Six-Year Comprehensive Sewer Program

2009-2014

Prepared for:

City Council

March 30, 2009

City of Spokane, Washington

AGENDA SHEET FOR COUNCIL MEETING OF: March 30, 2009

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

Submitting Dept.	Contact Person/Phone No.	Council Sponsor
Engineering Services	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

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

CLERK'S FILE PRO 2009-0006
RENEWS _____
CROSS REF _____
ENG _____
BID _____
REQUISITION _____

Neighborhood/Commission/Committee Notified: _____

Action Taken: _____

AGENDA WORDING: (If contract include the term.)

Adopt the Six-Year Comprehensive Sewer Program, 2009-2014 (Various Neighborhood Councils)

BACKGROUND: (Attach additional sheet if necessary)

Each year the City updates its Six-Year Comprehensive Sewer program, which must be submitted to the City Council for adoption.

RECOMMENDATION:

Adopt the 2009-2014 Six-Year Comprehensive Sewer 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 Sewer Program

SIGNATURES:

Capital Programs Manager

Director, Public Works & Utilities

Accounting

Legal

Deputy Mayor for Mayor

Council President

Director, Wastewater Management

DISTRIBUTION: Engineering Services, S Decker; Capital Programs, J Mercer; Public Works & Utilities, C Thacker; Wastewater Management, D Arnold; Wastewater Management, K Brooks

2008013\6 yr swr comp plan 09-14

COUNCIL ACTION:

ADOPTED BY
SPOKANE CITY COUNCIL:
March 30, 2009
Acting Lana a. Jansen
CITY CLERK

RES 2009-0017

RES 2009-0017

RESOLUTION 2009-0017

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 Sewer 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 Sewer 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 Sewer 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 Sewer 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 Sewer Program 2009 through 2014 is hereby adopted; and

BE IT FURTHER RESOLVED, that a copy of the revised and extended Six-Year Comprehensive Sewer 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 Sewer 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 2009-0005

CITY PLAN COMMISSION RECOMMENDATION

A Recommendation of the City Plan Commission certifying that the 2009-2014 Six Year Comprehensive Sewer 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 Sewer Program has been prepared in full consideration of the City's "Comprehensive Plan", AND

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

WHEREAS the Six Year Sewer 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 Sewer Program, AND

WHEREAS the City Council must receive a recommendation from the City Plan Commission to certify that the 2009-2014 Six Year Sewer 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 Sewer 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 EKINS, PRESIDENT
SPOKANE CITY PLAN COMMISSION

RES 2009-0017

CITY PLAN COMMISSION
808 W. SPOKANE FALLS BLVD.
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SPOKANE CITY PLAN COMMISSION

Contents

Welcome

Welcome to the City's 2009-2014 Six-Year Comprehensive Sewer 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 wastewater and storm 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) 625-6270.

Wastewater Department

The City of Spokane Wastewater Management Department provides wastewater collection, wastewater treatment, stormwater management, and combined sewer overflow reduction. All of these services are designed and managed to protect our local rivers and groundwater. These services are linked through our Water Quality Improvement Program (WQIP) to ensure that the Department's efforts to protect Spokane's water resources are integrated.

The Department employs 169 full-time staff, with an annual operating budget of over $37 million dollars (excluding major capital expenditures that are described in this document). The current annual budget, and associated program allocations, can be viewed by accessing the Department's Web site at http://www.spokanewastewater.org

The Wastewater Management Department provides services relating to routine maintenance, treatment, and wet weather operations, including the following programs:

- Wastewater Collection Systems
- Water Reclamation Facility
- Combined Sewer Overflow Reduction
- Stormwater Management

In addition, the Department participates in many regional programs in order to protect our water resources and assure that adequate water is available for the future.

Collection System

The Sewer Maintenance Division provides a problem-free wastewater collection system at minimum cost to the ratepayer. The City maintains three types of systems: sanitary only, combined sanitary/stormwater, and stormwater only infrastructure.

Complete inspections of all new or repaired collection system projects within the City sewer service area are conducted. Existing lines are regularly inspected and preventative maintenance is conducted. Maintenance work includes:

- repairs to collapsed lines
- upgrades to older lines
- regular cleaning of sewer lines
- manhole rings and covers replacement
- regular cleaning of storm inlet structures

Rehabilitation of existing collection system infrastructure includes the use of "no dig" (trenchless technology) as well as direct dig and replacement. Trenchless options (pipe lining and spot repairs) are used where possible to reduce maintenance costs and minimize traffic disruption.

Stormwater

The purpose of the Stormwater program is to ensure that stormwater systems and associated catch basins, dry wells, water quality treatment infiltration swales ('208' swales), and trunk and lateral storm drain lines are properly operated and maintained. In addition, recent stormwater planning and new stormwater programs are being implemented to meet the requirements for the new Washington State Department of Ecology Phase II Municipal Stormwater Permit issued in 2007.

The City's stormwater drainage system includes

1. Over 300 miles of separate storm sewers that discharge stormwater to infiltration facilities to the Spokane River and Latah Creek at over 100 locations, including many bridges.

2. Over 400 miles of combined storm/sewer systems that carries some stormwater to the City's treatment plan when it rains. During moderate to heavy rainfall and snowmelt events, combination of stormwater and untreated sewage can overflow directly to the Spokane River to prevent overloading the plant.

3. Thousands of swale bioinfiltration treatment facilities discharge stormwater into the ground following water quality treatment to trap sediments, oil, grease and other pollutants.

4. The City of Spokane is updating their General Stormwater Management Plan to reflect NPDES Phase 2 Stormwater Permit. The Management Plan integrates stormwater quality and quantity issues. The planning team reviewed stormwater quality controls, drainage complaints, and flood control. The plan process identified problem areas, characterized stormwater quality and quantity in Spokane, evaluated City stormwater management programs, and developed recommendations that consider anticipated future stormwater regulations.

Combined Sewer Overflow Reduction

When City of Spokane residents dispose of household wastewater, the flow generated travels through sanitary sewers into an interceptor pipe which carries the flow to the City's regional wastewater treatment plant. In some older parts of the City stormwater runoff from roofs, parking lots, and street runoff empty into the same system that carries sanitary wastes to the wastewater treatment plant. These systems are referred to as combined sewers.

These older combined systems are a legacy inherited from the past. The City's original wastewater collection system was built to carry all flows (combined household wastes and stormwater) directly to the Spokane River and Latah Creek without treatment. In the late 1950's, the City built the first primary treatment plant and interceptor systems in order to provide treatment prior to discharge to the rivers. Today over 50% of the City's old wastewater collection system has been separated into sanitary only and storm only facilities. However, over 400 miles of combined sewers still exist, predominantly on the south side.

During heavy rainstorms and rapid snowmelt, extra flow from stormwater runoff into these combined sewers is greater than the interceptor pipes and treatment plant can accommodate. At these times the combined wastewater (including the stormwater runoff) overtop flow regulator structures, resulting in combined sewer overflows to the Spokane River. These Combined Sewer Overflows are often referred to as CSOs.

When CSOs occur, they discharge untreated sanitary wastewater and runoff from rainfall and snowmelt to the Spokane River. The combination of raw sewage and stormwater can carry a variety of human bacteria and viruses. In addition, combined sewer overflows contain a variety of chemicals, oils and other wastes. Although the untreated overflow is typically diluted by rain and river water, it still poses a potential health and environmental hazard. Those most likely to be affected by these overflows include people involved in water contact sports (i.e., boaters, swimmers, people who fish, etc.).

In the 1980s, the City of Spokane spent approximately $40 million dollars to construct separate stormwater systems and eliminate the combined sewers in most of north Spokane. This effort eliminated approximately 85% of the volume of combined sewer overflows to the Spokane River. The remaining combined sewers are in areas that are not as easily separated.

The City is currently in the process of evaluating the remaining combined sewer basins and associated overflows to comply with state and federal regulatory requirements and develop plans for reducing the numbers of overflows to one per year per location. This expensive 20-year program will likely involve alternate types of controls and construction techniques to reduce CSO discharges, such as: reducing stormwater runoff at the source; retrofitting the sewer system to limit overflows; improving water quality of the overflows; and increasing sewer line size and treatment plant capacity.

The intent of the CSO Reduction program is to ensure that the frequency of untreated overflows to the Spokane River from the combined sewer system is reduced. The capital projects described in this document are directed at reducing the number of overflows to an average of no more than once per year and meeting the State of Washington regulated water quality standards.

Water Reclamation Facility

The City's Riverside Park Water Reclamation Facility (RPWRF) is located on a 28-acre site in northwest Spokane on the north bank of the Spokane River. This site is bounded by Riverside Park. The primary plant was built in 1958 and upgraded in 1977 to advanced/secondary treatment. Components of the original plant are still in use today. The rated capacity of the facility is 44 million gallons per day.

Major capital improvements at the RPWRF have been ongoing since 1996. Additional modifications and upgrades are planned to ensure that:

- the facility's discharge continues to meet state water quality standards and protect the Spokane River;
- increased flows generated by new growth are properly treated; and
- repairs/rehabilitation/upgrades to existing equipment occur in an orderly manner that does not disrupt the daily operation of the plant.

RPWRF Laboratory

The RPWRF Laboratory provides, as its primary function, raw and treated wastewater testing as required by federal, state and local regulations. Biosolids are tested according to federal and state regulations for application to local farmland. The Laboratory also provides technical support for the Industrial Pretreatment and Stormwater programs, wastewater discharge monitoring (NPDES), and environmental monitoring (i.e. Spokane River).

The RPWRF Laboratory is responsible for the process control of the advanced wastewater treatment system that treats up to 44 Million Gallons per Day from a collection system serving City of Spokane and Spokane County. This is a seven-day per week responsibility. The Laboratory produces data that is included in the monthly Discharge Monitoring Report, describing compliance with the plant's NPDES permit, administered by Washington Department of Ecology.

Laboratory personnel also staff the Industrial Pretreatment Program. Industrial Monitors and Laboratory Technicians perform sampling and inspections in conformance with the regulations of the National Pretreatment Program. A laboratory chemist directs their activities and maintains the electronic database and performs other administrative functions. Laboratory technicians also perform environmental monitoring of the Spokane River. Detailed sampling and analytical protocols are followed to ensure the data is accurate.

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.

Updating the Six-Year Comprehensive Water Program is an annual activity that begins in January. This year the schedule was revised to include program acceptance by City Council in November. A summary of the processes is provided below:

January-March: Capital Programs solicits input from various City and agency sources.

April-July: A rough draft of the Program is prepared and then reviewed with City staff.

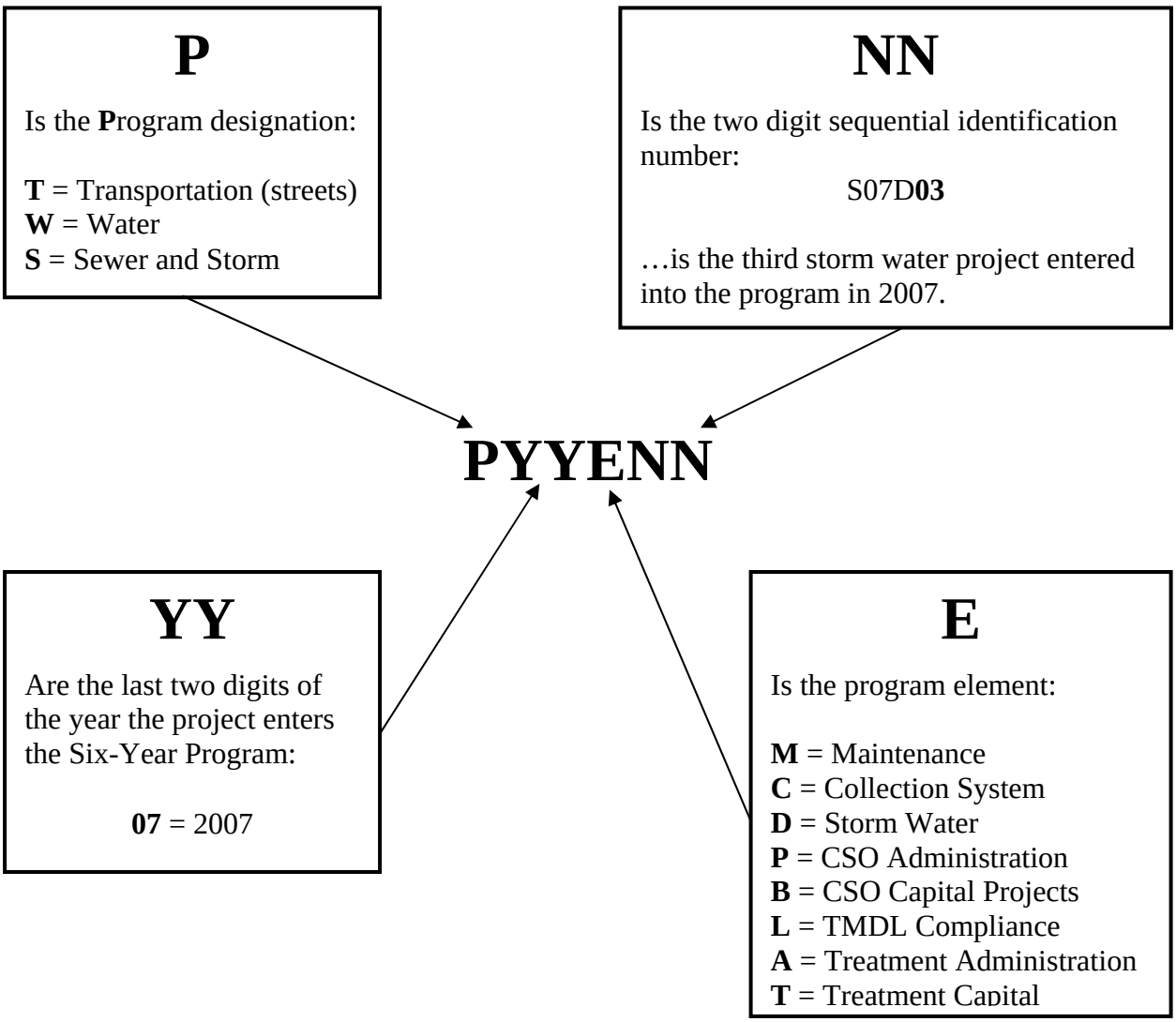
August: A working draft is prepared; and the draft is coordinated with the proposed utility budget.

September-October: The working draft is presented to the Public Works Committee and to the Plan Commission. Then, the final draft is then prepared and presented at a Plan Commission public hearing.

November: The pre-publication draft along with the Plan Commission's recommendation 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 expected to be substantially completed, in 2008 are listed below under "Completed Projects." Projects added to the program this year are listed below under "New Projects."

Completed Projects
S02D02 – Storm Water Drainageways Identification
S04B06 – CSO Basins 42 Improvements
S08B02 – Weir Modifications, Phase 1
S05T01 – Digester System Upgrade
S08T01 – Egg-shaped Digester Facility Auxiliary Heating
New Projects
S09C01 – Joint City-County Marion Hayes Intertie
S09C02 – Lower Terrace Sewer Project, Phase 2
S09D01 – Stormwater Infrastructure Upgrade
S09L01 – Reclaimed Water Pipeline Evaluation
S09T01 – Egg-shaped Digester Facility #3
Deleted Projects
NONE

Future Projects

A project is added to the Six-Year Program when 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
S00T07 - Chemical Addition Expansion
S00T12 - Existing Aeration Basins Modifications
S00T13 – UV Disinfection System
S02T02 – Effluent Sampling Station
S03C02 - High Drive Trunk Sewer Access
S03T06 – Grease/Scum Removal Upgrade
S03T02 - Large Equipment Storage Facility
S04B24 - CSO Basin 34-1 Improvements
S05B02 - CSO Basin 20 Improvements
S05B04 - CSO Basin 26-1 Improvements
S05B05 - CSO Basin 26-2 Improvements
S05B06 – CSO Basin 34-2 Improvements
S05B07 – CSO Basin 34-3 Improvements
S05B08 – CSO Basin 34-4 Improvements
S06B02 – CSO Basin 34-5 Improvements
S06B03 – CSO Basin 34-6 Improvements
S06B04 - CSO Basin 24-1 Improvements
S06B05 - CSO Basin 24-2 Improvements
S07T03 – Resistance Heat Elimination (Steam Heat)
S07T06 – Headworks Odor Control

Six-Year Sewer Program Financial Summary

(Numbers in $1,000s)

	2009	2010	2011	2012	2013	2014
Beginning Cash Balance	40,849	44,227	45,705	49,424	48,516	24,260
			Sources of Funds			
Sewer Service Revenue	32,528	37,281	39,035	41,073	43,217	45,472
Other Operational Revenue	282	283	283	283	283	283
Rate Stabilization Fund	16,200	16,400	16,400	16,600	16,600	16,600
Stormwater Utility	6,042	6,296	6,595	6,908	7,237	7,580
Fees, Grants, Loans, LID	3,000	2,900	2,900	2,900	2,900	2,900
Interdepartmental Transfers	100	100	100	100	100	100
Spokane County Utility	4,875	3,037	4,215	5,000	10,993	12,889
Interest	1,515	1,814	1,814	1,863	1,811	908
Total Source of Funds	64,542	68,111	71,342	74,727	83,141	86,732
			Demand for Funds			
Operating Expenses:						
Administration	1,459	1,481	1,503	1,525	1,548	1,572
Maintenance	8,304	8,511	8,724	8,942	9,166	9,395
Operations	15,632	16,022	16,423	16,834	17,255	17,685
Equipment	1,200	1,200	1,500	1,500	1,500	1,700
Loan Payments & Other Debt Service	325	365	365	365	326	326
Taxes	9,678	10,206	10,712	11,248	11,867	12,284
Operating Expenses Subtotal:	36,598	37,785	39,227	40,414	41,662	42,962
Capital Projects, Construction and Planning Expenses:						
Programmed Funds (hard)	24,566	28,848	28,396	35,221	65,735	65,708
Programmed Funds (soft)	0	0	0	0	0	0
Capital Projects Subtotal:	24,566	28,848	28,396	35,221	65,735	65,708
Total Demand for Funds	61,164	66,633	67,623	75,635	107,397	108,670
Total Demand for Sewer Funds	61,164	66,633	67,623	75,635	107,397	108,670
			Ending Cash Balance, Including Reserves			
Ending Cash Balance	**44,227**	**45,705**	**49,424**	**48,516**	**24,260**	**2,322**
Reserve Balance	**4,500**	**4,500**	**4,500**	**4,500**	**4,500**	**4,500**
Available Cash	**39,727**	**41,205**	**44,924**	**44,016**	**19,760**	**-2,178**

Project Summary Sheets

Project Summary

Maintenance and Rehabilitation

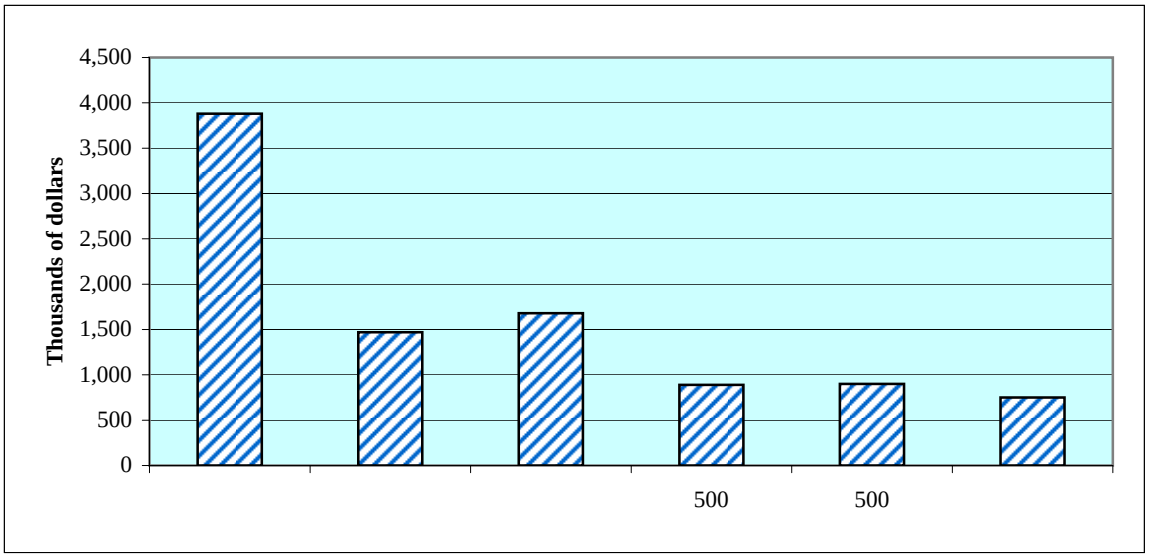
The Maintenance and Rehabilitation program element contains major collection system repairs, such as pipe replacements, pipe lining and pipe re-routing. Minors maintenance work is completed under the Utility's operation budget, and only larger projects are included in the program element. *Detailed descriptions of these projects can be found beginning on Page 28.*

	All numbers are 1,000s of dollars						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**Total**
S02M03 - Northwest Terrace Force Main Replacement	1,050						1,050
S02M05 - Interceptor/Trunk Inspection Program	620	600					1,220
S02M06 - CBD & On-Going CIPP Project	300	300	300	250	250	250	1,650
S02M09 - Force Main Replacement	110	120	130	140	150		650
S03M02 - MMS Implementation	500						500
S04M02 - Lift Station Repair & Upgrade	750	300					1,050
S04M03 - Post Street Bridge Rehabilitation		150	1,250				1,400
S05M01 - Future Rehabilitation Projects				500	500	500	1,500
S08M01 - Northwest Terrace Pump Station Replacement	550						550
Totals	**3,880**	**1,470**	**1,680**	**890**	**900**	**750**	**9,570**

Project Summary

Maintenance and Rehabilitation (continued)

	All numbers are 1,000s of dollars						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**Total**
Totals	**3,880**	**1,470**	**1,680**	**890**	**900**	**750**	**9,570**



Project Summary

Sanitary Collection System

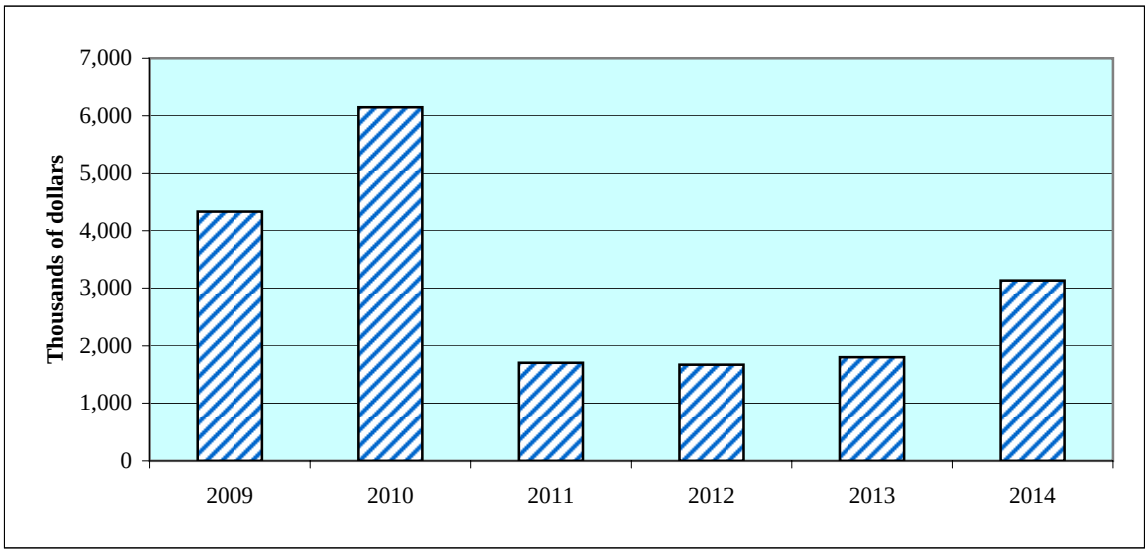
The Sanitary Collection System element contains planning studies, infrastructure upgrade projects, and other projects that are related to the sanitary sewer collection system. *Detailed descriptions of these projects can be found beginning on Page 37* .

	All numbers are 1,000s of dollars						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**Total**
S00C06 - Five Mile Lateral Extension	340						340
S02C01 - Lateral Upgrade Program	75	75	75	75	75	75	450
S02C02 - Infrastructure Upgrade-Public	150	150	150	150	150	150	900
S02C03 - Infrastructure Participation-Private	20	20	20	20	20	20	120
S02S01 - STEP Studies	20	20	20	20	20	20	120
S03S01 - STEP Projects	100	100	100	100	100	100	600
S04C01 - Public Works Strategic Infrastructure Planning Study--Wastewater Component	250	225					475
S04C02 - High Drive Sewer Study		100					100
S04C03 - Trunk Sewer Vulnerability Assessment	300						300
S06C01 - Street Bond Infrastructure Upgrade	1,200	1,200	1,200	1,200	1,200	1,200	7,200
S07C01 - Upriver-Havana Sewer Project	223	2,937					3,160
S08C01 - Lower Terrace Sewer Project, Phase 1	1,505						1,505
S08C02- Groundwater Evaluation and Mitigation	50	145	40	7	7	7	256
S08C03 - Groundwater Mitigation Construction			100	100	100	100	400
S09C01 - Joint City-County Marion Hayes Intertie	103	1,178					1,281
S09C02 - Lower Terrace Sewer Project, Phase 2					130	1,460	1,590
Totals	**4,336**	**6,150**	**1,705**	**1,672**	**1,802**	**3,132**	**18,797**

Project Summary

Sanitary Collection System (continued)

	All numbers are 1,000s of dollars						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**Total**
Totals	**4,336**	**6,150**	**1,705**	**1,672**	**1,802**	**3,132**	**18,797**



Project Summary

Storm Water

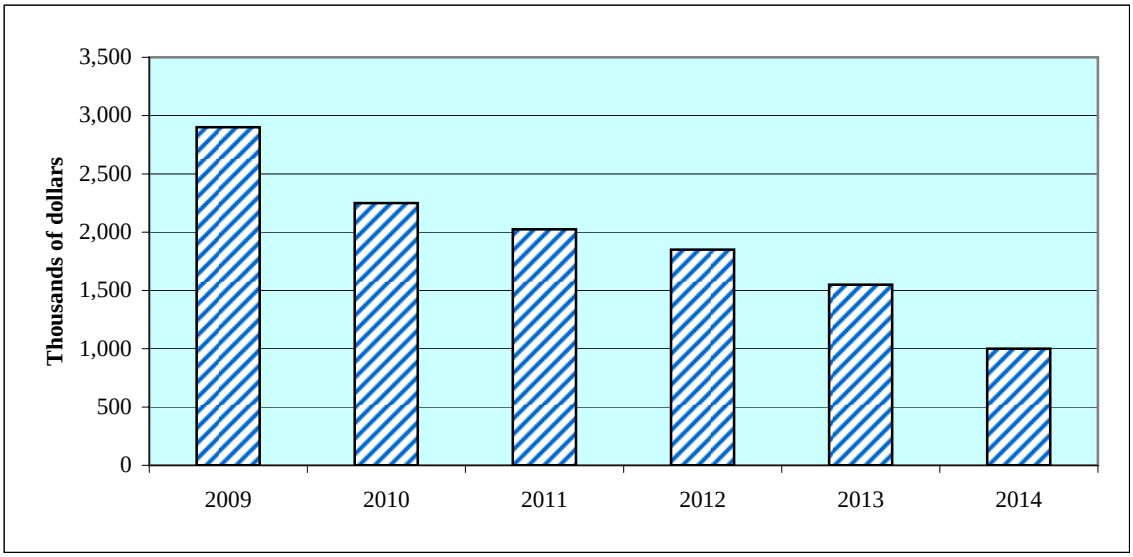
The Storm Water program element contains planning, studies and infrastructure projects related to drainage of storm water. *Detailed descriptions of these projects can be found beginning on Page 53.*

	All numbers are 1,000s of dollars						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**Total**
S02D02 - Storm Water Drainage ways Identification				**Complete**			0
S02D03 - Corridor Acquisition	175	175	175	200	200	200	1,125
S03D02 - Austin Draw Infiltration Facility Study	100						100
S04D01 - Bio-Infiltration System Rehabilitation	150	150	200	200	200		900
S05D01 - Hazels Creek Drainage and Conservation Area	150	200	250				600
S05D02 - Second Drainage-Conservation Area Master Plan			250	250			500
S06D01 - NPDES Phase II Permit Implementation	200	200	250	300	350		1,300
S06D02 - Public Works Strategic Infrastructure Planning Study--Stormwater Component	125	125					250
S06D03 - Sylvia Court Drainage - Phase II	100	500					600
S08D01 - Hazels Creek Basin Drainage Implementation		100	100	100			300
S08D02 - Spokane Urban Runoff Greenways Experiment	1600	500	500	500	500	500	4,100
S09D01 - Stormwater Infrastructure Upgrade-Public	300	300	300	300	300	300	1,800
Totals	**2,900**	**2,250**	**2,025**	**1,850**	**1,550**	**1,000**	**11,575**

Project Summary

Storm Water (continued)

	All numbers are 1,000s of dollars						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**Total**
Totals	**2,900**	**2,250**	**2,025**	**1,850**	**1,550**	**1,000**	**11,575**

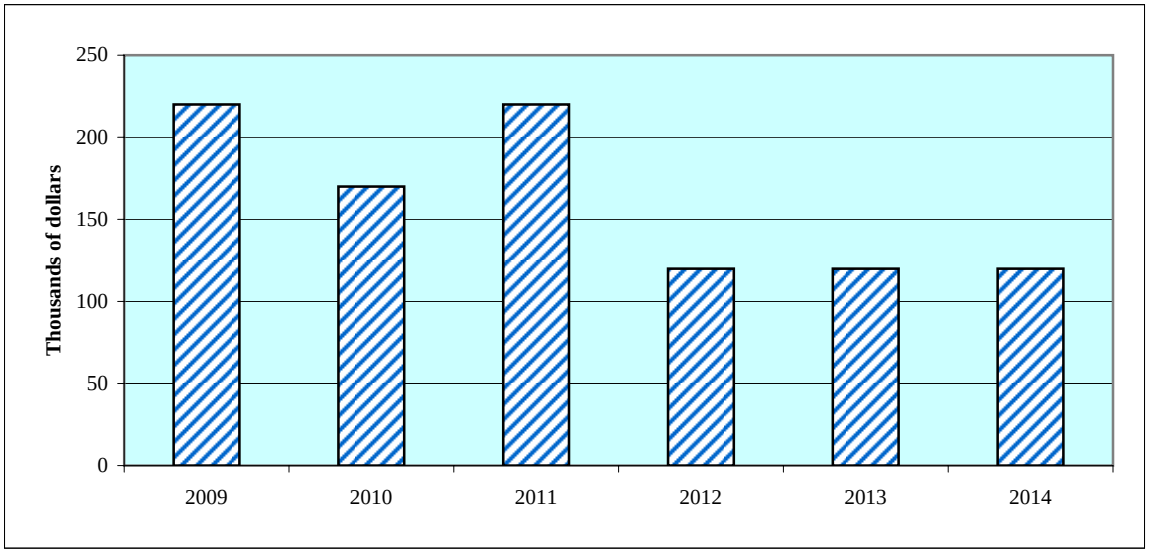


Project Summary

Combined Sewer Overflow (CSO) Administration and Planning

The Combined Sewer Overflow (CSO) Administration and Planning program element contains projects that support the City's CSO reduction efforts. Individual CSO construction projects may be found in the Combined Sewer Overflow (CSO) Capital Abatement Projects program element. *Detailed descriptions of these projects can be found beginning on Page 65* .

	All numbers are 1,000s of dollars						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**Total**
S00P04 - CSO-PMO Administration and Management	200	150	100	100	100	100	750
S00P06 - Communications and Education	20	20	20	20	20	20	120
S07P01 - CSO Reduction Plan Update			100				100
Totals	**220**	**170**	**220**	**120**	**120**	**120**	**970**



Project Summary

Combined Sewer Overflow (CSO) Capital Abatement Projects

The Combined Sewer Overflow (CSO) Capital Abatement Projects element of the 6-Year Program contains forty (40) individual projects that will reduce CSO overflows to the Spokane River. Many of these project include construction of off-line storage tanks for temporary retention of mixed sanitary sewage and storm water. The City is working diligently to meet a 2017 Department of Ecology Consent Order deadline for completion of CSO abatement projects. *Detailed descriptions of these projects can be found beginning on Page 68.*

	All numbers are 1,000s of dollars						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**Total**
S04B03 -CSO Basin 41 Improvements						520	520
S04B04 - CSO Basin 15 Improvements						237	237
S04B05 - CSO Basin 14 Improvements			164	1,372			1,536
S04B06 - CSO Basin 42 Improvements				**Complete**			0
S04B07 - Interceptor I03-1 Improvements	156	1,724					1,880
S04B08 - Interceptor I03-2 Improvements	83	275	3,618				3,976
S04B09 - CSO Basin 07 Improvements		118	10		1,352		1,480
S04B10 - CSO Basin 10 Improvements	1,017						1,017
S04B11 - CSO Basin 12 Improvements		68					68
S04B13 - CSO Basins 38, 39, 40 Improvements					150	921	1,071
S04B14 - Interceptor I04-1 Improvements		271	985	6,543	5,189		12,988
S04B15 - Interceptor I04-2 Improvements			23		1,200		1,223

Project Summary

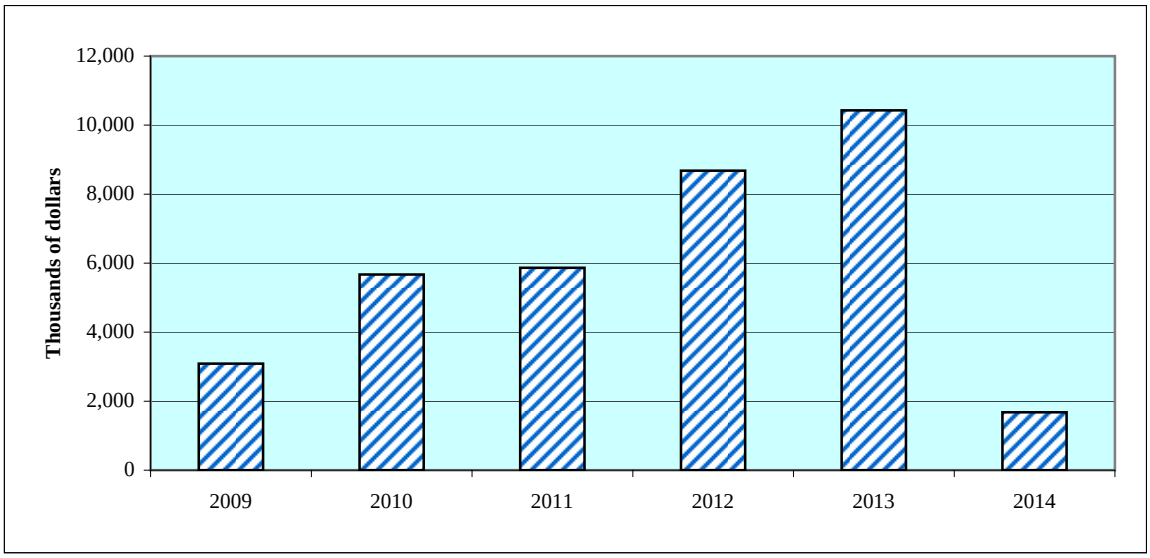
CSO Capital Abatement Projects (continued)

	All numbers are 1,000s of dollars						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**Total**
S04B16 - Post Street CSO Improvements			30	288	1,283		1,601
S04B18 - CSO Basin 23-1 Improvements	30	95	1,034				1,159
S04B19 - CSO Basin 23-2 Improvements	132						132
S04B20 - CSO Basin 33a,b,c Improvements	780	2,720					3,500
S04B23 - CSO Basin 33d Improvements				479	305		784
S05B01 - CSO Basin 6 Improvements					948		948
S06B01 - CSO Basin 19 Improvements	192						192
S08B01 - Segment I03 (Cochran Basin) I/I Reduction for CSO	100						100
S08B02 - Weir Modifications, Phase 1				**Complete**			0
S08B03 - Weir Modifications, Phase 2	400						400
S08B04 - Weir Modifications, Phase 3		400					400
S08B05 - Segment I04 (North River) I/I Reduction for CSO	200						200
Total All Projects	**3,090**	**5,671**	**5,864**	**8,682**	**10,427**	**1,678**	**35,412**

Project Summary

CSO Capital Abatement Projects (continued)

	All numbers are 1,000s of dollars						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**Total**
Total All Projects	**3,090**	**5,671**	**5,864**	**8,682**	**10,427**	**1,678**	**35,412**



Project Summary

Total Maximum Daily Load (TMDL) Compliance

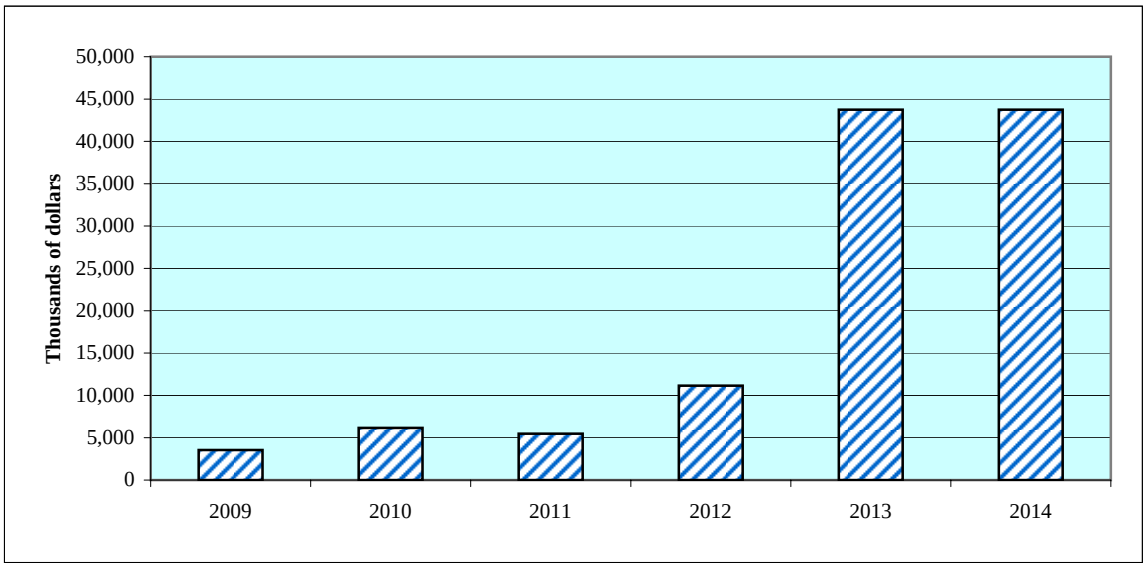
The Spokane River does not have enough dissolved oxygen (DO) during the months of April through October to meet current Water Quality Standards (WQS). To comply with WQS, local stakeholders have tentatively collaborated on a Managed Implementation Plan (MIP): an aggressive, managed approach that removes phosphorus from a variety of sources using various methods expected by Ecology. Potential targeted pursuit actions of the MIP may include the selection of technology to achieve phosphorus limits, an alternative method for phosphorus removal, a conservation program, Class A quality effluent and reclaimed water use. The MIP is anticipated to be closely managed by an oversight and coordination group. *Detailed descriptions of these projects can be found beginning on Page 92.*

	All numbers are 1,000s of dollars						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**Total**
S04L01 - Final Effluent Filter Pilot & Evaluation	2,300	1,000					3,300
S07L01- Reclaimed Water Pilot Project	250						250
S07L02 - Next Level of Treatment Implementation		3,000	4,000	10,000	42,500	42,500	102,000
S08L01 - Joe Albi/Fairmont Reclaimed Water Project		1,010					1,010
S08L02 - Reclaimed Water System Feasibility Study	250	200	150				600
S08L03 - Reclaimed Water System Implementation		100	100	100	100	100	500
S08L04 - Reclaimed Water Treatment Construction		100	200	300	400	400	1,400
S08L05 - Water Conservation Program	250	250	250	250	250	250	1,500
S08L06 - Non-point Source Reduction Program	500	500	500	500	500	500	3,000
S09L01 - Reclaimed Water Pipeline Evaluation			280				280
Totals	**3,550**	**6,160**	**5,480**	**11,150**	**43,750**	**43,750**	**113,840**

Project Summary

Total Maximum Daily Load (TMDL) Compliance (continued)

	All numbers are 1,000s of dollars						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**Total**
Total All Projects	**3,550**	**6,160**	**5,480**	**11,150**	**43,750**	**43,750**	**113,840**

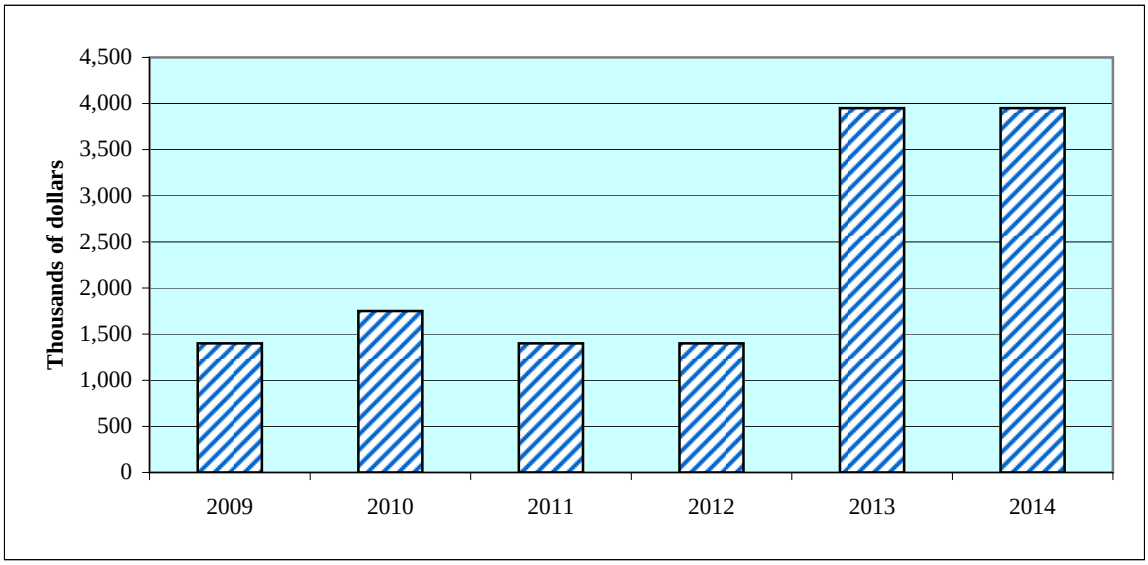


Project Summary

Riverside Park Water Reclamation Facility
Planning and Administration

The Riverside Park Water Reclamation Facility Planning and Administration program element contains projects that support the City's wastewater treatment efforts. Individual Water Reclamation Facility construction projects may be found in the Riverside Park Water Reclamation Facility Capital Projects program element. *Detailed descriptions of these projects can be found beginning on Page 102.*

	All numbers are 1,000s of dollars						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**Total**
S00A02 - RPWRF-PMO Administration	1,250	1,250	1,250	1,250	3,800	3,800	12,600
S02A01 - Technical Consulting	150	150	150	150	150	150	900
S07A01 - Wastewater Facility Plan Update		350					350
Totals	**1,400**	**1,750**	**1,400**	**1,400**	**3,950**	**3,950**	**13,850**



Project Summary

Riverside Park Water Reclamation Facility - Capital Projects

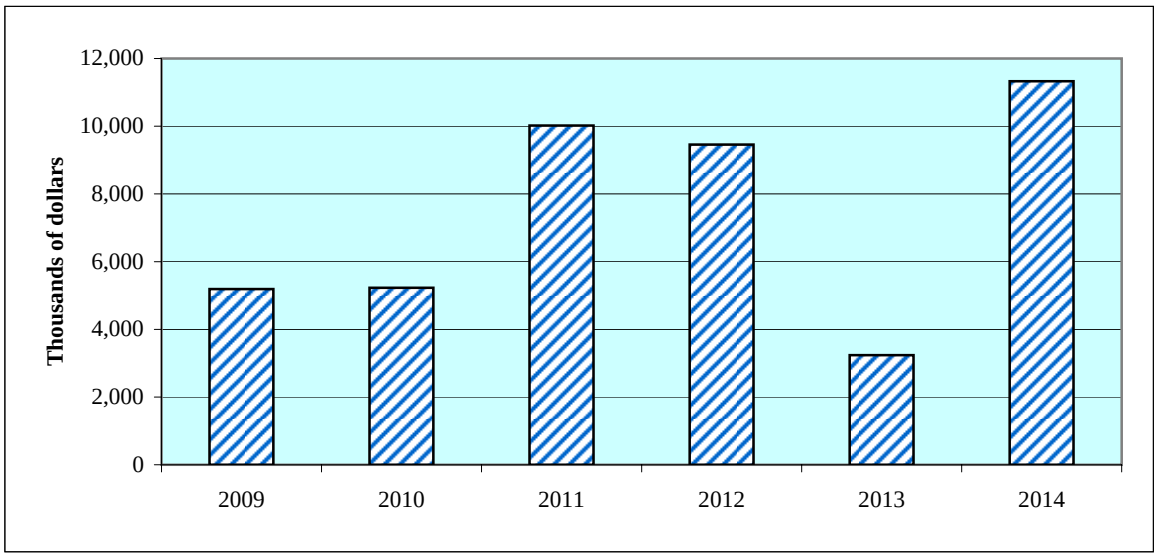
The Riverside Park Water Reclamation Facility Capital Projects element of the 6-Year Program contains individual projects that will improve the City's treatment of wastewater prior to discharge to the Spokane River. The sequence of these projects is intended to allow full operation of the facility during construction. *Detailed descriptions of these projects can be found beginning on Page 105.*

	All numbers are 1,000s of dollars						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**Total**
S02T03 - Primary Clarifier Odor Control			4,145	5,520	3,236		12,901
S03T01 - West Plant Generator						400	400
S03T04 - Headworks Screening and Grit Improvements	3,600						3,600
S04T03 - Primary Sludge Pump Station Rehabilitation	225	300	175				700
S05T01 - Digester System Upgrade	**Complete**						0
S07T01 - Primary Clarifier Influent Flow Split		242	3,952	3,937			8,131
S07T02 - Digester Gas Compressor Room Upgrades						928	928
S07T04 - Co-Generation (Steam Turbines)	350	1,000	750				2,100
S07T05 - New Blower #5	815	1,385					2,200
S08T01 - Egg-shaped Digester Facility Auxiliary Heating	**Complete**						0
S08T02 - Alum Flow Pacing			500				500
S08T03 - Biosolids Storage Bin Replacement	200	2,300					2,500
S08T04 - Waste-flare Instrumentation Modifications			500				500
S09T01 - Egg-shaped Digester Facility #3						10,000	10,000
Total All Projects	**5,190**	**5,227**	**10,022**	**9,457**	**3,236**	**11,328**	**44,460**

Project Summary

Water Reclamation Facility - Capital Projects (continued)

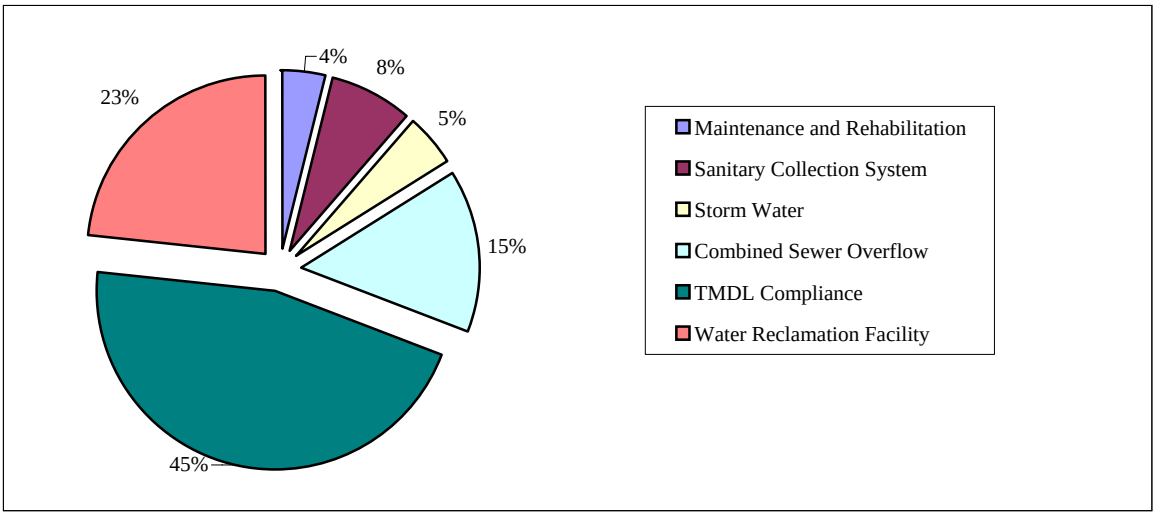
	All numbers are 1,000s of dollars						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**Total**
Total All Projects	**5,190**	**5,227**	**10,022**	**9,457**	**3,236**	**11,328**	**44,460**

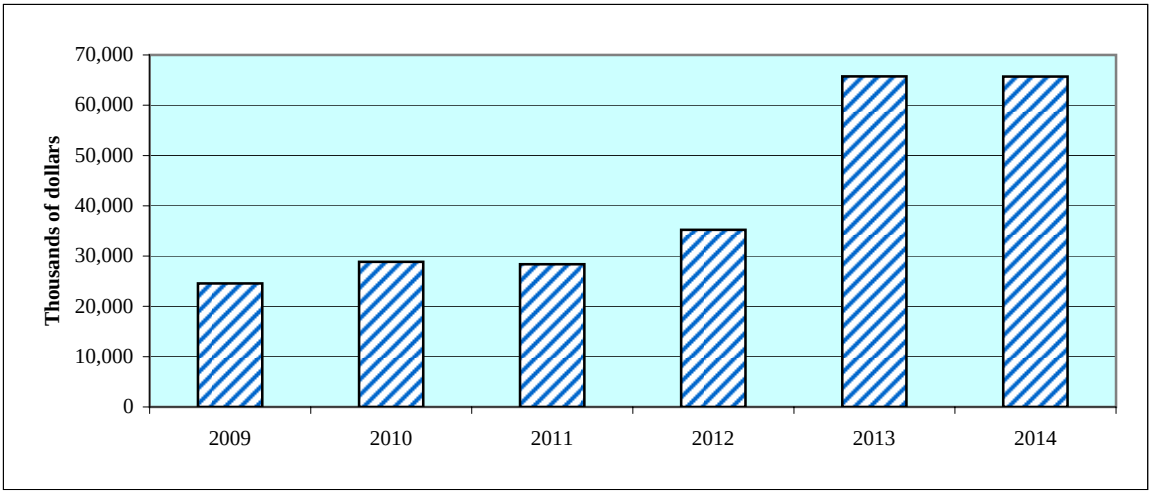


Project Summary

Program Element Summary

	All numbers are 1,000s of dollars						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**Total**
Maintenance and Rehabilitation	3,880	1,470	1,680	890	900	750	9,570
Sanitary Collection System	4,336	6,150	1,705	1,672	1,802	3,132	18,797
Storm Water	2,900	2,250	2,025	1,850	1,550	1,000	11,575
Combined Sewer Overflow	3,310	5,841	6,084	8,802	10,547	1,798	36,382
TMDL Compliance	3,550	6,160	5,480	11,150	43,750	43,750	113,840
Water Reclamation Facility	6,590	6,977	11,422	10,857	7,186	15,278	58,310
Total All Elements	**24,566**	**28,848**	**28,396**	**35,221**	**65,735**	**65,708**	**248,474**





Detail Sheets
Maintenance & Rehabilitation

Project Detail

S02M03 - Northwest Terrace Force Main

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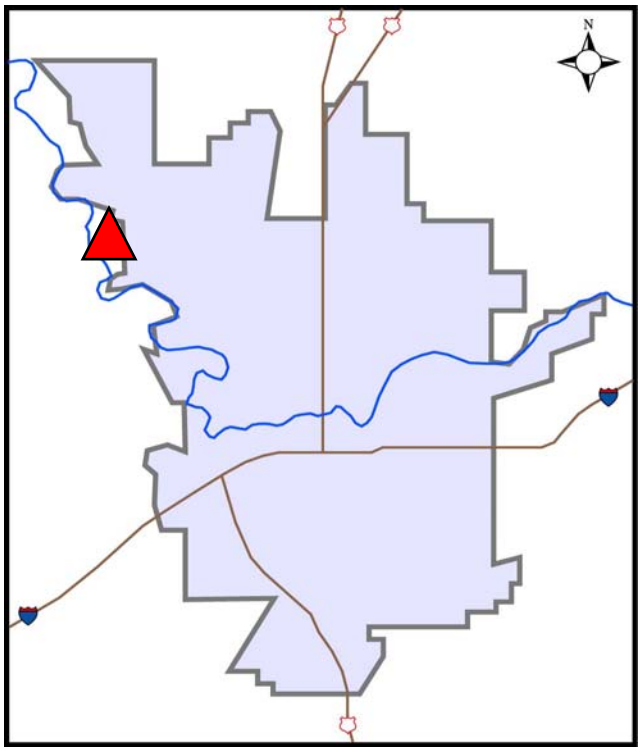

Project is located in northeast Spokane as generally shown in the map above.

Project Information	
Public Works Number	2001168
Financial Number	43385
Function	Force Main
Environmental Class.	Cat. Exempt
Design Responsibility	Eng Services
Length	8500 L.F.

Budget	
Engineering	42
Right of Way	0
Constr. Management	126
Construction Cost	882
Other	0
Total	**1,050**

Funding	
Sewer Fund	1,050
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,050**

Budget and Funding in 1,000s of dollars .

Description

The City's Northwest Terrace Pump Station is located near the intersection of Rifle Club Road and Aubrey L. White Parkway. The force main from this pump station is a 12-inch plastic (PVC) pipe about 8,000 feet in length, and it follows Aubrey L. White Parkway south from Rifle Club Road to a manhole just north of the Riverside Park Water Reclamation Facility. This PVC force main has failed on one occasion, and the Department is concerned that this pipe could fail again in the future and allow sewage to discharge to the Spokane River. The project will replace the PVC pipe with a ductile iron pipe. *The schedule for financial expeditures is on Page 12 .*

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Project Detail

S02M05 - Interceptor/Trunk Inspection Program

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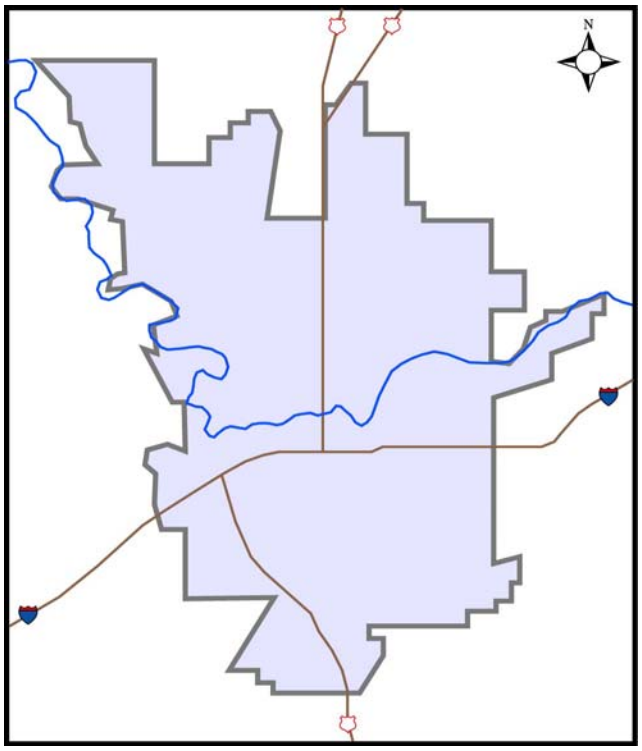

Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	43399
Function	N/A
Environmental Class.	Cat. Exempt
Design Responsibility	Sewer Maint
Length	21 miles

Budget	
Engineering	50
Right of Way	0
Constr. Management	120
Construction Cost	1,050
Other	0
Total	**1,220**

Funding	
Sewer Fund	1,220
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,220**

Budget and Funding in 1,000s of dollars .

Description

The City Sewer Maintenance crews regularly inspect the City's sewer pipes; however, due to equipment limitations, pipes larger than 24-inches in diameter (large trunks, and interceptors) cannot be inspected by these crews. Many of these larger pipes have never been inspected, and some of these pipes are over fifty years old. Under this project, a contractor using special equipment (sonar system) will inspect and evaluate the City sewer pipes larger than 24-inches. The City's siphon pipes will also be inspected. Needed rehabilitation and repairs discovered during this evaluation will be added to the City's 6-Year Program. *The schedule for financial expeditures is on Page 12.*

RETURN

Project Detail

S02M06 - Central Business District & On-Going CIPP Project

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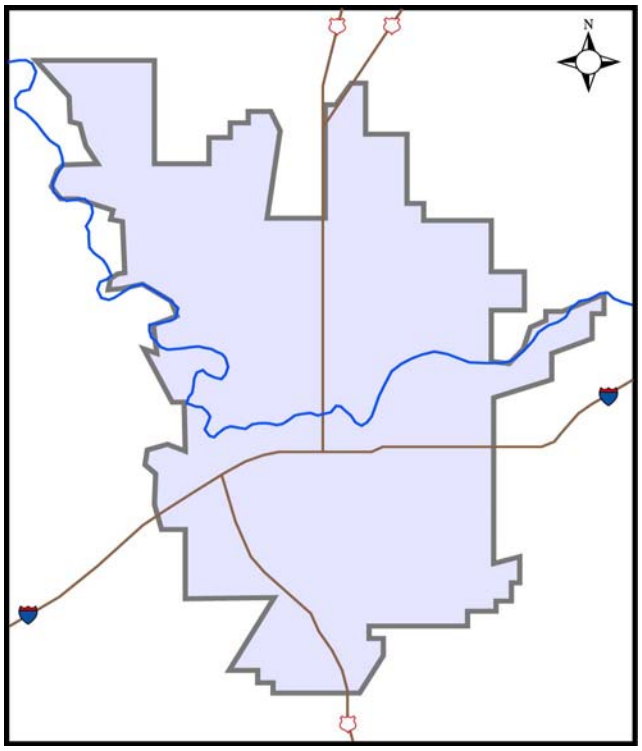

Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	43101
Function	N/A
Environmental Class.	Cat Exempt
Design Responsibility	Sewer Maint
Length	N/A

Budget	
Engineering	240
Right of Way	0
Constr. Management	0
Construction Cost	1,410
Other	0
Total	**1,650**

Funding	
Sewer Fund	1,650
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,650**

Budget and Funding in 1,000s of dollars .

Description

The term "CIPP" means Cured In Place Pipe; CIPP is a method that rehabilitates old pipe using a polyester felt liner impregnated with a resin that hardens when heated with hot water. Essentially, CIPP constructs a new pipe within an older pipe without resorting to excavating. Many of the sewer pipes in and near the downtown area (Central Business District) are old clay pipes that are either cracked or have leaking joints. Excavation to replace sewer pipes in congested streets is very expensive, so using CIPP in the Central Business District is a cost-effective method to rehabilitate these old pipes. The expected life of a CIPP rehabilitation is 80 to 100 years. In addition, replacement is extending to critical areas outside of the CBD, such as arterials, alleys, and areas that excavation for repair is difficult or to minimize traffic disruption. This is an on-going project. *The schedule for financial expeditures is on Page 12.*

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Project Detail

S02M09 - Force Main Replacement

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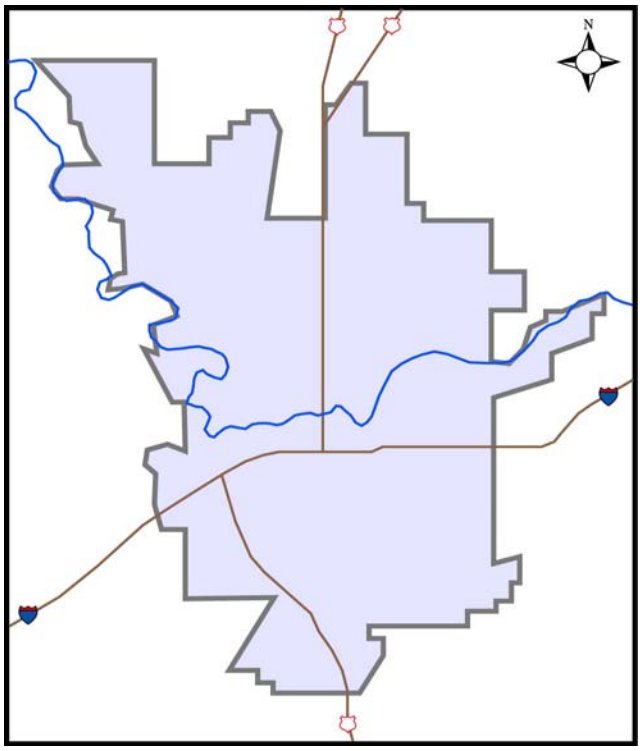

Project work services the entire City.

Project Information	
Public Works Number	2008073
Financial Number	<>
Function	N/A
Environmental Class.	Cat. Exempt
Design Responsibility	Various
Length	N/A

Budget	
Engineering	52
Right of Way	0
Constr. Management	80
Construction Cost	518
Other	0
Total	**650**

Funding	
Sewer Fund	650
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**650**

Budget and Funding in 1,000s of dollars .

Description

Many of the lift station and pump station force mains installed in the 1980s and 1990s were plastic (PVC) pipe. Recurring line breaks on these plastic force main lines require expensive emergency repairs. This project is an on-going replacement of these plastic pipes with ductile iron. Replacement is prioritized by the Sewer Maintenance Division based on the condition and location of the plastic force mains. Eventually, all plastic force mains will be replaced with ductile iron pipe. *The schedule for financial expeditures is on Page 12 .*

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Project Detail

S03M02 -MMS Implementation

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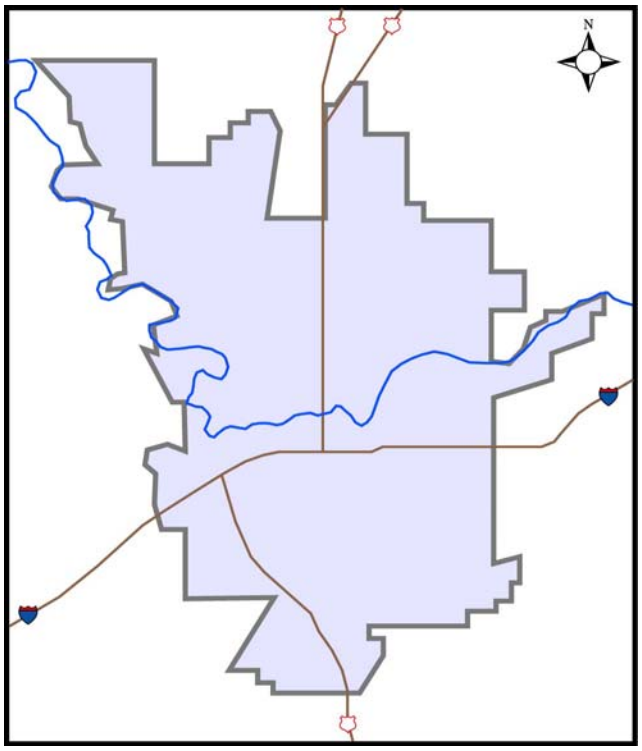

Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	43323
Function	N/A
Environmental Class.	Cat. Exempt
Design Responsibility	N/A
Length	N/A

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

Funding	
Sewer Fund	500
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**500**

Budget and Funding in 1,000s of dollars .

Description

The Enterprise Infrastructure Management System (or EIMS) is being upgraded to a City-wide Maintenance Management System (or MMS). The MMS links the inspection reports and maintenance activities to the City's GIS system. It can quantify sewer system segments that need repair or replacement, and it allows the Department to use its maintenance resources efficiently. A City-wide Request for Proposal is underway to select a contractor. *The schedule for financial expeditures is on Page 12.*

RETURN

Project Detail

S04M02 - Lift Station Repair & Upgrade

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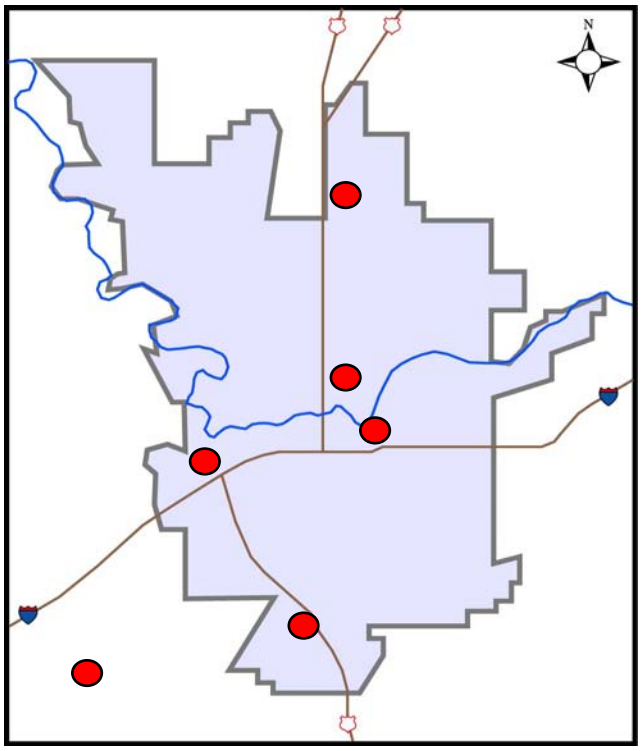

Project includes six lift station sites throughout the Service Area.

Project Information	
Public Works Number	2008065, 2008072, 2008075
Financial Number	43408
Function	N/A
Environmental Class.	Cat. Exempt
Design Responsibility	Various
Length	N/A

Budget	
Engineering	80
Right of Way	0
Constr. Management	120
Construction Cost	850
Other	0
Total	**1,050**

Funding	
Sewer Fund	1,050
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,050**

Budget and Funding in 1,000s of dollars .

Description

This project identifies lift stations in need of repair and upgrade because the pump and control equipment require constant maintenance. Upgrades may include above-ground facilities to address the confined-space safety issues of lift stations in underground vaults. The lift stations are: 1) Sans Souci (built in 1958) located near the Spokane River, north of Summit Boulevard Parkway--in design; 2) 35th Avenue and Helena (built in 1962) located on Helena between 34th and 35th--in design; 3) North Crescent (built in 1984), located on Crestline between Upriver and North Crescent--under construction; 4) Hayford (built in 1985) located on Hallett Road immediately east of I-90 exit 272--under construction; 5) North Pointe (old Lidgerwood, built in 1979) located on the southeast corner of Colton and Holland {constructing a new sewer line to eliminate North Pointe lift station is currently under study}; and 6) Springfield located on Springfield and Columbus (built in 1972).

The schedule for financial expeditures is on Page 12.

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Project Detail

S04M03 - Post Street Bridge Rehabilitation

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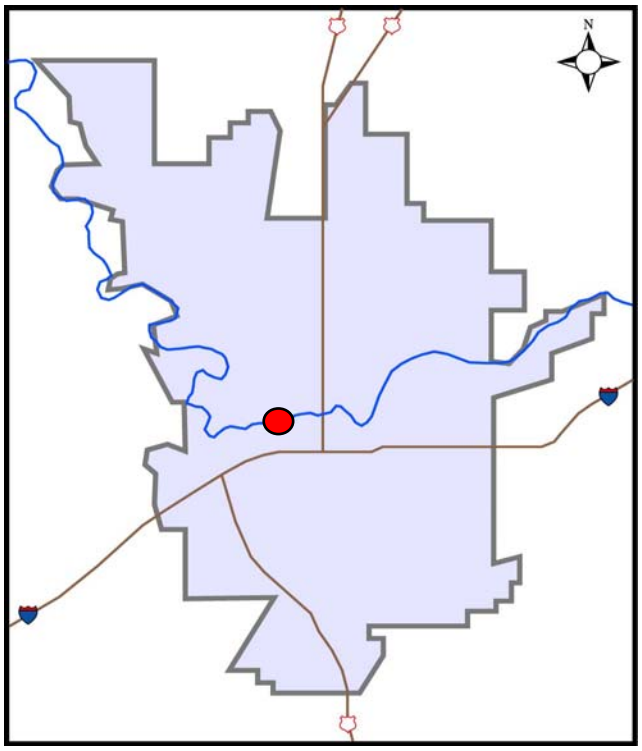


The Post Street Bridge crosses the Spokane River in downtown Spokane.

Project Information	
Public Works Number	N/A
Financial Number	<>
Function	N/A
Environmental Class.	Cat. Exempt
Design Responsibility	Eng. Services
Length	450

Budget	
Engineering	110
Right of Way	0
Constr. Management	150
Construction Cost	1,140
Other	0
Total	**1,400**

Funding	
Sewer Fund	1,400
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,400**

Budget and Funding in 1,000s of dollars .

Description

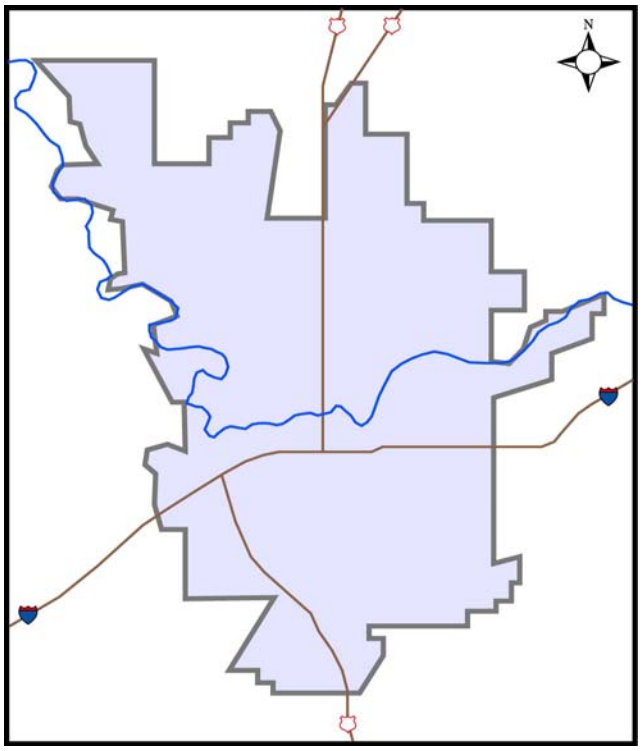
The Post Street Bridge, located immediately north of City Hall, carries a 54-inch sewer interceptor that serves the downtown area. The City Public Works Department plans a significant rehabilitation of the Post Street Bridge, similar to the Monroe Street Bridge rehabilitation. Included with the Post Street Bridge rehabilitation is replacement of the old 54-inch steel pipe with 450 feet of 60-inch ductile iron pipe, as well as manhole replacement on both river banks. This project will be constructed as a part of the entire bridge rehabilitation project. *The schedule for financial expeditures is on Page 12.*

RETURN

Project Detail

S05M01 - Future Rehabilitation Projects

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	N/A
Length	N/A

Budget	
Engineering	150
Right of Way	0
Constr. Management	150
Construction Cost	1,200
Other	0
Total	**1,500**

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

Budget and Funding in 1,000s of dollars .

Description

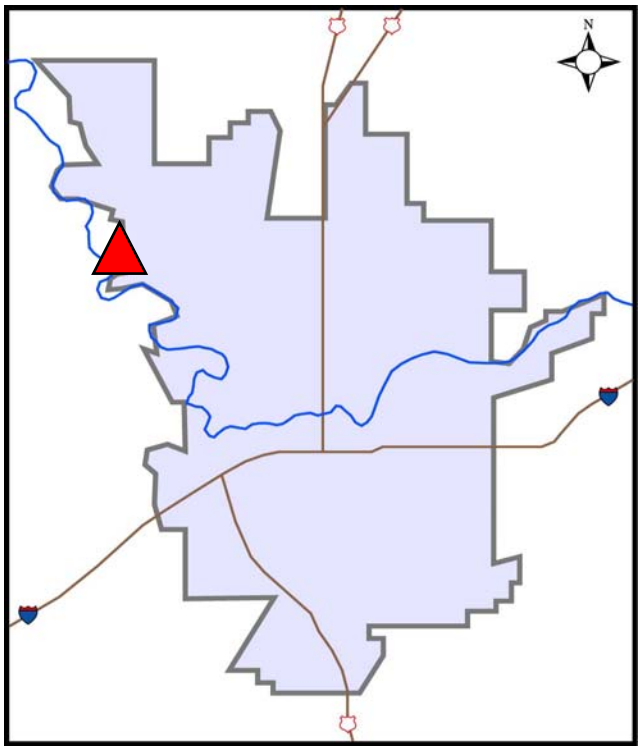
Often, rehabilitation projects must be completed within 2 or 3 years from the time the need is identified. The purpose of this item in the program is to insure that funds are available in the last three years of the program for rehabilitation projects that are not yet identified. *The schedule for financial expeditures is on Page 12.*

RETURN

Project Detail

S08M01 - Northwest Terrace Pump Station Replacement

RETURN



Project is located in the northeast Spokane as generally shown in the map above.

Project Information	
Public Works Number	2007145
Financial Number	<>
Function	Pump station
Environmental Class.	Assessment
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	10
Right of Way	0
Constr. Management	60
Construction Cost	480
Other	0
Total	**550**

Funding	
Sewer Fund	550
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**550**

Budget and Funding in 1,000s of dollars .

Description

Northwest Terrace pump station is in need of upgrade and repair. The existing Northwest Terrace Pump Station has two 40-hp pumps located in a small underground vault and emergency power generator located in a wood-sided building. The vault requires confined-space entry procedures. This project will replace in kind the existing pumps, motors and electrical equipment enclosed in a building similar to Lincoln Road Pump Station. The ground level will house the electrical, control and emergency power equipment. Stairs will lead to a fully accessible below-ground pump room. Not only will the new building improve safety by eliminating confined-space concerns, but also will be less costly to maintain. *The schedule for financial expeditures is on Page 12.*

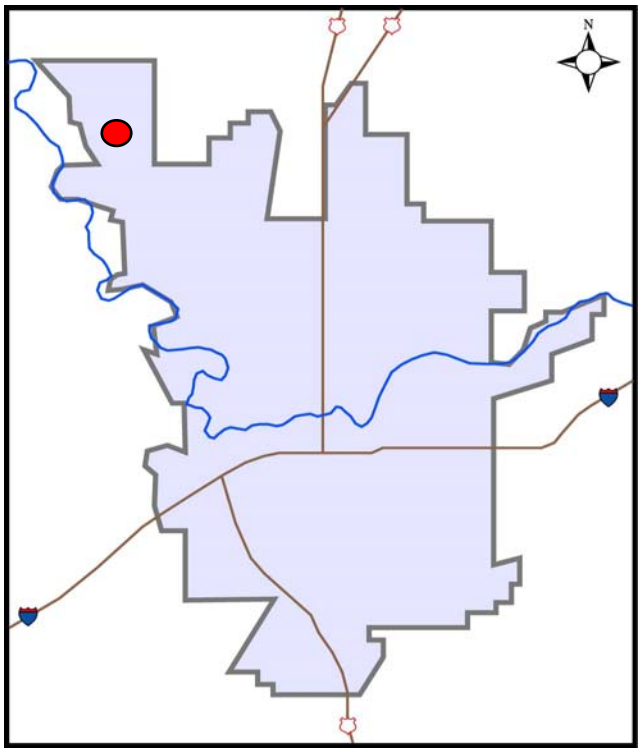
RETURN

Detail Sheets
Sanitary Collection System

Project Detail

S00C06 - Five Mile Lateral Extension

RETURN



Project work is located in Five Mile Road.

Project Information	
Public Works Number	1998151
Financial Number	<>
Function	collection
Environmental Class.	Assessment
Design Responsibility	Eng Services
Length	3000 feet

Budget	
Engineering	0
Right of Way	0
Constr. Management	45
Construction Cost	295
Other	0
Total	**340**

Funding	
Sewer Fund	340
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**340**

Budget and Funding in 1,000s of dollars .

Description

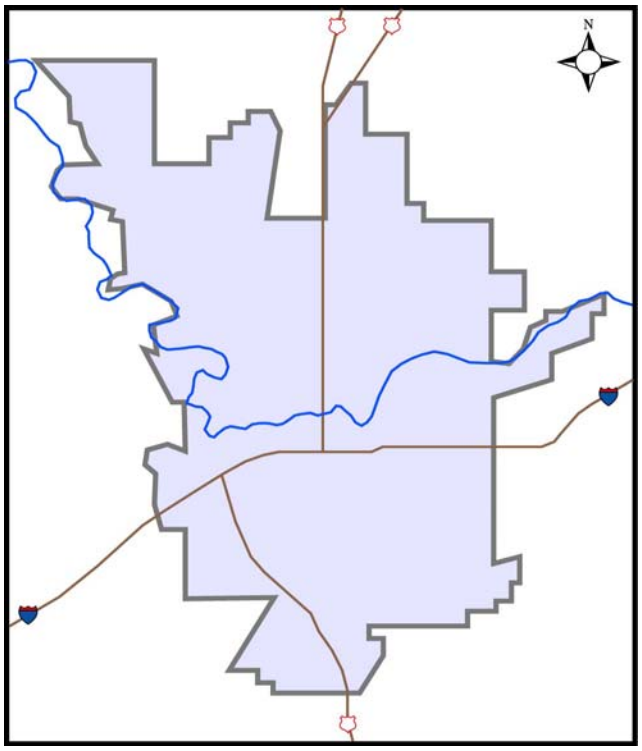
A 8-inch diameter sewer pipe will be installed as a part of the Five Mile Road project. In the Six Year Comprehensive Street Program Five Mile Road from Austin Road to Lincoln Road is scheduled to be widened in 2009. The 3000 feet of pipeline with be constructed with at the same time as the road project. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

S02C01 - Lateral Upgrade Program

RETURN



Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	43101
Function	Lateral
Environmental Class.	Cat. Exempt
Design Responsibility	Sewer Maint
Length	N/A

Budget	
Engineering	60
Right of Way	0
Constr. Management	0
Construction Cost	390
Other	0
Total	**450**

Funding	
Sewer Fund	450
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**450**

Budget and Funding in 1,000s of dollars .

Description

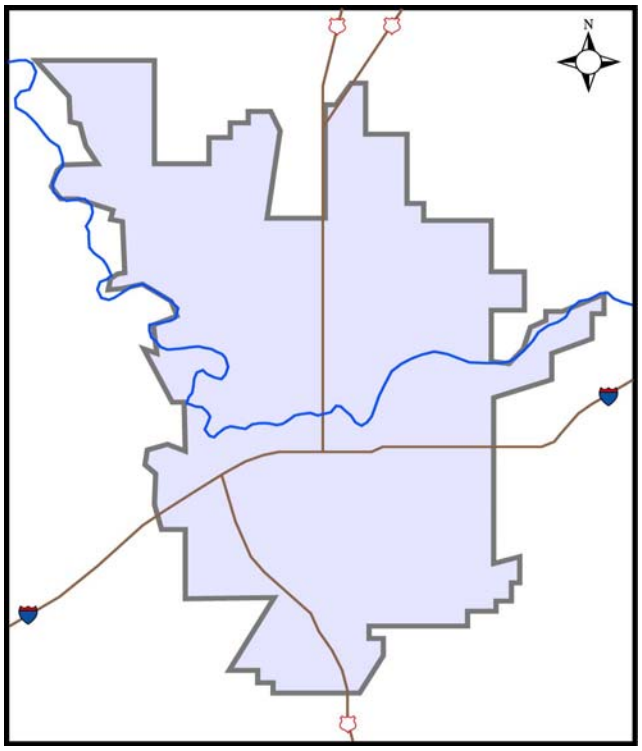
The City has numerous old sewer laterals that are either too small (6-inch pipes) or that are very difficult to maintain because of improper manhole placement. This project identifies and corrects these old sewer laterals. The laterals that are under-sized or a maintenance concern will be identified in the first year of this project and the identified laterals then will be corrected. This is an on-going project. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

S02C02 - Infrastructure Upgrade-Public

RETURN



Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	43101
Function	Collection
Environmental Class.	Assessment
Design Responsibility	various
Length	N/A

Budget	
Engineering	60
Right of Way	0
Constr. Management	0
Construction Cost	840
Other	0
Total	**900**

Funding	
Sewer Fund	900
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**900**

Budget and Funding in 1,000s of dollars .

Description

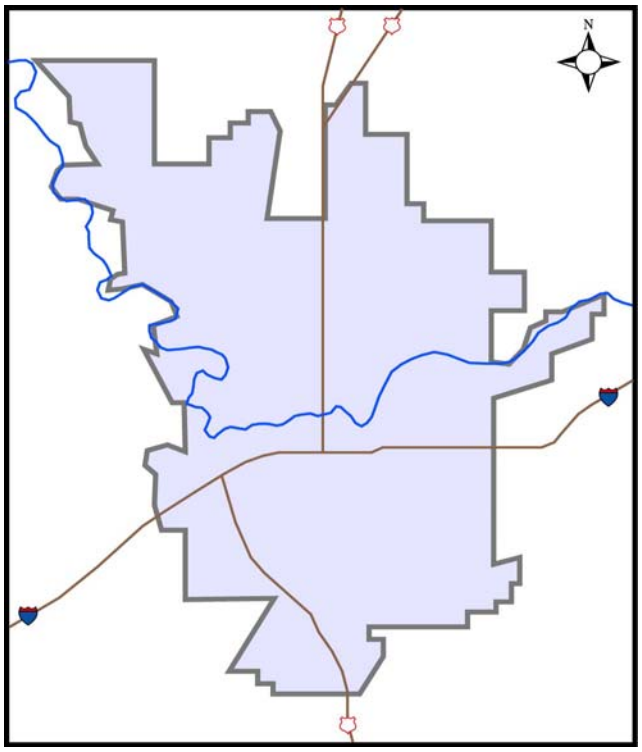
The Wastewater Management Department coordinates with other City infrastructure work. When sewer facilities are near these other City projects, the Department evaluates these facilities for upgrade or replacement. For example: in conjunction with a road project, the Department may fund the replacement of shallow or broken pipe and leaking manholes. These facility replacements and upgrades are funded through this project as a contribution to the larger City improvement. This is an on-going project. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

S02C03 - Infrastructure Participation-Private

RETURN



Project work services the entire City.

Project Information	
Public Works Number	<>
Financial Number	43101
Function	Collection
Environmental Class.	Assessment
Design Responsibility	other
Length	N/A

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

Funding	
Sewer Fund	120
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**120**

Budget and Funding in 1,000s of dollars .

Description

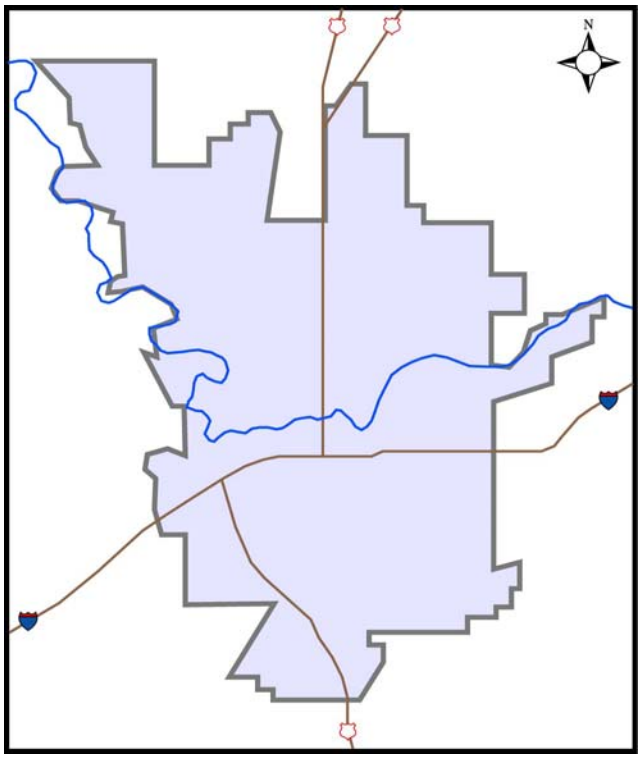
Occasionally, a situation will arise where a developer is installing a sewer or storm drain line to serve a specific development, and some of the pipes could serve a larger area if the pipe size was increased. Funds from this project are intended to reimburse a developer for over sizing pipes and other facilities to meet the community needs. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

S02S01 - STEP Studies

RETURN



Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	43326
Function	Lateral
Environmental Class.	Assessment
Design Responsibility	Sewer Maint
Length	N/A

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

Funding	
Sewer Fund	120
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**120**

Budget and Funding in 1,000s of dollars .

Description

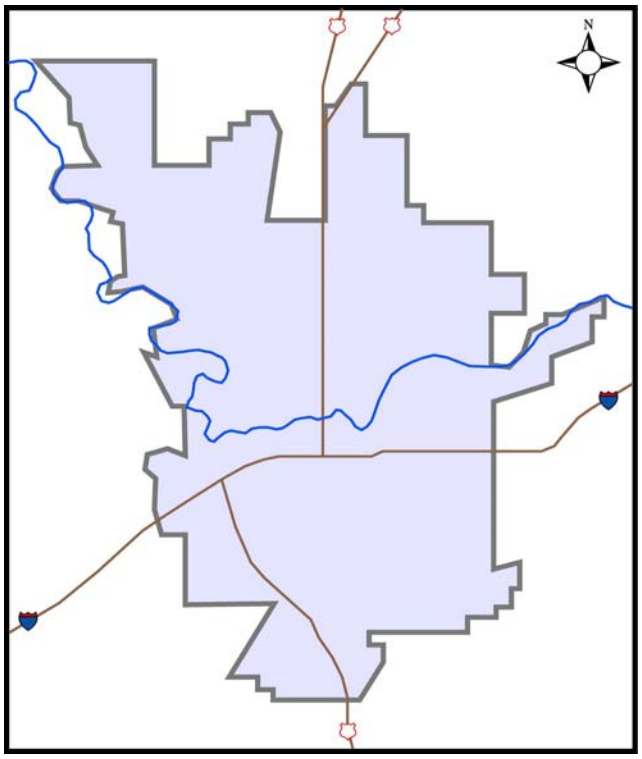
The term "STEP" is an acronym for "Septic Tank Elimination Program." The City has numerous isolated pockets of properties using septic tanks. This project will study a small number of these projects every other year, and determine if cost-effective solutions are available to eliminate these septic tank systems. This project provides the locations for construction work in project S03S01. *The schedule for financial expenditures is on Page 14 .*

RETURN

Project Detail

S03S01 - STEP Projects

RETURN



Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	43326
Function	Lateral
Environmental Class.	Assessment
Design Responsibility	Sewer Maint
Length	N/A

Budget	
Engineering	60
Right of Way	0
Constr. Management	0
Construction Cost	540
Other	0
Total	**600**

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

Budget and Funding in 1,000s of dollars .

Description

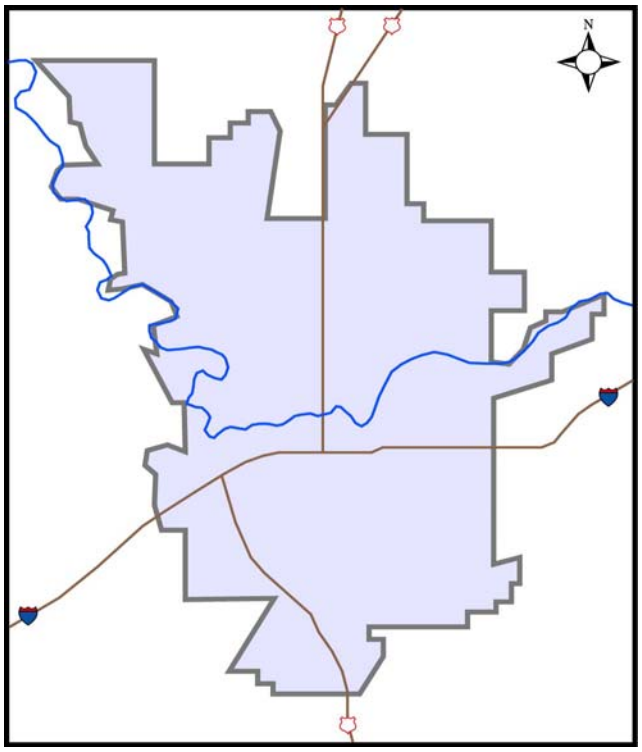
The term "STEP" is an acronym for "Septic Tank Elimination Program." The City has numerous isolated pockets of properties using septic tanks. This project will construct small lateral extensions every other year that were identified in previous studies (S02S01). *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

S04C01 - Public Works Strategic Infrastructure Planning Study -- Wastewater Component

RETURN



Project work services the entire City.

Project Information	
Public Works Number	2005135
Financial Number	43407
Function	N/A
Environmental Class.	Assessment
Design Responsibility	Cap Programs
Length	N/A

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

Funding	
Sewer Fund	475
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**475**

Budget and Funding in 1,000s of dollars .

Description

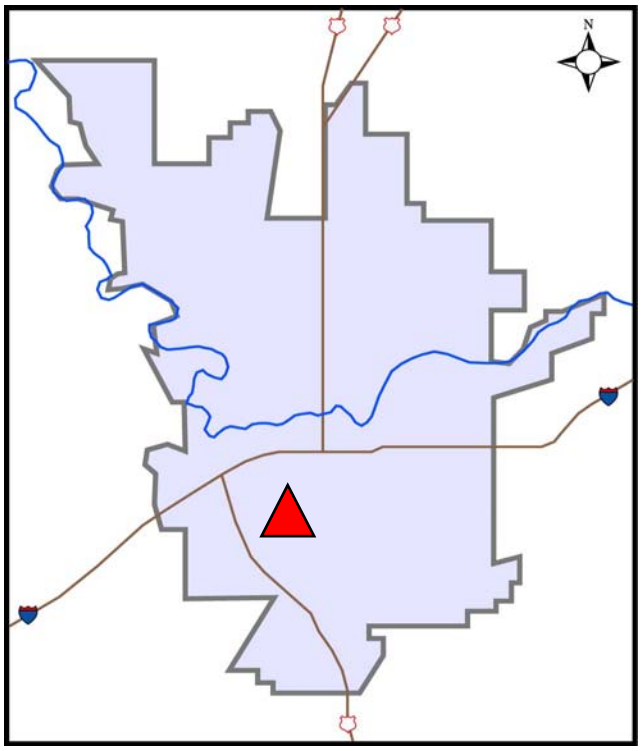
The Public Works Strategic Infrastructure Planning Study will analyze the City of Spokane's ability to provide utility infrastructure to support both future demands of our existing infrastructure and infrastructure needs of future growth as guided by the City's Comprehensive Plan. The Study will develop 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 14.*

RETURN

Project Detail

S04C02 - High Drive Sewer Study

RETURN



Project work is located along High Drive at the western boundary of Spokane's South Hill.

Project Information	
Public Works Number	N/A
Financial Number	<>
Function	Collection
Environmental Class.	Assessment
Design Responsibility	Cap Programs
Length	N/A

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

Funding	
Sewer Fund	100
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**100**

Budget and Funding in 1,000s of dollars .

Description

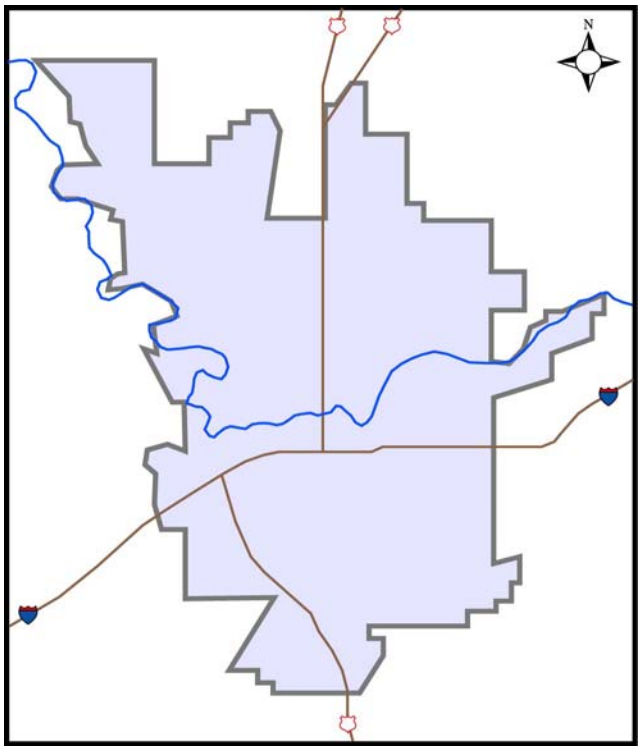
The Sewer Maintenance Division has responded to several line breaks and "blow-outs" in the sewer lines along and west of High Drive. Some of these lines have very steep slopes with shallow ground cover. This project is a study that will determine the best way to rehabilitate, replace or re-route the High Drive sewer lines to reduce and/or eliminate the current maintenance issues. Projects may be added to the 6-Year Program as a result of this study. This project will use information provided by the Trunk Sewer Vulnerability Assessment (S04C03). *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

S04C03 - Trunk Sewer Vulnerability Assessment

RETURN



Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	<>
Function	N/A
Environmental Class.	Assessment
Design Responsibility	Sewer Maint
Length	N/A

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

Funding	
Sewer Fund	300
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**300**

Budget and Funding in 1,000s of dollars .

Description

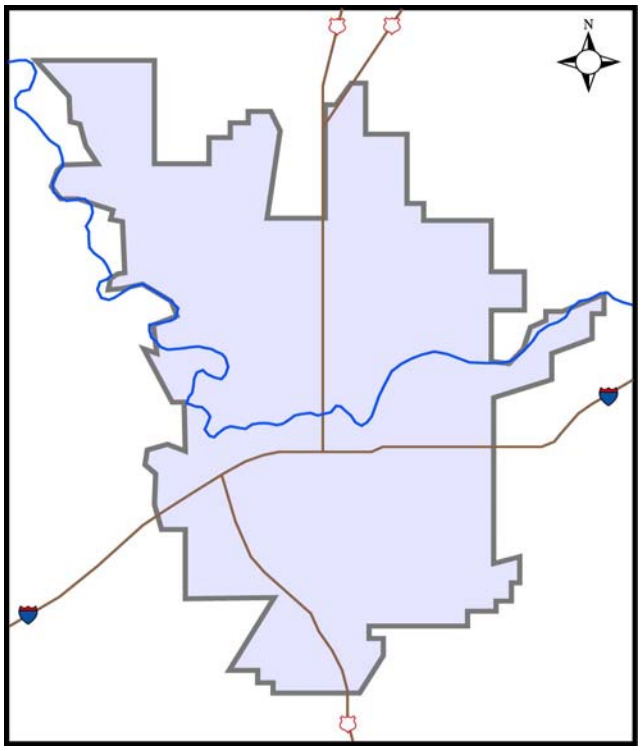
The City's trunk and interceptor pipes constitute the "backbone" of the sewer collection system. A failure of any component of this backbone system threatens the integrity of the entire sewer system and could cause significant environmental damage. Some elements of the trunk and interceptor system is vulnerable to damage from a variety of causes: steep slopes, proximity to water bodies, bridge crossing, utility conflicts, and other conditions. Wastewater management is currently evaluating this project and may use a consultant to assist in identifying vulnerable backbone elements and to recommend work that may reduce existing vulnerability. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

S06C01 - 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.	Assessment
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	340
Right of Way	0
Constr. Management	1,060
Construction Cost	5,800
Other	0
Total	**7,200**

Funding	
Sewer Fund	7,200
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**7,200**

Budget and Funding in 1,000s of dollars .

Description

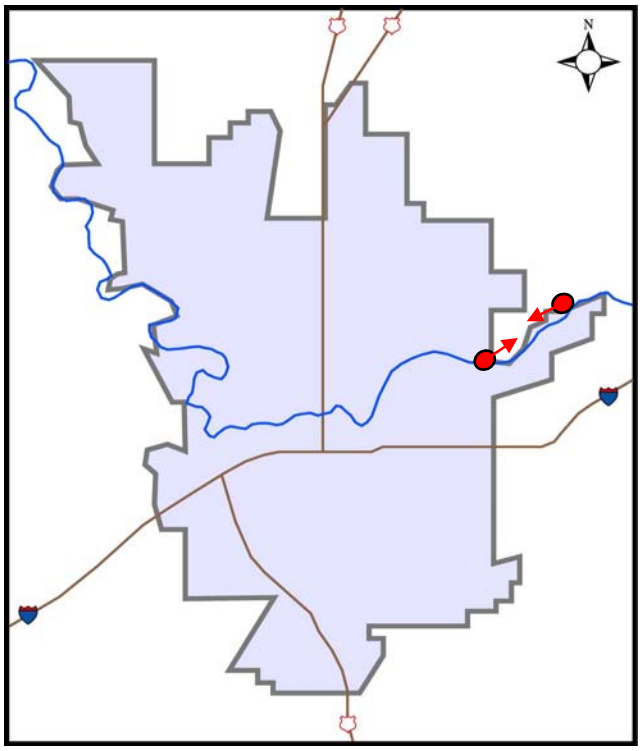
The Wastewater Management Department coordinates with other City infrastructure work, including the City's 10-year street bond improvements. When sewer or storm drain facilities are near these street bond projects, the Department evaluates these facilities for upgrade or replacement. For example: in conjunction with an intersection improvement, the Department may fund the replacement of old catch basins, shallow or broken pipe and leaking manholes. 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 14.*

RETURN

Project Detail

S07C01 - Upriver-Havana Sewer Project

RETURN



Project work is located on the east City Limits north of the Spokane River.

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

Budget	
Engineering	223
Right of Way	0
Constr. Management	387
Construction Cost	2,550
Other	0
Total	**3,160**

Funding	
Sewer Fund	3,160
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**3,160**

Budget and Funding in 1,000s of dollars .

Description

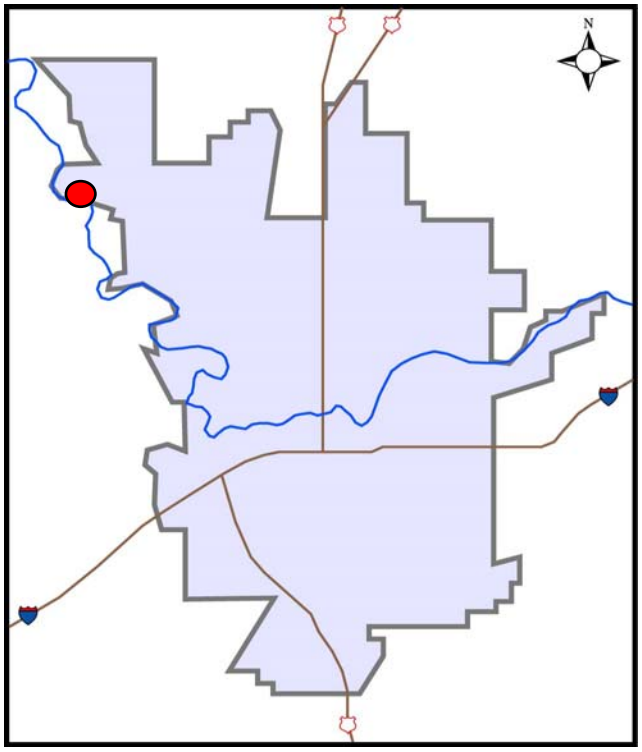
This project provided sewer service to the north Upriver Drive and east of Havana Road through construction of a new sewer system connecting to Interceptor Segment I05. The existing sewer system in this area is served by two lift stations that must store sewage and pump to a gravity line during off-peak periods (evenings). This project will extend gravity sewer service to this area that will eliminate the lift stations. Construction of a trunk line and collection system are necessary to serve the area. The trunk system will be installed in Upriver Drive. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

S08C01 - Lower Terrace Sewer Project, Phase 1

RETURN



Project work is located in Aubrey L. White Parkway, south of Rifle Club Road.

Project Information	
Public Works Number	2001168
Financial Number	<>
Function	Collection
Environmental Class.	Assessment
Design Responsibility	Eng Services
Length	1.6 miles

Budget	
Engineering	350
Right of Way	0
Constr. Management	155
Construction Cost	1,000
Other	0
Total	**1,505**

Funding	
Sewer Fund	1,505
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,505**

Budget and Funding in 1,000s of dollars .

Description

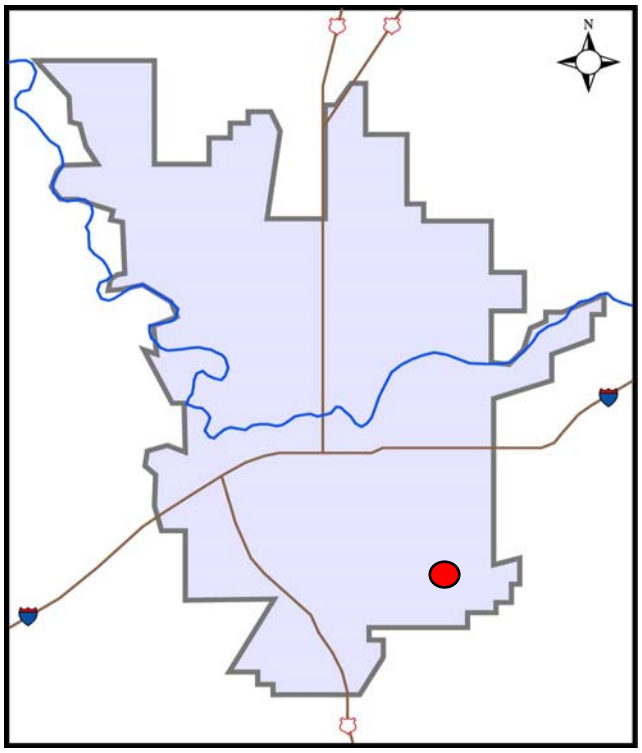
The Lower Terrace Sewer project will provide sewer service to the Nine Mile area. The overall project includes a new pump station, gravity sewer and force mains and will result in the elimination of four existing lift stations in the area. The project is anticipated to be constructed in four phases. The first phase will construct about 1.6 miles of 14-inch force main in conjunction with the Northwest Terrace Force Main Replacement Project (S02M03) next year. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

S08C02 - Groundwater Evaluation and Mitigation

RETURN



Project work is located in the southeast portion of the City.

Project Information	
Public Works Number	N/A
Financial Number	<>
Function	Collection
Environmental Class.	Assessment
Design Responsibility	Cap Prog
Length	N/A

Budget	
Engineering	181
Right of Way	0
Constr. Management	27
Construction Cost	48
Other	0
Total	**256**

Funding	
Sewer Fund	256
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**256**

Budget and Funding in 1,000s of dollars .

Description

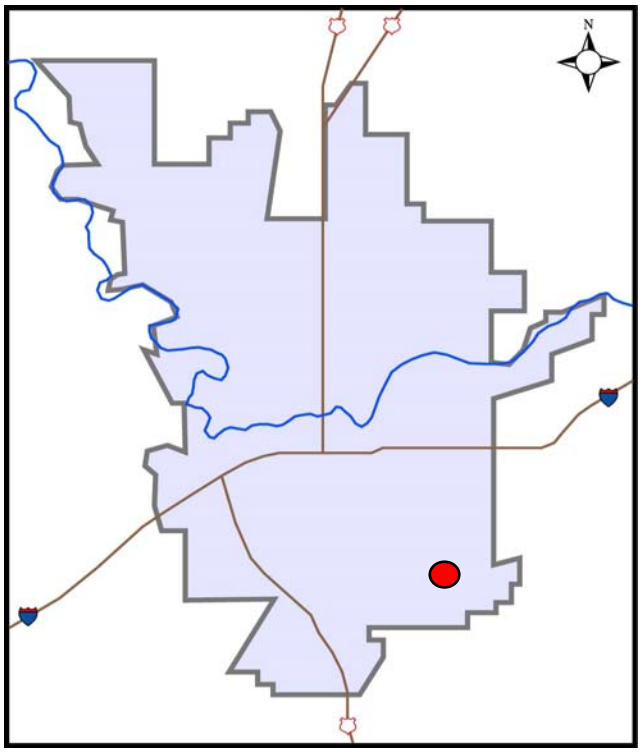
The Groundwater Evaluation and Mitigation (GEM) program will evaluate areas of the City with high groundwater regarding cost effective and efficient mitigation actions. The GEM program includes several facets to investigate and implement pilot projects. Investigations will be design to more fully understand the groundwater problems and potential solutions. The initial facets of this project are: 1) Tree Runoff Evaluation Experiment (TREE) to determine the effectiveness of trees in removing excess groundwater; 2) Examination for Disposal of Groundwater Evaluation (EDGE) to identify disposal sites; and 3) Pumping Out at Wells (POW) to determine the effect of pumping on groundwater. After the completion of these facets, Clean-water Reduction Infrastructure System Plan (CRISP) will develop a planning-level conveyance system to disposal sites identified in EDGE. *The schedule for financial expeditures is on Page 14.*

RETURN

Project Detail

S08C03 - Groundwater Mitigation Construction

RETURN



Project work is located in the southeast portion of the City.

Project Information	
Public Works Number	N/A
Financial Number	43386
Function	Collection
Environmental Class.	Assessment
Design Responsibility	Sewer Maint
Length	N/A

Budget	
Engineering	30
Right of Way	0
Constr. Management	45
Construction Cost	325
Other	0
Total	**400**

Funding	
Sewer Fund	400
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**400**

Budget and Funding in 1,000s of dollars .

Description

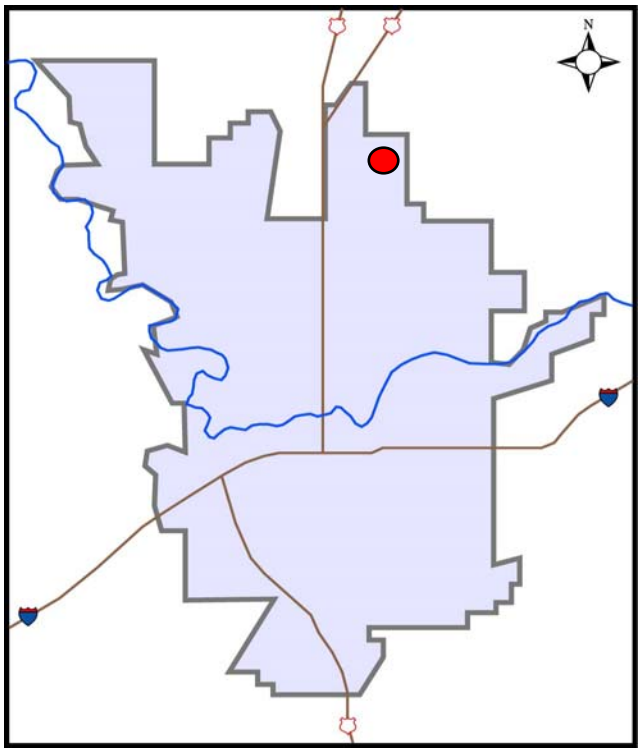
Based on the results of the Ground Evaluation and Mitigation (GEM) program of S08D02, facilities are anticipated to be constructed to mitigate high groundwater. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

S09C01 - Joint City-County Marion Hayes Intertie

RETURN



Project work is located in the northeast portion of the City.

Project Information	
Public Works Number	N/A
Financial Number	<>
Function	Collection
Environmental Class.	Assessment
Design Responsibility	Sewer Maint
Length	5000 ft

Budget	
Engineering	103
Right of Way	0
Constr. Management	154
Construction Cost	1,025
Other	0
Total	**1,281**

Funding	
Sewer Fund	1,281
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,281**

Budget and Funding in 1,000s of dollars .

Description

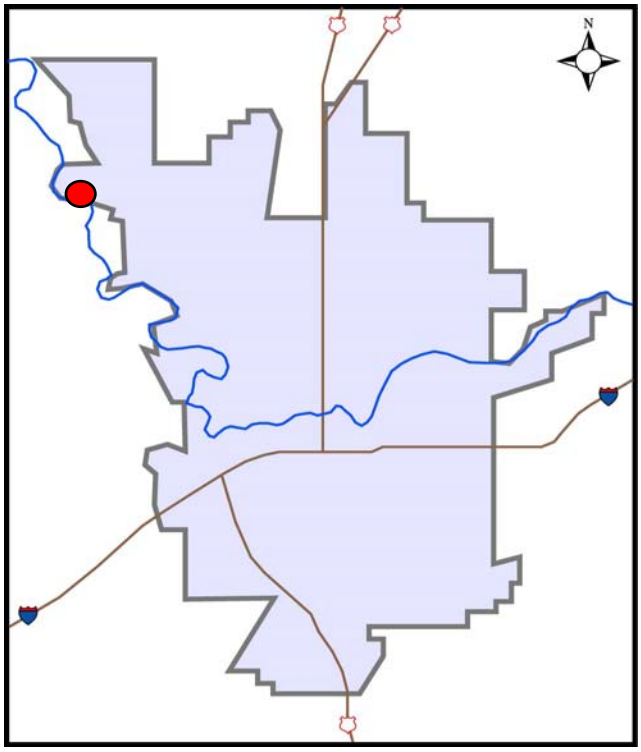
This project will construct a sewer pipe from North Pointe lift station to Spokane County's Marion Hayes Lift Station. The existing lift station would be eliminated after construction of the intertie. *The schedule for financial expenditures is on Page 14.*

RETURN

Project Detail

S09C02 - Lower Terrace Sewer Project, Phase 2

RETURN



Project work is located in Aubrey L. White Parkway, south of Rifle Club Road.

Project Information	
Public Works Number	N/A
Financial Number	<>
Function	Collection
Environmental Class.	Assessment
Design Responsibility	Eng Services
Length	2.1 miles

Budget	
Engineering	130
Right of Way	0
Constr. Management	146
Construction Cost	1,314
Other	0
Total	**1,590**

Funding	
Sewer Fund	1,590
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,590**

Budget and Funding in 1,000s of dollars .

Description

The Lower Terrace Sewer project will provide sewer service to the Nine Mile area. This phase of the project will construct a pump station and force main to connect to the force main constructed in phase 1 of the project. *The schedule for financial expenditures is on Page 14.*

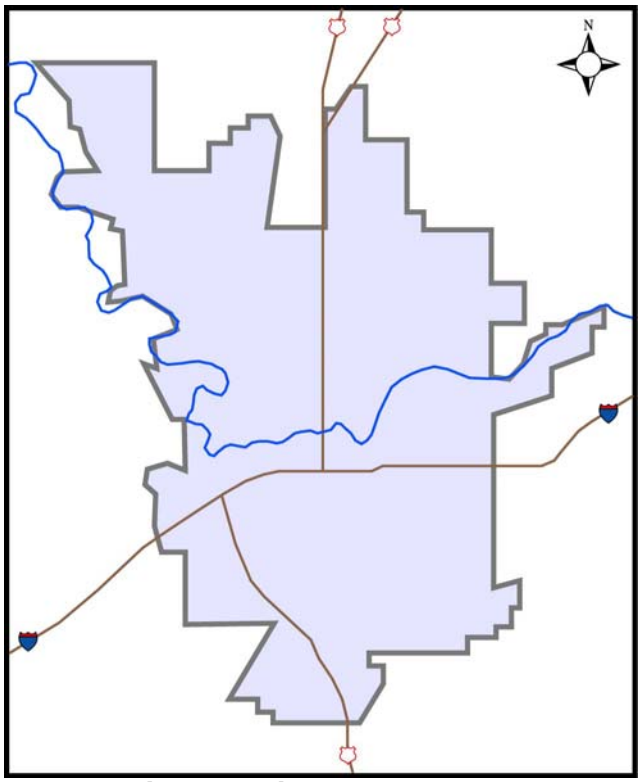
RETURN

Detail Sheets
Storm Water

Project Detail

S02D02 - Storm Water Drainageways Identification

RETURN



Project work services the entire City.

Project Information	
Public Works Number	<>
Financial Number	43380
Function	Storm
Environmental Class.	Cat Exempt
Design Responsibility	Cap Programs
Length	N/A

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

Funding	
Sewer Fund	50
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**50**

Budget and Funding in 1,000s of dollars .

Description

The Storm Water Drainageways projects is a small in-house City effort to identify land the City should acquire for drainage transmission and disposal. This project will use the City's Geographic Information System (GIS) to locate potential site; then, site surveys and ownership identification are planned. Recommended acquisitions will be compiled into a study format. This effort will assist the City in selecting properties for purchase (see project S02D03). *The schedule for financial expenditures is on Page 16.*

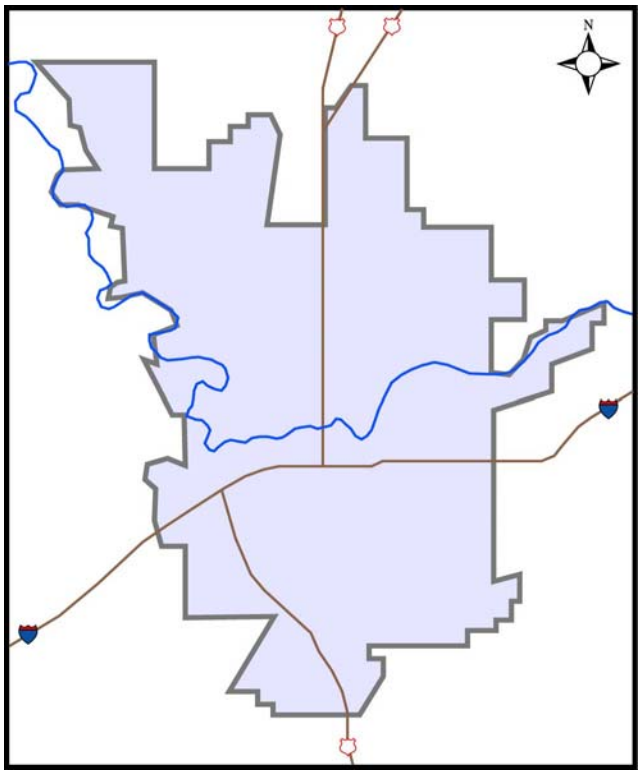
COMPLETE

RETURN

Project Detail

S02D03 - Corridor Acquisition

RETURN



Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	43354
Function	Storm
Environmental Class.	Cat Exempt
Design Responsibility	Sewer Maint
Length	N/A

Budget	
Engineering	0
Right of Way/Prop.	1,125
Constr. Management	0
Construction Cost	0
Other	0
Total	**1,125**

Funding	
Sewer Fund	1,125
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,125**

Budget and Funding in 1,000s of dollars .

Description

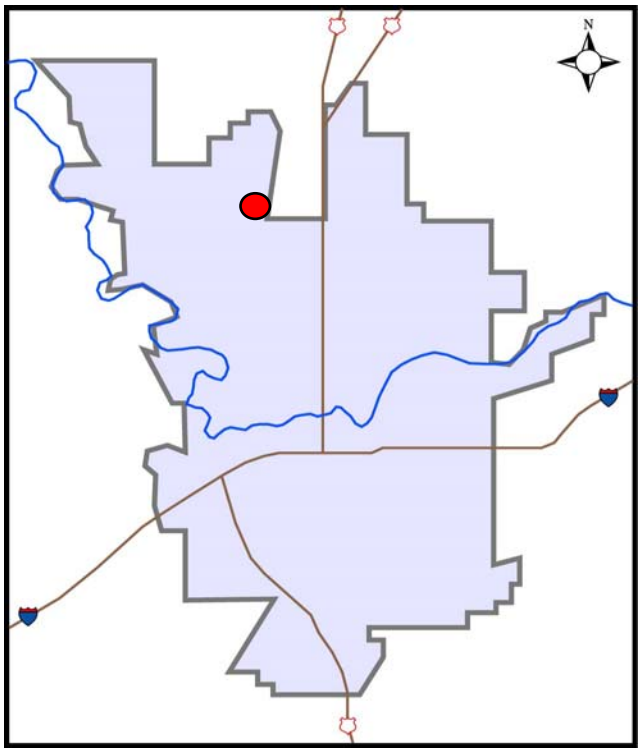
This project funds the purchase of property for future drainage projects. Identification of potential acquisitions is found in the Storm Water Drainageways project (S02D02). *The schedule for financial expenditures is on Page 16.*

RETURN

Project Detail

S03D02 - Austin Draw Infiltration Facility Study

RETURN



Project work is located in the northwest portion of the City.

Project Information	
Public Works Number	<>
Financial Number	43394
Function	Storm
Environmental Class.	Assessment
Design Responsibility	Cap Programs
Length	N/A

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

Funding	
Sewer Fund	100
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**100**

Budget and Funding in 1,000s of dollars .

Description

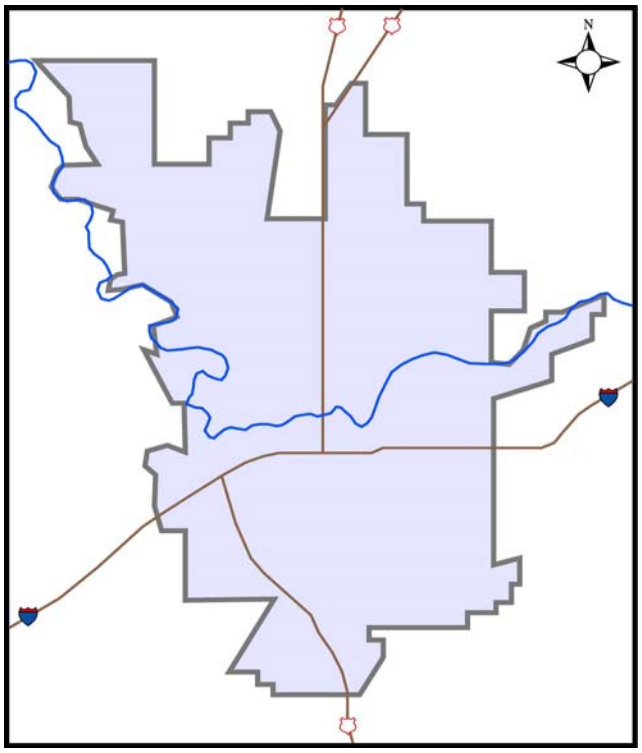
This project will identify infiltration capacity and conceptual design of the Austin Draw Infiltration Facility located below the Five Mile Prairie . The study location is an area north of Francis, between Five Mile Road and Cedar Road. Information from this study will allow the City and the County to size and design storm water facilities in this area. *The schedule for financial expenditures is on Page 16.*

RETURN

Project Detail

S04D01 - Bio-Infiltration System Rehabilitation

RETURN



Project work services the entire City.

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

Budget	
Engineering	60
Right of Way	0
Constr. Management	0
Construction Cost	840
Other	0
Total	**900**

Funding	
Sewer Fund	900
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**900**

Budget and Funding in 1,000s of dollars .

Description

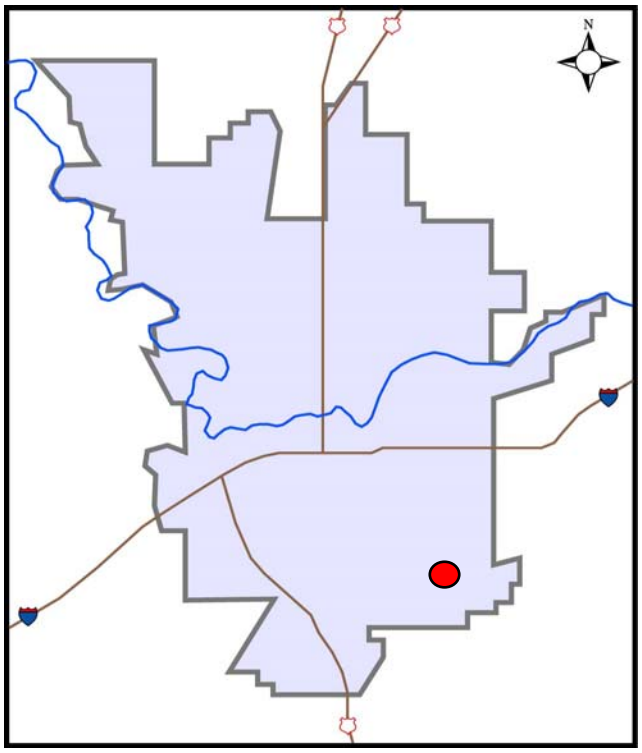
"Bio-Infiltration Systems" or grass percolation areas are commonly known as "grassy swales". The City has maintains almost 10 acres grass percolation areas along streets that are used to treat and dispose of storm water. Sometimes the grass percolation areas will have a dry well installed at the low end to allow more storm water to infiltrate into the ground. City staff perform regular maintenance in order to maintain effectiveness. Grass percolation areas have a 20-year design life, but generally need maintenance every 5-10 years. Spokane County and the Spokane Valley City are currently researching rehabilitation methods, and City crews will use current rehabilitation technology in their work. This is an on-going project. *The schedule for financial expenditures is on Page 16.*

RETURN

Project Detail

S05D01 - Hazels Creek Drainage and Conservation Area

RETURN



Project work is located in the southeast portion of the City.

Project Information	
Public Works Number	N/A
Financial Number	43386
Function	Storm
Environmental Class.	Assessment
Design Responsibility	Sewer Maint
Length	N/A

Budget	
Engineering	50
Right of Way	0
Constr. Management	70
Construction Cost	480
Other	0
Total	**600**

Funding	
Sewer 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 Hazels Creek Drainage and Conservation Area is a 19-acre City-owned site located between Regal Street & Freya Street. This property has been identified as a drainage treatment & disposal site for a portion of the Moran Prairie; it is currently being studied to determine its specific disposal capacity & possible down-stream impacts. The development of this site will be based on the Hazel's Creek Master Plan, scheduled for completion in 2009. Site improvements are expected to include: removal of old structures & fences; stormwater treatment systems, infiltration/detention ponds, terraces & berms; access improvements; weed abatement & native species plantings; wetland mitigation; access trails, viewing platforms, & educational elements. The City plans to create a self-supporting fee structure for the Hazel's Creek Sub-basin and the revenues generated will re-capture the City capital expenditures and will defray annual operations and maintenance costs. See S08D01 for information on the Hazel's Creek Sub-basin improvements.

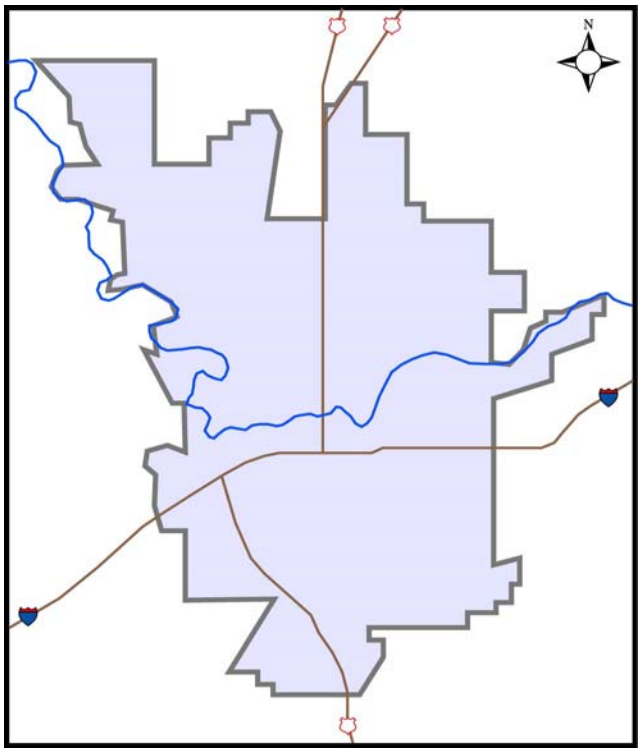
The schedule for financial expenditures is on Page 16.

RETURN

Project Detail

S05D02 - Second Drainage-Conservation Area Master Plan

RETURN



Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	<>
Function	N/A
Environmental Class.	Assessment
Design Responsibility	Sewer Maint
Length	N/A

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

Funding	
Sewer Fund	500
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**500**

Budget and Funding in 1,000s of dollars .

Description

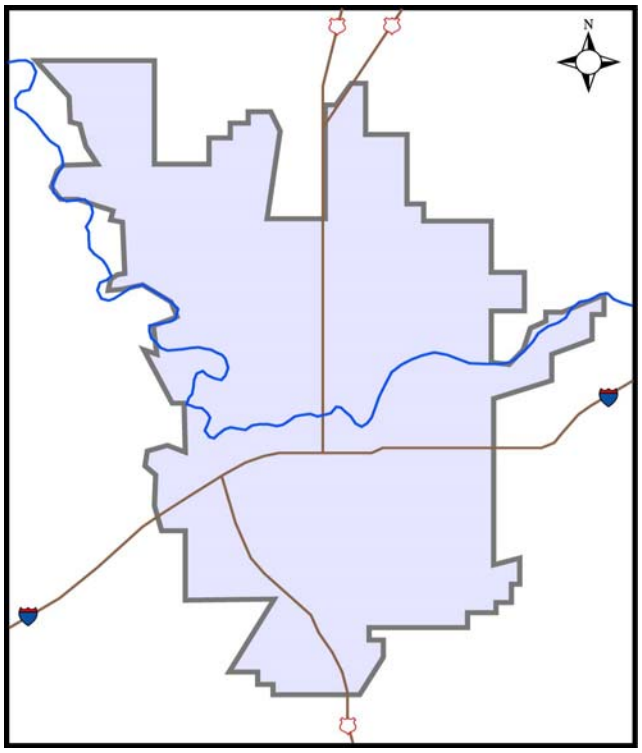
This project consists of the technical studies and assessments for a second regional drainage and conservation area facility similar on the Five Mile Prairie. *The schedule for financial expenditures is on Page 16.*

RETURN

Project Detail

S06D01 - NPDES Phase II Permit Implementation

RETURN



Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	<>
Function	Storm
Environmental Class.	Assessment
Design Responsibility	Sewer Maint
Length	N/A

Budget	
Engineering	1,300
Right of Way	0
Constr. Management	0
Construction Cost	0
Other	0
Total	**1,300**

Funding	
Sewer Fund	1,300
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,300**

Budget and Funding in 1,000s of dollars .

Description

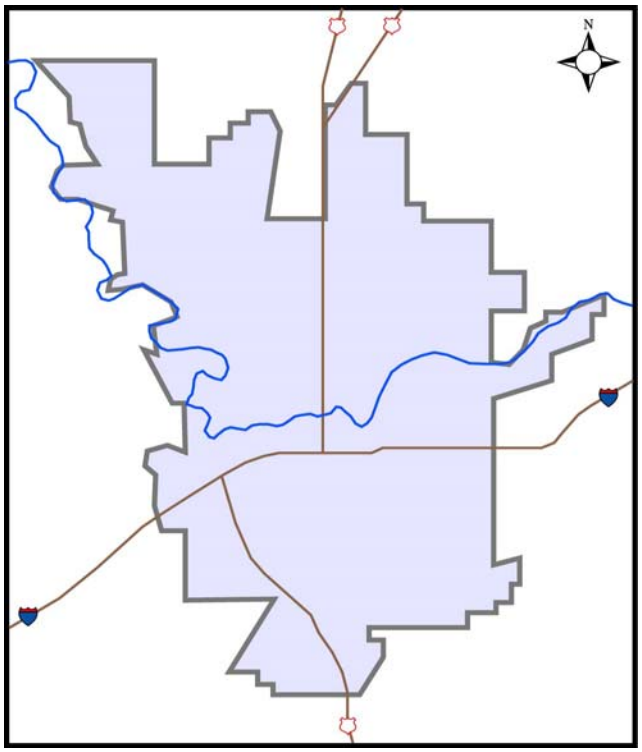
The City was issued a National Pollution Discharge Elimination System (NPDES) Storm Water Phase II Permit in February 2007 by the Washington State Department of Ecology. Requirements of the permit are currently being implemented; however, the level of effort necessary to meet the conditions of the permit will continue to increase over the five-year period. Permit implementation is an on-going project. *The schedule for financial expenditures is on Page 16.*

RETURN

Project Detail

S06D02 - Public Works Strategic Infrastructure Planning-- Stormwater Component

RETURN



Project work services the entire City.

Project Information	
Public Works Number	2005134
Financial Number	43396
Function	Planning
Environmental Class.	Assessment
Design Responsibility	Cap Programs
Length	N/A

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

Funding	
Sewer Fund	200
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**200**

Budget and Funding in 1,000s of dollars .

Description

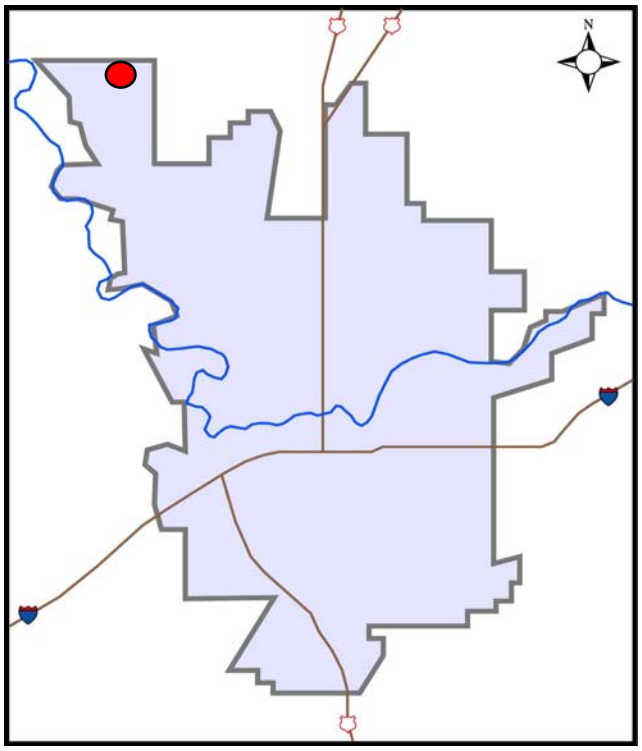
The Public Works Strategic Infrastructure Planning Study will analyze the City of Spokane's ability to provide utility infrastructure to support both future demands of our existing infrastructure and infrastructure needs of future growth as guided by the City's Comprehensive Plan. The Study will develop 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 16.*

RETURN

Project Detail

S06D03 - Sylvia Court Drainage - Phase II

RETURN



Project work is located in the northwest portion of the City.

Project Information	
Public Works Number	2006175
Financial Number	<>
Function	Storm
Environmental Class.	Assessment
Design Responsibility	Eng Services
Length	N/A

Budget	
Engineering	50
Right of Way	0
Constr. Management	75
Construction Cost	475
Other	0
Total	**600**

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

Budget and Funding in 1,000s of dollars .

Description

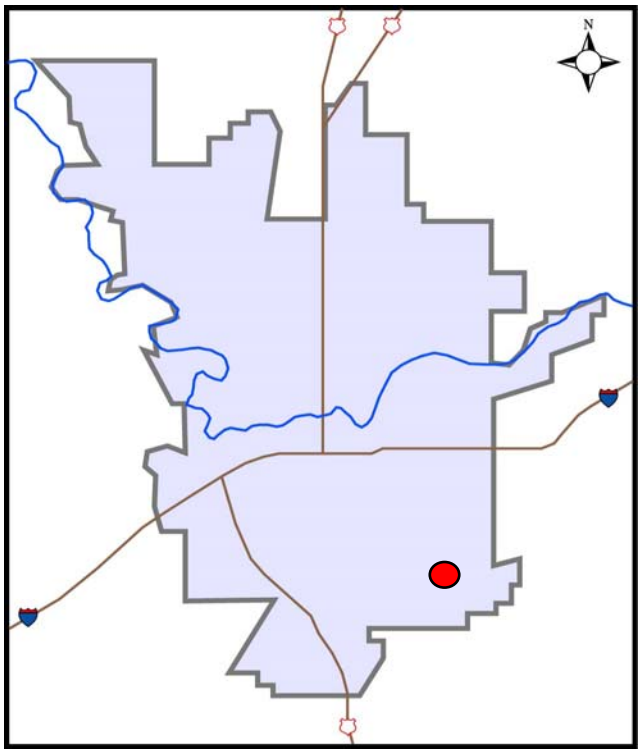
While the Phase I project (completed in 2005) eliminated some of the worst drainage problems in this area, the Phase II will construct the best method to transport the seasonal excess drainage to City-owned property for disposal. The selected alternative recommends installing a pipeline to convey stormwater under Arrowhead Street north to City property near the power line easement. *The schedule for financial expenditures is on Page 16.*

RETURN

Project Detail

S08D01 - Hazels Creek Basin Drainage Implementation

RETURN



Project work is located in the southeast portion of the City.

Project Information	
Public Works Number	N/A
Financial Number	43386
Function	Storm
Environmental Class.	Assessment
Design Responsibility	Sewer Maint
Length	N/A

Budget	
Engineering	25
Right of Way	0
Constr. Management	35
Construction Cost	240
Other	0
Total	**300**

Funding	
Sewer Fund	300
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**300**

Budget and Funding in 1,000s of dollars .

Description

The Hazel's Creek Sub-basin consists of approximately 1,200 acres on the Moran Prairie that drain to the Hazel's Creek Drainage and Conservation Area (see S05D01.) This project will begin implementation of infrastructure improvements recommended by the Hazels Creek Feasibility Analysis for Drainage. While much of the "backbone" drainage collection system has been constructed in the Hazel's Creek Sub-basin during the past 10 year, a significant effort remains to tie various existing drainage elements together to operate as one system. Planned improvements include: drainage pipe, detention basins, control structures, conversion of evaporation ponds to detention ponds, monitoring and control systems, and drainage easements. The City plans to create a self-supporting fee structure for the Hazel's Creek Sub-basin and the revenues generated will re-capture the City capital expenditures and will defray annual operations and maintenance costs.

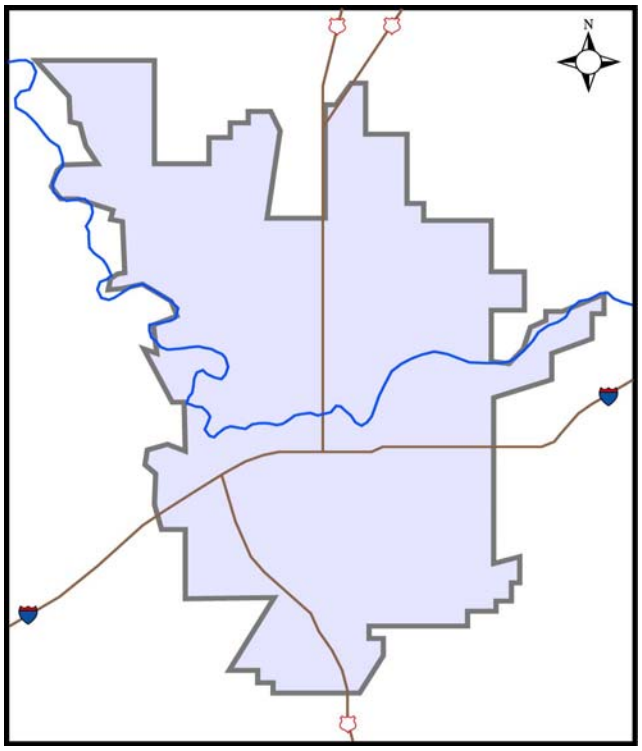
The schedule for financial expenditures is on Page 16.

RETURN

Project Detail

S08D02 - Spokane Urban Runoff Greenways Experiment

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	Cap Programs
Length	N/A

Budget	
Engineering	450
Right of Way	0
Constr. Management	550
Construction Cost	3,100
Other	0
Total	**4,100**

Funding	
Sewer Fund	4,100
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**4,100**

Budget and Funding in 1,000s of dollars .

Description

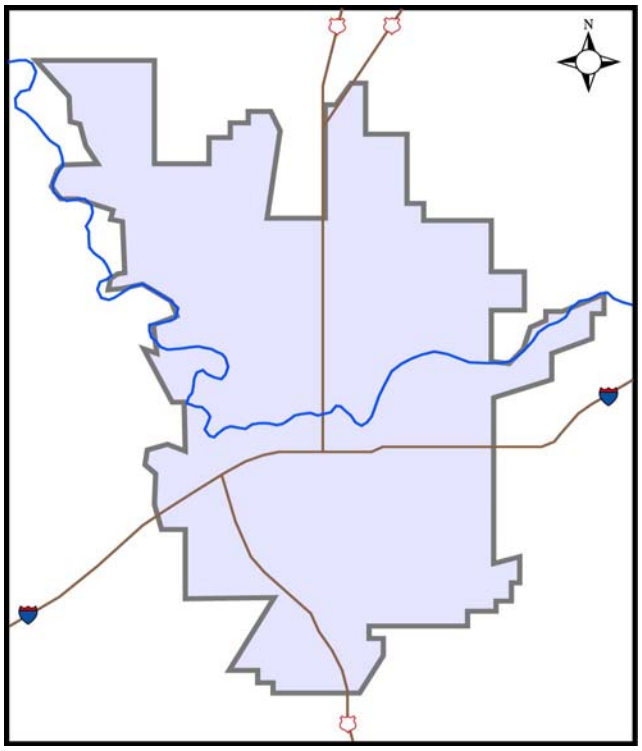
The Spokane Urban Runoff Greenways Experiment, or SURGE, is a program to determine the suitability of retrofitting plant-based stormwater treatment systems into the existing urban environment. SURGE is an approach to wet weather management that is designed to be sustainable, environmentally friendly and cost-effective. SURGE may improve water quality; reduce combined sewer overflows; and increase green space. Currently two projects are underway on West Broadway and Lincoln Street. Future projects may include rain gardens, porous pavements, green roofs, infiltration planters, trees and tree boxes, or wetlands restoration. *The schedule for financial expenditures is on Page 16.*

RETURN

Project Detail

S09D01 - Stormwater Infrastructure Upgrade-Public

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	Sewer Maint
Length	N/A

Budget	
Engineering	300
Right of Way	0
Constr. Management	300
Construction Cost	1,200
Other	0
Total	**1,800**

Funding	
Sewer Fund	1,800
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,800**

Budget and Funding in 1,000s of dollars .

Description

The Wastewater Management Department coordinates with other City infrastructure work. When stormwater facilities are near these other City projects, the Department evaluates these facilities for upgrade or replacement. For example: in conjunction with a road project, the Department may fund the replacement of old catch basins, shallow or broken pipe and leaking manholes. These facility replacements and upgrades are funded through this project as a contribution to the larger City improvement. This is an on-going project. *The schedule for financial expenditures is on Page 16.*

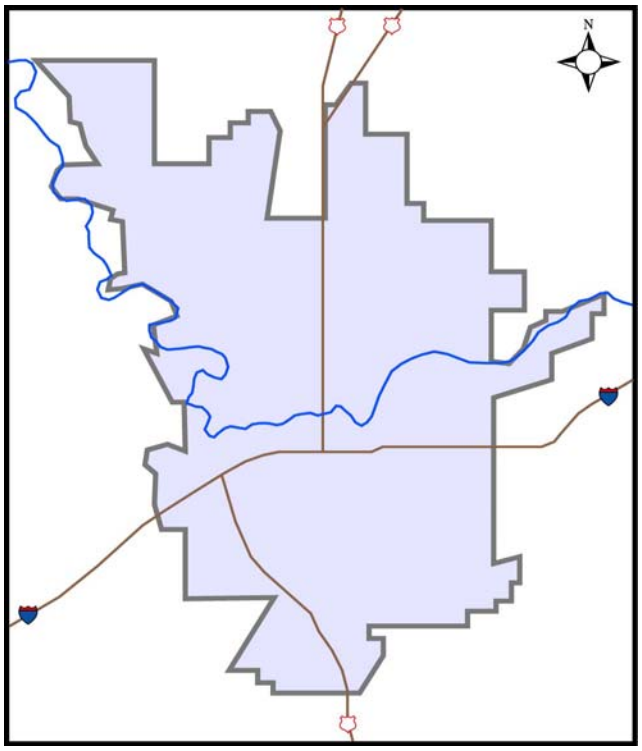
RETURN

Detail Sheets
Combined Sewer Overflow (CSO)

Project Detail

S00P04 - CSO-PMO Administration and Management

RETURN



Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	94314
Function	N/A
Environmental Class.	Cat. Exempt
Design Responsibility	N/A
Length	N/A

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

Funding	
Sewer Fund	750
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**750**

Budget and Funding in 1,000s of dollars .

Description

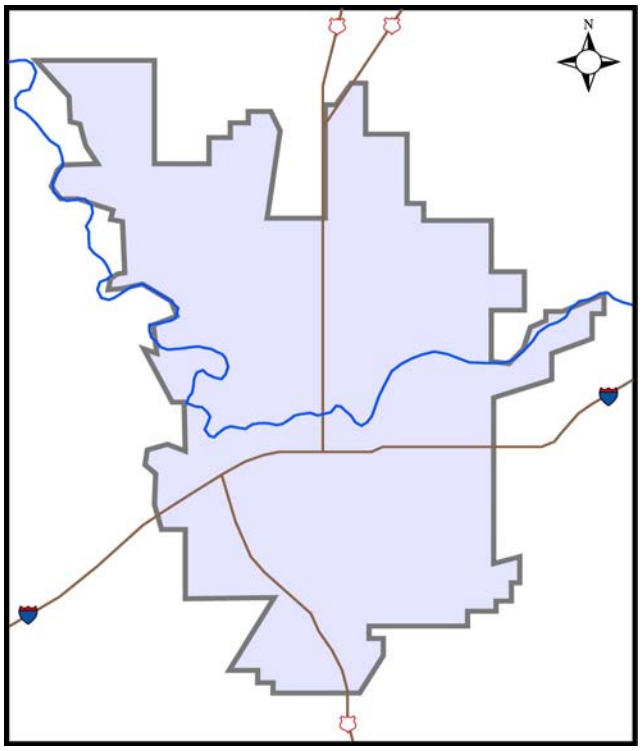
CSO-PMO stands for Combined Sewer Overflow Project Management Office. The CSO-PMO work is performed by a City consultant, Metcalf & Eddy (formerly called CTE), who is supervised by City Wastewater Management staff. The CSO-PMO consultant is performing the City's Combined Sewer Overflow (CSO) reduction planning and preliminary design; they perform studies, cost estimates, planning, and preliminary design for both the overall CSO reduction program. *The schedule for financial expenditures is on Page 18.*

RETURN

Project Detail

S00P06 - Communications and Education

RETURN



Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	94314
Function	N/A
Environmental Class.	Cat. Exempt
Design Responsibility	WW Mangmt
Length	N/A

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

Funding	
Sewer Fund	120
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**120**

Budget and Funding in 1,000s of dollars .

Description

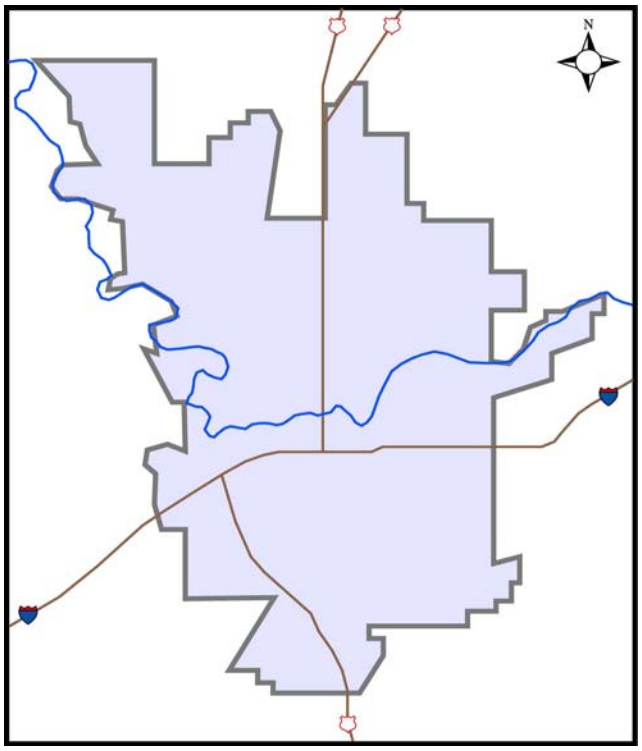
This project provides general education and notices regarding the City's Combined Sewer Overflow (CSO) system, and it includes the City's internet-based overflow notice system. Other communication efforts include 344-FISH signs, kiosks and reporting telephone number to report overflows. The Communications and Education Project is a requirement of the State Department of Ecology's CSO permit requirements with the City. *The schedule for financial expenditures is on Page 18.*

RETURN

Project Detail

S07P01 - CSO Reduction Plan Update

RETURN



Project work services the entire City.

Project Information	
Public Works Number	N/A
Financial Number	94341
Function	N/A
Environmental Class.	Cat. Exempt
Design Responsibility	WW Mangmt
Length	N/A

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

Funding	
Sewer Fund	100
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**100**

Budget and Funding in 1,000s of dollars .

Description

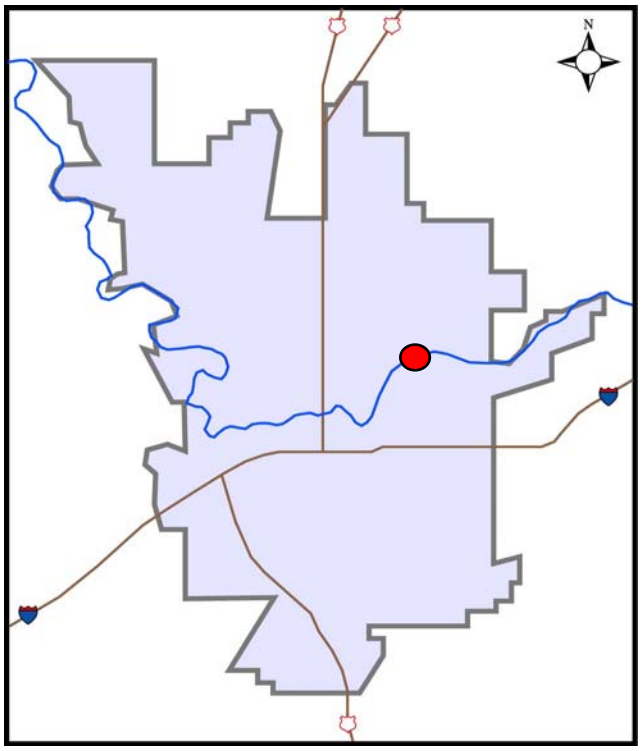
The City's Combined Sewer Overflow (CSO) Reduction Plan is updated every five years. The 2005 update was achieved through a memorandum prepared by City staff and the PMO. The 2005 update was approved by Ecology. *The schedule for financial expenditures is on Page 18.*

RETURN

Project Detail

S04B03 - CSO Basin 41 Improvements

RETURN



This project located near Upriver Drive and Rebecca Street.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	N/A
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	338
Right of Way	220
Constr. Management	507
Construction Cost	3,886
Other	0
Total	**4,951**

Funding	
Sewer Fund	4,951
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**4,951**

Budget and Funding in 1,000s of dollars .

Description

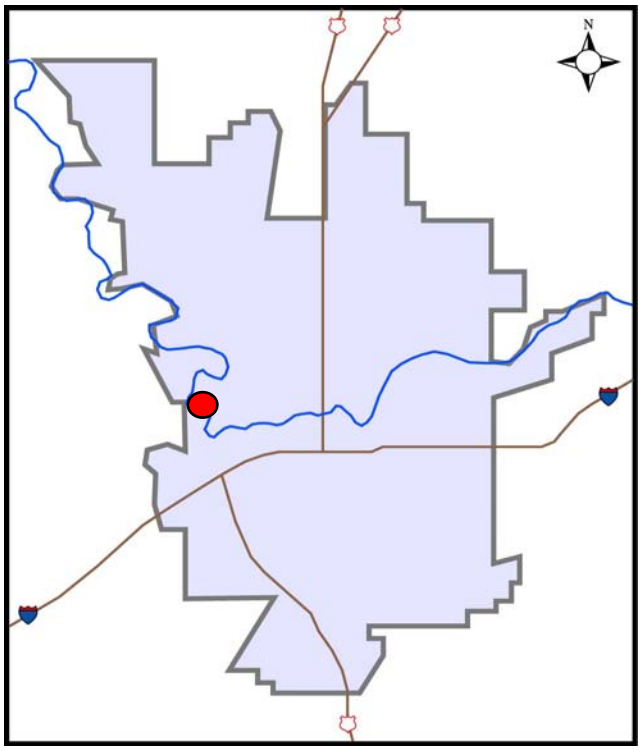
The project will identify, design and construct a CSO storage facility for CSO Basin 41 to meet Department of Ecology's regulations, which allows better management of downstream interceptor flow rates. Major features of the facility include installation of flow controls; self cleaning flush mechanisms; a new regulator and remote sensors for centralized operations. *The schedule for financial expenditures is on Page 19.*

RETURN

Project Detail

S04B04 - CSO Basin 15 Improvements

RETURN



This project is located 2.5 miles upstream of T.J.Meenach Bridge.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	N/A
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	385
Right of Way	220
Constr. Management	577
Construction Cost	4,427
Other	0
Total	**5,609**

Funding	
Sewer Fund	5,609
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**5,609**

Budget and Funding in 1,000s of dollars .

Description

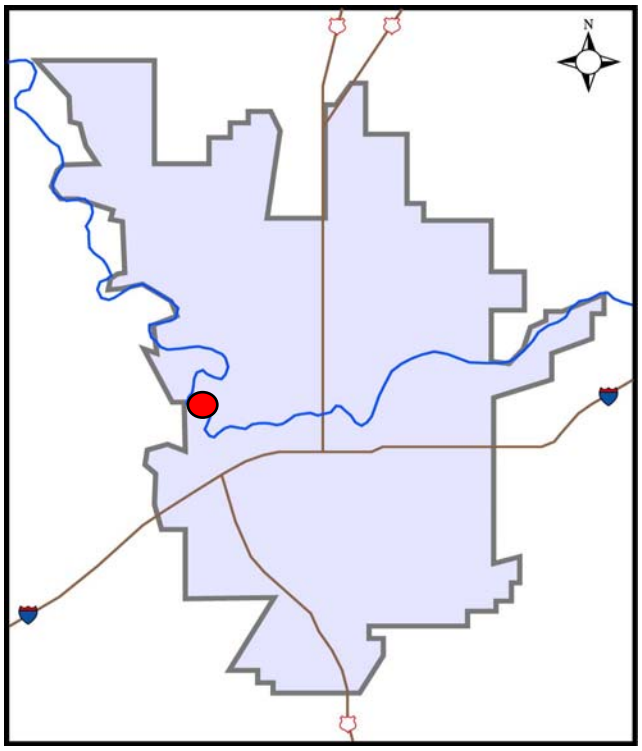
The project will identify, design and construct a CSO storage facility for CSO Basin 15 to meet Department of Ecology's regulations, which allows better management of downstream interceptor flow rates. Major features of the facility include installation of flow controls; self cleaning flush mechanisms; a new regulator and remote sensors for centralized operations. *The schedule for financial expenditures is on Page 19.*

RETURN

Project Detail

S04B05 - CSO Basin 14 Improvements

RETURN



Project is located 2.0 miles upstream of TJ Meenach Bridge near Sherwood and Summit.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	N/A
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	134
Right of Way	30
Constr. Management	180
Construction Cost	1,192
Other	0
Total	**1,536**

Funding	
Sewer Fund	1,536
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,536**

Budget and Funding in 1,000s of dollars .

Description

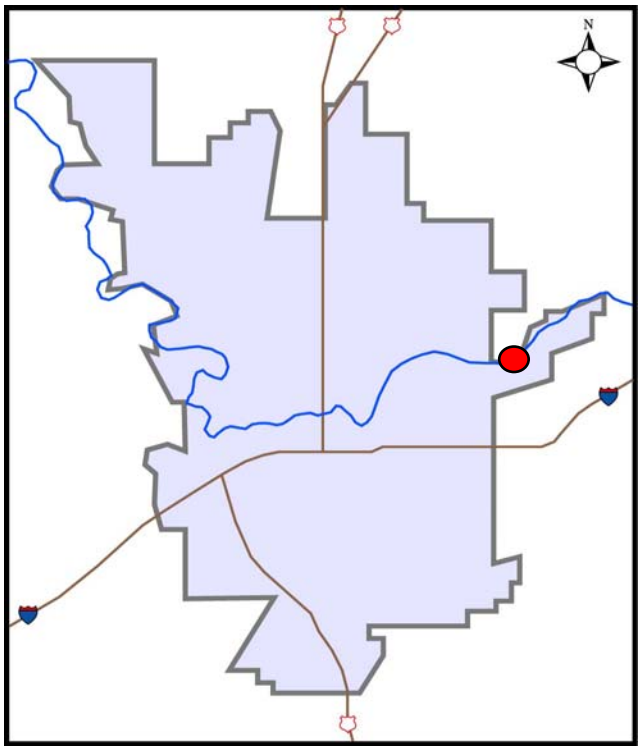
The project will identify, design and construct a CSO storage facility for CSO Basin 14 to meet Department of Ecology's regulations, which allows better management of downstream interceptor flow rates. Major features of the facility include installation of flow controls; self cleaning flush mechanisms; a new regulator and remote sensors for centralized operations. *The schedule for financial expenditures is on Page 19.*

RETURN

Project Detail

S04B06 - CSO Basin 42 Improvements

RETURN



Project is located 0.5 miles downstream of Upriver Dam near Surro Drive.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	N/A
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	60
Right of Way	60
Constr. Management	170
Construction Cost	1,150
Other	0
Total	**1,440**

Funding	
Sewer Fund	1,440
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,440**

Budget and Funding in 1,000s of dollars .

Description

The project will identify, design and construct a CSO storage facility for CSO Basin 42 to meet Department of Ecology's regulations, which allows better management of downstream interceptor flow rates. Major features of the facility include installation of flow controls; self cleaning flush mechanisms; a new regulator and remote sensors for centralized operations. *The schedule for financial expenditures is on Page 19.*

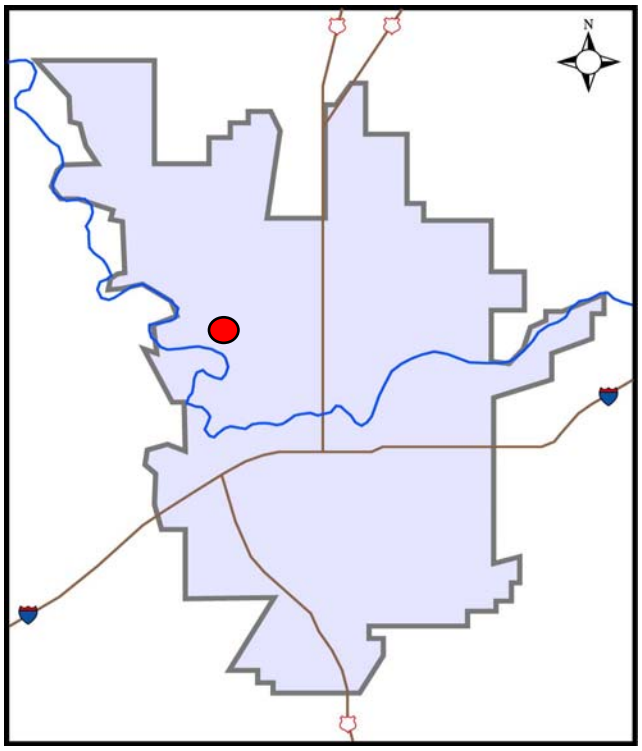
COMPLETE

RETURN

Project Detail

S04B07 - Interceptor I03-1 Improvements

RETURN



Project is located near TJ Meenach Bridge at Cochran and Buckeye Drive.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	N/A
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	118
Right of Way	38
Constr. Management	224
Construction Cost	1,500
Other	0
Total	**1,880**

Funding	
Sewer Fund	1,880
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,880**

Budget and Funding in 1,000s of dollars .

Description

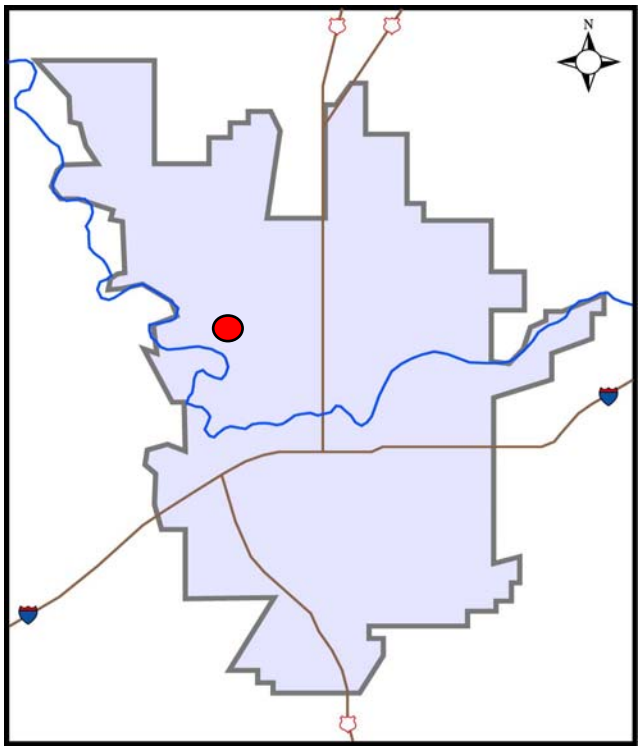
This project will identify, design and construct storage facilities to mitigate wet weather flow rates to the interceptor system I03 (Cochran Basin) to meet Department Ecology's regulations. Major features of the facilities may include installation of flow controls to better manage downstream flow rates; self cleaning flush mechanisms; and remote sensors for centralized operations. This project will construct one storage facility; a second storage facility will be constructed as a part of S04B08, Interceptor I03-2 Improvements. *The schedule for financial expenditures is on Page 19.*

RETURN

Project Detail

S04B08 - Interceptor I03-2 Improvements

RETURN



Project is located near TJ Meenach Bridge at Cochran and Buckeye Drive.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	CSO
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	275
Right of Way	83
Constr. Management	488
Construction Cost	3,130
Other	0
Total	**3,976**

Funding	
Sewer Fund	3,976
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**3,976**

Budget and Funding in 1,000s of dollars .

Description

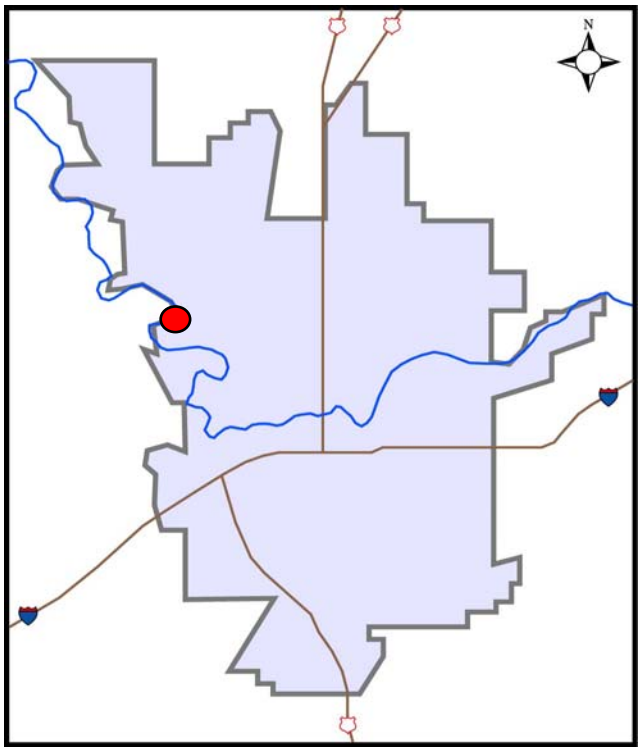
This project will identify, design and construct storage facilities to mitigate wet weather flow rates to the interceptor system I03 (Cochran Basin) to meet Department Ecology's regulations. Major features of the facilities may include installation of flow controls to better manage downstream flow rates; self cleaning flush mechanisms; and remote sensors for centralized operations. This project will construct the second of two storage facilities; the first storage facility will be constructed as a part of S04B07, Interceptor I03-1 Improvements. *The schedule for financial expenditures is on Page 19.*

RETURN

Project Detail

S04B09 - CSO Basin 07 Improvements

RETURN



Project is 0.4 miles upstream of the Water Reclamation Facility near Columbia Circle.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	CSO
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	118
Right of Way	10
Constr. Management	182
Construction Cost	1,170
Other	0
Total	**1,480**

Funding	
Sewer Fund	1,480
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,480**

Budget and Funding in 1,000s of dollars .

Description

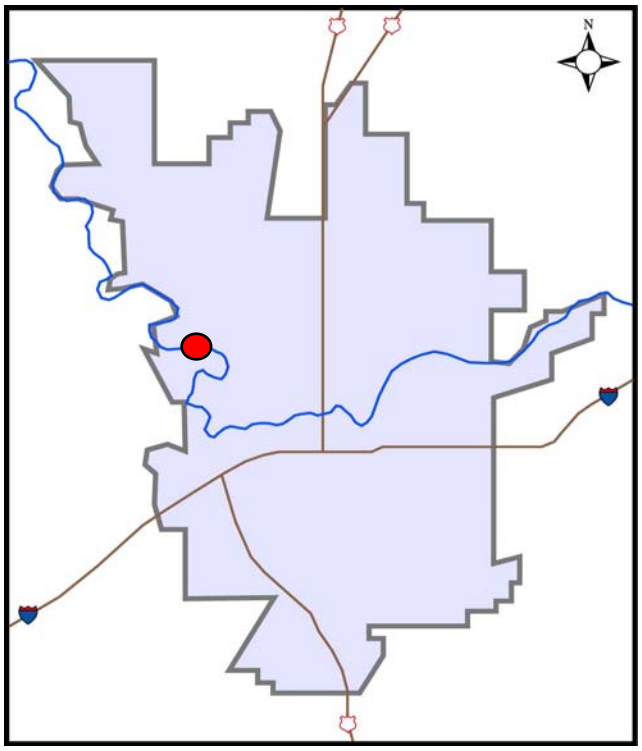
The project will identify, design and construct a CSO storage facility for CSO Basin 7 to meet Department of Ecology's regulations, which allows better management of downstream interceptor flow rates. Major features of the facility include installation of flow controls; self cleaning flush mechanisms; a new regulator and remote sensors for centralized operations. *The schedule for financial expenditures is on Page 19.*

RETURN

Project Detail

S04B10 - CSO Basin 10 Improvements

RETURN



Project is near TJ Meenach Bridge at Cochran and Buckeye Drive.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	CSO
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	78
Right of Way	4
Constr. Management	112
Construction Cost	905
Other	0
Total	**1,099**

Funding	
Sewer Fund	1,099
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,099**

Budget and Funding in 1,000s of dollars .

Description

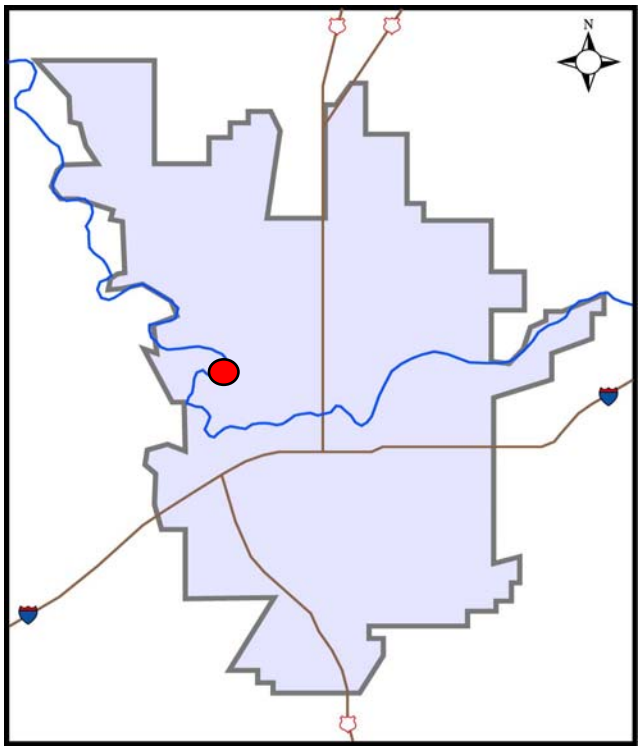
The project will identify, design and construct a CSO storage facility for CSO Basin 10 to meet Department of Ecology's regulations, which allows better management of downstream interceptor flow rates. Major features of the facility include installation of flow controls; self cleaning flush mechanisms; a new regulator and remote sensors for centralized operations. *The schedule for financial expenditures is on Page 19.*

RETURN

Project Detail

S04B11 - CSO Basin 12 Improvements

RETURN



Project is 0.55 miles downstream of the TJ Meenach Bridge near Nora and Pettet .

Project Information	
Public Works Number	<>
Financial Number	<>
Function	CSO
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	460
Right of Way	68
Constr. Management	690
Construction Cost	5,293
Other	0
Total	**6,511**

Funding	
Sewer Fund	6,511
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**6,511**

Budget and Funding in 1,000s of dollars .

Description

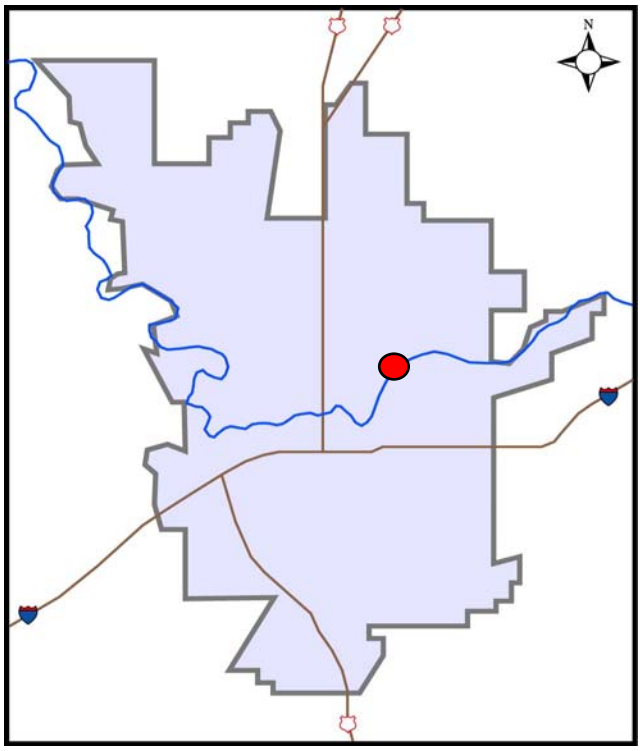
This project will identify, design and construct a CSO storage facility to meet Department of Ecology regulations. Major features of the facility include installation of flow controls to better manage downstream interceptor flow rates; self cleaning flush mechanisms; a new regulator and remote sensors for centralized operations. *The schedule for financial expenditures is on Page 19.*

RETURN

Project Detail

S04B13 - CSO Basins 38, 39, 40 Improvements

RETURN



Project is 0.15 miles upstream of the Mission Bridge near Magnolia and S. Riverton.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	CSO
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	921
Right of Way	150
Constr. Management	250
Construction Cost	5,507
Other	0
Total	**6,828**

Funding	
Sewer Fund	6,828
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**6,828**

Budget and Funding in 1,000s of dollars .

Description

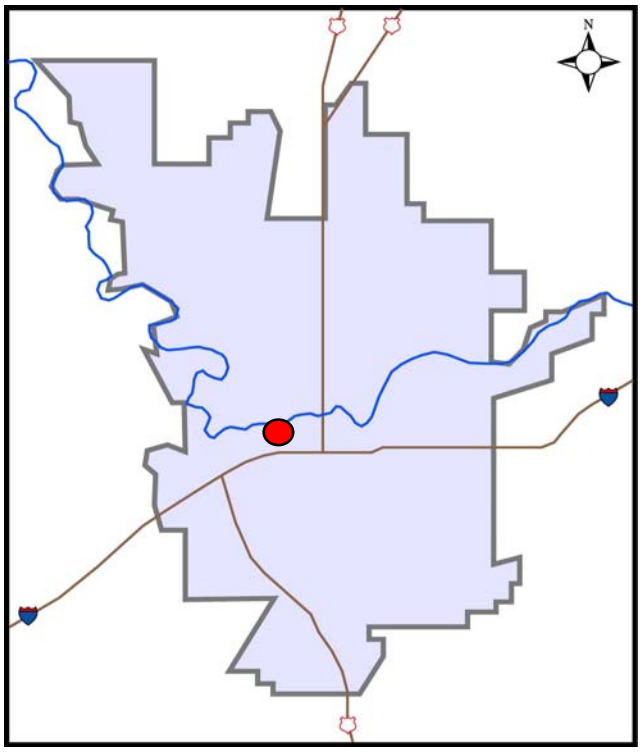
The project will identify, design and construct a CSO storage facilities for CSO Basins 38, 39 and 40 to meet Department of Ecology's regulations, which allows better management of downstream interceptor flow rates. Major features of the facility include installation of flow controls; self cleaning flush mechanisms; a new regulator; elimination of two (39 & 40) CSO outfalls; and remote sensors for centralized operations. *The schedule for financial expenditures is on Page 19.*

RETURN

Project Detail

S04B14 - Interceptor I04-1 Improvements

RETURN



Project is located near the Monroe Street Dam from Monroe to Washington.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	CSO
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	985
Right of Way	271
Constr. Management	1,532
Construction Cost	10,200
Other	0
Total	**12,988**

Funding	
Sewer Fund	12,988
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**12,988**

Budget and Funding in 1,000s of dollars .

Description

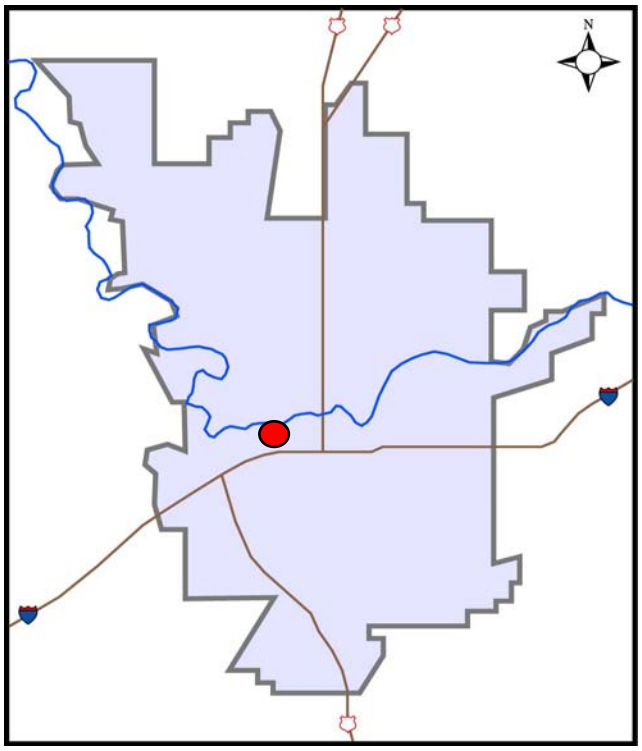
This project will identify, design and construct storage facilities to mitigate wet weather flow rates to the interceptor system I04 (North River Basin) to meet Department Ecology's regulations. Major features of the facilities may include installation of flow controls to better manage downstream flow rates; self cleaning flush mechanisms; and remote sensors for centralized operations. *The schedule for financial expenditures is on Page 19.*

RETURN

Project Detail

S04B15 - Interceptor I04-2 Improvements

RETURN



Project is located near the Monroe Street Dam from Monroe to Washington.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	CSO
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	0
Right of Way	23
Constr. Management	0
Construction Cost	1,210
Other	0
Total	**1,233**

Funding	
Sewer Fund	1,233
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,233**

Budget and Funding in 1,000s of dollars .

Description

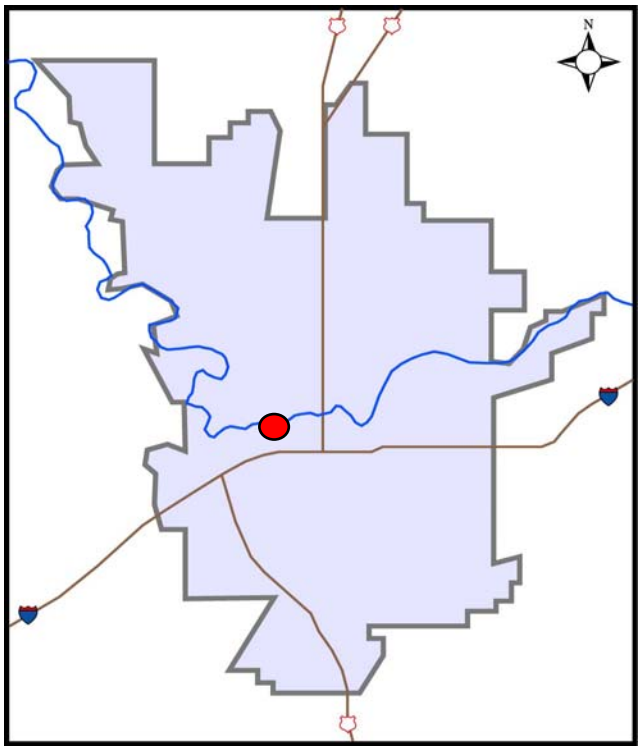
This project will identify, design and construct storage facilities to mitigate wet weather flow rates to the interceptor system I04 (North River Basin) to meet Department Ecology's regulations. Major features of the facilities may include installation of flow controls to better manage downstream flow rates; self cleaning flush mechanisms; and remote sensors for centralized operations. This project will construct the second of two storage facilities; the first storage facility will be constructed as a part of S04B14, Interceptor I04-1 Improvements. *The schedule for financial expenditures is on Page 19.*

RETURN

Project Detail

S04B16 - Post Street CSO Improvements

RETURN



This project is located near Spokane Falls Blvd from Post Street to Division.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	CSO
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	288
Right of Way	30
Constr. Management	148
Construction Cost	1,135
Other	0
Total	**1,601**

Funding	
Sewer Fund	1,601
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,601**

Budget and Funding in 1,000s of dollars .

Description

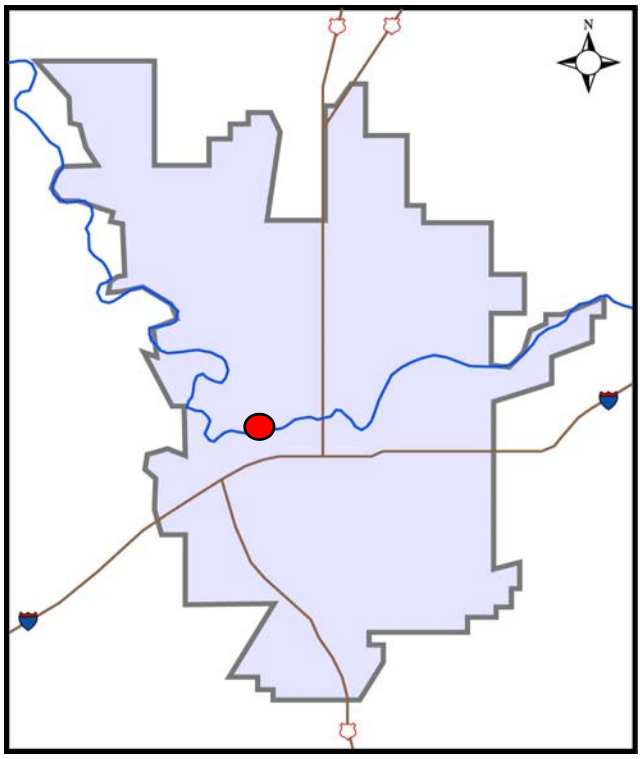
This project will identify, design and construct storage facilities to mitigate wet weather flow rates to the interceptor system to meet Department of Ecology's regulations. The combined sewer on Post Street is currently unregulated. Major features of the facilities may include installation of flow controls to better manage downstream flow rates; self cleaning flush mechanisms; and remote sensors for centralized operations. *The schedule for financial expenditures is on Page 20.*

RETURN

Project Detail

S04B18 - CSO Basin 23-1 Improvements

RETURN



Project is located 0.3 miles downstream Monroe Street Dam near Cedar and Ide.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	N/A
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	95
Right of Way	30
Constr. Management	115
Construction Cost	919
Other	0
Total	**1,159**

Funding	
Sewer Fund	1,159
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,159**

Budget and Funding in 1,000s of dollars .

Description

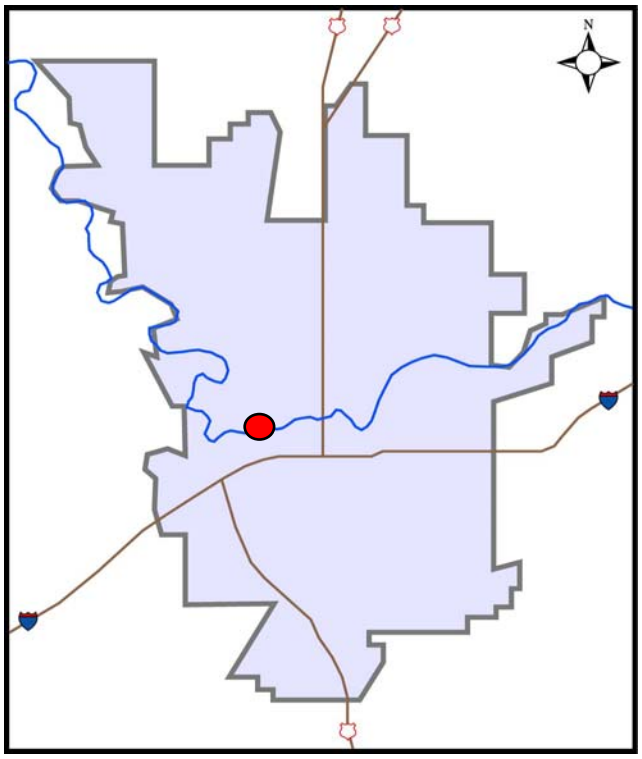
This project will identify, design and construct a CSO storage facilities to meet Department of Ecology's regulation. Major features of the facility include installation of flow controls to better manage downstream interceptor flow rates; self cleaning flush mechanisms; a new regulator and remote sensors for centralized operations. This project will construct one storage facility; a second storage facility will be constructed as a part of S04B19, CSO Basin 23-2 Improvements. *The schedule for financial expenditures is on Page 20.*

RETURN

Project Detail

S04B19 - CSO Basin 23-2 Improvements

RETURN



Project is located 0.3 miles downstream Monroe Street Dam near Cedar and Ide.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	CSO
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	439
Right of Way	132
Constr. Management	659
Construction Cost	5,049
Other	0
Total	**6,279**

Funding	
Sewer Fund	6,279
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**6,279**

Budget and Funding in 1,000s of dollars .

Description

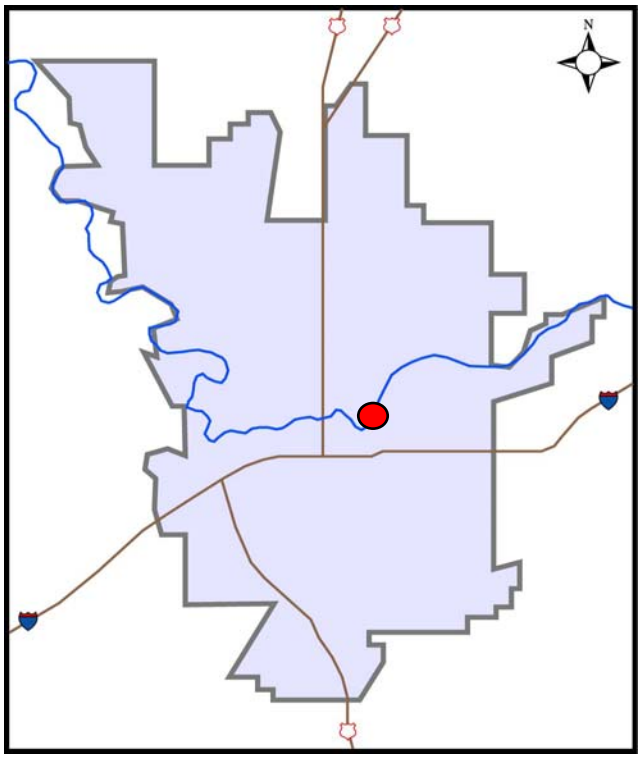
This project will identify, design and construct a CSO storage facilities to meet Department of Ecology's regulation. Major features of the facility include installation of flow controls to better manage downstream interceptor flow rates; self cleaning flush mechanisms; a new regulator and remote sensors for centralized operations. This project will construct the second of two storage facilities; the first storage facility will be constructed as a part of S04B18, CSO Basin 23-1 Improvements. *The schedule for financial expenditures is on Page 20.*

RETURN

Project Detail

S04B20 - CSO Basin 33a, b, c Improvements

RETURN



Project is located 0.05 miles upstream J Keefe Bridge near Third & Perry.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	CSO
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	2,600
Right of Way	1,800
Constr. Management	3,900
Construction Cost	28,175
Other	0
Total	**36,475**

Funding	
Sewer Fund	36,475
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**36,475**

Budget and Funding in 1,000s of dollars .

Description

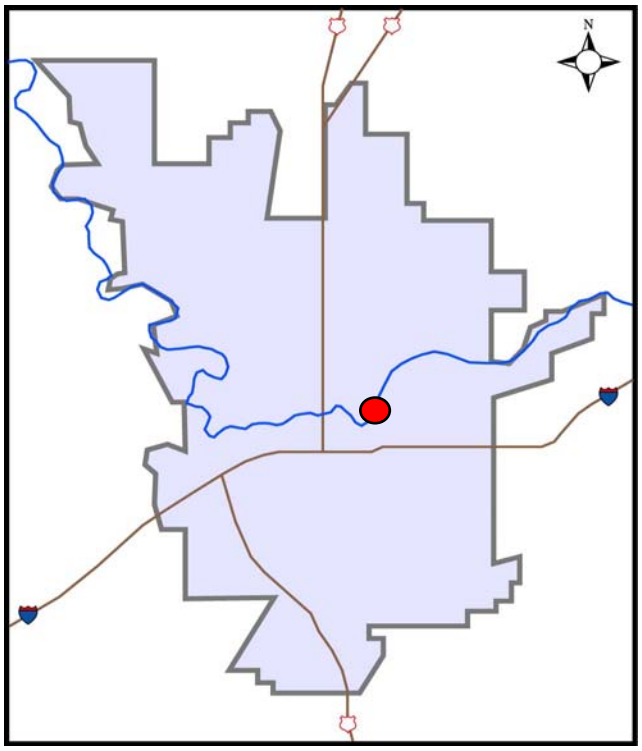
To meet regulations of the Department of Ecology, this project will identify, design and construct a CSO storage facilities for CSO Basin 33a, 33b and 33c. CSO Basin 33 has four regulator, but only one outfall to the Spokane River. During predesign by the CSO-PMO, it was determined three of the four regulators could be combined into a single facility at a significant cost savings. Major features of the facility include installation of flow controls to better manage downstream interceptor flow rates; self cleaning flush mechanisms; a new regulator and remote sensors for centralized operations. Another storage facility will be constructed for CSO Basin 33d; see S04B23. *The schedule for financial expenditures is on Page 20.*

RETURN

Project Detail

S04B23 - CSO Basin 33d Improvements

RETURN



Project is located 0.05 miles upstream J Keefe Bridge near Third & Perry.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	CSO
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	479
Right of Way	305
Constr. Management	719
Construction Cost	5,169
Other	0
Total	**6,672**

Funding	
Sewer Fund	6,672
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**6,672**

Budget and Funding in 1,000s of dollars .

Description

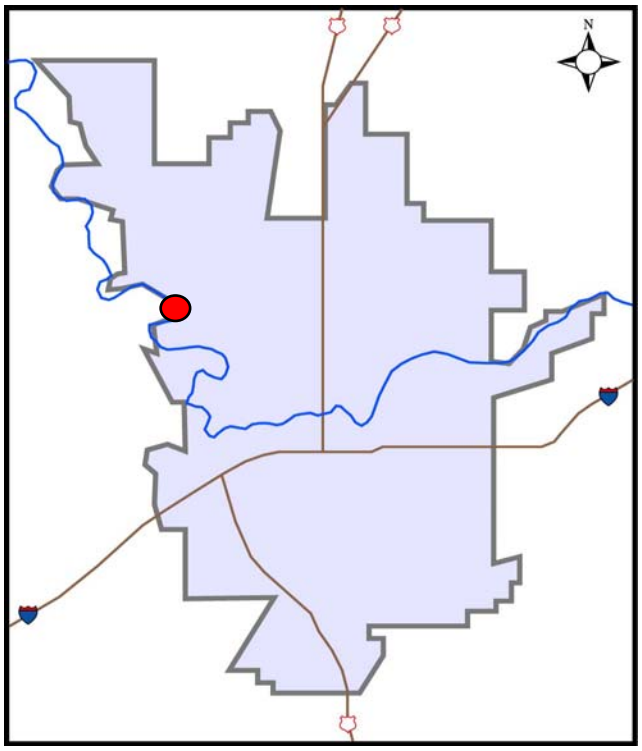
To meet regulations of the Department of Ecology, this project will identify, design and construct a CSO storage facilities. Major features of the facility include installation of flow controls to better manage downstream interceptor flow rates; self cleaning flush mechanisms; a new regulator and remote sensors for centralized operations. Although this project shares a regulator with CSO Basin 33a, b and c, it will constructed independently of improvements from the other CSO 33 basins; see S04B20 -- CSO Basin 33a, b, c Improvements. *The schedule for financial expenditures is on Page 20.*

RETURN

Project Detail

S05B01 - CSO Basin 6 Improvements

RETURN



Project is 0.25 miles downstream of Water Rec. Facility near Kiernan and NW Blvd.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	CSO
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	848
Right of Way	100
Constr. Management	1,272
Construction Cost	8,482
Other	0
Total	**10,702**

Funding	
Sewer Fund	10,702
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**10,702**

Budget and Funding in 1,000s of dollars .

Description

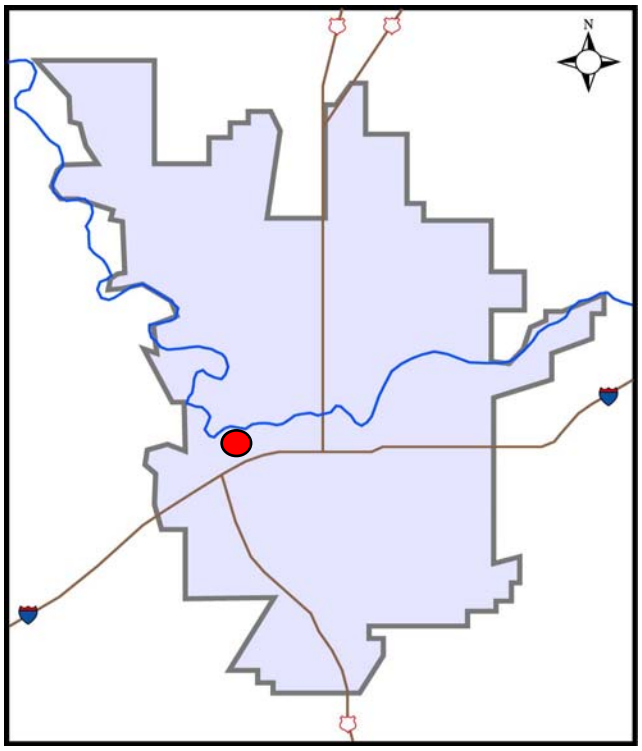
The project will identify, design and construct a CSO storage facility for CSO Basin 6 to meet Department of Ecology's regulations, which allows better management of downstream interceptor flow rates. Major features of the facility include installation of flow controls; self cleaning flush mechanisms; a new regulator and remote sensors for centralized operations. Predesign work by the CSO-PMO has indicated only one tank will be necessary; S04B17 - CSO Basin 06-2 Improvements has been deleted. *The schedule for financial expenditures is on Page 20.*

RETURN

Project Detail

S06B01 - CSO Basin 19 Improvements

RETURN



Project is locate at High Bridge near 7th & Cannon.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	CSO
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	17
Right of Way	15
Constr. Management	25
Construction Cost	135
Other	0
Total	**192**

Funding	
Sewer Fund	192
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**192**

Budget and Funding in 1,000s of dollars .

Description

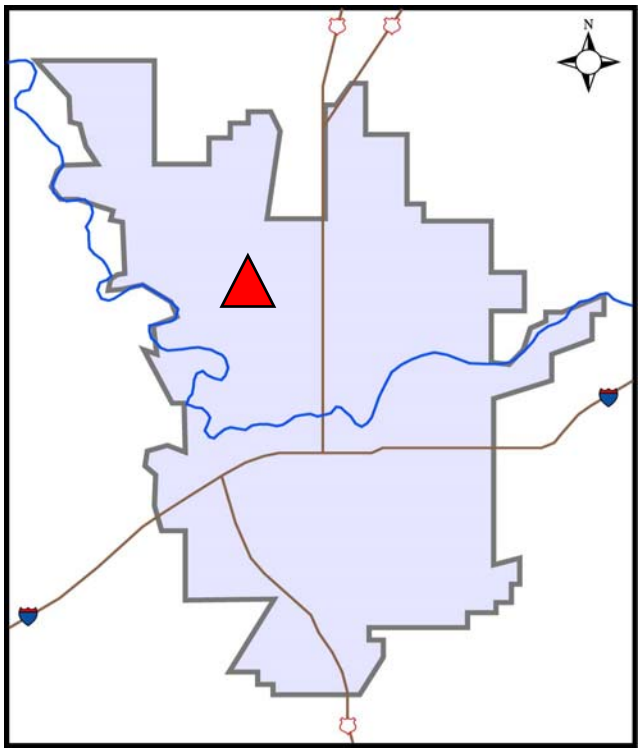
The project includes design and construct a new CSO regulator. Along with the new regulator the facility includes installation of flow controls to better manage downstream interceptor flow rates. *The schedule for financial expenditures is on Page 20.*

RETURN

Project Detail

S08B01 - Segment I03 (Cochran Basin) I/I Reduction for CSO

RETURN



Project is located in northeast Spokane as generally shown in the map above.

Project Information	
Public Works Number	2002112
Financial Number	94341
Function	CSO
Environmental Class.	Cat. Exempt
Design Responsibility	Sewer Maint
Length	N/A

Budget	
Engineering	0
Right of Way	0
Constr. Management	50
Construction Cost	150
Other	0
Total	**200**

Funding	
Sewer Fund	200
Grants	0
Loans	
Spokane County	0
Local Impvt. District	0
Total	**200**

Budget and Funding in 1,000s of dollars .

Description

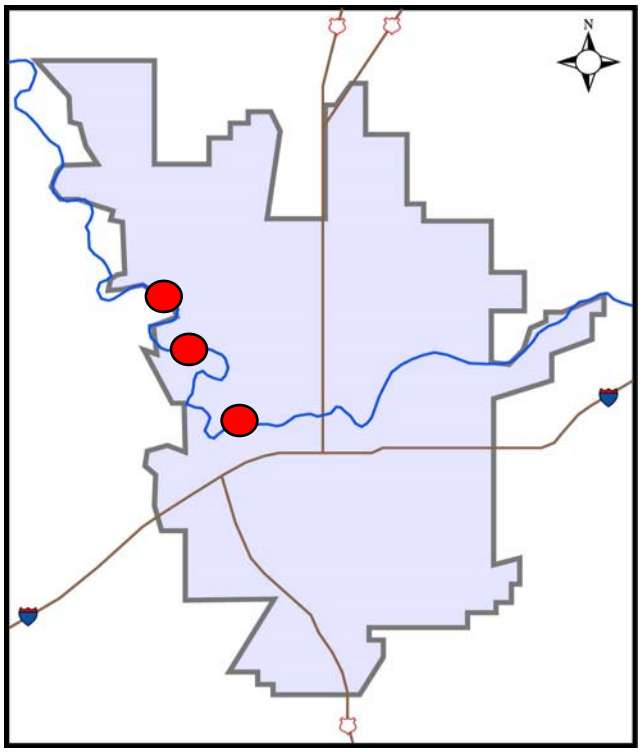
Segment I03 (Cochran Basin) I&I Reduction for CSO is intended to reduce I&I identified in S00B07 - I&I Reduction Improvements for CSO. When implemented, these I&I reduction solutions are expected to eliminate several millions of gallons per day from the sanitary sewer system. The major objective of this project is the overall reduction of I&I flow into the sanitary sewer system from Interceptor Segment I03. *The schedule for financial expenditures is on Page 20.*

RETURN

Project Detail

S08B02 - Weir Modifications, Phase 1

RETURN



Project is located at CSO Basin 6 weir, CSO Basin 7 weir, and CSO Basin 25 weir.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	CSO
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	60
Right of Way	0
Constr. Management	70
Construction Cost	370
Other	0
Total	**500**

Funding	
Sewer Fund	500
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**500**

Budget and Funding in 1,000s of dollars .

Description

This project includes design and construction of modifications to ten CSO regulators intended to significantly reduce “dry-weather” overflows. The weir modifications will be constructed in advance of the CSO basin improvements, but design will coordinate with future improvements. Phase 1 of this project currently includes three CSO weirs for CSO Basins 6, 7 and 25. *The schedule for financial expenditures is on Page 20.*

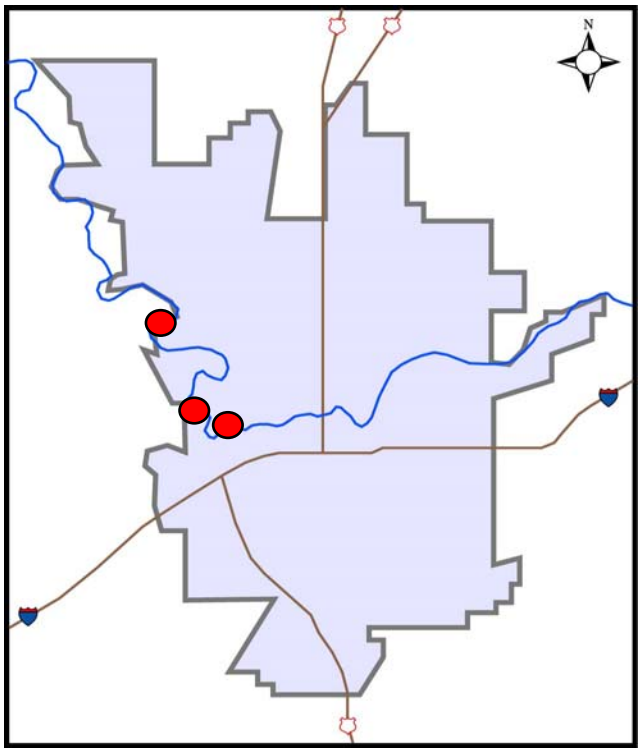
COMPLETE

RETURN

Project Detail

S08B03 - Weir Modifications, Phase 2

RETURN



Project is located at CSO Basin 12 weir, CSO Basin 14 weir, and CSO Basin 15 weir.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	CSO
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	60
Right of Way	0
Constr. Management	70
Construction Cost	270
Other	0
Total	**400**

Funding	
Sewer Fund	400
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**400**

Budget and Funding in 1,000s of dollars .

Description

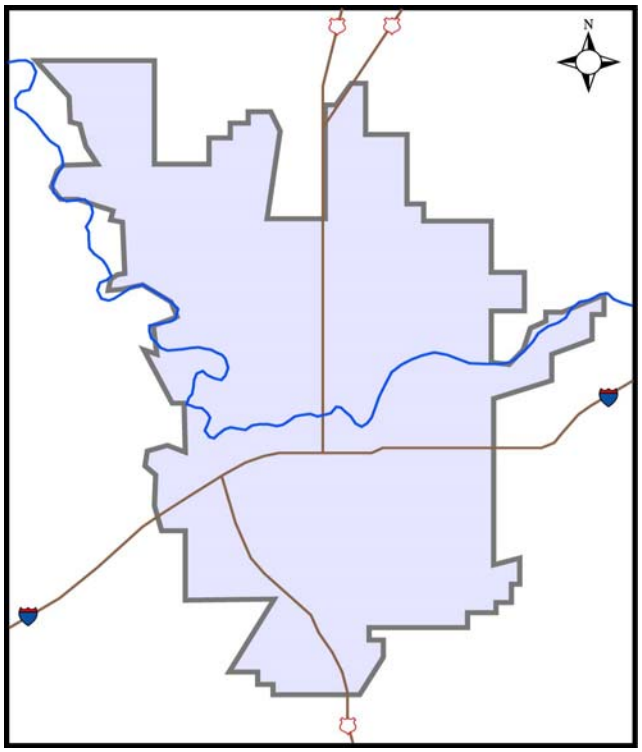
This project includes design and construction of modifications to ten CSO regulators intended to significantly reduce "dry-weather" overflows. The weir modifications will be constructed in advance of the CSO basin improvements, but design will coordinate with future improvements. Phase 2 of this project will include three CSO weirs for CSO Basins 12, 14 and 15. *The schedule for financial expenditures is on Page 20.*

RETURN

Project Detail

S08B04 - Weir Modifications, Phase 3

RETURN



The location of this project has not been selected.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	CSO
Environmental Class.	Assessment
Design Responsibility	PMO/Eng Serv
Length	N/A

Budget	
Engineering	60
Right of Way	0
Constr. Management	70
Construction Cost	270
Other	0
Total	**400**

Funding	
Sewer Fund	400
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**400**

Budget and Funding in 1,000s of dollars .

Description

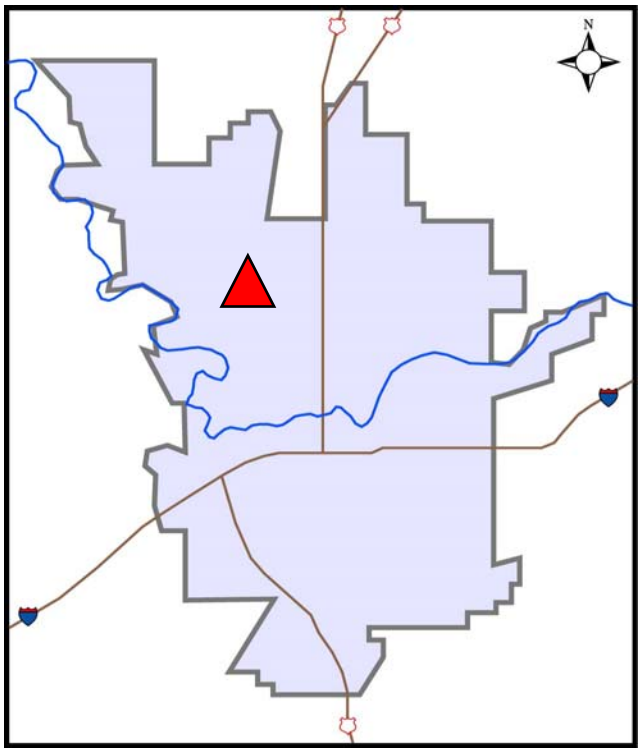
This project includes design and construction of modifications to ten CSO regulators intended to significantly reduce “dry-weather” overflows. The weir modifications will be constructed in advance of the CSO basin improvements, but design will coordinate with future improvements. Phase 3 of this project will include four CSO weirs. *The schedule for financial expenditures is on Page 20.*

RETURN

Project Detail

S08B05 - Segment I04 (North River) I/I Reduction for CSO

RETURN



Project is located in northeast Spokane as generally shown in the map above.

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

Budget	
Engineering	0
Right of Way	0
Constr. Management	100
Construction Cost	200
Other	0
Total	**300**

Funding	
Sewer Fund	300
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**300**

Budget and Funding in 1,000s of dollars .

Description

Segment I04 (North River) I&I Reduction for CSO is intended to reduce I&I identified S00B07--I&I Reduction Improvements for CSO. When implemented, these I&I reduction solutions are expected to eliminate several millions of gallons per day from the sanitary sewer system. The major objective of this project is the overall reduction of I&I flow into the sanitary sewer system from Interceptor Segment I04.
The schedule for financial expenditures is on Page 20.

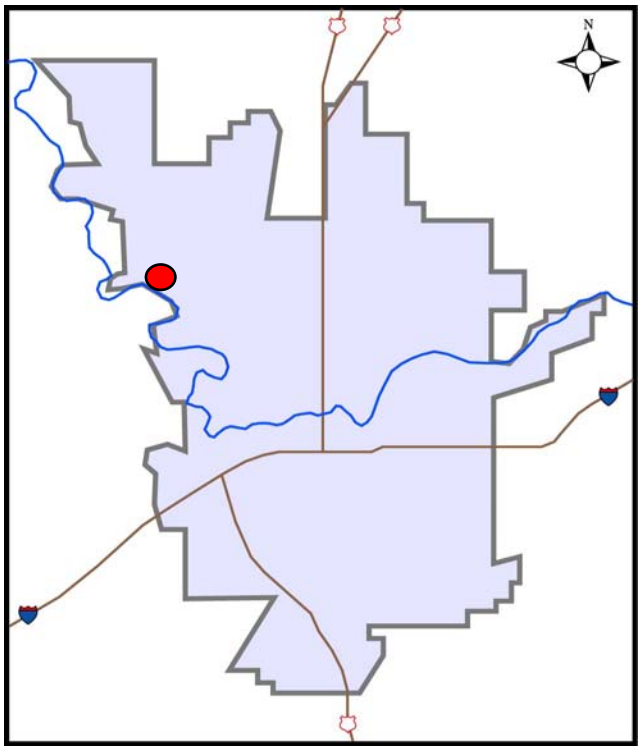
RETURN

Detail Sheets
Total Maximum Daily Load (TMDL) Compliance

Project Detail

S04L01 - Final Effluent Filter Pilot & Evaluation

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	TMDL Compl
Environmental Class.	Env Assess
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	500
Right of Way	0
Constr. Management	1,265
Construction Cost	5,035
Other	0
Total	**6,800**

Funding	
Sewer Fund	6,800
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**6,800**

Budget and Funding in 1,000s of dollars .

Description

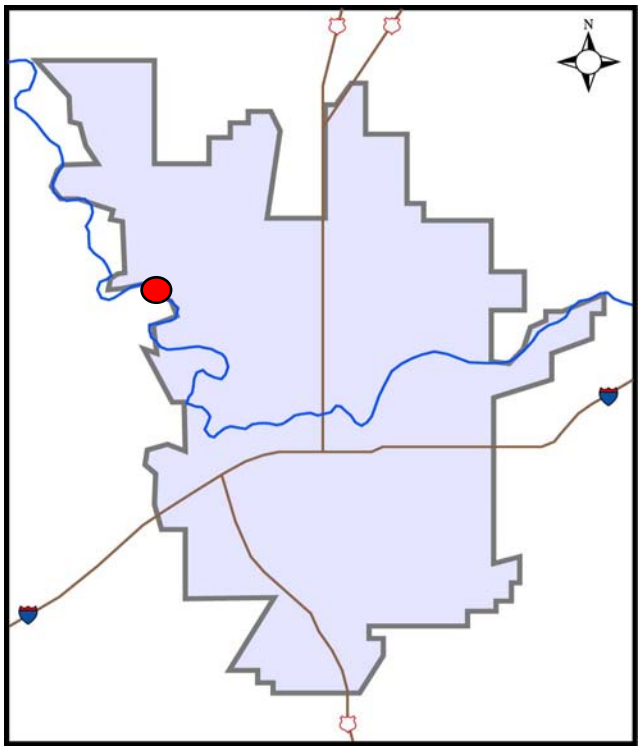
This project is a pilot program to study the most suitable technology for seasonally removing phosphorus from effluent with an objective of achieving a discharge with seasonal average 50ug/l or lower per the State Department of Ecology Total Maximum Daily Limits (TMDL). Six pilot units will be tested over a two-period. *The schedule for financial expenditures is on Page 22.*

RETURN

Project Detail

S07L01 - Reclaimed Water Pilot Project

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	N/A
Financial Number	94310
Function	TMDL Compl
Environmental Class.	Env. Assess.
Design Responsibility	Sewer Maint
Length	N/A

Budget	
Engineering	100
Right of Way	0
Constr. Management	150
Construction Cost	1,000
Other	0
Total	**1,250**

Funding	
Sewer Fund	1,250
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,250**

Budget and Funding in 1,000s of dollars .

Description

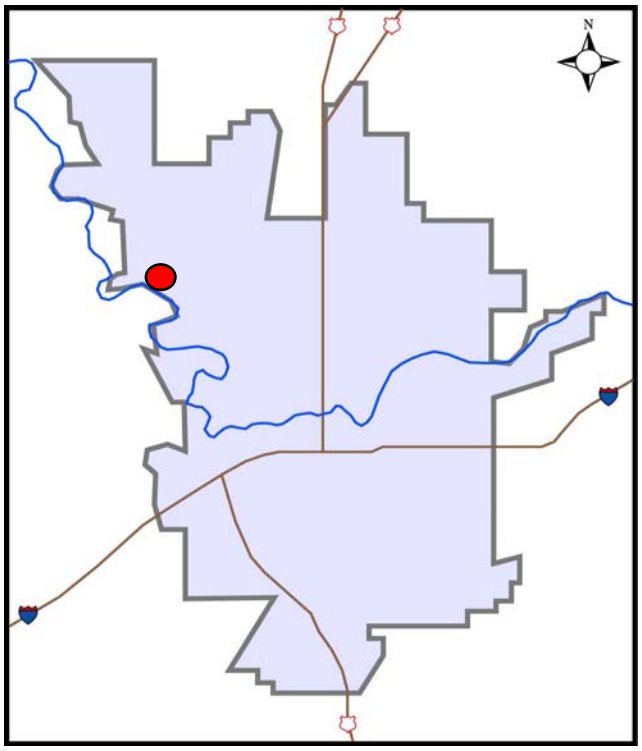
The City plans to operate a pilot project for two years to demonstrate the feasibility of using reclaimed water locally during the growing season. The highest Department of Health classification, Class A reclaimed water will be made using a small scale system located at the RPWRF. Downriver Golf Course was selected as the initial recipient of the reclaimed water. Expansion of service to Qualchan Golf Course is planned for the second year. Reclaimed water will be trucked to storage at the golf courses for use of their irrigation systems. Class A reclaimed water production began in 2007. *The schedule for financial expenditures is on Page 22.*

RETURN

Project Detail

S07L02 - Next Level of Treatment Implementation

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	TMDL Compl
Environmental Class.	Env Assess
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	9,000
Right of Way	0
Constr. Management	15,000
Construction Cost	90,000
Other	0
Total	**114,000**

Funding	
Sewer Fund	114,000
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**114,000**

Budget and Funding in 1,000s of dollars .

Description

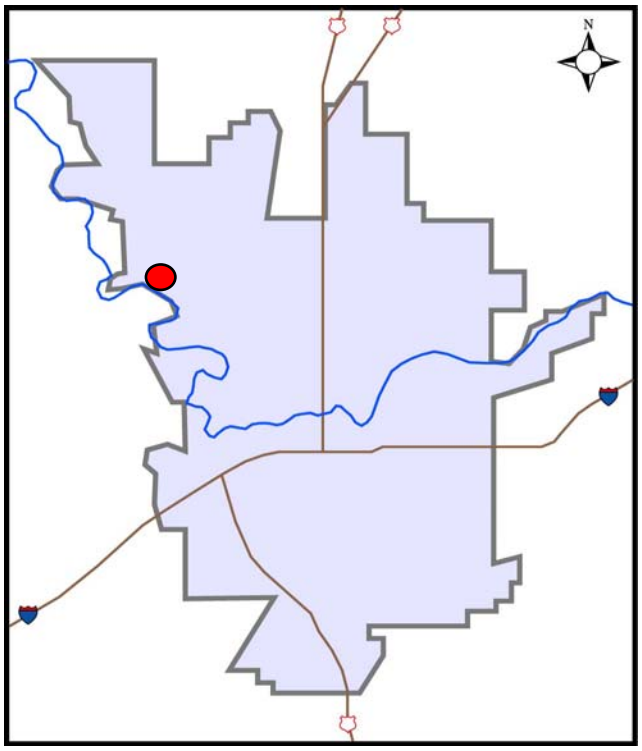
This project consists of an engineering report, design and final construction of the final effluent filtration technology selected in the pilot project (S04L01) to seasonally remove phosphorus from effluent with an objective of achieving. The filters will be installed to discharge higher quality effluent to the Spokane River with a seasonal average of 50ug/l or lower per the State Department of Ecology Total Maximum Daily Limits (TMDL). An engineering report concerning the final effluent filter will be submitted to the State Department of Ecology. T*he schedule for financial expenditures is on Page 22.*

RETURN

Project Detail

S08L01 - Joe Albi/Fairmount Reclaimed Water Project

RETURN



Project is located in Aubrey L. White Blvd from the Riverside Park Water Reclamation Facility (RPWRF) to Joe Albi Stadium.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	TMDL Compl
Environmental Class.	Env Assess
Design Responsibility	Eng Services
Length	7,000 ft

Budget	
Engineering	73
Right of Way	0
Constr. Management	110
Construction Cost	827
Other	0
Total	**1,010**

Funding	
Sewer Fund	1,010
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,010**

Budget and Funding in 1,000s of dollars .

Description

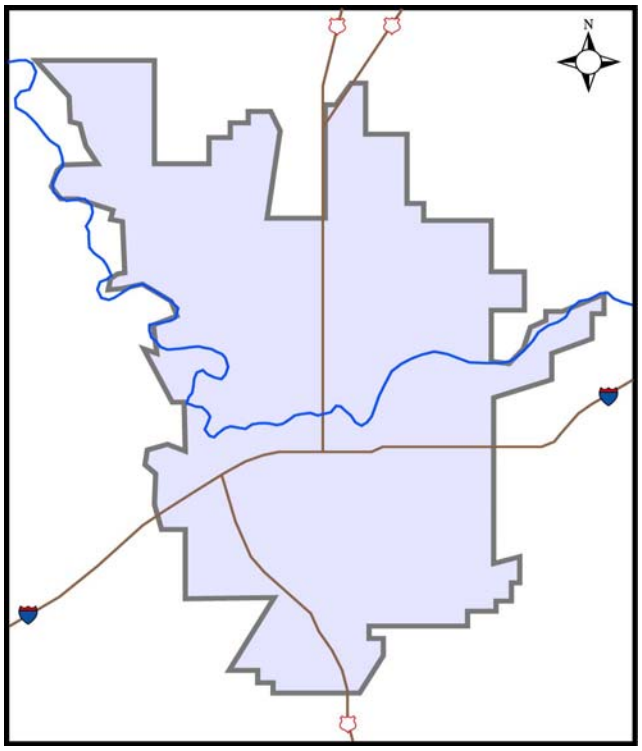
This project will provide a pipeline to connect the Riverside Park Water Reclamation Facility to Fairmount Memorial Park, Joe Albi Stadium, and Riverside State Park for reclaimed water service. This is a first step in providing reclaim water for irrigation. Future projects will include storage and pumping capacity to deliver the reclaimed water through this pipeline. *The schedule for financial expenditures is on Page 22.*

RETURN

Project Detail

S08L02 - Reclaimed Water System Feasibility Study (purple pipe)

RETURN



Project work services the entire City.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	TMDL Compl
Environmental Class.	Env Assess
Design Responsibility	Cap Programs
Length	N/A

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

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

Budget and Funding in 1,000s of dollars .

Description

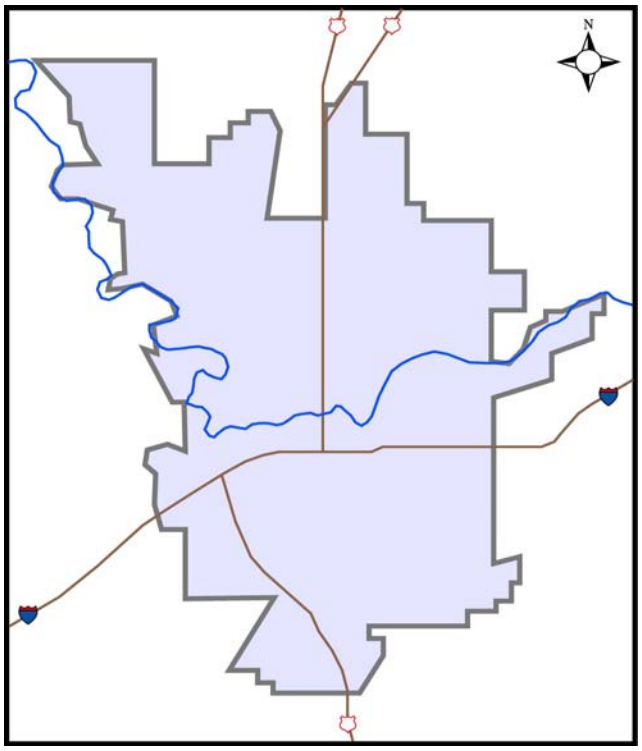
This project will determine the feasibility of installing a large reclaimed water system. The study will identify reclaimed water potential customers, such as golf courses, parks, cemeteries, industries and other potential users. The evaluation will purpose the potential locations and size of facilities including pumps, tanks, and pipelines to serve reclaimed water to high-demand users. The study will also estimate the cost of construction and staffing requirements. *The schedule for financial expenditures is on Page 22.*

RETURN

Project Detail

S08L03 - Reclaimed Water System Implementation (purple pipe)

RETURN



The project may be located in the entire City.
Exact location of facilities is yet to be determined.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	TMDL Compl
Environmental Class.	Env Assess
Design Responsibility	Cap Prog/ESD
Length	N/A

Budget	
Engineering	48
Right of Way	0
Constr. Management	72
Construction Cost	480
Other	0
Total	**600**

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

Budget and Funding in 1,000s of dollars .

Description

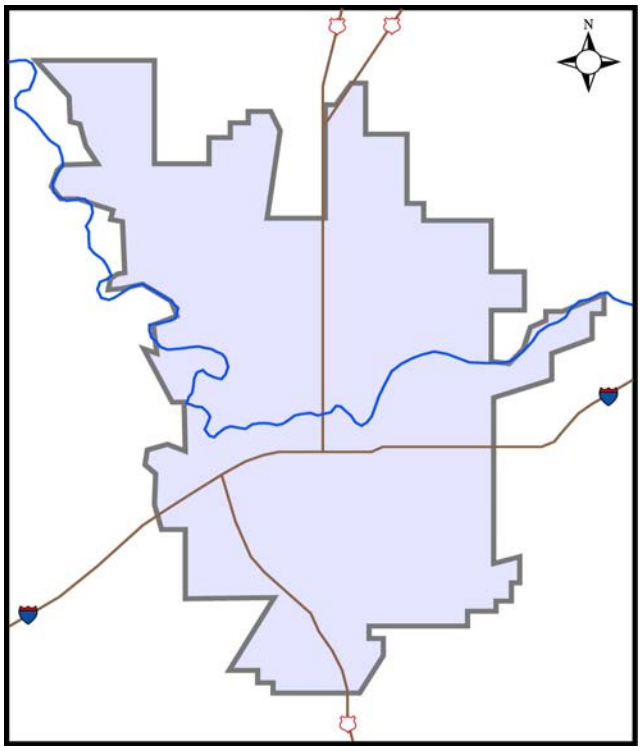
If a reclaimed water system is found feasible in the Reclaimed Water System Feasibility Study (S08L02), this project will design and construct the recommended facilities. *The schedule for financial expenditures is on Page 22.*

RETURN

Project Detail

S08L04 - Reclaimed Water Treatment System Construction

RETURN



Project may be located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	TMDL Compl
Environmental Class.	Env Assess
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	144
Right of Way	0
Constr. Management	216
Construction Cost	1,440
Other	0
Total	**1,800**

Funding	
Sewer Fund	1,800
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**1,800**

Budget and Funding in 1,000s of dollars .

Description

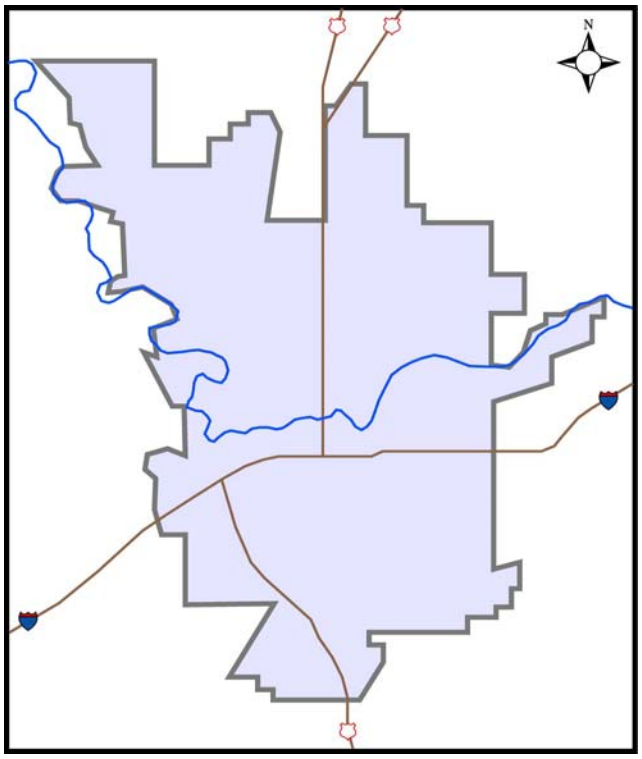
This project consists of the construction of reclaimed water treatment facilities at Riverside Park Water Reclamation Facility. Based on the results of the pilot project (S07L01) to provide reclaimed water to Downriver Golf Course, treatment facilities will be installed in conjunction with S08L02-Reclaimed Water System Feasibility Study. *The schedule for financial expenditures is on Page 22.*

RETURN

Project Detail

S08L05 - Water Conservation Program

RETURN



Project work services the entire City.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	TMDL Compl
Environmental Class.	N/A
Design Responsibility	WW Mangmt
Length	N/A

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

Funding	
Sewer Fund	2,000
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**2,000**

Budget and Funding in 1,000s of dollars .

Description

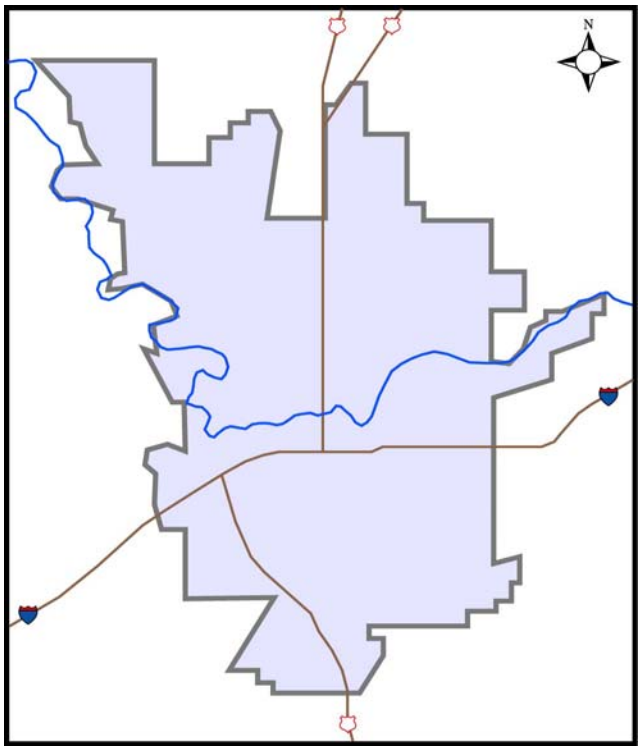
The Wastewater and City Water Department together are funding the Water Stewardship program to promote water conservation. *The schedule for financial expenditures is on Page 22.*

RETURN

Project Detail

S08L06 - Non-point Source Reduction Program

RETURN



Project work services the entire City.

Project Information	
Public Works Number	<>
Financial Number	<>
Function	TMDL Compl
Environmental Class.	Env Assess
Design Responsibility	WW Mangmt
Length	N/A

Budget	
Engineering	0
Right of Way	0
Constr. Management	0
Construction Cost	0
Other	7,050
Total	**7,050**

Funding	
Sewer Fund	7,050
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**7,050**

Budget and Funding in 1,000s of dollars .

Description

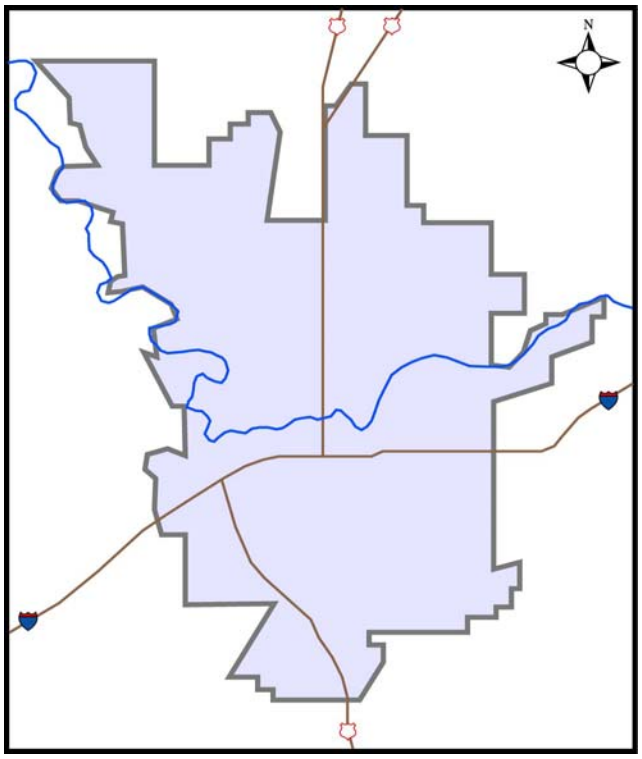
The Non-point Source Reduction Program is a part of regional effort by participating NPDES permit holders and Ecology. An initial study will determine the best opportunities for non-point source phosphorus reductions identified in the TMDL. This program will fund and implement methods to reduce non-point source phosphorus. The County of Spokane has taken the lead in this project. The City will coordinate all non-point reduction activities with the County. *The schedule for financial expenditures is on Page 22.*

RETURN

Project Detail

S09L01 - Reclaimed Water Pipeline Evaluation

RETURN



Project work services Fairchild Air force Base

Project Information	
Public Works Number	<>
Financial Number	<>
Function	TMDL Compl
Environmental Class.	Env Assess
Design Responsibility	PMO
Length	8 miles

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

Funding	
Sewer Fund	280
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**280**

Budget and Funding in 1,000s of dollars .

Description

Drinking water is supplied to Fairchild Air Force Base from wells near the Spokane River. Once water is supplied to FAFB by the City's Water Department, the existing pipeline will no longer be needed. This project will evaluate the pipe for use in the reclaimed water system and, if necessary, recommend design modification. *The schedule for financial expenditures is on Page 22.*

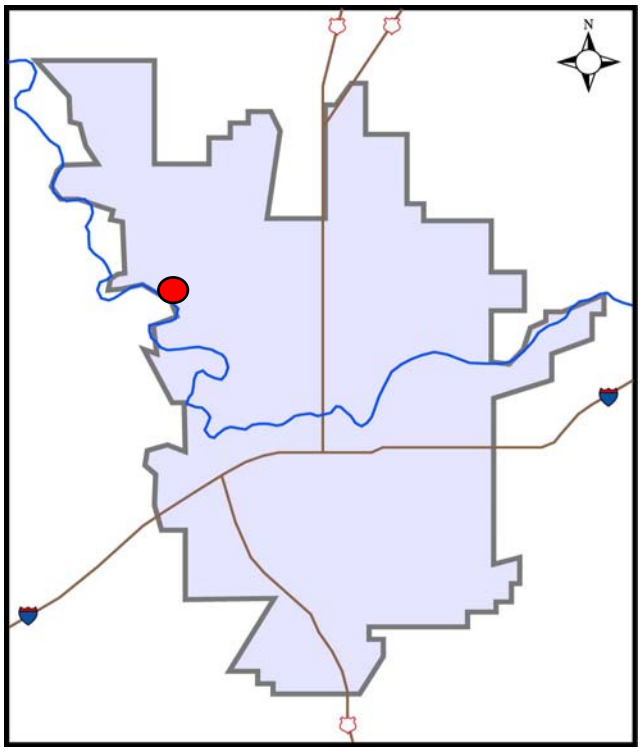
RETURN

Detail Sheets
Water Reclamation Facility

Project Detail

S00A02 - RPWRF-PMO Planning and Administration

RETURN



Project is located at the Riverside Park Water Reclamation Facility in northeast Spokane.

Project Information	
Public Works Number	98053
Financial Number	94310
Function	Treatment
Environmental Class.	Cat. Exempt
Design Responsibility	Sewer Maint
Length	N/A

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

Funding	
Sewer Fund	9,736
Grants	0
Loans	0
Spokane County	2,864
Local Impvt. District	0
Total	**12,600**

Budget and Funding in 1,000s of dollars .

Description

"PMO" stands for Project Management Office, and it includes program administration, management, and planning for Water Quality Improvement Program at the City 's Riverside Park Water Reclamation Facility (RPWRF). The PMO provides planning, organization, scheduling, budgeting, staffing, accounting, invoicing, documentation, record retention, status reporting, office management and, when requested, public outreach, for all the improvements and upgrades at the RPWRF. Included in their activities are sub-consultant administration and management, as well as, construction administration and management. The PMO planning efforts guide the direction of the facility improvements including odor control, permitting, aesthetics, treatment processes, and plant-wide infrastructure. The contract for Phase 1 ended in 2008. The PMO for Phase 2 will be determined by a selection process in 2008 before Phase 2 projects are designed or constructed.

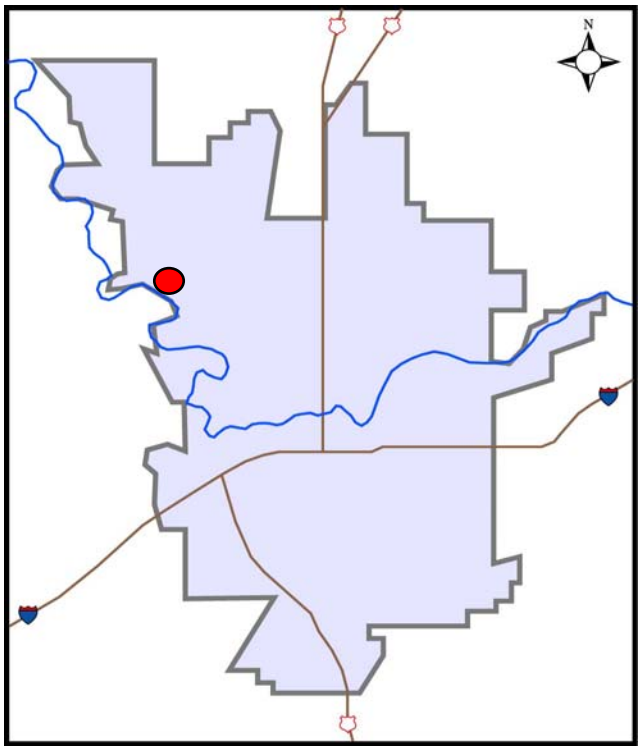
The schedule for financial expenditures is on Page 24.

RETURN

Project Detail

S02A01 - Technical Consulting

RETURN



Project is located at the Riverside Park Water Reclamation Facility in northeast Spokane.

Project Information	
Public Works Number	<>
Financial Number	94310
Function	Treatment
Environmental Class.	Cat. Exempt
Design Responsibility	PMO
Length	N/A

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

Funding	
Sewer Fund	695
Grants	0
Loans	0
Spokane County	205
Local Impvt. District	0
Total	**900**

Budget and Funding in 1,000s of dollars .

Description

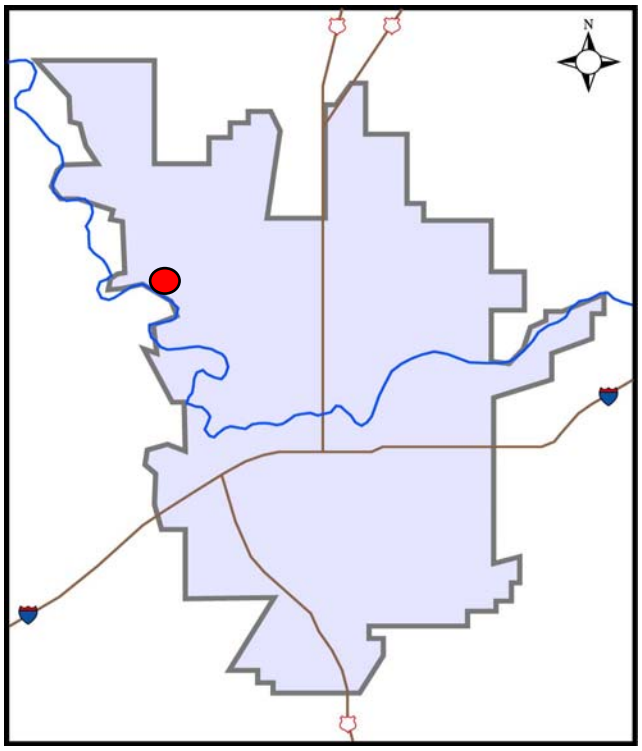
Although most of the studies, design and planning for City's Riverside Park Water Reclamation Facility (RPWRF) is performed by the PMO, the City utilizes a third-party consultant to provide an independent opinion. These consultants have technical specialties that complement the PMO activities. Past technical consulting has included overall treatment process review and Spokane River studies. *The schedule for financial expenditures is on Page 24.*

RETURN

Project Detail

S07A01 - Wastewater Facility Plan Update

RETURN



Project is located at the Riverside Park Water Reclamation Facility in northeast Spokane.

Project Information	
Public Works Number	N/A
Financial Number	94310
Function	Treatment
Environmental Class.	Assessment
Design Responsibility	Sewer Maint
Length	N/A

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

Funding	
Sewer Fund	270
Grants	0
Loans	0
Spokane County	80
Local Impvt. District	0
Total	**350**

Budget and Funding in 1,000s of dollars .

Description

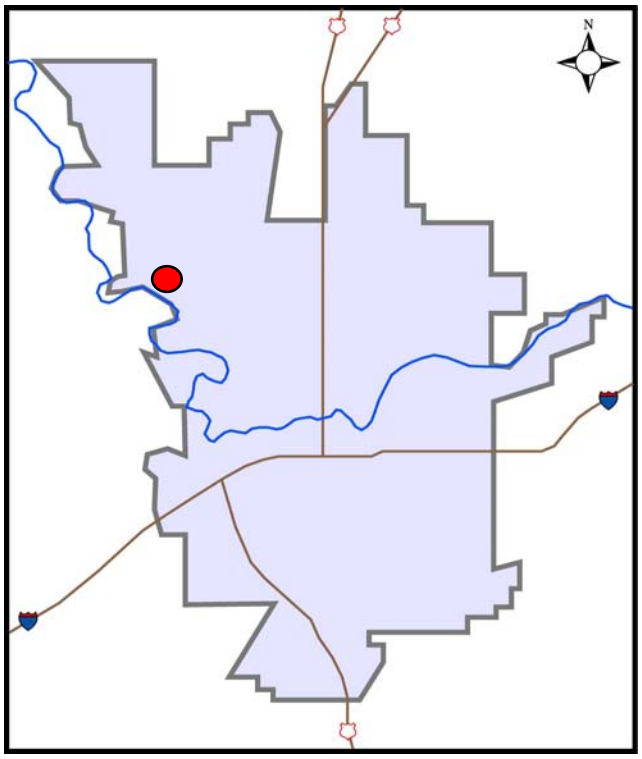
The City is required to update its Wastewater Facility Plan every five years. The next update work will be performed in 2010. A consultant usually assists the City with these updates. *The schedule for financial expenditures is on Page 24.*

RETURN

Project Detail

S02T03 - Primary Clarifier Odor Control

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	Treatment
Environmental Class.	Assessment
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	111
Right of Way	0
Constr. Management	1,668
Construction Cost	11,122
Other	0
Total	**12,901**

Funding	
Sewer Fund	12,901
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**12,901**

Budget and Funding in 1,000s of dollars .

Description

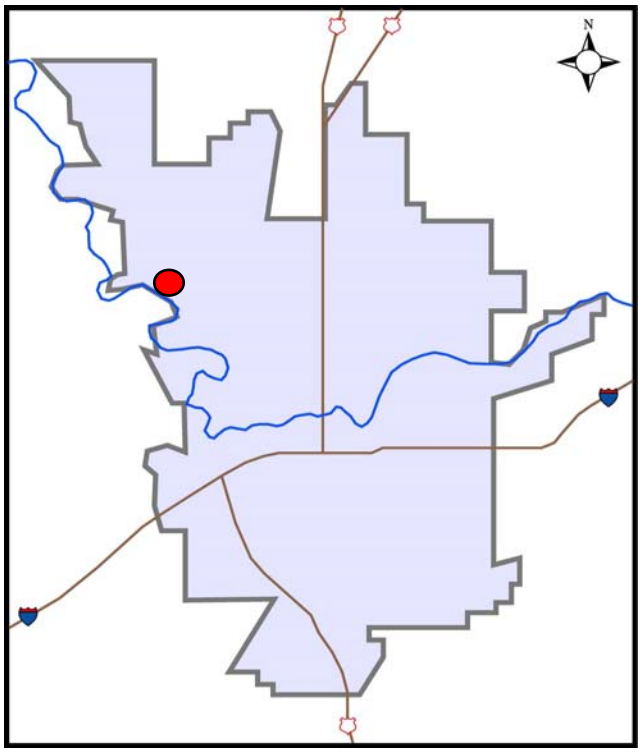
Primary clarifiers have been identified as the next priority in the odor control strategy at the RPWRF. This project will design and construct covers over the four existing primary clarifiers, including an exhaust fan facility to divert odorous air to a new biofilter east of the primary clarifiers. *The schedule for financial expenditures is on Page 25.*

RETURN

Project Detail

S03T01 - West Plant Generator

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	treatment
Environmental Class.	Env Assess
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	30
Right of Way	0
Constr. Management	30
Construction Cost	340
Other	0
Total	**400**

Funding	
Sewer Fund	400
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**400**

Budget and Funding in 1,000s of dollars .

Description

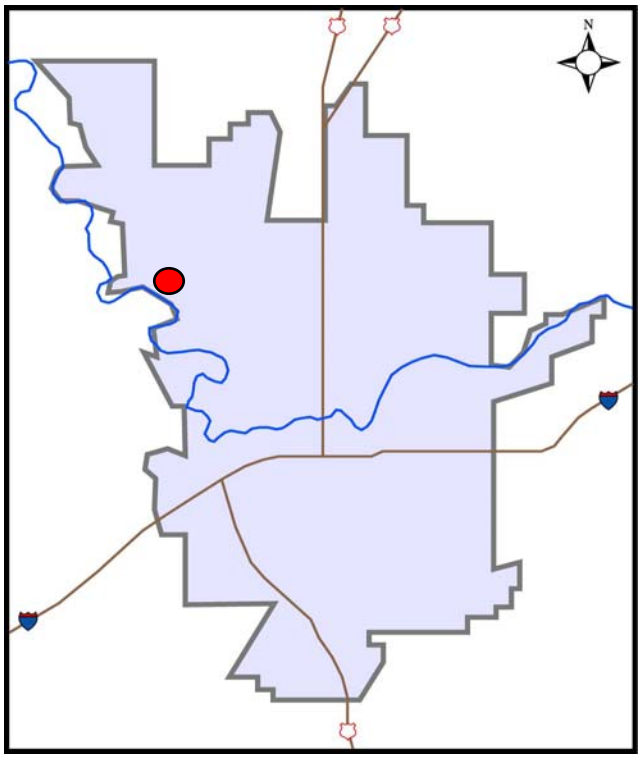
The project will design and construct a new emergency generator at the west end of the RPWRF to provide backup power. *The schedule for financial expenditures is on Page 25.*

RETURN

Project Detail

S03T04 - Headworks Screening and Grit Improvements

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	Treatment
Environmental Class.	Assessment
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	672
Right of Way	0
Constr. Management	1,008
Construction Cost	6,720
Other	0
Total	**8,400**

Funding	
Sewer Fund	6,491
Grants	0
Loans	
Spokane County	1,909
Local Impvt. District	0
Total	**8,400**

Budget and Funding in 1,000s of dollars .

Description

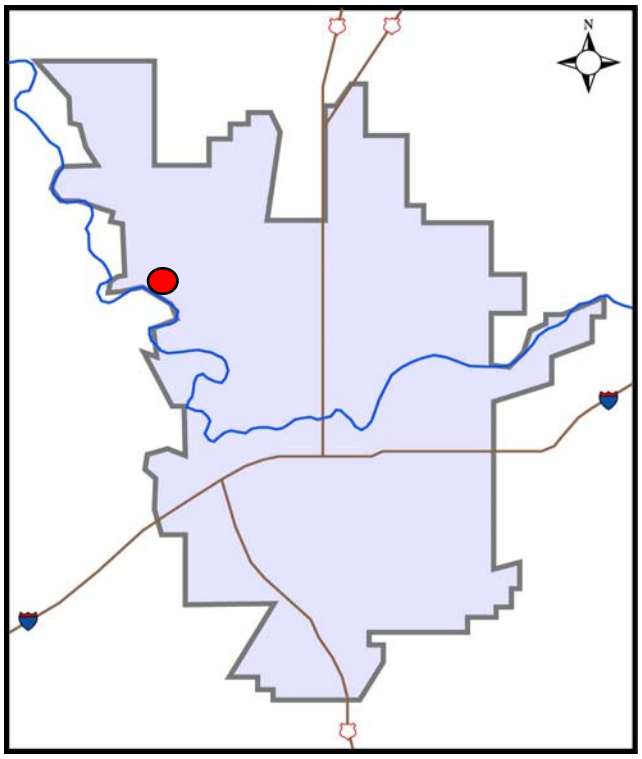
This project was formerly titled "Headworks Bar Screen Enhancement." This project includes construction of a new energy dissipating box, finer screens, washer compactors, grit system replacement and plantwide gate and valve rehabilitation. Wastewater screening is the first process at the RPWRF. Screening removes large materials such as sticks, leaves, rags, syringes, paper products and sanitary products that are commonly found in municipal wastewater. The current screens are 3/4" catenary bar screens that are nearly 30 years old. New equipment with finer screens will significantly improve removal of unwanted materials from the wastewater. Improved removal reduces the operation and maintenance costs for the RPWRF, increases the reliability of the downstream processes, and increases the long-term beneficial use of biosolids. T*he schedule for financial expenditures is on Page 25.*

RETURN

Project Detail

S04T03 - Primary Sludge Pump Station Rehabilitation

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	Treatment
Environmental Class.	Assessment
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	56
Right of Way	0
Constr. Management	84
Construction Cost	560
Other	0
Total	**700**

Funding	
Sewer Fund	541
Grants	0
Loans	
Spokane County	159
Local Impvt. District	0
Total	**700**

Budget and Funding in 1,000s of dollars .

Description

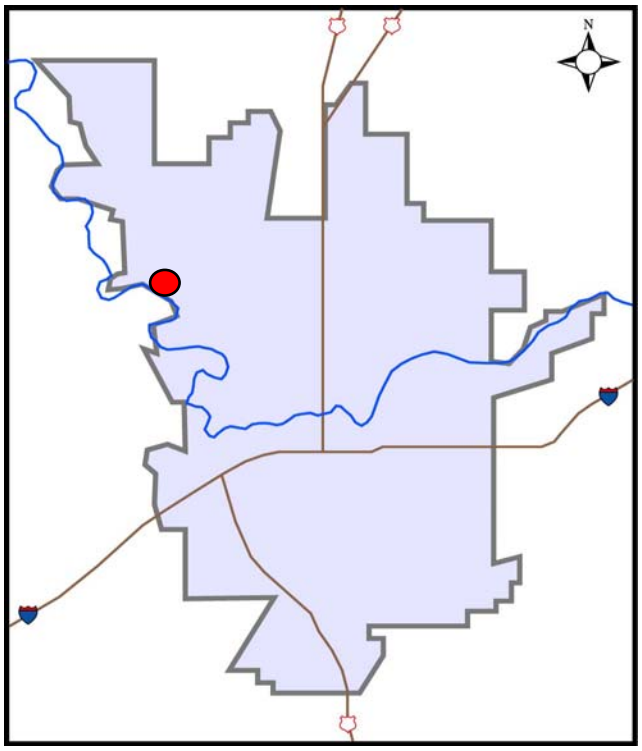
This project replaces the primary clarifier sludge pumps that have been in service for 25-years and have reached the end of their useful life. New variable speed control drives will be installed to improve flow control for the downstream solids thickening processes. *The schedule for financial expenditures is on Page 25.*

RETURN

Project Detail

S05T01 - Digester System Upgrade

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	Treatment
Environmental Class.	Assessment
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	3,600
Right of Way	0
Constr. Management	3,600
Construction Cost	37,800
Other	0
Total	**45,000**

Funding	
Sewer Fund	34,773
Grants	0
Loans	
Spokane County	10,227
Local Impvt. District	0
Total	**45,000**

Budget and Funding in 1,000s of dollars .

Description

The City's Wastewater Facilities Plan (1999) recommended the continued use of Digester 1, 2, and 3, and construction of a new, fourth digester by 2005. The failure of Digester 3 left only two digesters in operation and with marginal treatment capacity (for upcoming loads) and no available storage and redundancy. Considering all constraints and process requirements, two new egg-shaped digesters complete with digestion process equipment and a new facility were designed and are now under construction. This new digestion facility will allow the City to meet their capacity requirements for digestion. This project began construction in 2006. *The schedule for financial expenditures is on Page 25.*

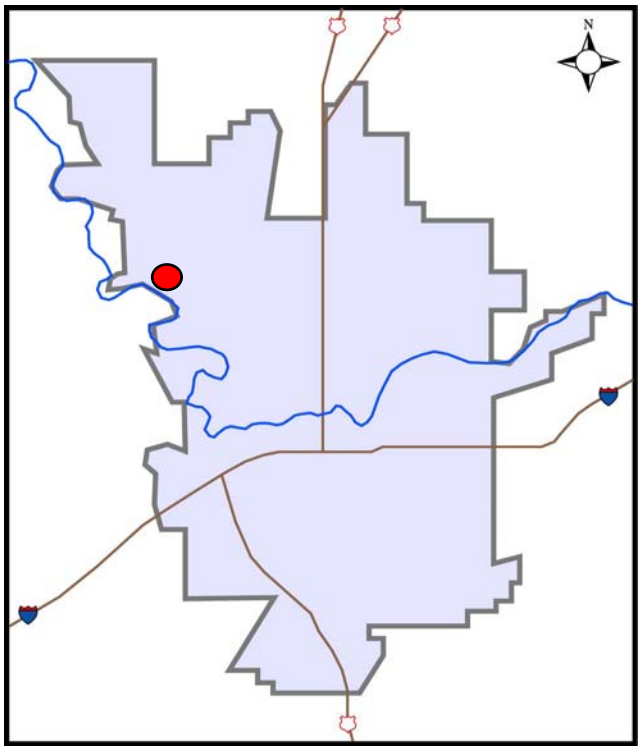
COMPLETE

RETURN

Project Detail

S07T01 - Primary Influent Flow Split

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	Treatment
Environmental Class.	Assessment
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	651
Right of Way	0
Constr. Management	976
Construction Cost	6,505
Other	0
Total	**8,131**

Funding	
Sewer Fund	6,283
Grants	0
Loans	0
Spokane County	1,848
Local Impvt. District	0
Total	**8,131**

Budget and Funding in 1,000s of dollars .

Description

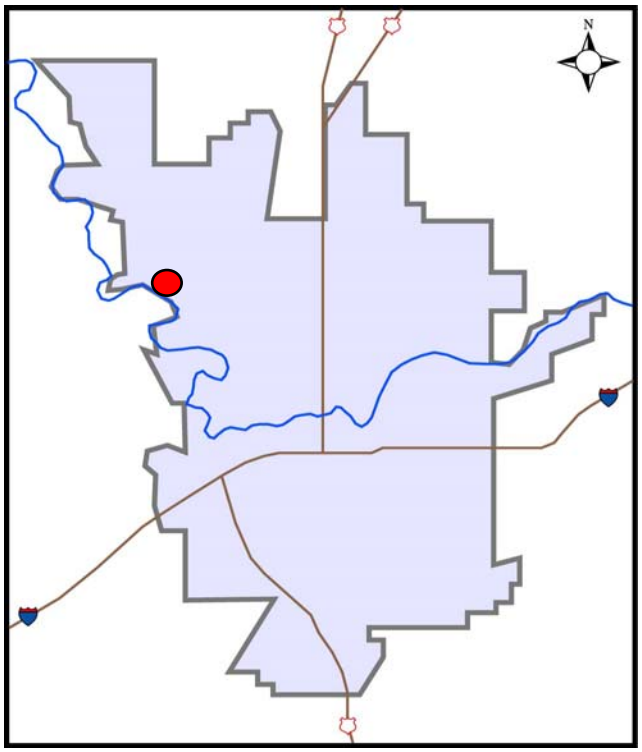
With limited room for expansion of the RPWRF it is essential to optimize the performance of each process, especially those that require a large amount of space. After wastewater leaves the headworks, the flow must be split between four primary clarifiers. Presently, this flow split is not uniform and results in more wastewater flow to clarifiers 3 and 4, and inefficient operation of clarifiers 1 and 2. Flow split improvements will be designed to uniformly split the flow so that all four clarifiers operate at their optimal capacity. *The schedule for financial expenditures is on Page 25.*

RETURN

Project Detail

S07T02 - Digester Gas Compressor Room Upgrades

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	treatment
Environmental Class.	Env Assess
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	238
Right of Way	0
Constr. Management	382
Construction Cost	2,380
Other	0
Total	**3,000**

Funding	
Sewer Fund	2,318
Grants	0
Loans	0
Spokane County	682
Local Impvt. District	0
Total	**3,000**

Budget and Funding in 1,000s of dollars .

Description

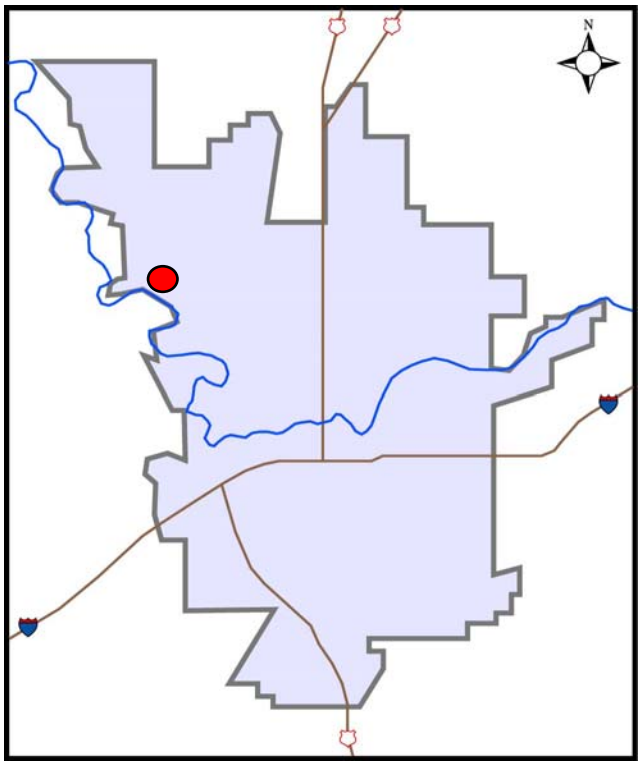
Once solids are removed from the wastewater they must be treated to the standards for biosolids reuse. At the RPWRF the solids are placed in large tanks and are digested. Solids digestion generates methane gas as a byproduct and the gas is collected and compressed for use either in mixing the solids or for steam generation. The existing gas compressor room has been in service approximately 30 years with some improvements during that time. This project will upgrade equipment to ensure the safe collection of the methane gas and safe operation of the system. *The schedule for financial expenditures is on Page 25.*

RETURN

Project Detail

S07T04 - Co-Generation (Steam Turbines)

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	Treatment
Environmental Class.	Assessment
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	175
Right of Way	0
Constr. Management	265
Construction Cost	1,660
Other	0
Total	**2,100**

Funding	
Sewer Fund	1,623
Grants	0
Loans	
Spokane County	477
Local Impvt. District	0
Total	**2,100**

Budget and Funding in 1,000s of dollars .

Description

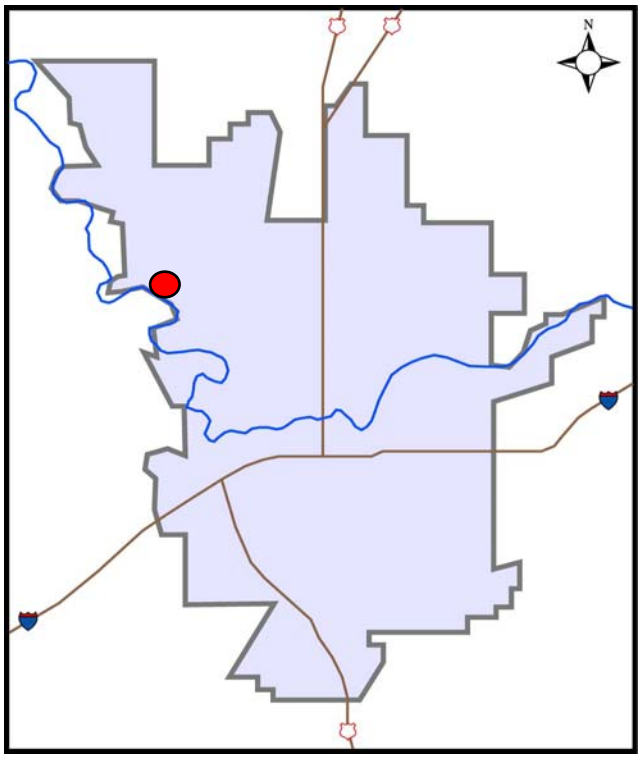
Formerly this project as called "Steam Turbines", S03T03. The former project has been expanded and is replaced by this project. Methane gas produced by the RPWRF digester is presently burned at a waste flare. This project will use the methane gas in a new boiler to generate steam that will power steam turbines to generate electricity for use at the RPWRF. The steam turbines, new boiler, and all support systems will be housed in the existing boiler/co-generation facility. *The schedule for financial expenditures is on Page 25.*

RETURN

Project Detail

S07T05 - New Blower #5

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	Treatment
Environmental Class.	Assessment
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	176
Right of Way	0
Constr. Management	264
Construction Cost	1,760
Other	0
Total	**2,200**

Funding	
Sewer Fund	1,700
Grants	0
Loans	
Spokane County	500
Local Impvt. District	0
Total	**2,200**

Budget and Funding in 1,000s of dollars .

Description

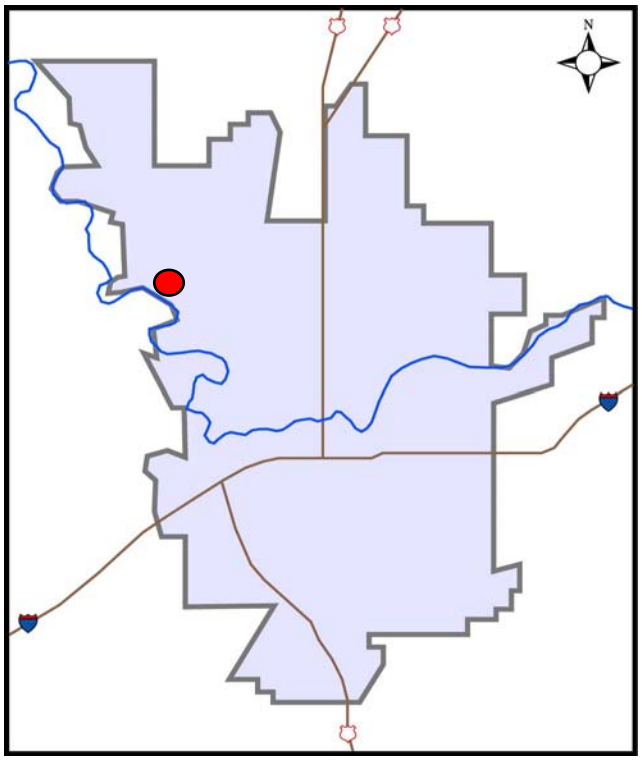
The secondary treatment process requires large blowers to provide oxygen to the organisms that treat wastewater. The existing blower system is nearing capacity; therefore, a new blower is required. The new blower, ductwork, and electrical and control equipment will be housed within the existing blower building. *The schedule for financial expenditures is on Page 25.*

RETURN

Project Detail

S08T01 - Egg-shaped Digester Facility Auxiliary Heating

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	Treatment
Environmental Class.	Assessment
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	96
Right of Way	0
Constr. Management	144
Construction Cost	960
Other	0
Total	**1,200**

Funding	
Sewer Fund	927
Grants	0
Loans	
Spokane County	273
Local Impvt. District	0
Total	**1,200**

Budget and Funding in 1,000s of dollars .

Description

The project will design and construct a biosolids recirculation heating system. *The schedule for financial expenditures is on Page 25.*

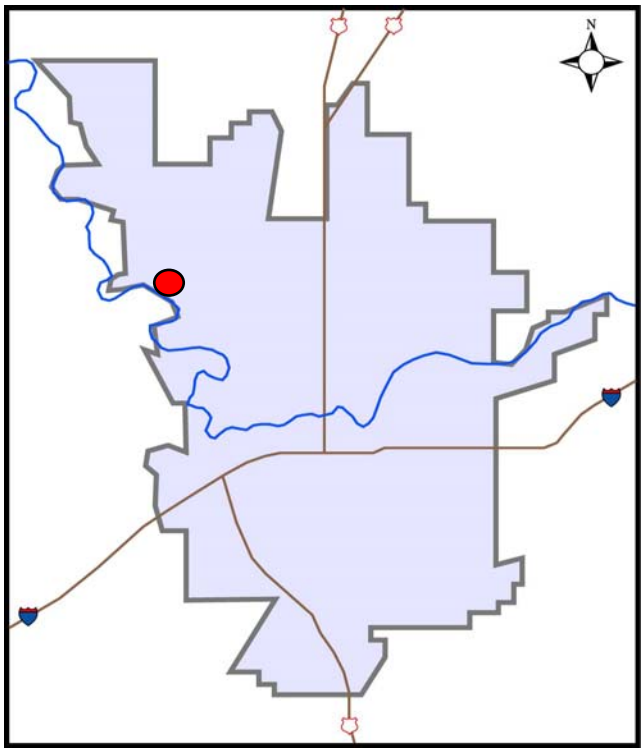
COMPLETE

RETURN

Project Detail

S08T02 - Alum Flow Pacing

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	Treatment
Environmental Class.	Assessment
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	40
Right of Way	0
Constr. Management	60
Construction Cost	400
Other	0
Total	**500**

Funding	
Sewer Fund	386
Grants	0
Loans	
Spokane County	114
Local Impvt. District	0
Total	**500**

Budget and Funding in 1,000s of dollars .

Description

This project will design and construct pumping and control equipment to pace the flow of alum in the treatment process. Alum is used at the RPWRF to treat wastewater. *The schedule for financial expenditures is on Page 25.*

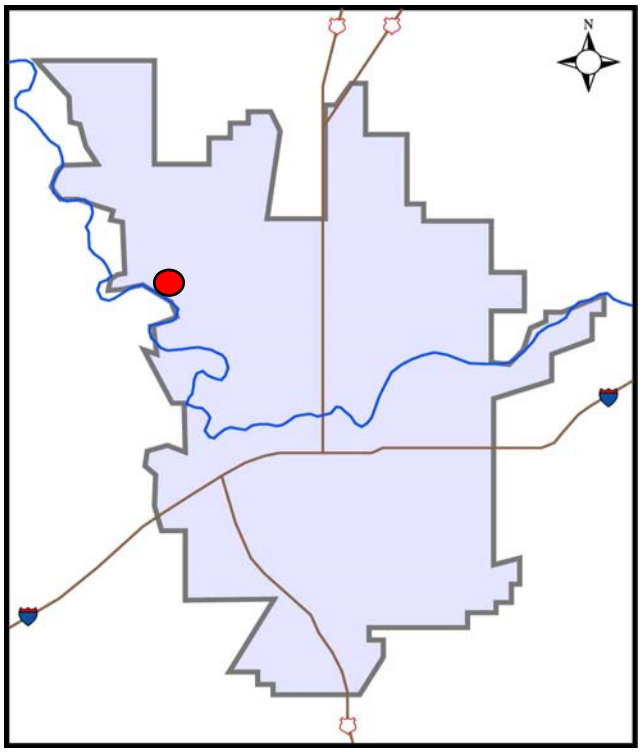
COMPLETE

RETURN

Project Detail

S08T03 - Biosolids Storage Bin Replacement

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	Treatment
Environmental Class.	Assessment
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	200
Right of Way	0
Constr. Management	300
Construction Cost	2,000
Other	0
Total	**2,500**

Funding	
Sewer Fund	1,932
Grants	0
Loans	
Spokane County	568
Local Impvt. District	0
Total	**2,500**

Budget and Funding in 1,000s of dollars .

Description

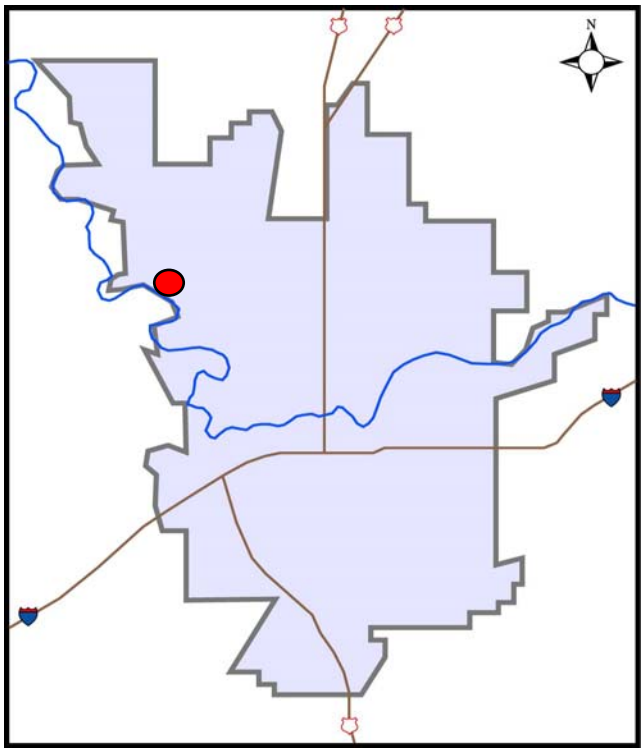
The project will design and construct two new biosolid hoppers to replace the four existing bins and to increase storage capacity. *The schedule for financial expenditures is on Page 25.*

RETURN

Project Detail

S08T04 - Waste-flare Instrumentation Modifications

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	Treatment
Environmental Class.	Assessment
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	40
Right of Way	0
Constr. Management	60
Construction Cost	400
Other	0
Total	**500**

Funding	
Sewer Fund	386
Grants	0
Loans	
Spokane County	114
Local Impvt. District	0
Total	**500**

Budget and Funding in 1,000s of dollars .

Description

This project will modify instrumentation to better control the waste gas flare. Methane gas produced by the RPWRF digester is presently burned at a waste flare. *The schedule for financial expenditures is on Page 25.*

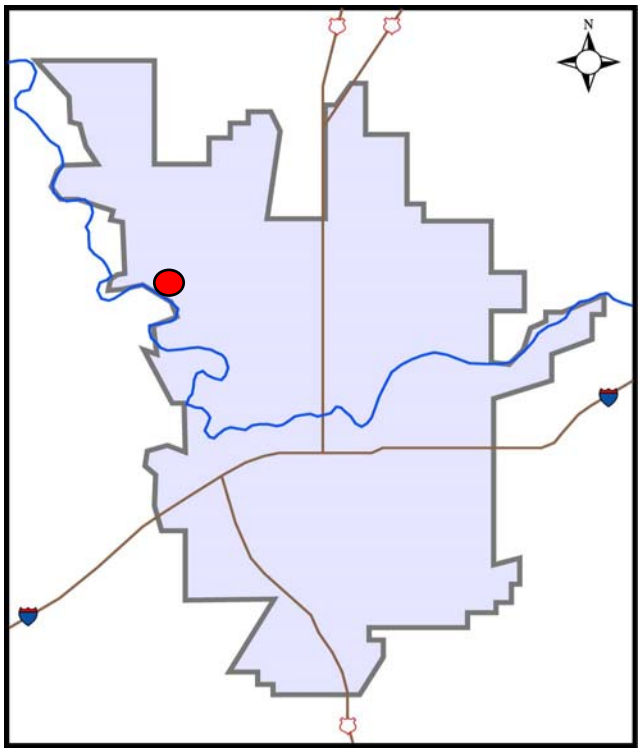
COMPLETE

RETURN

Project Detail

S09T01 - Egg-shaped Digester Facility #3

RETURN



Project is located at the Riverside Park Water Reclamation Facility (RPWRF).

Project Information	
Public Works Number	<>
Financial Number	<>
Function	treatment
Environmental Class.	Env Assess
Design Responsibility	PMO
Length	N/A

Budget	
Engineering	4,000
Right of Way	0
Constr. Management	5,000
Construction Cost	41,000
Other	0
Total	**50,000**

Funding	
Sewer Fund	50,000
Grants	0
Loans	0
Spokane County	0
Local Impvt. District	0
Total	**50,000**

Budget and Funding in 1,000s of dollars .

Description

The project will design and construct a new 2.8 million gallon digester and building addition. *The schedule for financial expenditures is on Page 25.*

RETURN