Infrastructure and Transportation

September 14, 2015

https://kcstat.kcmo.org

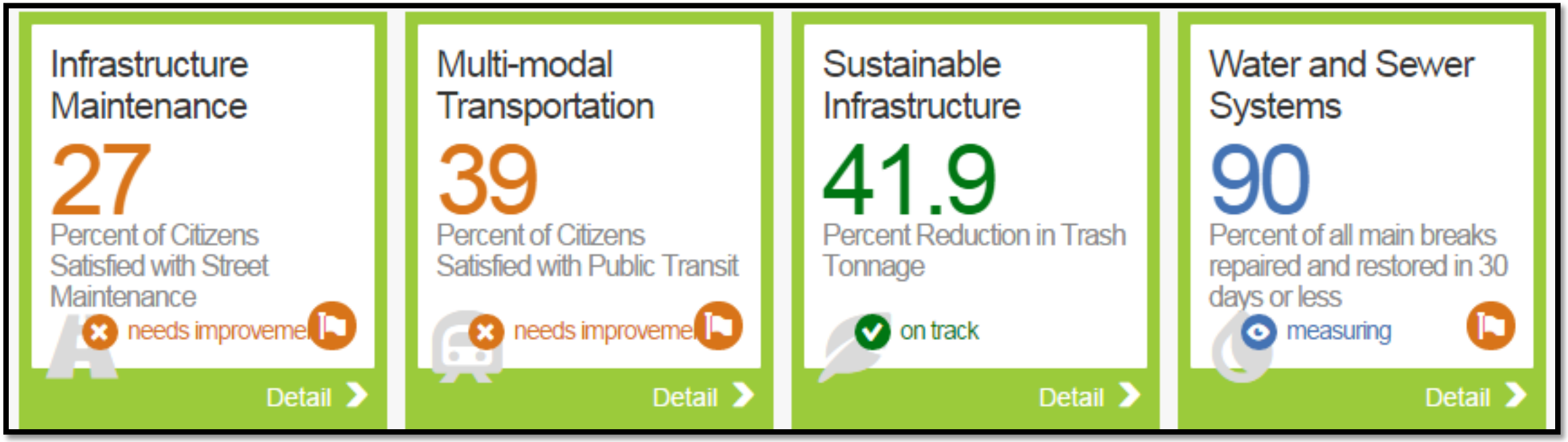
Infrastructure and Transportation (the "What") and objectives (the "How")

Goal: *To strengthen the transportation system and the City's physical infrastructure in ways that enhance connectivity among neighborhoods, business centers, and cultural/recreational destinations while maintaining the City's standing as the major American crossroads.*

Objectives:

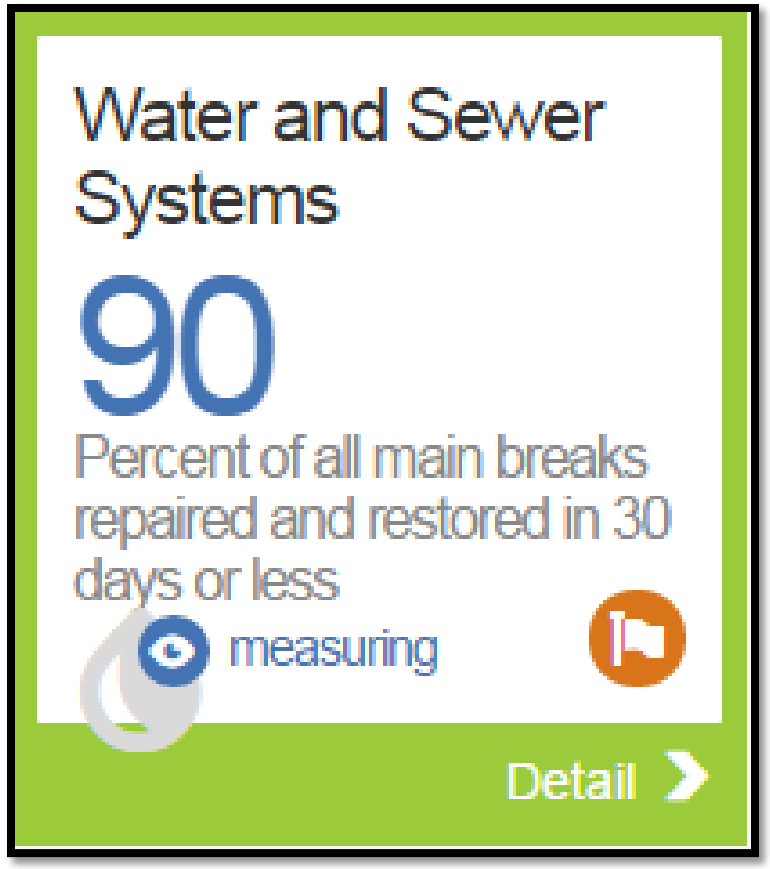
1. Determine investment to maintain all City infrastructure assets to maximize useful life.
   a) Set short-term and long-term priorities.
   b) Improve the street condition measurement system and develop an agreed upon pavement condition index (PCI).
   c) Develop a strategic plan to address the bridge re-pairs and replacements.
2. Implement the Envision Sustainable Infrastructure Rating System in all infrastructure planning and projects to maximize sustainable development solutions.
3. Increase access to multi-modal transportation options such as buses, bicycle lanes, trails, and the new streetcar system. Develop a plan for the connectivity of these systems.
4. Create a plan to implement strategic infrastructure investments in the Twin Creeks area that capitalize on natural features, promotes unique development patterns, builds civic space, and promotes sustainable design and construction.
5. Explore partnerships to expand sharing of public resources across government jurisdictions.
6. Execute consent decree requirements for the overflow control program.
7. Implement the City Energy Project to promote energy efficient improvements.
8. Protect the integrity of the Park and Boulevard system while encouraging quality, sustainable development.
9. Increase the recycling rate through policies and programs that promote recycling.
10. Reduce the amount of time for water main repair and restoration.
11. Establish an "ADA Implementation Plan" to meet Department of Justice's requirements.

Infrastructure and Transportation: How we measure it



Source: Citizen Survey; Public Works Solid Waste; Water Services (kcstat.kcmo.org)

TOPIC AREA: Water and Sewer Systems



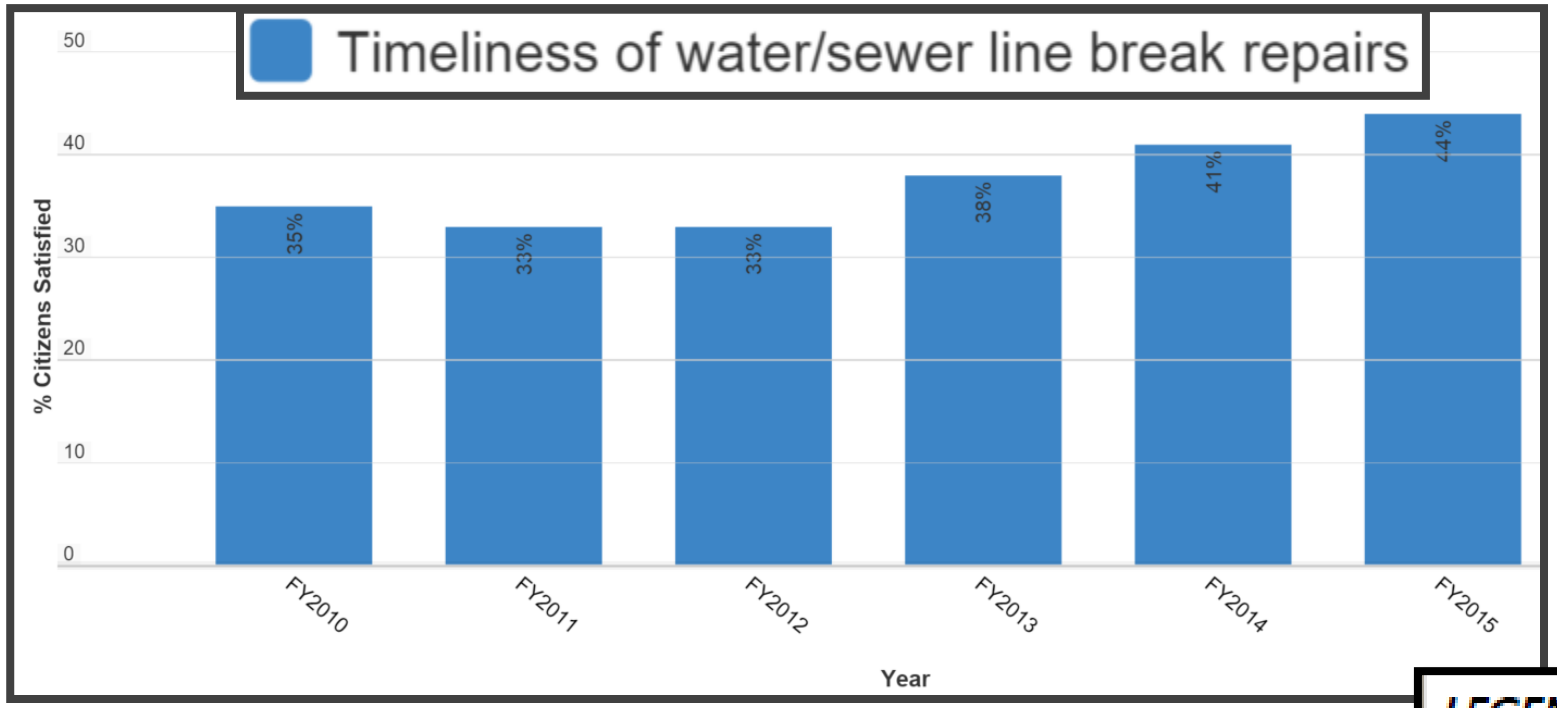
Objective:

Reduce the amount of time for water main repair and restoration.

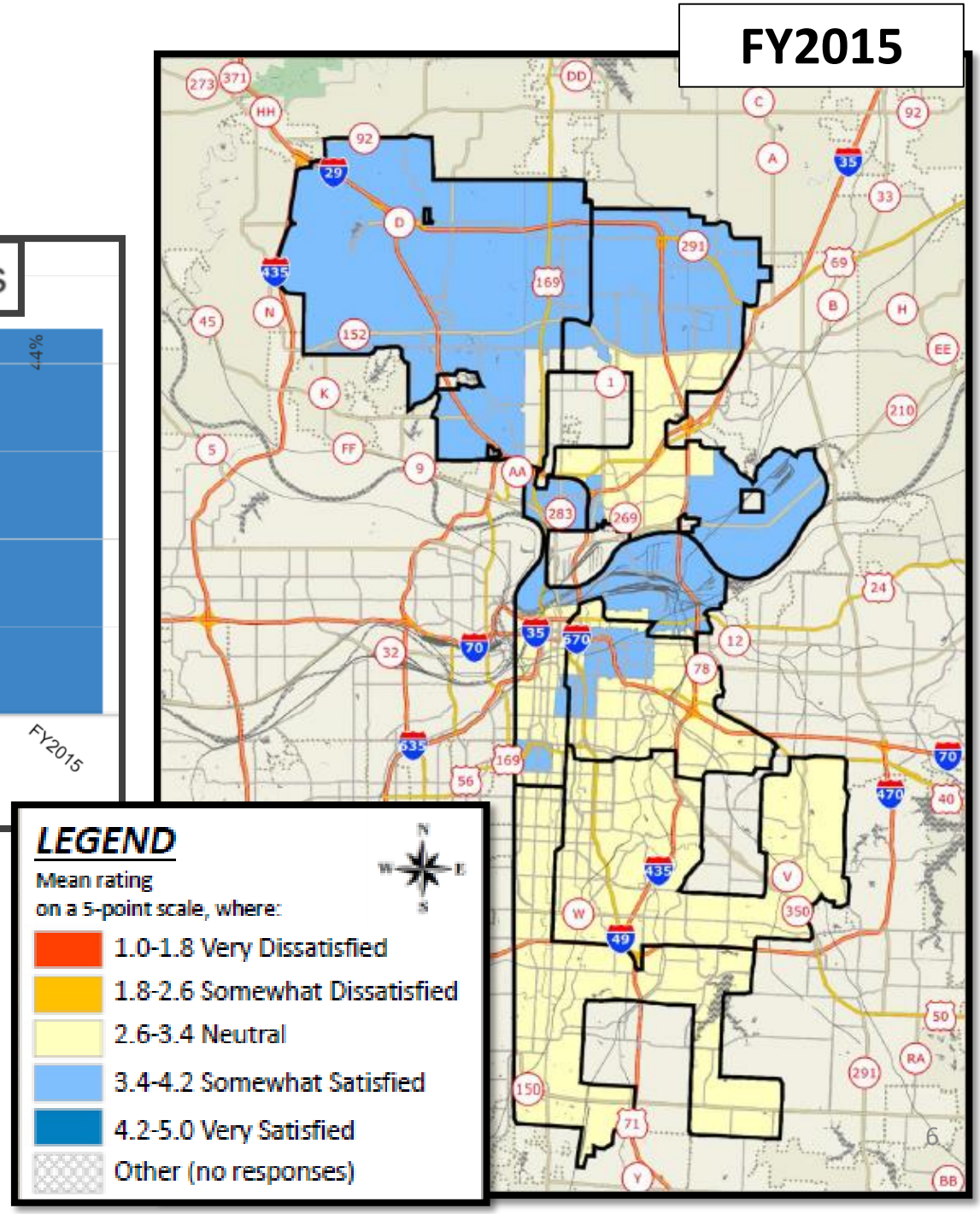
Related Measurements:

- Percent of water main repairs and restorations in 30 days or less
- Citizen satisfaction with sewer/water line break repair

Citizen Satisfaction with timeliness sewer/water line break repair



Satisfaction has increased from 33% in FY2012 to 44% in FY2015



Source: Citizen Survey FY10-FY15 YTD (kcstat.kcmo.org)

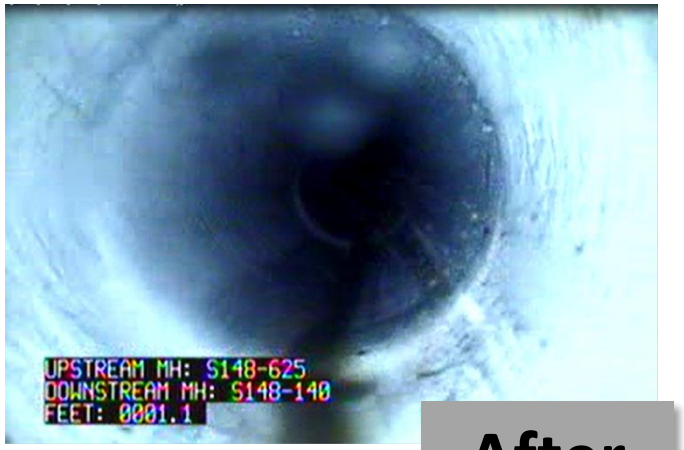
Citywide Water Main Replacement

Fiscal Year	Target	Miles Complete	In Progress
FY12	N/A	37.59 miles	
FY13	N/A	7.37 miles	
FY14	19 miles	16.5 miles	
FY15	28 miles	25.96 miles	
FY16	28 miles	10.3 miles	23.7 miles
Totals	75 miles	97.72 miles	

Source: Water Services

Citywide Sewer Main Rehabilitation

Before



After

Fiscal Year	Target	Miles Complete	In Progress
FY12	N/A	10.48 miles	
FY13	N/A	3.86 miles	
FY14	13 miles	13.05 miles	
FY15	19 miles	20.88 miles	
FY16	28 miles	2.01 miles	26 miles
Totals	60 miles	50.28 miles	

Source: Water Services

Valve Exercising - Program Summary

Accomplished to Date

- 34,231 total inline valves exercised
- 12,104 Work Orders Completed

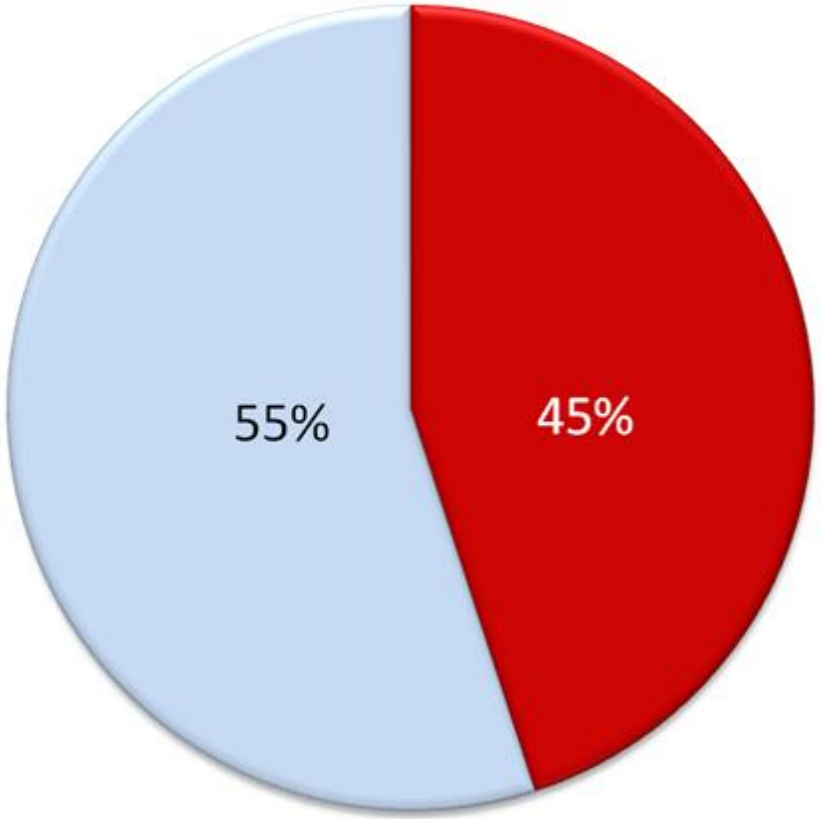
Future Efforts

- Assess remaining 1,736 Line Valves
- Develop Long Term Program

KCMO Valve Operability

Initial Operability

Total Valves: 35,000



2011

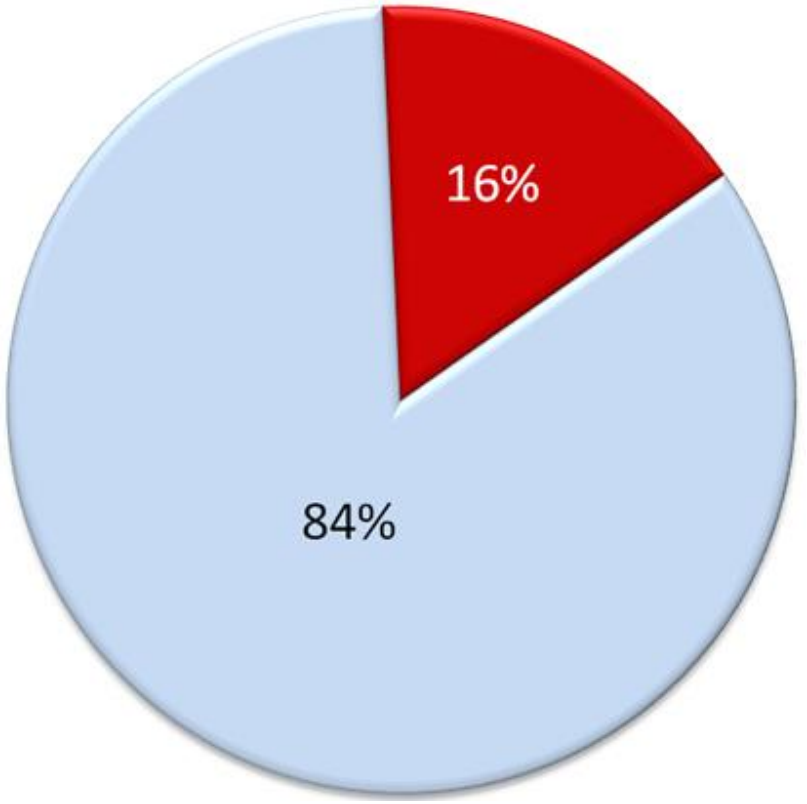
Operable

Inoperable

35% Improvement

Current Operability

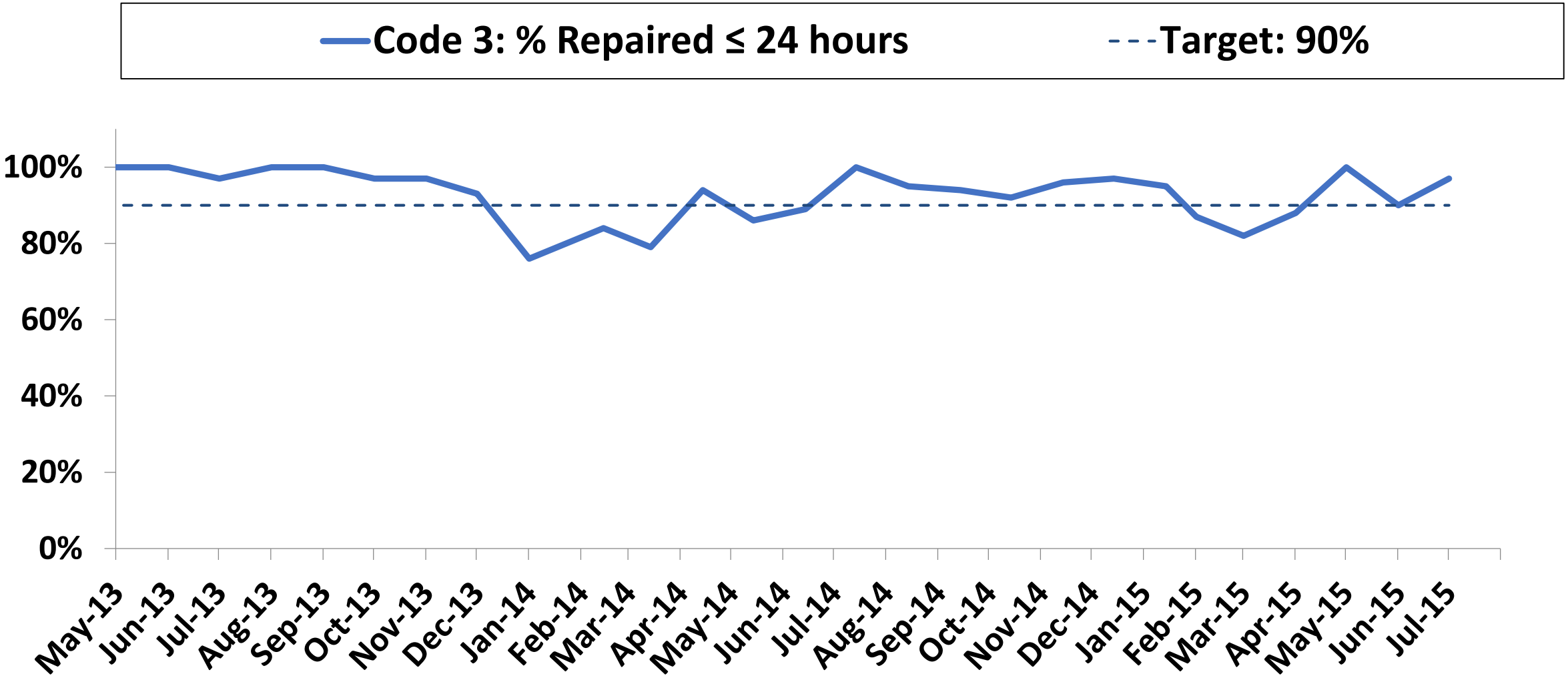
Valves Assessed: 34,231



2016 YTD

Calendar Year

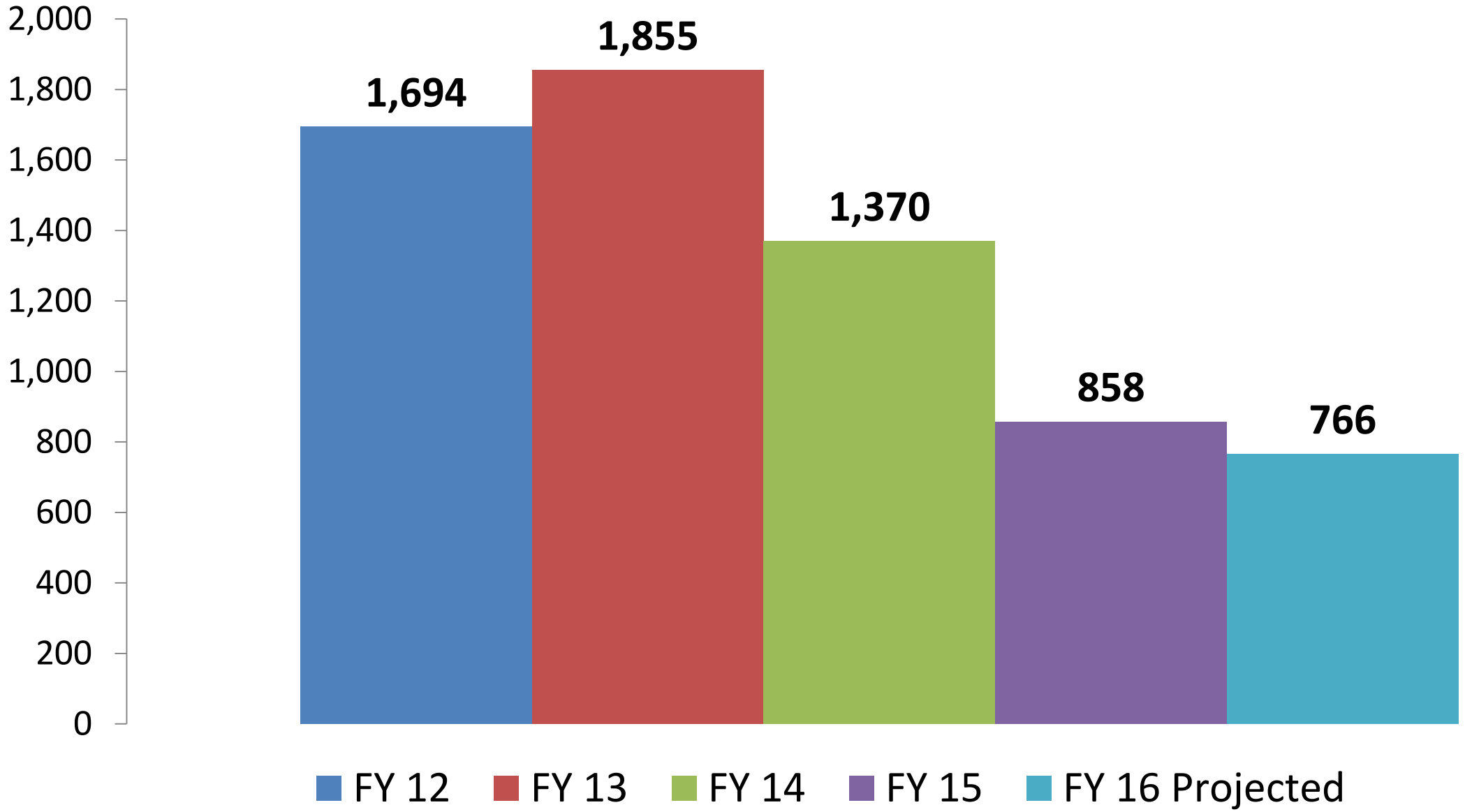
Code 3 Water Main Repairs



*** Target changed for FY15 from 35 days to 30 days.**

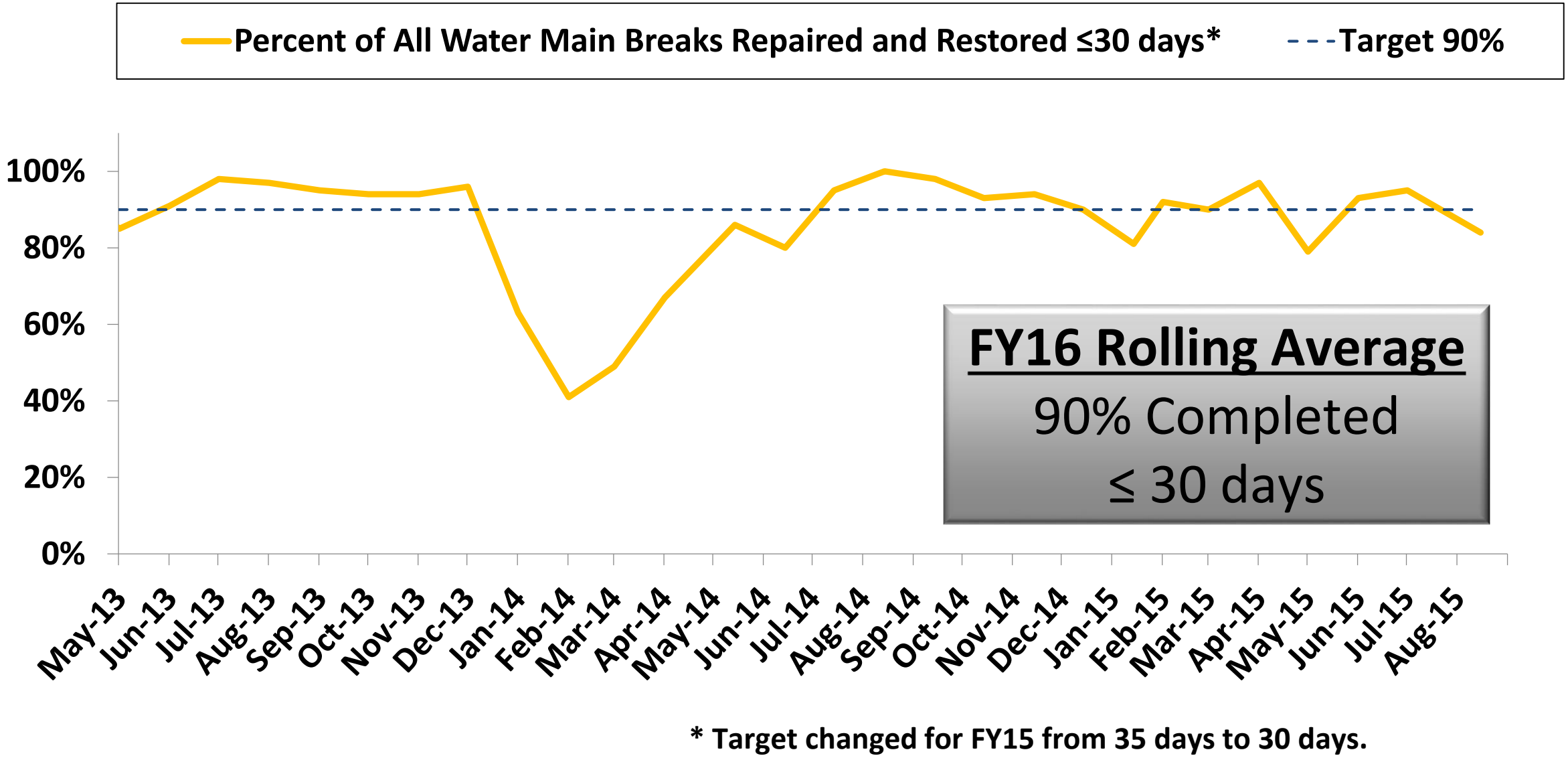
Source: Hansen System, Water Services Department

Main Breaks by Fiscal Year



Source: Hansen System, Water Services Department

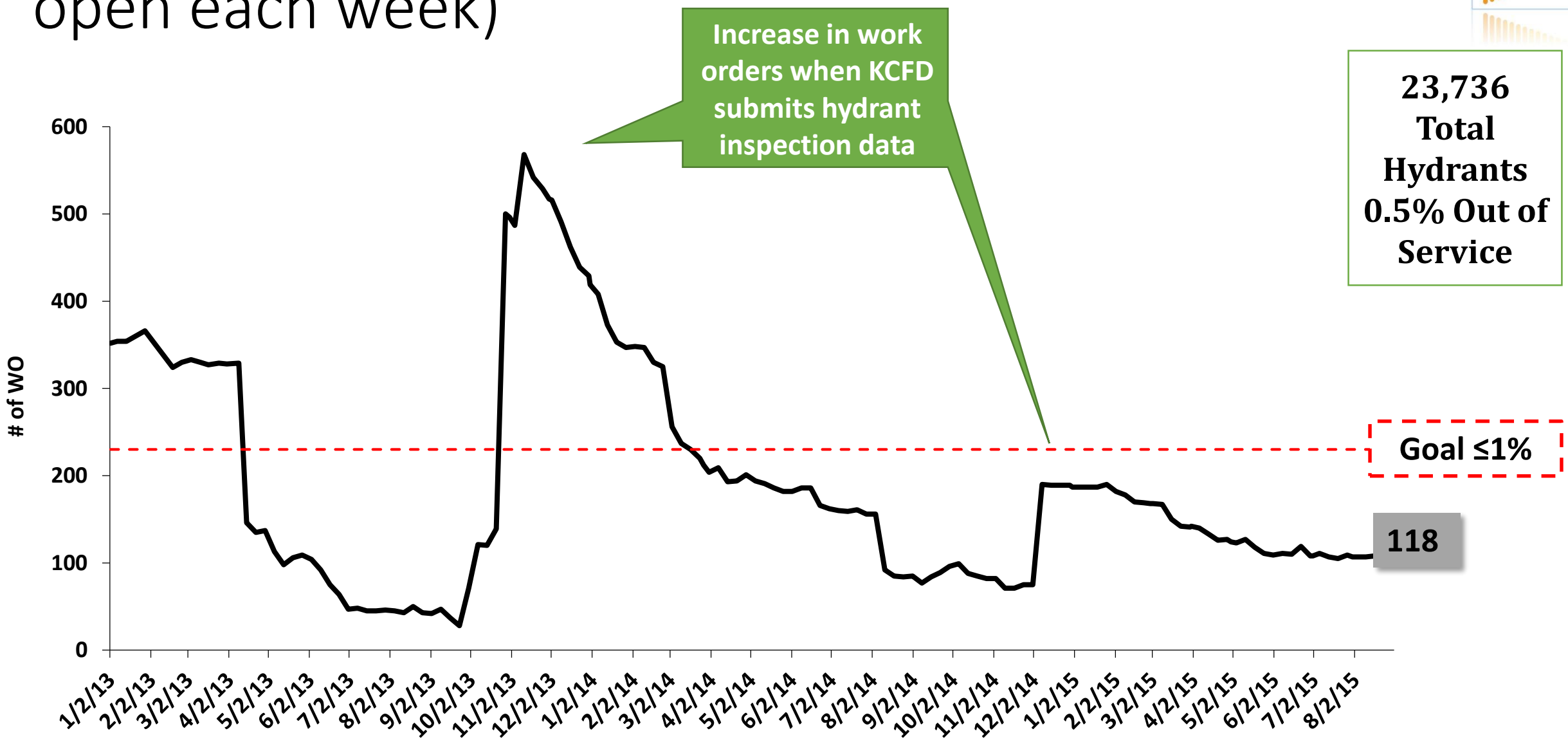
Timeframes for Water Main Repair + Restoration



*** Target changed for FY15 from 35 days to 30 days.**

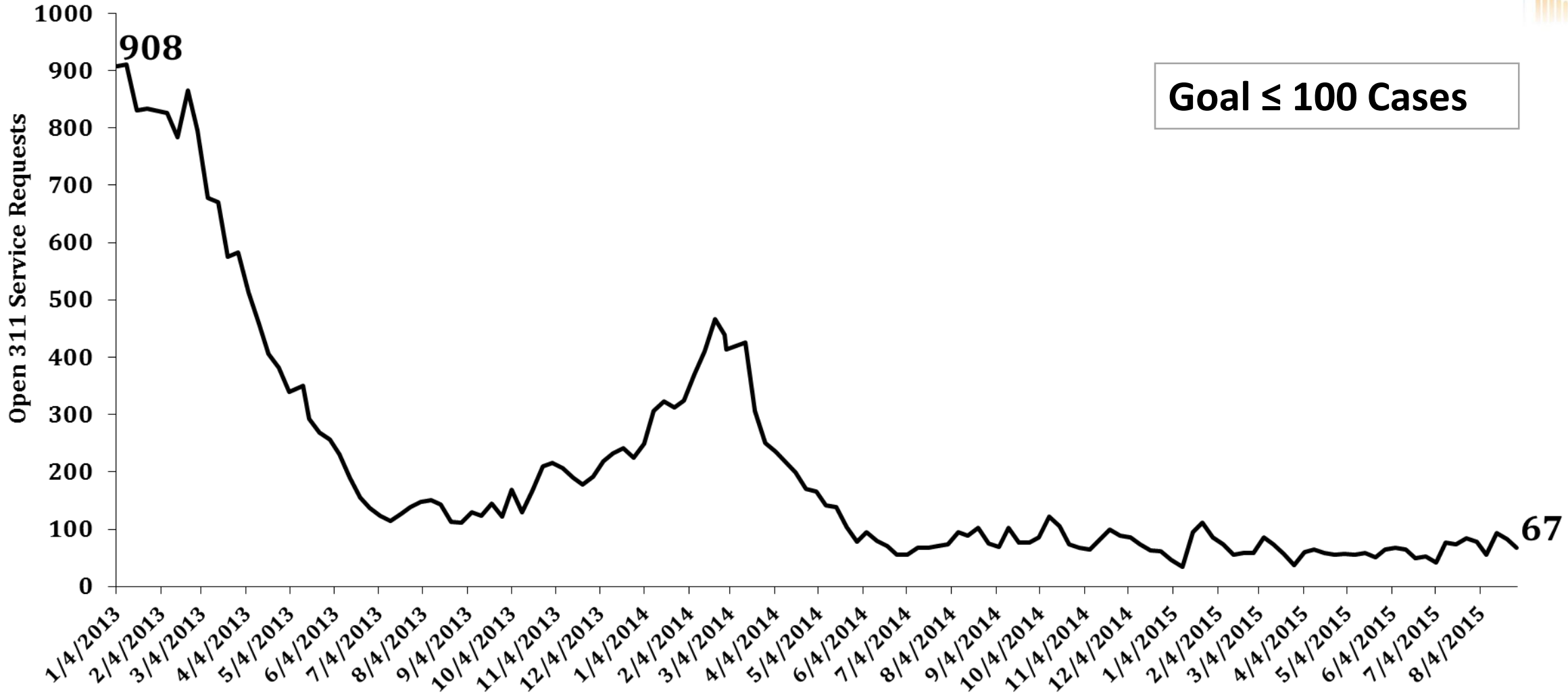
Source: Hansen System, Water Services Department

Inoperable Hydrants (Code 0 Work orders remaining open each week)



Source: Hansen System, Water Services Department

311 service requests for Pipeline remaining open each week



Source: PeopleSoft Customer Relationship Management System, Water Services Department

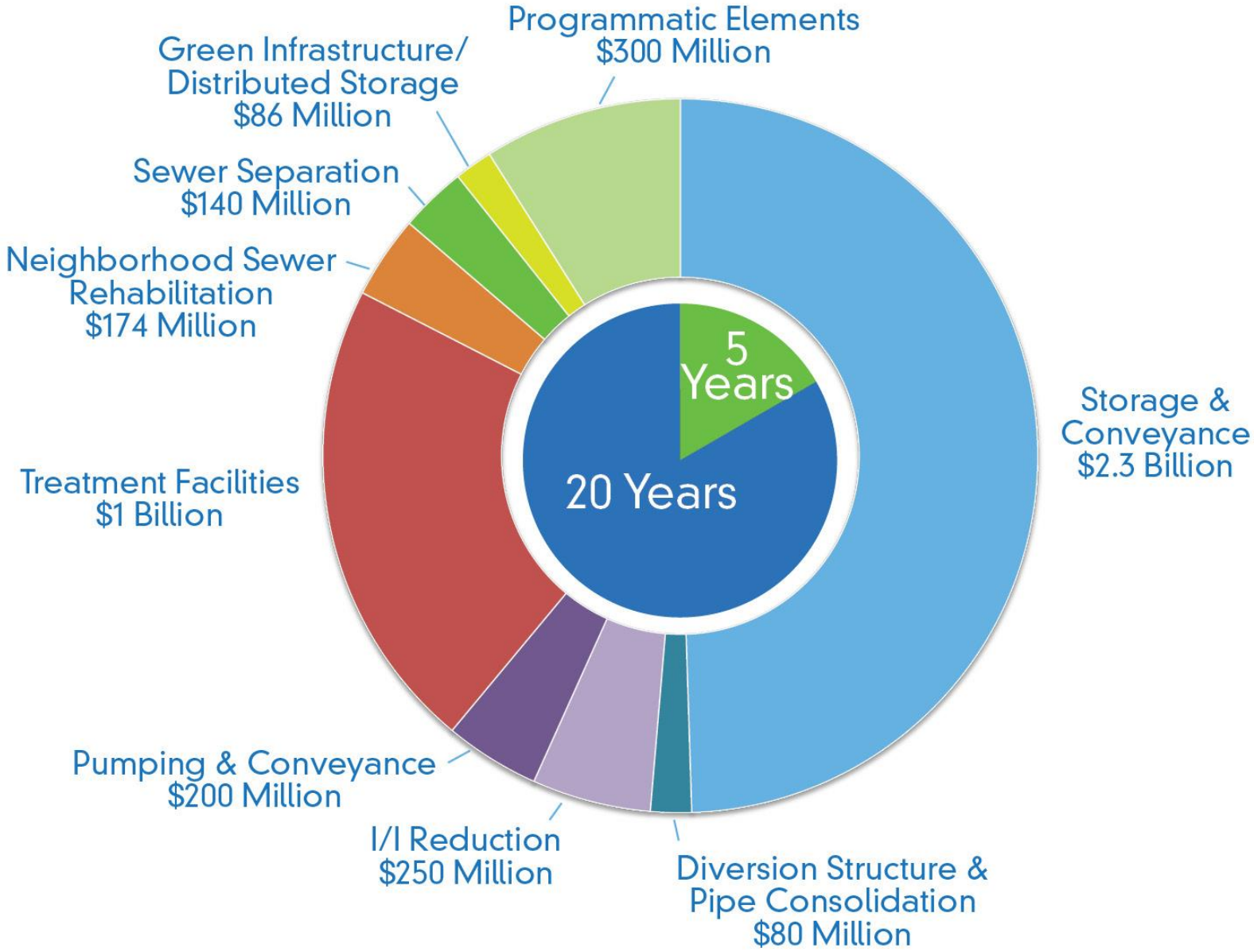
Objective:

Execute consent decree requirements for the overflow control program.

Related Measurements:

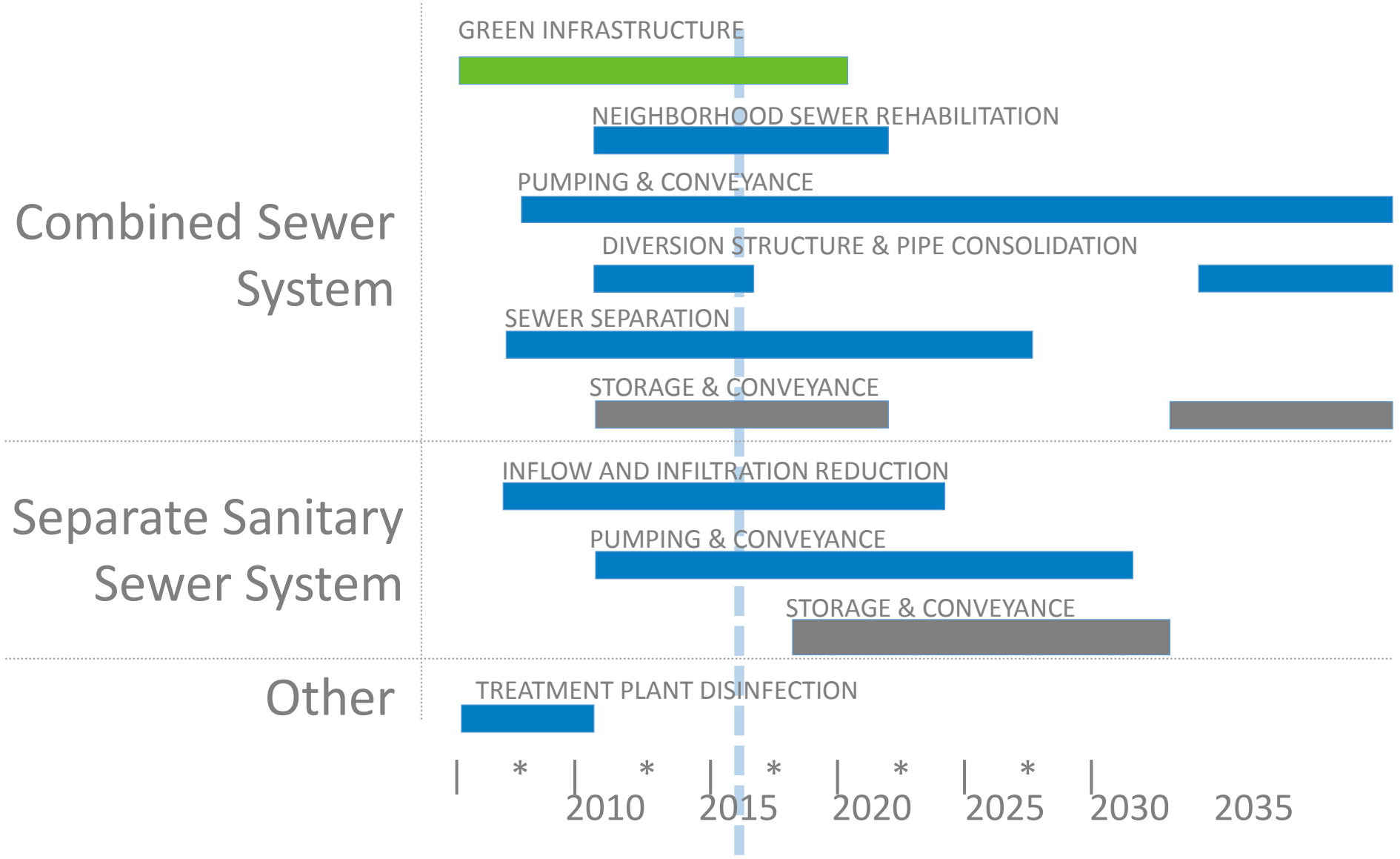
- Project spending
- Combined sewer overflow volume
- Inflow and infiltration volume

Overflow Control Program Overview - $4.5-$5 BILLION

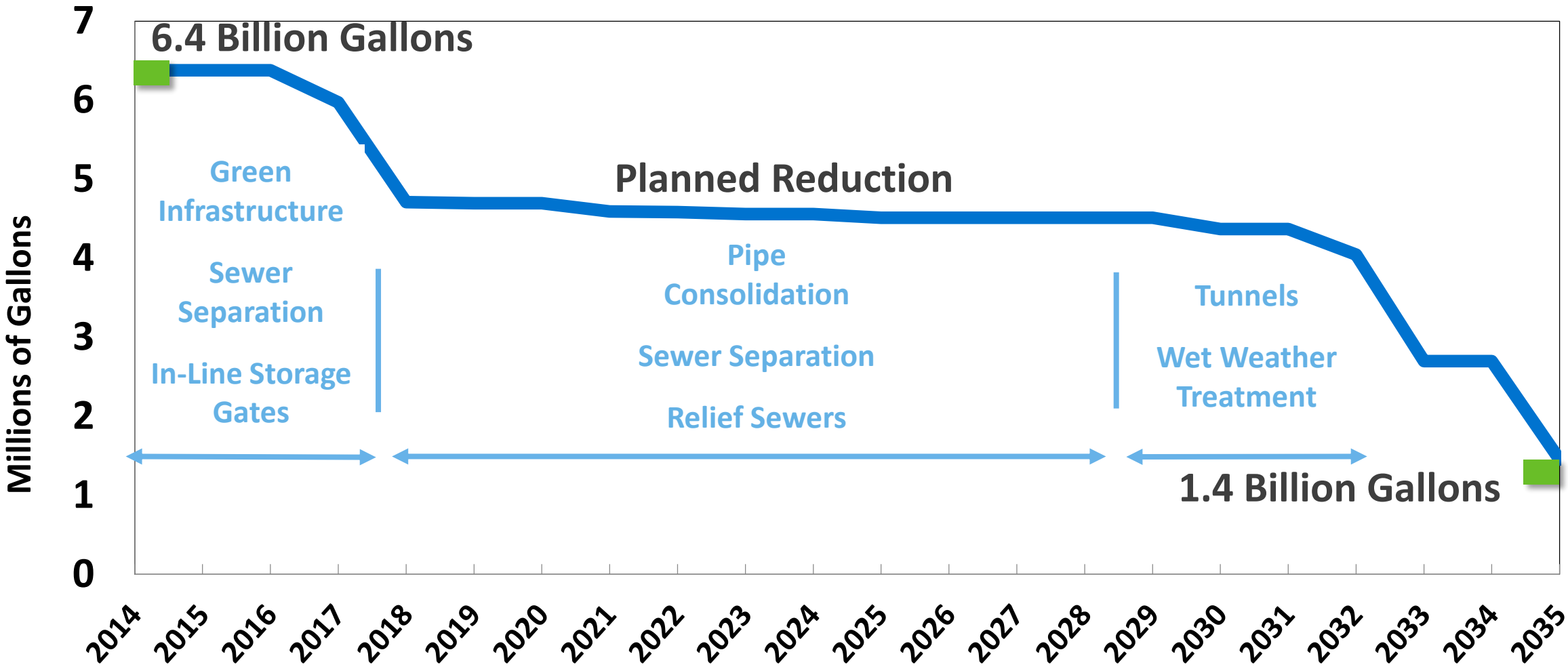


Source: Water Services Department

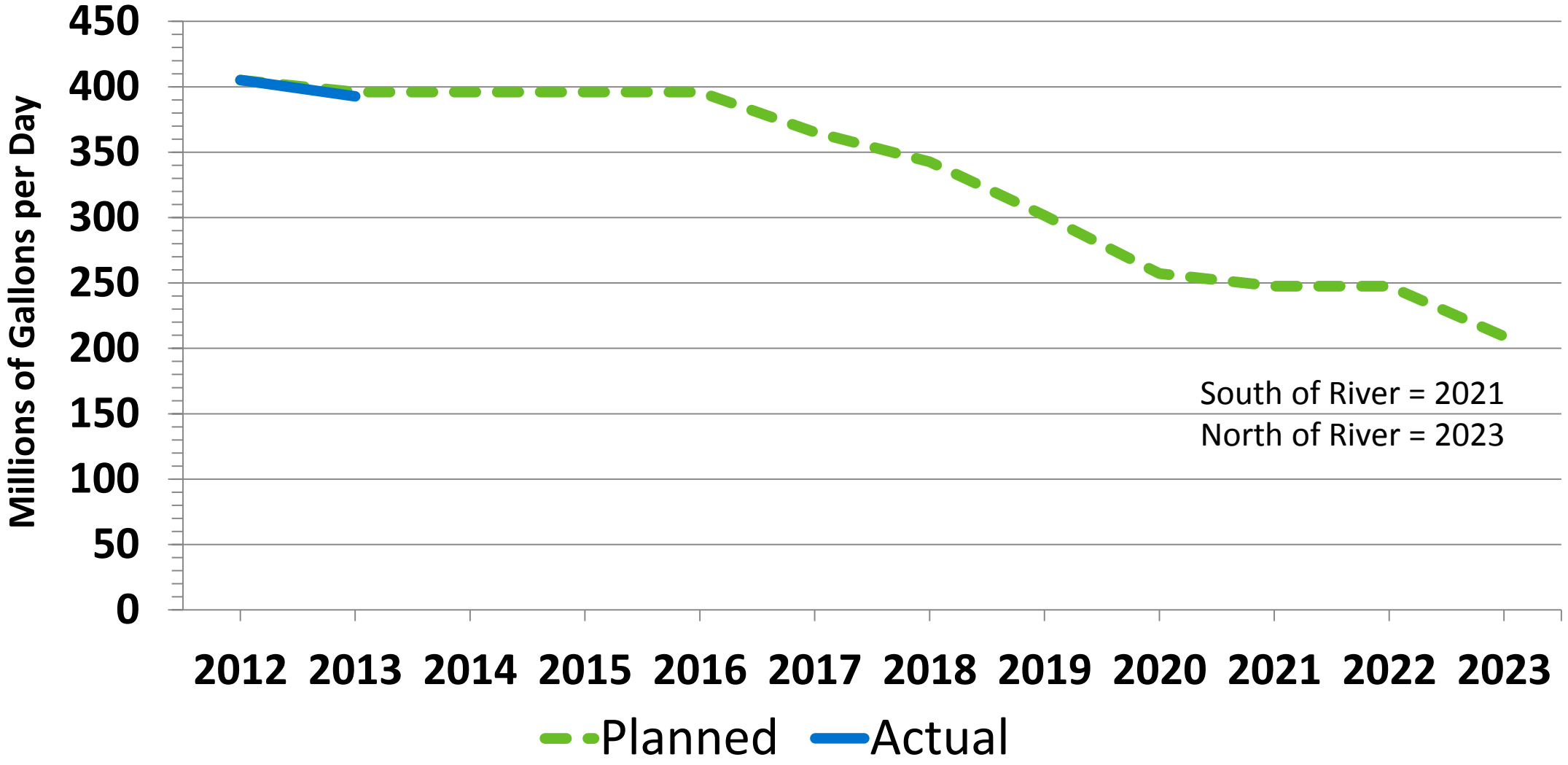
Program Implementation - Schedule



Annual Combined Sewer Overflow Volume



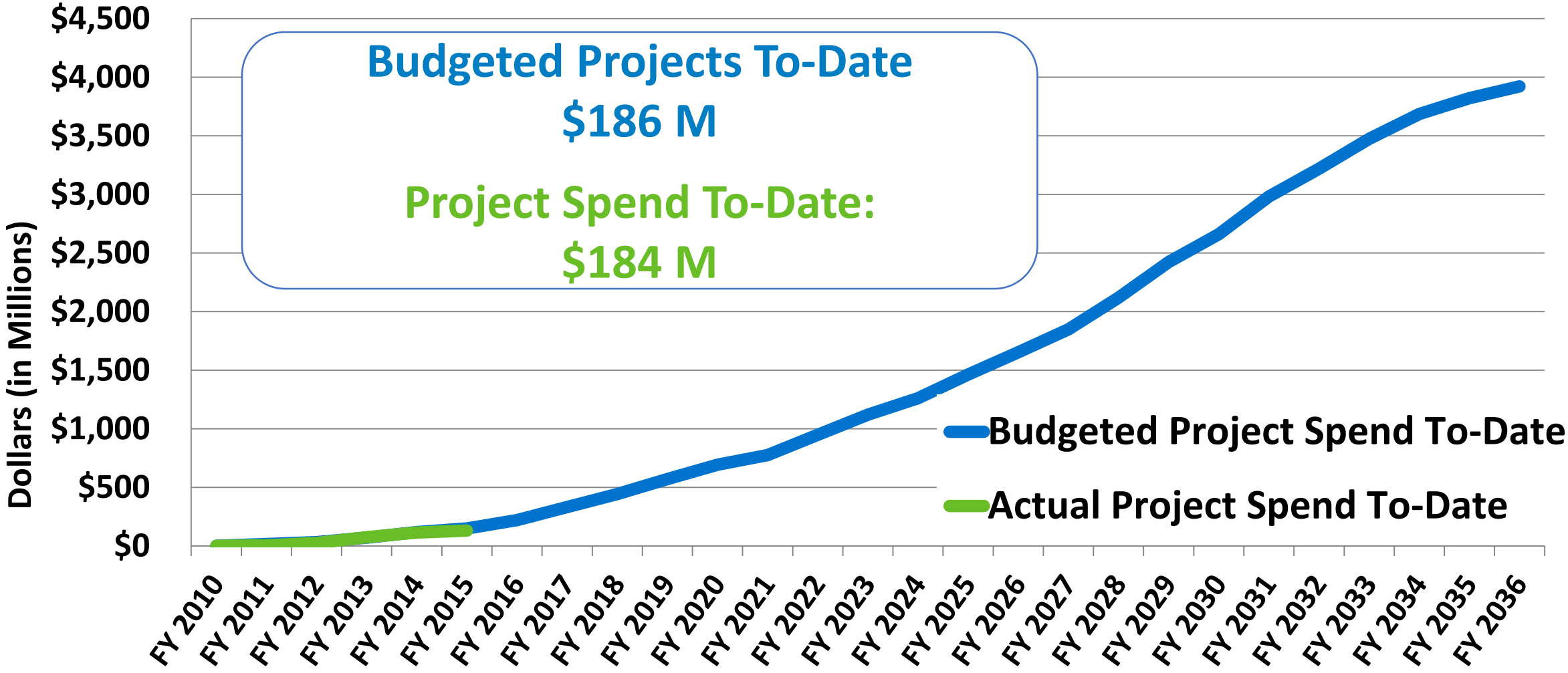
Inflow/Infiltration 5-Year, 24-Hour Storm Event



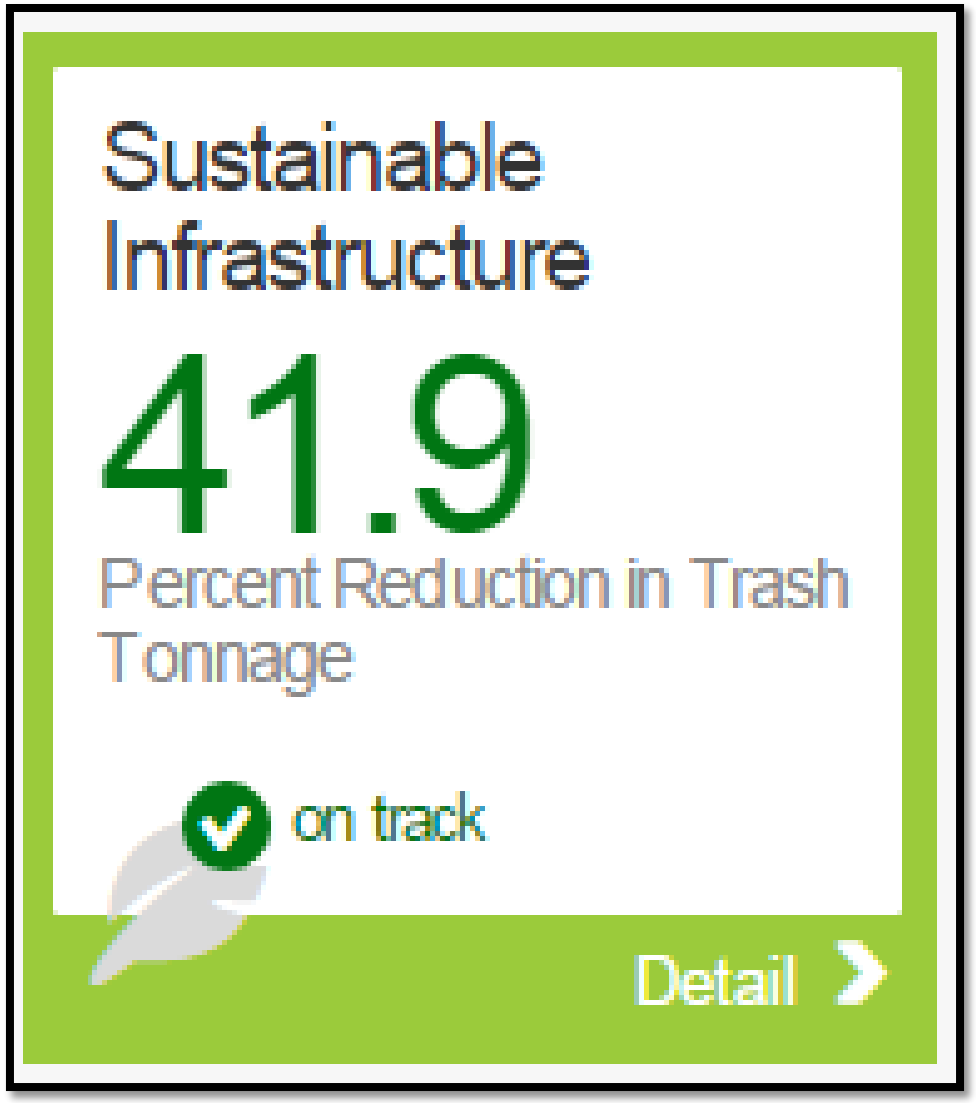
Project Status Update – Active Projects

Project Type	Project Amount
Diversion Structure & Sewer Pipe Consolidation	$1,179,000
Green Infrastructure	$5,127,400
Inflow/Infiltration Reduction	$7,133,101
Neighborhood Sewer Rehabilitation	$21,473,000
Pumping & Conveyance	$38,402,500
Storage & Conveyance	$670,700
	Total: $76,163,900

Cumulative OCP Investment: 2010-2035



TOPIC AREA: Sustainable infrastructure



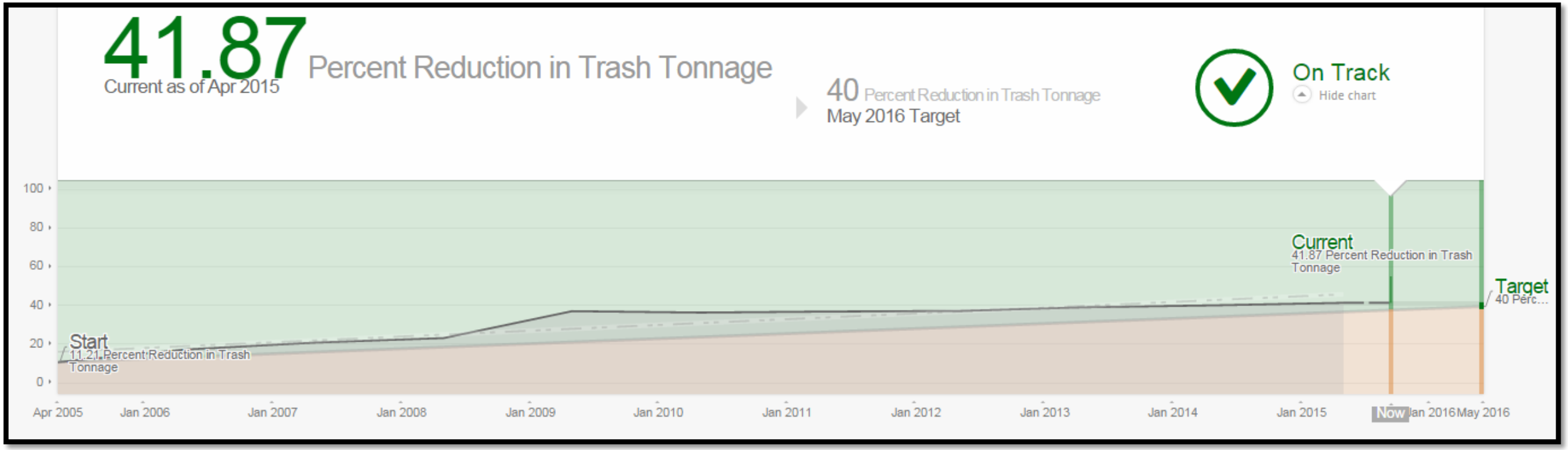
Objective:

Increase the recycling rate through policies and programs that promote recycling.

Related Measurements:

- Reduction in trash tonnage
- Recycling participation
- Tonnage of trash and recycling collected

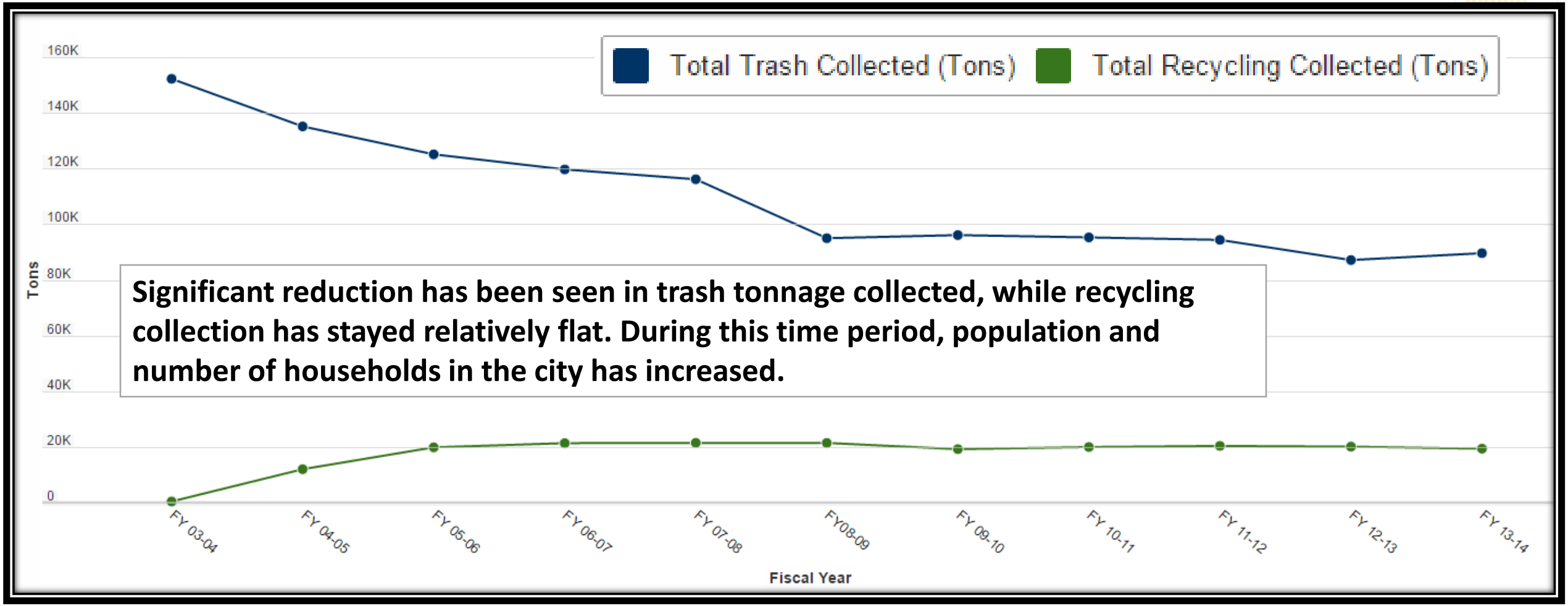
Reduction in Trash Tonnage Compared to FY03-04



This shows the percent reduction in trash tonnage for the most recent year (FY14-15) as compared to the base year of FY03-04

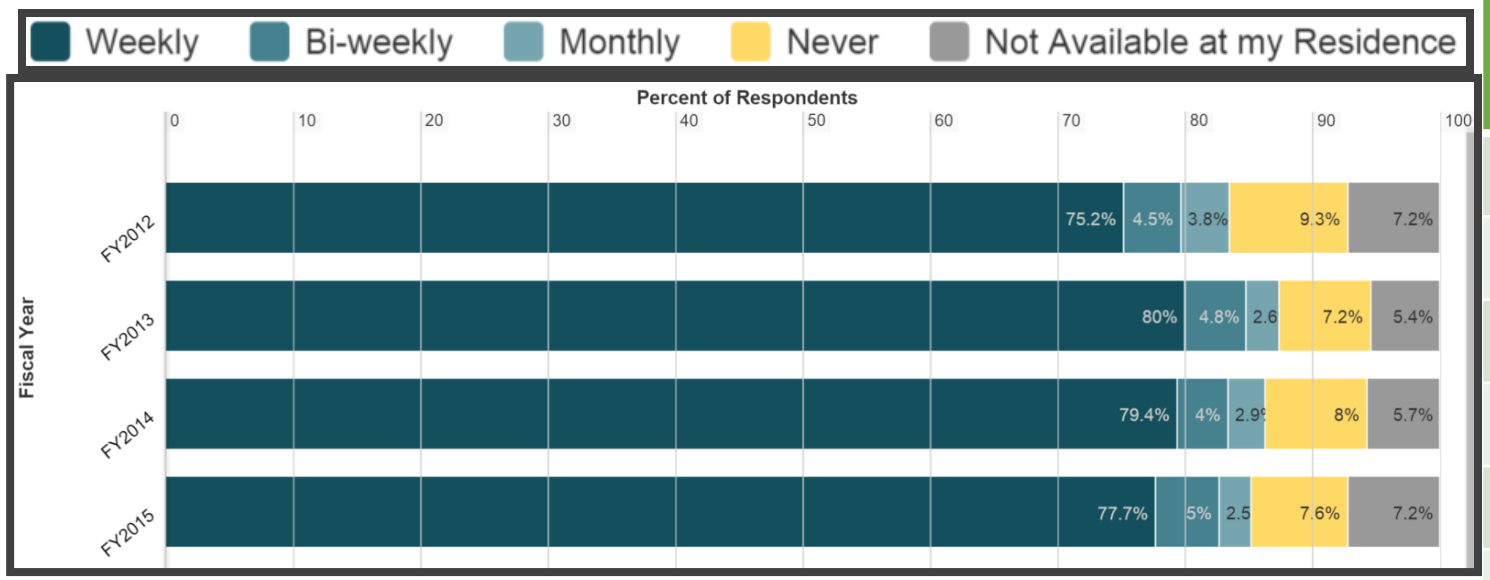
Source: Public Works Solid Waste (kcstat.kcmo.org)

Tonnage of Trash and Recycling Collected



Source: Public Works Solid Waste (kcstat.kcmo.org)

Curbside Recycling Participation



FY15 Citizen Survey: Recycling Participation by Council District

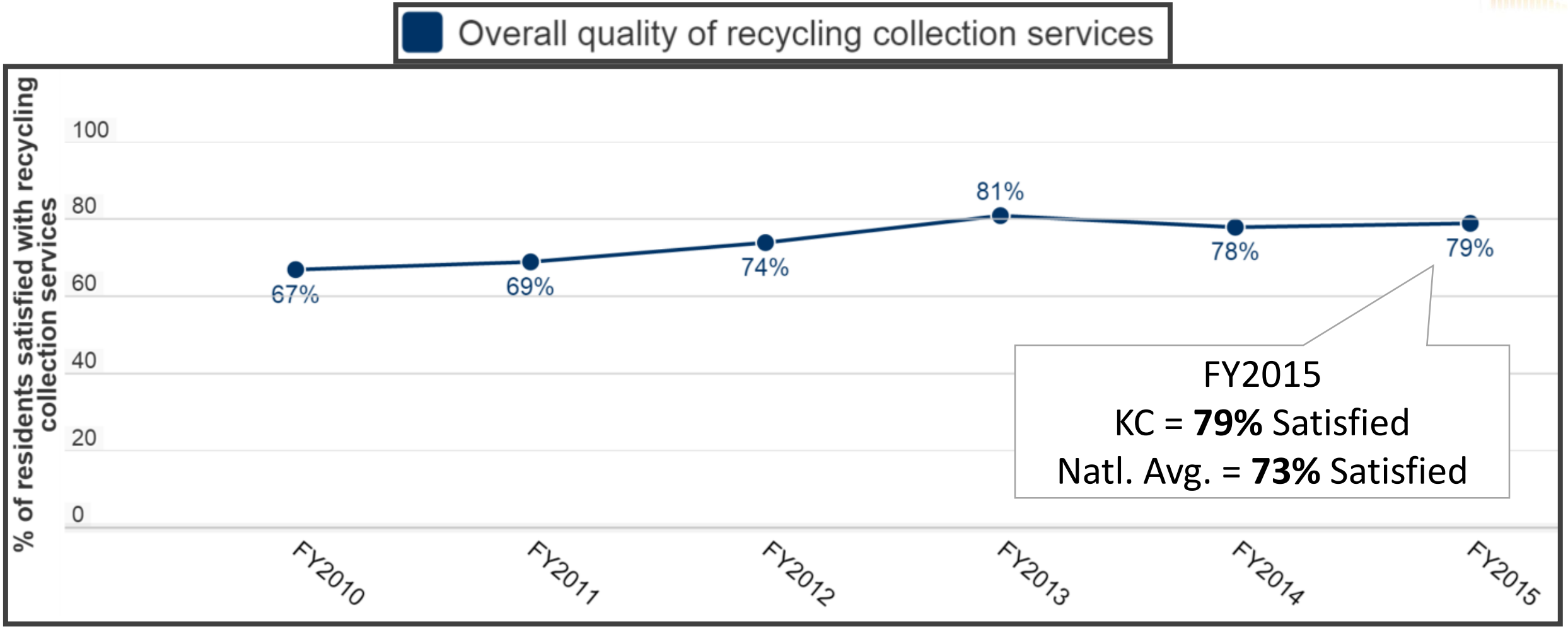
Council District	% Weekly	% Never	% Not available
1st	83%	6%	4%
2nd	84%	4%	6%
3rd	68%	13%	10%
4th	73%	6%	13%
5th	73%	12%	6%
6th	85%	6%	4%

FY15 Citizen Survey: Recycling Participation by Owner/Renter

Renter v. Owner	% Weekly	% Never	% Not available
Owner	85%	5%	3%
Renter	48%	17%	25%

Source: Citizen Survey FY12-FY15

Citizen Satisfaction with Curbside Recycling Services



Source: Citizen Survey FY10-FY15 YTD (kcstat.kcmo.org)

Upcoming Recycling Events

National Drug Take-Back Day

September 26, 2015

10:00 am – 2:00 pm

Location: 3215 Main Street

Special Recycling Events

Hard-to-Recycle Items Collection

November 14, 2015

8:00 am – 12:00 pm

Location: 1320 Truman Road (across from Manual Tech)

Recycling Drop-off Centers:

North	South	Environmental Campus
Metro North Mall 400 NW Barry Road (northwest parking lot)	5630 E. Bannister Road	4707 Deramus Blvd
Hours of operation for all centers: Wednesday through Saturday, 9 am to 5 pm		

Recycling at Community Centers

- Solid Waste has partnered with the Parks and Recreation Department to provide single-stream recycling services at the following community centers:

Southeast – 4201 E. 63rd Street
Gregg Klice – 1600 E. 17th Terrace
Brush Creek – 3801 Emanuel Cleaver Boulevard
Hillcrest – 10401 Hillcrest Road
Aguire – 2050 W Pennway Terrace
Westport/Roanoke – 3601 Roanoke
Line Creek – 5940 NW Waukomis Drive
KC North – 3830 NE Antioch
The Bay Water Park– 7101 Longview Road
Clark Kettleman – 8049 E. 107th Street
Soccer Field - 4835 E. 9th Street
Loose Park – 5200 Summit Street
The Springs Water Park – 9400 NW Congress Avenue

Objective:

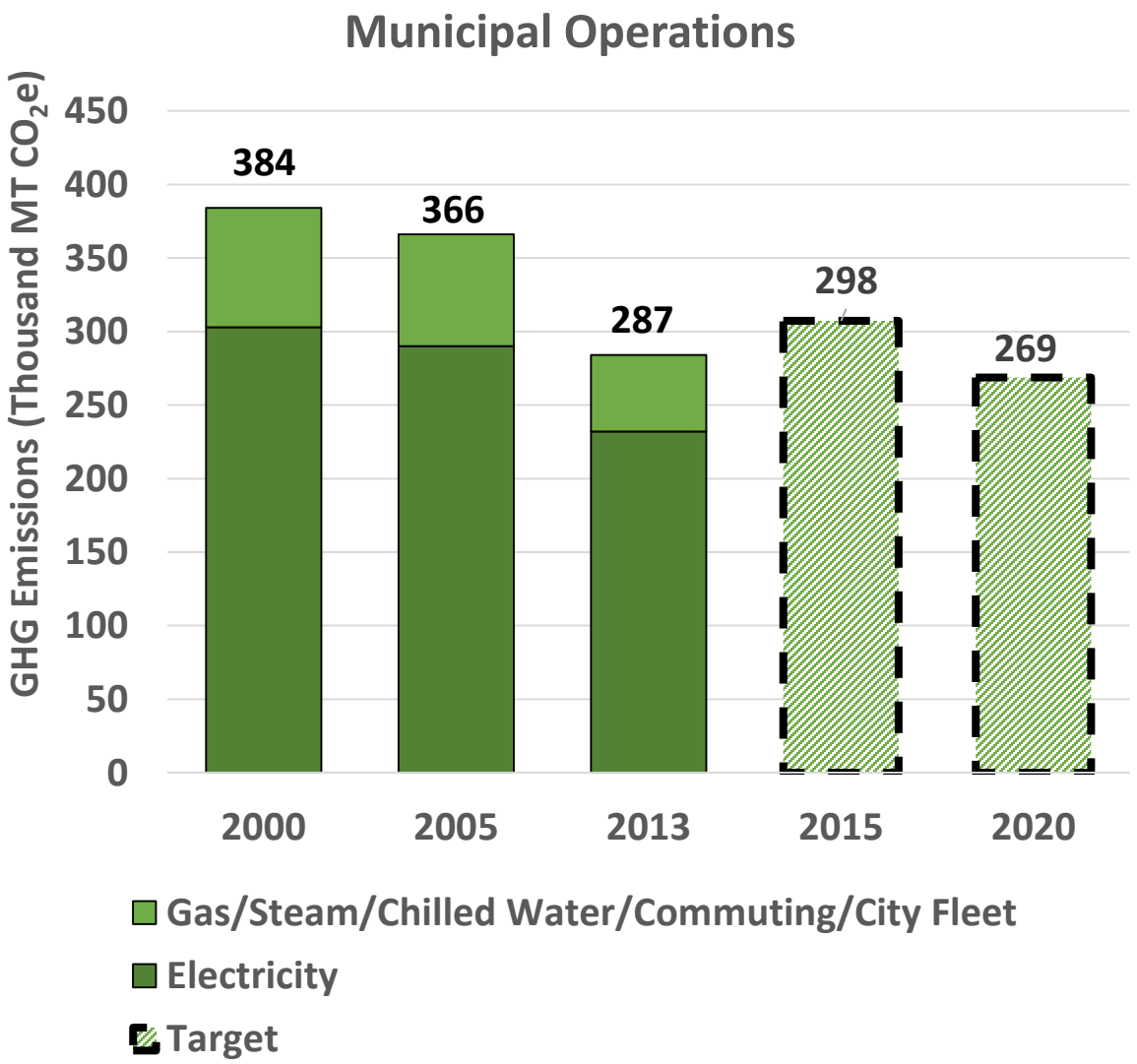
Implement the City Energy project to promote energy efficient improvements

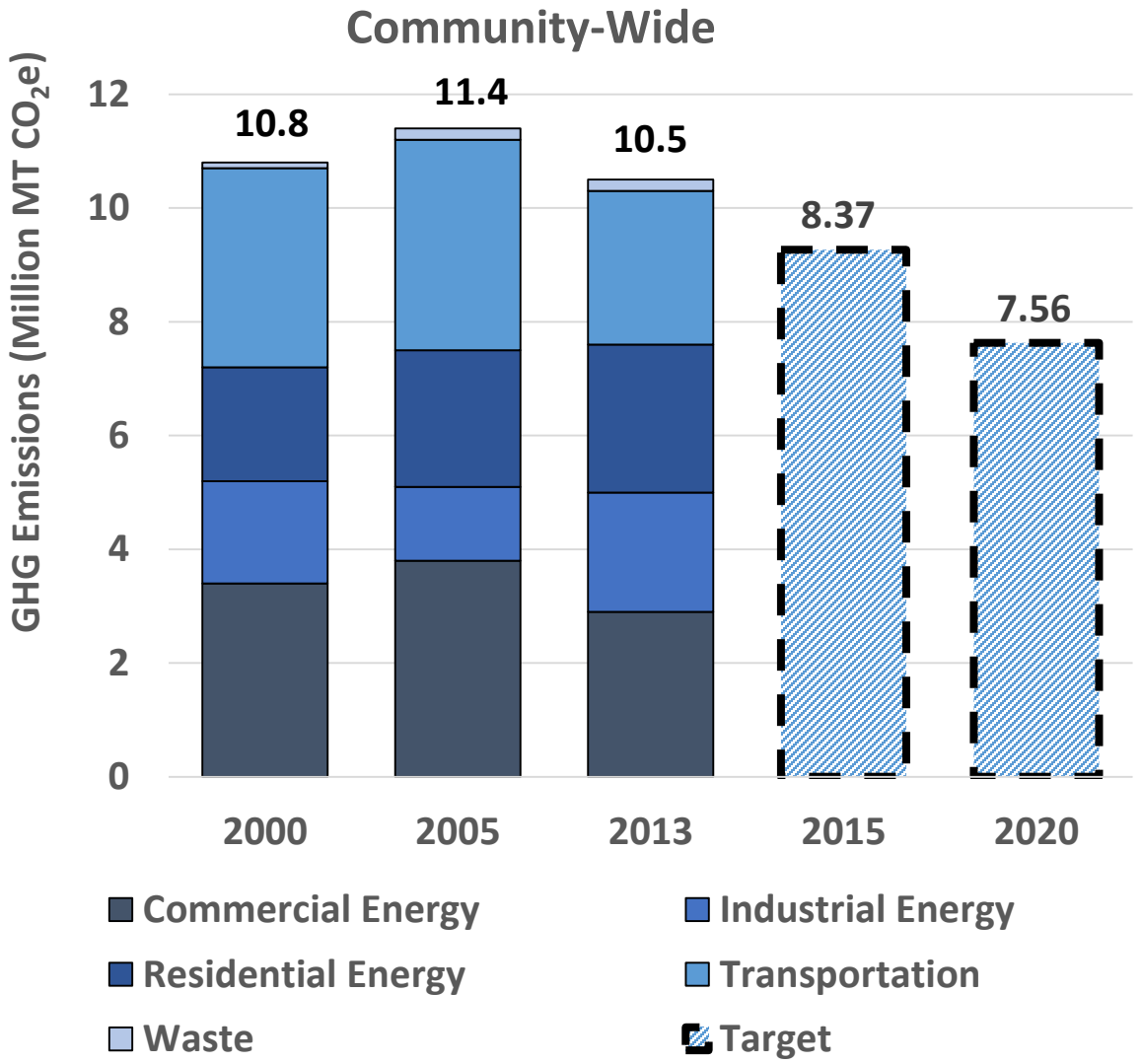
Related Measurements:

- Percent reduction in greenhouse gas emissions (city and community)

Greenhouse Gas Emissions

Goal of 30% reduction by 2020





Source: Greenhouse Gas Inventory

City Energy Project

Mayor James' Energy Challenge

- 2014 challenge completed in April with 175 participants
- 2016 Challenge invites buildings to increase their 2016 energy efficiency over 2014 baseline
- Related Energy Challenges: promoting energy efficiency in affordable multi-family housing and KCMO fire stations

Outreach and Education

- Monthly workshops provided on benchmarking and energy efficiency
- Business Case for Energy Efficiency (case study series)

Supporting the Local Economy

- USGBC Central Plains Chapter hosts database of local energy efficiency consultants and contractors
- Annual Speed Greening Network event introduces building owners and managers to local service providers

Energy Empowerment Ordinance

- Ordinance #150299, adopted 6/4/15
- Requires large commercial, institutional , industrial, and multi-family buildings in KC to benchmark energy and water use annually and report results

Kansas City Energy Project Advisory Committee (CEPAC) provides input on design and implementation of activities to improve energy efficiency in large commercial/institutional buildings

Energy Empowerment Ordinance

Must report beginning May 1, 2016

Must report beginning May 1, 2017

Must report beginning May 1, 2018

City buildings > 10,000 sq. ft.

Non-city buildings > 100,000 sq. ft.

Non-city buildings > 50,000 sq. ft.

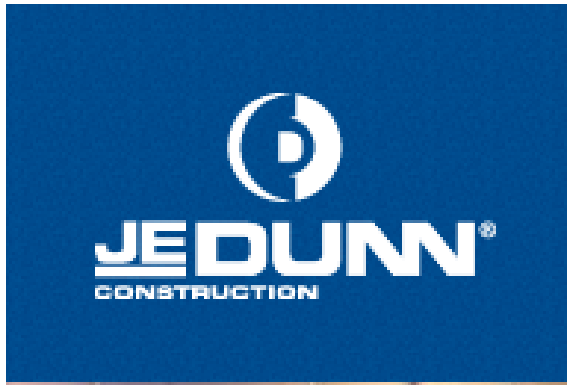
Approximately 1,500 buildings (3% of non-single family buildings)

376 million sq. ft. of floor space (67% of non-single family building floor space)

47% = located in CD4

53% = evenly divided between other CDs

Example of Model Private Corporation



- Is a valued member of the City Energy Project Advisory Committee
- Participated in the 2014 Mayor's Energy Challenge & benchmarked energy use in its LEED Gold-certified corporate HQ building, using ENERGY STAR Portfolio Manager
- Achieved an ENERGY STAR score of 75 and received ENERGY STAR certification in 2014
- Is applying lessons learned from their energy benchmarking & energy efficiency work in KC to buildings they own in other cities
- Continues to assess opportunities to make additional cost-effective energy efficiency improvements to their corporate HQ

Objective:

Implement the Envision Sustainable Infrastructure Rating System in all infrastructure planning and projects to maximize sustainable development solutions.

Related Measurements:

TO BE DETERMINED

Institute for Sustainable Infrastructure (ISI): Envision

Envision™ provides a holistic framework for evaluating and rating the community, environmental, and economic benefits of all types and sizes of infrastructure projects. It evaluates, grades, and gives recognition to infrastructure projects that use transformational, collaborative approaches to assess the sustainability indicators over the course of the project's life cycle.

60 Credits in 5 Categories

QUALITY OF LIFE	Purpose, Community, Wellbeing
LEADERSHIP	Collaboration, Management, Planning
RESOURCE ALLOCATION	Materials, Energy, Water
NATURAL WORLD	Siting, Land and Water, Biodiversity
CLIMATE AND RISK	Emission, Resilience

Progress on Envision

Incorporation of the ENVISION system principles into new infrastructure projects.

City Engineering staff from WSD, PW, and Parks continue to seek certification

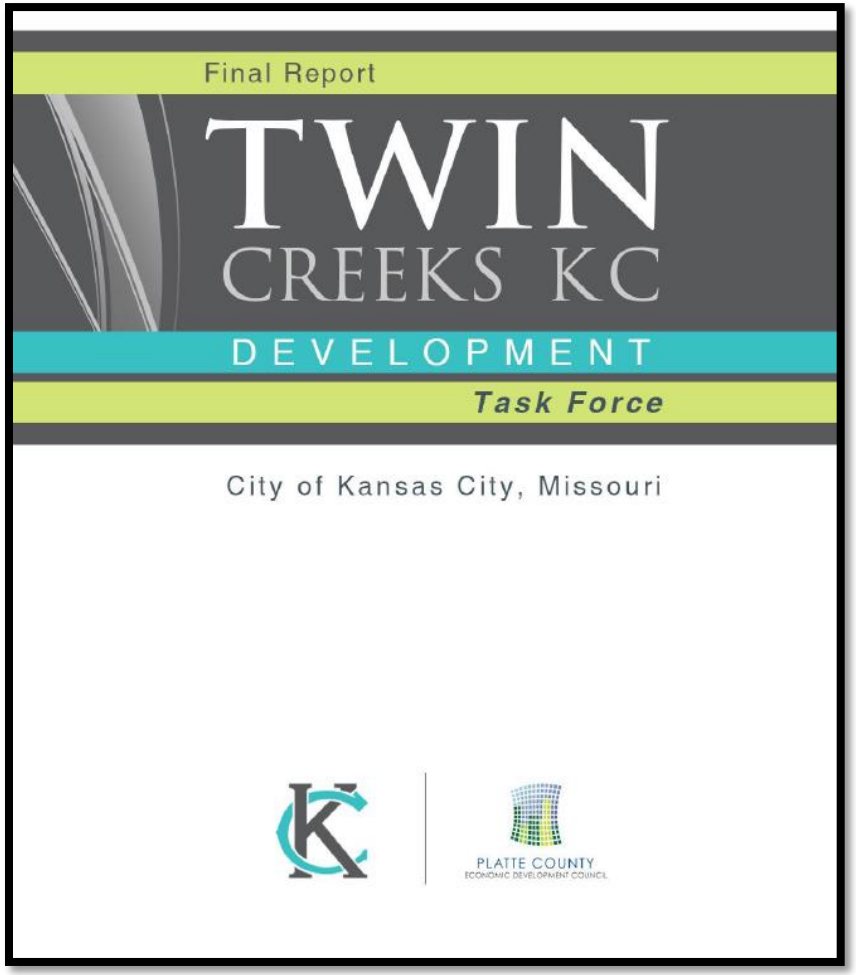
Plans for future: apply for ENVISION awards for select project; consider formal incorporation into policies/ordinances

Objective:

Create a plan to implement strategic infrastructure investments in the Twin Creeks area that capitalize on natural features, promotes unique development patterns, builds civic space, and promotes sustainable design and construction.

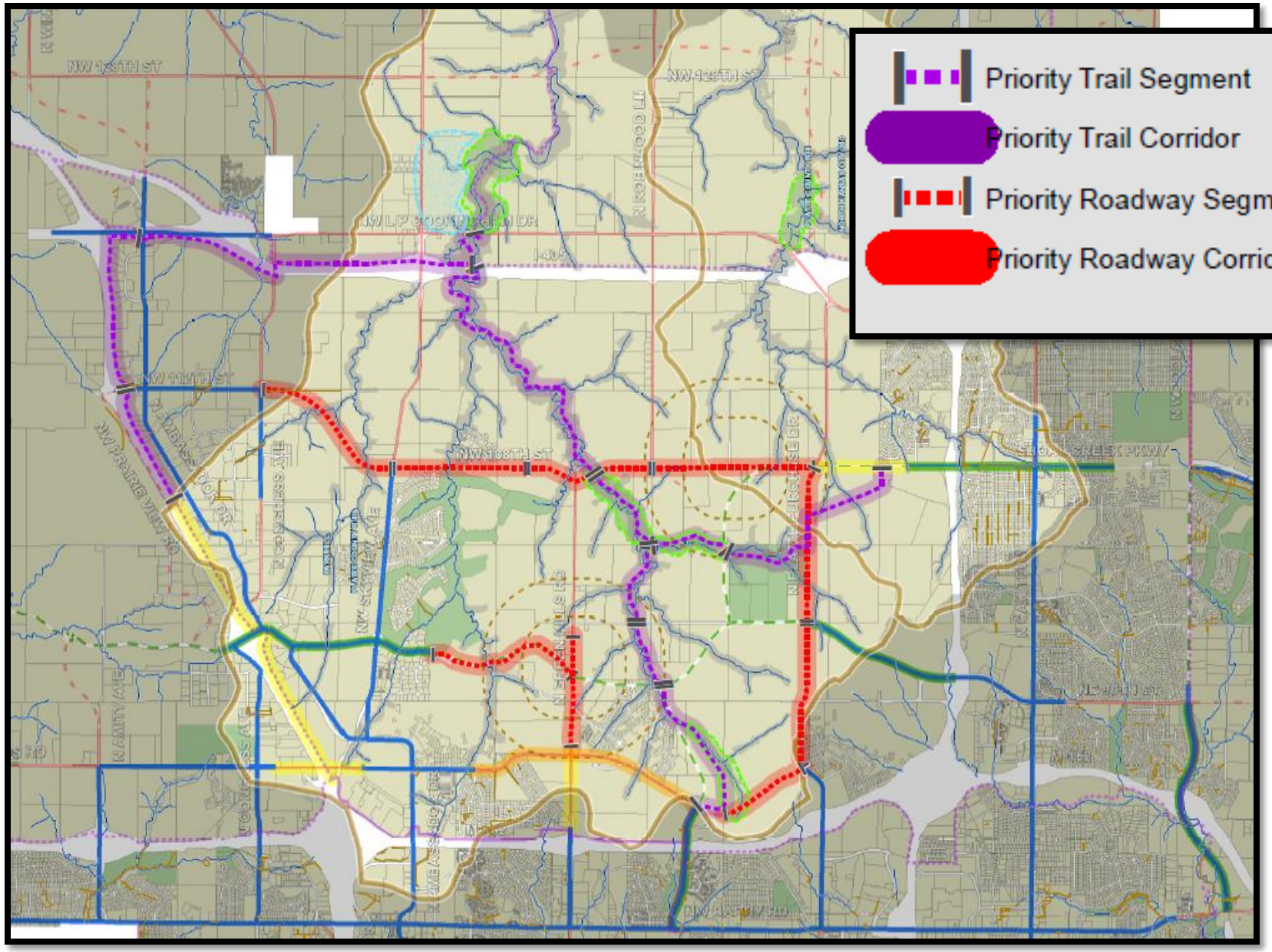
Related Measurements:
TO BE DETERMINED

Twin Creeks Task Force Report



- Three working groups formed to formulate recommendations: Infrastructure & Funding, Land Use, and Land Owners. Fourth working group, Destination Opportunities, was not activated.
- Report issued in June 2015 after two years of study.
- Staff is working with stakeholders to implement recommendations, including:
  - Development of a linear park system/community amenity
  - Amending the future land use recommendations of the KCI and Gashland/Nashua Area Plans
  - Develop stormwater modeling for the area

Twin Creeks: Targeted Projects



Next steps: Interdepartmental working group is identifying action items for priority project areas

TOPIC AREA: Infrastructure Maintenance

Objective:

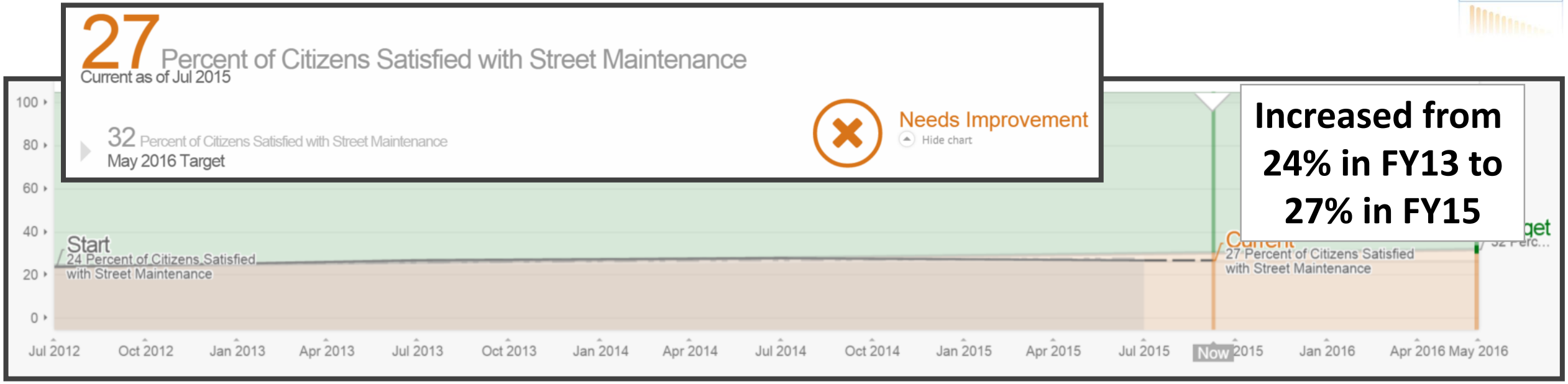
Determine investment to maintain all city infrastructure assets to maximize useful life

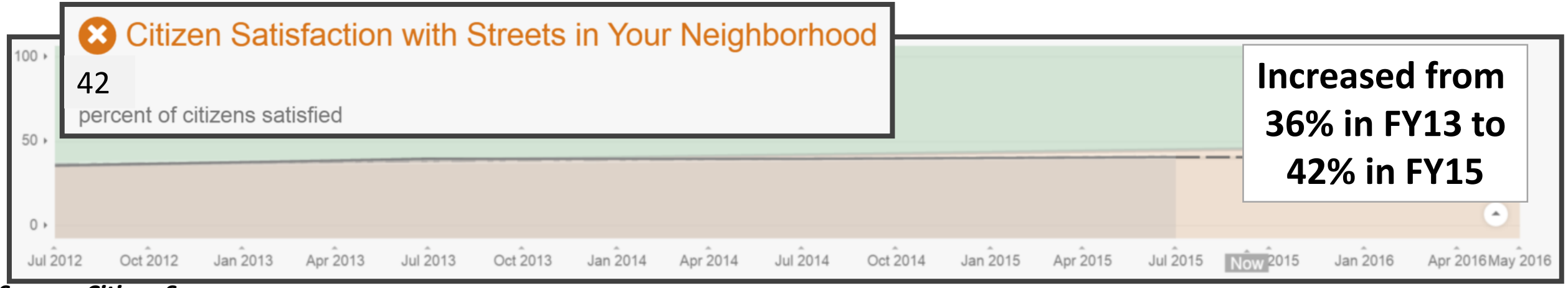
a) Set short-term and long-term priorities.
b) Improve the street condition measurement system and develop an agreed upon pavement condition index (PCI).
c) Develop a strategic plan to address the bridge repairs and replacements.

Related Measurements:

- Pavement condition index
- Percent of citizens satisfied with maintenance of streets

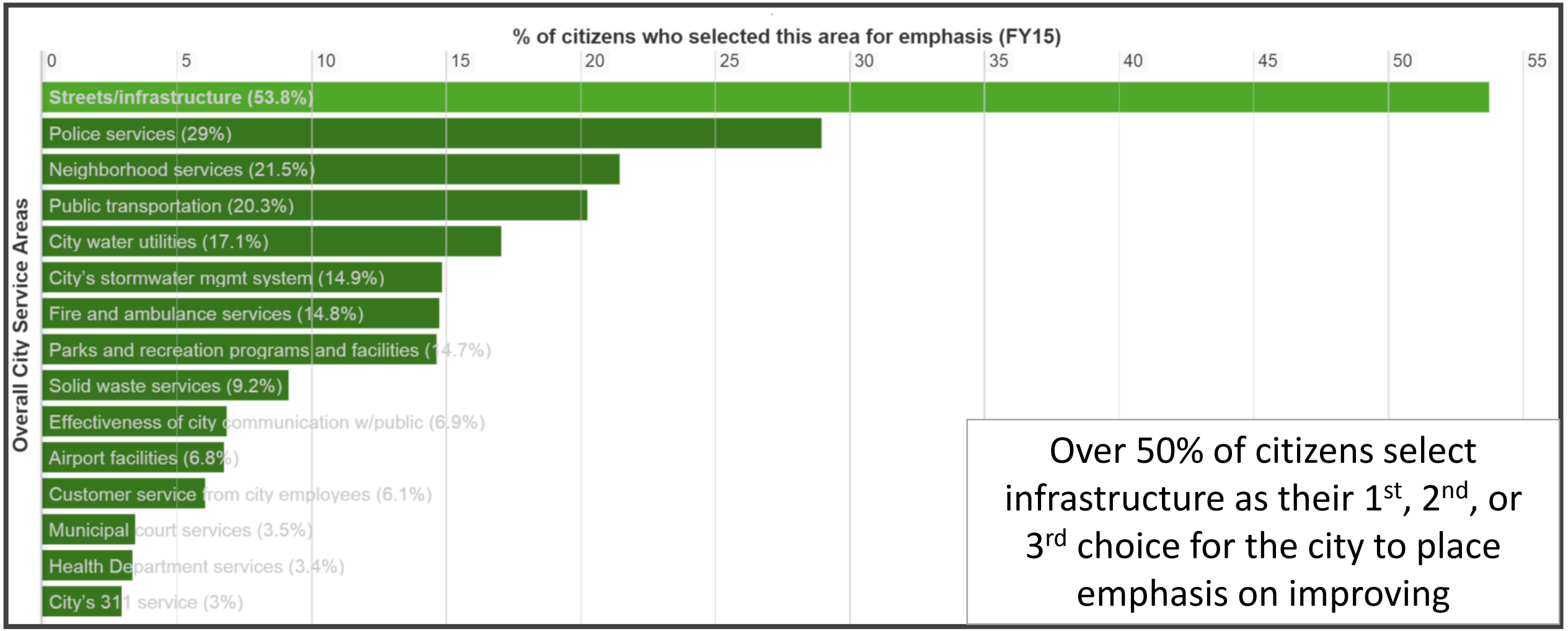
Citizen Satisfaction with Street Maintenance





Source: Citizen Survey
FY15 YTD
(kcstat.kcmo.org)

Infrastructure is the Highest Priority for Improvement



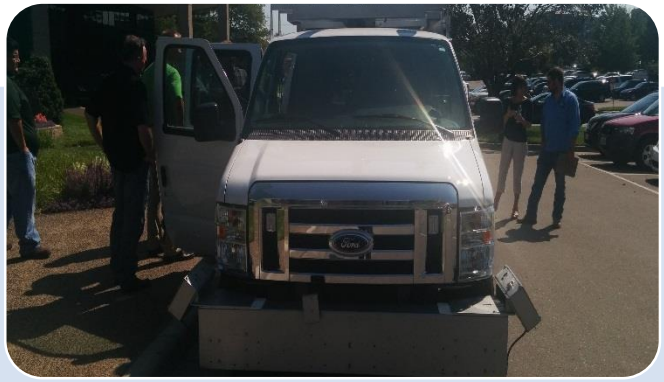
Over 50% of citizens select infrastructure as their 1st, 2nd, or 3rd choice for the city to place emphasis on improving

Source: Citizen Survey FY15 YTD (kcstat.kcmo.org)

Pavement Condition Index: New System Under Development

<u>Pavement Condition Index (PCI):</u> Crucial measurement of physical condition of streets that can be used to measure progress over time as well as develop a targeted plan for capital maintenance

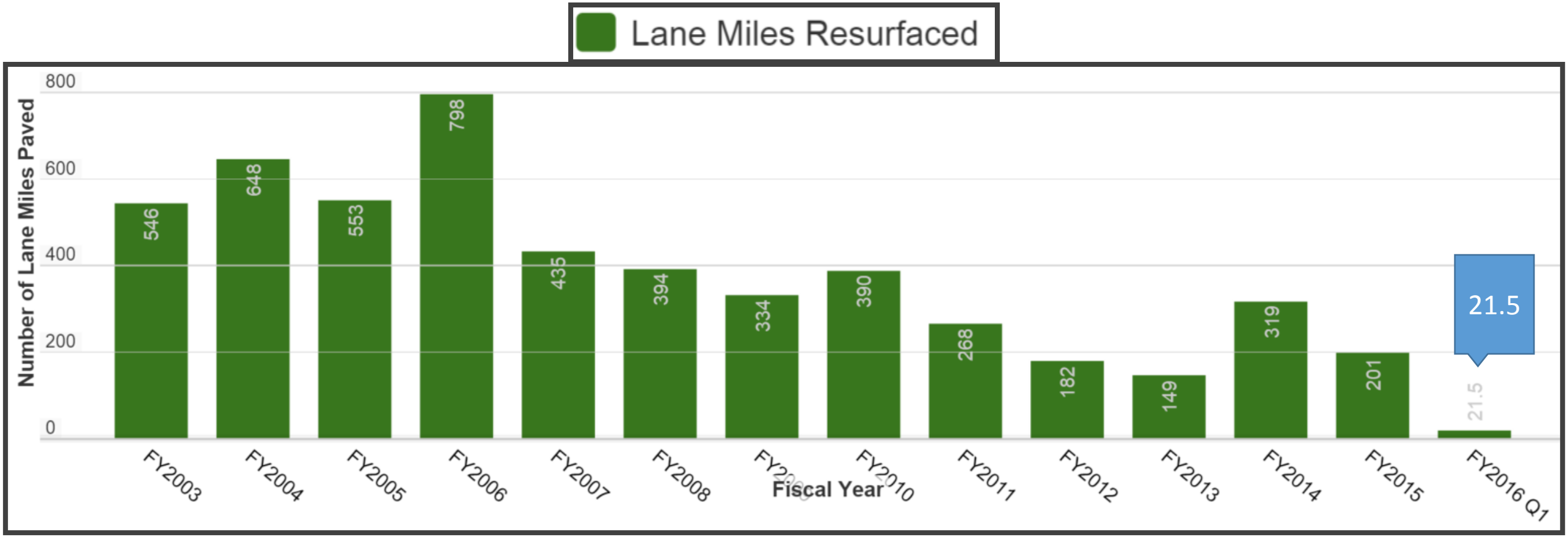
Contractor has started driving the streets and gathering pavement distress data



Early next year, data will be used to produce pavement condition rating for all streets

Streets will be reassessed every 3 years; data may also be used to create ratings of other infrastructure

Resurfacing Program: Lane Miles Paved



Source: Public Works(kcstat.kcmo.org)

Road Diet: Leeds Trafficway

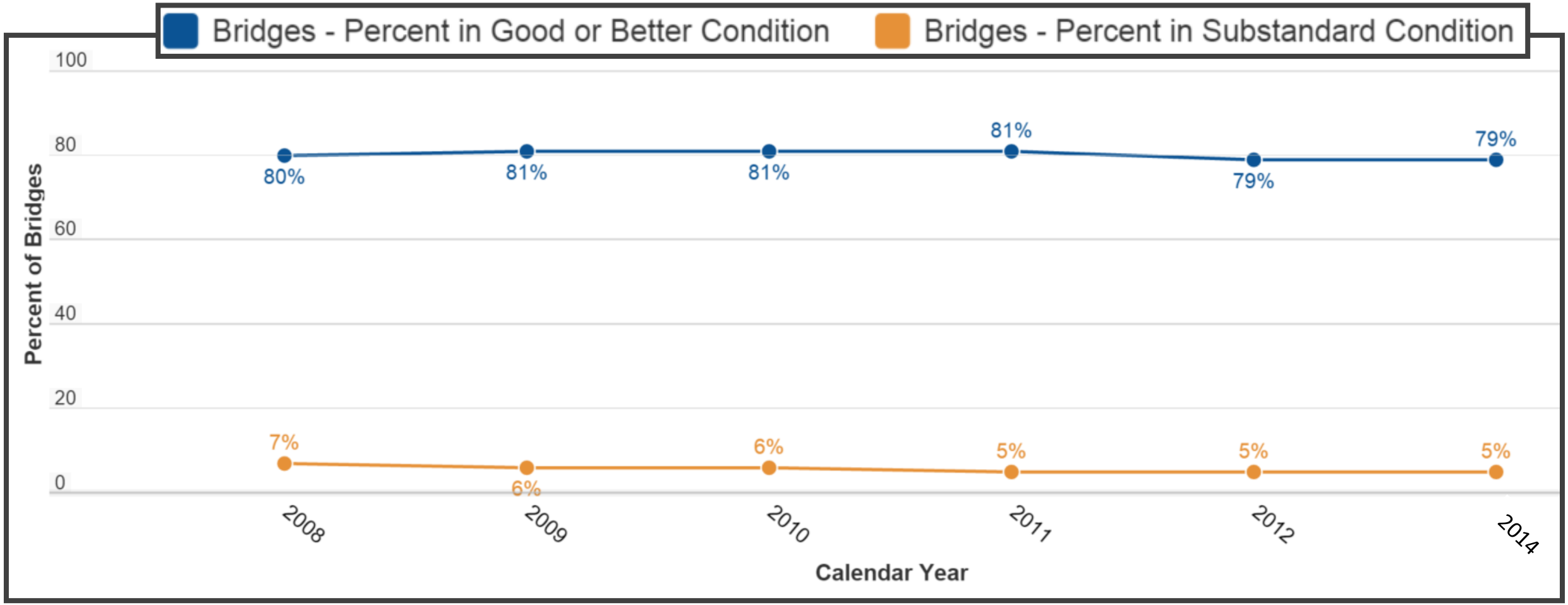
Emanuel Cleaver to Stadium Drive: Completed August 2015

BEFORE

AFTER

Bridge Condition Rating

555 total bridges
Full rating done on biennial basis



Source: Public Works

Bridges Maintained by MoDOT

County	Number of MoDOT bridges per county w/in KCMO boundaries
Jackson	253
Platte	43
Clay	33
TOTAL	329

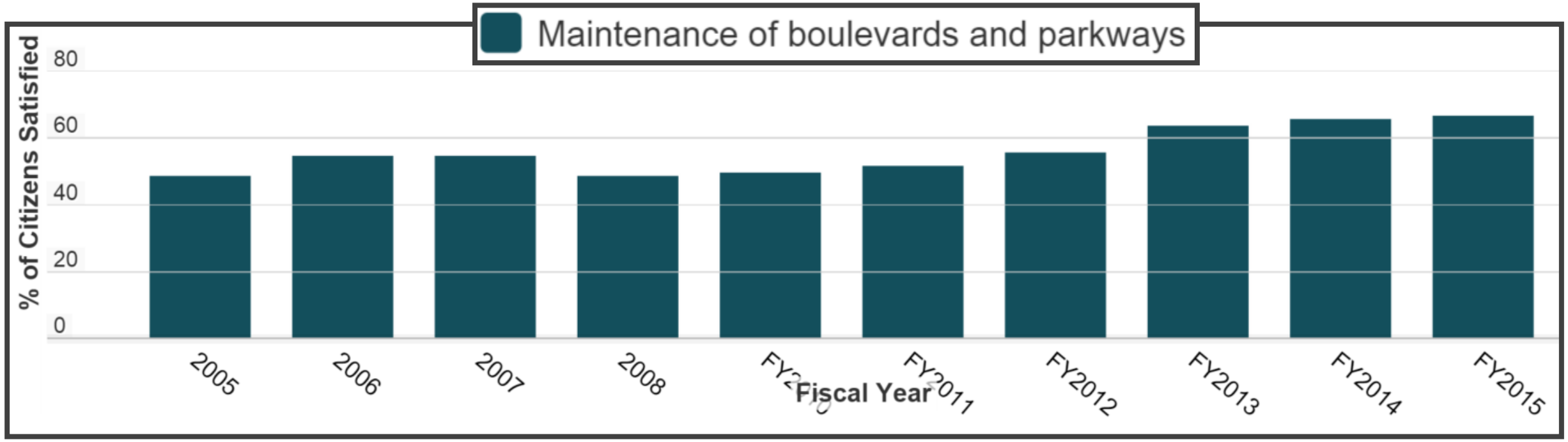
Objective:

Protect the integrity of the Park and Boulevard system while encouraging quality, sustainable development

Related Measurements:

- Citizen satisfaction with boulevards/parkways

Citizen Satisfaction with Maintenance of Boulevards and Parkways

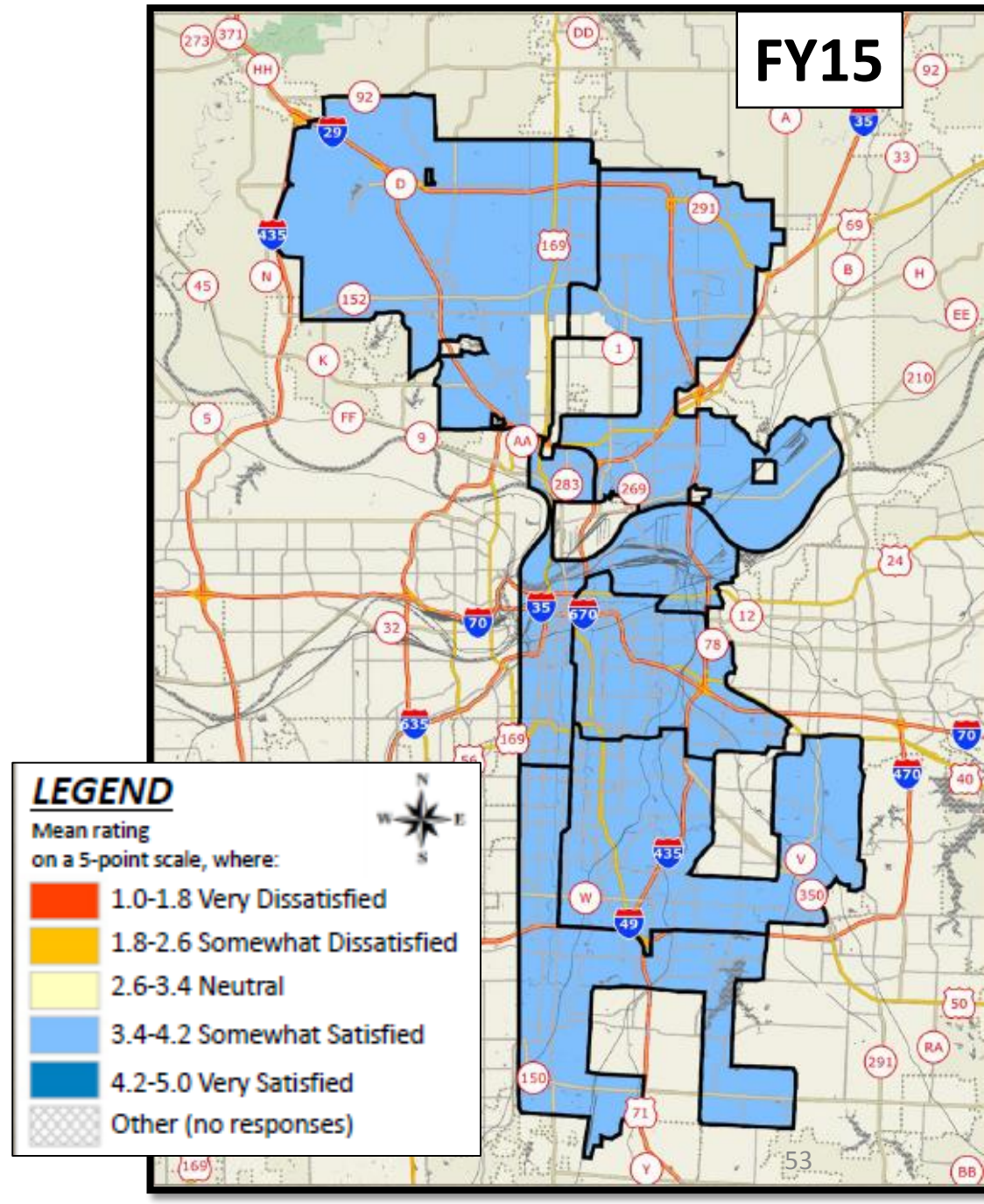


Increased from 49% in 2008 to 67% in FY15

Source: Citizen Survey 2005 – FY15 YTD (kcstat.kcmo.org)

Citizen Satisfaction with Blvds/Pkwys by Geography

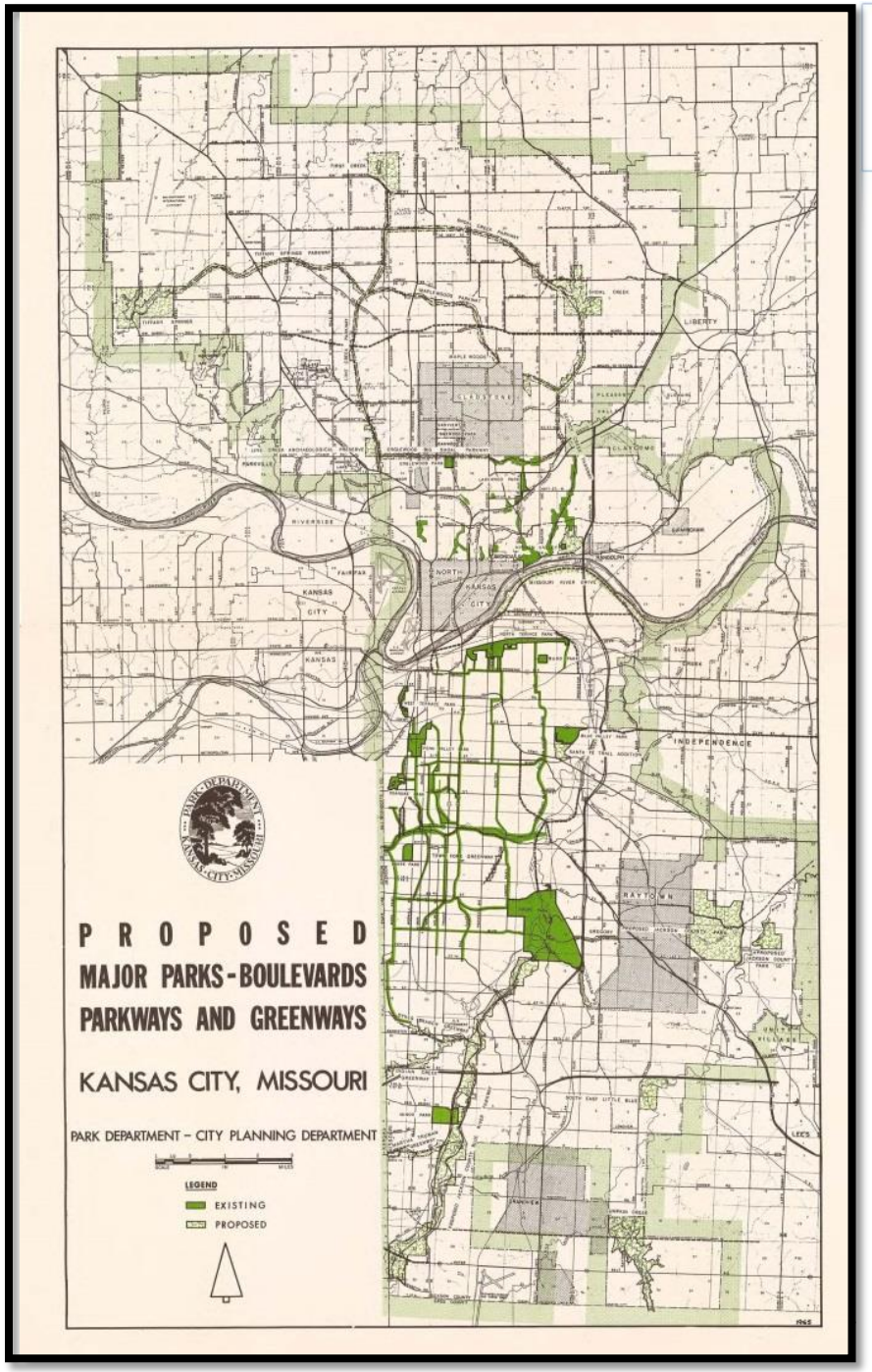
Council District	Percent Satisfied	Importance-Satisfaction Rating
1st	79%	8
2nd	67%	5
3rd	62%	10
4th	73%	5
5th	61%	7
6th	73%	7
Citywide	67%	5



Source: Citizen Survey FY15

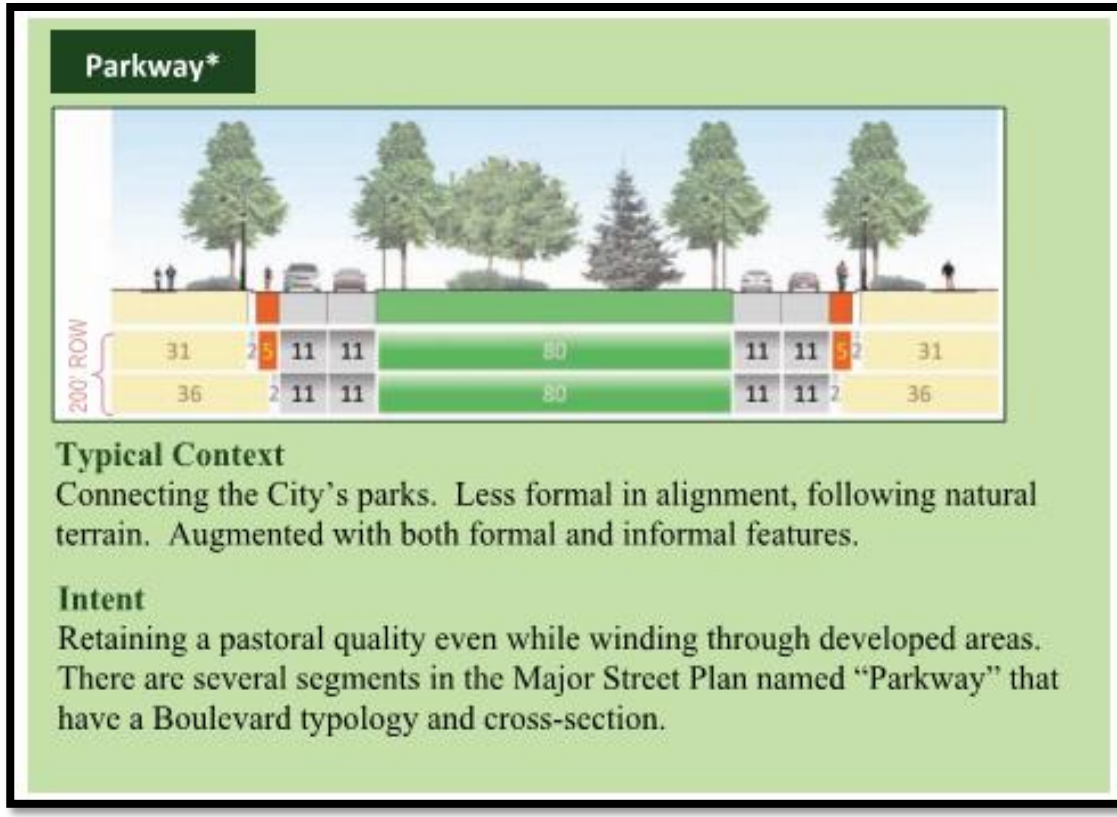
Boulevard/Parkway Updates

- The Kansas City, Missouri Parks and Boulevards District nomination as a National Historic Landmark has been signed off by the Missouri Advisory Council and is under review by the National Parks Service (NPS).
- Our consultant expects review comments to be issued by the NPS in mid-September 2015.
- The final approval by the NPS is expected by the end of 2015.
- Only two other National Historic Landmarks in KCMO are the Liberty Memorial and the Mutual Musicians Foundation



Boulevard/Parkway Updates

- On July 23, 2015, the Kansas City Missouri City Council passed the Second Committee Substitute for Ordinance 150544, Amending Chapter 88, the Zoning and Development Code, to add restrictions and standards for uses located adjacent to and within 150 feet of parks, boulevards and parkways.
- The codification of the boulevard and parkway standards was eight years in the making.
- Since George Kessler's inception of the boulevard and parkway system over 122 years ago, there had never been a comprehensive land use or zoning ordinance in place to protect the system like the ordinance.



Objective:

Establish an “ADA Implementation Plan” to meet Department of Justice’s requirements

Related Measurements:

- Curb ramps
- Citizen satisfaction with accessibility of infrastructure

ADA Update

I usually don't go where I don't know [about accessible routes]
-P3, congenital polyneuropathy
EXPANDING ACCESS FOR ALL
KC ADA Access

ADA Update

What We've Done

Recent accomplishments on the project

- Completed construction on the first DOJ-cited facility: Safety Street, Bid Package 4 for Health Dept.
- Convened pre-construction meetings and began construction on Bid Package 2 facilities for Parks and Recreation and Bid Package 3 facilities for the General Services Department.
- Received bids for the second group of five bid packages (facilities 14-26) for construction. Bid packages included seven parks facilities, three convention facilities, and three general services/health/police facilities.
- Prepared construction contracts for second group of DOJ-cited facilities (facilities 14-26). (This leaves four facilities – facilities 27-30 – remaining that have DOJ deadlines.)
- Completed the elevator ADA upgrade and modernization construction documents for facilities 14-26.
- Awarded four of the second group of five bid packages for construction.
- Met with various City departments (Parks, General Services, Conventions) to discuss bid package results.
- Issued Notice-To-Proceed to contract winners for four of the second group of five bid packages (facilities 14-26) with appropriation of funds in July as previously identified by and discussed with Finance in May.
- Finalized A/E Amendment Three contract, which incorporates various additional scopes.
- Completed the contract negotiations for the first elevator ADA upgrade and modernization Bid Package with KONE (KCMO IDIQ vendor).

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KC ADA Access

ADA Update

What We're Doing

The right people moving right now to meet this obligation

- Working on various additional facilities assessments as time, weather, and facility schedules permit.
- Completing the DOJ audited facility assessments for facilities 27-30 for schematic design and potential bidding in 1st Quarter 2016.
- Preparing Bid Package 10 for re-bidding for Convention and Entertainment Facilities.
- Preparing Bid Package 11 for bidding for the second elevator modernization package for facilities 14-26.
- Preparing Bid Package 12 for bidding for the Bartle Hall 13th St. renovations for Convention and Entertainment Facilities.

The KC ADA Access Team worked collaboratively with City Communications to develop an overarching brand to quickly, effectively, and intuitively communicate the work of the project across the City and within City-owned facilities.

ADA Update

What We're Going to Do

Upcoming deliverables in 2015-2016

- Complete the few remaining facilities assessments as schedules & weather permit.
- Complete Transition Plan and submit to DOJ for approval. Plan includes prioritization of ADA facility upgrades for facilities.
- Complete preparation of facilities 27-30 for bidding. (This is the last group of DOJ-audited facilities.)
- Submit to DOJ sample final documentation using completed facility: Safety Street, Bid Package 4 for the Health Department.

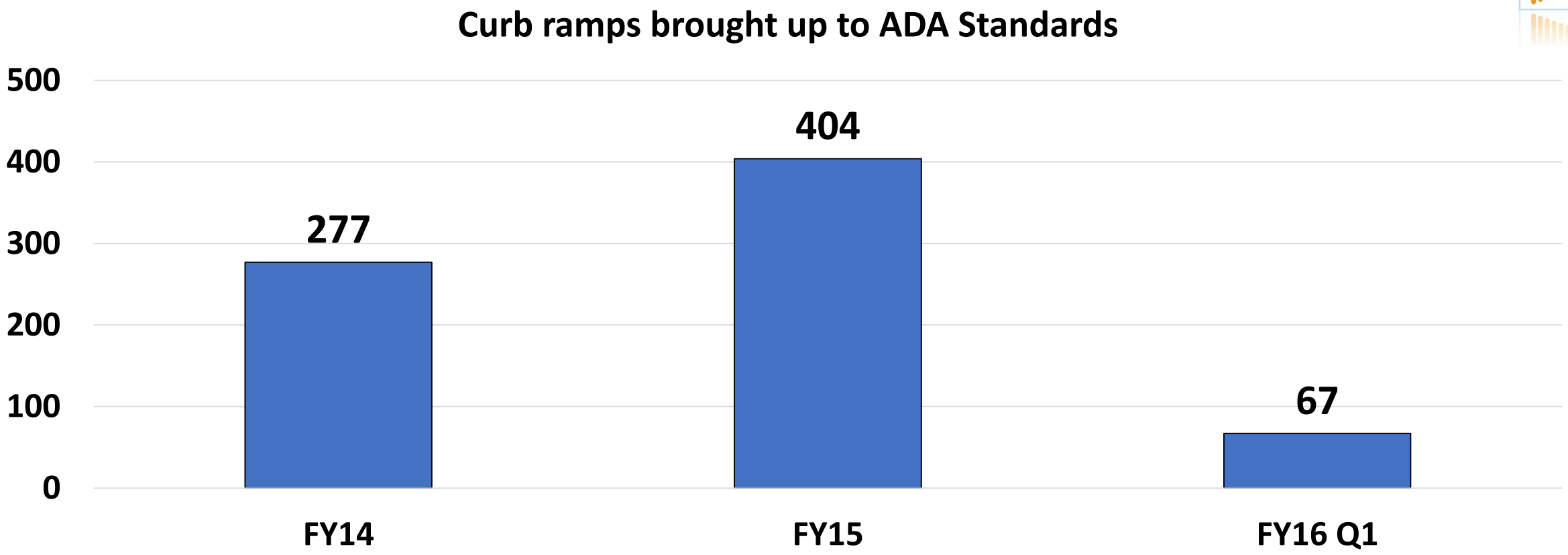
EXPANDING ACCESS FOR ALL

KC ADA Access

Questions?

Meg Conger, ADA Compliance Manager | (816) 513-6589 | meg.conger@kcmo.org

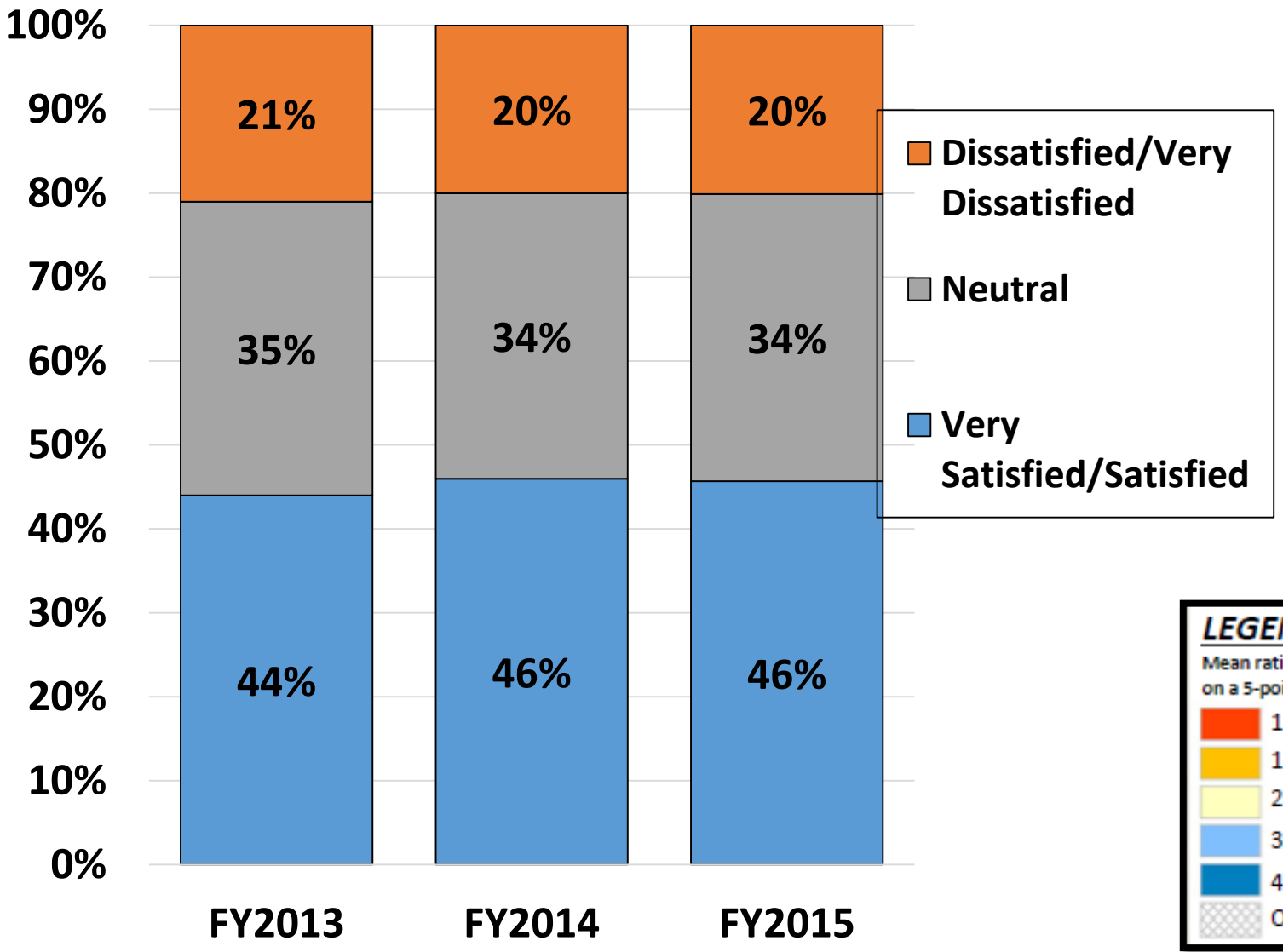
ADA Curb Ramps – current status

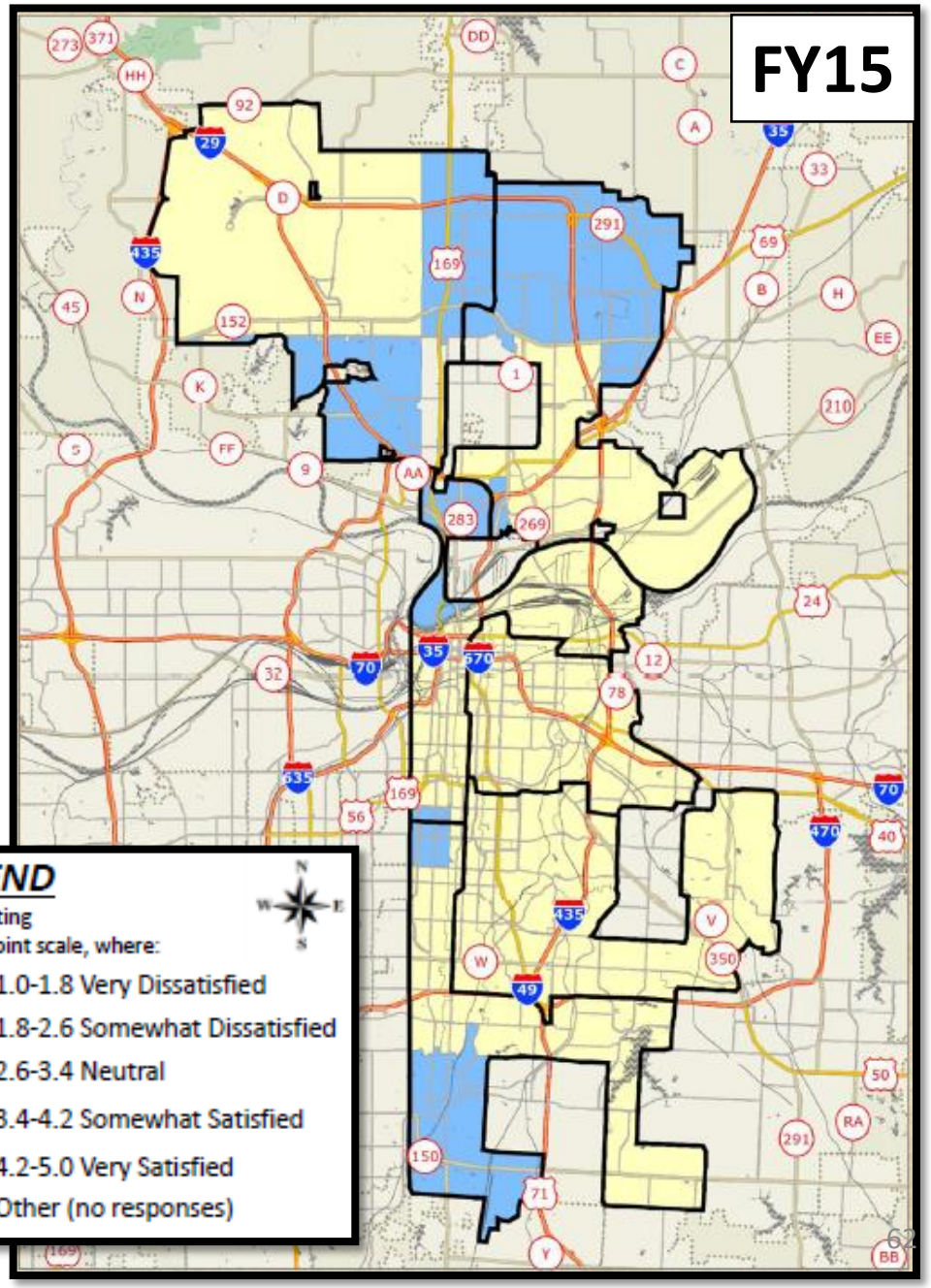


As of now, 2,400 curbs are currently unramped. The ADA Settlement Agreement currently allows six years to eliminate curb ramp barriers; to meet deadline, we would need to do 1,200 per year for the two years remaining in the Agreement.

Source: ADA Coordinator; Public Works

Citizen satisfaction with accessibility of city streets, sidewalks and buildings for people with disabilities





Source: Citizen Survey FY13 – FY15

Objective:

Explore partnerships to expand sharing of public resources across government jurisdictions

Related Measurements:

TO BE DETERMINED

Core4 Integrated Watershed Planning Group

Upper Blue River & Indian Creek

Area Included in Integrated Plan

Upper Blue River Watershed (confluence of Indian Creek)

Issues

Share Responsibility

- Water Quality Driven Efforts
- Sanitary Sewer Overflows
- Stormwater Runoff
- Wastewater Treatment
- Looking for Regional Solutions
- Regional Watershed approach to Management
- Prioritize Improvement to maximize environmental benefits for dollars expended

Task Force

Terry Leeds
Andy Shively
David P. Nelsen
James S. Cole
Tom Kimes
Penny Postoak Ferguson
John O'Neil
Susan Maier
Susan Pekarek
Diane Wicklund
Lee Kellenberger
Paul Greeley

TOPIC AREA: Multi-Modal Transportation

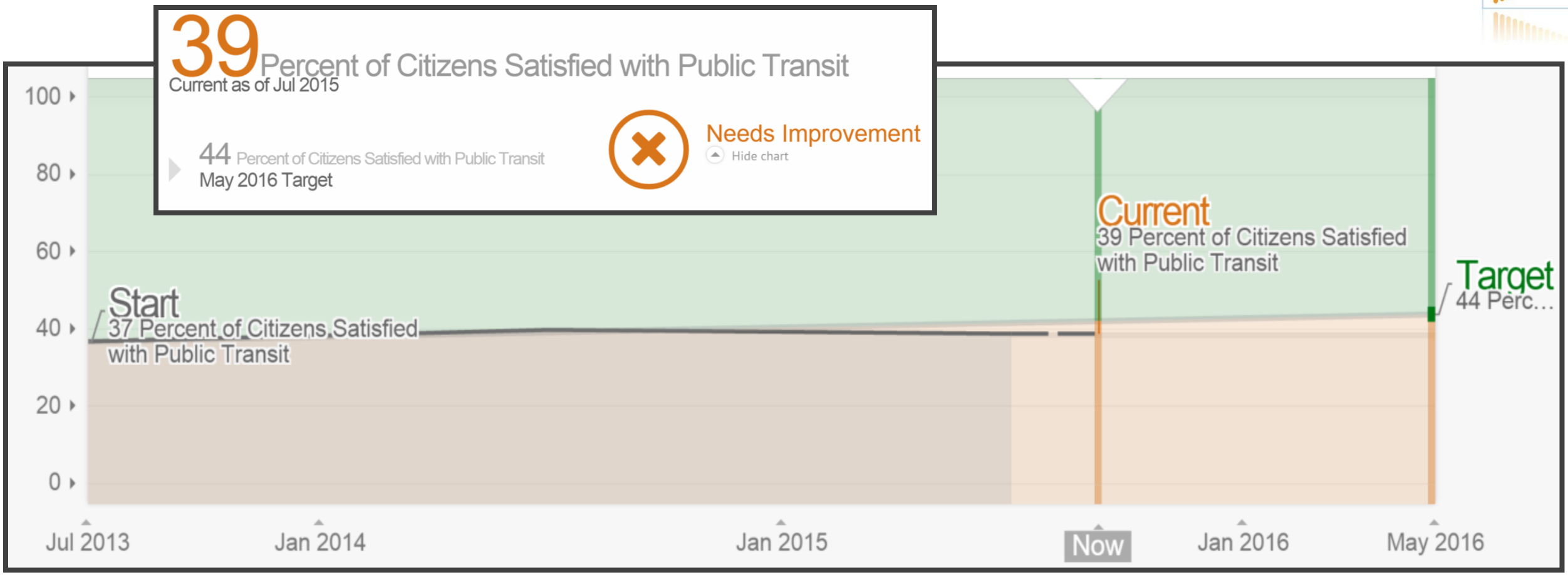
Objective:

Increase access to multi-modal transportation options such as buses, bicycle lanes, trails and the new streetcar system. Develop a plan for the connectivity of these systems

Related Measurements:

- Percent of citizens satisfied with quality of public transportation
- Percent of commutes by bike

Citizen Satisfaction with Public Transportation



Citizen satisfaction with public transportation has increased from 37% in Fiscal Year 2012-2013 to 39% in Fiscal Year 2014-2015

Source: Citizen Survey, FY13 – FY15 YTD(kcstat.kcmo.org)

Citizen Satisfaction Importance – Satisfaction Matrix

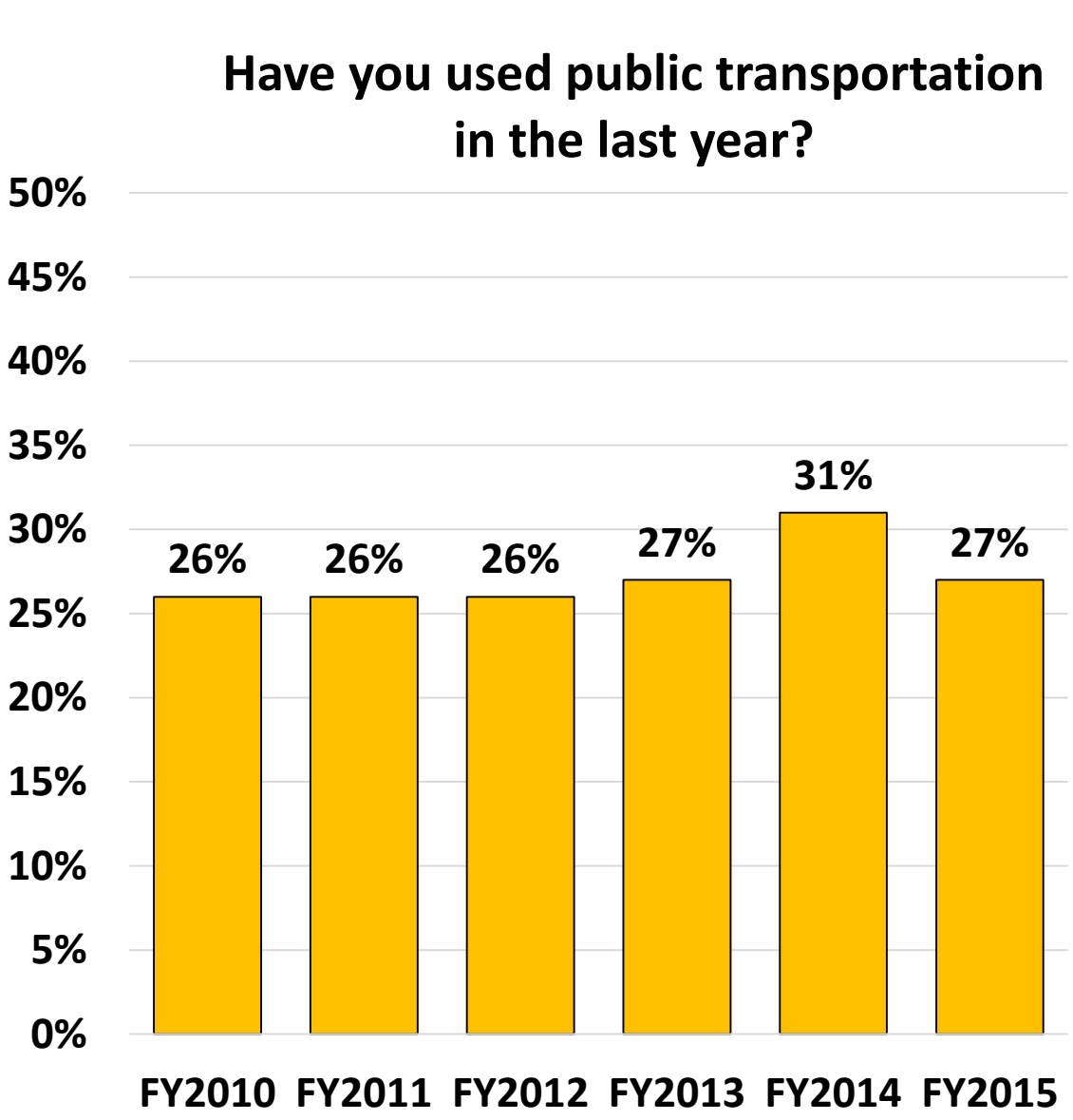
Category of Service	Importance	Satisfaction	I-S Rank	I-S FY14
Streets/Sidewalks/Infrastructure	**54%**	**30%**	**1**	1
Public Transportation	**19%**	**39%**	**2**	3
Neighborhood Services	**20%**	**46%**	**3**	4
Police Services	**27%**	**66%**	**4**	2
Stormwater Management System	**14%**	**42%**	**5**	5
Water Utilities	**15%**	**60%**	**6**	6
Parks and Recreation	**14%**	**64%**	**7**	10
City Communication	**8%**	**46%**	**8**	9
Customer Service	**7%**	**50%**	**9**	8
Fire/Ambulance Services	**14%**	**77%**	**10**	7
Solid Waste Services	**9%**	**68%**	**11**	11
Airport	**7%**	**71%**	**12**	13
Municipal Court	**3%**	**45%**	**13**	14
Health Department Services	**4%**	**59%**	**14**	12
311 Services	**3%**	**63%**	**15**	15

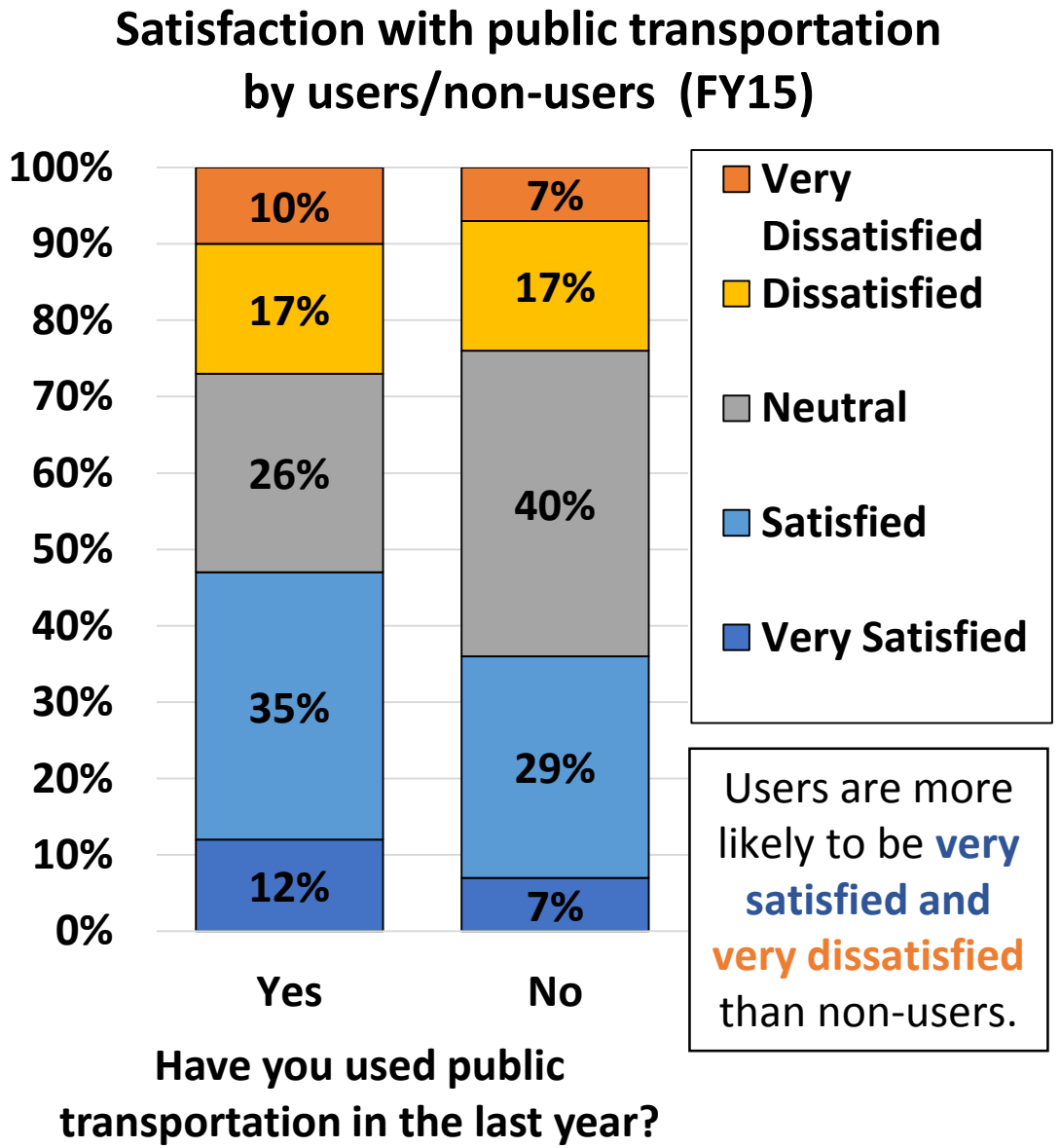
Importance = Total percent of citizens selecting category in response to the following question:
Which THREE of the Major Categories listed do you think should receive the MOST EMPHASIS from the City over the next two years?

I-S = Rank based on Importance-Satisfaction Rating. This is an established methodology used to identify those services that are of the highest importance to residents and where residents are least satisfied.
Calculation of I-S = (Importance*(1-Satisfaction).
I-S Rank orders the categories from the highest to lowest I-S.

Shifted in I-S rank since FY14

Citizen Use of Public Transportation



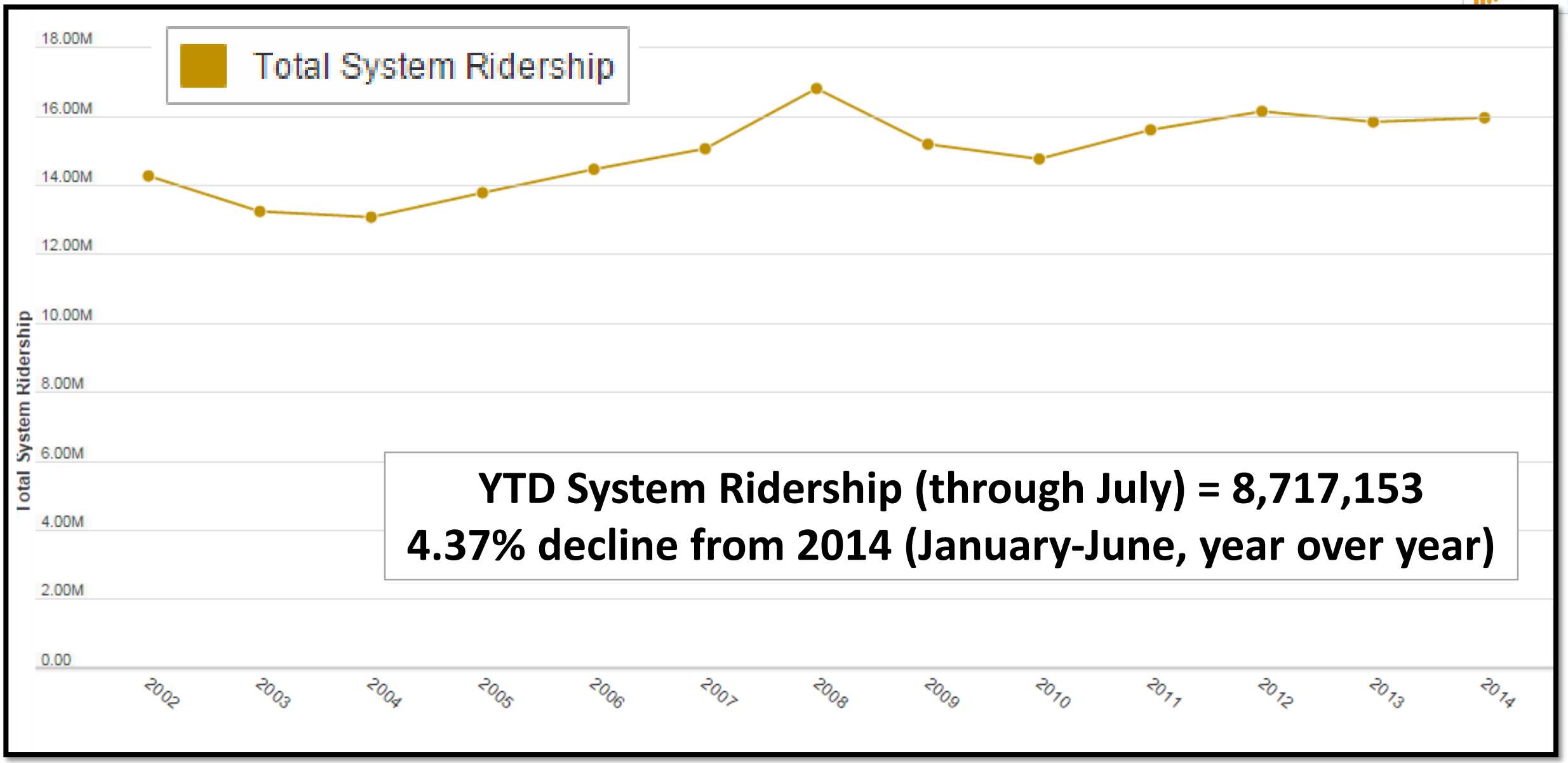


Source: Citizen Survey, FY13 – FY15 (kcstat.kcmo.org)

KCATA Initiatives

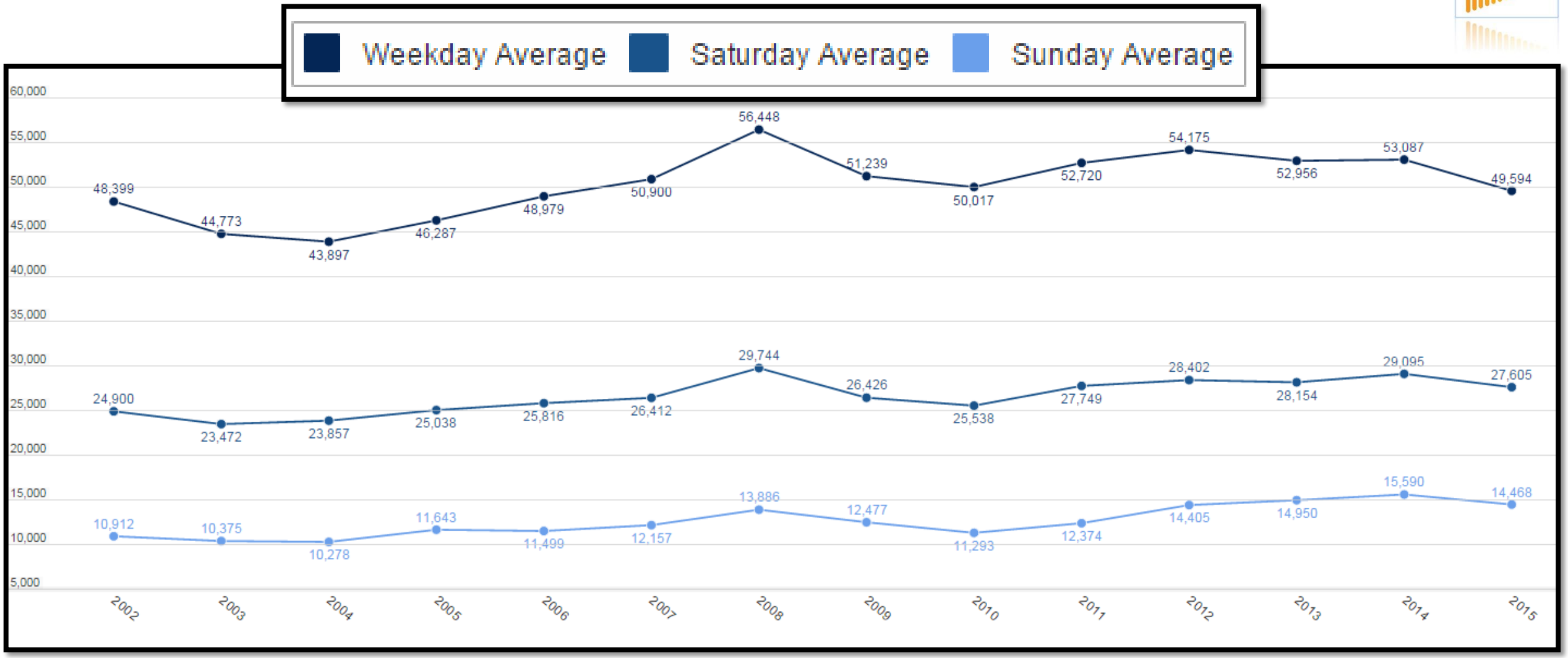
- Improving regional transit coordination and connections
- RideKC regional rebranding
- Prospect MAX moves into project development stage
- “Return to normal” for downtown routes this fall

KCATA Ridership – Total System Ridership



YTD System Ridership (through July) = 8,717,153
4.37% decline from 2014 (January-June, year over year)

KCATA Ridership – Average Daily Ridership



5-7% decline in average daily ridership from 2014 to 2015 YTD

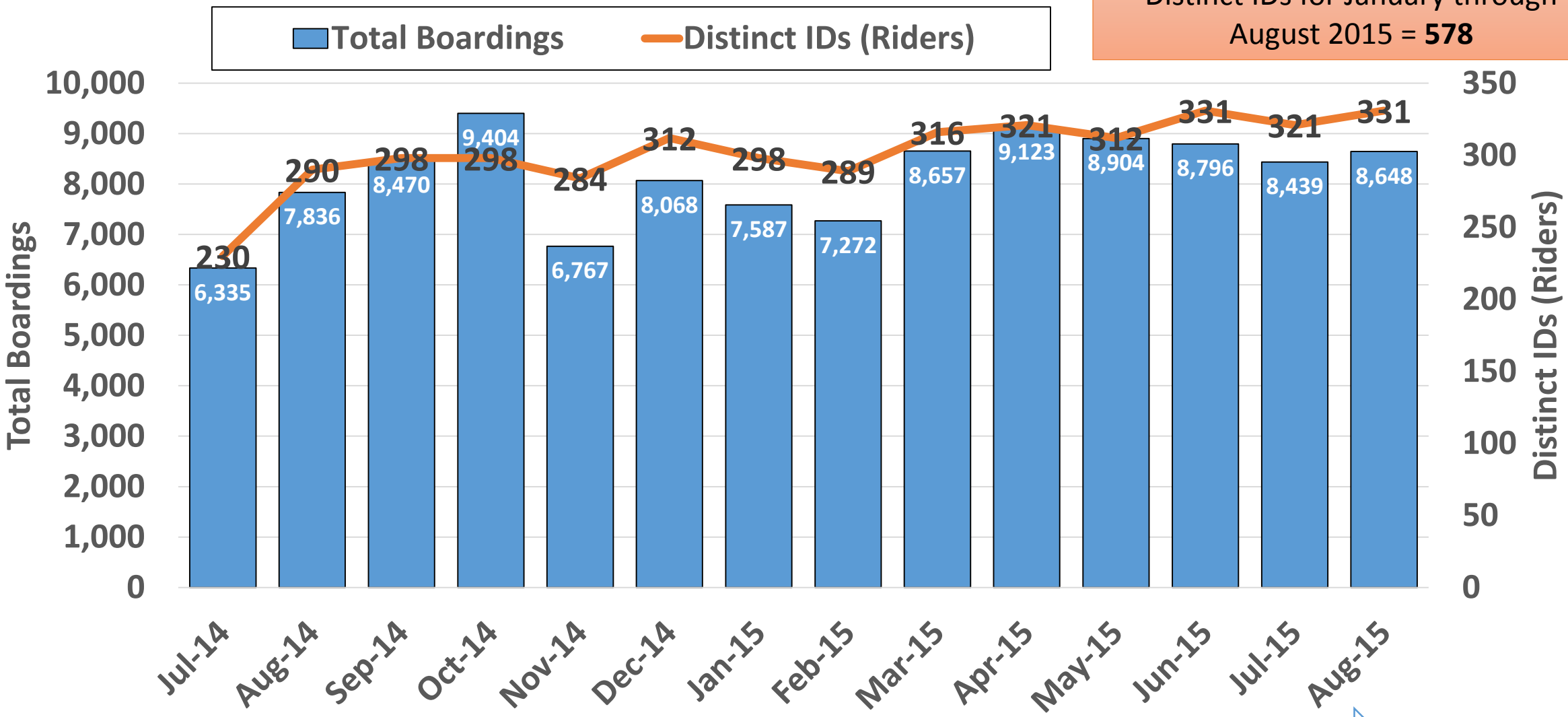
Source: KCATA (kcstat.kcmo.org)

Ridership Benchmarks

City/Operator	2014 Annual vs. 2013 % +/-	1st Qtr 2015 vs. 1st Qtr 2014	2015 YTD (thru June)
KCATA	+0.89%	-2.50%	-4.37%
Johnson County	-5.46%	-6.01%	
Cincinnati	+2.97%	-3.12%	
Columbus	-1.97%	+0.92%	
Indianapolis	+0.37%	+2.50%	
Milwaukee	-6.93%	-17.68%	

City of KCMO Employee KCATA Ridership

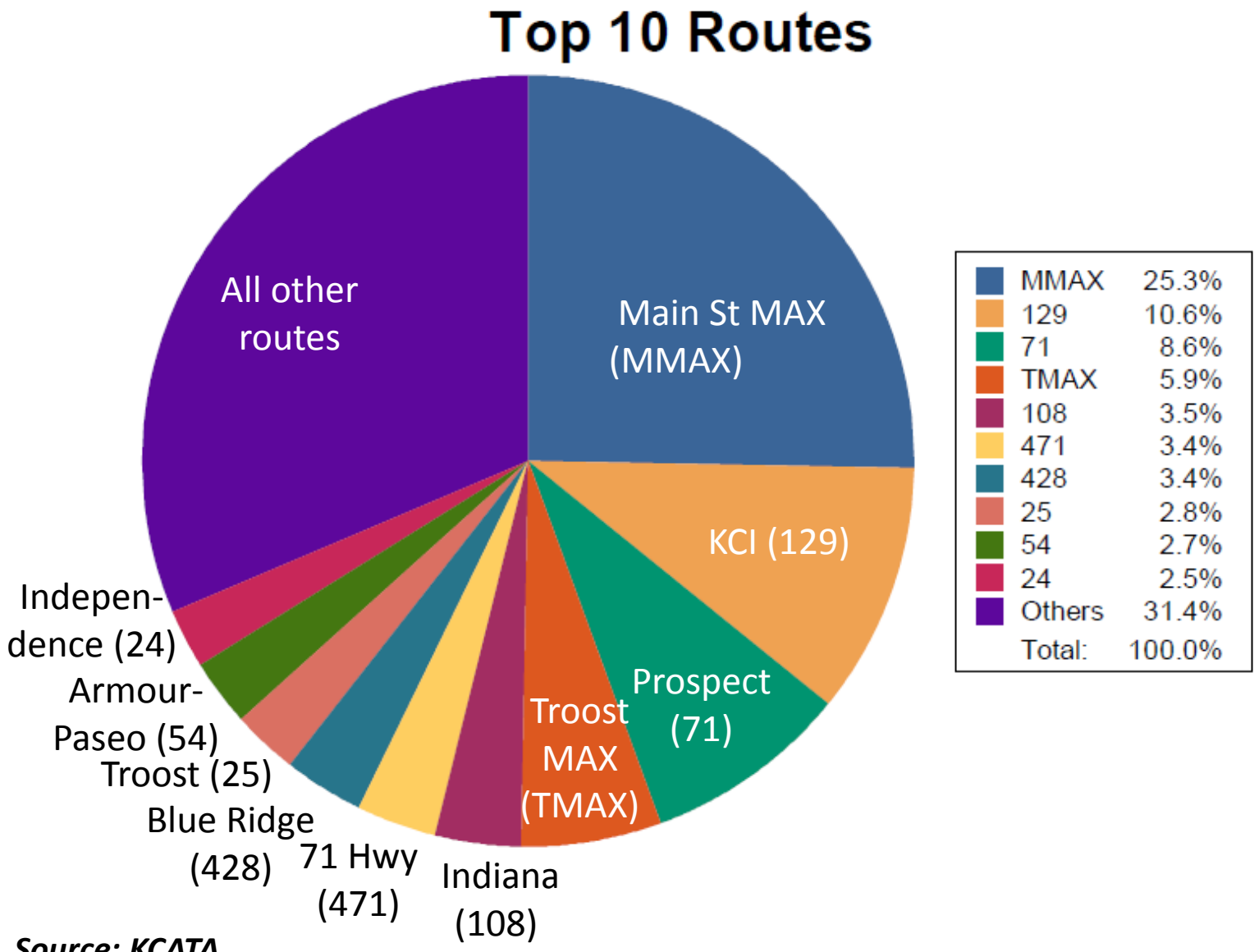
Distinct IDs for January through August 2015 = **578**

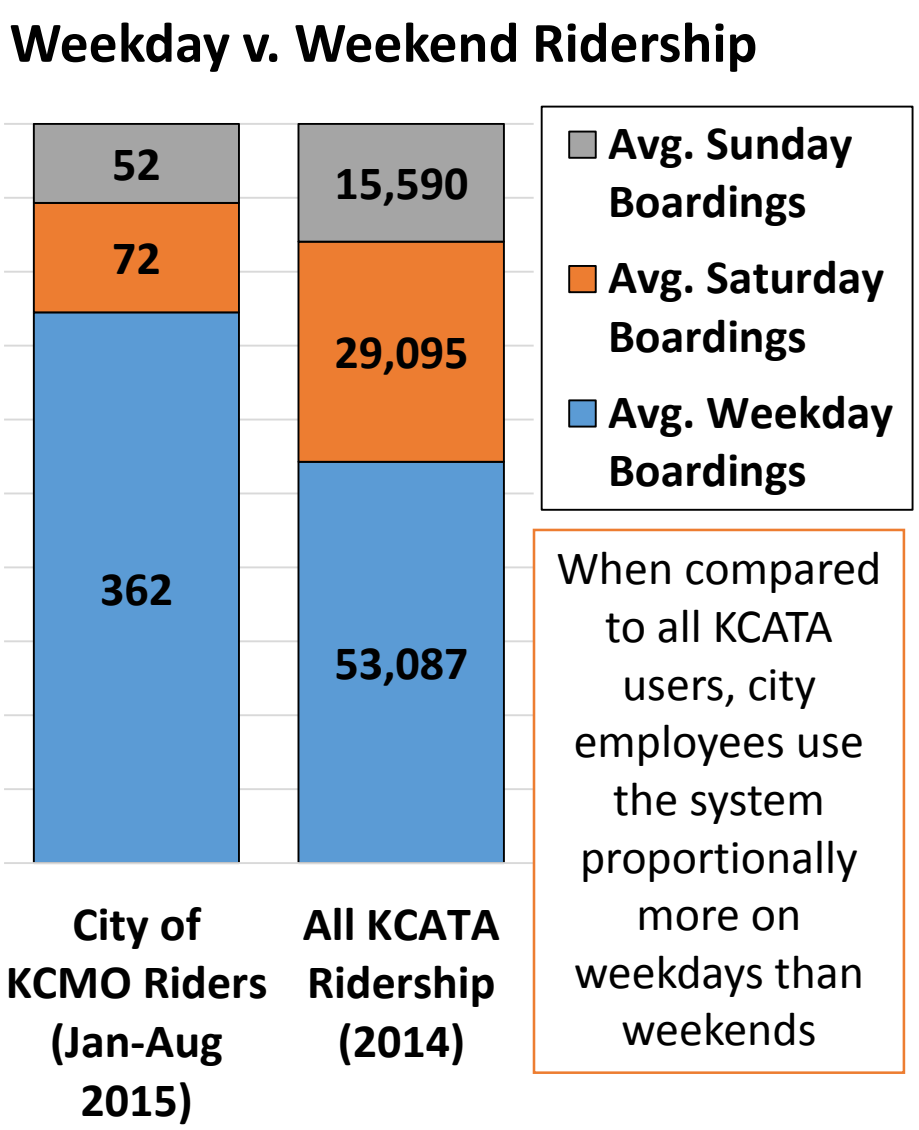


21% increase in boardings from Jul/Aug 2014 to Jul/Aug 2015

Source: KCATA

KCATA Ridership by Employees – When and Where



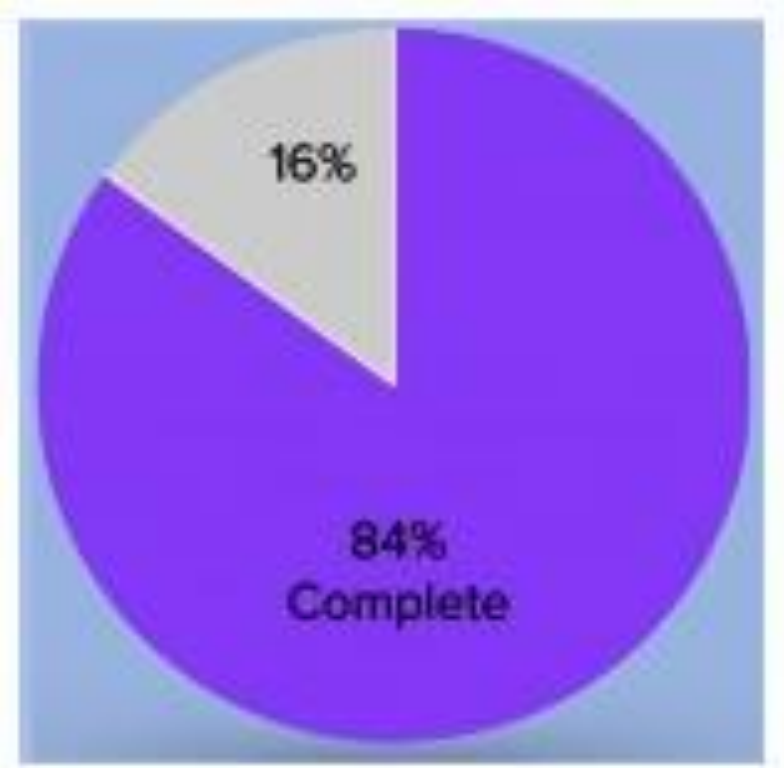


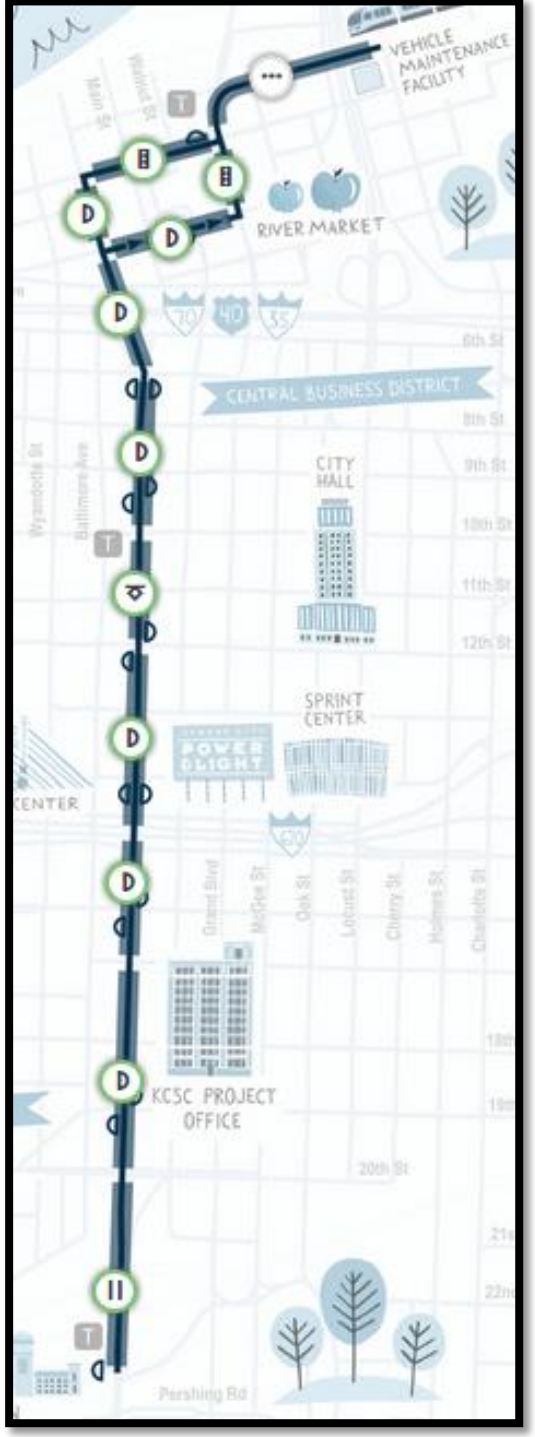
When compared to all KCATA users, city employees use the system proportionally more on weekdays than weekends

Source: KCATA

KC Streetcar Update

Overall KC Streetcar construction is 84% complete, as of August 2015





Map Key

Construction Activity

- Private Utilities
- Water & Sewer
- Track Construction
- Systems Work
- Signals & Lighting
- Streetcar Stops
- Minimal Activity

Traffic Impact

- Detour

Station Stops

- Streetcar Stop
- Existing Transit Center

Source: www.kcstreetcar.org

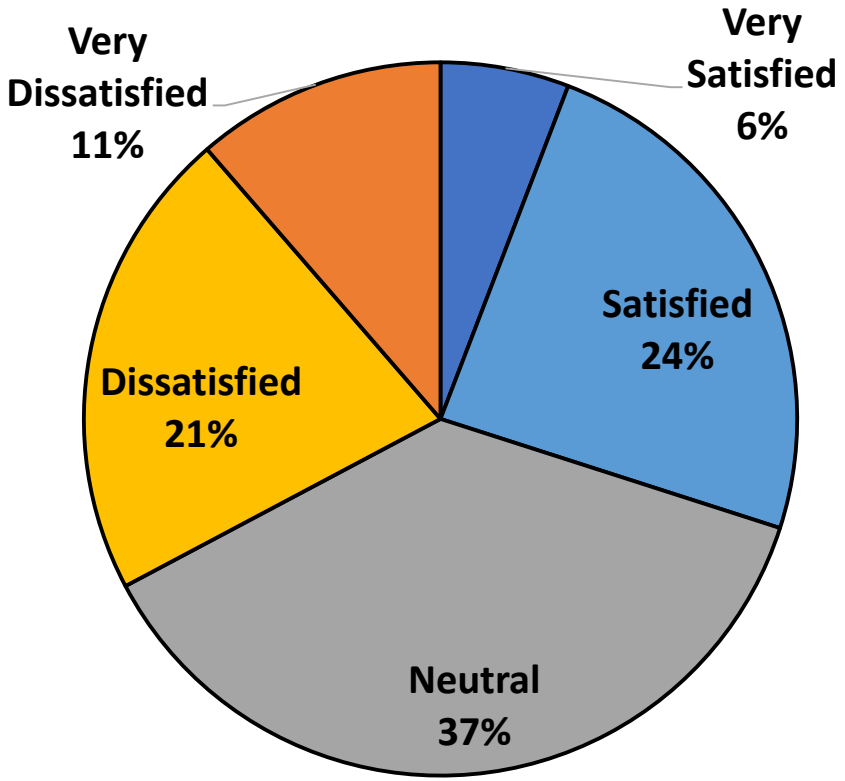
KC Streetcar Updates

System testing will follow construction completion

Parking enforcement along streetcar line to begin soon

Citizen Satisfaction with On-street Bicycle Infrastructure

Satisfaction with "on-street bicycle infrastructure (bike lanes/signs/sharrows)"

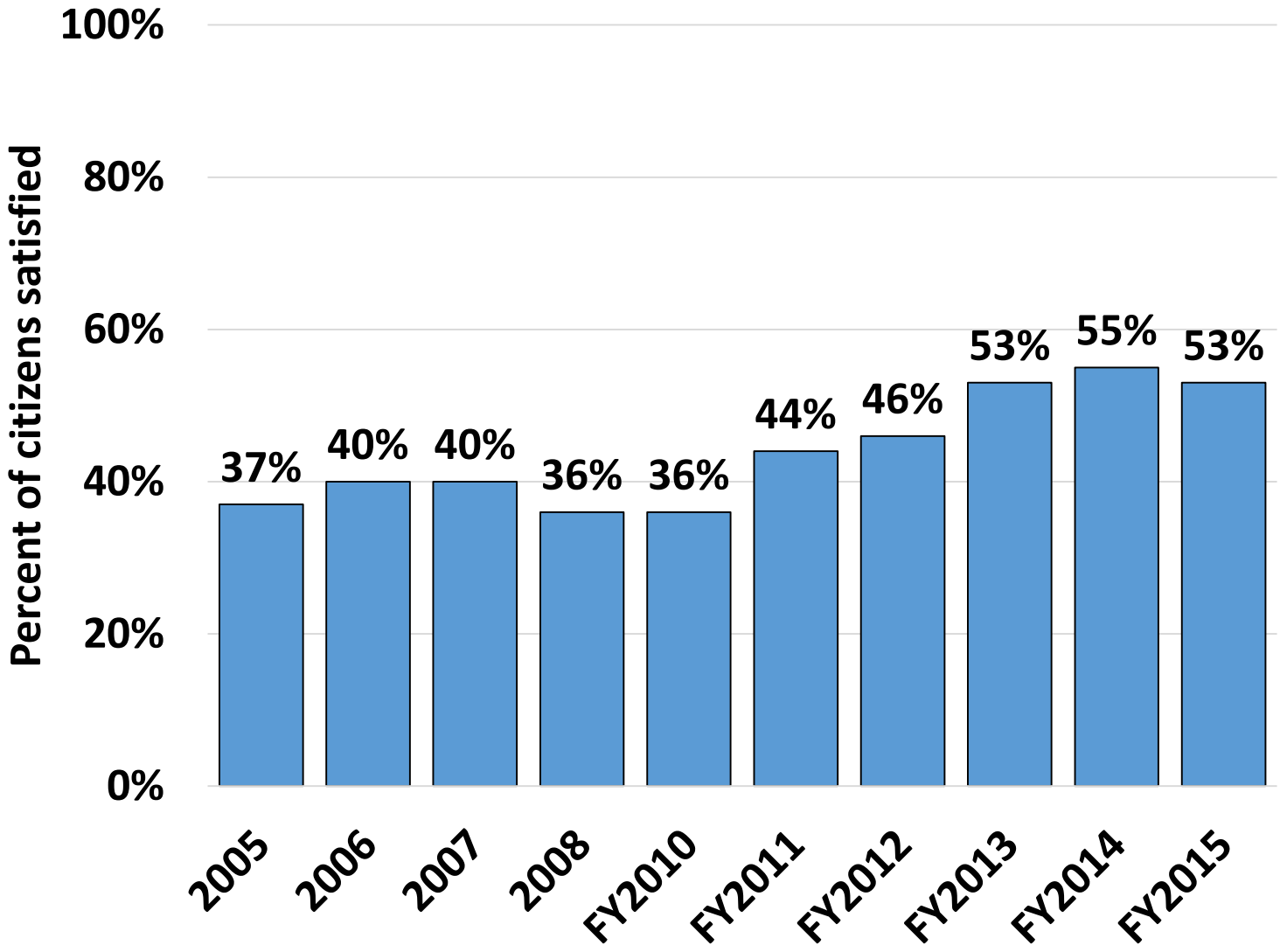


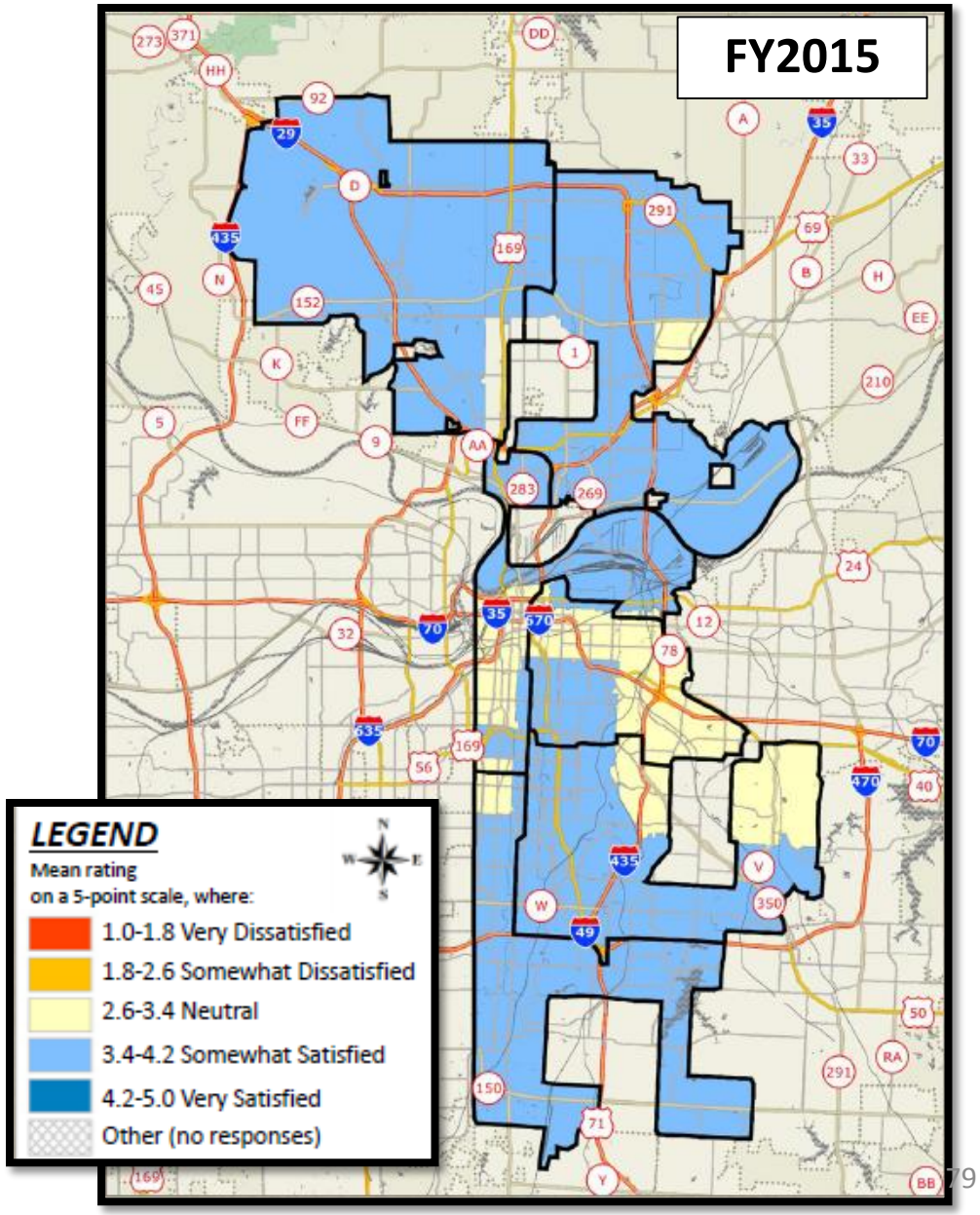
Council District	Percent Satisfied	Importance-Satisfaction Rating
1st	36%	5
2nd	34%	6
3rd	33%	7
4th	28%	5
5th	28%	6
6th	24%	3
Citywide	30%	6

Excludes "Don't Know", which totaled 18% of sample

Source: Citizen Survey FY15

Citizen Satisfaction with Walking and Biking Trails





Source: Citizen Survey 2005-FY15

Bike-Ped Program: Policy Issues

Privately Installed Bike Racks in ROW

- Problem identified - Encroachment Permit requirements and fees do not encourage installation of racks by private property owners
- In response, process developed (to be overseen by PW Permits) that requires basic information/steps but does not require encroachment process
- Next steps: Introduce ordinance to amend encroachment requirements and require Public Works to enter into maintenance agreement with adjacent property owner

Pedestrian Access in Construction Zones

- Internal cross-departmental taskforce created to examine this issue
- Adopted ATSSA document as PW standard and incorporated into permitting process
- Next steps: Approve new Public Works standards, update internal processes, and train field staff

Snow Removal on Sidewalks

- Sidewalks Snow Removal Campaign developed and letter to residents created
- Next steps: Coordinate implementation process for first snow event with City Communications, community organizations and advocates

Bike-Ped Program: Program Implementation

CYCLE IN THE CITY

Cycle in the City (May 2015)

4,000 visitors

Positive feedback and media coverage

Need sponsor to replicate event in other neighborhoods for 2016

Share the Road Safety Education Campaign (2016)

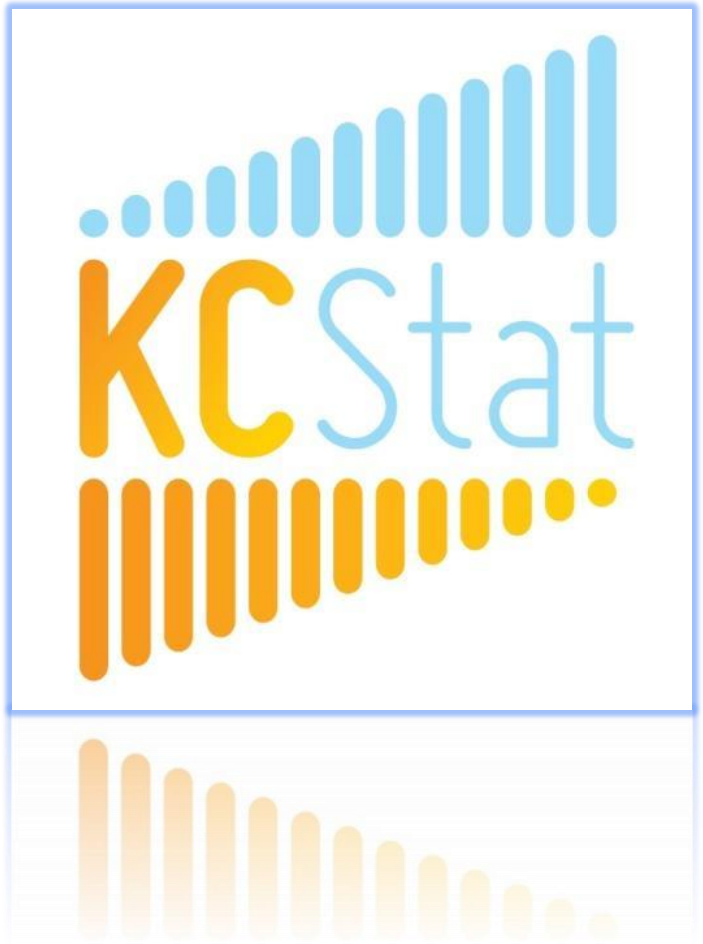
Federally funded campaign to educate adults on importance of being seen at night

Limited supply of reflective gear/lights to be distributed at events

Bike-Ped Program: Other Current Issues

Bicycle-Pedestrian Advisory Committee Appointments

2016 Bike KC Map

Seeking funding to print updates (2013 = $21K for 20K copies)

Final Thoughts or Questions?