Six Year Comprehensive



Water Program 2010-2015

Prepared for:

City Council

April 19, 2010



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date printed: 3/18/2010

I. Introduction

The City of Spokane Comprehensive Plan

The first planning activities of the City of Spokane (City) in the early 1900s were centered on parks and transportation. From these beginnings, planning in Spokane has continued to grow in significance and usefulness. In 1968, the City adopted the first land use plan as one element of the comprehensive plan. The *1968 Land Use Plan* was updated in 1983. Over the years, topics in the comprehensive plan have expanded to include parks and open spaces, bikeways, water and wastewater facilities, shorelines and individual neighborhoods.

In 1990, the State of Washington enacted the Growth Management Act (GMA) that established rules for communities (such as the City of Spokane) to accomplish community planning. The City's most recent planning effort, the 2000 Comprehensive Plan (adopted in 2001 and updated in 2006), complies with the GMA rules and consists of goals, policies, maps, illustrations, and implementation strategies that state how the City should grow physically, socially and economically. The City's planning effort is termed "comprehensive" because it identifies the community's long-range plans for growth. The 2000 Comprehensive Plan consists of over 30 official documents that encompass all aspects of city activities.

Importantly, the GMA includes two provisions to ensure that the City follows Comprehensive Plan directives:

- 1. The City must regulate land use and development consistent with the plan; the zoning code, subdivision code, environmental ordinances, and the building code must follow the plan's intent.
- 2. The City must make capital budget decisions and capital project investments in conformance with the plan.

These two GMA rules give the new *Comprehensive Plan* a much higher level of importance in managing and guiding the City's growth and development than previous editions of the plan.

Capital Facilities Planning

As defined in the *Comprehensive Plan*, capital facilities and utilities support the physical development and growth of the city. Section 1.1 of the Comprehensive Plan states that the

"...city must make capital budget decisions and capital project investments in conformance with the plan."

Further, it states,

"In addition to ongoing needs for repair and maintenance, these lists of capital facilities include the immediate improvements necessary to support growth, in conformance with the Comprehensive Plan."

The *Comprehensive Plan* strives to contain and manage sprawl, and encourages investment of infrastructure in support of the managed growth areas, including focusing high intensity growth in specified Centers and Corridors and infill development in other areas of the City. Chapter 5--Capital Facilities and Utilities (CFU) of the *Comprehensive Plan* is intended "*to guide how these crucial services coordinate with and support the future growth and development of Spokane*." Spokane Horizons volunteers identified <u>Visions and Values</u> as being important in relation to Spokane's current and future growth. Those visions and values identified in Chapter 5 concerning CFU are:

- Public facilities and utilities will be provided concurrently with a growing population to meet the safety, utility, transportation, educational and cultural needs of residents.
- Ensuring good parks, schools, libraries and streets in the neighborhoods.
- Providing services and facilities as growth occurs.

The City's capital facility programs are part of the City's overall planning efforts as described in the table below:

Summary of Planning Efforts - City of Spokane					
Planning Effort	Period	Description			
Six-Year Comprehensive Programs	6 Year	Prepared annually to support and coordinate with the other planning efforts.			
Infrastructure Financial Planning	20 Year	Updated annually by City Utility Departments to balance rates and fees with estimated costs for maintenance and new construction.			
City Comprehensive Plan	20 Year	Updated every 5 years (last update in 2006) this document is mandated by State law to direct growth, development and expansion.			
Strategic Infrastructure Planning	50 – 100 years	The City does not presently have a Strategic Infrastructure Plan (SIP). Once created, the SIPs are usually updated every 5-10 years. The SIPs are useful because much of the underground infrastructure has an expected 50-100 year life.			

Goals and Policies

Goals and policies in Section 5.4 of the *Comprehensive Plan* provide details for planning and decision-making. In order to fully comply with the *Comprehensive Plan*, capital sewer, water, and street facilities planning must acknowledge and address at least five simultaneous goals:

- 1st. Adequate infrastructure for infill development must be provided.
- 2nd. Facilities must be constructed within the Urban Growth Area (UGA),
- 3rd. Infrastructure not to the detriment or in lieu of other development that is supportive of and necessary for designated Centers and Corridors.
- 4th. Existing facilities and infrastructure must be maintained and upgraded as needed.
- 5th. Facilities must be consistent with strategic system planning (50 to 100 years).

Occasionally for certain projects, the goals appear to be inconsistent or conflicting, particularly goals relating to the UGA and strategic planning (see above: second and fifth goals). For example, assume a water tank project is proposed in the next 6 years at a location not only outside the city limits, but also outside the Plan's UGA. This proposed water tank, together with its requisite transmission main system connection, appears to promote development outside the UGA, which would be a clear contravention of the Plan. However, this project is necessary to provide a relatively uniform water pressure throughout the water pressure zone, and the selected tank site meets the necessary engineering criteria of the Plan. Consistency of this water tank project is assured by the Plan's policies, which direct the City to apply strict limitations for allowing service connections outside the UGA:

"Any mains extended outside the city's UGA after May 31, 2001, shall be for the overall operational benefit and efficiency of the City of Spokane's water utility system. Such extensions shall be for transmission purposes only with no connections allowed except..." as specifically provided.

The Six-Year Comprehensive Programs

The City prepares and publishes six-year capital improvement programs annually for street, water, stormwater and sewer projects. They provide a blueprint for improving the City's infrastructure in a rational, coordinated, cost-effective manner. Each of the five distinct purposes of the Six-Year Comprehensive Utility Program is used as summarized in the table below:

	Purposes of the City's Six-Year Utility Program						
Purpose Description							
Efficiency	The City Utilities are "enterprise" activities that are managed like many successful businesses. A utility builds, operates and maintains infrastructure (pipes, buildings, pumps, etc.) to provide a service to customers. The fees charged to customers fund the utility activities, so that no City taxes are used to pay for utility operations. The Six Year Program provides the planning structure to construct and maintain the infrastructure in an orderly manner.						
Fiscal Prudence	The 20-year utility financial planning period and the Program are directly related in an attempt to promote a predictable and even cash flow for the Utilities. By matching improvement projects with cash flow and revenues, peak capital spending can be minimized; projects can be spread out to minimize costly short-term borrowing; and large fee increases can be avoided.						
Low-Cost Supplemental Funding	Grants and low interest loans are available from federal and state agencies for utility infrastructure improvements. These agencies require that projects proposed for funding are part of an approved capital improvement program, and the Program satisfies that requirement.						
Program Coordination	All Programs are closely coordinated with each other. This coordination allows efficient installation of utility improvements in conjunction with street projects and prevents costly multiple construction projects in the same area. In addition, each separate project is shared with Spokane County and state agencies to ensure that other public projects are consistent with City projects.						
Public Information	The Program is used by the public. Information contained in the Program supports redevelopment, private construction projects, and other City economic development activities.						

Six-Year Programs Annual Update Process

The Six-Year Comprehensive Sewer, Water and Street Programs are updated annually. New projects are added and completed (or cancelled) projects are removed from the programs during the annual update. Projects are added based on a need identified by one or more of the following sources:

<u>Utility maintenance and operations staff</u> identify infrastructure needing immediate replacement or upgrade based on observed conditions.

Adopted facility and management plans list projects needed for continued system operation.

<u>Other City projects</u> (such as street or bridge work) create an opportunity for cost-effective upgrades or facility replacements.

<u>Planning documents</u>, such as the City Comprehensive Plan, provide guidance on expansion and growth related projects.

<u>Regulatory agencies</u> (such as the Washington Department of Ecology and the Department of Health) have ordered improvements to the infrastructure system for public health and safety.

Updating the Six-Year Comprehensive Programs is an annual activity that begins immediately after the most recent plan is adopted. The adoption of the utility programs update is scheduled to compliment the City's budget process. The 2010-2015 Comprehensive Water Program was delayed to wait for the outcome of a commissioned Rate Study critical to determine revenue streams for the next six years. A summary of the process is provided below:

City of Spokane Six-Year Programs Schedule							
Activity Street Program Utility Progra							
Collect information from City staff & agencies	July-December	November-April					
Prepare rough draft (Draft 1) of Program for internal City review	January	May-June					
Prepare working draft (Draft 2) for coordination with budget; start environmental process (SEPA)	February-March	July					
Working draft presentations: Public Works Committee; Plan Commission workshop and hearing	April-May	August-September					
Pre-publication draft (Draft 3) is presented together with the Plan Commission recommendation to City Council	June	October					
Publish complete and approved Program	July	November					

<u>Note</u>: State law requires the six-year capital *street* program be completed by June 30 of each year.

Capital Projects

Criteria were established to distinguish maintenance projects from the capital projects included in the Six-Year Comprehensive Programs. Each project meets the following criteria:

- 1) The completed value of the project is at least \$70,000.
- 2) The expected useful life of the project is at least five years.
- 3) The completed project results in a physical fixed asset.

Further Information

For further information on the City's Six-Year Comprehensive Programs, please contact:

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CITY PLAN COMMISSION 808 W. SPOKANE FALLS BLVD. SPOKANE, WASHINGTON 99201-3329 (509) 625-6060 FAX (509) 625-6013

CITY PLAN COMMISSION FINDINGS OF FACT, CONCLUSIONS, AND RECOMMENDATIONS ON THE 2010-2015 SIX YEAR WATER PROGRAM

A Recommendation of the City Plan Commission certifying that the 2010-2015 Six Year Water Program is in conformance with the City of Spokane's Comprehensive Plan.

FINDINGS OF FACT:

- A. In May 2001, the City of Spokane adopted its Comprehensive Plan under the Growth Management Act (Chapter 36.70A RCW or "GMA").
- B. The City's Comprehensive Plan is required to be consistent with the GMA.
- C. The GMA requires that the City's annual Six Year Water Program shall be in conformance with the City's Comprehensive Plan.
- D. The 2010-2015 Six Year Water Program identifies capital project activity which has implications on the growth of the community.
- E. The City Plan Commission held a workshop on February 10, 2010, and also held a public hearing on March 10, 2010, to obtain public comments on the 2010-2015 Six Year Water Program.
- F. The City Council must receive a recommendation from the City Plan Commission to certify that the 2010-2015 Six Year Water Program is in conformance with the City's Comprehensive Plan in effect on the day of certification.

ACTION: Motion to accept the staff's Findings of Fact A through F.

CONCLUSIONS:

- A. The 2010-2015 Six Year Water Program has been prepared in full consideration of the City's Comprehensive Plan.
- B. The 2010-2015 Six Year Water Program has been reviewed by the City Plan Commission and found to be in conformance with the goals and policies of the City's Comprehensive Plan.

ACTION: Motion to accept conclusions A and B by staff as conclusions of the Plan Commission.

RECOMMENDATIONS:

- A. The Spokane City Plan Commission concludes that the 2010-2015 Six Year Water Program is in full compliance with the existing Spokane Comprehensive Plan as required by RCW 36.70A and RCW 35.77.010 and is recommended for adoption by the Spokane City Council.
- B. By a vote of <u>8</u> to <u>0</u>, the Plan Commission recommends the approval of these amended documents by the City Council.

Michael Ekins, President Spokane Plan Commission

3/10/2010 Date

RESOLUTION 2010-0025

WHEREAS, pursuant to the requirements of WAC 365-195-315 (as authorized by RCW 36.70A.190, Laws of the State of Washington) the City of Spokane has prepared a revised and extended Six-Year Comprehensive Water Program for the ensuing six years, 2010 through 2015; and

WHEREAS, the Spokane City Plan Commission, on March 10, 2010, following a public hearing, found the 2010-2015 Six-Year Comprehensive Water Program to be in full conformance with the City's Comprehensive Plan; and

WHEREAS, the City of Spokane utilizes state and federal grants and low-interest loans as appropriate to supplement its financial resources and such anticipated funding is incorporated in the Six-Year Comprehensive Water Program, 2010-2015; and

WHEREAS, pursuant to the above law, the City Council of the City of Spokane, being the legislative body of the City held a public hearing on the Six-Year Comprehensive Water Program at 6:00 p.m., at City Hall in Spokane, Washington, on the 26th day of April, 2010.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Spokane that the revised and extended Six-Year Comprehensive Water Program 2010 through 2015 is hereby adopted; and

BE IT FURTHER RESOLVED, that a copy of the revised and extended Six-Year Comprehensive Water Program for the six years 2010 through 2015, together with a copy of this resolution, be filed with the City Clerk, City of Spokane; and

BE IT FURTHER RESOLVED, that City staff be authorized to apply for state and federal grants and low-interest loans in support of projects as identified in the Six-Year Comprehensive Water Program, 2010-2015.

Adopted this 26th day of April, 2010.

Terri Pfister, City

Approved as to Form:

Assistant City Attorney



RES 2010-0025

II. Environmental Evaluation

Each project in this program has been evaluated for its environmental impacts, and an appropriate environmental classification has been given each item. The initial environmental assessment was made on the effect of the project to the local area and to the general public, taking into account such considerations as right of way acquisition, effect of clearing and grading, changes in natural drainage and possible disruptions to neighborhoods. Proposed projects have been indicated as having a "Not significant" environmental effect (designated by "CE" or "NS") or of requiring additional study (marked "ES" or "EA"). These projects for which additional study is indicated will be reviewed with particular attention to the sensitive areas at the time of preliminary design. At that time, a further declaration may be made before proceeding with the project.

For projects requiring an environmental impact statement, a formal inter-disciplinary team will be appointed. A hearing or advertising for hearing interest is required along with a community involvement plan. Items with state or local funds are classified in accordance with the SEPA Guidelines.

CE <u>Categorically Exempt</u> indicates that the proposal is not environmentally sensitive and no further action need be taken.

NS <u>Non-Significant</u> indicates the proposal will not have a significant adverse effect upon the quality of the environment, and an environmental-impact statement and a public hearing are not required. No further environmental documentation is required.

EA <u>Environmental Assessment</u> indicates that the proposal may or may not have a significant adverse effect on the quality of the environment and that further environmental investigation is needed.

ES <u>Environmentally Significant</u> indicates the proposal will have a significant adverse effect upon the quality of the environment. It is expected that additional documents will be needed that address environmental impacts.

If a program has been determined not to have a significant adverse impact upon the environment, a <u>Declaration of Non-Significance</u> is made, and an environmental impact statement is not required under RCW43.21C.030(2)(c). This decision is made after review of a completed environmental checklist and other information on file.

III. How to Use This Document

When a new project is added to the six-year program, it is assigned a unique tracking number. Once assigned, this tracking number stays with the project for its life, even if other project numbers are subsequently assigned for billing and internal tracking purposes. The tracking numbers are of the form:



IV. Project Reconciliation

As part of the Six Year Program update, the status of each project is reviewed. At times, various factors will cause delay in construction or require rescheduling of the project. Occasionally, a project will be rescheduled beyond the six year programming window. The Project Reconciliation is an attempt to resolve the scheduled construction and account for projects both removed and added to the program.

Completed Projects—Construction Will Be Final By The End Of 2009
W02R05 – Buckeye-Grace Ave Transmission Mains
W03C02 – North Five Mile Prairie Reservoir
W05R04 – Southeast Blvd., 29 th Ave. To Magnolia
W07B08 – North Five Mile Prairie Booster
W08B01 – West Drive Booster to Spotted Road Station
W08C01 – Fairchild AFB/West Plains Transmission Extension, Phase 2
W09B01 – Ray Street Well Upgrade
W09T05 – 37 th Avenue Transmission, Perry to Regal
W09B03 – Grace Ave Well Station Rehabilitation & Upgrade
Canceled Projects—Removed From The Capital Program
W09B05 – Lincoln Heights Building Rehabilitation (combined into one new project)
W09B06 – Lincoln Heights Annex Upgrade (combined into one new project)
W09B07 – Lincoln Heights Pump Station Inlet Piping (combined into one new project)
W09B13 – Bishop Court Booster Station Rehabilitation (evaluation of station determined rehabilitation not necessary at this time)
W09S04 – Lincoln Heights Reservoir Yard Piping (combined into one new project)
Canceled Projects—Construction From Maintenance Funds
W09S05 – Brown Park Reservoir Yard Piping
W09T11 – Birchwood Avenue & Nine Mile Road
2009 Projects Not Constructed—Delayed to 2010
W07T01 – Division, 8 th & 9th

Project Reconciliation (continued)

2009 Projects Not Constructed—Rescheduled 2011 to 2015
W09B08 – Indian Trails Area New In-line Booster (construct in 2011)
W09B09 – Plains System New Booster (construct in 2012)
W09P03 – Upriver Facility Remodel (construct in 2011)
W09S03 – Plains System Third Reservoir (construct in 2012)
Future ProjectsScheduled Beyond 2015
W05B01 – Hoffman Well Rehabilitation
W09B12 – 9th & Pine Booster Station Rehabilitation
W09B15 – West Supply Well
W09S01 – Plains System Second Reservoir
W09S06 – Shadle Additional Reservoir
W09T07 – Crestline, 37th to 57th Avenue
New Projects
W10B01 – Lincoln Heights New Booster Station and Yard Piping
W10B02 – Woodland Heights In-line Booster
W10T01 – Green Street Bridge Pipe Replacement

V. Financial Information

WATER & HYDROELECTRIC SERVICES ESTIMATED FUND BALANCE 2010 THROUGH 2015

	2010	2011	2012	2013	2014	2015
	BUDGET	Estimate	Estimate	Estimate	Estimate	Estimate
Operating Revenues:						
Utility Sales & Service Fees:	00.044.400	20 004 457	24.040.022	22.042.404	22.000.024	25 045 444
Water Sales & Fees	29,941,129	1 079 000	1 056 440	32,042,401	33,900,031	35,015,141
Power Sales	1,100,000	1,078,000	1,056,440	1,035,311	1,014,605	994,313
Coll Tower Site Lesse Boyerue	1,967,000	1,000,000	1,030,000	1,072,720	1,910,174	1,940,370
Cell Tower Sile Lease Revenue	400,000	412,000	424,300	437,091	430,204	403,710
Rental Income Bight of Woy Londsonn Maintonnes	99,500	99,500	99,500	99,500	99,500	99,500
	41 200	50,000	50,000	50,000	50,000	50,000
Total Operating Revenues	33 766 820	34 480 957	35 /33 132	36 / 87 083	37 582 514	38 721 042
Total Operating Revenues	33,700,029	34,400,937	33,433,132	30,407,003	57,502,514	30,721,042
Operating Expenses: (w/o Depreciation)						
Operations & Maintenance	19,880,011	20,575,811	21,295,965	22,041,324	22,812,770	23,611,217
Administration	1,875,830	1,941,484	2,009,436	2,079,766	2,152,558	2,227,898
City Taxes 20%	6,758,816	6,819,060	6,898,464	7,080,378	7,292,564	7,513,283
State Taxes	1,592,677	1,600,792	1,651,347	1,703,850	1,758,381	1,815,018
Operating Capital	3,165,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
Water Stewardship / Conservation	460,200	460,200	460,200	460,200	460,200	460,200
ROW & Other Non-OP J & C	1,200,227	1,230,233	1,260,988	1,292,513	1,324,826	1,357,947
Total Operating Expenses	34,932,761	36,127,580	37,076,400	38,158,031	39,301,299	40,485,563
Operating Income (loss)	(1,165,932)	(1,646,623)	(1,643,268)	(1,670,948)	(1,718,785)	(1,764,521)
Resources for Infrastructure						
General Facilities Charges	650 000	653 250	656 516	659 799	663 098	666 413
Interest Income	800,500	693 561	110 274	000,700	000,000	000,410
Sale of Assets	64 000	65 920	67 898	69 935	72 033	74 194
Public Works Trust Fund Loans	600,000	00,920	07,030	03,300	72,000	74,134
Contributed Capital	000,000	0	0	0	0	0
Total Resources for Infrastructure	2,114,500	1.412.731	834.688	729,734	735,131	740.607
	,,	.,	00 1,000	120,101	100,101	1 10,001
Expenditures for Infrastructure:						
Debt Service PWTF Loans	1,270,000	1,035,000	983,250	934,088	887,383	843,014
Other Dept	0	0	0	0	0	0
Capital Six Year Plan	11,771,000	16,224,000	29.914.000	12,345,000	7,629,000	5,000,000
Capital funding from 2000 correforward	201 000	,	20,01 ,000	,0 .0,000	.,020,000	0,000,000
Capital funding from 2009 carryforward	291,000	450.000	450.000	450.000	450.000	450.000
Reserve for Capital Outlay	150,000	150,000	150,000	150,000	150,000	150,000
Total Expenditures for infrastructure	13,482,000	17,409,000	31,047,250	13,429,088	8,000,383	5,993,014
Total Baseurees	25 001 220	25 002 600	26 267 820	27 246 947	20 217 645	20 461 640
Total Resources	30,001,329	30,093,000 F2 F26 F80	30,207,020	51,210,017	30,317,043	39,401,049
Total Expenditures	40,414,701	53,530,580	00,123,030	51,567,119	47,907,002	40,470,577
Cash Available - Increase (Decrease)	(12,533,432)	(17,642,892)	(31,855,830)	(14,370,302)	(9,650,037)	(7,016,928)
Cash Available - Beginning	28,361,137	15,827,705	(1,815,187)	(33,671,017)	(48,041,319)	(57,691,356)
Cash Available - Ending	15,827,705	(1,815,187)	(33,671,017)	(48,041,319)	(57,691,356)	(64,708,284)
Emorgoney Poserves						
Beginning Balance	3 500 000	3 500 000	3 500 000	3 500 000	3 500 000	3 500 000
	3,300,000	5,500,000	3,300,000	3,300,000	3,300,000	3,300,000
Subtractions						
	_	_	-	_	-	-
Total Reserve Balance:	3,500.000	3.500.000	3,500.000	3.500.000	3,500.000	3,500.000
	0,000,000	2,200,000	2,200,000	2,230,000	0,000,000	2,200,000
Total Cash Available & Reserves:	19,327,705	1,684,813	(30,171,017)	(44,541,319)	(54,191,356)	(61,208,284)

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PROGRAM SUMMARY

VI. Program Summary

The Six-Year Comprehensive Water Program (Program) provides a blueprint for improving the Water Department's infrastructure in a coherent, coordinated, and cost-effective manner. The Program is prepared in support of the City's overall planning efforts. All projects in the Program are intended to serve both the current and future needs, and they are programmed to provide a service life of 50 to 100 years. The Department's comprehensive maintenance program keeps the infrastructure operating at optimal levels and extends useful life. Planning for the future has proven to be a financial benefit for the citizens of the City.

The Program is organized into four elements: source well and booster pump stations, storage system improvements, distribution and transmission mains, and facilities and operations. Each element is described below. Projects within these elements are divided into individual and continuing projects. Projects that are individual and specific to one site are listed separately from continuing maintenance projects. While on-going maintenance projects with large capital expenditures are included in the comprehensive water program, minor maintenance work is completed under the utility's operation budget and will not be found in this document.

- <u>Source Well and Booster Pump Stations</u>: Source wells extract water from the Spokane Valley Rathdrum Prairie Aquifer, the city's sole source for drinking water. Booster pump stations move the water across distance and to storage facilities at higher elevations providing service throughout the city.
- <u>Storage Systems Improvements</u>: The city's water system has several varieties of tanks and reservoirs that provide water storage. These facilities are located throughout the City, and they serve the dual purposes of balancing customers supply needs and fire protection. Well and booster pump stations keep the tanks full and full tanks supply emergency storage. In addition tanks help equalize the water pressure in the entire system.
- <u>Distribution and Transmission Mains</u>: Pipes deliver water from the Aquifer to water customers. Large diameter pipes that transport water across the city to storage facilities are called transmission mains. Smaller diameter pipes that carry water to residences and businesses are called distribution mains.
- <u>Facilities</u>: In addition to operating and maintaining the water system, the city's water department is responsible for several facilities, including the Upriver Dam.

Water Department

The City of Spokane's Water Department is one of the best water utilities in the Pacific Northwest. It has a Class 1 fire rating, the highest possible, and the Water Department also has the highest possible operating rating. The City of Spokane has some of the highest quality and lowest cost drinking water in the state. The Water Department is an enterprise fund, which provides goods or services to the public for a fee and makes the entity self-supporting. The Water Department has an annual operating budget of over \$30 million with the major source of revenue coming from water sales. The 20 percent utilities tax is a major source of revenue to the City's general fund.

	Inousanas of dollars						
Project Element	2010	2011	2012	2013	2014	2015	Total
Source Well and Booster Pump Stations	2,466	2,262	3,485	350	380	1,420	\$ 10,363
Storage System Improvements	494	3,000	5,786	2,800	490	2,510	\$ 15,080
Distribution and Transmission Mains	8,405	4,155	8,741	3,792	5,501	2,467	\$ 33,061
Facilities and Operations	1,350	2,656	450	450	450	450	\$ 5,806
Yearly Total	\$12,715	\$12,073	\$18,462	\$7,392	\$6,821	\$ 6,847	\$ 64,310

Comprehensive Water Program Summary



SOURCE WELL AND BOOSTER PUMP STATIONS



VII. Source Well and Booster Pump Stations

The Source Well and Booster Pump Stations program element contains projects that supply water from the Aquifer to the water system throughout the city's water service area.

Source Well and Booster Pump Stations Summary

thousands of dollars							
Project	2010	2011	2012	2013	2014	2015	Total
Individual Maintenance and Rehabilitation Projects							
W00B07 - Shawnee Booster Station					30	320	\$ 350
W07B01 - Parkwater Well Station Upgrade	920						\$ 920
W07B02 - Well Electric Station Upgrade	85	950					\$ 1,035
W07B07 - Beacon Hill Booster Station	210						\$ 210
W08B02 - Central Avenue Station Rehabilitation	750						\$ 750
W09B02 - Hoffman Well Switchgear Upgrade	80						\$ 80
W09B04 - Central Avenue Station 2nd Well Rehabilitation						750	\$ 750
W09B08 - Indian Trails Area New In-line Booster	42	400					\$ 442
W09B09 - Plains System New Booster		51	500				\$ 551
W09B11 - Garden Park Booster Station Rehabilitation	29	250					\$ 279
W10B01 - Lincoln Heights New Booster Station and Yard Piping		215	2,200				\$ 2,415
W10B02 - Woodland Heights In- line Booster		46	435				\$ 481
Continuing Maintenance and Rehabilitation Projects							
W09B14 - Pump Maintenance and Repair	350	350	350	350	350	350	\$ 2,100
Yearly Totals	\$2,466	\$2,262	\$3,485	\$350	\$380	\$1,420	\$10,363



Source Well and Booster Pump Stations <u>Project Details-Individual Projects</u>

Project	Project Description						
W00B07 - Shawnee Booster	The existing booster station is located at 4400 W. Shawnee Avenue in northwest Spokane in an underground vault and is difficult to maintain. This project will relocate the booster station to an above ground building to improve operations and maintenance.						
Station	Construction Starts	System	Environmenta l	Design by			
	2015	Shawnee	CE	Engineering			
	Construction Budget	CM Budget	Design Budget	Property			
	\$30,000	\$30,000	Acquired				

W07B01 - Parkwater Well Station Upgrade	The existing well station was built in 1949 and is located at 5317 E. Rutter Avenue near the Upriver Dam. This project will upgrade the existing station pumps, motors, and switchgear to provide more pumping capacity and to improve the efficiency of the pumping. Two of the eight existing pumps and motors have been replaced. This project will replace four of the pumps and motors					
	Construction Starts	System	Environmental	Design by		
	2010	Intermediate	CE	Water		
	Construction Budget CM Budget Design Budget Property					
	\$760,000	\$80,000	\$80,000	Acquired		

	This 1925 well station is located at 2701 N. Waterworks Street, near the					
	Upriver Dam. This project will upgrade the existing station pumps and					
	motors to provide more pumping capacity (for system redundancy) and to					
	improve the efficiency of the pump motors. Two of the original four pumps					
W07B02 - Well Electric	This project will re	ill replace the				
Station Upgrade	remaining two pumps ar	nd motors.				
	Construction Starts	System	Environmental	Design by		
	2011	North Hill	CE	Water		
	Construction Budget CM Budget Design Budget Prope					
	\$1,760,000	\$170,000	\$170,000	Acquired		

W07B07 - Beacon Hill Booster Station	This project will construct a new booster station in the vicinity of Wellesley and Havana to provide for new development within the northeast portion of the City. The booster station will be located adjacent to the North Hills Reservoir. This project is being constructed as a shared interest between developers in the area and the Water Department. The developer will design and construct the pump station building and yard piping. The City will design and construct the pumps, motors and motor control centers. Funding			
	Construction Starts	System	Environmental	Design by
	2010	North Hill	EA	Engineering
	Construction Budget	CM Budget	Design Budget	Property
	\$210,000	\$170,000	\$170,000	Acquired

Source Well and Booster Pump Stations Project Details-Individual Projects (continued)

Project	Project Description					
	Central Avenue Well Sta	ation has two we	lls at opposite corr	ners of the site		
	located at Central Avenu	ue and Normandi	ie Street. The Nun	nber 1 well station		
	will be upgraded, overha	auled, rehabilitat	ed, and modernize	d with new pumps		
W08D02 Control Assess	and motors to provide m	ore pumping cap	pacity and to impro	ove the efficiency		
w08B02 - Central Avenue	of the pump motors for i	ncreased system	redundancy.			
Station Kenabilitation	Construction Starts	System	Environmental	Design by		
	2010	North Hills	CE	Water		
	Construction Budget CM Budget Design Budget		Design Budget	Property		
	\$750,000			Acquired		
	Hoffman Avenue Well s	tation motor con	trol equipment has	s reached the end		
	of its useful life. This project will upgrade the motor control center to					
	provide better control and more efficient operation. The well station is					
W09B02 - Hoffman Well	located at 2109 E. Hoffman Avenue (near Wellesley and Crestline.)					
Switchgear Upgrade	Construction Starts	System	Environmental	Design by		

vitchgear Upgrade	Construction Starts	System	Environmental	Design by
	2010	North Hill	CE	Water
	Construction Budget	CM Budget	Design Budget	Property
	\$80,000			Acquired

	Central Avenue Well Station has two wells at opposite corners of the site			
	located at Central Avenue and Normandie Street. The Number 2 well station			
W00B04 Control Avonuo	will be upgraded, overha	uled, rehabilitat	ed, and modernize	d with new pumps
Station 2nd Wall	and motors to provide m	ore pumping cap	pacity and to impro	ove the efficiency
Pahabilitation	of the pump motors for increased system capacity.			
Kenabilitation	Construction Starts	System	Environmental	Design by
	2015	North Hills	CE	Water
	Construction Budget	CM Budget	Design Budget	Property
	\$750,000			Acquired

Source Well and Booster Pump Stations Project Details-Individual Projects (continued)

Project	Project Description					
W09B08 - Indian Trails Area	A new booster station will be constructed in the Indian Trail Road area. The new booster station will improve water supply to the Indian Trail Reservoir by delivering water pressure. Although the exact location has not been determined, the Water Department is evaluating properties they currently own in the area to assess the possibility of constructing a booster station.					
New III-IIIe Booster	Construction Starts	System	Environmental	Design by		
	2011	Indian Hills	EA	Engineering		
	Construction Budget	CM Budget	Design Budget	Property		
	\$340,000	\$60,000	\$42,000	Needed		

W09B09 - Plains System	A new booster station will be constructed in the West Plains area. The new booster station will improve water service to the Plains Pressure System by providing redundancy and better water pressure. The exact location of this booster station has not been determined, but is needed in the vicinity of Highway 2 and Hayford Road. This booster station will fill a new reservoir in the same vicinity.				
	Construction Starts	System	Environmental	Design by	
	2012	Plains	EA	Engineering	
	Construction Budget	CM Budget	Design Budget	Property	
	\$449,000	\$51,000	\$51,000	Needed	

W09B11 - Garden Park	The Garden Park Booster Station, located at 2403 East 37th Avenue, was constructed in 1963 and needs rehabilitation to continue providing reliable service. The project will upgrade, overhaul, rehabilitate, and modernize the booster station with new pumps and motors to improve the efficiency and to				
	keep the water system operating at optimum performance.				
Booster Station Rehabilitation	Construction Starts	System	Environmental	Design by	
	2011	Тор	CE	Water	
	Construction Budget	CM Budget	Design Budget	Property	
	\$212,500	\$37,500	\$29,000	Acquired	

W10B01 – Lincoln Heights New Booster and Yard Piping	The Lincoln Heights Booster Station was built in 1931, with upgrades in 1953 and 1963. The buildings, pumps, motors and controls, and the on-site piping are all reaching the end of their useful life. In order to increase the efficiency and reliability, a new booster station will be built on the same site. After this new station is completed, the existing station will be taken off line. Four separate projects (W09B05 Lincoln Heights Building Rehabilitations, W09B06 Lincoln Heights Annex Upgrade, W09B07 Lincoln Heights Pump Station Inlet Piping, and W09S04 Lincoln Heights Reservoir Yard Piping)			
	have been combined into most efficient way to aff	o this one project fect the necessar	t because it was de v improvements	termined to be the
	Construction Starts	System	Environmental	Design by
	2012	High	CE	Engineering
	Construction Budget	CM Budget	Design Budget	Property
	\$1,985,000	\$215,000	\$215,000	Acquired

Source Well and Booster Pump Stations Project Details-Individual Projects (continued)

Project	Project Description.					
	A new booster station	will be constru	cted in the Wood	lland Heights		
	area. The new booster	r station will in	nprove water serv	vice to the		
	Woodland Heights Pre	essure System,	as well as supply	to the SIA		
	Pressure System, by p	roviding better	water delivery an	nd pressure. The		
W10B02 – Woodland	exact location of this booster station has not been determined.					
Heights In-line Booster	Construction Starts	System	Environmental	Design by		
	2012	Woodland Heights	CE	Engineering		
	Construction Budget	CM Budget	Design Budget	Property		
	\$389,000	\$46,000	\$46,000	Acquired		

Project Details-Continuing Maintenance

W09B14 - Pump Maintenance and Repair	The booster and well pumps operate on a continual basis. Pumps and motors require routine maintenance to operate efficiently and smoothly. This project provides for the maintenance and repair of existing pumps within the water system			
-	Construction Starts	System	Environmental	Design by
	On-going	All	CE	Water



STORAGE SYSTEM IMPROVEMENTS



VIII. Storage System Improvements

The Storage System Improvements element contains projects related to water storage, such as tanks and reservoirs. Storage supplies water and maintains system pressure.

thousands of dollars							
Project	2010	2011	2012	2013	2014	2015	Total
In	dividual S	Storage Sy	stem Imp	rovement	Projects		
W02S02 - Northwest Terrace Reservoir		130	1,470				\$ 1,600
W05S03 - Beacon Hill Reservoir (formerly East Wellesley)	194	2,240					\$ 2,434
W07S02 - Thorpe Road Reservoir No. 2					190	2,210	\$ 2,400
W09S01 - Plains System Second Reservoir		330	3,800				\$ 4,130
W09S02 - High System Additional Storage			216	2,500			\$ 2,716
Continuing Storage System Improvement Projects							
W05S02 - Tank and Reservoir Painting	300	300	300	300	300	300	\$ 1,800
Yearly Totals	\$494	\$3,000	\$5,786	\$2,800	\$490	\$2,510	\$15,080

Storage System Improvements Summary



Storage System Improvements <u>Project Details-Individual Projects</u>

Project		Project Des	cription			
	This project will construct a new reservoir within the Northwest Terrace					
	Pressure Zone (location	not yet determin	ed). When constru	icted, this		
W02502 Northerest Terms	1,000,000 gallon reserve	oir will reduce th	e need to rely sole	ly on pressure		
w02S02 - Northwest Terrace	reduction from higher pr	ressure zones to	provide water to th	is area.		
Reservoir	Construction Starts	System	Environmental	Design by		
	2012	NW Terrace	EA	Engineering		
	Construction Budget	CM Budget	Design Budget	Property		
	\$1,340,000 \$130,000 \$130,000 Need					
	This project will constru	ict one new 2.0 r	nillion gallon reser	voir east of		
	Wellesley and Havana to accommodate new development within the					
	northeast portion of the City. The City will be constructing one of the three					
W05002 Decem 111	anticipated reservoirs at the Beacon Hill site. The developer will construct					
w05503 - Beacon Hill	the access road as well as providing the land for reservoirs.					
Reservoir	Construction Starts	System	Environmental	Design by		
	2012	North Hill	EA	Water		
	Construction Budget	CM Budget	Design Budget	Property		
	\$1,852,000	\$194,000	\$194,000	Acquired		
				-		
	This project will constru	ict a second reser	rvoir next to the ex	isting one on		

	This project will construct a second reservoir next to the existing one on			
	Thorpe Road. The exist	ing reservoir ser	ves the Low pressu	are zone and the
	new 3.5 million gallon r	eservoir will pro	vide redundancy a	nd additional
W07802 Thomas Board	capacity for growth in th	e Spokane Inter	national Airport (S	IA) and Plains
Reservoir No. 2	pressure zones on the W	est Plains.		
		~ .		
	Construction Starts	System	Environmental	Design by
	Construction Starts 2015	System SIA/Plains	Environmental EA	Design by Water
	Construction Starts2015Construction Budget	System SIA/Plains CM Budget	Environmental EA Design Budget	Design by Water Property
	Construction Starts 2015 Construction Budget \$1,860,000	System SIA/Plains CM Budget \$190,000	Environmental EA Design Budget \$190,000	Design by Water Property Acquired

	This project will construct a new reservoir in the vicinity of Highway 2 and			
	Hayford Road. An exact location has not been determined. The purpose of			
	this project is to provide	storage to the w	estern portion of th	ne Plains Pressure
W00S01 Dising System	System, enhancing redu	ndancy and prov	iding additional ca	pacity for
W09501 - Plans System	increased water service	to the West Plain	18.	
Second Reservoir	Construction Starts	System	Environmental	Design by
	2012	Plains	EA	Engineering
	Construction Budget	CM Budget	Design Budget	Property
	\$3,230,000	\$570,000	\$330,000	Needed

Storage System Improvements <u>Project Details-Individual Projects</u> (continued)

Project	Project Description			
W09S02 - High System	This project will construct an additional reservoir in the High Pressure System. An exact location has not been determined. The purpose of this project is to provide storage, enhance redundancy and provide additional capacity for increased water service to the High Pressure System.			
Additional Storage	Construction Starts	System	Environmental	Design by
	2013	High	EA	Engineering
	Construction Budget	CM Budget	Design Budget	Property
	\$2,284,000	\$216,000	\$216,000	Needed

Project Details-Continuing Maintenance

Project	Project Description			
W05802 Tank and	This on-going project repaints selected tanks and reservoirs as needed.			needed.
W05S02 - Tank and	Construction Starts	System	Environmental	Design by
Reservoir Fainting	2010	All	CE	Water



TRANSMISSION AND DISTRIBUTION MAINS



IX. Transmission and Distribution Mains

Transmission and distribution improvements include the large diameter pipes (transmission) and smaller diameter pipes (distribution) that carry water from wells, booster stations and reservoirs to the water user.

thousands of dollars 2011 2014 2010 2012 2013 2015 Total Project **Individual Distribution and Transmission Main Projects** W00R08 - Euclid/Mayfair 390 4,510 4,900 **Transmission Main** W00T09 - Mission **Transmission Main**, Phase 140 1,560 1,700 Π W00T10 - 14th Avenue 25 250 275 Main Replacement W07T01 – Division from 800 800 8th & 9th Avenue W09T01 - 57th Avenue 122 1,271 1,393 from Regal to Glenrose Rd. W09T02 – Hartson-11th Avenue from Havana to 3,800 3.800 Sherman W09T03 - Regal Road from 37th to 57th Avenue 133 1,507 1,640 W09T04 - Manito Blvd. 1,356 110 1,246 from 14th to 33rd Avenue W09T06 - Hayford Road/Hwy 2 to Craig 249 2,800 3,049 Road/McFarlane Avenue W09T08 - Fiske Street from Lincoln Height Reservoir to 615 615 29th Avenue W09T09 -Perry St/33rd Avenue to Regal St/57th 2,549 204 2,345 Avenue W09T10 - Glenrose Rd./57th Ave. to 37th 2,580 2,580 Ave./Ray St.

Transmission and Distribution Mains Summary

Transmission and Distribution Mains Summary (continued)

thousands of dollars 2011 2012 2013 Project 2010 2014 2015 Total W09T12 – Elgin Street from Garland Ave to Shadle 40 408 448 Reservoir $W09T13 - 6^{th}$ Avenue from 98 1,100 1,198 Bishop Ct to Sunset Blvd W10T01 – Green Street Bridge Crossing 498 450 48 Replacement

Continuing Distribution and Transmission Main Projects

W00T08 - Water Main Upsizing Fund	75	75	75	75	75	75	450
W00T13 - Pipe Replacement	700	700	700	700	700	700	4,200
W00T15 - Miscellaneous Rehabilitation	185	185	185	185	185	185	1,110
W08P01 - Street Bond Infrastructure Upgrade	100	100	100	100	100		500
Totals All Projects	\$ 8,405	\$ 4,155	\$ 8,741	\$ 3,792	\$ 5,501	\$ 2,467	\$33,061



Distribution and Transmission Mains <u>Project Details-Individual Projects</u>

Project	Project Description				
	This project will replace about 2.9 miles of old (about 100 years old) 24-inclusteel transmission main with 30-inch ductile iron pipe.				
W00R08 - Euclid/Mayfair	Construction Starts System Environmental D				
Transmission Mains	2012	North Hill	CE	Engineering	
	Construction Budget	CM Budget	Design Budget	Property	
	\$3,900,000	\$610,000	\$390,000	Right-of-way	

	This project will replace about 1.5 miles of aging (about 100 years old) 30- inch diameter transmission main in the northeast portion of the City.			
W00T09 - Mission	Construction Starts System Environmental Des			
Transmission Main, Phase II	2011	Low	EA	Engineering
	Construction Budget	CM Budget	Design Budget	Property
	\$1,400,000	\$160,000	\$140,000	Right-of-way

W00T10 - 14th Avenue Main	This project will replace old sections of transmission main in 14th Avenue. Originally, relining the existing transmission main was proposed; however, a more cost effective construction method of replacement was determined to be feasible.			
Replacement	Construction Starts	System	Environmental	Design by
*	2011	High	CE	Water
	Construction Budget	CM Budget	Design Budget	Property
	\$212,500	\$37,500	\$25,000	Right-of-way

W07T01 Division from 9th	This project will replace three 24-inch and larger diameter old pipes located under a hospital between 8th Avenue and 9th Avenue near Division Street. A new pipe will be routed around the hospital.			
$w_0/101 - Division from 8tn & 0th Avenue$	Construction Starts	System	Environmental	Design by
& 9th Avenue	2010	Intermediate	CE	Engineering
	Construction Budget	CM Budget	Design Budget	Property
	\$680,000	\$120,000	\$56,000	Right-of-way

W09T01 - 57th Avenue from	This project replaces about 1.1 miles of 30-inch steel transmission main with 30-inch ductile iron pipe in the southeast portion of the City. The steel pipe has reached its useful service life and will be replaced as a part of preventive maintenance.			
Regal to Glenrose Rd.	Construction Starts	System	Environmental	Design by
	2012	Тор	CE	Engineering
	Construction Budget	CM Budget	Design Budget	Property
	\$1,080,350	\$190,650	\$122,000	Right-of-way

Distribution and Transmission Mains Project Details-Individual Projects (continued)

Project	Project Description			
W09T02 – Hartson-11th Ave, from Havana to Sherman	This project replaces over three miles of 48-inch and 36-inch steel transmission main with 48-inch ductile iron pipe. The pipe route begins at Havana Road and follows Hartson Avenue to Myrtle Road and then south to 11th Avenue. The alignment continues on 11th Avenue to North Altamont Blvd, 9th Avenue from Crestline Road to Hatch Road and 8th Avenue to Sherman Road. The steel pipe has reached its useful service life and will be replaced as a part of preventive maintenance.			
	Construction Starts	System	Environmental	Design by
	2010	Low	CE	Engineering
	Construction Budget	CM Budget	Design Budget	Property
	\$3,230,000	\$570,000	\$380,000	Right-of-way

	This project replaces about 1.3 miles of 30-inch steel transmission main with			
	30-inch ductile iron pipe	in Regal Road f	rom 37th Avenue to 5	7th Avenue.
	The steel pipe has reache	ed its useful servi	ice life and will be rep	placed as a
W09T03 - Regal Road from	part of preventive maintenance.			
37th to 57th Avenue	Construction Starts	System	Environmental	Design by
	2015	Тор	CE	Engineering
	Construction Budget	CM Budget	Design Budget	Property
	\$1.330.000	\$177.000	\$133.000	Right-of-way

W09T04 - Manito Blvd. from	This project replaces about 1.3 miles of 24-inch steel transmission main with 24-inch ductile iron pipe. The pipe route follows Manito Boulevard from 33rd Avenue to 21st Avenue, through Manito Park to 17th Avenue, and in Tacoma Street to 14th Avenue. The steel pipe has reached its useful service life and will be replaced as a part of proventive maintenance.					
14th to 33rd Avenue	Construction Starts	System	Environmental	Design by		
	2012	High	CE	Engineering		
	Construction Budget	CM Budget	Design Budget	Property		
	\$1,100,000	\$146,000	\$110,000	Right-of-way		

W09T06 - Hayford	This project will construct a 36-inch ductile iron pipeline to connect Fairchild Air Force Base with the two new reservoirs in the Plains Pressure System. The actual alignment will be determined by the two new reservoir sites.					
MaEarlana Ayanya	Construction Starts	System	Environmental	Design by		
McFarlane Avenue	2014	Plains	EA	Engineering		
	Construction Budget	CM Budget	Design Budget	Property		
	\$2,490,000	\$310,000	\$249,000	Right-of-way		

Distribution and Transmission Mains <u>Project Details-Individual Projects (continued)</u>

Project	Project Description					
W09T08 - Fiske Street from	This project will replace a 36-inch steel pipe with ductile iron pipeline in Fiske Road from Lincoln Heights Reservoir to 29th Avenue. The steel pipe has reached its useful service life and will be replaced as a part of preventive maintenance.					
	Construction Starts	System	Environmental	Design by		
29th	2011	High	CE	Water		
	Construction Budget	CM Budget	Design Budget	Property		
	\$550,000	\$65,000	\$55,000	Right-of-way		

W09T09 -Perry St/33rd Avenue to Regal St/57th	This project replaces about 2.5 miles of 18-inch and 24-inch steel transmission main with 24-inch ductile iron pipe in Perry Street from 33rd Avenue to 53rd Avenue, in an easement to 57th Avenue to Regal Street. The steel pipe has reached its useful service life and will be replaced as a part of preventive maintenance				
Avenue	Construction Starts	System	Environmental	Design by	
	2013	Тор	CE	Water	
	Construction Budget	CM Budget	Design Budget	Property	
	\$2,050,000	\$295,000	\$204,000	Right-of-way	

W09T10 - Glenrose Rd./57th Ave. to 37th Ave./Ray St.	This project replaces about 0.5 miles of 18-inch steel transmission main with 24-inch ductile iron pipe from Glenrose Road and 57th Avenue to Havana Road and 49th Avenue. The steel pipe has reached its useful service life and will be replaced as a part of preventive maintenance. The new pipe will complete a transmission main loop, increasing reliability and the ability to meet customer demand.					
	Construction Starts	System	Environmental	Design by		
	2010	Тор	CE	Water		
	Construction Budget CM Budget Design Bud			Property		
	\$2,190,000	\$329,000	\$219,000	Right-of-way		

W09T12 - Elgin Rd. from Garland Ave. to Shadle	This project replaces approximately 2,250 feet of 24-inch steel transmission main with 24-inch ductile iron pipe in Elgin Street from Garland Avenue to the Shadle Reservoir located at Wellesley Avenue and Belt Road. The steel pipe has reached its useful service life and will be replaced as a part of preventive maintenance.				
Reservoir	Construction Starts	System	Environmental	Design by	
	2014	Low	CE	Engineering	
	Construction Budget CM Budg		Design Budget	Property	
	\$360,000	\$48,000	\$40,000	Right-of-way	

Distribution and Transmission Mains <u>Project Details-Individual Projects (continued)</u>

Project	Project Description					
	This project replaces approximately one mile of 30-inch steel transmission main with 30-inch ductile iron pipe in 6th Avenue from Bishop Court to Sunset Boulevard. The steel pipe has reached its useful service life and will					
W09T13 - 6th Avenue,	be replaced as a part of j	preventive mainte	enance.			
Bishop Court to Sunset Blvd	Construction Starts	System	Environmental	Design by		
	2014	Low	CE	Engineering		
	Construction Budget	CM Budget	Design Budget	Property		
	\$960,000	\$140,000	\$98,00	Right-of-way		

	The water line contained within Green Street Bridge is suspected to be leaking. A new water main will be constructed to replace the existing main.				
W10T01 – Green Street	Construction Starts	System	Environmental	Design by	
Bridge Crossing Replacement	2012	Low	EA	Engineering	
	Construction Budget	CM Budget	Design Budget	Property	
	\$382,500	\$67,500	\$48,000	Right-of-way	

Distribution and Transmission Mains <u>Project Details-Continuing Projects</u>

Project	Project Description					
	Fund to pay f	or up-sizing new	distributio	n mains installed by c	levelopers to	
W00T08 - Water Main	the sizes need	led for future tran	smission c	apacity purposes as in	dentified in the	
Unsiging Fund	Water Compr	ehensive Plan.				
Opsizing Fund	Start Year	System	Use	Environmental	Design by	
	2010	All	Distr	CE	Water	
	This on-going	g project is an effe	ort to repla	ce about 2.5 miles of	old galvanized	
W00T13 - Kalamein Pipe	steel (Kalame	in) pipe in the Ci	ty.		-	
Replacement	Start Year	System	Use	Environmental	Design by	
	2010	All	Distr	CE	Water	

W00T15 - Miscellaneous	This on-going recent discove	recent discoveries during routine maintenance.					
Rehabilitation	Start Year	Design by					
	2010	All	_	CE	Water		

W08P01 - Street Bond Infrastructure Upgrade	The Water De including the facilities are r facilities for u pipes in poor upgrades are r improvement.	epartment coordin City's 10-year str near these street b upgrade or replace condition, or for funded through th . The street bond	nates with or reet bond in bond project ement, such future need his project a projects a	other City infrastructu nprovements. When ts, the Department ev h as replacement of ag ls. These facility repl as a contribution to th re scheduled through	are work, water aluates these ging mains, lacements and le street bond 2014.
	Start Year	System	Use	Environmental	Design by
	2010	All	-	CE	Water



FACILITIES AND OPERATIONS



X. Facilities and Operations

The Water Department is responsible for several facilities including the Upriver Dam and the Upriver Facility. On-going Operating Projects are necessary to keep the system running smoothly.

thousands of dollars								
Project	2010	2011	2012	2013	2014	2015	Total	
Individual Facilities Projects								
W09F02 - Upriver Dam Spillway Rehabilitation	500						300	
W09F03 - Upriver Facility Remodel	400	2,206					2,606	
(Continuing	Facilities	and Oper	ations Pro	jects			
W00F04 Water Operations Facility Upkeep	100	100	100	100	100	100	600	
W07F01 - On-Going SCADA System Improvements	50	50	50	50	50	50	300	
W07F05 - Remote Meter Reading Upgrades	300	300	300	300	300	300	1800	
Totals	\$1,350	\$2,656	\$450	\$450	\$450	\$450	\$5,806	

Facilities and Operations Summary



Facilities and Operations <u>Project Details-Individual Projects</u>

Project	Project Description			
W00E02 Haring Days	The concrete in the Upriver Dam Spillway is deteriorating due to age. This project will repair the existing concrete at the spillway.			
w09F02 - Opriver Dam	Construction Starts	Use	Environmental	Design by
Rehabilitation	2010	Facility	EA	Water
	Construction Budget	CM Budget	Design Budget	Property
	\$500,000			Acquired

W09F03 - Upriver Facility Remodel	The Upriver Facility, wh and hydroelectric system 1920's, and much of the is still intact and historic other than small, piecem would update the facility including new office spa interpretive center, and serve all City users; dran energy systems; and pre architecture.	hich houses the op ns, was constructed original Victoria cally significant. heal, and disjointed y to meet current aces; improved ac displays; a large 1 matic improveme serve, feature and	perations center for the ed from the late 1800 in Romanesque Reviv It has not been altered ed projects. This reno and future operationa commodations for vis- meeting and conference nts to building infrast I restore the historic b	e City's water 's to the ral architecture d since then vation project l needs - sitors, an ce center to ructure and puilding's
	Construction Starts	Use	Environmental	Design by
	2011	Facility	CE	Water
	Construction Budget	CM Budget	Design Budget	Property
	\$1,875,100	\$330,900	\$400,000	Acquired

Project Details-Continuing

Project	Project Description				
W00F04 Water Operations	This on-going project provides needs for office, warehouse, shop and yard facilities.				
Facility Upkeep	Start Year	System	Use	Environmental	Design by
	2010	All	Operation	CE	Engineering

W07F01 - On-Going SCADA System Improvements	The term SCA Acquisition." reservoirs, we central monito project provid SCADA syste	ADA is the ad All of the m ells, etc.) hav pring as well les on-going em.	cronym for "Su nain water syste e electronic mo as control of th system improv	pervisory Control An em elements (booster ponitoring capabilities the water system opera- ements to the Water I	d Data stations, that allow a ttion. This Department's
	Start Year	System	Use	Environmental	Design by
	2010	All	Operation	CE	Engineering

W07F05 - Remote Meter	This on-going project provides for modern upgraded equipment so meter readers can obtain water usage data in the most efficient manner possible.				
Reading Upgrades	Start Year	System	Use	Environmental	Design by
	2010	All	Operation	CE	Water



XI. Planning and Support Projects

These programs and studies are important to the capital projects in the six year program, however they do not meet the criteria for capital improvements.

Project	Description
Long-term Infrastructure Sustainability Assessment	The Public Works Strategic Infrastructure Planning Study will analyze the City of Spokane's ability to provide utility infrastructure to support both future demands of our existing infrastructure and infrastructure needs of future growth as guided by the City's Comprehensive Plan. The Study will develop an action plan to address the impacts of infrastructure replacement, population growth, and densification for a 50-year planning horizon. Components of the study will include water, wastewater and stormwater infrastructure coordinated with transportation planning efforts. Each department will fund a portion of the study. The Study will answer "What major infrastructure improvements will be necessary to serve the City's entire Service Area in the next 50 years?" This work will be completed by a consultant under the direction of City staff.

Infrastructure Management	This is an on-going project to implement a computerized system to improve
System	maintenance management and inventory.

Wellhead Protection	This project provides for the on-going protection of the Aquifer at wellhead
Program	locations as mandated by the Federal and State governments.

Water Conservation Program	This on-going project supports implementation of the City's Water Stewardship Program in accordance with State conservation guidelines and
	requirements.