well below national standards.

The absence of major topographical features in the Lower Yakima Valley, particularly in the Toppenish area, allows for air movement that minimizes the potential for extended thermal inversions. Thus, Toppenish and its urban area is outside of any designated air quality maintenance area. The National Weather Service will issue Air Stagnation Advisories during periods of poor atmospheric dispersion forecasted to persist for 24 or more hours. These advisories, which are issued for all of eastern Washington, are generally issued once or twice a year and typically last 1 to 3 days.

i. Air Quality Regulations and Monitoring

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

The EPA has primary air quality jurisdiction in Toppenish, and all lands within the boundaries of the Yakama Indian Reservation. For reservation lands the EPA has developed and adopted the Federal Air Rules for Reservations (FARR). The FARR are a basic set of federal air rules that apply within the boundaries of 39 Indian Reservations in Idaho, Oregon and Washington to protect human health and the environment. These rules, which became effective on June 7, 2005, ensure that residents within the boundaries of the reservations enjoy the same air quality protection as those living outside the reservations.

Three "priority pollutants" in the Yakima County area have been identified under both the FARR and NAAQS. These consist of 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. PM10 is fine particulate matter, defined as smaller than 10 micrometers in diameter; PM2.5 is fine particulate matter, defined as smaller than 2.5 micrometers in diameter. The Yakama Nation monitors air quality from a station located at 141 Ward Road, just outside of the City limits. The YRCAA maintains an air quality monitoring station in Sunnyside at the Harrison Middle School (approximately 15 miles southwest of Toppenish's city center). Both stations exclusively monitor PM2.5. The annual average of PM2.5 is within National Ambient Air Quality Standards as established by the Environmental Protection Agency.

Carbon Monoxide: Carbon monoxide (CO) is an air pollutant generally associated with transportation sources. Carbon monoxide also is generated by other processes involving incomplete fuel combustion including home heating appliances and residential wood burning. The impact of carbon monoxide 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. There are no stations monitoring CO concentrations in the lower Yakima Valley. However, it is assumed that because the traffic volumes on surface streets in and around Toppenish are relatively low and periods of traffic congestion relatively short, 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 by photochemical reactions involving hydrocarbons and oxides of nitrogen. Unlike carbon monoxide, ozone and other reaction products do not reach their peak levels close to the source of emissions, but rather at locations downwind of the urban air plume after the primary pollutants have had time to mix and react under sunlight. The City of Toppenish is not located in the proximity to an ozone producing urban area and 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 pollutants generated by home heating and transportation build up due to the topography of the metropolitan area (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 maximum NAAQS. Historical violations of NAAQS have led to the designation of portions of the Yakima metropolitan area as and air quality maintenance area due to levels of both PM10 and CO. To address these violations the agency has developed Limited Maintenance Plans (LMP). Both the PM10 and CO LMPs were developed by the YRCAA. Toppenish is located outside of these air quality maintenance areas.

4. Water Resources

The Yakima River Basin is divided into six mainstream river reaches (Yakima Basin Water Resources Agency, 2003). Toppenish is most closely associated with Reach #5. This reach of the Yakima River runs from the Parker Dam north of Wapato, down to the confluence of Toppenish Creek and the Yakima River, just south of the City of Granger.

a. Ground Water

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

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

At the same time, management of surface waters can affect ground water supplies. Ground water conditions are generally unconfined (at atmospheric pressure) and influenced (hydraulically connected) by water levels in nearby streams, lakes, or rivers. Where surface water is diverted and applied to irrigated lands, 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. A shallow aquifer underlies most of the irrigated areas of the Toppenish Creek subbasin and lands immediately along the Yakima River. Flows are southeasterly (in the same direction as the Yakima River). A post basalt aquifer underlies the entire subbasin, except for the areas under Ahtanum Ridge, the Cascades, and the lower ridge dividing the Toppenish Creek and Satus Creek subbasins. The basalt aquifer underlies the entire subbasin, flowing northeasterly.

The potential for ground water contamination in shallow aquifers is high, especially near dairies, feedlots, ditches, canals, and the Yakima River. Many shallow domestic wells in the Toppenish Creek subbasin have levels of nitrate-nitrogen considered to be unhealthy for long term consumption while some also exhibit unsafe levels of bacteria. This ground water is not considered to be a safe source for domestic water usage. Drinking water in the City of Toppenish is sourced from a series of deep wells throughout the City. These deep wells exhibit no signs of contamination.

i. Critical Aquifer Recharge Areas

Ground water systems are replenished (recharged) by the addition of water to the zone of saturation (aquifer) through precipitation, runoff and infiltration from surface water bodies. 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 the upward migration of water from lower aquifers. Ground water discharges into rivers, lakes and streams, or through evapotranspiration, pumping and upward flow of water into the shallower aquifers.

An area in which water reaches an aquifer by surface infiltration, and where there is a downward component of hydraulic head (pressure head), is considered a recharge area. The likelihood that water will infiltrate and pass through the surface materials to recharge the underlying aquifer system (recharge potential) is dependent on many relatively static physical conditions including soil permeability and surficial geological materials. Areas with moderate to high permeability coupled with high groundwater table are vulnerable to contamination from surface activities. Critical aquifer recharge areas (CARAs) are those areas that recharge aquifers used for potable water with a high potential for contamination due to surface activities. CARAs in the Toppenish Urban Area consist of the following:

1. Vulnerable Ground Water Recharge Areas. This designation is mapped in areas of soils with a moderate to high permeability rate coupled with a high ground water table; and

2. Wellhead Protection Areas. Wells supplying public water systems must be protected by a wellhead protection area. These areas are defined by the boundaries of the 10-year time of ground water travel. Wellhead protection is required for wells of the City of Toppenish municipal water system located throughout the city together with wells owned by Washington Beef LLC.

Figure NS-2 depicts CARAs in the Toppenish UGA. A large portion of the Toppenish Creek sub-basin and nearly all the City of Toppenish and its urban area are mapped as a CARA.

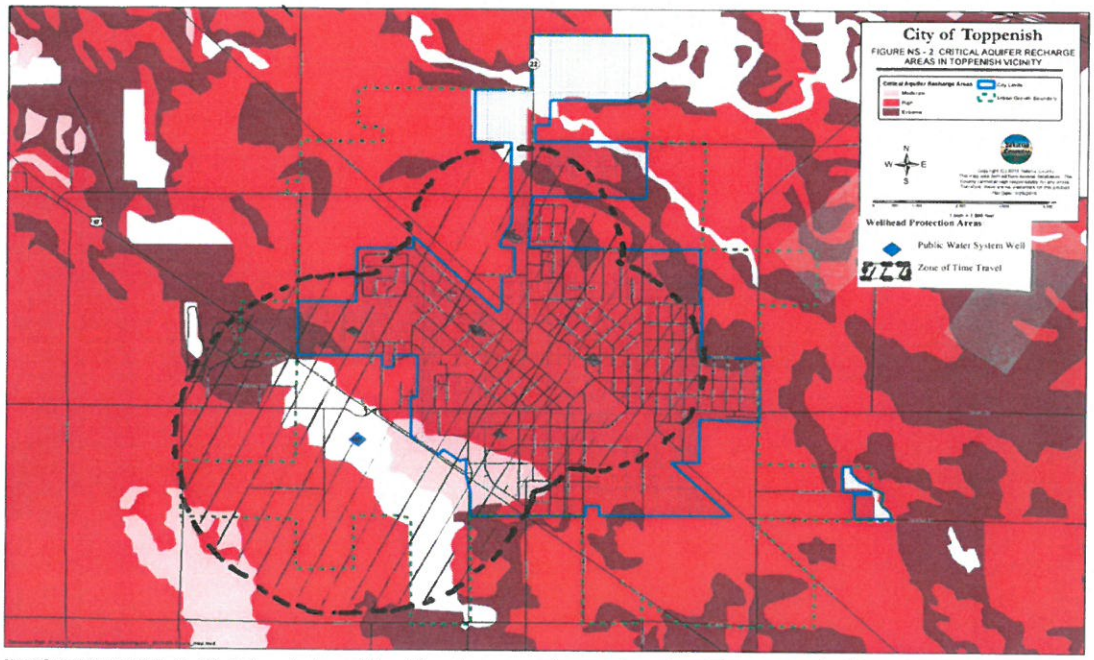


FIGURE NS-2 Critical Aquifer Recharge Areas in the Toppenish Vicinity

ii. Ground Water Quality

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

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

The State's ground water criteria serve as a baseline and as a reference to establish trends in water quality conditions. The State's regulation in WAC 173-200 establishes water quality standards for groundwaters of the state of Washington to protect existing and future beneficial use of groundwater. 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.

The groundwater table in the Toppenish vicinity is heavily influenced by irrigation and agricultural practices on a seasonal basis. This influence is common to areas on the floor of the Lower Yakima Valley. At the beginning of the irrigation season, the groundwater table is typically 14 to 15-feet below grade. As the irrigation season progresses, the groundwater table gradually rises to a level as high as 4-feet below grade. After the irrigation season ends, the groundwater table subsides. This groundwater influence is the result of two factors:

- Most delivery canals are unlined. Unlined canals rely on a buildup of silt to form a lining with varying degrees of effectiveness. Water leaching from the canals influences the groundwater table.
- Most agricultural acreage near Toppenish consists of row crops such as corn which can be flood irrigated. Water and fertilizer that is not absorbed by the plants influences the groundwater table and the excess nutrients impact groundwater quality.

The fluctuation of the groundwater table is very pronounced in the Toppenish vicinity because of the prevalence of flood irrigation. Challenges to the water supply and water quality in the Yakima Valley are likely to continue. The implementation of basic conservation measures including the construction of more efficient delivery systems such as lined canals or underground piping together with more efficient agricultural watering such as circle or drip irrigation provides an opportunity to improve the availability of water for irrigation, improve the quality of the groundwater and reduce seasonal fluctuations of the groundwater table.

A 2010 report entitled "Lower Yakima Valley Groundwater Quality, Preliminary Assessment and Recommendations Document" prepared by The Washington State Departments of Agricultural, Ecology and Health, together with the Yakima County Public Services Department and US Environmental Protection Agency. This report used data from a variety of existing

studies to analyze the safety of drinking water throughout the Lower Yakima Valley. The report found that water sourced from wells having a depth of less than 200-feet may have unacceptably high levels of nitrate and/or coliform bacteria to be considered safe drinking water. There was a strong correlation between nitrate concentration and well depth. Wells with a depth of 100-feet or less are particularly prone high nitrate levels.

A Watershed Assessment performed by the Yakima Basin Water Resources Agency in 2003 noted that ground water quality can be affected by a wide variety of activities which introduce pollutants into the subsurface. Key parameters relative to drinking water supplies include fecal indicator bacteria (fecal coliform), 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.

Large and medium-sized public water systems, like the City of Toppenish, have ongoing programs to monitor, manage and protect the quality of their ground water supplies. Municipal water in Toppenish is sourced through a series of wells located throughout the City. These wells are at a sufficient depth to be insulated from these sources of contamination. Many small water systems and individual households have wells with a depth of 100-feet or less These wells are highly susceptible to threats from ground water contamination. According to this report the following land uses are the most likely sources of elevated nitrate levels:

- Dairies and Livestock Feedlots
- Irrigated Agriculture
- Urban and Rural Residential
- Spray-fields and Wastewater Management

Bacterial contamination includes total coliforms, fecal coliforms and E. coli. Certain strains of E. coli are harmful to humans and can cause illness. E coli can cause severe illness and death in children under 5 years of age, the elderly and persons with compromised immune systems. Primary sources of bacterial contamination include:

- Unsanitary or unsecured wellheads which allow the entry of surface water dirt and other contamination;
- Breaks or leaks in water service lines;
- Failing septic systems and leaking landfills;
- Improper disinfection after construction and repairs; and

- Substandard well construction allowing a path for surface contaminates to enter the groundwater.

The main uses of ground water in the Toppenish Creek sub-basin consist of the following:

- Domestic water supply;
- Fire protection;
- Commercial/industrial use;
- Railway use;
- Agricultural uses including irrigation, frost protection and stock watering;
- Recreation and beautification; and
- Heat exchange.

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

b. 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 of the Yakima River generally to the southeast. Along its route many tributaries join the river until its confluence with the Columbia River. For a map of the Yakima River Basin see Figure 1.2 above.

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

The Yakima River and Toppenish Creek are the only waterways within the vicinity of Toppenish that are classified as Type 1 Streams and designated as "Shorelines of the State" and under the prevue of the Washington State Shoreline Management Act (SMA). On December 18, 2007 Yakima County adopted an updated SMP and Critical Areas Ordinance (CAO). The City of Toppenish adopted the updated SMP by reference. The goals and policies of the SMP are presented in Appendix B. The city has also adopted a CAO specific to the needs of Toppenish. The CAO uses the best available science from Yakima County as a basis for the protection of critical areas in Toppenish.

Two perennial streams; namely Wanity Slough and the Toppenish Drain can be found within the City of Toppenish UGA. Wanity Slough is located south of SR-22 in the southwestern portion of the UGA. The Toppenish Drain enters the UGA in the northwestern corner and traverses southeasterly, then eastern along Annahat Road for 3-miles before draining into the Yakima River. Both are classified as Type 3 streams pursuant to City of Toppenish Standards for the Protection of Critical Areas. Type 3 streams must be protected by a vegetative buffer 75-feet in width. This buffer may be reduced to a width of a little as 50-feet based on implementation of mitigating measurers developed by a qualified biologist.

i. Surface Water Quality

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

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

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

Yakima River: The studies found that Reach #5 of the Yakima River, the reach most closely associated with the City of Toppenish (see Figure 1.2) had some significant surface water quality problems. This reach suffers from instream flow significantly lower than upstream reaches. Also, water quality problems include fecal coliform, temperature, sediment loads from agricultural drains and associated pesticide residues. Portions of Reach #5 are channelized with deficient riparian cover. Of these problems the Yakima Basin Water Resources Agency has classified instream flow and temperature as the most severe.

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

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

The federal Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Section 303(d) of the CWA requires states, territories and authorized tribes to develop lists of impaired waters. These are waters for which technology-based regulations and other required

controls are not stringent enough to meet the water quality standards set by states. The law requires that states establish priority rankings for waters on the lists and develop Total Maximum Daily Loads (TMDLs) for these waters. A TMDL includes a calculation of the maximum amount of a pollutant that can be present in a waterbody and still meet water quality standards. The State of Washington is directed to identify surface-water bodies that do not achieve water quality standards. These water bodies are commonly known as the 303(d) list.

In the Yakima Basin 150 listings have been placed on 70 water bodies listed on the 303(d) list, including many pollutants for the Yakima River. Listings of significance to the City of Toppenish, include the following:

- Yakima River: Lower Yakima River DDT and Suspended Sediment TMDL 97-321.
- Toppenish Creek: Toppenish Creek, located south of the City of Toppenish UGA, was listed on the WDOE 303(d) list for DDT, Fecal Coliform, DDI, Parathion and Dieldrin.

Ecology has a program to develop water quality cleanup plans for each listed stream segment. These cleanup plans are known as Total Maximum Daily Loads (TMDL). TMDL Reports are completed by Ecology and accepted by EPA.

c. Floodplains

The City is bisected by the Burlington Northern Santa Fe Railroad corridor. Lands southeast of this corridor have been designated by the Federal Emergency Management Agency (FEMA) as a special flood area subject to inundation by the 1-percent annual chance flood. This designation is generically termed the 100-year floodplain. The source of the floodwaters is the Yakima River. Past actions by FEMA have revised the flood zone designations around the City of Toppenish. Flood hazard standards first became effective in Toppenish in 1978. Upon adoption of these standards most lands in the City of Toppenish northeast of the railroad corridor were within the "100-Year Flood Boundary". In March 1994, FEMA reclassified the flood zone designation on the flood maps (Community Panel No. 530228 0001 B, and No. 530217 1445 B) for the City of Toppenish and Yakima County (for portions within the UGA) from 100-Year to 500-year Flood Boundary. Then on February 2, 2007, another change by FEMA revised these designations to the current mapping. Figure NS-3 below depicts current FEMA flood designations for the Toppenish vicinity.

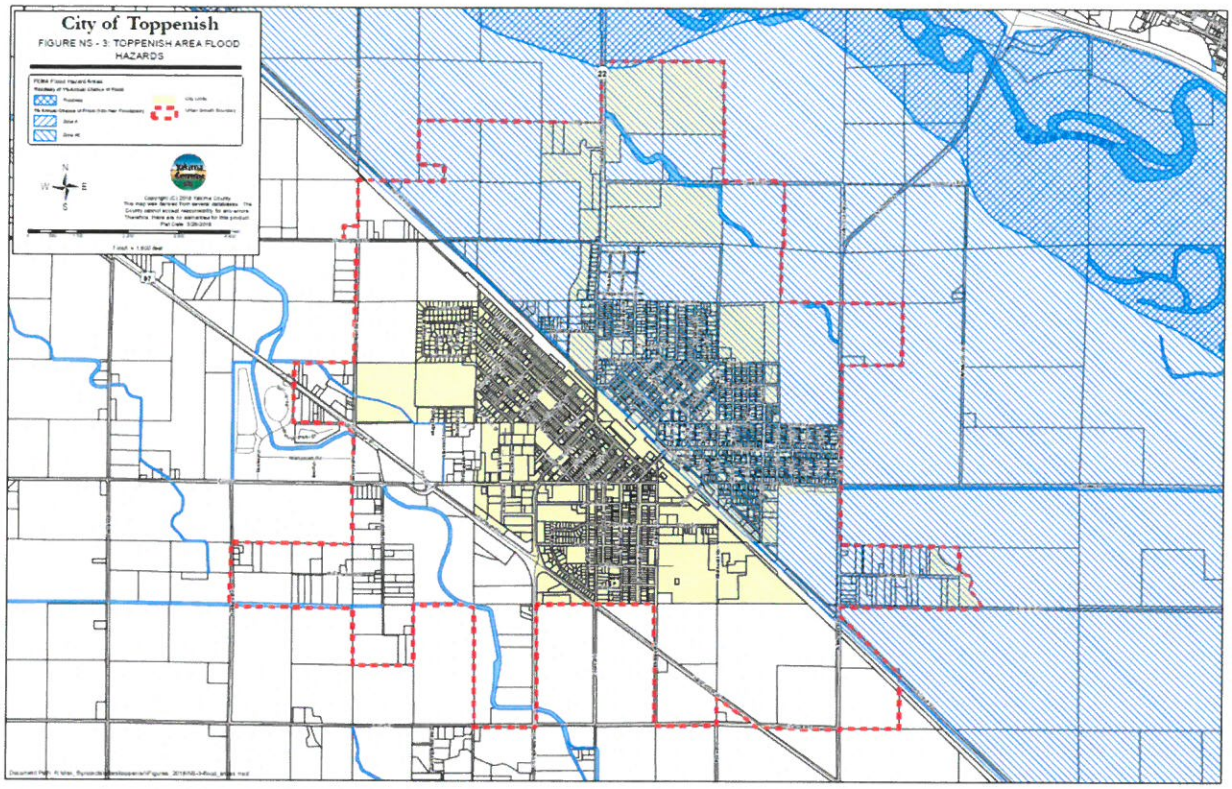


FIGURE NS-3 Toppenish Area Flood Hazards

The revised floodplain designation affects permitting, design and development requirements for new buildings in flood hazard areas. Permits require that all development in designated flood hazard areas be constructed to flood resistant standards. For residential construction, the lowest habitable floor must be elevated to a point at least 1-foot above the projected flood. Non-residential structures including commercial and industrial buildings must either be elevated as required for residential construction or be engineered and constructed in such a manner to prevent the entry water during a projected flood. Yakima County has similar standards that pertain to unincorporated portions of the UGA.

In 1988 the Board of Yakima County Commissioners established the Yakima County Flood Control District. The purpose of the Flood Control Zone District (FCZD) is to address flood management needs within the county. The activities of the district include:

- Basin wide flood planning;
- Flood proofing and elevation of structures;
- Flood warning and emergency response
- Identification, engineering, and construction of capital projects to mitigate and/or address flooding problems;
- Implementation of consistent development regulations that recognized the Impacts of flooding; and
- Property acquisition.

The county will direct its efforts towards planning and managing activities that will protect public property, the coordination and development of county wide comprehensive flood hazard

management plans that are consistent with reducing the potential for flood damage, and demonstration projects to correct emergent flood related problems.

d. Wetlands

Wetlands are areas which have saturated soils or standing water for at least part of the year, contain hydric soils, and which support water adapted vegetation. Area such as swamps, marshes, and bogs are generally considered wetlands. The Toppenish critical areas standards incorporate a four-tier rating system for wetlands, recognizing that some wetland systems are more valuable or irreplaceable than others. The rating system is based on the values and functions of the wetland, degree of sensitivity to disturbance, rarity, and ability to compensate for destruction or degradation (WAC 365-190-090).

Wetlands provide a broad spectrum of natural and physical functions and are economically, biologically, and physically valuable resources in and around Toppenish and the Toppenish UGA. Wetland functions include flood storage capacity, groundwater recharge, moderation of 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, unique habitat, nesting, spawning, rearing, and resting sites for aquatic and land species.

Wetland data for the Toppenish vicinity was gathered from the United States Department of the Interior's Fish and Wildlife Service (USFWS). The USFWS gathers wetland data nationwide and compiles it in the National Wetland Inventory (NWI) map. The data contained in the NWI map for all of Yakima County and the Toppenish vicinity was gathered in the 1980's. NWI mapping was used by Yakima County in their recent update to the CAO. The NWI map for the City of Toppenish and associated UGA is depicted on Figure NS-4 below.

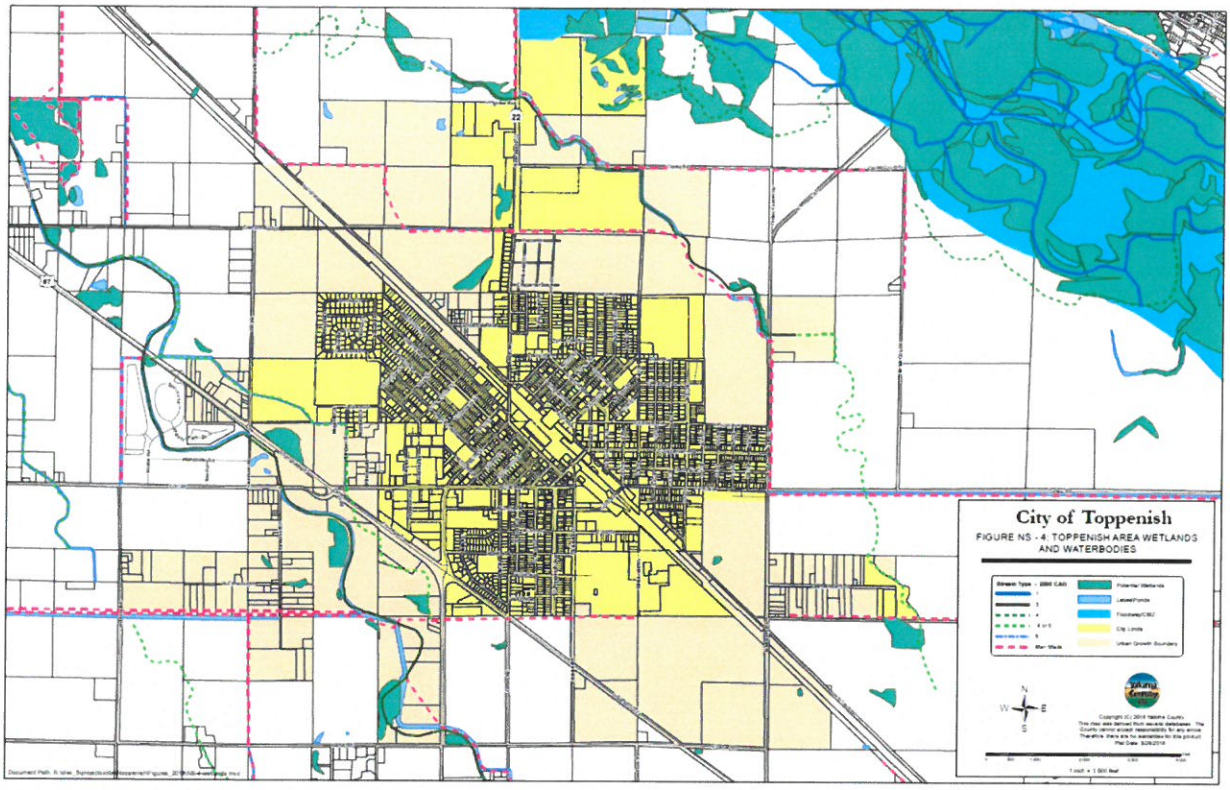


Figure NS-4. Toppenish Area Wetlands and Waterbodies

The NWI map displayed in Figure NS-4 indicates there are few wetlands of high-quality that within the city limits of Toppenish. The entire central area of the City does not contain any wetlands. There are 7 wetlands in the northern part of the city that are most likely associated with the Yakima River. The southern section of the UGA does contain some potentially high-quality wetlands and numerous Type III Wetlands.

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

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

Wetland categories are based on the criteria provided in the Washington State Wetland Rating System for Eastern Washington. These categories are summarized as follows:

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

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

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

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

The Toppenish Critical Areas standards requires protection of wetlands by vegetative buffers based on best available science. The required buffer width varies based on the category and function of the wetland together with habitat value. Buffer widths can be reduced if certain mitigating measurers are implemented. These factors must be based on the recommendation of a qualified wetland professional using the Washington State Wetland Rating System for Eastern Washington.

5. Plants and Wildlife

a. Plants

The Toppenish area lies within the shrub-steppe region of the Columbia Basin Province of the Pacific Northwest. The shrub-steppe region often referred to as the high desert, encompasses the basins in the rain shadow east of the Cascade Mountain range, is characterized by sagebrush and bunch grasses. Farming practices such as cultivation, grazing of livestock, and introduction of exotic plant species have resulted in the alteration of the vegetation in the Toppenish area. The most arable lands are now under cultivation, and the less arable, formerly cultivated lands have been abandoned. In areas where arable lands lack sufficient moisture, irrigation has occurred through federal irrigation projects. Most of the remaining lands have been used for grazing by domestic and native livestock. Many of these lands have been overgrazed, resulting in environmental and soil degradation. Human-caused range fires have also contributed to the alteration of the shrub-steppe vegetation as invasive species have displaced native species after fire events.

The farmed portions of the City of Toppenish and UGA may be used for the growing of asparagus, hops, mint, sugar beets, grapes, corn, peas, small grain, truck crops, tree fruits, and grasses and legumes grown for hay and pasture. Little other vegetation is found among the crops. Other species that occur consist mainly of noxious weeds such as puncturevine (Tribulus terrestris), redroot, pigweed (Amaranthus retroflexus), morning glory (Convolvulus arvense),

cheat grass (Bromus Tectorum) and Kochia (Kochia scoparis). Farmed lands offer fluctuating levels of food and cover for wildlife in correlation with crop types and harvest schedules.

The native vegetation found in the Toppenish area consists mainly of grasses, narrow-leaved forbs and shrubs. According to the NRCS, in areas where the Toppenish-Umapine soil association is predominant, including the Toppenish area, the native vegetation is mainly composed of big sagebrush (Artemesia tridentata), black greasewood (Sarcobatus), rabbitbrush (Chrysothamnus nauseosus), inland saltgrass, and water-tolerant shrubs, grasses and forbs. Cottonwood and willow trees grow along perennial streams, including the Wanity Slough in the southwestern Toppenish UGA. In addition to these plants, the following native vegetation may also be found as they are characteristic of the specific types of soils found within the City of Toppenish and its UGA.

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

• Shrubs and Trees: Big sagebrush (Artemesia tridentata), Rabbitbrush (Chrysothamnus nauseosus), both of the latter plants are found in areas where overgrazing has occurred, and are considered to be less desirable forage plants. Trees include: willow (Salix exigua spp. exigua), western sumac, red elderberry, hard hack spirea, and russian olive (Elaiagnus angustifolia), with elm (Ulnus sp.), alder, or in some areas black cottonwood (Populus trichocarpa).
Emergent marsh vegetation within wetlands or on the banks of the Yakima River, Toppenish Creek or Wanity Slough may include the following:

• American bulrush, Curly dock, Canadian bull thistle, Cattail (Typha latifolia), Field mustard, Hardstem bulrush, Jointed rushes, Manna grass, Marshelder (Iva xanthifolia), Medic, Orchard grass (Dactylis glomerata), Quackgrass (Agrpyron repens), Reed canarygrass (Phalaris arundiances), Sedges, Smartweeds (Polygonum spp.), Spikerush (Eleocharis spp.), Tall fescue, Watercress (Rorripa nasturtium-aquaticum), Water foxtail, and Willowweed. The wetland vegetation provides habitat for food, cover, and breeding as well as a movement corridor for birds and mammals. Amphibians may find limited breeding sites within the streams and wetlands within the Toppenish UGA, though the runoff of agricultural chemicals renders this somewhat less than desirable. The Yakima River north of the City of Toppenish UGA provides the most significant wetland vegetation for food, cover and breeding for fish, birds and mammals.

Some wetlands are created because of irrigation practices. These wetlands may be used as pasture for grazing cattle, thus decreasing their value for wildlife species. Vegetation within these wetlands is limited to herbaceous species such as smartweeds (Polygonum spp.), and quackgrass (Agropyron repens) and have been heavily grazed offering only limited cover and food. Other wetlands are formed from impoundments adjacent to roads and the railroad and receive runoff from these sources as well as irrigation, also decreasing their value for wildlife. These types of wetlands have very low functional ratings, scoring less than 30 points in the Eastern Washington Wetland Rating System, and are often heavily disturbed.

No endangered or threatened plant populations has been identified within Toppenish or its UGA. Little native vegetation is found within the area and it is unlikely that rare plants would have survived the alternations of the habitat; however, it should be noted that no formal rare plant survey has been completed for the purpose of updating the comprehensive plan. Also, the DNR Natural Heritage Program clearly explains that in the absence of field inventories, DNR cannot state whether a given site contains high quality ecosystems or rare plant species.

b. Wildlife

No endangered or threatened species (excluding fish), were reported to occur within the City of Toppenish or the UGA.

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

Non-endangered bird species that may be present in the Toppenish area are those species common in Eastern Washington grasslands and open areas. Species frequenting these areas include the American kestrel, western meadowlark, mourning dove, ruffed grouse, black-billed magpie, common snipe, California quail, killdeer, starlings, western kingbird, Brewer's Blackbird, and ring-necked pheasant. Additionally, in the scrub/shrub habitat associated with the return flow ditches, ducks, yellow warblers and song sparrows are found. Eagles and Great Blue herons have also been observed within the Yakima River and Toppenish Creek subbasin. The Greater Sage Grouse (Centrocercus urophasianus), which is a Candidate species for listing under the federal Endangered Species Act (ESA) and common in some areas of Yakima County, is not found within the City of Toppenish or associated UGA.

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

c. Fish

The Yakima River and Toppenish Creek, both located outside of the City of Toppenish and the UGA, has many areas of prime habitat for salmon spawning, rearing and migration. Anadromous fish found in this river and creek, include spring Chinook salmon, fall Chinook salmon, Coho salmon, and summer steelhead. Bull trout were listed as threatened in the Columbia River watershed by the USFWS in June 1997. Steelheads were listed as threatened in the mid-Columbia River watershed by the National Marine Fisheries Service (NMFS) in March 1999. Coho salmon were listed as threatened in the Lower Columbia River Watershed by the NMFS in June 2005. Spring Chinook Salmon have not been listed as either threatened or endangered but were considered for listing in March 1998 and are considered a species of interest.

An assessment of Fish habitat conditions in the Yakima River Basin were performed for a Watershed Assessment completed by the Yakima Basin Water Resources Agency in 2003Toppenish is most closely associated with Reach #5 of the Yakima River. This reach of the Yakima River runs from the Parker Dam north of Wapato, down to the confluence of Toppenish Creek and the Yakima River, just south of the City of Granger. The Yakima Basin Water Resources Agency found that the Yakima River mainstream conditions were more suitable for fish habitat in the upper three reaches and generally deteriorate in a downstream direction. Habitat conditions are better in the reach between Keechelus Dam and Wilson Creek than in the lower area below Sunnyside Dam.

Reach #5 of the Yakima River is important as a migratory corridor and of secondary importance for spawning. The two primary creeks located with the City of Toppenish's UGA are the Wanity Slough and Toppenish Drain. The beds of these creeks consist of sand and fine mud. Vegetative cover consists mainly of weedy herbaceous species or low brush, though trees are found along the canals in some areas. Water levels and flow can be dependent upon controlled irrigation demands and may not be significantly influenced by natural water injection in all but the heaviest rain or runoff from snow melt. A review of materials provided by WDFW in the Priority Habitat and Species request shows that Wanity Slough does support Coho salmon, and summer steelhead. The Toppenish Drain also supports summer steelhead, but only from the point east of the current wastewater treatment plant on Annahat Road.

The deterioration of fisheries in the Yakima basin has led to the creation of the Yakima Basin Fish & Wildlife Recover Board (YBFWRB). Many of its member governments participate in the working group convened by the Washington Department of Ecology and the US Bureau of Reclamation to develop the Yakima Basin Integrated Water Resource Management Plan. The Yakima River Basin Integrated Water Resource Management Plan, was prepared jointly by the Bureau of Reclamation and Washington State Department of Ecology (Ecology). Reclamation and Ecology formulated the plan through the Yakima River Basin Water Enhancement Project (YRBWEP) Workgroup (composed of representatives of the Yakama Nation, Federal, State, county, and city governments, environmental organizations, and irrigation districts).

The Integrated Plan seeks to meet the water supply and ecosystem restoration needs in the Yakima River through an integrated approach to address a variety of water resource and

ecosystem problems affecting fish passage and habitat and agricultural, municipal, and domestic water supplies in the Yakima River basin. The Integrated Plan includes seven elements: reservoir fish passage, structural and operational changes to existing facilities, surface water storage, groundwater storage, habitat/watershed protection and enhancement, enhanced water conservation, and market reallocation. Figure NS-5 depicts and summarizes elements of the plan.

It is anticipated that the plan will be implemented through a mixture of federal and state legislation and funding.

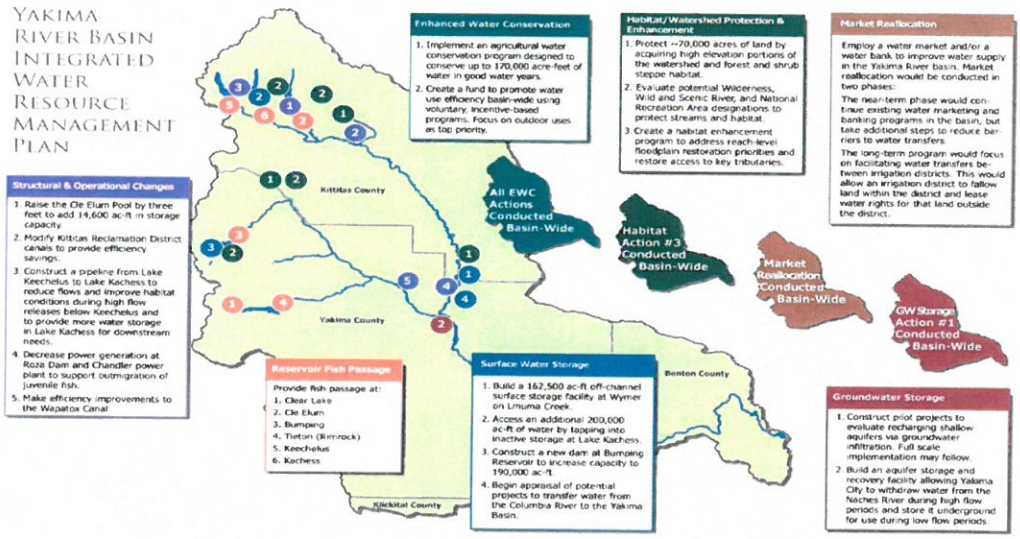


Figure NS-5 Yakima River Basin Integrated Resource Management Plan

C. NATURAL RESOURCE LANDS AND CRITICAL AREAS

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

1. Agricultural Lands

Chapter 1 An analysis of agricultural lands was recently completed using data from the Yakima County Department of Assessments. There are 10-parcels totaling 220-acres within the City of

Toppenish that are currently designated for an agriculture use. There are roughly 30-parcels totaling 780-acres designated as agricultural outside of the city limits but within the UGA.

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

2. Forest Lands

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

3. Mineral Lands

There are no mineral resource lands identified with the City of Toppenish or its UGA. The Yakima County Comprehensive Plan includes an element addressing mineral resources throughout the county. The intent of this element 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 NS-6 below displays the approved mineral resource extraction sites near the City of Toppenish. Significant mineral resource lands have been identified northwest of the Toppenish UGA on the west side of North Track Road to the south of East Branch Road.

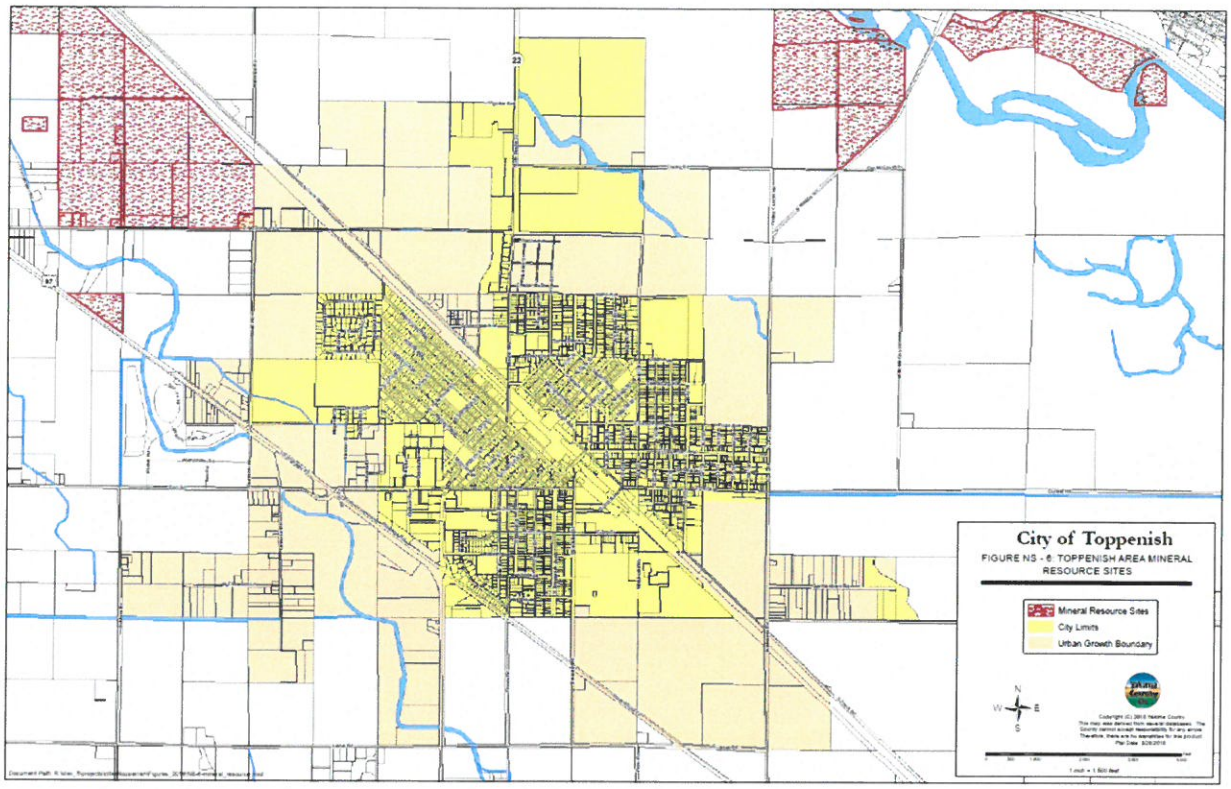


FIGURE NS-6 Mineral Resource Sites near the City of Toppenish

The actual location (area of deposition) of the mineral resource is the primary factor in determining the location of future mining sites. 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."

4. Wetlands

Wetland data for the Toppenish vicinity was gathered from the United States Department of the Interior's Fish and Wildlife Service (USFWS). The USFWS gathers wetland data nationwide and compiles it in the National Wetland Inventory (NWI) map. The data contained in the NWI map for all of Yakima County and the Toppenish vicinity was gathered in the 1980's. The NWI map for the City of Toppenish and associated UGA can be seen in Figure NS-4 above.

5. Critical Aquifer Recharge Areas

Aquifers in the Yakima River Basin are recharged by precipitation, infiltration of surface water, irrigation water, seepage losses from ditches, canals and rivers, and upward migration of water from lower aquifers. Ground water discharges into rivers, lakes and streams, or through evapotranspiration, pumping and upward flow of water into the shallower aquifers. As depicted in Figure NS-2 a large portion of the Toppenish Creek subbasin has a high recharge potential,

especially in the recharge zones for the basalt aquifers along ridges and upland areas, where the basalt is exposed to the surface.

6. Fish and Wildlife Conservation Areas

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

7. Frequently Flooded Areas

Lands northeasterly of the BNSF railroad corridor have been designated by the FEMA as subject to inundation by the 1-percent annual chance flood. This designation was formerly the 100-year floodplain. Figure NS-3 depicts FEMA floodplain designations in the Toppenish vicinity.

8. Geologic Hazard Areas

No geologic hazards have been identified in the City of Toppenish or its UGA. The state of Washington Department of Natural Resources publishes maps depicting geologic hazards throughout the state including active faults, landslides soil liquification and hazardous minerals. Nearby geologic hazards include faults which are confined to area in Toppenish Ridge to the south and the Rattlesnake Hills to the north. These areas are also associated with steep slopes and risk of landslides.

D. GOALS AND POLICIES

The City of Toppenish has adopted the Yakima County Shoreline Master Program. The Goals and Policies of the master program are presented in Appendix B.

The Growth Management Act has designated cities, town and their associated urban growth areas as the primary areas for urban growth. To achieve inter-jurisdictional consistency countywide planning policies have been adopted by each jurisdiction in Yakima County. An analysis of County Planning Policies applicable to this element is presented in Appendix A.

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

GOAL 1: Establish critical areas protection measures to protect environmentally sensitive areas,
and protect people and property from hazards. Policy 1.1: Use the best available science in a reasonable manner to develop regulations to protect the functions and values of critical areas. (WAC 365-195-900)

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

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

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

GROUNDWATER AND CRITICAL AQUIFER RECHARGE AREAS (CARAs)

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

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

WATER QUALITY AND QUANTITY

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

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

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

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

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

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

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

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

Policy 2.8: Ensure that abandoned wells are closed properly.

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

SURFACE WATER

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

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

Policy 3.1: Improve water conservation through education and incentives.
Policy 3.2: Protect water quality from the adverse impacts associated with erosion and sedimentation.

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

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

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

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

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

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

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

STORMWATER

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

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

GOAL 5: Prevent increased flooding from stormwater runoff.

Policy 5.1 Require on-site retention of stormwater.

Policy 5.2 Preserve natural drainage courses.

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

GOAL 6: Improve water quality through improved stormwater management.

Policy 6.1 Review the recommendations of locally adopted stormwater management plans, and

develop a realistic implementation schedule.

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

FISH AND WILDLIFE HABITAT, WETLANDS, AND FREQUENTLY FLOODED AREAS

The area surrounding Toppenish contains some of the most diverse and unique fish and wildlife habitat found anywhere in the country. These environments provide places where animals can find food, water, shelter, and security, and act as gene pools to assure continued genetic diversity. The following goal and supporting policies encourage the protection of fish and wildlife habitat in order to protect the environment for multiple uses. While fish and wildlife habitat includes upland habitat, state administrative code (WAC 365-190-080(5)) focuses on habitat that is related to water. Stream corridors, lakes, ponds, wetlands, flood plains and other areas subject to flooding perform important hydrologic functions including storing and slowly releasing flood waters, reducing floodwater velocities, settling and filtering of sediment and nutrients, shading surface waters, and other functions. These areas also provide natural areas for wildlife and fisheries habitat, recreation areas and rich agricultural lands. Development in these areas diminishes their functions and values and can present a risk to persons and property on the development site and/or downstream from the development. Building in frequently flooded areas also results in high costs for installing flood protection measures to protect life and property and to repair flood damages.

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

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

FISH AND WILDLIFE HABITAT

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

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

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

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

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

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

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

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

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

GOAL 8: Conserve, protect and enhance the functions and values of stream corridors to provide for natural functions and protect hydrologic connections between features. (WAC 17326-221(2)(C)(iv)(b))

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

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

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

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

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

FREQUENTLY FLOODED AREAS

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

Policy 9.1 Support comprehensive flood control planning.

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

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

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

Policy 9.5 Plan for and facilitate returning Shoreline rivers to more natural hydrological conditions and recognize that seasonal flooding is an essential natural process. (WAC 173-26221(3)(b)(v))

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

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

WETLANDS

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

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

2. Regulating property use and development to maintain the natural and economic benefits provided by wetlands, consistent with the general welfare of the City;

3. Protecting private property rights consistent with the public interest; and

4. Require wetland buffers and building setbacks around regulated wetlands to preserve vital wetland functions and values.

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

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

Policy 10.4
Develop a wetlands database.

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

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

GEOLOGIC HAZARDS

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

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

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

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

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

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

Chapter 2
Land Use

2018
COMPREHENSIVE
PLAN
UPDATE

"Where the West Still Lives"

Chapter 2 *LAND USE ELEMENT*

A. INTRODUCTION

The Land Use Element is one of six mandatory elements required by the Growth Management Act. The purpose of land use element is to establish the desirable character, quality and pattern of the physical environment and represent the community's policy plan for growth over the next 20 years. The Washington State Growth Management Act (GMA) requires that the following be addressed by the land use element:

1. Relationship to Other Elements

The Land Use Element is coordinated and consistent with other chapters in the plan. For example, the land use chapter designates some areas that are appropriate for development of the most appropriate land use for a given area. Each of the other elements are interrelated with the land use element and the goals of each element are implemented through land use policies and regulations.

- This land use element has the following components:
- Summary of the urban growth area process and designation.
- Summary of major land use considerations for the city.
- Summary of historic trends and the physical setting for the community, and an inventory of existing land uses within the city and its urban growth area.
- 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.
- Land use plan concept
- Land use goals and policies
- Land use maps
- Appendices
- Process to site essential public facilities (to be completed and coordinated as part of the countywide process)

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

2. Essential Public Facilities

A well-functioning community depends on the availability of and equitable access to a variety of community facilities. Schools, libraries and facilities for enjoying recreation and art are essential to the social and cultural vibrancy of the community. Human services can include childcare, food assistance, medical and dental care, counseling and transitional shelter. The health of the community also depends on the availability of safe drinking water, adequate wastewater collection and treatment, a coordinated public safety system, access to healthy food and opportunities for active living. Siting of certain public facilities can be difficult due to many factors, including increased demand for facilities to serve a growing population, increased

competition for land and problems with siting processes. The Growth Management Act directs communities to establish a process for siting essential public facilities.

B. URBAN GROWTH AREA

The purpose of the Urban Growth Area (UGA) is to establish those areas where urban growth is projected to occur in the city or surrounding lands in the county for the subsequent twenty-year period. The GMA requires that lands within the city, together with the UGA be able to accommodate the projected population and employment growth together with lands necessary for a full range of services including medical, governmental, institutional, commercial, service, retail, and other nonresidential uses for the next 20-years. The UGA may include a reasonable land market supply factor and shall permit a range of urban densities and uses. In determining this market factor, cities and counties may consider local circumstances.

Growth in UGA's must generally occur at urban level densities and be accompanied by a full range of services including water and sewer. The capitol facilities element of the plan must establish the feasibility of providing urban level services within the UGA. Through the comprehensive plan the city has discretion to make many choices about accommodating growth and the growth can occur at a variety of densities and intensities. The UGA should also include greenbelt and open space areas.

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

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

C. EXISTING CONDITIONS

1. Physical Setting

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

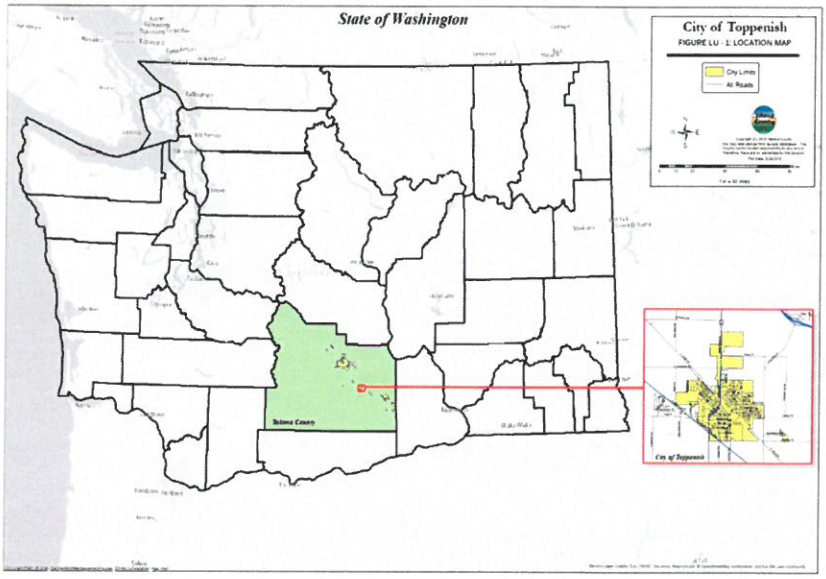


Figure LU-1 depicts the location of the City of Toppenish with respect to the State of Washington and Yakima County.

1. History

The Yakama Indian Reservation was established in 1855 by a treaty between Washington Territorial Governor Isaac I. Stevens and Chief Kamiakin. The tribal government, now known as the Confederated Tribes and Bands of the Yakama Nation, are descendants of 14 tribes and bands that were federally recognized under the treaty of 1855. The provisions of the original treaty set forth that reservation lands were to be solely owned and occupied by the several tribes of Indians that were congregated with common rights under this treaty. Non-Indians could only enter the reservation by permission of the Indians and the superintendent of the agency. The legal effect of this treaty was that the reservation constituted a small, but separate, nation under one common government.

By 1883 lands of this reservation and many others across the country were still under Indian control, and no lands were individually owned. The United States government responded by passing the Dawes Act, also known as the General Allotment Act or the Dawes Severalty Act of 1887. The Dawes Act directed the Indian Department to survey the reservation into allotments. Every man, woman and child with one-quarter or more Indian blood was entitled to an allotment. The size of each allotment was generally eighty acres. When word of the allotment program was

released, Indian families occupied lands that they preferred to establish their claim until the surveying was completed. This process, known to some as a "squatters' claim", was generally accepted.

In 1883 the railroad passed through Yakama reservation land and a depot honoring the Indian name "Toppenish" was constructed. By 1884, the railroad had been built to Yakima and by 1886 the railroad established a terminus at Puget Sound. Upon the completion of rail service from Puget Sound through Yakima Valley, the lush open range of the reservation began looking more attractive to settlement but was unavailable to non-Indians.

Of the Indian families making claims, Josephine Lillie and her family became important to Toppenish history. The eighty-acre parcel the family claimed in 1889 became the original town site of Toppenish sixteen years later. By 1904 there was still no deeded land on the reservation but in 1905, by a special Act of Congress, Mrs. Lillie was granted the first patent on an eighty-acre parcel. Mrs. Lillie quickly platted the north 40-acres into lots and put these lots on the market. To serve these lots she dedicated streets and alleys for public use. Her plat was called the "City of Toppenish", and for the next two years, was the only deeded land on the reservation. In 1906 the Dawes act was amended by the Burke Act. This amendment allowed the granting of other patents of land leading to further platting and more lots for sale. Population growth in Toppenish occurred in short booms every time lots were put on the market. By April 1907, the train depot of Toppenish had grown into a community of nearly 800-people and Toppenish became incorporated later that month. The growth of Toppenish from depot to municipality was a result of deeded land. The expansion of Toppenish was and continues to be based on the availability of suitable land.

Figure LU-2

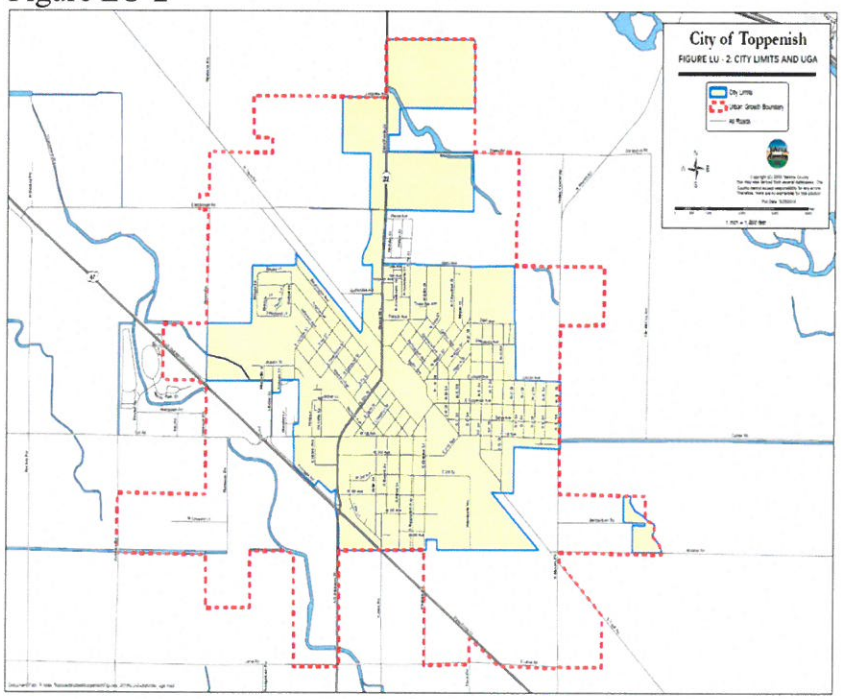
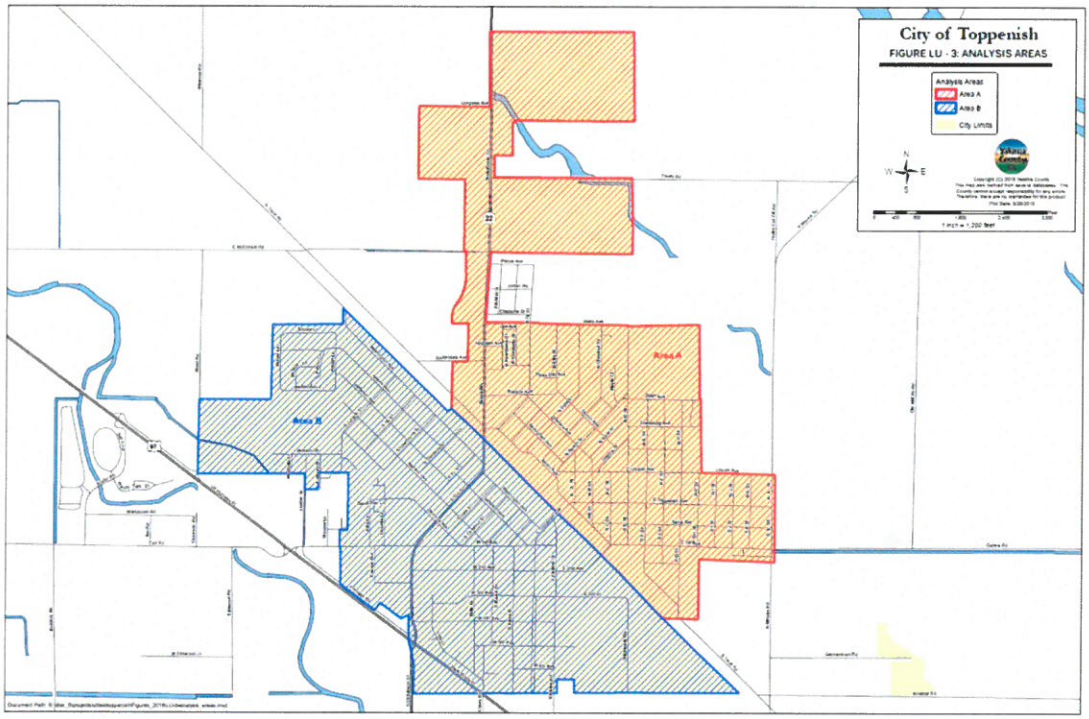


Figure LU-2 depicts the Toppenish City Limits in yellow. The Urban Growth Area (UGA) of Toppenish is depicted by the dotted red line.

B.

2. Analysis Areas

Meaningful census data is only available for areas as small as a census tract. There are two census tracts in Toppenish which divide the city along the BNSF railroad corridor. Residential analysis is presented by the areas formed by these census Tract boundaries as depicted by Figure LU-3. Area 1 is located northeasterly of the BNSF railroad corridor; Area 2 is located southwesterly of the railroad corridor.



3. Zoning Ordinance

The Toppenish Zoning Ordinance is codified as Title 17 of the Toppenish Municipal Code. The main body of the ordinance was adopted in 1964 but there have been numerous amendments in the intervening years since to address changing needs of the community and mandates of state law. Figure LU-3 depicts the Toppenish Zoning Map. There are two residential districts consisting of the R1 and R2 Residential Districts; three commercial districts consisting of the Local Business District (B1), the General Business District (B2) and the Professional Office District (B3); two industrial districts consisting of the Light Industrial District (M1) and the Heavy Industrial District (M2;) a zone called the Public and Semi-Public District and a Planned Development District.

The use districts are supplemented by two overlay districts consisting of the Design Review District and the Historic Preservation District. The Historic Preservation District is inactive.

a. Zoning Ordinance Chapters.

Major chapters of the zoning ordinance are summarized as follows:

i. R-I Residential District

The R1 district allows for one and two-family dwellings, with a minimum lot size of 7,200 sq. ft. and a minimum lot width of 60-feet for a one-family dwelling, and 8,200 sq. ft. with a minimum lot width of 80-feet for a two-family dwelling. The minimum lot size for a single-family

dwelling is 7,200 sq. ft. with a minimum width of 60-feet for single family dwellings, while two family dwellings require a minimum lot size of 8,200 sq. ft. and a minimum lot width of 80-feet. The maximum lot coverage in this district is 40-percent for lots with single family dwellings and 60-percent for lots with two family dwellings.

ii. R-2 Residential District

The R2 district allows one and two-family dwellings together with multiple family dwellings and apartment houses. There is a minimum lot size of 9,200 sq. ft. for multiple family dwellings and apartment houses. The minimum lot size for multi-family dwellings is 9,200 sq. ft. with a minimum lot width of 90-feet. The maximum lot coverage is 50-percent for single family dwellings and 60-percent for two family and multi-family dwellings.

iii. B-1 Local Business District

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

iv. B-2 General Business

The B-2 district allows a wide variety of commercial uses, including commercial uses allowed in the B-1 district but prohibits single family and duplex dwellings. Additional uses allowed in this zone include agricultural and machinery sales, amusement parks, drive-in theaters, skating rinks; the sale of goods on a retail and wholesale basis, feed, seed and garden supplies, frozen food lockers, fuel distributors, glass sales and installation, hotels, motels, and apartment buildings, nurseries or greenhouses, outdoor advertising, pet shops, plumbing or sheet metal shops, research, experimental or testing laboratories, trailer parks and trailer sales;

v. B-3 Professional Office District.

The B-3 district allows single and two-family dwellings, multi-family dwellings together with medical and dental clinics, and professional office buildings;

vi. M-l Light Industry

The M-1 district allows some of the more intense commercial uses found in the B-2 zone, such as agricultural and trailer sales, fuel distributors, nurseries and greenhouses, and veterinary clinics, together with typical light industrial and manufacturing uses such as food processing, wholesale businesses, storage buildings and warehouses, and the manufacture, assembly, compounding or treatment of articles or merchandise made from bone, cellophane, canvas, cloth, cork, feathers, felt fiber, fur, glass, hair, horn, leather, metal, paper, plastics, precious or semi-precious metals or stones, shell, textiles, tobacco, wood (except planning mills), yarns and paint. Residential uses are generally not permitted in this district.

vii. M-2 Heavy Industry.

The M-2 district allows those uses permitted in the M-l zone, together with more intensive industrial uses through a conditional use permit. Some examples of these types of uses are

livestock feeding yards, sales yards, or slaughter-houses, cement, lime, gypsum or plaster of pares manufacture, fertilizer manufacture, automobile wrecking or junkyards, and asphalt manufacture, mixing or refining. Residential uses are generally not permitted in this district.

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

ix. PD Planned Development.
The PD district is essentially a contract zone proposed by the developer and approved by the city on a case by case basis. It allows flexibility in design and uses in exchange for a specific commitment to develop a site consistent with an approved site plan and program.

x. Design Review District.
The Design Review District is an overlay zone mapped along the major corridors of Toppenish and includes the downtown area. New buildings and modifications to existing buildings in this district are required to be consistent with a western design theme. This design theme utilizes elements of western architecture of the 1800s and early 1900s.

xi. Historic Preservation District.
This overlay district requires the formation of an Historic Preservation Commission. The Commission, on a case by case basis reviews and recommends applications by property owners for historic preservation designation to the City Council. If accepted, the designation is noted on the zoning map. Designation as a historic property entitles the owner to a reduction in property taxes. This reduction is limited to the value of improvements or rehabilitation of the property for a 10-year period. The commission is inactive and there is no record indicating that any properties in the city have ever been designated.

In addition to the zoning and overlay districts there also chapters which address specific land use issues that may be applicable in any given zone. These chapters include parking standards, critical areas standards, standards for wireless communication facilities, regulation of marijuana businesses together with medical marijuana cooperatives and, standards pertaining to adult entertainment businesses. These chapters are described as follows:

xii. Parking Standards.
This chapter establishes the minimum number of off-street parking spaces that must be provided for buildings based on the type of use. These standards do not apply to buildings in the downtown core of the city.

xiii. ritical Areas Standards.
State law requires each community to identify classes of critical areas within the city and adopt standards for the protection of these areas based on best available science. Critical areas in Toppenish include frequently flooded areas, fish and wildlife conservation areas (associated with

stream corridors) wetlands and aquifer recharge areas. The extent of the required protection measurers depends on the type of critical area.

xiv. Wireless Communication Facilities Standards

These facilities are commonly known as "cell towers". The standards regulate the placement and height of the wireless communication facilities. Several wireless carriers provide service in Toppenish. Within the existing city limits all wireless communication facilities are located on elevated water reservoirs owned by the City of Toppenish. However, the standards are in place if construction of a stand-alone tower becomes necessary. The standards encourage the co-location of multiple carriers on a single tower.

xv. Marijuana Businesses and Medical Marijuana Cooperatives

These standards address businesses engaged in the production, processing and sale of marijuana for recreational and medical purposes together with medical marijuana cooperatives. Medical marijuana cooperatives are composed of up to four medical marijuana patients formed for the express purpose of growing and processing of medical marijuana for personal consumption. Local government has land use authority to regulate or prohibit the establishment of these businesses and cooperatives. City of Toppenish standards prohibit these businesses and cooperatives within the city limits.

xvi. Adult Entertainment Standards

Adult entertainment including adult bookstores, adult motion picture theaters, arcades and dance halls are recognized as form of free speech protected by the United States Constitution. These standards balance the free speech rights of the adult entertainment industry with the need to protect the community from negative secondary impacts of these businesses. The standards prohibit adult entertainment businesses from locating within 800-feet of sensitive uses such as schools, churches, parks and residential zones.

xvii. Provisions for the siting of manufactured housing.

Manufactured homes meeting certain age and appearance standards are permitted on individual lots in any district that allows single family homes. Manufactured homes must be either new or not more than 5-years of age. The appearance standards, which apply to all residential structures include minimum roof pitch, wood like siding and a front door facing the street.

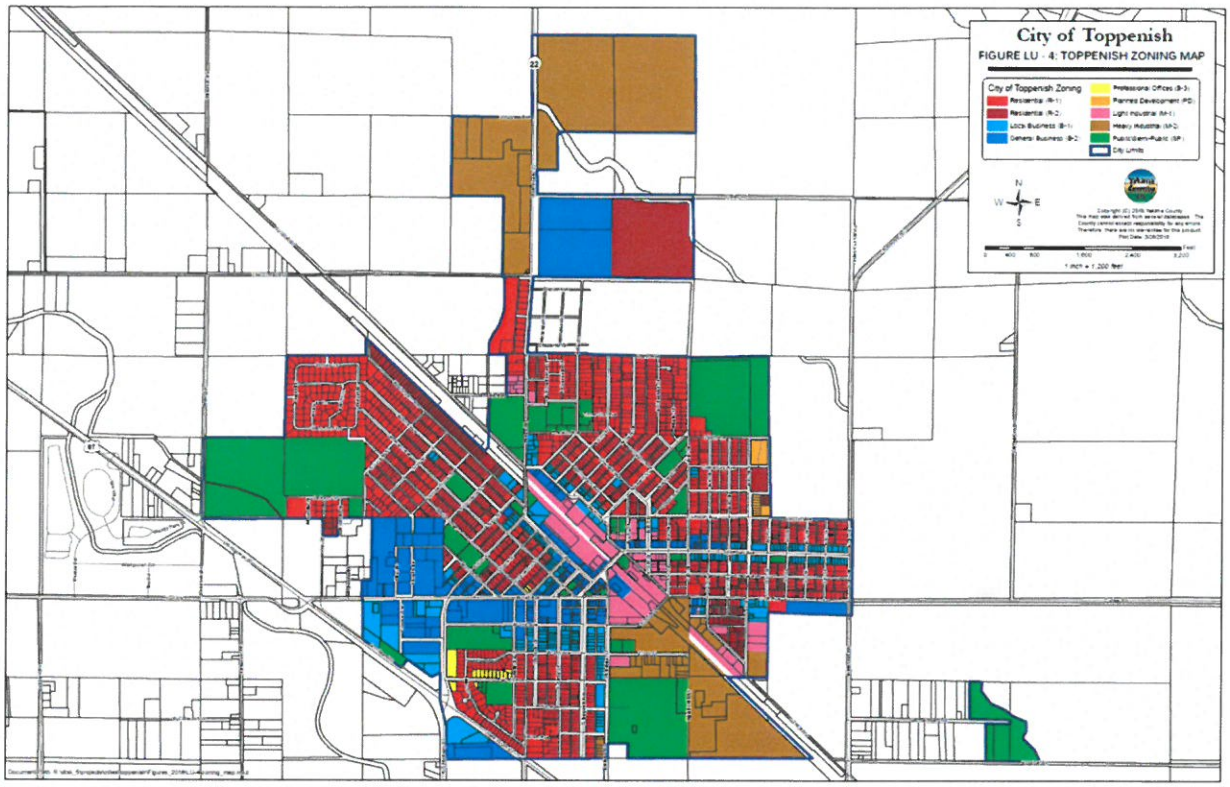
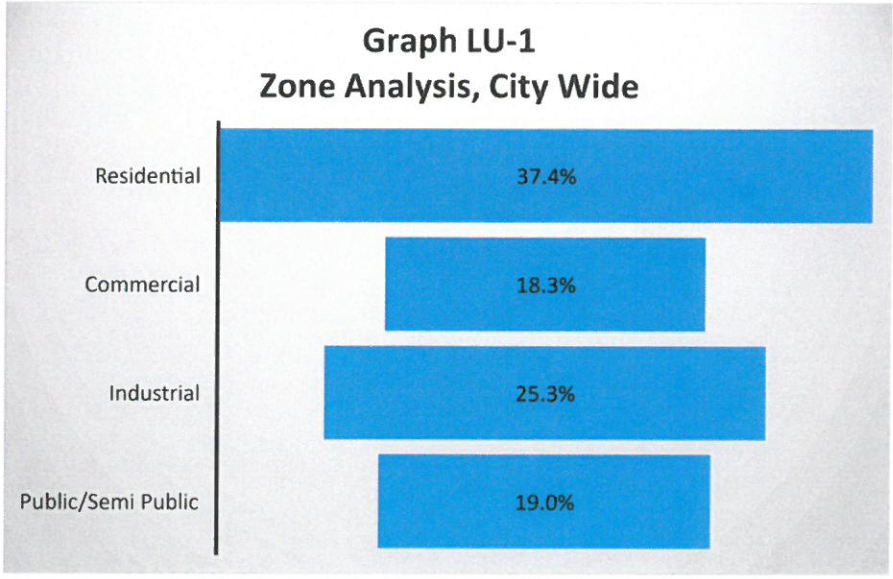


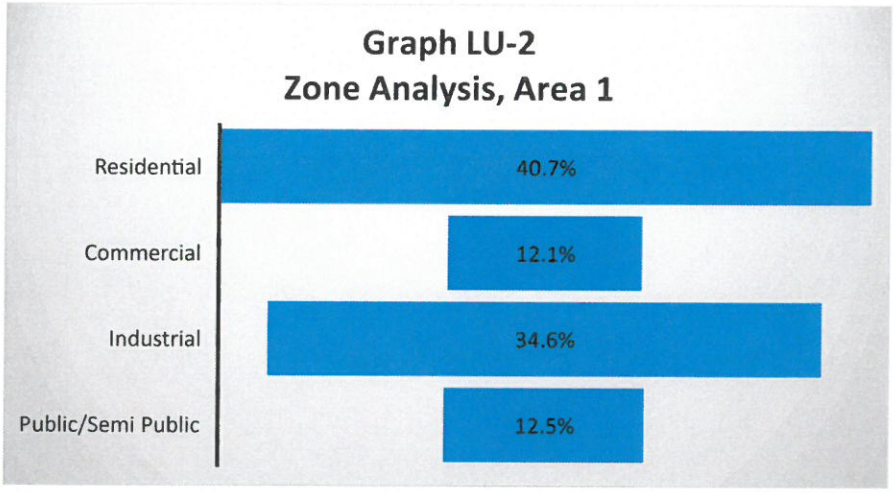
Figure LU-4 Zoning Map

b. <u>Zoning Map</u>

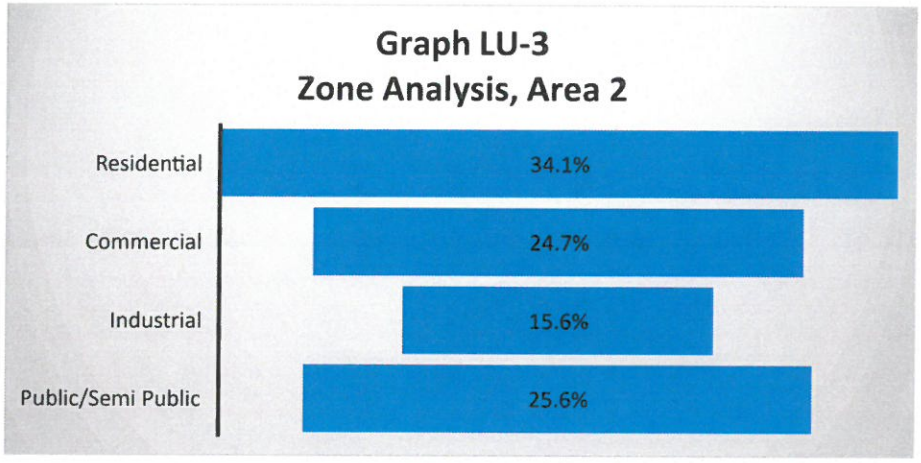
The Toppenish Zoning Map is depicted by Figure LU-4.



Graph LU-1 summarizes the zoning land area by zoning category. Overall 37.4-percent of lands in Toppenish are designated a residential category, 18.3-percent are a commercial category, 25.3-percent are industrial and 19-percent are public/semipublic.



Graph LU-2 summarizes zoning in Area 1. In Area 1, northeasterly of the BNSF railroad tracks approximately 40.7 percent of lands are designated a residential category, 12.1-percent are a commercial category, 34.6-percent are industrial, and 12.5-percent are public/semipublic.



In Area 2, southwesterly of the BNSF railroad tracks, 34.1 percent of lands are designated a residential category, 24.7-percent are a commercial category, 15.6-percent are industrial and 25.6-percent are public/semipublic

4. Land Use Inventory

a. Background:

The land use inventory is based on data compiled by the Yakima County Assessor's Office. The City of Toppenish has a gross area of approximately 1,345 acres. Discounting for public streets and alleys there is a net area of roughly 1,150 acres. Overall, the net acreage is approximately 85-percent of the gross acreage. Traditionally the net acreage of urban areas is roughly 80-percent of the gross acres. There are two reasons for this difference. First; there are large parcels of relatively undeveloped lands on the north side of the city. Second; there areas such as parks, schools and industrial areas that do not incorporate an internal street network. The land use inventory is based on the property use code as determined by office of the Yakima County Assessor.

For this analysis land uses were divided into seven categories consisting of the following:

- Residential: Includes Single, two-family, multi-family dwellings and manufactured home parks.

- Retail and Commercial Services: Includes stores, restaurants, and service establishments such as automobile repair, professional offices and barber shops and hair salons together with hotels and motels.
- Wholesale and Manufacturing: Consists of manufacturing and warehousing businesses.
- Community Service: This category includes non-profit services including schools, churches and government.
- Cultural, recreational, assembly. Lands devoted to public parks, together with cultural activities such as museums and assembly facilities.
- Utilities/Rail/Transit/ Parking: This category includes land devoted to utilities such as power substations, rail cooridors, transit areas and vehicle parking.
- Agricurtural/Undeveloped: Lands currently in agricultural production together with lands that are vacent.
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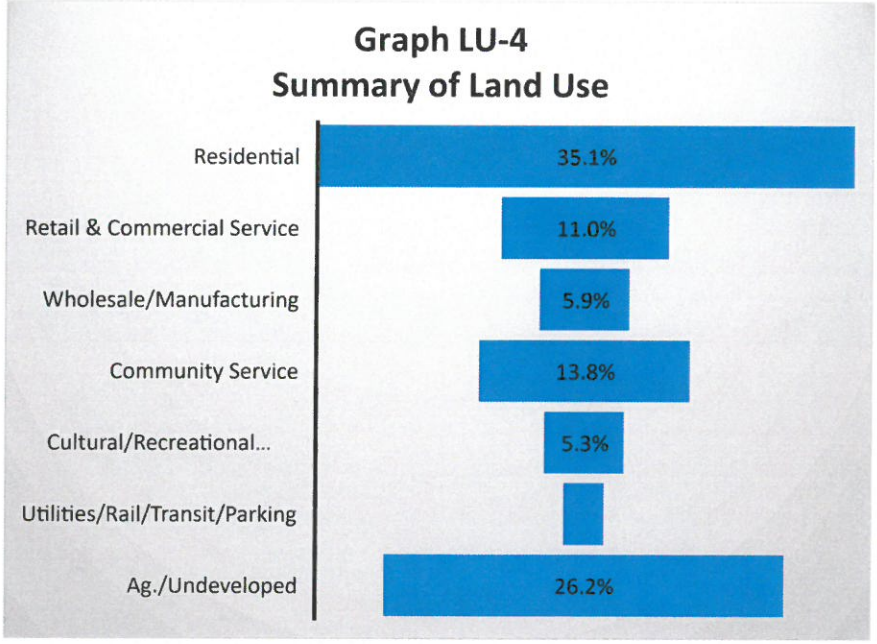

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b. Citywide Land Use Summary

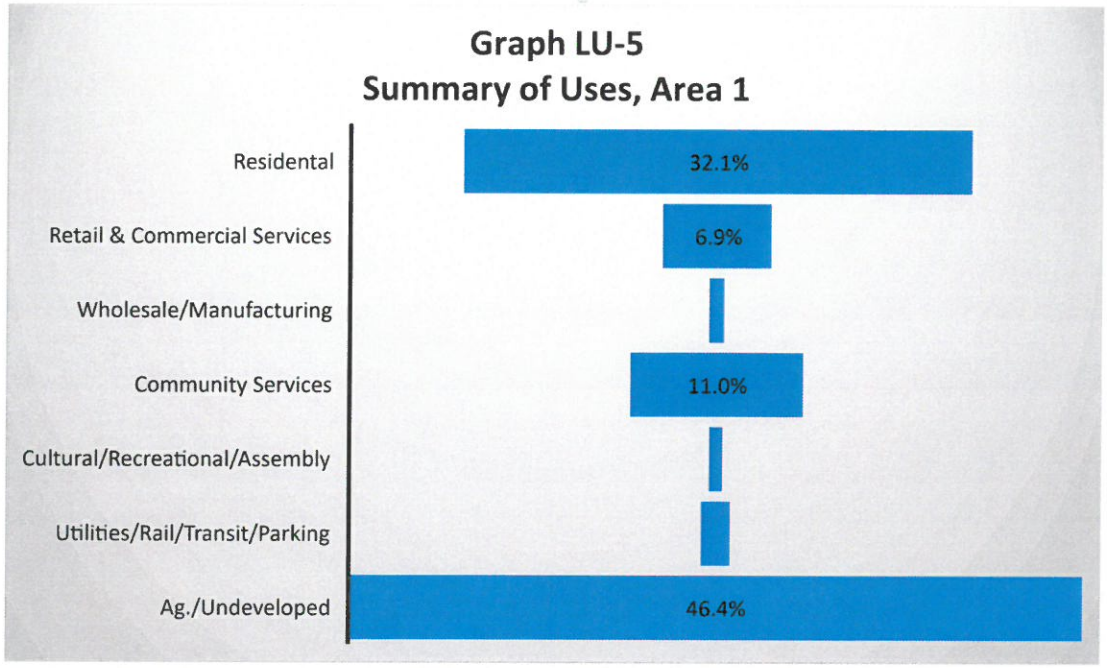
Overall, 35.1% percent of lands are used residentially, while 11% are occupied retail and commercial services. Manufacturing and wholesale uses constitute almost 6% of land uses and community services comprise almost 14% of lands. Lands that are undeveloped or used agriculturally occupy 26% of the land area. Other uses including utilities, rail/transit, wholesale trade and hotel/motels consist of 2.7% of the land area but each occupy less than 1% of lands. Approximately 26.2% of lands in the city are classified as undeveloped or agricultural.

Approximately 370 acres are devoted to residential use. Residential development occurs throughout the city in the form of single family dwellings, duplexes, multi-family dwellings and some mixed-use structures. Single family dwellings constitute 88.9% of all residential lands.

a. Area 1, northeasterly of BNSF Rail Corridor

This area has a gross acreage of 680-acres and a net acreage of roughly 525-acres. The 2010 census enumerated 4,438-persons and 1,136 housing units. Most housing units are single family dwellings on individual lots. However most recent residential activity consists of the construction of multi-family units. The population density of this area is 6,097 persons per square mile which equates to 9.5 persons per acre. There is an overall average of 2.66 dwelling units per acre.

Discounting for lands devoted to large scale public uses including schools and parks, institutional uses such as the hospital and large scale industrial uses there are roughly 495-gross acres.

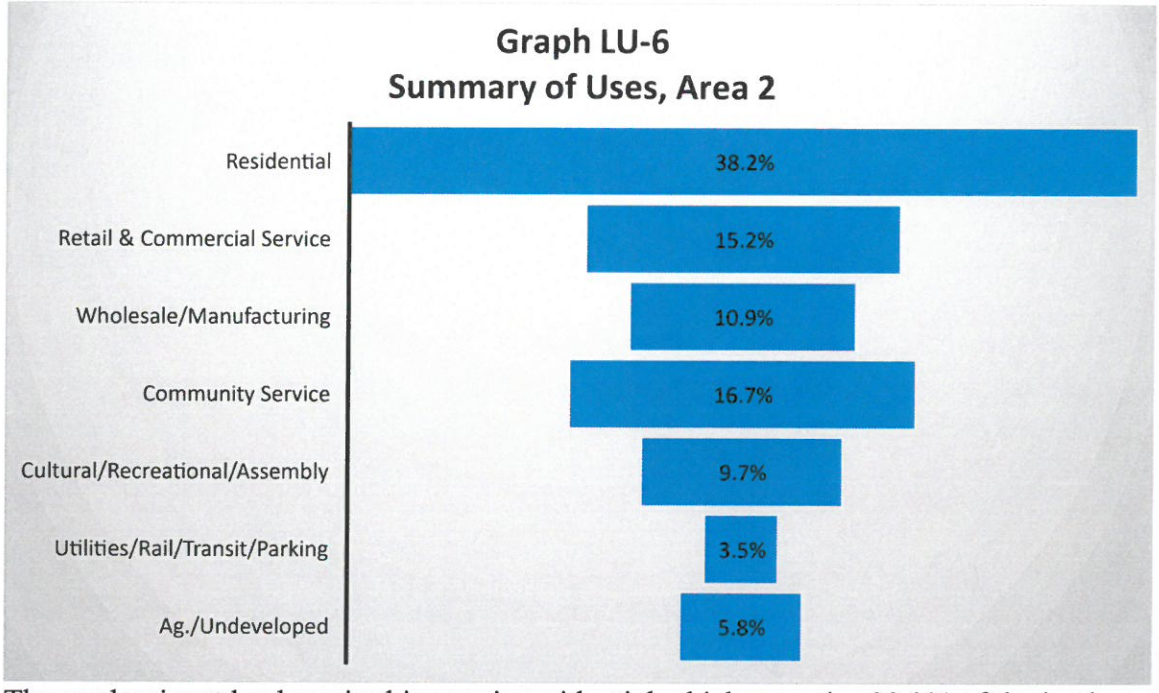


Roughly 46.4% of lands in this area are classified as either undeveloped or agricultural. Agricultural uses within the city limits are interim in nature until development occurs. The predominant land use in this area is residential which comprises 32.1% of the land area. A total of 6.9% of the area is devoted to retail and commercial services, while 11% of the area is occupied by community services such as schools. Other categories total 3.7% of the land area. These categories consist of automobile parking, rail and transit, utilities, wholesale trade, manufacturing and cultural and recreational uses.

c. <u>Area 2, southwesterly of BNSF Rail Corridor</u>

The gross size of this area is 675 acres. The net size is 520 acres. The 2010 census enumerated 4,511 persons, and 1,281 dwelling units. The area has a population density of 7,804 persons per square mile which equates to 12.2 persons per acre. The housing density is 3 units per acre. Mixed use structures are primarily located in the downtown core and typically consist of a multi-story building with commercial uses on the ground floor and apartments on the upper floors Single family dwellings are on individual lots ranging in size from 6,250 sq. ft. (50' x 125'lots)

such as those found in the Mountain View Addition to 12,500 sq. ft. (100' X 125' lots) such as those found in the Berger Lane Addition. Lot sizes in other subdivisions within this area also tend to fall within this range.



The predominant land use in this area is residential which occupies 38.2% of the land area, followed by the community services which occupy 17% of the land area and retail and commercial services which occupy 15% of the land area. Manufacturing and wholesale uses constitute 11 % of the area followed by cultural and recreational uses that occupy almost 10% percent of the land area. Utilities, rail, transit and automobile parking comprise just under 3.5% of the land area. Just under 6% of the land area is undeveloped.

5. Analysis by Type of Land Use

a. Commercial and Service Land Use

There are roughly 115-acres of lands with retail and service-oriented business within the city limits, accounting for approximately 15% of the city's net acreage. The commercial core of Toppenish is divided into two parts. The first part consists primarily of tourist-oriented retail businesses and lies along two streets --W. First Avenue from U.S. 97 to its intersection with S. Toppenish Avenue, and along S. Toppenish Avenue from its intersection with the railroad tracks heading south to W. Sixth Avenue. Typical businesses found within this portion of the commercial core consist of: restaurants; clothing stores ranging from thrift shops to specialty clothing shops; antique stores and craft stores; secondhand stores; grocery stores; auto parts stores; insurance agencies; specialty foods; mini-marts; and beauty salons.

The second commercial area is situated east of the railroad tracks along E. Toppenish Avenue. Commercial businesses in this area generally consist of mainly service oriented businesses such as auto repair shops, a car wash, a laundromat, restaurants, beauty salons, a mini-mart, and

automotive sales are repair businesses. Toppenish also has approximately 4.4 acres devoted to motels. These motels are located along S. Elm Street and along a frontage road of I-97.

b. Industrial Land Use

Within Toppenish, industrial land uses are primarily related to the agricultural industry. The primary industrial employers include Del Monte Foods which operates a cannery; Silgan Containers, a manufacture of metal cans; and Bio Twine a manufacture of twine and packaging for the hop and other industries. These industries are located on the southwesterly side of the railroad corridor from S. Toppenish Avenue to the eastern city limits. Other industrial uses include construction contractors, trucking, metal fabrication chemical processing and auto wrecking. Overall approximately there are 62-acres of lands designated as industrial and manufacturing.

c. Agricultural and Mineral Lands

Agricultural and mineral lands account for approximately 182-acres or 17% of the city's total land area. These agricultural lands include an abandoned lime field (made up of two parcels), and a peony farm located on N. Fir Street.

d. Local and Federal Government Lands and Facilities

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

e. Churches/Civic Organizations

Within Toppenish city limits, there are about 10.63 acres devoted to churches and civic organizations. Toppenish has approximately 10 churches that meet the spiritual needs of residents. Civic organizations include the Toppenish Kiwanis Club, the American Legion Post 50; the Toppenish Chamber of Commerce; the Fraternal Order of the Eagles; the Rotary Club; and the Toppenish Garden Club.

f. Schools/Other facilities

The Toppenish School District has 4-grade schools, one middle school and one high school. A total of 124-acres are devoted to schools. TSD serves approximately 3,300 students. Of that number, seventy-five percent are Hispanic and another eighteen percent are Yakama Nation Native Americans with the remainder of the students being non-Hispanic and Non-Indian. .See the Capital Facilities Element for a more detailed discussion of school facilities and future improvements. In addition, approximately 3.8 acres are devoted to Toppenish Community Hospital. Yakama Nation Headquarter employs an estimated 200 people.

g. Recreational Lands and Open Space Corridors

City Owned Parks. Within the Toppenish city limits roughly 21-acres or roughly 2% of the net acreage is devoted to public parks and urban beatification areas. There are eight public parks and seven beatification areas. Park facilities include a 50-meter outdoor swimming pool, several

basketball courts, a small skate park, an outdoor bandstand and numerous picnic shelters. Park facilities are located throughout the city.

h. Other Recreational Facilities.

The Toppenish School District has six schools with associated recreational facilities. Total acreage of these sites is roughly 125-acres. School facilities include baseball, softball football and soccer fields. The Toppenish Rodeo and Livestock Association owns a 35-acre facility which include rodeo grounds with a grandstand.

i. Outside City Limits.

Notable recreation opportunities outside the city limits include an 18-hole golf course owned by Mt. Adams Country Club situated on a 100-acre site approximately 4-miles south of the city together with the main unit of the Toppenish Wildlife Refuge owned by the United States Department of Fish and Wildlife situated approximately 6-miles south of the city. Approximately 1-mile northeast of the city the Fraternal Order of Eagles leases land for a private park roughly 40-acres in size.

j. Open Space Corridors

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

k. Cultural and Historic Resources

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

In the city limits of Toppenish three buildings are listed on the National Register of Historic Places. These consist of the Liberty Theater Building located at 211 S. Toppenish Avenue, the Toppenish Post Office located at 14 Jefferson Avenue, and the Mary L. Goodrich Library, formerly the Yakama Indian Agency Building at 1 S. Elm Street. There are an additional 12-sites that appear on an inventory of the State of Washington Department of Archaeology & Historic Preservation as potentially eligible.

Toppenish is also home to two museums. The American Hop Museum chronicles the history of the hop industry. The Northern Pacific Railway Museum, housed in a 1911 depot, takes visitors

on a journey back to the days of steam-driven locomotives. Nearby the Yakama Nation Cultural Center exhibits celebrate the region's first residents.

6. UGA Inventory

Figure LU-5 depicts the zoning as assigned by Yakima County to lands in the UGA of Toppenish outside of the city limits.

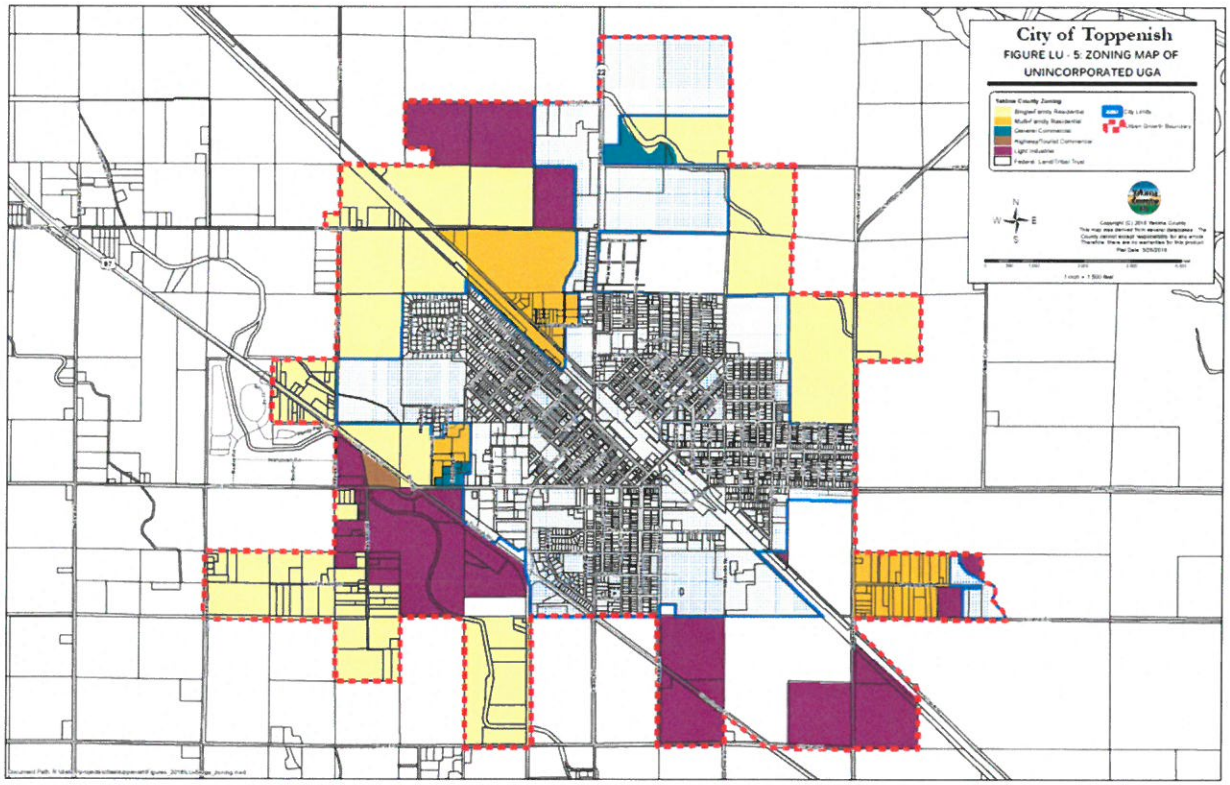


Figure LU-5

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

Toppenish's urban growth area has four areas where One-family Residential (R-I) zoning is present. The first area is located east of N. 'D' Street extending to Toppenish-Zillah Road, consisting primarily of com fields. Southwest of the intersection of SR-97 with McDonald Road, extending past the Berger Addition to Ward Road, lies the second area. This area also consists of primarily crops of either mint or wheat. The third area is located where W. First Avenue intersects with SR-97, on the north side of that intersection. About half of the total land area

within this area consists of Indian trust lands. Directly adjacent to the south side of the Rodeo Grounds, fronting the east side of S. Division Street, is one parcel that makes up the fourth area. This parcel is currently vacant Indian trust land. The R-I zone has been established to provide for lower density residential development in outlying fringes of existing cities, towns or other intensely urbanized areas. This zone also acts as a transitional area between low and high-density developments. The minimum lot size in this zone is 7,200 sq. ft.

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

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D. ANALYSIS and FORECASTS

1. Population Trends, Demographics and Projections

The city of Toppenish grew steadily from the its incorporation in 1907 to the year 2,000. From the year 2,000 to 2015 the population hovered at roughly 8,500 persons. The annexation history for the city indicates that its growth has been predominantly to the north and south sides of W. First Avenue. Toppenish experienced most its growth in population between 1960 and 1990 when the population increased by 1,752 people. The rate of growth during this period averaged 0.96% per year (uncompounded). Natural increases in population (a greater birth rate than death rate) and in-migration accounted for most population growth during the above period. Annexations in Toppenish over this period consisted of raw land or businesses and did not add population. Future annexations of portions of the urban growth area, when they occur, will change this trend and add more persons to the city.

Table LU-1 Population Change

Year	Census Population	OFM Population	Total Change Per decade	Percent Change Per Decade	Average Percent Change Per Year
1940	3,683		1,582		
1960	5,667	NA	402	7.635%	0.76%
1970	5,744	NA	77	1.359%	0.14%
1980	6,517		773	13.458%	1.35%
1990	7,419		902	13.841%	1.38%
2000	8,946		1,527	20.58%	2.06%
2010	8,949		3	.04%	.03
2015		8,955			.
2016		9,050	101*	1.13%*	.19%

**Partial Decade*

a. <u>OFM Population Estimates</u>

According to the State of Washington Office of Financial Management (OFM) the population of Toppenish between 2000 and 2015 hovered at approximately 8,950 and 9,960 persons. The 2016 population estimate for Toppenish is 9,050 persons. The relatively low population growth is attributable to the limited growth of the housing stock, together with the fact that most new housing units are multi-family dwellings. In general, multi-family dwellings tend to have fewer persons per household as compared to single family dwellings.

b. <u>Population Projections</u>

An important consideration in the land use element is the forecast of population growth within the 20-year planning period. The Countywide Planning Policies establish that projections provided by the State of Washington Office of Financial Management (OFM) are to be used as the baseline for the countywide population forecast. Forecasted growth will be allocated among

the jurisdictions based on a cooperative agreement and common methodology. OFM provides a low, medium and high projection of population growth and suggests that the medium projection be considered the "most likely".

a. Analysis of OFM Projections for Yakima County

OFM's twenty-year low, medium and high projections are listed in Table ?? below in five-year intervals from 2015-2040 are depicted on Table LU-2

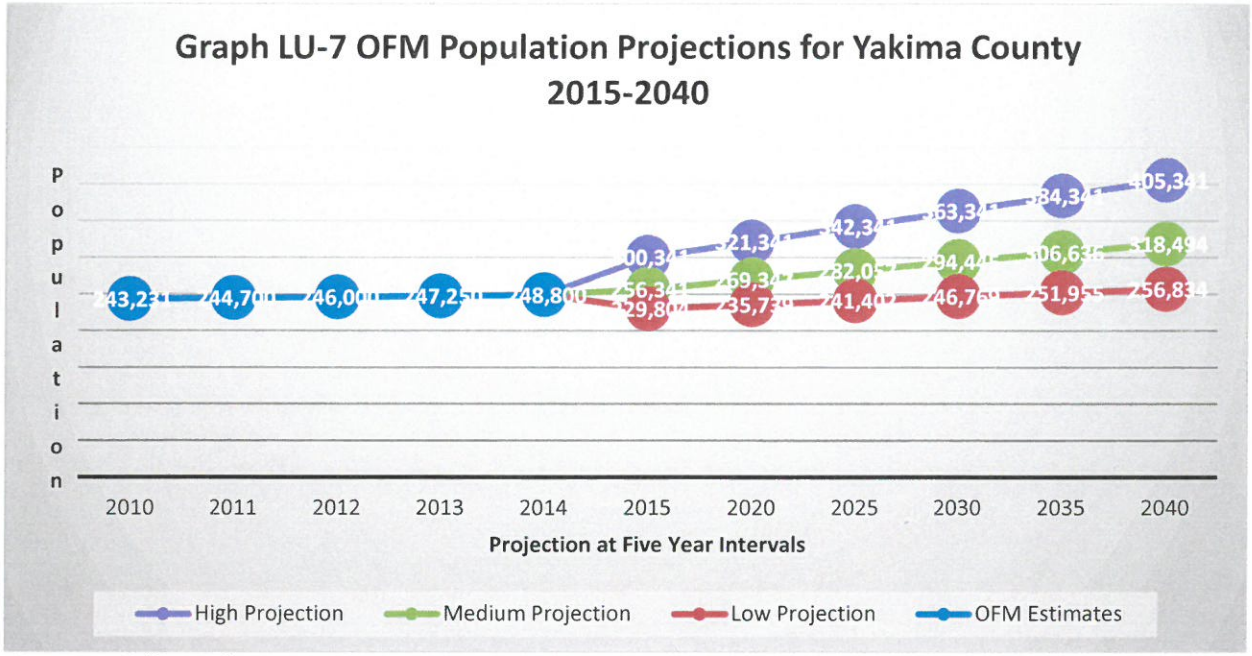
Table LU-2 OFM Population Projections for Yakima County 2015-2040 By Five Year					
OFM Low Projections					
2015	2020	2025	2030	2035	2040
229,804	235,739	241,402	246,769	251,955	256,834
OFM Medium Projections					
2015	2020	2025	2030	2035	2040
256,341	269,347	282,057	294,445	306,636	318,494
OFM High Projections					
2015	2020	2025	2030	2035	2040
300,341	321,341	342,341	363,341	384,341	405,341

Source: Office of Financial Management (five-year intervals)

Graph-7 below is a graphic representation of OFM's countywide population estimates from 2010 through 2014 with OFM's twenty-year population projections for Yakima County from 2015 through 2040. The figure shows that the low projection assumes a large population decrease in 2015. Specifically, OFM projects the 2015 population to be 13,429 less than enumerated in the 2010 Census. When compared to the 2014 OFM County-wide population estimates the low projection assumes that there are 18,998 fewer people in the County at the onset of 2015. This scenario seems unlikely.

OFM's high projection for Yakima County also appears unlikely. The projection assumes that the 2015 population is 57,109 persons higher than enumerated in the 2010 Census, and 51,540 persons higher than the 2014 OFM estimate. Also, the projected 2040 population assumes an average annual increase of 11,422 persons per year.

The medium projection has an average annual growth rate of 0.92% resulting in an annual population change of 2,509. However, the rate of growth gradually declines between the years 2015 and 2040 from an annual rate of 1.08% in 2015 to a rate of .77% by 2040. Accordingly, the medium population projection is adopted as the preferred alternative as both the high and low projections appear unrealistic.



Source: Office of Financial Management

b. Allocation of County Population Projections.

The allocation of the population projections to various jurisdictions is a local responsibility. The countywide planning policies provide for a cooperative process with Yakima County as the lead. The GMA requires that sufficient land be available in the urban area to accommodate the projected growth. There have been two previous population projections. In 2002, the Yakima Valley Conference of Governments (YVCOG) conducted the twenty-year population projections and allocations, and in 2007 Yakima County was responsible for the projections and allocations. Both projections, though five years apart, used the same twenty-year planning horizon (2005 through 2025).

The assumptions used in the development of the YVCOG projections required the use of a straight-line projection. A straight-line projection is an evenly spaced, and regularly increasing or decreasing estimate using the same growth rates for all cities. Using a straight-line projection assumes that all past forces remain the same throughout the projection. It is, essentially, a straight-line projection of past trends in migration, survival and annexations.
The 2007 projections used a hybrid approach to allocate the projected population increase to the County and the fourteen cities and towns. Yakima County utilized YVCOG's population projections and growth rates for the 2007 allocation except for the 2025 high projection. Yakima County used different growth rates for six of the fourteen cities.

Yakima County adjusted the growth rates for those six cities to accommodate the higher level of growth those cities were experiencing at that time. The six cities that were adjusted include: Granger, Harrah, Moxee, Naches, Yakima and Zillah. Yakima County knew in 2005 that those six cities were growing at a higher rate than what YVCOG projected in the 2002 population allocations. The County's solution was to increase the growth rates to those six cities and to use YVCOGs growth rates for the remaining eight other cities. The result was an approach that could be considered a combination of both a detailed growth projection and a straight-line

growth projection. The methodology for the City of Toppenish was based on the straight-line projection method.

For the 2040 growth projections Yakima County significantly revised the methodology for allocating population growth. The projections are based on OFM's medium projection for Yakima County. Since the year 2000, the population of the City of Toppenish has hovered at around 8,500 persons. Minor year to year fluctuations are mostly due to the estimated housing vacancy rate. The revised formula first projects the expected population based on the annual growth rate between the years 2000 and 2014. The result is a growth rate substantially lower than OFM's twenty-year annual growth rate for the County. Accordingly, the projected OFM growth rate is averaged with the past annual growth rate. Table LU-3 depicts the projected annual growth rate in 5-year intervals to the year 2040 and Table LU-4 depicts the projected population for those intervals.

Table LU-3
City of Toppenish Twenty-year Population Projection Growth Rate

OFM Population Estimates 2010-2014 Annual Growth Rate 0.02%	Yakima County Adjusted Annual Growth Rate	City of Toppenish Adjusted Growth Rate					
		2015	2020	2025	2030	2035	2040
	0.55%	0.55 %	0.50 %	0.43 %	0.37 %	0.33 %	0.27 %

Source Data: Yakima County

Table LU-4
Twenty-year Projected Population
City of Toppenish

	2015	2020	2025	2030	2035	2040
Yakima County	256,341	269,347	282,057	294,445	306,636	318,494
Toppenish	9,004	9,195	9,454	9,642	9,810	9,955

Source: Office Financial Management (OFM) and Yakima County.

Based on these projections population in the City of Toppenish is expected to increase by 190 persons by the year 2020 and 1000 persons by the year 2040. Based on an average household size of 3.2 persons per dwelling unit a total of 60 dwellings will be required by the year 2020. By the year 2040 an additional 313 dwellings units will be required.

2. Economic Conditions

a. Economic Status of the Population

In Toppenish, the median household income in 2013 was $29,692 compared with $43,506 for Yakima County and $59,478 in the State of Washington. The poverty rate for all persons in Toppenish was 35.5% while the poverty rate for married couple families was 30.2%. For families with a female head of house and no husband present the poverty rate was 47.6%. The poverty rate in this group jumps to 80.6% in families having children under 5-yearsof age. The overall poverty rate in Yakima County was 22.6% and 13.4% across the State of Washington. Of all cities in Yakima County, only Wapato at 37.9% has a higher rate of poverty.

b. Demographics

Based on 2010 Census population data, the ethnicity of 82.6% of Toppenish's population is Hispanic or Latino, while 17.4% are not Hispanic or Latino. Of the total population 33.8% is classified as white, 8% as American Indian, 0.7% as black or African American, and 0.3% as Asian.

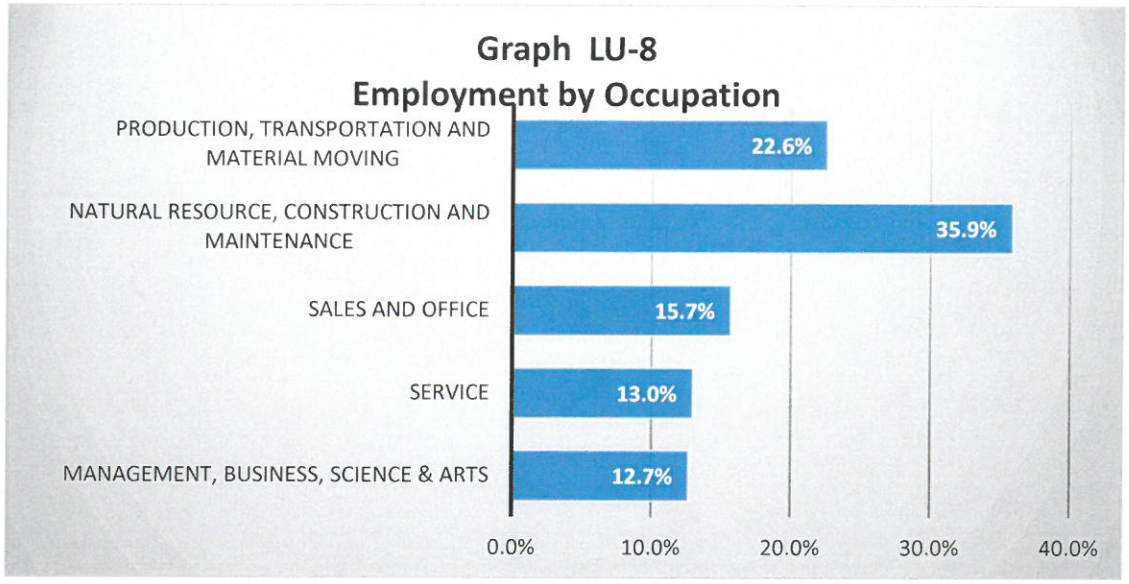
Approximately 33.2% of the population is under the age of 18, and 6.7% of the population is age 65 and older meaning that 51.8% of the population is between the ages of 20 and 64. Of this group about 34.6% of the total population is age 20 through 44. The trend of a large percentage of a city's population being under the age of 18 is consistent throughout the country. Currently in the United States approximately 31.8% of the total population falls in this age group. This has implications in terms of the demand for educational and social services, as well as for the recreational needs of these age groups.

c. Employment of Toppenish Residents

The 2011 – 2015 American Community Survey estimates there are 5,925 persons in Toppenish 16-years of age and older. Of that 3,617 persons or 61% of this group are in the work force. Of the persons in the work force 3,290 persons or 91% are classified as employed and 327 persons or 9% are unemployed.

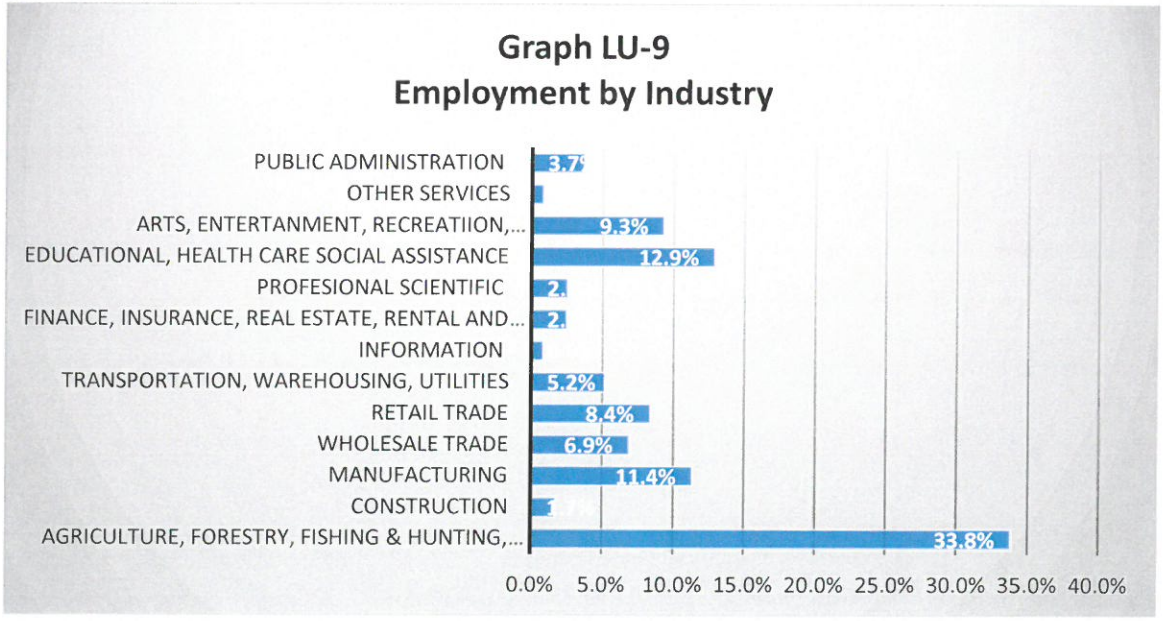
i. Employment by Occupation.

By occupation 35.9% of the labor force was employed in natural resources, construction and maintenance; 22.6% in production, transportation and material moving, 15.7% were in sales and office occupations, 13% were service occupations and 12.7% were classified as management, business, science and arts occupations.



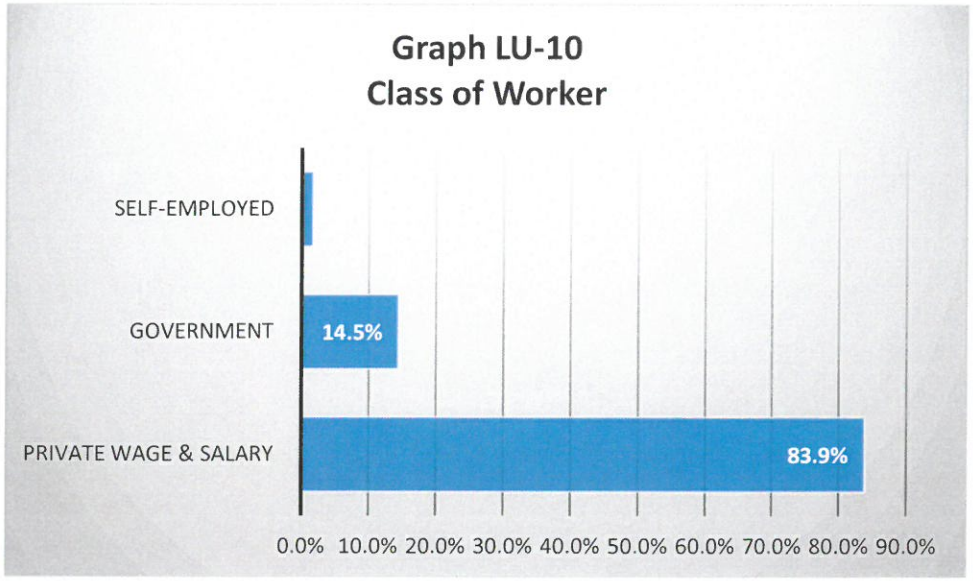
ii. Employment by Industry in Toppenish

The overall economy in Toppenish is heavily driven by agriculture and agricultural processing. Intense agricultural production is found in the urban area and on lands surrounding the city. However, a review of employment by industry does show some diversity. Employment by industry was similar to employment by occupation. Agricultural, forestry, fishing hunting and mining employed 33.8% of the workforce; educational services health care and social assistance represented 12.9% of the workforce; 11.4% were employed in manufacturing; followed by 8.4% in retail trade; 5.2% in transportation, warehousing and utilities; 6.9% in wholesale trade with the balance scattered among construction, information, professional services, and public administration.



a. Employment by Class of Worker.

Of the employed work force 83.9% were private wage and salary workers, 14.5% were government workers and 1.7% were self-employed.



3. Economic Base

Toppenish's major employers consist of Yakima Valley Farm Workers Clinic with approximately 300 employees, the Toppenish School District with approximately 410 employees and Del Monte Foods with approximately 60-full time and 350 seasonal employees. Other industries in Toppenish and the urban area include AB Foods/Washington Beef with 900 employees, the Yakama Legends Casino with 650 employees, Department of Social and Health Services, Silgan Containers Corporation --a manufacturer of cans, Safeway, and Toppenish Community Hospital.

a. Economic Forecasts

Within Yakima County, employment in agriculture, forestry and fishing remains strong and continues to be responsible for significant job growth. Within this sector growth in agriculture and agricultural processing is dominant. Significant growth is also occurring in the health services sector. Consistent with national trends employment in manufacturing retracted in the previous decade. The retraction was most pronounced in transportation equipment together with lumber and wood products. However, this sector is now rebounding and showing slow but uneven job growth. Retail trade continues to account for modest job growth but, consistent with national trends, is showing signs of slowing. Retail businesses, especially small businesses, tend to be sensitive to demographic and population changes and the accompanying demand for goods. Toppenish's small retail businesses tend to show this sensitivity to change and respond to local needs.

4. Analysis of Physical Conditions

Those portions of the Toppenish urban area easterly of the BNSF railroad corridor have been designated by the Federal Emergency Management Agency (FEMA) as a flood hazard area subject to a one-percent annual chance of flooding. This designation discourages development particularly commercial and industrial uses. Development in these area is allowed subject to

flood hazard standards that reduce the chances of damage during a flood event. Residential structures must be elevated to a point 1-foot above the level of the projected flood. Non-residential structures such as commercial and industrial buildings must be either elevated or designed to prevent the intrusion of water in a flood event. The entire city is designated as a critical aquifer recharge area. This designation is due to the presence of a seasonally groundwater table. Land uses that may impact the quality of the groundwater are regulated by critical areas chapter of the zoning ordinance. Other critical areas include steep slopes and other geologic hazards, wetlands, and fish and wildlife conservation areas. Within the City limits of Toppenish few areas have been identified as wetlands or fish and wildlife conservation areas and no geologic hazards have been identified. Figure NS-3 of the natural system element depicts the FEMA flood designations in the Toppenish vicinity. Figure NS-4 depicts wetlands and significant waterbodies in the Toppenish UGA.

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

a. Municipal Water System

Water is sourced from six active wells located throughout the city. The wells have a combined pumping capacity of 5,015 gallons per minute. All wells are equipped with water treatment equipment consisting of gas chlorination for disinfection and fluoridation for dental health. The system has four active reservoirs with a total capacity of 3,448,000 and an available capacity of 2,457,000 gallons. These reservoirs maintain constant pressure throughout the system and provide operating and reserve capacity. See the Capital Facilities Element for a more complete description of water system facilities and capacities.

The water supply currently meets the needs of the residents and businesses in Toppenish, as well as some county residents. The City has been granted water rights for the system through 10-year existing use permits by the Yakama Nation Water Code Department. These permits require periodic renewal

b. Wastewater Collection and Treatment Facilities

The Toppenish General Sewer Plan provides a detailed evaluation of the wastewater collection, treatment and disposal system. The sewage treatment facility is located on Germantown Road on three parcels totaling about 17.6 acres.

A project completed in 2010 resulted in a substantial upgrade to the treatment plant. This upgrade increased the plant capacity and efficiency of the treatment process. The treatment facilities include grit removal, screening, influent pump station, primary clarifiers, aeration basins, secondary clarifiers, UV channel, and an outfall to the Toppenish Drain. The solids treatment facilities include a primary and secondary anaerobic digester, screw press, rotary drum thickener, and sludge drying beds. The treatment plant has the capacity to accommodate projected residential, commercial and industrial growth of the City through the year 2040.

However, increasing inflow and infiltration in the collection system has resulted in flows that periodically exceed the hydraulic capacity of the plant. The capital facilities element of the plan details recommended improvements to reduce infiltration to and restore system capacity. With these improvements in place the system will have the capacity to accommodate projected residential, commercial and industrial growth.

c. Storm Water Facilities

Most of the storm water in Toppenish flows into 18.2 miles of storm sewer collector pipe and 5.6 miles of the larger interceptors. The city has also installed a pumping station devoted exclusively to storm water.

d. Analysis of Public Facilities and Services

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

Within the city approximately 168-acres are devoted to public facilities and services provided by local, state, and federal governments. These include lands and facilities owned by the City of Toppenish, the Toppenish School District, the United States Post Office and the State of Washington Department of Social and Health Services. city hall; and the Department of Social and Health Services (DSHS) and the post office. Institutional buildings include: six schools and the administrative offices for the Toppenish School District; and nineteen churches. Medical and emergency facilities include: Toppenish Community Hospital; the fire and police stations; and, parks and recreational facilities include: and eight parks. Cultural facilities include: the library; the Toppenish Museum; the American Hops Museum; and the Yakima Valley Rail & Steam Museum. Within the urban growth area (UGA), about 49.6 acres or 3.1 % of the UGA's total land area are devoted to public facilities. These public facilities consist primarily of the Elmwood Cemetery, the city's wastewater treatment plant and drying beds, and other utilities. The location of public services should be determined carefully, as there are important health, safety, environmental and aesthetic considerations associated with their location.

i. Police and Fire Protection/Medical and Emergency Facilities

Fire protection for city residents is provided by the city of Toppenish. The fire department is located at 514 W. 2nd Avenue. Outside of the city limits fire protection is provided by Yakima County Fire District No. 5. Police protection is provided by the city of Toppenish within the city limits and by the Yakima County Sheriff's Office for the remainder of Toppenish's urban growth area. The city, county and state have mutual aid agreements for protection services.
The Toppenish Fire Department also provides emergency medical services for victims of trauma or severe medical problems within the city and it's UGA. The firefighters do an evaluation of the victim, provide first aid, and prepare for transport by American Medical Response Company Ambulance.

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

ii. Public Education Facilities

Educational services for the city are provided by the Toppenish School District No. 202. There are four elementary schools, one day care, one middle school, one high school, and one alternative school within the city. The administrative and special services offices and the bus garage and maintenance facility for the School District are also located in the city. Also within Toppenish city limits is the Yakima Valley College Adult Education Center. In the urban growth area, on Linden Way, is the Smartlowit Education Center which administers the Head Start Program for the Yakama Indian Nation.

iii. Government Facilities

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

iv. Parks and Recreational Facilities

The city has nine parks and seven "Urban Beautification Areas". Other recreational facilities include facilities provided by the Toppenish School District, and several commercial facilities: an 18-hole golf course, the rodeo grounds and other recreational opportunities. The 2014-2019 City of Toppenish Parks and Recreation Plan analysis existing and future parks and recreation needs. This analysis was based on an inventory of existing parks and recreation facilities, and community surveys. Through this process recommended capital improvements consist of improvements to existing facilities as opposed to the acquisition and development of new facilities. The recommended improvements are detailed in the capital facilities chapter.

E. LAND USE PLAN CONCEPT

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

The Plan Concept for Toppenish is based on the Future Land Use map for the City of Toppenish and UGA (Figure LU-.6). The Land Use Plan Concept map for the city and its urban growth area show the distribution of land which currently supports urban uses or is zoned for urban uses. The map also includes those lands which are surrounded by more intensive urban uses or have been platted into smaller lot parcels. These areas are noted on the map as "urban".

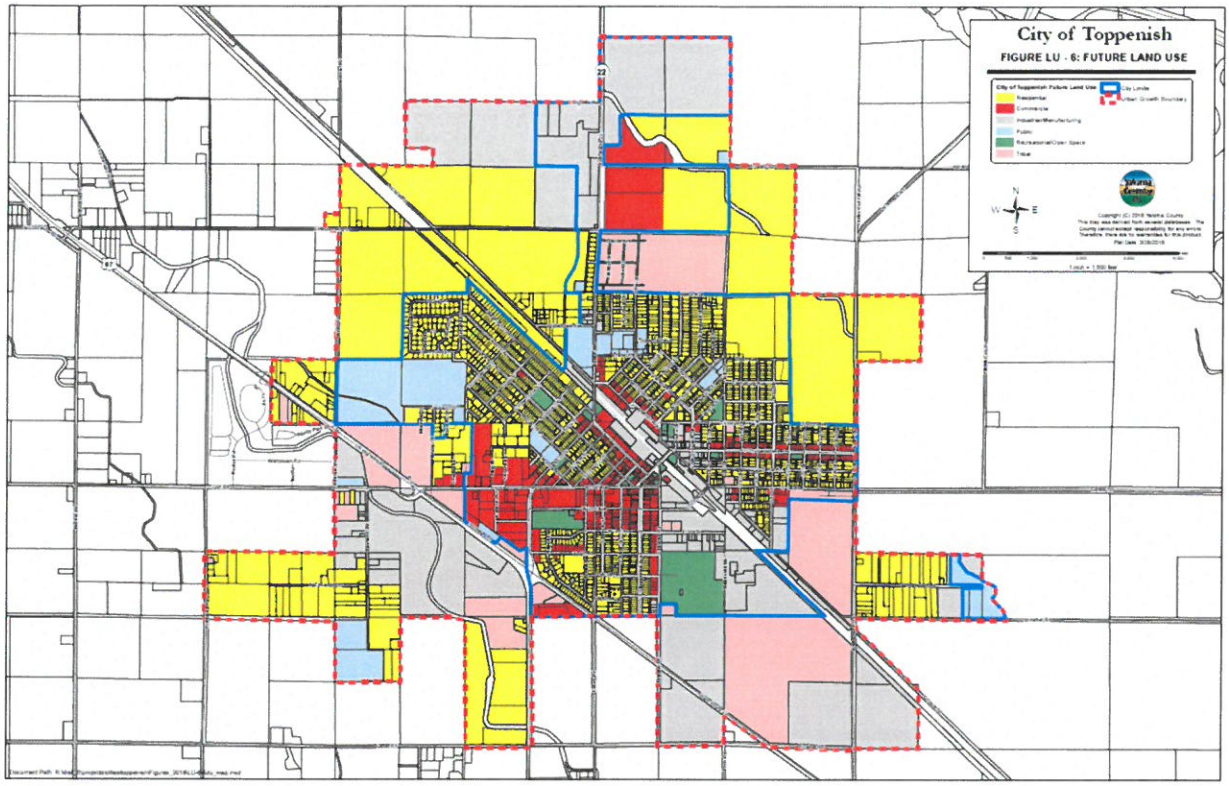


Figure LU-6 Future Land Use Map

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

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

1. Long-range Land Use Needs

The GMA requires that jurisdictions identify where future growth will occur, how the land will be used, and the density and intensity of that growth. To meet this requirement the community must decide how it will grow in the future and develop a future land use map that reflects community decisions. This section outlines how much land will be needed to accommodate the growth projected for Toppenish and its urban growth area by the year 2040. The Land Use Plan Concept and this analysis provide the basis for the city's future land use map, see LU-6. This future land use analysis also ensures that adequate amounts of land are allocated for various land uses. The overall growth rate of City of Toppenish and its urban area is expected to be modest.

This modest growth rate can be accommodated within the City and its associated UGA while providing ample market choice.

a. Residential Land Use

Approximately 370-acres of land in Toppenish is identified as residential use.
The 2017 population estimate for Toppenish was 9,085 persons (Office of Financial Management [OFM]. By 2040 the projected population of Toppenish will be 9,995 for a projected increase of 870-persons. The methodology for these projections is described in Analysis/Forecast discussion above. The housing element of this plan identifies the number and type of projected housing units. The projections assume a continuation of recent trends and project that one-third (33.3%) of the new housing units in Toppenish will be single family dwellings and two-thirds or 66.6% will be multi-family dwellings. This analysis also assumes there will be an average household size of 4-persons per single family dwelling and 3.8 persons per multi-family dwelling. Single family dwellings will be developed to an average density of 3-dwelling units per acre while multi-family projects will have a density of 8.5-dwellings units per acre.

By 2040 an additional 224 dwelling units will be required consisting of 72-single family and 152-multi-family dwellings. Based on the assumed densities an additional 42-acres of residential lands will be required. Presently there are 91-acres of vacant residentially designated lands in urban area of Toppenish providing an ample reserve for market choice.

There are approximately 820-acres of lands designated as Residential in the unincorporated portions of the UGA providing additional market choice.

b. Commercial and Service Lands

According to the Toppenish has approximately 115-acres devoted to retail and commercial service activities. The zoning of lands devoted to service activities includes the B-2 General Commercial district together with M-1 and M-2 Industrial districts. Overall there are approximately 196-acres of commercially zoned lands in Toppenish. According to Yakima County GIS analysis there are 40-acres of vacant commercially zoned land inside the city limits and 15-acres outside of the city limits. Based on the expected population growth, approximately 24-acres of commercially zoned land are required to accommodate projected the projected growth of Toppenish. The existing supply of commercial zoned lands in Toppenish is adequate to accommodate these needs with ample market choice. In the unincorporated UGA there are an additional 68-acres of commercially designated lands. These lands are mostly undeveloped or underdeveloped.

c. Industrial Lands

There are currently 55-acres of lands used for light and heavy industry in Toppenish. The evaluation of Light Industrial/Heavy Industrial needs is based on the location and size of existing industrially zoned sites, regional economic development evaluations, and suitable local sites. Within the city, approximately 2.58 acres land zoned M-1, Light Industry is vacant and 49.29 acres of land zoned M-2: Heavy Industry is vacant. This amount of vacant industrial lands is sufficient to meet the city's future industrial and local industries' expansion needs. The future

economic development efforts in the city will focus on retaining and/or expanding existing businesses and creating and/or attracting new businesses.

There are an additional 380 acres of industrially designated lands in the unincorporated portions of the UGA. Roughly 25-percent of these lands are fully or partially developed.

d. Community Services

The demand for additional lands required for community services will be driven by the needs of public schools, local government and non-profit institutions such as the Yakima Valley Farm Workers Clinic. The service area of the school district and service institutions extends beyond the City of Toppenish and its UGA into surrounding areas of the county. Accordingly, land use needs must be based on the expected growth rate of Toppenish together surrounding county lands. It is estimated that the an additional 40-acres of land will be needed. These uses may be accommodated in various land use categories including Public, Residential and Commercial.

e. Recreational Land Use/Open Space

The City of Toppenish Parks and Recreation Plan included an evaluation of the supply of parks and recreation facilities in the Toppenish vicinity. The evaluation included input from the community consisting of surveys, stakeholder meetings and community forums. The plan concluded there is an adequate supply parks and open lands in Toppenish to meet the present and future needs of the community provided the existing facilities are adequately maintained and improvements are made to existing facilities to enhance recreation opportunities.

F. GOALS AND POLICIES

This section presents the land use goals and policies for the City of Toppenish. In addition, the Growth Management Act has designated cities, town and their associated urban growth areas as the primary areas for urban growth. To achieve inter-jurisdictional consistency countywide planning policies have been adopted by each jurisdiction in Yakima County. An analysis of County Planning Policies applicable to this element is presented in Appendix A.

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

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

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

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

Policy 1.4 Accommodate future population growth primarily through infilling and utilization of undeveloped subdivision lots. Conversion of agricultural land to residential, commercial, or

industrial use will be encouraged to occur only after existing undeveloped parcels have been built out.

Policy 1.5_Adopt the medium population projection in the Comprehensive Plan as the guide for growth the City will accommodate through the year 2035.

Policy 1.6 Revise the urban growth area boundaries as needed, and ensure that the urban growth area includes all lands within current City limits and sufficient land contiguous to the City limits to be able to support Toppenish's growth through the year 2035.

Policy 1.7 Revise development regulations as needed to be consistent with the adopted Comprehensive Plan.

Policy 1.8 Promote the use and development of routes and methods of alternative modes of transportation, such as transit, bicycling and walking, which reduce Toppenish's consumption of non-renewable energy sources and promote physical activity.

GOAL 2: Coordinate land uses to minimize the loss of natural resources due to urbanization, and reduce uncertainty and unpredictable development which sacrifices conservation and sound land management.

Policy 2.1 Support the preservation and enhancement of Preserve and expand natural resource lands and support occupations associated with agriculture, such as farming, and marketing of agricultural products within agricultural areas adjacent to the City and its urban growth area.

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

Policy 2.3 Adequate on-site disposal of surface water runoff shall be provided by all types of development.

Policy 2.4 The City shall consider the impacts of new development on water quality as part of its review process and will require any appropriate mitigating measures. Impacts that may affect the quality of drinking water shall be a priority concern in such reviews.

GOAL 3: Actively manage land use change and protect the City's character by developing City facilities and services in a way that directs and controls land use patterns and intensities.

Policy 3.1 Ensure that new development does not outpace the City's ability to provide and maintain adequate public facilities and services, by allowing new development to occur only when and where adequate facilities exist or will be provided.

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

Policy 3.3 Development within the unincorporated portion of the urban growth area shall be encouraged to occur only on a limited scale to prevent inefficient use and distribution of public facilities and services. Urban development outside of the urban growth boundary shall be discouraged.

Policy 3.4 Facilitate planned growth by encouraging partnerships with other service providers for fire protection, public transit, water/sewer, criminal justice and administration, where such combinations implement efficient, cost-effective delivery of such services.

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

Policy 3.6 Encourage the provision of needed facilities that serve the general public, such as facilities for education, libraries, parks, culture and recreation, police and fire, transportation and utilities. Ensure that these facilities are located in a manner that is compatible with the City's preferred land use pattern.

GOAL 4: Pursue a well-managed, orderly expansion of the urban area in a manner that is within the sustainable limits of the land.

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

Policy 4.2 Provide residential areas that offer a variety of housing densities, types, sizes, costs and locations to meet future demand.

Policy 4.3 Ensure that new residential development makes efficient use of the existing transportation network and provides adequate access to all lots.

Policy 4.4 Prevent incompatible uses from locating adjacent to each other. Encourage protection of other land uses from the negative impacts of industrial uses through appropriate siting, setbacks, landscaping and buffering.

Policy 4.5 Provide ample opportunities for light industrial development at locations with suitable access and adequate municipal services. At these locations, encourage industrial park-like development.

Policy 4.6 The City's planning program should reflect the basic values and aspirations of the community while recognizing the rights of individuals to use and develop private property in a manner consistent with City regulations.

Policy 4.7 Provide an efficient and predictable development process that provides for ample public discussion of proposals for development.

GOAL 5: Establish and maintain an appropriate image for the community to assist in most effectively attracting the types of economic activities which best meet the needs and desires of the community.

Policy 5.1 Develop a clean physical appearance as part of an appropriate image for the community. Encourage property maintenance and clean vacant lots and, when necessary, use code enforcement and the city's rental licensing program.

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

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

Policy 5.4 Support equitable delivery of and access to human services by allowing these uses in suitable locations. Examples of essential public facilities include regional utility lines, drinking water reservoirs, power substations, fire stations, hospitals, schools, jails, solid waste transfer stations, highways and wastewater treatment.

Policy 5.5 Allow essential public facilities in those zones in which they would be compatible. Classify the type of land use review, such as whether the use is permitted or conditionally allowed, based on the purpose of the zone and the facility's potential for adverse impacts on uses and the environment. Consider allowing all essential public facilities in the Light Industrial and Heavy Industrial Districts if such uses are not compatible elsewhere.

Policy 5.6 Maintain a process to site essential public facilities that requires consistency of the proposed facility with the Toppenish Comprehensive Plan; emphasizes public involvement; identifies and minimizes adverse impacts; and promotes the location of these facilities throughout the city, county and state.

GOAL 6: Develop an economic development program or plan that establishes guidelines or actions that accomplish the following:

- **Maintains and enhances existing agricultural production and related agricultural businesses and industries within the community.**
- **Encourages new business, industry, or facilities to the community that supports diversifying Toppenish's economy and provides year-round employment.**

- **Encourages new business development and supports the retention and expansion of existing businesses and industries.**
- **Targets industries that are mutually supportive and can serve as suppliers to existing local businesses and industries.**
- **Decreases small business failures.**

GOAL 7: Preserve the character, agricultural heritage, and quality of life in Toppenish and the surrounding rural areas that are part of the community.

Policy 7.1 Build upon Toppenish's rural characteristics by allowing the necessary agricultural services and facilities that support surrounding agricultural land uses.

Policy 7.2 Establish a pattern of development that supports a sense of community.

Policy 7.3 Encourage land use decisions that are sensitive to Toppenish's history and culture.

Policy 7.4 Utilize recreation and open space lands and facilities as a means of enhancing community image and the general quality of life. Strive to accomplish the following:

- Provide a balance of active and passive recreational uses in both existing and proposed parks with a priority on pedestrian access to the natural environment. Active recreational uses include programmed parks with play fields and ball courts, while passive parks feature pathways, benches and picnic tables.
- Encourage the development of recreational activities that meet the needs of the residents of Toppenish, and where feasible using existing public schools as neighborhood parks and recreation/community center locations.
- Continue to work with the Toppenish School District using joint use agreements to increase available park land and facilities.
- Plan bike and jogging trails in the community that serve local needs and link differing neighborhoods.
- Limit the use of open lands designated to remain in their natural state to those activities which will:
    - Maintain their scenic beauty and aesthetic qualities; and
    - Provide for recreational activities compatible with these goals.

Policy 7.5 Build upon Toppenish's rural characteristics by facilitating the necessary agricultural services and facilities that support surrounding agricultural land uses.

GOAL 8: Identify, protect, preserve and restore sites that contain resources of historic archeological, or cultural value or significance and acknowledge the city's the long, diverse, and rich history.

Objective 8.1: Protect historic, archaeological, and cultural resources in collaboration with the Yakama Nation and appropriate state, federal, and local governments, agencies and organizations.

Policy 8.1.1: Consult with the Yakama Nation and Washington State Department of Archaeology and Historic Preservation ("DAHP"), to develop local policies and regulations for identifying, protecting and preserving historic, archaeological, and cultural resources. Work with the Yakama Nation and DAHP to develop procedures for addressing potential impacts to archaeological, and cultural resources. The Yakama Nation and DAHP should be consulted whenever such resources are discovered or may be impacted.

Policy 8.1.2: The Yakama Nation and DAHP should be included in any notice for the permitting or approval of projects whose areas affect, contain or are reasonably predicted to contain cultural or archaeological resources, or historic sites that are listed or eligible for listing.

Policy 8.1.3: Provide the Yakama Nation and DAHP notice of and the opportunity to comment on all projects that require environmental review; all development permits for projects that affect an area of five thousand (5,000) square feet or greater; and, development permits for all projects that are within five hundred (500) feet of a recorded cultural or archaeological site or listed historic site.

Objective 8.2: Establish procedures and standards for identifying, protecting, and preserving cultural, archaeological, and historic resources.

Policy 8.2.1: Develop and implement protective policies for groundwork in areas known or reasonably predicted as highly likely to contain cultural, archaeological, or historic resources to prevent the damage and destruction of such resources.

Policy 8.2.2: In areas known to contain cultural, archaeological, or historic resources, or highly likely to contain such resources, require that project proponents retain the services of a professional archaeologist to perform a field investigation and survey of the project site for cultural, archaeological, and historic resources to the degree necessary for the City to make informed specific land use decisions.

Policy 8.2.3: The city shall include notification on development permits and project approval documents associated with ground-disturbing activities advising developers, contractors and property owners that if archaeological resources are uncovered during excavation, they are required by law to immediately stop work and notify the City, DAHP and the Yakama Nation. Work shall not recommence until authorized under the law.

Objective 8.3: Where appropriate, provide access to and educational opportunities regarding cultural, archaeological, and historic resources in a manner that is culturally sensitive and does not degrade the resources or impact the quality of the environment.

Polity 8.3.1: Promote the visible built environment of the City of Toppenish through opportunities to highlight its history, while also researching and telling the story learned from the archaeological and cultural resources.

Chapter 3
Housing

2018
COMPREHENSIVE
PLAN
UPDATE

"Where the West Still Lives"

Chapter 3 *HOUSING ELEMENT*

A. INTRODUCTION

1. Purpose

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

The Washington State Growth Management Act (GMA) requires that the following be addressed by the housing element:

- Inventory and analysis of existing and projected housing needs;
- Adequate provisions for existing and projected housing needs for all economic segments of the community;
- Identification of sufficient land for housing, including government-assisted, low income, manufactured, multifamily housing, and group homes and foster care facilities; and
- Statement of goals, policies, and objectives for the preservation, improvement, and development of housing.

2. Relationship to Other Elements or Land Uses

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

3. 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.

4. Land Use

Housing is a major consumer of land, and often the major determinant of land use patterns. The placement of schools, parks, and small commercial areas typically responds to needs generated by housing.

5. 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.

6. Transportation

Housing is a major generator of traffic flow and generates traffic on local roads, arterials and highways. Housing for special needs populations may require access to public transportation or special transportation services.

7. 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.

B. MAJOR HOUSING CONSIDERATIONS

1. Availability of Housing.

The vacancy rate has a substantial impact on the availability, price, and quality of housing. Where there is an extremely low rate of vacancy housing is not generally available, the price is inflated, and the quality may tend to decline. An increase in the vacancy rate increases free market competition and thereby improves the situation of the housing consumer.

In Toppenish, affecting an increase in the vacancy rate must involve the development of vacant land. This situation raises two issues;

- What is the preferred role of the city in the development of land and the production of housing? and
- How can city programs best be designed to stimulate activity in the private sector?

2. Rural Residential Community.

Should the city strictly adhere to its desire of being a small city surrounded by rural areas with a small city character or should policies be developed that allow for higher densities? If the preference is to maintain its small city character, how will the city house its future population at a reasonable cost?

3. Housing Density

The City should consider all available alternative housing types (single-family, multifamily, manufactured homes, etc.). In considering housing types, the City should:

- Determine an appropriate mix of housing types and densities to meet the current and future needs of the community; and
- Determine the most appropriate location for these different types and densities to avoid mixing incompatible uses.

4. Housing Rehabilitation

A rehabilitation program is an essential component of preserving existing housing stock, including units for occupancy by lower income persons. A rehabilitation program can also serve to strengthen neighborhoods. A shortage of available vacant units increases the need to preserve existing housing stock. The City of Toppenish is a member of the Yakima County HOME Consortium, which provides extensive housing rehabilitation for qualifying owned homes. To

date, two homes in Toppenish have received rehabilitation assistance through the HOME Consortium.

5. Housing Mix

An additional need beyond rehabilitation is the provision of new units to meet the needs of a growing population. New housing should be focused on the needs of a variety of income groups. Some activities that might facilitate this process are:

- Monitoring housing needs in all income groups.
- Keeping developers informed about current housing needs and encouraging them to address these needs.
- Providing information on loan programs to eligible persons seeking to improve their living situation.

C. EXISTING CONDITIONS

1. Housing Characteristics

The population of the City of Toppenish has grown from 7,419 persons housed in 2,254 housing units in 1990 to 8,949 persons housed in 2,334 units in the year 2010. Table 5.1 shows the population and number of housing units over this period. Of note, between the years 2000 and 2010, the population remained constant while the number of housing units declined. The loss of housing units was offset by an increase in the number of persons per housing unit. The mix of housing types has changed over time. From 1980 to 2000 the percentage of single family-homes declined while the percentage of multi-family and manufactured housing increased. However, from the year 2000 to 2010 the percentage of single-family homes increased somewhat while the percentage of manufactured and other types of housing declined. Table 5.2 below shows changes in the overall housing mix.

Table 5.1 Population and Housing in the City of Toppenish

City of Toppenish Population and Housing Units	Population		Housing Units		Persons Per Housing Unit	
	Number	*Percent Growth*	Number	*Percent Growth*	Number	*Percent Change*
2010	8,949	*.01%*	2,334	*-4.3%*	3.96	*2.1%*
2000	8,946	*20.6%*	2,440	*8.25%*	3.88	*17.9%*
1990	7,419	*12.2%*	2,254	*.85%*	3.29	*12.7%*
1980	6,517	---	2,235	---	2.92	---

2006-2010 American Community Survey 5-year Estimates, Table CP04, 1980, 1990 & 2000 Census

Table 5.2: Housing Types in the City of Toppenish

City of Toppenish Type of Housing Units	2010		2000		1990		1980	
	Number	*Percent*	Number	*Percent*	Number	*Percent*	Number	*Percent*
Single Family	1,822	*75.4%*	1,728	*71.2%*	1,606	*71.3%*	1,818	*81.3%*
Multi-Family	537	*22.2%*	538	*22.2%*	420	*18.6%*	367	*16.4%*
Manufactured and other Housing	58	*2.4%*	161	*6.6%*	228	*10.1%*	50	*2.3%*
2.3Total Housing Units	2,417	*100%*	2,427	*100%*	2,254	*100%*	2,235	*100%*

Source: U.S. Census 2006-2010 American Community Survey 5-year Estimates, Table CP04.

1. Vacancy Rate

An accepted rule of thumb is that a vacancy rate near 5% is desirable to provide both free movement in the market and adequate housing maintenance practices, though the ideal rate of vacancy depends on local and regional conditions. According to the 2010 Census the homeowner vacancy rate in Toppenish was 1.6% while the rental vacancy rate was 4.0 percent. The vacancy rate for all housing types was 4.2%. By this measure the vacancy rate in Toppenish is less than ideal. These figures suggest a strong market need for owner-occupied housing.

Table 5.3 depicts the age of housing units in Toppenish. Roughly 52% of all housing units in Toppenish were built prior to 1960 meaning they are now more than 50-years old. More renters are living in housing units built in 1970 or later (46.9%) than homeowners (25.8%), and slightly more homeowners are living in housing units constructed prior to 1970 (37.1% for homeowners vs. 23.2% for renters). This difference can be attributed to the fact that most recent construction has been rental housing. The percentage of owner verses renter occupied units has remained relatively constant in the past 20-years. In 2010 was 56.6% of all units were owner-occupied compared to 56.4% in 2000 and 58.1% in 1990.

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

Year Housing Unit was Built	All Housing Units (including vacant)		Owner Occupied		Renter Occupied	
	Number	*Percent*	Number	*Percent*	Number	*Percent*
2000 to 2010	43	*1.8%*	35	*2.7%*	8	*.8%*
1990 to 1999	278	*11.5%*	113	*8.7%*	165	*15.6%*
1980 to 1999	268	*11.1%*	76	*5.9%*	128	*12.1%*
1970 to 1979	305	*12.6%*	109	*8.4%*	196	*18.5%*
1960 to 1969	258	*10.7%*	114	*8.8%*	144	*13.6%*
1959 and Prior	1,265	*52.3%*	846	*65.4%*	419	*53.8%*

Source: US Census Bureau, Census of Population and Housing 2010

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

Universe of all Housing Units	Built 1939 and Prior	*Percent Built 1939 and Prior*	Built 1959 and Prior	*Percent Built 1959 and Prior*	Built 1960 and Later	*Percent Built 1960 and Later*
City of Toppenish	537	*42.5%*	1265	*52.3%*	1152	*47.7%*
Yakima County	12,492	*40.9*	30,544	*36.2%*	53,833	*63.8*
State of Washington	323,392	*45.0%*	718,118	*25.4%*	2,111,234	*74.6%*

Source: U.S. Census Bureau, Census of Population and Housing, 2010

Approximately half of the year-round housing units in Toppenish were built before 1960 compared to 36% of the units in Yakima County and 25% of the units in Washington State. This large percentage of older homes in Toppenish is significant, as the age of the housing stock has a

direct relationship with the need for housing rehabilitation. Common problems found in older units include asbestos siding and wraps on older furnaces, unreliable knob and tube wiring, lead-based paint on walls, woodwork and saturated plaster, lead-based plumbing components, and occasionally wood and timber treatments with toxic components.
Many critical components in homes built prior to 1960, particularly the electrical, heating and plumbing systems, were installed when less stringent codes were used, and these systems were not intended to meet the requirements of modern appliances and lifestyles, or the added demands of overcrowding (see the Inventory section for more information on overcrowding). With the passage of time and the aging of these homes, many of these components have exceeded their design life resulting in potentially dangerous conditions for occupants, especially the low income and elderly who may not be able to afford maintenance or replacement of these systems.

2. Housing Inventory

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

The severity of defects varies with individual houses, but many significant defects are apparent among most of the homes surveyed (See photographic examples Attachment 4.) Common problems are dilapidated roofs, inappropriate and dangerous electrical systems, faulty heating systems, lack of weatherization, deteriorating structural components and weathered paint. The housing problems in Toppenish are not limited to an isolated neighborhood but are located throughout the community (See Housing Condition Map) and be detrimental to the safety and well-being of the entire City. The underlying factors that account for the poor condition of the housing stock include the age of the housing and limited income of the residents.

The 2010 Census reported that of the 2,417 total housing units 2,353 units occupied and 64 were vacant for an overall vacancy rate of 2.7%. Owner occupied housing totaled 1,293-units or 55-percent of the units while 1,060-units comprising 45-percent of the occupied housing stock were rental units. Additionally, the 2010 Census showed that while population remained constant between 2000 and 2010 the number of housing units decreased by 4.3-percent. Housing is currently in very short supply with demand far exceeding supply. Housing studies indicate that a vacancy rate of 4.2% to 5% is desirable to provide both free movement in the market and adequate housing maintenance practices.

3. Overcrowding

Another measure of living conditions is overcrowding. The accepted standard defines overcrowding as the presence of more than one person per room. The 2010 census shows that 18.1% of the dwellings are overcrowded using the standard of more than one person per room. Overcrowding increases wear and tear on a home and is very hard on aging houses in a state of decline. Overcrowding is, in large part, due to the short supply of available affordable housing

in Toppenish. Overcrowding is a concern, as the presence of more occupants than a house is designed for places added stress on a home's systems and structural components reducing their design life. Table 5.5 compares overcrowding in Toppenish with Yakima County and Washington State. The rate of overcrowding in Toppenish is 2.6 times greater than Yakima County and over 7 times higher than Washington State.

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

Jurisdiction	More than 1.01 Persons Per Room	*Percent with more than 1.01 Persons Per Room*	1.00 or Fewer Persons Per Room	*Percent with 1.00 or Fewer Persons Per Room*
City of Toppenish	432	*18.4%*	1,921	*81.6%*
Yakima County	5,132	*6.5%*	73,943	*93.5%*
Washington State	64,260	*2.5%*	2,513,115	*97.5%*

2006-2010 American Community Survey 5-year Estimates, Table DP04.

To maintain suitable housing stock and provide for the expected expansion of the population, it will be necessary to develop a data base and municipal policies to address housing and related land use issues. Such information, plans and policies are essential to making housing decisions to suit the future needs of the city.

4. Value and Cost of Housing

As indicated in Table 5.6, approximately 45% of the owner-occupied homes in Toppenish in 2010 were valued at less than $100,000. The median value of an owner-occupied home in Toppenish is $105,300 compared to $149,700 throughout the county, and $285,400 state-wide.

Table 5.6: Value of Owner Occupied Housing in 2010

Owner Occupied Housing Units	City of Toppenish		Yakima County		Washington State	
	Number	*Percent*	Number	*Percent*	Number	*Percent*
Total	1,293	---	50,710	---	1,669,396	---
Less than $50,000	69	*5.3%*	4,851	*9.6%*	69,806	*4.2%*
50,000 to 99,999	517	*40.0%*	8,161	*16.1%*	71,095	*4.3%*
100,000 to 149,999	426	*32.9%*	12,413	*24.5%*	130,190	*7.8%*
150,000 to 199,999	181	*14.0%*	11,132	*22.0%*	192,654	*11.5%*
200,000 to 299,999	92	*7.1%*	8,242	*16.3%*	427,516	*25.6%*
300,000 to 499,999	8	*0.6%*	4,568	*9.0%*	491,251	*29.4%*
500,000 to 999,999	0	*0%*	1,014	*2.0%*	242,322	*14.5%*
1,000,000 or more	0	*0%*	329	*0.6%*	44,562	*2.7%*
Median (dollars)	$105,300	---	$149,700	---	$285,400	---

2006-2010 American Community Survey 5-year Estimates, Table DP04.

5. Affordable Housing

"Affordable Housing" is a term which applies to the adequacy of the housing stock to fulfill the housing needs of all economic segments of the population. The underlying assumption is that the marketplace will guarantee adequate housing for those in upper income brackets, but that some combination of appropriately zoned land, regulatory incentives, financial subsidies, and/or innovative planning techniques may be necessary to make adequate provisions for the needs of lower income persons.

6. Income and Housing Costs

The U.S. Department of Housing and Urban Development (HUD) sets income limits that act as breaking points among low-, very low-, and moderate-income levels. For Yakima County, the income limit for a low-income family of four during fiscal year 2015 is 46,300. Because the closest American Community Survey (ACS) income data interval to this number is $49,999, the number of families earning $49,999 or less was used to approximate the number of low-income households in Grandview. Using this measure, approximately 18.8% of households in Grandview can be considered low-income. Due to the estimation method used, this is a slight overestimate.

Based on U.S. Department of Housing and Urban Development (HUD) criteria, 73% of all households in Toppenish are considered low-moderate income. Table 5.7.1 compares four income statistics for the city of Toppenish, Yakima County and Washington State as of 2010. Among the 14 cities in the county, Toppenish ranked the second lowest in terms of per capita income in 2010. Additionally, the incomes of 27.5% of the families in Toppenish are below the poverty level. This compares to 27.8% in 1990 to 29.2% in 2000 (1990 and 2000 Census). In 2010 the economy was just beginning to recover from a significant recession that depressed incomes levels. By 2016 the economy was in recovery and income levels had recovered. Table 5.7.2 depicts income levels as of 2016. The income gap between Toppenish, Yakima County and the State of Washington remained constant and despite higher incomes the percentage of families in poverty increased.

Because of these low-income levels, occupants of at least 54.2% of the owner-occupied housing units spent 30% or more of their income on housing, including utilities (2010 Census). Among those who rent, 63.9% pay more than 30% of their income for gross rent. When the percentage of income on housing costs exceeds 30%, the remaining income available to many low-income households is often inadequate to meet life's other necessities such as food and clothing.

Table 5.7.1: Comparison of Average Income in 2010 Statistics for City of Toppenish, Yakima County and Washington State

Jurisdiction	Per Capita Income	Medium Household Income	Medium Family Income	*Percent of Families in Poverty*
City of Toppenish	$10,566	$28,896	$29,398	*27.5%*
Yakima County	$19,325	$42,877	$48,004	*16.8%*
Washington State	$29,733	$57,244	$69,328	*8.2%*

2006-2010 American Community Survey 5-year Estimates, Table DP03.

Table 5.7.2: Comparison of Average Income in 2016 Statistics for City of Toppenish, Yakima County and Washington State

Jurisdiction	Per Capita Income	Medium Household Income	Medium Family Income	*Percent of Families in Poverty*
City of Toppenish	$13,162	$37,109	$38,151	*30.5%*
Yakima County	$20,653	$45,700	$48,004	*15.9%*
Washington State	$32,999	$62,848	$69,328	*8.4%*

Table 5-8 presents the breakdown of expenditures of owner occupied housing costs by age. In 2010 54.2% of owner occupied householders in Toppenish spend more than 30% of their income on housing; a percentage that is substantially higher than Yakima County (28.2%), and the State of Washington (33.2%).

Table 5-8. Comparison of Percentage of Income Spent on Owned Housing of City of Toppenish, Yakima County and Washington State.

Specified Owner-Occupied Housing Units	City of Toppenish		Yakima County		Washington State	
	Number	*Percent*	Number	*Percent*	Number	*Percent*
All Households	1,293	---	50,710		1,669,396	
Less than 30%	592	*45.8%*	36,115	*71.2%*	1,106,627	*66.3%*
30% or more	701	*54.2%*	14,322	*28.2%*	554,553	*33.2%*
Undetermined			273	*.5%*	8,126	*.5%*
Householders: 15 to 64 Years of Age	1036	*80.1%*	38,356	*75.7%*	1,291,929	*77.4%*
Less than 30%	429	*33.2%*	26,704	*52.7%*	835,802	*50.1%*
30% or more	607	*46.9%*	11,443	*22.6%*	449,260	*26.9%*
Undetermined			209	*.4%*	6,867	*.4%*
Householders: 65 Years and Over	257	*19.9%*	12,354	*24.4%*	377,476	*22.6%*
Less than 30%	163	*12.6%*	9,411	*18.6*	270,825	*16.2%*
30% or more	94	*7.3%*	2,879	*5.7*	105,293	*6.3%*
Undetermined			64	*.1%*	1,349	*.1%*

Source: U.S. Census Bureau, Table B25096, 2006-2010 America Community Survey 5-year estimates.

Based on HUD guidelines, housing is considered unaffordable when housing costs exceed 30% of household income. When the percentage of income expended on housing exceeds 30%, the remaining disposable income available to low-income households is often inadequate to meet life's other necessities. Often low-income homeowners are often unable to afford basic home maintenance and repairs furthering the deterioration of the housing stock of Toppenish.

Table 5-9. Comparison of Percentage of Income Spent on Owned Housing in the City of Toppenish between 2010 and 1999.

Specified Owner-Occupied Housing Units in Toppenish	2010		1999	
	Number	*Percent*	Number	*Percent*
All Households	1,293	---	1,239	
Less than 30%	592	*45.8%*	916	*73.9%*
30% or more	701	*54.2%*	314	*25.4%*
Undetermined			9	*.7%*
Householders: 15 to 64 Years of Age	1036	*80.1%*	940	*75.9%*
Less than 30%	429	*33.2%*	684	*55.2%*
30% or more	607	*46.9%*	256	*20.7%*
Undetermined			0	*0%*
Householders: 65 Years and Over	257	*19.9%*	299	*24.1%*
Less than 30%	163	*12.6%*	232	*18.7*
30% or more	94	*7.3%*	58	*4.7*
Undetermined			9	*.7%*

Source: U.S. Census Bureau, Table HCT081, 2000 Census Summary File 4

The percentage of low-income homeowners more than doubled in the decade between 1999 and 2010. Table 5-9 depicts a comparison during this time. In 1999 25.4% of owner occupied

householders in Toppenish spent 30% or more of their household income on housing compared with 54.2% in 2010.

City of Toppenish will continue its participation in the Yakima County HOME Consortium. The HOME Consortium expands affordable housing opportunities for low- and moderate-income households in member jurisdictions throughout the region. The HOME Consortium has participated with Yakima Valley Partners Habitat for Humanities to fund affordable single-family housing units and to provided home-owner occupied rehabilitation. The HOME Consortium is currently focused on housing rehabilitation as a pressing regional need, but is still able to assist with new construction for multi- or single-family rental units and affordable housing for a homebuyer program.

B. HOUSING NEEDS ASSESSMENT

1. Existing Densities

Overall, housing densities in the city limits of Toppenish are relatively low. City wide the housing density is 1.82 units per acre which equates to 1,165 units per square mile. The population density is 6.98 persons per acre equating to 4,467 persons per square mile. This overall density includes non-residential lands. The area of the city with the greatest density can be found in a five-block area bisected by Guyette and Rentschiller Lanes, south of Madison Avenue. This area is approximately 12-acres in size and supports 108 apartment units and several single-family homes. The housing density of this area is 8.93 dwellings per acre or 5,712 dwellings per square mile. The population density of this area is approximately 42.3 persons per acre, just over 27,000 persons per square mile. By comparison the residential subdivision of Berger Addition is at the low end of the density spectrum. This 40-acre subdivision of single family homes is situated near the western city limits. The neighborhood has a housing density of roughly 2.4 dwelling units per acre, or approximately 1,550 dwellings per square mile. The estimated population density is 9.4 persons per acre or 6,080 persons per square mile. A typical 3-block area bounded by Washington and Madison Avenues, Juniper and Ivy Streets represents lands developed in the 1930's. This area is 11.8 acres in size with a housing density of 3.98 units per acre or 2,550 dwellings per square mile. The population density of the area is 15.75 persons per acre equating to approximately 10,080 persons per square mile.

Based on net acreage (parcel acreage minus streets) approximately 370 acres or 35% of the land area is devoted to housing.

2. Inventory of Vacant Buildable Land

In Toppenish, approximately 274 acres or 26% of the parcel acreage is classified as vacant or agricultural. Of this vacant acreage, about 50-acres are residentially zoned. Most of this acreage is designated as R-2 Residential.

3. Population and Housing Growth

Between 2000 and 2010 the city experienced little population growth. During this period, the number of housing units decreased by 4.3%. The modest growth in population was absorbed by an increase in the number of persons per household. In 2000 there was an average of 3.88

persons per household compared to 3.98 in 2010. During this period there was little change in the housing vacancy rate

From 2010 to 2017 a total of 45 new housing units were added to the City's housing stock. Of these two-thirds (66.6%) of the units were multi-family dwellings, and one-third (33.3%) were single family dwellings. The multi-family units consisted of an apartment complex constructed by the Yakima Housing Authority for low and moderate-income families. Half of the single-family dwellings were constructed through a program with Yakima Valley Partners Habitat for Humanity [YVPHH]. YVPHH used subsidies that enabled low income families the opportunity to afford the homes. This trend is a continuation of the past decade and is expected to continue based on the economic profile of the population and availability of suitable lands. In 2006 Catholic Charities Family Housing constructed a 26-unit apartment complex. The apartment complexes by both the Yakima Housing Authority and Catholic Charities were constructed as family housing consisting of three-bedroom units. Accordingly, the typical number of persons per household of these units is somewhat higher than typical apartment units.

The 2017 population estimate for Toppenish was 9,085 persons (Office of Financial Management [OFM]. The 2040 population projections used in this Comprehensive Plan are discussed in the Land Use Element. The medium projection, identified as the likeliest 2040 population projection given current trends, is 9,955 for an increase of 870 persons. The increase in 5-year increments is depicted in Table 5-10 and includes persons per housing type based on the assumption that one-third (33.3%) of the new dwellings in Toppenish will be single family dwellings and two-thirds or 66.6% will be multi-family dwellings. The analysis also assumes that the number of persons per household in 2010 will remain similar during the 20-year planning period. Table 5-10 depicts the population increase in single family and multi-family units.

Table 5-10 City of Toppenish Population Projections

Year	Total Population	Population increase	Population Increase by Unit Type	
			Single Family	*Multi-Family*
2017	9,085	-----	----	-----
2020	9,241	156	52	104
2025	9,454	213	142	213
2030	9,642	188	125	188
2035	9,810	168	112	168
2040	9,955	145	98	146
Total	-------	870	290	580

Table 5-11 depicts the number of dwelling units required to absorb the population based on an average occupancy of 4.0 persons per single family dwelling and 3.8 persons per multi-family dwelling. In additional to those needs displayed by the current housing stock, new construction will be needed to increase the vacancy rate and to provide for population growth.

Table 5-11 Number of Dwelling Units Required

Year	Single Family	Multi-Family	Total
2020	13	27	40
2025	18	37	55

2030	16	33	49
2035	14	29	43
2040	12	25	37
Total:	72	152	224

Table 5-12 depicts the acreage required to accommodate the projected dwelling unit increase based on an average single-family density of 3.0 dwellings per acre and an average multi-family density of 8.5 dwellings units per acre.

Table 5-12 Additional Acreage Required for Housing

Year	Single Family	Multi-Family	Total
2020	4.3	3.2	7.5
2025	5.9	4.4	10.3
2030	5.2	3.9	9.1
2035	4.6	3.5	8.1
2040	4.0	3.0	7.0
Total:	24.0	18.0	42.0

The potential exists within the city for mixed use building (residential units above existing commercial in the downtown core), duplexes, triplexes, four-plex's, and small-scale apartment buildings. The current inventory of vacant lands will accommodate this projected growth. However, to provide for market choice, it is likely that some lands for new housing will be accommodated through annexation.

C. A COORDINATED HOUSING STRATEGY FOR TOPPENISH

As is the case with most communities, Toppenish's housing problems are a result of complex physical, social, and economic realities. Because of the complexity of these problems, a coordinated approach is necessary to address them. A coordinated housing strategy for Toppenish should include:

- Consideration and implementation of the housing goals, policies and objectives. Land use decisions, new municipal ordinances and the allocation of available resources should be made in consideration the goals, policies and objectives contained in this comprehensive plan;

- 2) A target area or areas for housing rehabilitation should be indicated with the plan and used to guide future activities aimed at improvement of the existing housing stock: and

- 3. Implementation of needed improvements in the Capital Facilities and Transportation Elements could result in greater opportunity for growth in Toppenish. The addition of more people in Toppenish, particularly those active in the community work force will add to the viability of the community.

D. GOALS AND POLICIES

This section presents the goals and policies for housing in the City of Toppenish. In addition, the Growth Management Act has designated cities, town and their associated urban growth areas as the primary areas for urban growth. To achieve inter-jurisdictional consistency countywide planning policies have been adopted by each jurisdiction in Yakima County. An analysis of County Planning Policies applicable to this element is presented in Appendix A.

GOAL 1: Encourage a variety of affordable, well-designed and attractive housing for all Toppenish residents.

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

> Objective: Encourage the construction of new units to increase the housing supply. New construction should provide for moderate to low income households, and elderly market demand as well as upscale residences. It should also provide for an appropriate mix of housing types and intensities (single family, and multifamily)
>
> Objective: Encourage the construction of new housing units based on local need in consideration of:
> 1) Existing vacancy rates of owner and renter occupied households;
> 2) The number of households expected to reside in Toppenish in the next twenty years; and
> 3) The number of dwelling units that are dilapidated and not suitable for rehabilitation.
>
> Objective: Allow, on individual lots in all residentially zoned areas, manufactured housing that meet accepted standards for site built homes.

Policy 1.2 Evaluate local development standards and regulations for effects on housing costs. Modify development regulations which unnecessarily add to housing costs.

Policy 1.3 The city should consider allowing accessory apartments as conditional uses in single family
residential zoning classifications.

Policy 1.4 Monitor housing availability.

> Objective: Develop a record keeping and evaluation system that accurately measures the impact of programs on local housing problems.
>
> Objective: Make current housing information available to potential developers and encourage its use in the consideration of development alternatives.
>
> Objective: Provide for the periodic updating of existing plans and the ongoing analysis of housing problems.

Policy 1.5 Work cooperatively with public agencies, private institutions, and private enterprise to involve the private sector in new housing construction.

Objective: Provide information regarding housing needs to local finance institutions and developers.

Objective: Support the construction of new housing funded by federal and state programs, by private enterprise, public agencies, nonprofit corporations, and other eligible parties.

Objective: Support the management and administration of public housing programs by a local public housing authority.

Objective: Endorse private sector efforts to secure federal and/or state funds to provide housing for elderly and disabled citizens.

Policy 1.6 Work cooperatively with public agencies and private institutions to implement programs that
expand the housing opportunities of lower income households, particularly those on fixed incomes.

Objective: Support the provision of rental assistance to those lower income households that pay an excessive proportion of their income on housing.

Policy 1.7 Support the future development of regional plans and strategies to address the housing needs of the unincorporated areas of the County.

GOAL 2: Encourage a mixture of housing types and densities throughout the sub-area that are compatible with public service availability.

Policy 2.1 Support the development of regional strategies to address the housing needs of Toppenish and its urban growth area.

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

Objective: The density of new residential development shall be based on the existing land use pattern, the availability of public services, municipal service plans, and the provision of services by the developer.

Objective: New multifamily residential construction will be encouraged to address the need for additional rental housing.

Objective: Criteria shall be developed for establishing levels of service required for different densities of development.

GOAL 3: Establish and maintain neighborhoods in Toppenish that are safe, sanitary and well-maintained.

Policy 3.1 The City will ensure and facilitate the provision of municipal services appropriate to the density of residential development.

> Objective: The cost of extending municipal services to serve new residential developments will be borne by the developer
>
> Objective: The City will actively seek outside sources of assistance to upgrade municipal service facilities in existing residential areas that may require improvement when local resources are not available.

Policy 3.2 Conserve the city's existing housing stock through code enforcement, rental licensing, appropriate zoning, participation rehabilitation programs, and discouraging conversion to nonresidential use.

Policy 3.3 The city of Toppenish will work cooperatively with other public agencies, private institutions
and organizations to foster housing rehabilitation and neighborhood reinvestment in areas suitable for rehabilitation.

> Objective: The housing target area map will serve as a guideline for the commitment of public and private financial resources for housing rehabilitation.
>
> Objective: The City may seek outside sources of assistance to finance the rehabilitation of homes eligible for assistance.
>
> Objective: The City will promote the involvement of local finance institutions and others to direct private capital to areas identified as needing rehabilitation and neighborhood reinvestment.

Policy 3.4 The city of Toppenish will encourage property maintenance and pride in the community.

> Objective: The City may establish a voluntary residential inspection program to inform home occupants of the condition of structural, electrical, plumbing and other components of the home.
>
> Objective: Work cooperatively with Pacific Power and Light Company to increase the number of energy audits performed for Toppenish households.
>
> Objective: Encourage the presentation of workshops on low or no cost weatherization and energy conservation skills by qualified organization.

Chapter 4
Capital Facilities

2018
COMPREHENSIVE
PLAN
UPDATE

"Where the West Still Lives"

Chapter 4 *CAPITAL FACILITIES ELEMENT*

A. Background

1. Purpose

The City of Toppenish has undertaken a comprehensive planning effort to access and improve the city's capital facilities.

The community owns and operates roadway, parks and recreation facilities, domestic water/ irrigation water, sanitary sewer, and storm drainage within its immediate service area. The City of Toppenish continually plans for the upgrade and operation of each of these individual systems. The purpose of this document is to consolidate the capital improvement plans for each system into a single planning element for inclusion in the Toppenish Comprehensive Plan update.

Toppenish's planning efforts are designed to be coordinated and consistent with other City, county, state and federal plans. Details in the different levels of comprehensive planning become more specific as the reader moves from federal to state to regional or countywide and finally to local comprehensive planning.

2. Growth Management Act (GMA) Requirements

The requirements for a Capital Facilities Plan (CFP) element, as outlined by the Growth Management Act of 1990 (GMA), specifically RCW 36.70A.070, have been used to guide the contents of this Plan.

These capital facilities plan element requirements are:

- An inventory of existing capital facilities owned by public entities, showing the locations and capacities of the capital facilities;
- A forecast of the future needs for such capital facilities;
- The proposed locations and capacities of expanded or new capital facilities;
- 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;
- A requirement to reassess the land use element if probable funding falls short of meeting existing needs;
- Ensure that the land use element, capital facilities plan element, and financing plan within the capital facilities plan element are coordinated; and consistent; and
- Park and recreation facilities shall be included in the capital facilities plan element.

3. Relationship to Other Elements or Land Use Development

a. Urban Growth Areas

Urban Growth Areas (UGAs) 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 is encouraged where adequate public facilities and services exist or can be provided in an efficient manner.

Urban growth typically requires such urban governmental services as 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.

b. 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. Toppenish's land uses are urban in nature and support the development of capital facilities. The City's update to the Comprehensive Plan assesses whether capital facilities are sufficient to meet community needs and are planned on land compatible to such uses without impacting other public systems.

c. 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.

d. Applicable Countywide Planning Policies (CWPP)

In addition to following State of Washington requirements, planning efforts in Toppenish require consistency with Countywide Planning Policies (CWPP). The CWPP recognizes cities as the providers of urban governmental services as identified in the GMA and adopted urban growth management agreements. The CWPP associated with Toppenish's Capital Facilities Plan element can be found in Appendix A.

4. Major Capital Facilities Considerations

- At what point in time will it be feasible for Toppenish to extend water and sewer lines to portions of the UGA? With an increase in future population, to what extent will the City need to replace existing infrastructures with larger capacity infrastructures such as main water lines or sewer lines to accommodate extending services to the UGA?
- What types of improvements need to be made to the various systems to accommodate the 2040 projected population of 9,955 people? The population forecast done by the County in 2016 is less than the population projection completed for the 2008 Comprehensive Plan update. Will this decrease in future population directly reduce the needed future investments over the next twenty years?

- What types of system improvements are necessary to meet the short-term and longer-term housing needs?
- The current Urban Growth Area is calculated to be sufficient to meet the predicted twenty-year demands within the City. Are there anticipated trends in nearby communities that might alter the capacity of Toppenish to accommodate growth?
- Are best practices in place and optimal for interacting with other local governments in the Urbanized Cluster area?
- Are best practices in place and optimal for interacting with the Confederated Tribes and Bands of the Yakama Nation?

Figure 1 - Washington State Vicinity Map

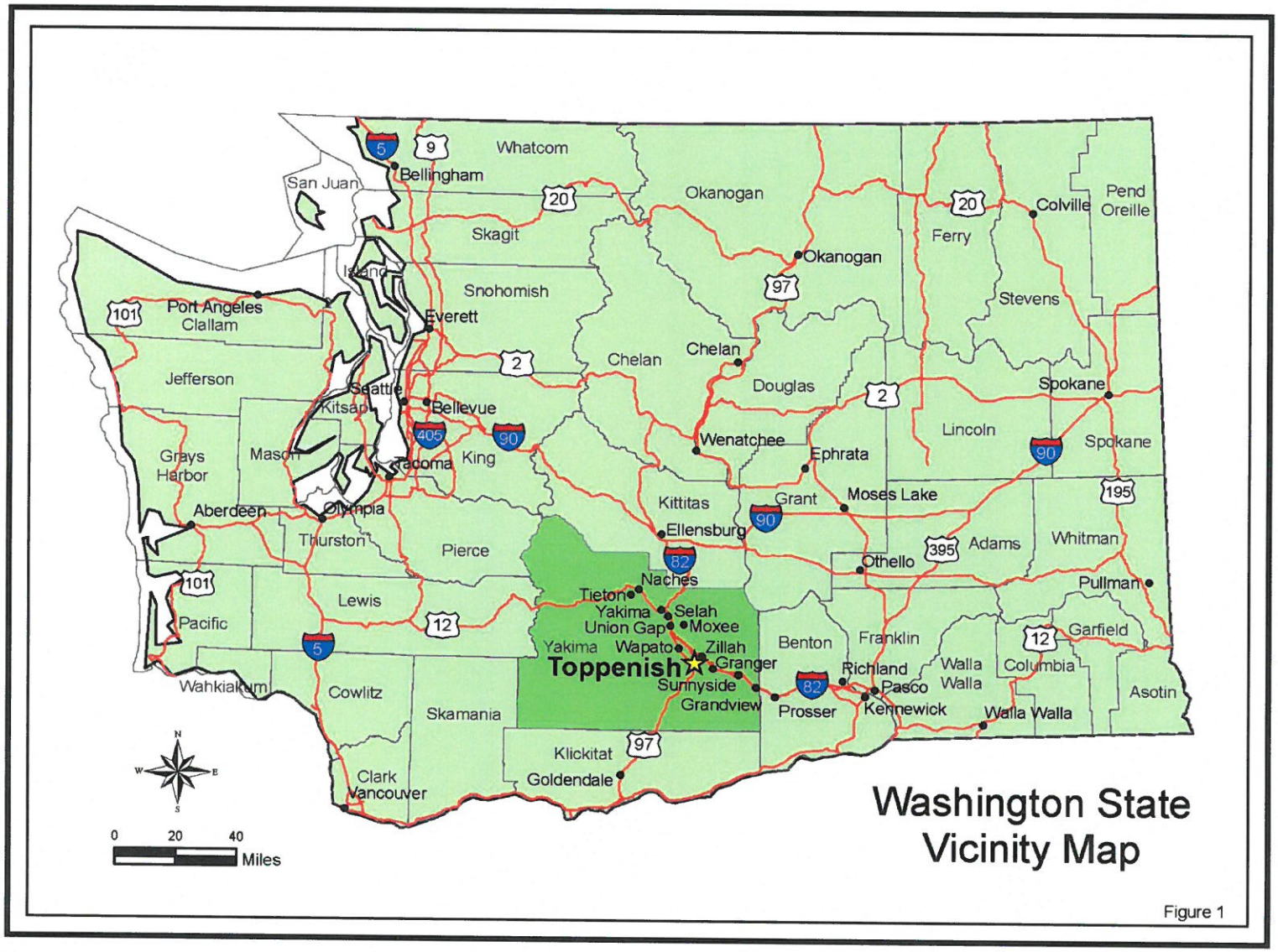
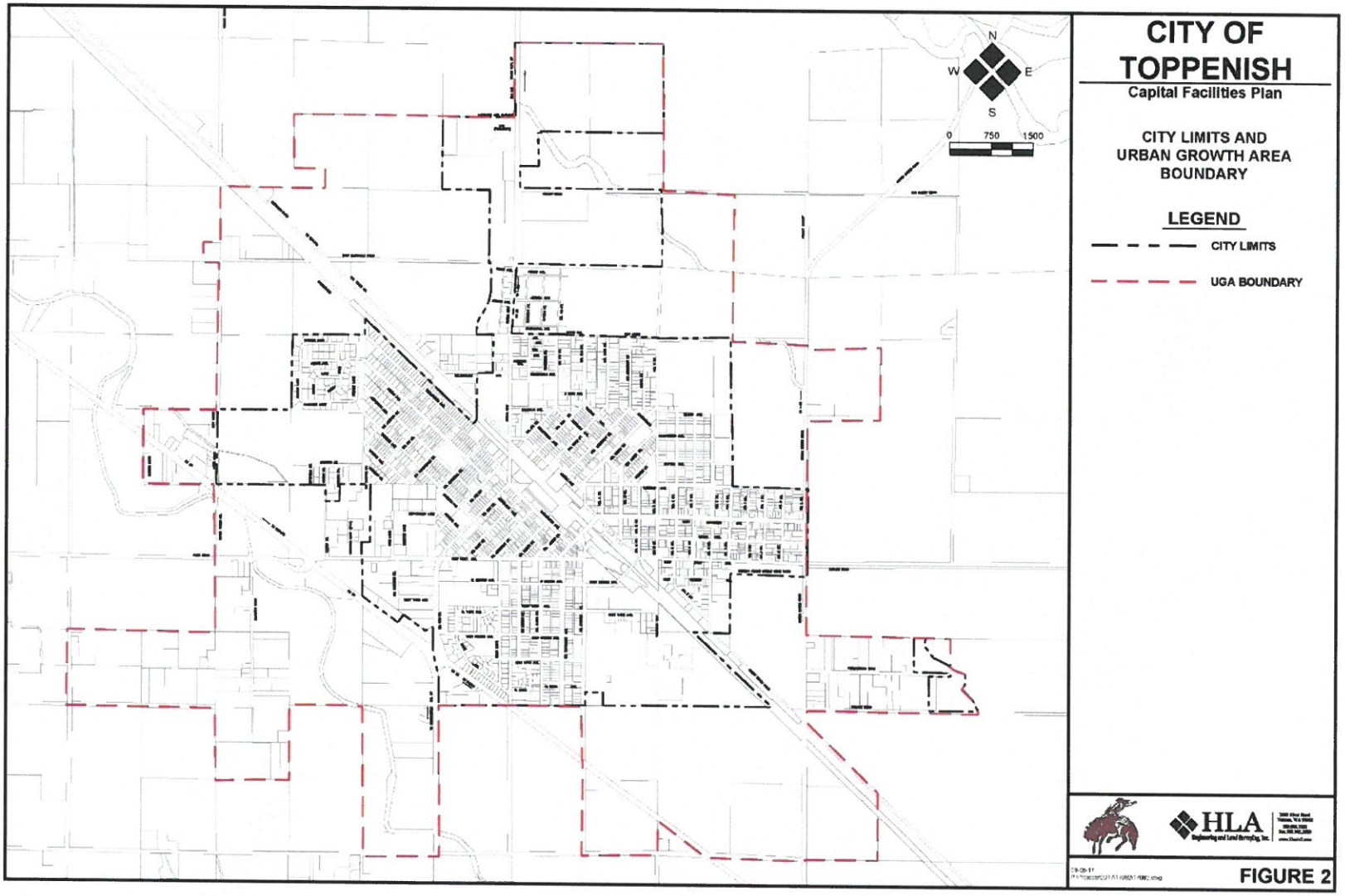


Figure 2 – Toppenish City Limits and Urban Growth Area (UGA)



B. CAPITAL FACILITIES CHARACTERISTICS

1. Capital Facilities Definition

The term 'capital facilities' is not specifically defined under the Growth Management Act, but the term has been defined by the Washington State Department of Community Development as part of "procedural criteria" developed under the Growth Management Act. 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 Toppenish area.

2. Types and Providers of Capital Facilities

Service providers for the City of Toppenish and the unincorporated portion of its urban growth area are listed in Table 4-1. In some cases, the capital facilities supporting the services listed are located outside of the Urban Growth Area.

TABLE 4-1. SERVICE PROVIDERS IN THE CITY OF TOPPENISH'S CITY LIMITS AND URBAN GROWTH AREA (UGA)

Type of Service	City of Toppenish	Remainder of UGA
Fire Protection	City of Toppenish	Fire District No. 5, Station #9
Emergency / Rescue	City of Toppenish and Fire District No. 5.	Fire District No. 5, Station #9
General Purpose Government	City of Toppenish	Yakima County
State Highway	Washington State Dept. of Transportation	Washington State Dept. of Transportation
County Roads	N/A	Yakima County
Arterial Streets And Roads	City of Toppenish	Yakima County
Local Streets	City of Toppenish	Yakima County
Irrigation	City of Toppenish, and Wapato Irrigation Project.	Wapato Irrigation Project,
Law Enforcement	City of Toppenish Police Department, and Yakama Nation.	Yakima County Sheriff and Yakama Nation.
Libraries	Yakima Valley Libraries Branch	Yakima Valley Libraries
Parks	City of Toppenish	None
Potable Water	City of Toppenish	City of Toppenish in limited areas, individual private wells
Public Health	Yakima County Health District	Yakima County Health District

Recreational Facilities	City of Toppenish; Toppenish School District No. 202 for school facilities	None
Sewage Collection	City of Toppenish	City of Toppenish for portions of UGA, or on-site disposal, i.e. private septic tanks
Type of Service	**City of Toppenish**	**Remainder of UGA**
Sewage Treatment and Wastewater Disposal	City of Toppenish	City of Toppenish for portions of UGA, or on-site disposal, i.e. private septic tanks
Schools	Toppenish School District No. 202	Toppenish School District No. 202
Sidewalks	City of Toppenish, Washington State Department of Transportation	Yakima County, Washington State Department of Transportation
Residential and Commercial Solid Waste Collection	City of Toppenish and Waste Management Inc.	Waste Management, Inc. contracted with citizens and the Yakama Nation
Solid Waste Disposal	Yakima County via Cheyne Landfill	Yakima County via Cheyne Landfill
Storm Water Control	City of Toppenish	None
Street Lighting	City of Toppenish and Pacific Power	Yakima County/ Washington State Department of Transportation
Traffic Signals	City of Toppenish	Yakima County/ Washington State Department of Transportation
Transit	Pahto Public Passage (transit provider for Confederated Tribes and Bands of the Yakama Nation), People for People Community Connector, and very limited Medicaid only from People For People on a broker basis	Limited routes and connections from Pahto Public Passage and People For People

C. Roadway and Sidewalk System

1. Background

The Toppenish area is served by a network of roadways and streets. A full discussion of the characteristics of Toppenish's motorized and non-motorized transportation facilities and services are included in Chapter 4: Transportation Element. The information in this section of the capital facilities element is meant to be consistent with other elements in the Comprehensive Plan and related planning documents. The system assessment and forecast for future needs is included here by reference to Chapter 4: Transportation Element.

Toppenish's roadways and streets, both within the City of Toppenish and in the Urban Growth Area (UGA), are categorized under the Federal Functional Classification System (FFCS). The FFC of a roadway or streets identifies the idealized capacity of that type of roadway or street. Evaluating the idealized capacity versus the observed or forecasted volume of traffic on a roadway or street allows the City to determine the level of service being provided by that particular facility.

Toppenish views "Levels of Service" for roadways other than arterial streets as advisory within its City limits. To maintain its historic and small city character, Toppenish adopts a level of service (LOS) standard "C" for arterials within its jurisdiction. The Washington State Department of Transportation will mitigate congestion on urban highways in cooperation with local and regional jurisdictions when the peak period LOS falls below "D". The City of Toppenish has two state highways passing through its boundaries: SR 22 and SR 97, both of which are classified as urban.

Most of the City's local streets are paved. Unpaved streets account for about 2.8% of Toppenish's linear feet devoted to streets, and include roughly 800 feet of King Lane, 200 feet of Rentschler Lane, 200 feet of Idaho Avenue, 600 feet of Berger Lane, 300 feet of Brooks Lane, and 200 feet of Adams Avenue Extension. The majority of the residential streets are paved curb to curb. Where there are no curbs, parking is found on one or both sides of the street on either dirt or gravel areas. Retail core area streets are paved curb to curb, with sidewalks and parallel parking on both sides of the street. Angle parking can be found on South Toppenish Avenue, Washington Avenue, and South Alder Street. Street rights-of-way vary throughout the City from 30 to 85 feet in width, with 60 feet being the most typical width. Approximately half the streets within City limits have full or partial sidewalks on at least one side of the street.

The City's storm drainage system is included in the roadway system. Sidewalk projects are customarily associated with street projects as well. When street improvements are made, the associated drainage facilities and pedestrian facilities are evaluated, and the necessary improvements are incorporated into the street project.

With an increase in sidewalk-only improvement funding opportunities, some sidewalk-only projects may be included in shorter-term (Six-year TIP) or longer-term (Metropolitan and Regional Transportation Plan) planning tools. The City of Toppenish has included such sidewalk-only improvement projects in their Six-Year Plan.

A linked system of sidewalks is the most obvious and economical pedestrian pathway network for the City of Toppenish. Approximately 67% of the streets in the Central Business District in Toppenish have full or partial sidewalks on at least one side of the street. The retail core area encourages walking to fully appreciate the Mural art on many of the buildings.

The City has published a mural route map which can be accessed at: https://www.visityakima.com/travel-maps/muralMapFrBk-web.pdf.

A standard national classification for bikeways includes categories ranging from: Class I, bike paths, which are 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. The *2016-2040 Yakima Valley Metropolitan and Regional Transportation Plan* (2016-2040 M/RTP) identifies that in the Toppenish area there are Class I, Class II, and Class IV bicycle routes.

2. Capital Improvement Program

A *Six Year Transportation Improvement Program* (Six-year TIP) is updated and adopted by the City on an annual basis. The most recent program was adopted on June 1, 2017 and covers the years 2018 through 2023. Table 3-2 shows Toppenish's Six-Year TIP of fully-funded and planned roadway projects and their associated financing or potential funding sources for each improvement project.

Any entry that is displayed as light gray is not fully funded and requires additional funding to move into an active status. Projects are listed by year, in order of priority, and will be constructed as funding is available. The improvements are identified in Table 3-2 and shown on Figure 3.

Within the unincorporated portion of Toppenish's UGA, Yakima County is responsible for the identification and scheduling of roadway improvements. Identified needs and improvements will be reflected in Yakima County's 2018 to 2023 TIP. The types of improvements are expected to be similar to those identified in the City of Toppenish. The County's 2018-2023 TIP is available at http://www.yakimacounty.us/1680/6-Year-Transportation-Improvement-Progra. The annual update for both the City and the County are scheduled to be adopted in June 2018, however to keep the years of the TIP reported here consistent with the years of the Comprehensive Plan document, the 2018-2023 TIP is shown in the Capital Facilities Plan. To locate individual projects in Toppenish or Yakima County that have complete funding, please visit the Statewide Transportation Improvement Program (STIP) at: http://www.wsdot.wa.gov/LocalPrograms/ProgramMgmt/STIP.htm.

Toppenish also participates with Yakima Valley Conference of Governments (YVCOG), the lead for the metropolitan and regional transportation planning organization, and contributes illustrative projects to be included in the long-range plan for the greater Yakima Region. The last effort for updating the regional long-range plan culminated in the *2016-2040 Yakima Valley Metropolitan and Regional Transportation Plan (2016-2040 M/RTP).* That plan can be accessed via YVCOG's website at www.yvcog.org.

3. Roadway System Funding

Transportation is typically funded by some type of "user fees." Initially, that funding came from a portion of the property tax because property owners were the prime beneficiaries of the transportation system. The major state tax sources to fund transportation improvements are the gas tax and vehicle registration fees. The gas tax is imposed at the federal and state level and is devoted primarily to highway purposes. The Washington State gas tax rate is $0.494 cents per gallon (2017). The collected tax is distributed in accordance with *RCW 46.68.090.*

For larger projects, the City may seek funding assistance from the Washington State Transportation Improvement Board (TIB). Other Washington State grant opportunities the City may include in its funding strategy are the Safe Routes to School Program and the Bicycle and Pedestrian Program.

There are federal grant programs that the City can pursue through the authorization of FAST Act, the federal transportation legislation. YVCOG, facilitates and approves the allocated federal funding awards to member jurisdictions and agencies upon completion of a prioritized, competitive basis.

The FAST Act created other new federal grant opportunities that required applicants to compete at the national level. The list of national grant opportunities can be accessed through the Grants.Gov website located at https://www.grants.gov/ . The roadway system budget should be reviewed annually, and adjustments made to optimize the use of the available funds in the operating street fund.

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

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 2015, the Legislature amended the TBD statute to authorize TBDs to impose vehicle license fees of up to $50 without a public vote and made it possible for cities to absorb the TBD in cases where the TBD has the same boundaries as the city.

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 that are not subject to voter approval, the TBD boundaries must be countywide or citywide, or if applicable, unincorporated countywide.

In 2012, the City of Toppenish created a TBD. This taxing district allows Toppenish to collect an additional vehicle fee to be used specifically to maintain, operate, and/or improve the existing transportation infrastructure in the City.

In 2015, legislation was approved to modify provisions related to Transportation Benefit Districts. This legislation authorized the City Council to assume control of the TBD by ordinance. Upon adoption of the ordinance the Council assumes all rights, powers, functions, and obligations of the TBD.

As of June of 2016, the Toppenish City Council assumed control of the TBD and the TBD ceased as a separate entity. Revenues as originally established continue to be collected.

TABLE 4-2. TRANSPORTATION CAPITAL IMPROVEMENT PROGRAM IN THE CITY LIMITS AND URBAN GROWTH AREA

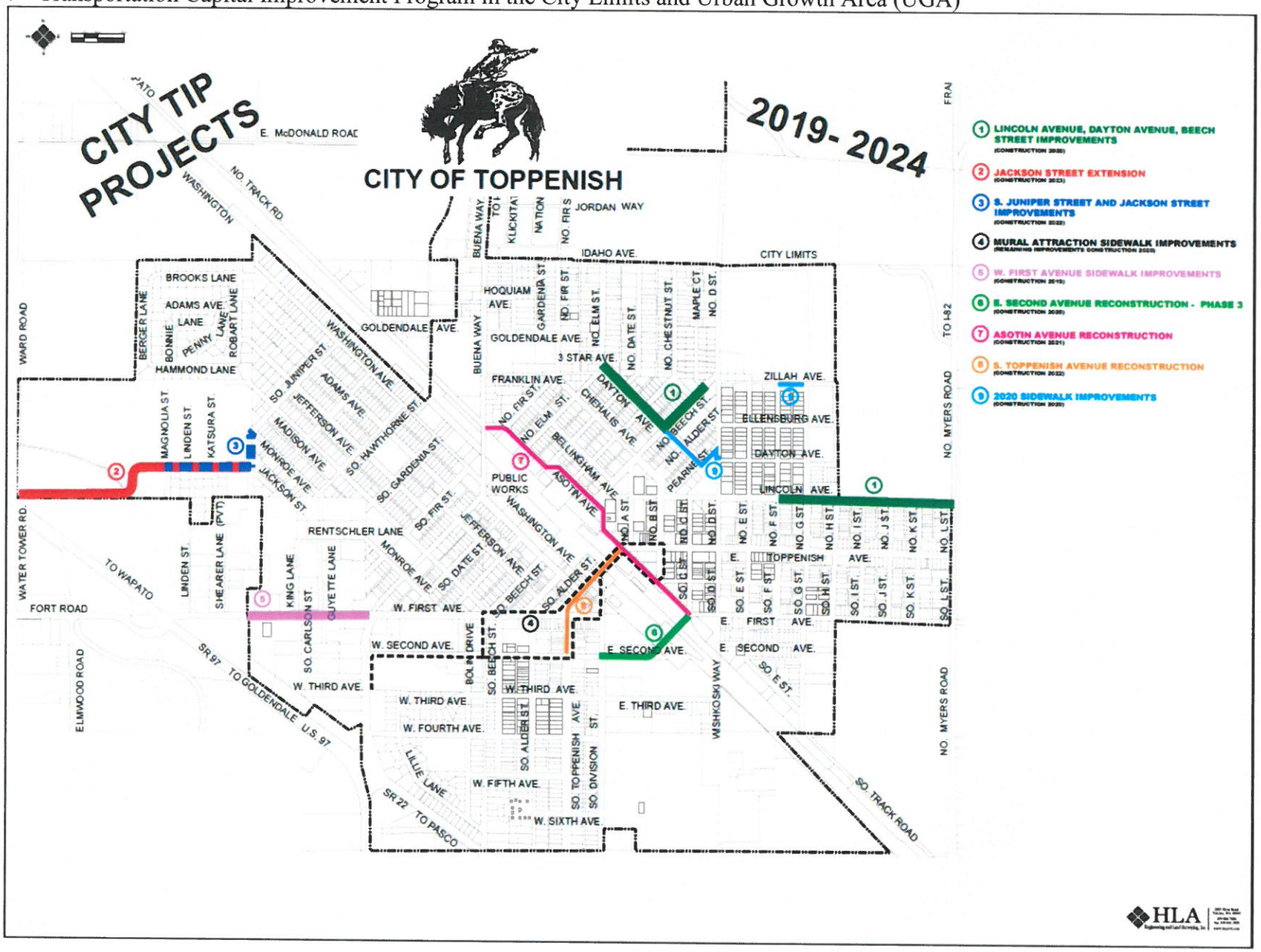
Priority Number	Project Title	Street	Functional Class	Length (miles)	Start Year	Improvements Needed	Estimated Cost	Funding Source
1	Lincoln Ave/ Dayton Ave/ Beech St Improvements	Lincoln Ave, Dayton Ave, Beech Street	Major Collector	0.84	2020	Lincoln Ave: Construct new sidewalk, curb and gutter, and illumination. Dayton Ave and Beech St: Widen and construct new 40-44 ft wide roadway section, new curb and gutter, sidewalk, storm drainage, and illumination.	$1,936,301	STP(US)
4	Mural Attraction Sidewalk Improvements	Various Locations	Minor Collector	.22	2019	Sidewalk improvement at various locations including ADA ramps, and curb and gutter along walking routes	$235,539	TIB
5	W. 1st Ave. Sidewalk Improvements	W. 1st Ave. from Elm St to west city limits.	Minor Collector	0.10	2019	New sidewalks, curb and gutter, and ADA ramps to fill existing gaps.	$182,775	TAP(US)
2	Jackson Street Extension	Jackson Street (proposed)	Major Collector	0.55	2024	Reconstruct Jackson Street from Juniper Street west approximately 1,000 feet, then extend Jackson Street west approximately 2,000 ft to Ward Road. Construct the extended section with three lanes (minimum) hot mix asphalt, curb and gutter, sidewalks, storm drainage, and street lighting.	$1,750,416	STP(U)*
3	S. Juniper Street and Jackson Street Improvements	S. Juniper Street, Jackson Street	Major Collector	0.27	2022	Reconstruct both streets including planning and re-use of grindings, grading, install missing segments of curb, gutter, and sidewalk, new hot mix asphalt, street lights, and storm drainage improvements.	$934,000	TIB*
6	Second Avenue Improvements	From Division to S. G Streets	Collector	.48	2019	Reconstruct roadway new curbs, gutters, sidewalks, pavement, storm drainage and street lighting	$2,502,500	TIB
7	Asotin Avenue Improvements	From Elm St. to E. 1st Ave	Collector	.63	2020	Reconstruct roadway new curbs, gutters, sidewalks, pavement, storm drainage and street lighting.	$3,323,320	TIB

8	S. Toppenish Ave. Improvements	From Asotin to 2nd Avenue.	Minor Arterial	.28	2021	Reconstruct roadway new curbs, gutters, sidewalks, pavement, storm drainage and street lighting. Reconstruct Roadway	$1,456,450	TIB
9	2010 Sidewalk Improvements	Various Locations	Varies	.27	2019	Install new curb gutter and sidewalks, drainage improvements, ADA Ramps and crosswalk markings.	$472,130	STRTS
10	Idaho Street Extension	From SR 22 to N. Elm St.	Not assigned	.26	2023	Construct new roadway including clearing grubbing, excavation, curb and gutter, sidewalks, storm drainage, pavement street lighting and pavement markings.	$1,300,000	TIB

* These are customary State and Federal funding sources and are reasonably expected to be available.

Any entry that is displayed as light gray is not fully funded and requires additional funding to move into an active status. Projects are listed by year, in order of priority, and will be constructed as funding is available.

Figure 4 – Transportation Capital Improvement Program in the City Limits and Urban Growth Area (UGA)



D. DOMESTIC WATER SYSTEM

1. Background

In 2016, the City of Toppenish completed a comprehensive *2016 Water System Plan* in accordance with Washington Administrative Code, WAC 246-290-100 and WAC 246-291-140. The complete Water System Plan is available at Toppenish City Hall. A full discussion of the characteristics of Toppenish's domestic water facilities and services, the full assessment of the capacity of facilities, and the forecast needs based on projections for future growth are included here by reference to the *2016 Water System Plan.*

The principal goal of water system planning is to make efficient use of available resources. This is accomplished by making decisions about water system capital improvements and operations which are in accordance with overall system policies and directions expressed in a utility's water system plan.

An equally important reason for developing a water system plan is to assure orderly growth of Toppenish's system while maintaining reliable delivery of high quality water. The plan is intended to guide water utility actions in a manner consistent with other activities taking place in the community.

The water system plan is intended to look ahead at least twenty years into the future. Development of a definite improvement schedule and financial program is required for the first six-year period, while the planning approach for the second period may be more conceptual. The Water System Plan will need to be updated in 2023.

2. Water System Facilities Inventory

The system is a Group A Public Water Supply as defined by the State of Washington Department of Health. The system serves all residential, commercial and industrial customers within the corporate limits. Services have also been extended to some customers outside of the corporate limits but within the Urban Growth Boundary (UGA).

The system has a total of 2,446 connections. Of these connections 2,112 are residential, 255 are commercial, 7 are industrial, and 71 are institutional public property. All connections to the system intended for consumption are metered. Non-metered connections consist of supply lines to automatic fire suppression systems in buildings and are not included in the connection totals.

a. <u>Source</u>

Water is sourced from six active wells located throughout the City. The wells have a combined pumping capacity of 5,015 gallons per minute. All wells are equipped with water treatment equipment consisting of gas chlorination for disinfection and fluoridation for dental health. Well pumps are powered from the electrical grid with backup diesel generators. Table 4-3 shows details about each of the wells.

b. Storage

The system has four active reservoirs with a total capacity of 3,448,000 and an available capacity of 2,457,000 gallons. These reservoirs maintain constant pressure throughout the system and provide operating and reserve capacity. All operating reservoirs are in good condition. A periodic maintenance schedule is included in the 2016 Water System Plan. Table 4-4 provides details about the City's reservoirs.

3. Water Rights

The City of Toppenish lies entirely within the jurisdictional boundaries of the Yakama Nation reservation. Within the boundaries of the reservation the Yakama Nation is the sole entity for enforcing, administering, and adjudicating water resources. The State of Washington Department of Ecology no longer issues permits for water rights within the reservation boundaries. Permits for water use, known as Existing Use Permits, are issued by the Yakama Nation Water Code Administration. The city has been issued an Existing Use Permit for each active well in the system. The permits can be renewed on a 10-year basis to adjust fees. Each permit allows a rate of water withdrawal equal to or exceeding the capacity of each active well. Accordingly, the Existing Use Permits demonstrate adequate water rights for wells in the system.

TABLE 4-3. ESSENTIAL FEATURES OF THE CITY OF TOPPENISH'S WATER SOURCES

Facility	Year Drilled	Description	Location	Depth in Feet	Capacity in GPM	Year Built	Condition	Present Value
Well No. 3	1937	Well, Pumphouse & Water Treatment Bldg	18 Asotin Avenue	188	495	1994	Good, except for lack of backup generator.	$113,500
Well No. 5	1953	Well, Pumphouse & Water Treatment Bldg	Olney Park	291	950	1952	Fair; declining capacity, pumphouse and chlorine room need modernization.	$33,100
Well No. 6	1959	Well, Pumphouse & Water Treatment Bldg	510 W. Second	863	195	1994	Good	$42,500
Well No. 7	1973	Well, Pumphouse & Water Treatment Bldg	503 W. Magnolia Street	1,024	2,200	1974	Poor; due to unknown electrical issues that cause sporadic failures.	$127,800
Well No. 8	1994	Well, Pumphouse & Water Treatment Bldg	510 W. Second	250	375	1993	Fair; sand production limits capacity.	$114,700
Well No. 9	2013	Well, Pumphouse & Water Treatment Bldg	90 Idaho Avenue	444	800	2012	Good	$1,100,000

TABLE 4-4. CAPACITIES OF THE CITY OF TOPPENISH'S WATER RESERVOIRS

Facility	Description	Location	Total Capacity (gallons)	Available Capacity (gallons)	Year Built	Condition	Present Value
Reservoir No. 2	Elevated Steel Tank	18 Asotin Avenue	223,000	223,000	1937	Good	$352,150
Reservoir No. 3	Elevated Steel Tank	510 W. Second	543,000	543,000	1953	Fair, repair work is required.	$704,300
Reservoir No. 4	Welded Steel Standpipe	503 W. Magnolia Street	1,008,000	603,000	1993	Good	$969,830
Reservoir No. 5	Welded Steel Standpipe	90 Idaho Avenue	1,674,000	1,088,000	2014	Good	$2,100,000

c. Distribution

The distribution system consists of over 195,664 lineal feet of water pipe consisting of ductile iron, cast iron, asbestos cement and PVC materials. The majority of the distribution system is construction of either cast or ductile iron pipe. Pipe sizes range from 3 to 12-inches in diameter. The system also includes 220 hydrants for fire suppression. Table 4-5 below summarizes the City's distribution system.

TABLE 4-5. SUMMARY OF THE CITY OF TOPPENISH'S WATER DISTRIBUTION SYSTEM – TYPES AND SIZES OF PIPES

Type of Pipe	Length (feet)	Percent
PVC	1,978	1.0%
Ductile Iron	44,109	22.5%
Asbestos Cement	57,145	29.2%
Cast Iron	92,432	47.2%
Total	**195,664**	**100%**
Size of Pipe	**Length (feet)**	**Percent**
3-inch	498	0.3%
4-inch	31,792	16.2%
6-inch	51,543	26.3%
8-inch	69,309	35.4%
10-inch	12,083	6.2%
12-inch	27,260	13.9%
16-inch	3,179	1.6%
Total	**195,664**	**100%**

The age of pipes in the distribution system varies widely. Some of the older cast iron and asbestos cement pipes are aging, nearing the end of their useful life, and it is suspected some of the cast iron pipe is corroded and may be leaking. Some pipes in the system are undersized and deliver insufficient flow as measured in gallons per minute. The majority of the system is looped.

d. Telemetering and Control

The water system is controlled by a recently upgraded telemetry system. The telemetry system exercises supervisory control, data collection, and monitoring of the water system operation from a programmable logic controller (PLC) located in the Public Works office. The system monitors the status and production rate of each well, reservoirs levels and water treatment

functions. An abnormality in the function of any of these systems produces an alarm to the water treatment operator.

4. Current and Future Demand

The 2016 Water Systems Plan forecasts the future growth and demand on the system based on projections of population growth in the land use element. Factors influencing demand include population, type of residential development, per capita income, types of commercial and industrial enterprises, climate, use of water for irrigation and anticipated changes to the price structure.

The system serves a variety of customer types ranging from single-family residential to industrial enterprises. Each type of customer puts a unique demand on the system. For planning purposes, each customer type is evaluated in terms of equivalent residential units (ERU). One ERU is the demand of an average single-family home in the system. Some types of commercial uses have an ERU of 0.9 per connection, while each industrial connection constitutes 21 ERU's. This system facilitates the forecasting of future demands. Table 4-6 summarizes existing demand and demand forecasts for various years through 2037 as reported in the 2016 Water System Plan.

TABLE 4-6. SUMMARY OF THE CITY OF TOPPENISH'S EXISTING AND FUTURE WATER DEMANDS

Year	No. of Services	ERUs	Average Daily Demand (gallons)
2017	2,446	3,331	1,410,000
2023	2,532	3,448	1,605,000
2027	2,575	3,507	1,633,000
2037	2,667	3,632	1,691,000

Based on these forecasts the number of services and ERUs is expected to steadily increase resulting in increased demands on the system. A more robust discussion about peak demand is included in the 2016 Water System Plan.

In 2003, the Washington State Legislature passed the Municipal Water Supply-Efficiency Requirements Act. The Act was a multi-year effort to reform the state's water laws. The Water Use Efficiency (WUE) Rule requires municipal water systems to report collect and consumption data, forecasts of future demands, evaluation of system leakage, evaluation of water rate structures, and implementation of measures. Chapter 4 in the 2016 Water System Plan satisfies the WUE requirements and adds planned actions by the City of Toppenish in a variety of water shortage or water loss events.

5. Capital Improvement Program

Throughout the 2016 Water System Plan, generally summarized at the end of each chapter, are descriptions of deficiencies and concerns and recommendations to address them. The Capital Improvement Program is a listing of planned actions and projects identified by the potential year the project or action will be necessary and an estimate of the cost to accomplish the action or project.

The recommended improvements from the Water Systems Plan are divided into two categories: Table 4-7 Toppenish's Schedule of Recommended Operations and Maintenance (O&M) Improvements (Years 2017-2027); and Table 4-8 Toppenish's Schedule of Recommended Major Capital Improvements (Years 2017 through 2037). The prioritized improvements are shown on Figure 4. In each improvement category table, the project name of the recommended improvement and estimated project costs (based on 2017 construction costs) are listed by scheduled year. Full project descriptions and estimate assumption details are in the Water Systems Plan.

The O&M improvements shown in Table 4-7 on the next page are necessary for system operation and maintenance of existing facilities, including well and reservoir rehabilitation, water use efficiency (WUE) measure implementation, and other miscellaneous improvements.

TABLE 4-7. TOPPENISH'S SCHEDULE OF RECOMMENDED OPERATIONS AND MAINTENANCE IMPROVEMENTS (YEARS 2018-2037)

Priority Number	Improvement Description	Estimated Cost in 2017 Dollars	Completion Year	Estimated Cost in YOE Dollars	Funding Source
1	Well No. 8 Inspection and Rehabilitation	$ 132,800	2018	$ 136,784	City
2	Source Wells Protective Covenants	$ 17,500	2019	$ 18,550	City
3	Reservoir No. 5 Cleaning and Inspection	$ 6,000	2020	$ 6,540	City
4	Water System GIS Mapping	$ 28,138	2021	$ 31,514	City
5	Well No. 3 Inspection and Rehabilitation	$ 152,760	2022	$ 175,674	City
6	Water System Plan Update	$ 100,000	2023	$ 118,000	City
7	Reservoir No. 3 Cleaning and Inspection	$ 6,000	2024	$ 7,260	City
8	Well No. 9 Inspection and Rehabilitation	$ 152,760	2027-2037		City
9	Reservoir No. 2 Cleaning and Inspection	$ 6,000	2027-2037		City
10	Reservoir No. 4 Cleaning and Inspection	$ 6,000	2027-2037		City
11	Well No. 6 Inspection and Rehabilitation	$ 202,660	2027-2037		City
12	Well No. 7 Inspection and Rehabilitation	$ 295,740	2027-2037		City
13	Well No. 5 Inspection and Rehabilitation	$ 152,760	2027-2037		City

Year of Expenditure (YOE) improvement costs are in 2017 dollars adjusted by an annual inflation rate of 3%.

The recommended major capital improvements, shown in Table 4-8 on the next page, are those necessary to improve a system deficiency such as fire flow, source and/or storage capacity, water quality, or replacement of aging and/or undersized system components.

Future planning improvements are also identified in Table 4-8, beyond the six-year short-term planning period, as necessary to accommodate system expansions serving future service areas. The future planning improvements are more expensive and will customarily require grants or loans to accomplish.

TABLE 4-8. TOPPENISH'S SCHEDULE OF RECOMMENDED MAJOR CAPITAL IMPROVEMENTS (YEARS 2018 THROUGH 2037)

Priority Number	Improvement Description	Estimated Cost in 2017 Dollars	Completion Year	Estimated Cost in YOE Dollars	Funding Source
1	Well No. 5 Improvements	$ 1,344236	2019	$ 1,533,000	DWSRF Loan/City
3	Public Works Shops Water Main Loop	N/A	2019	$250,000	Insurance Settlement
9	Well No. 3 Generator	$ 100,000	2020	$ 112,550	DWSRF Loan/City
2	Satus Ave. 8-inch Water Main Loop	$ 316,594	2020	$ 345,590	DWSRF Loan/City
4	S. Date St. Water Main Loop	$ 420,110	2020	$ 459,069	DWSRF Loan/City
5	S. Chestnut St. Water Main Update	$ 344,880	2020	$ 376,960	DWSRF Loan/City
6	Reservoir No. 3 Rehabilitation and Recoating	$ 938,750	2021	$ 1,056,570	DWSRF Loan/City
7	2nd Ave. Railroad Crossing Water Main Loop	$ 230,042	2021	$ 258,914	DWSRF Loan/City
8	Bio Twine – Silgan Water Main Loop	$ 311,645	2024	$ 383,284	DWSRF Loan/City
10	Reservoirs No. 2 and 4 Rehabilitation and Recoating	$ 938,750	2024	$ 1,154,550	DWSRF Loan/City
11	Well No. 7 Electrical Improvements	$ 310,000	2024	$ 381,260	DWSRF Loan/City
12	Industrial Water Main Ph. 2	$ 148,707	2027-2037		DWSRF Loan/City
13	Industrial Water Main Ph. 3	$ 163,124	2027-2037		DWSRF Loan/City
14	Well No. 3 Improvements	$507,903	2027-2037		DWSRF Loan/City
15	Well No. 7 Manganese Treatment / Removal Improvements	$ 1,345,127	2027-2037		DWSRF Loan/City
16	Well No. 8 Improvements	$ 633,917	2027-2037		DWSRF Loan/City
17	Well No. 6 Manganese Treatment / Removal Improvements	$ 449,832	2027-2037		DWSRF Loan/City
18	S. F St. 8-inch Water Main Loop	$ 64,892	2027-2037		DWSRF Loan/City
19	W. Third & W. Fifth Ave. Water Main Loops	$ 44,447	2027-2037		DWSRF Loan/City
20	S. Beech St. Water Main Upsize	$ 119,089	2027-2037		DWSRF Loan/City
21	Goldendale Ave. Water main Upsize & Loop	$ 131,641	2027-2037		DWSRF Loan/City
22	Bellingham Ave. 8-inch Water Main Loop	$ 67,309	2027-2037		DWSRF Loan/City
23	Ellensburg Ave. 8-inch Water Main Loop	$ 60,896	2027-2037		DWSRF Loan/City
24	Toppenish WWTP 12-inch Water Main Loop	$ 1,067,819	2027-2037		DWSRF Loan/City
25	Katsura St. 8-inch Water Main Loop	$ 81,148	2027-2037		DWSRF Loan/City
26	S. Carlson St. Water Main Upsize	$ 36,905	2027-2037		DWSRF Loan/City

Year of Expenditure (YOE) improvement costs are in 2017 dollars adjusted by an annual inflation rate of 3%.

6. Capacity Considerations

The overall capacity of the system was evaluated based on three basic components. These consist of supply in terms of water rights; source capacity, in this case the wells; and adequacy of the storage system. The analysis also took into consideration the impact to the water system in the event that Washington Beef LLC were to connect to the system. An additional 301 ERU's will be required to address projected growth. The system has adequate capacity to accommodate this growth and is able to serve Washington Beef demand if necessary.

7. Water System Funding

There are five basic categories of potential financing for domestic water-related improvements:

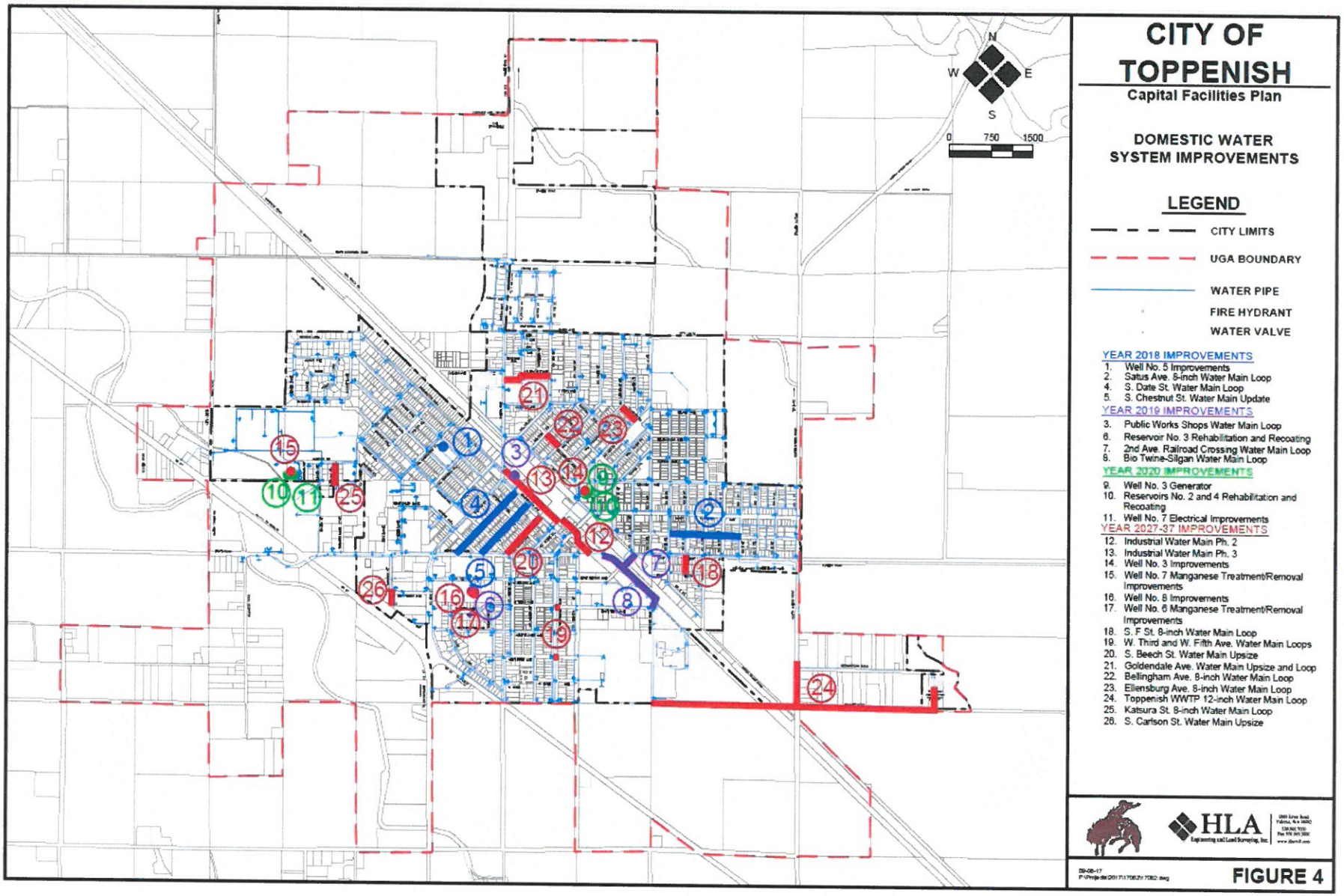
- Local Public Enterprise Funds
- Use of Local Public Powers
- State Assisted or Guaranteed Resources
- Federally Assisted or Guaranteed Resources
- Private Development

A combined funding opportunity section is placed after the Sanitary Sewer System section because many of the funding opportunities are common between domestic, stormwater, and wastewater facilities and related activities.

Current availability of funding is limited with a number of the sources within these categories. Many sources restrict the use of funds to certain projects and others limit their monetary participation to a percentage of the total cost.

A detailed financial program was developed for the City's 2016 Water Systems Plan and is provided in Table 9-6 in CHAPTER 9. The proposed financial program incorporates projected operations, maintenance, and capital improvement costs for an eleven-year period of 2016-2026. Projected revenues and expenditures of the water system include growth factors and inflation rates, in addition to the recommended rate increases, to account for estimated growth within the City, as discussed in CHAPTER 9 of the 2016 Water Systems Plan.

The City of Toppenish will continue annual reviews of the water system's financial program during their budget preparation process. The financial program will also be reviewed and revised as needed during the next update of the Water System Plan in 2023. This continued review will allow for modifications to the proposed rate and revenue increases, should financial conditions change.
Figure 4 – Domestic Water Capital Improvement Program in the City Limits and Urban Growth Area (UGA)


CITY OF TOPPENISH
Capital Facilities Plan
DOMESTIC WATER SYSTEM IMPROVEMENTS
LEGEND
CITY LIMITS
UGA BOUNDARY
WATER PIPE
FIRE HYDRANT
WATER VALVE
YEAR 2018 IMPROVEMENTS
1. Well No. 5 Improvements
2. Satus Ave. 8-inch Water Main Loop
4. S. Date St. Water Main Loop
5. S. Chestnut St. Water Main Update
YEAR 2019 IMPROVEMENTS
3. Public Works Shops Water Main Loop
6. Reservoir No. 3 Rehabilitation and Recoating
7. 2nd Ave. Railroad Crossing Water Main Loop
8. Bio Twine-Silgan Water Main Loop
YEAR 2020 IMPROVEMENTS
9. Well No. 3 Generator
10. Reservoirs No. 2 and 4 Rehabilitation and Recoating
11. Well No. 7 Electrical Improvements
YEAR 2027-37 IMPROVEMENTS
12. Industrial Water Main Ph. 2
13. Industrial Water Main Ph. 3
14. Well No. 3 Improvements
15. Well No. 7 Manganese Treatment/Removal Improvements
16. Well No. 8 Improvements
17. Well No. 6 Manganese Treatment/Removal Improvements
18. S. F St. 8-inch Water Main Loop
19. W. Third and W. Fifth Ave. Water Main Loops
20. S. Beech St. Water Main Upsize
21. Goldendale Ave. Water Main Upsize and Loop
22. Bellingham Ave. 8-inch Water Main Loop
23. Ellensburg Ave. 8-inch Water Main Loop
24. Toppenish WWTP 12-inch Water Main Loop
25. Katsura St. 8-inch Water Main Loop
26. S. Carlson St. Water Main Upsize
N
W
E
S
0
750
1500
HLA
FIGURE 4

E. Stormwater System

1. Background

Washington State Department of Ecology (Ecology) is responsible for issuing stormwater discharge permits to most larger communities in Washington State. Water quality standards have been created and are captured in two manuals for Washington State: the *Stormwater Management Manual for Western Washington* and the *Stormwater Management Manual for Eastern Washington*. Both manuals strive to meet state law as presented in Title 90 of the Revised Code of Washington (RCW), provide the commonly accepted technical standards that are meant to address the State water quality standards included in Chapter 173-200 in the Washington Administrative Code (WAC), explore new stormwater design information, and highlight new approaches to stormwater management. In 2017, Department of Ecology began the process to update the *Stormwater Management Manual for Eastern Washington* manual and anticipates the release of the updated draft in 2018.

Although the City is not quite at the population level to necessitate obtaining a permit from the Department of Ecology during the drafting of this Capital Facilities Plan, the population threshold is expected to trigger required action before the 2020 Census.

Separation of stormwater and sanitary sewer water prevents unanticipated and costly treatment of stormwater flow into wastewater treatment facilities. Because Toppenish manages its own wastewater treatment facility and is experiencing adverse effects from infiltration and inflow to the sanitary sewer system, stormwater management continues to be a priority in Toppenish. Infiltration and inflow (I/I) measurement and consequences are covered in summary detail in the **Sanitary Sewer System** section of this plan and covered in greater detail in Toppenish's *General Sewer Plan*.

2. Stormwater System Inventory

Most of the stormwater in Toppenish flows into 18.2 miles of stormwater sewer collector pipe and 5.6 miles of the larger interceptors. The City has also installed a pumping station devoted exclusively to stormwater. The current stormwater system inventory is shown on Figure 5 on page 26.

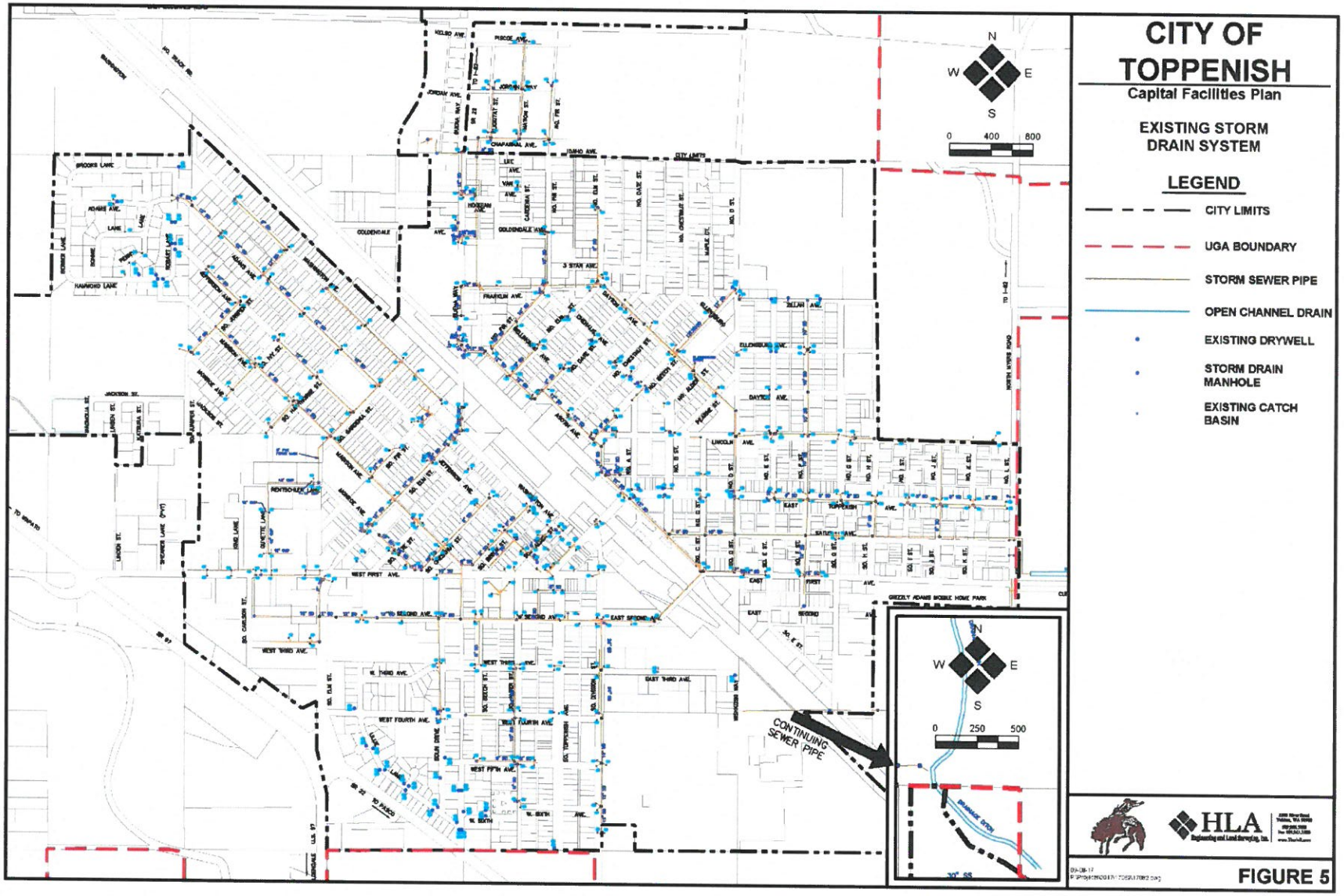
3. Current and Future Demand

The City forecasts the future growth and demand on the system. Factors influencing demand include population, type of residential development, per capita income, types of commercial and industrial enterprises, climate, use of water for irrigation, and anticipated changes to the price structure. Currently, the City requires new development, redevelopment, and construction to contain and treat stormwater on the project site and does not allow for discharge into the existing City operated stormwater drainage system.

4. Capital Improvement Program

Much of the City-owned storm drain system is included in the roadway system. When roadway improvements are made, the associated drainage facilities are evaluated and the necessary replacements or modifications are incorporated into the street project. There is no separate stormwater system capital facilities program

Figure 5 – Stormwater Capital Improvement Program in the City Limits and Urban Growth Area (UGA)



F. SANITARY SEWER SYSTEM

1. Background

In 2017, the City of Toppenish is updating the General Sewer Plan. The *2017 General Sewer Plan* describes the efforts taken to assess the existing condition of Toppenish's sanitary sewer system and formulate a program of improvements.

Summarized sanitary sewer system information and resulting prioritized project lists will be shared in this section of the Capital Facilities Plan. A full discussion of the characteristics of Toppenish's sanitary sewer facilities and services, the full assessment of the capacity of facilities, and the forecast needs based on future growth are included here by reference to the *2017 General Sewer Plan.*

The City of Toppenish is located on deeded lands of the Confederated Tribes and Bands of the Yakama Nation. As a result, the City of Toppenish Wastewater Treatment Facility is regulated at the federal level by the Environmental Protection Agency (EPA). A comprehensive discussion of the proximity of the City of Toppenish to the lands of the Confederated Tribes and Bands of the Yakama Nation and the proximity of the City to other waters of Washington State is included in Chapter 1 of the *2017 General Sewer Plan.*

Water is one of the most regulated resources in Washington State. If, when, and how the City of Toppenish seeks and receives various State funding, the City will be agreeing to follow Washington Administrative Code (WAC) and Revised Code of Washington (RCW) rules and regulations.

By Washington State regulation, general sewer plans are required to contain maps showing sources of water supply, water storage reservoirs, water treatment plants, and water transmission lines. General sewer plans are required to satisfy the Washington Administrative Code, WAC 173-240-050. The following major components are included in the *2017 General Sewer Plan*:

- Definition of the planning area, determination of the areas in and around Toppenish most likely to grow, and the projected population increases;
- Development of estimates for the current quantity of wastewater and the projected quantity to be generated within the planning area;
- Evaluation of the capacity and condition of the existing sewer system, including lift stations;
- Recommendations for extension of the existing sewer system, including lift stations;
- Development of design standards for extension of sewers and for lift stations; and
- Development of policies for the extension of sewer service.

Toppenish developed the *2017 General Sewer Plan* to guide orderly maintenance and repair of an aging and deteriorating wastewater collection system.

2. Overall Sanitary Sewer System Performance

The City of Toppenish has established thresholds for capacity flows and loadings based on the design of the Wastewater Treatment Facility (WWTF) and is regulated under the National Pollutant Discharge Elimination System (NPDES) permit number WA0026123 issued by EPA on May 23, 2013. Del Monte Foods Plant 112 Toppenish also holds a permit because of their potential industrial discharges to a municipal wastewater collection/treatment system. The Del Monte permit is issued by the State of Washington and is regulated by the State. Del Monte only discharges domestic waste to the Toppenish sewer system and not industrial waste because of on-site water treatment.

TABLE 4-9. SUMMARY OF THE CITY OF TOPPENISH'S EXISTING AND FUTURE WASTEWATER CONNECTION DEMANDS

Population		Existing(1)	2025	2035
Total Projected Population		8,965	9,454	9,810
Projected Flows	**Design Criteria**	**Existing(1)**	**2025**	**2035**
Total Base Flow(2) (mgd)	N/A	0.83	0.88	0.91
Average Annual Flow (mgd)	1.23	1.21	1.26(3)	1.29(3)
Maximum Month (mgd)	1.67	1.90	1.94(3)	1.98(3)
Maximum Day (mgd)	2.16	2.26	2.31(3)	2.34(3)
Peak Hour (mgd)	3.70	2.87	2.83(4)	2.99(4)

(1) From Table 5-1 averages of the 2017 General Sewer Plan (GSP).
(2) Equals 93 gpcd multiplied by total population from above.
(3) Equals base flow plus corresponding I/I value from Table 5-6 of the 2017 GSP.
(4) Assumes a base flow peaking factor of 1.5 and that I/I in existing developed areas remains constant at 1,927 gpad, but in newly developed areas will be 300 gpad.

The information from Table ES-1 in the *2017 General Sewer Plan* is repeated in Table 4-10 below and shows that two tracked wastewater performance measures are currently in exceedance: Maximum Month Flow (mgd) and Maximum Day Flow (mgd).

TABLE 4-10. TOPPENISH'S CURRENT AND PROJECTED FLOWS AND LOADINGS

Parameter	Existing Design Criteria	Existing	Projected 2035	Year Exceeded
Annual Average Flow (mgd)	1.23	1.21	1.29	2020
Maximum Month Flow (mgd)	1.67	1.9	1.98	Currently Exceeded
Maximum Daily Flow (mgd)	2.16	2.26	2.34	Currently Exceeded
Peak Hour Flow (mgd)	3.7	2.87	3.41	(1)
Maximum Month BOD	2,581	1,917	2,225	(1)
Maximum Month TSS	2,634	2,212	2,343	(1)
Maximum Month TKN	516	406	445	(1)

(5) Not projected to exceed the parameter in the 20-year planning period.

The City recognizes flows to the wastewater treatment facility have increased significantly in the past 10 years. After careful evaluation of the contributing factors to the wastewater stream, the City determined the increased flows are due to an increase in infiltration and inflow (I/I) during the summer months. In fact, the General Sewer Plan demonstrates that the City of Toppenish has excessive infiltration by EPA standards. Infiltration is groundwater entering a sewer system by means of defective pipes, pipe joints, or manhole walls. Storm events or irrigation activities trigger a rise in groundwater levels and increase water seeping into the wastewater system. Inflow is surface water entering the sewer system from yard, roof, and footing drains, from cross connections with storm drains, and through holes in manhole covers. Peak inflow occurs during heavy storm events when storm sewer systems are overwhelmed beyond their capacity.

The presence of I/I in the City of Toppenish's wastewater system is easily understood by determining the winter water consumption in households, businesses, and industries, and then comparing the source water amounts to the amounts being received at the Wastewater Treatment Facility. The per capita I/I compared to EPA criteria is shown in Table 5.9 of the *2017 General Sewer Plan* and repeated on the next page for context. I/I is measured in gallons per capita per day (gpcd).

TABLE 4-11. PER CAPITA INFILTRATION AND INFLOW COMPARED TO EPA CRITERIA

Parameter	EPA Criteria for Excessive I/I (gpcd)	Estimated Toppenish I/I Value (gpcd)
EPA Excessive Infiltration Criteria	120	208 (1)
EPA Excessive Inflow Criteria	275	253 (2)

(1),(2) See Table 5-9 in the 2017 General Sewer Plan for calculation details

The City realizes that the excessive infiltration is decreasing treatment efficiency and is committed to financing the capital improvements in the *2017 General Sewer Plan* to reduce infiltration.

3. Sanitary Sewer System Facilities Inventory

The sanitary sewer system is made up of basins, piping of various size, lift stations, and the Wastewater Treatment Facility.

a. Basins

Connections to the system are identified by the basin in which the household, business, or industry is located. Toppenish has divided the current overall system into twenty-eight basins and added sixteen more for forecast purposes. Each of the basins are identified in Chapter 4 of the 2017 General Sewer Plan.

b. Collection System

The grid of piping in and between basins allows the sewage to flow due to gravity ultimately to the Wastewater Treatment Facility. The ages of the pipes vary from new (one or two years old) to one hundred years old in some places of the City. Two recent rounds of sewer collection system improvements replaced some of the oldest vitrified clay and concrete piping.

The entire sewer system is approximately 162,431 linear feet of pipe. In 2015, the City purchased a sewer video camera system and began videotaping the collection system as a means of assessing the in-place condition of the sewer pipes. The results of the assessment are covered in detail in the General Sewer Plan, summarized in Table 3-12 on page 29, and will guide the prioritization of future pipe replacement.

c. Lift Stations

Because the slope of the piping is important and because there is a limit to the depth the system can feasibly be built, the system uses lift stations to return the sewage to a higher elevation at certain points so that pipes are kept at a manageable depth for installation, repair, and maintenance.

The City of Toppenish owns and operates seven sewage lift stations. Each station is inspected and evaluated for electrical, mechanical, and structural condition. The capacity of the lift station is of key importance when determining whether demand can be accommodated adequately now and into the future. If the basin demand reaches limits that make an upgrade of the lift station pump necessary, it's important to know when the upgrade is needed. All lift stations were evaluated in detail in Chapter 6 of the *2017 General Sewer Plan.*

d. Wastewater Treatment Facility

The treatment process for wastewater is guided by NPDES permit No. WA0026123. The current facility details are included in Chapter 7 of the *2017 General Sewer Plan*. The treatment facility includes equipment for screening, grit removal, clarifying, aeration, secondary clarifying, and UV treatment of liquid waste and digesters, presses, thickeners, and drying beds for solid waste.

Although a table of maintenance and equipment needs is included in this Capital Facilities Plan, the City is currently studying or planning to study separate but specific phosphorous-related and I/I-related issues. The City acknowledges that upon completing those studies, newly identified Capital Improvement Program needs will require an amendment to this section of the Comprehensive Plan.

The condition of the current collection system, lift stations, and wastewater treatment facility are fully explored in the *2017 General Sewer Plan*. Summaries of the deficiencies and recommended improvements for the Sanitary Sewer System are shown in tables in the Capital Improvement Program section.

4. Computer Modeling of the Sanitary Sewer System

Because of the complexity of the system, to evaluate the current conditions and forecast the future needs, the City of Toppenish accomplishes hydraulic analysis through a computer model. The existing system is simplified to a more skeletal representation and land uses are accounted for which aid in determining future demand from households, businesses, and industry. The model then loads in the flows of the system and show where the system is experiencing near capacity or over capacity situations.

The model can accommodate future years by adding planned improvements to the skeletal system and increasing demand according to the growth that is estimated for the City. This method of forecasting is incrementally accomplished through all the required planning years. The results are evaluated and used for decision-making.

5. Capital Improvement Program

The model is one of many tools the City staff considers when planning the types of necessary maintenance, repair, and upgrades the system needs to adequately provide services for citizens both now and into the future. These planning efforts culminate in a Capital Improvement Program.

a. Collection system deficiencies

a. The hydraulic analysis model of the existing collection system identified two gravity main improvements to address current and future pipe capacity deficiencies. Table 6-2 from the General Sewer Plan is included as Table 4-12 on the next page and shows the recommended gravity main improvements resulting from computer model analysis.

TABLE 4-12. RECOMMENDED GRAVITY MAIN IMPROVEMENTS

Project	Location	Modeling Location	Capacity Issue Identified in Hydraulic Model (1)	Recommendation
1	Madison Ave & S. Gardenia St	MH H-5 to H-9	Surcharges <0.5 ft; undersized 10-inch pipes	Upsize 10-inch pipe to 12-inch from MH H-6 to I-1 (approximately 1,600 linear feet)
2	Goldendale Ave & Buena Way to Dayton Avenue & N. Date St	MH E-7 to E-27	Surcharges < 0.5 ft; undersized 8- and 10-inch pipes	Upsize 10-inch pipe to 12-inch from MH E-7 to EE-22 (approximately 1,450 linear feet) and upsize 8-inch pipe to 10-inch from MH E-22 to E-27 (approximately 800 linear feet)

(1) Verification of inverts for these areas should be done prior to design or construction to confirm capacity issues.

b. Lift station deficiency

In addition to pipe size deficiencies in the two projects identified above, analysis identified the Carlson lift station has inadequate capacity for current or future flows. Table 6-3 of the *2017 General Sewer Plan* shows that although peak flow in 2015 was 436 gallons per minute (gpm), recent tests indicated the lift station is only pumping 300-gpm. Carlson has two pumps installed. Provided both pumps are operating during peak flow, the capacity is accommodated.

Recommendations in the *2017 General Sewer Plan* include: rebuilding the Carlson lift station in a different location (out of the street), replace both Carlson pumps so either pump can accommodate peak flow in accordance with Department of Ecology design standards, and evaluate the Carlson control panel and power service depending on where the lift station is relocated.

c. Prioritized phasing of needed sanitary sewer improvements

City staff has prioritized improvement projects based on the modeled hydraulic capacity deficiencies, age and condition of system elements, known maintenance and operations issues, and in coordination with work being done on other related, public-owned facilities and systems.

For example, although the table below displays the prioritized phases of improvements, if a road systems project was funded and the associated sewer system project was further down on the prioritized list, the City might choose to rearrange the order of the phases to complete the related projects simultaneously.

TABLE 4-13. PRIORITIZED PHASING OF SANITARY SEWER PROJECTS

Phase	Improvement Description	Estimated Cost in 2017 Dollars	Completion Year
I	Penny Lane Lift Station	$360,000	2017
	2017 Collection System Improvements	$886,000	
II	Pipe Replacement	$5,097,500	2020
	Carlson Lift Station	$813,000	
	South Beech Lift Station	$460,000	
III	Pipe Replacement	$8,278,500	2022
	Branding Iron Lift Station	$259,000	
IV	Pipe Replacement	$5,464,000	2024
V	Safeway Storm Sewer Lift Station	$49,000	2024
VI	Del Monte Lift Station	$47,000	2024
VII	Idaho Lift Station	$11,000	2024
+	General Facility Charge Study	$20,000	2024
+	WWTF Facility Plan Amendment	$85,000	2024
Total Collection System Improvements		$21,830,000	

d. Identification of needed wastewater treatment facility improvements.

City staff has identified maintenance and equipment needs based on age and condition of equipment and grouped by the process in the facility. Table 4-14 lists the estimated cost in 2017 dollars and the year for each anticipated need.

TABLE 4-14. IDENTIFIED MAINTENANCE OR EQUIPMENT NEEDS FOR THE TOPPENISH WASTEWATER TREATMENT FACILITY

Process	Maintenance/Equipment Needs	Estimated Cost in 2017 Dollars	Year Needed
Headworks	Screen chain, bearings maintenance	$20,000	2018
	Pump Replacement or Addition		

Influent Pump Station	Level Transducer Replacement		
Primary Clarifier No. 1	Scum Pump Replacement	$500	2018
	Clarifier Drive Motor Replacement	$500	2018
Primary Clarifier No. 2	Pipe Replacement (leak detection Testing)	-	-
	Concrete Tank Coating	-	
Primary Sludge Building	Remove / Salvage Blowers	-	-
Aeration Basin	Internal Recycle Pump Replacement	-	
	Anoxic Mixer Maintenance	-	
Blower Building	Rebuild Blowers	$5,000	2018
RAS/WAS Pump Station	Pump Replacement	$ $8,500	
Filtrate Tank	Level Transducer Replacement		
	Pump Replacement	$9,000	2020
2020Solids Handling	Digester Recirculation Pump Maintenance	$6,000	2022
	Mix Pump Maintenance	-	
	Digester Building Roof Replacement	-	
	Heat Exchange Replacement	$7,500	
NPW Pump Station	Pump Rebuild	$3,500	2018
Operations Building	Remove / Salvage Old Generator	-	-
	Lab Equipment Update	$5,000	2018
	Building Roof Replacement	-	-
	SCADA Software Update	-	-

6. Capacity Considerations.

Population projections of the land use element were used as a basis to determine future growth.

According to analysis in the 2017 General Sewer Plan roughly 55% of the total flow of water discharged into the wastewater sewer plant during peak months is due to infiltration and inflow. Flows discharged into the wastewater treatment plant exceed the capacity of the plant on a seasonal basis. However, treatment plant loading is within standards.

Improvements to the collection system consisting of the replacement or rehabilitation of sewer collection mains and manholes must be made to address infiltration. In addition, the two aging sewage lift stations must be replaced. These projects, detailed on Table 4-13, will be executed in three phases over a four-year period as detailed in Table 4-28. Per Table 4-28 funding of the improvements is secured. Upon completion of these projects, the collection system and wastewater treatment plant will have adequate capacity to accommodate the growth projected in the land use element and meet all state and federal wastewater treatment standards.

7. Ongoing Sanitary Sewer System Evaluation

In 2015, the City purchased a sewer video camera system. The City has used the system to explore approximately 29,991 linear feet (approximately 18.5% of the entire 162,431 linear feet of the entire system) of piping suspected to be the most deteriorated or problematic. Based on

the conditions found in the piping explored, the City has extrapolated the condition of about 34% of the system. Condition estimates of the piping are as follows:
17% of the assessed system was determined to be in Great condition
29% of the assessed system was determined to be in Good condition
29% of the assessed system was determined to be in Fair condition
25% of the assessed system was determined to be in Poor condition

The *2017 General Sewer Plan* encourages the City to continue using the sewer video camera system to further assess as much of the pre-1952 system as possible.

8. Sanitary Sewer System Funding

The *2017 General Sewer Plan* identified possible funding sources for future improvements. The City shows that for the previous five years in Table 8-1, the City has been building reserves and has approximately 12% of an annual historical expenditure cushion set aside as of 2016. This buffered amount is insufficient if sewer system failure or expansion occurs. In the event a major project is necessary, Toppenish has identified potential financing from several sources. The sources are similar to those listed in the Domestic Water System section of this document:

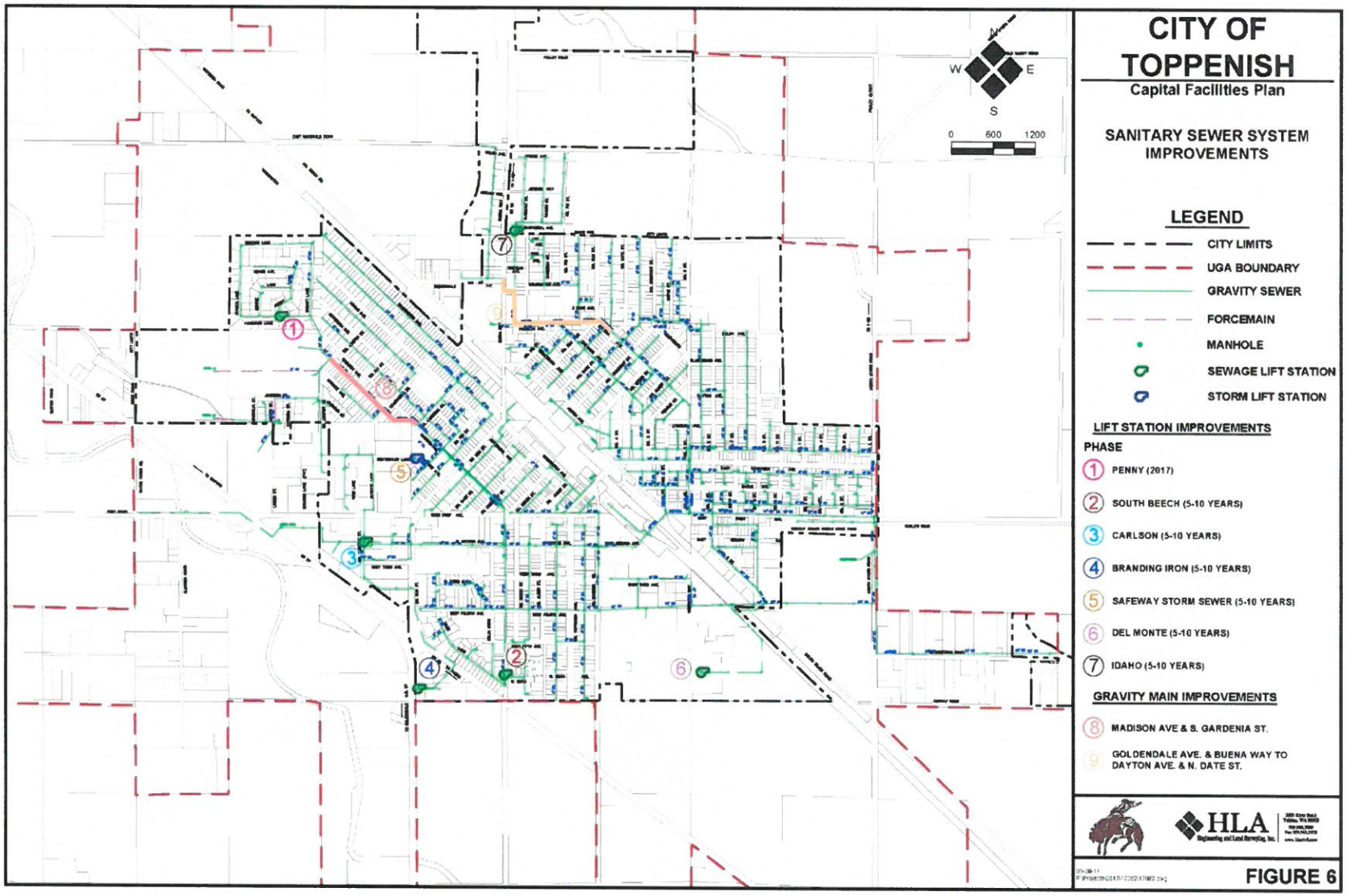
- Local Public Enterprise Funds;
- Use of Local Public Powers;
- State Assisted or Guaranteed Resources;
- Federally Assisted or Guaranteed Resources; and
- Private Development.

Current availability of funding of several sources within these categories is limited. Many sources restrict the use of funds to certain projects and others limit their monetary participation to a percentage of the total cost.

A combined funding opportunity section is placed after this section on page 37 because many of the funding opportunities are common between domestic, wastewater, and stormwater facilities and related activities.

The City of Toppenish will continue annual reviews of the sanitary sewer system's financial program during their budget preparation process. The financial program will also be reviewed and revised as needed during the next update of the General Sewer Plan in 2027. This continued review will allow for modifications to the proposed rate and revenue increases, should financial conditions change.

Figure 6 – Sanitary Sewer Capital Improvement Program in the City Limits and Urban Growth Area (UGA)



9. Domestic Water, Sanitary Sewer, and Stormwater System Funding

The *2017 General Sewer Plan* identified possible funding sources for future improvements. The planned buffered amount of surplus in any of the water-related budgets is insufficient if either the drinking or sewer systems fail or if unanticipated expansion becomes necessary. In the event a major project is necessary, the City has identified potential financing from several sources.

The sources of potential funding listed here are common for domestic water, stormwater, and sanitary sewer system projects, programs, and planning in each water-related section of this document:

- Local Public Enterprise Funds;
- Use of Local Public Powers;
- State Assisted or Guaranteed Resources;
- Federally Assisted or Guaranteed Resources; and
- Private Development.

This combined funding opportunity section describes the details of five of the more common financing opportunities available for domestic water, sanitary sewer, and stormwater facilities. Links have been provided in each of the funding summaries because although eligible projects may change with legislative action, the websites accessed by the links provide the most up to date information available.

a. Local Public Enterprise Funds

Reserves in the Enterprise Fund are accumulated from revenues from domestic water, sanitary sewer, and stormwater user fees. The amount of the reserves will depend on the balance of operation and maintenance costs of each of the systems versus total revenues generated by the associated fees. These reserves may be used to finance any respective domestic water, sanitary sewer, or stormwater system related project approved by the City Council.

Funds for a future project may be generated by increases in any system's user fees, thus building the reserves in the Enterprise Fund. With this method of financing, often called the "pay-as-you-go" approach, the City is collecting interest on the reserves as opposed to paying interest on a loan balance. One method used by some communities to accumulate reserves is through the development of a capital recovery charge system. This approach is similar to assessing connection fees, except the amount is based on the capital costs of constructing system infrastructure, and the collected funds are usually set aside as capital reserves for future projects.

b. Use of Local Public Powers

The use of local public powers consists of three primary bonding techniques including general obligation bonds, special assessment bonds, and revenue bonds. There are advantages and disadvantages to each. The type of bond issue to finance a community improvement depends in

part on custom and in part on the circumstances of a particular offering. General information about the three principal types of municipal bonds follows:

General Obligation Bonds pledge the unlimited taxing power and the full faith and credit of the issuing government to meet the required principal and interest payments.

Special Assessment Bonds (LID Bonds) are used to finance improvements where the property specially benefitted can be identified. Special assessment bonds are frequently used to make capital improvements in a particular neighborhood. Principal and interest payments for these bonds are made by the special assessment on the property benefitting from the improvement. Before special assessment bonds are issued, estimated costs are mailed to property owners, and a public hearing is held to allow the affected property owners to say whether or not they want the improvements. During a subsequent 30-day protest period, property owners may protest the improvements prior to City Council action formally establishing the project. Debt financed by special assessment bonds is not subject to debt limitations. As a sanitary sewer example, this type of financing is typically not suited for construction of trunk sewers within a collection system. However, it is often used as a means to finance extension of sewers into a new service area.

Revenue Bonds are frequently used to finance City-owned utilities, industrial parks, and other municipal public facilities. The bonds pledge the revenue from a particular revenue source to meet the principal and interest payments. Revenue bonds are appropriate debt instruments when the enterprise fund can be expected to generate sufficient revenue to meet both operating and debt service cost. Revenue bonds generally do not become a general obligation of the government issuing them. Communities may have to pay higher rates of interest on these bonds than on general obligation bonds, because revenue bonds are considered less secure. However, revenue bonds also have an important advantage over general obligation bonds. The amount of the revenue bonds is not included in the amount of indebtedness subject to state debt limitations. The legal requirements for issuing revenue bonds are more complex than those for issuing general obligation bonds. For example, when revenue bonds are issued, a special authority (Sewer Fund) operates the facility and a special revenue fund receives and disburses all funds. A trust agreement to provide for the monthly reimbursement of revenues and containing provisions to protect the bond holders must be formulated.

c. State and Federal Assisted or Guaranteed Resources

i. Water Quality Combined Financial Assistance Program

State administered funding sources are now integrated into a single process for the Centennial Clean Water Fund State Grant Program, the Clean Water Act Section 319 Federal Grant Program, the Drinking Water State Revolving Fund Loan Program, and the Storm Water Financial Assistance Program. Through the Water Quality Combined Financial Assistance Program, an applicant submits one application and is considered for all potential funding opportunities. Applications are accepted once a year and funding details can be found at: http://www.ecy.wa.gov/programs/wq/funding/Opp/Opportunities.html.

ii. Centennial Clean Water Fund State Grant Program

The Centennial Clean Water Fund State Grant Program is state-funded through the Washington State General Fund, primarily through the State Building Construction Account. The Centennial program provides grants for water quality infrastructure and nonpoint source pollution projects to improve and protect water quality.

Eligible infrastructure projects are limited to wastewater treatment construction projects for financially distressed communities. Eligible nonpoint source pollution projects include: on-site septic repair and replacement, agricultural best management practices, education and outreach, water quality monitoring, lake water quality planning, riparian and wetlands habitat restoration and enhancement, stream restoration, TMDL plan development and implementation, and wellhead protection.
A 25% match is required for nonpoint source pollution projects. More information can be accessed here:
http://www.ecy.wa.gov/programs/wq/funding/fundprgms/Cent/oppCent.html.

iii. Clean Water Act Section 319 Federal Grant Program

The Clean Water Act Section 319 Grant Program is federally-funded through the Environmental Protection Agency's granting of funds to Washington State Department of Ecology. The Section 319 program provides grants to eligible nonpoint source pollution projects to improve and protect water quality. The eligible projects are similar to those in the state Centennial program. A 25% match is required for projects. For more information visit: http://www.ecy.wa.gov/programs/wq/funding/FundPrgms/Sec319/oppSec319.html.

d. Drinking Water State Revolving Fund

The Drinking Water State Revolving Fund (DWSRF OR SRF) provides low-interest loans to local governments for projects which improve and protect the state's water quality. Up to 100% of eligible project costs are fundable through this program. DWSRF loans can be used to match Centennial Clean Water Fund Grant Program and Clean Water Act Section 319 Federal Grant Program grants.

Eligible infrastructure projects include wastewater treatment construction projects, eligible nonpoint pollution control projects, and eligible Green projects. DWSRF loans can be used to match Centennial Clean Water Fund Grant Program and Clean Water Act Section 319 Federal Grant Program grants. For a list of eligible project types please visit: http://www.ecy.wa.gov/programs/wq/funding/fundprgms/CWSRF/oppSRF.html.

e. Stormwater Financial Assistance Program and SFAP Pre-Construction

The Stormwater Financial Assistance Program (SFAP) Pre-construction allows for grants to develop construction plans for stormwater capital projects to Phase I and Phase II National Pollutant Discharge Elimination System (NPDES) municipal permitees. Stormwater Financial Assistance Program provides cities, counties, and ports grants for projects that address existing pollution problems and provide a high level of water quality benefit.

f. Stormwater Capacity Grants

Stormwater Capacity Grants are awarded to holders of Phase I and Phase II NPDES municipal permits for activities and equipment necessary for permit implementation.

g. Grants of Regional or Statewide Significance

Grants of Regional or Statewide Significance are grants that are available to Phase I and Phase II NPDES municipal permittees for projects that provide benefits for more than one permittee.

In addition to these more customary funding opportunities, Department of Ecology and Department of Health have some smaller planning grants and loans to assist entities in preparation of applying for a Drinking Water State Revolving Fund Construction Loan, assist entities plan for Source Water Protection, and assist communities experiencing the loss of critical drinking water services or facilities due to an emergency.

Other organizations provide financing for domestic water, sanitary sewer, and stormwater facilities assistance as well. Some of the organizations are listed in the illustrative list below:

- National Rural Water Association can assist with loans to pay for pre-development cost for proposed water and wastewater projects.
- Rural Community Assistance Corporation can assist with loans to pay for feasibility and pre-development costs for proposed solid waste, domestic water, stormwater, and wastewater projects.
- Department of Commerce offers a Bond Cap Allocation Program with limited state allocation, and Community Development Block Grants for general purposes including construction, acquisition, and planning-only.
- The Public Works Grants and Loans Program funded by the Economic Development Administration (EDA) is used to encourage long-range development gains in jurisdictions where economic growth is lagging or where the economic base is shifting. The program provides public works and development facilities needed to attract new industry and provide business expansion. Financial aid may be used to acquire and develop land and improvements for public works and to acquire, construct, rehabilitate, alter, expand, or improve such facilities, including related machinery and equipment. When completed, such projects are expected to bring additional private investment to the area.

G. SOLID WASTE SYSTEM

1. Background

In 2002, the City of Toppenish executed an interlocal agreement with Yakima County for solid waste planning in accordance with Chapters 70.95 and 70.105 of the Revised Code of Washington (RCW). All incorporated communities that entered into the interlocal agreement allowed Yakima County to write a common Solid Waste and Moderate Risk Waste Management Plan while maintaining responsibility and participation in the Yakima County Solid Waste Advisory Committee (SWAC). The SWAC was the way by which the County gathered public input to the planning process. The most recent *Yakima County Solid Waste and Moderate Risk Waste*

Management Plan (Yakima County Solid Waste Plan) was adopted by the City of Toppenish on February 27, 2017 and the Plan was finalized in June 2017.

Summarized solid waste system information and resulting prioritized project lists will be shared in this section of the Capital Facilities Plan. A full discussion of the characteristics of Toppenish's collection and disposal of solid waste, the handling of special wastes and disaster debris management, strategies, and details of the 20-year implementation program are included here by reference to the *2017 Yakima County Solid Waste and Moderate Risk Waste Management Plan.*

The City's Solid Waste Utility employs two full time operators using two automated refuse collector vehicles to provide solid waste collection services for approximately 2,090 (2018) residential and 200 (2018) commercial accounts. The City also has a back-up refuse collector vehicle.

The collected solid waste is transported to the Cheyne Landfill located about 15 miles northeast of Toppenish. Residential accounts are serviced once a week and commercial accounts are serviced as often as required but no less than once a week. The waste generation measured in pounds per person per year and in pounds per person per day are shown in Table 4-15.

TABLE 4-15. PER CAPITA WASTE GENERATION RATES (2014)

		Estimated Toppenish Waste Generation (in lb/Toppenish Population)		
Parameter	**Per Person**	**2015 population (8,965) (1)**	**2020 population (9,660) (1)**	**2035 population (10,997) (1)**
Waste Generation Rate, lb/person/yr	4,407(2)	39,508,755	42,571,620	48,463,779
Waste Generation Rate, lb/person/day	12.1 (2)	108,477	116,886	133,064

(1),(2) See Tables 2.1 and 2.2 in the Yakima County Solid Waste and Moderate Risk Waste Management Plan for calculation details

Toppenish embraces the goals and objectives in the Yakima County Solid Waste Plan for promotion and education programs related to solid waste management:

- Promote the use of innovative and economical waste handling methods;
- Emphasize waste reduction as a fundamental management strategy;
- Support public/private partnerships for waste reduction and recycling programs;
- Encourage the recovery of marketable resources from the waste stream; and,
- Reduce the occurrence and environmental impacts associated with illegal dumping.

The City supports a curbside yard debris program which is an element of the diverted materials program and recycling program. The recycling program collects materials such as aluminum, paper and paper products, fluorescent light bulbs, and glass to name a few. The diverted materials program collects materials such as asphalt/concrete, tires, wood, and other organic materials.

2. Overall Solid Waste Collection System Performance

The recycle rate in the Yakima County Solid Waste Plan shows that approximately 28% of the municipal solid waste is recycled and approximately 34% of the municipal solid waste is diverted from the landfill.

3. Capacity consideration

The City of Toppenish utilizes the Cheyne Landfill. Cheyne Landfill is one of two County landfills in Yakima County. The Yakima County Solid Waste Plan estimates that Cheyne receives 30% of the county's municipal solid waste (MSW) disposal. Though the Terrace Heights Landfill is expected to reach capacity and no longer receive materials for direct disposal by 2027, the Cheyne Landfill is not expected to reach capacity in the planned foreseeable future (2053).

4. Level of Service

1. Maintain a rate structure comparable to other communities in the Yakima Valley based on similar services.
2. Residential Collection:
    a. Refuse all residential accounts will be collected at least once per week.
    b. Weekly collection of residential compost from April to November at reduced rates.
    c. Once per year spring collection of vegetation.
    d. Once per year fall collection of leaves, together with Christmas Tree collection.
3. Refuse for commercial accounts will be collected at least once per week.

5. Solid Waste Capital Improvement Program

City staff has prioritized equipment and facility improvement/replacement based on the anticipated life of automated refuse collector vehicles. For example, although 4-16 displays the prioritized improvements, if a shared-use City building is used to store the solid waste vehicles, and the building requires planned or unanticipated maintenance or repair, the City might choose to rearrange the order of the priorities to complete projects in the shared-use building with the other departments.

TABLE 4-16. IDENTIFIED MAINTENANCE OR EQUIPMENT NEEDS FOR THE TOPPENISH SOLID WASTE UTILITY

Process	Maintenance/Equipment Needs	Estimated Cost in 2017 Dollars	Year Needed
Scheduled Vehicle Maintenance	Automated Refuse Collector #1, Automated Refuse Collector #2, and Automated Refuse Collector #3 as Back-up	$290,000	$29,000 Annually 2018 Through 2037
Scheduled Vehicle Replacement	Automated Refuse Collector	$700,000	$70,000 Annually 2018 Through 2037

Replacement of City supplied trash bins	Medium 90 Gallon Totes - Annually	$140,000	$14,000 Annually 2018 Through 2037
	Large 300 Gallon Totes - Annually	$150,000	$15,000 Annually 2018 Through 2037

H. PUBLIC EDUCATION SYSTEM

1. Background

Toppenish School District No. 202 (School District) provides educational services in the City of Toppenish. The School District boundaries extend well beyond Toppenish's City limits although all the school district facilities lie within City limits.

2. Public Education Facilities Inventory

In addition to the School District facilities, higher education facilities are listed below. The recreational facilities associated with each of the Toppenish School District No. 202 schools are listed on Table 3-22 in the **Parks and Recreation** Section beginning on page 48. The location of Toppenish schools can be found on Figure 8 in the **Government Facilities and Properties** section.

TABLE 4-17. TOPPENISH AREA SCHOOL FACILITIES

Name of School	Address	Grades	2016 Enrollment
Garfield Elementary	505 Madison Avenue	K-5	420
Kirkwood Elementary	403 South Juniper Street	K-5	600
Lincoln Elementary	309 North Alder Street	K-5	417
Valley View Elementary	515 Zillah Avenue	K-5	397
Eagle High School (Alternative)	1210 Jackson Avenue	7-12	195
Toppenish Middle School	104 Goldendale Avenue	6-8	738
Toppenish Senior High School	141 Ward Road	9-12	710
Bus Garage	405 Asotin Avenue	N/A	N/A
Business Office	106 Franklin Avenue	N/A	N/A
Special Services Office	407 South Juniper Street	N/A	N/A
Heritage University	3240 Fort Road	4-year University and Graduate Programs	1,124 (1)
Yakima Valley College: Adult Education Center	516 West 1st Avenue	Adult Basic Education, G.E.D., ESL, etc.	25
Yakama Tribal School	P.O. Box 151	8-12	74

(1) Taken from Heritage University's webpage at: http://www.heritage.edu/About-Heritage/Fast-Facts

3. Current and Future Demand

The School District forecasts the future enrollment and demand by grade level. In order to compare the 2016 actual enrollment to the projected enrollment for 2020 and 2030, the City has

combined the K-5 students for School District No. 202 listed in Table 4-17 into one category, and students in grades 6-12 in a second category. The 2016 student enrollment is compared to projected student enrollment for future years in the table 3-18 on the next page. Yakama Tribal School 8-12 student enrollment was not included in the 2016, 2020, or 2030 calculations used to populate Table 4-18 as the grade 8-12 students are not part of School District No. 202.

TABLE 4-18. TOPPENISH SCHOOL DISTRICT NO. 202, 2016 VERSUS FUTURE ENROLLMENT PROJECTIONS

Grade Category	2016 Enrollment	2020 Projected Enrollment	2030 Projected Enrollment
K-5	1,834	1,945	2,160
6-12	1,643	2,099	2,350

4. Capital Improvement Program

Though the City doesn't manage any of the School District facilities, there are opportunities for the School District and City to seek formal partnerships and coordinate efforts together such as infrastructure grant writing. Two such grant opportunities are associated with Washington State Department of Transportation (WSDOT) programs titled *"Safe Routes to School (SRTS)"* and the *"Pedestrian and Bicycle Program."* The details of the SRTS Program can be found on the WSDOT website at: https://www.wsdot.wa.gov/LocalPrograms/SafeRoutes/.

More information on the Pedestrian and Bicycle Program can be found at: http://www.wsdot.wa.gov/LocalPrograms/ATP/funding.htm. Like most WSDOT-facilitated grant opportunities, both the SRTS and Pedestrian and Bicycle programs customarily follow a two-year funding cycle with applications available every even year and awarding and obligation for the following odd year.

I. PARKS AND RECREATION SYSTEM

1. Background

In 2013, the City of Toppenish adopted the *2014-2019 Parks and Recreation Plan*. The 2014 Plan explored the inventory of parks and open spaces maintained by the City, determined the satisfaction with City-owned parks and open spaces by conducting and analyzing public surveys, developed goals and objectives to preserve and improve the recreational areas, and identified a capital improvement program to estimate time and budget needs for those improvements.

The 2018 Comprehensive Plan update has a complete element dedicated to Parks and Recreation in which initial information was summarized from the *2014-2019 Parks and Recreation Plan* and updated with projects for the 2018-2023 six-year time frame. The recreational inventories in the 2018 Comprehensive Plan include parks and recreational opportunities owned and operated by the City, others such as the School District, and associations such as the American Hop Museum. Cultural events and activities are also discussed.

As mentioned in the introductory paragraph of Chapter IX of the Comprehensive Plan, the Capital Facilities Plan expands on the Comprehensive Plan Parks and Recreation section by including the updated capital improvement program and action plan from the *2014-2019 Parks and Recreation Plan*. The parks and recreation facility inventories included in Table 3-19 and Table 4-20 in the Capital Facilities Plan however, are limited to those which are owned or operated by the City and capital improvement items in Table 4-23 will only cover improvements on City-owned facilities.

School District owned park and recreation amenities are mentioned in the Capital Facilities Plan, shown on Figure 7, and included in Table 4-22 because transportation improvements near school properties are often joint ventures between a city and a school district. Mention of the school district facilities does not imply that the City is in any way responsible for the preservation or improvement of the school district properties.

The Capital Facilities Plan is being developed to meet the requirements of the Comprehensive Plan's capital facilities element and to be a stand-alone document outside of the context of the Comprehensive Plan. Therefore, although the parks and recreation areas inventory, current and future parks and recreation demand, parks and recreation capital improvement program, and potential funding sources for improving parks and recreation will be captured seemingly twice in the Comprehensive Plan, the information here is City of Toppenish centric.

2. Parks and Recreation Inventory

Toppenish has nine parks totaling approximately 17 acres that are used for public recreation. Table 3-19 presents the current parks and the presence or lack of recreational equipment or infrastructure at each place.

In addition, the City maintains beautification areas (three acres total) adjacent to public buildings and roadways for aesthetic purposes, which primarily contain benches and/or green space. Table 3-20 lists the seven beautification areas currently maintained by the City.

Currently, the City offers a variety of recreational activities as shown in Table 4-21. The City may lease facilities owned and operated by School District No. 202 to hold City sponsored events or activities. Although the City is not responsible for the preservation or improvements to the School District properties, a similar recreation inventory covering school district recreational equipment and infrastructure is included in the Capital Facilities Plan because of the funding nexus between school districts and cities. Table 4-22 presents School District No. 202's recreation facility inventory.

Finally, the City of Toppenish provides the building for the Mary L. Goodrich Public Library. The preservation and improvements for this building will be included in Table 3-25 in the **Government Facilities and Properties** section.

3. City-wide Parks Assessment Tool (CPAT)

In 2010, the City conducted a parks and recreation survey of employees at the two major employers – Washington Beef and the Toppenish branch of the Yakima Valley Farm Workers Clinic. Improvements and added amenities resulted from this direct public input.

In 2013, the City conducted an assessment of the quality of Toppenish parks and amenities using the City-wide Parks Assessment Tool (CPAT) included with utility bills. The details and results of the survey are included in the *2014-2019 Parks and Recreation Plan.* A modified version of the CPAT was distributed to students at Eagle Alternative High School and the results were similar to the initial survey.

4. Demands and Needs Analysis

The general conclusions drawn in the *2014-2019 Parks and Recreation Plan* are as follows:

- Security is a major concern for existing and potential park users.
- Maintenance, particularly of restrooms, is a major concern for existing and potential park users.
- There is a demand for exercise programs and facilities, including walking paths and indoor recreational facilities.
- There is little demand for new parks or ball fields.
- Support for smoke-free parks is strong.
- Further investigation into increasing public funding for parks and recreation is warranted.
- Recreational opportunities for adults and seniors could be improved.

5. Capital Improvement Program

Capital Improvements were identified and adopted through the development of the *2014-2019 Parks and Recreation Plan.* Of the twenty-one improvement projects identified in the 2014 Plan, none have been completed and none are in progress. Table 4-23 presents an updated listing of parks and recreation improvements, the estimated cost for each project, a planned year or range of years to begin the project, and potential funding sources to pursue for each project. The city is currently seeking RCO funding for various improvements to Pioneer Park. If funded the project would include replacement of the existing restroom building with an ADA compliant building together with various other improvements for ADA access including access to the softball field and park benches. The project would also include resurfacing the basketball court, a new picnic shelter and the construction of shade structures throughout the park. Transportation Improvement Board funding has been recently sought for the Toppenish Mural Route Improvements project in Table 4-23. The route map has been included in the Comprehensive Plan Transportation Element and is maintained online at: http://www.visityakima.com/travel-maps/muralMapFrBk-web.pdf

TABLE 4-19. TOPPENISH'S EXISTING PARKS AND RECREATION FACILITIES

Amenities	Allen Park	L Street Park	Lane Park	Olney Park	Patterson Park	Pioneer Park	Post Office Park	Railroad Park	Swimming Pool Park
Total Site Acreage	2.16 acres	0.19 acres	0.66 acres	2.58 acres	0.83 acres	9.52 acres	0.51 acres	0.50 acres	---
Hard or Sport Court	1, basketball	No	1, basketball	No	No	2, basketball	No	No	No
Swimming Pool	No	No	No	No	No	No	No	No	Yes, 50 meter
Tennis Courts	No	No	No	No	No	No	No	No	No
Restrooms	No*	No	No*	No*	No*	Yes, 1	No	No	No
Playground Equipment	Swing set, slide & teeter totter	No	Swing set, slide & buckabout	Swing set, slide & teeter totters	Swing set, slide & teeter totters	Swing set, playground apparatus with multiple activites	No	No	No
Picnic Tables and/or Benches**	5 tables	1 table	3 tables	12 tables	2 tables	11 tables	5 tables and 2 benches	5 tables	3 tables
Predominately Greenspace	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Other Facilities	Picnic shelter	None	None	Picnic shelter	None	1 softball field, 1 gazebo, 1 picnic shelter, skate park	1 bandstand	Leased from railroad	1 bathhouse, 1 1,000-sq ft multi-purpose activity room

*During the summer months, portable toilets are placed in Allen, Lane, Olney, and Patterson Parks.
**Picnic tables can be moved from park to park to accommodate events that require additional tables.

TABLE 4-20. TOPPENISH'S BEAUTIFICATION AREAS

Amenities	Bouchey Park	Old Timers Plaza	Penney Mall	Goldendale	Buena Way	RV Dump	South Toppenish Islands
Total Site Acreage	0.4 acres	0.5 acres	0.3 acres	0.7 acres	0.3 acres	0.3 acres	0.5 acres
Picnic Tables and/or Benches	12 benches	12 benches	2 benches	No	No	No	No
Predominately Greenspace	Yes	Yes	No	Yes	Yes	No, grass landscaped	Yes

TABLE 4-21. TOPPENISH RECREATION PROGRAMS

Parks and Recreation Department Programs	Winter	Spring	Summer	Fall
Basketball	Yes	No	No	No
T-ball and Coach Pitch	No	Yes	No	No
Track and Field Clinics	No	Yes	No	No
Scheduled programming at the Swimming Pool	No	No	Yes	No
Soccer	No	No	Yes	Yes

TABLE 4-22. TOPPENISH SCHOOL DISTRICT NO. 202'S RECREATION FACILITIES

Amenities	Garfield Elementary	Kirkwood Elementary	Lincoln Elementary	Valley View Elementary	Toppenish Senior High School	Toppenish Middle School
Total Site Acreage	4 acres	25 acres	2 acres	26 acres	35 acres	20 acres
Baseball and/or Softball Fields	No	1 varsity baseball field, and 1 youth softball field	No	1 youth baseball field	1 baseball field, and 3 softball fields	No
Football and/or Soccer Fields	No	2 soccer practice fields	No	Space available	football and varsity soccer field	football stadium
Track and Field Accommodations	No	No	No	No	Yes	Yes
Hard or Sport Court	No	paved game court area (basketball)	No	paved game court area (basketball)	No	paved game court area (basketball)
Swimming Pool	No	No	No	No	No	No
Tennis Courts	No	3 tennis courts	No	No	6 tennis courts	2 tennis courts
Playground Equipment	playground apparatus	playground apparatus	playground apparatus	Yes	No	No
Gymnasium	No	1 gym	No	Yes	1 small gym	A.J. Strom Gym
Other Facilities	open free play area and 1 multipurpose room	open free play area	open free play area and 1 multipurpose room	open free play area	weight room, athletic practice, and physical education area	wrestling practice room

Figure 7 – Parks and Recreation Facilities in the City Limits and Urban Growth Area (UGA)

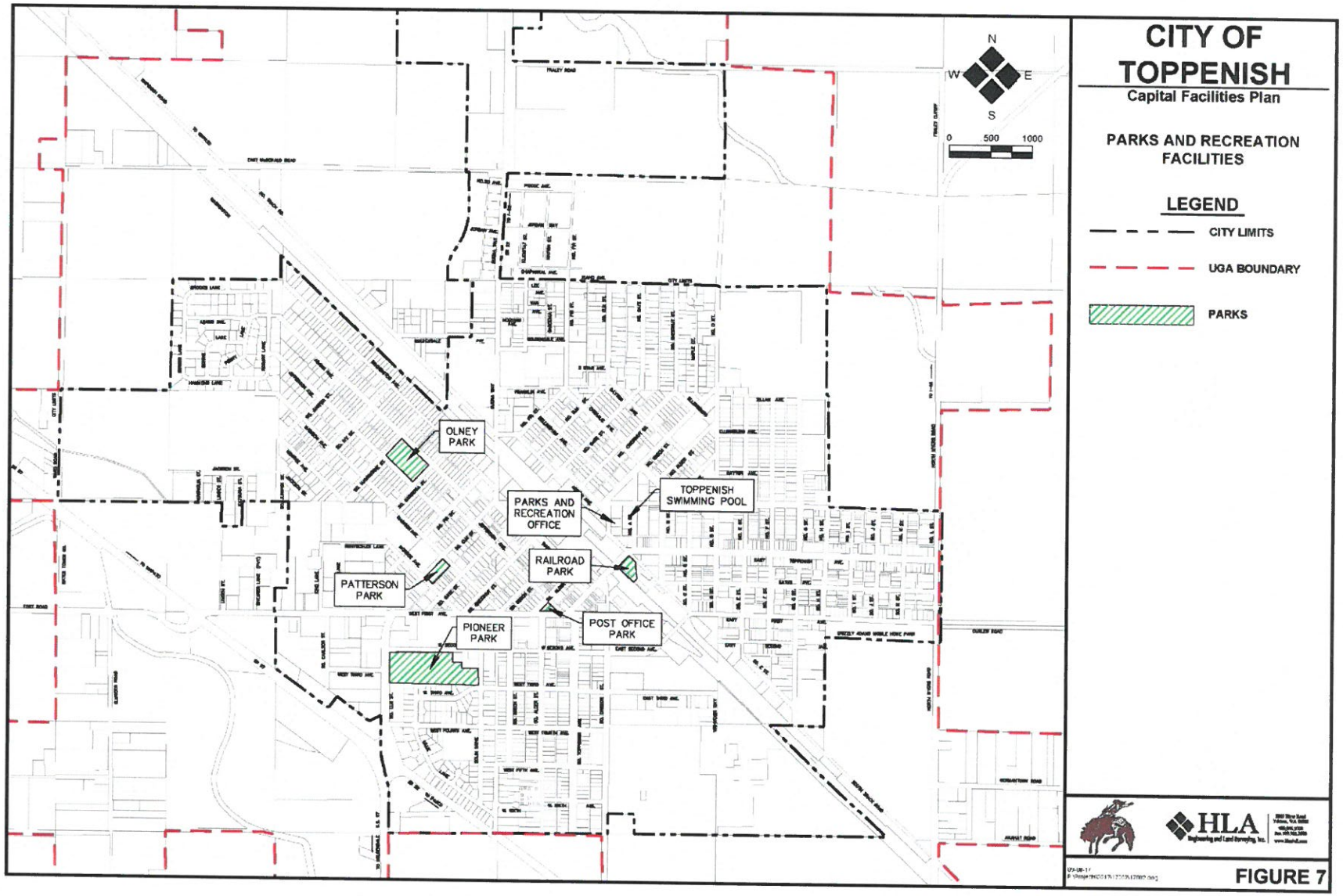


Table 4-23. TOPPENISH PARKS AND RECREATION SIX-YEAR CAPITAL IMPROVEMENT PROGRAM

Park	Project	Estimated Cost in 2017 Dollars	Completion Year	Funding Source
Lincoln	Construct Walking Paths	$ 80,000	2014	RCO[1], City Funds, Private Funds
	Install Restrooms	$ 150,000	2015	RCO, CDBG[2], City Funds, Private Funds
	Resurface Basketball Courts	$ 10,000 per court	2016	RCO, City Funds, Private Funds
	Construct Large Gazebo Area	$ 30,000	2017	RCO, CDBG, City Funds, Private Funds
	Various Projects (e.g. barbeque areas, etc.)	$ 5,000 - $10,000	2014-2019	RCO, CDBG, City Funds, Private Funds
Pioneer	Replace Restroom	$ 170,000	2015	RCO, USDA-RD[3], City Funds, Private Funds
	Resurface Basketball Courts	$ 10,000 per court	2016	RCO, City Funds, Private Funds
	Resurface Skate Park	$ 10,000	2016	RCO, City Funds, Private Funds
	Construct Large Gazebo Area	$ 30,000	2017	SRF Loan/City
	Various Projects (e.g. barbeque areas, etc.)	$ 5,000 - $10,000	2014-2019	RCO, CDBG, City Funds, Private Funds
Olney	Construct Walking Paths	$ 65,000	2014	RCO, City Funds, Private Funds
	Install Restrooms	$ 150,000	2015	RCO, CDBG, City Funds, Private Funds
	Construct Large Gazebo Area	$30,000	2017	RCO, CDBG, City Funds, Private Funds
	Various Projects (e.g. barbeque areas, etc.)	$ 5,000 - $10,000	2014-2017	RCO, CDBG, City Funds, Private Funds
Lane	Resurface Basketball Courts	$ 10,000 per court	2016	RCO, City Funds, Private Funds
	Install Restrooms	$ 150,000	2018	RCO, CDBG, City Funds, Private Funds
	Various Projects (e.g. barbeque areas, etc.)	$ 5,000 - $10,000	2014-2017	RCO, CDBG, City Funds, Private Funds
Patterson	Install Restrooms	$ 150,000	2018	RCO, CDBG, City Funds, Private Funds
	Various Projects (e.g. barbeque areas, etc.)	$ 5,000 - $10,000	2014-2017	RCO, CDBG, City Funds, Private Funds
Toppenish Community Center and Pool	Construct New Pool Building	$ 1,500,000	2018	RCO, CDBG, USDA-RD, City Funds, Private Funds
	Construct Community Center	$ 1,500,000	2019	CDBG, USDA-RD, City Funds, Private Funds
Toppenish Parks and Recreation Department Program	Preserve Existing Programs	Unfunded Goal	2014-2017	City Funds, Private Funds
	Improve and Expand Programs to Increase Recreational Opportunities for Adults and Seniors	Unfunded Goal	2019	City Funds, Private Funds

Toppenish Mural Route Improvements	Design and Construct ADA Compliant Mural Route Improvements on Functionally Classified Roads	$ 184,000	2018	STBG [4], TIB[5], WSDOT[6], RCO, SIED[7], CDBG, City Funds, Private Funds
	Design and Construct Improvements to Fill Gaps for Connectivity on the Mural Route	$ 576,000	2019	City Funds, Private Funds

[1] RCO – Washington State Recreation and Conservation Office
[2] CDBG – United States Department of Housing and Urban Development – Community Development Block Grant
[3] USDA-RD – Unites States Department of Agriculture – Rural Development
[4] STBG – United States Department of Transportation – Surface Transportation Block Grant
[5] TIB – Transportation Improvement Board
[6] WSDOT – Washington State Department of Transportation
[7] SIED – Yakima County – Supporting Investments in Economic Development

6. Parks and Recreation Facilities and Program Funding

The *2014-2019 Parks and Recreation Plan* identified possible funding sources for future improvements. Seven acronyms were used to indicate federal, state, and Yakima County funding in Table 4-23 and are defined in the footnotes below the table.

Table 4-24 below identifies website locations to explore the funding sources mentioned for parks and recreation projects. Though comprehensive, the table does not list every opportunity.

For some of the grant or funding opportunities, park projects or recreation programs may be included as the primary project or alternatively, park and recreation elements may be incorporated into a larger project. For example, although the WSDOT Safe Routes to School Grants focus on providing funding for routes used by school-aged children and have coverage restrictions on how far a sidewalk is located from a school, part of the identified Toppenish Mural Route may qualify and be included in another project.

Some of the funding sources listed would require the City of Toppenish to contribute matching funds to leverage the grants. The links listed in the table are current as of September 8, 2017.

Table 4-24. POTENTIAL GRANT OR FUNDING SOURCES FOR PARKS AND RECREATION CAPITAL IMPROVEMENTS

Funding Grant or Source	link
Washington Wildlife and Recreation Program	http://www.rco.wa.gov/grants/wwrp.shtml
Non-highway and Off-road Vehicle Programs	http://www.rco.wa.gov/grants/nova.shtml
Youth Athletic Facilities	https://www.rco.wa.gov/grants/yaf.shtml
National Recreational Trails Program	http://www.rco.wa.gov/grants/grants_available.shtml
Non-highway and Off-road Vehicle Programs	http://www.rco.wa.gov/grants/nova.shtml
Surface Transportation Block Grants	https://www.yvcog.org/
State of Washington Transportation Improvement Board	http://www.tib.wa.gov/
United States Department of Agriculture – Rural Development	https://www.rd.usda.gov/wa
Department of Commerce – Youth Recreation Facilities	http://www.commerce.wa.gov/building-infrastructure/capital-facilities/youth-recreational-facilities/

Community Development Block Grant	http://www.commerce.wa.gov/serving-communities/current-opportunities/community-development-block-grants/

J. GOVERNMENT FACILITIES AND PROPERTIES

1. Background

More detail is being incorporated in this Capital Facilities Plan than during the last Comprehensive Plan Update with respect to large capital maintenance, large capital repair, and large capital replacement planning for expenses. The City recognizes that when large capital expenses can be identified, it is prudent to capture them in the Capital Facilities Plan so flexibility with funding opportunities can be optimized.

City leadership advised staff to include replacement of vital City emergency response vehicles in the Capital Facilities Plan as a means to raise the awareness of the fast approaching end of useful life for both firetrucks in the City inventory (the vehicles are required to be replaced before the next update is due or adverse monetary consequences that affect the community as whole will occur) and to inform and therefore encourage cooperative solutions.

The Toppenish Fire Station was constructed in 1976 and is being assessed for the major improvements and expansions required for the services to remain in the current building. Although the City has invested multiple times to provide crucial updates to the facility, the number of improvements required to the facility at this time warrant a repair versus replace assessment. Adjacent improvements being made to the street infrastructure adjoining the facility raise questions about whether the location of the facility is adequately sited now.

Also included in this update are strategies for replacing the Public Works workshop building due to loss through a fire on the premises.

Services the City provided in the past have changed as well and are captured in this update. The municipal court and jail systems in Toppenish closed and the City now contracts with the City of Sunnyside to provide those functions.

The policy of the City Council is to provide essential public services in a manner that is cost effective and based on need. Many general governmental services and associated buildings are provided through contractual agreements to take advantage of the efficiencies and economies of scale achieved. The municipal buildings included in this section are those for which the City has primary responsibility, even if the building is leased or rented out to another party. The existing municipal buildings operated by the City of Toppenish are described in Table 3-25.

2. Inventory of City Facilities and Properties

TABLE 4-25. GOVERNMENT FACILITIES AND PROPERTIES

Facility	Address	Condition	Notes
City Hall	21 West First Avenue	Fair	1908 building with ~ 4,800 sq ft of floor area; remodeled in 1978, insufficient space for long term records storage, ADA deficiencies.
City Reservoirs	Reservoir No. 2: Swimming Pool Park, Asotin Avenue and South Alder Street intersection Reservoir No. 3: Pioneer Park, near the Fire Station Reservoir No. 4: Magnolia Avenue Reservoir No. 5: 90 Idaho St.	Good Fair Good Good	For details regarding each of the reservoirs please see the domestic water facilities section.
Fire Department			
Fire Station Building	514 West 2nd Avenue	Structurally Good, Well Maintained, Function is Fair.	1976 building with ~ 7,430 sq ft floor area, uses include: apparatus storage; offices; radio dispatch; training room; kitchen/dining area; one-room dormitory (4 sleeping stations) and 2 restrooms, ADA deficient, lacking overnight accommodations and locker room for females, street improvements will displace staff and visitor parking, heating system is partially functioning, the concrete block walls are not insulated..
Facility	Address	Year Acquired/Condition	Notes

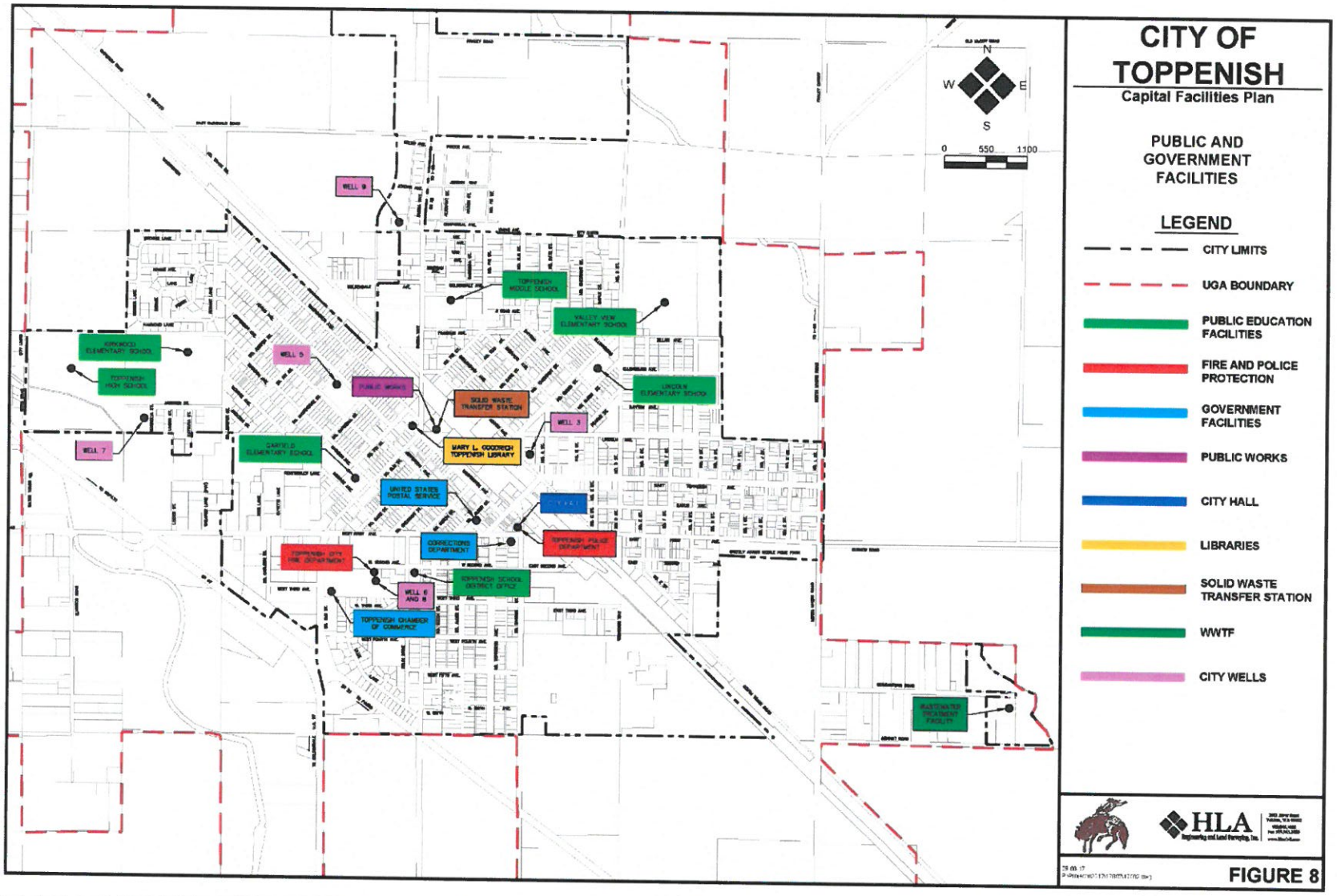
Fire Storage Building	514 West 2nd Avenue		
Engine 11; E-ONE Pumper	514 West 2nd Avenue	2003, 15 years old in 2018. Fair condition.	1,750-gpm pump, 1,000-gallon water tank. High maintenance costs. Retain as backup upon replacement.
Engine 12 E-ONE Pumper	514 West 2nd Avenue	1991, 27 years old in 2018, obsolete.	1,250-gpm pump, 500-gallon water tank used as backup, surplus upon replacement
Engine 18, HME Aerial Ladder-Pumper.	514 West 2nd Avenue	2000, 18 years old in 2018, functionally obsolete.	75-foot aerial ladder, 1,500-gpm pump, 500-gallon water tank. Insufficient ladder height to properly respond to Legends Hotel; replace with a quint with 100-foot aerial ladder 1,500-gpm pump, and a 500-gallon water tank; surplus upon replacement.
City Wells	Well No. 1, 2, and 4: near City Shop Building Well No. 3: Swimming Pool Park, Asotin Avenue and South Alder Street intersection Well No. 5: Olney Park, near the Adams Avenue and South Hawthorne Street intersection Well No. 6: West Second Street, near the Fire Station Well No. 7: West side of Magnolia Street south of the Jackson intersection Well No. 8: Adjacent to Well No. 6 on West Second Street	N/A Fair Good Good Fair Excellent	Not used For details regarding each of the wells please see the domestic water facilities section.
Facility	Address	Condition	Notes
Elmwood Cemetery	Cemetery Road	Good	Contemplating using some space for Public Works Shop relocation
Parks and Recreation Department	20 Asotin Avenue	Good	Functionally obsolete. .
Sewage Treatment Plant	Germantown Road	Good	New in 2012.

Swimming Pool	Lincoln and North Avenue	Good	See Parks Chapter.
Toppenish Library	1 South Elm Street	Fair	ADA deficient
Toppenish Northern Pacific Railroad Depot	10 S. Asotin Avenue	Fair	Requires replacement of the roofing, exterior windows and repair of the sandstone façade.
Safe Haven Building	408 Washington Avenue	Fair	Functionally Obsolete. The current tenant is the Safe Haven Community Center. Safe Haven sponsors are seeking to move to other facilities. Renovation will be required to adapt to another use.
Police Department			
Police Administration	1 West First Avenue	Fair	1947 building has ~6,350 sq ft floor area; uses include offices, dispatch, meeting rooms, lockers, and dressing rooms; previous jail cells are vacant (roughly 30% of floor space).
Office Trailer behind the Main Building	1 West First Avenue	Fair	2005 trailer has 300 sq-ft floor area; uses include detectives offices; minimal roof, floor, and wall insulation.
Police Training Center (El Paso Building)	5 West First Avenue	Good	1920 building front half, and 1950 add on back half; 2013 remodeled building has ~1,875 sq-ft floor area; uses include: weight and fitness room; men's locker room;

			shower and restroom facilities; multi-purpose room.
Facility	Address	Condition	Notes
Sally Port	7 Division Avenue	Fair	1920 building has ~ 2,220 sq-ft floor area; uses include: storing and washing vehicles, storage of misc supplies.
Public Works Department			
Original Shop Building	8a Buena Way	Destroyed by fire in 2017	1914 building had ~ 6,750 sq ft of floor area; uses included: vehicle and equipment storage, material storage, offices, and an employee breakroom; will be rebuilt.
Cinder Brick Storage Building	8a Buena Way	Functionally obsolete and structurally deficient.	1930s building has ~ 2,400-sq. ft. of floor area; uses include: equipment storage, a vactor truck, a van with sewer camera equipment, a street sweeper, and misc. supplies.
Facility	Address	Condition	Notes

Office and Equipment Storage Building	8a Buena Way	Section 1: Inadequate office space does not accommodate all Public Works Department employees. Section 2: Good Section 3: Adequate for passenger sized vehicles, inadequate for storage of the refuse trucks, gravel floor and no heat limits maintenance activities.	Section 1: 1965 building has 2,520 sq ft of floor area; uses include: offices, material storage, and a 3-bay vehicle shop and storage area; Section 2: 1996 building 1,728 sq ft of floor area; uses include unheated gravel floor storage of backhoes, lawn mowers, and the loader; Section 3: 1975 three sided building with 3,024 sq ft gravel floor; uses include: grave storage, refuse trucks, misc equipment. Insufficient depth to completely shelter the refuse trucks.
Office Building	8a Buena Way		1946 building has 4,330 sq ft of floor area; uses include: leased to Yakima Valley Farm Workers Clinic, currently used as a community center for youth and young adults; YVFWC provided intent to vacate notice effective Fall 2018.

Figure 8 – Public and Government Facilities in the City Limits and Urban Growth Area (UGA)



3. Building and Vehicle Needs Assessment

a. City Hall Needs and Assessment

The building, as presently used has adequate space and is in fair condition. No major improvements or additions are warranted. While the elevator and restroom facilities are too small to meet accessibility standards, it is technically infeasible to retrofit them. Pursuant to the ADA, the existing facilities are adequate until a major remodel or reconstruction of the building occurs. All departments in the building need additional dedicated space for long term records storage, however this need will likely be addressed off site.

b. Police Department Needs and Assessment

Recent improvements to the main building at 1 West First Avenue include: upgrading the lighting system to energy efficient lamps and ballasts; replaced HVAC systems; removal of older generators and installation of a new natural gas backup generator capable of powering the lighting, computer systems and servers, phone, all dispatch equipment, and some but not all HVAC systems.

Major improvements needed for the 1 West First Avenue building, include:

- Replace the hot mop roof with a new TPO roof system.
- Evaluate the facilities to assess the suitability to continue making investments in modernizing the main building and outlaying buildings. When assessing, consider the following:
    - Current and projected space needs of the Toppenish Police Department.
    - The layout and location of functions to optimize the use of space.
    - An analysis of structural condition of the building.
    - An analysis to determine which is more cost effective 1) remodel or 2) replace the building.

There is an office trailer located behind the Police department's main building. The 10-feet by 30-feet trailer was placed on-site in 2005. The trailer provides office space for detectives and private interviews. The stairway is not ADA compatible. There is minimal roof, floor, and wall insulation and the windows are single-pane construction.

The Sally Port building at 7 Division Avenue also belongs to the Toppenish Police Department. The building (located to the west of the main building on 1 West First Avenue is mostly used for vehicle storage and washing. Recent improvements to the Sally Port building include: upgraded the lighting system to energy efficient lamps and ballasts; replaced overhead heater unit.

Major improvements needed for the 7 Division Avenue building, include:

- Replace the hot mop roof with a new TPO roof system.
- Evaluate the facilities to assess the suitability to continue making investments in modernizing the Sally Port building.

The Police Training Center is located at 5 West First Avenue. The original building was constructed in 1920 and was significantly expanded in the mid-1950s. The building was acquired in 2005 and a major remodeling effort was completed in 2013, consisting of: new roof structure and TPO roofing;

new plumbing, mechanical, and electrical systems throughout the building, upgraded lighting system, new flooring, wall systems, and ceiling in the front half of the building; insulation of the walls and attic; specialized mats on the walls of the multi-purpose room. No major improvements are needed to the Police Training Center building.

c. Fire Department Needs and Assessment

Improvements to West Second Avenue will change the configuration of the driveway approach to the building. Access to the rear apparatus storage bays will be difficult. The reconfiguration will displace staff and visitor parking.

Major improvements needed for this facility, include:

- Construct an additional dormitory with restroom and shower facilities; provides separate sleeping and bathing facilities for each gender.
- Construct a conference/training room; current room is undersized for the number of fire personnel. The space doubles as a living room for staff during 24-hour shifts.
- Replace and reconfigure the vehicular access around the building, including:
    - Reconfigure vehicular access to all equipment bays.
    - Allow circular access around the building.
    - Provide appropriately placed off-street staff and visitor parking.
    - Replace load-rated concrete slabs on all approaches accommodating the weight of current apparatus.
- Install a fire suppression system that meets National Fire Protection Association (NFPA 1) Fire Code standards. Sprinklers are essential when sleeping units are provided for staff during 24-hour shifts; a fire suppression system will also protect the investment of equipment. Building improvements for staff safety include:
    - Install an automatic fire suppression system throughout the building with station pulls.
    - Equip the cooking appliances with automatic shut-off devices that engage when firefighters are dispatched to an emergency.
    - Install supervised smoke and carbon monoxide (CO) alarms throughout the building.
- Other Items:
    - Replace the existing single pane windows with double pane insulated windows for energy efficiency and comfort.
    - Insulate walls with direct exterior exposure in the chief's and captain's offices, training room, and kitchen with a system of foam panels and interior sheetrock for energy efficiency and comfort.
    - Replace the partially operating space heaters in the apparatus bays; not all of the existing units currently operate, and replacement parts are no longer available.
    - Remove and replace vinyl commercial tile flooring in the kitchen and training rooms; the existing floor system is failing.

The City is assessed by the Washington Survey Rating Bureau (WSRB) for effectiveness. Many criteria are used to establish WSRB ratings; evaluation can include but is not limited to: an examination of the capabilities and training records of the fire department staff, the condition and age of firefighting apparatus, response times, the water system capacity and reliability, and enforcement of codes.

A City's rating ranges from the best possible rating (an effectiveness rating of 1) to the poorest rating (an effectiveness rating of 10). The rating directly affects property insurance rates throughout the City; insurance rates are higher in communities with a poor WSRB rating.

Toppenish is currently rated at a 5 with the potential to quickly trend to a 10 because of aging firefighting vehicles.

The following actions can result in Toppenish maintaining or improving its WSSRB rating:

- Acquire a new quint with a ladder reach of at least 100-feet, a minimum pumping capacity of 2,000 gallons and a water tank of 500 gallons.
    - The specifications of the new quint provide adequate emergency response to all buildings in Toppenish and the new Legends Casino Resort hotel for the Tribes and Bands of the Yakama Nation (Yakama Nation).
    - Replacing the older quint with a new quint before 2020 allows the City to maintain or improve its WSRB ratings.
- Surplus Ladder 18. The ladder truck is nearing the end of its life expectancy.
- Acquire a new pumper truck with a pumping capacity of 2,000 gallons and water tank of 1,000 gallons.
- Surplus Engine 12; retain Engine 11 as the City's backup apparatus. Engine 12 is past the end of its life expectancy. Engine 11 has 5 more years before the end of its life expectancy.

d. Public Works Needs and Assessment

The existing buildings at the Public Works site are somewhat functional but the 2.6-acre site no longer meets the needs of the department. The main public works shop building was destroyed by fire in August 2017. The estimated insurance recovery for this loss is roughly $1,300,000. The cinder brick storage building should be replaced as soon as feasible as it is functionally obsolete, structurally deficient, and impedes circulation of Public Works vehicles due to its central placement on the property. The other remaining building is serviceable, but the bays are not deep enough to adequately shelter the equipment now used by the department, nor can the space be properly heated to protect the equipment. Prior to reconstruction of the main building on the current site, the City should investigate relocating the public works shop campus to a site with the following parameters:

- Size and shape: Eight to ten acres; square, or a rectangular shape where the length is not more than twice the width.
- Area Uses: Industrial in nature.
- Utilities: Public sewer and public water for domestic use and industrial fire protection.
- Access: Paved industrial, or commercial roads, affording at least two points of access.

If it is determined that the building will be reconstructed in the existing site, then it should be relocated to maximize the function of the site.

4. Capital Improvement Program

TABLE 4-26. TOPPENISH GOVERNMENT BUILDINGS AND PROPERTIES SIX-YEAR CAPITAL IMPROVEMENT PROGRAM

Priority	General Facilities	Estimated cost in 2017 Dollars	Year Needed	Annual Cost
Police Department	2 Police Cars	$108,862	2018	$24,861 Annually through 2020
	2 Police Cars	$140,000	2019	$28,500 Annually from 2019 through 2023
Fire Department	Fire Engine (20 yrs @4.5%)	$500,000	2019	$22,500 Annually from 2019 through 2039
	Fire Engine (20 yrs @ 4.5%)	$500,000	2024	$22,500 Annually from 2024 through 2044
	Ladder Truck (20 yrs @ 4.5%)	$850,000	2021	$38,440 Annually from 2021 through 2041
Public Works Department	Public Works Shop Facilities after applying insurance settlement (40 yrs @2%)	$5,000,000 $3,700,000.	2019	$166,500
	Automated Refuse Collector No. 1	$290,000	2021	$29,000

5. Government Facilities and Vehicle Funding

Table 4-27. POTENTIAL GRANT OR FUNDING SOURCES FOR GOVERNMENT FACILITIES AND VEHICLE CAPITAL IMPROVEMENTS

Funding Grant or Source	link
United States Department of Agriculture – Rural Development	https://www.rd.usda.gov/wa
Community Development Block Grant	http://www.commerce.wa.gov/serving-communities/current-opportunities/community-development-block-grants/

K. FISCAL CONSTRAINT

1. Master Table of Budget versus Expenses to Confirm Fiscal Constraint

More detail is being incorporated in this Capital Facilities Plan than during the last Comprehensive Plan Update with respect to large capital maintenance, large capital repair, and large capital replacement planning for expenses. The City recognizes that when large capital expenses can be identified, it is prudent to capture them in the Capital Facilities Plan so flexibility with funding opportunities can be optimized. Likewise, the City has added a fiscal constraint table to this Capital Facilities Plan to ensure that necessary funding is identified and planned in each Department. Because this is the first attempt to show this much detail in the budget table, the City anticipates reviewing the status of each of the priority tables in the Capital Facilities Plan against the prior year's available funding and adjusting as needed. Annual adjustments will be tracked for the next Comprehensive Plan Update.

Table 4.28 Short Trem 6-year rolling budget expences

PROJECT TITLE	COST SUMMARY				SCHEDULE OF LOCAL FUND EXPENDITURE													
	Project Cost 2017 Dollars	Local	Grant /Forgivable Principal	Grant Source	2018		2019		2020		2021		2022		2023		2024	
					City Share	Fund	City Share	Fund	City Share	Fund	City Share	Fund	City Share	Fund	City Share	Fund	City Share	Fund
	PUBLIC WORKS DEPARTMENT																	
	Transportation Division																	
Lincoln/Dayton/Beech St. Improvements	$1,895,318	$256,868	$1,639,450	STP(US)					$256,868	VEH								
Mural Attraction Improvements	$235,539	$23,555	$211,954	TIB			$23,555	CDBG A										
W. First Ave. Sidewalk Improvements	$182,775		$182,775	TAP(US)														
	Municipal Water Division																	
Well No. 5 Improvements	$1,344,236			DWSRF			$1,533,000	WRes										
Public Works Shops Water Main Loop (insurance settlement)	$250,000	$250,000		Insurance Settlement			$250,000	SP										
Bio Twine-Silgan Water Main Loop (SEID Loan/Grant, developer financing)	$383,284			SEID FUDING														
Well No. 3 Generator	$100,000			DWSRF					$112,550	Wres								
	Municipal Sewer Division																	
Phase II Collection System Improvements (SRF)	$6,370,500		$2,609,978	DWSRF					$3,760,522	SRes								
Phase III-IV Collection System Improvements (USDA RD)	$14,001,500	$1,400,000	$10,957,500	USDA RA									$1,644,000	SRes				
Refuse																		
Automated Refuse Collector No. 1	$290,000			NA							$326,400	ERF						
	Parks Division																	
Pioneer Park Improvements	$495,250	$99,050	$396,200				$99,500	GEN										
	FIRE DEPARTMENT																	
Replace Engine 11.	$500,000			NA			$515,000	REET 1										
Replace Engine 18, Aerial Ladder/Pumper	$850,000		$850,000	2% Casino Grant							$128,817	CDBG B						
Replace Engine 12	$500,000			NA													$615,940	REET 1
	POLICE DEPARTMENT																	
Replace 2 Patrol Cars	$108,862			NA	$112,108	CBDG B												
Replace 2 Patrol Cars	$140,000			NA			$149,526	CBDG B										

L. CAPITAL FACILITIES GOALS AND POLICIES

This section presents the capital facilities goals and policies for in the City of Toppenish. In addition, the Growth Management Act has designated cities, town and their associated urban growth areas as the primary areas for urban growth. To achieve inter-jurisdictional consistency countywide planning policies have been adopted by each jurisdiction in Yakima County. An analysis of County Planning Policies applicable to this element is presented in Appendix A.

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

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

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

Policy 1.3 Future land uses will be coordinated with the Land Use and Transportation Elements of the Comprehensive Plan.

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

Policy 2.1 New urban development shall be encouraged to locate first, within city limits and second, within the urban growth area where municipal services and public facilities are already present.

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

GOAL 3: To facilitate planned growth through combined services.

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

GOAL 4: Coordinate the orderly provision of 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, to conserve fiscal resources available to implement the Capital Facilities Plan.

Policy 4.2 Public facilities and utilities shall be located to: a) maximize the efficiency of services provided; b) minimize their cost; and c) minimize their impacts on the natural environment.
Policy 4.3 The City will encourage economic growth while maintaining quality development and controlling the cost of public improvements in its urban growth area.

Policy 4.4 If adequate facilities are currently unavailable and public funds are not committed to provide such facilities, developers must provide such facilities at their own expense to serve the proposed development in accordance with adopted facilities plans.

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: Ensure the protection of groundwater from sources of contamination.

Policy 5.1 Provide effective conveyance and sufficient treatment to ensure that the discharge of wastewater does not lower the quality of surface and groundwater.

Policy 5.2 Protect local groundwater supplies by increasing the awareness of residents and business owners about the appropriate disposal techniques for hazardous materials.

GOAL 6: Promote coordinated planning and balanced delivery of services among federal, state, county, municipal and tribal governments especially in areas of overlapping influence such as urban growth areas.

Policy 6.1 Coordinate City and county utility plans.

Policy 6.2 Determine funding options for future City and county utility needs.

GOAL 7: Expand the range of active recreational opportunities for the citizens of Toppenish.

Policy 7.1 Use the City of Toppenish Parks and Recreation Plan as a basis for identifying what facilities are most needed in the community and as a basis for the development of capital programming.

Policy 7.2 The City will encourage multiple use of public facilities which could be used for youth facilities, senior activities, meetings and other functions.

Chapter 5
Transportation

2018
COMPREHENSIVE
PLAN
UPDATE

"Where the West Still Lives"

Chapter 5 *TRANSPORTATION ELEMENT*

A. BACKGROUND

1. 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 within the transportation network of adjoining jurisdictions and the larger region.

2. Growth Management Act (GMA) Requirements

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

Consistency means 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 they can coexist and not preclude the accomplishment of other features or elements.

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

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

- Land use assumptions used in estimating travel;
- Estimated impacts to state-owned transportation facilities and services;
- Facilities and service needs, including:
  - An inventory of air, water, and land transportation facilities and services, including transit alignments to define existing capital facilities and travel levels as a basis for future planning;
  - Level of service standards (LOS) 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;

- Intergovernmental coordination efforts, including an assessment of the impacts of the transportation plan and land assumptions on the transportation systems of adjacent jurisdictions;
- Demand-management strategies;
- Pedestrian and bicycle planning; and
- 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; and
  - 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 LOS standards will be met.

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.

3. Transportation Element Certification

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

- The plan was submitted for consideration on April 21, 2017 and reviewed by YVCOG Staff.
- The Transportation Technical Advisory Committee (TAC) reviewed the completed Transportation Element Review Checklist on May 11, 2017, and recommended approval to the Policy Board.
- The Transportation Policy Board considered the recommendation of the TAC on May 15, 2017 and certified the City of Toppenish's Transportation Element.
- A formal Transportation Element Consistency Certification Report was signed by YVCOG's Executive Director on May 15, 2017.

4. 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. In turn, the Transportation Element's goals and objectives must be consistent with and supported by the Land

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

5. Applicable Countywide Planning Policies

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

1. *The capital facilities, utilities, and transportation elements of each local government's comprehensive plan will specify the general location and phasing of major infrastructure improvements and anticipated revenue sources. [RCW 36.70A.070(3)(c)(d)] (Countywide Planning Policy: B.3.4.)*
2. *Major public capital facilities that generate substantial travel demand should be located along or near major transportation corridors and public transportation routes. (C.3.4.)*
3. *The multiple uses of corridors for major utilities, trails, and transportation rights-of-way is encouraged. (C.3.6.)*
4. *The transportation element for each jurisdiction will be consistent with and support the land use element of its comprehensive plan. [RCW 36.70A.070(6)] (D.3.1.)*
5. *Transportation improvements or strategies to accommodate the impacts resulting from new development will be implemented concurrent with new development. "Concurrent with new development" means that improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within six years. [RCW 36.70A.070(6)(e)]*
6. *Local jurisdictions will coordinate transportation planning efforts through YVCOG, which is designated as the RTPO. This regional coordination will assure that an assessment of the impacts of each transportation plan and land use assumptions on the transportation systems of adjacent jurisdictions is 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.)*

6. Major Transportation Considerations

- The City has identified several projects on its Six Year Transportation Improvement Program. If these projects are not funded through state or federal programs, what other funding sources would be available?
- The urban growth area 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 its standards for streets, lighting, sidewalks, etc.?
- What improvements to the transportation network will support the City's goals in other areas, especially land use and economic development?
- What are the present and future mobility needs in Toppenish and how can they be met?

- An alternate route for freight to move through Toppenish has been identified in cooperation with WSDOT as a Critical Rural Freight Corridor in the State Freight Plan. Close coordination with WSDOT during transportation planning is necessary to maintain consistency at the local, regional, and state level.
- Are additional sidewalks or other pathways needed for public safety, now or in the future? Is a sidewalk improvement program needed?

B. EXISTING CONDITIONS – TRANSPORTATION SYSTEMS

1. Roads and Streets

The Toppenish area is served by a network of roadways and streets. All of these roadways and streets, both within the City of Toppenish and in unincorporated Yakima County, are categorized under the Federal Functional Classification System (FFC). Figure 1, on page 16, shows the existing transportation network with associated federal functional classifications in and adjacent to the City of Toppenish.

The main roadways serving the City of Toppenish are: SR 97 connecting Toppenish with the cities of Yakima and Goldendale; and SR 22 connecting the City with the City of Granger and the City of Mabton. Other major streets and roadways serving Toppenish include: Fort Road and McDonald Road providing access from the west; North Track Road connecting Toppenish with the City of Wapato; Buena Way (SR 22) providing access from the north; and North Meyers Road providing access from the City of Zillah; and 1st Avenue providing access to the Confederated Tribes and Bands of the Yakama Nation's governmental complex.

Most of the City's local streets are paved. Unpaved streets account for about 2.8% of Toppenish's linear feet devoted to streets, and include roughly 800 feet of King Lane, 200 feet of Rentschler Lane, 200 feet of Idaho Avenue, 600 feet of Berger Lane, 300 feet of Brooks Lane, and 200 feet of Adams Avenue Extension. The majority of the residential streets are paved curb to curb. Where there are no curbs, parking is found on one or both sides of the street on either dirt or gravel areas. Retail core area streets are paved curb to curb, with sidewalks and parallel parking on both sides of the street. Angle parking can be found on South Toppenish Avenue, Washington Avenue, and South Alder Street. Street rights-of-way vary throughout the City from 30 to 85 feet in width, with 60 feet being the most typical width. Approximately half the streets within City limits have full or partial sidewalks on at least one side of the street.

2. Rail Facilities and Locations

There is currently no passenger rail service in Yakima County. The nearest passenger rail terminal is in Pasco, where Amtrak trains stop en route from Portland to Spokane and points east.

The Toppenish area is served by rail via the Washington Central main line which runs from the Tri-Cities north through Yakima County into Kittitas County, where it eventually connects with the Burlington Northern line that goes to Seattle. The Toppenish area is served by rail via the BNSF Railway Mainline which runs from the Tri-Cities north through Yakima County into Kittitas County, crossing Stampede Pass then making connection for Tacoma and Seattle. Toppenish is also the starting point for a branch line which extends 22 miles due west through the Yakama Indian Nation to White Swan. This line is owned by Yakima County and leased to short line operator YCR Corp. a common carrier serving accounts such as AB Foods, Husch and Husch, Krainick Heifer, and Yakama Forest Products.

3. Airports

Two commercial service airports are located within 70 minutes of the City of Toppenish, at Tri-Cities/ Pasco and Yakima. These airports serve as commercial nodes for passenger and cargo aircraft. Both airports have at least one runway over 7,000 feet long which can accommodate most types of aircraft. In addition to passenger service, they serve both corporate and general aviation activities.

a. Yakima Air Terminal – McAllistar Field *(YKM)*

The Yakima Air Terminal – McAllistar Field (YKM) is located within the city limits of Yakima, which is approximately twenty miles west of Toppenish or a 30-minute drive time. In addition to serving the Yakima Valley, the airport serves Yakima County and portions of Kittitas, Klickitat, and Lewis Counties. The Airport Manager and supporting staff oversees the day-to-day operations and maintenance in accordance with applicable local, state, and federal regulations.

The Yakima Airport has one primary Runway (9/27) measuring a length of 7,604 feet and a secondary crosswind Runway (4/22) measuring 3,835 feet. The 2015 Airport Master Plan includes extending Runway 9/27 from 7,604 feet to 8,847 feet to accommodate larger commercial and military aircraft. The airport has a number of ground-based instrumentation (ILS- VOR/DME) as well as satellite-based (GPS) instrument approaches to accommodate aircraft operations during inclement weather. The primary runway can accommodate aircraft up to 160,000 pounds with dual-wheel configuration while the crosswind runway can withstand an aircraft up to 80,000 pounds. The airport conveniently has an Air Traffic Control Tower to manage arriving and departing aircraft and is operational from 6:00 a.m. till 10:00 p.m. seven days a week.

In 2009, the Yakima Airport handled approximately 58,994 passengers who boarded commercial aircraft prior to the downturn of the economy. Currently, the airport provides four roundtrip flights per day operated on Alaska Airlines' Q-400 aircraft. Forecasting passenger demands is critical in the overall planning for the airport, of which the 2015 Airport Master Plan update projects enplanements to be 75,508 by 2020. The number of actual enplanements in 2016 was approximately 97.2% of this forecasted number at 73,378.

b. Tri-Cities Airport (PSC)

The Tri-Cities Airport (PSC) is located within the city limits of Pasco, which is approximately sixty-seven miles east of Toppenish or a 70-minute drive time. PSC serves southeastern Washington and northeastern Oregon. The Tri-Cities Airport is the fourth largest airport in Washington with a passenger catchment area population exceeding 1 million people. The Airport Director and supporting staff oversee the day-to-day operations and maintenance in accordance with applicable local, state, and federal regulations.

The Tri-Cities Airport has one primary Runway (21R/3L) measuring a length of 7,711 feet, a secondary crosswind Runway (12/30) measuring 7,703 feet, and a general aviation Runway (21L/3R) measuring 4,423 feet. The 2012 Airport Master Plan includes extending Runway 12/30 from 7,703 feet to 9,203 feet to accommodate larger commercial and military aircraft. The

airport has a number of ground-based instrumentation (ILS- VOR/DME) as well as satellite-based (GPS) instrument approaches to accommodate aircraft operations during inclement weather. The airport conveniently has an Air Traffic Control Tower and a Terminal Radar Approach Control Facility to manage arriving, departing and enroute aircraft, and is operational from 6:00 a.m. till 10:00 p.m. seven days a week.

In 2016, the Tri-Cities Airport handled approximately 340,000 passengers who boarded commercial aircraft. Currently, the airport provides six flights per day to Seattle (SEA) and one flight to Portland (PDX) on Alaska Airlines; Delta Airlines provides three flights per day to Salt Lake City (SLC), three flights to (SEA), two flights to Minneapolis, MN (MSP); United Airlines provides two flights a day to Denver (DEN) and one to San Francisco (SFO); and Allegiant provides weekly and seasonal service to Phoenix Mesa (IWA), Las Vegas, NV (LAS), and Las Angeles, CA (LAX). Forecasting passenger demands is critical in the overall planning for the airport, of which the 2012 Airport Master Plan update projects enplanements to be 393,821 by 2023.

4. Public Transportation

a. Regional Bus Service

Regional bus service is provided by Greyhound Bus Lines. Greyhound Bus Lines has terminals in Yakima, Wapato, Toppenish, and Sunnyside. Greyhound provides service to Seattle three times per day via I-82, service to Pasco, Washington and Pendleton, Oregon, pointing south via I-82 twice a day, and service to Portland via Goldendale on I-82 and SR-97 once a day. Additionally, Greyhound Bus Lines operates two busses per day, each direction, between Yakima and Pasco.

Airporter Shuttle provides an alternative to driving to Seattle five times daily with three stops in Yakima, two stops in Ellensburg, one stop in Cle Elum, one stop in North Bend, and two stops in Seattle. The closest stop to Toppenish is at the Yakima Air Terminal in Yakima which is approximately twenty miles west or a 30-minute drive time.

b. Local Bus Service

The City of Toppenish does not operate a local bus service. The only cities in Yakima county that operate transit services are: Yakima, Selah, and Union Gap. People For People and the Confederated Tribes and Bands of the Yakama Nation are two organizations that provide public transportation in the region on limited routes; both provide fixed route service into the City of Toppenish. Yakima Transit does provide vanpool services for trips that either start or end in the City of Yakima.

c. Demand Response Transportation Service

Demand response transportation service allows users of this service to call ahead to arrange for transportation services at an agreed upon day and time. These transportation services are provided for elderly persons for trips involving nutrition, medical attention, and shopping. Trip requests are prioritized based on need, with trips involving nutrition or medical services given the highest priority.

A variety of demand response transportation services are available in the Toppenish area. People For People, a private non-profit organization, provides demand response services

for eligible elderly and handicapped citizens. People for People also acts as the broker for DSHS Medicaid eligible clients, and arranges the most appropriate and cost effective transportation service for clients attending covered Medicaid services. Arrangements may include; gas vouchers, mileage reimbursement, volunteer driver, taxi, lift equipped wheelchair vehicles, as well as Greyhound tickets for travel to out of area medical facilities.

The Confederated Tribes and Bands of the Yakama Nation (Yakama Nation) provide demand response services for tribal members living in the Toppenish area as well.

Other citizens of the Toppenish area do not have access to any form of public transportation other than private for-hire taxi service.

d. Coordinated Public Transit-Human Services Transportation Plan (HSTP)

Created by People For People on behalf of the Yakima Valley Conference of Governments (YVCOG), the HSTP was developed in response to the federal Moving Ahead for Progress in the 21st Century (MAP-21) Act, which required that communities develop a coordinated public transit and human services transportation plan to be eligible for certain Federal Transit Administration funding. The 2014 plan calls for the following:

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

5. Yakima Valley Metropolitan and Regional Transportation Plan 2016-2040 (M/RTP)

The M/RTP was updated by YVCOG in 2016, in compliance with MAP-21. The M/RTP includes strategies for expanding transit to meet future travel demands throughout the Yakima Valley region. The M/RTP recognizes a need to expand demand response service in this area 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:

- Expand People for People Community Connector service to directly serve medical and educational facilities.
- Promote alternative modes of transportation such as walking, biking, carpooling, and vanpooling.

6. Non-motorized Transportation

Non-motorized transportation, in general, 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.

a. Pedestrian Pathways

A linked system of sidewalks is the most obvious and economical pedestrian pathway network for the City of Toppenish. Approximately 67% of the streets in Toppenish have full or partial sidewalks on at least one side of the street. The retail core area encourages walking in order to fully appreciate the Mural art on many of the buildings.
The City has published a mural route map which can be accessed at: http://www.visityakima.com/travel-maps/muralMapFrBk-web.pdf.

b. Bicycle Pathways

A standard national classification for bikeways includes categories ranging from: Class I, bike paths, which are 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. The 2016-2040 M/RTP identifies that in the Toppenish area there are Class I, Class II, and Class IV bicycle routes.

Toppenish has a number of non-motorized transportation projects planned as part of the 2017-2022 Transportation Improvement Program (TIP) on Table 4-10 (p 4-25). The highest profile project planned for Toppenish, the Lincoln Avenue/Dayton Avenue/Beech Street Improvements, is scheduled to begin construction in 2020.

In four of the six years of the TIP, the City of Toppenish is planning resurfacing projects, and each of these projects include installation of new pedestrian ramps. Between 2017 and 2018, two sidewalk improvement projects call for new or reconstructed sidewalks as well.

Toppenish passed a Complete Streets Policy in 2015 with which to increase intermodal transportation and is consistent with the 2016-2040 Yakima Valley Metropolitan and Regional Transportation Plan, the Coordinated Public Transit-Human Services Transportation Plan, Washington State's Bicycle Facilities and Pedestrian Walkways Plan, and the Yakima County Trails Plan to name a few.

c. Yakima County Trails Plan

In 2014, Yakima County updated the *Yakima County Trails Plan*, which calls for development of a regional bicycle/pedestrian network that would function as a viable transportation option. The Plan has been developed with public participation in both the upper and lower valleys of Yakima County. Different special interest groups such as the Lower Valley Pathway Group, Single Track Alliance of Yakima, Cowiche Canyon Conservancy, DRYVE, and TRANS-Action, participated along with state and local government agencies to provide information during development. The non-motorized goals of the Yakima County Trails Plan include:

- Yakima County will strive to serve the public's current and future trail needs in a manner consistent with this plan.

- A countywide system of safe, efficient, and interconnected trails will be provided over time including on- and off-street facilities that link populated areas of the county with important travel destinations.
- The need for trails will be met through appropriate planning, design, construction, and maintenance of facilities, including single-use and shared use trails, roads, and road shoulders, sidewalks, bike lanes, and related improvements. Design will address the needs of both experienced and less experienced trail users, and users of all ages and abilities.
- Public safety, education, and law enforcement will be recognized as integral to the development of trail opportunities in Yakima County.
- Encourage alternative transportation modes.
- Support efforts to establish a regional and statewide trail system.
- Trail design and development will address issues related to neighboring property to ensure safety of the trail users, property owners, and residents.
- With the growing trend on outdoor recreation biking and hiking, greater emphasis should be placed on connecting with regional recreation trails.

The 2014 Plan identified a Lower Valley Trail (40.0 miles in length) which utilizes the abandoned Pacific Railroad right-of-way, on-street right-of-way, property easements, and outright land purchases. When completed, Lower Valley Trail will provide a paved trail that connects the City of Naches to the north, through the Greater Yakima Valley, and into Benton County.

7. Transportation Demand Management

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

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

C. Roadway Characteristics

1. Functional Classification and Idealized Capacity

The streets and roadways in the Toppenish area do not function independently, but rather form a network through which traffic flows. Roads within the network serve two primary functions: 1) mobility to move traffic, goods, and people from one location to another quickly and efficiently; and 2) to provide access to parcels of land.

When planning roads, mobility and access considerations should be embedded in the considerations of context sensitivity and livability. Arterials provide mostly mobility, local streets provide mostly land access, and collectors provide both functions to some degree while linking arterials and local streets.

For each of the functional classifications of roadway there is a corresponding idealized capacity. These idealized capacities are based on recommendations in the Highway Capacity Manual developed by the Transportation Research Board. 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.

The types of functionally classified roadways present in Toppenish (summarized below and shown in Tables 5-1 and 5-2), are based on standards followed by the Washington State Department of Transportation:

a. Principal Arterial including Freeways and Expressways

A roadway connecting major community centers and facilities, often constructed with partial limitations on access through intersections and common driveways. Principal arterials generally carry the highest amount of traffic volumes and provide the best mobility in the roadway network. Since most principal arterials are intra-county, they serve both urban and rural areas. Regional and inter-county bus routes are generally located on principal arterials with transfer centers and park-and-ride lots. A two-lane Principal Arterial typically carries 2,200 vehicles per hour unless it's an Interstate.

b. Minor Arterial

A roadway connecting centers and facilities within the community, providing some access to abutting properties. The facility stresses mobility and circulation needs over providing specific access to properties. Minor arterials allow densely populated areas easy access to principal arterials, adjacent land uses (i.e. shopping, schools, etc.), and have lower traffic rates than principal arterials. Minor Arterials generally accommodate 2,000 vehicles per hour.

c. Collector

A roadway connecting two or more neighborhoods, carrying traffic within neighborhoods. Collectors channel traffic from local roads onto the minor and principal arterials. Typically, they carry moderate traffic volumes, are used for relatively shorter trips than arterials, and accommodate very little through traffic. Urban collectors and rural major collectors are the lowest categories of roadway classification eligible for federal funding. Depending on whether the collector is urban or rural, the customary range that a collector accommodates is between 1,800 and 2,400 vehicles per hour.

d. Local

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. Local streets and roadways are typically rated for up to 1,600 vehicles per hour.

TABLE 5-1. FUNCTIONALLY CLASSIFIED ROADS WITHIN TOPPENISH'S CITY LIMITS

Functional Class	Roadway Name	Start Location	End Location
Principal Arterial	SR 22	North City Limits	SR 97
Minor Arterial	SR 22	West City Limits	South City Limits
	W. 1st Avenue	West City Limits	S. Division Street
	E. Toppenish Avenue	Asotin Avenue	N. Meyers Road
	S. Toppenish Avenue	W. 1st Avenue	Asotin Avenue
Major Collector	Fraley Road	SR 22	East City Limits
	E. McDonald Road	West City Limits	SR 22
	Franklin Avenue	SR 22	N. Elm Street
	N. Elm Street	Franklin Avenue	Dayton Avenue
	Dayton Avenue	N. Elm Street	N. Beech Street
	N. Beech Street	Dayton Avenue	Zillah Avenue
	Zillah Avenue	N. Beech Street	N. "F" Street
	N. "F" Street	Zillah Avenue	Lincoln Avenue
	Lincoln Avenue	N. "F" Street	West City Limits
	W. 4th Avenue	SR 22	S. Division Street
	Jackson Street	Magnolia Street	S. Juniper Street
	N. Track Road	West City Limits	SR 22
	Asotin Avenue	SR 22	E. Toppenish Avenue
	Washington Avenue	North City Limits	SR 22
	Washington Avenue	SR 22	S. Toppenish Avenue
	Adams Avenue	Robart Lane	Jefferson Avenue
	Jefferson Avenue	S. Fir Street	SR 22
	Madison Avenue	S. Juniper Street	SR 22
	S. Division Street	South City Limits	W. 4th Avenue
	N. "G" Street	Lincoln Avenue	E. Toppenish Avenue
	S. "G" Street	E. Toppenish Avenue	S. City Limits
	S. "L" Street	South City Limits	Lincoln Avenue
	Jackson Street	Ward Road	Magnolia Street
	S. Juniper Street	Jackson Street	Washington Avenue
Minor Collector	W. 2nd Avenue	SR 22	S. Division Street
	E. 2nd Avenue	S. Division Street	Asotin Avenue
	E. 1st Avenue	Asotin Avenue	East City Limits
Local	All streets and roadways not listed above		

Table 5-2. Functionally Classified Roads within Toppenish's UGA

Functional Class	Roadway Name	Start Location	End Location
Principal Arterial	SR 97	SR 22	LaRue Road
Minor Arterial	W. 1st Avenue	SR 97	West City Limits
	Fort Road	Gunnyon Road	SR 97
	SR 97	East UGA Line	SR 22

Major Collector	Fraley Road	East City Limits	East UGA Line
	E. McDonald Road	West City Limits	Ward Road
	LaRue Road	West UGA Line	SR 22
	LaRue Road	Division Road	Pace Road
	E. LaRue Road	SR 22	East UGA Line
	N. Track Road	North UGA Line	West City Limits
	Washington Avenue	E. McDonald Road	North City Limits
	S. Track Road	S. "G" Street	N. Meyers Road
	N. Meyers Road	Idaho Avenue	Zillah Avenue
	N. Meyers Road	Curlew Road	E. LaRue Road
	Division Road	South City Limits	LaRue Road
Minor Collector	S. Track Road	N. Meyers Road	East UGA Line
Local	All roadways not listed above		

2. Level of Service

The ease of traffic movement along a roadway is a function of the roadway's vehicular capacity, the number of vehicles actually using the roadway, the number of stops along the roadway, and the time spent waiting at each stop. To characterize the ease of movement of traffic, transportation engineers have developed the concept of "level of service" (LOS). Levels of service have been categorized in a range from "A" to "F" and the descriptions in Table 4-3 are summarized from the *Highway Capacity Manual 2010.*

Because travel time has not been customarily measured in the greater Yakima Valley region, instead of travel speeds and travel delay, a simpler method of observed or forecasted volume versus the idealized capacity is used and the resulting ratio Volume/Capacity is expressed in Table 5-3.

Levels of service can be calculated in several ways for each mode of transportation such as vehicles, freight, transit, bicycle, or pedestrian. Other, more complex measures include interruptions to traffic flow such as signals, stop signs, and turning traffic. Because each project may vary in complexity, a project level LOS study is performed during the Preliminary Engineering of any new construction or reconstruction project which follows the methodologies outlined in the *Highway Capacity Manual 2010.*

For screening purposes associated with planning and to be consistent with the standards set by the Regional Transportation Planning Organization, Toppenish reports LOS in the following Volume/Capacity manner.

Roadway capacity refers to the maximum amount of traffic that can be accommodated by a given roadway facility. Roadway capacity is based on an analysis of roadway conditions, including the number and width of lanes, pavement and shoulder types, the presence of controls at an intersection, and whether the roadway is in an urban or rural area.

Toppenish views "Levels of Service" for roadways other than arterial streets as advisory within its City limits. To maintain its historic and small city character, Toppenish adopts a level of service standard "C" for arterials within its jurisdiction. The Washington State Department of

Transportation will mitigate congestion on urban highways in cooperation with local and regional jurisdictions when the peak period LOS falls below "D". The City of Toppenish has two state highways passing through its boundaries: SR 22 and SR 97, both of which are classified as urban.

TABLE 5.3 LEVEL OF SERVICE CATEGORIES

Level of Service	Description	Volume/Capacity Ratio
A	Free-flow operation. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream.	Less than 0.60
B	Primarily free-flow operation. The ability to maneuver within the traffic stream is only slightly restricted. Delay at intersections is minimal.	0.61 to 0.70
C	Stable flow. Speeds and maneuverability more restricted than LOS B because of higher volumes. Longer queues at intersections is experienced.	0.71 to 0.80
D	Less stable flow. Speeds and maneuverability considerably affected by small increases flow. Speeds nearing 40 – 50% of free-flow.	0.81 to 0.90
E	Unstable operation, significant delay. Speeds approaching 30% of free-flow speed.	0.91 to 1.00
F	Forced flow. Very low speeds, volumes exceed capacity, long delays and queues with stop-and-go traffic.	Over 1.00

3. Traffic Volume History

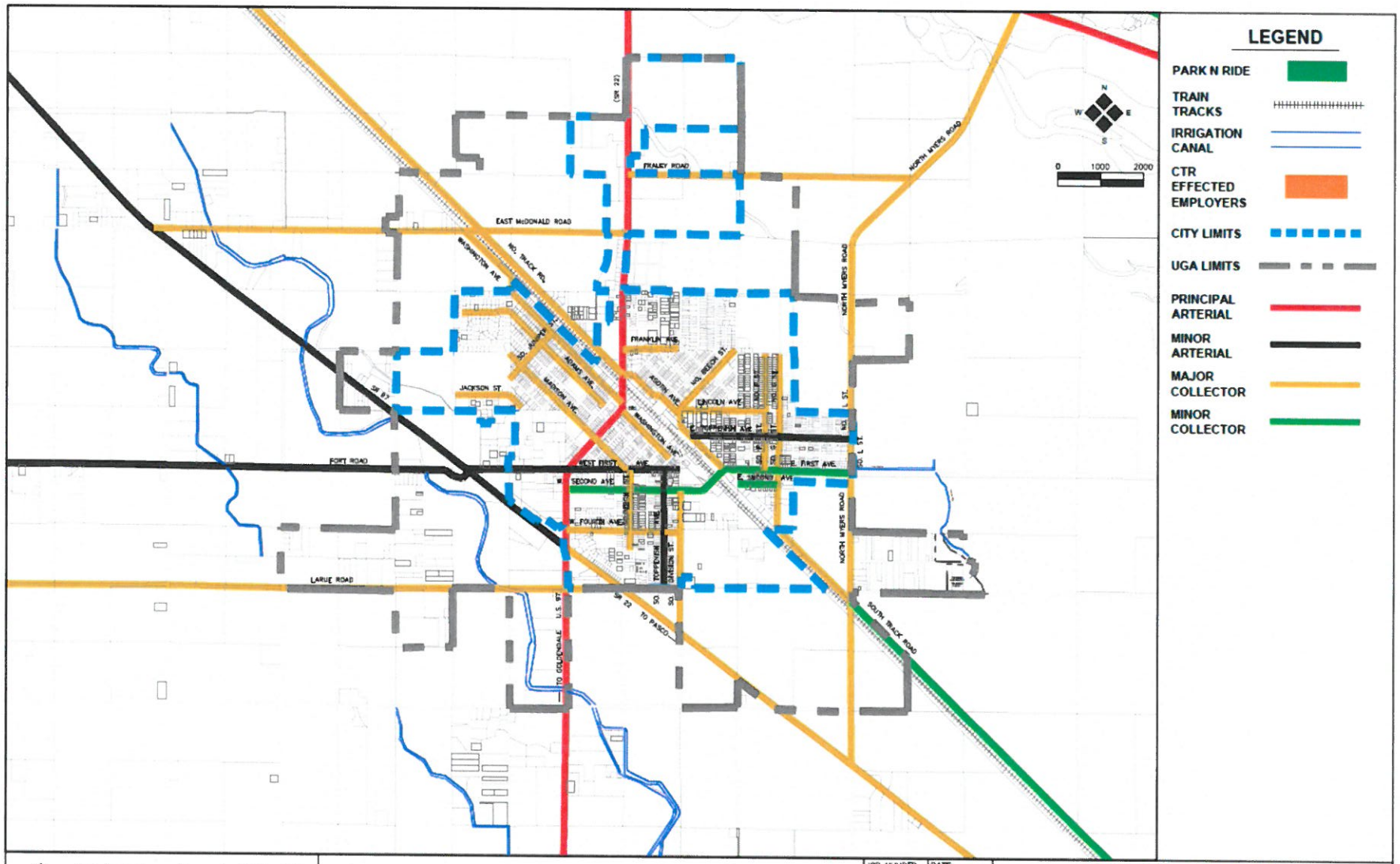
Traffic volumes in the Toppenish area tend to be much lower than the capacities noted as idealized capacities. The City of Toppenish's traffic volumes are expressed in terms of "Average Annualized Daily Traffic" (AADT).

AADT is the average daily traffic that has been measured and adjusted to show expected volumes of vehicles throughout the year on each road segment. The AADTs were calculated using the "Average Weekday Traffic" (AWDT) gained from observed traffic counts. The AWDT is normalized to represent what the comparable traffic would be mid-week in the month of April. This method allows Toppenish to compare a "normal" day of traffic to other cities' or towns' traffic in Yakima County.

Several "Monthly Normalization Factors" (MNFs) are provided by WSDOT in their Annual Traffic Report and they provide a few options in Yakima County from which to choose. The calculation for AADT is: $AWDT * MNF = AADT$.

YVCOG conducted traffic counts within the City of Toppenish in May and June 2010. In addition, the Yakima County Public Works Department maintains a series of street and roadway locations from which counts are conducted every three to four years. Tables 4.4 and 4.5 report the results of the May/June counts as well as County counts for locations that fall in or near Toppenish's Urban Growth Area (UGA).

Figure 1 shows the existing transportation network with associated federal functional classifications in and adjacent to the City of Toppenish.



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JOB NUMBER: 17014	DATE: 04/21/2017
FILE NAMES: DRAWING: TOPPENISH RFC.dwg	
DRAWN BY: CHECKED BY:	CDC DLL

CITY OF TOPPENISH
TRANSPORTATION ELEMENT

FIGURE 1 - FEDERAL FUNCTION CLASSIFICATION

TABLE 5.4. ROADWAYS WITHIN TOPPENISH CITY LIMITS – PEAK HOUR VOLUME AND LEVEL OF SERVICE

Functional Class	Road Name	Direction of (E/O, W/O, S/O, N/O)	Nearest Crossroad	Number of Lanes	AADT (1999 - 2016)	Peak Hour Volume (vph)	Idealized Roadway Capacity (vph)	Percentage of Peak Volume vs. Roadway Capacity (V/C)	Level of Service (LOS)
Principal Arterial	SR 22	S/O	Fraley Road	2	9,600	960	2,200	0.44	A
	SR 22	N/O	SR 97	2	5,700	570	2,220	0.26	A
Minor Arterial	SR 22	E/O	Casey Road	2	4,800	480	2,000	0.24	A
	W. 1st Avenue	E/O	SR 22 (Elm Street)	4	9,766	977	4,000	0.24	A
	E. Toppenish Avenue	W/O	"I" Street	4	8,033	803	4,000	0.20	A
	S. Toppenish Avenue	S/O	Asotin Avenue	4	11,040	1,104	4,000	0.28	A
	SR 97	S/O	Asotin Avenue	4	11,040	1,104	4,000	0.28	A
Major Collector	Fraley Road	W/O	East City Limits	2	616	105	2,400	4%	A
	SR 22	E/O	SR 97	2	5,100	510	2,400	0.21	A
	Franklin Avenue	W/O	North Fir Street	2	3,144	301	2,400	13%	A
	N. Beech Street	E/O	N. "D" Street	2	972		2,400	5%	A
	N. "F" Street	S/O	Zillah Avenue	2	590		2,400	4%	A
	Lincoln Avenue	W/O	S. "L" Street	2	584		2,400	3%	A
	W. 4th Avenue	W/O	SR 22 (S. Elm Street)	2	3,132	313	2,400	0.13	A
	Jackson Street	W/O	S. Juniper Street	2	2,051		2,400	8%	A
	Asotin Avenue	W/O	SR 22 (Buena Way)	2	2,329	233	2,400	0.10	A
	Washington Avenue	W/O	SR 22 (Buena Way)	2	1,794	179	2,400	0.07	A
	Washington Avenue	W/O	S. Toppenish Avenue	2	3,210	321	2,400	0.13	A
	Adams Avenue	W/O	S. Fir Street	2	1,693	169	2,400	0.07	A
	Madison Avenue	E/O	S. Juniper Street	2	2,082	208	2,400	0.09	A
	S. Division Street	S/O	3rd Avenue	2	2,154	215	2,400	0.09	A

	N. "G" Street	S/O	Lincoln Avenue	2	2,082	208	2,400	3%	A
	S. "G" Street	S/O	E. Toppenish Avenue	2	3,214	321	2,400	0.13	A
	S. "L" Street	S/O	E. Toppenish Avenue	2	729	73	2,400	0.03	A
	S. "L" Street	S/O	Lincoln Avenue	2	1944	194	2,400	0.08	A
	S. Juniper Street	S/O	Washington Avenue	2	2,196	262	2,400	11%	A
Minor Collector	W. 2nd Avenue	E/O	SR 22 (S. Elm Street)	2	1,396	156	2,000	8%	A
	E. 2nd Avenue	E/O	S. Division Street	2	1,930	186	2,000	9%	A
	E. 1st Avenue	W/O	N. Meyers Road	2	462	48	2,000	2%	A

TABLE 5.5. ROADWAYS IN TOPPENISH'S URBAN GROWTH AREA – PEAK HOUR VOLUME AND LEVEL OF SERVICE

Functional Class	Road Name	Direction of (E/O, W/O, S/O, N/O)	Nearest Crossroad	Number of Lanes	AADT (2010*)	Peak Hour Volume (vph)	Idealized Roadway Capacity (vph)	Percentage of Peak Volume vs. Roadway Capacity (V/C)	Level of Service
Principal Arterial	SR 97	S/O	SR 22	4	4,900	490	4,400	0.11	A
Minor Arterial	SR 97	W/O	Fort Road	4	11,000	1,100	4,000	0.28	A
	SR 97	W/O	SR 22	4	7,000	700	4,000	0.18	A
	Fort Road	W/O	Elmwood Road	2	9,048	905	2,000	0.45	A
Major Collector	E. McDonald Road	E/O	N. Track Road	2	625	63	2,400	0.03	A
	SR 22	E/O	Casey Road	2	4,800	480	2,400	0.20	A
	LaRue Road	W/O	SR 97	2	932	93	2,400	0.04	A
	N. Track Road	N/O	E. McDonald Road	2	1,830	183	2,400	0.08	A
	Washington Avenue	W/O	S. Juniper Street	2	1,878	252	2,400	11%	A
	S Track Road	W/O	N. Meyers Road	2	1,055	106	2,400	0.04	A
	N. Meyers Road	N/O	Lincoln Avenue	2	2,667	267	2,400	0.11	A
	N. Meyers Road	S/O	Curlew Road	2	1,148	115	2,400	0.05	A
	Division Road	N/O	SR 22	2	1,198	120	2,400	0.05	A
	Division Road	N/O	Larue Road	2	265	27	2,400	0.01	A
Minor Collector	S.Track Road	E/O	N. Meyers Road	2	942	94	2,000	0.05	A

* Estimated based on 2007 Yakima County count. **Estimated based on 2008 count. ***Peak Hour calculated as 10% of AADT

4. Freight and Goods Transportation System

The Washington State Freight and Goods Transportation System (FGTS) is a classification system for roadways, railways, and waterways based on freight volume. The FGTS is used to establish funding eligibility for Freight Mobility Strategic Investment Board grants, support transportation planning process, and plan for future pavement needs. The data is used to designate freight economic corridors in the Freight Mobility Plan (FMP), which was last updated in 2015.

WSDOT used criteria based on the level of annual freight tonnage carried by a particular segment of road to identify road segments which play a significant role in the movement of freight and other goods throughout the state (Table 5-6). Through the FMP, 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 5-6. TRUCK ROUTE CLASSES BASED ON ANNUAL TONNAGE

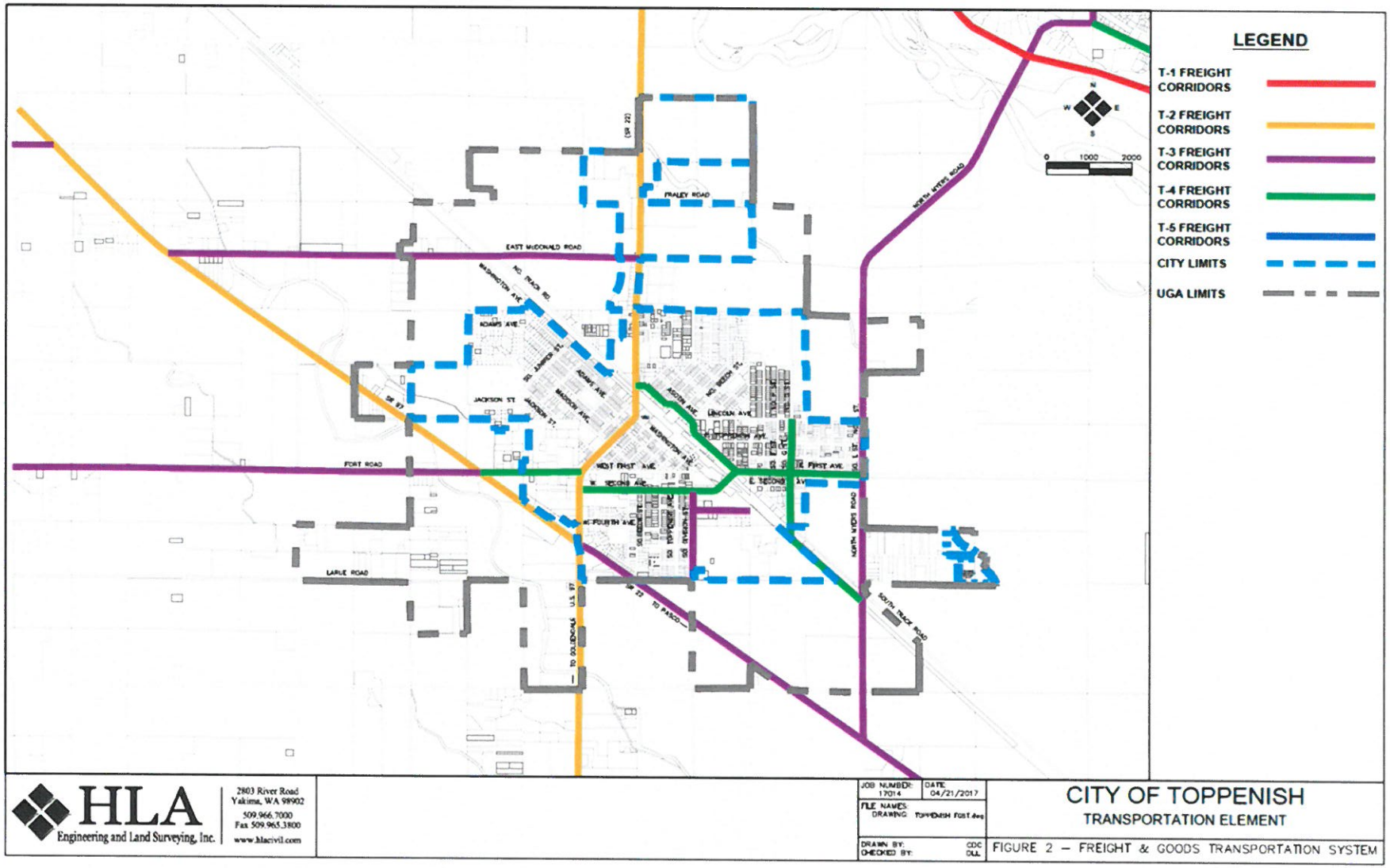
Truck Route Class	Annual Tonnage
T-1	10,000,000 +
T-2	4,000,000 - 10,000,000
T-3	300,000 - 4,000,000
T-4	100,000 - 300,000
T-5	At least 20,000 in 60 Days

Table 5-7 lists the City of Toppenish and UGA freight classified streets and roads and Figure 2, displays that information on the map. Toppenish in cooperation with WSDOT has identified a Critical Freight Rural Corridor in the Toppenish area which connects SR 97 with I-82 on a route that separates the local motorist and pedestrian traffic from the freight corridor to be included in the WSDOT Freight Plan.

The project has local support and has been identified on the Driving Rural Yakima Valley's Economy (DRYVE) public-private transportation coalition prioritized list and is currently in the Unfunded Needs section of YVCOG's SFY 2018 Unified Planning Work Program. Cooperation and coordination will be required from the Confederated Tribes and Bands of the Yakama Nation, Yakima County, the City of Toppenish, YVCOG, WSDOT, other agencies, and the community will be necessary to move the project from concept to a planned project.

TABLE 5-7. CITY OF TOPPENISH AND URBAN GROWTH AREA - FREIGHT AND GOODS TRANSPORTATION SYSTEM CLASSIFIED ROADS

Route Name	Start Location	End Location	FGTS Class
SR 97	West UGA Line	SR 22	T-2 Corridor
SR 22	North City Limits	LaRue Road	T-2 Corridor
E. McDonald Road	SR 97	SR 22	T-3 Corridor
Fort Rd	West UGA Line	SR 97	T-3 Corridor
E. 3rd Avenue	S. Division Street	Wishkoski Way	T-3 Corridor
S. Division Street	W. 2nd Avenue	South City Limits	T-3 Corridor
N. Meyers Road	North UGA Line	South UGA Line	T-3 Corridor
W. 1st Avenue	Linden Street	SR 22	T-4 Corridor
W. 2nd Avenue	SR 22	E. 1st Avenue	T-4 Corridor
E. 1st Avenue	Asotin Avenue	N. Meyers Road	T-4 Corridor
Asotin Avenue	SR 22	E. 1st Avenue	T-4 Corridor
S. Track Rd	N. "G" Street	N. Meyers Road	T-4 Corridor
N. "G" Street	Lincoln Avenue	S. Track Road	T-4 Corridor



HLA Engineering and Land Surveying, Inc.
2803 River Road
Yakima, WA 98902
509.966.7000
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JOB NUMBER: 17014	DATE: 04/21/2017
FILE NAMES: DRAWING: TOPPENISH Fost Ave	
DRAWN BY: CDC	CHECKED BY: DLL

CITY OF TOPPENISH
TRANSPORTATION ELEMENT

FIGURE 2 – FREIGHT & GOODS TRANSPORTATION SYSTEM

D. TRAFFIC FORECASTS

1. Population and Demographic Projections

In September 2016, the Washington State Office of Financial Management (OFM) estimated the population for Toppenish as 8,965 persons. In its 2017 Review of UGAs and Permitted Densities for the City of Toppenish – May 11, 2016, Staff Report, Yakima County forecasts a Toppenish population of 9,955 persons by year 2040.

The 2010 Census indicated that 37.5% of Toppenish's population was age 17 or younger. An additional 6.7% were age 65 or older. According to the 2011-2015 American Community Survey (ACS) 5 year estimates, 37.4% of Toppenish's individuals were considered below the poverty level. These populations are all particularly in need of transportation options in Toppenish.

2. Land Use Patterns and Population Distribution

The area surrounding the Toppenish UGA is expected to remain agricultural in nature over the 20-year forecast period. Within the UGA, additional annexations will gradually increase the size of the community. In the May 11, 2016, Yakima County UGA staff report, the calculated land needs inside the UGA were:

- An additional 58 acres of residential,
- 21 acres of future community facilities,
- 14 acres of future commercial and retail needed,
- Resulting in 14 acres of future rights of way to cover needs for streets and utilities by 2040, needed for population allocation.

There are a couple different methods to express whether there is a surplus or deficiency in the amount of vacant land in the City of Toppenish to accommodate the land needs reported above. If future needs are consistent with and kept at the current level of need, Toppenish has enough land in the City to provide for 38 years of growth and enough land in the current Urban Growth Area to provide for 222 years of growth.

No change is proposed to the Toppenish UGA at this time; no land is proposed to be added or removed from the UGA.

3. Forecasted Traffic Volumes

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

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

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

To provide an estimation of future traffic demand the observed traffic counts have been compounded annually with a 1.5% flat rate growth. Tables 4-8 and 4-9 reflect estimated volumes for the 2040 timeframe on the roadway segments previously identified. This section may be amended when the M/RTP is updated with volumes produced by the 2040 VISUM travel demand model.

TABLE 5.8. ROADWAYS WITHIN TOPPENISH CITY LIMITS – FORECASTED AADT

Functional Class	Road Name	Direction of (E/O, W/O, S/O, N/O)	Nearest Crossroad	AADT (2015)	AADT (2020)	AADT (2030)	AADT (2040)
Principal Arterial	SR 22	S/O	Fraley Road	9,600	10,342	12,002	13,929
	SR 22	N/O	SR 97	5,700	6,141	7,126	8,270
Minor Arterial	SR 22	E/O	Casey Road	4,800	5,171	6,001	6,965
	W. 1st Avenue	E/O	SR 22 (Elm Street)	9,766	10,521	12,210	14,170
	E. Toppenish Avenue	W/O	"I" Street	8,033	8,654	10,043	11,655
	S. Toppenish Avenue	S/O	Asotin Avenue	11,040	10,816	12,552	14,567
	SR 97	S/O	Asotin Avenue	11,040	10,816	12,552	14,567
Major Collector	Fraley Road	W/O	East City Limits	616	663	770	894
	SR 22	E/O	SR 97	5,100	5,494	6,376	7,400
	Franklin Avenue	W/O	North Fir Street	3,144	3,387	3,931	4,562
	N. Beech Street	E/O	N. "D" Street	972	1,047	1,215	1,410
	N. "F" Street	S/O	Zillah Avenue	590	636	738	856
	Lincoln Avenue	W/O	S. "L" Street	584	629	730	847
	W. 4th Avenue	W/O	SR 22 (S. Elm Street)	3,132	3,374	3,916	4,544
	Jackson Street	W/O	S. Juniper Street	1,860	2,004	2,325	2,699
	Asotin Avenue	W/O	SR 22 (Buena Way)	2,329	2,509	2,912	3,379
	Washington Avenue	W/O	SR 22 (Buena Way)	1,794	1,933	2,243	2,603
	Washington Avenue	W/O	S. Toppenish Avenue	3,210	3,458	4,013	4,658
	Adams Avenue	W/O	S. Fir Street	1,693	1,824	2,117	2,456
	Madison Avenue	E/O	S. Juniper Street	2,082	2,243	2,603	3,021
	S. Division Street	S/O	3rd Avenue	2,154	2,320	2,693	3,125
	N. "G" Street	S/O	Lincoln Avenue	632	681	790	917
	S. "G" Street	S/O	E. Toppenish Avenue	3,214	3,462	4,018	4,663

	S. "L" Street	S/O	E. Toppenish Avenue	729	785	911	1,058
	S. "L" Street	S/O	Lincoln Avenue	1,944	2,094	2,430	2,821
	S. Juniper Street	S/O	Washington Avenue	2,196	2,366	2,746	3,186
Minor Collector	W. 2nd Avenue	E/O	SR 22 (S. Elm Street)	1,396	1,504	1,745	2,026
	E. 2nd Avenue	E/O	S. Division Street	1,930	2,079	2,413	2,800
	E. 1st Avenue	W/O	N. Meyers Road	462	498	578	670

Estimated based on 2007-2016 counts all assumed to be 2015 and then grown at a 1.5% annual growth rate to be consistent with the method used in the 2016-2040 Yakima Valley Metropolitan and Regional Transportation Plan.

TABLE 5.9. ROADWAYS IN AND NEAR TOPPENISH'S URBAN GROWTH AREA – FORECASTED AADT

Functional Class	Road Name	Direction of (E/O, W/O, S/O, N/O)	Nearest Crossroad	AADT (2015)	AADT (2020)	AADT (2030)	AADT (2040)
Principal	SR 97	S/O	SR 22	4,900	5,279	6,126	7,110
Minor Arterial	SR 97	W/O	Fort Road	11,000	11,850	13,753	15,960
	SR 97	W/O	SR 22	7,000	7,541	8,752	10,157
	Fort Road	W/O	Elmwood Road	9,048	9,747	11,312	13,128
	E. McDonald Road	E/O	N. Track Road	625	673	781	907
Major Collector	SR 22	E/O	Casey Road	4,800	5,171	6,001	6,965
	LaRue Road	W/O	SR 97	932	1,004	1,165	1,352
	N. Track Road	N/O	E. McDonald Road	1,830	1,971	2,288	2,655
	Washington Avenue	W/O	S. Juniper Street	1,878	2,023	2,348	2,725
	S. Track Road	W/O	N. Meyers Road	1,055	1,137	1,319	1,531
	N. Meyers Road	N/O	Lincoln Avenue	2,667	2,873	3,334	3,870
	N. Meyers Road	S/O	Curlew Road	1,148	1,237	1,435	1,666
	Division Road	N/O	SR 22	1,198	1,291	1,498	1,738
	Division Road	N/O	Larue Rd	265	285	331	385
Minor Collector	S. Track Road	E/O	N. Meyers Road	942	1,015	1,178	1,367

Estimated based on 2007-2016 counts all assumed to be 2015 and then grown at a 1.5% annual growth rate to be consistent with the method used in the 2016-2040 Yakima Valley Metropolitan and Regional Transportation Plan

E. EXISTING DEFICIENCIES, FUTURE NEEDS AND ALTERNATIVES

The City of Toppenish's roadway needs in the past have been mainly centered around maintenance, safety and design concerns rather than capacity problems. Some roadways in Toppenish are experiencing heavier traffic volumes and forecasted volumes show the need to concentrate on travel demand strategies.

The City of Toppenish and YVCOG with the cooperation of WSDOT, placed a long-term DRYVE freight corridor concept in the latest update of the State of Washington Freight Plan. This corridor is currently identified in the DRYVE prioritized project list, in YVCOG's Unfunded Needs list of the Unified Planning Work Program and identified in the Yakima Valley Metropolitan and Regional Transportation Plan 2016-2040. The two-fold primary purposes of planning for and building this Critical Rural Freight corridor is 1) providing a freight link between I-82 and SR 97, and 2) moving a freight route currently running through central Toppenish to an outer alignment thereby separating freight trucks from lighter vehicle traffic. The City will be tracking the implementation of the State's freight route funding opportunities.

In 2013, YVCOG awarded Surface Transportation Program (STP) funding to the City of Toppenish's Lincoln/Dayton/Beech Improvement project. The STP funding is available to Toppenish beginning in 2020. This substantial, fully-funded project is reflected in the City of Toppenish's 2017 to 2022 Transportation Improvement Program (TIP).

In 2015, *All Aboard Washington* held a number of meetings throughout the greater Yakima Valley. To understand more about the magnitude of effort it would take to bring passenger rail back through the Yakima Valley, DRYVE and specifically the City of Toppenish held an opinion poll during the 2015 Central Washington State Fair. Other stakeholders were invited to address the jurisdictions and agencies in Yakima County at YVCOG meetings, TRANS-Action meetings, and DRYVE meetings regarding potential processes to assess the demand for passenger rail. Although the concept is not fully vetted through any one agency or coalition, a beginning passenger rail interest group has formed and is continuing the discussion in meetings and via correspondence.

Table 5-10 is a summary of the projects from Toppenish's 6-year TIP. Any entry that is displayed as light gray is not fully funded and requires additional funding to move into an active status. Other, more customary transportation maintenance projects are also included such as resurfacing of roadways, roadway widening, sidewalk, illumination, and drainage improvements as funding is cyclical and considered reasonably available.

Within the unincorporated portion of Toppenish's UGA, Yakima County is responsible for the identification and scheduling of roadway improvements. Identified needs and improvements will be reflected in Yakima County's 2017 to 2022 TIP. The types of improvements are expected to be similar to those identified in the City of Toppenish. The County's 2017-2022 TIP is available at http://www.yakimacounty.us/1680/6-Year-Transportation-Improvement-Progra. To locate individual projects in Toppenish or Yakima County that have complete funding, please visit the Statewide Transportation Improvement Program (STIP) at http://www.wsdot.wa.gov/LocalPrograms/ProgramMgmt/STIPDoc.htm

TABLE 5-10. TRANSPORTATION IMPROVEMENT PROGRAM, CITY OF TOPPENISH, 2019 TO 2024

Priority Number	Project Title	Street	Functional Class	Length (miles)	Start Year	Improvements Needed	Estimated Cost	Funding Source
1	Lincoln Ave/ Dayton Ave/ Beech St Improvements	Lincoln Ave, Dayton Ave, Beech Street	Major Collector	0.84	2020	Lincoln Ave: Construct new sidewalk, curb and gutter, and illumination. Dayton Ave and Beech St: Widen and construct new 40-44 ft wide roadway section, new curb and gutter, sidewalk, storm drainage, and illumination.	$1,936,301	STP(US)
4	Mural Attraction Sidewalk Improvements	Various Locations	Minor Collector	.22	2019	Sidewalk improvement at various locations including ADA ramps, and curb and gutter along walking routes	$235,539	TIB
5	W. 1st Ave. Sidewalk Improvements	W. 1st Ave. from Elm St to west city limits.	Minor Collector	0.10	2019	New sidewalks, curb and gutter, and ADA ramps to fill existing gaps.	$182,775	TAP(US)
2	Jackson Street Extension	Jackson Street (proposed)	Major Collector	0.55	2024	Reconstruct Jackson Street from Juniper Street west approximately 1,000 feet, then extend Jackson Street west approximately 2,000 ft to Ward Road. Construct the extended section with three lanes (minimum) hot mix asphalt, curb and gutter, sidewalks, storm drainage, and street lighting.	$1,750,416	STP(U)*
3	S. Juniper Street and Jackson Street Improvements	S. Juniper Street, Jackson Street	Major Collector	0.27	2022	Reconstruct both streets including planning and re-use of grindings, grading, install missing segments of curb, gutter, and sidewalk, new hot mix asphalt, street lights, and storm drainage improvements.	$934,000	TIB*
6	Second Avenue Improvements	From Division to S. G Streets	Collector	.48	2019	Reconstruct roadway new curbs, gutters, sidewalks, pavement, storm drainage and street lighting	$2,502,500	TIB
7	Asotin Avenue Improvements	From Elm St. to E. 1st Ave	Collector	.63	2020	Reconstruct roadway new curbs, gutters, sidewalks, pavement, storm drainage and street lighting.	$3,323,320	TIB
8	S. Toppenish Ave. Improvements	From Asotin to 2nd Avenue.	Minor Arterial	.28	2021	Reconstruct roadway new curbs, gutters, sidewalks, pavement, storm drainage and street lighting. Reconstruct Roadway	$1,456,450	TIB
9	2010 Sidewalk Improvements	Various Locations	Varies	.27	2019	Install new curb gutter and sidewalks, drainage improvements, ADA Ramps and crosswalk markings.	$472,130	STRTS
10	Idaho Street Extension	From SR 22 to N. Elm St.	Not assigned	.26	2023	Construct new roadway including clearing grubbing, excavation, curb and gutter, sidewalks, storm drainage, pavement street lighting and pavement markings.	$1,300,000	TIB

* These are customary State and Federal funding sources and are reasonably expected to be available. Any entry that is displayed as light gray is not fully funded and requires additional funding to move into an active status. Projects are listed by funding availability and year in order of priority. Projects will be constructed as funding is available.

F. RECOMMENDATIONS

- Street maintenance in Toppenish 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.

- All new streets and existing streets needing reconstruction shall be built to the City's street standards where possible.

- All the streets in Toppenish need seal coating on a regular basis in order to maintain their good quality. A five-year maintenance schedule should be developed for this purpose and should be followed.

G. Financing

1. State and Federal Funding Sources

Transportation is typically funded by some type of "user fees." Initially, that funding came from a dedicated portion of the property tax, because property owners were the prime beneficiaries of the transportation system. The major state tax sources to fund transportation improvements are the gas tax and vehicle registration fees. The gas tax is imposed at the federal and state level and is devoted primarily to highway purposes. The Washington State gas tax rate is $0.494 cents per gallon (2016). The collected tax is distributed in accordance with *RCW 46.68.090.*

For larger projects, Toppenish may seek funding assistance from the Washington State Transportation Improvement Board (TIB), as well as some other sources. Toppenish is included in a state-designated regional planning area. Because of this distinction, there are three state-funded grant programs that the City can pursue through the TIB:

- Urban Arterial Program (UAP),
- Arterial Preservation Program (APP), and
- Urban Sidewalk Program (SP).

Other Washington State grant opportunities Toppenish includes in their funding strategy include but are not limited to Safe Routes to School Program and the Bicycle and Pedestrian Program.

There are federal grant programs that the City can pursue through the authorization of FAST Act, the federal transportation legislation. Two funding sources that WSDOT allocates to YVCOG for RTPO processes include:

- Surface Transportation Block Grant (STBG), and
- Surface Transportation Block Grant Set-aside (STBG Set-aside)

YVCOG, facilitates and approves the awards to member jurisdictions and agencies upon completion of a prioritized, competitive basis.

The FAST Act has created other new federal grant opportunities that require applicants to compete at the national level. The list of national grant opportunities can be accessed through the Grants.Gov website located at https://www.grants.gov/ .

2. 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 2015, the Legislature amended the TBD statute to authorize TBDs to impose vehicle license fees of up to $50 without a public vote, and also made it possible for cities to absorb the TBD in cases where the TBD has the same boundaries as the city.

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 that are not subject to voter approval, the TBD boundaries must be countywide or citywide, or if applicable, unincorporated countywide.

In 2012, the City of Toppenish created a Transportation Benefit District (TBD). This taxing district allows Toppenish to collect an additional vehicle fee to be used specifically to maintain, operate, and/or improve the existing transportation infrastructure in the City.

3. Local Improvement District

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

4. Finance Plan

Proposed funding of the recommended roadway projects is the continued use of a combination of tax monies, the State TIB programs, and the regionally allocated federal funding. Toppenish will continue to explore and apply for other state and federal grant funding.

Toppenish's Six Year Transportation Improvement Program (TIP) on page 4-10 shows the fully-funded and planned roadway projects and their associated financing or potential funding sources for each improvement project.

H. GOALS AND POLICIES

This section presents the transportation goals and policies for the City of Toppenish. These goals and policies are consistent with the Revised Code of Washington (RCW), Yakima County-wide Planning Policy (CWPP), and Metropolitan and Regional Transportation Plan (M/RTP.)

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

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

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

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

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 Public Transit Benefit District (PTBA) authority, and other local jurisdictions in adequately sitting park and ride lots in the Toppenish area.

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

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

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

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

Goal 2: ***To ensure the transportation facilities and services needed to support development are available concurrent with the impacts of such development, which protects investments in existing transportation facilities and services, maximizes the use of these facilities and services, and promotes orderly compact growth.***

Policy 2.1 To maintain its historic and small city character, Toppenish adopts a level of service standard C for arterials within its jurisdiction. It also concurs with the

state's level of service standard D for state highways passing through the city and urban growth area.

Policy 2.2 For all other roadways within the City, level of service standards shall be strictly advisory and shall only be used as guidelines.

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

Policy 2.4 The City shall produce a financially feasible plan for capital improvements which are needed to maintain levels of service.

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

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

Policy 2.7 The City should actively solicit action by the State and Yakima County to program and construct those improvements to State and County arterial systems which are needed to maintain the adopted level of service for arterials within Toppenish.

Policy 2.8 The City shall require developers to construct streets directly serving new development, and pay a fair-share fee for specific off-site improvements needed to mitigate the impacts of development. The City shall also explore with developers ways that new development can encourage vanpooling, carpooling, public transit use and other alternatives and strategies to reduce single occupant vehicle travel.

Policy 2.9 The City should coordinate land use and public works planning activities with an ongoing program of long-range financial planning, in order to conserve fiscal resources available to implement the Transportation Improvement Program (TIP).

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

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

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

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

Goal 3: ***To recognize pedestrian movement as a basic means of circulation and to assure adequate accommodation of pedestrian and handicapped persons needs in all transportation policies and facilities.***

Policy 3.1 The City will require that developers provide sidewalks along all new streets in new plats.

Policy 3.2 Toppenish will promote the creation of a pedestrian-oriented downtown commercial area by creating an environment where development of pedestrian facilities is encouraged and automobile use is optional;

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

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

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

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

Policy 3.6 Whenever the City contemplates reconstruction or major maintenance work on a City street not having sidewalks, the ability to provide sidewalks at that time should be fully explored. This may include the identification of potential funding

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

Goal 4: ***To ensure adequate parking in the downtown commercial area which supports economic growth and is consistent with downtown design and pedestrian circulation goals.***

Policy 4.1 On-street parking should be allowed in the downtown area to form a buffer between pedestrians and street traffic, reduce the speed of traffic, and provide for short-term parking needs.

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

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

Goal 5: ***To manage, conserve and protect Toppenish's natural resources through a balance of development activities complemented with sound environmental practices.***

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

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

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

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

Goal 6: ***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 in order to:

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

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

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

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

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

Goal 7: ***To provide a comprehensive system of parks and open spaces that responds to the recreational, cultural, environmental, and aesthetic needs, and desires of the City's residents.***

Policy 7.1 Recognize the important recreational transportation roles played by regional bicycle/trail systems, and support efforts to develop trails where appropriate through Toppenish as part of a regional trail system.

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

Chapter 6
Parks

2018
COMPREHENSIVE
PLAN
UPDATE

"Where the West Still Lives"

Chapter 6 *PARKS ELEMENT*

A. INTRODUCTION

This chapter summarizes the essential elements of Toppenish Parks and Recreation Plan which was adopted by the Toppenish City Council in 2013. Chapters of the plan included in this summary include, INVENTORY, DEMAND AND NEED ANALYSIS, and GOALS AND OBJECTIVES. The CAPITAL FACILITIES ELEMENT and ACTION PLAN are incorporated into the capital facilities chapter of this plan.

B. INVENTORY

1. Summary of Existing Facilities and Programs

a. City of Toppenish

Figure A illustrates the existing City of Toppenish parks and recreation facilities. Table 1 inventories existing parks and recreation facilities in Toppenish.
Table 2 summarizes Toppenish beautification areas. Table 3 summarizes recreational facilities associated with schools that serve Toppenish.

The City of Toppenish Parks and Recreation Office is located at 20 Asotin Avenue, adjacent to the Toppenish Swimming Pool. Toppenish has eight parks totaling approximately 17 acres that are used for public recreation. In addition, the Parks and Recreation Department maintains seven beautification areas adjacent to public buildings and roadways for aesthetic purposes, which primarily contain benches and/or green space. The City designated these areas to improve aesthetics and provide resting areas for visitors to downtown Toppenish. The City's largest and most developed park, Pioneer Park (9.5 acres), contains a softball field and other game fields. There are also game fields at Kirkwood Elementary, Toppenish High School, and Toppenish Middle School. Pioneer Park also has two outdoor basketball courts, a skate park, a swing set and playground facilities, gazebo, picnic shelter, and picnic tables. In addition, Pioneer Park is home of the tallest flag pole in Washington State, at 162 feet with a flag that is 60' by 30' in dimension.

The 50-meter outdoor Toppenish Swimming Pool was opened in 1988 with a $1.2 million voter-approved bond issue. The facility is equipped with two one-meter diving boards and an electronic timing system with touch pads for competitive events. The City replaced the heating unit in 2008, and the chlorination system has been upgraded, which eliminated gas chlorine in favor of a pellet system that is safer and more economical. An ADA-compliant chair lift was added in 2012, and the City opened a concession stand at the pool in 2012. The pool building is aging and needs plumbing improvements and new flooring. The pool building lighting and mechanical room need to be brought up to current standards.

b. Other Facilities

Most athletic activities such as softball and baseball are conducted at facilities belonging to Toppenish School District #202. The School District has more than 50 acres of open space and

playfields for public use. However, much of this area is concentrated at Toppenish High School and Kirkwood Elementary School at the west side of the City, and therefore is not accessible for much of the City's residents. Usage for parks and recreation-sponsored activities is obtained through written permit authorized by Toppenish School District policy and has proven successful and accommodating for City-sponsored public recreation activities. Other groups may also request to use the facilities. The Yakama Tribal School is located just south of Kirkwood Elementary School. It contains a gym and baseball fields, but at this time those facilities are not available to the City or the public.

C. RECENT PARKS AND RECREATION DEVELOPMENTS

The City of Toppenish has been actively pursuing improvements to parks and facilities during the past several years. Recent improvements include:

- The Toppenish Visitor Center opened in 2008 and also houses the Toppenish Chamber of Commerce. The Washington State Department of Transportation funded construction.

- On the same day as the grand opening of the Visitor Center in 2008, the City dedicated the Seahawk Playground, the first NFL PLAY60 playground in Eastern Washington. The playground encourages children to play outside for a minimum of 60 minutes per day. Construction of this playground was facilitated by a Toppenish graduate who was a member of the Seattle Seahawks. The Seahawks split the cost of replacing the playground at Pioneer Park with the City. The playground was erected by 39 volunteers, mostly students.

- In 2010, the City added L Street Park at the main entrance to the City at L Street and Meyers Road. This park includes a picnic table and a tree that was planted by the Toppenish Garden Club on Arbor Day 2010. The park improves the aesthetics at the entrance to town and provides a rest area.

- Also, in 2010, a group of private citizens raised money for the equipment to construct a skate park for youth to have a dedicated place to ride skateboards and roller blades. The City allowed the group to construct the skate park on a former tennis court at Pioneer Park.

- Responding to community input regarding recreational facilities, Toppenish added a 10-foot-wide, paved, 3,400-foot-long walking path in Pioneer Park in 2012. A large part of the funding was provided by the Yakima Valley Farm Workers Clinic, which operates an office adjacent to Pioneer Park, as well as Washington Beef, Pacific Power, Toppenish Rotary, the City of Toppenish, and other donations. The walking path has seen a large amount of use and has improved recreational and physical fitness opportunities for Toppenish residents. Indirectly, Pioneer Path may also result in increased security in the park due to the presence of many more park users in the early morning and late evening hours.

- In 2013, new playground equipment was installed in Lane, Patterson and Olney Parks and has been very well used. In October 2013, a basketball court was added to Olney

Park.

D. CULTURAL FACILITIES AND ACTIVITIES

Cultural facilities are an important aspect of recreation for community residents. The City of Toppenish provides the building for the Mary L. Goodrich Public Library, which is part of the Yakima Valley Regional Library system. The City has two museums: the American Hop Museum at 22 South "B" Street and the Northern Pacific Railway Museum is located at 10 South Asotin Avenue. The Railway Museum gives tours to school groups in the spring and holds the annual Dinner Train to Nowhere in September. Other cultural facilities and organizations in the City include the Toppenish Mural Society, the American Legion Club – Post 50, the Older American Nutrition program, the Republic Women's Club, the Rotary Club, and the Toppenish Garden Club, in addition to numerous churches that meet varied interests and spiritual needs of City residents.

Numerous cultural activities and events occur each year in Toppenish, and most are based at the City's parks. They include:

Mural in a Day takes place at Pioneer Park each year on the first Saturday in June. In 1989, the Toppenish Mural Society began its mural program by painting an entire mural titled "Clearing the Land" in one day to commemorate the Washington Centennial celebration. Since then, the first Saturday each June is designated for a new mural-in-a-day. The murals have won several awards, including the Governor's Art Award and a national Prettiest Painted Places award. Most commonly, the murals are painted to depict Toppenish's history. There are now nearly 75 historic murals in the City.

The annual 4th of July breakfast is held at Post Office Park downtown, sponsored by the Toppenish Lions Club.

The Yakima Symphony presents two concerts in Toppenish each summer.

Toppenish Parks and Recreation hosts the Allied Arts Van one morning each week during the summer for six weeks. Children are encouraged to attend and participate in a different art project each week.

The Western Art Show is held at Railroad Park every August.

Lincoln Park hosts the annual St. Aloysius Catholic Church celebration during the first week of August, drawing between 2,500 and 3,500 people.

1. Private Recreational Facilities

a. Toppenish City Limits.

There are no private recreational facilities within the City of Toppenish.

b. Toppenish Vicinity

Indoor recreation programs require larger spaces and are generally served by requesting facilities

belonging to Toppenish School District, Wapato, and Zillah schools for after school and evening activities. During basketball season, November through March, there is considerably more demand for gymnasiums than there are facilities available.

There are several commercial recreation facilities located around Toppenish, including an 18-hole golf course at the Mt. Adams Country Club and the Toppenish Rodeo Grounds. The Yakama Nation Cultural Center offers a movie theater, gift shop, library and museum within a mile or two of most City residents.

The 23-acre Heritage University campus is approximately 2.5 miles west of Toppenish city limits and serves approximately 1,200 students. The University offers Associate's, Bachelor's, Master's, certificate and online programs. The University is multicultural, with 51% Hispanic, 27% Caucasian, 11% Native American, and 11% other students. The Heritage University Donald K. North Library offers free community memberships to Toppenish residents.

The Toppenish Wildlife Refuge, operated by the U.S. Fish and Wildlife Service, is located nine miles southeast of City limits. The 1,978-acre Refuge is open for public hunting and sightseeing on a regulated basis and is considered an important site for migratory birds. The Fraternal Order of Eagles owns a 40-acre private park along the Yakima River northeast of the city, outside Zillah. The park is available to members and for public rental.

Sunnyside Park is situated on a 30-acre site approximately 24-miles southeast of the City of Toppenish. The park was originally developed by the Yakima County Parks and Recreation Department. In 2008 the ownership of the park was transferred to the City of Sunnyside because of financial constraints in county government. Amenities include 4-baseball diamonds, 2 soccer fields restroom and picnic facilities.

The Yakama Nation allows individuals not enrolled in the Yakama Nation to hunt and fish on select acres of tribal land with a permit. The cost in 2013 for a three-day permit is $20, and $35 for a season permit. Hunters and fishers must be licensed by the State of Washington with all required supplemental tags and stamps.

Approximately two miles north of Toppenish, the Washington Department of Fish and Wildlife owns and maintains property up and down the Yakima River, including fishing ponds that are open to the public, for outdoor recreation and environmental experiences.

There are no County or State parks within the Toppenish vicinity. However, several are located within a modest drive, including Fort Simcoe State Park in White Swan, 27 miles west; Ahtanum Youth Activities Park in Union Gap, 18 miles northwest; Yakima Sportsman State Park in Yakima, 20 miles northwest; and Brooks Memorial State Park near Goldendale, 37 miles southwest.

Table 1: Existing Parks and Recreation Facilities

	Allen Park	L Street Park	Lane Park	Olney Park	Patterson Park	Pioneer Park	Post Office Park	Railroad Park	Swimming Pool Park
Total Site Acreage	2.16 acres	0.19 acres	0.66 acres	2.58 acres	0.83 acres	9.52 acres	0.51 acres	0.50 acres	---
Hard or Sport Court	1 basketball	No	1 basketball	No	No	2 basketball	No	No	No
Swimming Pool	No	No	No	No	No	No	No	No	Yes, 50 meter
Tennis Courts	No	No	No	No	No	No	No	No	No
Restrooms	No	No	No	No	No	Yes - 1	No	No	No
Playground Equipment	swing set, slide & teeter totter	No	swing set, slide & buck-about	swing set, slide & teeter totters	swing set, slide & teeter totters	swing set, playground apparatus that offers various activities	No	No	No
Picnic Tables/Benches	5 picnic tables	1 Table	3 Picnic tables	12 picnic tables	2 picnic tables	11 picnic tables	5 picnic tables, and 2 benches	5 picnic table	3 picnic table
Predominately Greenspace	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Other Facilities	Picnic Shelter	None	None	Picnic Shelter	None	1 softball field, 1 gazebo, 1 picnic shelter, skate park	1 Bandstand	Leased from Railroad	1 Bathhouse, 1 1,000-sq- ft. multi-purpose activity room

*During the summer months, portable toilets are placed in Allen, Lane, Patterson, and Olney Parks.
**Picnic tables can be moved from park to park to accommodate events that require additional tables.

Table 2: Toppenish Beautification Areas

	Bouchey Park	Old Timers Plaza	Penny Mall	Goldendale	Buena Way	RV Dump	South Toppenish Islands
Total Site Acreage	0.4 acres	0.5 acres	0.3 acres	0.7 acres	0.3 acres	0.3 acres	0.5 acres
Picnic Tables/Benches	12 benches	12 benches	2 benches	No	No	No	No
Predominately Greenspace	Yes	Yes	No	Yes	Yes	No grass-landscaped	Yes

Table 3: Toppenish School District No. 202: Parks and Recreation Facilities

	Garfield Elementary	Kirkwood Elementary	Lincoln Elementary	Toppenish Senior High School	Toppenish Middle School	Valley View Elementary
Total Site Acreage	4 acres	25 acres	2 acres	35 acres	20 acres	26 acres
Baseball/Softball Fields	No	varsity baseball field, and youth (j.v.) softball field	No	1 baseball and 1 softball field	No	Space available
Football/Soccer Fields	No	2 soccer practice fields	No	football and varsity soccer field	football stadium	
soccer fields	Space available					
Track	No	No	No	Yes	Yes	No
Hard or Sport Court	No	paved game court area (basketball)	No	No	paved game court area (basketball)	Paved game court area (basketball)
Swimming Pool	No	No	No	No	No	No
Tennis Courts	No	3 tennis courts	No	No	2 tennis courts	No
Playground Equipment	playground apparatus	playground apparatus	playground apparatus	No	No	Yes
Gymnasium	1 small gym	2 gymnasiums	No	1 gymnasium	A.J. Strom Gym and 1 smaller gym	Yes
Other Facilities	open free play area and multipurpose room	open free play area	open free play area and multipurpose room	weight room and athletic practice and physical education area. Brand new Football/Track stadium.	wrestling practice room	Open free play area

E. EXISTING RECREATION PROGRAMS

Currently, the Parks and Recreation Department offers a variety of recreational activities geared toward the City's large youth population, particularly children ages 3-12. Programs include soccer in the summer and fall, basketball in the winter, T-ball and coach pitch in the spring, and track and field clinics in the spring. Scheduled programming at the pool includes lap swims, water walking, Toppenish Tarpon Swim Team practice, swim lessons (four sessions), public swims, water exercise, and family hour. The pool opens on the last day of school and closes on the last Saturday before school begins.

F. PARKS CONDITION

1. Parks Assessment

A City-wide Parks Assessment Tool (CPAT) was completed in February 2013. The CPAT results provided valuable information regarding the quality of Toppenish parks and amenities. A total of 42 CPATs were completed and submitted for the following parks and/or beautification areas: Allen Park, Lane Park, Old Timers Plaza, Olney Park, Patterson Park, Pioneer Park, Post Office Park, and Railroad Park.

2. Overall Parks Condition

The majority of Toppenish Parks scored well for overall quality and condition. However, there are several identified areas for improvements. Playground equipment and picnic tables/benches received the most responses for "good condition. However, a portion of the responses for picnic tables/benches also included half negative and half positive responses. Basketball courts and restrooms received the most responses for "bad condition." The basketball courts appear to be in the poorest condition. Several written comments reported a lack of nets and good playing surfaces. Restrooms received equal numbers of good/bad condition responses at six each. The six good condition scores were for the permanent restrooms that serve both Old Timers Plaza and Railroad Park. Pioneer Park had four negative responses for restrooms, with the other two coming from Lane Park. Graffiti was the top concern related to condition of parks, with over half of the responders indicating this was a problem. Vandalism, poor maintenance, and litter also scored relatively high as concerns. When asked if there was evidence of threatening behavior or persons in parks, 37% indicated yes, 51% no, and 12% had no response. Most respondents indicating yes also chose graffiti and/or vandalism as a problem. Overall, Toppenish Parks appear to be in good condition, with room for improvement as noted above. The chief concerns noted in the CPAT include graffiti, vandalism and poor maintenance. According to the CPAT, basketball courts and restrooms are the amenities most in need of repair or replacement in Toppenish parks.

G. DEMAND AND NEED ANALYSIS

The City of Toppenish used community surveys, stakeholder meetings, and a City-wide parks assessment to determine the demand for parks and recreational opportunities and the types of parks and recreation facilities and programs that are needed to serve the community.

1. Survey Results

a. 2010 Survey – Major Toppenish Employers

In late 2010, Toppenish conducted a survey of employees at the City's two major employers – Washington Beef and the Toppenish branch of the Yakima Valley Farm Workers Clinic. Many respondents did not live within Toppenish city limits, but still used Toppenish parks and recreation facilities. Survey responses indicated strong interests in walking paths, particularly at Pioneer Park; indoor recreational facilities; improving existing parks, including improved playground equipment; and

increasing recreational programming.

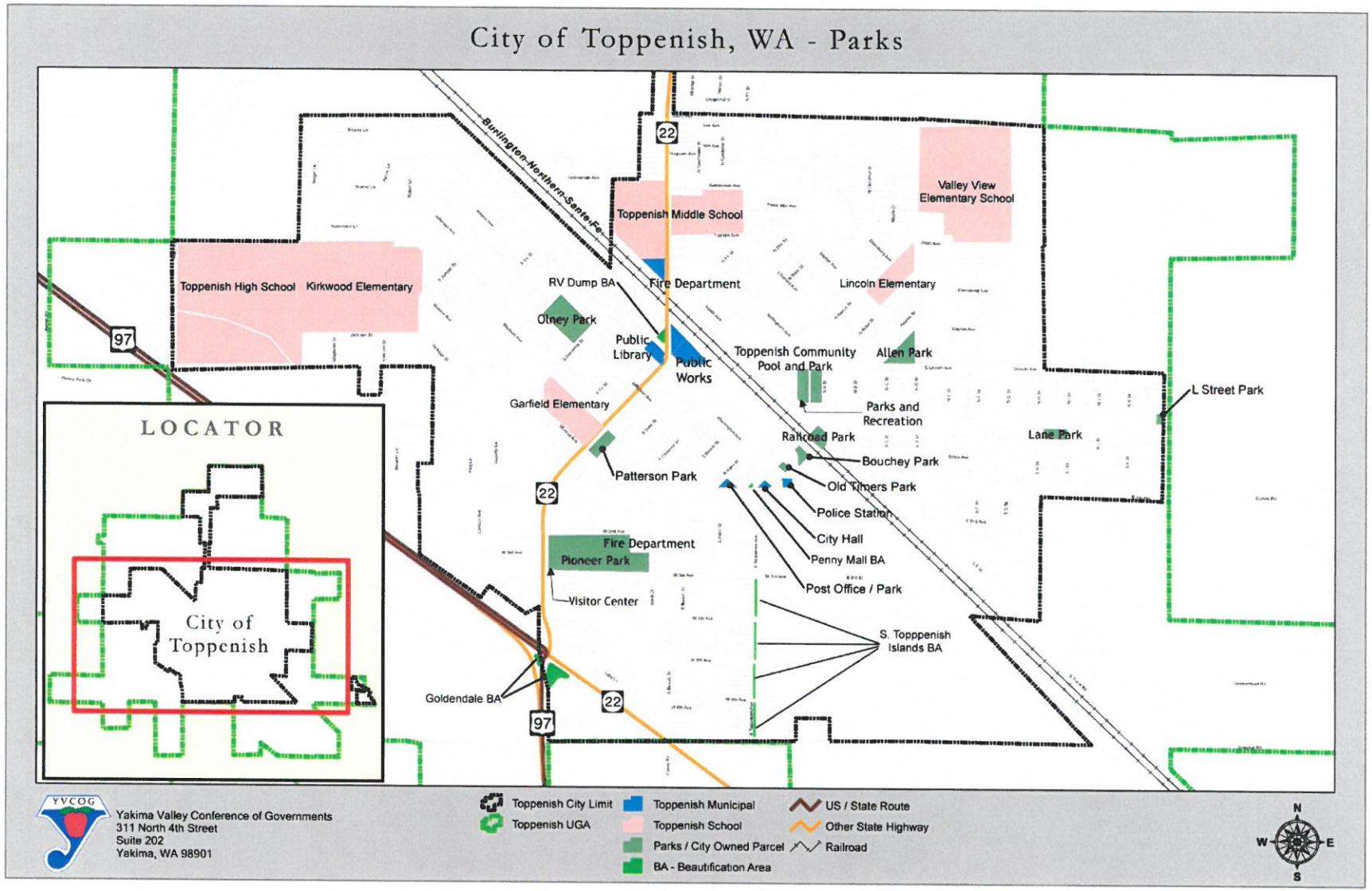
The Parks and Recreation Department has begun to respond to this input by installing a walking path at Pioneer Park and new playground equipment at Lane, Patterson and Olney Parks. The survey also indicated low usage of some of the City's parks, along with a general lack of awareness of some of the parks and what they offered. Some comments indicated that a map of the parks with the survey would have been useful to locate where the parks were. Lack of knowledge of the parks' locations may have affected the responses, but also suggest a more general lack of knowledge about the City's parks and what they have to offer. Observations and input made to City staff have suggested that usage at Pioneer Park has increased significantly since installation of the walking path, with more people in the park throughout the day, including the early morning and evening hours. The comments generated from the 2010 survey were used to create a second revised survey that built off of the first survey and was distributed directly to Toppenish residents.

b. Conclusions for Parks and Recreation Demand and Need

Some general conclusions can be drawn from the surveys, which have implications for parks and recreation goals and future investments:

- Security is a major concern for existing and potential park users.
- Maintenance, particularly of restrooms, is a major concern for existing and potential park users.
- There is a demand for exercise programs and facilities, including walking paths and indoor recreational facilities.
- There is little demand for new parks or ball fields.
- Support for smoke-free parks is strong.
- Further investigation into increasing public funding for parks and recreation is warranted.
- Recreational opportunities for adults and seniors could be improved.

Figure A City of Toppenish Parks, Beautification Areas and Recreation Facilities



H. GOALS and POLICIES

This section presents the Parks and Recreation goals and policies for the City of Toppenish. In addition, the Growth Management Act has designated cities, town and their associated urban growth areas as the primary areas for urban growth. To achieve inter-jurisdictional consistency countywide planning policies have been adopted by each jurisdiction in Yakima County. An analysis of County Planning Policies applicable to this element is presented in Appendix A.

Goal 1: To preserve and improve existing parks and recreational facilities to meet the recreational needs of Toppenish residents.

Policies

1.1 Upgrade existing parks where needed with restrooms, gazebos/shaded areas, barbecues, picnic tables, and playground equipment.

1.2 Continue to construct walking paths in existing parks, to provide opportunities for physical activity, and to increase the presence of users in the park.

1.3 Investigate the viability of a targeted maintenance and operations levy to improve overall maintenance of existing parks.

Goal 2: To improve and expand recreational facilities to meet the current and future needs of Toppenish residents.

Policies

2.1 Reconstruct and expand the pool building to include additional amenities such as a community room.

2.2 Investigate funding opportunities and feasibility for locating and constructing a community center that would provide indoor recreational and physical fitness opportunities for Toppenish residents of all ages.

2.3 Actively seek federal, state, and local funding sources for improving and expanding recreational facilities.

2.4 Work cooperatively with local agencies, organizations, and special interest groups to support and enhance City recreational facilities.

Goal 3: To continue to provide active recreation programs that meet the recreational interests and needs of Toppenish residents.

Policies

3.1 Maintain existing recreational programming.

3.2 Expand existing programming to include after-school recreation and fitness opportunities for middle- and high school-aged children and young adults.

3.3 Work cooperatively with local agencies, organizations, and special interest groups to support and enhance City recreational programs and services.

Chapter 7
Administration

2018
COMPREHENSIVE
PLAN
UPDATE

"Where the West Still Lives"

Chapter 7 *ADMINISTRATION*

A. INTRODUCTION

1. Purpose

This administration element has been developed in accordance with Sections 36.70A.106, 36.70A.120, 36.70A.130 and 36.70A.140 of the Growth Management Act (GMA) to address amendment of the comprehensive plan and the maintenance of consistency with development regulations.

The administration element specifically considers the process for amendment to the comprehensive plan including timing, procedures, public participation, consistency with other city fiscal and regulatory processes and state review of amendments.

2. Growth Management Act Requirements

1. An administration element is necessary in order to comply with GMA, and should consist of procedures for:
2. Evaluation of plans and development regulations;
3. Review of urban growth areas and planned densities at least every ten years;
4. Maintaining conformity with GMA requirements;
5. Maintaining consistency within the comprehensive plan and with implementing regulations;
6. Making amendments to the plan no more than once a year, and/or due to an emergency;
7. Considering all amendments proposed to the comprehensive plan concurrently, so that the cumulative effects of the various proposals may be ascertained;
8. Ensuring that the plan reflects accommodation of the urban growth projected to occur for the succeeding twenty-year period;
9. Ensuring early and continuous public participation in the amendment of comprehensive plans; and
10. Allowing state review and comment on proposed amendments as required under GMA.

B. AMENDMENTS

Following adoption of the revised comprehensive plan, the city shall monitor changes and needs within the community and document needed amendments to the comprehensive plan.

1. Timing

All proposals to amend the comprehensive plan shall be considered by the planning commission and city council, so the cumulative effect of the various proposals can be ascertained. The City of Toppenish sets the month of July to begin advertising for requests to amend the comprehensive plan and September as the month for consideration of amendment proposals by the planning

commission. City Council will issue final decisions on comprehensive plan amendment proposals before the end of the calendar year, anticipated in the month of December. Proposals for amendment to the comprehensive plan will be accepted at any time during the year and will be scheduled along with all other proposals received for consideration as part of the comprehensive plan review and amendment process.

2. Emergency Amendments

The comprehensive plan may be revised or amended outside of this normal schedule, only if findings are adopted to show that the amendment was necessary, due to an emergency situation of a neighborhood-wide or community-wide significance. Examples of emergency situations include those which would present an imminent threat to public health and safety, an imminent danger to public or private property, or present an imminent threat of serious environmental degradation. A personal emergency on the part of a particular applicant or property owner is not considered to be an emergency situation. The nature of the emergency must be documented as part of written findings and approved by the city council prior to consideration of an emergency amendment. The city council shall decide whether to allow the proposal to proceed ahead of the normal amendment schedule using the following criteria:

- The initial adoption of a sub area plan that does not modify the comprehensive plan policies and designations applicable to the sub area;
- The adoption or amendment of a shoreline master program under the procedures set forth in chapter 90.58 RCW;
- 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;
- 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.

3. Public Participation Process

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.

4. Eight-Year Update

In compliance to RCW 36.70A.130 the City of Toppenish will establish a schedule every <u>eight</u> 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. Any annual amendments cannot occur separately in the year designated for the eight-year update. All annual updates coinciding with the eight-year update cycle must be submitted concurrently within that year. However, any amendment to the zoning and other development regulations can be made anytime during a year. The next update must be completed by no later than June 30, 2025.

a. Initiation

The city council may, after due notice and public hearing, amend, supplement or modify the text and maps of this comprehensive plan. An amendment may be adopted, amended, or supplemented by the city council following a public hearing or hearings on the proposed amendment(s). Amendments may be initiated in the following manner:

1 By motion by the city council or the planning commission;

2 By filing with the planning commission, a petition by the owner of the property within the city which petition shall be on a standard form prescribed by the planning commission, and available from the city manager's office;

3 A fee, as required by Section 17.24.020, payable to the city at the time of filing of a petition shall be charged for advertising, mailing, and administrative expenses. No part of the fee shall be refundable. However, when a map amendment of the comprehensive plan is in conjunction with a rezone request for the same property, only a single fee need be paid for the rezone/comprehensive plan map amendment. The higher fee shall prevail; and,

4 Motions and/or petitions for amending, supplementing or modifying the text and maps of this comprehensive plan will be received by the planning commission up until twenty-one (21) days prior to the planning commission's public hearing on such proposed amendments to the plan. This will allow adequate time for processing of the motion or petition and will allow for proper public notification of the proposals. Motions and/or petitions received after this date will be processed in the following year's cycle.

b. Public Hearing

The planning commission shall hold a public hearing on any such amendments, supplements, or modification of this comprehensive plan, whether initiated by petition or motion in accordance with the provisions of this section. This public hearing shall be conducted, and a recommendation made by the planning commission prior to the initial sixty (60) day state comment period on the proposed amendments.

Notice of the hearing and the nature of the proposed change shall be given by publication in the official newspaper of the city, at least ten days prior to the date of the hearing. In addition, in cases of change of boundaries or of future land use designations, all owners of property, any part of which is within three hundred (300) feet of the boundary lines of the property to be changed, shall be notified of the proposed change and date of the hearing by United States mail. Notice mailed to the last known address of the person making the last tax payment shall be deemed

proper notice; provided, however, that in the case of a future land use designation change affecting three or more parcels, that notice be given by publication in the official newspaper of the city, once a week for two (2) consecutive weeks prior to the hearing, with the last publication at least ten (10) days prior to the hearing on the proposed change. All notices shall contain the date, time and place of the hearing, and a map which indicates the area of the proposed change and the effects of that change.

No decisions shall be made by the city council on the recommendations for amendment until after the initial sixty (60) day state comment and review period has expired.

c. Planning Commission Recommendation

In recommending the adoption of any proposed amendment(s), or in concurring with the city council on any proposed amendment(s), the planning commission shall set forth in writing its reasons for its recommendations, which document shall be forwarded to the city council along with its recommendation. In changing the future land use designation of any area, the zoning shall also be changed to maintain consistency between the comprehensive plan and the zoning ordinance.

d. State Review of Amendments, Supplements, and Modifications

i. Initial Review of Proposed Amendments

At least sixty (60) days prior to the adoption of an amendment to the comprehensive plan, an electronic copy of the proposed change/draft version shall be submitted to the Washington State Department of Community, Trade and Economic Development, Growth Management Division, for review and comment. One plan review checklist and any other supplementary documentation (relevant State Environmental Policy Act [SEPA] information, outline of public participation process, etc...) shall accompany the proposed amendment. Should the city of Toppenish not receive comments from any of the state agencies on the proposed amendment within sixty (60) days after receipt of the proposed amendment(s) by the state, the city shall be free to adopt the amendment(s) without further delay.

ii. Final Review of Adopted Amendment

Within ten (10) days from the adoption of the amendment, two copies of the adopted amendment shall be submitted to the Washington State Department of Community, Trade and Economic Development, Growth Management Services Division for filing. An "Adopted Comprehensive Plan Submittal" form and any new or additional information shall accompany the adopted amendment. Any agency or jurisdiction which commented on the draft of the amendment shall also receive a copy of the adopted amendment.

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

C. APPEALS

1. Initiation

The action of the city council shall be final unless appealed to the courts. For information on appealing a city council decision, see the Appeals to Others section below.

2. Appeals to Others

a. Eastern Washington Growth Management Hearings Board

After exhausting any local appeals process, parties still aggrieved by the decision may appeal to the Eastern Washington Growth Management Hearings Board, if such decision is subject to review by the Hearings Board, and if the party has standing. Appeals to the Growth Management Hearings Board must be filed within sixty (60) days of the publication of the action by the city council and must be filed in the office of the appropriate board. In general, the Growth Management Hearings Board shall hear only those petitions alleging either: a) that a state agency, county, or city is not in compliance with the requirements of the Growth Management Act, as amended or with environmental review as it relates to plans and regulations; or b) that the twenty-year growth management planning projections adopted by the Office of Financial Management (OFM) should be adjusted.
For a person to have standing, they must have appeared before the county or city regarding the matter on which a review is being requested or be certified by the Governor within sixty (60) days of filing the request with the Board, or be a person qualified pursuant to RCW 34.05.530. Appeals of Growth Management Hearings Board decisions may be filed in Superior Court as provided in RCW 34.05.514 or 36.01.050 within thirty (30) days of the final order of the Board.

b. Superior Court

Appeals outside of the scope of the Growth Management Hearings Board may be appealed pursuant to RCW 34.05, the Administrative Procedures Act.

D. CRITERIA APPROVING A CHANGE IN THE FUTURE LAND USE MAP

Standards Changes in the future land use map shall only be granted after the planning commission and city council have reviewed the proposed change to determine if it complies with the standards and criteria listed below. A change in the future land use map shall only be granted if such written findings are made:

1. The proposal is consistent with the provisions of the Growth Management Act (GMA) and other applicable state planning requirements;

2. The proposal is consistent with, and will help implement the goals, policies and objectives of this comprehensive plan;

3. Required changes to implementing regulations are identified prior to adoption of the proposed change, and are scheduled for revision, so that these implementing regulations remain consistent with the comprehensive plan;

4. The proposal will increase the development or use potential of a site or area without creating significant adverse impacts on existing sensitive land uses, or on other uses legally existing or permitted in the area;

5. The proposal is an extension of similar adjacent use or is of sufficient size to make the proposal logical; A "person" as defined in RCW 36.70A.280 - 3, means any individual,

partnership, corporation, association, governmental subdivision or unit thereof, or public or private organization or entity of any character.

6. The traffic generated by the proposal will not unduly burden the traffic circulation systems in the vicinity. The collector and arterial system currently serve or can concurrently be extended to serve the proposal, as needed;
7. Adequate public facilities and services exist or can concurrently be developed to serve the proposal;
8. The other characteristics of the proposal are compatible with those of other uses in the vicinity;
9. The other uses near the proposal are such as to permit the proposal to function properly;
10. If the proposal has impacts beyond the city limits, the proposal has been jointly reviewed by Yakima County; and
11. Any other similar considerations that may be appropriate to the case.