Six Year Comprehensive
Water Program

2009-2014

Prepared for:

City Council

March 30, 2009

City of Spokane, Washington

04/01/09

AGENDA SHEET FOR COUNCIL MEETING OF: March 30, 2009

RECEIVED
MAR 19 2009
CITY CLERK'S OFFICE
SPOKANE, WA

CITY OF SPOKANE

Submitting Dept.	Contact Person/Phone No.	Council Sponsor
Public Works and Utilities	Jim MacInnis/625-6310	Public Works Committee

ADMINISTRATIVE SESSION
- o Contract
- o Report
- o Claims

LEGISLATIVE SESSION
- o Emergency Ord
- • Resolution
- o Final Reading Ord
- o First Reading Ord
- o Special Consideration
- o Hearing

CITY PRIORITY
- o Communications
- o Economic Development
- o Growth Management
- o Human Services
- o Neighborhoods
- o Public Safety
- o Quality Service Delivery
- o Racial Equity/Cultural Diversity
- • Rebuild/Maintain Infrastructure

CLERK'S FILE PRO 2009-0005
RENEWS
CROSS REF
ENG
BID
REQUISITION

STANDING COMMITTEES (Date of Notification)
- o Finance
- o Neighborhoods
- o Planning/Community & Econ Dev
- o Public Safety
- o Public Works 11/10/08

Neighborhood/Commission/Committee Notified:

Action Taken:

AGENDA WORDING: (If contract include the term.)
Adopt the Six-Year Comprehensive Water Program, 2009-2014 (Various Neighborhood Councils)

BACKGROUND: (Attach additional sheet if necessary)
Each year the City updates its Six-Year Comprehensive Water Program, which must be submitted to the City Council for adoption.

RECOMMENDATION:
Adopt the 2009-2014 Six-Year Comprehensive Water Program and authorize staff to apply for State and Federal grants and low-interest loans in support of projects as identified in said Program.

Fiscal Impact o N/A	**Budget Account:** o N/A
o Expenditure: $	#
o Revenue: $	#
• Budget Neutral	

ATTACHMENTS:
Include in Packets: Resolution, Plan Commission recommendation
On file for Review in Office of City Clerk: Presentation copy of the Water Program

SIGNATURES:

Capital Programs Manager

Director, Public Works & Utilities

Accounting

Legal

Deputy Mayor for Mayor

Council President

Director, Water Department

DISTRIBUTION: Engineering Services, S Decker; Capital Programs, J Mercer; Public Works & Utilities, C Thacker; Water Department, F Triplett; Water Department, J Shaw

2008014\6 yr water comp plan 09-14

COUNCIL ACTION:

ADOPTED BY
SPOKANE CITY COUNCIL:
March 30, 2009
Acting CITY CLERK

IZES 2009-0016

RESOLUTION 2009-0016

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, 2009 through 2014; and

WHEREAS, the Spokane City Plan Commission, on November 12, 2008, following a public hearing, found the 2009-2014 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, 2009-2014; 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 15th day of December, 2008.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Spokane that the revised and extended Six-Year Comprehensive Water Program 2009 through 2014 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 2009 through 2014, 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, 2009-2014.

Adopted this 30th day of March 2009.

ACTING CITY CLERK: LAURIE FARNSWORTH

Approved as to Form:

Assistant City Attorney

CITY OF SPOKANE WASHINGTON

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

PRO 2009-0025

CITY PLAN COMMISSION RECOMMENDATION

A Recommendation of the City Plan Commission certifying that the 2009-2014 Six Year Comprehensive Water Program is in conformance with the City of Spokane's Comprehensive Plan.

WHEREAS the Washington State Growth Management Act requires that the City's annual Six Year Capital Facilities Finance Programs be in conformance with the City's Comprehensive Plan, AND

WHEREAS the 2009-2014 Six Year Water Program has been prepared in full consideration of the City's "Comprehensive Plan", AND

WHEREAS the Six Year Water Program is presented to identify capital project activity which has implications on the growth of the community, AND

WHEREAS the 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 2001 Comprehensive Plan,

WHEREAS the City Plan Commission held a workshop on October 22, 2008 and a public hearing on November 12, 2008, to obtain public comments on the Six Year Water Program, AND

WHEREAS the City Council must receive a recommendation from the City Plan Commission to certify that the 2009-2014 Six Year Water Program is in conformance with the City's Comprehensive Plan.

NOW THEREFORE BE IT RESOLVED by the Spokane City Plan Commission that the 2009-2014 Six Year Water Program is in full compliance with the Spokane Comprehensive Plan as required by RCW 36.70A.070.

PASSED THIS 12TH DAY OF NOVEMBER 2008.

Michael J Ekins

MICHAEL EKINS, PRESIDENT
SPOKANE CITY PLAN COMMISSION

RES 2009-0016

CITY OF SPOKANE

CITY PLAN COMMISSION
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SPOKANE, WASHINGTON 99201-3329
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Michael J Ekins

MICHAEL EKINS, PRESIDENT
SPOKANE CITY PLAN COMMISSION

Contents

Welcome

Welcome to the City's 2009-2014 Six-Year Comprehensive Water Program. This document is organized into three parts: Narration and Background, Project Summary Sheets, and Project Detail Sheets. The information contained herein represents City staff's best projections for new and continuing water system capital projects. Please feel free to explore this document. If you have any questions, please contact the City of Spokane, Public Works and Utilities, Capital Programs and GIS at (509) 625-6398.

Water Department

The Water Department is an enterprise fund which operates like a business with an annual budget of over $34 million. Over 75,000 water customers are served by the Department's 165 employees. Our 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 Department also has the highest possible operating rating.

The mission of the Water Department is to provide quality service and provide reliable water of excellent quality to each customer at the quantity needed for the most affordable price possible. Water must be available at all times for domestic, commercial, industrial, irrigation and fire control uses.

The primary water service infrastructure consists of:

- 7 well stations
- 22 booster stations
- Over 100 million gallon capacity
- Almost 1000 miles of water mains ranging in size from 4-inch to 48-inch
- Over 6,600 fire hydrants and 15,000 valves.
- The Upriver Hydroelectric Facility which supplies the power needed for the system's water pumps.

Critical issues requiring continuous attention for the Water Department to fulfill its mission are:

- Funding for necessary capital projects that minimizes rate impacts to citizens; these projects include both replacement of worn out infrastructure as well as new projects needed to accommodate growth and provide system redundancy.
- Participating in regional efforts for aquifer investigations, education and conservation.
- Supporting wellhead protection and monitoring the water system so that high quality water is always delivered to each customer.
- Addressing growth management and water right issues.
- Staffing operation and maintenance programs for the entire system including meter reading, meter maintenance, leak control, yearly hydrant and valve checks, cross connection and backflow prevention, new service connections, warehousing, engineering, accounting and customer service.

Comprehensive Water Program

The Six-Year Comprehensive Water Program provides a blueprint for improving the Water Department's infrastructure in a coherent, coordinated, cost-effective manner. The Six-Year Comprehensive Programs are prepared in support of the City's overall planning efforts.

The Six-Year Comprehensive Water Program is organized to four parts: "Source Well and Booster Pump Station", "Storage System", "Distribution and Transmission", and "Planning and Support". All projects in the Program are intended to address both the current need and the needs of the future. All projects placed in the Program must be designed to serve 50 to 100 years from now. Planning for the future has proven to be a financial benefit for the citizens of the City.

Rehabilitation Elements

The Comprehensive Plan requires the City to provide operational efficiency by, among other methods, increasing the life expectancy of existing facilities, i.e. planning for future needs. Rehabilitation and replacement activities focus on updating the existing water system. The Water Department's infrastructure is made up of wells, booster stations, storage tanks (reservoirs), pipes, hydrants, valves, the Upriver Hydroelectric Dam and the water system control center. The following is a description of typical rehabilitation and maintenance projects.

Wells:

- The pumps that pull the groundwater from the well and supply the City's water system wear out over time and need replacing. All replacement pumps are sized to handle both the existing and future needs for the service area.
- Well shafts are relatively maintenance free although periodically they require maintenance of structural elements and cleaning.
- The City's wells, booster station pumps and reservoirs are controlled from the control center located at Upriver Dam. The technology that controls the well pumps is updated and replaced as needed.
- Each well pump has a meter to measure the amount of water pumped. This equipment needs periodic replacement and upgrading.

Booster Stations:

- Over time booster station pumps wear out and are replaced. All replacement pumps are sized to handle both the existing and future needs for the service area.
- Many of the original motors that run the pumps continue in service and operate at a lower efficiency than modern electric motors. The older motors are replaced with new, highly efficient motors for operation cost savings.
- Occasionally booster stations are relocated to provide better pumping efficiency. Relocating booster stations is usually the result of changes to the water system either "up" or "down" stream of the station. The reuse of existing equipment is a cost savings.

Storage Tanks (Reservoirs): Tanks and reservoirs are drained for repair and for repainting the interior and exterior walls. This periodic work protects against deterioration and failures.

Pipes: Much of the Department's rehabilitation program focuses on replacing old pipe. When the City was founded, pipes were made from burned out or hollowed trees (hence the words trunk and branch lines). After ideally sized trunks and branches were no longer readily available strips of boards were used to form pipes using steel wire to hold them together. This pipe material (wood) was good for a number of years, but it certainly did not last forever. As technology has advanced so has pipe material. A majority of the City's older pipes in the ground today are made from riveted steel or a thin walled steel called Kalamein. Both these materials like the original wooden pipes lasted for a number of years, but eventually exceeded their useful life. For example, riveted steel pipe over time begins to weaken at the rivets causing leaking and has resulted in ruptures (unzipping at the rivets) in some areas. The remaining Kalamein pipe, still in service with its thin wall construction, is also due for replacement. Ductile iron is the current industry standard for water pipe material and, due to its long life and durability, is the pipe material standard adopted by the Water Department. It has a manufacturer's stated useful life of 50 to 75 years although the Water Department feels it will last at least 100 years.

Upriver Hydroelectric Dam:

- As a power generating facility built for the purpose of powering all the pumps needed in the water system, the dam has regular rehabilitation and replacement needs.
- Rebuilding or replacement of generators, impellers and control systems on a periodic basis is needed.

Hydrants and Valves: The goal of Water Department crews is to "exercise" (i.e. open and close) every hydrant and valve each year to ensure they are operating properly. Any rehabilitation or replacement is done on an ongoing basis.

Economic Growth Elements

The Capital Improvements for new facilities are driven by customer growth (both residential and commercial). All growth related projects must meet the requirements of both the Growth

Management Act and the City's Comprehensive Plan. Capital Improvement projects generally consist of wells, booster stations, storage tanks (reservoirs) and pipes. It should be noted that historically, the Water Department typically constructs and pays for the transmission portion (i.e. wells, booster stations, transmission pipelines and reservoirs) of any capital improvements. Once the transmission portion of the water system is in place, then the developer typically constructs the distribution (i.e. distribution pipelines, hydrants, water valves, meters, etc) of the system. However it is not unusual for the developer, through agreements with the City, to build all or part of a transmission line when the developer's timeline needs don't match the City's construction schedule.

Wells: The Water Department has 7 well stations which have served the City for a number of years. The last well constructed for the Water Department was completed in 1960. The Water Department estimates a new well won't be needed until 2015 - 2025 based on current usage, future needs and conservation programs.

Booster Stations: New booster stations are placed for a number of reasons. They can be part of a new portion of a system when a new tank is built that creates a new pressure zone.. Or, due to an increase in connections to the transmission line, the pressure needs to be increased, a new booster station will be installed.

Storage Tanks (Reservoirs): New reservoirs are placed when development occurs at elevations that are higher than the existing reservoirs in the area. They are also needed when the population in an area currently served increases to the point where the existing tank can no longer meet the needs of the customers and still hold the required amount of water for fire protection.

Pipe: Water pipe has two system functions: transmission and distribution. Transmission mains typically do not have customer connections; they just move water between two points. Distribution lines dispense water to customers and are typically constructed by developers.

- When constructing new pipe results in another path or loop for the water to travel between two points, the new pipe is providing system reliability. This looping in a water system increases reliability. For example when a pipe bursts, if the broken portion is isolated by closing off valves, sufficient looping in the system will allow water to still reach a majority of the customers as well as maintain flows for emergency services (even with the broken pipe out of commission).
- Increased looping also increases the quantity of water that can be delivered to customers.
- Water quantity to an area can also be increased by increasing the size of pipe. For example, at a given pressure, a 24 inch pipe will carry four times the amount of water that a 12 inch pipe can carry.
- When there is an increased demand for water in an area, the Water Department may have the option of increasing the looping in the system, increasing the size of the pipe or both to meet the demand.

The Comprehensive Plan

The City's first planning activities 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) 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 thirty 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 current Comprehensive Plan a much higher level of importance in managing and guiding the city's growth and development than previous editions of the plan. As defined in the Comprehensive Plan, Capital facilities and utilities are services and facilities that support 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 it also encourages investment of infrastructure in support of the managed growth areas including focusing high intensity growth in Centers and Corridors and in infill development in other areas of the City.

Section 5.4 of the Comprehensive Plan addresses certain goals and policies for indicating desired directions, accomplishments, or aims in relation to the growth and development of Spokane. An important but subtle provision is included in CFU 1.2, Operational Efficiency. This powerful provision requires "*...the development of capital improvement projects that either improve the city's operational efficiency or reduce costs by increasing the capacity, use, and/or life expectancy of existing facilities.*" The concept of increasing the use of existing facilities implies – requires – a more dense development pattern, and not the physical extension of services to more consumers.

Simply stated, maximizing the utilization of existing facilities reduces future capital costs by eliminating or delaying the need to expand the system in response to internal perimeter growth or external sprawl, and lowers the unit cost of service delivery by distributing capital and certain operational costs over a larger customer base.

Full realization of the CFU 1.2 goal, however, is akin to considering the "chicken or the egg" paradox. Obviously, the cost "savings" cannot be realized unless a more dense development pattern occurs. However, the mere existence of the infrastructure cannot of itself assure denser development without additional incentives. For just this reason, the sewer and water utilities have included a provision in their budgets to eliminate the general facilities charge (GFC) for all areas within the state-designated Community Empowerment Zone. This GFC infill incentive program provides a financial stimulus for developing or redeveloping within currently underutilized areas of the city.

In order to fully comply with the Comprehensive Plan, capital sewer, water, and street facilities planning must acknowledge and address two apparently conflicting goals: facilities must be constructed within the Urban Growth Area (UGA), and facilities must be consistent with strategic system planning (50 to 100 years). Resolution of this apparent conflict is found in CFU 3.6, which allows transmission facilities outside the UGA, but prohibits <u>service</u> outside the UGA from those facilities.

Six-Year Programs and The Comprehensive Plan

The City of Spokane prepares and publishes the Six-Year Capital Improvement Programs (CIPs) annually for street, water and sewer projects. These programs are termed the Six-Year Comprehensive Sewer Program; Six-Year Comprehensive Water Program; and the Six-Year Comprehensive Street Program. These programs provide a blueprint for improving the City's sewer, water and transportation infrastructure in a coherent , coordinated, cost-effective manner. The Six-Year Comprehensive Programs are prepared in support of the City's overall planning efforts. The Six-Year Comprehensive Utility Programs are used for five distinct purposes:

1. The City Utilities are "enterprise" activities that are managed similarly to many successful businesses. The Six-Year CIPs provide the planning structure that supports efficient system improvements.
2. The 20-year utility financial planning periods and the Six-Year CIPs are directly related and promote a predictable and even cash flow for the Utilities.
3. Federal and state agencies that offer grants and low interest loans require that projects proposed for funding are part of an approved capital improvement program, and the City's Six-Year CIPs satisfy that requirement.
4. All Six-Year CIPs 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.
5. The Six-Year CIPs are used by the public.

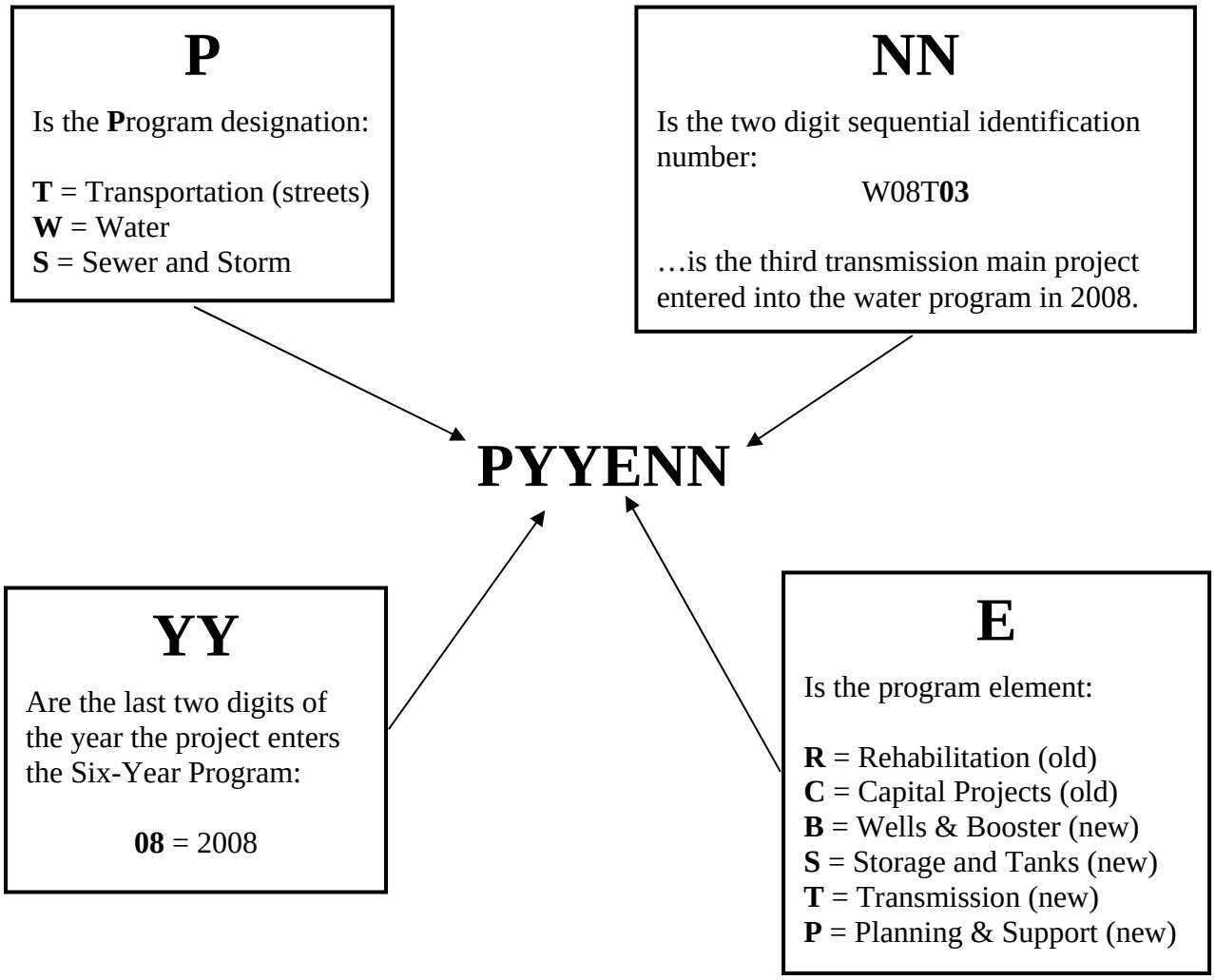
These programs contain information that supports redevelopment, private construction projects, and other City economic activities. New projects are added annually to the Six-Year Comprehensive Sewer, Water and Street Programs, and completed (or cancelled) projects are removed from the programs. Proposed new projects must be "needs-driven" to be considered for inclusion in the programs, and new projects can originate from one or more of the following sources:

- Utility maintenance and operations staff identify infrastructure needing immediate replacement or upgrade based on observed conditions.
- Adopted facility and management plans list projects needed for continued system operation.
- Other City projects (such as street or bridge work) create an opportunity for cost-effective upgrades or facility replacements.
- Planning documents, such as the City Comprehensive Plan, provide guidance on expansion and growth related projects.
- Regulatory agencies (such as the Washington Department of Ecology and the Department of Health) have ordered improvements to the infrastructure system for public health and safety.

The Six-Year Comprehensive Water Program is updated every year. Design, construction and planning status of the projects are coordinated among the affected departments throughout the year. After interval review, the Program is presented to the City Council for acceptance.

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:



Completed and New Projects

Projects listed in last year's program that were completed, or will be completed, in 2006 are listed below under "Completed Projects." Projects added to the program this year are listed below under "New Projects."

Completed Projects
W07B04 – Thorpe Road Pump Capacity Improvements
W07B05 – Spotted Road Pump Capacity Improvements
W05C02 – Fairchild AFB/West Plains Transmission Extension, Phase 1
W02R02 – Upriver Dam Generators Powerhouse #1
W00R12 – Milton Booster Station
W09B10 – Eagle Ridge Booster #2 Booster Modifications
New Projects
W09B01 – Ray Street Well Upgrade
W09B02 – Hoffman Well Upgrade
W09B03 – Grace Avenue Well Rehabilitation & Upgrade
W09B04 – Central Avenue Station 2nd Well Rehabilitation
W09B05 – Lincoln Heights Building Rehabilitation
W09B06 – Lincoln Heights Annex Upgrade
W09B07 – Lincoln Heights Pump Station Inlet Piping
W09B08 – Indian Trails Area New Supply Booster
W09B09 – Plains System New Booster
W09B10 – Eagle Ridge #2 Booster Modifications #2
W09B11 – Garden Park Booster Station Rehabilitation
W09B12 – 9th & Pine Booster Station Rehabilitation
W09B13 – Bishop Court Booster Station Rehabilitation
W09B14 – Pump Maintenance Repair
W09B15 – West Supply Well
W09S01 – Plains System Second Reservoir
W09S02 – High System Additional Storage
W09S03 – Plains System Third Reservoir
W09S04 – Lincoln Heights Reservoir Yard Piping
W09S05 – Brown Park Reservoir Yard Piping
W09S06 – Shadle Additional Reservoir
W09T01 – 57th Avenue, Regal to Glenrose Transmission Main
W09T02 – Hartson/11th Avenue, from Havana to Sherman Transmission Main

W09T03 – Regal Road, 37th to 57th Avenue Transmission Main
W09T04 – Manito Blvd, 14th to 33rd Avenue Transmission Main
W09T05 – 37th Avenue, Perry to Ray Street Transmission Main
W09T06 – Hayford Road & Hwy 2 to Craig Road & McFarlane Transmission Main
W09T07 – Crestline, 37th to 57th Avenue
W09T08 – Fiske Street, Lincoln Heights Reservoir to 29th Avenue
W09T09 – Perry St/33rd Avenue to Regal St/57th Avenue
W09T10 – Glenrose Road/57th Ave to 37th Ave./Ray St.
W09T11 – Birchwood Avenue & Nine Mile Road
W09T12 – Elgin Road from Garland Ave. to Shadle Reservoir
W09T13 – 6th Avenue, Bishop Court to Sunset Blvd.
W09P01 – Upriver Dam Generators Powerhouse #2
W09P02 – Upriver Dam Spillway Concrete Rehabilitation

Notes:

1. In the "Completed Projects" listing are projects that are currently under construction; completion of these projects in 2008 are anticipated.
2. In the "New Projects" listing are projects that, while new to the 6-Year Program, are not new to the Water Department's planned activities.

Future Projects

A project is added to the Six-Year Program because work on the project is planned sometime during the six years of the program duration. Occasionally, a project factor will change, and as a result, the project schedule will be moved into the future, beyond the "window" of the current Six-Year Program. These projects, with revised schedules, are classified in the Six-Year Program as "Future Projects", and they are listed below.

Future Projects
None

Developer Funded Projects

Large developments often will require water system improvements that are unique to a specific development. Typically, a developer will install distribution pipe, fire hydrants and associated valves. Occasionally, a large development will require a major system element, such as a booster station or a reservoir; in these cases, the developer pays the full cost for constructing the improvement, and the developer's engineer works with the Water Department on the improvement design. These projects are classified in the Six-Year Program as "Developer Funded", and they are listed below.

Developer Funded Projects
Beacon Hill Booster Station
Beacon Hill Reservoir

Six-Year Water Program Financial Summary

(Numbers in $1,000s)

	2009	2010	2011	2012	2013	2014
OPERATING REVENUES & EXPENSES						
Water Sales	31,271	32,263	33,223	34,284	35,382	36,518
Electrical Sales	1,350	1,323	1,297	1,271	1,245	1,220
Other Operational Revenue	2,465	2,543	2,591	2,641	2,691	2,743
Operating Expenses	(33,315)	(34,688)	(35,668)	(36,665)	(37,726)	(38,819)
NET OPERATING REVENUE	**$1,771**	**$1,441**	**$1,444**	**$1,531**	**$1,593**	**$1,662**
AVAILABLE FOR CAPITAL						
Cash Balance as of Jan 1	37,208	25,793	19,578	10,349	5,452	(262)
Net Operating Revenue	1,771	1,441	1,444	1,531	1,593	1,662
Rate Stabilization Fee	3,518	3,535	3,553	3,571	3,588	3,606
General Facilities Charges (capital recovery)	1,120	1,126	1,131	1,137	1,143	1,148
Interest Income	1,701	879	692	415	269	97
Grant and Loan Proceeds	1,200	500	0	0	0	0
Sale of Assets	85	87	90	92	95	98
Rollover from Capital Savings	5,375	825	800	800	550	0
Debt Service	(1,284)	(1,049)	(997)	(948)	(901)	(857)
Transfer from (to) Emergency Reserve	(150)	(150)	(150)	(150)	(150)	(150)
AVAILABLE FOR 6-YR PROGRAM	**$50,543**	**$32,987**	**$26,141**	**$16,797**	**$11,638**	**$5,343**
SIX-YEAR CAPITAL PROGRAM						
Source Well and Booster Pump Station	2,498	2,510	3,170	1,420	1,825	4,350
Storage System Improvements	5,093	3,696	4,460	2,710	3,110	2,750
Distribution and Transmission Improvement	13,451	5,729	6,112	6,265	6,015	3,598
Planning and Support Projects	3,708	1,474	2,050	950	950	950
Total 6-Year Capital Program	**$24,750**	**$13,409**	**$15,792**	**$11,345**	**$11,900**	**$11,648**
CASH BALANCE: Dec 31	**$25,793**	**$19,578**	**$10,349**	**$5,452**	**($262)**	**($6,305)**

PROJECT SUMMARY

Project Summary

Source Well and Booster Pump Station

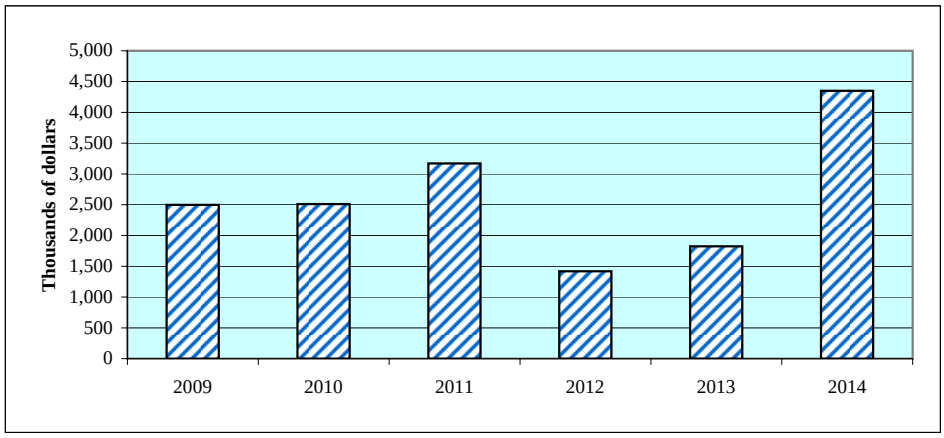
The Source Well and Booster Pump Station program element contains major well and booster station projects. These projects involve obtaining water from the Aquifer (source wells) and adjusting the pressure in the distribution system (booster stations). *Detailed descriptions of these projects can be found beginning on Page 19.*

	2009	2010	2011	2012	2013	2014	Total
W00C07 - Shawnee Booster Station			30	320			350
W00R12 - Milton Booster Station			**Complete**				0
W05R01 - Hoffman Well Rehabilitation	120				1,380		1,500
W07B01 - Parkwater Well Station Upgrade	80	920					1,000
W07B02 - Well Electric Station Upgrade		170	1,930				2,100
W07B04 - Thorpe Road Pump Capacity Improvements			**Complete**				0
W07B05 - Spotted Road Pump Capacity Improvements			**Complete**				0
W07B07 - Beacon Hill Booster Station (formerly East Wellesley)	210						210
W07B08 - North Five Mile Prairie Booster	350						350
W08B01 - West Drive Booster to Spotted Road Station	125						125
W08B02 - Central Avenue Station Rehabilitation			750				750
W09B01 - Ray Street Well Upgrade	50						50
W09B02 - Hoffman Well Upgrade		80					80
W09B03 - Grace Ave Well Rehabilitation & Upgrade	520						520
W09B04 - Central Avenue Station 2nd Well Rehabilitation				750			750
W09B05 - Lincoln Heights Building Rehabilitation	200						200

Project Summary

Source Well and Booster Pump Station (continued)

	2009	2010	2011	2012	2013	2014	Total
W09B06 - Lincoln Heights Annex Upgrade	150						150
W09B07 - Lincoln Heights Pump Station Inlet Piping	250						250
W09B08 - Indian Trails Area New Supply Booster	42	400					442
W09B09 - Plains System New Booster	51	500					551
W09B10 - Eagle Ridge #2 Booster Modifications			**Complete**				0
W09B11 - Garden Park Booster Station Rehabilitation		90					90
W09B12 - 9th & Pine Booster Station Rehabilitation			110				110
W09B13 - Bishop Court Booster Station Rehabilitation					95		95
W09B14 - Pump Maintenance and Repair	350	350	350	350	350	350	2,100
W09B15 - West Supply Well						4,000	4,000
Totals All Projects	**2,498**	**2,510**	**3,170**	**1,420**	**1,825**	**4,350**	**15,773**

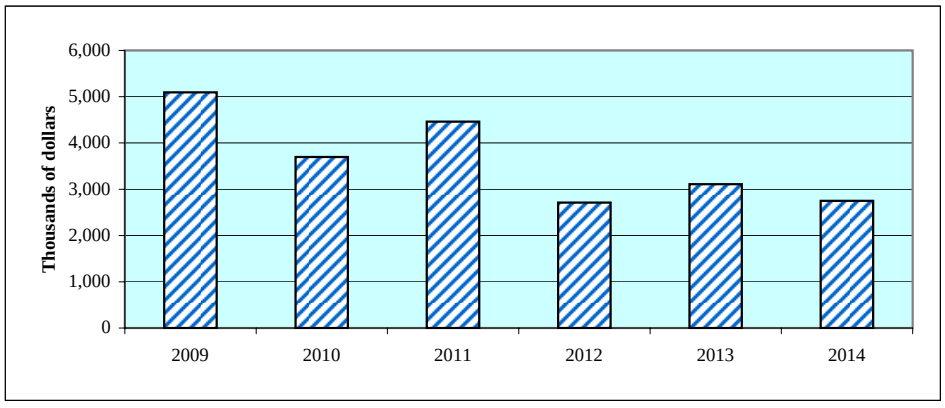


Project Summary

Storage System Improvements

The Storage System Improvements element contains projects related to water storage, such as tanks and reservoirs. *Detailed descriptions of these projects can be found beginning on Page 45.*

	2009	2010	2011	2012	2013	2014	Total
W05R02 - Tank and Reservoir Painting	300	300	300	300	300	300	1,800
W02C02 - Northwest Terrace Reservoir		130	1,470				1,600
W03C02 - North Five Mile Prairie Reservoir	2,320						2,320
W05C03 - Beacon Hill Reservoir (formerly East Wellesley)	2,240						2,240
W07S02 - Thorpe Road Reservoir No. 2			190	2,210			2,400
W09S01 - Plains System Second Reservoir	233	2,700					2,933
W09S02 - High System Additional Storage		216	2,500				2,716
W09S03 - Plains System Third Reservoir				200	2,400		2,600
W09S04 - Lincoln Heights Reservoir Yard Piping		350					350
W09S05 - Brown Park Reservoir Yard Piping					200		200
W09S06 - Shadle Additional Reservoir					210	2,450	2,660
Totals	**5,093**	**3,696**	**4,460**	**2,710**	**3,110**	**2,750**	**21,819**



Project Summary

Distribution and Transmission Improvements

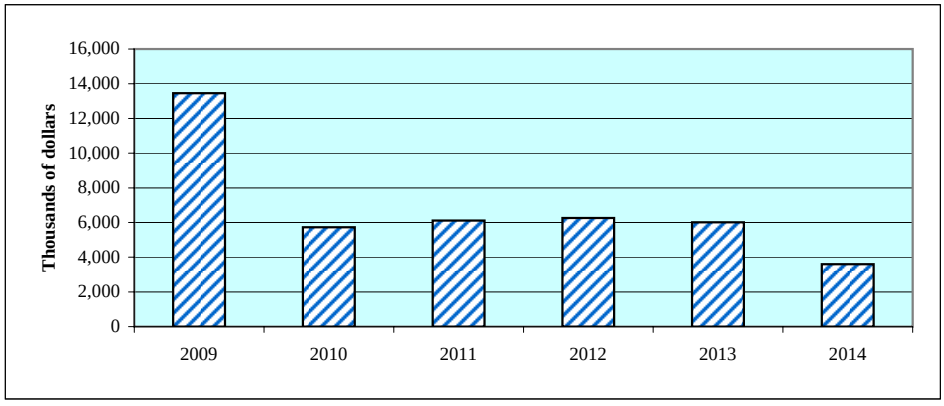
Distribution and transmission improvements include the large diameter pipes (transmission) and smaller diameter pipes (distribution) that carry water from wells, booster stations and reservoirs to the water user. *Detailed descriptions of these projects can be found beginning on Page 56.*

	2009	2010	2011	2012	2013	2014	Total
W00C03 - Westside Transmission, West Dr. Booster to Spotted Rd.	**Funded in 2008; Construction to be Completed in 2009**						0
W00C08 - Water Main Upsizing Fund	75	75	75	75	75	75	450
W00R08 - Euclid/Mayfair Transmission Mains			390	4,510			4,900
W00R09 - Mission Transmission Main, Phase II		140	1,560				1,700
W00R10 - 14th Avenue Main Replacement		25	250				275
W00R13 - Kalamein Pipe Replacement	100	100	100				300
W00R15 - Miscellaneous Rehabilitation	185	185	185	185	185	185	1,110
W02R05 - Buckeye-Grace Ave/Ruby St to Upriver Dr	4,230						4,230
W05C02 - Fairchild AFB/West Plains Transmission Extension, Phase 1	**Complete**						0
W05R04 - Southeast Blvd., 29th Ave. to Magnolia	880						880
W07T01 - Division, 8th & 9th	430						430
W08C01 - Fairchild AFB Transmission Extension, Ph 2	5,376						5,376
W09T01 - 57th Avenue, Regal to Glenrose	114	1,271					1,385
W09T02 - Hartson/11th Ave, from Havana to Sherman	330	3,800					4,130
W09T03 - Regal Street, 37th to 57th		133	1,507				1,640

Project Summary

Distribution and Transmission Improvements (continued)

	2009	2010	2011	2012	2013	2014	Total
W09T04 - Manito Blvd, 14th to 33rd			110	1,246			1,356
W09T05 - 37th Avenue, Perry to Ray	1,731						1,731
W09T06 - Hayford Road & Hwy 2 to Craig Road & McFarlane Avenue				249	2,800		3,049
W09T07 - Crestline, 37th to 57th Avenue			1,320				1,320
W09T08 - Fiske Street, Lincoln Heights Reservoir to 29th Avenue			615				615
W09T09 -Perry St/33rd Avenue to Regal St/57th Avenue					2,345		2,345
W09T10 - Glenrose Rd./57th Ave. to 37th Ave./Ray St.						1,830	1,830
W09T11 - Birchwood Avenue & Nine Mile Road					610		610
W09T12 - Elgin Street from Garland Ave. to Shadle Reservoir						408	408
W09T13 - 6th Avenue, Bishop Court to Sunset Blvd						1,100	1,100
Totals All Projects	**13,451**	**5,729**	**6,112**	**6,265**	**6,015**	**3,598**	**41,170**

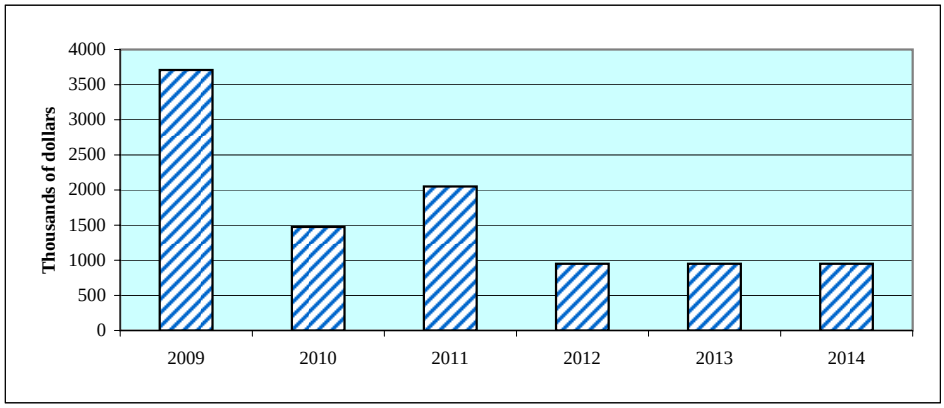


Project Summary

Planning and Support Projects

The Planning and Support Projects program element contains projects that assist the City's planning and program efforts. *Detailed descriptions of these projects can be found beginning on Page 83.*

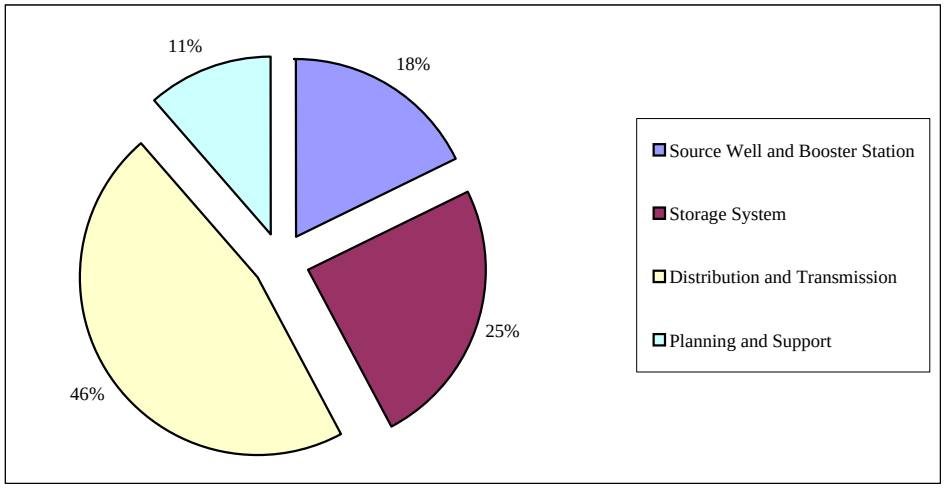
	2009	2010	2011	2012	2013	2014	Total
W00R14 - Water Operations Facility Upkeep	100	100	100	100	100	100	600
W02R02 - Upriver Dam Generators Powerhouse #1	**Complete**						0
W04R01 - Public Works Strategic Infrastructure Planning Study--Water Component	125	125					250
W00C01 - Infrastructure Management System	100	100	100	100	100	100	600
W07P01 - On-Going SCADA System Improvements	50	50	50	50	50	50	300
W07P02 - Wellhead Protection Program	150	150	150	150	150	150	900
W07P04 - Water Conservation Program	250	250	250	250	250	250	1,500
W07P05 - Remote Meter Reading Upgrades	200	200	200	200	200	200	1,200
W08P01 - Street Bond Infrastructure Upgrade	100	100	100	100	100	100	600
W09P01 - Upriver Dam Generators Powerhouse #2		99	1,100				1,199
W09P02 - Upriver Dam Spillway Concrete Rehabilitation	27	300					327
W09P03 - Upriver Facility Remodel	2,606						2,606
Totals	**3708**	**1474**	**2050**	**950**	**950**	**950**	**10,082**

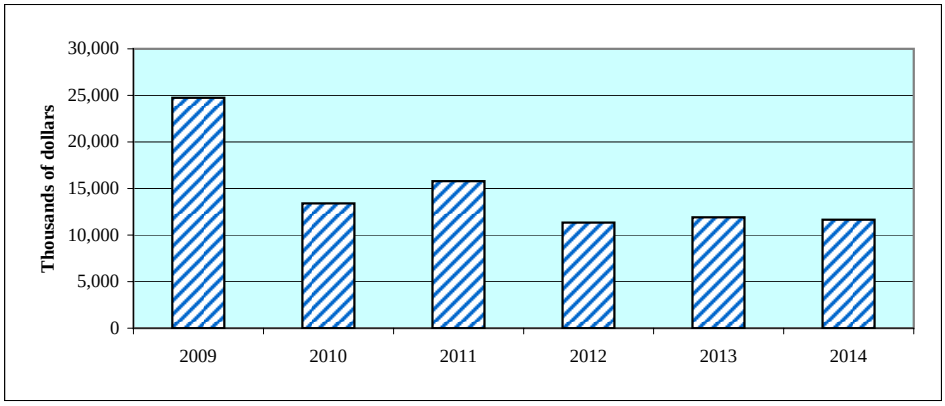


Project Summary

Program Element Summary

	2009	2010	2011	2012	2013	2014	Total
Source Well and Booster Station	2,498	2,510	3,170	1,420	1,825	4,350	15,773
Storage System	5,093	3,696	4,460	2,710	3,110	2,750	21,819
Distribution and Transmission	13,451	5,729	6,112	6,265	6,015	3,598	41,170
Planning and Support	3,708	1,474	2,050	950	950	950	10,082
Total All Elements	**24,750**	**13,409**	**15,792**	**11,345**	**11,900**	**11,648**	**88,844**



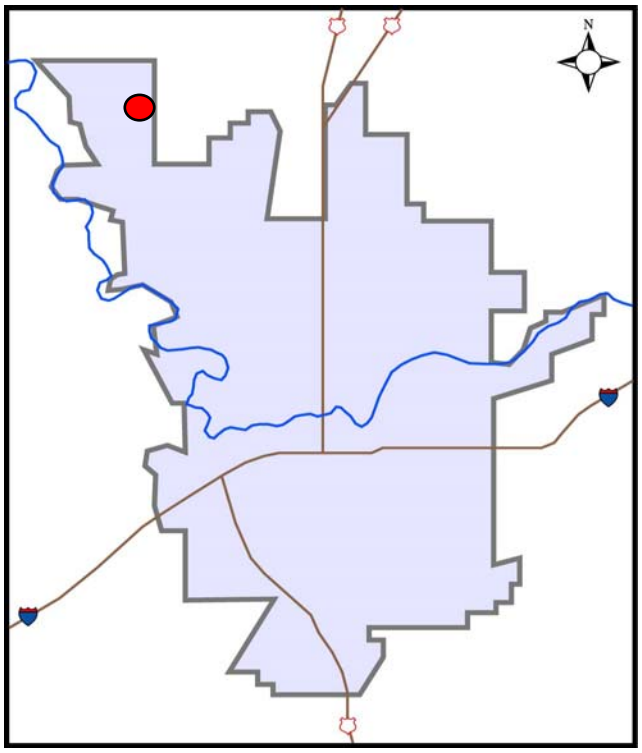


WELL AND BOOSTER STATIONS

Project Detail

W00C07 - Shawnee Booster Station

RETURN



This project is located at 4400 W. Shawnee Avenue in northwest Spokane.

Project Information	
Public Works Number	<>
System	Shawnee
Function	Booster
Environmental Class.	Cat. Exempt
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	30
Right of Way	0
Constr. Management	35
Construction Cost	285
Other	0
Total	**350**

Funding	
Water Fund	350
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**350**

Description

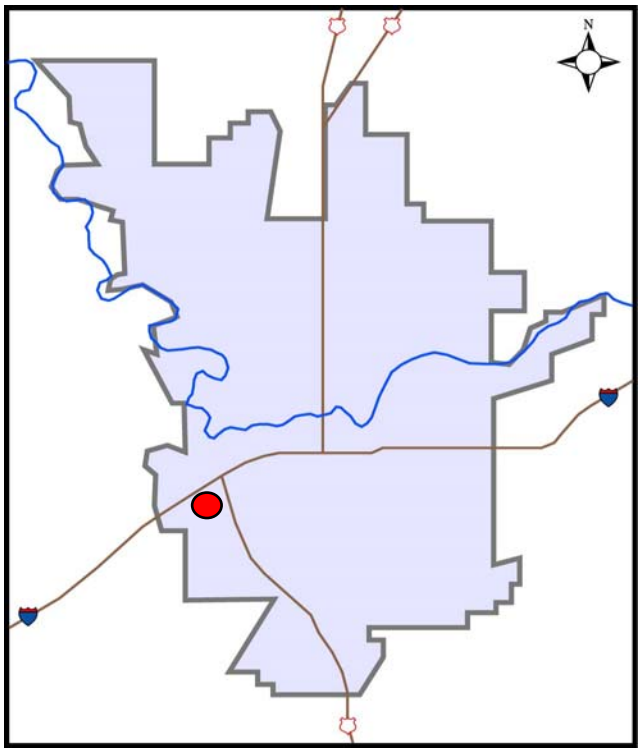
The existing booster station is located in an underground vault and is difficult to maintain. This project will relocate the booster station to an above ground building to improve capacity, efficiency, operations and maintenance. *The schedule for financial expenditures is on Page 12.*

RETURN

Project Detail

W00R12 - Milton Booster Station

RETURN



Project is located at 2722 W. 15th Avenue (near I-90 and Highway 195).

Project Information	
Public Works Number	<>
System	High/SIA
Function	Booster
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	8
Right of Way	0
Constr. Management	12
Construction Cost	80
Other	0
Total	**100**

Funding	
Water Fund	100
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**100**

Description

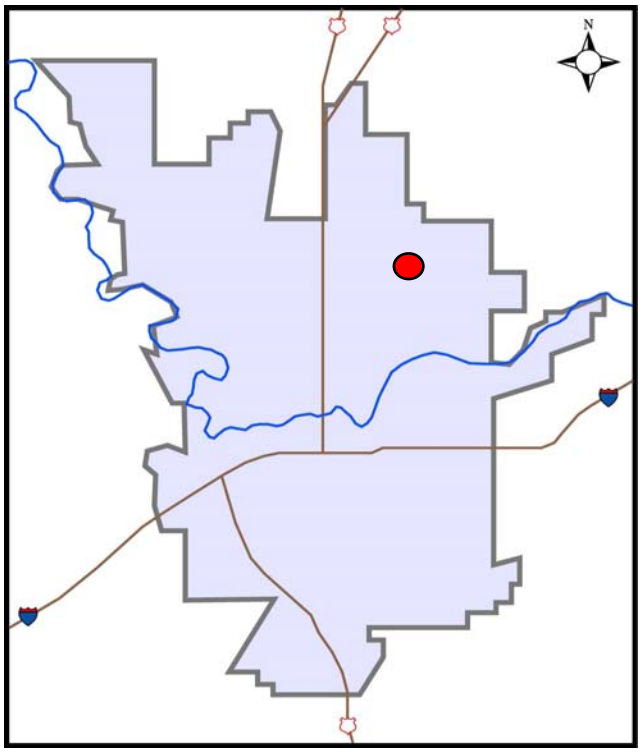
The existing Milton Booster Station is in poor condition and undersized. This project will replace the existing pump station by relocating the package pump station from Eagle Ridge #1 to the current Milton Booster Station site. The package pump station has pumps, motor and control already in place ready to use. *The schedule for financial expenditures is on Page 12.*

RETURN

Project Detail

W05R01 - Hoffman Well Rehabilitation

RETURN



This project is located at 2109 E. Hoffman Avenue (near Wellesley and Crestline).

Project Information	
Public Works Number	<>
System	North Hill
Function	Well
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	120
Right of Way	0
Constr. Management	180
Construction Cost	1,200
Other	0
Total	**1,500**

Funding	
Water Fund	1,500
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**1,500**

Description

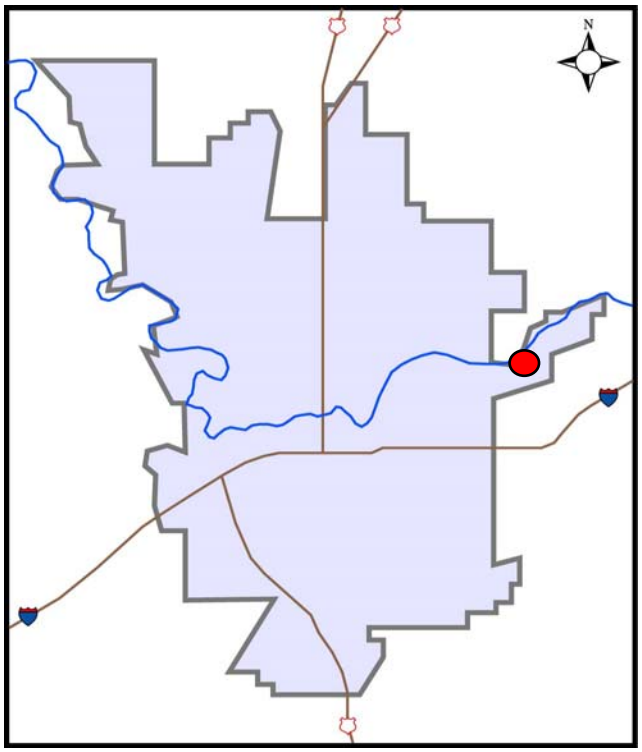
The Hoffman Well site has two hand dug, brick-lined wells. This project will evaluate and rehabilitate the east well by reinforcing the brick lining, and a new pump will be reinstalled in this well. *The schedule for financial expenditures is on Page 12.*

RETURN

Project Detail

W07B01 - Parkwater Well Station Upgrade

RETURN



Project is located at 5317 E. Rutter Avenue near the Upriver Dam.

Project Information	
Public Works Number	<>
System	N/A
Function	Well
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	80
Right of Way	0
Constr. Management	120
Construction Cost	800
Other	0
Total	**1,000**

Funding	
Water Fund	1,000
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**1,000**

Description

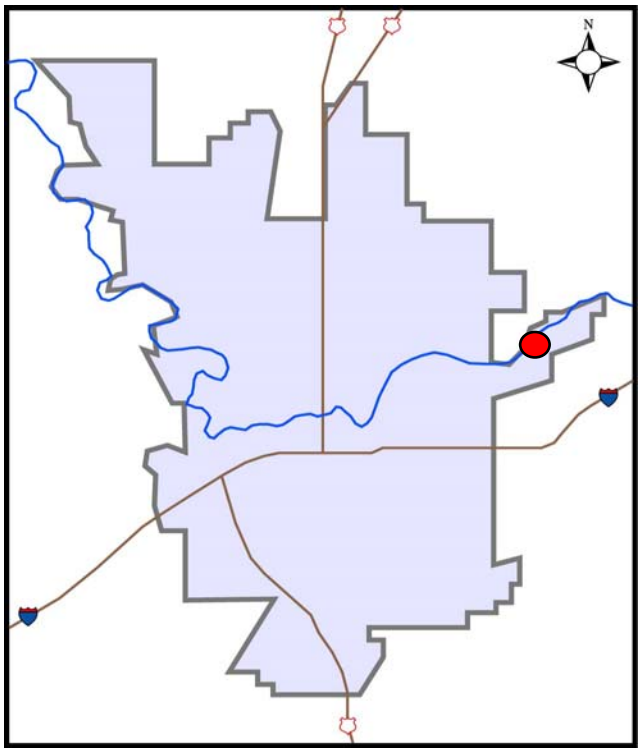
This 1949 well station will be upgraded with pumps and motors to provide more pumping capacity and to improve the efficiency of the pump motors. Two of the eight existing pumps and motors have been recently replaced. This project will replace four of the pumps and motors. *The schedule for financial expenditures is on Page 12.*

RETURN

Project Detail

W07B02 - Well Electric Station Upgrade

RETURN



Project work is located at 2701 N. Waterworks Street, near the Upriver Dam.

Project Information	
Public Works Number	<>
System	N/A
Function	Well
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	170
Right of Way	0
Constr. Management	250
Construction Cost	1,680
Other	0
Total	**2,100**

Funding	
Water Fund	2,100
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**2,100**

Description

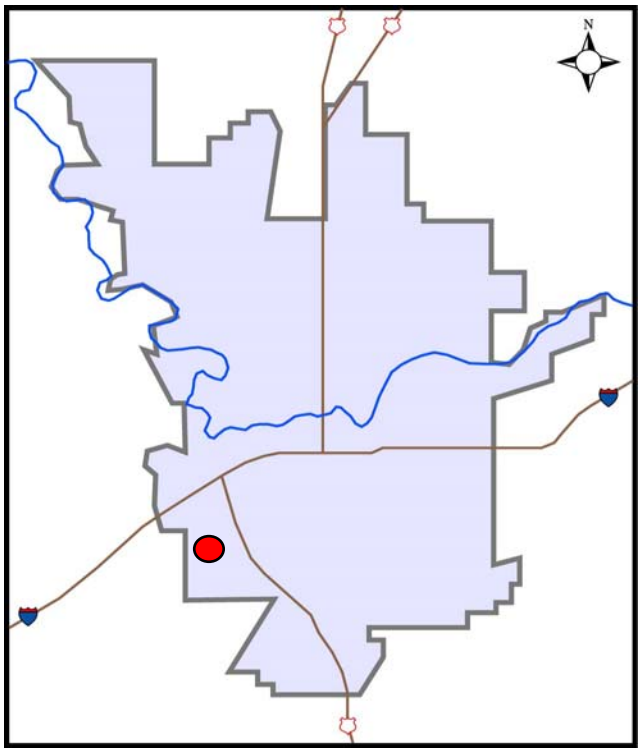
This 1925 well station will be upgraded with pumps and motors to provide more pumping capacity (for system redundancy) and to improve the efficiency of the pump motors. Two of the original four pumps and motors have already been replaced. This project will replace the remaining two pumps and motors. *The schedule for financial expenditures is on Page 12.*

RETURN

Project Detail

W07B04 - Thorpe Road Pump Capacity Improvements

RETURN



Project is located at 3302 W. Thorpe Road.

Project Information	
Public Works Number	<>
System	SIA/Plains
Function	Booster
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	10
Right of Way	0
Constr. Management	10
Construction Cost	50
Other	0
Total	**70**

Funding	
Water Fund	70
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**70**

Description

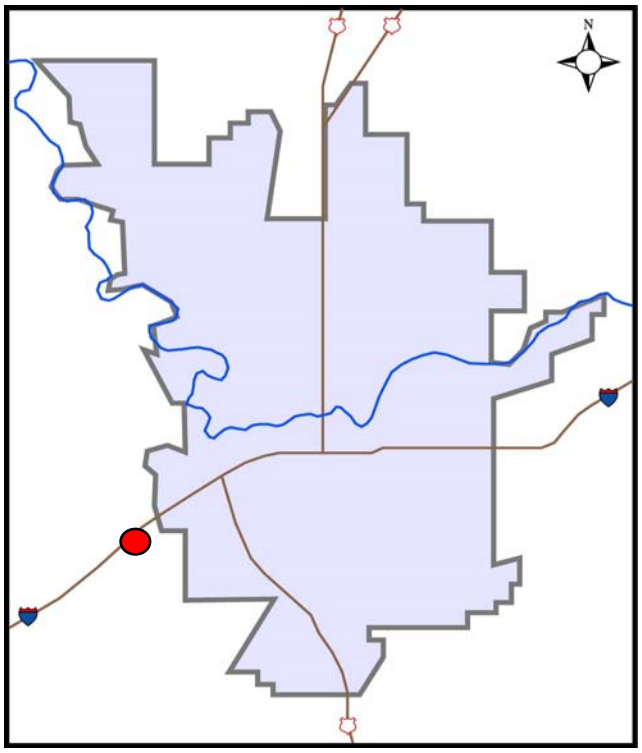
This project will add a fifth pump to the booster station to accommodate growth in the Spokane International Airport and Plains pressure zones. *The schedule for financial expenditures is on Page 12.*

RETURN

Project Detail

W07B05 - Spotted Road Pump Capacity Improvements

RETURN



Project is located at 7512 W. Westbow, near I-90.

Project Information	
Public Works Number	<>
System	Plains
Function	Booster
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	10
Right of Way	0
Constr. Management	10
Construction Cost	50
Other	0
Total	**70**

Funding	
Water Fund	70
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**70**

Description

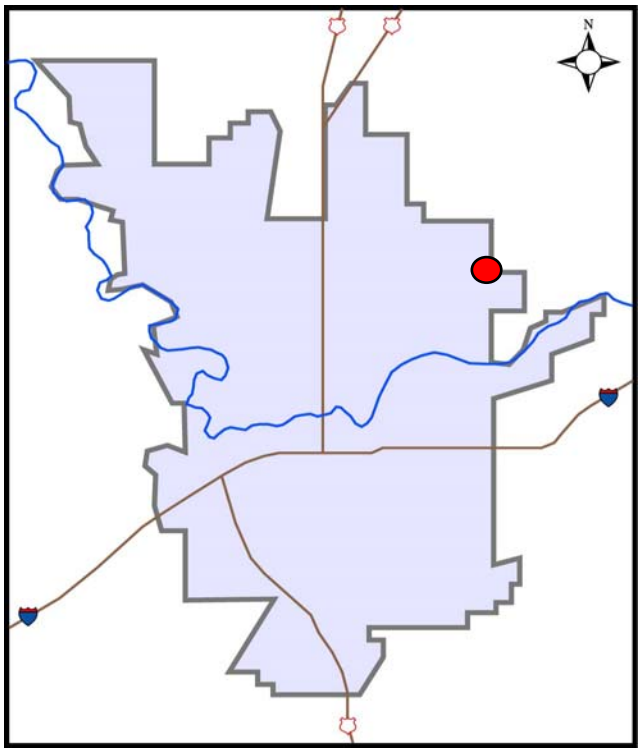
This project will replace an aging small pump with a larger, more efficient pump as well as adding a fourth pump to the booster station to accommodate growth in the Spokane International Airport and Plains pressure zones. *The schedule for financial expenditures is on Page 12.*

RETURN

Project Detail

W07B07 - Beacon Hill Booster Station (formerly East Wellesley)

RETURN



Project work is located in the vicinity of Havana and Wellesley.

Project Information	
Public Works Number	<>
System	North Hill
Function	Booster
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	20
Right of Way	0
Constr. Management	30
Construction Cost	180
Other	0
Total	**230**

Funding	
Water Fund	230
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**230**

Description

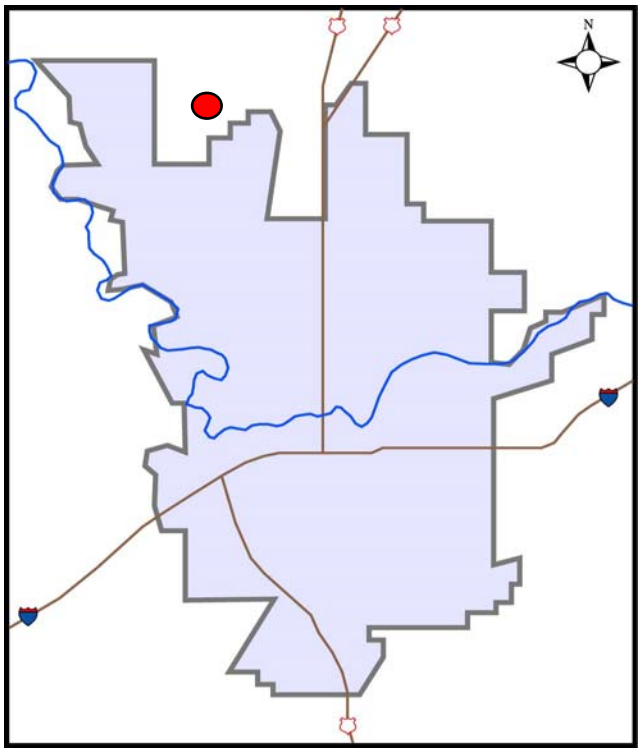
This project will construct a new booster station in the vicinity of Wellesley and Havana to provide for new development within the northeast portion of the City. The booster station will be located adjacent to the North Hills Reservoir. This project is being constructed as a shared interest between 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 reflects only the City's portion of this project. *The schedule for financial expenditures is on Page 12.*

RETURN

Project Detail

W07B08 - North Five Mile Prairie Booster Station

RETURN



Project is located near Five Mile Road and Johannsen Road.

Project Information	
Public Works Number	<>
System	5-Mile
Function	Booster
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	20
Right of Way	0
Constr. Management	30
Construction Cost	200
Other	0
Total	**250**

Funding	
Water Fund	250
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**250**

Description

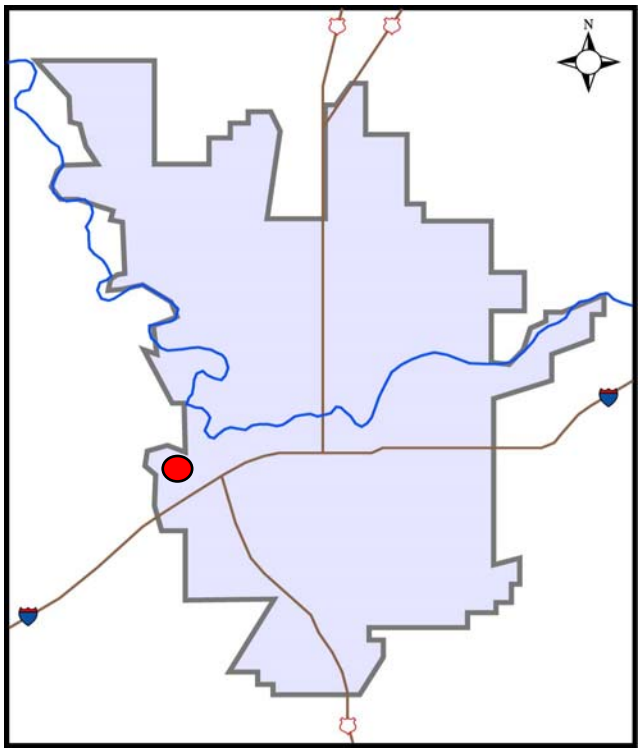
This project will construct a new booster station in the vicinity of Five Mile Road and Johannsen Road to provide for growth on the northern portion of Five Mile Prairie. The booster will supply water to the North Five Mile Prairie reservoir and will be constructed in conjunction with the reservoir. *The schedule for financial expenditures is on Page 12.*

RETURN

Project Detail

W08B01 - West Drive Booster to Spotted Road Station

RETURN



Project is located at 3609 S. West Drive.

Project Information	
Public Works Number	<>
System	SIA
Function	Booster
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	20
Right of Way	0
Constr. Management	30
Construction Cost	200
Other	0
Total	**250**

Funding	
Water Fund	250
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**250**

Description

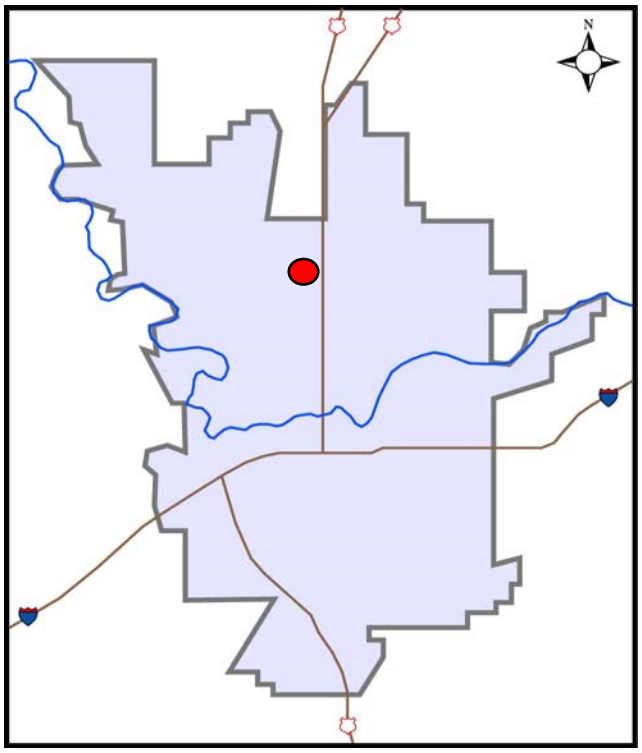
This project will add new pumps, motors and control to the West Drive Booster Station. These improvements, in conjunction with the Westside Transmission Main, will provide redundancy and increased flows to the SIA pressure zone. *The schedule for financial expenditures is on Page 12.*

RETURN

Project Detail

W08B02 - Central Avenue Station Upgrade

RETURN



Project is located at the intersection of Central Avenue and Normandie Street.

Project Information	
Public Works Number	<>
System	North Hill
Function	Wells
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	60
Right of Way	0
Constr. Management	90
Construction Cost	600
Other	0
Total	**750**

Funding	
Water Fund	750
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**750**

Description

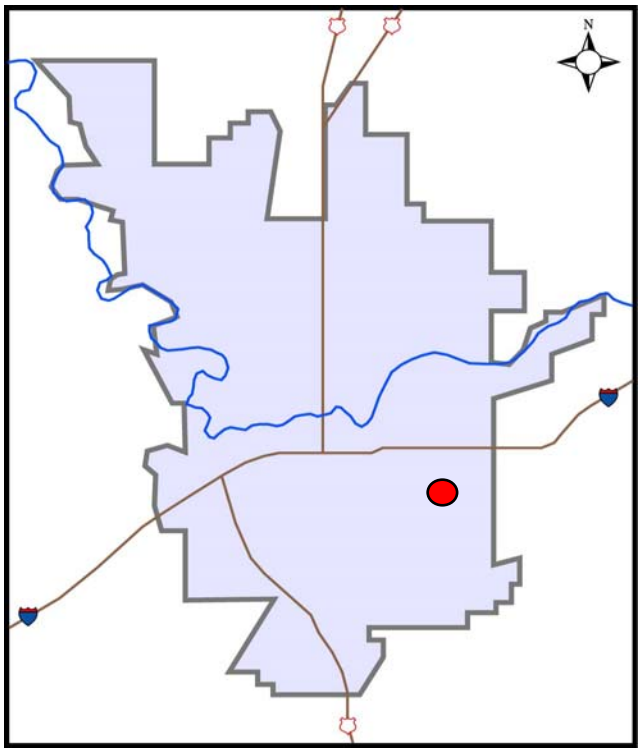
Central Avenue Well Station has two wells located at opposite corners of the site. The Number 1 well station will be upgraded, overhauled, rehabilitated, and modernized with new pumps and motors to provide more pumping capacity and to improve the efficiency of the pump motors for increased system capacity. *The schedule for financial expenditures is on Page 12.*

RETURN

Project Detail

W09B01 - Ray Street Well Upgrade

RETURN



This project is located near the intersection of Ray & Hartson.

Project Information	
Public Works Number	<>
System	Intermediate
Function	Well
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	5
Right of Way	0
Constr. Management	5
Construction Cost	40
Other	0
Total	**50**

Funding	
Water Fund	50
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**50**

Description

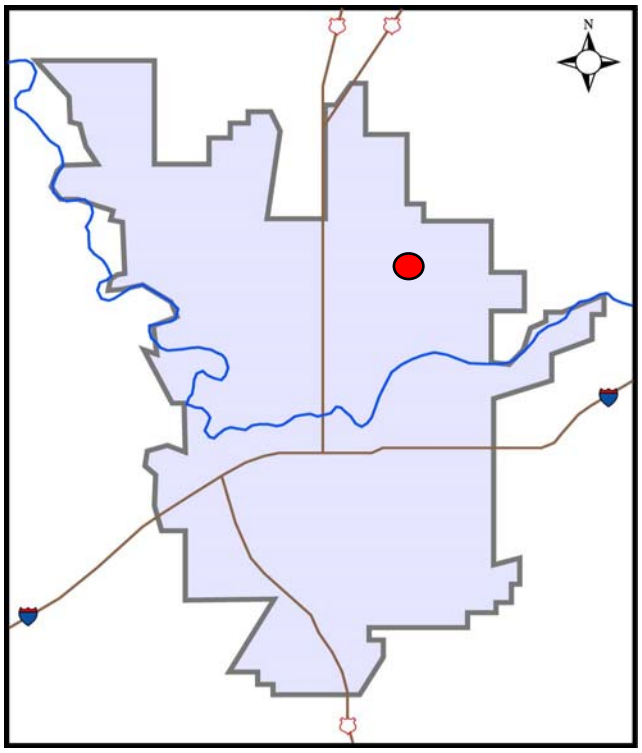
Ray Street Well station motor control equipment has reached the end of its useful life. This project will upgrade the motor control center to provide better control and more efficient operation. *The schedule for financial expenditures is on Page 12.*

RETURN

Project Detail

W09B02 - Hoffman Well Upgrade

RETURN



This project is located at 2109 E. Hoffman Avenue (near Wellesley and Crestline).

Project Information	
Public Works Number	<>
System	North Hill
Function	Well
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	10
Right of Way	0
Constr. Management	10
Construction Cost	60
Other	0
Total	**80**

Funding	
Water Fund	80
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**80**

Description

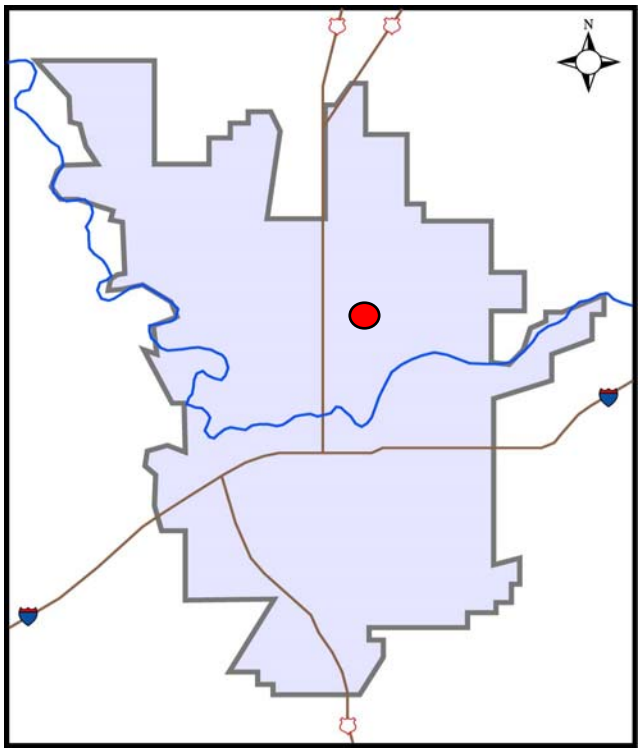
Hoffman Avenue Well station motor control equipment has reached its useful life. This project will upgrade the motor control center to provide better control and more efficient operation. *The schedule for financial expenditures is on Page 12.*

RETURN

Project Detail

W09B03 - Grace Ave Well Rehabilitation & Upgrade

RETURN



This project is located at near Nevada Street and North Foothills Drive.

Project Information	
Public Works Number	<>
System	North Hill
Function	Well
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	40
Right of Way	0
Constr. Management	60
Construction Cost	420
Other	0
Total	**520**

Funding	
Water Fund	520
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**520**

Description

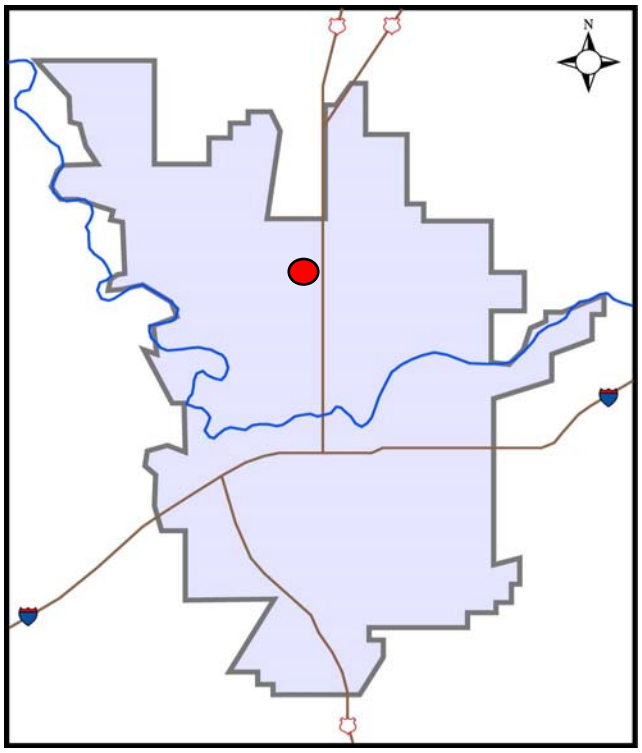
Grace Avenue Well station motor control equipment has reached the end of its useful life. This project will upgrade the motor control center to provide better control and more efficient operation. *The schedule for financial expenditures is on Page 12.*

RETURN

Project Detail

W09B04 - Central Avenue Station 2nd Well Rehabilitation

RETURN



Project is located at the intersection of Central Avenue and Normandie Street.

Project Information	
Public Works Number	<>
System	North Hill
Function	Wells
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	60
Right of Way	0
Constr. Management	90
Construction Cost	600
Other	0
Total	**750**

Funding	
Water Fund	750
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**750**

Description

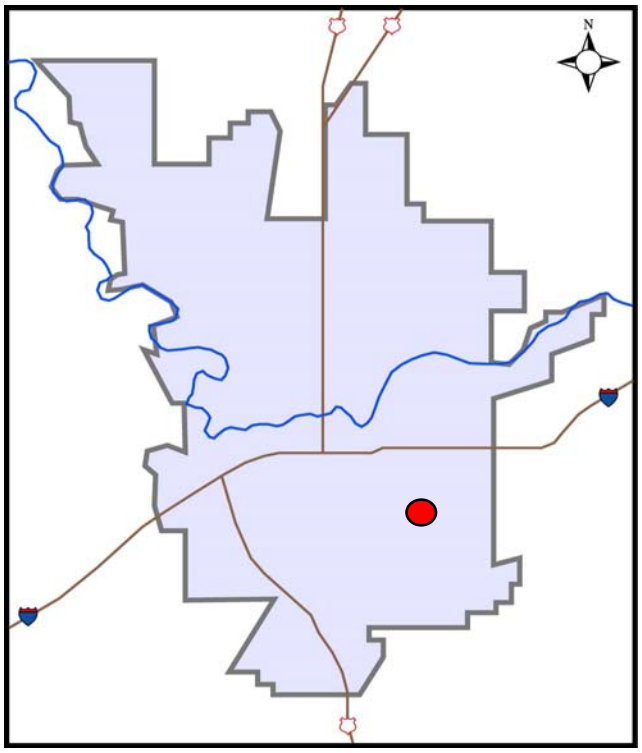
Central Avenue Well Station has two wells located at opposite corners of the site. The Number 2 well station will be upgraded, overhauled, rehabilitated, and modernized with new pumps and motors to provide more pumping capacity and to improve the efficiency of the pump motors for increased system capacity. *The schedule for financial expenditures is on Page 12.*

RETURN

Project Detail

W09B05 - Lincoln Heights Building Rehabilitation

RETURN



This project is located at near Ray Street and 23rd Avenue.

Project Information	
Public Works Number	<>
System	High
Function	Booster
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	20
Right of Way	0
Constr. Management	20
Construction Cost	160
Other	0
Total	**200**

Funding	
Water Fund	200
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**200**

Description

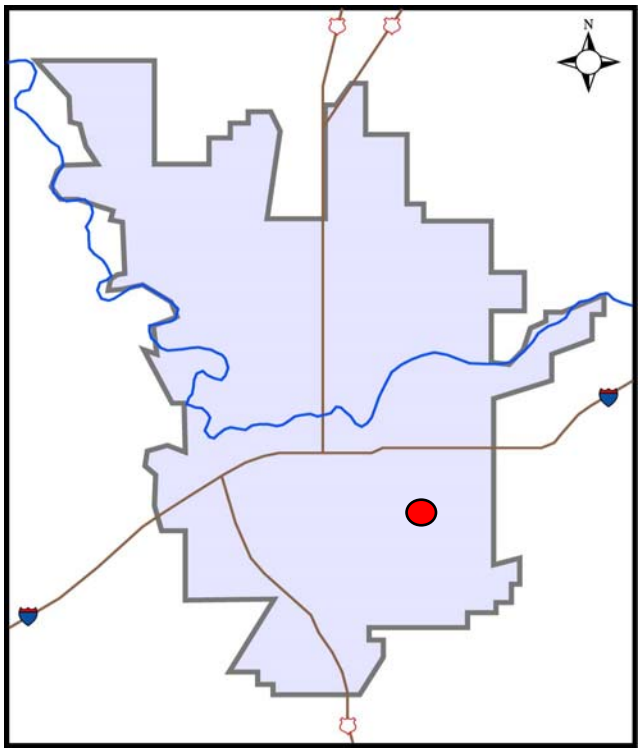
The building of the Lincoln Heights Booster Station is showing heavy signs of deterioration due to age. This project will rehabilitate the existing building structure and landscaping. *The schedule for financial expenditures is on Page 12.*

RETURN

Project Detail

W09B06 - Lincoln Heights Annex Upgrade

RETURN



This project is located at near Ray Street and 23rd Avenue.

Project Information	
Public Works Number	<>
System	High
Function	Booster
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	10
Right of Way	0
Constr. Management	20
Construction Cost	120
Other	0
Total	**150**

Funding	
Water Fund	150
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**150**

Description

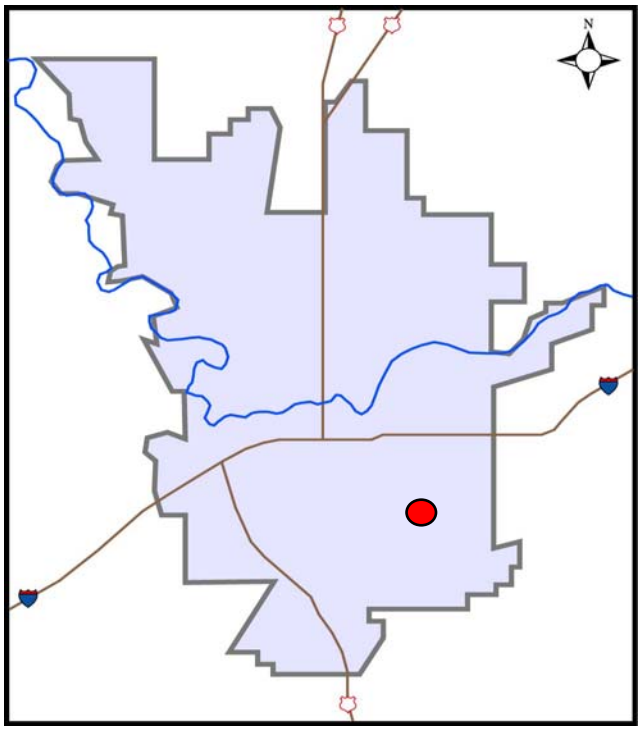
Lincoln Heights Booster Station motor control equipment has reached the end of its useful life. This project will upgrade the motor control center to provide better control and more efficient operation. *The schedule for financial expenditures is on Page 13.*

RETURN

Project Detail

W09B07 - Lincoln Heights Pump Station Inlet Piping

RETURN



This project is located at near Ray Street and 23rd Avenue.

Project Information	
Public Works Number	<>
System	High
Function	Booster
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	20
Right of Way	0
Constr. Management	30
Construction Cost	200
Other	0
Total	**250**

Funding	
Water Fund	250
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**250**

Description

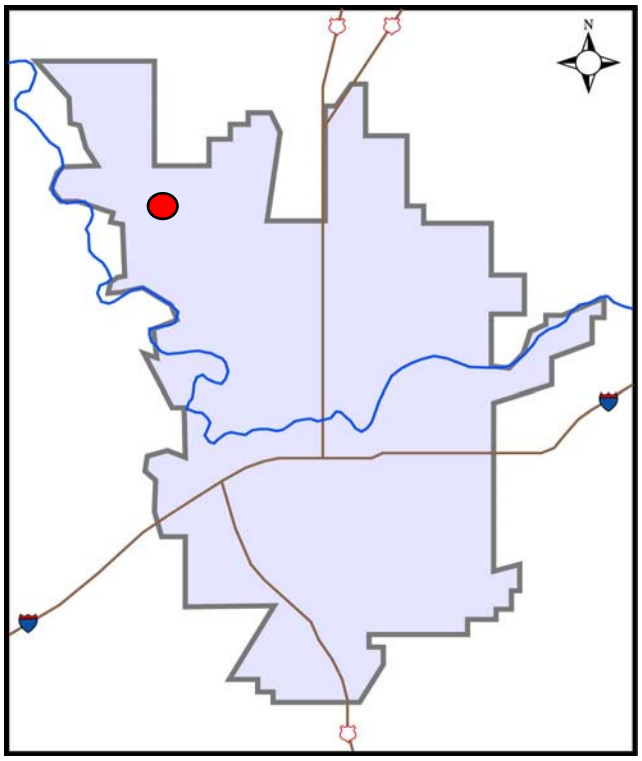
Lincoln Heights Booster Station inlet piping is in poor condition and is requiring numerous repairs to prevent failure. This project will replace the existing inlet piping, fitting and valves. *The schedule for financial expenditures is on Page 13.*

RETURN

Project Detail

W09B08 - Indian Trails Area New Supply Booster

RETURN



This project is located in the northwest portion of the City in the Indian Trails area.

Project Information	
Public Works Number	<>
System	Indian Hills
Function	Booster
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	40
Right of Way	0
Constr. Management	50
Construction Cost	352
Other	0
Total	**442**

Funding	
Water Fund	442
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**442**

Description

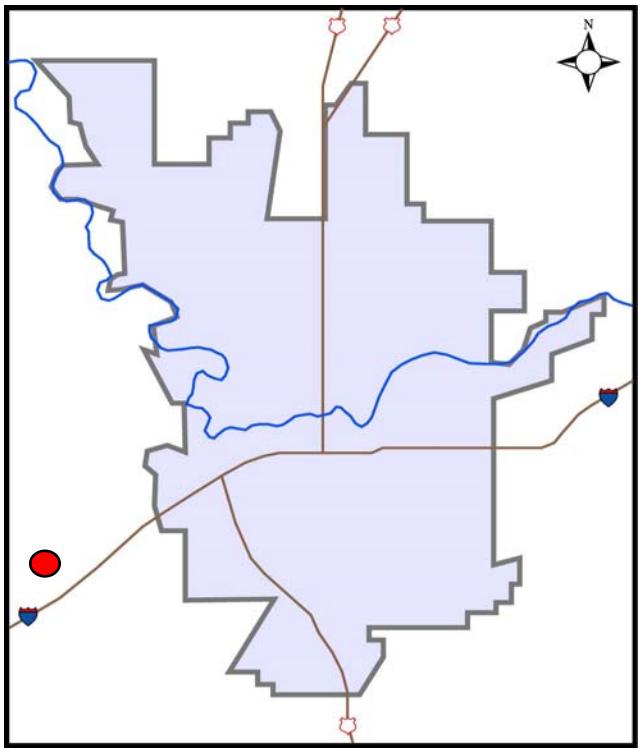
A new booster station will be constructed in the Indian Trails area. The new booster station will improve water service to the Indian Trails Pressure System by moving more water from the well locations in the east to the customers in the west, improve system reliability and delivery pressure. The exact location of this booster station 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. *The schedule for financial expenditures is on Page 13.*

RETURN

Project Detail

W09B09 - Plains System New Booster

RETURN



This project is located in the West Plains area.

Project Information	
Public Works Number	<>
System	Plains
Function	Booster
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	40
Right of Way	0
Constr. Management	70
Construction Cost	441
Other	0
Total	**551**

Funding	
Water Fund	551
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**551**

Description

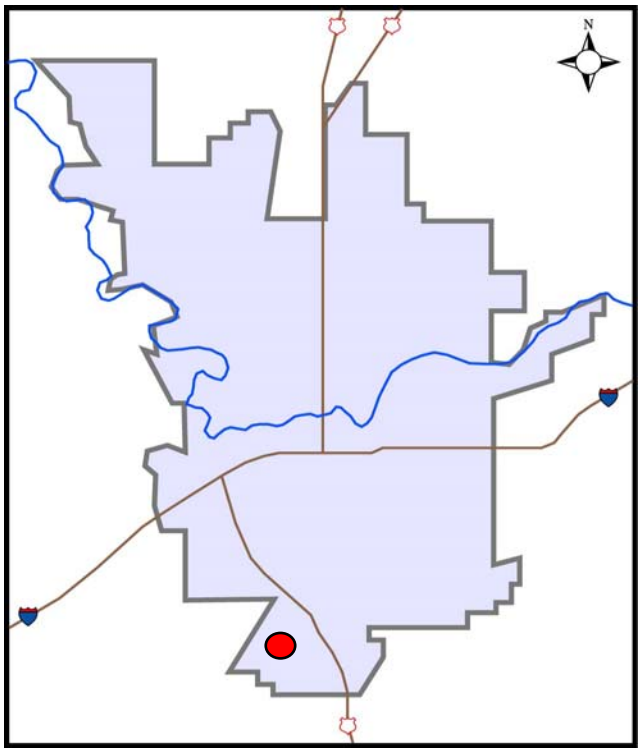
A new booster station will be constructed in the West Plains area. The new booster station will improve water service to the Plains Pressure System by providing redundancy and better water pressure. The exact location of this booster station has not been determined, but is needed in the vicinity of Highway 2 and Spotted Road. The new booster station will fill a new Plains System tank. *The schedule for financial expenditures is on Page 13.*

RETURN

Project Detail

W09B10 - Eagle Ridge #2 Booster Modifications

RETURN



This project is located at on Eagle Ridge Parkway east of Cedar Street.

Project Information	
Public Works Number	<>
System	Eagle Ridge 2
Function	Booster
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	10
Right of Way	0
Constr. Management	10
Construction Cost	65
Other	0
Total	**85**

Funding	
Water Fund	85
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**85**

Description

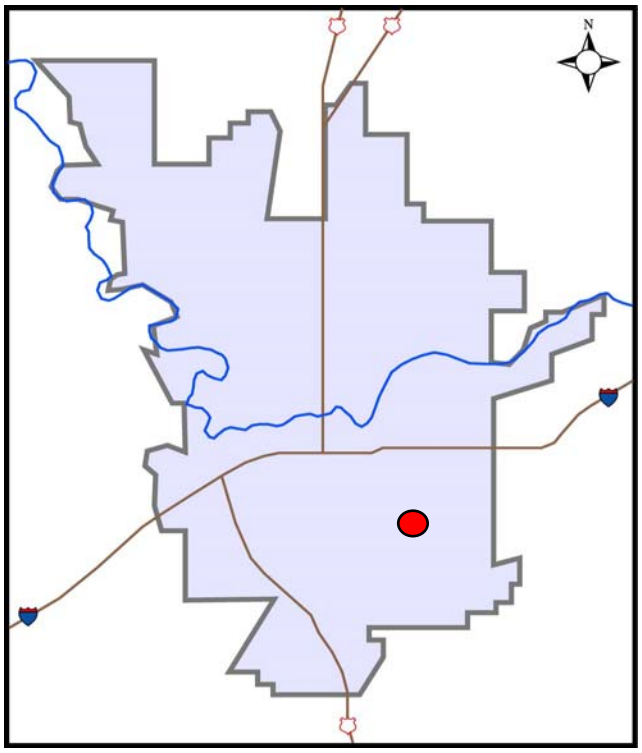
The existing Eagle Ridge #2 Booster Station currently has two large pumps. During low demand periods, smaller capacity pumps are necessary to provide more efficient operation and to reduce the on/off cycling of the larger pumps and consequently reducing both wear-and-tear to the and water hammer. This project will install a new small pump at the booster station. *The schedule for financial expenditures is on Page 13.*

RETURN

Project Detail

W09B11 - Garden Park Booster Station Rehabilitation

RETURN



Project is located at 2403 East 37th Avenue.

Project Information	
Public Works Number	<>
System	Top
Function	Booster
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	10
Right of Way	0
Constr. Management	10
Construction Cost	70
Other	0
Total	**90**

Funding	
Water Fund	90
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**90**

Description

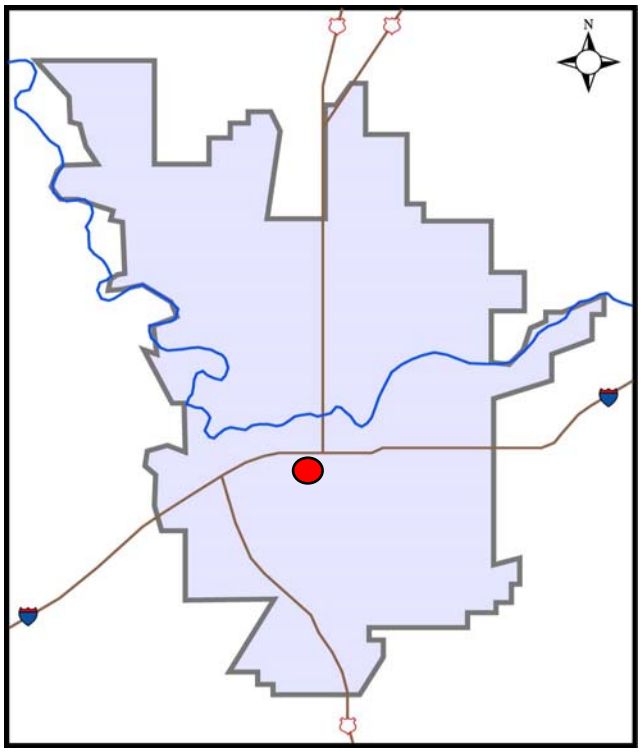
The Garden Park Booster Station will be upgraded, overhauled, rehabilitated, and modernized with new pumps and motors to improve the efficiency of the pump motors to keep the water system operating at optimum performance. *The schedule for financial expenditures is on Page 13.*

RETURN

Project Detail

W09B12 - 9th & Pine Booster Station Rehabilitation

RETURN



Project is located on 9th Avenue, west of Cowley Street.

Project Information	
Public Works Number	<>
System	North Hill
Function	Wells
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	10
Right of Way	0
Constr. Management	10
Construction Cost	90
Other	0
Total	**110**

Funding	
Water Fund	110
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**110**

Description

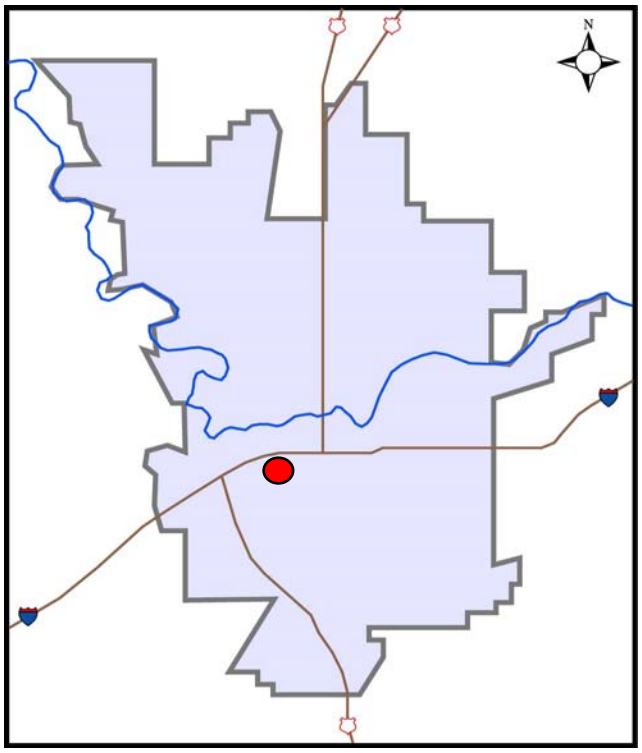
The 9th & Pine Booster Station will be upgraded, overhauled, rehabilitated, and modernized with new pumps and motors to improve the efficiency of the pump motors to keep the water system operating at optimum performance. *The schedule for financial expenditures is on Page 13.*

RETURN

Project Detail

W09B13 - Bishop Court Booster Station Rehabilitation

RETURN



Project is located on Bishop Court and west of Monroe Street.

Project Information	
Public Works Number	<>
System	North Hill
Function	Wells
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	10
Right of Way	0
Constr. Management	10
Construction Cost	75
Other	0
Total	**95**

Funding	
Water Fund	95
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**95**

Description

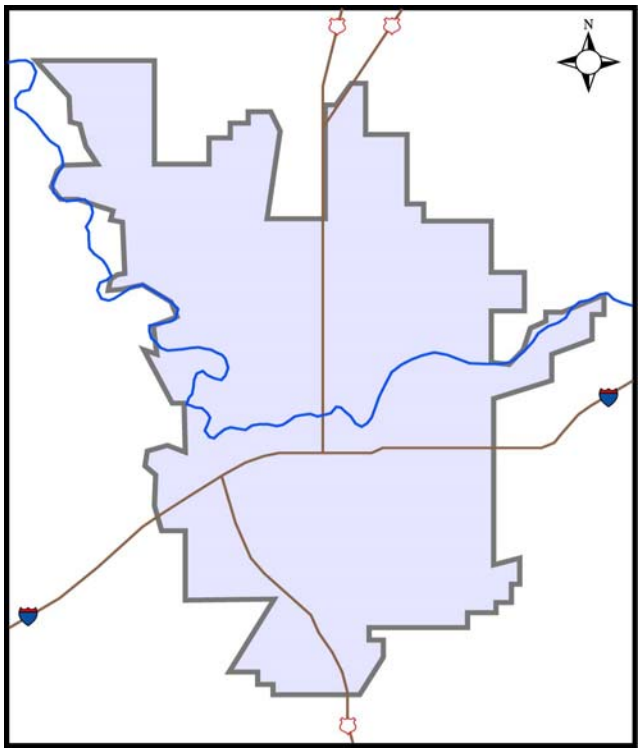
The Bishop Court Booster Station will be upgraded, overhauled, rehabilitated, and modernized with new pumps and motors to improve the efficiency of the pump motors to keep the water system operating at optimum performance. *The schedule for financial expenditures is on Page 13.*

RETURN

Project Detail

W09B14 - Pump Maintenance and Repair

RETURN



Project is located over the entire service area.

Project Information	
Public Works Number	<>
System	All
Function	Well & Booster
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	80
Right of Way	0
Constr. Management	160
Construction Cost	1,860
Other	0
Total	**2,100**

Funding	
Water Fund	2,100
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**2,100**

Description

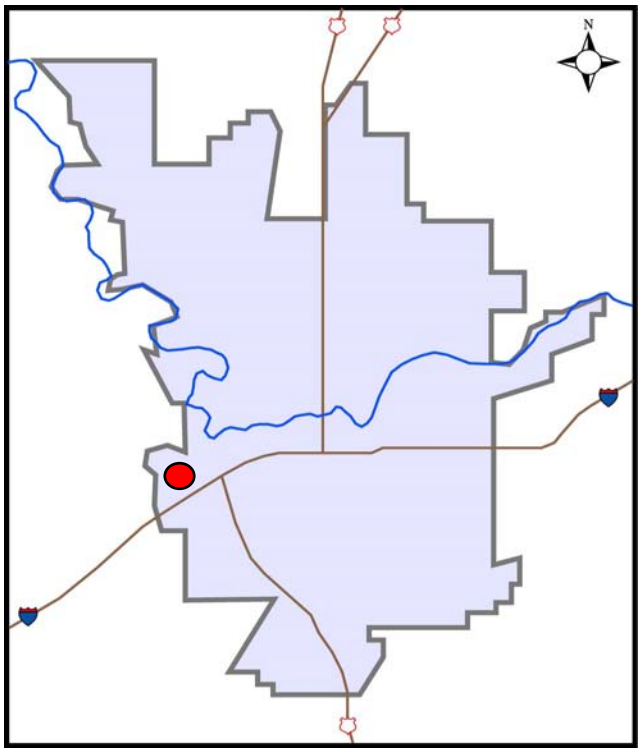
The booster and well pumps operate on a continual basis. Pumps and motors require routine maintenance operate efficiently and smoothly. This project provides for the maintenance and repair of existing pumps within the water system. *The schedule for financial expenditures is on Page 13.*

RETURN

Project Detail

W09B15 - West Supply Well

RETURN



Project is located over the entire service area.

Project Information	
Public Works Number	<>
System	TBD
Function	Wells
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	300
Right of Way	250
Constr. Management	450
Construction Cost	3,000
Other	0
Total	**4,000**

Funding	
Water Fund	4,000
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**4,000**

Description

The project will construct a new source well on the west portion of the water system. *The schedule for financial expenditures is on Page 13.*

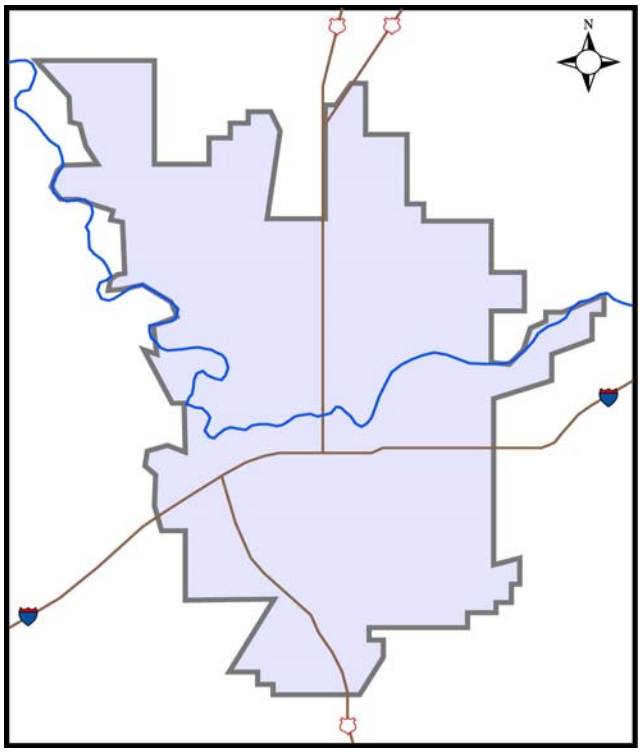
RETURN

STORAGE SYSTEM IMPROVEMENTS

Project Detail

W05R02 - Tank and Reservoir Painting

RETURN



This project services reservoirs and tanks located throughout the City.

Project Information	
Public Works Number	<>
System	N/A
Function	Reservoir
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	100
Right of Way	0
Constr. Management	200
Construction Cost	1,500
Other	0
Total	**1,800**

Funding	
Water Fund	1,800
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**1,800**

Description

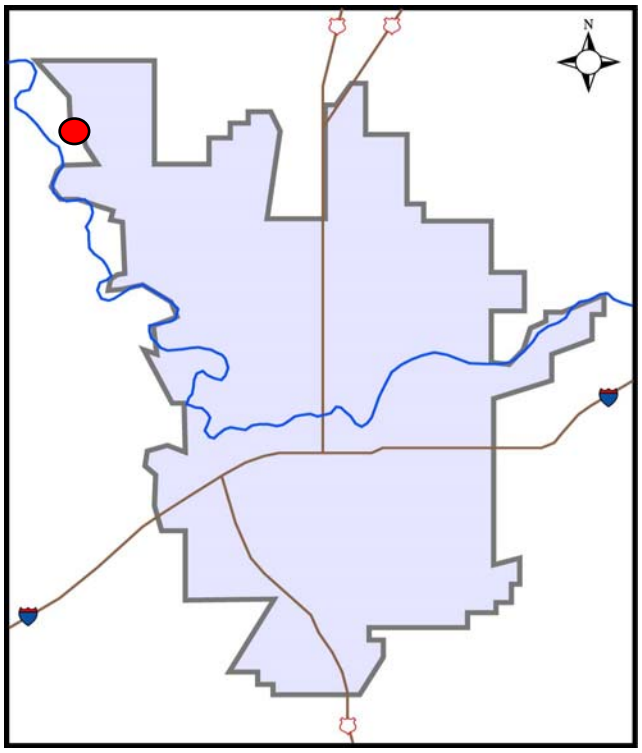
This on-going project repaints selected tanks and reservoirs as needed. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

W02C02 - Northwest Terrace Reservoir

RETURN



The project is located in the Northwest Terrace Pressure Zone in northwest Spokane.

Project Information	
Public Works Number	<>
System	NW Terrace
Function	Reservoir
Environmental Class.	Env Assess
Design Responsibility	Eng Service
Length	N/A

Budget	
Engineering	130
Right of Way	0
Constr. Management	220
Construction Cost	1,250
Other	0
Total	**1,600**

Funding	
Water Fund	1,600
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**1,600**

Description

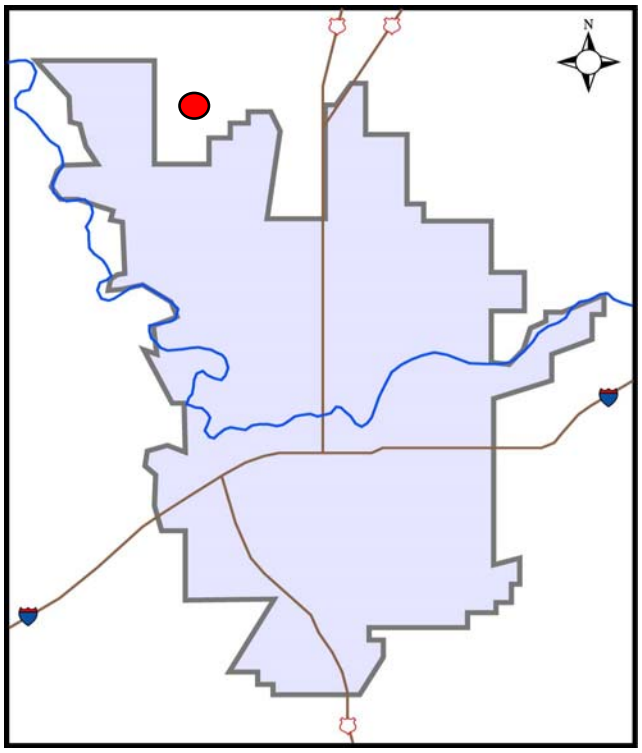
This project will construct a new reservoir within the Northwest Terrace Pressure Zone (location not yet determined). When constructed, this 800,000 gallon reservoir will provide additional storage and reduce the need to rely solely on pressure reduction from higher pressure zones to provide water to this area. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

W03C02 - North Five Mile Prairie Reservoir

RETURN



Project is located in the vicinity of Five Mile Road and Johannsen Road.

Project Information	
Public Works Number	<>
System	5-Mile
Function	Reservoir
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	200
Right of Way	0
Constr. Management	320
Construction Cost	2,000
Other	0
Total	**2,520**

Funding	
Water Fund	2,520
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**2,520**

Description

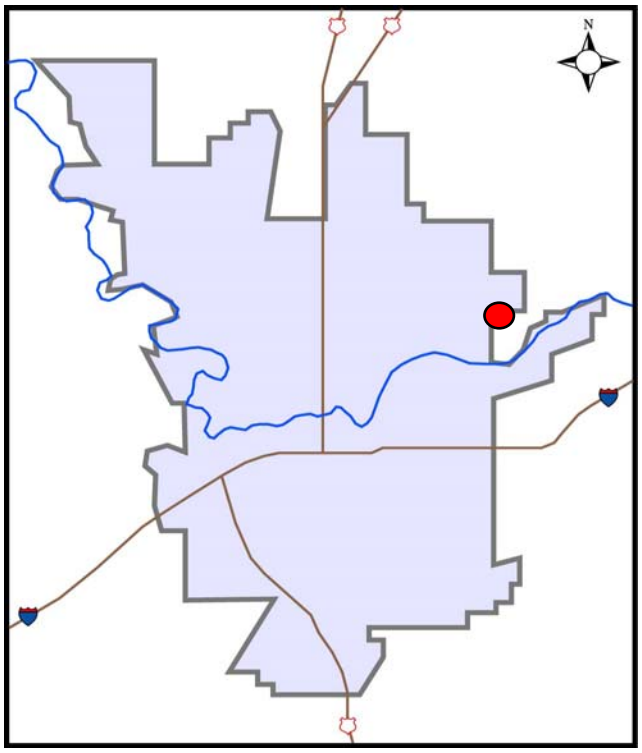
Formerly titled "Dorset Road Tank and Booster Station", this project has been organized into two projects (a booster station and a reservoir), and it is now called "North Five Mile Prairie Reservoir." This new reservoir will add approximately 2 million gallons of storage in the New North 5-Mile Prairie pressure zone to provide better service to the existing customers, allow more efficient operation, provide redundancy and accommodate new growth in the north Five Mile Prairie area. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

W05C03 - Beacon Hill Reservoir

RETURN



This new tank will be located near Wellesley and Havana.

Project Information	
Public Works Number	<>
System	North Hill
Function	Reservoir
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	200
Right of Way	0
Constr. Management	290
Construction Cost	1,950
Other	0
Total	**2,440**

Funding	
Water Fund	2,440
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**2,440**

Description

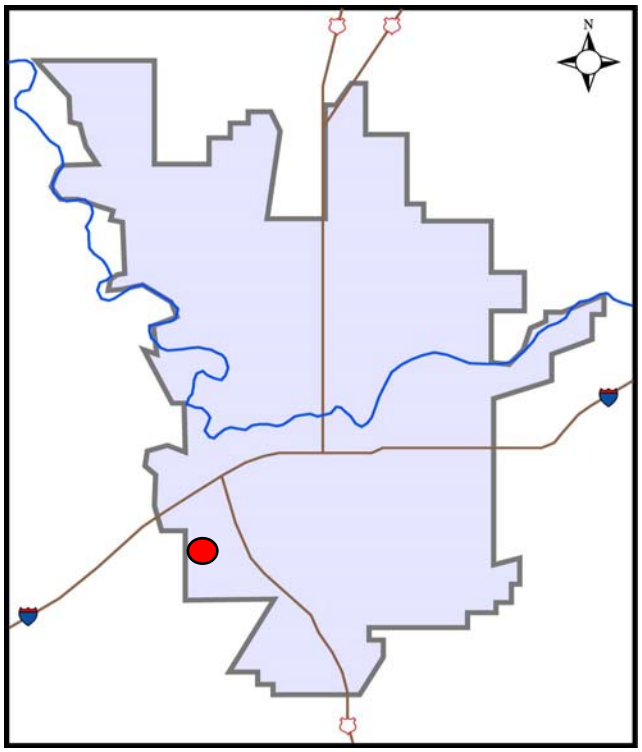
Formerly titled "East Wellesley Reservoir and Booster Station" this project has been organized into two projects (a booster station and a reservoir), and the reservoir project has been renamed "Beacon Hill Reservoir." This project will construct a new 2.0 million gallon reservoir east of Wellesley and Havana to accommodate new development within the northeast portion of the City. The City will be constructing one of the three anticipated reservoirs in the Beacon Hill area. The developer will construct the access road and share in the pipeline construction as well as providing the land for improvements. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

W07S02 - Thorpe Road Reservoir No. 2

RETURN



Project is located at 3302 W. Thorpe Road.

Project Information	
Public Works Number	<>
System	SIA/Plains
Function	Reservoir
Environmental Class.	Env Assess
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	190
Right of Way	0
Constr. Management	290
Construction Cost	1,920
Other	0
Total	**2,400**

Funding	
Water Fund	2,400
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**2,400**

Description

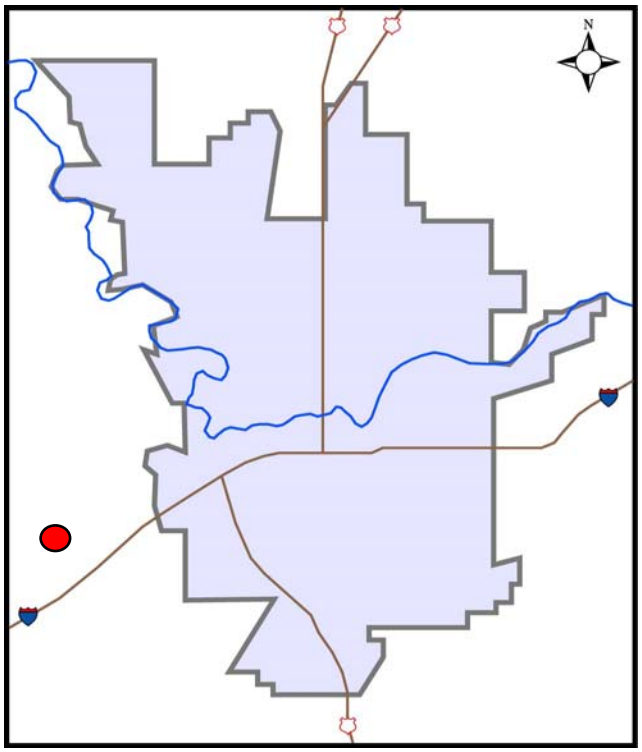
This project will construct a second reservoir next to the existing one on Thorpe Road. Although the existing reservoir serves the Low pressure zone, the new 3.5 million gallon reservoir will provide redundancy, allow for maintenance of the first reservoir, and add capacity for growth in the Spokane International Airport (SIA) and Plains pressure zones on the West Plains. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

W09S01 - Plains System Second Reservoir

RETURN



This project is located in the West Plains area.

Project Information	
Public Works Number	<>
System	Plains
Function	Reservoir
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	233
Right of Way	0
Constr. Management	290
Construction Cost	2,410
Other	0
Total	**2,933**

Funding	
Water Fund	2,933
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**2,933**

Description

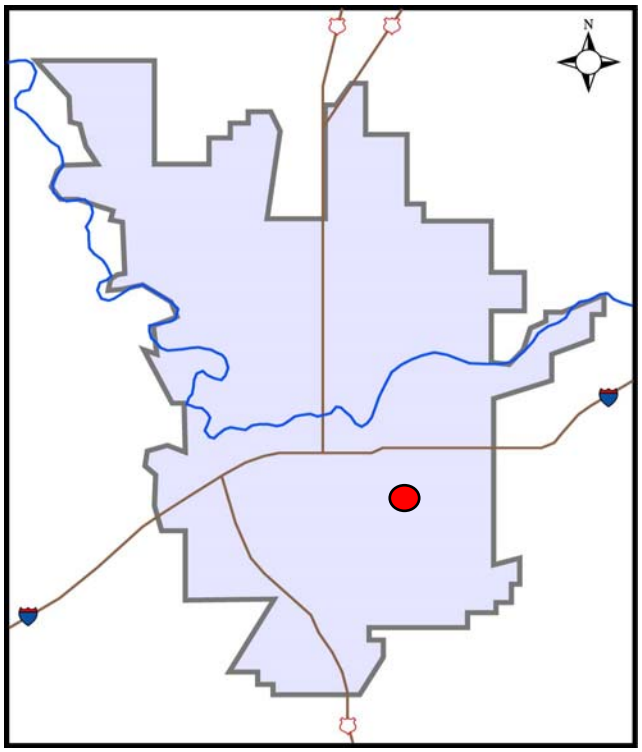
This project will construct a second reservoir in Plains Pressure System in the vicinity of Highway 2 and Hayford Road. An exact location has not been determined, but this new reservoir will be at the same elevation as the Thomas Mallen Reservoir. The purpose of this project is to provide storage to the northern portion of the Plains Pressure System, enhancing redundancy and providing additional capacity for increased water service to the West Plains. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

W09S02 - High System Additional Storage

RETURN



This project is located in the southeast portion of the City.

Project Information	
Public Works Number	<>
System	High
Function	Reservoir
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	216
Right of Way	0
Constr. Management	270
Construction Cost	2,230
Other	0
Total	**2,716**

Funding	
Water Fund	2,716
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**2,716**

Description

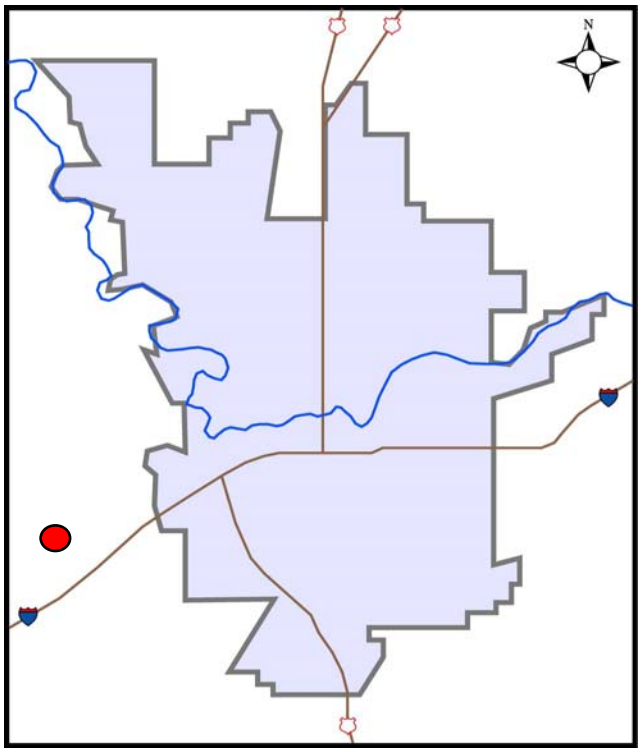
This project will construct an additional reservoir in the High Pressure System. An exact location has not been determined. The purpose of this project is to provide additional storage, enhancing redundancy and providing additional capacity for increased water service to the High Pressure System. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

W09S03 - Plains System Third Reservoir

RETURN



This project is located in the West Plains area.

Project Information	
Public Works Number	<>
System	Plains
Function	Reservoir
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	200
Right of Way	0
Constr. Management	260
Construction Cost	2,140
Other	0
Total	**2,600**

Funding	
Water Fund	2,600
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**2,600**

Description

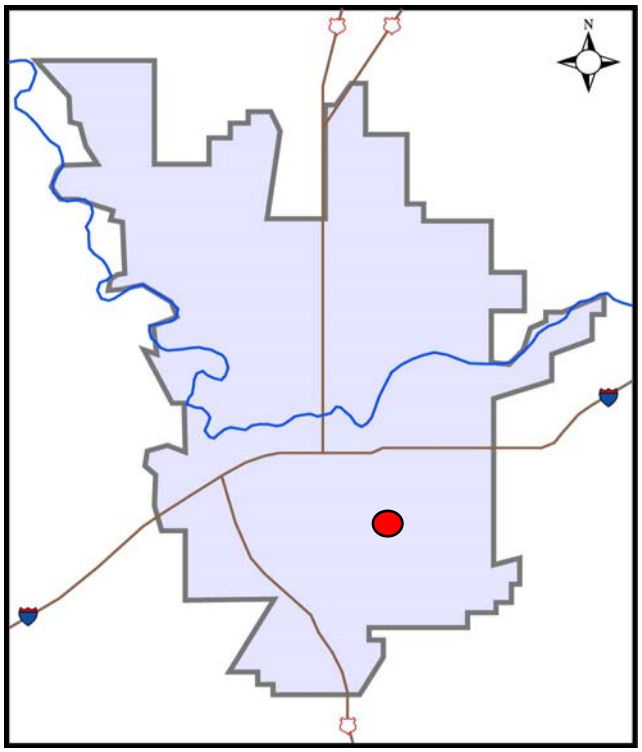
This project will construct a third reservoir in the Plains Pressure System in the vicinity of McFarlane Avenue and Rambo Street. An exact location has not been determined, but this new reservoir will be at the same elevation as the Thomas Mallen Reservoir. The purpose of this project is to provide storage to the western portion of the Plains Pressure System, enhancing redundancy and providing additional capacity for increased water service to the West Plains. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

W09S04 - Lincoln Heights Yard Piping

RETURN



This project is located near Ray Street and 23rd Avenue.

Project Information	
Public Works Number	<>
System	High
Function	Reservoir
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	30
Right of Way	0
Constr. Management	40
Construction Cost	280
Other	0
Total	**350**

Funding	
Water Fund	350
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**350**

Description

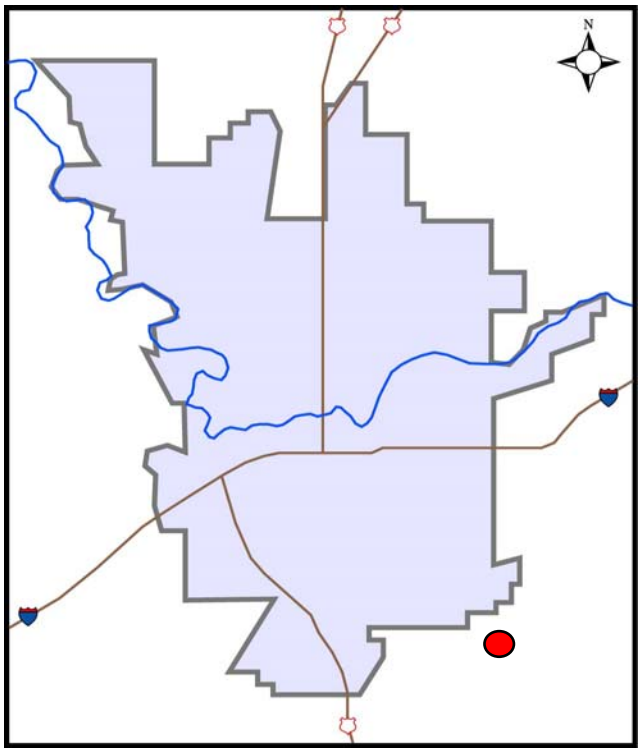
This project will replace yard piping that serves the Lincoln Heights Reservoir and Pump Station. The pipe, fittings and valves have reached the end of their useful life. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

W09S05 - Brown Park Reservoir Yard Piping

RETURN



This project is located near Glenrose Street and 57th Avenue.

Project Information	
Public Works Number	<>
System	Top
Function	Reservoir
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	20
Right of Way	0
Constr. Management	20
Construction Cost	160
Other	0
Total	**200**

Funding	
Water Fund	200
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**200**

Description

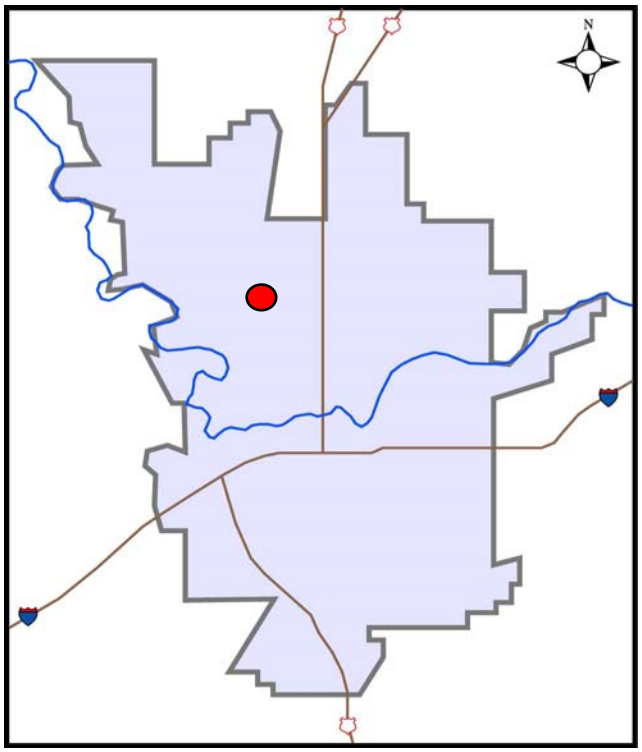
This project will replace yard piping that serves the Brown Park Reservior. The pipe, fittings and valves have reached the end of their useful life. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

W09S06 - Shadle Additional Reservoir

RETURN



This project is located near Belt Street and Wellesley Avenue.

Project Information	
Public Works Number	<>
System	Low
Function	Reservoir
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	220
Right of Way	0
Constr. Management	260
Construction Cost	2,180
Other	0
Total	**2,660**

Funding	
Water Fund	2,660
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**2,660**

Description

This project will construct an additional reservoir in the vicinity of the existing Shadle Reservoir. An exact location has not been determined, but this new reservoir will be at the same elevation as the Shadle. The purpose of this project is to provide additional storage capacity to the Low Pressure Zone. *The schedule for financial expenditures is on Page 14.*

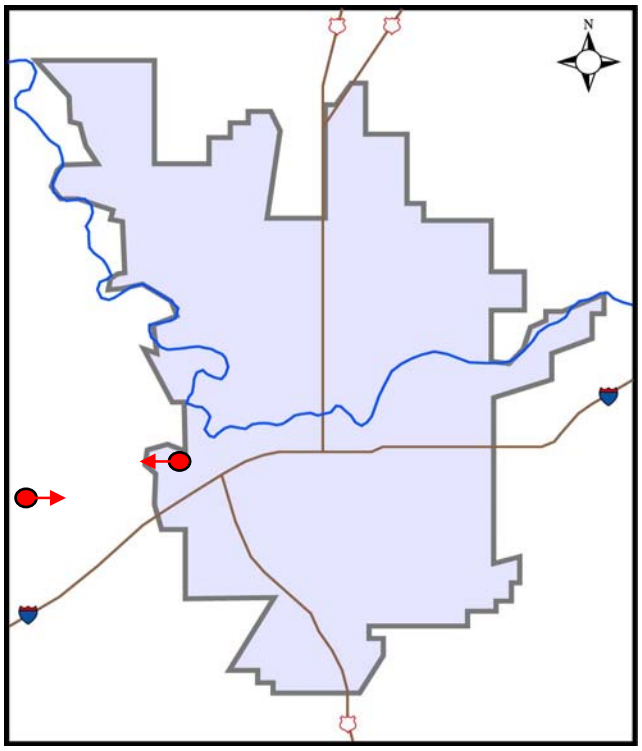
RETURN

DISTRIBUTION AND TRANSMISSION IMPROVEMENTS

Project Detail

W00C03 - Westside Transmission, West Dr. Booster to Spotted

RETURN



Project work begins at the West Drive Booster Station and extends west to Spotted Road.

Project Information	
Public Works Number	<>
System	Highland/SIA
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	3 miles

Budget	
Engineering	300
Right of Way	0
Constr. Management	440
Construction Cost	2,940
Other	0
Total	**3,680**

Funding	
Water Fund	3,680
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**3,680**

Description

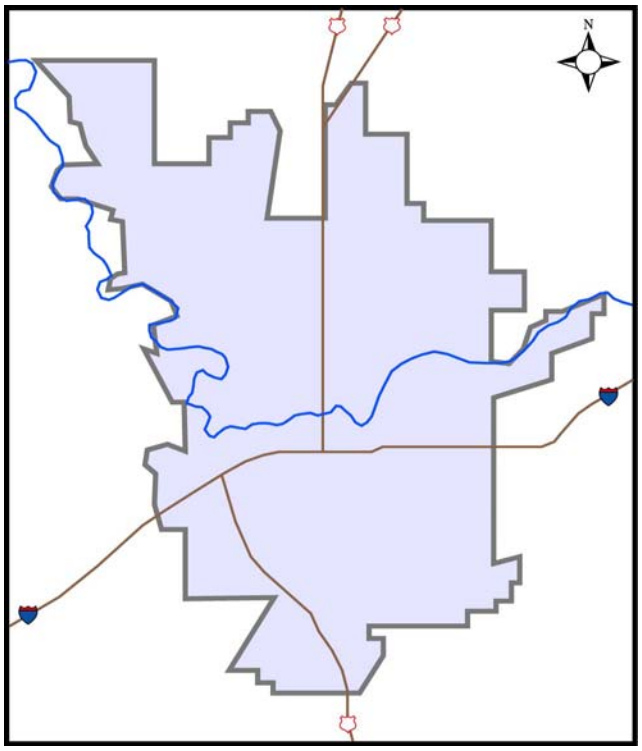
This project will construct a 36" transmission main from the West Drive Booster Station to Spotted Road for system reliability, redundancy, capacity and completion of the westside main project. Related projects: W00C004 & W00C006. *The schedule for financial expenditures is on Page 15.*

RETURN

Project Detail

W00C08 - Water Main Upsizing Fund

RETURN



Project work services the entire City.

Project Information	
Public Works Number	<>
System	N/A
Function	Trans
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	6
Right of Way	0
Constr. Management	14
Construction Cost	430
Other	0
Total	**450**

Funding	
Water Fund	450
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**450**

Description

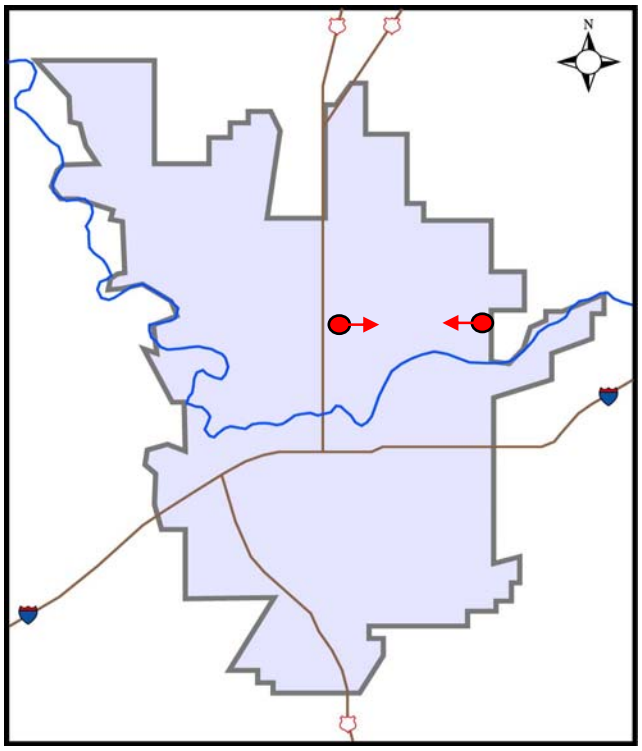
Fund to pay for up-sizing new distribution mains installed by developers to the sizes needed for future capacity purposes as need for development and as identified in the Water Comprehensive Plan. *The schedule for financial expenditures is on Page 15.*

RETURN

Project Detail

W00R08 - Euclid/Mayfair Transmission Mains

RETURN



Project begins near Euclid and Havana and near Euclid and Mayfair.

Project Information	
Public Works Number	<>
System	North Hill
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	2.9 miles

Budget	
Engineering	390
Right of Way	0
Constr. Management	600
Construction Cost	3,910
Other	0
Total	**4,900**

Funding	
Water Fund	4,900
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**4,900**

Description

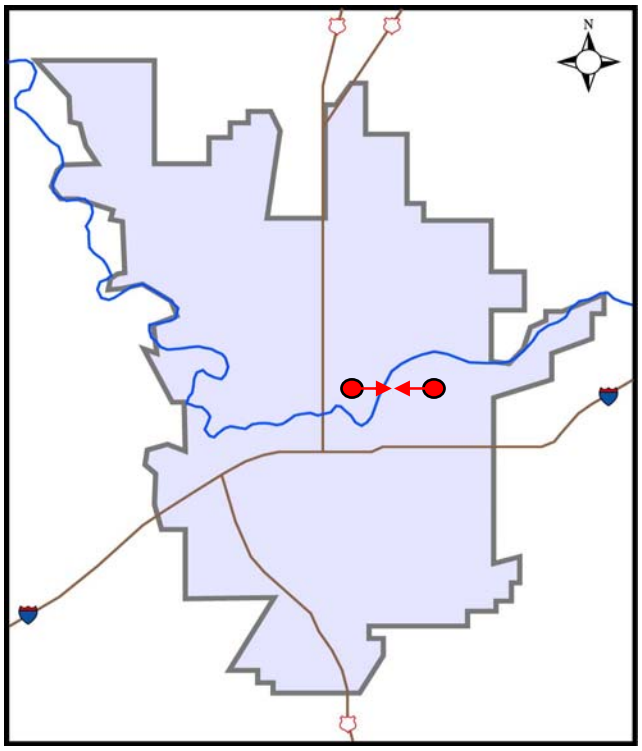
This project will replace about 5 miles of old (about 100 years old) 28-inch steel transmission main with 30-inch ductile iron pipe. *The schedule for financial expenditures is on Page 15.*

RETURN

Project Detail

W00R09 - Mission Transmission Main, Phase II

RETURN



Project is in Mission Street from Hamilton to Greene.

Project Information	
Public Works Number	<>
System	Low
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	1.5 miles

Budget	
Engineering	140
Right of Way	0
Constr. Management	140
Construction Cost	1,420
Other	0
Total	**1,700**

Funding	
Water Fund	1,700
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**1,700**

Description

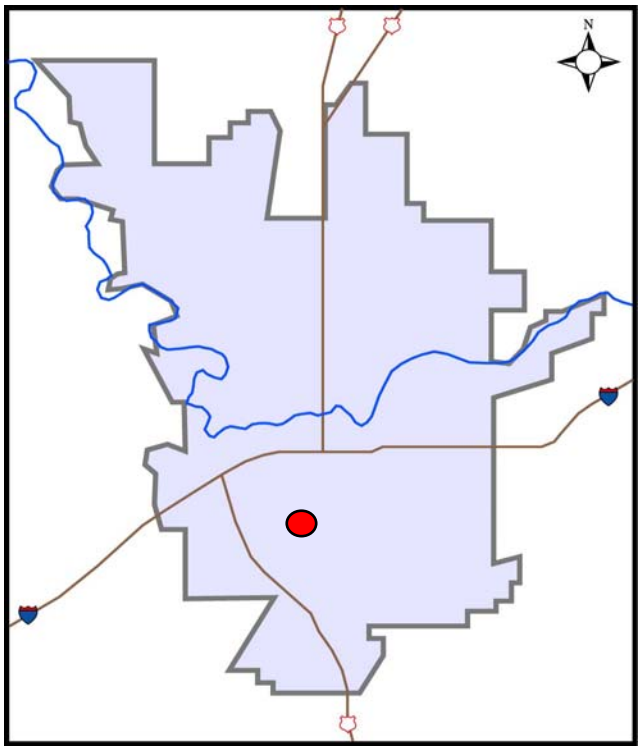
This project will replace about 1.5 miles of aging (about 100 years old) 30-inch diameter transmission main in the northeast portion of the City. *The schedule for financial expenditures is on Page 15.*

RETURN

Project Detail

W00R10 - 14th Avenue Main Replacement

RETURN



Project work is in 14th Avenue.

Project Information	
Public Works Number	<>
System	N/A
Function	Trans
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	20
Right of Way	0
Constr. Management	30
Construction Cost	225
Other	0
Total	**275**

Funding	
Water Fund	275
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**275**

Description

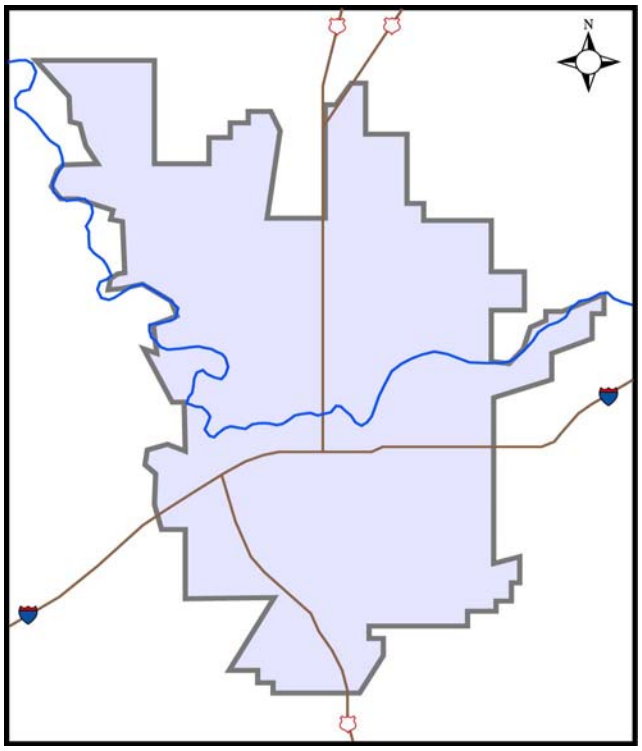
This project will replace old sections of transmission main in 14th Avenue. This project was formerly titled "Transmission Mains Relining" and relining the transmission main was anticipated, however, this specific pipe does not meet relining criteria well and a more cost effective construction method of replacement was determined to be feasible. *The schedule for financial expenditures is on Page 15.*

RETURN

Project Detail

W00R13 - Kalamein Pipe Replacement

RETURN



Project work services the entire City.

Project Information	
Public Works Number	<>
System	N/A
Function	Trans
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	35
Right of Way	0
Constr. Management	40
Construction Cost	225
Other	0
Total	**300**

Funding	
Water Fund	300
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**300**

Description

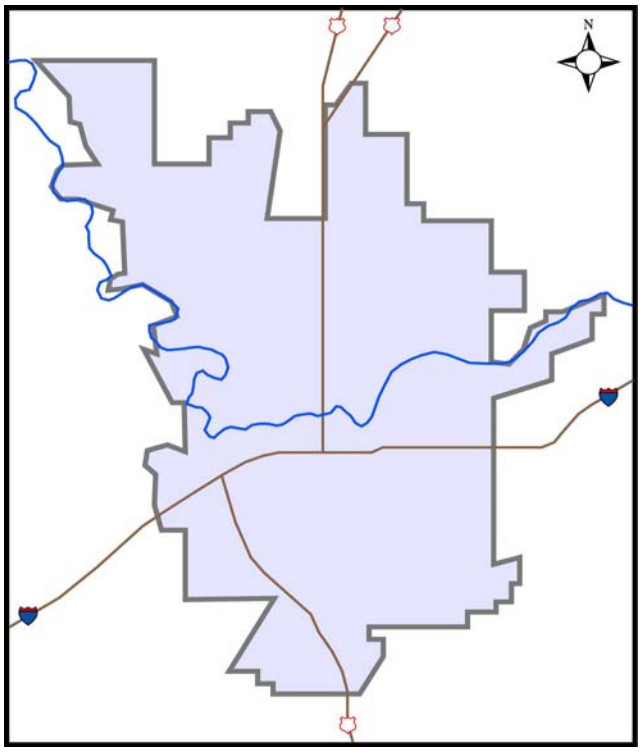
This on-going project is an effort to replace about 2.5 miles of old galvanized steel (Kalamein) pipe in the City. *The schedule for financial expenditures is on Page 15.*

RETURN

Project Detail

W00R15 - Miscellaneous Rehabilitation

RETURN



Project work services the entire City.

Project Information	
Public Works Number	<>
System	N/A
Function	Trans
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	60
Right of Way	0
Constr. Management	60
Construction Cost	990
Other	0
Total	**1,110**

Funding	
Water Fund	1,110
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**1,110**

Description

This on-going project consists of small rehabilitation projects dictated by recent discoveries during routine maintenance. *The schedule for financial expenditures is on Page 15.*

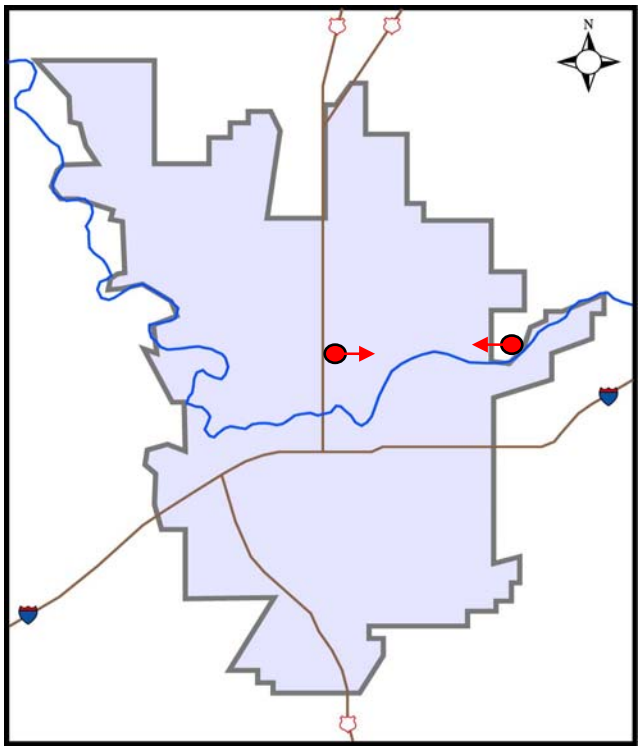
RETURN

Project Detail

W02R05 - Buckeye-Grace Ave/Ruby St to Upriver Dr Transmission

RETURN

formerly Jackson/Division Transmission Main



Project work begins near Ruby and Jackson and ends near Buckeye and Havana.

Project Information	
Public Works Number	<>
System	North Hill
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	3.7 miles

Budget	
Engineering	370
Right of Way	0
Constr. Management	530
Construction Cost	3,700
Other	0
Total	**4,600**

Funding	
Water Fund	4,600
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**4,600**

Description

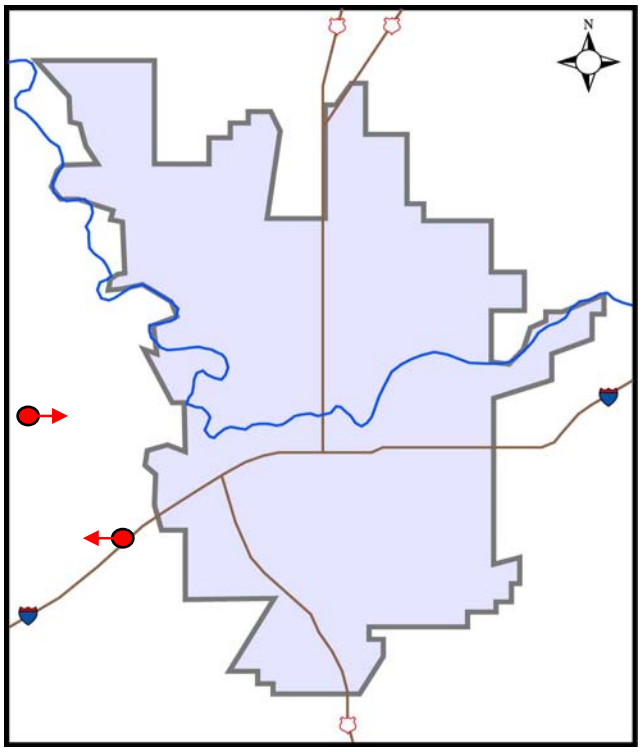
This project replaces about 3.7 miles of 24-inch aged steel transmission main (90 and 100 years old) with 30-inch ductile iron pipe in the northeast portion of the City. *The schedule for financial expenditures is on Page 15.*

RETURN

Project Detail

W05C02 - Fairchild AFB/West Plains Transmission Extension, Phase 1

RETURN



Project is located in the West Plains area outside of the City limits.

Project Information	
Public Works Number	<>
System	Plains/SIA
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	3.2 miles

Budget	
Engineering	380
Right of Way	0
Constr. Management	720
Construction Cost	4,790
Other	0
Total	**5,890**

Funding	
Water Fund	5,890
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**5,890**

Description

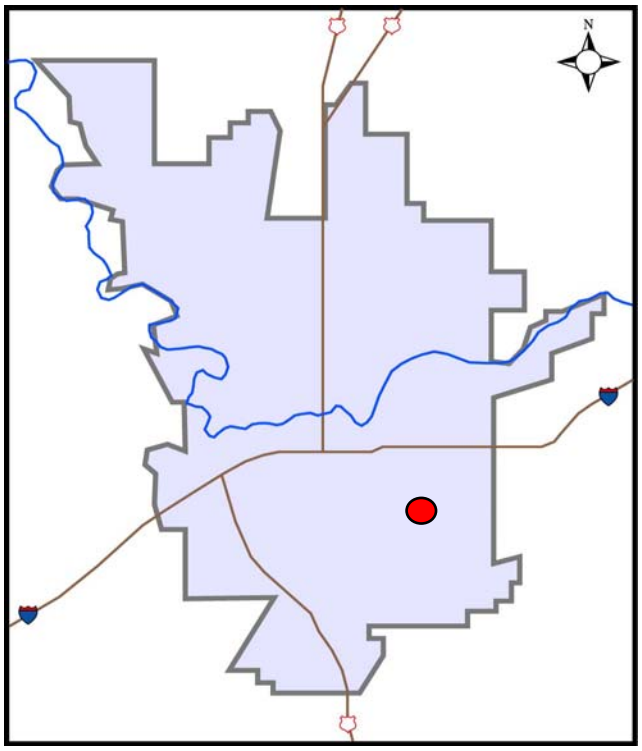
This is the first phase in a project to extend the 36" transmission line from Thomas Mallon & Geiger Boulevard to serve the Fairchild Air Force Base. Phase 1 of this project will follow Geiger Blvd to Hayford Road and then continue west in Medical Lake Road (State Highway 902) to Craig Road. This project will be complete in 2008. *The schedule for financial expenditures is on Page 15.*

RETURN

Project Detail

W05R04 - Southeast Blvd., 29th Avenue to Magnolia

RETURN



Project work services Southeast Blvd. from 29th Avenue to Magnolia.

Project Information	
Public Works Number	<>
System	High
Function	Trans
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	4,560 ft

Budget	
Engineering	70
Right of Way	0
Constr. Management	110
Construction Cost	700
Other	0
Total	**880**

Funding	
Water Fund	880
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**880**

Description

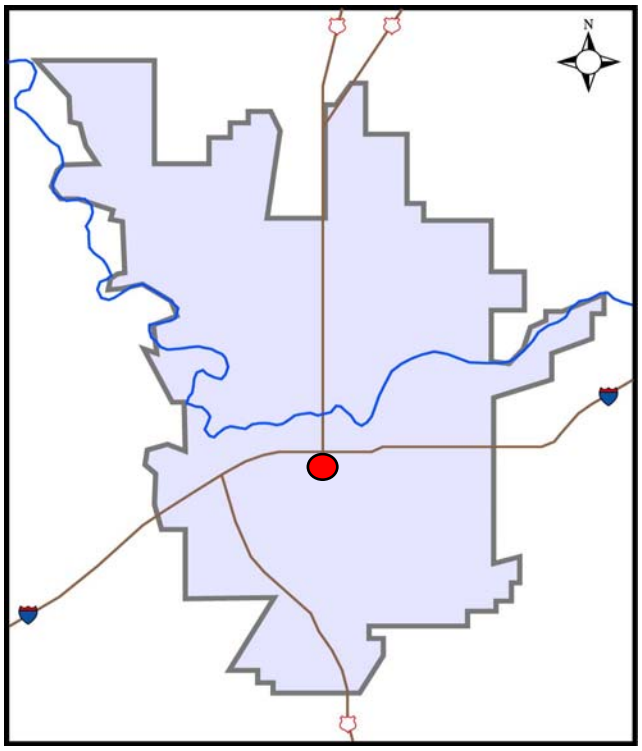
This project will replace about 2,200 feet of 8-inch cast iron pipe and about 2,360 feet of 12-inch cast iron pipe in Southeast Boulevard north of 29th Avenue. *The schedule for financial expenditures is on Page 15.*

RETURN

Project Detail

W07T01 - Division, 8th to 9th Avenues

RETURN



Project work is located in Division Street between 8th and 9th Avenues.

Project Information	
Public Works Number	<>
System	Intermediate
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	45
Right of Way	0
Constr. Management	50
Construction Cost	380
Other	0
Total	**475**

Funding	
Water Fund	475
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**475**

Description

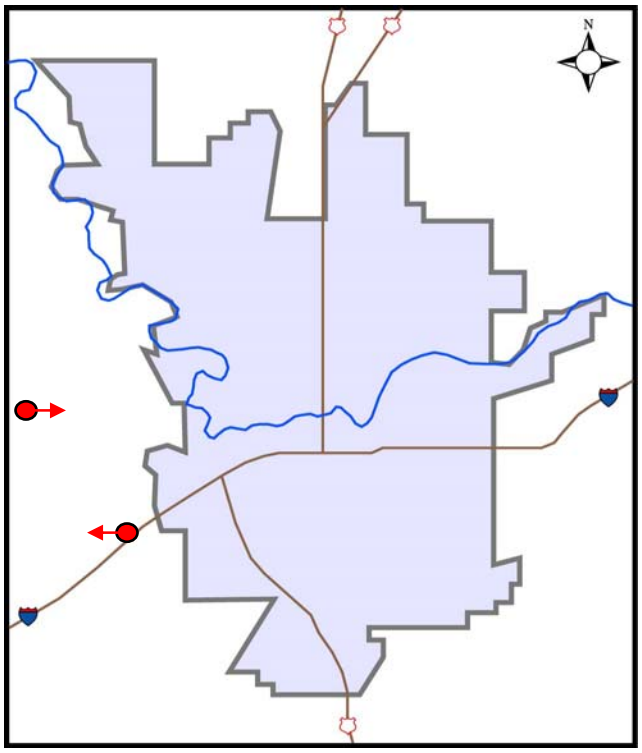
This project will replace three 24-inch and larger diameter old pipes located under a hospital between 8th Avenue and 9th Avenue near Division Street. A new route will be established around the hospital.
The schedule for financial expenditures is on Page 15.

RETURN

Project Detail

W08C01 - Fairchild AFB Transmission Extension, Phase 2

RETURN



Project is located in the West Plains area outside of the City limits.

Project Information	
Public Works Number	<>
System	Plains/SIA
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	426
Right of Way	0
Constr. Management	650
Construction Cost	4,300
Other	0
Total	**5,376**

Funding	
Water Fund	0
Grants	0
Loans	0
Local Impvt. District	0
Other	5,376
Total	**5,376**

Description

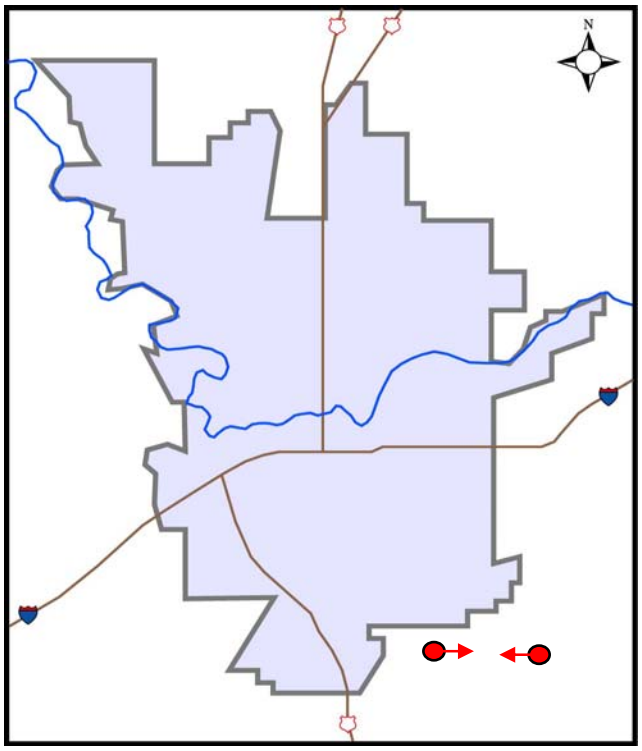
This is the second phase in a project to extend the 36" transmission line from Craig Road and Medical Lake Road to serve the Fairchild Air Force Base and surrounding industrial land. The route will follow Craig Road to McFarlane Avenue to Rambo Road and then to Fairchild AFB. This project was originally scheduled for three phases; phase 2 and phase 3 have been combined into phase 2. *The schedule for financial expenditures is on Page 15.*

RETURN

Project Detail

W09T01 - 57th Avenue, Regal to Glenrose

RETURN



Project work follows 57th Avenue from Regal Street to Glenrose .

Project Information	
Public Works Number	<>
System	Top
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	1.1 miles

Budget	
Engineering	114
Right of Way	0
Constr. Management	140
Construction Cost	1,131
Other	0
Total	**1,385**

Funding	
Water Fund	1,385
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**1,385**

Description

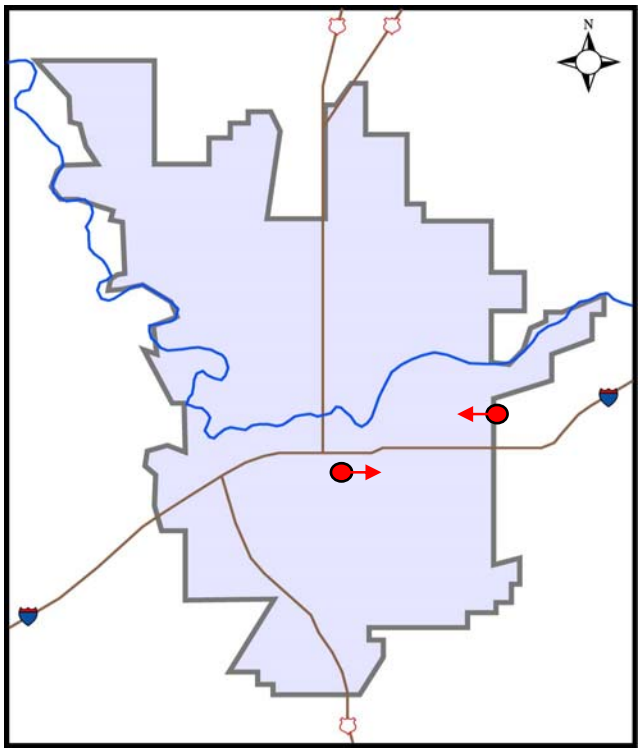
This project replaces about 1.1 miles of 30-inch steel transmission main with 30-inch ductile iron pipe in the southeast portion of the City. The steel pipe has reached the end of its useful service life and will be replaced as a part of preventive maintenance. The bugdet price includes estimated pavement replacement costs. *The schedule for financial expenditures is on Page 15.*

RETURN

Project Detail

W09T02 - Hartson/11th Ave, from Havana to Sherman Street

RETURN



Project work follows Hartson and 11th Avenue from Havana Road to Sherman Road.

Project Information	
Public Works Number	<>
System	Low
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	3.1 miles

Budget	
Engineering	330
Right of Way	0
Constr. Management	500
Construction Cost	3,300
Other	0
Total	**4,130**

Funding	
Water Fund	4,130
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**4,130**

Description

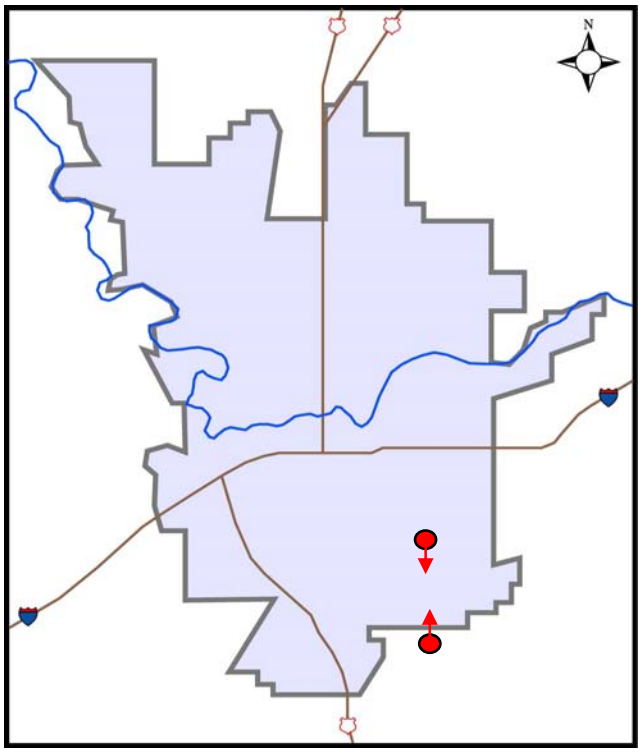
This project replaces over three miles of 48-inch and 36-inch steel transmission main with 42-inch and 48-inch ductile iron pipe. The pipe route begins at Havana Road and follows Hartson Avenue to Myrtle Road and then south to 11th Avenue. The alignment continues on 11th Avenue to North Altamont Blvd, 9th Avenue from Crestline Road to Hatch Road and 8th Avenue to Sherman Road. The steel pipe has reached the end of its useful service life and will be replaced as a part of preventive maintenance. *The schedule for financial expenditures is on Page 15.*

RETURN

Project Detail

W09T03 - Regal Street, 37th to 57th

RETURN



Project work follows Regal Street from 37th Avenue to 57th Avenue.

Project Information	
Public Works Number	<>
System	Top
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	1.3 miles

Budget	
Engineering	133
Right of Way	0
Constr. Management	170
Construction Cost	1,337
Other	0
Total	**1,640**

Funding	
Water Fund	1,640
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**1,640**

Description

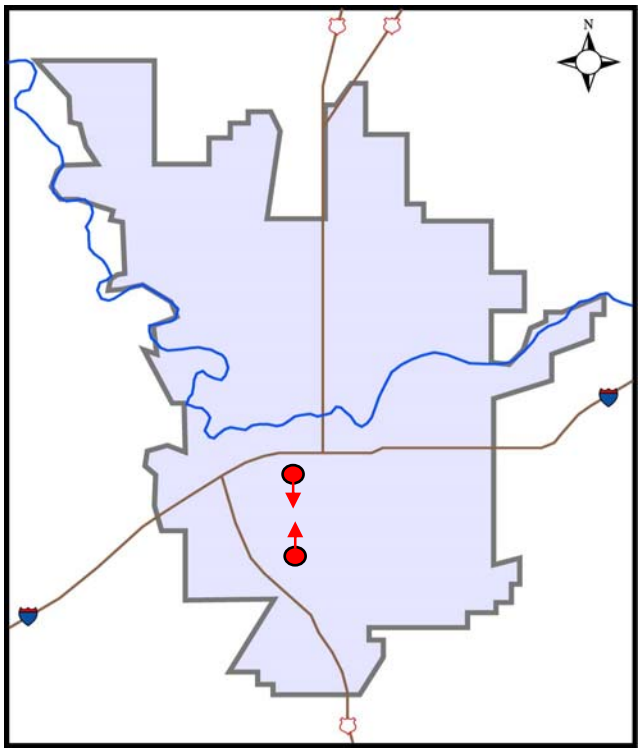
This project replaces about 1.3 miles of 30-inch steel transmission main with 30-inch ductile iron pipe in Regal Road from 37th Avenue to 57th Avenue The steel pipe has reached the end of its useful service life and will be replaced as part of preventive maintenance. The bugdet price includes estimated pavement replacement costs. *The schedule for financial expenditures is on Page 15.*

RETURN

Project Detail

W09T04 - Manito Blvd, 14th to 33rd

RETURN



Project work follows Manito Boulevard from 14th Avenue to 33rd Avenue.

Project Information	
Public Works Number	<>
System	High
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	1.3 miles

Budget	
Engineering	110
Right of Way	0
Constr. Management	140
Construction Cost	1,106
Other	0
Total	**1,356**

Funding	
Water Fund	1,356
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**1,356**

Description

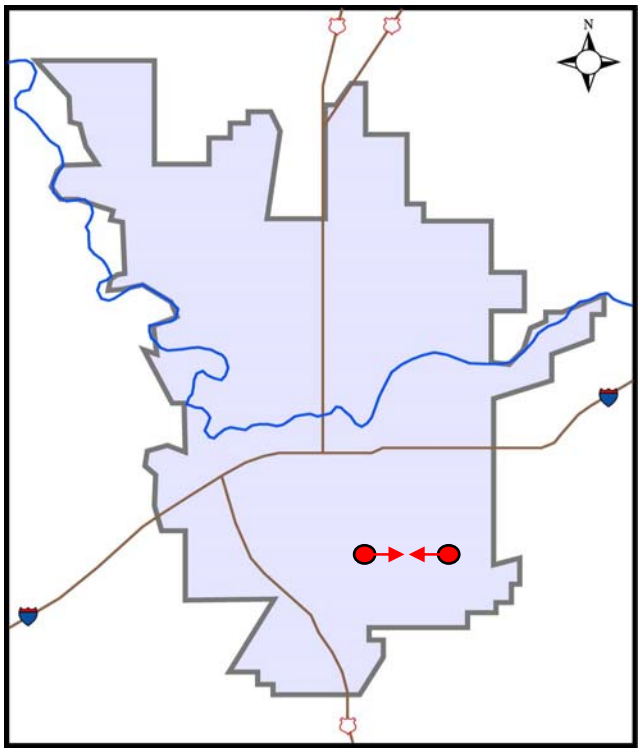
This project replaces about 1.3 miles of 24-inch steel transmission main with 24-inch ductile iron pipe. The pipe route follows Manito Boulevard from 33rd Avenue to 21st Avenue, through Manito Park to 17th Avenue, and in Tacoma Street to 14th Avenue. The steel pipe has reached the end of its useful service life and will be replaced as a part of preventive maintenance. *The schedule for financial expenditures is on Page 16.*

RETURN

Project Detail

W09T05 - 37th Avenue, Perry to Ray

RETURN



Project work follows 37th Avenue from Perry Street to Ray Street.

Project Information	
Public Works Number	<>
System	Top
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	1.3 miles

Budget	
Engineering	152
Right of Way	0
Constr. Management	189
Construction Cost	1,542
Other	0
Total	**1,883**

Funding	
Water Fund	1,883
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**1,883**

Description

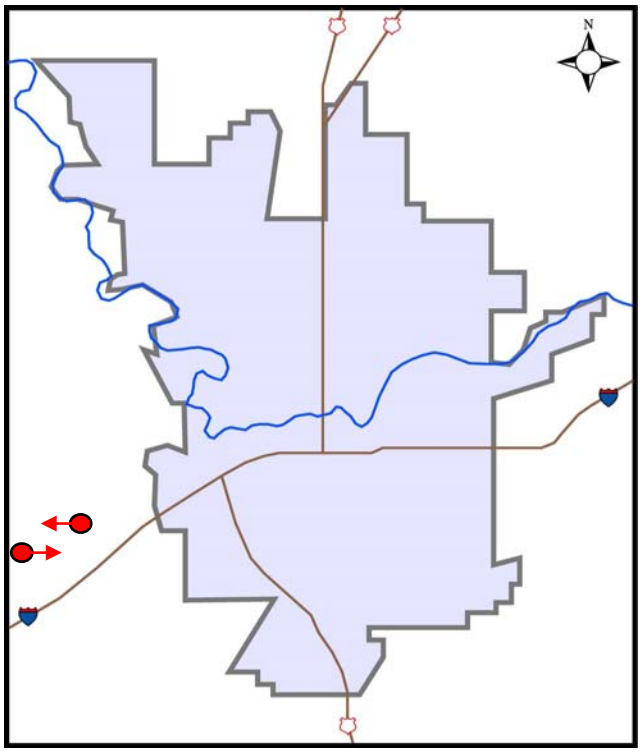
This project replaces about 1.3 miles of 18-inch and 24-inch steel transmission main with 12-inch, 24-inch and 30-inch ductile iron pipe in 37th Avenue from Perry Street to Ray Street. The steel pipe has reached the end of its useful service life and will be replaced as a part of preventive maintenance. *The schedule for financial expenditures is on Page 16.*

RETURN

Project Detail

W09T06 - Hayford Rd & Hwy 2 to Craig Rd & McFarlane Ave

RETURN



Project work from Hayford Rd & Hwy 2 to Craig Rd & MacFarlane Ave.

Project Information	
Public Works Number	<>
System	Plains
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	3.0 miles

Budget	
Engineering	249
Right of Way	0
Constr. Management	300
Construction Cost	2,500
Other	0
Total	**3,049**

Funding	
Water Fund	3,049
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**3,049**

Description

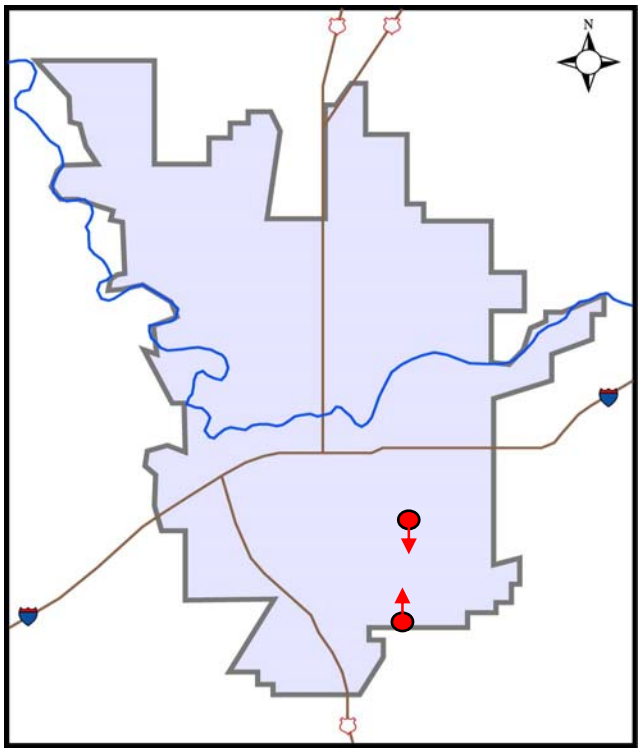
This project will construct a 36-inch ductile iron pipeline to connect Fairchild Air Force Base with the two new reservoirs in the Plains Pressure System. The actual alignment will be determined by the two new reservoir sites. *The schedule for financial expenditures is on Page 16.*

RETURN

Project Detail

W09T07 - Crestline, 37th Avenue to 57th Avenue

RETURN



Project work in Crestline from 37th Avenue to 57th Avenue.

Project Information	
Public Works Number	<>
System	Top
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	1.4 miles

Budget	
Engineering	110
Right of Way	0
Constr. Management	160
Construction Cost	1,050
Other	0
Total	**1,320**

Funding	
Water Fund	1,320
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**1,320**

Description

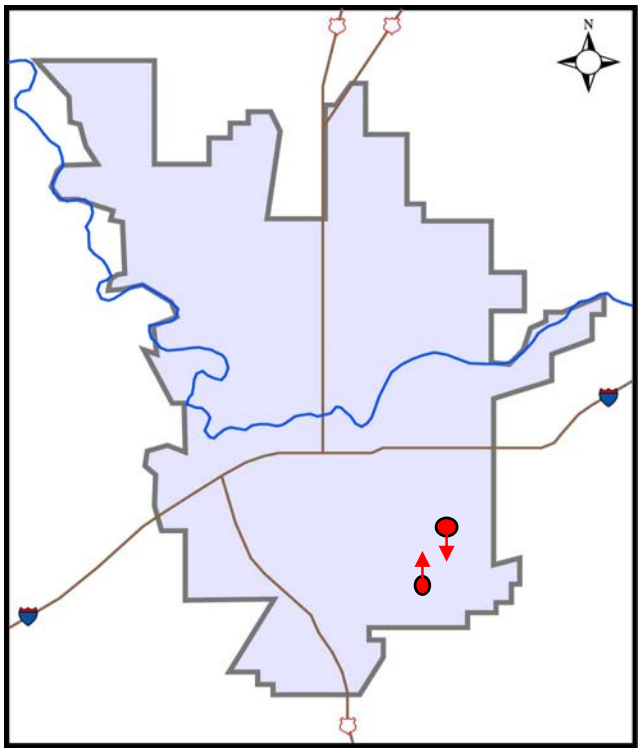
This project replaces about 1.3 miles of 24-inch steel transmission main with 24-inch ductile iron pipe in Stone Road from 37th Avenue to 39th Avenue to Lee Road to Thurston Avenue to Crestline Road to 57th Avenue. The steel pipe has reached the end of its useful service life and will be replaced as a part of preventive maintenance. *The schedule for financial expenditures is on Page 16.*

RETURN

Project Detail

W09T08 - Fiske Street, Lincoln Height Reservoir to 29th Ave

RETURN



Project work will be Fiske Road.

Project Information	
Public Works Number	<>
System	High
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	2100 feet

Budget	
Engineering	50
Right of Way	0
Constr. Management	70
Construction Cost	495
Other	0
Total	**615**

Funding	
Water Fund	615
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**615**

Description

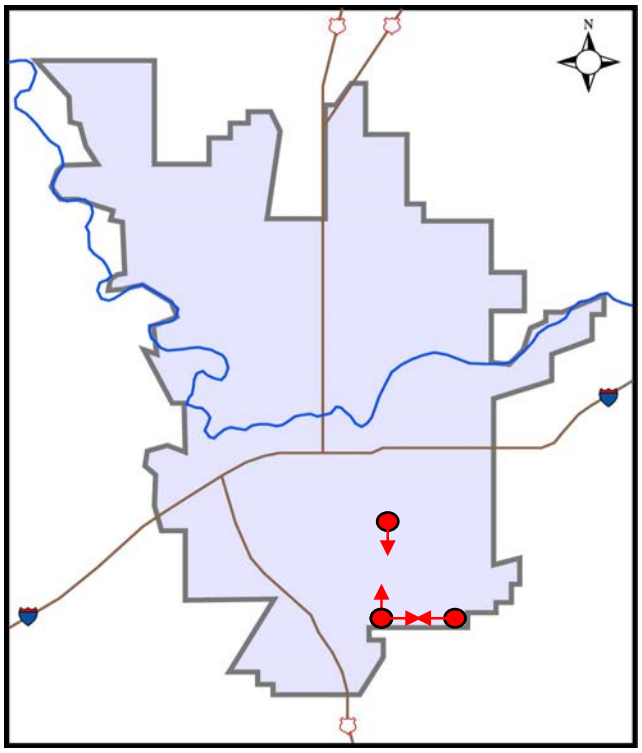
This project will replace a 36-inch steel pipe with ductile iron pipeline in Fiske Road from Lincoln Heights Reservoir to 29th Avenue. The steel pipe has reached the end of its useful service life and will be replaced as a part of preventive maintenance. *The schedule for financial expenditures is on Page 16.*

RETURN

Project Detail

W09T09 -Perry St/33rd Avenue to Regal St/57th Avenue

RETURN



Project work from Perry Street and 33rd Avenue to Regal Street and 57th Avenue

Project Information	
Public Works Number	<>
System	Top
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	2.5 miles

Budget	
Engineering	190
Right of Way	0
Constr. Management	280
Construction Cost	1,875
Other	0
Total	**2,345**

Funding	
Water Fund	2,345
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**2,345**

Description

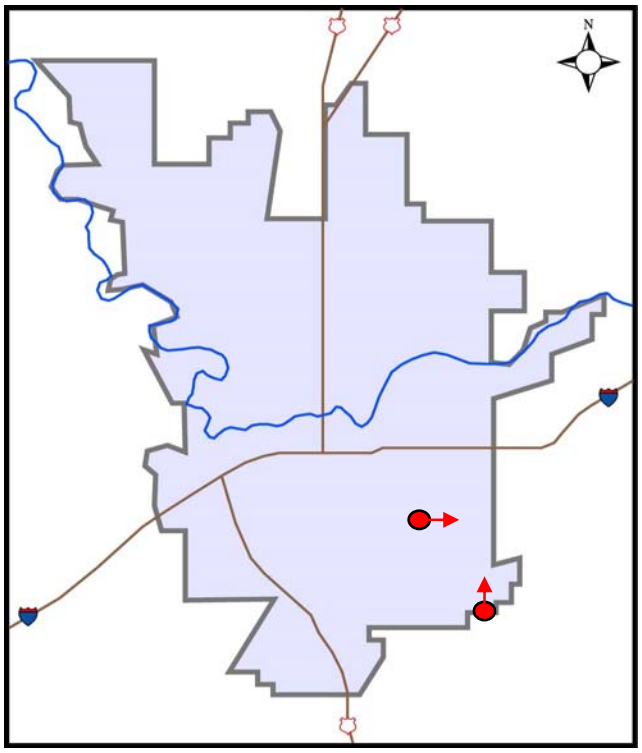
This project replaces about 2.5 miles of 18-inch and 24-inch steel transmission main with 24-inch ductile iron pipe in Perry Street from 33rd Avenue to 53rd Avenue, in an easement from 53rd Avenue to 57th Avenue, and in Regal Street. The steel pipe has reached the end of its useful service life and will be replaced and relocated out of the easement as a part of preventive maintenance. *The schedule for financial expenditures is on Page 16.*

RETURN

Project Detail

W09T10 - Glenrose Rd./57th Ave. to 37th Ave./Ray St.

RETURN



Project work from Glenrose Road & 57th Avenue to 37th Avenue & Ray Street

Project Information	
Public Works Number	<>
System	Top
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	2.0 miles

Budget	
Engineering	150
Right of Way	0
Constr. Management	180
Construction Cost	1,500
Other	0
Total	**1,830**

Funding	
Water Fund	1,830
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**1,830**

Description

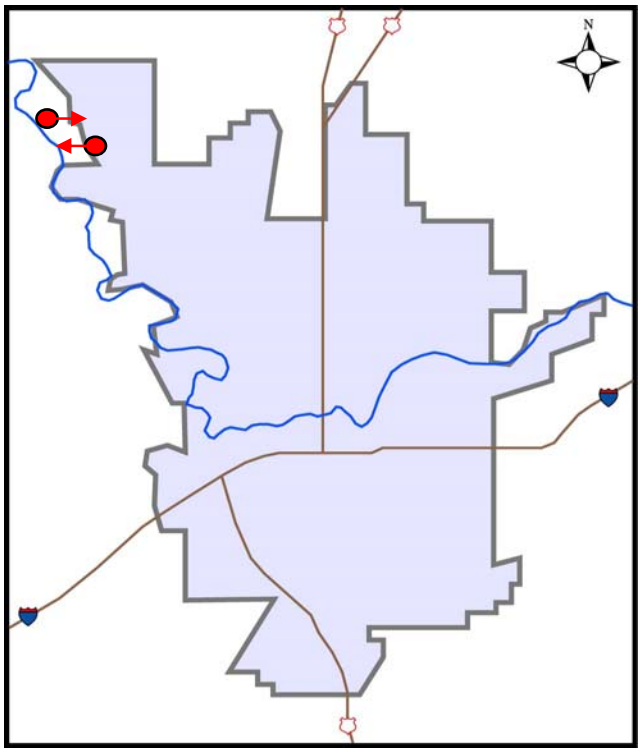
This project replaces about 0.5 miles of 18-inch steel transmission main with 24-inch ductile iron pipe from Glenrose Road and 57th Avenue to Havana Road and 49th Avenue. The steel pipe has reached the end of its useful service life and will be replaced as a part of preventive maintenance. A new 24-inch transmission main will be constructed from Havana Street and 49th Avenue to 37th Avenue and Ray Street. The new pipe will complete a transmission main loop, increasing reliability and ability to meet customer demand. *The schedule for financial expenditures is on Page 16.*

RETURN

Project Detail

W09T11 - Birchwood Avenue & Nine Mile Road

RETURN



Project work from Nine Mile Rd. & Birchwood Ave. to Rosswood St. & Johannsen Ave.

Project Information	
Public Works Number	<>
System	NW Terrace
Function	Distr
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	1.0 miles

Budget	
Engineering	50
Right of Way	0
Constr. Management	60
Construction Cost	500
Other	0
Total	**610**

Funding	
Water Fund	610
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**610**

Description

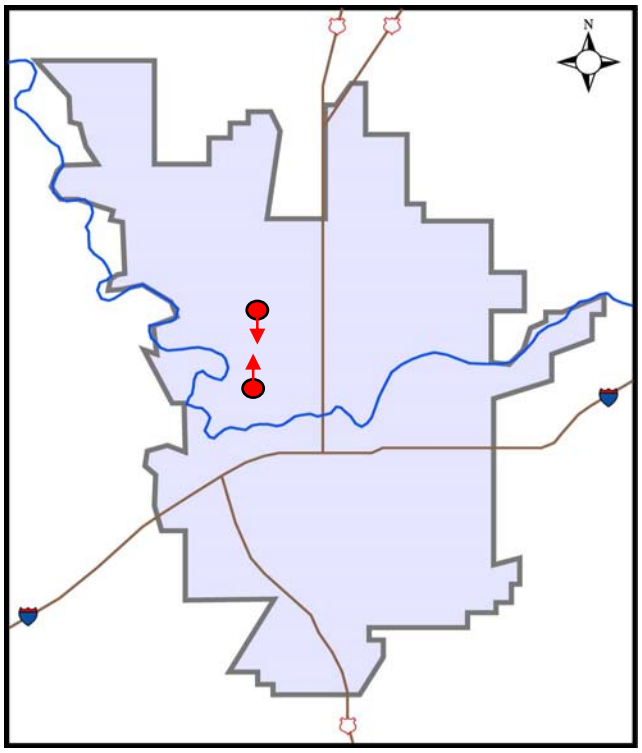
This project will replace the existing problematic distribution system in Birchwood Avenue, Harwood Street, Dogwood Avenue, Ellenwood Avenue, Rosswood Street and Johannsen Avenue. *The schedule for financial expenditures is on Page 16.*

RETURN

Project Detail

W09T12 - Elgin St. from Garland Ave. to Shadle Reservoir

RETURN



Project work from Elgin Street and Garland Avenue to Shadle Reservoir

Project Information	
Public Works Number	<>
System	Low
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	2250 feet

Budget	
Engineering	30
Right of Way	0
Constr. Management	40
Construction Cost	338
Other	0
Total	**408**

Funding	
Water Fund	408
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**408**

Description

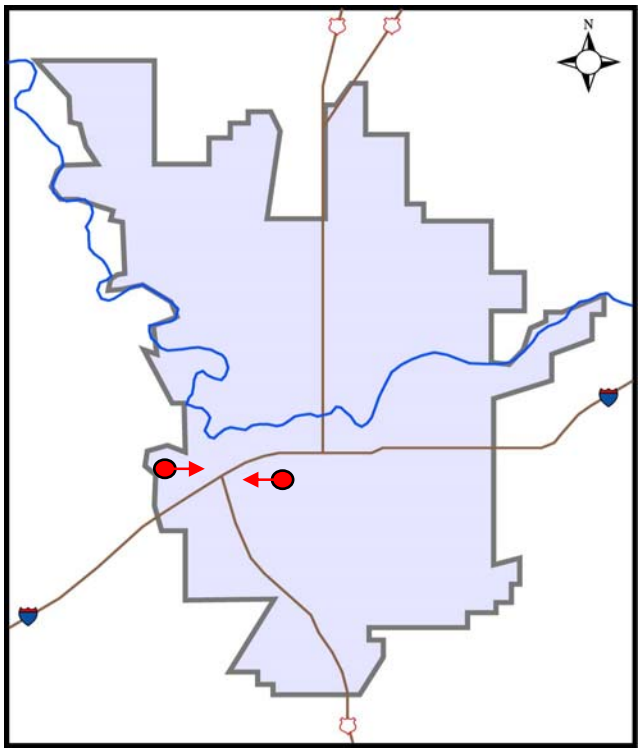
This project replaces approximately 2250 feet of 24-inch steel transmission main with 24-inch ductile iron pipe in Elgin Street from Garland Avenue to Shadle Reservoir located at Wellesley Avenue and Belt Road. The steel pipe has reached the end of its useful service life and will be replaced as a part of preventive maintenance. *The schedule for financial expenditures is on Page 16.*

RETURN

Project Detail

W09T13 - 6th Avenue, Bishop Court to Sunset Blvd

RETURN



Project work in 6th Avenue from Bishop Court to Sunset Boulevard

Project Information	
Public Works Number	<>
System	Low
Function	Trans
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	1.0 mile

Budget	
Engineering	90
Right of Way	0
Constr. Management	110
Construction Cost	900
Other	0
Total	**1,100**

Funding	
Water Fund	1,100
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**1,100**

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 the end of its useful service life and will be replaced as a part of preventive maintenance. *The schedule for financial expenditures is on Page 16.*

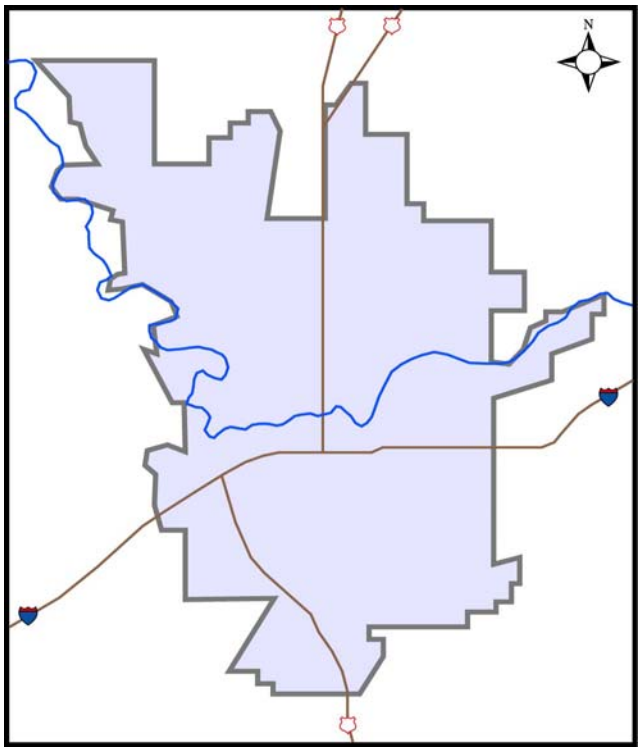
RETURN

PLANNING AND SUPPORT

Project Detail

W00R14 - Water Operations Facility Upkeep

RETURN



Project work includes Water Department facilities throughout the City.

Project Information	
Public Works Number	<>
System	N/A
Function	Support
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	12
Right of Way	0
Constr. Management	24
Construction Cost	564
Other	0
Total	**600**

Funding	
Water Fund	600
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**600**

Description

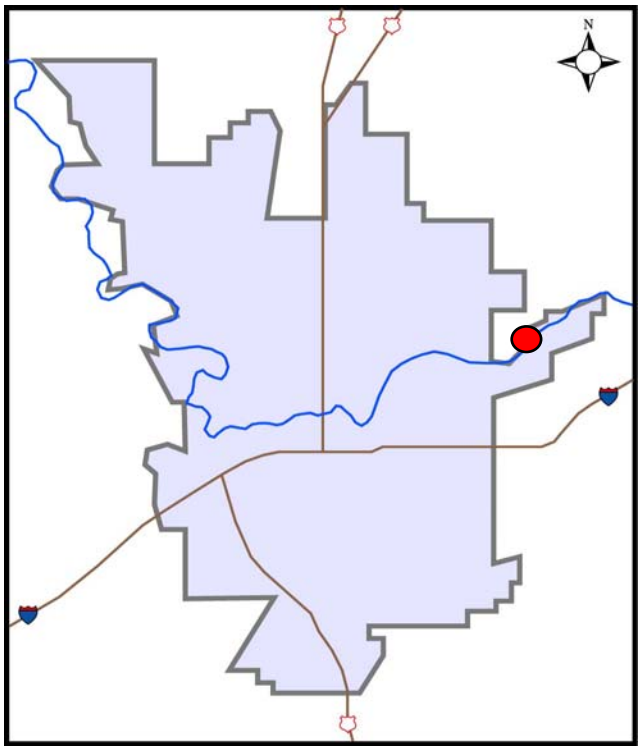
This on-going project provides needs for office, warehouse, shop and yard facilities. *The schedule for financial expenditures is on Page 17.*

RETURN

Project Detail

W02R02 - Upriver Dam Generators

RETURN



Project work is located at the Upriver Dam complex.

Project Information	
Public Works Number	<>
System	N/A
Function	Support
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	40
Right of Way	0
Constr. Management	90
Construction Cost	370
Other	0
Total	**500**

Funding	
Water Fund	500
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**500**

Description

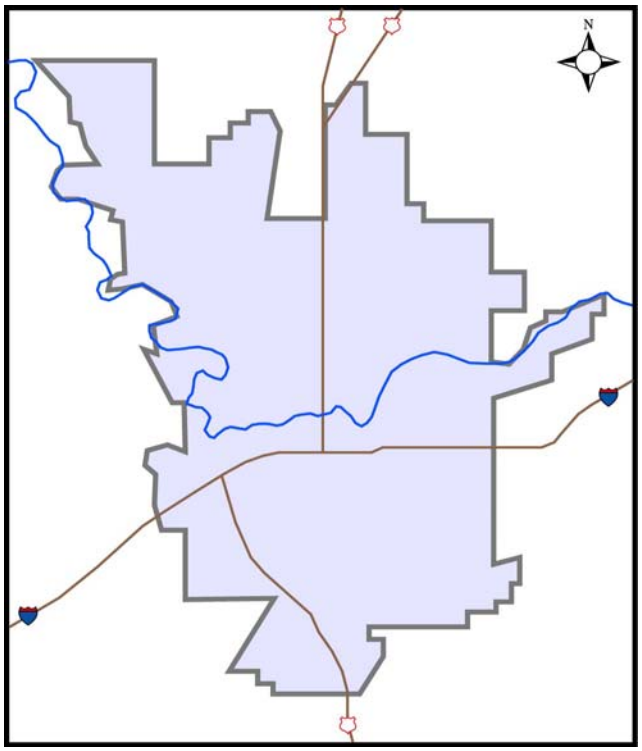
This project provides necessary maintenance and overhaul of the hydroelectric generator facilities at the Upriver Dam involving replacing governors at Powerhouse #1. *The schedule for financial expenditures is on Page 17.*

RETURN

Project Detail

W04R01 - Public Works Strategic Infrastructure Planning Study--Water Component

RETURN



Project work services the entire City.

Project Information	
Public Works Number	<>
System	N/A
Function	Planning
Environmental Class.	Cat. Exempt
Design Responsibility	Cap Prog
Length	N/A

Budget	
Engineering	250
Right of Way	0
Constr. Management	0
Construction Cost	0
Other	0
Total	**250**

Funding	
Water Fund	250
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**250**

Description

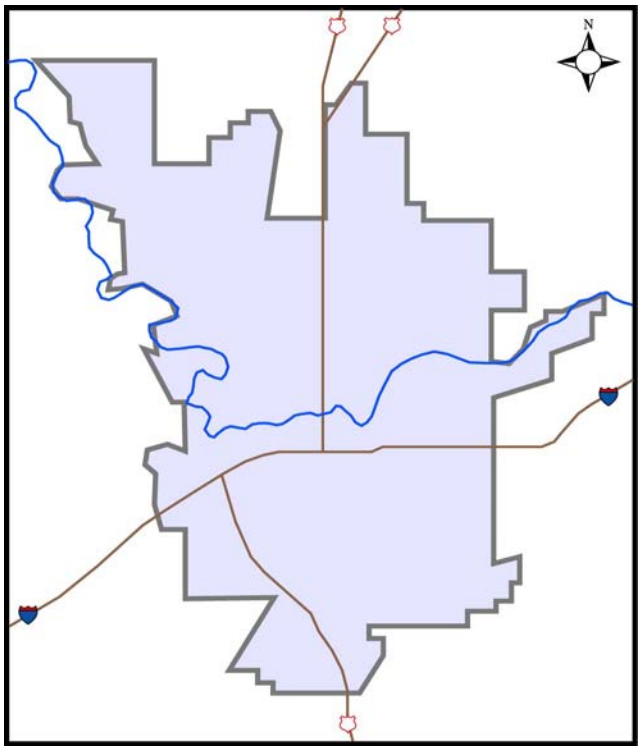
The Public Works Strategic Infrastructure Planning Study will analyze the City of Spokane's ability to provide utility infrastructure to support both future demands of our existing infrastructure and infrastructure needs of future growth as guided by the City's Comprehensive Plan. The Study will develop 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. *The schedule for financial expenditures is on Page 17.*

RETURN

Project Detail

W00C01 - Infrastructure Management System

RETURN



Project work services the entire City.

Project Information	
Public Works Number	<>
System	N/A
Function	Planning
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	600
Right of Way	0
Constr. Management	0
Construction Cost	0
Other	0
Total	**600**

Funding	
Water Fund	600
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**600**

Description

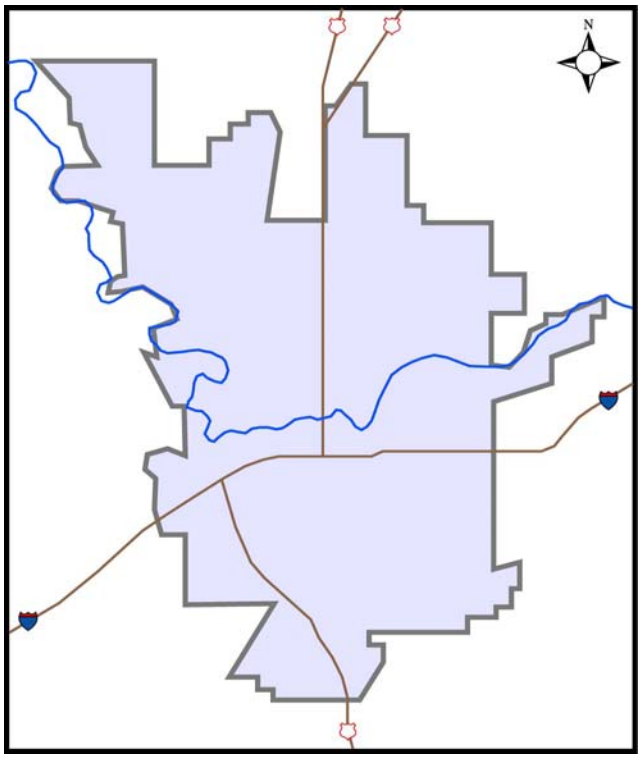
This is an on-going project to implement a computerized system to improve maintenance management and inventory. *The schedule for financial expenditures is on Page 17.*

RETURN

Project Detail

W07P01 - On-Going SCADA System Improvements

RETURN



Project work includes Water Department facilities throughout the City.

Project Information	
Public Works Number	<>
System	N/A
Function	Support
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	6
Right of Way	0
Constr. Management	12
Construction Cost	282
Other	0
Total	**300**

Funding	
Water Fund	300
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**300**

Description

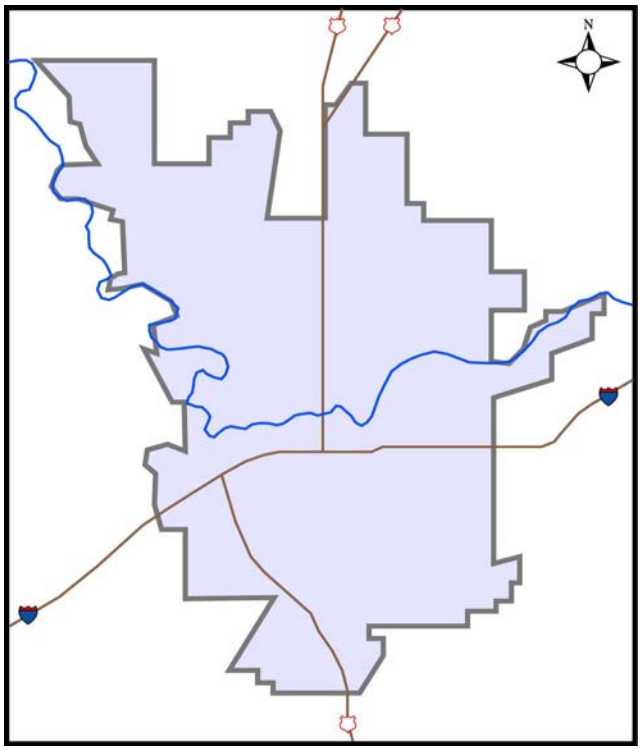
The term SCADA is the acronym for "Supervisory Control And Data Acquisition." All of the main water system elements (booster stations, reservoirs, wells, etc.) have electronic monitoring and transmission capabilities that allow a central monitoring and control of the water system operation. This project provides on-going system improvements to the Water Department's SCADA system. *The schedule for financial expenditures is on Page 17.*

RETURN

Project Detail

W07P02 - Wellhead Protection Program

RETURN



Project work services the entire City.

Project Information	
Public Works Number	<>
System	N/A
Function	Planning
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	0
Right of Way	0
Constr. Management	0
Construction Cost	0
Other	900
Total	**900**

Funding	
Water Fund	900
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**900**

Description

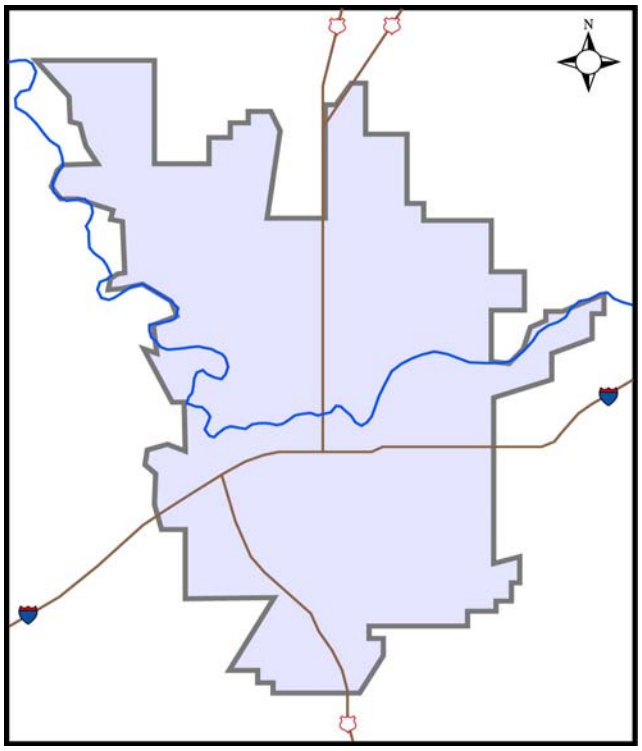
This project provides for the on-going protection of the Aquifer at wellhead locations as mandated by the Federal and State governments. *The schedule for financial expenditures is on Page 17.*

RETURN

Project Detail

W07P04 - Water Conservation Program

RETURN



Project work services the entire City.

Project Information	
Public Works Number	<>
System	N/A
Function	Support
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	0
Right of Way	0
Constr. Management	0
Construction Cost	0
Other	1500
Total	**1500**

Funding	
Water Fund	1500
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**1500**

Description

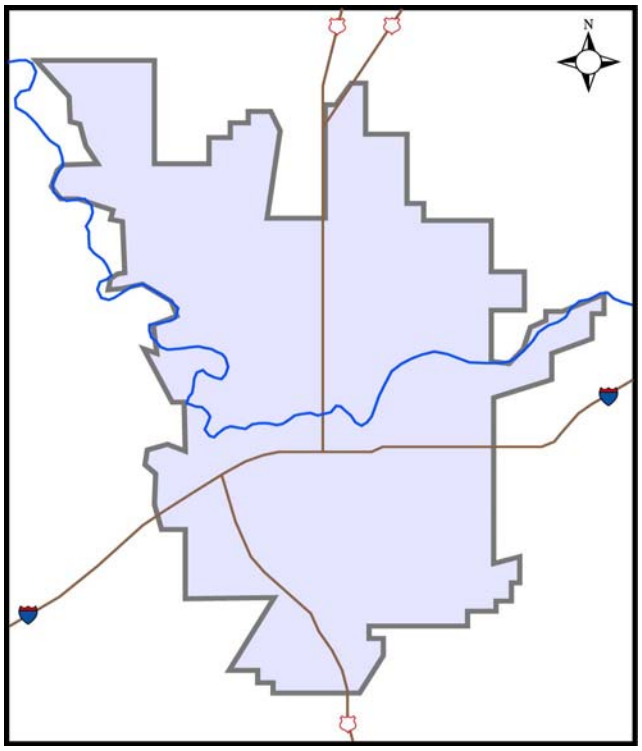
This on-going project supports implementation of the City's Water Stewardship Program in accordance with State conservation guidelines and requirements. *The schedule for financial expenditures is on Page 17.*

RETURN

Project Detail

W07P05 - Remote Meter Reading Upgrades

RETURN



Project work services the entire City.

Project Information	
Public Works Number	<>
System	N/A
Function	Support
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	0
Right of Way	0
Constr. Management	0
Construction Cost	1,200
Other	0
Total	**1,200**

Funding	
Water Fund	1,200
Grants	0
Loans	0
Local Impvt. District	0
Other	0
Total	**1,200**

Description

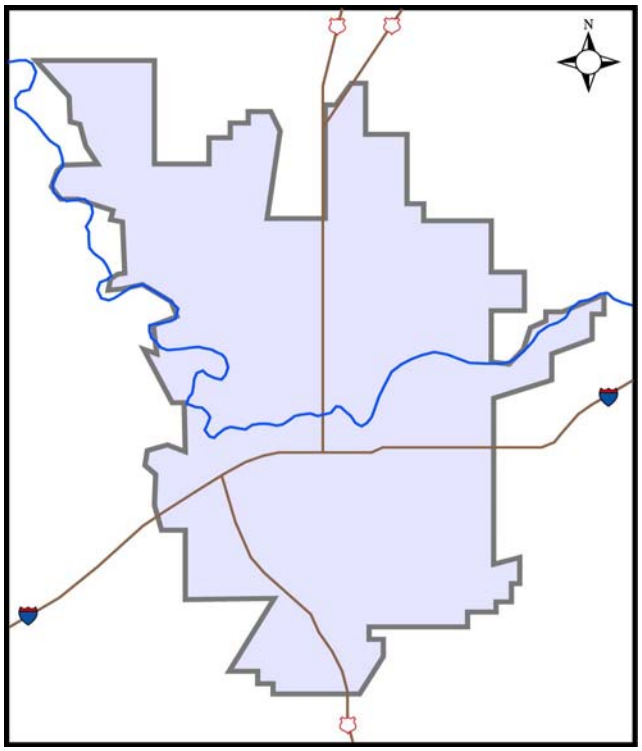
This on-going project provides for modern upgraded equipment so meter readers can obtain water usage data in the most efficient manner possible. *The schedule for financial expenditures is on Page 17.*

RETURN

Project Detail

S08P01 - Street Bond Infrastructure Upgrade

RETURN



Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	<>
Function	N/A
Environmental Class.	Cat. Exempt
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	100
Right of Way	0
Constr. Management	100
Construction Cost	400
Other	0
Total	**600**

Funding	
Water Fund	600
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**600**

Budget and Funding in 1,000s of dollars .

Description

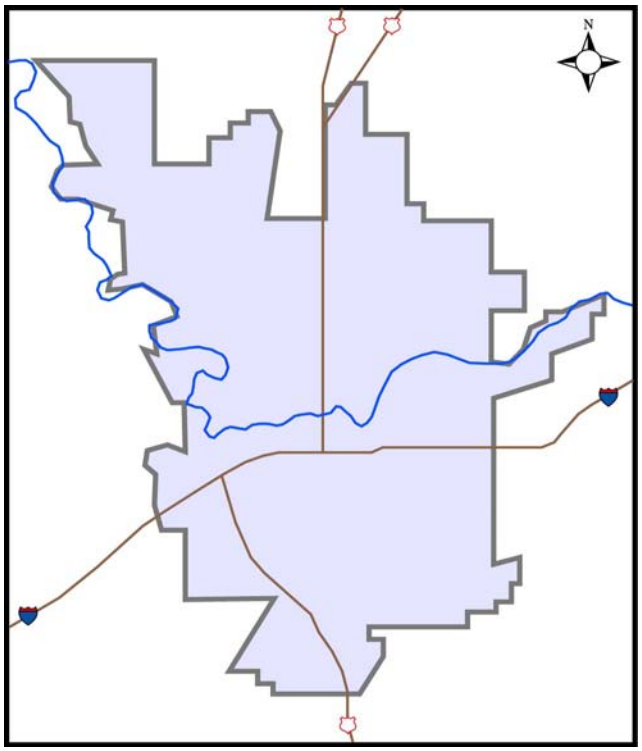
The Water Department coordinates with other City infrastructure work, including the City's 10-year street bond improvements. When water facilities are near these street bond projects, the Department evaluates these facilities for upgrade or replacement. For example: in conjunction with an intersection improvement, the Department may fund the replacement of aging mains, pipes in poor condition, for future needs, etc. These facility replacements and upgrades are funded through this project as a contribution to the bond improvement. This is an on-going project until 2014. *The schedule for financial expenditures is on Page 17.*

RETURN

Project Detail

W09P01 - Upriver Dam Generators Powerhouse #2

RETURN



Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	<>
Function	N/A
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	99
Right of Way	0
Constr. Management	100
Construction Cost	1,000
Other	0
Total	**1,199**

Funding	
Water Fund	1,199
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,199**

Budget and Funding in 1,000s of dollars .

Description

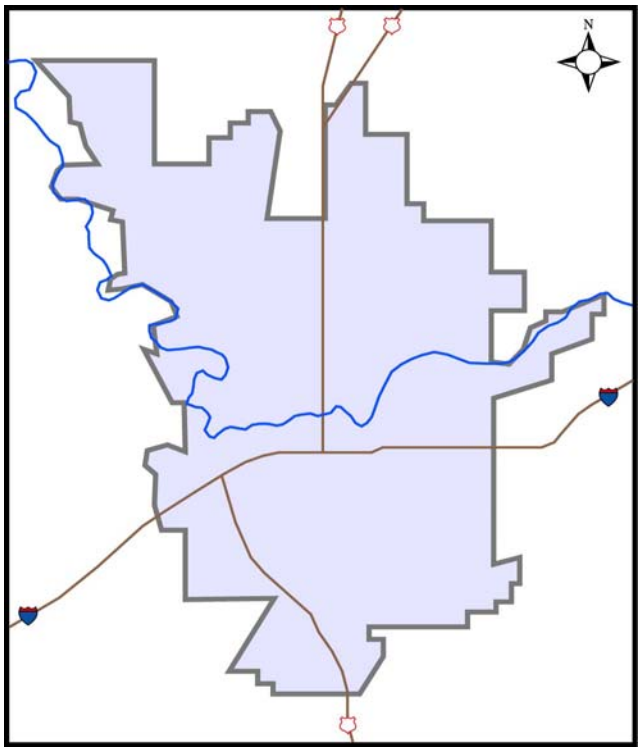
This project provides necessary maintenance and overhaul of the hydroelectric generator facilities at the Upriver Dam involving replacing governors at Powerhouse #2. *The schedule for financial expenditures is on Page 17.*

RETURN

Project Detail

W09P02 - Upriver Dam Spillway Concrete Rehabilitation

RETURN



Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	<>
Function	N/A
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	27
Right of Way	0
Constr. Management	30
Construction Cost	270
Other	0
Total	**327**

Funding	
Water Fund	327
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**327**

Budget and Funding in 1,000s of dollars .

Description

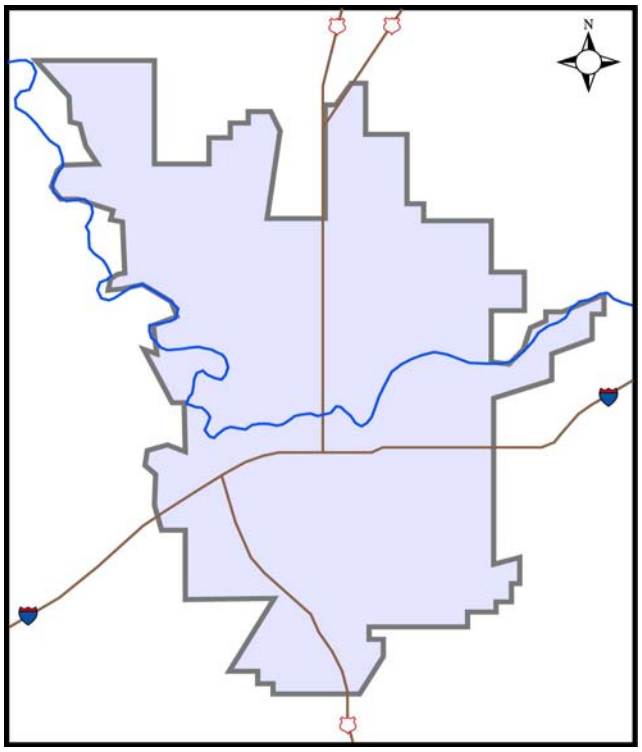
The concrete in the Upriver Dam Spillway is Deteriorating due to age. This project will repair the existing concrete at the spillway. *The schedule for financial expenditures is on Page 17.*

RETURN

Project Detail

W09P03 - Upriver Facility Remodel

RETURN



Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	<>
Function	N/A
Environmental Class.	Cat. Exempt
Design Responsibility	Water Dept
Length	N/A

Budget	
Engineering	376
Right of Way	0
Constr. Management	0
Construction Cost	1,690
Other	540
Total	**2,606**

Funding	
Water Fund	2,606
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**2,606**

Budget and Funding in 1,000s of dollars .

Description

The Upriver Facility, which houses the operations center for the City's water and hydroelectric systems, was constructed from the late 1800's to the 1920's, and much of the original Victorian Romanesque Revival architecture is still intact and historically significant. It has not been altered since then other than small, piecemeal, and disjointed projects. This renovation project would update the facility to meet current and future operational needs - including new office spaces; improved accommodations for visitors, an interpretive center, and displays; a large meeting and conference center to serve all City users; dramatic improvements to building infrastructure and energy systems; and preserve, feature and restore the historic building's architecture. *The schedule for financial expenditures is on Page 17.*

RETURN