City of Chelan

~~DRAFT~~ COMPREHENSIVE PLAN UPDATE 2017
APPENDIX A. CAPITAL FACILITIES PLAN

Planning Commission Recommendations

~~Note: Staff incorporated recent Parks and Recreation 6-year capital plan information as of July 2017 and updated the Water Plan status.~~

July 19, 2017; August 22, 2017 hearing draft; amended October 5, 2017

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City of Chelan

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CAPITAL FACILITIES APPENDIX

1.0 INTRODUCTION

1.1 Purpose

The purpose of the Capital Facilities Plan (CFP) Appendix is to use sound fiscal policies to provide adequate public facilities consistent with the land use and transportation elements and concurrent with, or prior to, the impacts of development to achieve and maintain adopted standards for levels of service.

The Capital Facilities Element is a required component the Comprehensive Plan Update to guide capital planning necessary to provide services to the community. Capital facilities are significant projects for jurisdictions to fund, build, and maintain, and the sooner a jurisdiction plans for its needs the better they can do to meet their needs. The Comprehensive Plan and Capital Facilities Element are 20-year policy and planning documents (or sometimes longer). Some jurisdictions create Capital Improvement Program with a 6-year time horizon for budgetary purposes, which may be incorporated into the Comprehensive Plan and associated Capital Facilities Plan.

Together, these documents guide the City of Chelan's (City's) capital facilities development over 20 years needed to support forecasted population and employment growth. This element updates the inventory of current capital facilities owned by the City, establishes the Level of Service Standards (LOS) that measures the benefits the City can provide, and includes a project summary that projects the expected Capital Facilities needs and investments over the next 20 or more years.

1.2 Growth Management Act Requirements

The Washington State Growth Management Act (GMA) requires that the Capital Facilities Element of a Comprehensive Plan include an inventory, projected needs, and funding and financing for facilities and infrastructure. This Capital Facilities Plan is intended to provide the technical foundation – inventory, service standards, capacity, proposed projects, and funding as appropriate – for the GMA required Capital Facilities Element. The goals and policies for these required elements are contained in the City Services Element of Chelan's Comprehensive Plan.

GMA requires that all comprehensive plans contain a capital facilities element. GMA specifies that the capital facilities element should consist of: a) an inventory of existing capital facilities owned by public entities; b) a forecast of the future needs for capital facilities; c) the proposed locations and capacities of expanded or new capital facilities; d) a six-year CFP that will finance 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 existing needs. (RCW 36.70a.070(3))

The GMA requires the CFP to identify specific facilities, include a realistic financing plan (for the six-year period), and make adjustment to the plan if funding is inadequate. Capital facilities are important because they support the growth envisioned in the City's Comprehensive Plan. GMA requires that all capital facilities have "probable funding" to pay for capital facility needs, and

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that jurisdictions have capital facilities in place and readily available when new development comes in or must be of sufficient capacity when the population grows, particularly for transportation (concurrency) or for services deemed necessary to support development.

Levels of service (LOS) are established in the CFP and represent quantifiable measures of capacity. They are minimum standards established by the City to provide capital facilities and services to the Chelan community at a certain level of quality and within the financial capacity of the City or special district provider. LOS standards are influenced by local citizens, elected and appointed officials, national standards, mandates, and other considerations, such as available funding. Examples of LOS measures include: amount of intersection delay, acres parks or miles of trails per 1,000 population, gallons of water per capita per day, and others. Those facilities and services necessary to support growth should have LOS standards and facilities.

Recent Growth Management Hearings Board cases have placed more importance on the preparation and implementation of CFPs. The key points include:

- **Capital facilities** plans should address the 20-year planning period and be consistent with growth allocations assumed in the Land Use Element. Capital facilities plans should also demonstrate an ability to serve the full city limits and Urban Growth Area (UGA).
- **Financial plans** should address at least a 6-year period and funding sources should be specific and committed. The City should provide a sense of the funding sources for the 20-year period though it can be less detailed than for the 6-year period.

Growth, LOS standards, and a funded capital improvement program are to be in balance. In the case where the LOS cannot be met by a service or facility, the jurisdiction could do one of the following: 1) add proposed facilities within funding resources, 2) reduce demand through demand management strategies, 3) lower LOS standards, 4) phase growth, or 5) change the land use plan.

1.3 Definition of Capital Facilities

Capital facilities generally have a long useful life and include city and non-city operated infrastructure, buildings, and equipment. Capital facilities planning does not cover regular operation and maintenance, but it does include major repair, rehabilitation, or reconstruction of facilities. City Financial Management Policies consider capital assets to be assets with values more than $2,000 and an estimated useful life of more than one year.

The CFP addresses infrastructure (such as streets, roads, traffic signals, sewer systems, stormwater systems, water systems, parks, etc.) and public facilities through which services are offered (such as fire protection structures and major equipment, law enforcement structures, schools, etc.). Per WAC 365-196-415, at a minimum, those capital facilities to be included in an inventory and analysis are water systems, sewer systems, stormwater systems, schools, parks and recreation facilities, police facilities and fire facilities.

1.4 Principles Guiding Chelan's Capital Investments

There are two main guiding elements behind the capital facilities planning: fiscal policies and the GMA. These principles interact to guide capital investment. The 2016 City of Chelan Mayor's

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Message on the budget notes fiscal decisions in capital planning that have improved the City's financial standing, and describes the vision for the community as achieving and maintaining optimum level of services in the community. The Capital Facilities Plan Element and Appendix helps promote these principles of Chelan's quality of life.

The City desires to make the CFP:

- A tool for budgeting
- The basis for capital spending, giving a degree of assurance about how public money will be spent
- A useful guidance document for leadership and staff

Toward that end, the City has developed the following guidelines to evaluate projects before adding them to the CFP. As the City moves toward a new way of doing business, the guidelines may become standards. Within this current CFP, the guidelines have not been applied. Financial constraint guidelines will be applied when this plan is updated.

Project Prioritization Guidelines for Six-Year Capital Facilities Plan

1. In order to be considered in the city's annual budget, a project that meets the definition of Capital Facility should be included in the city's CFP.
2. Projects planned for the first three years of the CFP should be fiscally constrained. That means that projects should not be scheduled for the first three years unless:
   a. Funding is available from an existing, dedicated city fund, *or*
   b. A grant has been awarded for the expenditure, *or*
   c. The project funding source is voter-approved bonds that are likely to be put before the voters, such as a fire station; *and*
   d. Annual operation and maintenance costs have been budgeted, or represent a reasonable (not greater than 3%) increase over the previous year's expenditures.
3. Projects planned for years four through six should be reasonably constrained. That means projects should only be included in the CFP if:
   a. Grant sources are reasonably likely to approve an application, *or*
   b. New funding sources, such as development impact fees, have been presented to and discussed by the City Council; *and*
   c. Annual operation and maintenance costs are reasonable—while not limited to the 3% increase over current budget, there needs to be some reasonable expectation of how the increase would be covered.

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1.5 Sources and Assumptions

The CFP is based on the following sources of information and assumptions:

- **Capital Facility Functional or System Plans.** Capital facility functional or system plans of the City of Chelan or other service providers were reviewed for inventories, levels of service, planned facilities, growth forecasts, and potential funding.
- **Growth Forecasts.** Population and job growth forecasts were allocated to the City of Chelan through the County Wide Planning Policies for Chelan County. The 2017 population as well as the 2022 (six-year) and 2037 population (20-year) growth for each facility provider is estimated.
- **Revenue Forecasts.** Revenues were forecasted for Chelan city facilities to year 2037. The sources of revenue are summarized from available plans and compared to typical revenue sources for those service providers.

1.6 Overview

Exhibit 1-1 summarizes the facilities and services addressed in this appendix including the service, provider, and applicable plans considered in this appendix.

Exhibit 1-1. Infrastructure and Services Addressed in the Capital Facility Plan

Facility Type	Providers	Description	Applicable Plans
Parks & Recreation	• City Parks & Recreation Department • Chelan County Public Utilities District • Manson Parks & Recreation District • Washington State	Provides park and recreation facilities and other amenities with capital facilities.	City of Chelan Parks, Recreation & Open Space (PROS) Plan, 2016
Streets	City Streets Department	Provides and maintains paved streets, alleys, traffic signals, and cleans and maintains storm drainage ditches.	See Transportation Element
Refuse	City Solid Waste & Recycling Department	Provides facilities for services for garbage and recycling collection.	Chelan County Solid Waste Management Plan
Wastewater and Sewer	• City Wastewater Department • Lake Chelan Sewer District (LCSD)	Treats wastewater and maintains water quality.	General Sewer Plan, 2008

Facility Type	Providers	Description	Applicable Plans
	• Lake Chelan Reclamation District		
Water	• City Water Division • Bear Mountain Water District (BMWD) • Lake Chelan Reclamation District	Provides potable water to the City.	Water System Plan, 2017, pending
Municipal Buildings	City of Chelan	Includes city-owned buildings and property management related to city owned capital.	City of Chelan Budget, 2016
Airport	City of Chelan and the Port of Chelan County	A general use airport owned by the City and Port of Chelan County.	Airport Layout Plan, 2009, pending update
Law Enforcement	Chelan County Sheriff's Office	Contracts with the County to provide law enforcement to the City.	Chelan County Sheriff Annual Report, 2015
Fire	• County Fire Protection District 7 • Chelan County Fire Protection District 5	Contracts with fire protection districts to provide fire services to the City.	Chelan County Fire District #5 Community Task Force Report, 2012 Chelan Fire and Rescue Long Range Plan, 2014-2018
School	Lake Chelan School District	Provides facilities for instruction for the City of Chelan.	Lake Chelan School District Capital Projects Summary

Source: BERK, 2017.

1.7 Relationship to the Comprehensive Plan

The Capital Facilities Plan relies on the policies set forth in the Chelan Comprehensive Plan as a baseline for studying capital planning needs. The future land use plan and the Comprehensive Plan population assumptions drive future development in the City, which impacts levels of service and determines capacity needs for services provided by City and non-city providers. **Exhibit 1-1** lists the population assumptions for the 6 and 20-year planning horizon years for both the city limits and the UGA. If UGAs were to annex to the City the UGA population would be added to the City's population. See the Existing Conditions Report Land Use appendix documenting the City's 2017-2037 growth targets and estimates.

Exhibit 1-2. Chelan and UGA Population Assumptions, 2017-2037

Year	City + unincorporated UGA CFP Growth Assumptions
2017	4,465
2022	4,749
2037	5,719
Net Growth 2017-37	**1,254**

Source: BERK, 2017.

In addition to planning for its year-round population, the City plans for seasonal populations. The water and sewer plans consider water and wastewater demand in peak and non-peak seasons and plan for both. The transportation analysis considers traffic during spring and summer during PM peak hours. Additionally, for parks and law enforcement, this appendix generates an estimate of seasonal population and effect on levels of service.

2.0 CAPITAL FACILITIES REVENUE ANALYSIS

2.1 Overview

The revenue analysis of the Capital Facilities Plan supports the financing for providing facilities and services, as required by RCW 36.70A.070(3)(d). Revenue estimates, using assumptions that are based on historical trends, are used to represent realistic expectations for revenue that may be available for capital funding.

This revenue analysis looks at Chelan's capital facility revenues for those services provided by the City of Chelan. Capital expenses are a significant portion of the City's annual spending, and accounted for an estimated 36% of the City budget in 2016 (City of Chelan, 2016). Through identifying fiscal constraints in the future, and potential gap funding options, project prioritization can be incorporated into the capital planning process.

The revenue analysis provides an **approximate, and not exact, forecast of future revenue sources.** The numbers projected in this analysis are for planning purposes and cannot account for sensitivities such as local, state, and federal policy, economic trends, and other factors.

2.2 Funding the Capital Facilities Plan

Estimated future revenues are projected for the Plan's 2017 – 2037 time period. The revenue analysis is categorized according to:

- **General Capital Revenues.** Those revenues under the category of general capital revenues are the revenues required by law to be used for capital projects. The general capital revenues in Chelan include REET I and REET II and is directed to the Capital Improvement Fund.
- **Dedicated Capital Revenues.** Dedicated revenues are required to be used for certain types of capital spending, outlined by the law. The dedicated capital revenues in Chelan include grants and fees.

- **Operating Transfers**. Operating transfers-in are those revenue sources that are transferred in from operating funds. Although these are not dedicated sources to be relied on for capital funding, it has been the historical practice of the City to regularly make transfers into capital funds for certain service departments. Those are calculated separately as the practice may be common enough to be considered a potential funding source, however these transfers are not dedicated to capital spending and could be used elsewhere.
- **Potential Policy Options and Other Funding Sources**. There are additional policy tools and sources available to fund capital projects.

2.3 Assumptions

The assumptions used in this analysis may not align with the City's budget assumptions regarding the same sources of revenue because the purpose of the two analyses is different. The City's budget estimates how much money the City will have available for spending in the coming fiscal year while this CFP revenue analysis estimates how much money (dedicated to capital spending) the City is likely to receive in total over the next six and 23 years. The Chelan revenue analysis is based on the following assumptions:

- **Analysis Boundary**. The analysis includes the current city limits as well as the Urban Growth Area. The buildable lands analysis indicates that the City can accommodate all expected growth by 2037 in the Chelan UGA.
- **District Boundaries**. Some of the service providers operate in a geographic area other than the city limits. Population estimates through 2037 for these districts are indicated in Exhibit 1-2.
- **Real Estate Excise Tax (REET)**. This analysis assumes that assessed values (AV) for property tax will increase an annual rate of 1% going forward and that the turnover rate is 5% for residential properties and 3% for commercial properties. New construction is assumed to be 1.4% of total AV. The growth in assessed value and the turnover rates are important since REET revenues are based on the total value of real estate transactions in a given year. REET 1 and REET 2 each assess 0.25% on all sales of real estate~~the assessed value~~.

Commented [LG1]: Housekeeping correction

2.4 General Capital Revenues

Capital Improvement Fund

The resources of the Capital Improvement Fund are allocated to the acquisition, construction, and improvement of facilities that are not otherwise provided for in other specific funds. The primary sources of revenue is the real estate excise tax (REET). Any capital expenses that the fund pays for that do not fit the criteria for REET funding are funded through a transfer from the General Fund to the Capital Improvement Fund. Some grant contributions have been used to fund projects, including grants from WSDOT, CDBG, and FAA. (City of Chelan, 2016)

Capital Improvement Fund expenditures include investments in public buildings, design and improvements to public space, debt service on capital projects, equipment replacement, and property acquisition.

Capital Improvement Fund: Real Estate Excise Tax (REET)

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Real Estate Excise Tax (REET) revenues are collected on property sales at the point of sale. They are required by law to be spent on capital projects. REET is based on the total value of real estate transactions in a given year, and the amount received annually can vary significantly based on fluctuations in the real estate market and trends in the economy.

Chelan is authorized by the state to impose two separate REET levies. REET I and REET II each allow for a levy of 0.25 % on the value of a sale, for a total tax of 0.5 %. All proceeds must be used for capital spending, as defined in RCW 35.43.040. REET II is more restricted than REET I, as it may not be spent on acquisition of land for parks, recreation facilities, law enforcement facilities, fire protection facilities, trails, libraries, or administrative or judicial facilities (RCW 82.46.035). REET II, specifically, can only be levied by those cities and counties that are planning under GMA. For REET II, the capital projects must be those specifically listed in RCW 82.46.035(5):

> *Public works projects of a local government for planning, acquisition, construction, reconstruction, repair, replacement, rehabilitation, or improvement of streets, roads, highways, sidewalks, streets and road lighting systems, traffic signals, bridges, domestic water systems, storm and sanitary sewer systems, and planning, constructions, reconstruction, repair, rehabilitation, or improvement of parks.*

Within the parameters defined by law, REET I and REET II can be spent at the discretion of the City of Chelan. A portion of REET revenues in Chelan are already committed to bond payments, but this analysis estimates that there will be additional revenues to spend for capital purposes.

Since home sales and values can fluctuate significantly depending on factors of the economy, this analysis assumes annual turnover of 5.0% for residential properties and 3.0% for commercial properties. Exhibit 2-1 shows historical REET revenues to the left of the dotted line and projected revenues to the right of the dotted line. Actual revenues will have peaks and valleys due to the natural cycles of the real estate market and the economy.

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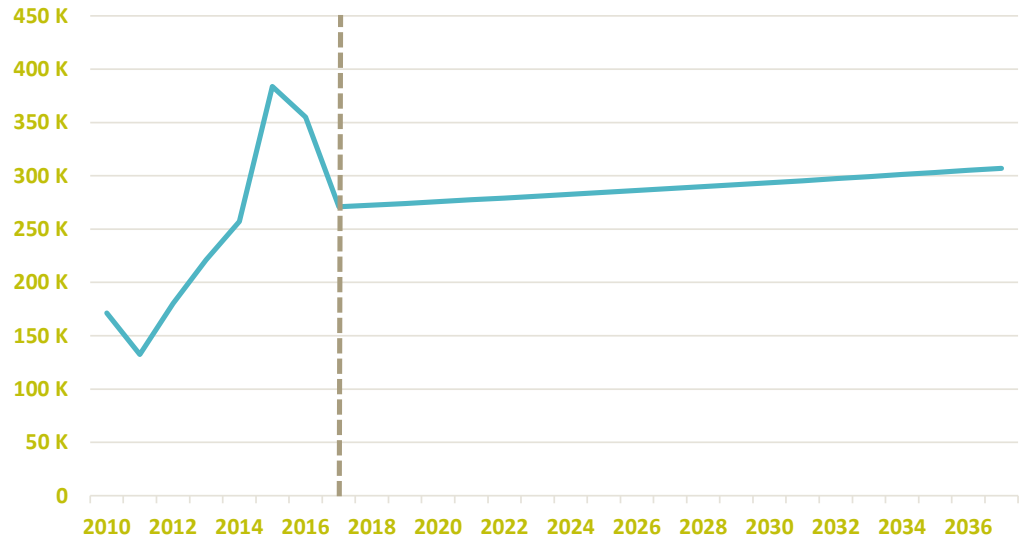
Exhibit 2-1.Capital Improvement Fund Revenues (2008 – 2037), YOE$



Source: City of Chelan, 2016; BERK, 2017.

Exhibit 2-2~~Exhibit 2-2~~ shows the estimated total REET revenues for the next six years and for the 20-year planning horizon (2037). ~~In~~ As of the end of 2016, REET I and REET II had ~~an ending~~a beginning fund balance of $245,225, which is also available for general capital spending during the planning period. Existing debt service commitments are also shown.

Exhibit 2-2. Projected Real Estate Excise Tax Revenues (2017 -2037), YOE$

General Capital Revenues/REET	Subtotal 2017-2022	Subtotal 2023-2037	Revenue Total 2017-2037
Estimated Revenues	$1,650,000	$4,410,000	$6,060,000

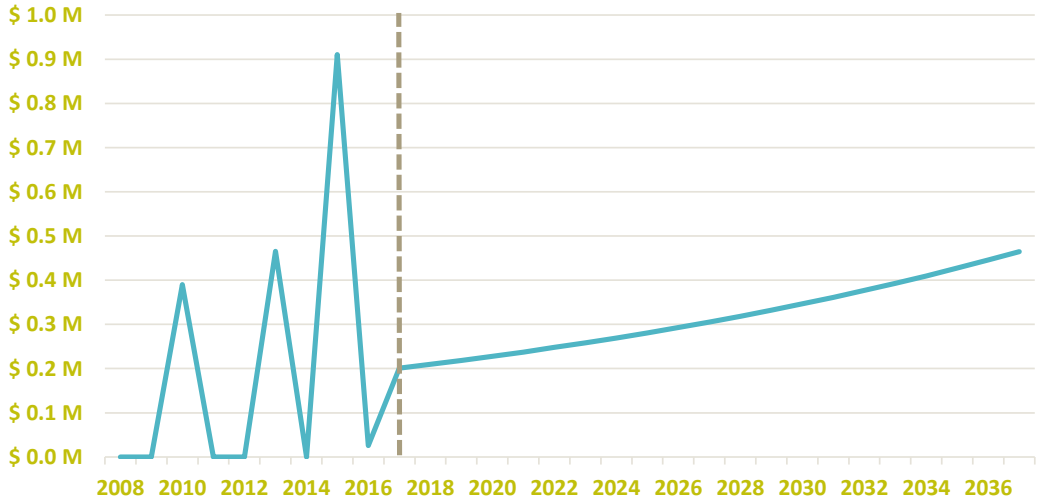
Source: City of Chelan, 2016; BERK, 2017.

Capital Improvement Fund: Grants

The City of Chelan deposits revenues from Grants into the Capital Improvement Fund, including grants from FAA, CDBG, and ~~WSDOT~~ TIB grant resources. Since 2008, Chelan has received $45.74 per capita in combined grant and donation revenues. A value of $45 per capita was used to project potential future grant revenues. The analysis assumes no additional growth beyond inflation growth of 3%.

Exhibit 2-3 shows historical revenues to the left of the dotted line and an estimated future revenue trend to the right of the dotted line. An average annual dollar amount is assumed in each year for this analysis. In reality, annual revenues will vary greatly due to the lumpy nature of grant funding and are likely to resemble more of a peaks and valleys trend as shown in the historical data. While the annual average cannot fully represent future receipt of grant dollars, it approximates how many total dollars may be received over a period of time.

Exhibit 2-3. Historical and Projected General Capital Improvement Grants (2008 – 2037), YOE$



Source: City of Chelan, 2016; BERK, 2017.

Exhibit 2-4 summarizes projected revenues for the planning period as well as two subtotal time periods.

Exhibit 2-4. Projected General Capital Improvement Grants and Contributions (2017 – 2037), YOE$

Grants & Contributions	Subtotal 2017 -2022	Subtotal 2023-2037	Revenue Total 2017-2037
Estimated Revenues	**$1,342,000**	**$5,284,000**	**$6,626,000**

Source: City of Chelan, 2016; BERK, 2017.

Capital Improvement Fund: Total Estimated Capital Fund Revenues

Exhibit 2-5 shows total estimated dedicated revenues available for general capital improvement projects over the planning period. Additionally, as of the close of 2016, Chelan has a ~~2016~~ beginning fund balance of about $245,225~~$290,000~~ in its Capital Improvement Fund. These funds are also available to cover recreation capital projects during the 2017 – 2037 period. The City also has debt service commitments for the acquisition of the Masonic Temple for the Library. The debt on the Masonic Temple Acquisition expires in 2025, but additional debt commitments may be paid out of the Capital Improvement Fund in the future.

Exhibit 2-5. Projected Revenues Dedicated to General Capital Improvements (2017 – 2037), YOE$

Capital Improvement Fund/REET	Subtotal 2017-2022	Subtotal 2023-2037	Revenue Total 2017-2037	Total with 2016 Fund Balances
Estimated Revenues	$2,470,000	$10,220,000	$12,690,000	**$12,980,000**
Amount Committed to Debt Service	*$172,800*	*$86,400*	*$259,200*	***$259,200***

Available Revenues	$2,297,200	$10,133,600	$12,430,800	$12,720,800

Source: City of Chelan, 2016; BERK, 2017.

The City of Chelan monitors the Capital Improvement Fund with the understanding that REET revenues are volatile based on the market. As such, projects are not typically funded fully on anticipated REET funds and will be funded on a combination of anticipated revenues and revenues already received. (City of Chelan, 2016)

Capital Improvement Fund: Six-Year Cost and Revenue Comparison

This six-year comparison looks at the total dedicated general capital improvements revenue sources with its planned project costs for the six-year planning horizon of 2017 – 2022 in order to understand the difference between future dedicated capital costs and potential future revenues. ~~As with most capital spending, e~~Estimated future capital costs are ~~larger~~ less than future dedicated capital revenues.

Exhibit 2-6. Estimated General Capital Improvement Revenues and Costs (2017 – 2037), YOE$

General Capital	Costs 2017- 2022
Dedicated General Capital Revenue	$2,297,200
2016 General Capital Fund Balance	$245,225
Total General Capital Funds Available	**$2,540,000**
General Capital Costs	$180,000~~Pending~~
Estimated Dedicated Funding Surplus/(Deficit)	**$2,360,000**~~$XXXX~~

Source: City of Chelan, 2016 and 2017; BERK, 2017~~, XXXX.~~

More information on specific General Capital projects can be found in section 3.5.

2.5 Dedicated Capital Revenues and Operating Transfers

Recreation

The Recreation Capital Fund covers capital improvements of the City's parks, golf course, and recreational facilities, relying on transfers from the General Fund, Parks and Recreation Fund, and Stadium/Tourism Fund. There is a policy to transfer $50,000 from the Stadium/Tourism Fund annually in order to maintain reserves for major equipment purchases and infrastructure investments. (City of Chelan, 2016)

Much of the revenues for parks capital projects and land acquisitions come from state and federal grants, contributions, and inter-fund distributions.

Recreation: Dedicated Revenues

Exhibit 2-7 shows historical revenues to the left of the dotted line and an estimated future revenue trend to the right of the dotted line. An average annual per capita dollar amount is assumed in each year for this analysis, based on 9-year historical per capita revenues. While the annual

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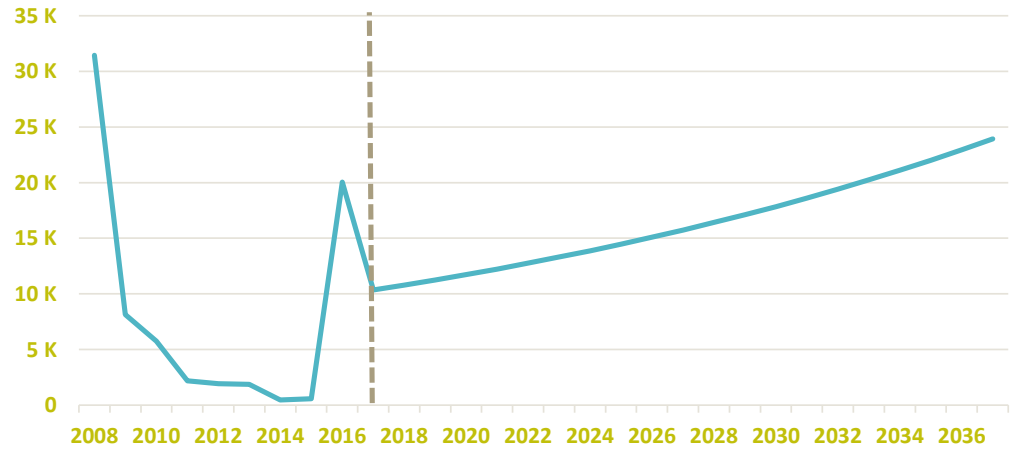
average cannot fully represent future receipt of revenues, it approximates how many total dollars may be received over a period of time. This method of projection is consistent for the analysis of dedicated revenues for all service areas analyzed. Since 2008, Chelan has received around $2.33 per capita in dedicated revenues annually within the Chelan city limits. A value of $2.25 per capita was used to project potential future grant revenues. The analysis assumes no additional growth beyond inflation growth of 3%.

Exhibit 2-7. Historical and Projected Dedicated Recreation Revenues (2008 – 2037), YOE$



Source: City of Chelan, 2016; BERK, 2017.

Exhibit 2-8 summarizes projected revenues for the planning period as well as two subtotal time periods.

Exhibit 2-8. Projected Recreation Dedicated Revenues (2017 – 2037), YOE$

Dedicated Revenues	Subtotal 2017-2022	Subtotal 2023-2037	Revenue 2017-2037	Total
Estimated Revenues	$70,000	$280,000	$350,000	

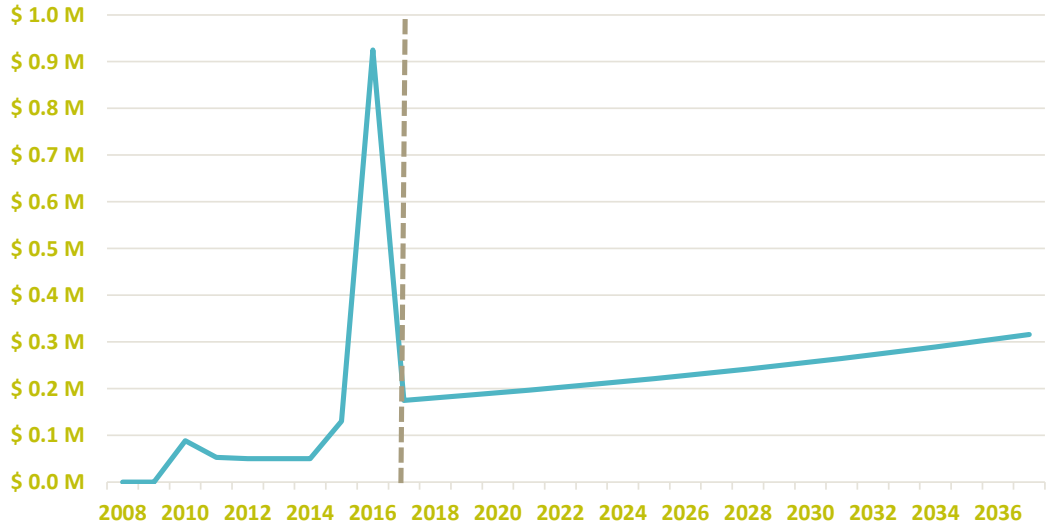
Source: City of Chelan, 2016; BERK, 2017.

Recreation: Operating Transfers

The City of Chelan contributes funds to the Recreation Capital Fund through operating transfers. Historical transfers-in range in size from zero to almost a million dollars in a year. ~~Although there were no transfers in 2008 and 2009, t~~There have been operating transfers included in capital budgets every year since 2010. Average annual transfers between 2008 and 2016 were $149,577, and annual average annual transfers between 2010 and 2016 were $192,313. The assumed annual transfer used in this model is $175,000. No growth in transfers beyond inflation (3%) were assumed. The majority of operating transfers come from the Stadium/Tourism Fund, with additional transfers from the Capital Improvement Fund and the General Fund.

Exhibit 2-9 shows historical revenues to the left of the dotted line and an estimated future revenue trend to the right of the dotted line. An average annual dollar amount is assumed in each year for this analysis, based on the 9-year historical average transfer amount. While the annual average cannot fully represent future receipt of operating transfers, it approximates how many total dollars may be transferred over a period of time. This method of projection is consistent for the analysis of operating transfers for all service departments analyzed.

Exhibit 2-9. Historical and Projected Recreation Operating Transfers (2008 – 2037), YOE$



Source: City of Chelan, 2016; BERK, 2017.

Exhibit 2-10 summarizes projected revenues for the planning period as well as two subtotal time periods.

Exhibit 2-10. Projected Recreation Operating Transfers (2017 – 2037), YOE$

Operating Transfers	Subtotal 2017-2022	Subtotal 2023-2037	Total 2017-2037
Estimated Revenues	$1,140,000	$3,890,000	$5,030,000

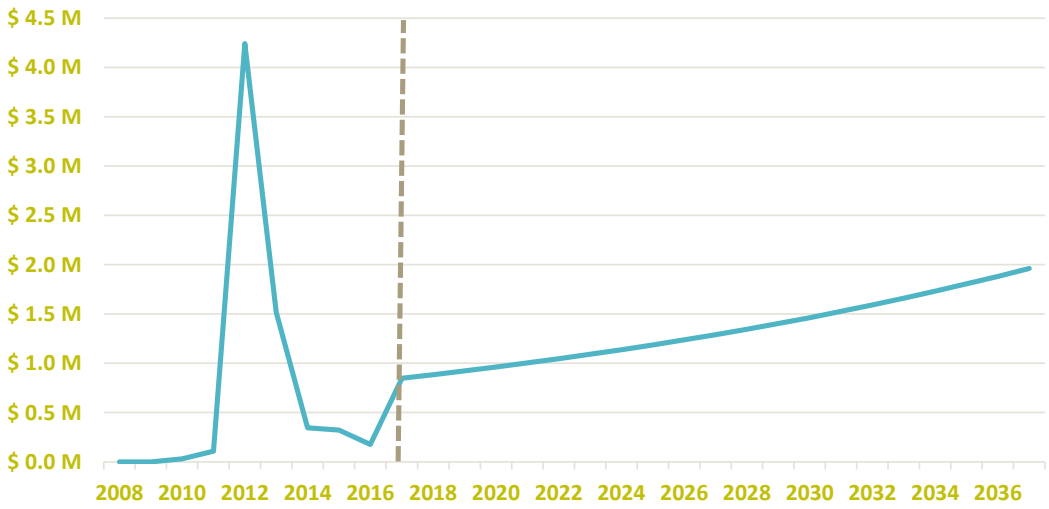
Source: City of Chelan, 2016; BERK, 2017.

Recreation: Grants

State grants have historically been received from the Washington State Recreation and Conservation Office (RCO) and are supplemented by community donations. Since parks grants are competitive on a state or national level, this analysis estimates these revenues on a per capita basis, using the assumption that over time a jurisdiction generally receives its "fair share" of available grant revenues. Since 2008, Chelan has received around $191 per capita in combined grant and donation revenues. A value of $190 per capita was used to project potential future grant revenues. The analysis assumes no additional growth beyond inflation growth of 3%.

Exhibit 2-11 shows historical revenues to the left of the dotted line and an estimated future revenue trend to the right of the dotted line. An average annual dollar amount is assumed in each year for this analysis. In reality, annual revenues will vary greatly due to the lumpy nature of grant funding and are likely to resemble more of a peaks and valleys trend as shown in the historical data. While the annual average cannot fully represent future receipt of grant dollars, it approximates how many total dollars may be received over a period of time.

Exhibit 2-11. Historical and Projected Recreation Grants and Contributions (2008 – 2037), YOE$



Source: City of Chelan, 2016; BERK, 2017.

Exhibit 2-12 summarizes projected revenues for the planning period as well as two subtotal time periods.

Exhibit 2-12. Projected Recreation Grants and Contributions, (2017 – 2037), YOE$

Parks Grants and Donations	Subtotal 2017-2022	Subtotal 2023-2037	Revenue Total 2017-2037
Estimated Revenues	$5,667,000	$22,310,000	$27,977,000

Source: City of Chelan, 2016; BERK, 2017.

Recreation: Total Estimated Capital Fund Revenues

Exhibit 2-13 shows total estimated dedicated revenues available for recreation capital projects over the planning period. Additionally, Chelan has a 2016 fund balance of about $189,794in its Recreation Capital Fund. These funds are also available to cover recreation capital projects during the 2017 – 2037 period.

Exhibit 2-13. Projected Revenues Dedicated to Recreation Capital (2017 – 2037), YOE$

Total Recreation	Subtotal 2017-2022	Subtotal 2023-2037	Revenue Total 2017-2037	Total with 2016 Fund Balances
Estimated Dedicated Revenues	$6,870,000	$26,360,000	$33,230,000	**$33,420,000**

Estimated Grant Revenues	$5,670,000	$22,310,000	$27,980,000	**$27,980,000**
Available Revenues	**$1,200,000**	**$4,050,000**	**$5,250,000**	$5,440,000

Source: City of Chelan, 2016; BERK, 2017.

Recreation: Six-Year Cost and Revenue Comparison

This six-year comparison looks at the total dedicated recreation revenue sources with its planned project costs for the six-year planning horizon of 2017 – 2022 in order to understand the difference between future dedicated capital costs and potential future revenues. As with most capital spending, estimated future capital costs are larger than future dedicated capital revenues.

Exhibit 2-14. Estimated Recreation Revenues and Costs (2017 – 2037), YOE$[1]

Recreation	Costs 2017- 2022
Estimated Parks Grants	$2,655,030
2016 Parks Fund Balance	$189,794
Total Parks Funds Available	**$2,840,000**
Capital Parks Costs[2]	$7,620,000~~$6,520,000~~
Estimated Dedicated Funding Surplus/(Deficit)	**($4,780,000)~~($3,680,000)~~**

1 Year of Estimate = YOE
2 Inflation Adjusted and therefore do not match costs in Section 3.

Source: City of Chelan, 2016; BERK, 2017; .

More information on specific Parks and Recreation projects can be found in section 3.1.

Sewer

The Sewer Capital Fund funds capital improvement projects related to the wastewater collection and treatment facilities and is financed through general facility charges and monthly rate revenues, which fund the Sewer Fund and are then transferred to the Sewer Capital Fund as needed. Sewer capital projects are funded through cash contributions and utility bond funding. As the City grows, additional wastewater improvements are needed to accommodate the new development, although the timing and location of growth is difficult to predict. (City of Chelan, 2016)

Sewer: Dedicated Revenues

Since 2008, Chelan has received around $26.90 per capita in dedicated revenues annually within the Chelan UGA. A value of $25 per capita was used to project potential future grant revenues. The analysis assumes no additional growth beyond inflation growth of 3%.

Exhibit 2-15 shows historical revenues to the left of the dotted line and an estimated future revenue trend to the right of the dotted line. An average annual per capita dollar amount is assumed in each year for this analysis, based on 9-year historical per capita revenues. While the annual average cannot fully represent future receipt of revenues, it approximates how many total dollars may be received over a period of time.

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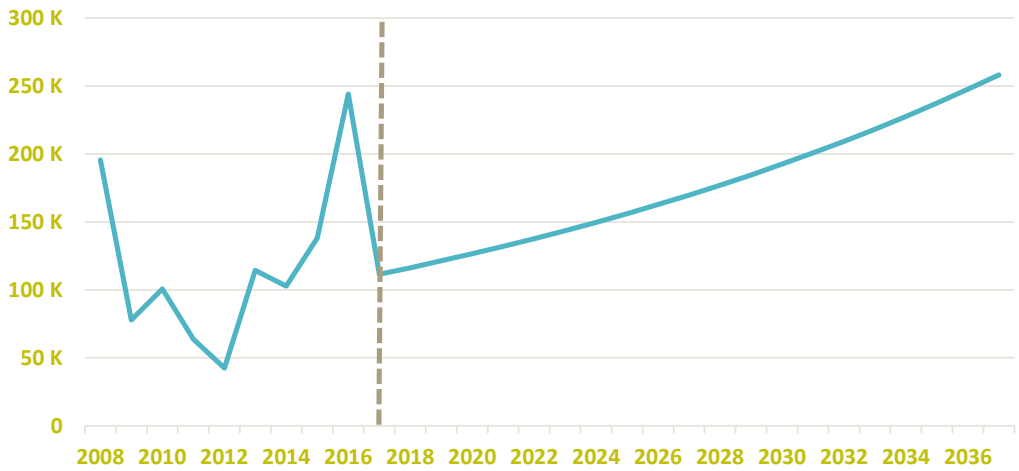
Exhibit 2-15. Historical and Projected Sewer Dedicated Revenues (2008 – 2037), YOE$



Source: City of Chelan, 2016; BERK, 2017.

Exhibit 2-16 summarizes projected revenues for the planning period as well as two subtotal time periods.

Exhibit 2-16. Projected Sewer Dedicated Revenues (2017 – 2037), YOE$

Dedicated Revenues	Subtotal 2017-2022	Subtotal 2023-2037	Revenue 2017-2037	Total
Estimated Revenues	$750,000	$2,940,000	$3,690,000	

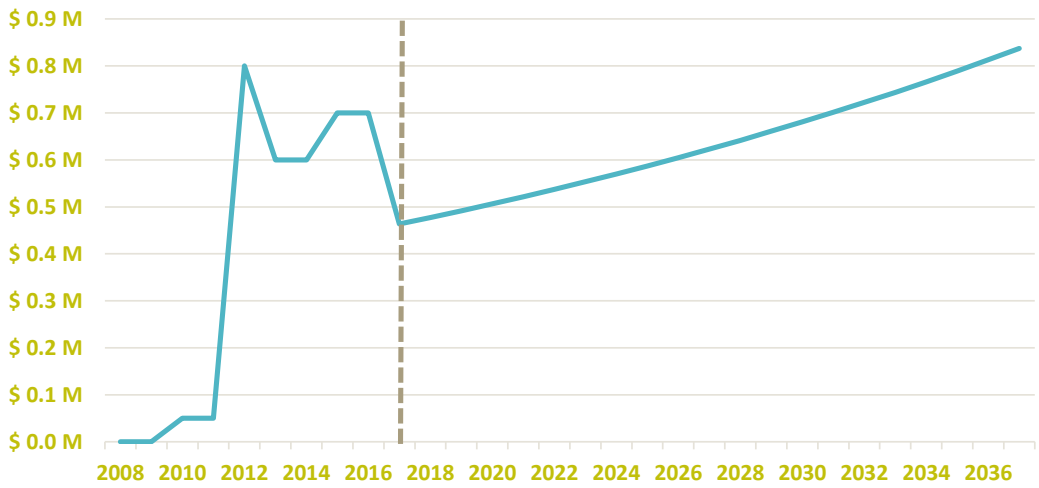
Source: City of Chelan, 2016; BERK, 2017.

Sewer: Operating Transfers

The Sewer Capital Fund historically received an average of around $390,000 annually in operating transfers between 2008 and 2016 (see Exhibit 2-17). However, there were no transfers during 2008 and 2009~~, with more~~. The range from 2010 to 2016 is $50,000 to $800,000, and is more consistently around $600,000 to $700,000. The average from 2010 to 2016 was $500,000. ~~consistent transfers in more recent years~~. The assumed transfer revenues used in the model are $450,000 annually to account for the outlier years where no transfers occurred, and yet recognize an increasing trend. The model assumes inflation growth of 3% annually.

Exhibit 2-17 shows historical revenues to the left of the dotted line and an estimated future revenue trend to the right of the dotted line.

Exhibit 2-17. Historic and Projected Sewer Operating Transfers (2008-2037), YOE$



Source: City of Chelan, 2016; BERK, 2017.

Exhibit 2-18 summarizes projected revenues for the planning period as well as two subtotal time periods.

Exhibit 2-18. Projected Sewer Operating Transfers (2017 – 2037), YOE$

Operating Transfers	Subtotal 2017-2022	Subtotal 2023-2037	Revenue 2017-2037 Total
Estimated Revenues	$3,000,000	$10,300,000	$13,300,000

Source: City of Chelan, 2016; BERK, 2017.

Sewer: Grants & Contributions

Sewer grants and contributions come mostly from intergovernmental contributions, as well as from state loans, with a minor amount of grant revenues. Since 2008, Chelan has received $256 per capita in combined intergovernmental contributions, loans, or grant ~~grant and donation~~ revenues. A value of $250 per capita was used to project potential future grant revenues. The analysis assumes no additional growth beyond inflation growth of 3%.

Exhibit 2-19 shows historical revenues to the left of the dotted line and an estimated future revenue trend to the right of the dotted line.

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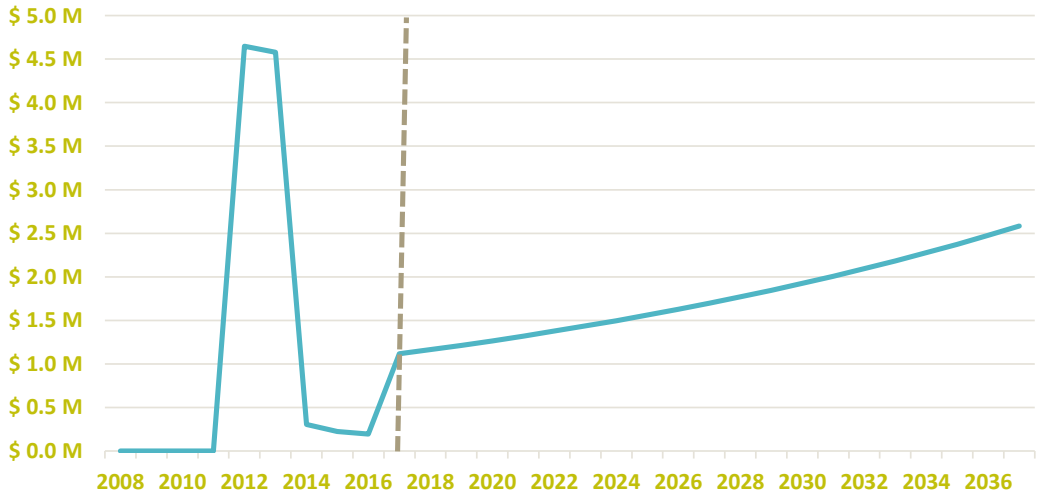
Exhibit 2-19. Historical and Projected Sewer Grants (2008 – 2037), YOE$



Source: City of Chelan, 2016; BERK, 2017.

Exhibit 2-20 summarizes projected revenues for the planning period as well as two subtotal time periods.

Exhibit 2-20. Projected Sewer Grants and Contributions (2017 – 2037), YOE$

Grants & Contributions	Subtotal 2017-2022	Subtotal 2023-2037	Revenue Total 2017-2037
Estimated Revenues	$7,456,000	$29,354,000	$36,810,000

Source: City of Chelan, 2016; BERK, 2017.

Sewer: Total Estimated Capital Fund Revenues

Exhibit 2-21 shows total estimated dedicated revenues available for sewer capital projects over the planning period. Additionally, Chelan has a 2016 fund balance of about $978,756 in its Sewer Capital Fund. These funds are also available to cover sewer capital projects during the 2017 – 2037 period. The Sewer Capital Fund also contributes to debt commitments related to capital investments in the sewer system. Currently, around $650,000 of debt is paid annually from the Sewer Capital Fund.

Exhibit 2-21. Projected Revenues Dedicated to Sewer Capital (2017 – 2037), YOE$

Total Sewer	Subtotal 2017-2022	Subtotal 2023-2037	Revenue Total 2017-2037	Total with 2016 Fund Balances
Estimated Revenues	$11,200,000	$42,590,000	$53,790,000	**$54,770,000**
Amount Committed to Debt Service	*$2,249,789*	*$5,050,365*	*$7,300,154*	***$7,300,154***
Available Revenues	$8,950,211	$37,539,635	$46,489,846	$47,469,846

Source: City of Chelan, 2016; BERK, 2017.

Sewer: Six-Year Cost and Revenue Comparison

This six-year comparison looks at the total dedicated sewer revenue sources with its planned project costs for the six-year planning horizon of 2017 – 2022 in order to understand the difference between future dedicated capital costs and potential future revenues.

Exhibit 2-22. Estimated Sewer Revenues and Costs (2017 – 2037), YOE$[1]

Sewer	Costs 2017- 2022
Estimated Wastewater Fund Revenues	$11,200,000
2015 Wastewater Fund Balance	$978,756
Total Wastewater Funds Available	$12,180,000
Capital Wastewater Costs[2]	$4,430,000
Estimated Dedicated Funding Surplus/(Deficit)	**$7,750,000**

1 Year of Estimate = YOE
2 Inflation Adjusted and therefore do not match costs in Section 3.

Source: City of Chelan, 2016; BERK, 2017.

More information on specific Sewer projects can be found in section 0.

Water

The Water Capital Fund funds capital improvements of the water system and is financed by general facility charges~~, (~~which are deposited directly into the Water Capital Fund) and monthly rate revenues that are transferred through the Water Fund. (City of Chelan, 2016)

Water: Dedicated Revenues

Since 2008, Chelan has received around $35 per capita in dedicated revenues annually within the Chelan UGA. A value of $35 per capita was used to project potential future grant revenues. The analysis assumes no additional growth beyond inflation growth of 3%.

Exhibit 2-15 shows historical revenues to the left of the dotted line and an estimated future revenue trend to the right of the dotted line. An average annual per capita dollar amount is assumed in each year for this analysis, based on 9-year historical per capita revenues. While the annual average cannot fully represent future receipt of revenues, it approximates how many total dollars may be received over a period of time.

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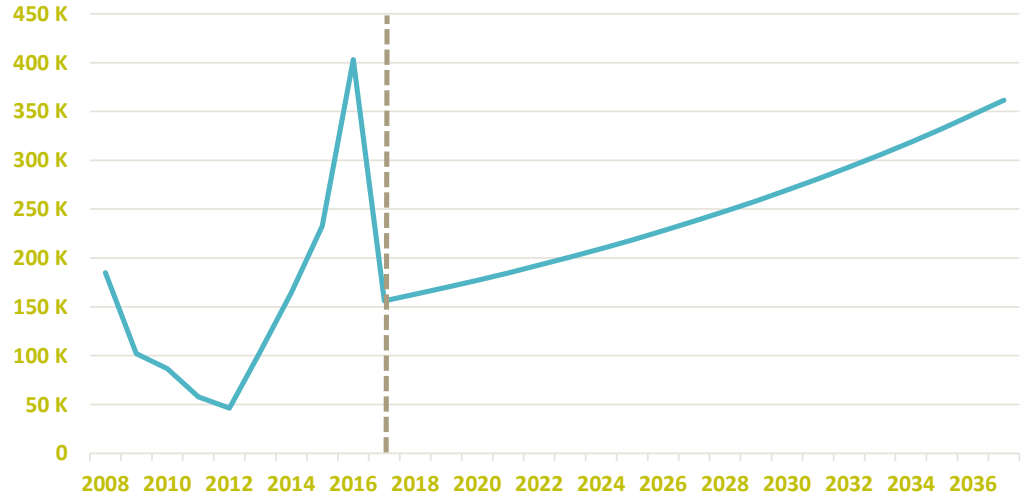
Exhibit 2-23. Historical and Projected Water Dedicated Revenues (2008 – 2037), YOE$



Source: City of Chelan, 2016; BERK, 2017.

Exhibit 2-24 summarizes projected revenues for the planning period as well as two subtotal time periods.

Exhibit 2-24. Projected Dedicated Water Revenues (2017 – 2037), YOE$

General Facility Charges	Subtotal 2017-2022	Subtotal 2023-2037	Revenue 2017-2037 Total
Estimated Revenues	$1,090,000	$3,910,000	$5,000,000

Source: City of Chelan, 2016; BERK, 2017.

Water: Operating Transfers

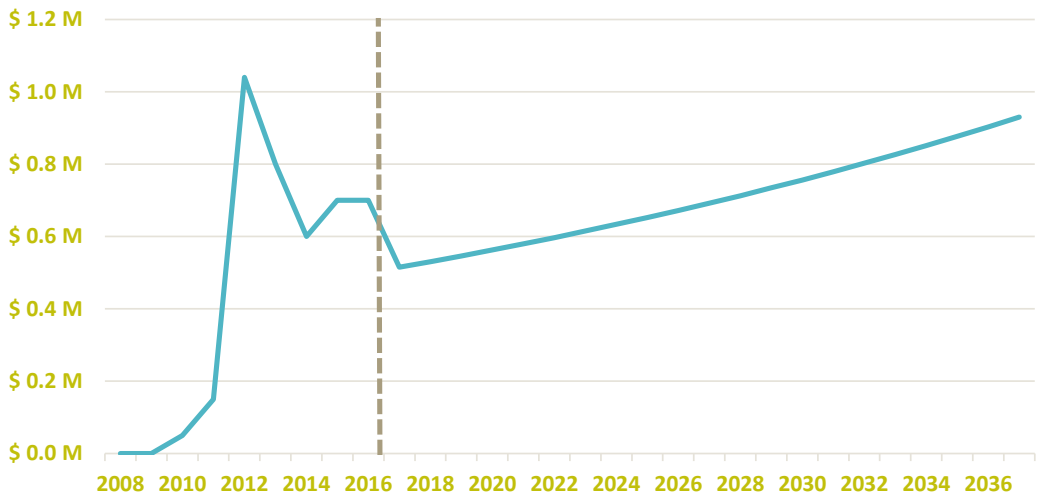
Commented [LG2]: ▪Clarify information on 2016 fund balances and historic funds transfers.

The Water Capital Fund historically received an average of around $450,000 annually in operating transfers between 2008 and 2016. However, there were no transfers during 2008 and 2009~~, with~~. There have been more consistent transfers in more recent years ranging from $50,000 to over $1 million, and the typical transfer is between $600,000 to $700,000. Including just the years with transfers (2010-2016) the average is $578,000.

The assumed transfer revenues used in the model are $500,000 annually to account for the outlier years where no transfers occurred yet recognizing the increasing trend. The model assumes inflation growth of 3% annually.

Exhibit 2-25 shows historical revenues to the left of the dotted line and an estimated future revenue trend to the right of the dotted line.

Exhibit 2-25. Historical and Projected Water Operating Transfers (2008 – 2037), YOE$



Source: City of Chelan, 2016; BERK, 2017.

Exhibit 2-26 summarizes projected revenues for the planning period as well as two subtotal time periods.

Exhibit 2-26. Projected Water Operating Transfers (2017 – 2037), YOE$

Operating Transfers	Subtotal 2017-2022	Subtotal 2023-2037	Revenue 2017-2037	Total
Estimated Revenues	$3,340,000	$11,440,000	$14,780,000	

Source: City of Chelan, 2016; BERK, 2017.

Water: Grants and Contributions

Chelan does not frequently receive revenues from grants and contributions for water capital projects. Since 2008, Chelan has received $1.26 per capita in combined grant and donation revenues. A value of $1.25 per capita was used to project potential future grant revenues. The analysis assumes no additional growth beyond inflation growth of 3%.

Exhibit 2-27 shows historical revenues to the left of the dotted line and an estimated future revenue trend to the right of the dotted line. The historical data visualizes that the grants and contributions tend to come in large amounts intermittently.

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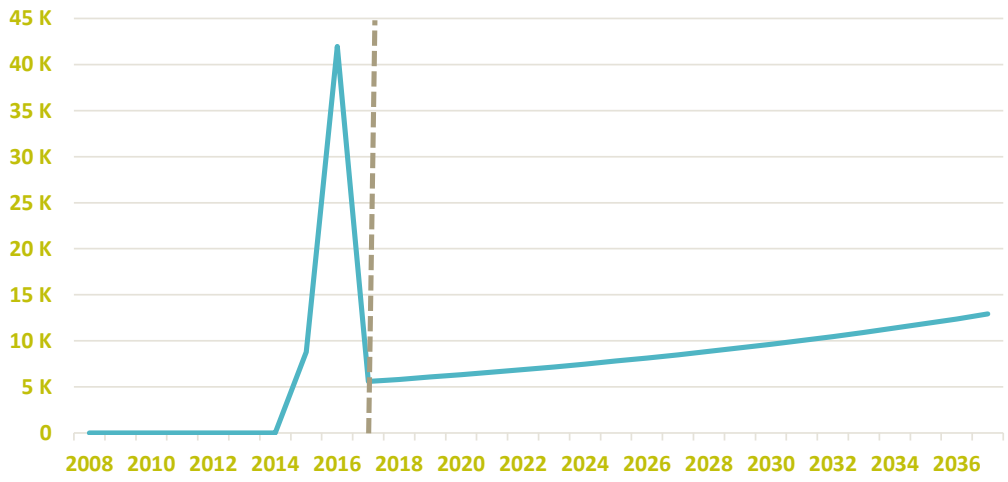
Exhibit 2-27. Historical and Projected Water Grants (2008 – 2037), YOE$



Source: City of Chelan, 2016; BERK, 2017.

Exhibit 2-28 summarizes projected revenues for the planning period as well as two subtotal time periods.

Exhibit 2-28. Projected Water Grants (2017 – 2037), YOE$

Water Grants	Subtotal 2017-2022	Subtotal 2023-2037	Revenue Total 2017 - 2037
Estimated Revenues	$40,000	$140,000	$180,000

Source: City of Chelan, 2016; BERK, 2017.

Water: Total Estimated Capital Fund Revenues

Exhibit 2-29 shows total estimated dedicated revenues available for water capital projects over the planning period. Additionally, Chelan has a 2016 fund balance of about $2,982,514 in its Water Capital Fund. These funds are also available to cover water capital projects during the 2017 – 2037 period. The Water Capital Fund also contributes to debt commitments related to capital investments in the water system. Currently, around $118,000 of debt is paid annually from the Water Capital Fund, with no current debt commitments beyond 2020. Additional debt commitments may be paid out of the Water Capital Fund in the future, depending on capital investment needs.

Exhibit 2-29. Projected Revenues Dedicated to Water Capital (2017 – 2037), YOE$

Total Water	Subtotal 2017-2022	Subtotal 2023-2037	Revenue Total 2017-2037	Total with 2016 Fund Balances
Estimated Revenues	$4,420,000	$15,700,000	$20,120,000	**$23,110,000**
Amount Committed to Debt Service	*$1,794,600*	*$0*	*$1,794,600*	***$1,794,600***
Available Revenues	$2,625,400	$15,700,000	$18,325,400	$21,315,400

Source: City of Chelan, 2016; BERK, 2017.

Water: Six-Year Cost and Revenue Comparison

This six-year comparison looks at the total dedicated water revenue sources with its planned project costs for the six-year planning horizon of 2017 – 2022 in order to understand the difference between future dedicated capital costs and potential future revenues. As with most capital spending, estimated future capital costs are larger than future dedicated capital revenues.

Exhibit 2-30. Estimated Water Revenues and Costs (2017 – 2037), YOE$[1]

Water	Costs 2017- 2022
Dedicated Water Fund Revenues	$4,420,000
2016 Water Fund Balance	$2,982,514
Total Water Funds Available	$7,400,000
Capital Water Costs[2]	$29,890,000
Estimated Dedicated Funding Surplus/(Deficit)	**($22,490,000)**

1 Year of Estimate = YOE
2 Inflation Adjusted and therefore do not match costs in Section 3.

Source: City of Chelan, 2016; BERK, 2017.

The project may change in the future due to the pending 2017 Water Plan Update. Also, "2021+" projects are counted in 2021 here but are likely to be spread out over additional years.

More information on specific Water projects can be found in section 3.3.

Streets

The Streets Capital Fund provides funding for street projects related to capital improvements. Chelan has a Street Overlay Program to assure well-maintained roads in the City through the application of funds to street repair and overlays according to a priority list of projects. The project list is based on a street rating system and over 25 miles of the 32 miles in the City's inventory have undergone overlay projects since the program started in 1998.

Streets: Dedicated Revenues

Since 2008, Chelan has received around $3.08 per capita in dedicated revenues annually within the Chelan city limits. A value of $3.00 per capita was used to project potential future grant revenues. The analysis assumes no additional growth beyond inflation growth of 3%.

Exhibit 2-31shows historical revenues to the left of the dotted line and an estimated future revenue trend to the right of the dotted line. An average annual per capita dollar amount is assumed in each year for this analysis, based on 9-year historical per capita revenues. While the annual average cannot fully represent future receipt of revenues, it approximates how many total dollars may be received over a period of time.

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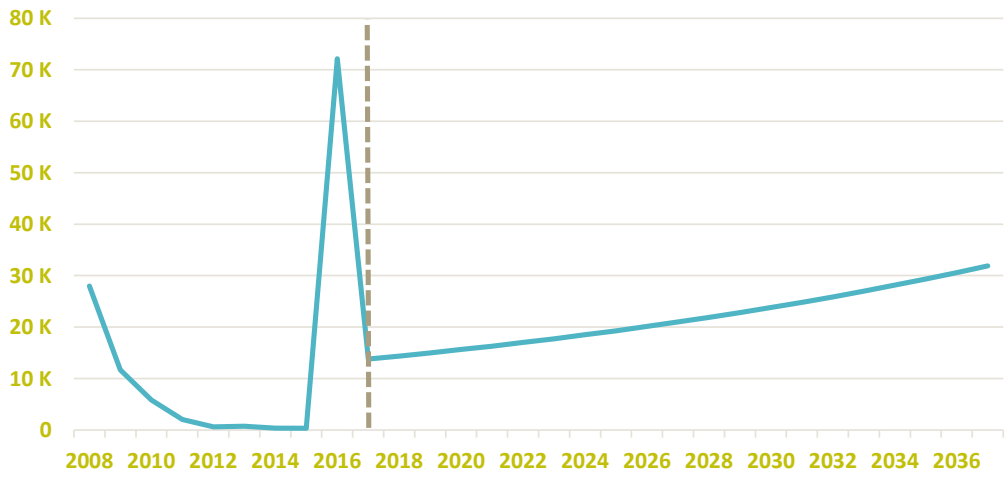
Exhibit 2-31. Historical and Projected Streets Dedicated Revenues (2008 – 2037), YOE$



Source: City of Chelan, 2016; BERK, 2017.

Exhibit 2-34 summarizes projected revenues for the planning period as well as two subtotal time periods.

Exhibit 2-32. Projected Streets Dedicated Revenues (2017 – 2037), YOE$

Streets Dedicated	Subtotal 2017-2022	Subtotal 2023-2037	Revenue 2017-2037	Total
Estimated Revenues	$100,000	$370,000	$470,000	

Source: City of Chelan, 2016; BERK, 2017.

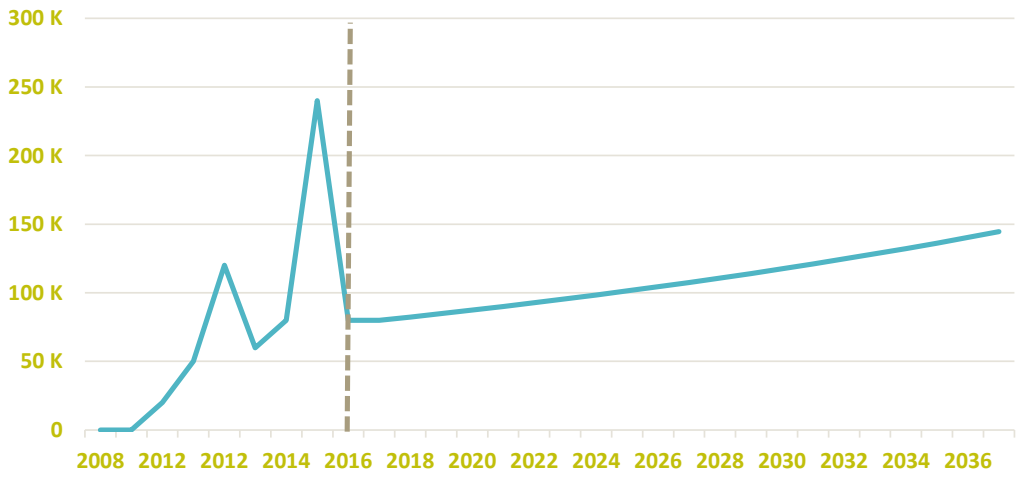
Streets: Operating Transfers

Commented [LG3]: ▪Clarify information on 2016 fund balances and historic funds transfers.

The Streets Capital Fund historically received an average of around $71,000 annually in operating transfers between 2008 and 2016. However, there were no transfers during 2008 and 2009, with more consistent transfers in more recent years. The average transfer between 2010 and 2016 was $92,857. The assumed transfer revenues used in the model are $80,000 annually to account for the outlier years where no transfers occurred, and still show an increasing trend. The model assumes inflation growth of 3% annually.

Exhibit 2-33 shows historical revenues to the left of the dotted line and an estimated future revenue trend to the right of the dotted line.

Exhibit 2-33. Historical and Projected Streets Operating Transfers (2008 – 2037), YOE$



Source: City of Chelan, 2016; BERK, 2017.

Exhibit 2-34 summarizes projected revenues for the planning period as well as two subtotal time periods.

Exhibit 2-34. Projected Streets Operating Transfers (2017 – 2037), YOE$

Operating Transfers	Subtotal 2017-2022	Subtotal 2023-2037	Revenue 2017-2037	Total
Estimated Revenues	$520,000	$1,780,000		$2,300,000

Source: City of Chelan, 2016; BERK, 2017.

Streets: Grants and Contributions

Since 2008, Chelan has received $21.00 per capita in combined grants and contributions and since 2011, Chelan has received $31.50 per capita in combined grants and contributions for services within the Chelan City limits. A value of $25 per capita was used to project potential future grant revenues. The analysis assumes no additional growth beyond inflation growth of 3%.

Exhibit 2-35 shows historical revenues to the left of the dotted line and an estimated future revenue trend to the right of the dotted line.

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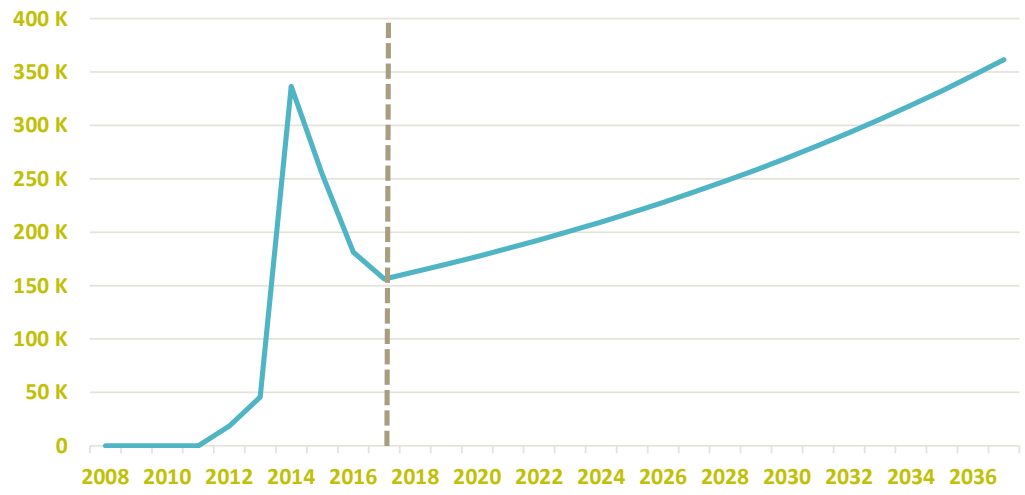
Exhibit 2-35. Historical and Projected Streets Grants (2008 – 2037), YOE$



Source: City of Chelan, 2016; BERK, 2017.

Exhibit 2-36 summarizes projected revenues for the planning period as well as two subtotal time periods.

Exhibit 2-36. Projected Streets Grants (2017 – 2037), YOE$

Streets Grants & Contributions	Subtotal 2017 -2022	Subtotal 2023-2037	Revenue Total 2017-2037
Estimated Revenues	$1,044,000	$4,110,000	$5,154,000

Source: City of Chelan, 2016; BERK, 2017.

Streets: Total Estimated Capital Fund Revenues

Exhibit 2-37 shows total estimated dedicated revenues available for streets capital projects over the planning period. Additionally, Chelan has a 2016 fund balance of about $164,231in its Streets Capital Fund. These funds are also available to cover street capital projects during the 2017 – 2037 period.

Exhibit 2-37. Projected Revenues Dedicated to Streets Capital (2017 – 2037), YOE$

Total Streets	Subtotal 2017-2022	Subtotal 2023-2037	Revenue Total 2017-2037	Total with 2016 Fund Balances
Estimated Revenues	$1,660,000	$6,250,000	$7,910,000	**$8,080,000**

Source: City of Chelan, 2016; BERK, 2017.

Streets: Six-Year Cost and Revenue Comparison

This six-year comparison looks at the total dedicated streets revenue sources with its planned project costs for the six-year planning horizon of 2017 – 2022 in order to understand the difference between future dedicated capital costs and potential future revenues. As with most capital spending, estimated future capital costs are larger than future dedicated capital revenues.

Exhibit 2-38. Estimated Streets Revenues and Costs (2017 – 2037), YOE$[1]

Streets	Costs 2017- 2022
Dedicated Streets Fund Revenues	$1,660,000
~~2015~~ 2016 Streets Fund Balance	$164,231
Total Streets Funds Available	**$1,820,000**
Capital Streets Costs[2]	$13,200,000~~$12,110,000~~
Estimated Dedicated Funding Surplus/(Deficit)	($11,380,000)~~($10,290,000)~~
Estimated Dedicated Funding Surplus/(Deficit) with Transportation Secured Revenue Adjustment	**($6,840,000)~~($5,750,000)~~**

1 Year of Estimate = YOE
2 Inflation Adjusted and therefore do not match costs in Section 3.

Source: City of Chelan, 2016; BERK, 2017; SCJ, 2017.

Commented [LG4]: Reconcile transportation costs with recently adopted transportation improvement program.

The revenue analysis applies historic revenue patterns to the future, and the City has secured more than $1.82M in funding for projects in the 6-year period. The City has funded $6.46M in the timeframe. Thus, the estimated deficit would be lower by $4.54M, for a lower deficit of ($~~5.75~~6.8M).

More information on specific Streets projects can be found in the Transportation Element Update and Existing Conditions Report 2017.

2.6 Six-Year Cost and Revenue Comparison

Total Capital Revenues

Exhibit 2-39~~Exhibit 2-39~~ summarizes projected total capital revenues available over the planning period, including fund balances.

Exhibit 2-39. Projected Total Capital Revenues (2016 – 2037), YOE$[1,2]

Total Capital Revenues	Subtotal 2017-2022	Subtotal 2023-2037	Revenue Total 2017-2037	Total with 2016 Fund Balances
Estimated Revenues	$32,290,000	$123,430,000	$155,720,000	$160,300,000
Amount Committed to Debt Service	*$4,217,189*	*$5,136,765*	*$9,353,954*	*$9,353,954*
Available Revenues	$28,072,811	$118,293,235	$146,366,046	$150,946,046

1 Year of Estimate = YOE
2 Does not reflect -Transportation Secured Revenue Adjustment, which would add $4.54M to the 2017-2022 total.

Source: City of Chelan, 2016; BERK, 2017

Six-Year Cost and Revenue Comparison

This six-year comparison looks at the total dedicated revenue sources with its planned project costs for the six-year planning horizon of 2017 – 2022 in order to understand the difference between future dedicated capital costs and potential future revenues. As with most capital spending, estimated future capital costs are larger than future dedicated capital revenues, which is a trend seen in most cities given the structural and legal limitations on capital funding sources. However,

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understanding the magnitude of difference can aid the City in planning for ways to fill the gap through other funding methods. This analysis is done for the six-year period rather than the 20-year period because project lists are constantly evolving and the longer-term outlook would provide an increasingly less accurate estimate of the funding gap.

Exhibit 2-40 provides the capital project costs for each service provider for the six-year period and estimated costs for the full study period. However, estimated project costs beyond the six-year period were not available for all categories. Costs were adjusted from constant dollars to year of expenditure dollars using an assumed inflation rate of 3% annually to align with the revenue projections.

Exhibit 2-40. Estimated Total Revenues and Costs (2017 – 2037), YOE$[1]

Project Costs	Costs 2017- 2022
General Capital Improvement	$180,000~~Pending~~
Recreation	$7,620,000~~$6,520,000~~
Water	$29,890,000
Sewer	$4,430,000
Streets	$13,200,000~~$12,110,000~~
Total Capital Costs[2]	**$55,320,000~~$52,950,000~~**
Total Capital Revenues	**$28,072,811**
Estimated Dedicated Funding Surplus/(Deficit)	**($27,247,189)~~($24,877,189)~~**
Estimated Dedicated Funding Surplus/(Deficit) with Transportation Secured Revenue Adjustment	**($22,707,189)~~($20,337,189)~~**

1 Year of Estimate = YOE
2 Inflation Adjusted and therefore do not match costs in Section 3. ~~This draft does not include General Capital Improvements.~~

Source: City of Chelan, 2016; BERK, 2017; SCJ, 2017.

Commented [LG5]: Reconcile transportation costs with recently adopted transportation improvement program.

Address updated parks facility costs for 2017-2018.

Add in general municipal improvements.

2.7 Policy Options and Other Funding Sources

- **Bonds**. The City uses Bonds to support capital facilities funding. Chelan has a rating of AA- from Standard and Poor's on its water and wastewater utilities, and its general obligation bonds. This rating is credited to careful staff preparation, good audits, high levels of fiscal responsibility, and comprehensive financial policies.
- **Impact Fees**. Impact fees are a financing tool allowed under state law that requires new development to pay a portion of the costs associated with infrastructure improvements that are related to the development. GMA allows agencies to implement impact fee program to help fund some of the costs of capital facilities needed to accommodate growth. State law requires that impact fees be related to improvement that serve new developments and not existing deficiencies, that they're assessed proportional to the impacts of new development, that they're allocated for improvements that reasonably benefit new development, and that they're spent on facilities identified in the Capital Facilities Plan.

  Chelan currently has a Reservoir Impact Fee of $1,750 (2015) that is charged to new services within the Chelan River Isenhart Domestic Water System area that was transferred to the City.

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- **Local Improvement District/Road Improvement District (LID/RID)**. A LID is a new taxing district that the City has the statutory authority to create. A district could be used to levy additional property tax to cover debt service payments on the sale of bonds purchased to finance projects within the district. Revenues from the levy must be used for local, clearly-defined areas where the land owners are being assessed the additional tax benefit. LID, by law, can be used for water, sewer, and stormwater projects. RIDs may be used for road funding and street improvements.
- **Other**. The City could lobby state legislators to restore some of the funding levels once available to local governments for road improvements. Although local jurisdictions receive a certain percentage of collected MVF Tax funds, a combination of factors such as decreasing gas prices and a reduction in both vehicle miles driven and vehicle fuel efficiency has resulted in local MVF Tax allocations that are generally not keeping pace with inflation. In order to restore funding levels, the City could encourage legislators to follow the recent gas tax increase with measures that raise the tax rate alongside cost inflation and increase the tax rate over time with fuel efficiency improvements.

2.8 Other Service Providers

Sanitation

Commented [LG6]: Housekeeping clarifications.

The Sanitation Fund provides resources for maintenance, operations, and capital expenses. ~~There are no funds dedicated specifically to capital spending.~~ Some funds are used for equipment replacement. A 2014 rate and fee analysis identified a shortfall in revenues and predicted that the system was not sustainable at the current rates (City of Chelan, 2016). Council responded by approving an 8% increase annually for five years.

Between 2008 and 2016, around $33,000 annually were committed to sanitation capital projects from the Sanitation Fund. Revenue sources include ~~Charges for service,~~ sale of recycled materials, garbage collection fees, and dumpster rentals.

Non-City Providers

Funding information for service providers other than the City of Chelan are summarized in the capital facility detail in Section 3.0.

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3.0 CAPITAL FACILITIES INVENTORY, DEMAND, AND CAPITAL LISTS

3.1 Parks and Recreation

Overview

The City of Chelan maintains a system of parks, open spaces, and facilities for recreational purposes managed by the City's Parks and Recreation Department. The Chelan Public Utility District, Manson Parks and Recreation District, and the State of Washington also provide~~s~~ recreational services located within the City of Chelan.

Inventory

The City of Chelan has over 195 acres of land it uses for parks, open space, and golf courses. Non-city providers add an additional 504 acres of parks, open spaces, and land for recreational uses. Exhibit 3-1 through Exhibit 3-3 provide the City's current inventory.

Exhibit 3-1. Inventory of City Park Lands

Park Name	Park Type	Size (Acres)
Athletic Field Complex	Community Park	10
Lakeside Park	Community Park	10
Don Morse Memorial Park	Regional Park	20
Lakeshore Marina	Regional Park	5
Lakeshore RV Park	Regional Park	20
Bridge Landscape Area	Open Space	1
Chelan Library Grounds	Open Space	0.5
Emerson Street Trees	Open Space	0.25
Saunders Street Trees	Open Space	0.25
US-97A Intersection	Open Space	0.5
Woodin Avenue Street Trees	Open Space	0.5
Centennial Park (Gateway Park)	Mini-Park	0.5
Pingrey Park	Mini-Park	0.5
Lake Chelan Municipal Golf Course		125
Columbia Park		0.15
Total		***194.2***
Other Trails	**Trail Type**	**Size (Miles)**
Lakeside Trail	**Trail**	**0.5**

Source: Chelan Parks, Recreation & Open Space (PROS) Plan, 2016.

Commented [LG7]: Update park inventory acres for Columbia Park.

In addition to these parks and recreation sites, the Parks and Recreation Department maintains the City Hall/Police Station grounds (0.25 acres), and the Park and Ride lot (0.5 acres).

Exhibit 3-2. Inventory of Non-City Park Lands

Non-City Parks	Park Type	Size (Acres)	Owner
Riverwalk Park	Regional Park	12	Chelan PUD
Riverwalk Trail	Trail	1	Chelan PUD
Beebe Bridge Park		56	Chelan PUD
Chelan Falls Park & Powerhouse Park		53	Chelan PUD
Manson Bay Park			Chelan PUD
Old Mill Park		20	Chelan PUD
Manson Bay Marina	Regional Facility		Manson Park & Recreation District
Old Swim Hole	Neighborhood Park		Manson Park & Recreation District
Wapato Lake Campground	Campground		Manson Park & Recreation District
Willow Point Park	Day-Use Park		Manson Park & Recreation District
Singleton Park			Manson Park & Recreation District
25-Mile Creek State Park	Regional Camping Park	235	Washington State
Lake Chelan State Park	Regional Camping Park	127	Washington State
Beebe Springs Natural Area	Nature Preserve		Washington State
Gallagher Flat State Wildlife Recreation Area			Washington State
Total		***504***	

Source: Chelan Parks, Recreation & Open Space (PROS) Plan, 2016.

Exhibit 3-3. Inventory of Park Facilities (City and non-city)

	Count*	Facilities with Locations (Count)
Picnic Tables	252	8
Picnic Shelters	3	2
Open Grassy Play Area	2	4
Playground	6	9
Skate Park	1	1
Basketball	2.5	3
Horseshoe Pits	14	4
Sand Volleyball	5	6
Tennis	16	9
Softball	4	3
Baseball	3	3
Soccer/Multiuse Field	6	7
Football with Track	2	2

	Count*	Facilities with Locations (Count)
Gymnasium	3	3
Physical Conditioning	2	2
Swimming Pool Outdoor	15	10
Class/Meeting Room	2	2
Auditorium/Theater	0	0
Swimming Beach	4	8
Hand-Carry Boat launch	1	1
Boat Launch Ramp	7	6
Boat Moorage	108	5
Tent Campsites	131	3
RV Camp Sites W/ Hookups	200	4
Dump Stations	1	2
Restroom/Shower	11	9
Concession	5	3

Note* The PROS Plan identifies some locations as having some facility type, but does not provide an amount.

Source: Chelan Parks, Recreation & Open Space (PROS) Plan, 2016.

Level of Service Standards

The LOS standards shown below are recommended in Chelan's Park, Recreation & Open Space (PROS) Plan, 2016, in a technical appendix. The plan does not formally adopt a level of service by policy, but identifies important elements to consider in the City's level of service (LOS).

> *12.3.1: Define existing and proposed land and facility levels-of service (ELOS/PLOS) standards that differentiate requirements due to population growth impacts, improved facility standards, and regional and local nexus of benefits. Differentiate Chelan standards compared to composite standards that include the city, county, school district, state, and other public and private provider agency efforts to effectively plan and program open space, trails, parks, and recreation needs in the city.*

The PROS Plan Appendix D emphasizes a distributional LOS. The PROS Plan LOS guidelines in Appendix D is quantitative in some cases, but cannot be numerically determined for some standards described qualitatively. The PROS Plan describes distributional LOS as setting standards "based on the distribution of facilities in relation to natural features such as mile or linear feet of shoreline in an urban area; or in the distance to the number of children, persons, or employees within an urban area." Other qualitative distributional LOS guidelines are provided for several indoor and outdoor recreational facilities in Appendix D. PROS Plan Appendix E considers a per capita investment metric for a potential future impact fee should the City desire that funding source.

To create a measurable LOS policy for parks and recreation that is based on the PROS Plan, this CFP proposes a Base or minimum LOS and a Target LOS should funding be available, as follows.

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Exhibit 3-4. Proposed LOS Policies

Standard Type	LOS Measure	Basis	Base LOS	Target LOS
Land: City Open Space	0.3 acres per 100 people of city classified parks.	PROS Plan, Appendix D, Distributional LOS Guidelines	0.3 acres per 100 people for City classified parks.	2.24 acres per 100 people for all city parks including golf course.
Land: Shoreline Access	Acquire or develop at least 1 public access point, a minimum of 40 feet wide, for every 1 accessible or connected mile of urban shoreline.	PROS Plan, Appendix D, Distributional LOS Guidelines Shoreline Master Program (SMP) Public Access Plan	1 improved site in gap areas identified in PROS Plan or SMP Public Access Plan	2 improved sites in gap areas identified in PROS Plan or SMP Public Access Plan
Trails and Pathways	0.3 lineal feet per person. Distributed based on adopted trail and non-motorized plans.	Current improved City owned trail and current seasonal population	30 linear feet per person	Consistent with Non-motorized and Trails Plans
Facility Improvements	Invest in park and recreation facilities based on PROS Plan identified needs on a per capita basis for each new person.	PROS Plan Chapter 5 and Appendix D PROS Plan Appendix E-1.	$1,700 per person (~58% of 2009-2016 major capital budget, per capita permanent and seasonal growth)	$2,900 per person (~100% of 2009-2016 major capital budget, per capita permanent and seasonal growth)

To determine the needed facilities and investments in the 2017-2037 period, both permanent population growth and seasonal population growth were considered. Seasonal population growth is based on the 2010 to 2016 period identifying taxable retail sales per capita during non-peak seasons and dividing peak taxable retail sales by that amount during peak months. See the table below.

Exhibit 3-5. Seasonal Population Equivalents: 2010-2016

Year	Permanent Population Growth Assumptions	Average TRS Q1+Q4: Permanent Population	Average Non-Peak $$ per capita	Average TRS Q2+Q3 Peak Sales	Maximum Seasonal Population Equivalents
2010	3,890	$24,854,855	$6,389.42	$39,455,282	6,175
2011	3,930	$22,251,667	$5,662.00	$39,630,354	6,999
2012	3,940	$23,810,043	$6,043.16	$43,413,994	7,184
2013	3,955	$26,386,872	$6,671.78	$47,257,998	7,083
2014	4,020	$23,440,406	$5,830.95	$50,958,709	8,739
2015	4,045	$26,547,104	$6,562.94	$52,273,720	7,965
2016	4,115	$28,231,954	$6,860.74	$59,352,013	8,651

Source: State Department of Revenue, 2017; BERK Consulting 2017

For parks planning purposes, this creates a maximum seasonal population equivalent. Two average annual growth rates were considered to grow population to the 2022 and 2037 periods, a growth rate like the permanent population trend over 25 years (~1.245%) and one that is based on the increase in equivalent seasonal population (~4.9%).

Exhibit 3-6. Permanent and Seasonal Population: 2022 and 2037 Estimate

Year	City + unincorporated UGA CFP Permanent Population Growth Assumptions	City + unincorporated UGA Peak Seasonal Population Equivalents: Low	City + unincorporated UGA Peak Seasonal Population Equivalents: High
2017	4,465	8,651	8,651
2022	4,749	9,434	12,092
2037	5,719	11,218	23,624
Net Growth 2017-37	**1,254**	**2,567**	**14,973**

Source: BERK Consulting, 2017

Based on 2017 population estimates, the effective level of service is shown below. City open space acres are 0.80 acres per 100 persons whereas the PROS Plan guidelines showed a future LOS of 0.3 considering not only City acres but also other acres in ownership of public agencies and land trusts. The PROS Plan suggested a qualitative guideline for trails to ensure they are connected and implemented within adopted nonmotorized and trail plans. The current effective LOS is about 0.3 lineal feet per capita (seasonal).

The PROS Plan explored a method of investment per capita. Historically, City park capital programs have funded about $2,937 per capita including seasonal population.[1] Based on a constrained fiscal position, the proposed parks 6-year Capital Facility Program is proposed at about $5.9M, suggesting a per capita investment for new population of about $1,703 or about 58% of the value observed in the 2009-2016 period.

Exhibit 3-7. Current Levels of Service 2017

Year	Existing LOS: Permanent Population	Existing LOS: Seasonal Population Equivalents, Low	Existing LOS: Seasonal Population Equivalents, High
City Classified Park Acres			
2017 Acres per capita, excluding golf course: 70 acres	1.55	0.80	0.80
2017 Acres per capita, with golf course: 194.2 acres	4.35~~4~~	2.24	2.24
City Trails, Existing Lineal Feet (LF): 2,640			
2017 LF per capita	0.59	0.305	0.305
Facilities Investment Per Capita			
2017	PROS Plan Appendix E Major Recent Capital Projects 2009-2016: ~$2,937 per capita, permanent and seasonal growth		
2017-2022 ~~Draft~~ Parks Capital Facility Program $~~5.859~~6.974M			
2022 Potential Per Capita Investment each new person	$24,558 ~~$20,630~~	$8,911 ~~$7,486~~	$2,027 ~~$1,703~~

Source: BERK Consulting, 2017

Commented [LG8]: Update park inventory acres for Columbia Park.

Commented [LG9]: Match Park Dept. updated costs for 2017-2018

Applying the Base LOS policy to the population, results in demands for facilities as shown in the table below. By 2022 there would be a need for about 0.2 trail miles with a high seasonal population, growing to about 0.9 trail miles in 2037. Beyond the $~~5~~6.9M six-year capital facility plan below, by 2037 another $~~13.7~~12.6M investment would be needed (generally $6.~~5M~~ 3M every 6 years).

[1] PROS Plan Appendix E indicates $7.3M major capital improvements funded between 2009-2016 with a net increase of 3,441 seasonal population approximately. This would equal $2,937 per capita.

Exhibit 3-8. Future Demand Surplus (Deficit)
Base LOS applied to population minus available parks and recreation supply

Commented [LG10]: Reflect adjustments to park inventory acres and updated 2017-2018 costs

LOS	Demand Permanent	Demand Seasonal Low	Demand Seasonal High
Six Year	2017-2022		
Open Space Acres: 0.3 per 100 population	54.90 ~~54.75~~	40.85 ~~40.70~~	32.87 ~~32.72~~
Trails Lineal Feet: 0.3 per capita	1,191	(239)	(1,050)
Shoreline Distributional Miles	1 facility in a gap area by 2022		
Facility Investment	$6,406,433 ~~$5,376,200~~	$5,409,069 ~~$4,528,440~~	$92,654 ~~$9,488~~
	~~58~~69% of 2009-2016 per capita value: $~~1,700~~2,000		
20-Year	2017-2037		
Open Space Acres	51.99 ~~51.84~~	35.50 ~~35.35~~	(1.72)~~(1.87)~~
Trails Lineal Feet	895	(783)	(4,569)
Shoreline Distributional Miles	1 facility in a gap area by 2037		
Facility Investment	$5,034,433 ~~$4,210,000~~	$3,406,019 ~~$2,825,848~~	$(16,089,449) ~~$(13,745,300)~~
	~~58~~69% of 2009-2016 per capita value: $~~1,700~~2,000		

Source: BERK Consulting, 2017

If the City were successful in gaining additional funds, it could work towards achieving a Target LOS for open space and shorelines as shown below.

Exhibit 3-9. Future Demand Surplus (Deficit)
Target LOS applied to population minus available parks and recreation supply – Open Space and Shorelines

Commented [LG11]: Reflect adjustments to park inventory acres

LOS	Demand Permanent	Demand Seasonal Low	Demand Seasonal High
Six Year	2017-2022		
Open Space Acres: 2.24 per 100 population	87.57 ~~87.50~~	(17.57)~~(17.55)~~	(77.22)~~(77.16)~~
Shoreline Distributional Miles	1 facility in a gap area by 2022		
20-Year	2017-2037		
Open Space Acres: 2.24 per 100 population	(54.49)	(57.56)	(335.77)

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LOS	Demand Permanent	Demand Seasonal Low	Demand Seasonal High
Shoreline Distributional Miles	2 facilities in a gap area by 2037		

Source: BERK Consulting, 2017

Project Summary

Based on the 2017 preliminary CFP parks capital list, the following parks are planned in the 2017-2024 period. Capacity increasing projects allow more users to access and use sites. These improvements together with the base year facilities are considered the Base LOS for the six-year period. Some of the Base LOS measures will also be addressed by private development that implement improvements that meet the City's street and trail improvement standards or shoreline public access standards in accordance with adopted City plans.

Exhibit 3-10. Parks Planned Projects 2017-2024

Project	Approximate Cost	Approximate Year of Implementation	Capacity (Y-Yes)
1. RV Park Electrical Upgrades: ~~– 50 amp to Loops D, E, & F – Upgrade/Repair wiring in Loops A, B, & C.~~ a. Loop D b. Loop E & F	a. $353,285 b. $478,448 ~~$644,000~~	~~2017~~ 2018	
2. ~~-~~RV Park a. ~~New~~ Automatic Irrigation System b. ~~(s~~Separation of potable water from irrigation water~~)~~.	a. $ 400,000~~355,000~~ b. $ 180,000	2018	
3. ~~–~~RV Park Restroom Remodel (3)	$ 600,000~~390,000~~	2018	Y
4. RV Park Parking Pad Extension to 60'	$50,000	2023	
5. Extension of 8" Main Irrigation Supply Line for the Golf Course	$50,000~~110,000~~	~~2017~~ 2018	
6. Lake Chelan Golf Course New Irrigation System	$2,000,000	2020	
7. Removal of ~~Old Green~~ Building at the Lakeshore	$~~95,~~150,000	2018	

Commented [LG12]: Added in updated 2017-2018 costs from Parks Department

Commented [LG13]: Add placeholder cost

Project	Approximate Cost	Approximate Year of Implementation	Capacity (Y-Yes)
Marina Boat Ramp ~~in Lakeshore Marina~~			
8. New Gravel Beach for Non-Motorized Watercraft East of Boat Ramp	$50,000	2019	Y
9. Extension of New Breaker Wall in Marina	$200,000	2020	
10. Installation of 3rd Beach Protection Sill	$150,000	2020	
11. Installation of New Dock North of Beach Area at Don Morse Park	$590,000	2021	Y
12. Replacement of Don Morse Park Restroom to increase capacity	$225,000	2020	Y
13. Replacement of Lakeshore Marina Restroom	$~~300~~400,000	~~2019~~2018	
14. Installation of New Playground Equipment in Don Morse & Lakeside Parks	$200,000	2023 2024	Y
15. Replacement of Lakeside Restroom to increase capacity	$300,000	2022	
16. Development & Installation of an Off-Leash Area for Dogs	$50,000	2018	Y
17. Reconfiguration of swim areas with pilings/buoys for swim area designation lines/floats at Lakeside Park~~Installation of Pilings, Docks, Floats & Buoys to Delineate Swimming & Boating Areas at Lakeside Park~~	$300,000	~~2022~~2018	Y
18. New shelters at Don Morse & Lakeside Parks	$200,000	2023 2024	

Commented [LG14]: Add placeholder cost

Project	Approximate Cost	Approximate Year of Implementation	Capacity (Y-Yes)
19. New putting course office with restroom.	$150,000	2022	Y
20. New shop maintenance building and area reconfiguration (Continuation Project)	$222,000	2017-2018	
21. Parks maintenance refueling station relocation (Continuation Project)	$60,000	2017-2018	
23. Expansion of "G" dock (Continuation Project)	$15,700	2017-2018	Y
Grand Total	$7,374,433~~$6,259,000~~		

Exhibit 3-11. Summary of Parks Investments and Capacity Projects: 2017-2024

Year	Total Investment	Capacity Projects
2017-2019	$3,309,433~~$1,944,000~~	$965,700~~$440,000.00~~
2020-2022	$3,615,000~~$3,915,000~~	$965,000~~$1,115,000.00~~
2023+	$450,000~~$400,000~~	$200,000~~$400,000.00~~
Total	$7,374,433~~$6,259,000~~	$2,130,700~~$1,955,000~~

Commented [LG15]: Address updated costs per prior table

Parks Planned Projects 2023-2037

Commented [LG16]: Indicate that future park acquisition opportunities that become available are encouraged to be fully vetted by the City and community. On the table of future acquisitions from the PROS Plan, indicate location (City, UGA, beyond planning area).

In addition to above projects occurring in the 2023-2034-time horizon, Exhibit 3-12 shows proposed land acquisitions identified in the 2016 Parks, Recreation, and Open Space Plan. ~~These~~ Parks and other lands that provide public benefit in the city limits or UGA could be considered as part of the Target Level of Service. The city encourages full vetting of lands considered for acquisition by the City and community.

Because the expected timeframe for them is not within the 6-year time frame, they don't require financing as a part of the CFP. These are projects the City could consider pursuing if the opportunity arises through the year 2037.

Exhibit 3-12. Potential Properties for Acquisition of Land for Parks

Proposed Project	Project Type	Location
Chelan Butte Wildlife Area and Chelan Wildlife Area Entiat	Public Lands	Outside City and UGA
Deer Mountain	Public Lands	Outside City and UGA
Lake Chelan Rodeo	Other Facilities	Outside City and UGA
Ruby Theatre	Other Facilities	Chelan City Limits

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Proposed Project	Project Type	Location
Lady of the Lake	Other Facilities	Chelan City Limits
Slidewaters at Lake Chelan	Other Facilities	Chelan City Limits
Bear Mountain Ranch Golf Course	Golf courses	Outside City and UGA
Desert Canyon Golf Resort	Golf courses	Outside County
Alta Lake Golf Course	Golf courses	Outside County
Fingers Property	Shoreline Access	Chelan City Limits
Viewpoints and rest stops along the Northside and Southside Trails of Lake Chelan	Shoreline Access	Chelan City Limits and UGA

Source: Source: Chelan Parks, Recreation & Open Space (PROS) Plan, 2016, Appendix C

3.2 ~~Wastewater and~~ Sewer

Overview

The City Wastewater Department provides sewer services to the City of Chelan, and ~~a~~ non-city providers provide similar services in the Lake Chelan Sewer District (LCSD). The LCSD serves a section of the Lake Chelan southshore near Bear Mountain. The Lake Chelan Reclamation District collects wastewater and pumps it to the City of Chelan's treatment facility in Chelan Falls.

Commented [LG17]: Reference that Chelan treats Manson wastewater.

Inventory

Tables below identify the wastewater system inventory as of 2008 including lift stations (Stations 1 and 3 to 7), and the collection system~~, storage reservoirs, and booster pump facilities~~. Lift Station 2 was identified to be replaced, and was described as follows: New Lift Station No. 2 and 12-Inch Discharge Force Mains. The project has been completed since the 2008 plan.

Commented [LG18]: Describe information for Lift Station 2.

Exhibit 3-13. City Sewage Lift Stations Inventory

Stations 1-7

	Lift Station No. 1	Lift Station No. 3	Lift Station No. 4	Lift Station No. 5	Lift Station No. 6	Lift Station No. 7
Location	Alley west of Emerson Street, between Woodin and Wapato Aves	North end of Park Street	SR 97 and Water Slide Drive	SR 97 and Division Street	Water Street, between Terrace Avenue and SR 97	Northern extension of East Center Street
Station Type	Dry Well/Wet Well	Wet Well	Wet Well	Wet Well	Wet Well	Wet Well

	Lift Station No. 1	Lift Station No. 3	Lift Station No. 4	Lift Station No. 5	Lift Station No. 6	Lift Station No. 7
Rated Flow, gpm	940	150	300	400	175	300
Speed, rpm	1800	1150	1800	1800	1730	1800

Source: General Sewer Plan, 2008.

Stations 8-14

	Lift Station No. 8	Lift Station No. 9	Lift Station No. 10	Lift Station No. 11 (ns#4)	Lift Station No. 12 (NS #5) (Abandoned 2005)	Lift Station No. 14
Location	Spader Bay					
Station Type	Wet Well					
Rated Flow, gpm	Submersible Centrifugal					
Speed, rpm	240	100	150	575 (14") 450 (10")	1120	200
Rated Flow, gpm	1750	1165	1800	1755	1170	1800
Speed, rpm	23	3	25	50	25	23

Source: General Sewer Plan, 2008. ~~Station 12 can likely be removed from the inventory. New facilities may need to be identified.~~

Exhibit 3-14. City Collection System Pipe Inventory

Pipe Diameter	Length (Feet)
Gravity Sewer Pipe	
< 4 inch	429
4-inch	409
6-inch	1,967
8-inch	122,822
10-inch	4,477
12-inch	13,217
15-inch	3,329
16-inch	2,863
18-inch	2,256

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Pipe Diameter	Length (Feet)
21-inch	555
Total	**152,324**
Force Main Pipe	
< 4 inch	4,711
4-inch	5,372
6-inch	3,689
8-inch	10,338
10-inch	23,870
12-inch	9,285
14-inch	11,150
Total	**68,145**

Source: General Sewer Plan, 2008.

~~Exhibit 3-15. City Storage Reservoirs Inventory~~

Commented [LG19]: Remove water inventory tables that were inadvertently included under the sewer heading. (Exhibits 3-15 to 3-18.)

~~Reservoir~~	~~Storage Capacity (gal)~~	~~Type~~	~~Diam. (ft)~~	~~Depth (ft)~~	~~Date Constructed~~
~~Raw Water~~	~~286,000~~	~~Steel~~	~~35~~	~~39.75~~	~~1996~~
~~Treatment Plant East~~	~~301,000~~	~~Buried Concrete~~	~~50~~	~~20.5~~	~~1945~~
~~Treatment Plant West~~	~~301,000~~	~~Buried Concrete~~	~~50~~	~~20.5~~	~~1945~~
~~Treatment Plant South~~	~~809,000~~	~~Steel~~	~~90~~	~~17~~	~~1996~~
~~South Chelan~~	~~137,000~~	~~Concrete~~	~~26~~	~~34.6~~	~~1996~~
~~Lakeside North~~	~~53,000~~	~~Buried Concrete~~	~~21~~	~~20.5~~	~~1950~~
~~Lakeside South~~	~~53,000~~	~~Buried Concrete~~	~~21~~	~~20.5~~	~~1950~~
~~Chelan Hills East~~	~~478,000~~	~~Steel~~	~~53~~	~~29~~	~~1996~~
~~Chelan Hills West~~	~~150,000~~	~~Concrete~~	~~30~~	~~28.5~~	~~1987~~
~~Golf Course Terrace~~	~~115,000~~	~~Concrete~~	~~26~~	~~29~~	~~1987~~
~~Pinnacle~~	~~116,000~~	~~Concrete~~	~~30~~	~~22~~	~~1996~~
~~Lakeside West~~	~~132,000~~	~~Concrete~~	~~30~~	~~25~~	~~2006~~
~~Wilmorth (1)~~	~~256,000~~	~~Steel~~	~~45~~	~~21.5~~	~~1999-2000~~
~~Lake Hills (2)~~	~~203,000~~	~~Concrete~~	~~30~~	~~37.5~~	~~2007~~

~~Source: Water System Plan, 2010.~~

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~~Exhibit 3-16. City Booster Pump Station Inventory~~

~~Station~~	~~Pump~~	~~Capacity (gpm)~~	~~Pump Manufacturer~~	~~Pump Model~~	~~Install Date~~
~~Raw Water~~	~~1~~	~~2,800~~	~~Floway~~	~~16MKM~~	~~1998~~
	~~2~~	~~2,800~~	~~Floway~~	~~16MKM~~	~~1998~~
	~~3~~	~~2,800~~	~~Floway~~	~~16MKM~~	~~1998~~
~~Darnell~~	~~1~~	~~700~~	~~Gould~~	~~Unknown~~	~~1996~~
	~~2~~	~~700~~	~~Gould~~	~~Unknown~~	~~1996~~
~~Lakeside~~	~~1~~	~~300~~	~~ITT Marlow~~	~~530SC – – S 9.5~~	~~1998~~
	~~2~~	~~300~~	~~ITT Marlow~~		
~~Highland~~	~~1~~	~~170~~	~~Goulds~~	~~2250H7~~	~~1983~~
	~~2~~	~~1,000~~	~~Worthington~~	~~10HH - 110~~	~~1967~~
~~Hospital~~	~~1~~	~~225~~	~~Fairbanks Morse~~	~~L79074~~	~~1956~~
	~~Spare~~	~~225~~	~~Fairbanks Morse~~	~~L79074~~	~~N/A~~
~~High Street~~	~~1~~	~~40~~	~~Reid~~	~~Unknown~~	~~N/A~~
~~Bogey*~~	~~1~~	~~240~~	~~Berkeley~~	~~6S2BH6~~	~~1990~~
~~Boyd Road~~	~~1~~	~~150~~	~~Burks~~	~~CAT #3100G7-2SP~~	~~Early 70s~~
	~~2~~	~~150~~	~~Burks~~	~~CAT #3100G7-2SP~~	~~Early 70s~~
~~Pinnacle~~	~~1~~	~~17~~	~~Weinman~~	~~4AC-10512~~	~~1997~~
	~~2~~	~~34~~	~~Weinman~~	~~4AC-10512~~	~~1997~~
~~Farnham~~	~~1~~	~~200~~	~~Peerless~~	~~C825A~~	~~2007~~
	~~Fire~~	~~700~~	~~Peerless~~	~~C740~~	~~2007~~
	~~Fire~~	~~700~~	~~Peerless~~	~~C740~~	~~2007~~
	~~Fire~~	~~700~~	~~Peerless~~	~~C740~~	~~2007~~
~~Washington St.~~	~~1~~	~~200~~	~~Weinman~~	~~1.5BH-200P14-U~~	~~2000~~
	~~2~~	~~200~~	~~Weinman~~	~~1.5BH-200P14-U~~	~~2000~~
	~~Fire~~	~~1500~~	~~Peerless~~	~~6AEF16~~	~~2006~~
~~Wilmorth~~	~~1~~	~~42~~	~~Grundfos~~	~~CR8-30U~~	~~2000~~
~~Lake Hills~~	~~1~~	~~175~~	~~Grundfos~~	~~CR64-3~~	~~2007~~
	~~2~~	~~175~~	~~Grundfos~~	~~CR64-3~~	~~2007~~
	~~Spare~~	~~175~~	~~Grundfos~~	~~CR64-3~~	~~2007~~
~~Higgs*~~	~~1~~	~~510~~	~~Goulds~~	~~11WAHC-4~~	~~2008~~
	~~Spare~~	~~510~~	~~Goulds~~	~~11WAHC-4~~	~~2008~~

~~*The existing Bogey BPS will be decommissioned when construction of the Higgs BPS is completed in 2010. [These can likely be removed if they were decommissioned.]~~

~~Source: Water System Plan, 2010.~~

~~Exhibit 3-17. City Transmission and Distribution System Piping Inventory~~

~~Nominal Pipe Size, (inches)~~	~~AC~~	~~CI~~	~~GI~~	~~S~~	~~PVC~~	~~WS~~	~~DI~~	~~HDPE~~	~~Totals~~
~~1~~	~~---~~	~~---~~	~~---~~	~~---~~	~~180~~	~~---~~	~~---~~	~~---~~	~~180~~
~~2~~	~~---~~	~~100~~	~~7,275~~	~~---~~	~~2,865~~	~~---~~	~~---~~	~~11,000~~	~~21,240~~
~~3~~	~~---~~	~~---~~	~~3,116~~	~~---~~	~~---~~	~~---~~	~~---~~	~~---~~	~~3,116~~
~~4~~	~~19,777~~	~~---~~	~~---~~	~~---~~	~~580~~	~~---~~	~~---~~	~~---~~	~~20,357~~
~~6~~	~~48,950~~	~~500~~	~~---~~	~~---~~	~~8,051~~	~~500~~	~~2,500~~	~~---~~	~~60,501~~
~~8~~	~~35,352~~	~~---~~	~~---~~	~~8,392~~	~~8,841~~	~~---~~	~~10,000~~	~~---~~	~~62,585~~
~~10~~	~~1,195~~	~~650~~	~~---~~	~~155~~	~~1,176~~	~~---~~	~~---~~	~~---~~	~~3,176~~
~~12~~	~~7,035~~	~~---~~	~~---~~	~~1,180~~	~~---~~	~~---~~	~~12,000~~	~~---~~	~~20,215~~
~~16~~	~~---~~	~~---~~	~~---~~	~~145~~	~~---~~	~~---~~	~~---~~	~~---~~	~~145~~
~~Total~~	~~112,309~~	~~1,250~~	~~10,391~~	~~9,872~~	~~21,693~~	~~500~~	~~24,500~~	~~11,000~~	~~191,515~~
~~% of Total~~	~~58.6%~~	~~0.7%~~	~~5.4%~~	~~5.2%~~	~~11.3%~~	~~0.3%~~	~~12.8%~~	~~5.7%~~	~~100%~~

~~Source: Water System Plan, 2010.~~

~~Exhibit 3-18. City Pressure Reducing Valves~~

~~Valve No.~~	~~Valve~~	~~Size (inches)~~	~~Manuf.~~	~~Model~~
~~1~~	~~Parkview Road~~	~~6~~	~~Clayton~~	~~6-90~~
		~~2~~	~~Clayton~~	
~~2~~	~~Cone Road~~	~~4~~	~~Clayton~~	~~4-90~~
~~3~~	~~Golf Course Terrace~~	~~6~~	~~Clayton~~	~~6-90~~
		~~2~~	~~Clayton~~	~~2-90~~
~~4~~	~~Cotter Road~~	~~6~~	~~Cla-Val~~	~~6-90~~
		~~2~~	~~Cla-Val~~	~~2-90~~
~~5~~	~~Boyd Road~~	~~4~~	~~Clayton~~	~~4-90~~
		~~1.5~~	~~Clayton~~	~~1 ½-90C~~
~~6~~	~~San Remo Lane 1~~	~~6~~	~~Clayton~~	~~6-90~~
		~~3~~	~~Clayton~~	~~3-90B~~
~~7~~	~~Riviera Place~~	~~6~~	~~Clayton~~	~~6-9~~
		~~3~~	~~Clayton~~	~~3-90-01~~
~~8~~	~~Eldorado Way~~	~~4~~	~~Clayton~~	~~4-90-01AB~~
		~~2~~	~~Clayton~~	~~N/A~~
~~9~~	~~Pinnacle Place~~	~~2~~	~~Clayton~~	~~N/A~~
~~10~~	~~San Remo Lane 2~~	~~1.5~~	~~Mueller~~	~~250 WOO~~

~~Valve No.~~	~~Valve~~	~~Size (inches)~~	~~Manuf.~~	~~Model~~
		~~0.75~~	~~Mueller~~	~~250 WOO~~
~~11~~	~~Crest Drive~~	~~6~~	~~Cla-Val~~	~~6-90~~
		~~2~~	~~Cla-Val~~	~~2-90~~
~~12~~	~~Crystal/Westview Dr.~~	~~6~~	~~Cla-Val~~	~~6-90~~
		~~2~~	~~Cla-Val~~	~~2-90~~
~~13~~	~~Crystal Drive~~	~~6~~	~~Cla-Val~~	~~6-90~~
		~~2~~	~~Cla-Val~~	~~2-90~~
~~14~~	~~Crystal/Apple Ave.~~	~~6~~	~~Cla-Val~~	~~6-90~~
		~~2~~	~~Cla-Val~~	~~2-90~~
~~15~~	~~Granite Ridge~~	~~10~~	~~Cla-Val~~	~~10-90~~
		~~2~~	~~Cla-Val~~	~~2-90~~
~~16~~	~~Key Lane~~	~~6~~	~~Cla-Val~~	~~6-90~~
		~~2~~	~~Cla-Val~~	~~2-90~~
~~17~~	~~Park Pointe~~	~~6~~	~~Clayton~~	~~6-90~~
		~~2~~	~~Clayton~~	~~2-90~~

~~Source: Water System Plan, 2010.~~

Level of Service Standards

Chelan's Comprehensive Plan does not identify a LOS standard for sewer service. The City uses Department of Ecology standards for sanitary sewer. Typical LOS standards for wastewater is what level of wastewater they can treat monthly. The treatment facilities include the primary plant on the Chelan River below the dam and the secondary plant on the Columbia River with the average daily flow of 1.3 million gallons per day (mgd) and a maximum flow of 2.1 mgd.

Exhibit 3-15~~19~~. Average Wastewater Flows in MGD, January 2000-2007

	2000	2001	2002	2003	2004	2005	2006	2007
Summer	1.12	1.03	1.11	1.04	1.1	1.06	1.08	1.06
Winter	0.7	0.69	0.58	0.58	0.6	0.6	0.66	0.59
Annual	0.85	0.8	0.76	0.74	0.77	0.79	0.8	0.76
Population	3,526	3,535	3,535	3,600	3,645	3,680	3,755	3,835
Gal. of Flow per person	317.6	291.4	314.0	288.9	301.8	288.0	287.6	276.4

Source: General Sewer Plan, 2008.

The 2008 Sewer Plan assumed a growth rate of 1.95% in one part of the plan and 2.06% in another part of the plan similar to the Water Plan. The future year-round Population 2025 was assumed to be 6,705.

The Comprehensive Plan Update in 2017 assumes 1.245% growth rate and a 5,719 future year-round population by 2037. Thus, the City's Sewer Plan sufficiently addresses planned growth.

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Project Summary

The table below summarizes the City's identified capital expenditures for 2016.

Exhibit 3-16~~20~~. Wastewater Department Project List, 2016-2022

Project Name	Revenue Source	Cost 2016*	Cost 2017-2019	Cost 2020-2022
Category I: Capacity Increasing Projects				
15" Sewer from MH A-47 to A-12 (SR150/Johnson Ave)	GFC, U		$705,000	
24" Sewer from MH C-25 to C-27 (Wapato Ave)	GFC, U		$269,000	
27" & 30" Sewer from MH C-28 to Primary WWTP (alley/Wapato Ave)	GFC, U		$628,000	
8" Sewer from MH C-47 to C-46 (Trow Ave)	GFC, U		$102,000	
8" Sewer on Golf Course Rd from MH H-37	GFC, U		$101,000	
10" FM from LCSD #1 to MH F-27 (Lakeside)	P			$441,000
10" Sewer from MH F-25 to F-22 (Lakeside)	P			$86,000
15", 18", 21" Sewer from LS #2 to MH E-21 (W. Woodin Ave)	P			$464,000
15" Sewer from MH A-9 to LS #1 (Columbia St)	GFC, U			$217,000
21" Sewer from MH C-27 to C-28 (Bradley St)	GFC, U			$38,000
18" Sewer from MH C-68 to C-78 (Navarre St)	GFC, U			$68,000
Lift station #12- Lord Acres lift station and piping	Sewer Fund (GFC)	$1,732,000		
Category II: Capital Replacement, Maintenance and Operations				
Sewer collection system upgrades-slip line/gravity improve/cleanouts (SR150)	Sewer Fund (GFC)	$740,000		
Lift station #10 pump replacement	Sewer Fund (GFC)	$318,000		
Lift station #7 emergency storage	Sewer Fund (GFC)	$48,000		

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Project Name	Revenue Source	Cost 2016*	Cost 2017-2019	Cost 2020-2022
South Chelan PUD boat launch- replace inverted siphon	Sewer Fund (GFC)	$300,000		
Lift station #5- pump replacement, new force mains	Sewer Fund	$1,902,000		

Source: General Sewer Plan, 2008; BERK, 2017.

Exhibit 3-17~~21~~. Wastewater Department Project List by Category, 2016-2022

	Cost 2016*	Cost 2017-2019	Cost 2020-2022	Total Cost
Category Summary				
Category I	$1,732,000	$1,805,000	$1,314,000	$3,119,000
Category II	$3,308,000	-		$5,040,000
Total	$5,040,000	$1,805,000	$1,314,000	$8,159,000

Source: CFP, 2016.

~~There are no clearly identified Wastewater Department Projects for 2023-2037. The projects listed above as occurring in year 21+ should be clarified if they are expected to occur after 2022.~~

3.3 Water

Overview

The City of Chelan provides potable water through its Water Division, and non-city providers provide water through the Bear Mountain Water District (BMWD). The BMWD serves an area in the Southwest portion of the city. The City uses Lake Chelan as its potable water source. The Lake Chelan Reclamation District provides irrigation water but not domestic water in the Chelan planning area.

Commented [LG20]: Indicate that Manson provides irrigation water but not domestic water in the Chelan planning area.

Inventory

The current city water facilities including treatment and distribution facilities are listed below.

Exhibit 3-18~~22~~. City Water Facilities Inventory

Facility	Amount
Water Filtration Plant	1
Storage Reservoirs	13
Rapid Sand Filter Water Treatment Facility	1
Booster Stations	11

Facility	Amount
Water Transmission and Distribution Lines	36 miles

Source: Water System Plan 2010.

Current 2016 customer connections are presented in the table below, and shows the majority of connections are residential.

Exhibit 3-19~~23~~. Water Connections 2016

Customer Classification	Number of Connections	Percent of Total Connections
Single-Family Residential	1,795	78.30%
Multi-Family Residential	168	7.30%
Commercial	257	11.20%
Schools	7	0.30%
Municipal	64	2.80%
Purveyors	2	0.10%
Total	**2,293**	**100%**

Source: Draft Water System Plan 2016, 2015 water service connections from City records

Level of Service Standards

Chelan's Comprehensive Plan does not identify a LOS standard for water. The City uses Department of Health standards for drinking water. Typically, LOS standards for water are measured by the maximum capacity to deliver potable water.

Average day demand has decreased since 2007 as of the year 2011 comparing the two demand tables below (2004-2007 to 2011-2015). The maximum day demand has been increasing since 2013 and may reach again pre-recession levels though for a larger population.

Exhibit 3-20~~24~~. Daily Demand 2004-2007

Service	2004	2005	2006	2007
ADD (GPD)	1,357,600	1,355,700	1,366,000	1,391,200
MDD (GPD)	3,696,000	3,505,000	3,451,000	3,669,000
MDD/ADD Ratio	2.7	2.6	2.5	2.6
Population	3,645	3,680	3,755	3,835

MDD: The maximum quantity produced in a 24-hour period is called the maximum day demand
ADD: The average quantity produced in a 24-hour period is called the maximum day demand
MDD/ADD ration: the difference between the MDD/ADD, to see the seasonal divergence.
Source: Water System Plan, 2010

Exhibit 3-21~~25~~. Daily Demand 2011-2015

Service	2011	2013	2013	2014	2015
ADD (GPD)	1,167,400	1,117,200	1,111,600	1,110,600	1,191,800
MDD (GPD)	2,840,000	2,750,000	3,060,000	3,017,500	3,460,000
MDD/ADD Ratio	2.4	2.5	2.8	2.7	2.9
Population	3,930	3,940	3,955	4,020	4,045

MDD: The maximum quantity produced in a 24-hour period is called the maximum day demand

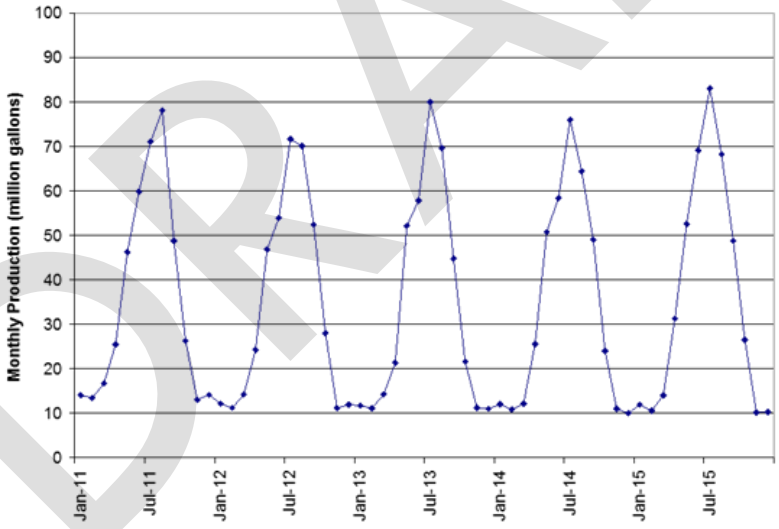
ADD: The average quantity produced in a 24-hour period is called the maximum day demand

MDD/ADD ration: the difference between the MDD/ADD, to see the seasonal divergence.

Source: Draft Water System Plan, 2016

The City of Chelan has a notable difference between its average daily demand for water and its peak daily demand to water, due to its warmer summer climate and the seasonal fluctuations of water demand because of summer tourism.

Exhibit 3-22~~26~~. Monthly Water Production, 2011-2015



Source: Water System Plan, 2016.

This exhibit shows the seasonal fluctuations in Chelan. Winter months see a water production of just over 10 million gallons a month, while the production increases to around 80 million gallons a month in the summer season.

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Exhibit 3-23~~27~~. Water Consumption by Customer Classification (1,000 gallons), 2004-2007

	2004	2005	2006	2007
Single Family	234,885	240,126	231,936	252,114
Multifamily	58,017	51,754	46,540	52,481
Commercial	82,626	88,797	81,649	78,503
Schools	7,130	6,783	7,528	6,494
Municipal	65,186	53,672	59,105	64,514
Purveyors	10,643	11,644	12,717	19,566
Total	458,487	452,776	439,475	473,672

Source: Water System Plan, 2010.

Exhibit 3-24~~28~~. Water Consumption by Customer Classification (1,000 gallons), 2004-2007

	2011	2012	2013	2014	2015
Single Family	226,901	236,843	240,350	253,556	278,229
Multifamily	49,397	51,562	52,325	55,200	60,572
Commercial	78,446	81,883	83,096	87,662	96,192
Schools	6,609	6,899	7,001	7,385	8,104
Municipal	57,367	59,880	60,767	64,106	335,516
Purveyors	12,911	13,476	13,676	14,427	15,831
Total	431,631	450,543	457,214	482,337	794,443

Source: Water System Plan, 2016.

The prior 2010 Water Plan assumed a growth rate of about 2.06% or around 6,705 future people in the city limits and UGA by 2025, whereas current assumptions are 1.245% growth rate and 5,719 population by 2037. The pending Water Plan will use a 1.245% growth rate. It is anticipated the pending plan will ensure capacity to meet demands for water service given the alignment in planning assumptions and the past higher growth scenarios assumed in the system plan in 2010.

Project Summary

The table below summarizes the City's identified capital expenditures for 2016 and the 6-year period of 2017 to 2022.

Exhibit 3-25~~29~~. Water Planned Projects 2016-2022

Project Name	Revenue Source	Cost 2016*	Cost 2017-2019	Cost 2020-2022
Category I: Capacity Increasing Projects				
Booster station upgrades-Highland/ Boyd Road/Darnell	Water Fund (GFC)	$1,092,000		
Higgs booster station-Construct new pumping station	Water Fund	$439,000		
SR150 replace 8" water line from Darnell BPS with 12"*	W, U		$145,000	
City Wide Water Line Upgrade	GFC, U		$4,394,000	
Willmorth Reservoir	GFC, U		$1,081,000	
Washington Street Booster Upgrade Phase 1 & 2	GFC, U			$1,092,000
Water Treatment Plant Expansion	U			$9,250,000
Woodin Ave 16" water line	P			$2,568,000
Willmorth Dr 12" water line	P			$1,866,000
Category II: Capital Replacement, Maintenance and Operations				
Meter reading conversion from annual/ touchpad to radio read	Water Fund	$581,000		
Raw Water Intake Improvements	U			$435,000

P = private development U = user fees

GFC = General facility charges

W= Washington State Department of Transportation

Source: CFP, 2016.

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Exhibit 3-26~~30~~. Water Planned Projects by Category, 2016-2022

	Cost 2016*	Cost 2017-2019	Cost 2020-2022	Total
Category Summary				
Category I	$1,531,000	$5,620,000	$14,776,000	$21,927,000
Category II	$581,000	$0	$435,000	$1,016,000
Total	$2,112,000	$5,620,000	$15,211,000	$22,943,000

It is anticipated that the 6-year and 20-year capital facility program will be amended with the pending 2017 Water System Plan Update.

3.4 Stormwater

Overview

The Comprehensive Plan identified a pending Storm Water Plan. The City of Chelan currently follows the Stormwater Management Manual for Eastern Washington per its development standards as they related to stormwater treatment. Stormwater treatment is important for protecting water quality, and the Stormwater Management Manual provides a set of technical standards to guide stormwater design and management. Stormwater capital facilities are necessary to prevent flooding from occurring. The 2016 City of Chelan budget funds storm drains as part of its street fund.

Inventory

Storm water capital facility inventories may usually contain:

- Miles of storm pipes
- Number of catch basins
- Number of UIC wells
- Number of Manholes
- Number of Swales

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Level of Service Standards

Levels of service for storm water capital facilities usually try to meet water quality standards, runoff, and erosion control requirements of the applicable Stormwater Management Manual for Eastern Washington.

Project Summary

There is one identified stormwater capital project.

Exhibit 3-27~~31~~. Stormwater Capital Projects

Year	Project	Fund source	Amount	Category
2017+	City Hall storm water catch basin sump pump	General Fund	$30,000	Capacity

Source: CFP, 2016.

3.5 Municipal Facilities

Overview

The City of Chelan owns and manages several buildings to help provide services. Below are properties and facilities owned by the City, which may require new capital spending on increasing capacity, operations, maintenance, or other needed investments.

Inventory

The table below identifies the City's civic structures and property, which include the City Hall and Library, plus buildings formerly used for municipal purposes.

Exhibit 3-28~~32~~. City Owned Civic Buildings

Building	Location
City Hall	135 E Johnson Ave, Chelan, WA 98816
Library	216 N Emerson St, Chelan, WA 98816
~~Old Library Building~~	~~XXXX~~
Old PUD building and parking lot	100 E Johnson Ave~~XXXX~~

Source: City of Chelan Budget, Property Management Budget, 2016.

The City also owns other properties that provide municipal functions such as public safety, public works shops, and others.

Exhibit 3-29~~33~~. Other City Owned Buildings and Structures

Structure	Location
Rental Dwelling	140-144 Chelan Ave.
Rental Dwelling	213 Emerson St.
Business Rental	133-135 E. Johnson Ave.
Business Rental	129 E. Johnson Ave.
Dog Pound	407 E. Washington St.
Public Safety Bldg.	143 E. Johnson Ave.
Storage Building	Don Morse Park
Pump House	Lakeside Park
Lab Bldg.	520 S. Robinson St.
Pump House	325 W. Manson Hwy
New City Shop	50 Chelan Falls Hwy
Equipment Storage Bldg.	50 Chelan Falls Hwy
Sewer Plant Ops. Bldg.	Chelan Falls Hwy
Recycle Building	54 Chelan Falls Hwy
RBC Building	21 Chelan Falls Hwy
8 RBC's	21 Chelan Falls Hwy
Public Works Office	50 Chelan Falls Hwy
City Clock	Woodin Ave.
Water Treatment Bldg.	409 S. Washington St.
Parks Office	Don Morse Park
Comfort Station	Don Morse Park
Picnic Shelters	Don Morse Park
Shower Building	Don Morse Park
Comfort Station & Storage	Lakeside Park
Comfort Station & Storage	Lake Chelan Marina
3 Comfort Stations	Lakeshore RV Park
Community Hall	417 S. Bradley St.
Concession Stand	Rainier Field
Storage Building	Lakeside Park
Shop	Don Morse Park
First Aid Station	Don Morse Park
Storage Building	Kent Field
Marina Pump Station	Lake Chelan Marina
Putting Course Marina	Don Morse Park
Horse Shoe Club Bldg.	Rainier Field
Club House	Lake Chelan Golf Course
Cart Storage & Office	Lake Chelan Golf Course
1985 Cart Storage	Lake Chelan Golf Course
1988 Cart Storage	Lake Chelan Golf Course
1992 Cart Storage Bldg.	Lake Chelan Golf Course

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Structure	Location
~~Fire Hall~~	~~232 E. Wapato~~
City Hall Parking Lot	132 and 144 E Chelan Ave.
Greens Parking Lot	E Wapato Ave
Don Morse Park Parking Lot	485 W Manson Hwy
Lakeshore Marina Parking Lot	619 W Manson Hwy
Lakeside Park Parking Lot	W Terrace Ave

Source: City of Chelan Comprehensive Plan, 2011.

Level of Service Standards

There is no established Level of Service standard for municipal facilities. Some standards for public facilities are measured in total square footage per 1,000 people. LOS standards for public facilities can help ensure that the City has the necessary capital facilities for the operations of providing services. However, it is not typically determined necessary for growth in the same manner as water, sewer, schools, parks, etc.

Project Summary

Projects known as of ~~2016~~ 2017are listed below. ~~[Identify known projects in 2017-2022.]~~

Commented [LG21]: Address general municipal improvements.

Exhibit 3-30~~34~~. Capital Facility Planned Projects 2016-2037

Project Name	Revenue Source	Cost 2016*	Cost 2017-2019	Cost 2020-2022
Category I: Capacity Increasing Projects				
Chelan Public Library – Second Story Remodel	General Fund	$150,000		
Category II: Capital Replacement, Maintenance and Operations				
PUD Parking Lot – Parking Kiosk	General Fund	$11,000		
Wayfinding				$30,000
City Hall Facilities Growth Study				$75,000
Document Server			$75,000	

Source: CFP 2016; City of Chelan 2017.

Exhibit 3-31~~35~~. Capital Facility Planned Projects, by Category 2016-2019

	Cost 2016*	Cost 2017-2019	Cost 2020-2022	Total Cost
Category Summary				-
Category I	$150,000			$150,000
Category II	$11,000	$75,000	$105,000	$191,000 ~~$11,000~~

	Cost 2016*	Cost 2017-2019	Cost 2020-2022	Total Cost
Total	$161,000	$75,000-	$105,000-	$341,000 ~~$161,000~~

Source: CFP, 2016.

There are no identified municipal building capital projects for 2023-2037. ~~[Confirm with City staff.]~~

3.6 Refuse

Overview

The City of Chelan provides waste disposal and recycling services through its Solid Waste & Recycling Department. The City collects materials that are then taken to the North Chelan Transfer Station, and will then be transported to its final location to the Greater Wenatchee Regional Landfill.

Inventory

The City maintains an exclusive franchise for the collection and disposal of garbage in Chelan. Garbage is currently hauled to the transfer station located on the east side of town. The Sanitation Department provides and maintains dumpster bins to meet the needs of commercial customers, as well as offering weekend service during the busier summer season. The Sanitation Department also collects and disposes of litter from sidewalk units in the downtown business district as a community service

Level of Service Standards

The Solid Waste and Recycling Department details that it collects approximately 7,000 cubic yards of compacted refuse annually. Assuming the refuse grows at the same rate per person, the table below projects the amount of refuse expected to be collected from 2017-2037.

Exhibit 3-32~~36~~. Solid Waste Generation

	2017	2022	2037
Refuse	7,000	7,445	8,966
Population	4,465	4,749	5,719

Source: Solid Waste and Recycling Department website, retrieved Feb. 2017.

Project Summary

Commented [LG22]: Housekeeping change.

No specific projects are identified. Some sanitation funds go to equipment replacement.~~Pending.~~

3.7 Streets

See Transportation analysis in Existing Conditions Report and Transportation Element Update.

3.8 Airport

Overview

The Lake Chelan airport is owned by the City of Chelan and the Port of Chelan County, and is located approximately 3 miles northeast of Chelan's city center. The airport is the primary air facility in the Lake Chelan Valley. It is used for firefighting, law enforcement, emergency medical transports, and agriculture, as well as providing business and recreation access to the region.

Inventory

The airport occupies almost 80 acres on Howard Flats, about three miles northeast of the City's contiguous boundary. The bulk of the airport site was annexed to the City in 1995. In 2009, the City's UGA was expanded to encompass a planned runway expansion and an 18-acre parcel that was acquired in 2004 (not included in the 80-acre airport site). The airport is included in the National Plan of Integrated Airport Systems (NPIAS), making it eligible for federal funding through the Federal Aviation Administration (FAA).

It is a general use airport available to the public that operates two runways, with 3,056 and 3,306 feet of usable landing length which can accommodate small aircrafts of 12,500 pounds or less. There are 32 hangars located on the airport, all privately owned. The airport is staffed with one maintenance lead worker and one part-time assistant. The airport owns a 40' x 50' building, which serves as an office and pilots' lounge, as well as a mobile home, which houses the full-time staff person. Housing the full-time lead maintenance worker on site allows the airport to be manned 24 hours per day.

Exhibit 3-33~~37~~. Lake Chelan Airport Inventory

Facility	Size
Lake Chelan Airport	78 acres
Runway	3,503 by 60 feet
PAPI Visual Guidance System	1 system
Hangars	32 facilities

Source: City of Chelan Website (retrieved February 2017)

Level of Service Standards

Under GMA, an airport is not considered a facility necessary to support growth (i.e. permanent population allocation), and a level of service is not established in the Comprehensive Plan. However,

the airport provides a necessary service to the community and supports tourism and economic development and is considered an essential public facility. ~~[Confirm whether the Airport Layout Plan establishes an LOS.]~~

Project Summary

With funding from the Washington State Department of Transportation's Aviation Division, the City initiated development of a new Airport Layout Plan (ALP) in 2005. The City Council adopted the final ALP in 2009. The 2009 ALP is adopted by reference as part of this Comprehensive Plan. The This plan is pending an update.

The 2009 ALP includes three alternatives. The preferred alternative (Alternative B) will enable the airport to safely accommodate the aircraft that currently use the facility. It was selected based on cost, impacts, and local support. It provides for extending the runway, as well as other safety improvements required to bring the airport into compliance with updated Federal Aviation Administration (FAA) standards. (See above discussion of parcel acquisition and UGA expansion.)

The 2013 Airport Layout Plan (ALP) Narrative identified projects without any identified time period; these they may require capital funding in the 2017-2022 period or beyond to 2037.

Exhibit 3-34~~38~~. Airport 2017-2037

Year	Project	Description	Cost
2018-2023	Super AWOS	See Airport Layout Plan for description	102,000
2018-2023	Slurry Seal Tiedown Apron	Maintenance	56,000
2018-2023	Overlay Fuel Apron	Maintenance	186,000
2018-2023	Property Acquisition	East Area Access Road (1.2 acres)	47,000
	Environmental Assessment	Phase 1 Runway taxiway extension & Howards Flats Road Realignment	95,000
2018-2037	Runway Extension	Please see the Airport Layout Plan for project individual capital projects	5.3 million
2018	Water Service to Airport	Airport waterline to achieve fireflow at the airport	6 million

Source: Airport Layout Plan, 2013.

3.9 Law Enforcement

Overview

The City of Chelan contracts with the Chelan County Sherriff's office to provide law enforcement and other public safety services to the city limits; the Sherriff's office also serves all unincorporated

areas including the UGA. It also has jail services provided by the Chelan County Regional Justice Center.

Inventory

The County's facilities include correctional facilities based in Wenatchee.

Exhibit 3-35~~39~~. Facilities Used by the Chelan County Sheriff's Office

Facility	Location	Capacity (Beds)
North Beat Deputies Office	City of Chelan City Hall	0
Sheriff's Office	Wenatchee	153
Chelan County Regional Justice Center	Wenatchee	383
Satellite Security Facility	Wenatchee	42
Satellite direct supervision minimum security facility	Wenatchee	66
Chelan County Juvenile Center	Wenatchee	

Source: Chelan Parks, Recreation & Open Space (PROS) Plan, 2016, Chelan County Sheriff, Annual Report, 2015.

Level of Service Standards

Police protection both within the City limits and in the City's unincorporated urban growth area is provided by the Chelan County Sheriff's Office. Each County patrol squad is commanded by one Sergeant and one Corporal which oversee 6-7 deputies. Officers staff the North Beat Deputies Office, located in City Hall, with two officers on patrol at a time. The City's Comprehensive Plan does not identify a LOS standard for police protection; however, the City negotiates a contract for service and determines the needed support. The City recently increased service levels by half a FTE but may determine that a prior ratio is more suitable for community needs and demands for service.

Level of service standards are often determined by officers to population ratios or by call volumes. Calls for service have remained steady over the 2011-2015 period even with a likely seasonal population increase (determined based on taxable retail sales like the Parks analysis).

Exhibit 3-36~~40~~. Law Enforcement Calls for Service

	City Population	Maximum Seasonal Population Equivalents	Calls for Service per capita	Calls Per Year-Round Population	Calls Per Seasonal Population
2011	3,930	6,999	2,287	0.6	0.3
2012	3,940	7,184	2,317	0.6	0.3
2013	3,955	7,083	2,286	0.6	0.3
2014	4,020	8,739	2,177	0.5	0.2
2015	4,045	7,965	2,302	0.6	0.3

Source: Chelan County Sheriff, 2015 Annual Report, Prepared 2016

To maintain the current level of service, additional staff or facilities may be necessary for the expected standards currently being provided to the City of Chelan. Given the variability in population growth rates of the year-round and seasonal equivalents, monitoring and adaptive management would be appropriate.

Exhibit 3-37~~41~~. Potential Calls for Service by 2037 based on Current Rates

Year	City + unincorporated UGA CFP Permanent Population Growth Assumptions	City + unincorporated UGA Peak Seasonal Population Equivalents: Low	City + unincorporated UGA Peak Seasonal Population Equivalents: High
2017	4,465	8,651	8,651
2022	4,749	9,434	12,092
2037	5,719	11,218	23,624
Net Growth 2017-37	1,254	2,567	14,973
Potential Calls for Service Increase over 20 years	714	742	4,327

Project Summary

The 2017 County budget lists a commercial vehicle for $76,953 as a capital expense. There are no other identified capital facility projects for the Chelan County Sheriff's Department.

3.10 Fire Suppression and Emergency Medical Services

Overview

The City of Chelan contracts its fire services to two fire districts, Chelan County Fire District 5 and Chelan Fire and Rescue 7 to provide fire and emergency services.

Exhibit 3-38~~42~~. Lake Chelan Area Fire Districts

Source: Go Lake Chelan, April 11, 2016

Fire District 5 has provided service within the county since 1949, and it serves approximately 18.5 square miles of area and 3,600 people. Fire District 5 serves the Manson area. The district encompasses a portion of the City's northwest UGA. Their services to the City of Chelan include suppression of fire, emergency medical response, rescue and extrication, and responds to hazardous material emergencies.

Fire and Rescue 7 has served within the county since 1926, and it serves over 125 square miles. Their services to the City of Chelan include emergency medical service, basic life support first response, fire suppression, technical rescue and operations, and responds to hazardous material emergencies. Fire and Rescue 7 services the City of Chelan, Chelan Falls, Union Valley, South Lake Shore, 25 Mile Creek, the north side of Lake Chelan from the City of Chelan to Manson, Chelan Airport, and Howard Flats up to the Chelan/Okanogan County line.

Inventory

Inventories of each Fire District's capital facilities are presented below, first for Fire District 5, followed by Fire District 7.

Exhibit 3-39~~43~~. Chelan County Fire District 5 Inventory

Station	Station Size (square feet)	Location	Equipment & Details	Year
51	3,100	250 W. Manson Blvd, Manson, WA 98831	Engine-51, Class A, E-One/ International	1995
			Engine-53, Class A, Seagrave/ Western States	1971
			Brush-51, Type 6, Cascade/ Ford	1992
			A-3151, Ambulance, Ford	1994
52	4,996	2010 Wapato Lake Rd, Manson, WA 98831	Engine-52, Class A, E-One/Classic International	2009
			Engine-54, Type 3, Odin/ Chevrolet	2000
			Brush-52, Type 6, Ford	1990
			M3152, Ambulance, Ford	2002
			Tender-52, Type 2, International	1979
			Attack-51, Type 6, Odin/ Ford	2006

Source: Chelan County Fire District 5, Task Force Report, 2012.

Exhibit 3-40~~44~~. Chelan Fire and Rescue 7 Inventory

Station	Location	Equipment	Staffing
71	232 E. Wapato Avenue, Chelan, WA 98816	Engine 71	Min. 1 Lieutenant
		Ladder 71	Min. 1 Firefighter/EMT
		Rescue 71	Lake Chelan Medical Services Medical Unit 3771 (1 Paramedic, 1 EMT Driver)
		Tender 71	17 volunteer Members
		Medic 3171	
		Brush 71	
		Support 71	
		Marine 71	
72	20 Chestnut Street, Chelan Falls, WA 98817	Engine 72	7 volunteers

Station	Location	Equipment	Staffing
73	345 Clark Road, Chelan, WA 98816	Engine 73	5 volunteers
		Brush Truck 73	
74	56 Airport Way, Chelan, WA 98816	Engine 74	1 fleet manager, 4 volunteers
		Engine 79	
		Brush Truck 74	
		Tender 74	
75	12041 South Lake Shore Chelan, WA 98816	Engine 75	8 volunteers
		Brush 75	
		Tender 75	

Source: Chelan Fire District 7, Long Range Plan 2014-2018

Level of Service Standards

The City's Comprehensive Plan does not identify a LOS standard for fire protection. Each Fire District has defined its own LOS standards, which are detailed below. The City could include the districts' LOS standards and link it to capital facilities for purposes of collecting impact fees or mitigation fees.

Exhibit 3-41~~45~~. Chelan County Fire District 5 Level of Service Standard

Service Standard	Command Unit Response Time	Volunteer Unit Response Time	Meet Response Time Goal Target
Turn-out Time for Priority Incidents	2 minutes	8 minutes	80%
ALL Priority Incidents	12 minutes	12 minutes	80%
Effective Response Force	20 minutes	20 minutes	80%
Technical Response Teams	1 hour	1 hour	80%

"Turnout time" means the time beginning when units receive notification of the emergency to the beginning point of response time.

"Response time" means the time immediately following the turnout time that begins when units are en route to the emergency incident and ends when units arrive at the scene.

"Advanced life support" means functional provision of advanced airway management, including intubation, advanced cardiac monitoring, manual defibrillation, establishment and maintenance of intravenous access, and drug therapy.

"Fire suppression" means the activities involved in controlling and extinguishing fires.

Source: Chelan County Fire District 5, District Goals Resolution, 2013.

Exhibit 3-42~~46~~. Chelan Fire and Rescue 7 Level of Service Standard

Fire Zone	Dispatch Time	Reaction Time	First Arrival Time	90 Percentile Time	Effective Work Force
71	2 min	2 min	4 min	5 min	15 min
72	2 min	10 min	10 min	10 min	20 min
73	2 min	10 min	12 min	20 min	25 min
74	2 min	10 min	15 min	20 min	25 min
75	2 min	10 min	15 min	22 min	30 min
76	2 min	2 min	10 min	15 min	20 min
77	2 min	2 min	10 min	15 min	25 min

Source: Chelan Fire and Rescue Long Range Plan, 2014 to 2018

Project Summary

Five capital apparatuses have been identified by Chelan Fire District 7 as being in poor condition, and the Long Range Plan recommends an annual review of the condition of the apparatus to assess is it needs replacement.

Exhibit 3-43~~47~~. Chelan Fire and Rescue 7 Equipment Needs 2017-2020

Equipment Replacement	Replacement Year	Cost	Category
Engine 79 (reserve)	When necessary, assess annually		Non Capacity
Brush 73	When necessary, assess annually		Non Capacity
Tender 75	When necessary, assess annually		Non Capacity
Tender 74	When necessary, assess annually		Non Capacity
Staff 74	When necessary, assess annually		Non Capacity
Engine 75	2016	$ 75,000	Non Capacity
Engine 73	2017	$ 75,000	Non Capacity
Engine 74	2017	$ 75,000	Non Capacity

Equipment Replacement	Replacement Year	Cost	Category
Engine 72	2018	$ 75,000	Non Capacity
Ladder 71	2018	$ 150,000	Non Capacity
Chief 702	2018		Non Capacity

Source: Chelan Fire District 7, Long Range Plan 2014-2018.

Exhibit 3-44~~48~~. Chelan Fire and Rescue 7 Equipment Needs 2020-22

Equipment Replacement	Replacement Year	Cost	Category
Support 71	2020		Non Capacity
Marine 71	2020		Non Capacity
Chief 701	2020		Non Capacity
Brush 75	2021		Non Capacity
Brush 71	2021		Non Capacity
Rescue 71	2021		Non Capacity

Chelan Fire and Rescue 7 identifies two potential projects for new facility needs. These potential future improvements will be considered if call volume monitoring leads Chelan Fire and Rescue to determine that a fire station may be needed in one of the identified locations. No timeframe is given for these projects.

Exhibit 3-45~~49~~. Chelan Fire and Rescue 7 Equipment Needs 2023-37

Equipment Replacement	Replacement Year	Cost	Category
Tender 71	2031		Non Capacity
Engine 71	2033		Non Capacity

Exhibit 3-46~~50~~. Chelan Fire and Rescue 7 Facility Projects

Fire Zone	Facility Need	Location	Category
76	Potential Future Fire Station	North Shore	Capacity
77	Potential Future Fire Station	South Lake Shore	Capacity

Source: Chelan Fire District 7, Long Range Plan 2014-2018.

3.11 Schools

Overview

The City of Chelan is served by the Lake Chelan School District, which operates four schools, Morgen Owings Elementary, Chelan Middle School, Chelan High School, and the Chelan School of Innovation.

Inventory

The Lake Chelan School District Facilities include an elementary school, middle school, and high school as noted below.

Exhibit 3-~~51~~47. Lake Chelan School District Facilities

Schools	Facilities
Moe Elementary	1 Gym
	1 Play Area
	1 Basketball court (Outdoor)
	1 Multi-use Field (Baseball/Soccer)
Chelan High School And Middle School	1 Gym
	2 Tennis Courts (lighted)
	1 Football/Soccer Field
	1 Football/Track Field
	1 Softball Field
Community Gym	1 Gym
	4 Tennis Courts
	1 Soccer/Baseball Field

Source: Chelan Parks, Recreation & Open Space (PROS) Plan, 2016.

Level of Service Standards

The City's Comprehensive Plan does not identify a LOS standard for schools. The City could include the districts' LOS standards and link it to capital facilities for purposes of collecting impact fees or mitigation fees. For many districts levels of service are based on building square footage, student capacity, and student generation. To maintain the current student to teacher ratio of 17, based on population projections in 2037 the Lake Chelan School District will need to employ 118 teachers. To maintain the current level of service, additional facilities may be necessary for the expected number of students and teachers.

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Exhibit 3-48~~52~~. Lake Chelan School District Standards

District	Classroom Teachers 2015-16	Student Count May 2016	Students per Teacher	Students 2037	Teachers 2037 (for current LOS)
Lake Chelan School District	88	1,459	17	1,961	118

Source: Office of Superintendent of Public Instruction, Lake Chelan School District Summary.

The student populations in 2022 and 2037 are projections from the current student to population ration of Chelan to the Chelan School District. As Chelan grows, it was assumed that the proportion of growth would be an equal ration of the current population to student ratio.

Project Summary

The following table identifies the School District's near term projects.

Exhibit 3-49~~53~~. Lake Chelan School District Capital Projects 2016-2018

Year	Project	Cost	Category
2016	Finish Roofing Project	$100,000	Non Capacity
2016	Door and Hardware	$100,000	Non Capacity
2016	Partial Buildout of Access Control	$100,000	Non Capacity
2016	Ball Field Expenses	$15,000	Non Capacity
2016	Moe Playground Irrigation and Drainage	$50,000	Non Capacity
2016	Middle School and High School Phone Building Out	$40,000	Non Capacity
2017	Ball Field Expenses	$15,000	Non Capacity
2017	Middle School and High School HVAC System	$750,000	Non Capacity
2018	Multi-Purpose Room	$765,000	Non Capacity

Source: Lake Chelan School District, ~~XXXX~~undated

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