City of Sequim, Washington
Resolution No. R2014-17

A Resolution Adopting the (2015-2020) 6-year Capital Improvement Plan

WHEREAS, the Planning Commission held a public meeting regarding the (2015-2020) 6-year Capital Improvement Plan on August 19, 2014 and recommended City Council hold a public hearing and adopt the proposed 6-year Capital Improvement Plan; and

WHEREAS, the City Council held a public hearing regarding the (2015-2020) 6-year Capital Improvement Plan on August 25, 2014; and

WHEREAS, those projects which directly support the achievement of the City's Comprehensive and Master Plans are considered for funding support; and

WHEREAS, the City Council is committed to continuously improving the efficiency and effectiveness of City government and expects the City Manager and City staff to focus on achieving service outcomes and providing reliable and affordable infrastructure that benefits the community and its residents; and

WHEREAS, the City Council is committed to continue providing core services expected of a municipal government including the provision and maintenance of the City's capital infrastructure; and

WHEREAS, it is in the City's interest to avoid capital budgetary changes that may threaten the City's "AA-" General Obligation bond ratings; and

WHEREAS, a combination with various funding sources have been identified to fund capital projects;

NOW, THEREFORE, the City Council of the City of Sequim, Washington does resolve as follows:

Section 1. The attached (2015-2020) Capital Improvement Plan is hereby adopted as the Capital Improvement Plan for the City of Sequim.

Adopted by the City Council this 8th day of Sept., 2014.

Candace Pratt

Candace Pratt, Mayor

ATTEST:

Karen Kuznek-Reese, MMC, City Clerk

APPROVED AS TO FORM:

Craig A. Ritchie, City Attorney

2015 - 2020

Capital Improvement Plan

City of Sequim, Washington

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Table of Contents Pages

City Manager's CIP Message …….1-2

Reader's Guide to the Capital Improvement Plan ……...3-6

Chapter 1: -- Introduction……..7-14

Chapter 2: -- CIP Summary ..……..15-32

Chapter 3: -- Water Restricted Fund Projects ...……33-58

Chapter 4: -- Sewer Restricted Fund Projects ……..59-86

Chapter 5: -- Streets Restricted Fund Projects ……87-132

Chapter 6: -- Parks Restricted Fund Projects ……..133-142

Chapter 7: -- Capital/Building Facilities Restricted Fund Projects ……143-149

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CITY OF SEQUIM

152 West Cedar Street Sequim, WA 98382
City Hall (360) 683-4139 FAX (360) 681-3448
Public Works (360) 683-4908 FAX (360) 681-0552

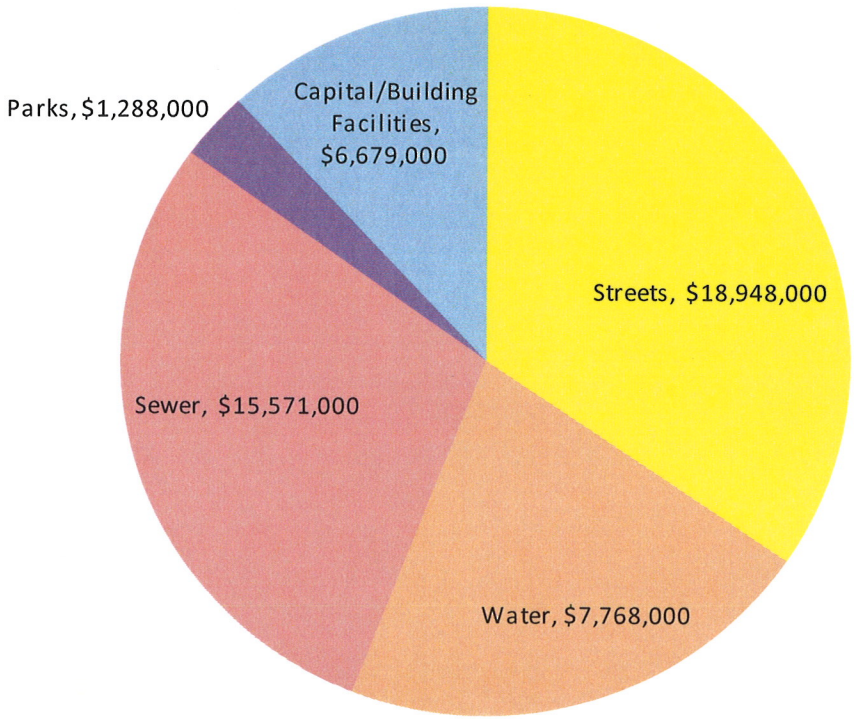
City of Sequim 2015-2020 Proposed Capital Improvement Plan (CIP)
City Manager's CIP Message

Honorable Mayor, City Council and Sequim Residents,

I am pleased to present the City's 2015-2020 proposed CIP which is a planning and financial document that prioritizes capital investments the City intends to make in the 2015 to 2020 time period. The estimated total replacement value of the City's infrastructure is $450M. The CIP is designed to logically implement a renovation and replacement program of our infrastructure for the City's next 100-years.

The CIP proposes a plan to finance the identified investments and includes projected operating costs where applicable. For instance, the addition of buildings or the addition of parks to the City's Parks system will have a higher impact on the City's operating budget then Water, Sewer and Transportation related projects.

The allocation distribution of the proposed expenditures included in this CIP is shown below. The expenditures proposed total $50,254,000. Approximately $19,000,000 of the total expenditures are proposed to be funded by grants, developer contributions, impact fees and other funding sources which are not as reliable as other revenues projected to be received from City enterprise/utility funds, taxes and bond proceeds.



The CIP is the City's infrastructure plan and it attempts to address a variety of needs that the City must meet to maintain its physical infrastructure, meet its service commitments and to prepare for its future growth. The CIP recommendation reflects the City's comprehensive plan and the goals and priorities established by the City Council. The CIP serves to implement and enhance the community's quality of life as prescribed in the City's Capital Facilities Element of the Comprehensive Plan and adopted Water, Sewer, Transportation and Parks Master Plans. Furthermore, the CIP serves to strategize effective methods to renovate and develop the City's facilities and infrastructure.

This policy document represents our continued commitment to prudent fiscal management, effective service delivery and to providing our citizens with an affordable quality of life. Although the CIP adopts the City's strategic and financial plan for a 6-year period, the City Manager and City Council will annually review and revise the plan to adjust to changes in the financial environment to meet the needs and priorities of the City.

It has been a priority of mine to develop and implement a 6-year CIP since I arrived to Sequim in 2010 and I am pleased to present you with this inaugural 6-year CIP. While this is the first of many CIP documents for years to come there is a clear portrayal found within this CIP. The City enterprise funds (water and sewer) are more reliable funding sources which make prioritizing water and sewer related projects more predictable. In future years the City should analyze appropriate methods to make transportation and park revenues more reliable and consistent to ensure Sequim maintains an appropriate level of service standard for those service areas.

The Finance and Public Works Department have worked diligently and collaboratively to develop this CIP and I would like to thank them for their efforts in producing a great first Sequim CIP.

Steven C. Burkett
City Manager

CITY OF SEQUIM

- **Purpose of the CIP**
- **Sequim's Approach to Developing the Six-Year CIP**
- **Navigating the CIP**

CAPITAL IMPROVEMENT PLAN 2015 – 2020

A Reader's Guide to the Capital Improvement Plan

A Reader's Guide to the Capital Improvement Plan

Purpose of the CIP

The Capital Improvement Plan (CIP) is both a planning and financial document. It prioritizes capital investments the City intends to make in the 2015 to 2020 time period, and proposes a plan for how to pay for these investments. The CIP does not appropriate funds; instead, it functions as a budgeting tool, supporting the actual appropriations that are made by the City Council through adoption of the budget. It is an important filter through which Sequim officials demonstrate that the Capital Facilities Element of the Comprehensive Plan and its related Capital Facilities Plans are financially realistic.

The CIP describes funding strategies for major construction, land acquisition and equipment purchases that will improve the cultural environment, capital infrastructure and recreational opportunities for the citizens of Sequim. Capital expenditures are described in the context of how much each project will cost to complete, and the ongoing impact that the project will have on the City's operating budget after it goes into service.

Sequim's Approach to Developing the Six-Year CIP

The CIP is one of the vital implementation tools that works in concert with the Comprehensive Plan's Capital Facilities and Transportation Elements, and the City's Long Range Financial Plan to fulfill the goals and visions of the Land Use Element of the Comprehensive Plan. All of these policy documents must be coordinated and consistent with each other. While the Comprehensive Plan articulates the vision and goals for how Sequim will develop over the next 20 years, it is the CIP that makes the critical link between the City's physical planning policy and the financial resources needed to maintain or improve public services, facilities and infrastructure.

Adjunct to the Capital Facilities Element of the Comprehensive Plan, Sequim has adopted four Capital Facilities Plans (CFP) to provide long range policy guidance for the development of capital improvements. They are: The Parks Master Plan (2006), Transportation Master Plan (2013), General Sewer Master Plan (2013), and the Water System Comprehensive Plan (2013). Each CFP contains an inventory of existing publicly-owned capital facilities describing their locations and capacities; a forecast of schedule and costs for new or refurbished capital facilities; and the proposed locations and capacities of new or expanded capital facilities. Each CFP also recommends a strategy to finance those facilities with public funds.

Sequim's policy of concurrency requires that the extension of, or upgrades to public facilities and services necessary to support new development shall be adequate to serve that development at the time that it is approved for occupancy or use, without decreasing current service levels below established standards. The concurrency policy is applied in the CIP according to the Level of Service standards stated in the City's respective CFPs.

The capital improvement budget is enacted annually based on the latest revision of the CIP. It encompasses City Council-approved appropriations for the projects that are usually requested in the year of a capital project's inception. As stated in (Section C) of the City's Capital Improvement Plan Policy (Chapter 1), the CIP is to be updated annually as part of the City's budget process to reflect changes in the availability of revenues and the costs of approved capital projects. The City Council may also initiate changes to the CIP inventory of projects at any other time.

Navigating the CIP

The CIP is divided into seven sections:

Chapter 1 - Introduction;
Chapter 2 - CIP Summary;
Chapter 3 - Water Restricted Fund Projects;
Chapter 4 - Sewer Restricted Fund Projects;
Chapter 5 - Streets Restricted Fund Projects;
Chapter 6 - Parks Restricted Fund Projects; and
Chapter 7 - Capital/Building Facilities Restricted Fund Projects.

The CIP is organized by chapter for each of the Restricted Funds. Each project is described briefly as to the activity that will be undertaken, the year in which it will be started, subsequent years of continuing activity for long-term projects, the amount expected to be spent in each year by project expenditure category: Preliminary Engineering; Property Acquisition; and Construction, (explained below) and where the money will come from to pay for them. The CIP also describes the benefit that will result from the advanced studies, major construction, land acquisition and equipment procurement actions intended to improve the City's capital infrastructure.

Expenditure Categories

Preliminary Engineering: Includes costs required to design and manage the project from scoping through construction close-out. This category accounts for both city staff effort and contract project management services. Typical tasks that occur in the Preliminary Engineering phase include: completion of environmental reviews and permit acquisition; surveying; development of plans, specifications, and cost estimates; project management; construction management and inspection.

Real Estate Acquisition: When real property or right-of-way is needed to implement a capital project, such costs are tracked separately from other project costs. Typical expenses include staff activity, consultant costs and payment for the easement or fee simple real property acquired by means other than dedication. Title reports, appraisals, and recording costs are commonly associated with property acquisition as well.

Construction: Construction costs include direct charges for work performed by a contractor; including materials, equipment usage, labor, utility relocations, and spoils disposal. Direct city costs such as staff salaries are not included in this component.

Certain projects within the CIP, such as the exploration of acquiring new water rights, are proposed as preliminary studies only. The purpose of these studies is to provide a basis for determining if the capital initiative should be pursued within the six-year CIP planning horizon. If so, these studies will help to estimate future project timing and costs and the proposed method of financing those expenditures. From these details, summaries of capital activity in each year can be prepared as well as summaries of financial requirements such as the amounts of general obligation bonds to be issued, amounts of general operating funds required to sustain new or refurbished capital investments after they are placed in service, and any anticipated intergovernmental support, such as state gas tax funds and grants.

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- Capital Improvement Planning Under the Washington State Growth Management Act
- Advantages of Capital Improvement Planning
- Capital Improvement Plan Impact on Operating Budgets
- Capital Improvement Fund Descriptions
- Capital Budget Criteria
- Capital Improvement Planning Policy
- City of Sequim Debt Policy
- Capital Project Criteria

CAPITAL IMPROVEMENT PLAN 2015 – 2020

Chapter 1

INTRODUCTION

Capital Improvement Planning under the Washington State Growth Management Act

Following decades of mounting concern by Washington citizens about the impacts of uncoordinated and unplanned growth on the state's environment and economic prosperity, the Legislature adopted the Growth Management Act (GMA) of 1990 (RCW 36.70A et sup). The basic objective of the GMA is to guide local governments in assessing their goals, evaluating their community assets, and preparing Comprehensive Plans to fulfill a carefully-considered vision for their communities' future.

Among its many provisions, the GMA challenges jurisdictions state-wide to examine the question: how they can afford the future that they envision for themselves? The Comprehensive Plan that the GMA requires a jurisdiction to adopt should guide its orderly development over a twenty-year planning horizon. To help fulfill that intention, a Capital Facilities Element is designated as a mandatory component of the Comprehensive Plan, and includes:

- An inventory describing the location and capacity of the jurisdiction's existing capital facilities;
- A forecast of future needs for new or expanded capital facilities, their proposed locations, and their capacities;
- A requirement to reassess the Comprehensive Plan Land Use Element if capital facility funding is predicted to fall short of meeting forecast needs, and to ensure that the Comprehensive Plan's Land Use and Capital Facilities Elements are consistent in terms of policy and financial reality, and
- A program of six-year duration (or longer) demonstrating that the costs of new or expanded capital facilities are within the funding capability of the jurisdiction, and identifies the source(s) of public funds to be spent for such purposes.

Implementation of the Comprehensive Plan within the scope of the Capital Facilities Element is described through:

- level of service standards for public facilities and services;
- analysis of how the extension of public facilities will influence undeveloped areas;
- policies to guide the extension of new public services, or to upgrade existing services, within the jurisdiction's boundaries; and
- policies to guide coordination with adjacent jurisdictions regarding provision of public facilities and services.

Advantages of Capital Improvement Planning

The GMA establishes the purposes of Capital Improvement Planning as: providing adequate public services to existing development; managing the cost of serving future development; and, ensuring that public services will be in place when future development occurs. Beyond compliance with the GMA, however, many benefits accrue to a community that takes a sound approach to Capital Improvement Planning:

- Capital planning anticipates repair or replacement of existing facilities before they fail. Failure is more costly and more disruptive than planned repair or replacement;
- Capital planning requires the community and City leaders to consciously set priorities between competing projects and interests. There are always more needs and competing projects than available funds to accommodate them;
- Long-range planning for infrastructure allows the community to finance growth without being overwhelmed by unanticipated costs or time constraints;
- Coordination of capital projects reduces scheduling conflicts between related projects, resulting in more efficient government operations;

- Capital planning provides adequate lead-time to seek outside financial assistance for infrastructure project through grants and inter-governmental assistance; and
- Capital planning serves as public education tool for elected officials to ensure the community that they are pro-actively guiding future development in accordance with adopted policy.

Capital Improvement Plan and Impact on Operating Budgets

Many capital projects, when completed, carry ongoing maintenance and operating costs that need to be reflected in the City's annual budget. For example, when a new park or ball field is developed, the City will need to add the ongoing cost of maintaining that new facility to the annual operating budget. Where appropriate, the individual projects listed in the 2015-2020 CIP include estimated future operating costs. Those costs were estimated based on the fullest knowledge of the respective projects at the time that this CIP was published. Future amendments to the CIP will likely result in change to their respective operating budget impacts.

Capital Budget Criteria

Sequim's capital improvement programming and budgeting sequence involves the development of a long-term plan for capital expenditures. Capital expenditures include payments for buildings, land, major equipment, and other assets that are of significant value (greater than $50,000) and have a useful life of at least five years.

Recognizing that the need for infrastructure development and major equipment acquisition exceeds the reality of Sequim's annual financial resources, the City Council established the following equally-weighted criteria to establish funding and scheduling priorities in the CIP:

1. Projects that preserve existing capital infrastructure;
2. Projects with low life-cycle costs;
3. Projects that have a high percentage of project costs funded by non-city sources or that have a dedicated funding source;
4. Projects that generate revenue or reduce operations and maintenance costs;
5. Projects that have identified funding for operations and maintenance costs; and
6. Projects that have a high level of community support.

Although the following criteria are not officially-adopted policy, they are also considered by city staff in developing their recommendations for CIP project priorities:

***Regulatory Mandates*:** State or Federal law may require that a particular project be implemented within a prescribed time period. Court orders and judgments concerning annexation, property owner's rights, environmental protection, and other judgments may also affect local CIP project priorities.

***Health and Safety*:** The benefit of a project to community safety, public health and protection of environmental resources from documented hazards may be recommended for higher priority treatment.

***Comprehensive Plan Advancement*:** Because capital projects may directly or indirectly implement the goals stated in the comprehensive plan, priorities should reflect consistency with those community goals.

***Funds*:** The extent to which outside funding is available for the project or purchase should be evaluated and quantified.

***Project Synergy*:** Projects in one Restricted Fund category are essential to the success of those in other categories. Careful coordination of funding and scheduling of related projects may affect substantial long-term infrastructure cost savings. Likewise, opportunities for interagency cooperation in carrying-out related capital spending initiatives should be investigated.

***Government Efficiency*:** Projects that substantially improve the quality of service at the same operating cost, or eliminate obsolete and inefficient facilities should be identified using this category. Opportunity purchases are also considered under this criterion. Early purchase of available land for park expansion, for example, may result in substantial future costs savings, even if development of that parkland expansion is delayed several years.

***Economic Impact*:** A project may have a favorable effect on local economic activity, increase property values, or encourage growth in public revenues if carried out sooner, rather than later.

Once the Capital project priority is established, those projects are funded through the issuance of General Obligation debt, grants, general tax allocation, utility fees, Transportation Benefit District collections, Real Estate Excise Taxes, and by transfers from other funds as approved by the City Council. Annual contributions may be used in whole or in part to fund capital projects as cash assets are accumulated. Alternatively, annual contributions may be allowed to remain in reserve until those funds, along with accrued interest have grown sufficiently to permit larger projects to be undertaken.

Capital Improvement Planning Policy

The City Council adopted its Capital Improvement Planning Policy in February 2013. Its purpose is to manage development of the CIP, and thus ensure that the City preserves, maintains, and improves buildings, parks, roads, sewers, equipment and other capital investments. This policy is also intended to guard against unplanned major capital costs in future years.

A. Policy Scope: The Capital Improvement Planning Policy shall apply to capital projects that meet all of the following criteria:
   1. Projects that exceed $50,000 in total cost;
   2. Projects that involve the purchase of land, buildings, building improvements or building components;
   3. Projects where the City is responsible for the purchase and/or development thereof; and
   4. Projects included in the City's Comprehensive Plan or related capital plans.

B. Capital Asset Inventory
   1. The City shall develop and maintain an inventory of all infrastructure assets over $100,000 including water, sewer, roads, buildings, park improvements and other infrastructure to include their condition, expected life span and original cost.
   2. The Administrative Services Director shall establish policies and appropriate procedures to account for infrastructure and non-infrastructure capital/fixed assets, including establishing the threshold dollar amount for which capital project and capital/fixed asset records are maintained and how often physical inventories are taken.

C. Capital Improvement Plan
   1. The City shall prepare a Capital Improvement Plan (CIP) that complies with the State Growth Management Act and related statutes.
   2. The CIP shall include all projects anticipated for the long-range financial plan which is based on a six year planning horizon while the Comprehensive Plan or other related capital plans such as the City's Parks, Recreation and Open Space Plan or Pavement Management (Street) Plan may include projects with planning horizons greater than six years.
   3. The CIP shall include, at a minimum, the following information for each project:
      i) Project type and description for a six year planning horizon;
      ii) Estimated acquisition and development costs by year;
      iii) Estimated funding sources by type and year;
      iv) Estimated annual operations and maintenance costs upon completion;
      v) Projected source of operations and maintenance costs upon completion; and
      vi) Project priority within project type.
   4. The CIP shall be updated annually as part of the City's budget process to reflect changes in the revenues and expenses of approved projects.
   5. The City Council shall approve the CIP and may amend the CIP at any time.

D. Capital Projects Funding Criteria. The City shall prioritize use of City funding for capital projects. Priority will be given to projects that meet the following criteria:
   1. Projects that preserve existing capital infrastructure;
   2. Projects with low life-cycle costs;
   3. Projects that have a high percentage of project costs funded by non-city sources or that have a dedicated funding source;
   4. Projects that generate revenue or reduce operations and maintenance costs;
   5. Projects that have identified funding for operations and maintenance costs; and
   6. Projects that have a high level of community support.

E. Capital Projects Fund
   1. The City has established several capital projects funds to be used to accrue moneys for the construction and/or completion of approved CIP projects.
   2. All funds identified as funding sources for approved CIP projects shall be transferred to the appropriate capital projects fund. Currently the City has the following restricted funds for capital projects:
      i) Water Restricted
      ii) Sewer Restricted
      iii) Streets Restricted
      iv) Parks Restricted
      v) Capital/Building Facilities Fund
   3. All expenses related to approved CIP projects shall be made out of the appropriate capital projects fund.
   4. The Administrative Services Director shall account for the revenues and expenditures of each project separately.
   5. Interest on the appropriate capital projects fund cash balances shall be credited to each individual fund based on their annual average cash balance.

F. Use of Debt
   1. The City may use debt to pay for capital projects included in the CIP subject to the City's Debt Management Policy; and
   2. Any use of debt to fund capital projects must be approved by the City Council.

G. Project Approval
   1. The City Manager shall recommend CIP projects for funding in the Capital budget; and
   2. The City Council shall approve all current CIP projects through its approval of the City budget.

H. Sustainability
   1. The City shall include financial sustainability principles in the development of capital projects.

City of Sequim Debt Policy

The purpose of the City's Debt Policy is to define its approach to managing debt. Adherence to the policy is essential to ensure that the City maintains a sound debt position and protects the credit quality of its obligations.

A. Policy Scope: This policy shall apply to all debt issued by the City of Sequim

B. Statutory Limitations
   1. All City debt management policies and practices shall comply with Washington State law;
   2. The general obligation debt of the City shall not exceed 7.5 percent of the assessed value of taxable property within the City;
      i) The City Council can approve debt up to 1.5 percent of the city's total assessed value
      ii) The public may vote to approve debt for general government purposes in an amount not to exceed 2.5 percent of assessed valuation, inclusive of any City Council approved debt
      iii) The public may vote to approve debt up to an additional 2.5 percent of assessed valuation for open space, park facilities, and capital facilities associated with economic development.
   3. The public may vote to approve debt up to an additional 2.5 percent of assessed valuation for city water or sewer utilities.

C. Authority to Borrow
   1. All borrowing, including short-term debt, will be subject to Council approval; and
   2. Use of credit cards or vendor accounts are considered expenditures and are not considered short term obligations under this policy.

D. Revenue Bonds
   1. Revenue bonds are used to finance construction or improvements to facilities of enterprise systems operated by the City and are generally payable from the enterprise. Revenue bonds are not subject to the City's statutory debt limitation and voter approval is not required.

E. Short Term Obligations
   1. Short term obligations are warrants, notes, capital leases, or other evidences of indebtedness expected to be repaid in three years or less;
   2. The City may use short term obligations to:
      i) Meet the immediate financing needs of a capital project for which long term financing has been secured but not yet received.
      ii) Cover temporary cash flow shortages, which may be caused by a delay in receipting tax revenues.

3. The City may make short term loans between City funds (interfund loans) as an alternative to using short term obligations.
   i) Interfund loans will be permitted only if an analysis of the affected fund indicates excess funds are available and the use of these funds will not impact the fund's current operations.
   ii) All interfund loans shall bear interest based on prevailing rates and have terms consistent with state guidelines.
   iii) All interfund loans shall be made in conformance with the City's Interfund Loan Policy.

F. Intermediate Term Debt
1. Intermediate term debt is debt that is used to finance a specific asset or set of assets with a useful life of more than three but less than seven years;
2. The City will only issue intermediate term debt for capital assets when the cost of borrowing or other factors make it in the City's best interest; and
3. The term of any intermediate term debt will not exceed a conservative estimate of the useful life of the asset(s) to be financed.

G. Long Term Debt
1. Long term debt is that debt which is seven years or more to term;
2. The City will only issue long term debt for capital improvements that are included in the City's Capital Improvement Plan;
3. The City will only issue long term debt for capital improvements that cannot be financed on a pay-as-you-go basis from anticipated cash flows;
4. The term of any long term debt will not exceed a conservative estimate of the useful life of the asset to be financed;
5. The City will include a comprehensive debt repayment plan with any proposed use of long term debt;
6. The City will explore alternative financing mechanisms such as local improvement districts, Washington State Public Works Trust Fund Loans and the Local Option Capital Asset Lending (LOCAL) Program when planning to incur debt; and
7. In any proposal to use debt the City shall identify the future operating and maintenance costs associated with the capital improvement to be financed and how those operating and maintenance costs will be paid.

H. Refunding Bonds
1. Refunding bonds are issued to refinance existing bonds to take advantage of lower interest rates;
2. The City will use refunding bonds, when appropriate, to restructure its outstanding debt; and
3. Unless otherwise justified, such as the desire to change a bond covenant, the City shall only issue refunding bonds when the net present value of savings after expenses is at least 3 percent.

I. Debt Reporting
1. The City shall include a summary of its outstanding debt in its budget document and annual financial report.

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- **Capital Improvement Plan Summary**
- **Water, Sewer, Streets, Parks and Capital/Building Facilities Restricted Fund Projects**

CAPITAL IMPROVEMENT PLAN 2015 – 2020

Chapter 2

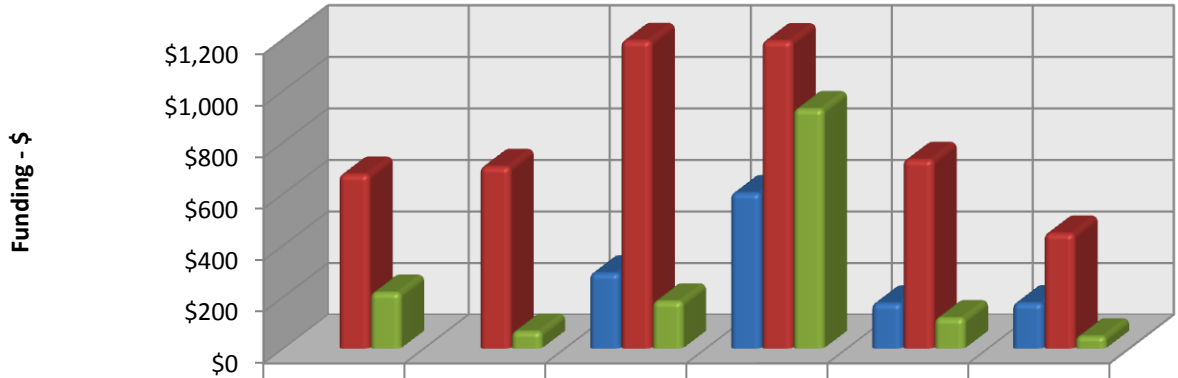
CIP Summary

- Planned estimated expenditures
- Proposed project schedules
- Funding sources by year and percent
- Funding phases by year and percent

2015-2020 - Water System Projects
Project Summary, Schedule, and Estimated Cost

		2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan Total
Booster Station Improvements								
WTR-003BS	5th & McCurdy Booster Station Improvements	131						131
WTR-004BS	Simdars Road Booster Station		54	348	57			459
Distribution System Improvements								
WTR-027D	Asbestos Cement/Galvanized Iron Water Main Replacement	210	200	200	200	200	200	1,210
WTR-017D	Brown Road Water Main from East Fir Street to East Washington Street			585				585
WTR-030D	Connection across South 3rd Avenue at Sycamore Street	48						48
WTR-024D	Craftsman Court PRV Station		54					54
WTR-019D	East Etta Street Water Main	105						105
WTR-016D	East Fir Street Water Main				180	475	190	845
WTR-023D	Pressure Relief Valve Installation		97					97
WTR-008D	Reservoir Road and 7th Avenue Water Main				604			604
WTR-022D	Service Extension to Emerald Highlands	191						191
WTR-025D	South Lee Chatsfield Water Main Loop						177	177
WTR-026D	Washington Harbor Road Water Main					351		351
WTR-015D	West Fir Street Transmission Main Replacement	53	54	446	234			787
WTR-031D	West Washington Street Isolation Valves	16	138					154
Miscellaneous Improvements								
WTR-036MI	Fixed Base Automatic Meter Reading System	121	124					245
WTR-034MI	SCADA Upgrade Report		48	6				54
Source Improvements								
WTR-044S	Infiltration Gallery Improvements			88	626			714
WTR-039S	Port Williams Well No.4				826			826
WTR-043S	Replacement of Siberhorn Wells No. 2 & No.3						104	104
Storage Improvements								
WTR-050ST	Study for Reuse of 500,000 Gallon Reservoir	21	6					27
	Project Total By Year	896	775	1,673	2,727	1,026	671	7,768

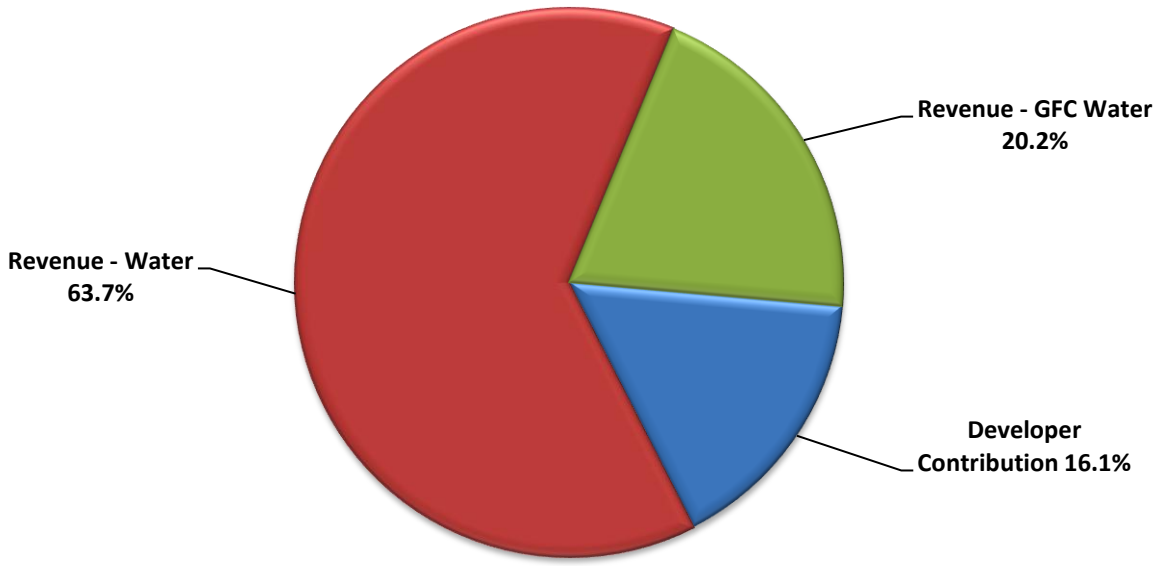
Water Restricted Fund - Funding Sources by Year
6-Year Capital Improvement Plan 2015-2020



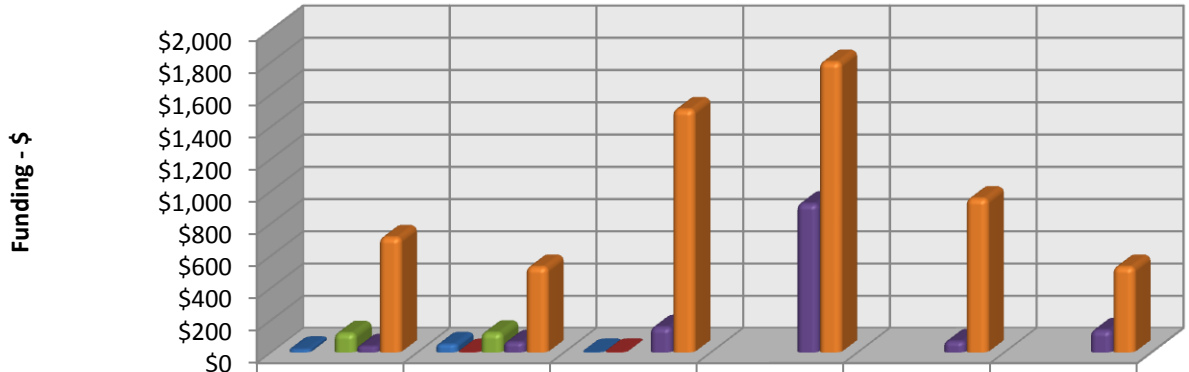
	2015	2016	2017	2018	2019	2020
Developer Contribution			$293	$604	$176	$177
Revenue - Water	$676	$706	$1,195	$1,194	$733	$447
Revenue - GFC Water	$218	$67	$184	$930	$119	$48

Funding Amounts in Thousands Inflated $

Water Restricted Fund - Funding Source Percent
6-Year Capital Improvement Plan 2015-2020



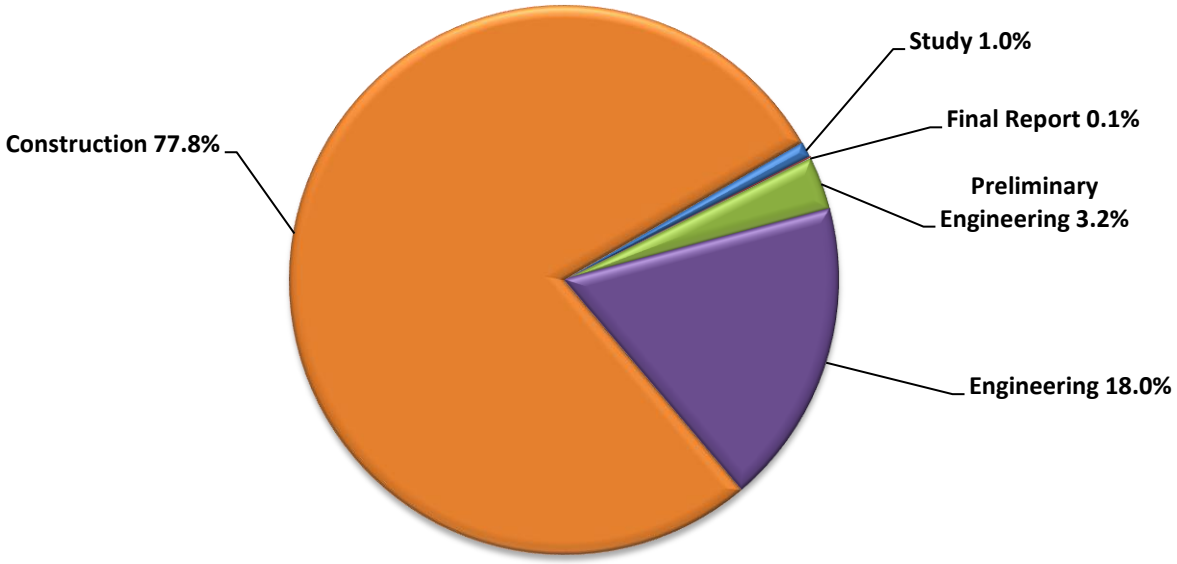
Water Restricted Fund - Project Phase by Year
6-Year Capital Improvement Plan 2015-2020



	2015	2016	2017	2018	2019	2020
Study	$21	$51	$3			
Final Report		$3	$3			
Preliminary Engineering	$121	$124				
Engineering	$39	$65	$158	$924	$70	$139
Construction	$715	$532	$1,509	$1,803	$956	$532

Funding Amounts in Thousands Inflated $

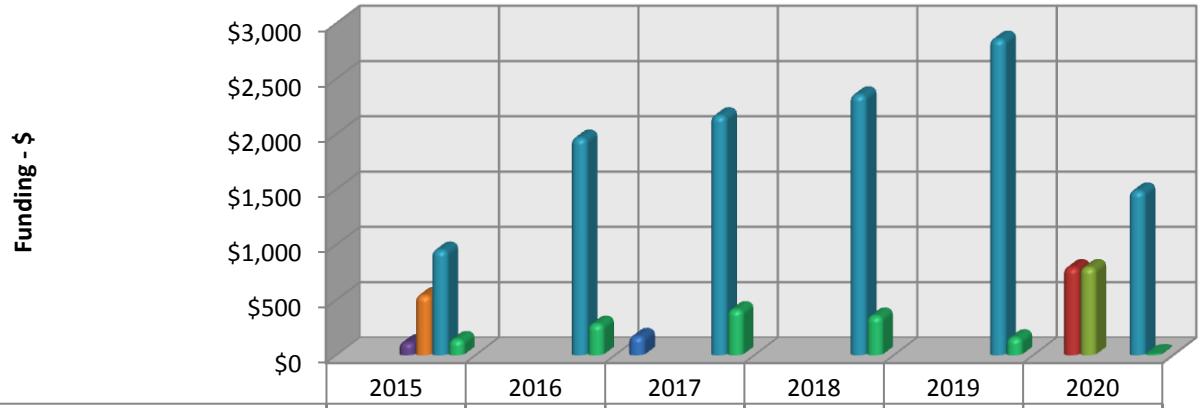
Water Restricted Fund - Project Phase Percent
6-Year Capital Improvement Plan 2015-2020



2015-2020 - Sewer and Waste Water System Projects
Project Summary, Schedule, and Estimated Cost

		2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan Total
Miscellaneous Improvements								
SRR-015MI	Fixed Base Automatic Meter Reading System	121	124					245
SRR-017MI	Major Repair/Oversizing	53	54	55	57	58	59	336
Unassigned Improvements								
SRR-032NA	Aerobic Digester Aeration System Improvements	573						573
SRR-035NA	Aerobics Digester Capacity Upgrades		237			2,006		2,243
SRR-001NA	Cedar Street Sewer Improvement			1,042	267			1,309
SRR-034NA	Class A Biosolids Handling & Distribution Center			753			758	1,511
SRR-020NA	Collection System I/I Improvement	40	41	42	43	44	45	255
SRR-003NA	Doe Run Lift Station	67	549					616
SRR-014NA	East Fir Street Sewer Replacement			222	1,097	580		1,899
SRR-030NA	Equalization Basin Aeration System Improvements	57						57
SRR-002NA	Etta Street Sewer Improvements	164						164
SRR-008NA	Fir Street Sewer Improvement	217	498	331				1,046
SRR-023NA	High Pressure Zone Expansion						1,242	1,242
SRR-013NA	North Blake Avenue Sewer Improvements			172				172
SRR-024NA	Overall Network Expansion						297	297
SRR-022NA	Rapid Infiltration Basin Improvements						48	48
SRR-006NA	Sequim Bay Lodge & State Park Pressure Main Improvements	95						95
SRR-009NA	Sunnyside Street Sewer Improvement	142	579					721
SRR-029NA	WRF Headworks and Grit Removal	225						225
SRR-036NA	WRF Headworks Modifications No 2					330		330
SRR-007NA	WRF Influent Trunk Line Pipeline Repair/Replacement		166	135	1,247			1,548
SRR-025NA	WRF Reclaimed Water Pumping Facility Improvements						639	639
	Project Total By Year	1,754	2,248	2,752	2,711	3,018	3,088	15,571

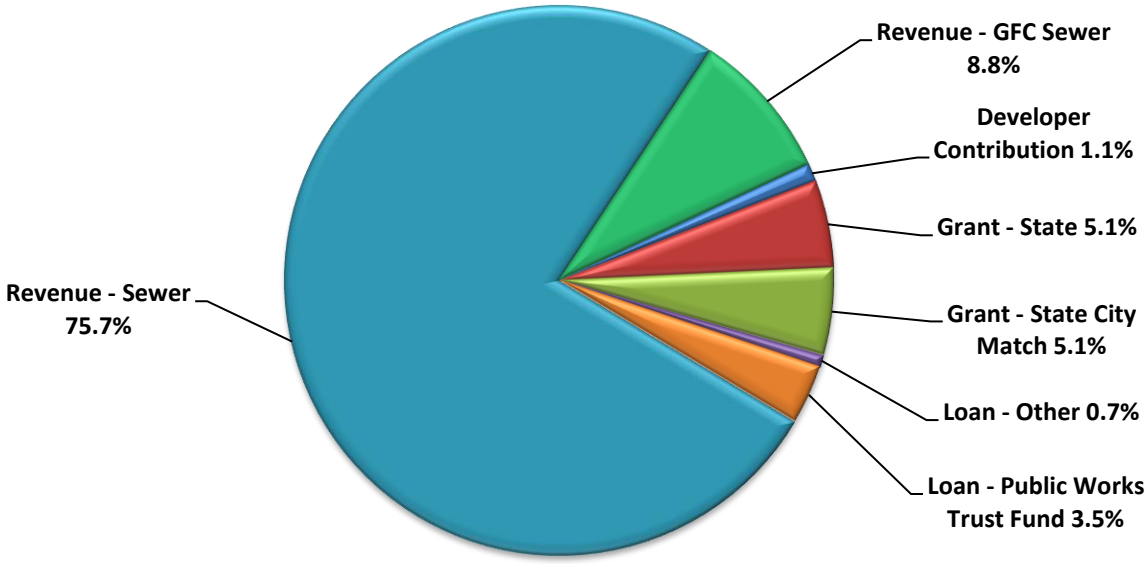
Sewer Restricted Fund - Funding Sources by Year
6-Year Capital Improvement Plan 2015-2020



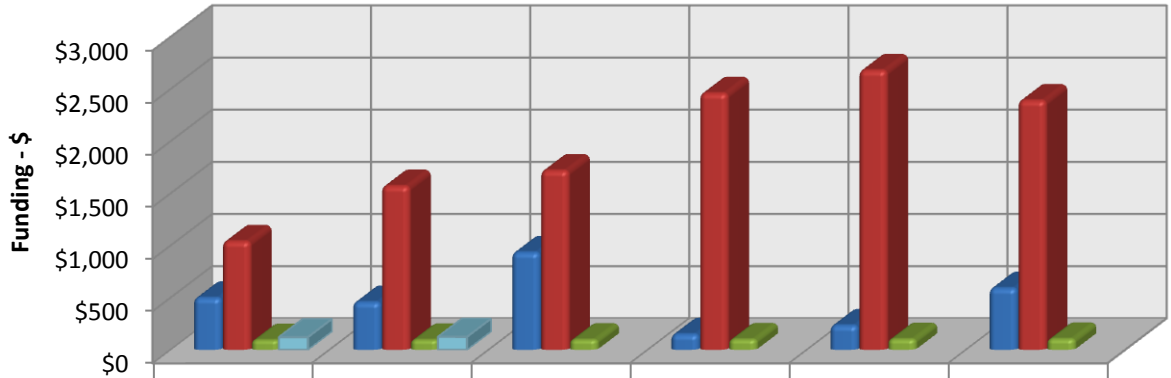
	2015	2016	2017	2018	2019	2020
Developer Contribution			$172			
Grant - State						$794
Grant - State City Match						$794
Loan - Other	$115					
Loan - Public Works Trust Fund	$542					
Revenue - Sewer	$952	$1,965	$2,167	$2,356	$2,859	$1,487
Revenue - GFC Sewer	$143	$282	$413	$355	$159	$15

Funding Amounts in Thousands Inflated $

Sewer Restricted Fund - Funding Source Percent
6-Year Capital Improvement Plan 2015-2020



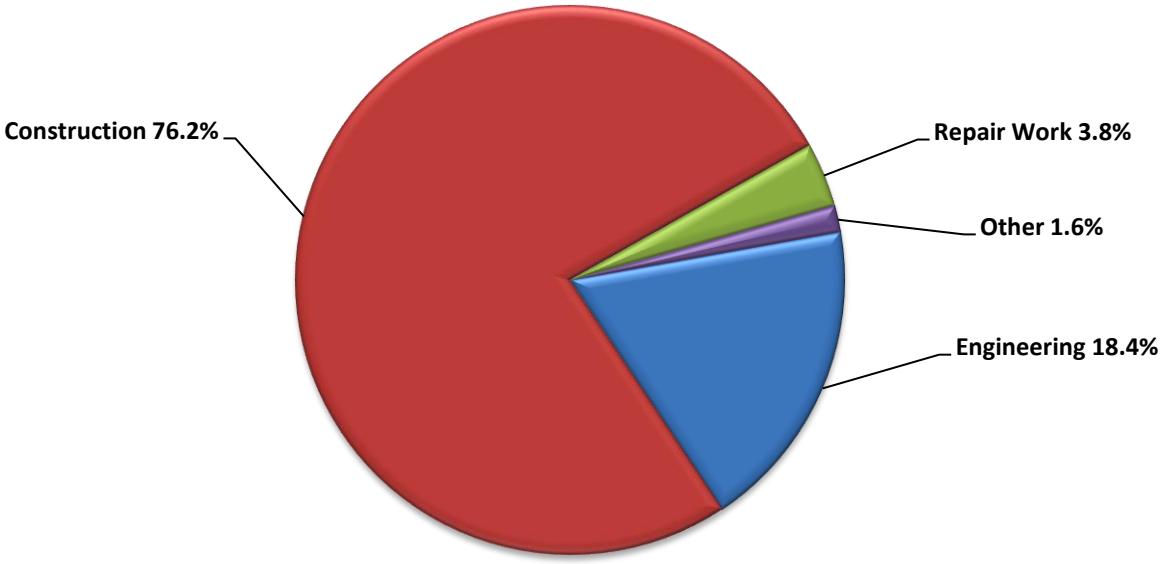
Sewer Restricted Fund - Project Phase by Year
6-Year Capital Improvement Plan 2015-2020



	2015	2016	2017	2018	2019	2020
Engineering	$499	$458	$935	$150	$235	$592
Construction	$1,041	$1,571	$1,720	$2,461	$2,681	$2,392
Repair Work	$93	$95	$97	$100	$102	$104
Other	$121	$124				

Funding Amounts in Thousands Inflated $

Sewer Restricted Fund - Project Phase Percent
6-Year Capital Improvement Plan 2015-2020



CITY OF SEQUIM

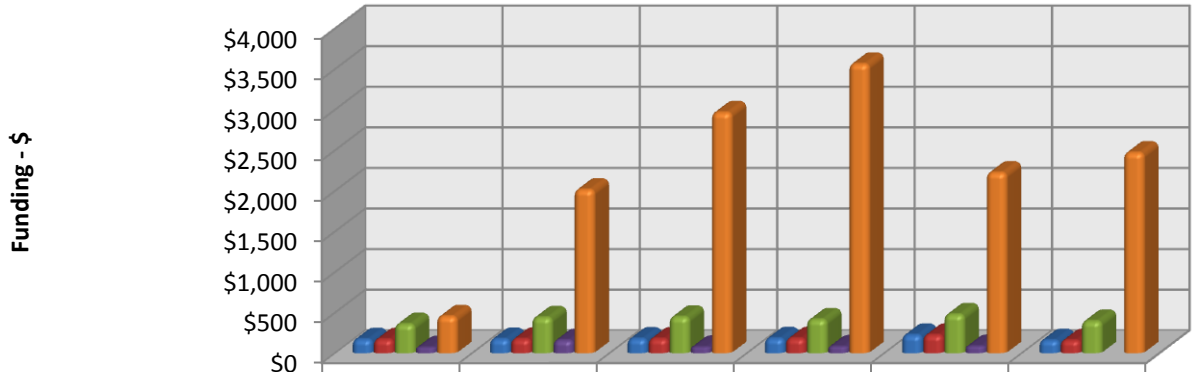
2015-2020 - Transportation System Projects
Project Summary, Schedule, and Estimated Cost

		2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan Total
Bicycle Facilities Improvements								
STR-003BF	3rd Avenue Bike Lanes			66				66
STR-004BF	East Washington Street Bicycle Lanes				36	125		161
STR-005BF	Fir Street Bicycle Lane			24	40	44		108
STR-006BF	North Sequim Avenue Bicycle Lane	3	19					22
STR-008BF	ODT Realignment in Carrie Blake Park		18	59				77
STR-009BF	Prairie Street Bicycle Lanes	29		41	62			132
STR-001BF	Sunnyside Avenue Bicycle Lane		48					48
STR-011BF	West Washington Street Bicycle Lanes					13	56	69
City Wide Pavement Rehab Improvements								
STR-041PR	City-wide Pavement Rehab	468	473	362	497	509	522	2,831
City Wide Safety Projects Improvements								
STR-039SP	City-wide Safety Projects	53	54	55	57	58	59	336
STR-054SP	City-wide Street Light LED Changeout	51	53	54	55	57	58	328
Facility Improvement Improvements								
STR-034FI	East Washington St. Bus Turn-Outs			22	102			124
STR-030FI	Fir Street Improvements between Sequim Ave. and 5th Ave.	525	1,016	1,286				2,827
STR-031FI	West Prairie Street Improvements	70						70
STR-032FI	West Washington Street Improvements				14	63		77
Intersection Improvement Improvements								
STR-027II	Kendall and Hendrickson Improvements				39			39
STR-058II	Special Planning Area-Rhodefer Rd. Overpass of US 101		32					32
STR-053II	US-101 & Simdars Road Intersection Improvements		11					11
STR-028II	US-101 and Simdars Road		315	1,777	1,159			3,251
STR-026II	West Washington Street and 2nd Avenue Intersection Improvements				26	240		266
STR-029II	Whitefeather Way and US 101 Intersection Improvements					232	178	410
New Signal Improvements								
STR-025NS	North 5th Avenue and West Fir Street Traffic Signal		372	44				416
STR-023NS	North Sequim Avenue and Fir Street Traffic Signal		353					353
STR-021NS	Prairie Street and South Sequim Avenue Traffic Signal				208	167		375
STR-022NS	South Sequim and US 101 Ramps Traffic Signals					608		608

2015-2020 - Transportation System Projects
Project Summary, Schedule, and Estimated Cost

		2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan Total
Pedestrian Improvement Improvements								
STR-017PI	Brackett Road Asphalt Trail					75	577	652
STR-014PI	Etta Street Active Alleyway		81		651			732
STR-018PI	Prairie Street Sidewalk				441	504		945
STR-016PI	Seal Street Active Alleyway			14	59			73
STR-019PI	Sidewalk Infill on Blake Ave.		54		407			461
STR-015PI	Sunnyside Avenue Sidewalk			55	447			502
STR-020PI	Upper Bell Creek Trail						18	18
Road Connectivity Improvements								
STR-037RC	West Brownfield Road Realignment				136		1,034	1,170
STR-038RC	West Maple Street Improvement					456	232	688
STR-036RC	West Norman Street Roadway Connectivity						131	131
Shared Use Path Improvements								
STR-012SUP	Whitefeather Way Multi-user Trail					97	328	425
Signal Interconnect Improvements								
STR-056SI	Special Planning Area-School Zone I/S Treatments	10						10
STR-055SI	Special Planning Area-Wash./Sequim I/S enhancements	20						20
STR-057SI	Special Planning Area-Washington St. Brown to Rhodefer I/S & Signals		32					32
STR-052SI	Washington Street Signal Interconnect	6	46					52
	Project Total By Year	1,235	2,977	3,859	4,436	3,248	3,193	18,948

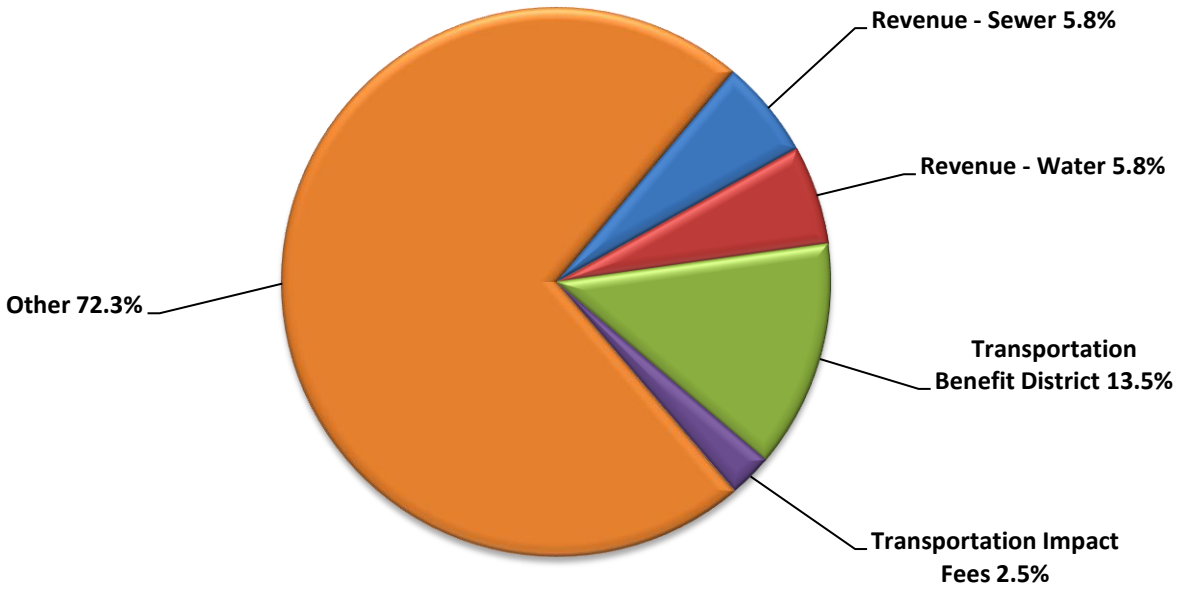
Streets Restricted Fund - Funding Sources by Year
6-Year Capital Improvement Plan 2015-2020



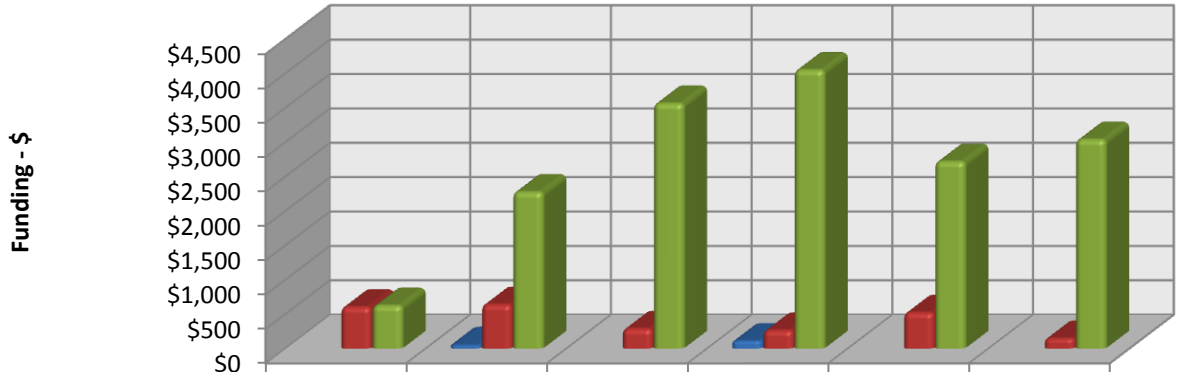
	2015	2016	2017	2018	2019	2020
Revenue - Sewer	$173	$177	$181	$185	$227	$161
Revenue - Water	$173	$178	$181	$185	$227	$161
Transportation Benefit District	$360	$443	$450	$418	$480	$398
Transportation Impact Fees	$73	$162	$77	$83	$87	
Other	$456	$2,017	$2,968	$3,566	$2,227	$2,473

Funding Amounts in Thousands Inflated $

Streets Restricted Fund - Funding Source Percent
6-Year Capital Improvement Plan 2015-2020



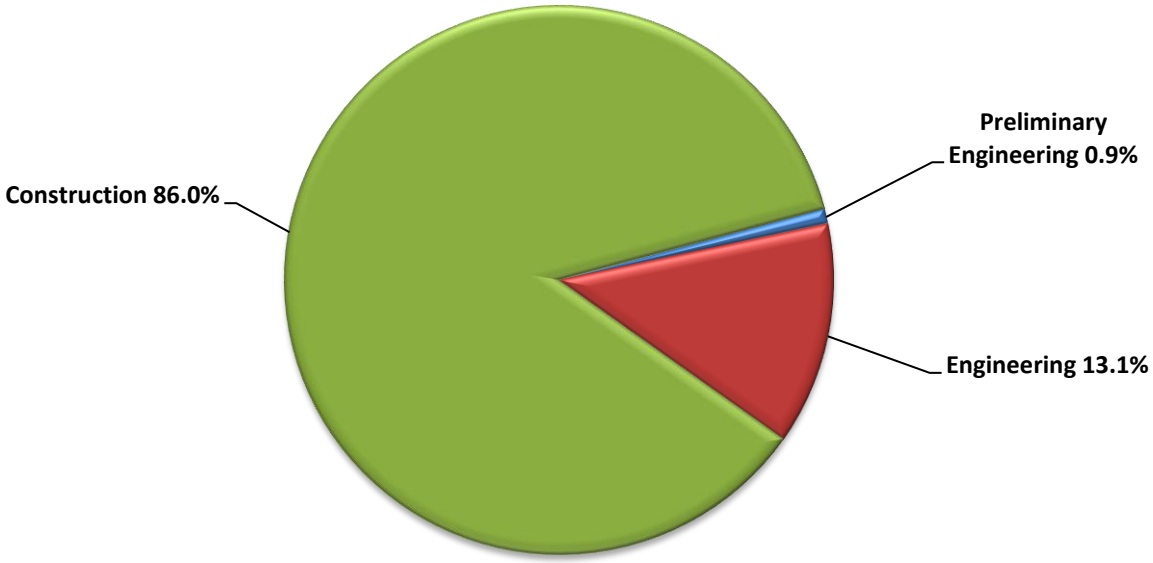
Streets Restricted Fund - Project Phase by Year
6-Year Capital Improvement Plan 2015-2020



	2015	2016	2017	2018	2019	2020
Preliminary Engineering		$54		$113		
Engineering	$606	$642	$290	$268	$525	$149
Construction	$629	$2,281	$3,569	$4,055	$2,723	$3,044

Funding Amounts in Thousands Inflated $

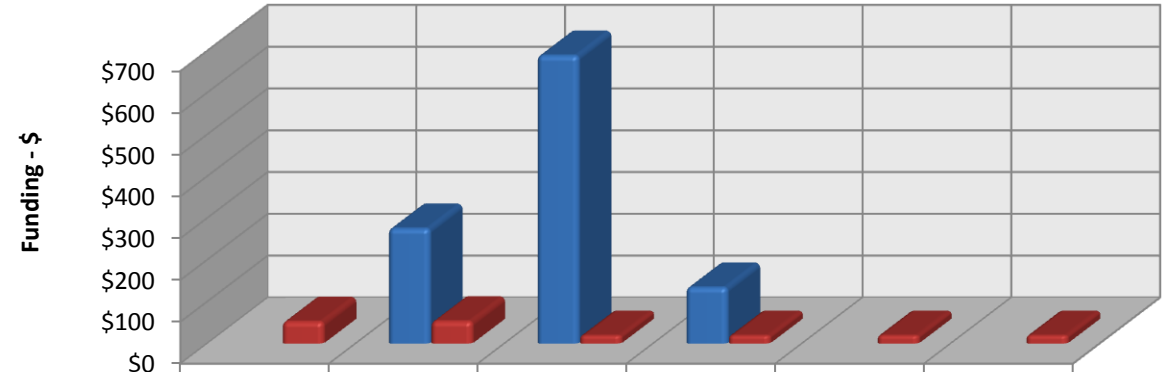
Streets Restricted Fund - Project Phase Percent
6-Year Capital Improvement Plan 2015-2020



2015-2020 - Park System Projects
Project Summary, Schedule, and Estimated Cost

		2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan Total
Unassigned Improvements								
PRK-011NA	Carrie Blake Park Access Road		276					276
PRK-012NA	Carrie Blake Park New Parking Lot			690				690
PRK-013NA	Carrie Blake Park Overlay on Existing Lot				135			135
PRK-002NA	Gerhardt Park Upgrades	53	54					107
PRK-014NA	Renovation and Rehabilitation			20	20	20	20	80
	Project Total By Year	53	330	710	155	20	20	1,288

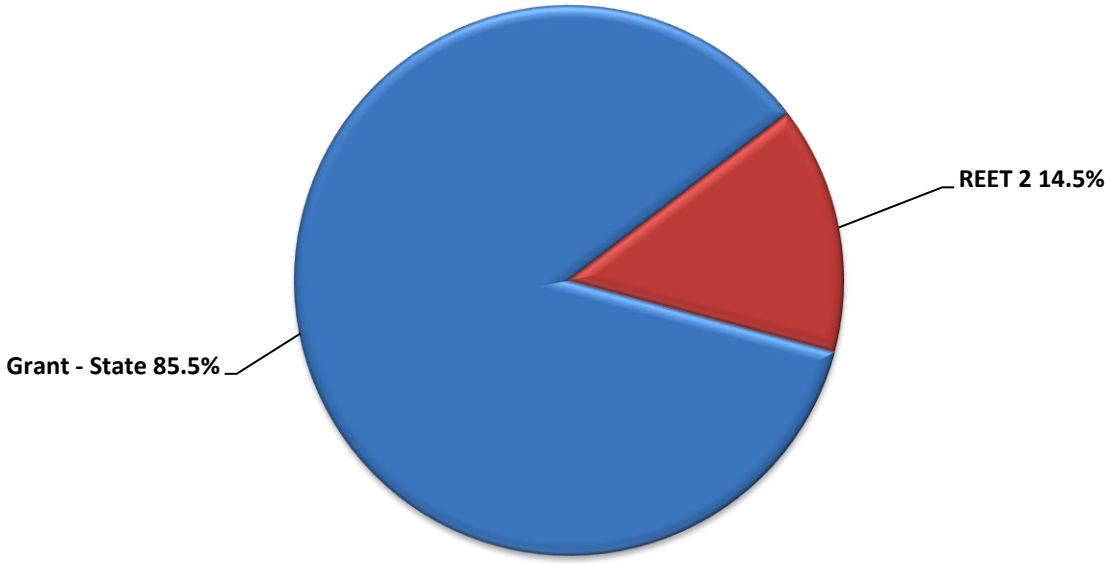
Parks Restricted Fund - Funding Sources by Year
6-Year Capital Improvement Plan 2015-2020



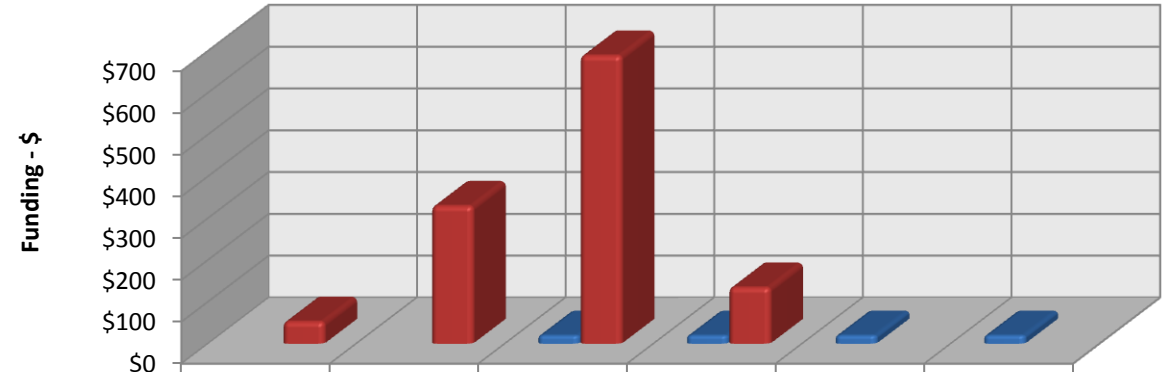
	2015	2016	2017	2018	2019	2020
Grant - State		$276	$690	$135		
REET 2	$53	$54	$20	$20	$20	$20

Funding Amounts in Thousands Inflated $

Parks Restricted Fund - Funding Source Percent
6-Year Capital Improvement Plan 2015-2020



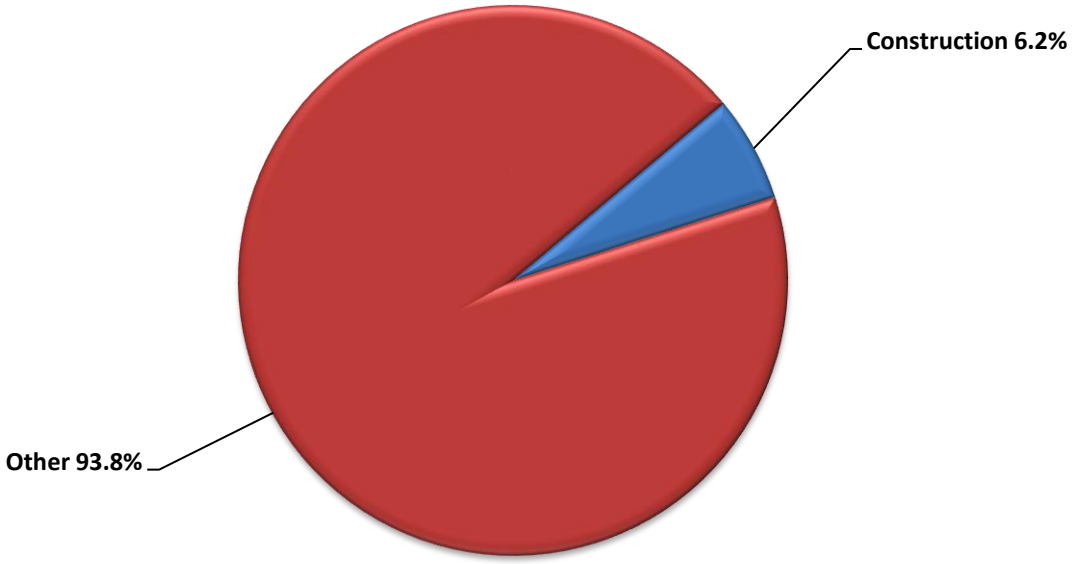
Parks Restricted Fund - Project Phase by Year
6-Year Capital Improvement Plan 2015-2020



	2015	2016	2017	2018	2019	2020
Construction			$20	$20	$20	$20
Other	$53	$330	$690	$135		

Funding Amounts in Thousands Inflated $

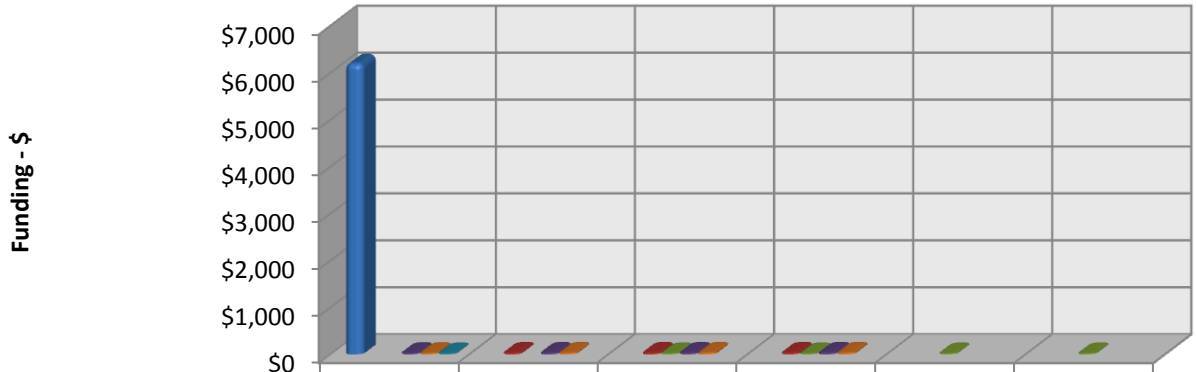
Parks Restricted Fund - Project Phase Percent
6-Year Capital Improvement Plan 2015-2020



2015-2020 - Capital/Building Facilities Projects
Project Summary, Schedule, and Estimated Cost

		2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan Total
Unassigned Improvements								
CFL-002NA	City Shop Upgrades	30	105	108	110			353
CFL-008NA	Civic Center	6,196						6,196
CFL-009NA	Modular Offices at Shop	50						50
CFL-010NA	Renovation and Rehabilitation			20	20	20	20	80
	Project Total By Year	6,276	105	128	130	20	20	6,679

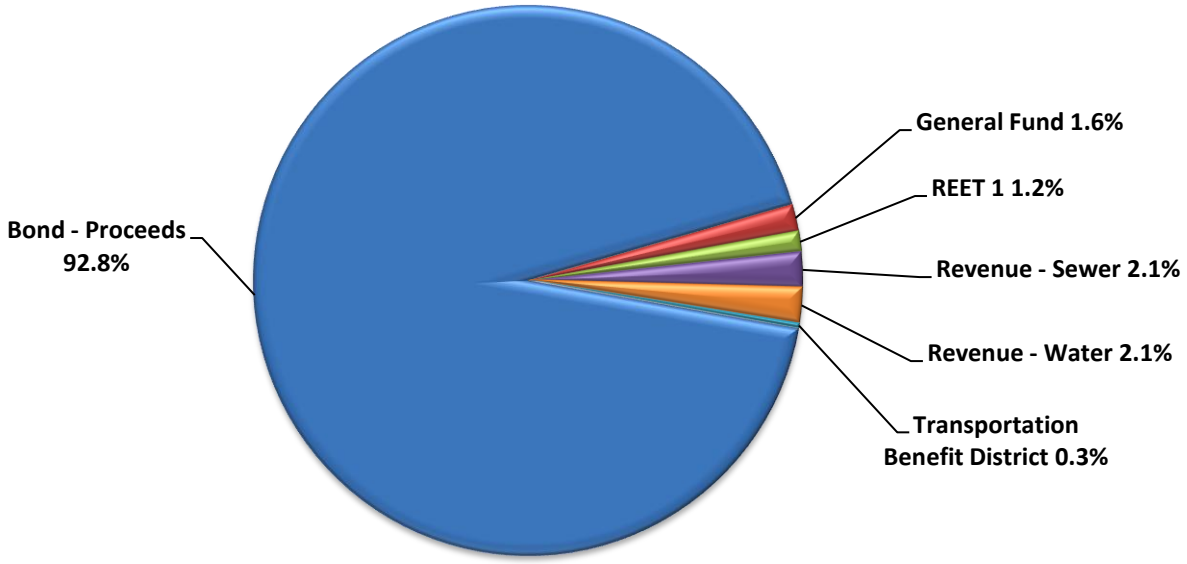
Capital Facilities Fund - Funding Sources by Year
6-Year Capital Improvement Plan 2015-2020



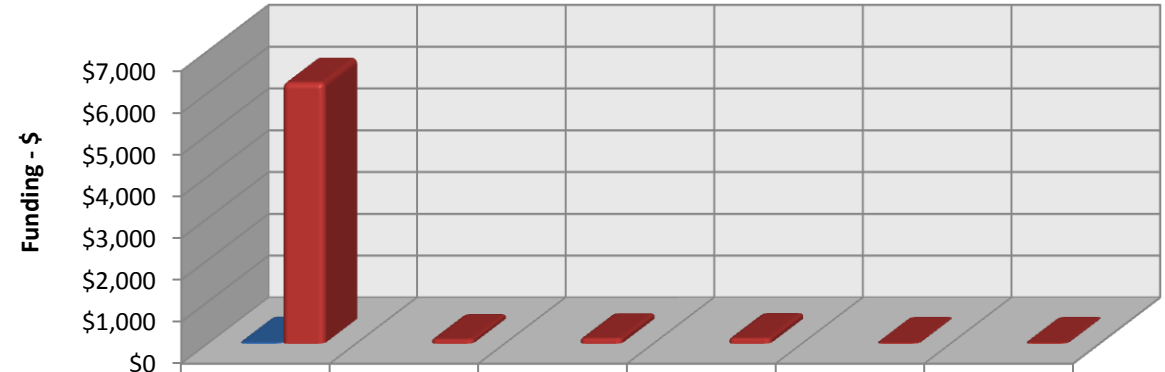
	2015	2016	2017	2018	2019	2020
Bond - Proceeds	$6,196					
General Fund		$35	$36	$37		
REET 1			$20	$20	$20	$20
Revenue - Sewer	$30	$35	$36	$37		
Revenue - Water	$30	$35	$36	$37		
Transportation Benefit District	$20					

Funding Amounts in Thousands Inflated $

Capital Facilities Fund - Funding Source Percent
6-Year Capital Improvement Plan 2015-2020



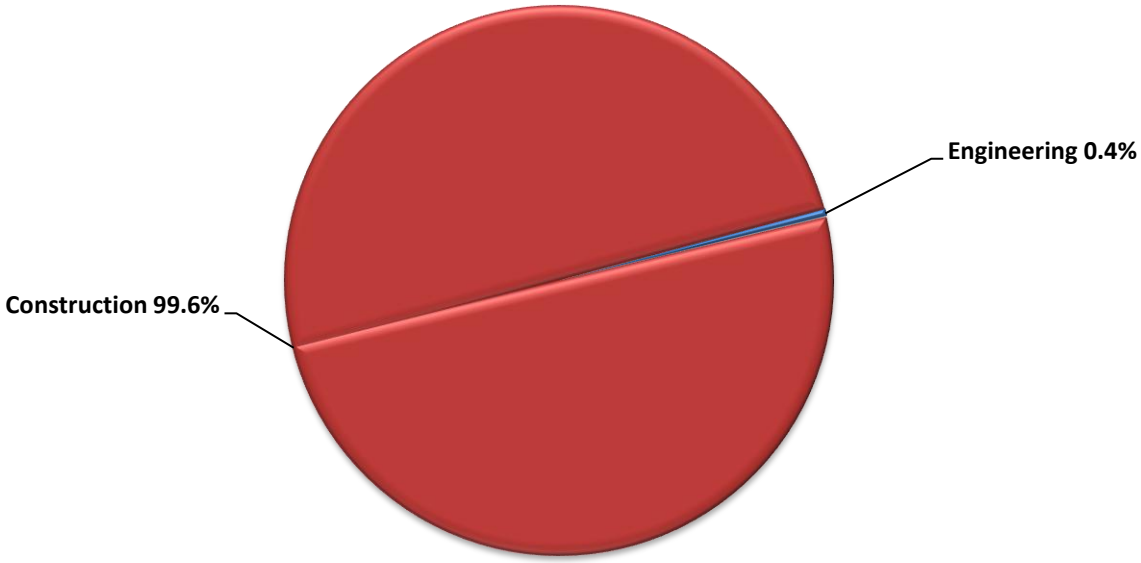
Capital Facilities Fund - Project Phase by Year
6-Year Capital Improvement Plan 2015-2020



	2015	2016	2017	2018	2019	2020
Engineering	$30					
Construction	$6,246	$105	$128	$130	$20	$20

Funding Amounts in Thousands Inflated $

Capital Facilities Fund - Project Phase Percent
6-Year Capital Improvement Plan 2015-2020



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- **Historical Overview of Sequim Water Utility Capital Improvements**
- **Sources of Water Supply and the CIP**
- **Distribution System Capital Improvements**
- **Future Water Demand**
- **Level of Service Standards**

CAPITAL IMPROVEMENT PLAN 2015 – 2020

Chapter 3

Water Restricted Fund Projects

Historical Overview of Sequim Water Utility Capital Improvements

The City of Sequim's municipal water system serves most of the incorporated city boundaries and areas of unincorporated Clallam County south and east of the city limits. The water system's three sources of supply are the Infiltration Gallery, the Silberhorn Wellfield, and the Port Williams Wellfield, described in more detail below. Raw water from all three sources is disinfected with sodium hypochlorite in accordance with state Department of Health standards for contact time and chlorine residuals in the distribution system.

The City's first water system, purchased from private interests in 1922, served several blocks of the central business district and was supplied by local springs. Passage of a bond issue in 1929 allowed the city to develop surface water rights on the Dungeness River, and to build the water system's first raw water open cut reservoir. Additional water transmission mains and reservoirs were added to the system in the late 1940s and early 1950s, including an intake line from the Dungeness River.

Following recommendations of a 1973 study, capital improvements included covering the open cut reservoir, metering connections, and replacing substandard transmission mains. Another report, completed in 1983, addressed water quality, water resources, and conservation. Improvements to the system included development of the Silberhorn Wellfield, installation of a chlorination system, and construction of a new infiltration gallery along the Dungeness River. In 1995, Port Williams Well No. 1 was drilled, and the 5th and McCurdy Booster Station was built. Port Williams Well No. 2 was brought to completion in 1998. In 2008, the Solana development required addition of a 1 MG reservoir and two booster stations. In 2009, Port Williams Well No. 3 was placed in service. Since 2000, the water system has expanded northwest to serve new commercial development on West Washington Street.

Sources of Water Supply and the CIP

The three raw water sources named in the previous section directly influence the scope and direction of the Six-Year Capital Improvement Program for the Sequim Water Utility because of their geographic locations and respective yields. Accordingly, a brief description of each source, and its relationship to the treated water distribution system is provided.

Infiltration Gallery: The City's original water right for surface water diversion from the Dungeness River was changed in 1954 to the same location as the Infiltration Gallery. The diversion works consist of a horizontal collector system made of perforated pipe buried in a gravel filter pack under the stream bank of the Dungeness River. From a central collection well, water flows by gravity siphon to the City's 420 Reservoir and thence to the distribution system. While the Infiltration Gallery has been determined to be hydraulically connected to the river, its yield is not defined as groundwater under the influence of surface water.

Silberhorn Wellfield: The Silberhorn Wellfield, consists of three wells operated on an alternating basis to equalize use. During high demand periods, two wells are drawn simultaneously. The Silberhorn Wellfield pumps to the City's 1.7 MG reservoir serving the 420 Pressure Zone.

Port Williams Wellfield: There are three wells at the Port Williams source. They are operated on an alternating schedule, except during high demand periods when all three run simultaneously. The wells pump directly to the 350 Pressure Zone. When demand conditions require, Port Williams can supply the 420 Pressure Zone by operating in tandem with the 5th and McCurdy Booster Station. Under the three-well configuration in place total withdrawal from

the Port Williams Wellfield is restricted to customer demand in the 350 Pressure Zone plus the capacity of the 5th and McCurdy Booster Station.

The City's current water right permit provides for two additional wells at Port Williams. The City of Sequim's water right for the Port Williams Wellfield is supplemental to its existing water rights. When the City proves-up its full Port Williams water right, negotiations will ensue with the state Department of Ecology to designate Port Williams as the Primary water right, with the Silberhorn Wellfield and Infiltration Gallery water rights as supplemental.

Distribution System Capital Improvements

The water utility transmission and distribution network consists of about 340,000 lineal feet of pipe, ranging from 2-inch to 16-inch diameter. Analysis of the distribution system has revealed several areas with fire flow deficiencies. These include non-residential areas located in the 420 Pressure Zone north of Highway 101, East Washington Street and the mixed use zone on East Hammond Street. While fire flows in these nonresidential locations meet the Universal Fire Code requirement of 1,500gpm, they do not meet Sequim's planning requirement of 3,000gpm. Residential fire flow deficiencies were also found in the 420 and 480 Pressure Zones. Projects are included within the CIP to resolve these deficiencies through upsizing water mains and installing distribution system loops.

Future Water Demand

The water utility's future service boundaries include the Urban Growth Area and adjacent territory in which Sequim may become the logical water service provider. The current Capital Facilities Element policy allows Sequim to provide water service to new developments within the UGA in areas that are not served by other purveyors. The City may also acquire private water systems if the areas that those systems now serve are annexed to the City. Certain other portions of the UGA areas outside the Sequim city limits are served by the Clallam County Public Utilities District. Extension of municipal water service to current PUD customers will be regulated by a 1995 agreement between the agencies that requires mutual participation and consensus as appropriate boundary and infrastructure adjustments.

Sequim's Water System Master Plan projected water demands within the existing system boundaries for the CIP planning period by assuming that it will increase at a rate equivalent to the population growth rate. The Water System Plan analysis assumes a modest annual growth rate of two percent for the Sequim UGA, starting from the 2010 base year US Census total population. During this time period, Sequim is anticipated to annex more of the UGA at a rate of 4 percent per year. The following Table W-1 illustrates water demand growth through the CIP planning period, and includes a long-term projection based on a 20 year planning horizon. The chart also includes the estimated number of Equivalent Residential Units (ERUs) for each annual period. ERUs provide a method to express water use by non-residential customers as an equivalent number of residential customers. ERUs are calculated by dividing total single-family residential water use by the total number of single-family residential connections, giving average single-family residential water use. The volume of water used by non-residential customer classes is then divided by average single-family residential water use to determine the number of ERUs utilized by the other water user categories.

Table W-1

City of Sequim 2014 - 2019 Capital Improvement Program
Water System Demand Projections

Factor	2014 Estimate	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2032 Estimate
Population	7,054	7,744	7,990	8,244	8,505	12,989
Average Daily Demand (mgd)	0.080	0.859	0.880	0.901	0.923	1.290
Equivalent Residential Units	5,151	5,275	5,401	5,531	5,664	7,915

Level of Service Standards[1]

The below Table W-2 identifies some of the key criteria that have been identified by the Sequim Water Utiility as necessary to provide a minimum level of service for existing and future customers. These design standards were applied to a rigorous analysis of the existing system facilities in the Water System Plan. Comparing existing system performance to these design standards revealed certain deficiencies that led in part to the inventory of projects that appear in the CIP.

Table W-2

Service Parameter	Standard
Distribution system pressure	30psi – peak hour demand
	20psi – fire flow during MDD[2]
Transmission Main Pipeline Diameter	8 in min. serving fire hydrants
Fire Flow	3000gpm – commercial development
	1000gpm – residential development
Source Capacity	MDD with 18 hours of pumping
	MDD plus capacity to replenish fire suppression storage in 72 hrs.
	ADD[3] with largest source out of service
Operational Storage	10% of total storage
Distribution System Leakage	10% of total source production

[1]Source: Water System Plan, Chapter 3; [2]MDD – Maximum Day Demand; [3]ADD – Average Day Demand

2015-2020 - Water System Projects
Project Summary, Schedule, and Estimated Cost

		2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan Total
Booster Station Improvements								
WTR-003BS	5th & McCurdy Booster Station Improvements	131						131
WTR-004BS	Simdars Road Booster Station		54	348	57			459
Distribution System Improvements								
WTR-027D	Asbestos Cement/Galvanized Iron Water Main Replacement	210	200	200	200	200	200	1,210
WTR-017D	Brown Road Water Main from East Fir Street to East Washington Street			585				585
WTR-030D	Connection across South 3rd Avenue at Sycamore Street	48						48
WTR-024D	Craftsman Court PRV Station		54					54
WTR-019D	East Etta Street Water Main	105						105
WTR-016D	East Fir Street Water Main				180	475	190	845
WTR-023D	Pressure Relief Valve Installation		97					97
WTR-008D	Reservoir Road and 7th Avenue Water Main				604			604
WTR-022D	Service Extension to Emerald Highlands	191						191
WTR-025D	South Lee Chatsfield Water Main Loop						177	177
WTR-026D	Washington Harbor Road Water Main					351		351
WTR-015D	West Fir Street Transmission Main Replacement	53	54	446	234			787
WTR-031D	West Washington Street Isolation Valves	16	138					154
Miscellaneous Improvements								
WTR-036MI	Fixed Base Automatic Meter Reading System	121	124					245
WTR-034MI	SCADA Upgrade Report		48	6				54
Source Improvements								
WTR-044S	Infiltration Gallery Improvements			88	626			714
WTR-039S	Port Williams Well No.4				826			826
WTR-043S	Replacement of Siberhorn Wells No. 2 & No.3						104	104
Storage Improvements								
WTR-050ST	Study for Reuse of 500,000 Gallon Reservoir	21	6					27
	Project Total By Year	896	775	1,673	2,727	1,026	671	7,768

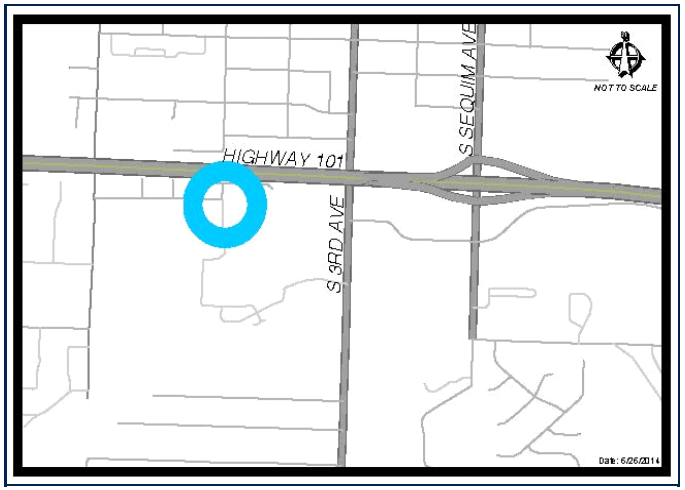
5th & McCurdy Booster Station Improvements

Project Number: WTR-003BS **Historical Project Number** BS-2

Project Location: Near the intersection of S 5th Ave and W Mccurdy Rd

Project Description:

This project will expand the pumping capacity of the 5th and McCurdy Booster Station thereby allowing transfer of more water from the Port Williams Wellfield to the 420 Reservoir under high demand conditions. With only a single pump in place at the time that this CIP was written, the water system does not have reliable capacity at the Booster Station. The addition of two pumps, with pitless adaptors similar to the current single pump, will double the reliable output capacity of the station to 600 gpm. A standby generator will be added to prevent service disruptions during emergencies.



Project Benefit:

Project BS-2 will increase the reliability of water service and improve fire flows in the 350 Pressure Zone.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering	35									35
Construction	128	131						131		259
Total Project Costs - Inflated $	**163**	**131**						**131**		**294**
Project Funding Sources										
Revenue - Water	163	131						131		294
Total Project Funding - Inflated $	**163**	**131**						**131**		**294**
Project Timeline Phase										
Engineering										
Construction		Q1								

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

Asbestos Cement/Galvanized Iron Water Main Replacement

Project Number: WTR-027D **Historical Project Number** D-23

Project Location: City-wide

Project Description:

Project D-23 provides an annual allotment to replace undersized or failing AC and galvanized iron water mains throughout the distribution system with piping of sufficient diameter to meet future demands, using state-of-the-art materials and construction techniques.

Project Benefit:

Customers will enjoy greater service reliability, and the water utility will reduce its future maintenance and emergency repair costs.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Construction	200	210	200	200	200	200	200	1,210		1,410
Total Project Costs - Inflated $	**200**	**210**	**200**	**200**	**200**	**200**	**200**	**1,210**		**1,410**
Project Funding Sources										
Revenue - Water	200	210	200	200	200	200	200	1,210		1,410
Total Project Funding - Inflated $	**200**	**210**	**200**	**200**	**200**	**200**	**200**	**1,210**		**1,410**
Project Timeline Phase										
Construction		Q2Q3Q4	Q2Q3Q4	Q2Q3Q4	Q2Q3Q4	Q2Q3Q4	Q2Q3Q4			

Source: Water System Comprehensive Plan

Amounts in Thousands Inflated $

Brown Road Water Main from East Fir Street to East Washington Street

Project Number: WTR-017D **Historical Project Number** D-13

Project Location: N Brown Rd from E Fir St to E Washington St

Project Description:

Project D-13 will improve fire flow to commercial developments in the easterly portion of city center. Construction will include installation of approximately 1,800 LF of 12-inch diameter PVC water main piping along Brown Road from East Fir Street to East Washington Street.

Project Benefit:

Commercial areas on East Washington St in the 350 Pressure Zone have been identified in the Water System Master Plan as among locations that meet minimum UFC required fire flows, but are not able to meet the City's more rigorous standard. Project D-13, in concert with CIP Projects D-1, D-8, and D-28, will help meet the proposed system-wide commercial standard flow of 3000gpm at 20psi.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering				70				70		70
Construction				515				515		515
Total Project Costs - Inflated $				**585**				**585**		**585**
Project Funding Sources										
Developer Contribution				293				293		293
Revenue - GFC Water				73				73		73
Revenue - Water				219				219		219
Total Project Funding - Inflated $				**585**				**585**		**585**
Project Timeline Phase										
Engineering				Q1						
Construction				Q1Q2Q3						

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

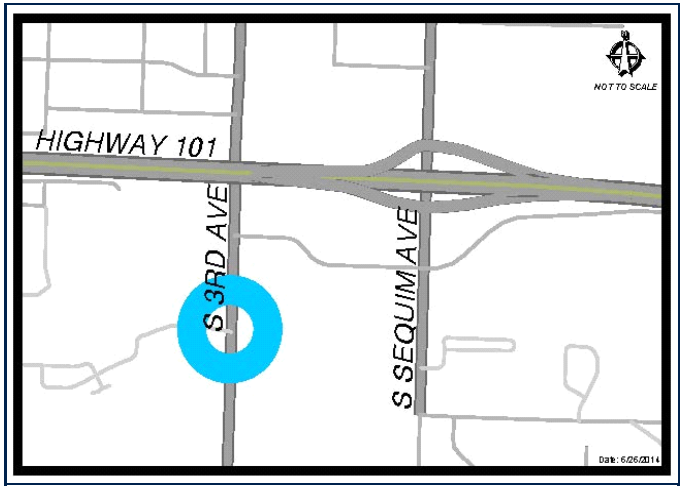
Connection across South 3rd Avenue at Sycamore Street

Project Number: WTR-030D **Historical Project Number** D-25

Project Location: Near the intersection of S 3rd Ave and Sycamore St

Project Description:

Install water main between S. 3rd Ave and Sycamore St.



Project Benefit:

To provide city standard fire flow.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering		11						11		11
Construction		37						37		37
Total Project Costs - Inflated $		**48**						**48**		**48**
Project Funding Sources										
Revenue - Water		47						47		47
Total Project Funding - Inflated $		**47**						**47**		**47**
Project Timeline Phase										
Engineering		Q2								
Construction		Q2Q3								

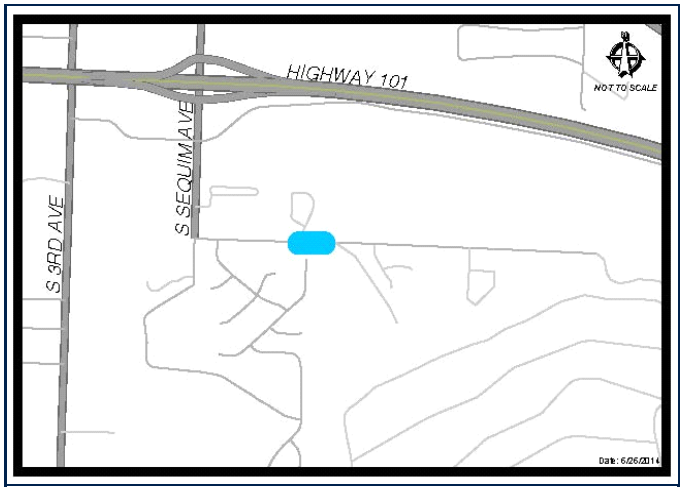
Source: Water System Comprehensive Plan

Amounts in Thousands Inflated $

Craftsman Court PRV Station

Project Number: WTR-024D **Historical Project Number** D-20

Project Location: From the intersection of Miller Rd and Craftsman Ct, East to a point on Miller Rd. approximately 270 feet



Project Description:

The City will install a pressure reducing valve station between the water main on Miller Road and Craftsman Court to facilitate the intertie between the Clallam County PUD's system and the Sequim Water Utility described in Project D-18.

Project Benefit:

This project would also allow the City to serve customers along Miller Road, and create a wholesale water vending exchange with the PUD.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering			11					11		11
Construction			43					43		43
Total Project Costs - Inflated $			**54**					**54**		**54**
Project Funding Sources										
Revenue - GFC Water			54					54		54
Total Project Funding - Inflated $			**54**					**54**		**54**
Project Timeline Phase										
Engineering			Q4							
Construction			Q4							

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

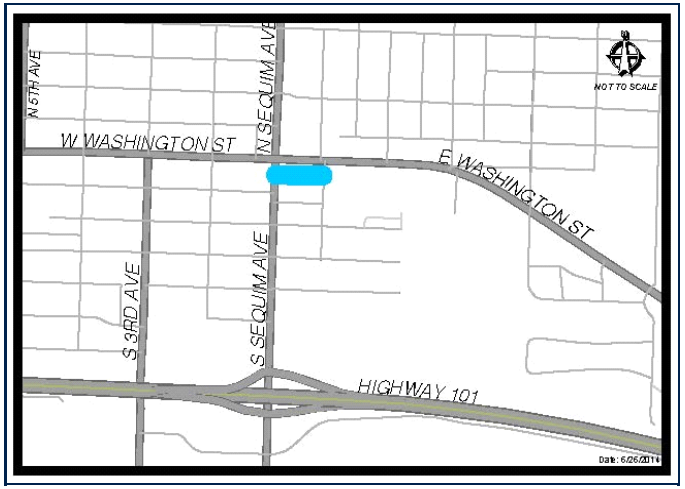
East Etta Street Water Main

Project Number: WTR-019D **Historical Project Number** D-15

Project Location: Etta St from N Sequim Ave to S Sunnyside Ave

Project Description:

Project D-15 will complete a loop along East Etta Street. Construction will consist of approximately 550 LF of 8-inch water main along East Etta Street from South Sequim Avenue to South Sunnyside Avenue.



Project Benefit:

This project is part of a suite of proposed CIP improvements, including Projects D-24 and D-27, to improve fire flows in the 420 Pressure Zone. It was started in 2013.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering	26									26
Construction		105						105		105
Total Project Costs - Inflated $	**26**	**105**						**105**		**131**
Project Funding Sources										
Revenue - GFC Water	6	26						26		32
Revenue - Water	19	79						79		98
Total Project Funding - Inflated $	**25**	**105**						**105**		**130**
Project Timeline Phase										
Engineering										
Construction		Q2Q3								

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

East Fir Street Water Main

Project Number: WTR-016D **Historical Project Number** D-12

Project Location: E Fir St from N Sequim Ave to N Brown Rd

Project Description:

Project D-12 will result in replacement of an existing 6-inch diameter AC distribution main with approximately 2,650 LF of 10-inch diameter PVC piping along East Fir Street from North Sequim Avenue to North Brown Road.

Project Benefit:

The project, in conjunction with other CIP improvements, will provide additional fire flow capacity to residents in the 350 Pressure Zone.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering					180			180		180
Construction						475	190	665		665
Total Project Costs - Inflated $					**180**	**475**	**190**	**845**		**845**
Project Funding Sources										
Revenue - GFC Water					45	119	48	212		212
Revenue - Water					135	357	143	635		635
Total Project Funding - Inflated $					**180**	**476**	**191**	**847**		**847**
Project Timeline Phase										
Engineering					Q4					
Construction						Q2Q3Q4	Q3Q4			

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

Fixed Base Automatic Meter Reading System

Project Number: WTR-036MI **Historical Project Number** MI-3

Project Location: City-wide

Project Description:

Project MI-3 will create an automatic meter reading system that will provide near real-time usage data for the utility's water connections. The City will install the hardware over several years. The cost estimate presented in the table below represents the water utility's share of the system's total cost.

Project Benefit:

Completion of Project MI-3, in conjunction recommended SCADA improvements resulting from the study in Project MI-2, will increase meter reading efficiency, reduce overhead costs and enhance water utility customer service.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Preliminary Engineering		121	124					245		245
Total Project Costs - Inflated $		**121**	**124**					**245**		**245**
Project Funding Sources										
Revenue - Water		121	124					245		245
Total Project Funding - Inflated $		**121**	**124**					**245**		**245**
Project Timeline Phase										
Preliminary Engineering		Q3Q4	Q1Q2Q3Q4							

Source: Water System Comprehensive Plan

Amounts in Thousands Inflated $

Infiltration Gallery Improvements

Project Number: WTR-044S **Historical Project Number** S-6

Project Location: 179 Kincaid Road

Project Description:

Dungeness River surface water taken through the Infiltration Gallery flows has an instantaneous yield that is approximately half of the quantity allowed under Sequim's current water right. Potential improvements under Project S-6 would include additional collectors and installation of one or more 350gpm pumps to allow reliable withdrawals up to the water right limit. This project will also include installation of an on-site generator. Potential limitations to the project include restrictive permitting along the river bank, potential construction damage to the existing 12-inch asbestos cement (AC) transmission line, and seasonal turbidity.

Project Benefit:

Before design or construction of this project, a study would be needed to determine the feasibility of the improvements. A significant concern in this regard is the Department of Ecology's linking of full use of Sequim's Port Williams Wellfield water rights permit to discontinuance of the Infiltration Gallery as a water source. However, if aquifer level declines at Port Williams continue to reduce the final capacity available under that water right portfolio, the City may have a case for expansion of the Infiltration Gallery capacity as an emergency water source.

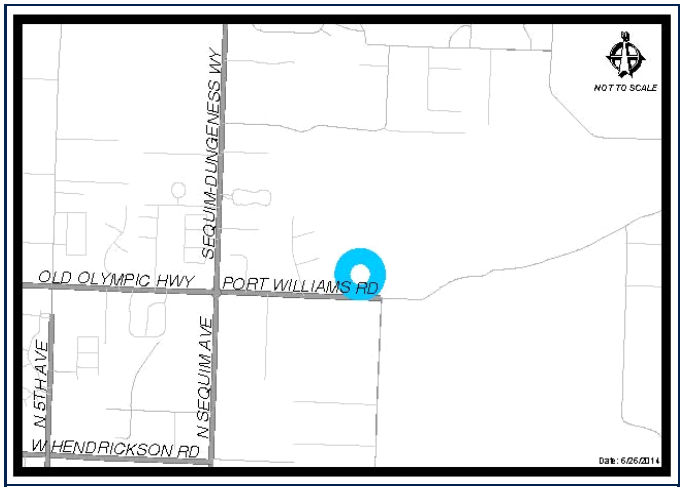
	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering				88	11			99		99
Construction					615			615		615
Total Project Costs - Inflated $				**88**	**626**			**714**		**714**
Project Funding Sources										
Revenue - Water				88	626			714		714
Total Project Funding - Inflated $				**88**	**626**			**714**		**714**
Project Timeline Phase										
Engineering				Q4	Q1					
Construction					Q3Q4					

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

Port Williams Well No.4

Project Number: WTR-039S **Historical Project Number** S-1

Project Location: A point from the intersection of Port Williams Rd and N Brown Rd, West approximately 450 feet, and then North approximately 175 feet



Project Description:

Development of a fourth well at the Port Williams Wellfield is part of the long term development of that facility in accordance with the City's current Port Williams water rights.

Project Benefit:

Port Williams Well No. 4 will help Sequim to gradually eliminate use of surface water from the Dungeness River as a source of supply, except on an emergency basis.

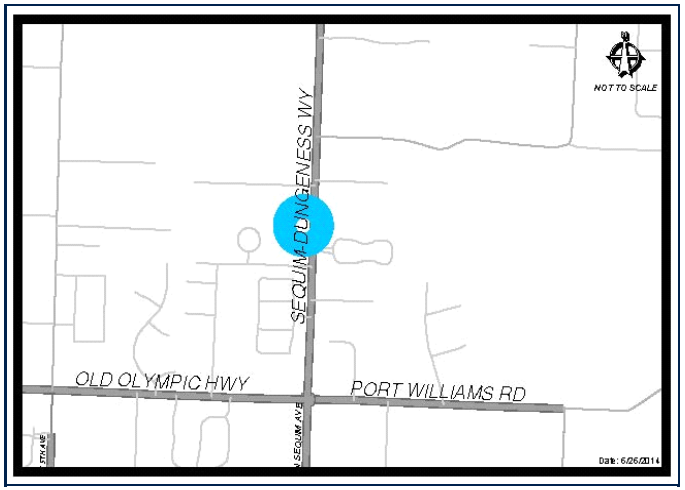
	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering					661			661		661
Construction					165			165		165
Total Project Costs - Inflated $					**826**			**826**		**826**
Project Funding Sources										
Revenue - GFC Water					826			826		826
Total Project Funding - Inflated $					**826**			**826**		**826**
Project Timeline Phase										
Engineering					Q1					
Construction					Q2Q3					

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

Pressure Relief Valve Installation

Project Number: WTR-023D **Historical Project Number** D-19

Project Location: From the intersection of Sequim-Dungeness Wy and Rainview Ln, North on Sequim-Dungeness Wy approximately 560 feet



Project Description:

Project D-19, the City will install pressure relief valve stations at yet-to-be-determined locations in the 500 Pressure Zone, the 420 Pressure Zone, and the 350 Pressure Zone to provide protection from overpressure if a PRV in a higher Pressure Zone is stuck open. It is anticipated that the PRVs will be located near the lowest elevation points in the 500 and 350 Pressure Zones. The PRV station for the 420 Zone will be located at the 420 Reservoir site.

Project Benefit:

The project will reduce the risk of damage to water mains, water meters and to customer-owned plumbing that could result from over-pressurization of a gravity-fed distribution system.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Construction			97					97		97
Total Project Costs - Inflated $			**97**					**97**		**97**
Project Funding Sources										
Revenue - Water			97					97		97
Total Project Funding - Inflated $			**97**					**97**		**97**
Project Timeline Phase										
Construction			Q3							

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

Replacement of Siberhorn Wells No. 2 & No.3

Project Number: WTR-043S **Historical Project Number** S-5

Project Location: Silberhorn Well Field

Project Description:

Depending on the findings of Project S-4, it may be necessary to drill new wells at the Silberhorn field. The existing wells would be abandoned or converted to monitoring wells. Under state standards that have changed since existing wells No. 2 and No. 3 were built in 1985, new wellheads cannot be placed in in underground vaults. The new wells will need to be installed in well houses or fitted with pitless adaptors.

Project Benefit:

As is the intention of Project S-4, new wells at the Silberhorn Wellfield will ensure future productivity of that crucial water source, if redevelopment of the existing wells cannot be done.

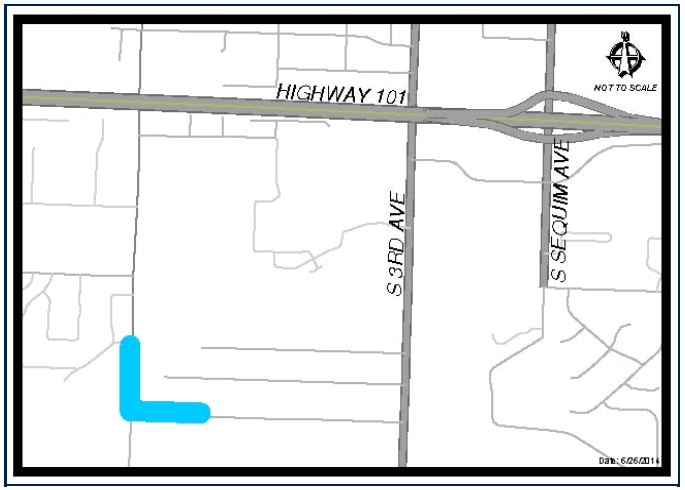
	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering							104	104	107	211
Construction									680	680
Total Project Costs - Inflated $							**104**	**104**	**787**	**891**
Project Funding Sources										
Revenue - Water							104	104	786	890
Total Project Funding - Inflated $							**104**	**104**	**786**	**890**
Project Timeline Phase										
Engineering							Q4			
Construction										

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

Reservoir Road and 7th Avenue Water Main

Project Number: WTR-008D **Historical Project Number** D-4

Project Location: From the intersection of S 7th Ave and W Reservoir Rd, North approximately 700 feet, and East approximately 670 feet



Project Description:

Project D-4 will provide additional flow into the 480 Pressure Zone and lower zones through a new PRV station. The area served by these improvements did not meet Sequim's 1,000 gpm fire flow standard at the time that this CIP was published. Construction will include installation of approximately 1,400 LF of 12-inch diameter PVC water main from the 480 Reservoir west on Reservoir Road to South 7th Avenue, and thence north on South 7th Avenue to Norman Street.

Project Benefit:

Project D-4 is one of several initiatives that will help correct fire flow deficiencies throughout the 480 Pressure Zone, and within residual areas of the lower 420 Pressure Zone. Related improvements under Projects D-3, D-5 and D-16 are recommended to loop. The existing water lines. Because this project also promotes expansion of growth to the Southwest sector of the City, in accordance with the Comprehensive Plan, Project D-4 will be developer funded.

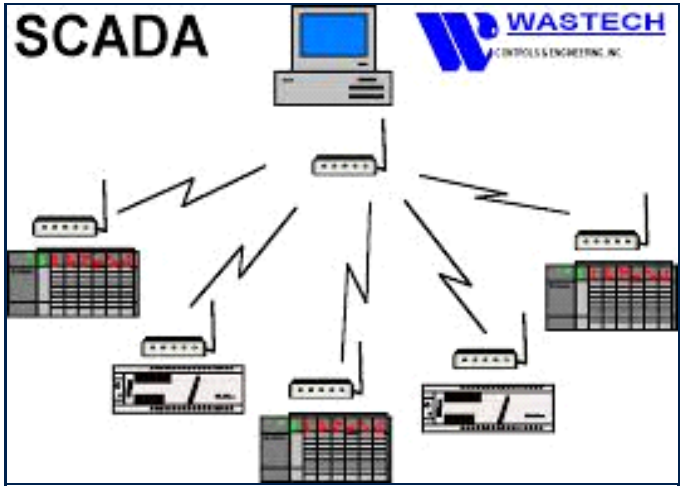
	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering					72			72		72
Construction					532			532		532
Total Project Costs - Inflated $					**604**			**604**		**604**
Project Funding Sources										
Developer Contribution					604			604		604
Total Project Funding - Inflated $					**604**			**604**		**604**
Project Timeline Phase										
Engineering					Q2					
Construction					Q3Q4					

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

SCADA Upgrade Report

Project Number: WTR-034MI **Historical Project Number** MI-1

Project Location: City-wide



Project Description:

Develop an inventory of the existing telemetry for the water and sewer utilities, recommend a plan for their integration, and prepare cost estimates for implementation.
Explore potential methods of communications with remote sites, including fiber optics, cellular and integration with an Automatic Meter Reading System.
Review options for the location and configuration of a SCADA Master Control Center.

Project Benefit:

SCADA upgrades would keep the City's utility systems current with available monitoring technology. It would allow operators to respond more quickly to potential problems, promote efficient use of energy resources, and reduce operation and maintenance costs for utilities.

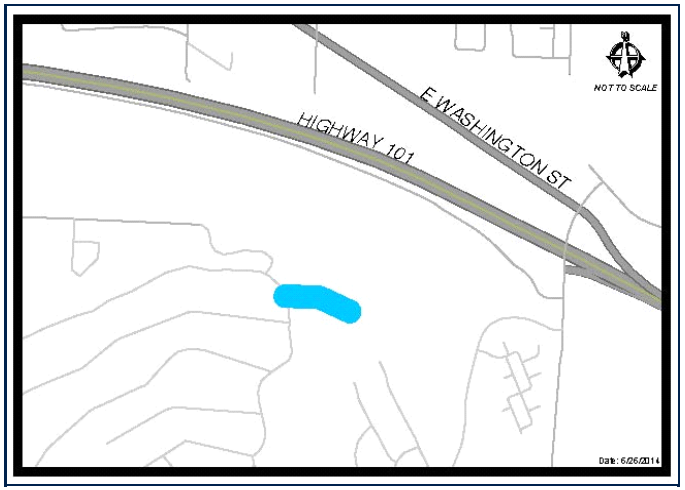
	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Study			48	3				51		51
Final Report				3				3		3
Total Project Costs - Inflated $			**48**	**6**				**54**		**54**
Project Funding Sources										
Revenue - Water			48	6				54		54
Total Project Funding - Inflated $			**48**	**6**				**54**		**54**
Project Timeline Phase										
Study			Q4	Q1						
Final Report				Q1						

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

Service Extension to Emerald Highlands

Project Number: WTR-022D **Historical Project Number** D-18

Project Location: From a point on Solana Pky approximately 300 feet Southeast of the intersection of Solana Pky and Flying Cloud St, to the intersection of Solana Pky and Flying Cloud, and then West approximately 400 feet to Doe Run Rd



Project Description:

Project D-18 would allow Sequim to serve the Emerald Highlands Subdivision, currently served by agreement with Clallam County PUD No. 1. Construction would include about 800 LF of 8-inch diameter PVC water main to connect the 680 Pressure Zone to the PUD system. To accomplish this objective, Sequim would wheel water from Solana Reservoir through a portion of the PUD system. The proposed connection would extend from Solana Parkway and Flying Cloud Street to the PUD system at the corner of Fox Hollow Road and Doe Run Road.

Project Benefit:

This project would also allow the City to serve customers along Miller Road. The PUD would retain the infrastructure, and water usage by PUD customers would be billed as a wholesale exchange. Project D-20 is also required to implement the proposed intertie.

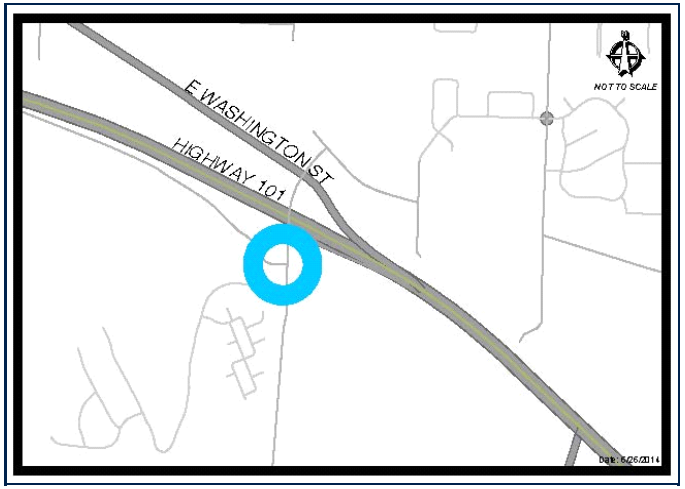
	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering	12	12						12		24
Construction		179						179		179
Total Project Costs - Inflated $	**12**	**191**						**191**		**203**
Project Funding Sources										
Revenue - GFC Water		179						179		179
Revenue - Water	12	12						12		24
Total Project Funding - Inflated $	**12**	**191**						**191**		**203**
Project Timeline Phase										
Engineering		Q1								
Construction		Q1Q2Q3Q4								

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

Simdars Road Booster Station

Project Number: WTR-004BS **Historical Project Number** BS-3

Project Location: Simdars Rd North of Solana Pky approximately 350 feet



Project Description:

This project will improve capacity to transfer water from the Port Williams Wellfield in the 350 Pressure Zone to the 420 Pressure Zone under high demand conditions. The proposed Simdars Road Booster Station would have a reliable capacity of 600gpm with three booster pumps.

Project Benefit:

The City has identified concerns with water age and lack of turnover in the Solana Reservoir, resulting in a low chlorine residuals in water withdrawn from the reservoir. The Solana area is located at a dead end with supply coming from a single direction. The booster station would provide redundant supply to the Solana development, which is currently served by a single line along Brownfield Road. This project would also improve water quality in the Solana Reservoir by allowing the City to deliver water more directly from the Port Williams Wellfield.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering			54					54		54
Construction				348	57			405		405
Total Project Costs - Inflated $			**54**	**348**	**57**			**459**		**459**
Project Funding Sources										
Revenue - Water			54	348	57			459		459
Total Project Funding - Inflated $			**54**	**348**	**57**			**459**		**459**
Project Timeline Phase										
Engineering			Q3							
Construction				Q3Q4	Q1					

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

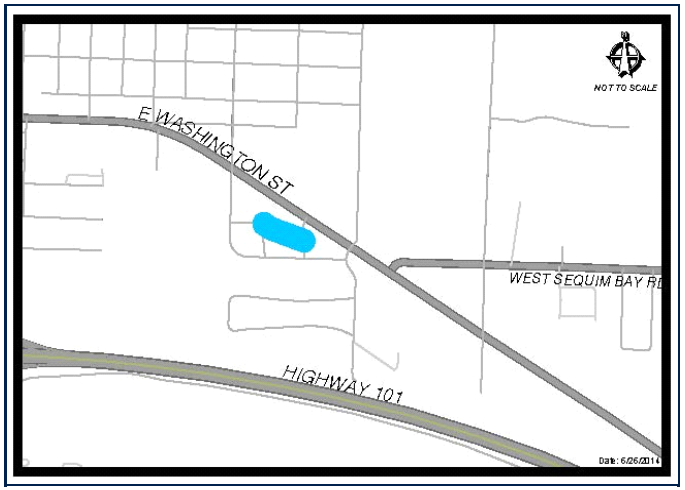
South Lee Chatsfield Water Main Loop

Project Number: WTR-025D **Historical Project Number** D-21

Project Location: Espeseth Wy from Palmco Wy to S Lee Chatfield Ave

Project Description:

This project will entail installation of approximately 500 LF of 8-inch diameter PVC water main piping to connect the distribution main in South Lee Chatfield Avenue to the existing line in Espeth Way, thus completing a necessary loop in the East Washington Street commercial district.



Project Benefit:

Project D-21 will improve water quality and fire flows for the City's easterly commercial corridor.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering							35	35		35
Construction							142	142		142
Total Project Costs - Inflated $							**177**	**177**		**177**
Project Funding Sources										
Developer Contribution							177	177		177
Total Project Funding - Inflated $							**177**	**177**		**177**
Project Timeline Phase										
Engineering							Q2			
Construction							Q3			

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

Study for Reuse of 500,000 Gallon Reservoir

Project Number: WTR-050ST **Historical Project Number** ST-4

Project Location: TBD

Project Description:

Under Project ST-4, Sequim water managers will commission a study on potential uses for the currently idle 500,000 gallon reservoir located on the site of the 420 Reservoir. It is a partially-buried concrete tank with a floating cover. The existing reservoir has significant leaks and its overflow elevation is below the 1.7 MG Reservoir. Potential uses that will be studied include rehabilitation of the existing reservoir with operation below system grade, construction of a new reservoir on the site, and use of the existing reservoir for storage of reclaimed water.

Project Benefit:

Resumption of service for the 0.5MG reservoir would expand total storage against future growth in demand with the service area.

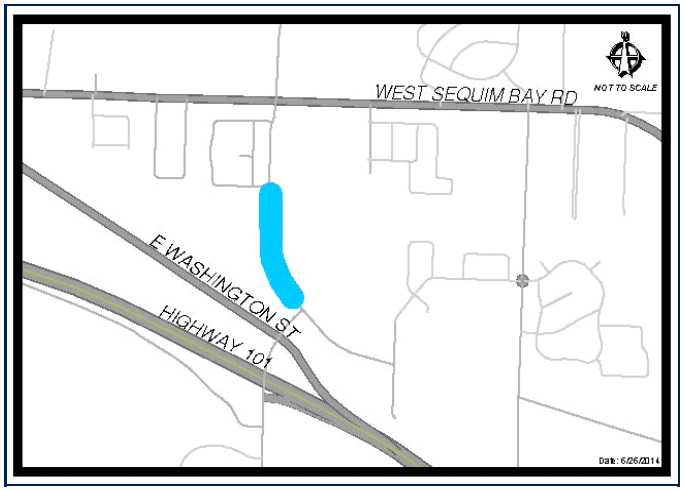
	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Study		21	3					24		24
Final Report			3					3		3
Total Project Costs - Inflated $		**21**	**6**					**27**		**27**
Project Funding Sources										
Revenue - Water		21	5					26		26
Total Project Funding - Inflated $		**21**	**5**					**26**		**26**
Project Timeline Phase										
Study		Q4	Q1							
Final Report			Q1							

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

Washington Harbor Road Water Main

Project Number: WTR-026D **Historical Project Number** D-22

Project Location: From the intersection of S Washington Harbor Rd and Blue Glacier Lp, South approximately 750 feet, and then Southeast approximately 285 feet



Project Description:

Construction will include installation of approximately 1,000 LF of 12-inch water diameter PVC water main piping line to connect Washington Harbor Road to Washington Harbor Loop. It is part of suite of CIP initiatives to connect the north and south portions of the water system from West Sequim Bay Road to Washington Street.

Project Benefit:

Project D-22 will facilitate the proposed intertie with the Marina Water System, in concert with Projects D-9, D-10, and D-17.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering						70		70		70
Construction						281		281		281
Total Project Costs - Inflated $						**351**		**351**		**351**
Project Funding Sources										
Developer Contribution						176		176		176
Revenue - Water						176		176		176
Total Project Funding - Inflated $						**352**		**352**		**352**
Project Timeline Phase										
Engineering						Q3				
Construction						Q3Q4				

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

West Fir Street Transmission Main Replacement

Project Number: WTR-015D **Historical Project Number** D-11

Project Location: W Fir St from N 5th Ave to N Sequim Ave

Project Description:

Under Project D-11, Sequim will replace an existing 8-inch diameter AC transmission main with a 2,650 feet long 10-inch diameter PVC water main in West Fir Street from North 5th Avenue to North Sequim Avenue.

Project Benefit:

This project will provide additional water service capacity to the Sequim School District's three adjacent campuses, improve service reliability for current customers and facilitate infill development of the adjacent residential area. As noted in the table below, Project D-11 is phased to reduce the impacts of construction-caused service disruptions to customers, pedestrians and motorists.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering	205									205
Construction		53	54	446	234			787		787
Total Project Costs - Inflated $	**205**	**53**	**54**	**446**	**234**			**787**		**992**
Project Funding Sources										
Revenue - GFC Water	51	13	13	111	59			196		247
Revenue - Water	154	39	40	334	176			589		743
Total Project Funding - Inflated $	**205**	**52**	**53**	**445**	**235**			**785**		**990**
Project Timeline Phase										
Engineering										
Construction		Q2Q3Q4	Q2Q3Q4	Q2Q3Q4	Q2Q3					

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

West Washington Street Isolation Valves

Project Number: WTR-031D **Historical Project Number** D-26

Project Location:

Project Description:

Under Project D-26, the City will add isolation valves to the existing 10 inch diameter water main on West Washington Street, at its intersections with 2nd Avenue, 3rd Avenue and 4th Avenues. This project will add four-way gate valve clusters on the existing 6 inch diameter cross-street mains to allow future upsizing.

Project Benefit:

Future iterations of the Sequim CIP may include project funding to repave the reach of West Washington Street pavement patching done in conjunction with Project D-26.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering		16						16		16
Construction			138					138		138
Total Project Costs - Inflated $		**16**	**138**					**154**		**154**
Project Funding Sources										
Revenue - Water		16	138					154		154
Total Project Funding - Inflated $		**16**	**138**					**154**		**154**
Project Timeline Phase										
Engineering		Q2								
Construction		Q3Q4	Q1							

Source: Water System Comprehensive Plan
Amounts in Thousands Inflated $

- **Historical Overview of Sequim Wastewater Utility Capital Improvements**
- **Wastewater Capital Facility Inventory**
- **Capital Improvement Planning and the General Sewer Master Plan**
- **Future Water Demand**
- **Level of Service Standards**

CAPITAL IMPROVEMENT PLAN 2015 – 2020

Chapter 4

Sewer Restricted Fund Projects

Historical Overview of Sequim Wastewater Utility Capital Improvements

Construction of the City's wastewater collection system, including the main trunk line to the wastewater treatment plant, began in the 1930s. Expansion of the collection system intensified between 1950 and mid-1970s and continues today. The wastewater treatment plant was constructed at the current site of the City's Water Reclamation Facility (WRF) in 1966. Its capacity was expanded further in 1983. As part of a 1994 settlement agreement with the state, Sequim agreed to upgrade its treatment process to produce Class A reclaimed water[1], and to advocate for local application of reclaimed water for non-potable applications.

The City received beneficial aid toward meeting its water reuse goals through a special state appropriation in 1997. The subsequent agreement with the Department of Ecology required the City to implement its water reuse program by:

1) completing construction of the WRF;
2) demonstrating progress toward 100 percent beneficial use of reclaimed water;
3) improving stream flows in the Dungeness River; and
4) developing a sustainable supply of reclaimed water for irrigation.

Extensive improvements in the WRF's disinfection processes allowed the City to meet its Class A reclaimed water production obligations in 1998. Sequim's Water Reuse Demonstration Site, was developed on an adjacent 29-acre parcel north of Carrie Blake Park and provides a public example of how reclaimed water works on a variety of irrigation equipment and plant types. Beginning in 2010, the WRF was upgraded further to increase its treated wastewater output.

Wastewater Capital Facility Inventory

Sequim's wastewater collection system includes about seventy-three miles of sewer line, three City owned and operated pump stations, a privately-owned but City-operated pump station and force main serving Sequim Bay Lodge and Sequim Bay State Park, the Water Reclamation Facility, the outfall pipe from the WRF to the Strait of Juan de Fuca, and the aforementioned Water Reuse Demonstration Site that includes about 4 miles of reclaimed water distribution system piping.

Capital Improvement Planning and the General Sewer Master Plan

The Sequim General Sewer Plan is one of four adopted Capital Facility Plans that provide long range policy guidance for the development of capital improvements. It reveals a long-term strategy for the City's sewer during a 6-year and 20-year planning period.

The Master Plan includes project recommendations that would allow Sequim to become a regional wastewater treatment service provider. The Master Plan evaluates the conveyance and treatment improvements that would be required to accept wastewater flows from Sun Land, Blyn, and Carlsborg collectively.

[1] Class A reclaimed water is oxidized, coagulated, filtered, and disinfected wastewater. Such wastewater is considered adequately disinfected if the median number of total coliform organisms does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed, and the number of total coliform organisms does not exceed 23 per 100 milliliters in any sample. (Washington State Dept. of Health, *Water Reclamation and Reuse Standards*. 1997.)

Level of Service Standards

The wastewater utility's performance standards are established in its current National Pollutant Discharge Elimination System (NPDES) permit. The NPDES was established in Section 402 of the Federal Clean Water Act (CWA). The Washington State Department of Ecology administers NPDES permits on behalf of the US Environmental Protection Agency.

Among its many provisions, the NPDES permit sets the wastewater discharge standards that are shown in the table below. These standards are consistent with the treatment processes necessary to produce Class A reclaimed water. The permit also allows discharge of the treated effluent to either Bell Creek in Carrie-Blake Park or to the Strait of Juan de Fuca.

In addition to Federal and State regulatory standards, Sequim Municipal Code sections 13.28 through 13.80 prescribe further regulations for the City's sewer system. This multi-layered regulatory framework is the primary driver defining the six-year CIP project inventory, thus ensuring the continued NPDES compliance.

Table WW-1
Sequim Wastewater Utility
NPDES Permit Discharge Standards

Parameter	Average Monthly Standard
Biochemical Oxygen Demand (Bod5)	**30mg/L 200lbs/day 85% removal**
Total Suspended Solids	**30mg/L 200lbs/day 85% removal**
Turbidity	**2 NTU**
Ammonia - N	**3.3mg/L**
Nitrogen	**10mg/L**
	Daily Maximum
pH	<9
	7-Day Median
Total Coliform Bacteria	**2.2/100 mL**
Total Maximum Flow – 0.8mgd	

Future Wastewater Treatment Capacity Requirements

Wastewater facility capital improvements have been identified by first determining the quantity of wastewater generated by the system's contributing sources. Wastewater comes primarily from single and multifamily homes, permanent mobile homes and group housing such as nursing homes. Lesser amounts come from commercial, industrial and public facility land uses.

To estimate future system demand, the average annual flow contributed by a single-family household is expressed as an Equivalent Residential Unit (ERU) in gallons per day (gpd). Non-residential wastewater generation is calculated by dividing the total flow per land use category by the average flow per ERU. Thus, the ERU allows sewer flows from all sources to be expressed in comparable terms.

Infiltration and inflow entering the sewer system during periods of high groundwater levels also contribute to the wastewater treatment burden. Infiltration is groundwater that enters the sanitary sewer through leaking pipes, pipe joints and manhole walls. Infiltration rates vary seasonally in response to groundwater levels. The highest rates of infiltration occur after significant storm events. Inflow is surface water that enters the sewer system from yard, roof and footing drains, from cross connections with storm drains and through manhole covers. Peak inflow also occurs during heavy storm events. Inflow and Infiltration (I/I) are usually

combined and measured in gallons per acre per day. Sequim's winter residential water consumption data for the period of 2009 to 2011 were used to estimate the baseline and projected discharge to the sewer system. Winter water use omits the effects of irrigation runoff, giving a more accurate reflection of annualized average daily flow.

For 2011, the average daily dry weather flow of approximately 564,000gpd was adjusted to exclude 14,000gpd of I/I. Using the values of 550,000 gpd for base flow and 110 gpd per ERU, there were about 5,000 total sewer system ERUs in 2011. With an estimated 2011 population of 6,740 sewer-system customers and average of 1.9 persons per residence, the total number of single-family residential ERUs is approximately 3,550. Non-residential ERUs, therefore, equaled about 1,450.

The projected population to be served by the Sequim wastewater utility for 2020 and for 2035 assumed:

- population will increase at an annual rate of 2 percent in the incorporated area and in the UGA;
- homes with on-site septic systems within the city limits will connect to the sewer system at an annual rate of 1 percent; and
- Sequim will annex additional regions of the UGA at an annual rate of 4 percent, and all such annexed areas will connect to the sewer utility.

Table WW-2 summarizes the sewer service population and flow projections for the Six-Year CIP period and Comprehensive Plan 20-year periods.

Table WW-2
Baseline and Projected Wastewater Population and Flow

Parameter	2011 Baseline	2020 Projection	2035 Projection
Population (city limits)	6,740	8,770	12,990
Sewer Service Population	6,743	9,100	14,120
Total ERUs	5,000	6,550	9.900
Average Annual Flow (mgd)	0.66	0.83	1.22

These projections support the reasoning behind the selection of CIP scheduled for the 2015-2020 period:

1) upgrades to the WRF and pump stations are needed to replace equipment that is near the end of its life-cycle, or lags current technology;
2) collection system upgrades are needed to replace deteriorated materials and thus reduce I/I; and
3) improvements to the reclaimed water distribution network are needed to expand application of reclaimed water for irrigation and non-potable use. Capital Improvement initiatives with the six-year program are not intended primarily to support new development in the UGA or to advance Sequim's potential position as a regional provider of wastewater treatment services.

2015-2020 - Sewer and Waste Water System Projects
Project Summary, Schedule, and Estimated Cost

		2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan Total
Miscellaneous Improvements								
SRR-015MI	Fixed Base Automatic Meter Reading System	121	124					245
SRR-017MI	Major Repair/Oversizing	53	54	55	57	58	59	336
Unassigned Improvements								
SRR-032NA	Aerobic Digester Aeration System Improvements	573						573
SRR-035NA	Aerobics Digester Capacity Upgrades		237			2,006		2,243
SRR-001NA	Cedar Street Sewer Improvement			1,042	267			1,309
SRR-034NA	Class A Biosolids Handling & Distribution Center			753			758	1,511
SRR-020NA	Collection System I/I Improvement	40	41	42	43	44	45	255
SRR-003NA	Doe Run Lift Station	67	549					616
SRR-014NA	East Fir Street Sewer Replacement			222	1,097	580		1,899
SRR-030NA	Equalization Basin Aeration System Improvements	57						57
SRR-002NA	Etta Street Sewer Improvements	164						164
SRR-008NA	Fir Street Sewer Improvement	217	498	331				1,046
SRR-023NA	High Pressure Zone Expansion						1,242	1,242
SRR-013NA	North Blake Avenue Sewer Improvements			172				172
SRR-024NA	Overall Network Expansion						297	297
SRR-022NA	Rapid Infiltration Basin Improvements						48	48
SRR-006NA	Sequim Bay Lodge & State Park Pressure Main Improvements	95						95
SRR-009NA	Sunnyside Street Sewer Improvement	142	579					721
SRR-029NA	WRF Headworks and Grit Removal	225						225
SRR-036NA	WRF Headworks Modifications No 2					330		330
SRR-007NA	WRF Influent Trunk Line Pipeline Repair/Replacement		166	135	1,247			1,548
SRR-025NA	WRF Reclaimed Water Pumping Facility Improvements						639	639
	Project Total By Year	1,754	2,248	2,752	2,711	3,018	3,088	15,571

Aerobic Digester Aeration System Improvements

Project Number: SRR-032NA **Historical Project Number** W-5

Project Location: 247 Schmuck Road

Project Description:

This project will address the need for higher oxygen transfer and more energy efficient aeration within the existing aerobic digesters located at the WRF. This project will replace the existing aeration equipment with a fine bubble diffusion system that will increase the availability of oxygen within the digester.

Project Benefit:

The removal of more ammonia from the biosolids is also a goal of this project. New high efficiency blowers will be installed to supply air to the tanks.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Construction		573						573		573
Total Project Costs - Inflated $		**573**						**573**		**573**
Project Funding Sources										
Loan - Public Works Trust Fund		542						542		542
Revenue - Sewer		31						31		31
Total Project Funding - Inflated $		**573**						**573**		**573**
Project Timeline Phase										
Construction		Q1Q2Q3								

Source: General Sewer Plan

Amounts in Thousands Inflated $

Aerobics Digester Capacity Upgrades

Project Number: SRR-035NA **Historical Project Number** W-8

Project Location: 247 Schmuck Road

Project Description:

It is anticipated that two new 100,000-gallon cells will be constructed with additional blowers and diffusers for aeration, and a rotary screen thickener will be provided to thicken WAS upstream of the digester.

Project Benefit:

This project will increase the capacity of the existing aerobic digestion system by adding additional tank space.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering			237			169		406		406
Construction						1,837		1,837		1,837
Total Project Costs - Inflated $			**237**			**2,006**		**2,243**		**2,243**
Project Funding Sources										
Revenue - Sewer			237			2,006		2,243		2,243
Total Project Funding - Inflated $			**237**			**2,006**		**2,243**		**2,243**
Project Timeline Phase										
Engineering			Q3Q4			Q2Q3				
Construction						Q2Q3Q4				

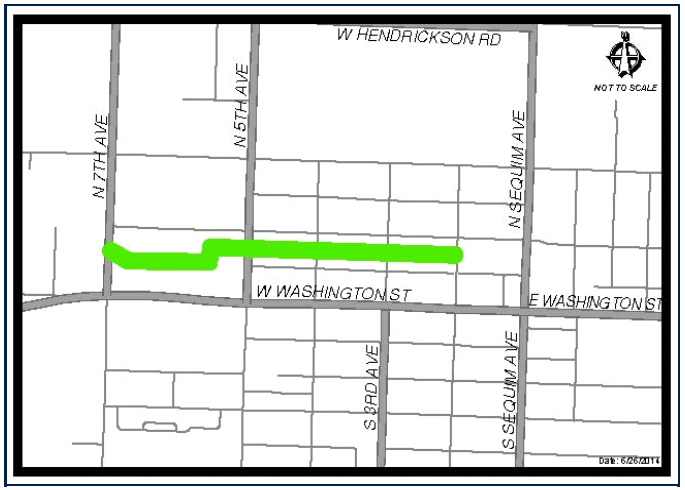
Source: General Sewer Plan

Amounts in Thousands Inflated $

Cedar Street Sewer Improvement

Project Number: SRR-001NA **Historical Project Number** CS-1

Project Location: Alley between W. Cedar and W. Spruce between N. Seal and N. 7th



Project Description:

This project replaces existing sewer pipe located in the alley between West Cedar Street and West Spruce Street between North Seal Street and North 7th Avenue. This project includes installing approximately 3,900 LF of 12-inch pipe and is recommended to

Project Benefit:

This project will equipped the City with the ability to accommodate anticipated peak hour flows from the Carlsborg UGA as well as increased City flows for the downtown corridor.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering				260				260		260
Construction				782	267			1,049		1,049
Total Project Costs - Inflated $				**1,042**	**267**			**1,309**		**1,309**
Project Funding Sources										
Revenue - GFC Sewer				261	67			328		328
Revenue - Sewer				782	201			983		983
Total Project Funding - Inflated $				**1,043**	**268**			**1,311**		**1,311**
Project Timeline Phase										
Engineering				Q1Q2						
Construction				Q2Q3Q4	Q1					

Source: General Sewer Plan
Amounts in Thousands Inflated $

Class A Biosolids Handling & Distribution Center

Project Number: SRR-034NA **Historical Project Number** W-7

Project Location: 247 Schmuck Road

Project Description:

This project will include construction of new facilities to increase public access to the Class A biosolids produced at the WRF. Facilities will include a large, covered area for raw biosolids storage, smaller holding areas for biosolids and various amendments, and a small area for public access and biosolids loading.

Project Benefit:

Facilities will be designed to minimize odors and will include appropriate stormwater controls.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering				284				284		284
Construction				469			758	1,227		1,227
Total Project Costs - Inflated $				**753**			**758**	**1,511**		**1,511**
Project Funding Sources										
Revenue - Sewer				753			758	1,511		1,511
Total Project Funding - Inflated $				**753**			**758**	**1,511**		**1,511**
Project Timeline Phase										
Engineering				Q1Q2						
Construction				Q2Q3			Q2Q3Q4			

Source: General Sewer Plan

Amounts in Thousands Inflated $

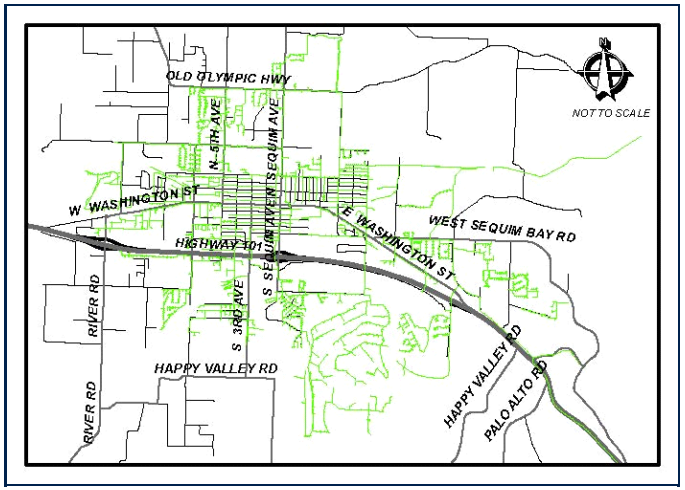
Collection System I/I Improvement

Project Number: SRR-020NA **Historical Project Number** OM-3

Project Location: City-wide

Project Description:

This project will include completing the necessary I/I reduction repairs. The project includes re-grouting of manholes, realignment of manhole lids and frames, concrete work, and other maintenance activities.



Project Benefit:

This project is required to further reduce I/I to the City's collection system.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Repair Work	39	40	41	42	43	44	45	255		294
Total Project Costs - Inflated $	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**255**		**294**
Project Funding Sources										
Revenue - Sewer	39	40	41	42	43	44	45	255		294
Total Project Funding - Inflated $	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**255**		**294**
Project Timeline Phase										
Repair Work		Q3Q4	Q3Q4	Q3Q4	Q3Q4	Q3Q4	Q3Q4			

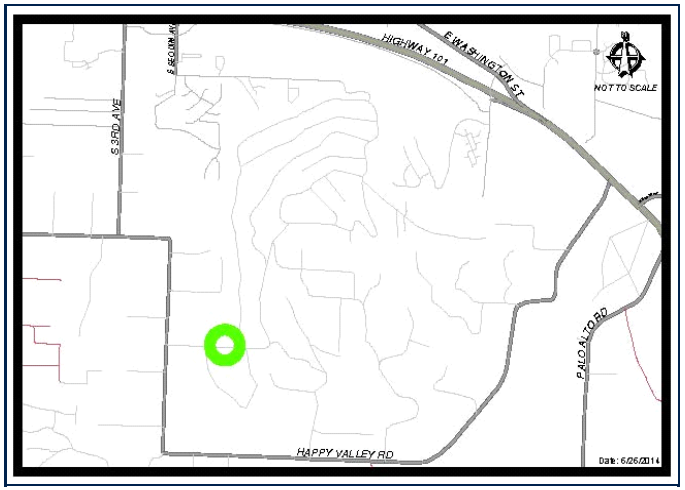
Source: General Sewer Plan

Amounts in Thousands Inflated $

Doe Run Lift Station

Project Number: SRR-003NA **Historical Project Number** CS-3

Project Location: Doe Run Rd.



Project Description:

The existing Doe Run Lift Station consists of a Smith and Loveless package lift station equipped with two 100 gpm, 25-hp non-clog centrifugal pumps which pump sewage from the south and southwest areas of Bell Hill to a manhole in the gravity sewer run on Fox Hollow Road. This project would include construction of a new lift station to serve the existing service area.

Project Benefit:

This project will provide the City with the capability to serve additional areas west or south of the Bell Hill/Bell Gates community, eliminating the risk associated with the existing lift station equipment.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering		67	55					122		122
Construction			494					494		494
Total Project Costs - Inflated $		**67**	**549**					**616**		**616**
Project Funding Sources										
Revenue - Sewer		67	549					616		616
Total Project Funding - Inflated $		**67**	**549**					**616**		**616**
Project Timeline Phase										
Engineering		Q4	Q1							
Construction			Q2Q3							

Source: General Sewer Plan

Amounts in Thousands Inflated $

East Fir Street Sewer Replacement

Project Number: SRR-014NA **Historical Project Number** CS-14

Project Location: E. Fir St., Sequim Ave. to Blake Ave.

Project Description:

This project will replace approximately 4,600 LF of aging sewer pipe along East Fir Street with new 18-inch-diameter PVC sewer pipe.

Project Benefit:

This work will coordinate with planned street improvements for Fir Street and will increase capacity.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering				222	150			372		372
Construction					947	580		1,527		1,527
Total Project Costs - Inflated $				**222**	**1,097**	**580**		**1,899**		**1,899**
Project Funding Sources										
Revenue - GFC Sewer				55	274	145		474		474
Revenue - Sewer				166	823	435		1,424		1,424
Total Project Funding - Inflated $				**221**	**1,097**	**580**		**1,898**		**1,898**
Project Timeline Phase										
Engineering				Q4	Q1					
Construction					Q2Q3Q4	Q2Q3Q4				

Source: General Sewer Plan

Amounts in Thousands Inflated $

Equalization Basin Aeration System Improvements

Project Number: SRR-030NA **Historical Project Number** W-3

Project Location: 247 Schmuck Road

Project Description:

This project will improve the mixing capability of the Equalization Basin by refurbishing an existing Aeromix submersible mixer.

Project Benefit:

Currently this unit is not used and has had parts removed for use with other functioning equipment. The unit will be sent to a manufacturer or repaired onsite, and reinstalled within the existing equalization basin.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Construction		57						57		57
Total Project Costs - Inflated $		**57**						**57**		**57**
Project Funding Sources										
Revenue - Sewer		57						57		57
Total Project Funding - Inflated $		**57**						**57**		**57**
Project Timeline Phase										
Construction		Q3								

Source: General Sewer Plan

Amounts in Thousands Inflated $

Etta Street Sewer Improvements

Project Number: SRR-002NA **Historical Project Number** CS-2

Project Location: Etta St from S Sequim Ave to S Sunnyside Ave

Project Description:

This project will address the deteriorating concrete sewer line along Etta Street between South Sequim Avenue and South Sunnyside Avenue. This line was identified in the 2006 Comprehensive Plan to be in need of replacement due to deteriorating aggregate, however, this pipe has not been rehabilitated. This project will install approximately 550 LF of 12-inch pipe between South Sequim Avenue and South Sunnyside Avenue.

Project Benefit:

While the line currently has sufficient capacity, it is in the downtown corridor and is projected to need upsizing to accommodate the projected flows for the City and Carlsborg.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering		33						33		33
Construction		131						131		131
Total Project Costs - Inflated $		**164**						**164**		**164**
Project Funding Sources										
Revenue - GFC Sewer		41						41		41
Revenue - Sewer		123						123		123
Total Project Funding - Inflated $		**164**						**164**		**164**
Project Timeline Phase										
Engineering		Q1								
Construction		Q1Q2								

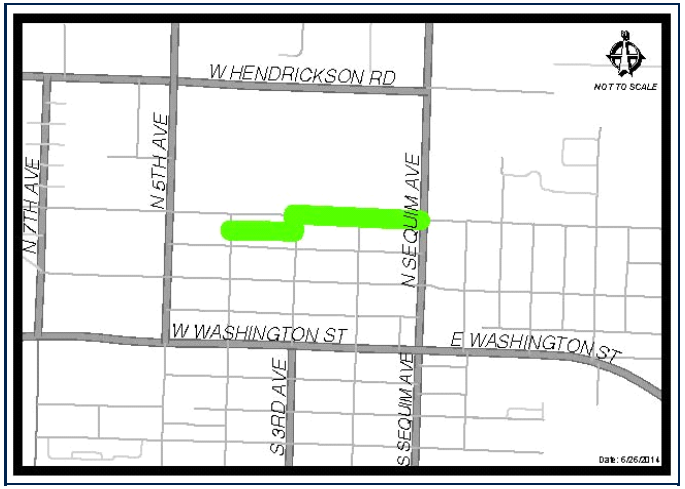
Source: General Sewer Plan

Amounts in Thousands Inflated $

Fir Street Sewer Improvement

Project Number: SRR-008NA **Historical Project Number** CS-8

Project Location: Portions of Fir St. and alley between 4th Ave. and N. Sequim Ave.



Project Description:

This project includes replacing the existing sewer line along Fir Street between North 4th Avenue and North Sequim Avenue with approximately 2,800 LF of 12-inch pipe and the installation of new sewer pipe between North 5th Avenue and North 4th Avenue.

Project Benefit:

City staff has expressed an interest in upsizing and/or rehabilitating Fir Street between 2nd Avenue North and North Sunnyside Street.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering		217						217		217
Construction			498	331				829		829
Total Project Costs - Inflated $		**217**	**498**	**331**				**1,046**		**1,046**
Project Funding Sources										
Revenue - GFC Sewer		54	124	83				261		261
Revenue - Sewer		163	373	248				784		784
Total Project Funding - Inflated $		**217**	**497**	**331**				**1,045**		**1,045**
Project Timeline Phase										
Engineering		Q3Q4								
Construction			Q2Q3Q4	Q2Q3						

Source: General Sewer Plan
Amounts in Thousands Inflated $

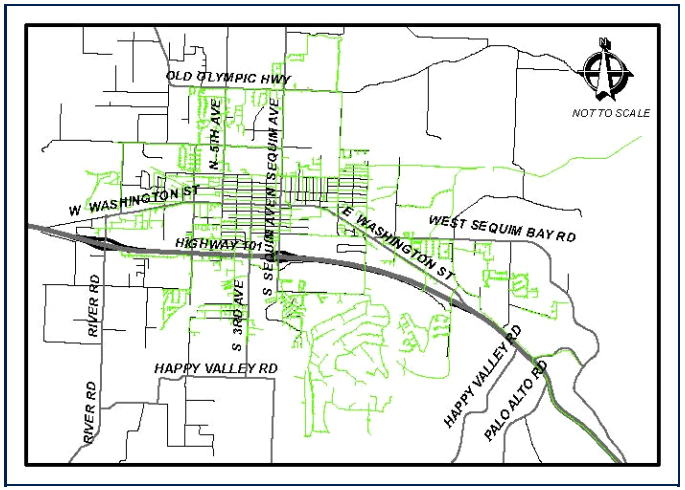
Fixed Base Automatic Meter Reading System

Project Number: SRR-015MI **Historical Project Number** MI-1

Project Location: City-wide

Project Description:

This project is proposed in conjunction with the water system staff recommendations and the installation of Sensus® water system meter reading equipment.



Project Benefit:

This equipment will offer near real-time usage data and will give the City better ability to track leaks, unauthorized usage, or to notify customers of potential leaks within their residential piping.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Other		121	124					245		245
Total Project Costs - Inflated $		**121**	**124**					**245**		**245**
Project Funding Sources										
Revenue - Sewer		121	124					245		245
Total Project Funding - Inflated $		**121**	**124**					**245**		**245**
Project Timeline Phase										
Other		Q3Q4	Q1Q2Q3Q4							

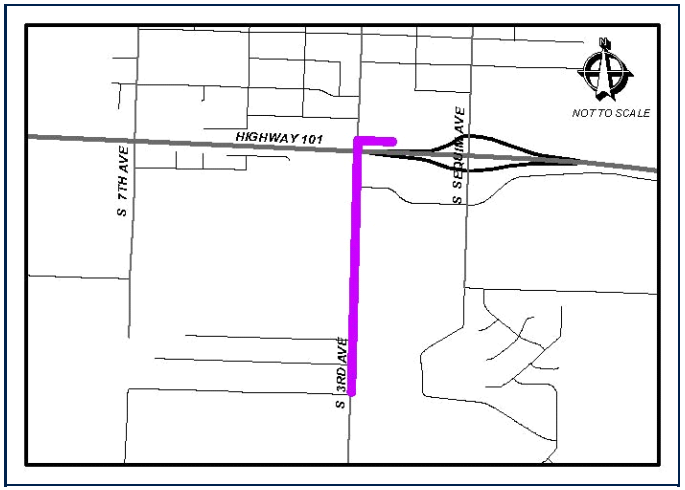
Source: General Sewer Plan

Amounts in Thousands Inflated $

High Pressure Zone Expansion

Project Number: SRR-023NA **Historical Project Number** RW-3

Project Location: 169 W. Hemlock St.



Project Description:

This project consists of refurbishing the existing reservoir, construction of a booster pump station at the City Shops and approximately 7,700 LF of 8-inch-diameter distribution system piping from the City Shop to the refurbished reservoir.

Project Benefit:

The maintenance proposed as part of this project will enhance a critical line included as part of the reuse water system.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering							119	119		119
Construction							1,123	1,123		1,123
Total Project Costs - Inflated $							**1,242**	**1,242**		**1,242**
Project Funding Sources										
Grant - State							621	621		621
Grant - State City Match							621	621		621
Total Project Funding - Inflated $							**1,242**	**1,242**		**1,242**
Project Timeline Phase										
Engineering							Q1Q2			
Construction							Q2Q3Q4			

Source: General Sewer Plan

Amounts in Thousands Inflated $

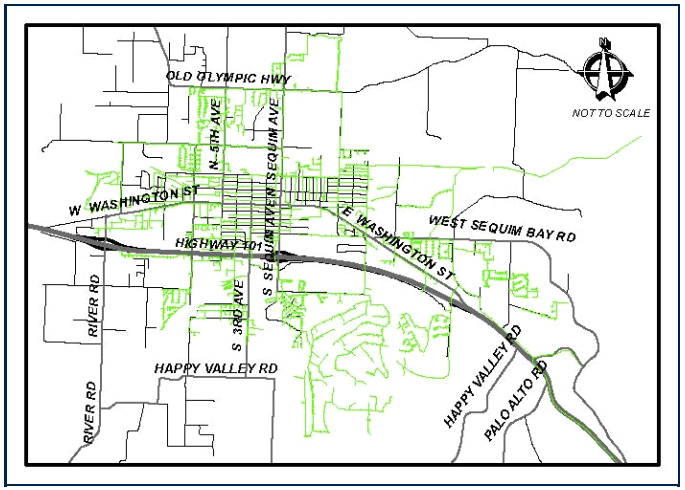
Major Repair/Oversizing

Project Number: SRR-017MI **Historical Project Number** MI-3

Project Location: City-wide

Project Description:

This project provides budgetary funds for upsizing or unanticipated repairs to pipes within the City sewer system.



Project Benefit:

These funds are precautionary and will be used by staff to help fund emergency repairs or the cost difference for large pipe size in anticipation of commercial or other significant growth.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Repair Work	51	53	54	55	57	58	59	336		387
Total Project Costs - Inflated $	**51**	**53**	**54**	**55**	**57**	**58**	**59**	**336**		**387**
Project Funding Sources										
Revenue - GFC Sewer	13	13	13	14	14	14	15	83		96
Revenue - Sewer	38	39	40	41	42	43	45	250		288
Total Project Funding - Inflated $	**51**	**52**	**53**	**55**	**56**	**57**	**60**	**333**		**384**
Project Timeline Phase										
Repair Work		Q3Q4	Q3Q4	Q3Q4	Q3Q4	Q3Q4	Q3Q4			

Source: General Sewer Plan

Amounts in Thousands Inflated $

North Blake Avenue Sewer Improvements

Project Number: SRR-013NA **Historical Project Number** CS-13

Project Location: N. Blake Ave. between E. Willow and Oak Streets

Project Description:

This project will replace sewer pipe along North Blake Street between East Willow and East Oak Streets. This project would install approximately 300 LF of 18-inch HDPE sewer pipe via open cut or pipe bursting methods.

Project Benefit:

Eliminates the lack of capacity in the existing 15-inch pipe to convey both the projected City and Carlsborg peak hour flows for the year 2018.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering				34				34		34
Construction				138				138		138
Total Project Costs - Inflated $				**172**				**172**		**172**
Project Funding Sources										
Developer Contribution				172				172		172
Total Project Funding - Inflated $				**172**				**172**		**172**
Project Timeline Phase										
Engineering				Q2						
Construction				Q3						

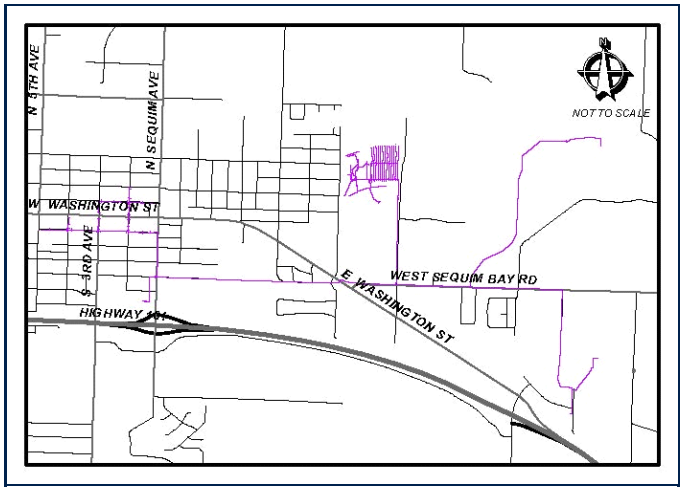
Source: General Sewer Plan

Amounts in Thousands Inflated $

Overall Network Expansion

Project Number: SRR-024NA **Historical Project Number** RW-4

Project Location: Multiple areas City-wide



Project Description:

This project consists of expansion of the current reclaimed water pipe network.

Project Benefit:

The complete project would install approximately 23,100 LF of 6-inch and 13,600 LF of 8-inch distribution system piping to serve the following areas:

South Blake Avenue Pipeline and East Maple Street Loop,
North 2nd Avenue - North Sequim Avenue Pipeline,
North 2nd Avenue - North 5th Avenue Pipeline,
South 7th Avenue - Silberhorn Road Pipeline,
South 7th Avenue - West Washington Street Pipeline,
South 7th Avenue - South 9th Avenue Pipeline,
West Washington Street - Priest Road Pipeline, and
West Hemlock Street and West Maple Street.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering							297	297		297
Construction									2,772	2,772
Total Project Costs - Inflated $							**297**	**297**	**2,772**	**3,069**
Project Funding Sources										
Grant - State							149	149	1,386	1,535
Grant - State City Match							149	149	1,386	1,535
Total Project Funding - Inflated $							**298**	**298**	**2,772**	**3,070**
Project Timeline Phase										
Engineering							Q1Q2Q3Q4			
Construction										

Source: General Sewer Plan
Amounts in Thousands Inflated $

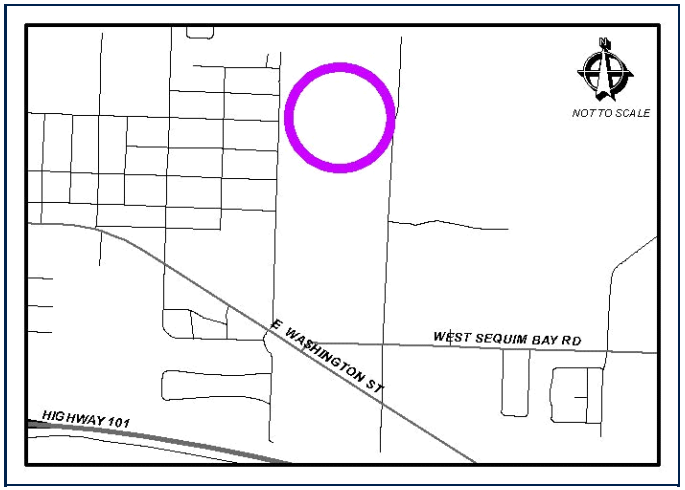
Rapid Infiltration Basin Improvements

Project Number: SRR-022NA **Historical Project Number** RW-2

Project Location: 202 N. Blake Ave.

Project Description:

This project consists of the construction of infiltration basins, flow control and distribution improvements, relocation of the existing storage/fish pond and miscellaneous site work at the Water Reuse Demonstration Site.



Project Benefit:

The additional capacity associated with this project for reuse water is an added benefit to the City.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering							48	48	97	145
Construction									1,341	1,341
Total Project Costs - Inflated $							**48**	**48**	**1,438**	**1,486**
Project Funding Sources										
Grant - State							24	24	719	743
Grant - State City Match							24	24	719	743
Total Project Funding - Inflated $							**48**	**48**	**1,438**	**1,486**
Project Timeline Phase										
Engineering							Q4			
Construction										

Source: General Sewer Plan

Amounts in Thousands Inflated $

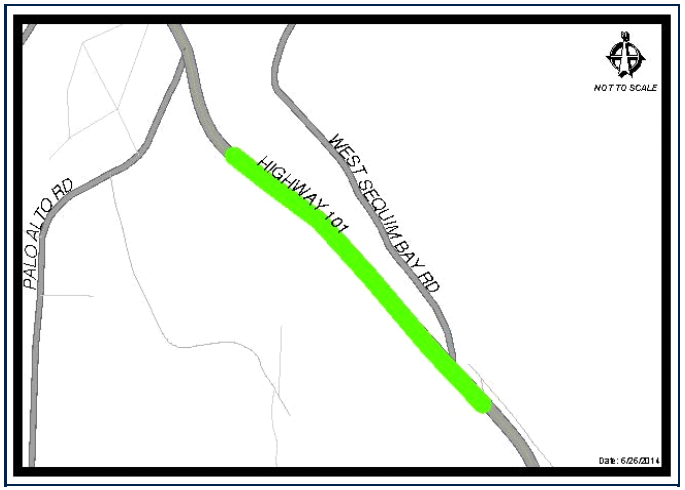
Sequim Bay Lodge & State Park Pressure Main Improvements

Project Number: SRR-006NA **Historical Project Number** CS-6

Project Location: Adjacent to Highway 101 from Sequim Bay State Park to 247 Schmuck Road

Project Description:

This project will include the installation of additional valves along the pressure main that carries wastewater from Sequim Bay State Park and Sequim Bay Lodge to the WRF.



Project Benefit:

This project rehabilitates/replaces manholes near the pressure main that are required for system maintenance.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering		19						19		19
Construction		76						76		76
Total Project Costs - Inflated $		**95**						**95**		**95**
Project Funding Sources										
Revenue - Sewer		95						95		95
Total Project Funding - Inflated $		**95**						**95**		**95**
Project Timeline Phase										
Engineering		Q2								
Construction		Q2Q3Q4								

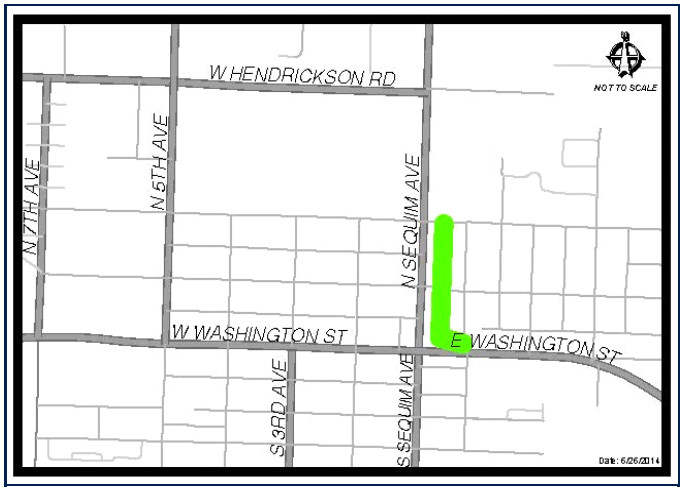
Source: General Sewer Plan

Amounts in Thousands Inflated $

Sunnyside Street Sewer Improvement

Project Number: SRR-009NA **Historical Project Number** CS-9

Project Location: Sunnyside Ave.



Project Description:

This project will replace the sewer line along both North Sunnyside Avenue. As part of this project, sewer pipe north of Washington Street along Sunnyside Avenue will be moved to within the Sunnyside right-of-way. Approximately 1,500 LF of 18-inch HDPE sewer pipe will be installed in the north and south Sunnyside Avenue right-of-way.

Project Benefit:

This is a troublesome area that is undersized for existing flows, especially in an area designated for significant proposed commercial growth.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering		142						142		142
Construction			579					579		579
Total Project Costs - Inflated $		**142**	**579**					**721**		**721**
Project Funding Sources										
Revenue - GFC Sewer		35	145					180		180
Revenue - Sewer		106	435					541		541
Total Project Funding - Inflated $		**141**	**580**					**721**		**721**
Project Timeline Phase										
Engineering		Q1Q2								
Construction			Q2Q3Q4							

Source: General Sewer Plan
Amounts in Thousands Inflated $

WRF Headworks and Grit Removal

Project Number: SRR-029NA **Historical Project Number** W-2

Project Location: 247 Schmuck Road

Project Description:

This project will replace the existing manual bar screen in the headworks area with a new mechanical fine screen system This project includes an evaluation of screening alternatives, purchase and installation of a new mechanical fine screen, and channel modifications required to accommodate the new equipment.

Project Benefit:

This project will bring the City into conformance with new regulations for influent wastewater and biosolids screening (WAC 173-308) as the new orifice size must be less than or equal to 3/8-inch wide to prevent the passage of larger items. Following its installation, this new screen will serve as the primary headworks screen, and the current HYCOR fine screen will serve as the auxiliary screen.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering	41	21						21		62
Construction	199	204						204		403
Total Project Costs - Inflated $	**240**	**225**						**225**		**465**
Project Funding Sources										
Loan - Other	123	115						115		238
Revenue - Sewer	118	110						110		228
Total Project Funding - Inflated $	**241**	**225**						**225**		**466**
Project Timeline Phase										
Engineering		Q1								
Construction		Q1								

Source: General Sewer Plan
Amounts in Thousands Inflated $

WRF Headworks Modifications No 2

Project Number: SRR-036NA **Historical Project Number** W-9

Project Location: 247 Schmuck Road

Project Description:

This project will replace the existing HYCOR mechanical fine screen at the WRF headworks. The existing screen was installed in 1998 and will be nearing the end of its useful life. Following its installation, this new screen will serve as the primary headworks screen, and the mechanical screen described in Project W-2 above will serve as the auxiliary screen.

Project Benefit:

The unit will be replaced with a new mechanical fine screen model that meets the requirements set forth in WAC 173-308.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering						66		66		66
Construction						264		264		264
Total Project Costs - Inflated $						**330**		**330**		**330**
Project Funding Sources										
Revenue - Sewer						331		331		331
Total Project Funding - Inflated $						**331**		**331**		**331**
Project Timeline Phase										
Engineering						Q3				
Construction						Q3Q4				

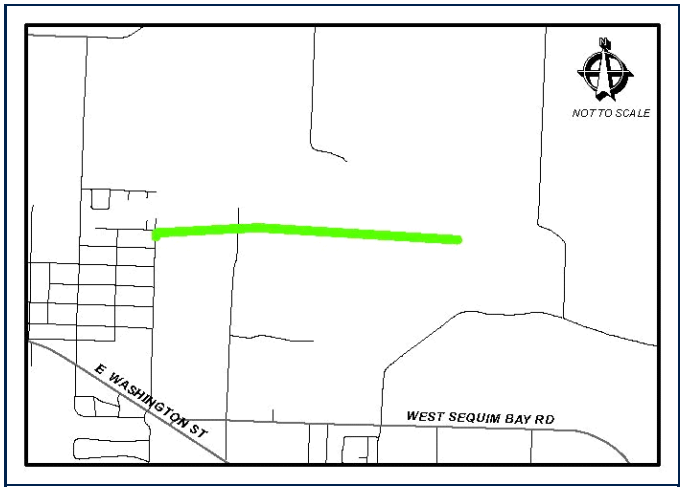
Source: General Sewer Plan

Amounts in Thousands Inflated $

WRF Influent Trunk Line Pipeline Repair/Replacement

Project Number: SRR-007NA **Historical Project Number** CS-7

Project Location: Blake Road to 247 Schmuck Road



Project Description:

The existing pipeline will be removed and replaced with approximately 5,000 LF of 24-inch HDPE pipe in order to accommodate projected flows for the City and surrounding areas. The project will also include the installation of new manholes approximately every 500 feet along the new pipe section.

Project Benefit:

This project will improve the condition of the existing trunk line between North Blake Road and the WRF.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering			166	135				301		301
Construction					1,247			1,247		1,247
Total Project Costs - Inflated $			**166**	**135**	**1,247**			**1,548**		**1,548**
Project Funding Sources										
Revenue - Sewer			166	135	1,247			1,548		1,548
Total Project Funding - Inflated $			**166**	**135**	**1,247**			**1,548**		**1,548**
Project Timeline Phase										
Engineering			Q4	Q1						
Construction					Q2Q3Q4					

Source: General Sewer Plan

Amounts in Thousands Inflated $

WRF Reclaimed Water Pumping Facility Improvements

Project Number: SRR-025NA **Historical Project Number** RW-5

Project Location: 247 Schmuck Road

Project Description:

This project will reconfigure the reclaimed water pumping system at the WRF to utilize the potential storage of the existing flow through channel.

Project Benefit:

Facility improvements such as this one are needed to accommodate a reliable reuse water system.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering							128	128		128
Construction							511	511		511
Total Project Costs - Inflated $							**639**	**639**		**639**
Project Funding Sources										
Revenue - Sewer							639	639		639
Total Project Funding - Inflated $							**639**	**639**		**639**
Project Timeline Phase										
Engineering							Q2Q3			
Construction							Q3			

Source: General Sewer Plan

Amounts in Thousands Inflated $

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CITY OF SEQUIM

- Capital Improvement Planning and the Transportation Master Plan
- CIP Project Identification Methodology
- Level of Services Standards – Vehicle Travel
- Level of Service Standards – Non-Motorized Travel

CAPITAL IMPROVEMENT PLAN 2015 – 2020

Chapter 5

Streets Restricted Fund Projects

Capital Improvement Planning and the Transportation Master Plan

The Sequim Transportation Master Plan (TMP) is one of four adopted Capital Facility Plans that provides long range policy guidance for the development of capital improvements. It is also a coordination document, ensuring that transportation decision making is coordinated with the Land Use Element of the Sequim Comprehensive Plan and with the City's other Capital Facility Plans including the Water and Sewer Utilities. The TMP includes a proposed inventory of CIP projects that fulfill the community's intent to rethink Sequim's transportation system. The TMP's guiding principles include:

- Apply non-traditional engineering toward an effective and implementable TMP;
- Accommodate the movement of people and commerce, not just cars and trucks; and
- Develop transportation standards and infrastructure improvements to serve pedestrian, mobility scooter, and bicycle users.

The TMP informs the development of the Six-Year CIP by identifying and prioritizing projects that support future travel trends. It identified significant characteristics of the current transportation network that will influence those future trends:

- Most of Sequim's streets were designed for vehicle traffic, including freight, and transit movements. Dedicated facilities for non-motorized use (sidewalks, bike lanes, and separated trails) are incomplete.
- Midday is Sequim's 'Rush Hour' due to the city's demographic skew toward an older population and its high proportion of retail space.
- Most vehicle trips are local. Almost 95 percent of trips originate or have their destination in Sequim.

CIP Project Identification Methodology

To guide selection of the Six-Year CIP project inventory and define their priorities, the TMP included a set of metrics that reflect a consensus among stakeholder interests.

Measurement	Purpose
Addresses Capacity Constraints	maintain vehicular travel LOS policy
	comply with basic GMA requirements
Network Completeness	advances non-motorized travel priority network
Safety	address injury collision history
	corrects sight-distance or modal conflict
Active Living	encourages walking, biking, or use of mobility carts
	connects to city park or other public amenity
Realistic Cost	aligns with City budget constraints w/in 6 year period
Project Readiness	can be implemented within a 6 year time period
	complements water and sewer utility CIP initiatives
Economic Development	accommodates major economic generators
	encourages development of small businesses

Level of Service Standards – Vehicular Travel

The TMP identifies a vehicular movement standard of LOS D (High density of motorists, but stable flow) for most roadways, LOS E (Near-capacity operation; low but uniform speed) for Washington Street outside the core area, and LOS F (Over capacity, with delays) for Washington Street within the core area (5th Avenue to Brown Road). The lower standard for Washington Street recognizes that where it passes through Downtown Sequim, capacity enhancements may be incompatible with other priorities such as providing wide sidewalks, preserving on-street parking, and minimizing distance between pedestrian crossings. As such, the Six-Year CIP includes improvement initiatives for Prairie and Fir Streets to allow these roadways to carry more east-west local traffic, thus reducing congestion along Washington Street.

Level of Service Standards – Non-Motorized Travel

The Six-Year CIP also includes project initiatives to create safe routes for cyclists, along with a cohesive and ADA-compliant sidewalk network that improves safety and accessibility for pedestrians and mobility scooter users. Many of these initiatives resulted from the TMP's introduction of a layered transportation system in which individual travel modes are prioritized on different roadway types. They require specific infrastructure improvements.

Sidewalks in Sequim are shared by pedestrians and mobility scooter users. The pedestrian/mobility scooter priority layer provides connections to Sequim's downtown core, commercial and retail zones, medical facilities, schools and parks, the ODT, and residential neighborhoods. The LOS standard is a width of 5 to 12 feet with a park strip between the sidewalk and travel lane. The same LOS standard is applied to School Connector pedestrian routes.

Two additional non-roadway facility initiatives are proposed in the Six Year CIP project inventory. Active Alleyways in the downtown core will be repurposed as components of the pedestrian and mobility scooter network. Cross Circulation Easements shorten pathways for pedestrians by breaking up blocks and better connecting complementary land uses.

CITY OF SEQUIM

2015-2020 - Transportation System Projects
Project Summary, Schedule, and Estimated Cost

		2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan Total
Bicycle Facilities Improvements								
STR-003BF	3rd Avenue Bike Lanes			66				66
STR-004BF	East Washington Street Bicycle Lanes				36	125		161
STR-005BF	Fir Street Bicycle Lane			24	40	44		108
STR-006BF	North Sequim Avenue Bicycle Lane	3	19					22
STR-008BF	ODT Realignment in Carrie Blake Park		18	59				77
STR-009BF	Prairie Street Bicycle Lanes	29		41	62			132
STR-001BF	Sunnyside Avenue Bicycle Lane		48					48
STR-011BF	West Washington Street Bicycle Lanes					13	56	69
City Wide Pavement Rehab Improvements								
STR-041PR	City-wide Pavement Rehab	468	473	362	497	509	522	2,831
City Wide Safety Projects Improvements								
STR-039SP	City-wide Safety Projects	53	54	55	57	58	59	336
STR-054SP	City-wide Street Light LED Changeout	51	53	54	55	57	58	328
Facility Improvement Improvements								
STR-034FI	East Washington St. Bus Turn-Outs			22	102			124
STR-030FI	Fir Street Improvements between Sequim Ave. and 5th Ave.	525	1,016	1,286				2,827
STR-031FI	West Prairie Street Improvements	70						70
STR-032FI	West Washington Street Improvements				14	63		77
Intersection Improvement Improvements								
STR-027II	Kendall and Hendrickson Improvements				39			39
STR-058II	Special Planning Area-Rhodefer Rd. Overpass of US 101		32					32
STR-053II	US-101 & Simdars Road Intersection Improvements		11					11
STR-028II	US-101 and Simdars Road		315	1,777	1,159			3,251
STR-026II	West Washington Street and 2nd Avenue Intersection Improvements				26	240		266
STR-029II	Whitefeather Way and US 101 Intersection Improvements					232	178	410
New Signal Improvements								
STR-025NS	North 5th Avenue and West Fir Street Traffic Signal		372	44				416
STR-023NS	North Sequim Avenue and Fir Street Traffic Signal		353					353
STR-021NS	Prairie Street and South Sequim Avenue Traffic Signal				208	167		375
STR-022NS	South Sequim and US 101 Ramps Traffic Signals					608		608

2015-2020 - Transportation System Projects
Project Summary, Schedule, and Estimated Cost

		2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan Total
Pedestrian Improvement Improvements								
STR-017PI	Brackett Road Asphalt Trail					75	577	652
STR-014PI	Etta Street Active Alleyway		81		651			732
STR-018PI	Prairie Street Sidewalk				441	504		945
STR-016PI	Seal Street Active Alleyway			14	59			73
STR-019PI	Sidewalk Infill on Blake Ave.		54		407			461
STR-015PI	Sunnyside Avenue Sidewalk			55	447			502
STR-020PI	Upper Bell Creek Trail						18	18
Road Connectivity Improvements								
STR-037RC	West Brownfield Road Realignment				136		1,034	1,170
STR-038RC	West Maple Street Improvement					456	232	688
STR-036RC	West Norman Street Roadway Connectivity						131	131
Shared Use Path Improvements								
STR-012SUP	Whitefeather Way Multi-user Trail					97	328	425
Signal Interconnect Improvements								
STR-056SI	Special Planning Area-School Zone I/S Treatments	10						10
STR-055SI	Special Planning Area-Wash./Sequim I/S enhancements	20						20
STR-057SI	Special Planning Area-Washington St. Brown to Rhodefer I/S & Signals		32					32
STR-052SI	Washington Street Signal Interconnect	6	46					52
	Project Total By Year	1,235	2,977	3,859	4,436	3,248	3,193	18,948

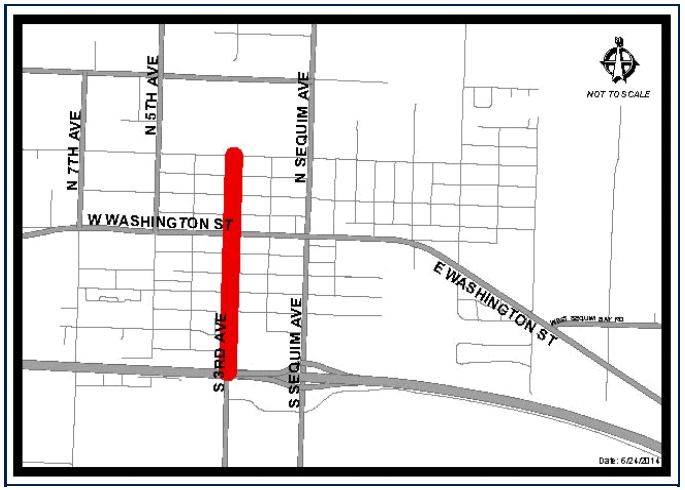
3rd Avenue Bike Lanes

Project Number: STR-003BF **Historical Project Number** 3

Project Location:

Project Description:

Stripe and size bike lanes with minor road improvements on both sides of 3rd.



Project Benefit:

Safer bicycle mobility and safety along a school route.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering				13				13		13
Construction				53				53		53
Total Project Costs - Inflated $				**66**				**66**		**66**
Project Funding Sources										
Transportation Benefit District				66				66		66
Total Project Funding - Inflated $				**66**				**66**		**66**
Project Timeline Phase										
Engineering				Q1						
Construction				Q2						

Source: Transportation Master Plan
Amounts in Thousands Inflated $

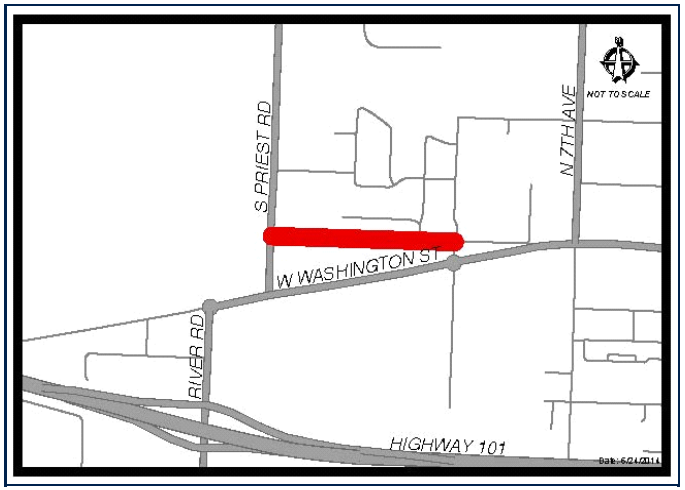
Brackett Road Asphalt Trail

Project Number: STR-017PI **Historical Project Number** 18

Project Location:

Project Description:

Provide sidewalk, curb and gutter, storm water facilities, and landscaping.



Project Benefit:

Provide safe pedestrian facilities.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering						75		75		75
Construction							577	577		577
Total Project Costs - Inflated $						**75**	**577**	**652**		**652**
Project Funding Sources										
Other						75	577	652		652
Total Project Funding - Inflated $						**75**	**577**	**652**		**652**
Project Timeline Phase										
Engineering						Q3Q4				
Construction							Q3Q4			

Source: Transportation Master Plan

Amounts in Thousands Inflated $

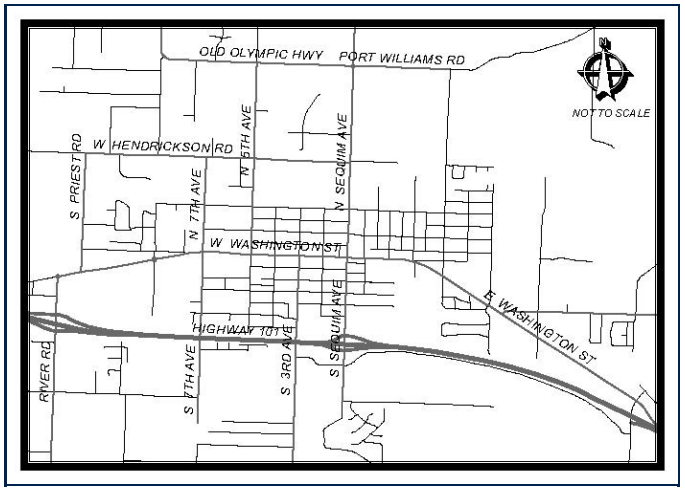
City-wide Pavement Rehab

Project Number: STR-041PR **Historical Project Number** 42

Project Location:

Project Description:

Perform pavement repair, overlay, or reconstruction of City streets.



Project Benefit:

Maintains or slows the decline of the street systems Pavement Condition Index. Improves look and driveability of streets.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Construction		468	473	362	497	509	522	2,831		2,831
Total Project Costs - Inflated $		**468**	**473**	**362**	**497**	**509**	**522**	**2,831**		**2,831**
Project Funding Sources										
Other			199		126	156	81	562		562
Revenue - Sewer		138	134	181	185	134	137	909		909
Revenue - Water		138	140	181	185	134	137	915		915
Transportation Benefit District		192				86	167	445		445
Total Project Funding - Inflated $		**468**	**473**	**362**	**496**	**510**	**522**	**2,831**		**2,831**
Project Timeline Phase										
Construction		Q3Q4	Q2Q3Q4	Q2Q3Q4	Q3Q4	Q3Q4	Q2Q3Q4			

Source: Transportation Master Plan

Amounts in Thousands Inflated $

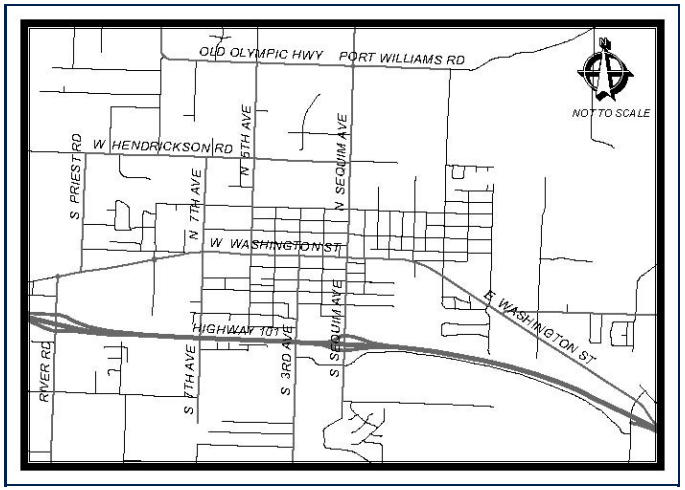
City-wide Safety Projects

Project Number: STR-039SP **Historical Project Number** 40

Project Location:

Project Description:

Miscellaneous minor projects that improve multi-modal safety city-wide.



Project Benefit:

Safety improvement for various modes of transportation.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Construction		53	54	55	57	58	59	336		336
Total Project Costs - Inflated $		**53**	**54**	**55**	**57**	**58**	**59**	**336**		**336**
Project Funding Sources										
Transportation Benefit District		53	54	55	57	58	59	336		336
Total Project Funding - Inflated $		**53**	**54**	**55**	**57**	**58**	**59**	**336**		**336**
Project Timeline Phase										
Construction		Q3Q4	Q2Q3Q4	Q2Q3Q4	Q3Q4	Q3Q4	Q2Q3Q4			

Source: Transportation Master Plan
Amounts in Thousands Inflated $

City-wide Street Light LED Changeout

Project Number: STR-054SP

Historical Project Number

Project Location:

Project Description:

Replace conventional street lamp heads with LEDs.

Project Benefit:

Electrical cost savings.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Construction		51	53	54	55	57	58	328		328
Total Project Costs - Inflated $		**51**	**53**	**54**	**55**	**57**	**58**	**328**		**328**
Project Funding Sources										
Transportation Benefit District		51	53	54	55	57	58	328		328
Total Project Funding - Inflated $		**51**	**53**	**54**	**55**	**57**	**58**	**328**		**328**
Project Timeline Phase										
Construction		Q3Q4	Q3Q4	Q3Q4	Q3Q4	Q3Q4	Q3Q4			

Source: Transportation Master Plan

Amounts in Thousands Inflated $

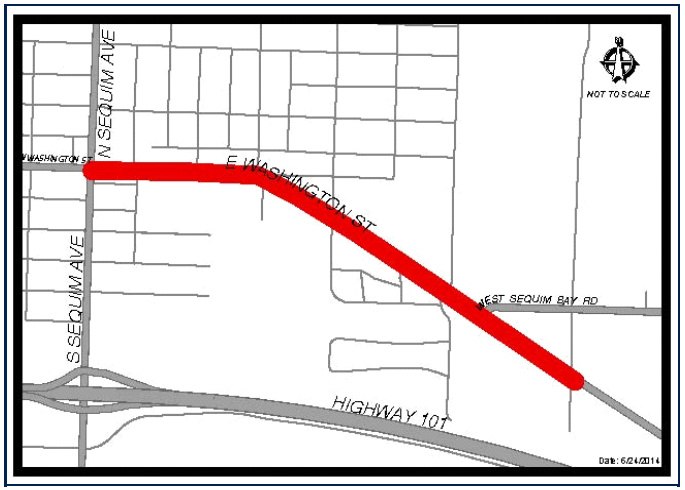
East Washington St. Bus Turn-Outs

Project Number: STR-034FI **Historical Project Number** 35

Project Location:

Project Description:

Construct Bus Turn-Outs with additional sidwalk, benches, trash receptacles, and modified storm water facilities.



Project Benefit:

Improves transit user safety, and traffic flow by getting buses away from the through lanes.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering				22				22		22
Construction					102			102		102
Total Project Costs - Inflated $				**22**	**102**			**124**		**124**
Project Funding Sources										
Other				22	102			124		124
Total Project Funding - Inflated $				**22**	**102**			**124**		**124**
Project Timeline Phase										
Engineering				Q1						
Construction					Q1Q2Q3					

Source: Transportation Master Plan
Amounts in Thousands Inflated $

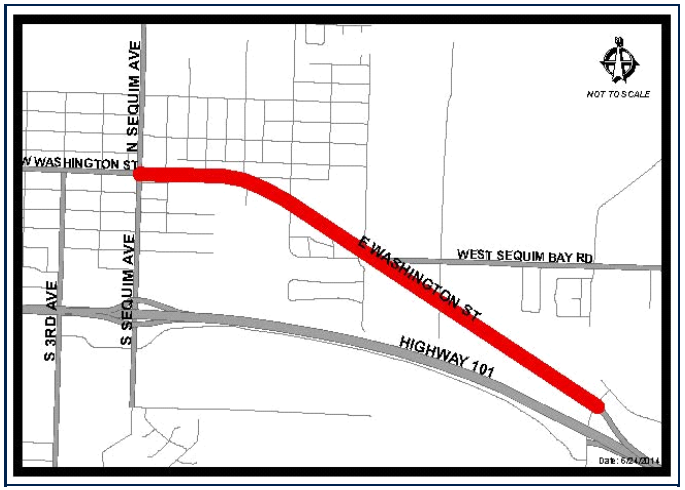
East Washington Street Bicycle Lanes

Project Number: STR-004BF **Historical Project Number** 4

Project Location:

Project Description:

Provide bike lanes and signing on both sides of the road including minor roadway improvements.



Project Benefit:

Safer bicycle mobility through an entry/exit corridor to downtown.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering					36			36		36
Construction						125		125		125
Total Project Costs - Inflated $					**36**	**125**		**161**		**161**
Project Funding Sources										
Other						94		94		94
Transportation Benefit District					36	31		67		67
Total Project Funding - Inflated $					**36**	**125**		**161**		**161**
Project Timeline Phase										
Engineering					Q3					
Construction						Q2Q3				

Source: Transportation Master Plan
Amounts in Thousands Inflated $

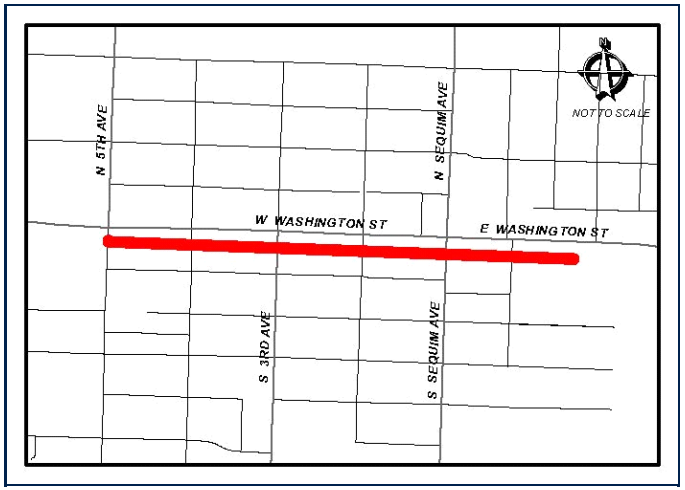
Etta Street Active Alleyway

Project Number: STR-014PI **Historical Project Number** 15

Project Location:

Project Description:

Rehab alley with new lighting, street features, traffic calming, and pavers.



Project Benefit:

Alley becomes functionally and aesthetically improved

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering			81					81		81
Construction					651			651		651
Total Project Costs - Inflated $			**81**		**651**			**732**		**732**
Project Funding Sources										
Other					651			651		651
Revenue - Sewer			43					43		43
Revenue - Water			38					38		38
Total Project Funding - Inflated $			**81**		**651**			**732**		**732**
Project Timeline Phase										
Engineering			Q2							
Construction					Q3Q4					

Source: Transportation Master Plan
Amounts in Thousands Inflated $

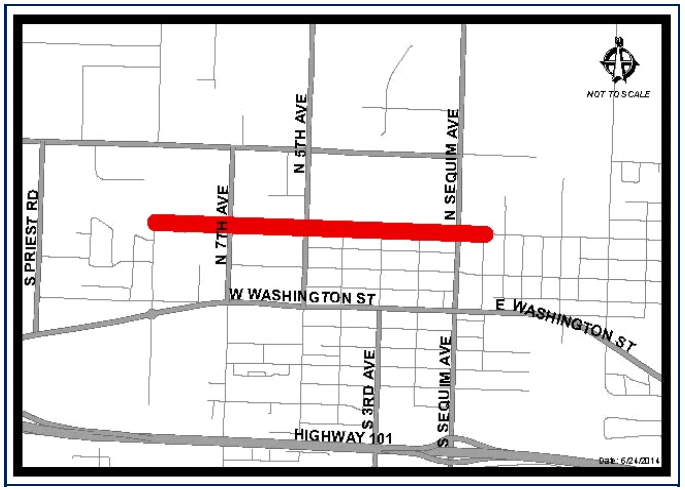
Fir Street Bicycle Lane

Project Number: STR-005BF **Historical Project Number** 5

Project Location:

Project Description:

Provide bike lanes and signing on both sides of the road including minor roadway improvements.



Project Benefit:

Safer bicycling mobility along a school route.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering				24				24		24
Construction					40	44		84		84
Total Project Costs - Inflated $				**24**	**40**	**44**		**108**		**108**
Project Funding Sources										
Other						32		32		32
Transportation Benefit District				24	40	12		76		76
Total Project Funding - Inflated $				**24**	**40**	**44**		**108**		**108**
Project Timeline Phase										
Engineering				Q3Q4						
Construction					Q2	Q2				

Source: Transportation Master Plan
Amounts in Thousands Inflated $

Fir Street Improvements between Sequim Ave. and 5th Ave.

Project Number: STR-030FI **Historical Project Number** 31

Project Location:

Project Description:

Rebuild roadway with new sidewalk, curb and gutter, illumination, and stormwater handling. Repair irrigation line.

Project Benefit:

Improved east-west connectivity and pedestrian safety in a school zone; reduces vehicle pressure on Washington Street.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering		525						525		525
Construction			1,016	1,286				2,302		2,302
Total Project Costs - Inflated $		**525**	**1,016**	**1,286**				**2,827**		**2,827**
Project Funding Sources										
Other		456	909	1,166				2,531		2,531
Transportation Benefit District		2	41	87				130		130
Transportation Impact Fees		67	66	33				166		166
Total Project Funding - Inflated $		**525**	**1,016**	**1,286**				**2,827**		**2,827**
Project Timeline Phase										
Engineering		Q1Q2								
Construction			Q2Q3Q4	Q1Q2						

Source: Transportation Master Plan

Amounts in Thousands Inflated $

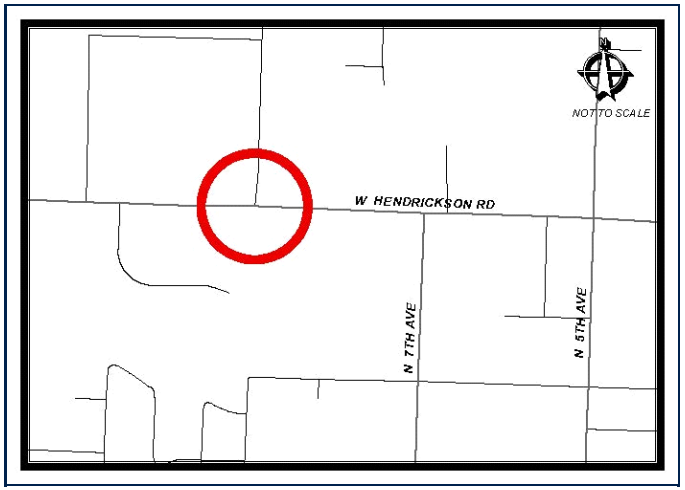
Kendall and Hendrickson Improvements

Project Number: STR-027II **Historical Project Number** 28

Project Location:

Project Description:

Improve intersection with additional pavement, improved sight lines, striping, and signage.



Project Benefit:

Provide a safer access for bicyclist, pedestrians and vehicles through the intersection

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering					11			11		11
Construction					28			28		28
Total Project Costs - Inflated $					**39**			**39**		**39**
Project Funding Sources										
Transportation Benefit District					40			40		40
Total Project Funding - Inflated $					**40**			**40**		**40**
Project Timeline Phase										
Engineering					Q3					
Construction					Q3Q4					

Source: Transportation Master Plan

Amounts in Thousands Inflated $

North 5th Avenue and West Fir Street Traffic Signal

Project Number: STR-025NS **Historical Project Number** 26

Project Location:

Project Description:

Provide warrant analysis and construct traffic signal to improve east-west connectivity and pedestrian safety.

Project Benefit:

Improved mobility and safety in a school zone.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering			81					81		81
Construction			291	44				335		335
Total Project Costs - Inflated $			**372**	**44**				**416**		**416**
Project Funding Sources										
Other			322					322		322
Transportation Impact Fees			50	44				94		94
Total Project Funding - Inflated $			**372**	**44**				**416**		**416**
Project Timeline Phase										
Engineering			Q1Q2							
Construction			Q2Q3Q4	Q1Q2						

Source: Transportation Master Plan
Amounts in Thousands Inflated $

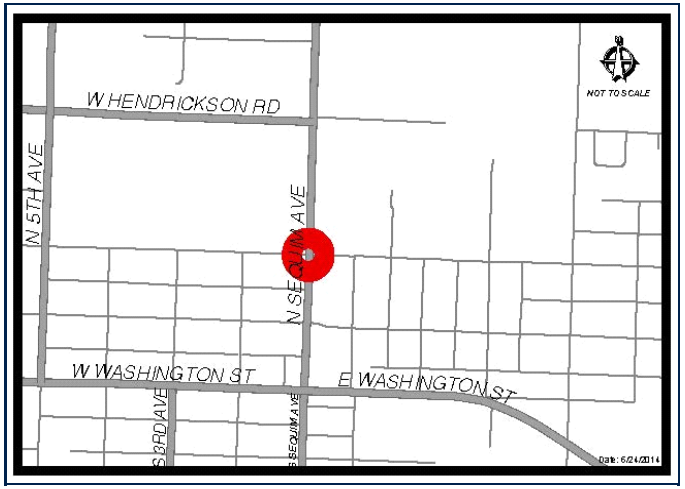
North Sequim Avenue and Fir Street Traffic Signal

Project Number: STR-023NS **Historical Project Number** 24

Project Location:

Project Description:

Provide warrant analysis and construct traffic signal to improve east-west connectivity and pedestrian safety.



Project Benefit:

Improved mobility and safety in a school zone.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering			73					73		73
Construction			280					280		280
Total Project Costs - Inflated $			**353**					**353**		**353**
Project Funding Sources										
Other			280					280		280
Transportation Benefit District			73					73		73
Total Project Funding - Inflated $			**353**					**353**		**353**
Project Timeline Phase										
Engineering			Q1Q2							
Construction			Q2Q3							

Source: Transportation Master Plan
Amounts in Thousands Inflated $

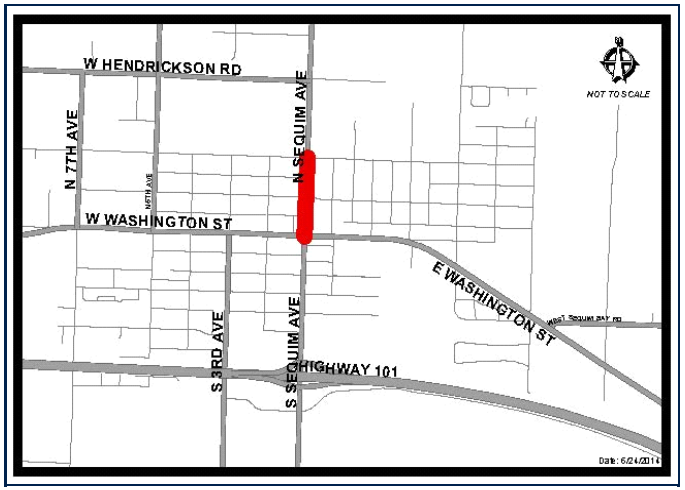
North Sequim Avenue Bicycle Lane

Project Number: STR-006BF **Historical Project Number** 6

Project Location:

Project Description:

Provide bicycle lanes that will connect Washington St. with ODT.



Project Benefit:

Improved bicycle safety and way-finding.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering		3	3					6		6
Construction			16					16		16
Total Project Costs - Inflated $		**3**	**19**					**22**		**22**
Project Funding Sources										
Transportation Benefit District		3	19					22		22
Total Project Funding - Inflated $		**3**	**19**					**22**		**22**
Project Timeline Phase										
Engineering		Q4	Q1							
Construction			Q3							

Source: Transportation Master Plan

Amounts in Thousands Inflated $

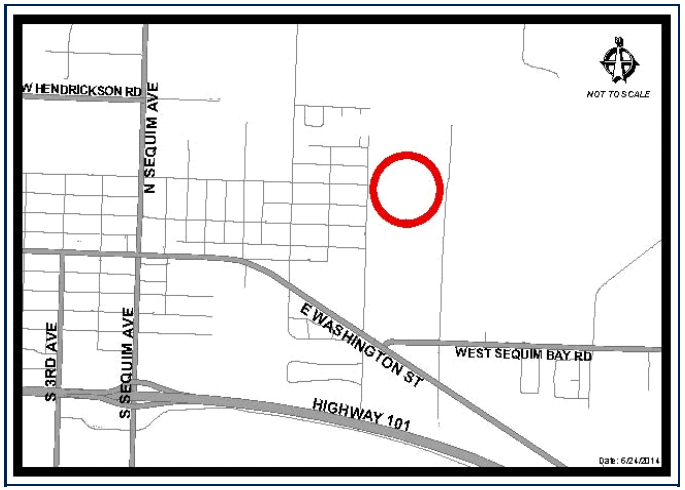
ODT Realignment in Carrie Blake Park

Project Number: STR-008BF **Historical Project Number** 8

Project Location:

Project Description:

Shifts ODT South to border baseball fields to provide a more direct route through Carrie Blake Park.



Project Benefit:

Clearer connection of ODT through the park; lets through cyclists bypass soccer fields loop.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering			18					18		18
Construction				59				59		59
Total Project Costs - Inflated $			**18**	**59**				**77**		**77**
Project Funding Sources										
Other				46				46		46
Transportation Benefit District			18	12				30		30
Total Project Funding - Inflated $			**18**	**58**				**76**		**76**
Project Timeline Phase										
Engineering			Q2							
Construction				Q2Q3						

Source: Transportation Master Plan
Amounts in Thousands Inflated $

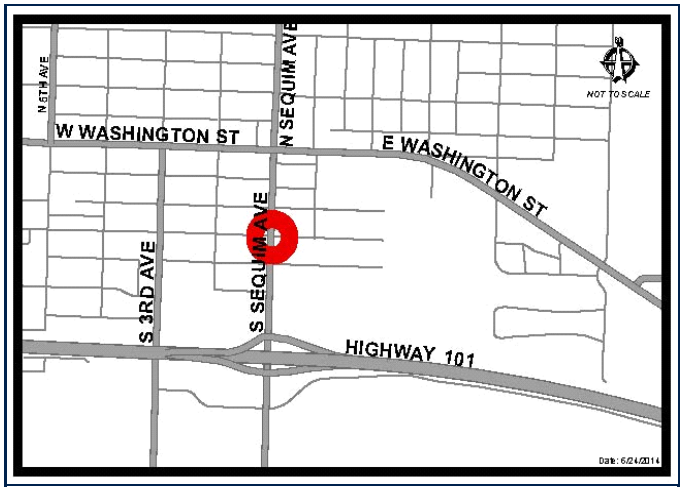
Prairie Street and South Sequim Avenue Traffic Signal

Project Number: STR-021NS **Historical Project Number** 22

Project Location:

Project Description:

Construct a signal light for this intersection to accommodate commercial development north of US 101.



Project Benefit:

Improves traffic flow through the intersection

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering					45			45		45
Construction					163	167		330		330
Total Project Costs - Inflated $					**208**	**167**		**375**		**375**
Project Funding Sources										
Other					208	167		375		375
Total Project Funding - Inflated $					**208**	**167**		**375**		**375**
Project Timeline Phase										
Engineering					Q4					
Construction					Q4	Q1				

Source: Transportation Master Plan

Amounts in Thousands Inflated $

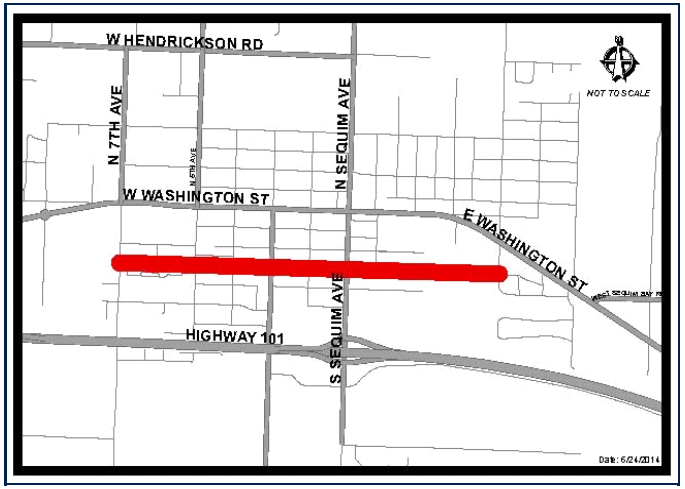
Prairie Street Bicycle Lanes

Project Number: STR-009BF **Historical Project Number** 9

Project Location:

Project Description:

Provide bike lanes with minor roadway improvements.



Project Benefit:

Safer bicycle mobility through location

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering		29						29		29
Construction				41	62			103		103
Total Project Costs - Inflated $		**29**		**41**	**62**			**132**		**132**
Project Funding Sources										
Other				30	47			77		77
Transportation Benefit District		29		10	16			55		55
Total Project Funding - Inflated $		**29**		**40**	**63**			**132**		**132**
Project Timeline Phase										
Engineering		Q3Q4								
Construction				Q3Q4	Q2Q3Q4					

Source: Transportation Master Plan
Amounts in Thousands Inflated $

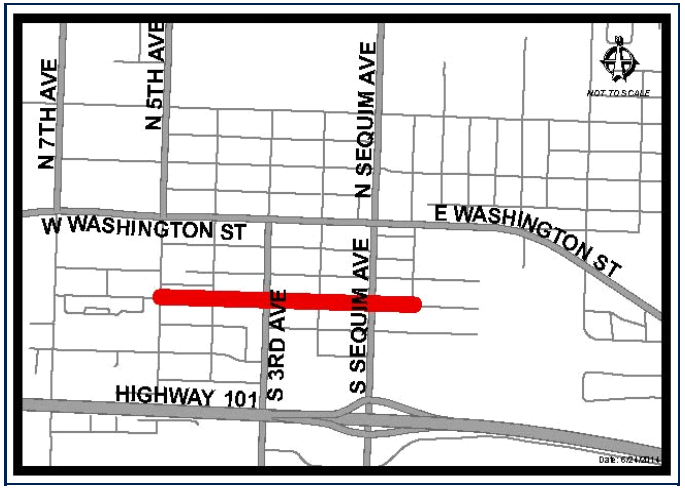
Prairie Street Sidewalk

Project Number: STR-018PI **Historical Project Number** 19

Project Location:

Project Description:

Construct ADA compliant sidewalk between S. 5th Ave. and S. Sunnyside Avenue, curb and gutter, and improve storm water handling.



Project Benefit:

Provide safe pedestrian facilities.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Preliminary Engineering					113			113		113
Construction					328	504		832		832
Total Project Costs - Inflated $					**441**	**504**		**945**		**945**
Project Funding Sources										
Other					345	400		745		745
Transportation Benefit District					96	104		200		200
Total Project Funding - Inflated $					**441**	**504**		**945**		**945**
Project Timeline Phase										
Preliminary Engineering					Q1					
Construction					Q2Q3	Q2Q3Q4				

Source: Transportation Master Plan
Amounts in Thousands Inflated $

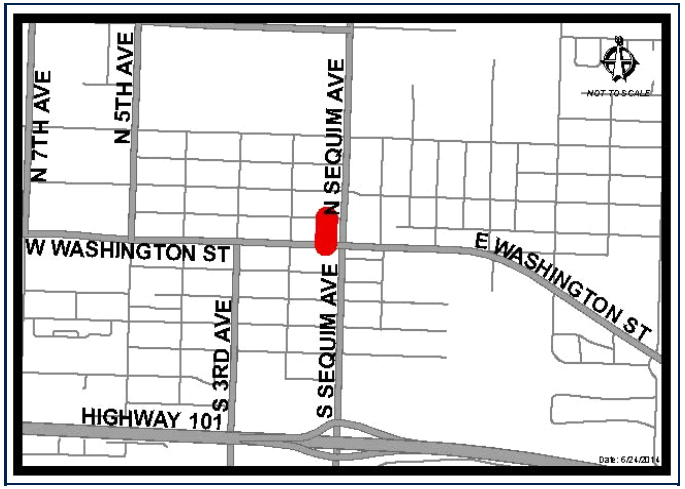
Seal Street Active Alleyway

Project Number: STR-016PI **Historical Project Number** 17

Project Location:

Project Description:

Rehab alley with new lighting, street features, traffic calming, and pavers.



Project Benefit:

Alley becomes functionally and aesthetically improved

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering				14				14		14
Construction					59			59		59
Total Project Costs - Inflated $				**14**	**59**			**73**		**73**
Project Funding Sources										
Transportation Benefit District				14	59			73		73
Total Project Funding - Inflated $				**14**	**59**			**73**		**73**
Project Timeline Phase										
Engineering				Q2						
Construction					Q2Q3					

Source: Transportation Master Plan
Amounts in Thousands Inflated $

Sidewalk Infill on Blake Ave.

Project Number: STR-019PI **Historical Project Number** 20

Project Location:

Project Description:

Infill of sidewalk gaps on Blake including storm water improvements and landscaping.

Project Benefit:

Provide safe pedestrian facilities

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Preliminary Engineering			54					54		54
Construction					407			407		407
Total Project Costs - Inflated $			**54**		**407**			**461**		**461**
Project Funding Sources										
Other			32		407			439		439
Transportation Benefit District			22					22		22
Total Project Funding - Inflated $			**54**		**407**			**461**		**461**
Project Timeline Phase										
Preliminary Engineering			Q3Q4							
Construction					Q2Q3Q4					

Source: Transportation Master Plan
Amounts in Thousands Inflated $

South Sequim and US 101 Ramps Traffic Signals

Project Number: STR-022NS **Historical Project Number** 23

Project Location:

Project Description:

Construct signals at the US 101 off ramps to relieve congestion brought about by increased population, tourism, and commercial development.

Project Benefit:

Improves traffic flow through the intersection

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering						116		116		116
Construction						492		492		492
Total Project Costs - Inflated $						**608**		**608**		**608**
Project Funding Sources										
Other						521		521		521
Transportation Impact Fees						87		87		87
Total Project Funding - Inflated $						**608**		**608**		**608**
Project Timeline Phase										
Engineering						Q2Q3				
Construction						Q3Q4				

Source: Transportation Master Plan

Amounts in Thousands Inflated $

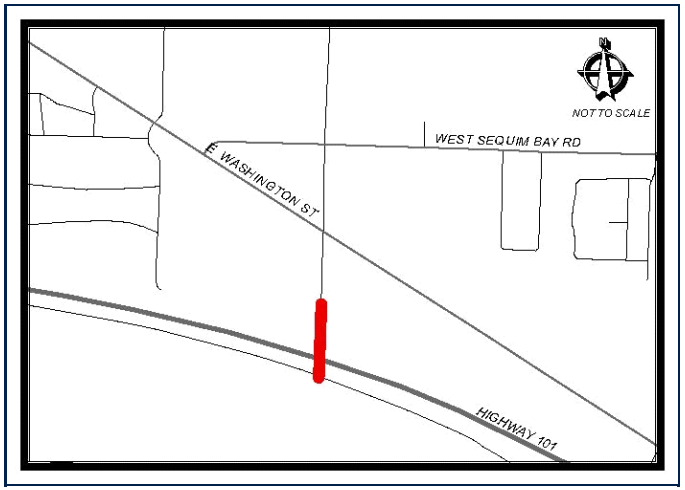
Special Planning Area-Rhodefer Rd. Overpass of US 101

Project Number: STR-058II **Historical Project Number**

Project Location:

Project Description:

Feasibility and preliminary design of a highway overpass connecting S. Rhodefer and Brownfield.



Project Benefit:

Connects north and south sides of Sequim in an area of expected growth.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering			32					32		32
Total Project Costs - Inflated $			**32**					**32**		**32**
Project Funding Sources										
Transportation Benefit District			32					32		32
Total Project Funding - Inflated $			**32**					**32**		**32**
Project Timeline Phase										
Engineering			Q3Q4							

Source: Transportation Master Plan
Amounts in Thousands Inflated $

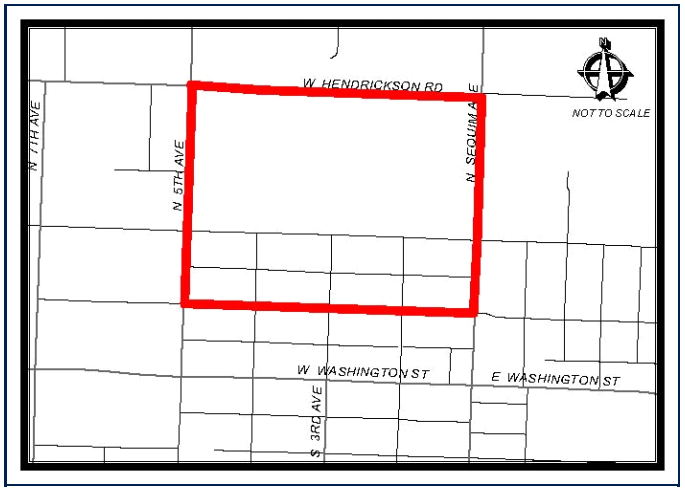
Special Planning Area-School Zone I/S Treatments

Project Number: STR-056SI **Historical Project Number**

Project Location:

Project Description:

Evaluate intersection treatments that improve safety and mobility in the school area bounded by 5th, Hendrickson, Sequim, an Spruce.



Project Benefit:

Identify projects that will improve safety and east-west mobility.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering		10						10		10
Total Project Costs - Inflated $		**10**						**10**		**10**
Project Funding Sources										
Transportation Benefit District		10						10		10
Total Project Funding - Inflated $		**10**						**10**		**10**
Project Timeline Phase										
Engineering		Q1Q2								

Source: Transportation Master Plan

Amounts in Thousands Inflated $

Special Planning Area-Wash./Sequim I/S enhancements

Project Number: STR-055SI **Historical Project Number**

Project Location:

Project Description:

Engineering study to identify geometric and other improvements to provide greater pedestrian and vehicle throughput at the intersection.

Project Benefit:

Mobility, safety, less fuel consumption

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering		20						20		20
Total Project Costs - Inflated $		**20**						**20**		**20**
Project Funding Sources										
Transportation Benefit District		20						20		20
Total Project Funding - Inflated $		**20**						**20**		**20**
Project Timeline Phase										
Engineering		Q1Q2								

Source: Transportation Master Plan

Amounts in Thousands Inflated $

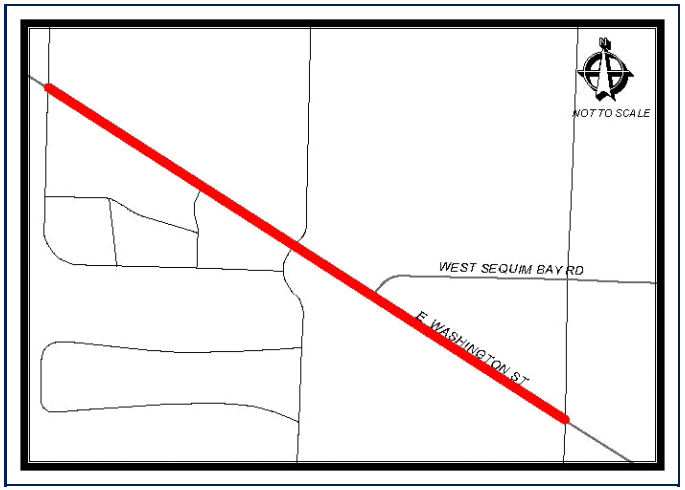
Special Planning Area-Washington St. Brown to Rhodefer I/S & Signals

Project Number: STR-057SI **Historical Project Number**

Project Location:

Project Description:

Study for a new east-west connection South of Washington. Intersection improvements, signal locations.



Project Benefit:

Improved mobility, safety, and access to commercial area between Washington and US 101.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering			32					32		32
Total Project Costs - Inflated $			**32**					**32**		**32**
Project Funding Sources										
Transportation Benefit District			32					32		32
Total Project Funding - Inflated $			**32**					**32**		**32**
Project Timeline Phase										
Engineering			Q3Q4							

Source: Transportation Master Plan
Amounts in Thousands Inflated $

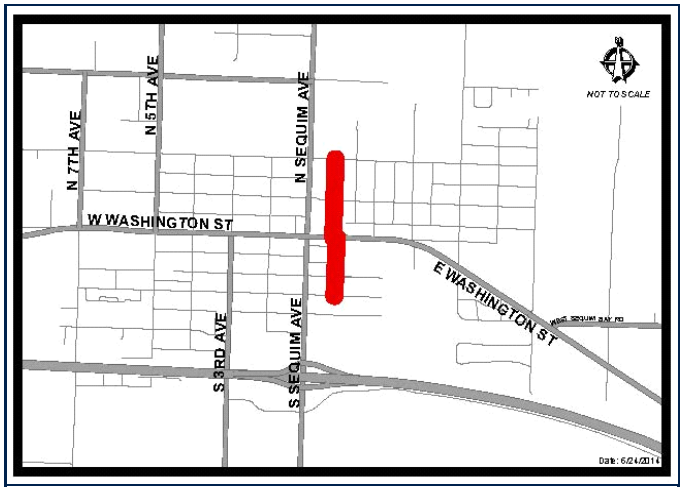
Sunnyside Avenue Bicycle Lane

Project Number: STR-001BF **Historical Project Number** 1

Project Location:

Project Description:

Provide bike lanes with minor roadway improvements.



Project Benefit:

Safer bicycle mobility through location

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Construction			48					48		48
Total Project Costs - Inflated $			**48**					**48**		**48**
Project Funding Sources										
Transportation Benefit District			48					48		48
Total Project Funding - Inflated $			**48**					**48**		**48**
Project Timeline Phase										
Construction			Q3							

Source: Transportation Master Plan

Amounts in Thousands Inflated $

Sunnyside Avenue Sidewalk

Project Number: STR-015PI **Historical Project Number** 16

Project Location:

Project Description:

Construct ADA compliant sidewalk, curb and gutter, and improve storm water handling.

Project Benefit:

Provide safe pedestrian facilities

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering				55				55		55
Construction					447			447		447
Total Project Costs - Inflated $				**55**	**447**			**502**		**502**
Project Funding Sources										
Other					447			447		447
Transportation Benefit District				55				55		55
Total Project Funding - Inflated $				**55**	**447**			**502**		**502**
Project Timeline Phase										
Engineering				Q1						
Construction					Q1Q2					

Source: Transportation Master Plan
Amounts in Thousands Inflated $

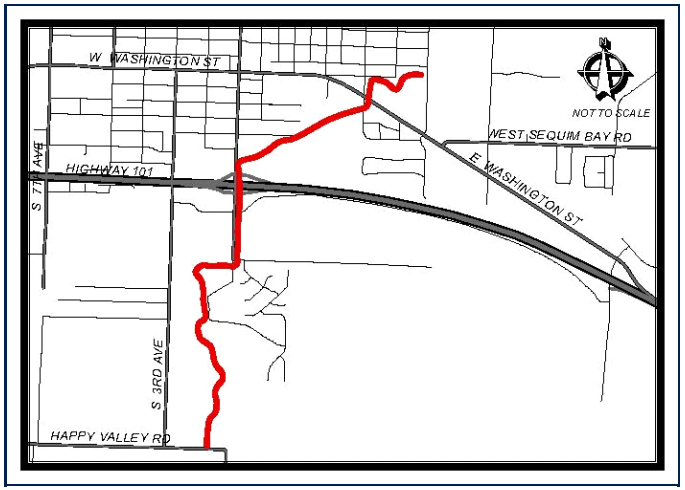
Upper Bell Creek Trail

Project Number: STR-020PI **Historical Project Number** 21

Project Location: Gerhardt to Carrie Blake Park

Project Description:

Construct a connection for the ODT trail to the south of HWY101 along Bell Creek right-of-way and/or easements will be required.



Project Benefit:

Recreational path connecting Gerhardt and Carrie Blake Park.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering							18	18		18
Construction									73	73
Total Project Costs - Inflated $							**18**	**18**	**73**	**91**
Project Funding Sources										
Transportation Benefit District							18	18	73	91
Total Project Funding - Inflated $							**18**	**18**	**73**	**91**
Project Timeline Phase										
Engineering							Q4			
Construction										

Source: Transportation Master Plan

Amounts in Thousands Inflated $

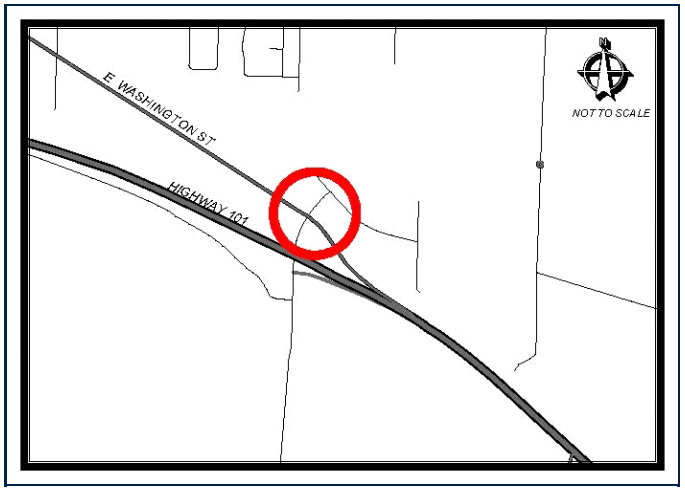
US-101 & Simdars Road Intersection Improvements

Project Number: STR-053II **Historical Project Number** 29

Project Location:

Project Description:

Sight distance, signing, and pavement marking improvement to increase safety.



Project Benefit:

Enhances safety through and around intersection.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Construction			11					11		11
Total Project Costs - Inflated $			**11**					**11**		**11**
Project Funding Sources										
Transportation Benefit District			11					11		11
Total Project Funding - Inflated $			**11**					**11**		**11**
Project Timeline Phase										
Construction			Q3							

Source: Transportation Master Plan

Amounts in Thousands Inflated $

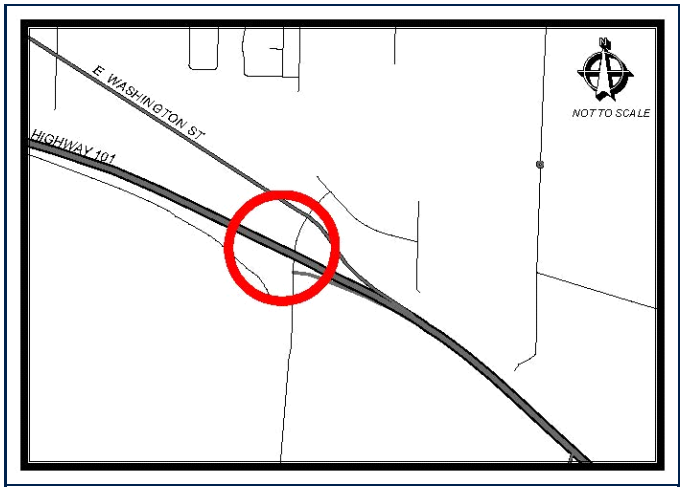
US-101 and Simdars Road

Project Number: STR-028II **Historical Project Number**

Project Location:

Project Description:

Construct on ramp to US 101 from E. Washington and off ramp from US 101 to Simdars.



Project Benefit:

Mobility to the east side; reduce downtown congestion.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering			315	162				477		477
Construction				1,615	1,159			2,774		2,774
Total Project Costs - Inflated $			**315**	**1,777**	**1,159**			**3,251**		**3,251**
Project Funding Sources										
Other			275	1,704	1,076			3,055		3,055
Transportation Benefit District			40	73				113		113
Transportation Impact Fees					83			83		83
Total Project Funding - Inflated $			**315**	**1,777**	**1,159**			**3,251**		**3,251**
Project Timeline Phase										
Engineering			Q3Q4	Q1						
Construction				Q1Q2Q3Q4	Q1Q2Q3Q4					

Source: Transportation Master Plan
Amounts in Thousands Inflated $

Washington Street Signal Interconnect

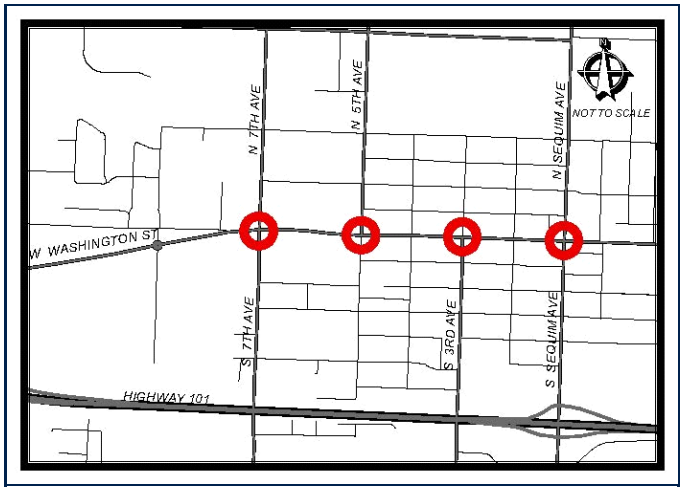
Project Number: STR-052SI

Historical Project Number

Project Location:

Project Description:

Synchronize traffic signals on Washington.



Project Benefit:

Better mobility through downtown.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering		6	7					13		13
Construction			39					39		39
Total Project Costs - Inflated $		**6**	**46**					**52**		**52**
Project Funding Sources										
Transportation Impact Fees		6	46					52		52
Total Project Funding - Inflated $		**6**	**46**					**52**		**52**
Project Timeline Phase										
Engineering		Q4	Q1							
Construction			Q1Q2							

Source: Transportation Master Plan

Amounts in Thousands Inflated $

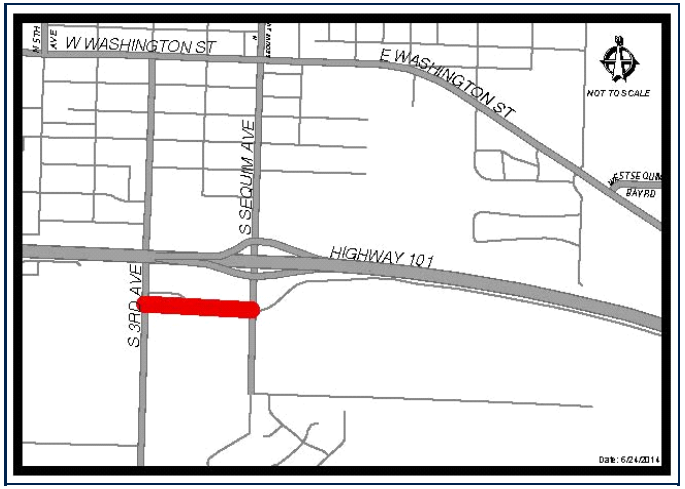
West Brownfield Road Realignment

Project Number: STR-037RC **Historical Project Number** 38

Project Location:

Project Description:

Realignment of W. Brownfield Avenue. Remove the curve, widen roadway, add sidewalks, and enhance storm water facilities.



Project Benefit:

Improve safety for all users.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering					136			136		136
Construction							1,034	1,034		1,034
Total Project Costs - Inflated $					**136**		**1,034**	**1,170**		**1,170**
Project Funding Sources										
Other					136		1,034	1,170		1,170
Total Project Funding - Inflated $					**136**		**1,034**	**1,170**		**1,170**
Project Timeline Phase										
Engineering					Q3Q4					
Construction							Q2Q3Q4			

Source: Transportation Master Plan
Amounts in Thousands Inflated $

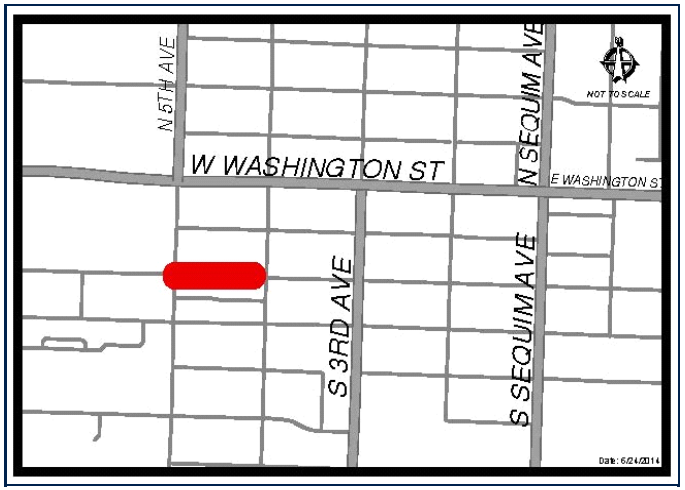
West Maple Street Improvement

Project Number: STR-038RC **Historical Project Number** 39

Project Location:

Project Description:

New road connecting 5th and 4th along the Maple St. corridor.



Project Benefit:

Improved east-west connectivity south of US 101

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering						116		116		116
Construction						340	232	572		572
Total Project Costs - Inflated $						**456**	**232**	**688**		**688**
Project Funding Sources										
Other						270	184	454		454
Revenue - Sewer						93	24	117		117
Revenue - Water						93	24	117		117
Total Project Funding - Inflated $						**456**	**232**	**688**		**688**
Project Timeline Phase										
Engineering						Q1Q2				
Construction						Q2Q3Q4	Q2Q3			

Source: Transportation Master Plan
Amounts in Thousands Inflated $

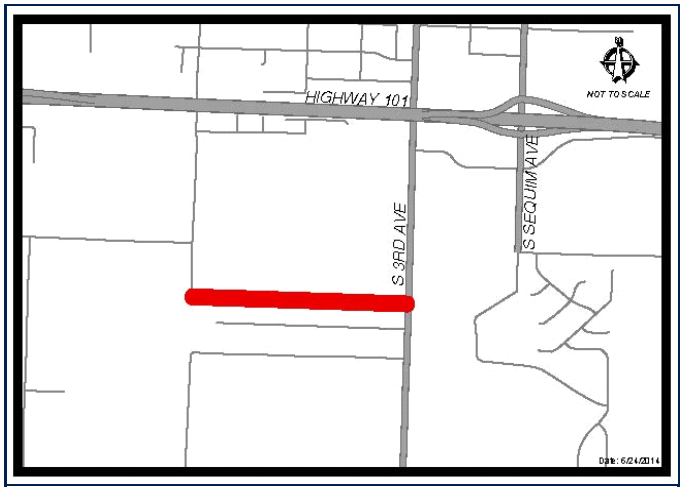
West Norman Street Roadway Connectivity

Project Number: STR-036RC **Historical Project Number** 37

Project Location:

Project Description:

New construction completing Norman between 3rd and 7th.



Project Benefit:

Street grid connectivity; improved mobility.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering							131	131		131
Construction									822	822
Total Project Costs - Inflated $							**131**	**131**	**822**	**953**
Project Funding Sources										
Other							131	131	823	954
Total Project Funding - Inflated $							**131**	**131**	**823**	**954**
Project Timeline Phase										
Engineering							Q4			
Construction										

Source: Transportation Master Plan
Amounts in Thousands Inflated $

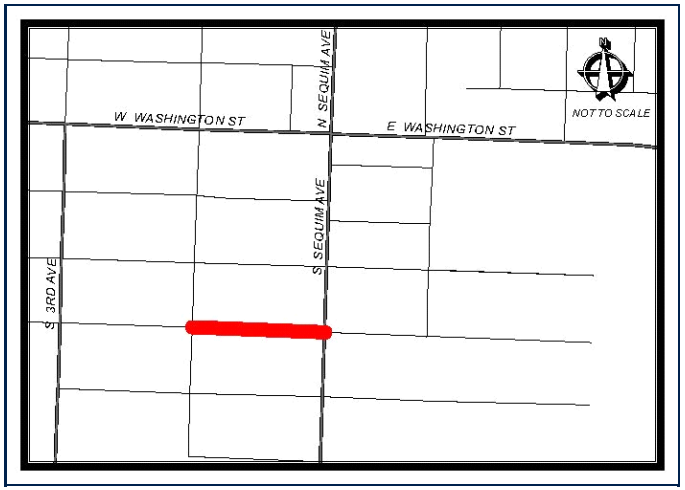
West Prairie Street Improvements

Project Number: STR-031FI **Historical Project Number** 32

Project Location:

Project Description:

Reconsruct W. Prairie between Sequim and 2nd to calm traffic that may enter this neighborhood from commercial area to the east.



Project Benefit:

Ties to new signal at Prairie/Sequim; calms traffic entering neighborhood from commercial area.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering		13						13		13
Construction		57						57		57
Total Project Costs - Inflated $		**70**						**70**		**70**
Project Funding Sources										
Revenue - Sewer		35						35		35
Revenue - Water		35						35		35
Total Project Funding - Inflated $		**70**						**70**		**70**
Project Timeline Phase										
Engineering		Q1Q2								
Construction		Q2Q3								

Source: Transportation Master Plan
Amounts in Thousands Inflated $

West Washington Street and 2nd Avenue Intersection Improvements

Project Number: STR-026II **Historical Project Number** 27

Project Location:

Project Description:

Sight distance improvements.

Project Benefit:

Increased safety for all users.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering					26	27		53		53
Construction						213		213		213
Total Project Costs - Inflated $					**26**	**240**		**266**		**266**
Project Funding Sources										
Other					21	198		219		219
Transportation Benefit District					5	42		47		47
Total Project Funding - Inflated $					**26**	**240**		**266**		**266**
Project Timeline Phase										
Engineering					Q4	Q1				
Construction						Q1Q2				

Source: Transportation Master Plan
Amounts in Thousands Inflated $

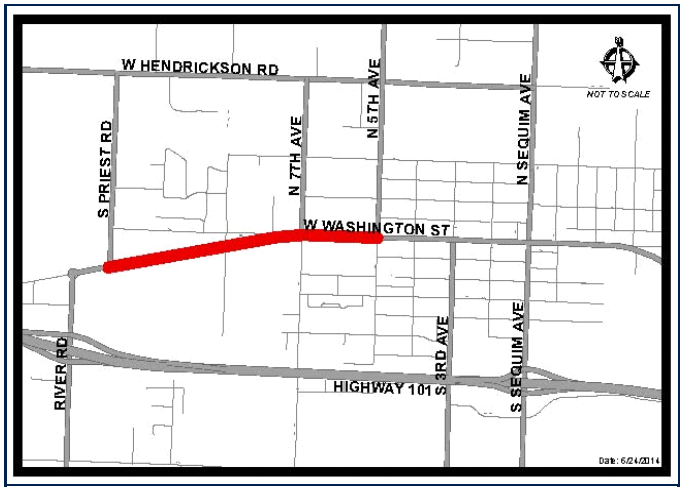
West Washington Street Bicycle Lanes

Project Number: STR-011BF **Historical Project Number** 11

Project Location:

Project Description:

Provide bike lanes and signing on both sides of the road including minor roadway improvements.



Project Benefit:

Safer bicycle mobility through location

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering						13		13		13
Construction							56	56		56
Total Project Costs - Inflated $						**13**	**56**	**69**		**69**
Project Funding Sources										
Other						9	42	51		51
Transportation Benefit District						3	14	17		17
Total Project Funding - Inflated $						**12**	**56**	**68**		**68**
Project Timeline Phase										
Engineering						Q3				
Construction							Q2			

Source: Transportation Master Plan
Amounts in Thousands Inflated $

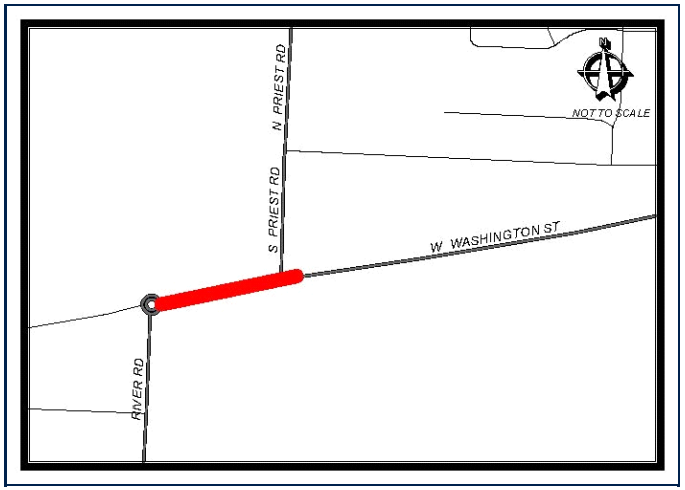
West Washington Street Improvements

Project Number: STR-032FI **Historical Project Number** 33

Project Location:

Project Description:

Improve merging geometries from River Rd. to Washington through lane.



Project Benefit:

Safety

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering					14			14		14
Construction						63		63		63
Total Project Costs - Inflated $					**14**	**63**		**77**		**77**
Project Funding Sources										
Transportation Benefit District					14	63		77		77
Total Project Funding - Inflated $					**14**	**63**		**77**		**77**
Project Timeline Phase										
Engineering					Q4					
Construction						Q1Q2				

Source: Transportation Master Plan

Amounts in Thousands Inflated $

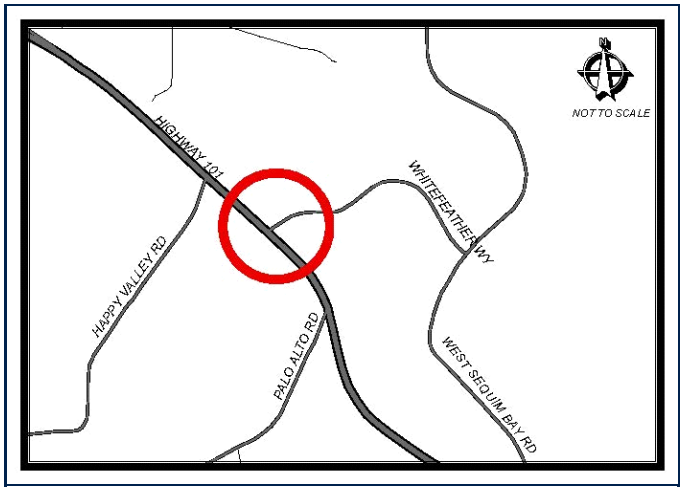
Whitefeather Way and US 101 Intersection Improvements

Project Number: STR-029II **Historical Project Number** 30

Project Location:

Project Description:

Intersection Improvement on US101 and Whitefeather Way to improve entering and exiting safety including acceleration and deceleration lanes.



Project Benefit:

Improved intersection safety.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering						81		81		81
Construction						151	178	329		329
Total Project Costs - Inflated $						**232**	**178**	**410**		**410**
Project Funding Sources										
Other						232	178	410		410
Total Project Funding - Inflated $						**232**	**178**	**410**		**410**
Project Timeline Phase										
Engineering						Q3Q4				
Construction						Q4	Q1Q2Q3Q4			

Source: Transportation Master Plan
Amounts in Thousands Inflated $

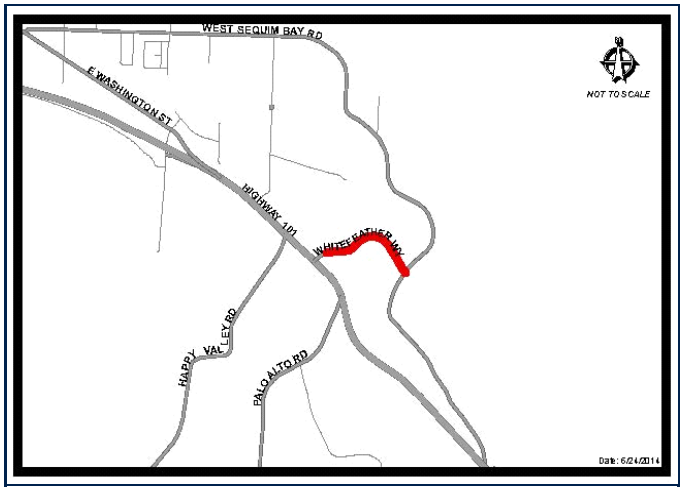
Whitefeather Way Multi-user Trail

Project Number: STR-012SUP **Historical Project Number** 12

Project Location:

Project Description:

Construct an asphalt trail connecting the ODT to waterfront.



Project Benefit:

Provide safe pedestrian and bike access from marina area to the ODT.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering						97		97		97
Construction							328	328		328
Total Project Costs - Inflated $						**97**	**328**	**425**		**425**
Project Funding Sources										
Other						73	246	319		319
Transportation Benefit District						24	82	106		106
Total Project Funding - Inflated $						**97**	**328**	**425**		**425**
Project Timeline Phase										
Engineering						Q4				
Construction							Q3Q4			

Source: Transportation Master Plan
Amounts in Thousands Inflated $

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- **Capital Improvement Planning and the Parks and Recreation Master Plan**
- **Recreational Facility Funding Policy**
- **Level of Service Standards**

CAPITAL IMPROVEMENT PLAN 2015 – 2020

Chapter 6

Parks Restricted Fund Projects

Capital Improvement Planning and the Parks and Recreation Master Plan

The pursuit of leisure activities and the preservation of open space, habitat and the natural environment are essential to the quality of life enjoyed by Sequim residents and visitors. When the City Council adopted the Sequim Parks Master Plan in 2006, it expressed as policy the community's objectives and priorities for the provision of parks and recreation space, and the capital investments needed to maintain those assets. The Parks Master Plan outlines recommendations and guidelines for the acquisition, development, management, and funding of public parks and recreation facilities in the City's neighborhoods.

Recreational Facility Funding Policy

To develop the broad range of recreational facilities envisioned in the Master Plan, the text includes a framework of goals and policies. Among those goals and policies are the following statements directed toward the capital improvement planning process:

- define a funding strategy that is realistic and attainable and will place a priority on developing existing park facilities and acquiring those defined as high priorities by the community and not currently or adequately available in the county;

- Develop a source of financing to provide capital facilities and other park improvements through impact fees, grants or other contributions, transfer of development rights and donations to a Capital Parks Reserve fund;

Sequim officials were guided in preparing the Parks Master Plan by the Washington State Interagency Committee for Outdoor Recreation (IAC) publication entitled *Planning for Parks, Recreation and Open Space in Your Community*. Among its guidelines for Comprehensive Plan content are provisions that would help the City to become eligible for state grant funds toward the growth and development of its park and recreation system. Recommendations for park system improvements and their prioritization in a Six-Year Capital Improvement Program is one of those key provisions.

Level of Service Standards

The Level of Service standards described in the Parks Master Plan, and summarized in the following chart, are based on planning principles established by the National Recreation and Park Association (NRPA). However, the Master Plan does not strictly follow the NRPA guidelines because a one size fits all approach are not realistic to use as a benchmark for level-of-service standards. During development of the Sequim Master Plan, they were compared to standards suggested by the Statewide Comprehensive Outdoor Recreation Plan (SCORP), and to the LOS standards adopted by other communities with a similar demographic profile and physical attributes.

This comparative process, conducted with extensive stakeholder participation, revealed that the geographic and demographic scale of the Sequim community, and its setting within an area rich in regional and national public lands resources, renders full attainment of the NRPA standards impractical. Instead, those standards have provided direction in identifying site and facility improvements, and in suggesting their geographic distribution.

TABLE P-1
LOS STANDARDS
PARK AND RECREATION FACILITIES[1]

Facility Type	LOS Standard *(per capita population)*	Existing Inventory	Required by 2025
Regional Park/Reserve	5.0ac/1000	1,000,000ac	140
Community Park	2.5ac/1000	55ac	70ac
Neighborhood Park	1.0ac/1000	2.4ac	28ac
School playfields	2.0ac/1000	81ac	56ac
Pathways/Trails	Citywide System	5.4mi.	16.9mi
Urban Malls	0.25ac/1000	0.4ac	7ac
Baseball diamond (90' baseline)	1/5000	1	6
Baseball diamond (60' baseline)	1/2500	2	11
Basketball court	1/1000	8	28
Boat launch ramps	1/7500	3	4
Camp sites	3/1000	303	84
Football field	1/6000	1	5
Golf Course	1/25000	3	2
Picnic Area (tables)	6/1000	16	168
Playfield	1/1000	3	28
Playground	1/1000	4	28
Skateboard park	1/30000	1	1
Soccer	1/3000	3	9
Softball	1/2500	3	11
Swimming pool (indoor)	1/10000	1	3
Tennis court	1/2000	4	14

[1] Source: Table 5-5, 2006 Sequim Parks Master Plan

As just noted, the LOS standards generally accepted by NRPA and SCORP have been augmented in the Sequim Parks Master Plan by other methods of identifying park system additions and improvements. The per capita acreage standard that is common to both of these references is expressed as the number of acres of a specific park category, and the number of facilities of a specific type that are desirable per thousand population. They have been applied locally to indicate whether or not the current inventory of park system capital assets meets existing and projected needs of Sequim residents.

These standards have also been tailored to local attributes. Sequim residents expressed their desire for an LOS standard for certain facility categories that differs from national norms, or from those defined by other communities. For example, recreational spaces that serve both young children and the elderly represent one of the unique demographic challenges to parks planning in this City. Census data reveals that the average age of Sequim citizens is 59.3 years, and that grandparents among this cohort group are raising 27 percent of the children in the Sequim School District. With this high number of grandparents actively raising children, appropriate recreational space and facilities are needed to accommodate both age groups in close proximity.

One other LOS that is considered prominently in the Sequim Parks Master Plan is the accessibility to neighborhood recreational facilities, based on geographic constraints and logical boundaries. A one quarter mile accessibility standard was applied to existing neighborhood

park sites within and near the city limits. The Master Plan identified portions of the City not adequately furnished with a neighborhood park.

Likewise, there are unique assets and conditions present in the Sequim/Dungeness Valley region that do not fit traditional park facility standards. The Olympic Discovery Trail (ODT), for example, is both a parks resource and a key component of Sequim's non-motorized street and trail network. Although the ODT's common mission within the city limits is to link the city's neighborhood parks and the Sequim downtown core area, ODT has both commercial and recreational purposes. Another unique aspect of Sequim's North Olympic Peninsula setting is the presence of federal, state and countywide regional parks. Local park planning LOS standards attempt to avoid duplication of services offered by these larger-scale parkland investments (such as camp grounds and boat ramps). The CIP project inventory focuses instead on enhancing local access to these regional facilities. Furthermore, the CIP provides and emphasis on physical improvements to Carrie Blake Park and Gerhardt Park.

2015-2020 - Park System Projects
Project Summary, Schedule, and Estimated Cost

		2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan Total
Unassigned Improvements								
PRK-011NA	Carrie Blake Park Access Road		276					276
PRK-012NA	Carrie Blake Park New Parking Lot			690				690
PRK-013NA	Carrie Blake Park Overlay on Existing Lot				135			135
PRK-002NA	Gerhardt Park Upgrades	53	54					107
PRK-014NA	Renovation and Rehabilitation			20	20	20	20	80
	Project Total By Year	53	330	710	155	20	20	1,288

Carrie Blake Park Access Road

Project Number: PRK-011NA

Historical Project Number

Project Location: 202 N. Blake Ave.

Project Description:

Construct New Access Road from Blake Ave (southside).

Project Benefit:

Eliminates potential conflicts between the playground equipment by moving vehicles away from a high pedestrian travel area.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Other			276					276		276
Total Project Costs - Inflated $			**276**					**276**		**276**
Project Funding Sources										
Grant - State			276					276		276
Total Project Funding - Inflated $			**276**					**276**		**276**
Project Timeline Phase										
Other			Q2Q3							

Source: Parks Comprehensive Plan

Amounts in Thousands Inflated $

Carrie Blake Park New Parking Lot

Project Number: PRK-012NA

Historical Project Number

Project Location: 202 N. Blake Ave.

Project Description:

Construct New Parking Lot in current BMX Park location

Project Benefit:

Adds additional parking to park in conjunction with new access.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Other				690				690		690
Total Project Costs - Inflated $				**690**				**690**		**690**
Project Funding Sources										
Grant - State				690				690		690
Total Project Funding - Inflated $				**690**				**690**		**690**
Project Timeline Phase										
Other				Q2Q3						

Source: Parks Comprehensive Plan

Amounts in Thousands Inflated $

Carrie Blake Park Overlay on Existing Lot

Project Number: PRK-013NA

Historical Project Number

Project Location: 202 N. Blake Ave.

Project Description:

Overlay existing parking lot around Guy Cole Center.

Project Benefit:

Improves the parking surface in the city's highest attended park.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Other					135			135		135
Total Project Costs - Inflated $					**135**			**135**		**135**
Project Funding Sources										
Grant - State					135			135		135
Total Project Funding - Inflated $					**135**			**135**		**135**
Project Timeline Phase										
Other					Q2Q3					

Source: Parks Comprehensive Plan

Amounts in Thousands Inflated $

Gerhardt Park Upgrades

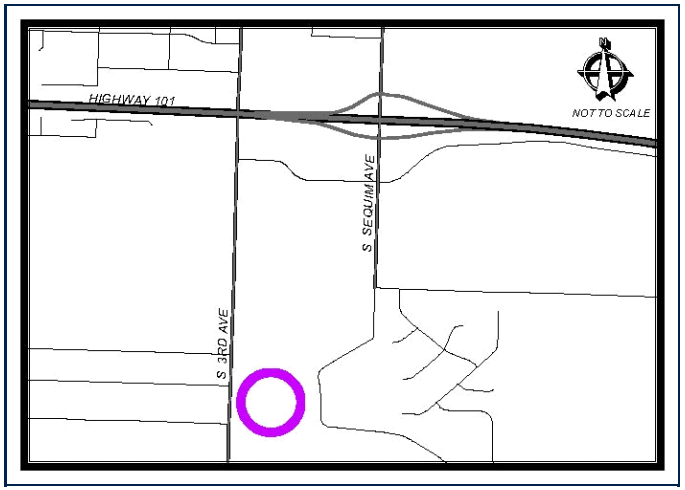
Project Number: PRK-002NA

Historical Project Number

Project Location: 1680 S. 3rd Ave.

Project Description:

Upgrades and site improvements (parking and bldg. demo)



Project Benefit:

Begins the needed site improvements to make Gerhardt Park more accessible to the public.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Other	51	53	54					107		158
Total Project Costs - Inflated $	**51**	**53**	**54**					**107**		**158**
Project Funding Sources										
Park Impact Fees	51									51
REET 2		53	54					107		107
Total Project Funding - Inflated $	**51**	**53**	**54**					**107**		**158**
Project Timeline Phase										
Other		Q1Q2Q3Q4	Q1Q2Q3Q4							

Source: Parks Comprehensive Plan

Amounts in Thousands Inflated $

Renovation and Rehabilitation

Project Number: PRK-014NA **Historical Project Number**

Project Location: City-wide

Project Description:

Provide funding to make needed renovations to park and playground equipment annually.

Project Benefit:

The allocation of funds annually will help to ensure City parks remain operation year round.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Construction				20	20	20	20	80		80
Total Project Costs - Inflated $				**20**	**20**	**20**	**20**	**80**		**80**
Project Funding Sources										
REET 2				20	20	20	20	80		80
Total Project Funding - Inflated $				**20**	**20**	**20**	**20**	**80**		**80**
Project Timeline Phase										
Construction				Q1Q2Q3Q4	Q1Q2Q3Q4	Q1Q2Q3Q4	Q1Q2Q3Q4			

Source: Parks Comprehensive Plan

Amounts in Thousands Inflated $

CITY OF SEQUIM

- Public Buildings

CAPITAL IMPROVEMENT PLAN 2015 – 2020

Chapter 7

Capital/Building Facilities Restricted Fund Projects

Public Buildings

Although these Six-Year CIP projects are not part of an adopted Master Plan, they represent important initiatives to enhance public access city government services. Most prominent among these projects is the construction of a new Civic Center including the Police Station. The project will centralize administrative and law enforcement functions in a single location.

The History of City Hall

In 1973 the City Hall offices were built to house the Clerk's Office, the Council Chambers, the Police Station and a radio communications center (made possible because the Council had the foresight to purchase the land 15 years earlier). Additionally, in 1973 the citizens voted to change from "Town of Sequim" to "City of Sequim" and the council changed from a five-member to a seven-member body. At that time, unlike today, the City Clerk and Attorney were also elected. The City also adopted its first Uniform Building Codes that year. Research of the City archives reveals for 1974, the year we occupied the current City Hall, we had an annual budget of $556,523, and a City Wide assessed valuation of $10,248,781 and just one police car. Just as the current one, the new City Hall/Police Station will serve the City for decades to come.

The History of the City Shop

In 1997 the City Shop was built to accommodate a modern day Public Works Operations Facility. Since the opening of the City Shop the southern breeze way has been retrofitted to be enclosed with doors on the east and west walls that provide additional heated space for valuable equipment due to increases in demands related to water, sewer, streets and park service needs. The proposed master site planning efforts included as part of this CIP will help the Public Works Department plan for future expansion needs in a logical and thoughtful manner. The modular offices proposed will accommodate a current operational need, which is to provide appropriate work space for Public Works lead personnel to conduct work that requires a desk for computer and other office work related tasks.

2015-2020 - Capital/Building Facilities Projects
Project Summary, Schedule, and Estimated Cost

	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan Total
Unassigned Improvements							
CFL-002NA City Shop Upgrades	30	105	108	110			353
CFL-008NA Civic Center	6,196						6,196
CFL-009NA Modular Offices at Shop	50						50
CFL-010NA Renovation and Rehabilitation			20	20	20	20	80
Project Total By Year	6,276	105	128	130	20	20	6,679

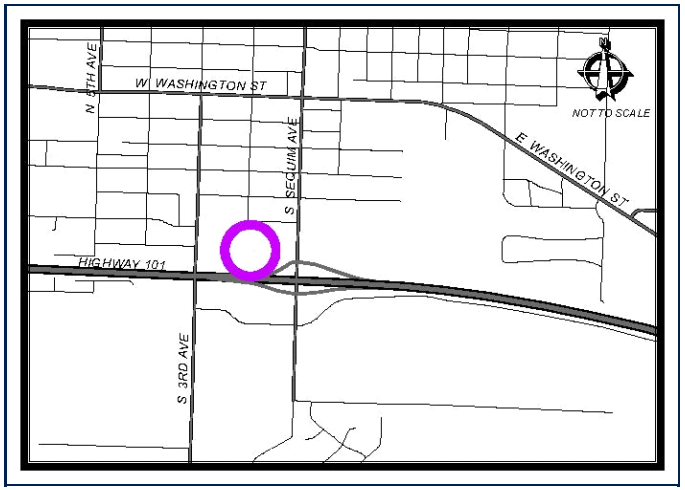
City Shop Upgrades

Project Number: CFL-002NA **Historical Project Number**

Project Location: 169 W. Hemlock St.

Project Description:

Master site planning and building improvements



Project Benefit:

Prepares a master site plan designed to accommodate future equipment and buildings needs.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Engineering		30						30		30
Construction			105	108	110			323		323
Total Project Costs - Inflated $		**30**	**105**	**108**	**110**			**353**		**353**
Project Funding Sources										
General Fund			35	36	37			108		108
Revenue - Sewer		10	35	36	37			118		118
Revenue - Water		10	35	36	37			118		118
Transportation Benefit District		10						10		10
Total Project Funding - Inflated $		**30**	**105**	**108**	**111**			**354**		**354**
Project Timeline Phase										
Engineering		Q1								
Construction			Q1Q2Q3Q4	Q1Q2Q3Q4	Q1Q2Q3Q4					

Source: Capital Facilities Comprehensive Plan
Amounts in Thousands Inflated $

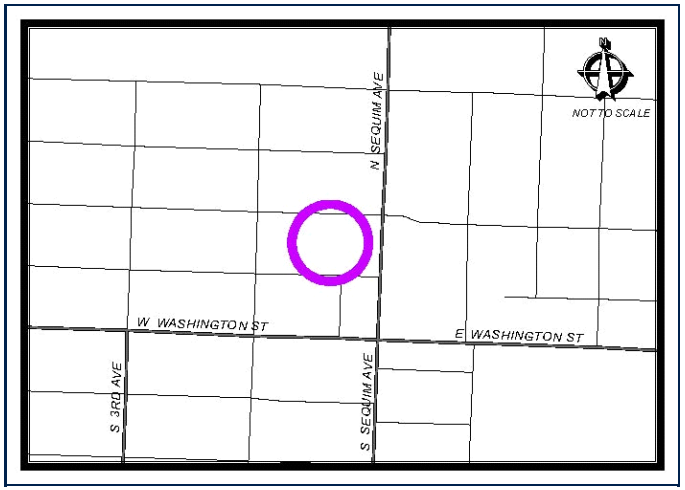
Civic Center

Project Number: CFL-008NA **Historical Project Number**

Project Location: 152 W. Cedar St.

Project Description:

33,000 sq. foot Civic Center with plaza.



Project Benefit:

Consolidates all city staff in one building and eliminates the need to continue paying rent.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Construction		6,196						6,196		6,196
Total Project Costs - Inflated $		**6,196**						**6,196**		**6,196**
Project Funding Sources										
Bond - Proceeds		6,196						6,196		6,196
Total Project Funding - Inflated $		**6,196**						**6,196**		**6,196**
Project Timeline Phase										
Construction		Q1Q2Q3Q4								

Source: Capital Facilities Comprehensive Plan

Amounts in Thousands Inflated $

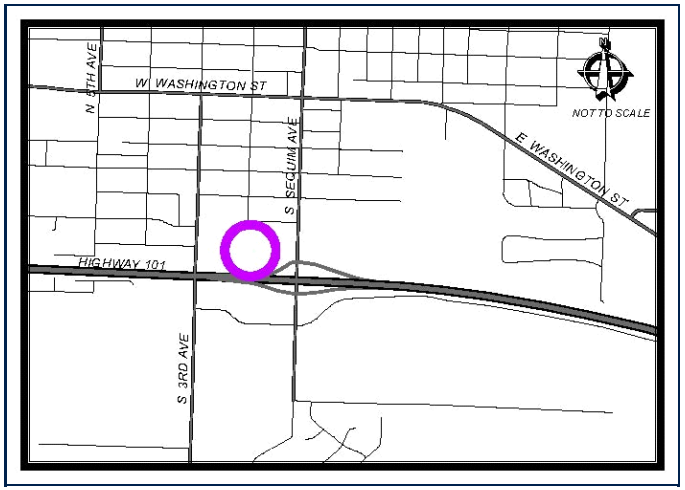
Modular Offices at Shop

Project Number: CFL-009NA **Historical Project Number**

Project Location: 169 W. Hemlock St.

Project Description:

Purchase office modular to provide office space at the city shop.



Project Benefit:

Currently, lead personnel do not have a place to conduct business which requires a desk and computer.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Construction		50						50		50
Total Project Costs - Inflated $		**50**						**50**		**50**
Project Funding Sources										
Revenue - Sewer		20						20		20
Revenue - Water		20						20		20
Transportation Benefit District		10						10		10
Total Project Funding - Inflated $		**50**						**50**		**50**
Project Timeline Phase										
Construction		Q1Q2Q3Q4								

Source: Capital Facilities Comprehensive Plan
Amounts in Thousands Inflated $

Renovation and Rehabilitation

Project Number: CFL-010NA **Historical Project Number**

Project Location: City-wide

Project Description:

Provide funding to make needed renovations to city building and facilities annually.

Project Benefit:

The allocation of funds annually will help to ensure City building and facilities stay in a well-kept condition.

	Prior Years Plan	2015 Estimate	2016 Estimate	2017 Estimate	2018 Estimate	2019 Estimate	2020 Estimate	6-Year Plan	Future Years Plan	Total Project
Project Cost Phase										
Construction				20	20	20	20	80		80
Total Project Costs - Inflated $				**20**	**20**	**20**	**20**	**80**		**80**
Project Funding Sources										
REET 1				20	20	20	20	80		80
Total Project Funding - Inflated $				**20**	**20**	**20**	**20**	**80**		**80**
Project Timeline Phase										
Construction				Q1Q2Q3Q4	Q1Q2Q3Q4	Q1Q2Q3Q4	Q1Q2Q3Q4			

Source: Capital Facilities Comprehensive Plan

Amounts in Thousands Inflated $