

DEPENDABLE INFRASTRUCTURE

GOAL

Maintain levels of service commensurate with growing community requirements at optimum life-cycle costs.

City funds and staffs infrastructure maintenance

MEASURES	2010	2011	2012	2013	2014	Target
Transportation Capital Projects Funding	\$5,456,000	\$11,515,600	\$10,708,580	\$12,848,300	\$11,917,000	N/A
Water/Sewer Capital Project Funding	\$2,001,300	\$1,450,000	\$2,850,000	\$5,080,070	5,597,000	N/A
Street Maintenance crew FTE's per 100 lane miles	3.58	3.12	3.12	3.23	3.23	N/A
Water/Sewer Maintenance crew FTE's per 100 miles of water and sewer mains	5.61	5.57	5.55	5.55	5.44	N/A

So that...

Infrastructure monitoring indicates good conditions

Pavement Condition Index for Major and Minor Arterial Streets	50.3	60.8	60.8	62.3	62.6	70
Pavement Condition Index for Collectors and Neighborhood Streets	68	76.1	76.1	74.7	72.8	65
Citizens surveyed rate street maintenance as satisfactory or better	94%	**	89%	**	82%	90%
Water Main Breaks	1	1	2	2	2	0
Sewer Obstructions	3	3	0	2	2	0

So that...

Kirkland has well maintained and sustainable infrastructure that meets the functional needs of the community

*Pavement Condition Index (PCI) is a rating of the general condition of pavements based on a scale of 0 to 100. A PCI of 100 represents a newly constructed road with no distresses; a PCI below 10 corresponds to a failed road requiring complete reconstruction; a PCI of 41 or better equates to "fair or better". Data: 2009 PCI based on 2008 survey; 2010 Collector PCI based on 2010 Collector survey and 2008 Neighborhood Street survey

**Community survey occurs in even years

+ City is reviewing measure to make recommendation to City Council on the relevancy and accuracy of data

HOW DO WE MEASURE DEPENDABLE INFRASTRUCTURE?

The pavement condition index (PCI) and the number of water main breaks and sewer obstructions demonstrate if the City is successfully maintaining infrastructure. In addition to the PCI rating a Citizen survey is conducted every other year to determine citizen satisfaction with streets. Together these measures help determine whether or not the City is meeting the community's desired level of service. The level of maintenance the City can perform is directly influenced by available funding and the number of Staff (measured in full time equivalent (FTE) positions).

HOW ARE WE DOING?

In 2012, Kirkland voters approved a permanent property tax levy for funding of city street maintenance and pedestrian safety measures. Since 2012 the Pavement Condition Index (PCI) for major and minor arterial streets has improved slightly from 60.8 in 2012 to 62.6 in 2014; while the PCI for collectors and neighborhood streets has dropped. Despite the drop in PCI to 72.8 for Collectors and Neighborhood streets the City is still above the target, which is 68. Over this same time frame, from 2012 to 2014, citizen satisfaction with street maintenance has declined to a 82% satisfaction rating, dropping further away from meeting the target satisfaction rate of 90%.

Over the last couple of years water main breaks and sewer obstructions have remained consistent with a total of two incidents per year for each. The City continues to work towards the target goal of 0 incidents per year.

Funding and staffing levels have remained mostly consistent between 2013 and 2014. There was a slight decrease in water and sewer staffing per 100 miles of water and sewer mains due to a shift in service area between Redmond and Kirkland that resulted in an increase in miles of pipe within Kirkland's service area boundary. Staffing levels for Street Crew Maintenance did not change.

WHAT ARE WE DOING?

The Public Works Department maintains a comprehensive system of roads and sidewalks. The Prop 1 Levy is providing additional resources to reduce the backlog of deferred street maintenance and to install safety improvements that meet aggressive 20 year targets. In 2014, Street funding helped to apply over 26.6 lane miles of slurry seal to protect and extend the life of Kirkland's streets. Arterials with low PCI (Pavement Condition Index) ratings were overlaid. In addition, curb ramps that meet ADA standards have been installed in the same areas to improve access for everyone.

Professional personnel and reliable facilities ensure that citizens do not experience lapses in water or sewer service. Engineering staff are developing an updated Surface Water Master Plan that meets the requirements of the federal NPDES permit as well as protecting the environment, homes, and businesses with good surface water practices. By maintaining a safe and effective sewer system, wastewater and surface water employees improve the infrastructure for improved business vitality and growth as well as a healthy and clean quality of life for Kirkland's residents.

All improvement projects are managed by a team of engineering professionals in the Capital Improvement Program who are currently working on high profile projects such as the Cross Kirkland Corridor Interim Trail and the construction of the NE 85th Corridor improvements in Rose Hill, as well as annual maintenance projects to improve water, sewer, and streets infrastructure.

The City Council continues to explore and implement ways to help the City keep pace with infrastructure needs. Kirkland citizens can expect to maintain a high quality of life because of professional, reliable, and cost effective management of the City's infrastructure resources.



Surface Water Master Plan

In 2014, the Surface Water Team completed an update of the Surface Water Master Plan, last updated in 2005. Since 2005 Kirkland has annexed additional infrastructure, the National Pollutant Discharge Elimination System (NPDES) Permit requirements have changed, and there is stronger emphasis on integrating stormwater programs and projects into City goals and plans.

Surface water issues impact not only flooding, but water quality, infrastructure and aquatic habitat.

Though all of these issues have been addressed each year since the last update of the plan, the Surface Water Master Plan seeks to create a blueprint on how to not only repair infrastructure but improve and enhance the system to lessen the impact on the environment.

The Surface Water Master Plan includes program recommendations such as:

- increased TV inspection of stormwater pipes
- creation of tools to assist developers with stormwater design
- incorporation of Low Impact Development Stormwater techniques
- reconstruction and/or rehabilitation of city stormwater systems
- water quality treatment
- culvert replacements to improve fish passage in streams

Each of these programs includes a proposed work plan and implementation, but they also include community education and feedback programs to engage the citizens of Kirkland in working alongside the City to achieve the goals of safe neighborhoods, clean water and a thriving healthy environment.