Chapter 4 Capital Facilities Element

CHAPTER 4 CAPITAL FACILITIES ELEMENT	4-1
I. INTRODUCTION	4-4
Purpose	
Growth Management Act Requirements	
Applicable Countywide Planning Policies	
Relationship to Other Elements or Land Use Development	4-7
II. MAJOR CAPITAL FACILITIES CONSIDERATIONS	4-7
III. CAPITAL FACILITIES CHARACTERISTICS	
Types & Providers of Capital Facilities	
IV. TRANSPORTATION FACILITIES	
Roadway Funding	
V. WATER SYSTEM	
Water Supply	
Current Water Demand	
Projected Water Demand	
Water System Needs	
VI. STORMWATER SYSTEM	
Stormwater System Needs.	
VII. WASTEWÄTER SYSTEM	
Collection and Conveyance	
Future Wastewater Demand	
Wastewater System Needs	
VIII. SOLID WASTE COLLECTION & DISPOSAL	
Recycling	4-24
IX. PUBLIC EDUCATION FACILITIES	
Public Education Facilities Needs	
X. PARKS AND OPEN SPACE	4-26
Open Space	
Parks and Recreation Facilities	
Parks and Recreational Facilities Needs	
XI. PROTECTIVE SERVICES	4-29
Corrections	4-29
Fire Protection	4-30
Police Protection	
XII. GOVERNMENT & COMMUNITY FACILITIES	4-31
Government Facilities	4-31
Community Facilities and Services	4-32
XIII. LEVEL OF SERVICE	
XIV. CAPITAL FACILITIES FINANCING	4-33
Local Funding Sources	4-33
State and Federal Grant and Loan Funding Sources	
Long-Term Bonded Debt	
Six-Year Capital Facilities Finance Plan	
XV. GOALS AND POLICIES	4-38

Table of Tables

TABLE 4-1. CAPITAL FACILITIES PROVIDERS IN THE ZILLAH UGA	
TABLE 4-2. MAJOR HISTORICAL WATER SYSTEM IMPROVEMENTS, CITY OF ZILLAH	4-11
TABLE 4-3. CITY OF ZILLAH WELLS	
TABLE 4-4. EXISTING STORAGE REQUIREMENTS AND CAPACITY, CITY OF ZILLAH	4-14
TABLE 4-5. CITY OF ZILLAH IRRIGATION DISTRICTS	4-15
TABLE 4-6. SUMMARY OF WATER USE PER SERVICE, CITY OF ZILLAH, 2007-2013	4-16
TABLE 4-7. CITY OF ZILLAH PROJECTED WATER SYSTEM DEMAND, 2033	4-17
TABLE 4-8. CITY OF ZILLAH PROJECTED WATER SYSTEM CAPACITY, 2033	4-17
TABLE 4-9. WATER SYSTEM PROJECTS PRIORITY RANKINGS	4-18
TABLE 4-10. MAJOR HISTORICAL WASTEWATER SYSTEM IMPROVEMENTS, CITY OF ZILLAH	4-20
TABLE 4-11. PROJECTED CITY OF ZILLAH WASTEWATER FLOW	4-23
TABLE 4-12. ZILLAH AREA SCHOOL FACILITIES (2014)	4-24
TABLE 4-13. CITY OF ZILLAH AND VICINITY: PARKS AND RECREATIONAL FACILITIES	4-27
TABLE 4-14. PARKS AND RECREATION FACILITIES PRIORITY RANKINGS	4-29
TABLE 4-15. GOVERNMENT FACILITIES IN THE CITY OF ZILLAH	4-31
TABLE 4-16. CAPITAL FACILITIES NEEDS AND RECOMMENDED PROJECTS	4-34
Table of Figures	
FIGURE 4-1. CITY OF ZILLAH WATER SYSTEM EXISTING AND FUTURE RETAIL SERVICE AREAS	
FIGURE 4-2. CITY OF ZILLAH GENERAL SEWER PLAN EXISTING COLLECTION SYSTEM AND BASIN BOUN	DARIES 4-22

I. INTRODUCTION

Purpose

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

Growth Management Act Requirements

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

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

Applicable Countywide Planning Policies

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

- 1) Areas designated for urban growth should be determined by preferred development patterns, residential densities, and the capacity and willingness of the community to provide urban governmental services. (A.3.1.)
- 2) Prior to amending an UGA the County and the respective City will determine the capital improvement requirements of the amendment to ascertain that urban governmental services will be present within the forecast period. (A.3.11.)
- 3) Urban growth should be located first in areas already characterized by urban growth that have existing public facilities and service capabilities to serve such development, and second in areas already characterized by urban growth that will be served by a combination of both existing public facilities and services and any additional needed public facilities and services that are provided by either public or private sources. Further, it is appropriate that urban government services be provided by cities, and urban government services should not be provided in rural areas. (B.3.1., also RCW 36.70A.110(3))
- 4) Urban growth management interlocal agreements will identify services to be provided in an UGA, the responsible service purveyors and the terms under which the services are to be provided. (B.3.2.)
- 5) Infill development, higher density zoning and small lot sizes should be encouraged where services

- have already been provided and sufficient capacity exists and in areas planned for urban services within the next 20 years. (B.3.3.)
- 6) The capital facilities, utilities and transportation elements of each local government's comprehensive plan will specify the general location and phasing of major infrastructure improvements and anticipated revenue sources (RCW 36.70A.070(3)(c)(d)). These plan elements will be developed in consultation with special purpose districts and other utility providers. (B.3.4.)
- 7) New urban development should utilize available/planned urban services. (B.3.5., Also RCW 36.70A.110(3))
- 8) Formation of new special purpose districts should be discouraged within designated UGAs. (B.3.6.)
- 9) The County and the cities will inventory existing capital facilities and identify needed facility expansion and construction. (C.3.1., also RCW 36.70A.070(3)(a)(b))
- 10) From local inventory, analysis and collaboration with state agencies and utility providers, a list of Countywide and statewide public capital facilities needed to serve the Yakima County region will be developed. These include, but are not limited to, solid and hazardous waste handling facilities and disposal sites, major utility generation and transmission facilities, regional education institutions, airports, correctional facilities, in-patient facilities including hospitals and those for substance abuse and mental health, group homes and Regional Park and recreation facilities. (C.3.2.)
- 11) When a public facility of a countywide or statewide nature is proposed in the Yakima County region a Facility Analysis and Site Evaluation Advisory Committee including citizen members will be formed to evaluate the proposed public facility siting. At a minimum this evaluation shall consider:
 - a) The potential impacts (positive or negative) of the proposed project on the economy, the environment and community character;
 - b) The development of specific siting criteria for the proposed project;
 - c) The identification, analysis and ranking of potential project sites;
 - d) Measures to first minimize and second mitigate potential physical impacts including, but not limited to, those relating to land use, transportation, utilities, noise, odor and public safety; and
 - e) Measures to first minimize and second mitigate potential fiscal impacts. (C.3.3.)
- 12) Major public capital facilities that generate substantial travel demand should be located along or near major transportation corridors and public transportation routes. (C.3.4.)
- 13) Some public facilities may be more appropriately located outside of UGAs due to exceptional bulk or potentially dangerous or objectionable characteristics. Public facilities located beyond UGAs should be self-contained or be served by urban governmental services in a manner that will not promote sprawl. Utility and service considerations must be incorporated into site planning and development. (C.3.5.)
- 14) The multiple use of corridors for major utilities, trails and transportation right-of-way is encouraged. (C.3.6.)
- 15) The County and cities will work with special purpose districts and other agencies to establish a process for mutual consultation on proposed comprehensive land use plan policies for lands within UGAs. Actions of special purpose districts and other public service providers shall be consistent with comprehensive plans of the County and the cities. (F.3.1., also RCW 56.08.020, RCW 57.16.010)
- 16) The use of interlocal agreements is encouraged as a means to formalize cooperative efforts to plan for

- and provide urban governmental services. (F.3.2.)
- 17) Joint financing ventures should be identified to provide services and facilities that will serve the population within the UGAs. (F.3.3.)
- 18) Each interlocal agreement will require that common and consistent development and construction standards be applied throughout that UGA. These may include, but are not limited to standards for streets and roads, utilities and other infrastructure components. (F.3.5.)
- 19) Encourage economic growth within the capabilities of the region's natural resources, public services and public facilities.
 - a) Identify current and potential physical and fiscal capacities for municipal and private water systems, wastewater treatment plants, roadways and other infrastructure systems.
 - b) Identify economic opportunities that strengthen and diversify the county's economy while maintaining the integrity of our natural environment. (G.3.1.)
- 20) Local economic development plans should be consistent with the comprehensive land use and capital facilities plans and should:
 - a) Evaluate existing and potential industrial and commercial land sites to determine short and long term potential for accommodating new and existing businesses;
 - b) Identify and target prime sites, determine costs and benefits of specific land development options and develop specific capital improvement strategies for the desired option;
 - c) Implement zoning and land use policies based upon infrastructure and financial capacities of each jurisdiction;
 - d) Identify changes in UGAs as necessary to accommodate the infrastructure needs of business and industry;
 - e) Support housing strategies and choices required for economic development. (G.3.2.)
- 21) Each local government will prepare a capital facilities plan consisting of:
 - a) An inventory of existing capital facilities owned by public entities, showing the locations and capacities of the capital facilities;
 - b) A forecast of the future needs for such capital facilities;
 - c) The proposed locations, capacities and costs of expanded or new capital facilities;
 - d) At least a six-year plan that will finance such capital facilities within projected funding capacities and clearly identifies sources of public money for such purposes; and
 - e) A requirement to reassess the land use element if probable funding falls short of meeting existing needs and to ensure that the land use element, the capital facilities plan element and financing plan within the capital facilities plan element are coordinated and consistent. (H.3.1.)
- 22) As part of the planning process, the County and the cities should coordinate with capital facilities providers and other interested parties to ensure that consideration is given to all capital service requirements and the means of financing capital improvements. (H.3.2.)
- 23) The County and the cities should consider an impact fee process, as provided for in RCW 82.02.050-090, to insure that new development pays its fair share of the cost of improvements necessitated by growth and contributes to the overall financing of capital improvements. (H.3.3.)
- 24) To minimize the potential economic impacts of annexation activities on the County and cities, consideration will be given to negotiating agreements for appropriate allocation of financial burdens

resulting from the transition of land from county to city jurisdiction. (H.3.4.)

Relationship to Other Elements or Land Use Development

Urban Growth Areas

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

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

Compatible Land Uses

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

Consistency with Land Use Element

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

II. MAJOR CAPITAL FACILITIES CONSIDERATIONS

- What criteria should the city use in establishing priorities among competing capital facilities needs?
- The city requires payment of impact fees to support parks, the wastewater system, and the water system. Do these fees in fact increase sprawl by forcing development into areas outside the city limits, on large parcels that can be served with on-site systems?
- If the city desires to support existing and future industries, what should it provide and what should it require of those industries in terms of wastewater treatment?
- To what extent does the city's water supply (rights, permits, wells) limit growth potential?
- How will population growth affect the demand for each type of public service and the facilities required to meet that demand?
- Where should new facilities be located?
- Does the city wish to protect its public open space from the encroachment of other public uses (e.g., fire station, police station, government offices, library, etc.)?
- Does the city wish to establish a level of service standard for any of its capital facilities?

• What will it cost the city to construct and maintain the additional infrastructure required to serve developing areas? To what extent is cost a function of population dispersion?

III. CAPITAL FACILITIES CHARACTERISTICS

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 following section lists a variety of public services, most of which have associated capital facilities within the Zillah area.

Much of the information in this document has been drawn from the 2012 City of Zillah Capital Facilities Plan, developed by Huibregtse, Louman Associates, Inc., consulting engineers. This document, as amended, is hereby incorporated by reference.

Types & Providers of Capital Facilities

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

Table 4-1. Capital Facilities Providers in the Zillah UGA

Type of Service	City of Zillah	Unincorporated UGA			
Recreation					
Community Facilities	City of Zillah	None			
Libraries	City of Zillah/Yakima Valley Regional Library	City of Zillah/Yakima Valley Regional Library			
Parks	City of Zillah	Yakima County (None)			
Recreational Facilities	City of Zillah; Zillah School District #205	No facilities; residents use City of Zillah & Zillah School District #205			
Solid Waste					
Residential and Commercial Solid Waste Collection	Yakima Waste Systems (franchise holder)	Yakima Waste Systems (franchise holder)			
Solid Waste Disposal	Yakima County	Yakima County			
Streets and Roadways					
Local Streets	City of Zillah	Yakima County			
Arterial Streets and Roads	City of Zillah	Yakima County			
Interstate Highways	Washington DOT	Washington DOT			
Sidewalks	City of Zillah	Yakima County (none)			
Street Lighting	City of Zillah	Yakima County (none)			
Traffic Signals	City of Zillah	Yakima County (none)			
Stormwater					

Type of Service	City of Zillah	Unincorporated UGA			
Stormwater Control	City of Zillah	Yakima County; Sunnyside Valley Irrigation District			
Water					
Potable Water	City of Zillah	City of Zillah or individual wells			
Irrigation Water	Zillah Irrigation, Buena Irrigation, Sunnyside Valley Irrigation District; City of Zillah	Sunnyside Valley Irrigation District			
Wastewater					
Sewage Collection	City of Zillah	On-site disposal			
Sewage Treatment and Wastewater Disposal	City of Zillah	On-site disposal			
Septage Disposal	City of Zillah STP (RV park septage only)	Private hauling to Yakima WWTP or Cheyne Landfill			
Sludge Disposal	City of Zillah	Private hauling to Yakima WWTP or Cheyne Landfill			
General Government					
General Purpose Government	City of Zillah	Yakima County			
Cemetery	City of Zillah	None			
Municipal Court	City of Zillah	None			
Education					
Schools	Zillah School District (No. 205) & Toppenish School District	Zillah School District (No. 205) & Toppenish School District			
Protective Services					
Ambulance	Advanced Life Systems	Advanced Life Systems			
Correction Facilities	City of Toppenish, City of Wapato, Yakima County	Yakima County			
Fire Protection	City of Zillah	Fire District #5			
First Aid/Rescue	City of Zillah	Fire District #5			
Law Enforcement	City of Zillah; Yakima Co. Sheriff; Washington State Patrol	Yakima County Sheriff; Washington State Patrol			
Police Firing Range	City of Zillah	None			
Public Health					
Public Health	Yakima Health District	Yakima Health District			
Public Transportation					
Taxi	None except MedStar Cabulance (for disabled)	None except MedStar Cabulance (for disabled)			
Transit	People-for-People: Community Connector, Dial-A-Ride	People-for-People: Community Connector, Dial-A-Ride			

IV. TRANSPORTATION FACILITIES

Detailed discussions of the characteristics of the street system, other transportation facilities and services, and system needs are included in the Transportation Element.

The Zillah area is served by a network of roadways and streets, which are categorized under the Federal Urban Arterial Classification System. In surrounding unincorporated Yakima County, roadways and streets are categorized under the Federal Rural Arterial Classification System.

Primary access to Zillah is via I-82 which connects Zillah with the cities of Yakima and Union Gap to the north, and the Lower Valley to the south. The Yakima Valley Highway forms a beltway around the City to the north and east. Other county roadways serve large areas of agricultural land surrounding the City.

Almost all of the City's streets are paved. Associated facilities include sidewalks, street lighting, and curb and gutter. Most of the City's sidewalks are in good condition. All of the City's major streets have street lighting. Existing curbs and gutters are in good condition. Zillah has one traffic light which was installed in 2009 at First Avenue and Vintage Valley Parkway.

Developed areas outside of the City are paved, but typically lack sidewalks, street lighting, and curb and gutter. Undeveloped areas are typically served by gravel roadways.

Paratransit services are supplied by People for People, a private nonprofit regional paratransit operator that provides transportation for Medicaid clients. People for People also operates Community Connector, a regional fixed-route bus service that connects Yakima to Prosser, with stops along the I-82 corridor. The Community Connector stops in Zillah at Shell Sun Mart, 900 Vintage Valley Parkway. Regional bus service is also provided to Zillah by Greyhound bus lines.

Roadway Funding

A Six Year Transportation Improvement Program (TIP) is reviewed and adopted by the City on an annual basis. The current program was adopted June 20, 2016 for the years 2017-2022, and is adopted by reference in the Transportation Element. In the past, Zillah has relied on personal property taxes, real estate taxes, and motor vehicle fuel taxes to finance minor street maintenance and improvement projects. Larger projects have received funding assistance from the Washington State Transportation Improvement Board (TIB) and other State or federal grant funding sources.

Proposed funding of the recommended roadway projects includes the continued use of a combination of tax monies (local funds), the State TIB programs, the Public Works Trust Fund (PWTF), Federal MAP-21 funds, and other sources. Over the past several years, the TIB has been an attractive source of funds, but this attractiveness has increased competition for funding. The Federal Surface Transportation Program (STP) Regional funds and Congestion, Mitigation and Air Quality Improvement Program (CMAQ) funds are required to be distributed through the Yakima Valley Regional Transportation Planning Organization (RTPO) on a prioritized competitive basis. The street budget should be reviewed annually and adjustments made to optimize the use of available funds and ensure competitiveness when competing for funds.

V. WATER SYSTEM

Much of the information for this section has been drawn from the 2014 City of Zillah Water System Plan, developed by Huibregtse, Louman Associates, Inc., consulting engineers. This document, as amended, is hereby incorporated by reference.

Table 4-2 summarizes the major historical developments of Zillah's water system.

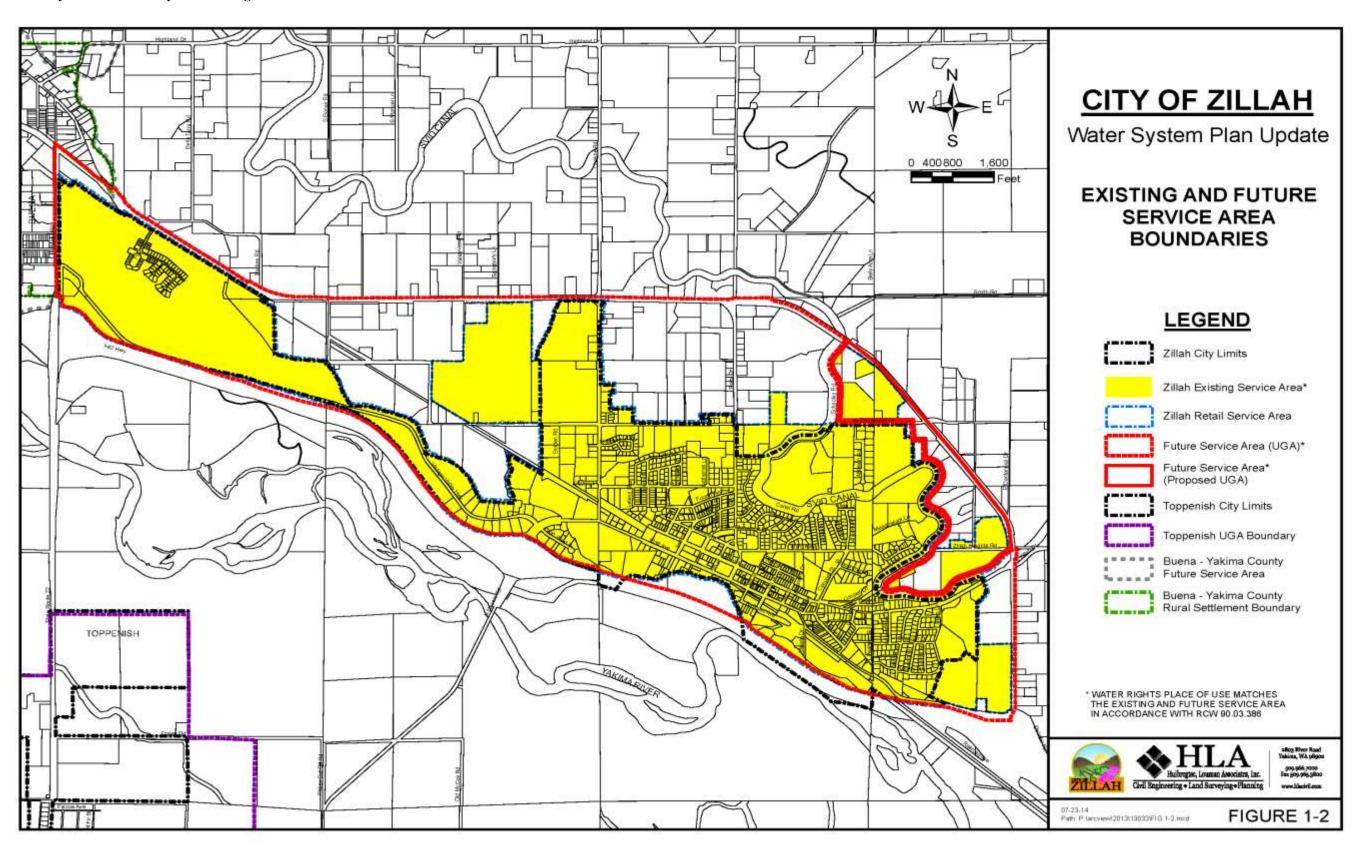
Table 4-2. Major Historical Water System Improvements, City of Zillah

Year	Improvement Description
1908	Zillah water system constructed
1928	75,000 gallon elevated reservoir constructed
1958	3 rd Avenue Well re-drilled
1958	Rainier Well constructed
1962	75,000 gallon elevated reservoir repaired and repainted
1965	783,000 gallon standpipe reservoir constructed
1986	3 rd Avenue Well repaired
1987	WIPPCO Well acquired
1991	75,000 gallon elevated reservoir repainted
1998	783,000 gallon standpipe reservoir repainted
2000	Comprehensive Water Plan completed
2002	12-Inch water main to High School completed
2009	Cutler Way 613,000 gallon reservoir constructed
2010	Cutler Way and Zone 2 booster pump stations constructed

Source: Huibregtse, Louman Associates, Inc., City of Zillah Water System Plan, 2014.

The City of Zillah's existing and future retail service area boundaries are illustrated in Figure 4-1. The existing retail service area is where the City currently provides water service, or where service connections are currently available. The future retail service area coincides with the UGA, and represents the area within which the City may be able to provide and maintain services through the year 2035. RCW 43.20.260 states that cities must serve new water conditions within their retail service area if the following conditions are met: 1) the water system has sufficient capacity to serve the connections in a safe and reliable manner, 2) the service request is consistent with adopted local plans and development regulations, 3) the water system has sufficient water rights to provide the service, and 4) the water system can provide service in a timely and reasonable manner.

Figure 4-1. City of Zillah Water System Existing and Future Retail Service Areas



Source: Huibregtse, Louman Associates, Inc., City of Zillah Water System Plan, 2014.

Water Supply

The existing City of Zillah domestic water system consists of two distribution pressure zones between elevations of 760 feet to 920 feet, served by an elevated steel storage tank, a steel standpipe, a ground level standpipe, and the Zone 2 constant pressure booster station. The combined nominal capacity of the three reservoirs is 1,471,000 gallons.

The City is supplied water from three City-owned source wells. The maximum pumping capacity of the three wells is 1,600 gallons per minute (GPM), or 2.30 million gallons per day (MGD). The City's current telemetry system controls the activity of the wells based on the water level in the steel standpipe. The existing transmission and distribution system is looped where possible and consists of mainly six-inch and eight-inch PVC, asbestos-cement, or galvanized iron pipes. Currently, Zillah has no interties with neighboring water purveyors.

Table 4-3. City of Zillah Wells

Characteristic	Rainier Well	3 rd Avenue Well	WIPPCO Well	
Date Drilled	1958	1940	1942	
Well Depth	280 feet	950 feet	260 feet	
Casing Size / Depth	12"/242 ft.	12"/500+ ft.	12"/123 ft.	
Initial Flow	250 GPM	650 GPM	1,385 GPM	
Initial Static Level	109 ft. below ground	116 ft. below ground	Unknown	
Current Static Level	Unknown	53 ft. below ground	140 ft. below ground	
Current Capacity	550 GPM	400 GPM	650 GPM	

Source: Huibregtse, Louman Associates, Inc., City of Zillah Water System Plan, 2014.

Water Rights

The City of Zillah currently maintains certificated and permitted water rights from the State of Washington for the appropriation of ground water at each of its wells.

Rainier Well

Zillah's Certificate of Ground Water Right for the Rainier Well is for a maximum annual volume of 296 acre feet. In 1988, Zillah submitted a groundwater application to withdraw 1,600 gallons per minute (GPM) from the Rainier Well for continuous municipal and industrial use, and for irrigating 150 acres. The application has not been acted upon by the Washington State Department of Ecology.

3rd Avenue Well

Zillah's Certificate of Ground Water Right for the 3rd Avenue Well is for a maximum annual volume of 150 acre feet. In addition, Zillah's Groundwater Permit authorizes 1,458 acre feet per year from the 3rd Avenue Well and from the WIPPCO Well. A portion of this right (600 acre feet per year) is primarily for irrigating 150 acres. The remainder of the right is supplemental, allowing the City to withdraw water from either the WIPPCO Well or from the 3rd Avenue Well.

WIPPCO Well

Zillah's Groundwater Permit authorizes 1,458 acre feet per year from the 3rd Avenue Well and from the WIPPCO Well. A portion of this right (600 acre feet per year) is primarily for irrigating 150 acres. The remainder of the right is supplemental, allowing the City to withdraw water from either the WIPPCO Well or from the 3rd Avenue Well. Zillah's Water Rights Claim for the WIPPCO Well is for a maximum annual volume of 858 acre feet.

As Zillah continues to grow and areas are annexed into the City, Zillah will pursue the acquisition of the water rights associated with each newly annexed property. In some cases, the City may need to apply for a change in type of use, or change in point of use of the particular water right.

Two parcels within Zillah's UGA are also identified in Buena's Water Service Area. Currently the parcel at the southeast corner of Yakima Valley Highway and Buena Road is served by the Buena System. The City of Zillah water system does not extend to these two parcels. Due to the proximity of the Buena and Zillah water systems to one another, the 2011 Buena Water System Plan noted the possibility of constructing an emergency intertie between the systems including a pressure reducing and metering station. As the Zillah Lakes development expands towards Buena, the cost of completing this improvement would be reduced. An intertie would provide emergency service for the Buena system, but due to the difference in overflow elevations between the systems, the intertie provides limited benefit to the City. Therefore this intertie is not a planned or future improvement in the Zillah Water System Plan. However, it is recommended that the City work with the County should the emergency intertie become a need for the Buena Water System.

According to the 2014 Zillah Water System Plan, Zillah's existing water rights appear to satisfy the projected demand through the 20-year planning period. However, Zillah will pursue water conservation measures, continue its annual review of water production and consumption data, and evaluate the possibility of alternative and/or additional sources of supply if necessary in the future. *Delivery*

Static service pressures within the water system, under normal operating conditions, range from a minimum of 42 psi to a maximum of 92 psi in pressure Zone 1 and a minimum of 50 psi in pressure Zone 2. In 2013, there were 1,077 total services in the Zillah water system.

Storage

The City's water storage facilities consist of three painted steel reservoirs with a total nominal capacity of 1.471 million gallons (MG). The total effective storage capacity of the reservoirs is 0.872 MG above the 30 pounds per square inch (psi) static pressure level and 1.046 MG above the 20 psi static pressure level. Table 4-4 summarizes Zillah's existing and future storage requirements and capacity.

Table 4-4. Existing Storage Requirements and Capacity, City of Zillah

	Reservoir No. 1	Reservoir No. 2	Reservoir No. 3
Туре	Elevated Tank	Standpipe	Ground Level Standpipe
Material	Steel	Steel	Steel
Date Constructed	1928	1965	2009

	Reservoir No. 1	Reservoir No. 2	Reservoir No. 3	
Tank Height	26.4 feet	104 feet	29 feet	
Diameter	22 feet	35.8 feet	60 feet	
Overflow Elevation (above msl)	976.9 feet	972.6 feet	850.0 feet	
Total Storage Capacity	75,000 gallons	783,000 gallons	613,000 gallons	
Storage Capacity Above 30 psi	61,000 gallons	208,000 gallons	603,000 gallons	
Storage Capacity Above 20 psi	61,000 gallons	382,000 gallons	603,000 gallons	

Source: Huibregtse, Louman Associates, Inc., City of Zillah Water System Plan, 2014.

Fire Flow

Fire flow is an important factor in water system evaluation and in the formation of improvements, and thus is a necessary consideration in the planning process because it represents such a significant demand upon a water system. If a fire should occur and the system cannot provide the needed flows, fire protection will be inadequate. Also, low or negative pressures could result which could allow contaminants into the system that could jeopardize public health.

The City of Zillah Fire Department has developed a list of minimum fire flow capacities required for many structures throughout the City. These fire flow capacities are illustrated in the Existing Fire Flow Capacities Map in the 2014 Zillah Water Systems Plan. All areas that do not have a specified minimum fire flow range are required to have a minimum fire flow capacity of 500 GPM. According to the 2014 Zillah Water System Plan, most locations throughout the distribution system are able to provide the required minimum fire flow capacities.

Irrigation Water System

The City of Zillah currently has a Class 1 irrigation water right from the Sunnyside Valley Irrigation District (SVID). The City's Class 1 water right entitles it to three acre-feet per year (AFY) for each acre of land within the City limits. Additional water rights of 33 cubic feet per second (cfs) are available to portions of the City through the Konewock Ditch Company. Irrigation water is supplied to approximately 90 percent of the City's water service area through four irrigation districts, as shown in Table 4-5.

Table 4-5. City of Zillah Irrigation Districts

	Zillah Irrigation District	City of Zillah Irrigation District	Konewock Ditch Company	SVID
Source Water	SVID	SVID	SVID	SVID
Administration of Water Assessment	Zillah Irrigation District	City of Zillah	Konewock Ditch Company	SVID
System Description	Shares Distribution Box w/City of Zillah Irrigation District	Shares Distribution Box w/City of Zillah Irrigation District	Independent of other systems	Independent and purveyor to Zillah & City of Zillah Irrigation

	Zillah Irrigation District	City of Zillah Irrigation District	Konewock Ditch Company	SVID
				Districts
Owner/Operator	Zillah Irrigation District	City of Zillah	Konewock Ditch Company	SVID
Water Rights	Class 1 3 AFY per acre	Class 1 3 AFY per acre	33 cfs allocated by shares	Class 1 3 AFY per acre

Source: Huibregtse, Louman Associates, Inc., City of Zillah Water System Plan, 2014.

Current Water Demand

Currently, water consumption data is maintained by a computer database at Zillah City Hall. All water system sources and services in the City of Zillah are metered. Production meters are typically read daily and consumption meters are read monthly.

Between 2003-2007, the average day consumption per service for residential and city user categories has declined between while the other categories have fluctuated or increased. Water consumption in the City of Zillah varies throughout the year with the seasons, but not drastically. A separate non-potable irrigation system is available to most properties within the City, so domestic water is generally not used for irrigation.

Table 4-6 summarizes the average water use per service in Zillah from 2007-2013.

Table 4-6. Summary of Water Use per Service, City of Zillah, 2007-2013

	Single- Family Residential	Multi- Family Residential	Commercial	Industrial	Churches	City	Parks	WWTP Utility
Average # Metered Water Services	822	92	77	8	10	8	6	1
Average Daily Consumption (gallons per day)	178	262	776	4,079	258	567	8,251	12,933
Average Yearly Consumption (million gallons per year)	53.7	8.8	20.8	14.9	0.9	1.6	28.7	4.5

Source: Huibregtse, Louman Associates, Inc., City of Zillah Water System Plan, 2014.

Projected Water Demand

Table 4-7 shows the projected water system and storage demand for the City of Zillah through the year 2035. This projection uses a 2033 population of 5,307.

Table 4-8 summarizes the projected water system capacity for the year 2033. Given the assumed rate of population growth and completion of improvements recommended by the Water System Plan (discussed in the next section), Zillah is expected to have adequate water capacity during the 20-year planning period.

Table 4-7. City of Zillah Projected Water System Demand, 2033

	Demand, 2033
Population	5,307
Number of Services	1,802
ERUs ¹	7,694
Peak Hour Demand (gallons per minute)	2,225
Average Daily Demand (gallons per day)	640,914
Maximum Daily Demand (gallons)	1,779,349

Source: Huibregtse, Louman Associates, Inc., City of Zillah 2014 Water System Plan.

Table 4-8. City of Zillah Projected Water System Capacity, 2033

System Component	Current Capacity	Future Capacity	
Water Rights (Qa) ¹	475.1	475.1	
Source Capacity (GPM)	1,600	2,550	
Storage Capacity (MG)	1.0	1.0	

Source: Huibregtse, Louman Associates, Inc., City of Zillah 2014 Water System Plan.

Water System Needs

The City of Zillah water system deficiencies identified by the Water System Plan are listed below.

Supply

Suppiy

- 1) <u>Source Well Protective Covenants</u>. Of the City's three wells, only WIPPCO Well was found to have a recorded protective covenant establishing a 100-foot sanitary radius in accordance with Department of Health requirements. The City plans to execute and file a "Declaration of Covenant" with the Yakima County Auditor's Office for their two remaining source wells.
- 2) <u>3rd Avenue Well Water Quality Analysis</u>. The 3rd Avenue Well is not used due to aesthetic water quality issues, primarily a sulfur odor. The Water System Plan recommends that the City investigate the source of the sulfur odor and determine possible mitigation options.
- 3) WIPPCO Well Maintenance. The well pump and motor is in need of preventative maintenance to

¹Qa = future total annual.

¹ Equivalent Residential Units – the amount of water consumed by a typical full-time single-family residence.

maintain reliability until funding is in place to completely reconstruct the well. Maintenance will include replacing bearings and seals and rebuilding the existing motor.

Storage

- 1) <u>Re-paint Existing Reservoirs</u>. The existing standpipe and elevated tank reservoirs were last coated in 1998. The Water System Plan recommends that they be recoated approximately every 20 years.
- 2) Reservoir Inspection. Prior to re-painting the existing elevated reservoirs, the Water System Plan recommends that the City contract with professional divers certified for operation in potable water to determine the existing condition of the reservoir interior. If structural or mechanical deficiencies are discovered, the necessary remedial work can be coordinated and completed at the time of the repainting work to avoid having the reservoir offline longer than required.

Distribution

- 1) Meter Replacement Project. The City of Zillah has budgeted annually to replace approximately 30 meters throughout the City. The new meters will be radio-read style meters. This improvement project will take place over the next six year period.
- 2) <u>Valve and Fire Hydrant Replacement</u>. Approximately 37 new valves and nine fire hydrants need to be added to the system.

Whole System

- 1) <u>DOH Sanitary Survey</u>. The DOH conducts sanitary surveys for community water systems approximately every five years. The sanitary survey for Zillah was completed in 2015.
- 2) <u>Water System Plan Update</u>. The Department of Health requires Water System Plans to be reviewed and updated every six years. The next Water System Plan update is planned for 2020.

Table 4-9. Water System Projects Priority Rankings

Priority	Proposed Improvements	Year
1	3rd Avenue Well Water Quality Analysis	2015
2	Source Well Protective Covenants	2015
3	WIPPCO Well Maintenance	2015
4	Meter Replacement Project	2014
5	DOH Sanitary Survey	2015
6	Reservoir Inspection (Divers)	2017
7	Re-Paint Existing Reservoirs	2018
8	Valve and Fire Hydrant Replacement	2019
9	Water System Plan Update	2020

Source: Huibregtse, Louman Associates, Inc., City of Zillah 2014 Water System Plan.

VI. STORMWATER SYSTEM

The information for this section is drawn from the City of Zillah 2012 Capital Facilities Plan, developed by Huibregtse, Louman Associates, Inc., consulting engineers.

The City of Zillah does not operate a separate storm drainage utility; instead, the City's storm drain system is included in the roadway system. When roadway improvements are made, the associated drainage facilities are evaluated and the necessary replacements or modifications are incorporated into the street project.

The City has approximately 1.5 miles of storm drain pipe within the system. A majority of the system consists of catch basins which discharge to dry wells or infiltration trenches. This majority constitutes approximately 70% of the City's storm drainage system. The remainder of the storm drain system consists of catch basins and pipes that convey stormwater to the Yakima River sloughs at the foot of the bluffs. Some City streets do not have concrete curb and gutter or storm drain systems. In these areas, storm water typically drains to neighboring unpaved properties.

The City maintains the existing storm drainage system in a manner that prevents or reduces storm drainage impacts by following a standard operating procedure. On a monthly basis, streets are washed down with a water truck then swept clean. Drywells and catch basins are maintained semi-annually, as necessary, based on visual inspection. Inspections are completed February 1, or after the last expected significant snow and ice event, and November 1. During the inspection a "catch basin and storm drain system cleaning inspection checklist" form is completed and returned to the Public Works Director for review and action as needed.

Due to its population and location, Zillah is exempt from National Pollutant Discharge Elimination System permit requirements.

Stormwater System Needs

Improvements to the storm drain system are typically constructed as part of a street improvement project, or on an as-needed basis.

VII. WASTEWATER SYSTEM

Much of the information for this section has been drawn from the 2014 City of Zillah General Sewer Plan, developed by Huibregtse, Louman Associates, Inc., consulting engineers. This document, as amended, is hereby incorporated by reference.

The City of Zillah wastewater facilities consist of a sewage collection system and a wastewater treatment facility. Zillah's existing wastewater treatment facility provides treatment and disposal for residential, commercial, and industrial wastewater generated within the City. The facility was constructed in 1977 at the site of an early 1950s treatment plant and upgraded in 1994 and 2007. Zillah's wastewater treatment facilities are located just north of both I-82 and the Yakima River. Treated and disinfected water is discharged to the Yakima River. Biological solids removed from the treatment process are transported and land applied at an approved third party agricultural site in accordance with the City's biosolids permit.

The community of Buena, immediately northwest of the City of Zillah, collects and disposes of wastewater through individual onsite septic tanks and an effluent treatment system. The Buena water and wastewater systems are currently owned and operated by Yakima County.

Table 4-10 summarizes the major historical developments of Zillah's wastewater system.

Table 4-10. Major Historical Wastewater System Improvements, City of Zillah

Year	Improvement Description
1908	Zillah collection system constructed
1950	Original treatment facility constructed
1977	Existing wastewater treatment facility constructed
1994	Wastewater treatment facility improvements completed (capacity increased to 0.313 MGD)
1998	Growth Management Act Comprehensive Plan completed
1999	Inflow and Infiltration Evaluation completed
2000	General Sewer Plan completed
2002	Wastewater Facility Plan completed
2006	Growth Management Act Comprehensive Plan update completed
2007	Wastewater Treatment Facility upgraded (capacity increased to 0.49 MGD)
2008	Zillah Lakes low-pressure sewer system constructed

Source: Huibregtse, Louman Associates, Inc., City of Zillah General Sewer Plan, August 2012.

Collection and Conveyance

The Zillah wastewater collection system consists of approximately 98,950 linear feet of pipe, with 80,820 consisting of gravity sewer pipe and 18,130 consisting of forcemain pipe. The majority of the pipe is 8-inch diameter.

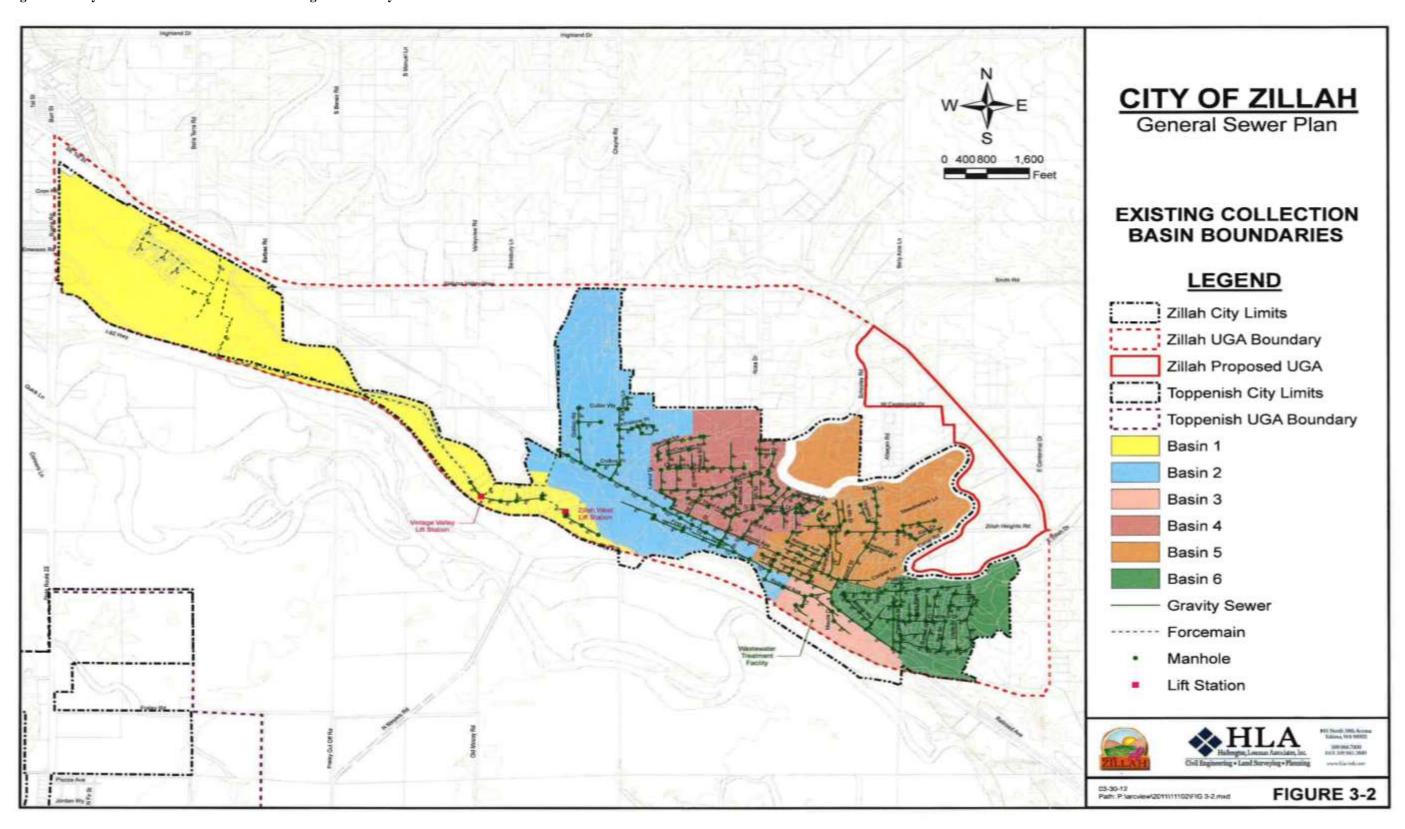
For system analysis purposes, the existing collection system is divided into seven collection system drainage basins for purposes of analyzing system performance. The basins are depicted in Figure 4-2.

Basin No. 1: The area within Basin No. 1 is zoned commercial tourism and planned development. Basin No. 1 is located in the southwest portion of the service area, below the steep bluff which separates it from the remainder of the City. Wastewater from the planned development area flows through 2-inch, 3-inch, 4-inch, and 6-inch force mains to the Vintage Valley lift station located near the Tuscan Sands Casino, on Vintage Valley Parkway. Wastewater collected east of Second Avenue flows to the Zillah West Lift Station, which discharges to the gravity sewer in Vintage Valley Parkway. Vintage Valley Parkway and Zillah West Drive contain gravity sewers that flow to the two lift stations. Wastewater from the Vintage Valley lift station is pumped through a 6-inch forcemain to the Basin 2 10-inch gravity sewer trunk main, then to the 12-inch trunk main before entering the wastewater treatment facility. The area of this basin is approximately 311 acres.

<u>Basin No. 2:</u> The area within Basin No.2 is zoned light manufacturing, commercial, residential and public lands/church zone. It lies within the central portion of the service area. One of the Stadelman Fruit Company packing facilities, as discussed in section 2.1.6, is located in this basin. Wastewater from this basin flows to the 10-inch gravity sewer trunk main that follows the old railroad alignment from the west City limits to the 12-inch trunk main, which flows to the wastewater treatment facility. The area of Basin No. 2 is approximately 229 acres.

<u>Basin No. 3:</u> The area within Basin No. 3 is zoned residential, light manufacturing, public lands/church zone and commercial. It encompasses the area immediately to the north and east of the wastewater treatment facility. The other Stadelman Fruit Company packing facility is located in this basin. Wastewater from Basin No. 3 flows through an 8-inch gravity sewer trunk main to the 12-inch sewer trunk main, which flow to the wastewater treatment facility. The area of this basin is approximately 37 acres.

Figure 4-2. City of Zillah General Sewer Plan Existing Collection System and Basin Boundaries



Source: Huibregtse, Louman Associates, Inc., City of Zillah 2014 General Sewer Plan

Future Wastewater Demand

Table 4-11 summarizes Zillah's wastewater flow for the year 2031.

Table 4-11. Projected City of Zillah Wastewater Flow

	2008	2031
Population	3,081	5,111
Average Annual Flow (MGD)	0.225	0.394
Maximum Day Flow (MGD)	0.501	0.721

Source: Huibregtse, Louman Associates, Inc., Zillah 2012 General Sewer Plan

Wastewater System Needs

The Plan identified no deficiencies in the existing collection system under both average day and peak hour scenarios. Under build-out conditions, the analysis found one problem area under a peak hour flow scenario. The full build-out hydraulic analysis resulted in capacity deficiencies along the City's existing sewer trunk main that follows the old railroad alignment. Deficiencies occurred under the peak hour flow scenario only, no deficiencies occurred under the average day flow condition.

Alternative routes of projected full build-out flows were considered, but there was little effect on the hydraulic analysis results since flows from all basins are routed to the City's 10-inch sewer trunk main, which is the limiting factor in the collection system's capacity.

Table 4.12. Wastewater System Projects Priority Rankings

Priority	Proposed Improvements	Completion Year
1	Sewer Trunk Main Replacement (West City Limits to Cheyne Rd.)	2019
2	Vintage Valley Rd. 8-Inch Sewer Main Replacement	2020
3	4th St., Glenwood Dr., & Westwind Dr. 8-lnch Sewer Main Replacement	2022
4	First Ave. 8-Inch Sewer Main Replacement	2024
5	Adams Pk. 8-Inch Sewer Main Replacement	2026
6	Ann St. & Walnut St. 8-Inch Sewer Main Replacement	2026
7	Buried Manhole Replacement	2018
8	Sewer Trunk Main Repl. (Cheyne Rd. to WWTF)	2028
9	Lift Station Improvements	2018

VIII. SOLID WASTE COLLECTION & DISPOSAL

Solid waste collection is provided by the City for incorporated areas, and by Yakima Waste Systems for unincorporated areas. The solid waste is transported to the Cheyne Road Landfill, a County facility.

The Cheyne Road Landfill is located about six miles north of Zillah, and currently serves the cities of Grandview, Sunnyside, Toppenish, Wapato, Granger, Mabton and Zillah; Yakima Waste Systems; agricultural firms; construction and food processing businesses; self-haul businesses; and private residences. The Cheyne Road Landfill currently occupies 40 acres of a 960-acre site, and is in the process of being expanded to provide additional capacity.

The Terrace Heights Landfill is located about six miles east of Yakima. Phase 1 of the Terrace Heights Landfill is expected to reach capacity in about 2020. Phase 2 is estimated to reach capacity in 2026, but Yakima County may choose to reserve this for emergency use. The actual timing of closure will be affected by waste generation, recycling, and disposal rates, as well as landfill operations and design factors. Once the Terrace Heights Landfill is closed, some garbage disposal could be redirected to the Cheyne Road Landfill, which would affect its projected capacity (*Yakima County Solid and Moderate Risk Waste Management Plan*, 2010).

Recycling

Recycling is becoming an increasingly important aspect of waste disposal. "Recycling" refers to the act of collecting and processing materials to return them to a similar use. Recycling does not include materials burned for energy recovery or destroyed through pyrolysis and other high-temperature processes. The State's definition of recycling is "recycling means transforming or remanufacturing waste materials into usable or marketable materials for use other than landfill disposal or incineration. Recycling does not include collection, compacting, repackaging, and sorting for the purpose of transport" (Ch. 173-350 WAC).

The Cheyne Road Landfill provides drop-off recycling services. Curbside recycling services are available throughout the UGA on a subscription basis.

IX. PUBLIC EDUCATION FACILITIES

Characteristics of Zillah's schools, as of 2016, are summarized in Table 4-123. Educational services for the City are provided by the Zillah School District. All of the schools are located within City limits. The administrative offices for the Zillah School District are also located in City limits at 213 Fourth Avenue. In 2015, the Zillah School District had an enrollment of approximately 1,345 students.

Table 4-123. Zillah Area School Facilities (2014-2015)

Name of School	Address	Grades	Teachers	Enrollment
Hilton Elementary School	211 Fourth Avenue	PK-3	22	385
Zillah High School	1602 Second Avenue	9-12	27	430
Zillah Intermediate School	303 Second Avenue	4-6	20	326
Zillah Middle School	1301 Cutler Way	7-8	15	204

Source: Office of Superintendent of Public Instruction, Washington State Report Card

Public Education Program & Facilities Needs

Zillah School District No. 205 is a public school district and serves the City of Zillah.

In May 2015, the district had an enrollment of 1,345. The Zillah School District is a small rural district of approximately 1350 students, housed in four buildings. Zillah is one of the smallest districts in area in Yakima County (estimated 44 square miles). The estimated population within the school district boundaries is approximately 4,000.

In February 2017, the Zillah School District was able to pass a bond for \$14,000,000.00 for remodeling and improvements to the Zillah High School. Construction is estimated to start in June 2018. Below is a list of Facility Improvement

Focus Area 1-Facilties:

Zillah Intermediate School and Zillah High School-A Two Phase Facility Improvement Plan

Both ZIS and ZHS are in need of a plan that leads to an improved learning environment for our students. Financially it is impossible to remodel or build a new ZIS and ZHS at the same time. The Board has developed a two phase plan that both meets the fiscal requirements as well as addresses the needs of both schools.

Phase I (2016) includes looking at a bond issue for remodeling Zillah High School in Feb. 2017, with construction starting in summer of 2018, and project completion in fall 2019. A combination of new construction and a remodel of ZHS will take place on the current ZHS campus. Phase I will also require a voter approved bond issue and state school construction assistance.

Phase II (2024) includes the building of a new ZIS on district owned property on Cutler Way southwest of ZMS. Also included in Phase II is the construction of additional classrooms at ZMS. Phase II will require a bond issue and voter approval for a new Zillah Intermediate School in 2023, construction starting in 2024 and completion in 2025. A combination of voter approved bonds and state school construction assistance will fund the project.

Focus Area 2-Preschool:

Zillah School District Plans to Implement a Preschool Program That Focuses on Kindergarten Readiness

Board members and the superintendent share the belief that implementing a preschool program that focuses on kindergarten readiness will greatly improve the overall academic achievement of our students. The Board plans to provide a preschool program in conjunction with the Phase I facility improvements in 2018.

Focus Area 3-Grade Configuration:

Zillah School District Plans to Make Changes to Current Grade Configurations

Board members and superintendent share the belief that grade configuration changes will improve the academic achievement of all students. The Board plans to make grade configuration changes when facilities are improved and preschool is implemented in 2018. The new grade configuration changes are: Pre-2 Hilton Elementary School, 3-5 Zillah Intermediate School, 6-8 Zillah Middle School, and 9-12 Zillah High School.

X. PARKS AND OPEN SPACE

Open Space

The area between I-82 and the Yakima River contains wetlands that provide wildlife habitat. A small portion of this area is within the City limits, and the City has designated areas southwest of I-82 as fish and wildlife habitat conservation areas. It also designated three areas of wetlands. The wetland areas located near Meadowlark Lane in northeast Zillah have been donated to the City for environmental studies.

The area southwest of I-82 is likely to remain in open space due to lack of access. If it should become accessible, the City will adopt regulations to protect fish and wildlife conservation areas prior to allowing new development in that area (Resolution No. 760, September 27, 1993). Outside the City limits, the area between the I-82 freeway and the Yakima River provides additional wildlife habitat. Development is also restricted here by lack of access.

The Yakima County Trails Plan, updated in 2014, proposes trails or corridors connecting Zillah to Upper and Lower Valley cities along the I-82 corridor, and to Toppenish via the N. Meyers Road corridor. Specifically, the Yakima County Trails Plan recommends supporting the identification and development of the Granger to Zillah Rail Corridor.

Parks and Recreation Facilities

Local parks and recreation facilities are provided by the City of Zillah and the Zillah School District. The City of Zillah owns and operates eight City parks which are used for many types of outdoor recreational activities. Encompassing approximately 11 acres, Zillah's eight City parks are Loges Park, Adams Park, Shelley Park, Stewart Park, Pond Park, Teapot Dome Gas Station, Cal Ripken Fields and Kreiger Park. Table 4-134 below lists the ownership and characteristics of the parks and recreation facilities in the Zillah.

The City of Zillah and the Zillah School District entered into an Inter-local agreement to to provide shared use of facilities on an as needed and as-approved basis between the parties for the benefit of the Citizens of the City of Zillah.

Table 4-134. City of Zillah and Vicinity: Parks and Recreational Facilities

Name of Park or School	Loges Park	Shelley Park	Adams Park	Krieger Park	Stewart Park	Teapot Dome Gas Station Park	Cal Ripken Fields	Pond Park
Total Site Acreage	3.0	0.3	0.9	0.9	2.4	0.5	3.0	1.5
Baseball/Softball/Football/Soccer Fields	No	No	No	No	No	No	Yes	
Open Play Fields	Yes		Yes		Yes		Yes	
Tennis/Basketball/Other	Skate park w/lights							
Picnic Tables	Yes	4*		Yes	Yes			Yes
Picnic Shelters	Yes	Yes	Yes		Yes			Yes
Wetland/Marsh	Yes + pond							
Playground Equipment	Yes	Yes	Yes (tires)					
Interpretive Facility/Kiosk	No	No	No	Notice board		Yes		
Nature or Fitness Trails	No	No	No	No	No	No	No	No
Restrooms	2 + bathhouse	No	No	No	Yes	Yes		
Handicapped Accessible Facilities	Yes	No	No	No		Yes		
Irrigated	Yes	Hand hoses, sprinklers	Sprinklers	Sprinklers	Sprinklers	Yes	Sprinklers	

Name of Park or School	Loges Park	Shelley Park	Adams Park	Krieger Park	Stewart Park	Teapot Dome Gas Station Park	Cal Ripken Fields	Pond Park
Water Fountain				Yes	Yes	Yes		
Parking	Yes		Yes	Yes	Yes	Yes		
Other:	Outdoor swimming pool, wading pool, Lion's Cook Shack, BBQ		BBQ	Stage	Near relocate Teapot Dome, cook shack	Information kiosks and historic Teapot Dome Gas Station		Fountain, large water feature, BBQ

Source: Huibregtse, Louman Associates, Inc., City of Zillah Capital Facilities Plan, 2012.

Parks and Recreational Facilities Needs

Table 4-145 summarizes the Zillah's capital improvement program for parks and recreation facilities.

Table 4-145. Parks and Recreation Facilities Priority Rankings

Priority	Proposed Improvements	Year
1	Creation of City Zillah Master Parks Plan (required by 2012)	2017
2	Create Bike and Pedestrian Trails Plan	2017
3	Park Redevelopment Plan - Park/Streetlights	2017
4	Wine Barrel Trash Cans	2017
5	Install new park signs/ install roadway directional signage	2017
6	Tree plantings	2017
7	Install ADA-accessible drinking fountains	2017
8	Develop 1-2 miles of trail (bike/hike)	2018-2022
9	Expand recreational opportunities (programs and activities)	2018-2022
10	Tree plantings	2018-2022
11	Develop pro-active park maintenance program	2018-2022
12	Construct new restroom/ Development of picnic/rest areas	2018-2022
13	Develop BMX/skateboard/rollerblade park/dog park	2018-2022
14	Develop Splash Park (1,000 to 3,000 sq. ft.)	2018-2022
15	Acquire15 to 20 acres of land for a community park in the northeast area	2018-2022
16	Renovate basketball/ tennis courts	2018-2022
17	Develop 2-4 miles of trails	2022
18	Tree plantings	2022
19	Install ADA accessible drinking fountains	2022
20	Renovate pool for handicap access	2022

Source: Huibregtse, Louman Associates, Inc., City of Zillah Capital Facilities Plan, 2012.

XI. PROTECTIVE SERVICES

Corrections

The City of Zillah does not maintain facilities to house offenders. Prisoners are taken either to the jail in Toppenish or directly to Yakima County jail. Zillah contracts with the City of Toppenish and Yakima County to house offenders.

Fire Protection

The City of Zillah is located in Yakima County Fire District (YCFD) No. 5 Fire Protection District. The City is served by YCFD #5 from Station 10 located at 717 1st Avenue, Zillah.

The Zillah Fire Department has 32 volunteer firefighters, who are compensated through fire points and one part-time paid Fire Chief. All volunteers have at least advanced first aid training; seven are trained as First Responder, and five are EMT certified. Firefighters respond to all medical calls through the Countywide 911 emergency services programs. Station 10 houses the following: three structure engine, two grass engine, one water tender, one rescue vehicle.

The Fire Department has a Community Grade of six with the Washington State Surveying and Rating Bureau. Other communities in the Lower Valley have grades ranging from five to seven. The rating evaluates four major areas of protection: fire department (apparatus, response, and training); water supply for fire suppression; emergency communication systems; and fire prevention activities.

The Zillah Fire Department station was constructed in 1966 and is in good condition, but does not meet the requirements for the Americans with Disabilities Act (ADA). This is of special concern because the three-story building also houses the YCFD #5 Headquarters, and the second and third floors are only accessible by stairs. Upgrading to meet ADA standards would be difficult. The County is considering construction another district headquarters to give the public better access to the office.

Fire Protection Facility Improvements

The City fire chief has identified a need for a new fire station and an additional truck within 2 to 5 years. The building would need a minimum of 4 bays, and should probably have 6 bays. A new building would cost an estimated \$750,000 to \$1,500,000, and a new pumper truck would cost approximately \$550,000.

Some of the alternatives for obtaining additional building capacity include a new jointly owned and financed City-district facility; a new district headquarters, with the City using the old station; and a new station, owned and financed by either the district or the City, but serving both.

As the cities within Fire District 5 expand, the District will lose tax base, and the City will need to purchase more equipment to serve the additional area. Regardless of growth, the City will need a new rescue truck before the end of the planning period, at a cost of approximately \$150,000. Other future needs, however, will depend to some extent on the type and amount of growth that the City experiences. For example, if the District gets a ladder truck, the City would not need one unless three or four additional industrial facilities the size of the George Joseph warehouse were to locate in Zillah. In that case, the City would want to purchase a "Telesquirt" truck, at a cost of approximately \$1,000,000.

Police Protection

The Zillah Police Station is located at 111 Seventh Street, between First and Second Avenues and a evidence storage building is located in the 100 block of First Avenue. The police station is adequate for most purposes. A police firing range is located northeast of the City near the intersection of Highland Drive and Bailey Road.

At present, the department is able to respond to any part of the City in approximately three minutes, from the receipt of a call until the officer arrives.

As the City grows in area, patrolling will require more time away from the City core. Response time for

police calls is likely to increase from three minutes to four than five minutes to reach the most distant parts of the UGA. Growth will also increase the investigation caseload. The increase in population and area to patrol would require one additional officer and patrol car to maintain present effectiveness.

The Yakima County Sheriff's Office is responsible for police protection in the unincorporated areas of the county, and some of the deputies live in the lower valley. Local residence is sometimes considered a deterrent to crime; the deputies take their patrol vehicles home with them, which increases the police presence in the community and upon entering the vehicle, the deputy is on duty. At night, as few as four deputies are on duty for the entire County.

The Mutual Aid Peace Officers Powers Act allows the law enforcement agencies of various jurisdictions to enter into mutual assistance agreements. As part of the act, full-time certified Officer have law enforcement authority within the State of Washington. This statue basically renders the older mutual aid agreements obsolete. The Chiefs and Sheriffs of surrounding agencies have all consented and the forms are on file with Washington Association of Sheriffs and Police Chiefs (WASPC).

Yakama Indian Nation tribal police are responsible for areas within the reservation. Tribal police are excluded under the Mutual Aid Police Powers Act.

Police Protection Improvements

Additional area has been opened up within the police department for use. The Police Department will continue to share this building with the City Council and Municipal Court which use the meeting room/Chamber area for their activities. Some minor construction may be needed within this facility for the police department to efficiently utilize the space.

XII. GOVERNMENT & COMMUNITY FACILITIES

Government Facilities

Table 4-15 below lists government facilities in the City of Zillah.

Table 4-15. Government Facilities in the City of Zillah

Facility	Address	Sq. Ft.	Year Built
Police Department	111 7th Street	6,804	1910
Civic Center	119 First Avenue	4,860	1995
Metal Building- Food Bank/Float Bldg	302 Second Avenue	2,134	1985
City Hall Staff Office Building	503 First Avenue	1,620	1986
Repair Shop & Office	Cemetery	2,000	1945
Public Works Building & Cemetery	First Avenue	2,272	1985
Waste Water Treatment Facility/Lab	740 Railroad Avenue	73,500	1977
Cemetery Building	First Avenue	1,176	1977

Facility	Address	Sq. Ft.	Year Built
Cemetery House	120 First Avenue	700	1920
Teapot Bldg., Gas Sign, Replica Fuel Tanks, Outhouse	117 First Avenue	260	1922
Teapot Restroom/ Pergola/Interactive Kiosk	117 First Avenue	170	2012
Pool and Bath House	710 Railroad Avenue	1,302	1920

Government Facilities Improvements

City Hall- A future City Hall or Joint Facility building, when constructed, could consolidate all administrative functions and customer services in a single facility to accommodate future population growth. During the 2006 city-wide visioning process, it was indicated that the ideal location for a new City Hall would be near the Stewart Park site for a new building or a section of property by the cemetery. However, the City may also consider other possible City Hall sites elsewhere in the city.

Public Works- The existing public works building can be reconfigured to accommodate additional employees in the future. The site is directly adjacent to the cemetery and is well suited for any additional municipal operations such as an expanded public works vard.

Police Services – The existing facility is projected to accommodate up to 20 police staff members. The City expects that this facility will be able to provide police services for about 5to 10 years. Secure storage is limited at the site and construction of a covered, secure sally port and additional storage may be required. The City will likely need to either expand this facility or relocate to another part of the city as city population and the demand for increased police services and protection increases.

Community Facilities and Services

The City-owned Associated Clubs building, located at 302 2nd Avenue between 2nd and 4th Streets, is the local distribution point for surplus commodities. It also provides space for local organizations to work on and store parade floats and other large items.

The Zillah Civic Center is located at 119 First Avenue. The building is owned by the City, and used by various community organizations. The Civic Center is approximately 4,800 square feet and the site contains parking spaces for 44 vehicles. In addition to a large meeting room, the civic center contains kitchen facilities, a stage area, and several smaller rooms for organizations, meetings and administrative staff.

Zillah Visitor Center was constructed in 2012 at 117 1st Ave. The Visitor Center consists of the historic Teapot Dome, which was moved from its former location on the I-82 corridor near Zillah in 2012 and renovated for use as the Visitor Center.

XIII. LEVEL OF SERVICE

Level of Service (LOS) standards are an indicator of the extent or degree of service provided by, or 4-32

proposed to be provided by, a facility. They are based on and related to the operational characteristics of the facility. LOS indicates the capacity per unit of demand for each public facility, and reflects existing or desired public facility conditions. LOS standards can affect the timing and location of development by encouraging development in areas where facilities may have excess capacity. In other areas, development will depend on provision of needed facilities and services. Such provision and development may occur in a phased sequence over time. At this time, LOS standards for capital facilities, with the exception of arterial streets and roadways, have not been established for the Comprehensive Plan.

XIV. CAPITAL FACILITIES FINANCING

Local Funding Sources

Local funding sources for capital facilities include multipurpose revenue sources: local property, sales, use and excise taxes. For smaller projects, these sources may be used directly, while for larger projects, they may be used as grant matching funds, or as debt repayment for bonds and loans.

In addition, special taxes and fees are available for the construction of various types of capital facilities. Like the multipurpose revenue sources, they may be used either directly or as funds to match grants or repay debt. Examples include fuel taxes, vehicle license fees, street utility charges, road impact fees, sewer user fees, solid waste user fees and special assessments, storm drain utility fees, and water user fees.

State and Federal Grant and Loan Funding Sources

Potential sources of grant and loan programs funds available to local governments for capital facilities include the Washington State Public Works Trust Fund, Washington State Department of Ecology Water Quality Program, Washington State Department of Health Drinking Water State Revolving Fund, Washington State Recreation and Conservation Office, Washington State Transportation Improvement Board, Washington State Safe Routes to Schools program, U.S. Department of Energy Efficiency and Conservation Block Grant, U.S. Library Services and Technology Act funds, U.S. Department of Agriculture Farmers Home Administration Community Programs, U.S. department of Housing and Urban Development Community Development Block Grant, U.S. Department of Commerce Economic Development Administration, U.S. Department of Agriculture-Rural Development, and the U.S. Department of Transportation-Transportation Alternatives Program, among others.

Availability of these funding sources to the City of Zillah will depend on federal and state funding levels for each source, jurisdictional and project eligibility requirements.

Long-Term Bonded Debt

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

The Washington State Constitution places limits on the amount of bonded indebtedness that any City may incur. No City may incur debt in excess of 0.75% of the taxable property unless 3/5 of the City's voters approve additional indebtedness. With such a vote, the additional indebtedness may be as much as 2.5% of the value of the taxable property for all types of capital projects. An additional 2.5% may be allotted

for projects supplying the City with water, lights, or sewer. Additional debt can also be incurred for acquiring or developing open space or parks.

On January 1, 2015 the City of Zillah's assessed taxable valuation of all property within the City was \$177,714,423.00. For 2015, the bonding capacity for general purposes without a vote of the people was \$2,896,045.44. Bonding capacity with a 3/5 vote of the people was \$1,777,144.23. Adding the bonding capacity for utility debt, the City's bonding capacity increased to \$4,442,860.58. Finally, adding the additional open space and park facilities debt capacity, the maximum debt capacity for all of the above purposes would be \$4,442,860.58.

Currently, in 2015, the City of Zillah has \$439,054 in non-voted indebtedness.

Six-Year Capital Facilities Finance Plan

Zillah's Capital Facilities Plan, Six Year Transportation Improvement Program, Water System Plan, General Sewer Plan, and staff identified recommended projects, cost estimates, potential funding sources, and timing for project completion. These documents, as amended, are incorporated by reference.

Table 4-16 summarizes information for needs and projects in excess of \$5,000 from the above referenced plans and documents. For more specific information, please refer to those documents.

Table 4-16. Capital Facilities Needs and Recommended Projects

Need / Recommended Project	Estimated Timing	Estimated Cost	Potential Funding Source(s)				
Transportation							
Vintage Valley Road Reconstruction	2020	\$484,750	TIB ¹				
Vintage Valley Parkway Extension	2020	\$5,704,532	STP ²				
Third Avenue Resurfacing	2019	\$703,125	Local Funds, TIB				
Second Street Sidewalks	2020	\$40,000	Local Funds, TAP ³ , TIB, WSDOT Bike/Ped ⁵				
First Avenue Resurfacing Improvements	2017	\$775,000	Local Funds, TIB				
Schoentrup Lane Drainage Control	2019	\$40,000	Local Funds, TIB				
Cutler Way Construction	2019	\$937,500	Local Funds, TIB, PWTF ⁵				
Eighth Street Resurfacing	2018	\$130,000	Local Funds, TIB				
Dean Street Resurfacing and Improvements	2018	\$290,000	Local Funds, TIB				
Pearson Street Reconstruction	2018	\$950,000	Local Funds, TIB, PWTF				
Fifth Street Reconstruction	2017	\$1,200,000	Local Funds, TIB				
Merclyn Lane Resurfacing	2020	\$42,900	Local Funds, TIB				
Edson Street Reconstruction	2019	\$440,000	Local Funds, TIB, PWTF				
Cheyne Road Improvements	2019	\$850,000	Local Funds, TIB, PWTF				
Chenaur Drive Resurfacing	2019	\$85,000	Local Funds, TIB				
Second Avenue Reconstruction	2020	\$575,500	Local Funds, TIB, PWTF				

Need / Recommended Project	Estimated Timing	Estimated Cost	Potential Funding Source(s)
Second Street Reconstruction	2019	\$456,000	Local Funds, TIB, PWTF, STP
Zillah West Road Sidewalks	2020	\$70,000	Local Funds, TAP, TIB, WSDOT Bike/Ped
Zillah West Resurfacing	2020	\$600,000	Local Funds, TIB
Water System			
3rd Avenue Well Water Quality Analysis	2016	\$16,500	Local Funds
Source Well Protective Covenants	2017	\$10,000	Local Funds
WIPPCO Well Maintenance	2016	\$30,000	Local Funds
Meter Replacement Project	2018	\$60,000	Local Funds
DOH Sanitary Survey	2015	\$3,000	Local Funds
Reservoir Inspection (Divers)	2017	\$10,000	Local Funds
Re-Paint Existing Reservoirs	2018	\$387,875	Local Funds
Valve and Fire Hydrant Replacement	2019	\$138,700	Local Funds, Grants
Water System Plan Update	2020	\$95,000	Local Funds
Wastewater System			
Sewer Trunk Main Replacement (West City Limits to Cheyne Rd.)	2019	\$264,000	Local Funds
Vintage Valley Rd. 8-Inch Sewer Main Replacement	2020	\$309,000	Local Funds
4th St., Glenwood Dr., & Westwind Dr. 8-Inch Sewer Main Replacement	2022	\$820,000	Local Funds
First Ave. 8-Inch Sewer Main Replacement	2024	\$376,000	Local Funds
Adams Pk. 8-Inch Sewer Main Replacement	2026	\$241,000	Local Funds
Ann St. & Walnut St. 8-Inch Sewer Main Replacement	2026	\$265,000	Local Funds
Buried Manhole Replacement	2016	\$170,000	Local Funds
Sewer Trunk Main Repl. (Cheyne Rd. to WWTF)	2028	\$1,878,000	Local Funds
Lift Station Improvements	2016	\$222,000	Local Funds
Parks and Recreation			
Creation of City Zillah Master Parks Plan	2017	\$5,000	Local Funds, CDBG
Create Bike and Pedestrian Trails Plan	2017	\$3,500	Local Funds

Need / Recommended Project	Estimated Timing	Estimated Cost	Potential Funding Source(s)		
Park Redevelopment Plan - Park/Streetlights	2017	\$24,000	Local Funds, REET ⁶		
Wine Barrel Trash Cans	2017	\$750	Local Funds		
Install new park signs/ install roadway directional signage	2017	\$3,500	Local Funds, Grants		
Tree plantings	2017	\$2,000	Local funds, Grants, Volunteer		
Install ADA-accessible drinking fountains	2017	\$22,000	Local Funds, Grants		
Develop 1-2 miles of trail (bike/hike)	2018-2022	\$20,000	Local Funds, Grants		
Expand recreational opportunities (programs and activities)	2018-2022	\$20,000	Local Funds, Grants		
Tree plantings	2018-2022	\$2,000	Local Funds, Grants, Volunteer		
Develop pro-active park maintenance program	2018-2022	\$7,400	Local Funds		
Construct new restroom/ Development of picnic/rest areas	2018-2022	\$45,000	Local Funds, Grants		
Develop BMX/skateboard/rollerblade park/dog park	2018-2022	\$40,000	Local Funds, Grants		
Develop Splash Park (1,000 to 3,000 sq. ft.)	2018-2022	\$330,000	Local Funds, Grants		
Acquire 15 to 20 acres of land for a community park in the northeast area	2018-2022	\$150,000	Local Funds, Grants		
Renovate basketball/ tennis courts	2018-2022	\$20,000	Local Funds		
Develop 2-4 miles of trails	2022	\$30,000	Local Funds, Grants		
Tree plantings	2022	\$2,000	Local Funds, Grants		
Install ADA accessible drinking fountains	2022	\$12,000	Local Funds, Grants		
Renovate pool for handicap access	2022	\$80,000	Local Funds, Grants		

^{1.} Transportation Improvement Board, 2. STP(U) = Surface Transportation Program, 3. TAP = Transportation Alternative Program, 4. WSDOT Bike/Ped = Washington State Department of Transportation Pedestrian and Bicycle Program, 5. PWTF = Public Works Trust Fund, 6. REET = Real Estate Excise Tax

If probable funding falls short of meeting existing needs, the Land Use Element will be reassessed to ensure that the Land Use Element, the Capital Facilities Element and the financing plan within the Capital Facilities Element are coordinated and consistent.

Cost of Improvements-City of Zillah & Zillah UGA Areas

	Sewer Main Extensions		Water Main Extensions		Roadway Improvements	
Area	Linear Feet	Cost	Linear Feet	Cost	Linear Feet	Cost
Area A - City Limits						
Vintage Valley	6,300	\$1,386,000	6,600	\$1,320,000	11,700	\$9,945,000
Zillah Lakes	3,800	\$836,000	3,400	\$680,000	0	\$0
Alteejen Area	3,200	\$704,000	2,600	\$520,000	0	\$0
Cheyne Road	0	\$0	6,900	\$1,380,000	5,500	\$4,675,000
Meadowlark Lane	1,300	\$286,000	<u>o</u>	\$0	0	\$0
Area A - City Limits	14,600	\$3,212,000	19,500	\$3,900,000	17,200	\$14,620,000
Area B - Cutler Way						
Cutler Way	9,900	\$2,178,000	6,500	\$1,300,000	6,800	\$5,780,000
Yakima Valley Highway	5,500	\$1,210,000	5,400	\$1,080,000	<u>o</u>	\$0
Area B - Cutler Way	15,400	\$3,388,000	11,900	\$2,380,000	6,800	\$5,780,000
Area C - Roza Drive						
Yakima Valley Highway	0	\$0	8,200	\$1,640,000	0	\$0
Roza Drive	6,600	\$1,452,000	2,500	\$500,000	2,500	\$2,125,000
New East/West	0	\$0	4,200	\$840,000	0	\$0
New North/South	0	\$0	2,500	\$500,000	<u>o</u>	\$0
Area C - Roza Drive	6,600	\$1,452,000	6,700	\$1,340,000	2,500	\$2,125,000
Area D - East Zillah						
Yakima Valley Highway	2,200	\$484,000	3,900	\$780,000	0	\$0
First Avenue	0	\$0	1,700	\$340,000	1,400	\$1,190,000
New East/West	1,500	\$330,000	<u>0</u>	\$0	1,500	\$1,275,000
Area D - East Zillah	3,700	\$814,000	5,600	\$1,120,000	2,900	\$2,465,000
Area E - Proposed UGA						
Centennial Road	1,500	\$330,000	0	\$0	0	\$0
SVID Crossing Extensions	1,600	\$352,000	0	\$0	0	\$0
SVID North/South	1,400	\$308,000	0	\$0	0	\$0
Yakima Valley Highway	1,400	\$308,000	4,900	\$980,000	0	\$0
Zillah Heights Road	2,500	\$550,000	<u>0</u>	\$0	1,600	\$1,360,000
Area E - Proposed UGA	8,400	\$1,848,000	4,900	\$980,000	1,600	\$1,360,000
Total All Areas	48,700	\$10,714,000	48,600	\$9,720,000	31,000	\$26,350,000
Cost Per Linear Foot		\$220		\$200		\$850

Assumptions

- 1. Gravity sewer mains 8-inch diameter, force main 4-inch diameter, includes manholes and cleanouts.
- 2. Water main 12-inch diameter, includes valves, hydrants, and blowoff assemblies.
- 3. Roadway includes 45-foot Collector roadway section, sidewalk both sides, illumination, storm drainage.
- 4. Vintage Valley Parkway includes Boulevard roadway section, sidewalk both sides, illumination, storm drainage.
- 5. Estimate includes design and construction engineering, and 10% contingency.
- 6. See exhibit titled "UGA Cost of Service" for sewer, water, and roadway improvements.

XV. GOALS AND POLICIES

Capital Facilities Goal #1: Coordinate the orderly provision of public facilities with public and private development activities in a manner that is compatible with fiscal resources of the City.

Capital Facilities Policy #1.1: The City shall review and update its Concurrency requirements and Development Regulations to ensure that improvements required to serve new development are in place, or will be provided in a timely manner.

Capital Facilities Policy #1.2: 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.

Capital Facilities Policy #1.3: The City will not preclude siting of essential public facilities, but shall enforce plan and development regulations to ensure reasonable compatibility with other land uses.

Capital Facilities Policy #1.4: The City will continue to promote a curbside and drop-off recycling service and promote other solid waste reduction programs.

Capital Facilities Policy #1.5: The consolidation of City Departments and services into a single multi-purpose facility is a priority of the City.

Capital Facilities Policy #1.6: The City will encourage multiple-use of public facilities which could be used for day care, youth facilities, senior activities, meetings and other functions.

Capital Facilities Policy #1.7: The City will reassess the capital facilities element in the event probable or expected funding falls short of meeting existing needs. The land use element will also be reassessed to ensure that the land use, capital facilities and financing plan are coordinated and consistent.