

# City of Walla Walla Infrastructure Repair & Replacement Plan



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A city calls upon  
its pioneering  
past as it resolves  
to address its  
failing water,  
wastewater,  
and street  
infrastructure.

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The Infrastructure Repair and Replacement Plan (IRRP) is a systematic, comprehensive and institutionalized approach to addressing the failing infrastructure systems of the City of Walla Walla. We are proud of the innovative use of cross-functional team members, public outreach, and a rate-based financing model that have made this program a unifying source of community reinvestment. We share our story in hopes of inspiring other communities who are dealing with infrastructure failure.

Established in the 1840's and incorporated in 1862, the City of Walla Walla is the fifth oldest city in the state of Washington. Early and progressive development of the city's infrastructure systems is attributed to the prosperity of businesses supplying Fort Walla Walla and the fortune-seekers of the fur trade and gold rush in the latter half of the 19th Century.

It was easy to focus on the future in times of prosperity, and that rang true for our community throughout the 20th Century and into the early 21st Century. Resources and attention were focused on develop-

ment and the construction of new water and wastewater treatment facilities while the maintenance and replacement of the early infrastructure in the ground went unattended for decades.

For nearly 30 years now the terrible condition of our streets has been a constant topic of discontent for residents; various repair programs have been discussed over the years, but no long-term commitment ever materialized. Less obvious to the public all these years has been the deteriorating condition of the water and wastewater pipes that run below those terrible streets.



### Where to Begin

For city staff it was a daunting conundrum – it didn't make financial sense to repair street surfaces over broken pipes that were constantly being dug up for patch repairs, but how could we afford to fix the pipes first in order to give the public better streets? Annual Capital Improvement Projects (CIP) for infrastructure replacement made some progress, but could not keep pace with the growing need – it was estimated that it would take over 200 years using the CIP approach to replace the water and wastewater infrastructure, most of which was already decades past its intended life expectancy. Staff was concerned about the condition of the streets, but the more troubling matter was the mounting issues with maintaining the water distribution and wastewater systems.

By 2008, the Water division's time and resources were increasingly being used to reactively fix more than 160 leaks a year, the city was receiving more sewer backup claims from residents each year, the Streets division could not keep up with the calls to repair potholes, and annual water reports were showing an alarming amount of unaccounted for water loss. But with operations and maintenance responsibilities spread out among various divisions, it was hard to quantify the magnitude of the situation let alone come up with a plan of attack.

### A New Approach

In 2009, the Public Works department under the leadership of former director Craig Sivley, P.E., led the initiative to collect data on just how bad the condition of the vital systems – water distribution, wastewater collection, and street surface – really

were to get a comprehensive picture of what had to be done and where to start. Extensive work was done by the Engineering, Water, Wastewater, and Street divisions to assemble the data for water leaks, sewer backups, system maintenance issues, and pavement conditions throughout the city. We then enlisted the help of the Technology Services division and its GIS staff in creating an enhanced city map to illustrate the condition issues. When the condition data for all three systems were overlaid onto a map of the city, it finally solidified what staff had long believed but could not previously show anyone comprehensively – a vast majority, nearly 82%, of the city's 115 miles of infrastructure was in dire need of replacement of at least one component. But the compelling story was where all three systems were failing simultaneously – approximately 40 miles in all. Adding insult to injury, analysis of seasonal flow data from the water and wastewater treatment plants revealed that more than one billion gallons of treated water was being lost each year due to leaking distribution pipes. Even to seasoned staff, the extensive nature of the situation was awe inspiring when it was presented graphically.

Armed with comprehensive data and visual documentation, Public Works staff began to formulate a plan to initiate an on-going program that would systematically and comprehensively address the failing infrastructure. A financing model for the program was developed with the assistance of the Finance division and included in the preliminary plan proposal to Council in January 2009. We did not want to just expose the problem; we wanted to provide bona fide solutions to tackling it as well.



### Education Is Key

What followed was an extensive public education campaign to thoroughly explain the situation and proposed solution to Council, residents, business owners, local and state government agencies, community service organizations, the media, the city's citizen advisory groups, and even other City departments so that any employee of the City could be a potential information resource for the public. Walla Walla is a close-knit community of approximately 32,000 residents where information is commonly shared neighbor to neighbor, so it was critical that accurate information was circulating and that people had an opportunity to ask questions and provide input. We took an all-hands-on-deck approach to making presentations within the community, hosting town hall meetings, providing media interviews, and setting up information exhibits at local events to get information out to stakeholders.

We continued to refine the program throughout 2009 after receiving positive and constructive feedback from citizens and presented the plan for approval to proceed by the City Council in December 2009. The IRRP and its corresponding rate increase for water and wastewater utilities were endorsed by Council; the first three projects were completed in 2010 and two more projects completed in 2011 for a total investment of \$4,687,260 million to date. The long-term plan has also provided us with a valuable leveraging tool in securing grant funds to supplement the rate-based funding.

The financing component of the program has been critical from the beginning. Initially the city did not

want to borrow the funding or rely on grants, so staff proposed to finance the program with a pay-as-you-go approach to emphasize that it was an on-going commitment to replace the infrastructure system. As such, the original financing structure rested on a stepped increase approach to the water and wastewater rates over a five year period that would result in a doubling of the current rates. This financing model would allow for approximately one half mile of infrastructure improvements in the first two years, steadily increasing to 1.5 miles by year five.

However, as the plan evolved and community and Council feedback was taken into consideration, a new financing model took shape. The community was so excited about the proposed plan that they wanted us to find a way to do more work than what the original financing would support in the early years of implementation. Working with municipal bond consultant, Susan Musselman, the city borrowed \$8.2 million to be paid back through water and wastewater rate revenue over a five year period. This provided the needed funding to jump-start the IRRP while the rate revenue phased up to generate \$4 million dollars annually at the end of the five years of debt repayment. Additionally, the jump start provided the opportunity to capitalize on the current relatively lower cost of construction.

The Council also decided to commit to a five year rate plan for the program rather than the typical annual rate evaluation schedule. This provided the needed stability and commitment to make sure the plan would proceed.

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## IRRP By the Numbers

Projects Completed:  
5

Project Costs:  
\$4,687,260

Water Main Replaced:  
9,990 ft.

Sewer Main Replaced:  
9,535 ft.

Street Surface Replaced:  
9,835 ft.

Water Services Replaced:  
196

Sewer Services Replaced:  
200

ADA Ramps Installed:  
154

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In another unprecedented move, the Council also approved the financing component to obligate the amount received from the payment-in-lieu-of-taxes (PILT) on the water and wastewater rate revenue to be used solely for improving streets and not going into the General Fund as PILT usually does. As such, the PILT revenue will generate approximately \$400,000 annually strictly for street repair and maintenance by the end of the five year rate phase-in. The dedication of the PILT was the final piece of the puzzle to create a comprehensive program that would address water, wastewater, and street conditions. The result of this effort to develop an innovative approach to funding has resulted in a sustainable source of funding while keeping the impacts to rate payers in mind.

The approach to this project went far beyond a typical infrastructure Capital Improvement Project which normally only involves a relatively small group of Public Works employees working to develop the project scope. By reaching out to incorporate the information and talents across the entire Public Works department and other city departments, we were able to create a program that has vested interest across the organization, which we feel facilitated the buy-in of our community as a whole.

The forthright presentation of facts to the public and offering them a chance to comment and help shape the program has helped the city build the trust of its citizens. We also made it a priority to communicate that improvement projects would be distributed throughout the community and serve a diverse cross-section of residents. To continue the commitment to transparency since the program was

implemented, this is the first program offered by the city to have a citizens oversight committee which evaluates the progress and reviews the finances of the program on an annual basis.

### Enduring Benefits

First and foremost, the citizens have benefitted from the IRRP program with the cost-effective and proactive improvements to the infrastructure systems. But citizens have also benefitted from the new approach to collaboration within the organization and how the city interfaces with the public. The IRRP project illustrated to employees that working across departments benefitted the end result by making it a more comprehensive process that took all of the internal stakeholders considerations into account. Specifically the on-going collaboration between the Public Works department and Finance is critical to delivering the outcomes the public is expecting on time and within budget. We also learned that it was essential to reach out to citizens and provide information in various formats and forums so that they could become well-versed in the situation and confident in our ability and commitment to implement the plan.

There was a substantial amount of staff time committed to collecting data, putting the IRRP plan proposal together, and presenting it to the public. The proposal to substantially increase water and wastewater rates in the midst of an economic downturn could have caused enough concern among residents that Council would not have approved the IRRP program. But the investment of time and effort by numerous people across the organization was rewarded with unprecedented support from the public.

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We were able to overcome public skepticism by presenting a thorough plan backed up with facts and data. By getting the Council members and City Manager involved in the project from an early stage, it showed the community that we weren't just proposing a "Public Works" project, but rather a "City" project and that there was commitment throughout the organization to get the project implemented.

We continue to strive to go above and beyond public expectations in our efforts to implement the individual projects each year. Neighborhood meetings before, during, and after projects ensure that problems are either addressed early or averted altogether. Our track record of the first two complete years of the program speaks for itself – nearly two miles of water and sewer main and road surface and two hundred service connections have been replaced as well as over 150 ADA access ramps have been installed. The Parks and Recreation Department has also contributed 75 trees used in landscaping enhancements for the projects.

With each completed project, our community is being revitalized beyond new pipes and pavement. Neighborhoods have celebrated their new street look with a barbecue in one instance and a ribbon-cutting in another. Residents are engaged in working together with their neighbors and with the city to make a positive impact on the future of our community.

