MEMORANDUM

FREESE AND NICHOLS

Innovative approaches
Practical results
Outstanding service

6303 N Portland Ave, Suite 100 • Oklahoma City, Oklahoma 73112 • 405-607-7060 www.freese.com

TO: Carrie Evenson, P.E., Ph.D. – City of Norman
Shawn O'Leary, P.E. – City of Norman
Steve Lewis – City of Norman

CC: Tricia Hatley, P.E. – Freese and Nichols, Inc.
Jennifer Wasinger – Freese and Nichols, Inc.

FROM: Trey Shanks, CFM – Freese and Nichols, Inc.

SUBJECT: Stormwater Citizens Committee Workshop Findings and Recommendations

DATE: May 26, 2017

PROJECT: NRN17290

Executive Summary

The City of Norman engaged Freese and Nichols to conduct a one-day, four-hour workshop with the Norman Stormwater Citizens Committee on May 15, 2017. The purpose of the workshop was to evaluate potential funding mechanisms for the City's growing stormwater program needs and to develop a recommended path forward to meet those needs. In the workshop, FNI facilitated the committee through the evaluation of stormwater program costs, stormwater funding mechanisms, stormwater utility fee options, and allocation preferences for stormwater services by funding mechanisms.

FNI gained feedback to identify areas of consensus amongst the committee and to identify focus areas for further discussion to reach goal consensus. Based on feedback obtained from the Stormwater Citizens Committee, the City of Norman's current stormwater program needs, and FNI's experience in municipal stormwater management services and funding assistance, FNI provides the following recommendations for the purpose of identifying and developing a long-term stormwater program funding strategy.

a) Evaluate stormwater services costs (City and Committee)

The committee is recommended to meet directly with City staff to understand the basis for proposed stormwater costs for water quality protection and compliance and storm system operations and maintenance. The Stormwater Citizens Committee and City staff are well-positioned to address this funding strategy without engaging a consultant's professional services.

b) Develop GO bond-funded approach for stormwater capital project (City and Committee)

A general obligation bond program strategy for capital improvements should be developed. Capital improvements should not be funded by stormwater utility revenues. The Stormwater Citizens Committee and City staff are well-positioned to address this funding strategy without engaging a consultant's professional services.

c) Transition stormwater costs from General Fund and Capital Fund to stormwater utility, if implemented (City and Committee)

If a stormwater utility is implemented, it is recommended that a schedule be developed to steadily transition stormwater services currently funded in the general fund and capital fund to the stormwater utility fund. Splitting allocation of one type of cost (e.g. water quality compliance and storm system O&M) into multiple funding mechanisms can create confusion and uncertainty for the general community about the proper allocation of budgets.

d) Pursue a voter-supported approach to a stormwater utility fee (City, Committee, Consultant)

The Stormwater Citizens Committee is recommended to fully investigate and evaluate options for an equitable, reasonable stormwater utility fee structure that can gain community support. It is recommended the committee initially develop an acceptable technical solution prior to engaging the community. Through a series of two to five one-hour meetings, it is recommended the committee engage FNI's services to develop a tailored stormwater utility financial model for the committee's use in identifying preferred technical options for a fee calculation basis, structure and rate. Some specific considerations include:

1. Consider using well-understood factors (e.g. living area square footage) as a calculation basis for a stormwater utility fee to gain residents' trust and buy-in.
2. Consider a limited number of fee tiers for residential properties for a simplified cost model.
3. Consider fee tiers for non-residential properties for a simplified cost model and to maintain reasonable maximum fees.
4. Provide readily achievable fee credits for properties with minimized storm system impact (e.g. on-site stormwater ponds, high percentage of vegetated area, etc.)
5. Assess the fee as a line item on existing utility bills.
6. Provide the community ready access to information to understand the fee use, basis for the rates, and approach for their specific property.

e) Conduct significant public outreach without a specified timeline (City, Committee, Consultant)

It is recommended a public relations team be engaged to assist the City to develop and implement a public outreach approach for a stormwater utility fee. Given the recent challenges and current mindset of many in the community to have a negative opinion about the concept of a stormwater utility fee, an open timeline is recommended. Approaches includes polling, surveys, community meetings, social media, traditional media, and other methods of public engagement should be considered and incorporated. FNI recommends the City engage a firm that specializes in public relations for this initiative.

f) Establish a Stormwater Advisory Committee for continuing oversight (City, Committee)

The City has significant stormwater program needs and costs. Awareness in the community about stormwater issues in Norman is significantly higher than in many comparable cities. To recognize and accommodate this significant public interest in the City's stormwater management program, it is recommended that a standing stormwater advisory committee appointed by City Council be maintained to represent the community's perspective for stormwater initiatives and funding priorities.

1) Introduction

Freese and Nichols was engaged by the City of Norman to conduct a one-day, four-hour workshop with the Norman Stormwater Citizens Committee on May 15, 2017. The purpose of the workshop was to evaluate potential funding mechanisms for the City's growing stormwater program needs and to develop a recommended path forward to meet those needs.

In the workshop, FNI facilitated the committee through the evaluation of stormwater program costs, stormwater funding mechanisms, stormwater utility fee options, and allocation preferences for stormwater services by funding mechanisms.

FNI gained feedback to identify areas of general consensus amongst the committee and to identify focus areas for further discussion to reach consensus.

2) Steering Committee Overview

The Mayor and City Council selected 16 volunteers to represent the community in the evaluation of funding alternatives for the City's stormwater management needs. This Stormwater Citizen Committee included representatives from each Ward, members of the business community, academic community, residents, and other segments of the community. The Committee was approved by City Council on April 11, 2017.

The City conducted an initial organizational meeting on May 3, 2017 to introduce committee members, review the committee's mission, distribute informational materials related to the 2016 stormwater utility funding efforts, and discuss next steps. Amanda Nairn (Environmental Control Advisory Board Chair) and Andy Sherrer (Senior Vice President, Republic Bank and Trust) were named Co-Chairs of the Stormwater Citizens Committee. Mayor Lynne Miller and Councilmembers Aleisha Karjala, Robert Castleberry and Bill Hickman were named City Council Liaisons to the Committee.

3) Committee Survey

In advance of the first Committee working meeting, FNI sent a survey to committee members to gain an understanding of existing perceptions of stormwater services and funding needs. Additionally, input was requested regarding expectations for the success of the committee. Survey responses were anonymous.

Following are key takeaways from the survey responses. A summary of the survey responses is included in Attachment B for reference.

- Norman is a great place to live, a good place to have a business, and is a leader among cities in Oklahoma.
- Most stormwater services in Norman are highly valued, with street sweeping being the lone service of questioned value.
- Most stormwater services, including water quality needs, are underfunded, with the exception of regulatory compliance.
- Understanding the costs and benefits of stormwater services and gaining the community's support are the two biggest of many challenges in addressing stormwater funding needs.
- The Committee is optimistic and committed to finding a voter-supported approach to stormwater funding.

4) Committee Meeting Agenda

The Committee meeting was conducted from 1-5pm on May 15, 2017 at Norman City Hall. Co-Chairs Andy Sherrer and Amanda Nairn led the meeting, and Trey Shanks with Freese and Nichols presented technical content.

The committee meeting agenda focused on identifying areas of consensus in four different areas:

1. Stormwater service needs
2. Stormwater funding sources
3. Stormwater utility basis and fee structure
4. Association of specific funding sources to specific stormwater services

The 16-person committee engaged in four breakout sessions in mini-groups of 4 members to consider their position on each of the above topics individually and work to come to a consensus as a group. Response forms were provided for each individual, with a request that the group work through each breakout session to identify a single recommendation wherever possible with a spirit of compromise towards a solution that is acceptable overall.

As importantly, the effort also identified areas of differences of opinion where additional discussion and consideration are likely necessary to reach a state of common agreement on a path forward for stormwater services and funding approaches.

1. Stormwater service needs were evaluated in terms of three primary groups:
2. Water quality protection and compliance
3. Storm system operations and maintenance
4. Capital improvements

Existing budget expenditures and future anticipated budget needs developed by City staff for each of the above service areas were provided to the committee for review and consideration. Detailed cost breakdowns for staffing, equipment, contract services (e.g. stormwater monitoring), and other related expenses were provided for water quality protection and O&M services. A list of yet-to-be completed capital improvements identified in the City's 2009 Stormwater Master Plan, updated to 2017 projected costs, was also provided for reference. A brief overview presentation of City service needs was provided to the committee as well.

A variety of stormwater funding options were presented to the committee for consideration through a presentation. The following funding approaches were detailed:

1. General Fund
2. Capital Fund
3. General Obligation Bonds
4. Stormwater Utility Fund
5. Stormwater Development Fee
6. Special District
7. Grants and Loans
8. Public-Private Partnerships

A detailed walkthrough of various approaches for the determination of a stormwater utility fee was provided for the third breakout session. Relative effects on property rates for each factor in the calculation were provided, and the relative equitability of each factor as a proxy for a property's use of the storm system was discussed.

5) Findings

Following is a summary of the results of the breakout sessions and the feedback from the committee in determining areas of consensus and areas where further discussion and consideration are necessary.

a) Consensus

i) Capital projects funded by GO bonds

General consensus was reached among the committee through the breakout sessions and subsequent discussions that currently identified capital improvements should be funded through general obligation bonds and should not be a cost component of a considered stormwater utility fee.

ii) Grants and Loans

Generally the entire committee was in favor of accessing grants as possible but not budgeting for grants to be obtained. The committee recognized City staff's significant ability to obtain grants through effective preparation, planning, and proposal writing efforts and noted that any grants obtained should be considered windfalls.

iii) Public-Private Partnerships

Much of the committee is open to considering public-private partnerships, but general consensus was reached that this approach is inherently situation-specific and would best not be factored as a given into an overall program funding strategy. Similarly to grants and low-interest loans, public-private partnerships are best considered as opportunities to be aware of and prepared for when circumstances are right.

iv) Stormwater Utility Fee as Funding Mechanism

Strong consensus among the committee was provided that a stormwater utility fee needs to be a key funding mechanism for stormwater services in Norman. Of all topics considered, the consensus was strongest in agreement for the need for a stormwater utility fee.

v) Substantively modified utility fee proposal necessary for public consideration

General consensus was reached that a stormwater utility fee basis on impervious area alone is inadequate and that a substantively modified approach, readily understandable by the general community, would be necessary to obtain voter support.

vi) Public Outreach

General consensus was reached that significant public outreach would be necessary to inform the public about stormwater funding needs and approaches, especially related to a modified stormwater utility proposal.

vii) Flexible Timeline

General consensus was reached that no timeline should be set to for the consideration of a stormwater utility fee to avoid the potential feeling that voters are pressured into making a decision they are not prepared to make.

b) Further Discussion Recommended

i) Services: Enhanced Water Quality Protection and Compliance

While most of the committee recognized the need and benefit for water quality protection, many requested additional information to gain a better understanding of the level of services and associated costs. Several noted that an opinion on the validity of the projected costs

could not be provided without a more detailed explanation of the services and why they are necessary to maintain compliance and/or protect water quality adequately.

(1) MS4 Compliance Activities

The committee agreed that funding was necessary to be maintained or possibly increased above proposed levels, although many requested additional information to provide an opinion.

(2) Street Sweeping

The committee generally agreed that the proposed funding level was acceptable, although many were open to a reduction in services and others felt additional information was necessary to provide an opinion.

(3) Lake Thunderbird Monitoring

Committee feedback ranged from feeling that current funding is insufficient to being significantly overfunded. Consideration of potential funding partnerships was requested to be considered.

(4) Emergency Neighborhood Repairs

The committee generally seemed supportive of the concept of this new proposed program to set aside dedicated budget for unplanned local system repairs; however significant additional information was requested to better understand the funding level proposed and the evaluation mechanism to be used to determine if the funding level is adequate. Some felt the proposed funding level was inadequate but were open to starting with the proposed amount as a pilot evaluation.

ii) Services: Operations and Maintenance

While the committee recognized the need and benefit for operations and maintenance, many requested additional information to gain a better understanding of the level of services and associated costs. Several noted that an opinion on the validity of the projected costs could not be provided without a more detailed explanation of the services and why they are necessary to maintain the storm system appropriately.

(1) Basic Maintenance

Most committee members felt the proposed funding levels were appropriate, although some felt the maintenance efforts should be increased, and others needed more specific information to provide an opinion.

(2) Enhanced Maintenance Program for Neighborhoods and HOAs

Most committee members supported this new proposed program to provide financial support for neighborhoods and HOAs to maintain and repair stormwater facilities. Significant additional information was requested to better understand the funding level proposed and the evaluation mechanism to be used to determine if the funding level is adequate. Some felt the proposed funding level was inadequate but were open to starting with the proposed amount as a pilot evaluation.

(3) Equipment Replacement Fund

Significant disagreement existed about the cost of this new program to replace equipment throughout the stormwater program. Most felt the annual cost to be too high and requested additional information to justify the need for the expense level. Some requested additional clarification to verify the costs were not double-counted with other budgeted line items.

(4) Non-Stormwater Staffing Services Providing Stormwater Support

In general, the committee was supportive of this budgeted line item to provide funding for non-stormwater staff that provide support services to the stormwater program. Several requested additional information to more fully understand the need for the funding.

iii) Services: Capital Improvements

The committee, while agreeing about the need for capital improvements, had a desire to more specifically discuss the funding prioritization and schedule through GO bonds.

iv) Funding Mechanisms

(1) General Fund and Capital Fund

While currently funded through these funds, about half the committee preferred not to use these funds in the future for stormwater services. Some were open to considering ongoing funding of a portion of stormwater services in these funds, primarily by maintaining existing services.

Significant discussion was conducted about maintaining existing stormwater-related services funding through the General Fund and Capital Fund for the near future, especially if a stormwater utility fee is proposed. Additional discussion appears necessary about long-term funding of stormwater services through the general fund or capital fund.

(2) Stormwater Utility Fee Calculation Basis

Significant differences of opinion exist for the preferred approach to determine each user's stormwater utility fee. Preferences ranged from basing the stormwater fee on the presence and type of water meter to factoring in a multitude of site characteristics including impervious area square footage, percentage, stormwater treatment facilities, and potentially other factors. Some committee members noted the importance of developing a simple, easy-to-understand user fee to improve the chance of voter approval. Others emphasized the need to develop a more robust, equitable fee calculation approach that accounts for the unique characteristics of each property, also for the purpose of obtaining voter support.

(3) Stormwater Development Fee

Many on the committee were strongly opposed to consideration of the use of a stormwater development fee as a mechanism to address stormwater needs. Others were open to consideration, although none were strongly in favor of this funding option.

(4) Special District

Most of the committee was open to or strongly in favor of considering approaches for special districts to fund targeted stormwater needs. Some were strongly opposed to this funding option. Significant additional discussion would be needed to identify the specific services, location, and approach for a special district even if all were in favor of this mechanism.

6) Recommendations

Based on feedback obtained from the Stormwater Citizens Committee, FNI's experience in municipal stormwater management services and funding assistance, and the City of Norman's current stormwater program needs, FNI provides the following recommendations for the purpose of identifying and developing a long-term stormwater program funding strategy.

a) Evaluate stormwater services costs (City and Committee)

The committee is recommended to meet directly with City staff to understand the basis for proposed stormwater costs for water quality protection and compliance and storm system operations and maintenance. The Stormwater Citizens Committee and City staff are well-positioned to address this funding strategy without engaging a consultant's professional services. Specific topics of note are discussed in the Findings section of this memo but are listed below for reference.

1. MS4 compliance activities (staffing and equipment)
2. Street sweeping services
3. Lake Thunderbird stormwater monitoring contract
4. Emergency neighborhood repairs approach and funding level (proposed program)
5. Basic maintenance activities (staffing and equipment)
6. Enhanced maintenance program for neighborhoods and HOAs (proposed program)
7. Equipment replacement fund (proposed program)
8. Non-stormwater staffing services providing stormwater support

b) Develop GO bond-funded approach for stormwater capital project (City and Committee)

A general obligation bond program strategy for capital improvements should be developed. Capital improvements should not be funded by stormwater utility revenues. The Stormwater Citizens Committee and City staff are well-positioned to address this funding strategy without engaging a consultant's professional services.

c) Transition stormwater costs from General Fund and Capital Fund to stormwater utility, if implemented (City and Committee)

If a stormwater utility is implemented, it is recommended that a schedule be developed to steadily transition stormwater services currently funded in the general fund and capital fund to the stormwater utility fund. Splitting allocation of one type of cost (e.g. water quality compliance and storm system O&M) into multiple funding mechanisms can create confusion and uncertainty for the general community about the proper allocation of budgets.

d) Pursue a voter-supported approach to a stormwater utility fee (City, Committee, Consultant)

The Stormwater Citizens Committee is recommended to fully investigate and evaluate options for an equitable, reasonable stormwater utility fee structure that can gain community support. It is recommended the committee initially develop an acceptable technical solution prior to engaging the community. Through a series of two to five one-hour meetings, it is recommended the committee engage FNI's services to develop a tailored stormwater utility financial model for the committee's use in identifying preferred technical options for a fee calculation basis, structure and rate. Some specific considerations include:

1. Consider using well-understood factors (e.g. living area square footage) as a calculation basis for a stormwater utility fee to gain residents' trust and buy-in.
2. Consider a limited number of fee tiers for residential properties for a simplified cost model.
3. Consider fee tiers for non-residential properties for a simplified cost model and to maintain reasonable maximum fees.
4. Provide readily achievable fee credits for properties with minimized storm system impact (e.g. on-site stormwater ponds, high percentage of vegetated area, etc.)

5. Assess the fee as a line item on existing utility bills.
6. Provide the community ready access to information to understand the fee use, basis for the rates, and approach for their specific property.

e) Conduct significant public outreach without a specified timeline (City, Committee, Consultant)

It is recommended a public relations team be engaged to assist the City to develop and implement a public outreach approach for a stormwater utility fee. Given the recent challenges and current mindset of many in the community to have a negative opinion about the concept of a stormwater utility fee, an open timeline is recommended. Approaches includes polling, surveys, community meetings, social media, traditional media, and other methods of public engagement should be considered and incorporated. FNI recommends the City engage a firm that specializes in public relations for this initiative.

f) Establish a Stormwater Advisory Committee for continuing oversight (City, Committee)

The City has significant stormwater program needs and costs. Awareness in the community about stormwater issues in Norman is significantly higher than in many comparable cities. To recognize and accommodate this significant public interest in the City's stormwater management program, it is recommended that a standing stormwater advisory committee appointed by City Council be maintained to represent the community's perspective for stormwater initiatives and funding priorities.

ATTACHMENT A

COMMITTEE PRESENTATION

City of Norman
Stormwater Utility Study

Steering Committee Work Session #1

May 15, 2017

Agenda

Introductory Overview
Stormwater Functions and Services Breakout
Stormwater Funding Mechanisms Breakout
Stormwater Utility Approaches Breakout
Funding Allocation Breakout
Wrap-up and Path Forward

Stormwater Citizens Committee

Survey Results

* 1. I believe Norman is a _____

	great	good	average	below average	poor
...community to live in.	○	○	○	○	○
...community for businesses.	○	○	○	○	○

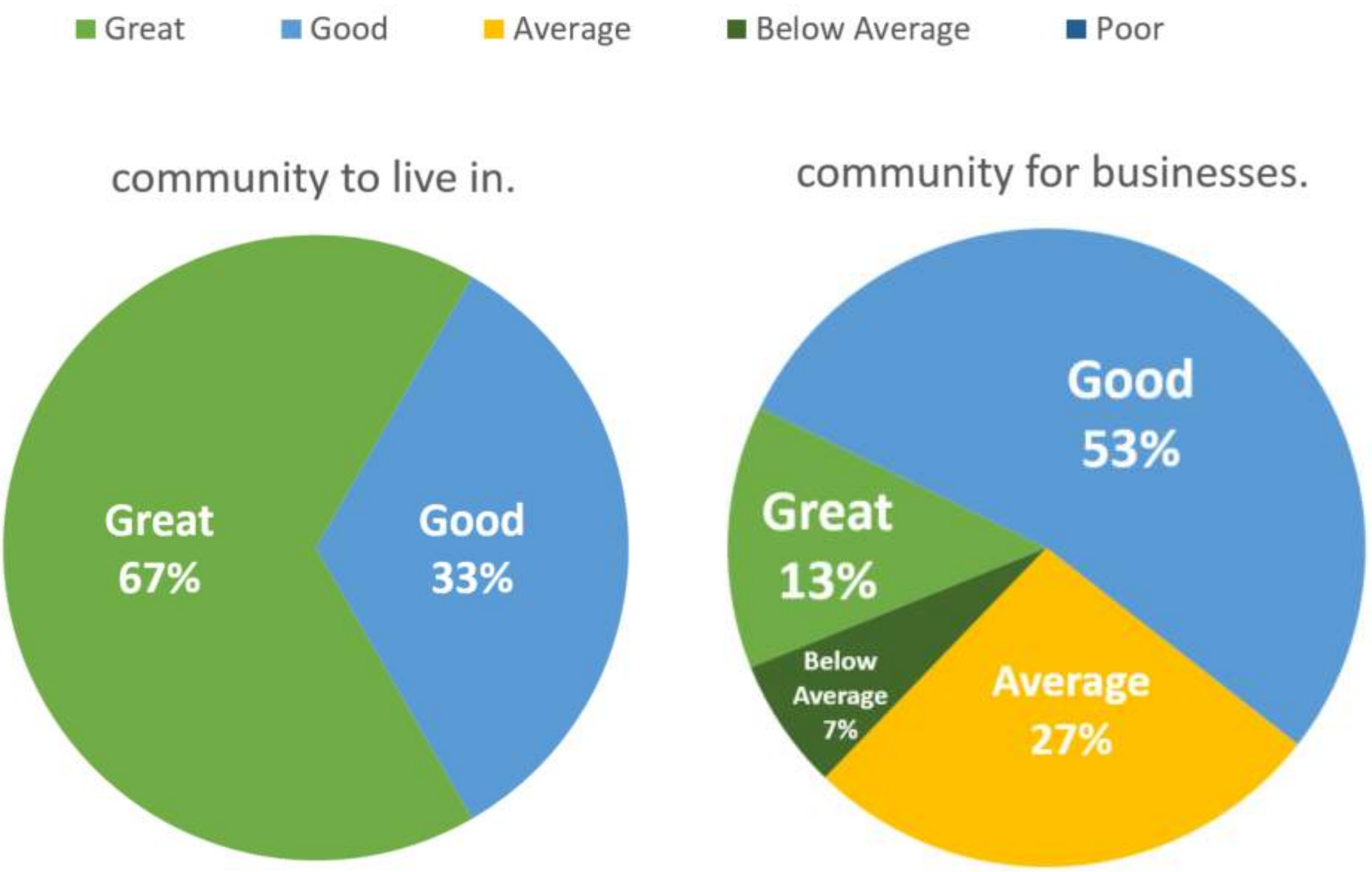
* 2. I see Norman as _____ in our state.

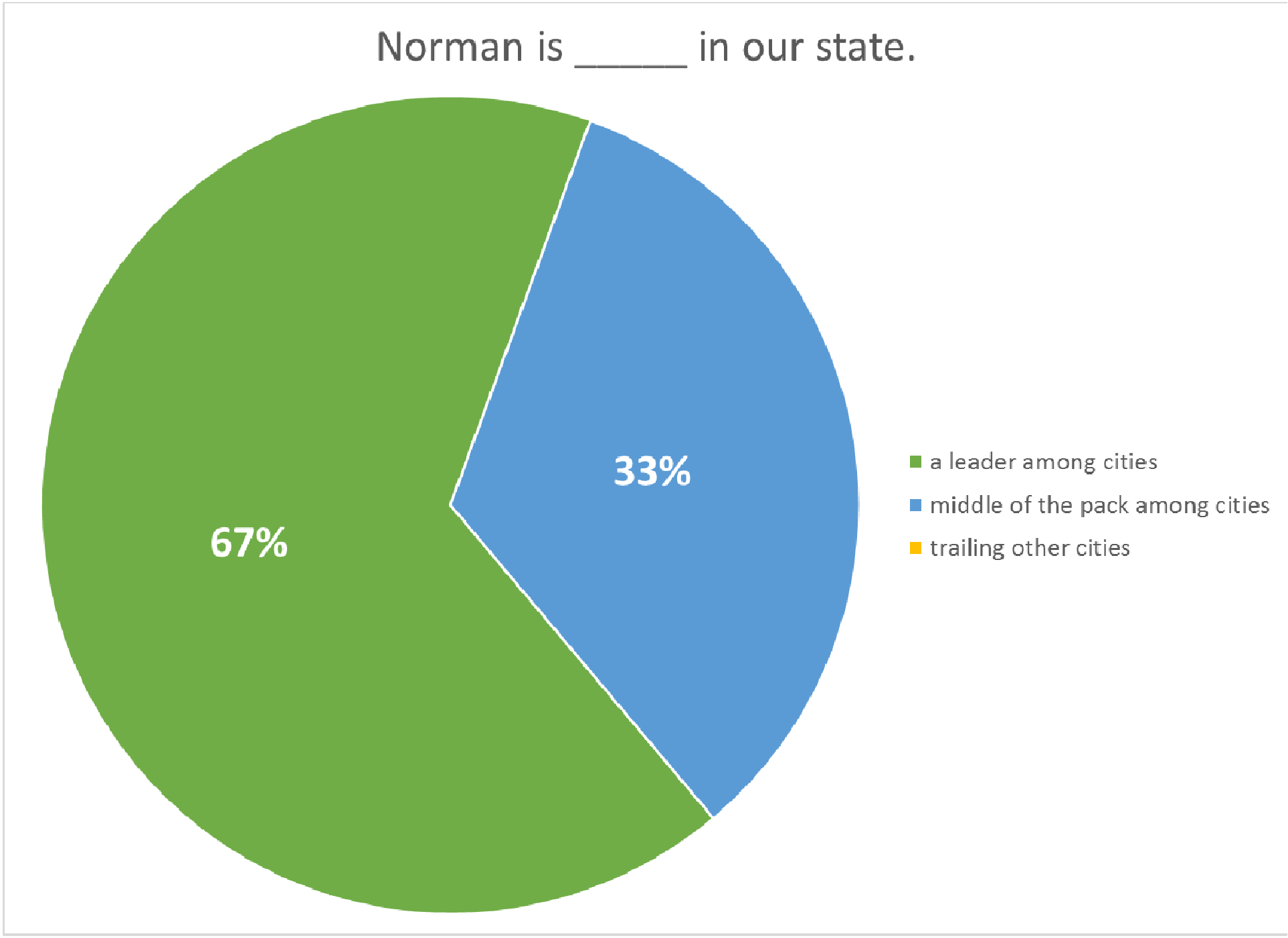
- ○ a leader among cities
- ○ middle of the pack among cities
- ○ trailing other cities

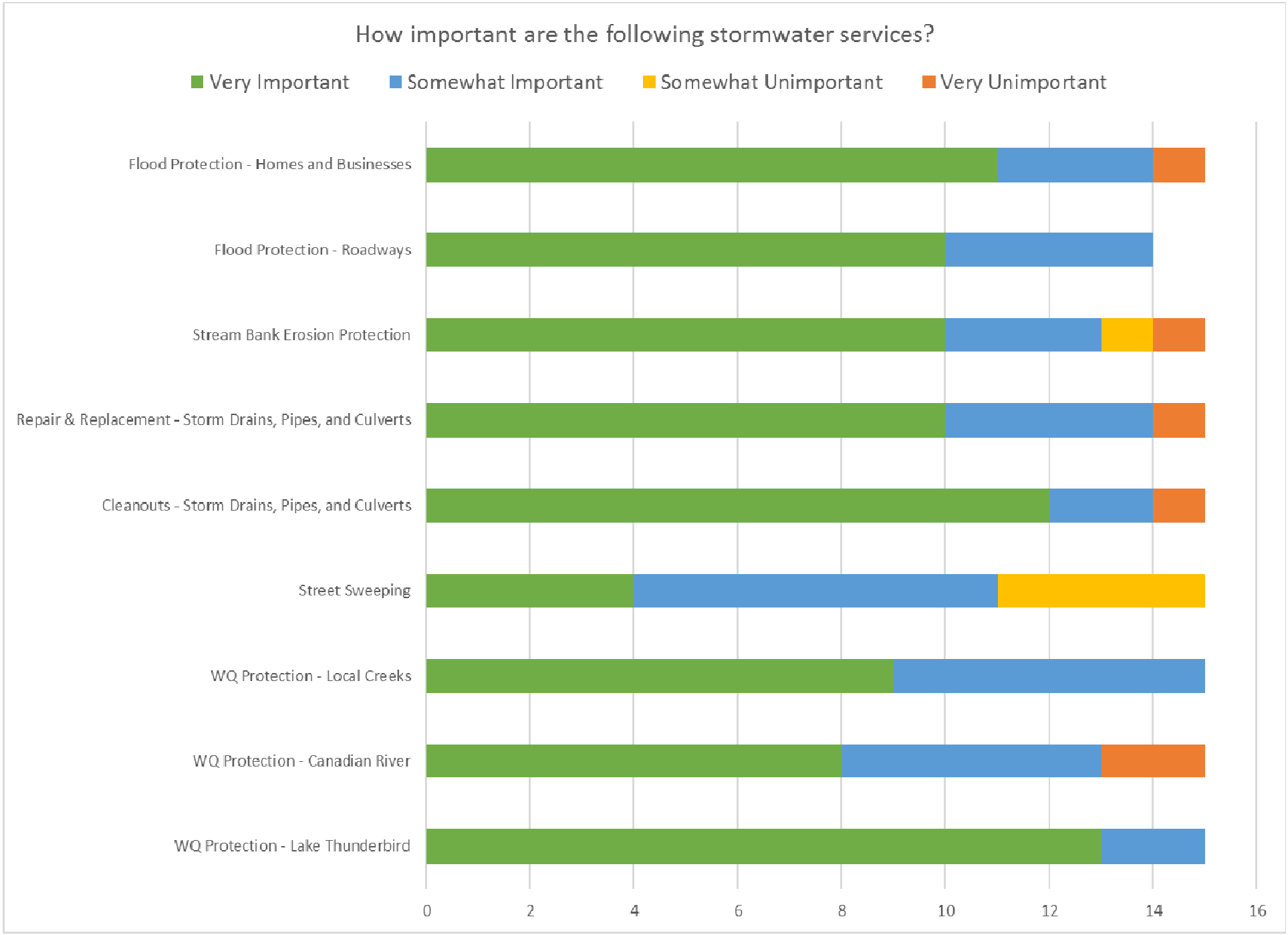
1 / 8 13%

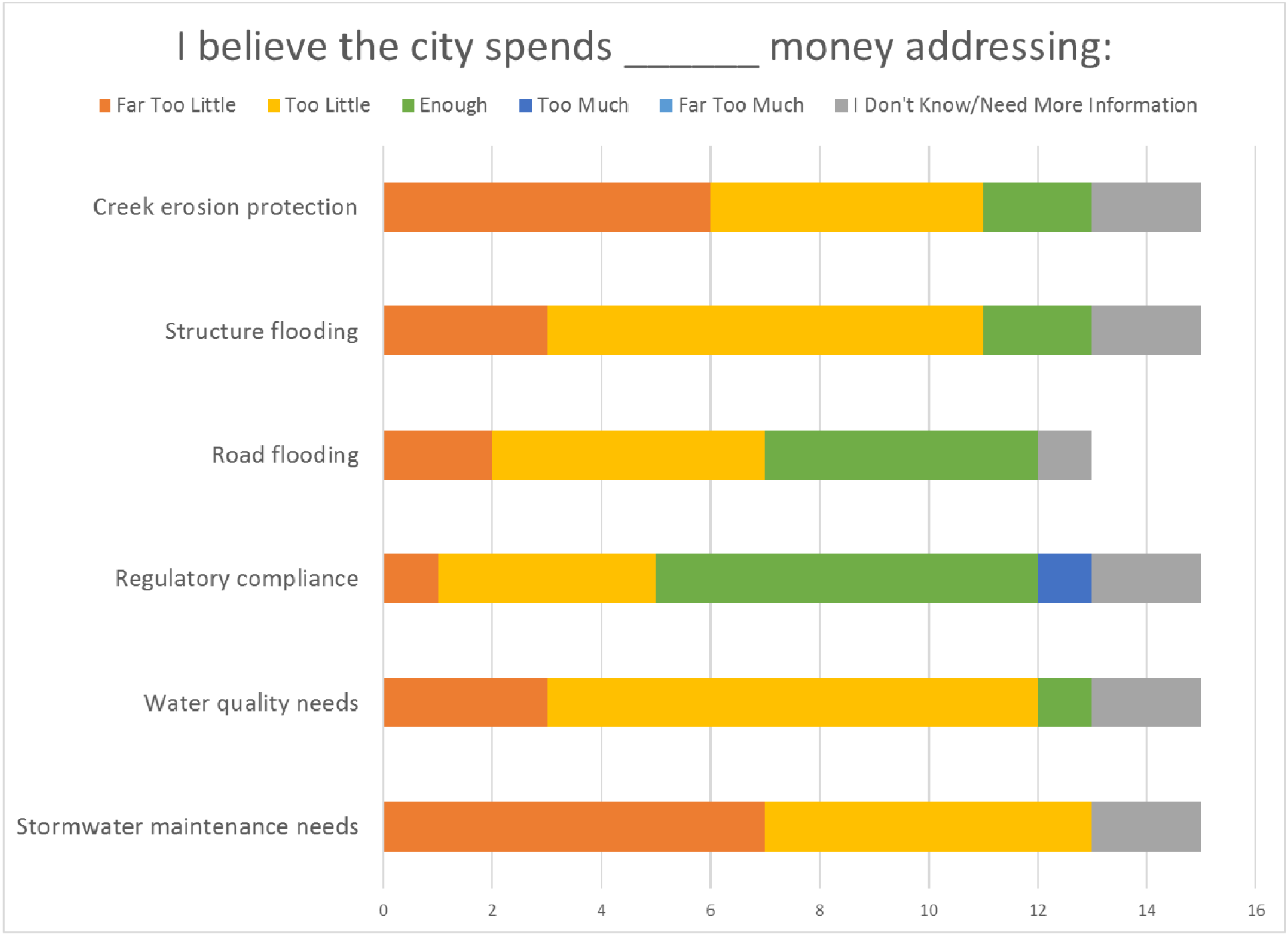
Next

I believe Norman is a _____ …

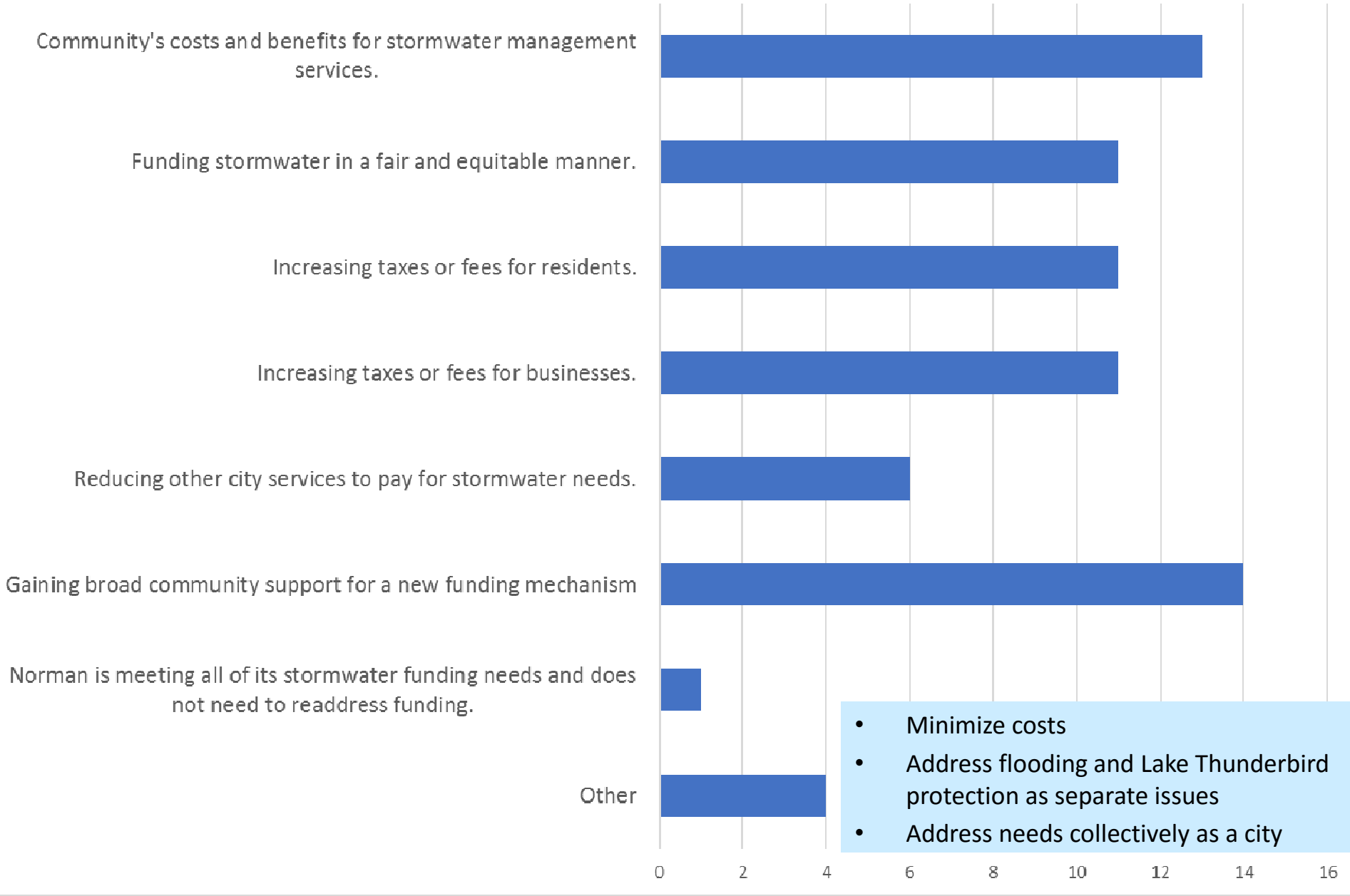


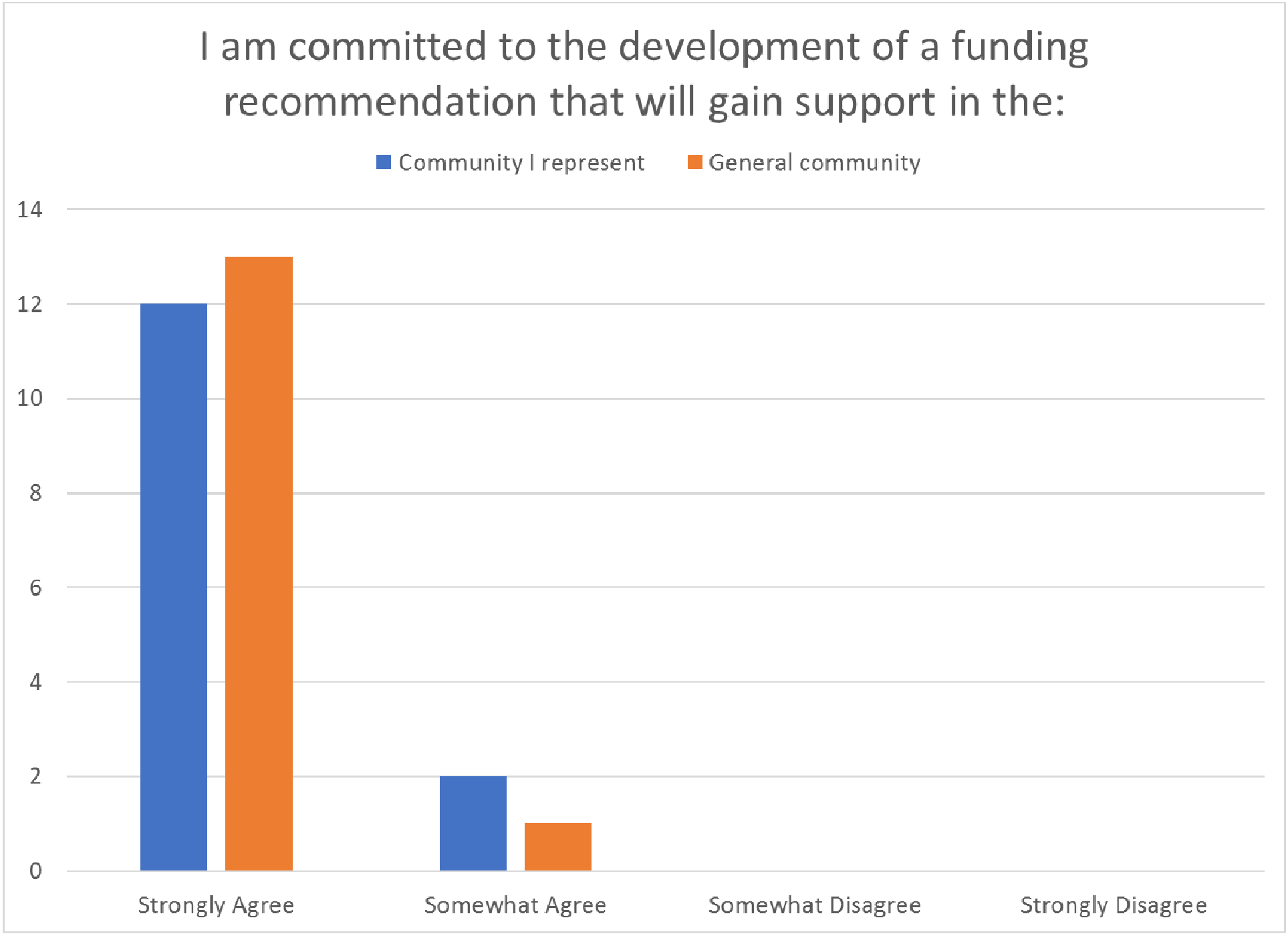

Norman is _____ in our state.
67%
33%
a leader among cities
middle of the pack among cities
trailing other cities

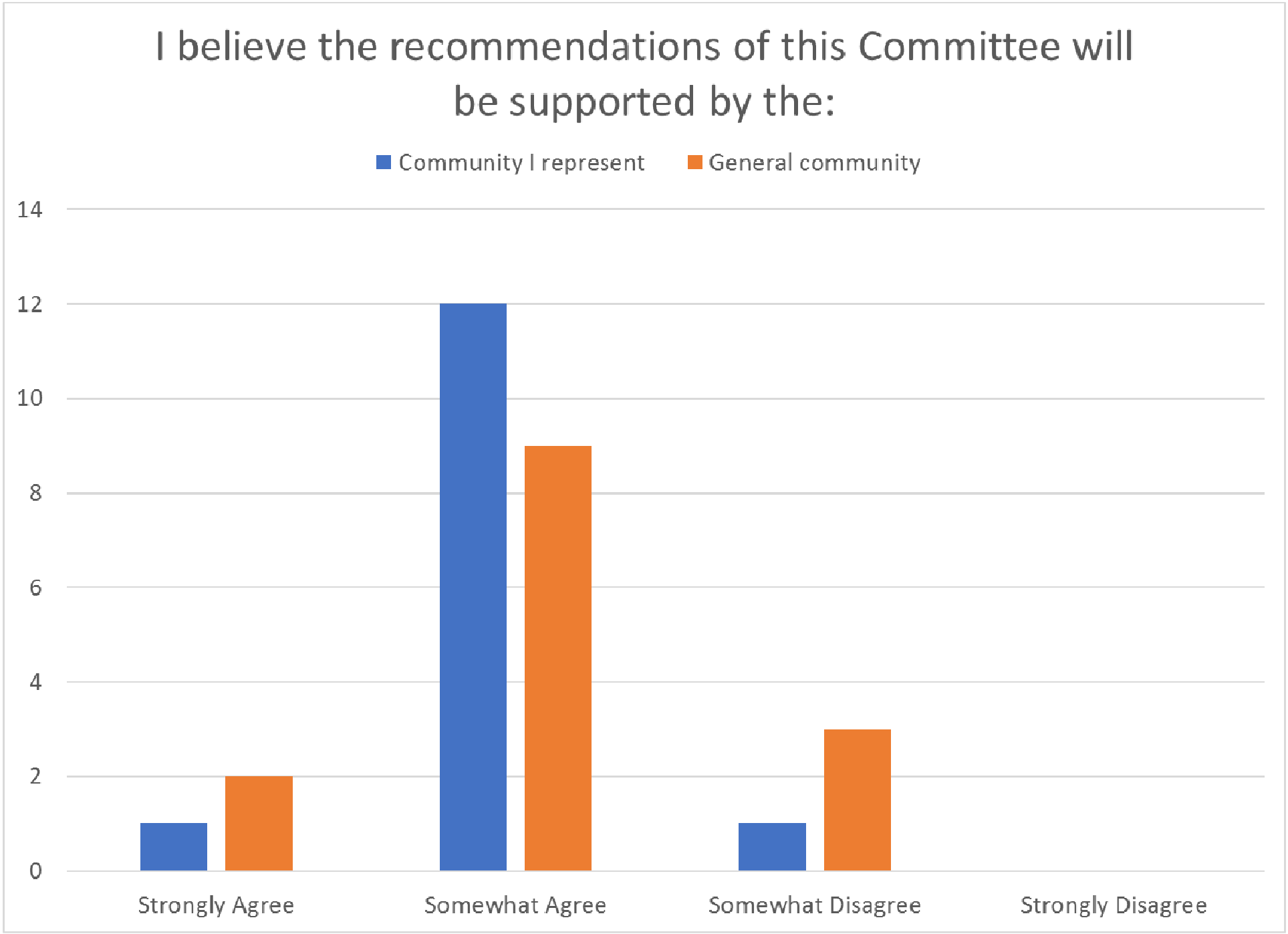

How important are the following stormwater services?
Very Important
Somewhat Important
Somewhat Unimportant
Very Unimportant
Flood Protection - Homes and Businesses
Flood Protection - Roadways
Stream Bank Erosion Protection
Repair & Replacement - Storm Drains, Pipes, and Culverts
Cleanouts - Storm Drains, Pipes, and Culverts
Street Sweeping
WQ Protection - Local Creeks
WQ Protection - Canadian River
WQ Protection - Lake Thunderbird
0
2
4
6
8
10
12
14
16


I believe the city spends _____ money addressing:
Far Too Little
Too Little
Enough
Too Much
Far Too Much
I Don't Know/Need More Information
Creek erosion protection
Structure flooding
Road flooding
Regulatory compliance
Water quality needs
Stormwater maintenance needs
0
2
4
6
8
10
12
14
16

Challenges in addressing stormwater funding needs




I am committed to the development of a funding recommendation that will gain support in the:
Community I represent
General community
14
12
10
8
6
4
2
0
Strongly Agree
Somewhat Agree
Somewhat Disagree
Strongly Disagree


I believe the recommendations of this Committee will be supported by the:
Community I represent
General community
14
12
10
8
6
4
2
0
Strongly Agree
Somewhat Agree
Somewhat Disagree
Strongly Disagree

I will consider the Stormwater Citizens Committee successful if:

voter-supported funding

address water quality/protect Lake Thunderbird

address flooding

address maintenance

specific solution

reach consensus

fair, reasonable, equitable solution

stormwater utility

Basic Tenets

- **Participate** actively and professionally
- Achieve committee **consensus on overall** recommendations
- **Receive input** from representative community
- **Advocate recommendations** to community

Be kind; everyone you meet is fighting a hard battle. – Ian MacClaren (or Plato)

Committee Charter Mission

- Recommend stormwater **level of service** for stormwater management
- Recommend stable stormwater **funding mechanisms**
- Recommend funding mechanisms' **structure, rates**
- Recommend mechanisms for **continuing oversight** of stormwater management

Agenda

- Introductory Overview
- **Stormwater Functions and Services**
- **Stormwater Funding Mechanisms**
- **Stormwater Utility Approaches**
- **Funding Allocation**
- **Wrap-up and Path Forward**

Stormwater Functions and Services

Stormwater 101

During a rainfall event, some of the falling water soaks into the ground, but a portion of the water is unable to be absorbed. This portion of water that falls as rain but runs off the land at the surface is referred to as **stormwater**.

HOW MUCH STORMWATER RUNOFF DOES ONE INCH OF RAIN PRODUCE?

5% of rain water runs off undeveloped areas and
95% of rain water runs off paved areas.
One inch of rain produces…

5% Runoff
1,361 gallons of runoff per undeveloped acre

95% Runoff
25,800 gallons of runoff per paved acre

Source: pwconserve.org

Stormwater Functions and Services

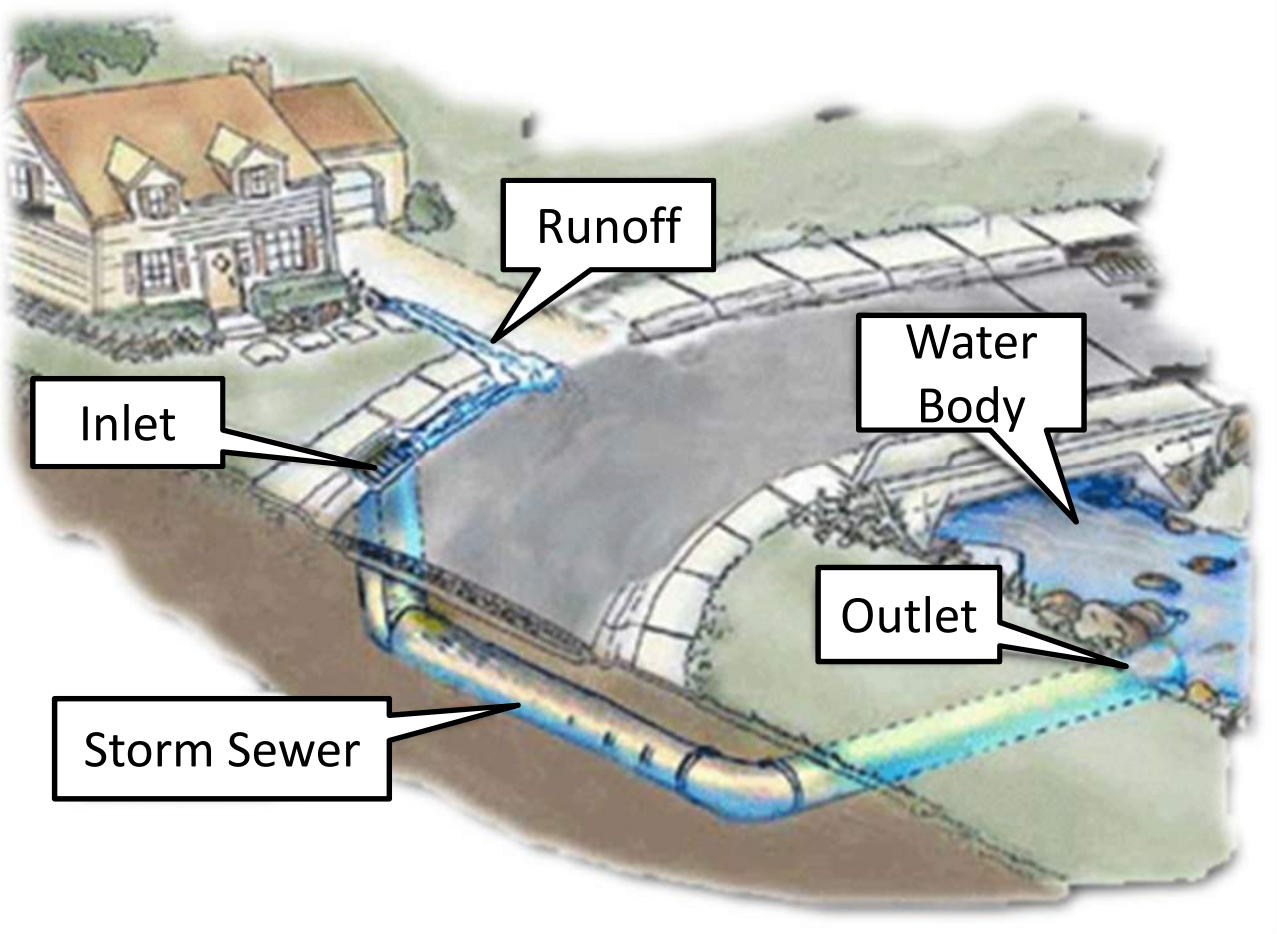
What is a Stormwater System?

Curb Inlet

Pipe

Retention Pond

Creek



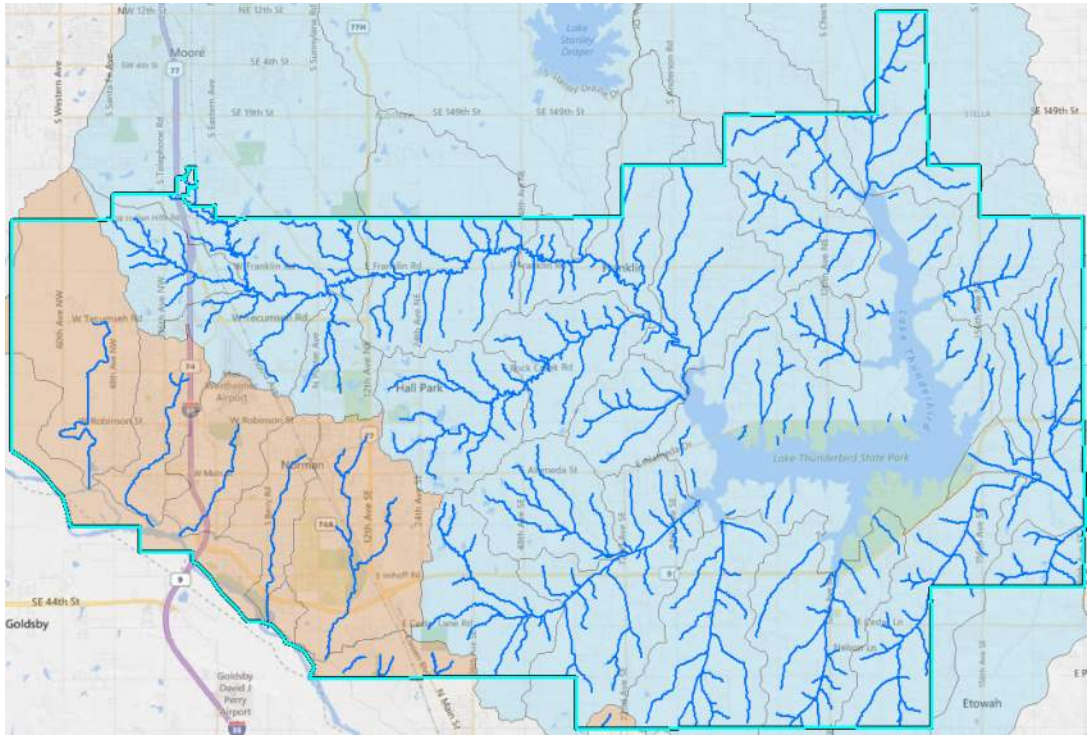
Receiving Waters

Lake Thunderbird and creeks

- Drinking water supply
- Recreational use
- Environmental resource
- Floodwater conveyance

Canadian River and tributaries

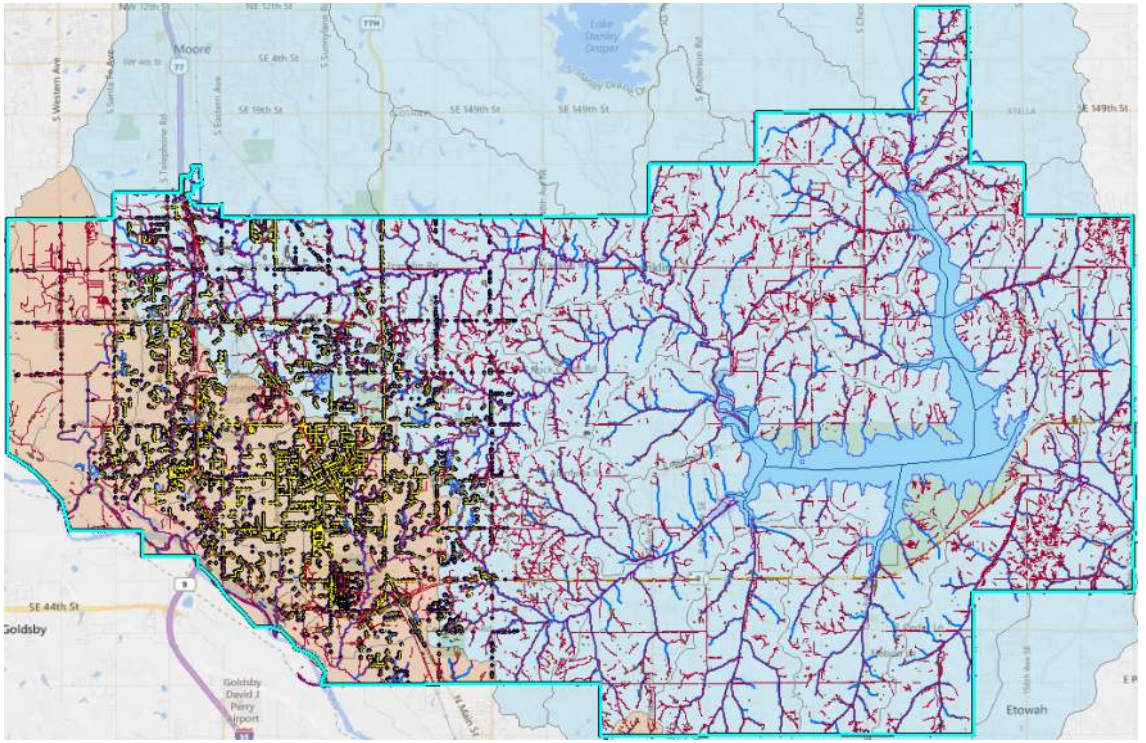
- Recreational use
- Environmental resource
- Floodwater conveyance



Norman's Storm System

Local system

- Swales
- Channels
- Pipes
- Inlets
- Culverts
- Detention/ Retention Ponds
- Outfalls



See
Existing City SW Infrastructure
tab of binder for details

Stormwater Functions and Services

Norman's Storm System Functions

- **Water quality protection**
  - Lake Thunderbird (nutrients, turbidity and dissolved oxygen)
  - Canadian River (bacteria)
  - Little River, Rock Creek, Elm Creek West
  - MS4 compliance (EPA and ODEQ municipal stormwater quality)

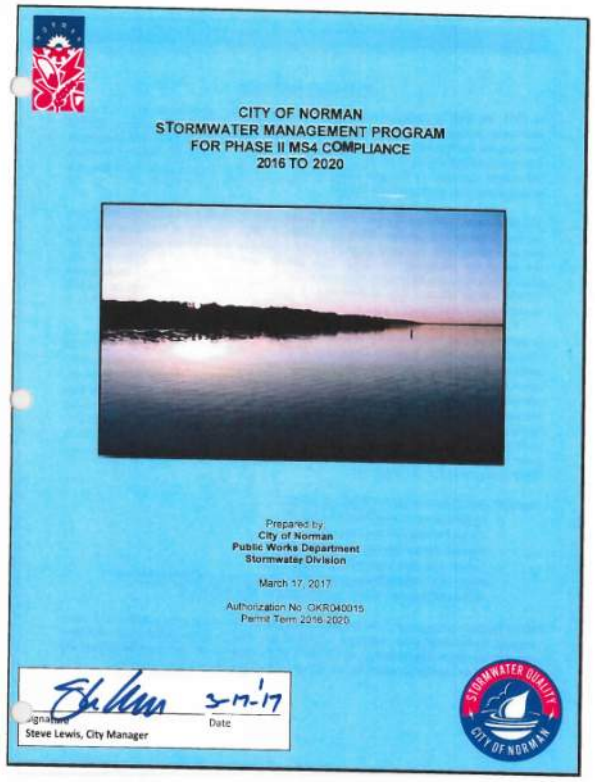
- **Flood protection**
  - Structures (homes, businesses, etc.)
  - Roadways

- **Erosion protection**
  - Private property (structures, land)
  - Public infrastructure (roads, sewer pipes, etc.)

Stormwater Functions and Services

Norman's Storm System Services

- **Water quality compliance and monitoring**
- **Operations and maintenance**
- **Capital improvements**


CITY OF NORMAN
STORMWATER MANAGEMENT PROGRAM
FOR PHASE II MS4 COMPLIANCE
2016 TO 2020

Prepared by:
City of Norman
Public Works Department
Stormwater Division

March 17, 2017

Authorization No. OKR040015
Permit Term 2016-2020

3-17-17
Date

Steve Lewis, City Manager

Stormwater Functions and Services

Norman's Storm System Services

Program Elements	FYE 2017		Projected Funding Needs	
Unfunded Mandates(Water Quality)	***General Fund***	***Capital Fund***	***General Fund***	***Capital Fund***
Stormwater Program Minimum Control Measures	$344,264	$55,681	$835,051	$149,573
Street Sweeping	$68,759	$269,250	$487,476	$99,537
Lake Thunderbird TMDL Monitoring		$300,000		$300,000
Lake Thunderbird TMDL Public Education			$15,000	
Emergency Neighborhood Repairs & Materials			$200,000	
Water Quality Subtotal:	***$413,023***	***$624,931***	***$1,537,527***	***$549,110***
Basic Maintenance:				
Basic Maintenance	$1,837,008	$504,638	$2,225,159	$223,720
Enhanced Maintenance Program for Neighborhoods & HOAs			$250,000	
Subtotal:	***$1,837,008***	***$504,638***	***$2,475,159***	***$223,720***
Stormwater Utility Management Services:				
Estimated Equipment Replacement Costs for all Program Elements				$700,000
Estimated Costs for GIS Services, Fleet Maintenance, Finance, and other city services for all Program Elements			$205,589	
Subtotal:	***$0***	***$0***	***$205,589***	***$700,000***
Total	$2,250,031	$1,129,569	$4,218,275	$1,472,830
Grand Total		**$3,379,600**		**$5,691,105**

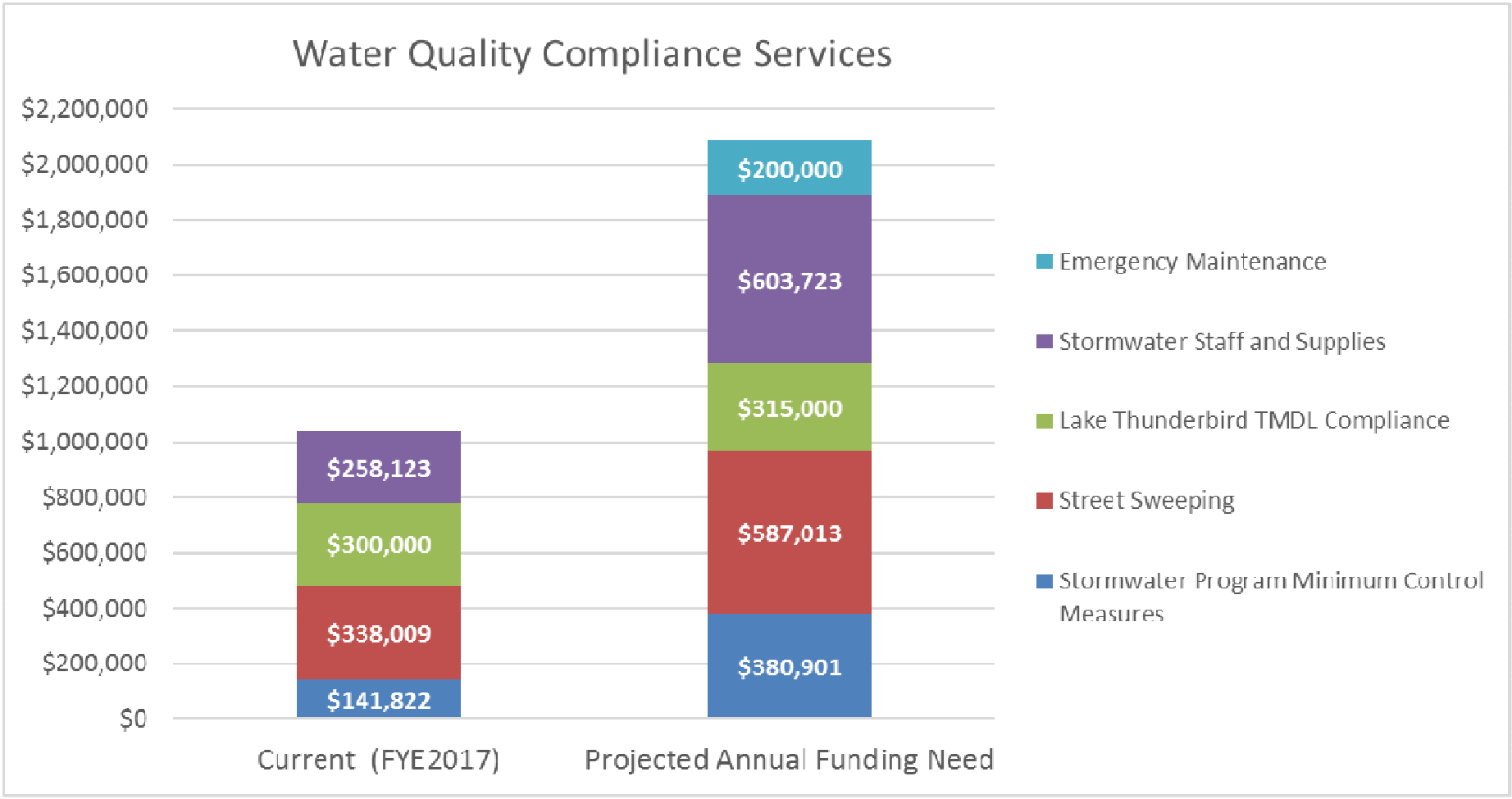
Stormwater Functions and Services

Norman's Storm System Services

Program Elements	Current (FYE2017)	Projected Annual Funding Need	Additional Budget Needed
Water Quality Compliance Services			
Stormwater Staff and Supplies	$258,123	$603,723	$345,600
Stormwater Program Minimum Control Measures	$141,822	$380,901	$239,079
Street Sweeping	$338,009	$587,013	$249,004
Lake Thunderbird TMDL Compliance	$300,000	$315,000	$15,000
Emergency Maintenance	-	$200,000	$200,000
Subtotal	***$1,037,954***	***$2,086,637***	***$848,684***
Operations & Maintenance			
Basic Maintenance	$2,341,646	$2,448,879	$107,233
Maintenance Program for Neighborhoods & HOAs	-	$250,000	$250,000
Equipment Replacement	-	$700,000	$700,000
GIS Services, Fleet Maintenance, Finance, and other city services	-	$205,589	$205,589
Subtotal	***$2,341,646***	***$3,604,468***	***$1,462,822***
TOTAL	**$3,379,600**	**$5,691,105**	**$4,046,209**

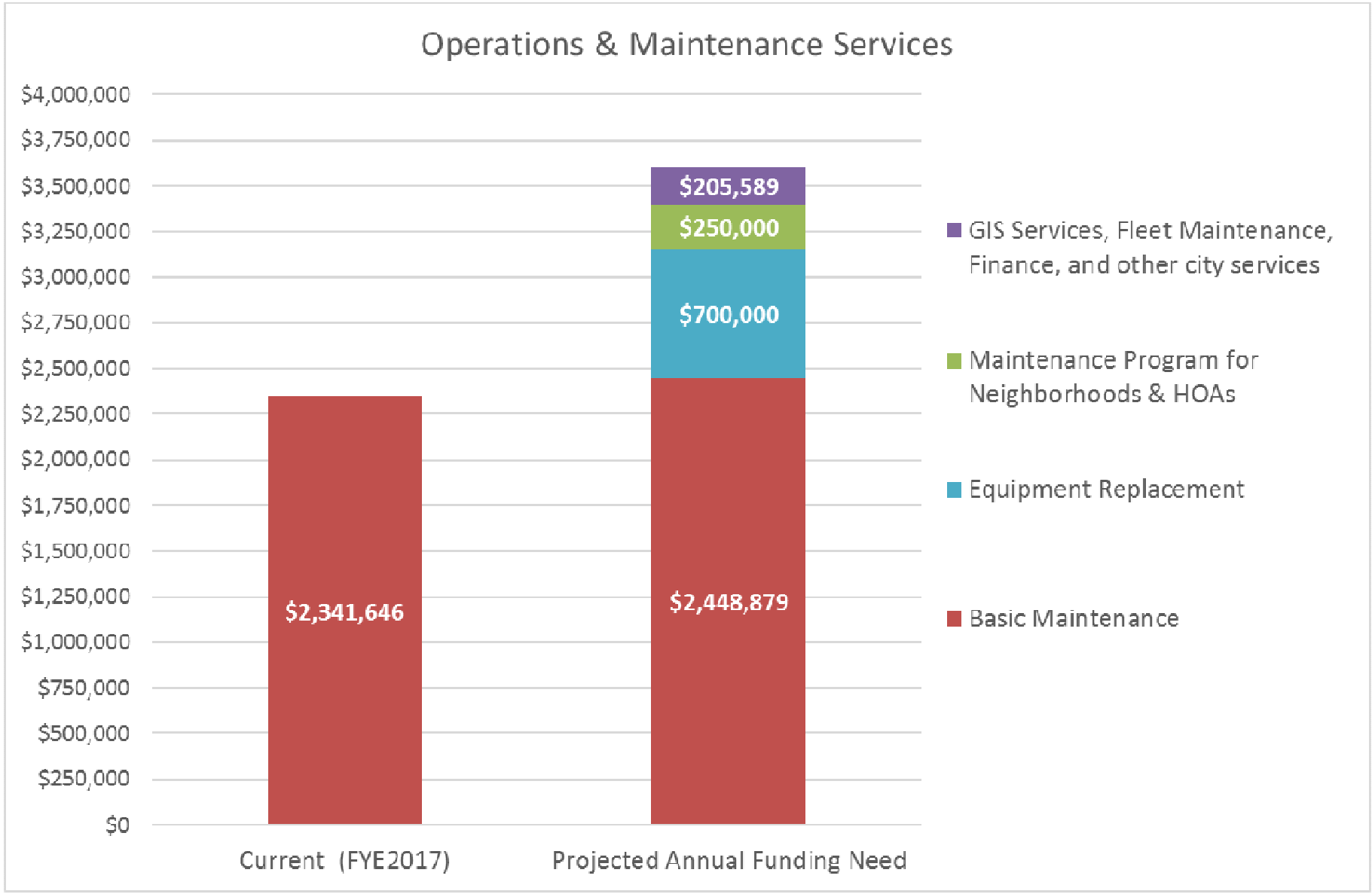
Stormwater Functions and Services

Norman's Storm System Services



Stormwater Functions and Services

Norman's Storm System Services



Capital Improvement Projects

- 59 Projects
- Cost Range: $30,000 - $12.5 Million
- Total Cost: $87.7 Million (2017 $)

Project Types

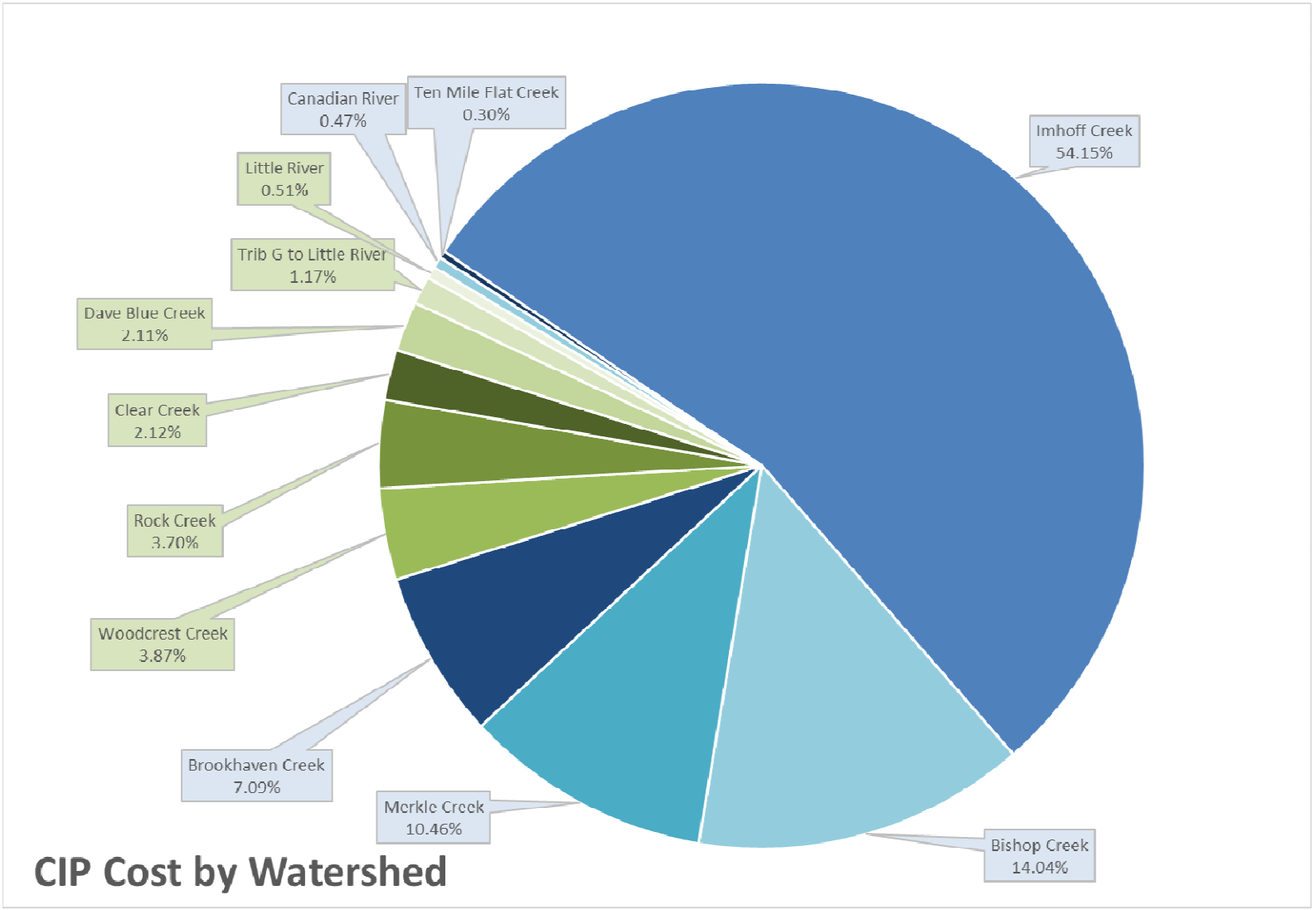
- Flood Mitigation—Flooded Structure Buyouts
- Flood Mitigation—Road Crossing Updates
- Flood Mitigation—Stream Capacity Increase, Detention
- Stream Erosion Stabilization

Special Designations

- Greenbelt Opportunities
- Local Drainage Improvements

Stormwater Functions and Services

Norman's Storm System Services



CIP Cost by Watershed

Green = Lake Thunderbird watershed

Blue = Canadian River watershed

CIP by Watershed

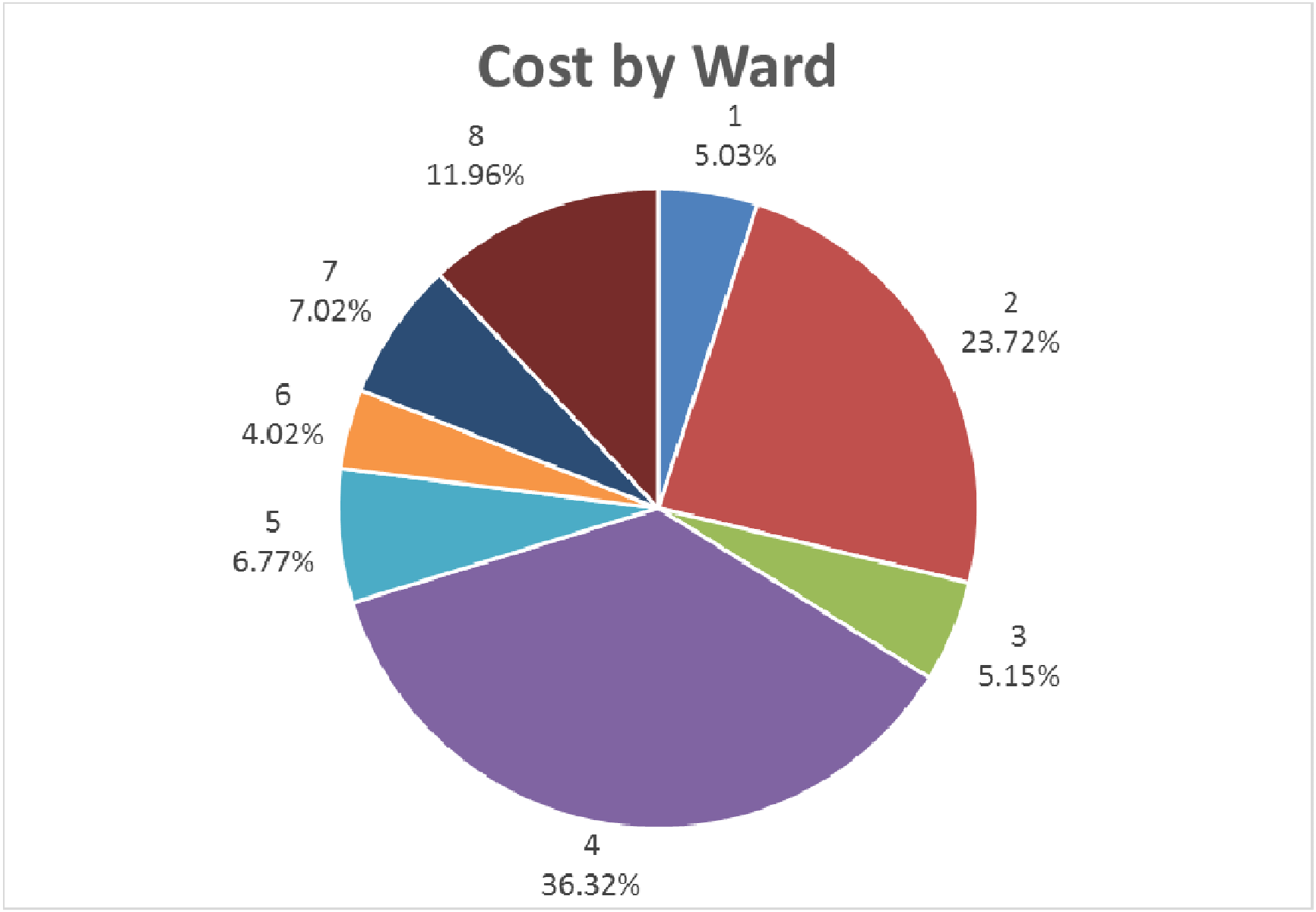
Canadian River	Projects	Estimated Cost (in 2017 $)
Bishop Creek	17	$14,808,850
Brookhaven Creek	10	$3,487,849
Canadian River	1	$499,204
Imhoff Creek	12	$41,594,366
Merkle Creek	5	$11,409,071
Ten Mile Flat Creek	3	$617,176
Canadian River Total	**48**	**$72,416,516**

Lake Thunderbird	Projects	Estimated Cost (in 2017 $)
Clear Creek	1	$2,235,353
Dave Blue Creek	2	$2,226,269
Little River	2	$534,428
Rock Creek	3	$3,907,594
Trib G to Little River	1	$1,236,259
Woodcrest Creek	5	$4,520,651
Lake Thunderbird Total	**14**	**$14,660,554**

Watershed	Projects	Estimated Cost (in 2017 $)	% of Total CIP
Canadian River Total	48	$72,416,516	83%
Lake Thunderbird Total	14	$14,660,554	17%
Grand Total	**62**	**$87,077,070**	**100%**

Stormwater Functions and Services

Norman's Storm System Services



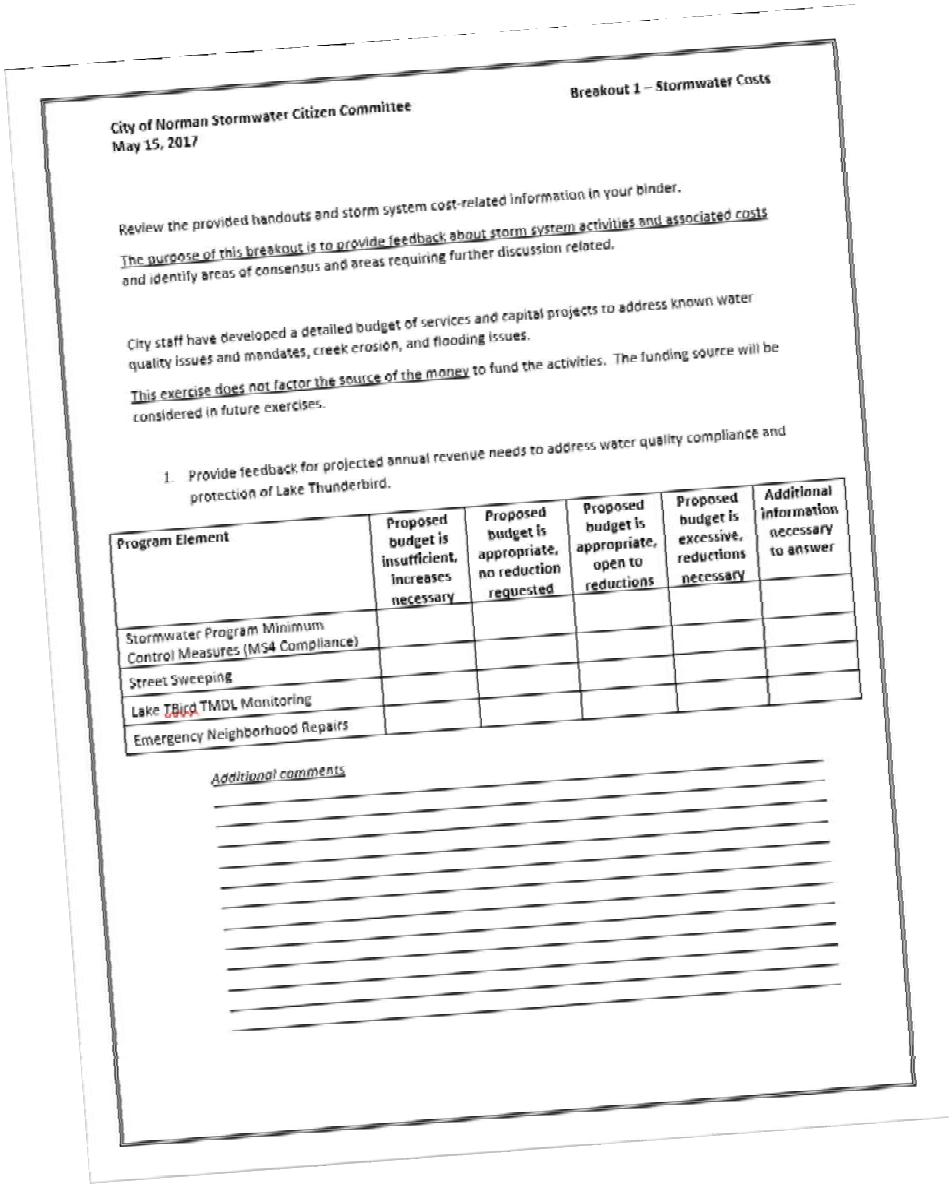
Stormwater Functions and Services

Capital Improvement Projects

Project ID	Watershed	Creek Basin	Stream	Ward	Project Description	Scoring	Watershed Rank	City Rank	Ward Rank	Estimated Cost (in 2017 $)	Cumulative Cost (in 2017 $)
BC-14	Canadian River	Bishop Creek	Local	1	Improve channel conveyance located northwest of Tahoe Street and 24th SE Street	36	17	63	10	$37,380	$37,380
BHC-5	Canadian River	Brookhaven Creek	Brookhaven Creek	8	Improve channel side slope underneath Robinson Road	64	9	46	11	$62,300	$99,680
BHC-101	Canadian River	Brookhaven Creek	Local	8	Channel repair south of Bart Conner Dr	65	8	44	10	$62,300	$161,980
BC-7	Canadian River	Bishop Creek	Trib A to Bishop Creek	1	Repair outfall structure upstream of 12th SE Street that has failed due to bank erosion	52	16	62	9	$72,571	$234,551
BC-9	Canadian River	Bishop Creek	Trib A to Bishop Creek	1	Stabilize streambanks upstream of Lindsey Street	65	12	44	5	$78,671	$313,222
TMF-101	Canadian River	Ten Mile Flat Creek	Local	3	Clean channel east of 48th Street South of Brookhaven	62	2	52	5	$112,140	$425,362
BHC-2	Canadian River	Brookhaven Creek	Brookhaven Creek	3	Stabilize streambanks upstream of Main Street	69	3	35	1	$126,619	$551,980
BHC-7	Canadian River	Brookhaven Creek	Trib A to Brookhaven Creek	8	Add 1 RCP to existing culvert system at Pendleton Road	68	6	39	7	$131,722	$683,703
WC-3	Lake Thunderbird	Woodcrest Creek	Woodcrest Creek	6	Stabilize streambanks in park south of Sequoyah Trail	68	5	39	6	$138,262	$821,965
LR-1	Lake Thunderbird	Little River	Little River	6	Stabilize streambanks upstream of 12th NE Avenue	74	2	12	1	$154,108	$976,073
WC-2	Lake Thunderbird	Woodcrest Creek	Woodcrest Creek	6	Add 1 RCB to existing culvert system at Sequoyah Trail if Project ID # WC-1A is not constructed	71	2	30	3	$175,176	$1,151,249
TMF-102	Canadian River	Ten Mile Flat Creek	Local	3	Repair Arbor Lake Detention Pond	63	1	49	4	$186,900	$1,338,149
BHC-3	Canadian River	Brookhaven Creek	Brookhaven Creek	3	Stabilize streambanks upstream of Willow Branch Road	69	3	36	1	$194,523	$1,532,672
DBC-2	Lake Thunderbird	Dave Blue Creek	Trib 1 to Dave Blue Creek	5	Replace existing culvert with RCBs at 48th Ave SE	68	1	39	1	$304,146	$1,836,818
IC-1	Canadian River	Imhoff Creek	Imhoff Creek	2	Stabilize streambanks downstream of SH 9	79	1	3	1	$315,759	$2,152,577
BHC-6	Canadian River	Brookhaven Creek	Brookhaven Creek	8	Add 3 RCP to existing culvert system at Rock Creek Road	70	1	32	5	$317,315	$2,469,892
TMF-1	Canadian River	Ten Mile Flat Creek	Local	3	Reconstruct channel to increase capacity at Cambridge Addition west of 48th Ave NW and north of Main Street	55	3	59	6	$318,136	$2,788,028

Stormwater Functions and Services

BREAKOUT



City of Norman Stormwater Citizen Committee
May 15, 2017

Breakout 1 – Stormwater Costs

Review the provided handouts and storm system cost-related information in your binder.

The purpose of this breakout is to provide feedback about storm system activities and associated costs and identify areas of consensus and areas requiring further discussion related.

City staff have developed a detailed budget of services and capital projects to address known water quality issues and mandates, creek erosion, and flooding issues.

This exercise does not factor the source of the money to fund the activities. The funding source will be considered in future exercises.

1. Provide feedback for projected annual revenue needs to address water quality compliance and protection of Lake Thunderbird.

Program Element	Proposed budget is insufficient, increases necessary	Proposed budget is appropriate, no reduction requested	Proposed budget is appropriate, open to reductions	Proposed budget is excessive, reductions necessary	Additional information necessary to answer
Stormwater Program Minimum Control Measures (MS4 Compliance)					
Street Sweeping					
Lake TBird TMDL Monitoring					
Emergency Neighborhood Repairs					

Additional comments

5 MINUTE BREAK

Agenda

- Introductory Overview
- Stormwater Functions and Services
- **Stormwater Funding Mechanisms**
- Stormwater Utility Approaches
- Funding Allocation
- Wrap-up and Path Forward

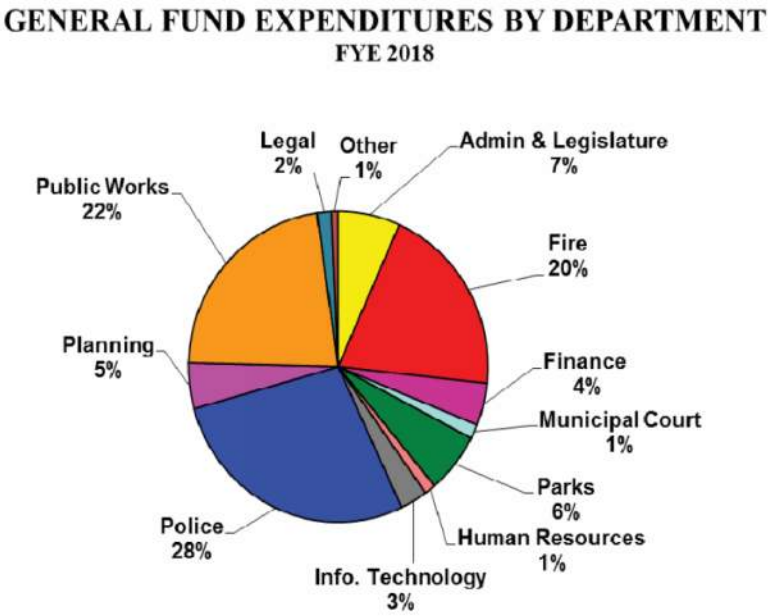
Stormwater Funding Mechanisms

Funding Mechanism		Source of Funds
General Fund	-->	Sales tax (primarily)
Capital Fund	-->	Dedicated sales tax
GO Bonds (Debt Service)	-->	Property taxes
Stormwater Utility Fund	-->	User fee
Stormwater Development Fee	-->	Developer fees
Special District	-->	Targeted tax funds by location
Grants and Loans	-->	Federal/State
Public-Private Partnerships	-->	Private sector

Stormwater Funding Mechanisms

General Fund – Sales Tax

- Sales tax 2.30% (of 4.0%)
  - Primary operating budget source
- Capital fund 0.70% (of 4.0%)
  - Capital outlay fund
- Public vote to amend rate
- Variable annual revenue

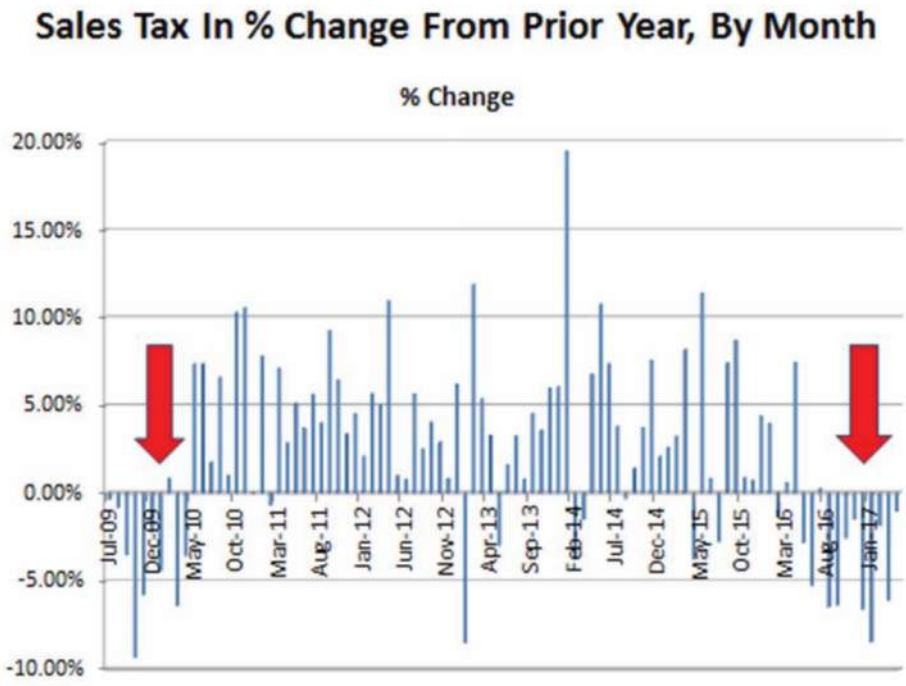


General Fund	2.30%	$40,128,750
Capital Fund	0.70%	$12,269,125
Public Safety	0.50%	$9,613,475
Norman Forward	0.50%	$9,613,475

Stormwater Funding Mechanisms

General Fund – Sales Tax

City	Total Sales Tax	City Sales Tax
Enid	9.100%	4.250%
Lawton	9.000%	4.125%
Bixby	8.917%	4.050%
Norman	8.750%	4.000%
Oklahoma City	8.375%	3.875%
Midwest City	8.350%	3.850%
Edmond	8.250%	3.750%
Moore	8.500%	3.750%
Tulsa	8.517%	3.650%
Broken Arrow	8.417%	3.550%
Stillwater	8.813%	3.500%

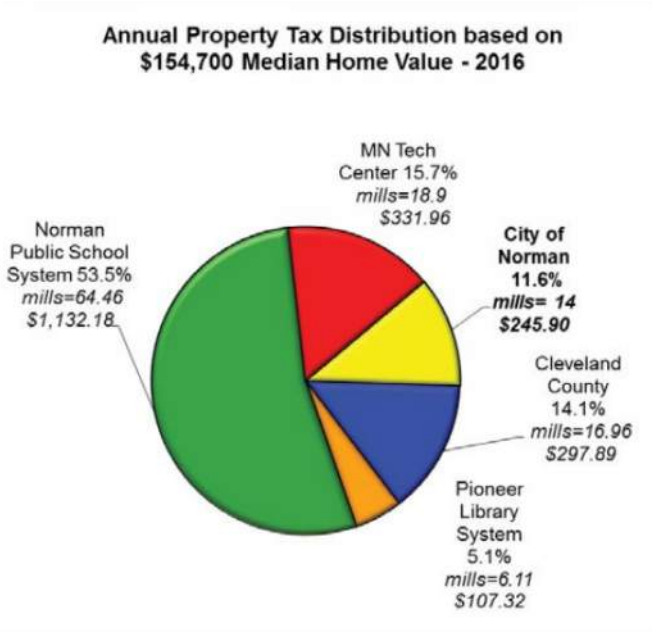


$0.025% Sales Tax = $480,000 in Norman

Stormwater Funding Mechanisms

Property Tax – Debt Service

- 1.4% of assessed value in Norman
- $245.90 for median home in Norman
- $13,061,547 total taxes in 2016
- Public vote to amend



Tax Element	Norman (2016)	Norman (unit $)
% of assessed property value	1.4	0.1
Median home value assessment	$245.90	$17.56
City-wide assessment	$13,061,547	$932,968

Stormwater Funding Mechanisms

Stormwater Utility Fee

- User fee
- Restricted to stormwater uses
- Maintenance and capital improvements of existing system
- Typically assessed on monthly utility bill
- Stable revenue

Impervious area (ERU)	1000 sq ft
Monthly fee per ERU	$1.00
Monthly fee for average Norman residence	$4.80
Annual revenue at $1.00/ERU rate	$4,480,000

Stormwater Funding Mechanisms

Stormwater Development Fee

- Developer fee
- New development only
- One-time payment for impact of development to storm system
- Offsets portion of expanded storm system cost from development
- City cost share

Special Districts

- Improvement district
- Capital improvements in targeted areas
- Initiated by property owner petition or City Council resolution
- Typically focused on blighted areas
- Increase in tax revenue allocated to district improvement
- Atypical, uncertain funding approach for stormwater improvements

Stormwater Funding Mechanisms

Federal/State Grants and Loans

- Limited funds available
- Heavily competed with other entities
- Requires City cost share (25-50% typical)
- Unreliable funding source for City budgeting

Federal/State Grants and Loan Sources
Clean Water State Revolving Loan Fund
Nonpoint Source Grant Program
Flood Mitigation Assistance Grant
Flood Protection Planning Grant
Hazard Mitigation Grant Program
Pre-Disaster Mitigation Grant
Continuing Authorities Program

Stormwater Funding Mechanisms

Public/Private Partnerships

- Cooperative participation agreements
- Potential cost optimization of City funds
- Typically for capital improvements in targeted areas
- City cost share
- High administrative effort
- Unreliable funding source for City budgeting

Stormwater Funding Mechanisms

BREAKOUT

1. Provide feedback for or preference for or against each option as a source of revenue for stormwater management.

Program Element	Strong preference for use for stormwater funding	Open to consideration as funding source for stormwater funding	Slight preference against use for stormwater funding	Strong preference against use for stormwater funding	Additional information necessary to answer
General Fund (sales tax)					
Capital Fund (sales tax)					
GO bonds debt service (property tax)					
Stormwater utility (user fee)					
Stormwater development fee					
Special district (improvement district)					
Grants and loans					
Public-private partnerships					

5 MINUTE BREAK

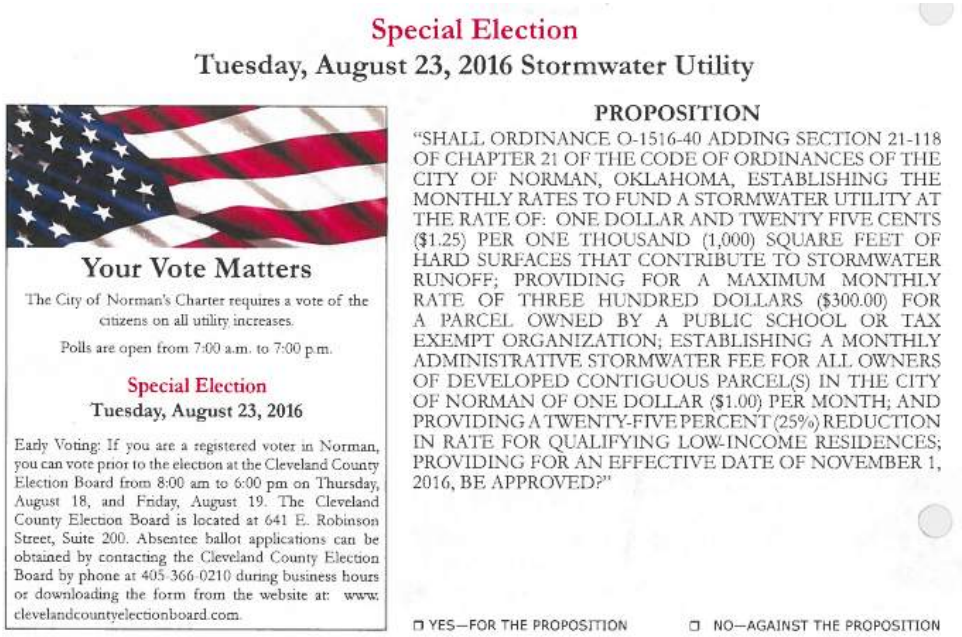
Agenda

- Introductory Overview
- Stormwater Functions and Services
- Stormwater Funding Mechanisms
- **Stormwater Utility Approaches**
- **Funding Allocation**
- **Wrap-up and Path Forward**

Stormwater Utility

2016 Proposed Approach

- $1.00 base fee per utility account
- $1.25 per 1000 sq ft impervious area
- $300 monthly fee limit for public schools, non-profits
- 25% reduction for low-income residents
- Appeal process



Special Election

Tuesday, August 23, 2016 Stormwater Utility

Your Vote Matters

The City of Norman's Charter requires a vote of the citizens on all utility increases.

Polls are open from 7:00 a.m. to 7:00 p.m.

Special Election

Tuesday, August 23, 2016

Early Voting: If you are a registered voter in Norman, you can vote prior to the election at the Cleveland County Election Board from 8:00 am to 6:00 pm on Thursday, August 18, and Friday, August 19. The Cleveland County Election Board is located at 641 E. Robinson Street, Suite 200. Absentee ballot applications can be obtained by contacting the Cleveland County Election Board by phone at 405-366-0210 during business hours or downloading the form from the website at: www.clevelandcountyelectionboard.com.

PROPOSITION

"SHALL ORDINANCE O-1516-40 ADDING SECTION 21-118 OF CHAPTER 21 OF THE CODE OF ORDINANCES OF THE CITY OF NORMAN, OKLAHOMA, ESTABLISHING THE MONTHLY RATES TO FUND A STORMWATER UTILITY AT THE RATE OF: ONE DOLLAR AND TWENTY FIVE CENTS ($1.25) PER ONE THOUSAND (1,000) SQUARE FEET OF HARD SURFACES THAT CONTRIBUTE TO STORMWATER RUNOFF; PROVIDING FOR A MAXIMUM MONTHLY RATE OF THREE HUNDRED DOLLARS ($300.00) FOR A PARCEL OWNED BY A PUBLIC SCHOOL OR TAX EXEMPT ORGANIZATION; ESTABLISHING A MONTHLY ADMINISTRATIVE STORMWATER FEE FOR ALL OWNERS OF DEVELOPED CONTIGUOUS PARCEL(S) IN THE CITY OF NORMAN OF ONE DOLLAR ($1.00) PER MONTH; AND PROVIDING A TWENTY-FIVE PERCENT (25%) REDUCTION IN RATE FOR QUALIFYING LOW-INCOME RESIDENCES; PROVIDING FOR AN EFFECTIVE DATE OF NOVEMBER 1, 2016, BE APPROVED?"

☐ YES—FOR THE PROPOSITION ☐ NO—AGAINST THE PROPOSITION

How do you define “Use”?

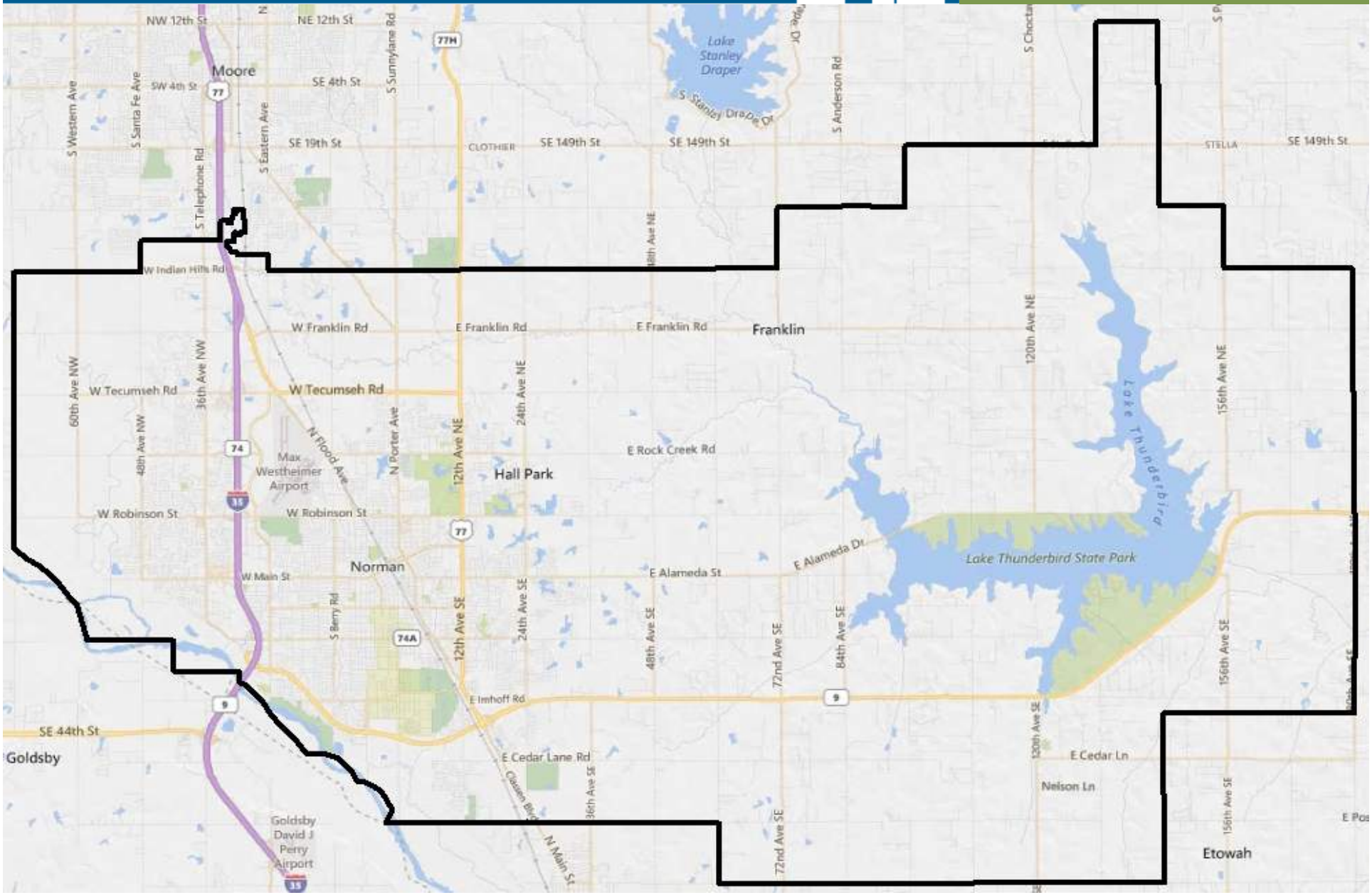
- What should be considered?
- What is reasonable, equitable and fair?

Selection of calculation considerations

- Impervious area
- Semi-impervious area
- Impervious area percentage
- Watershed
- Stormwater mitigation structures (i.e., detention ponds)
- Property type
- Tiers
- Others

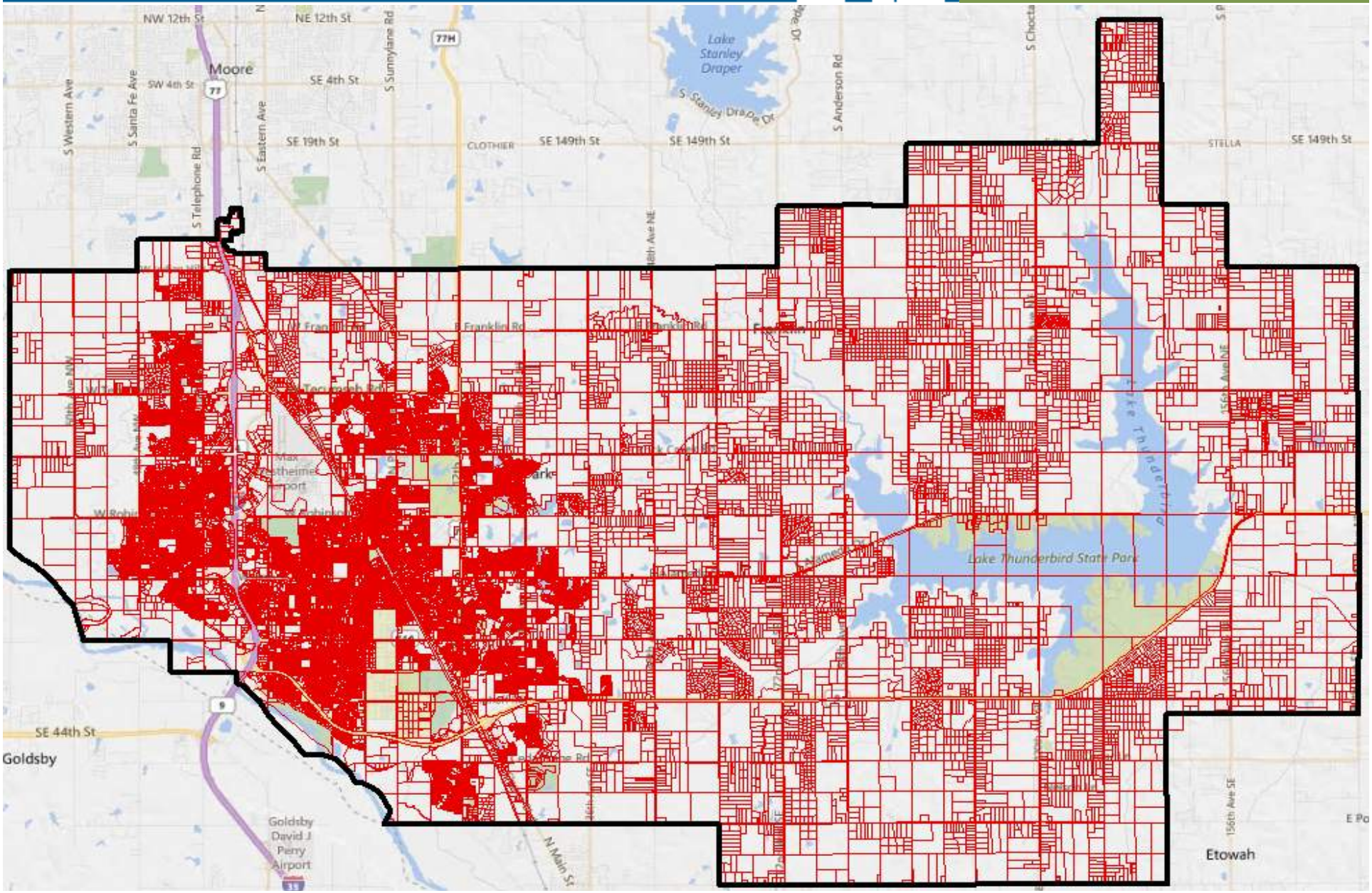
Stormwater Utility

City of Norman



Stormwater Utility

Parcels



Stormwater Utility

Parcels

- Add images of individual parcels of dramatically different sizes

Stormwater Utility
Water meters

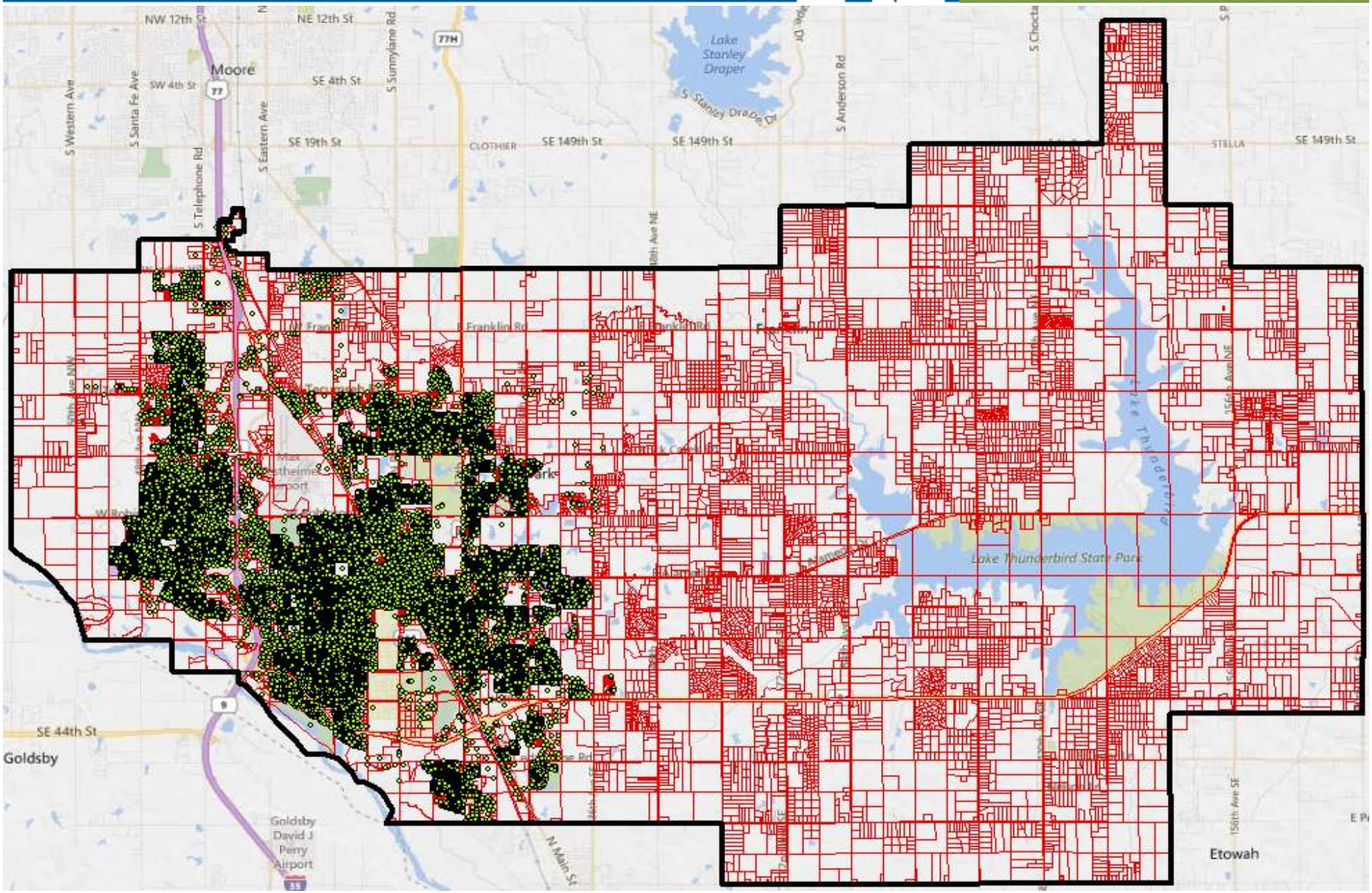
Residential	# Meters
5/8 X 3/4 INCH	3,342
3/4 INCH	33,719
1 1/2 INCH	350
1 INCH	847
2 INCH	358
3 INCH	22
4 INCH	8
6 INCH	6
8 INCH	5
Total Residential Meters	**38,657**

Commercial	# Meters
5/8 X 3/4 INCH	159
3/4 INCH	1,246
1 1/2 INCH	266
1 INCH	512
2 INCH	365
3 INCH	50
4 INCH	17
6 INCH	7
8 INCH	6
Total Commercial Meters	**2,628**

Grand Total	**41,286**

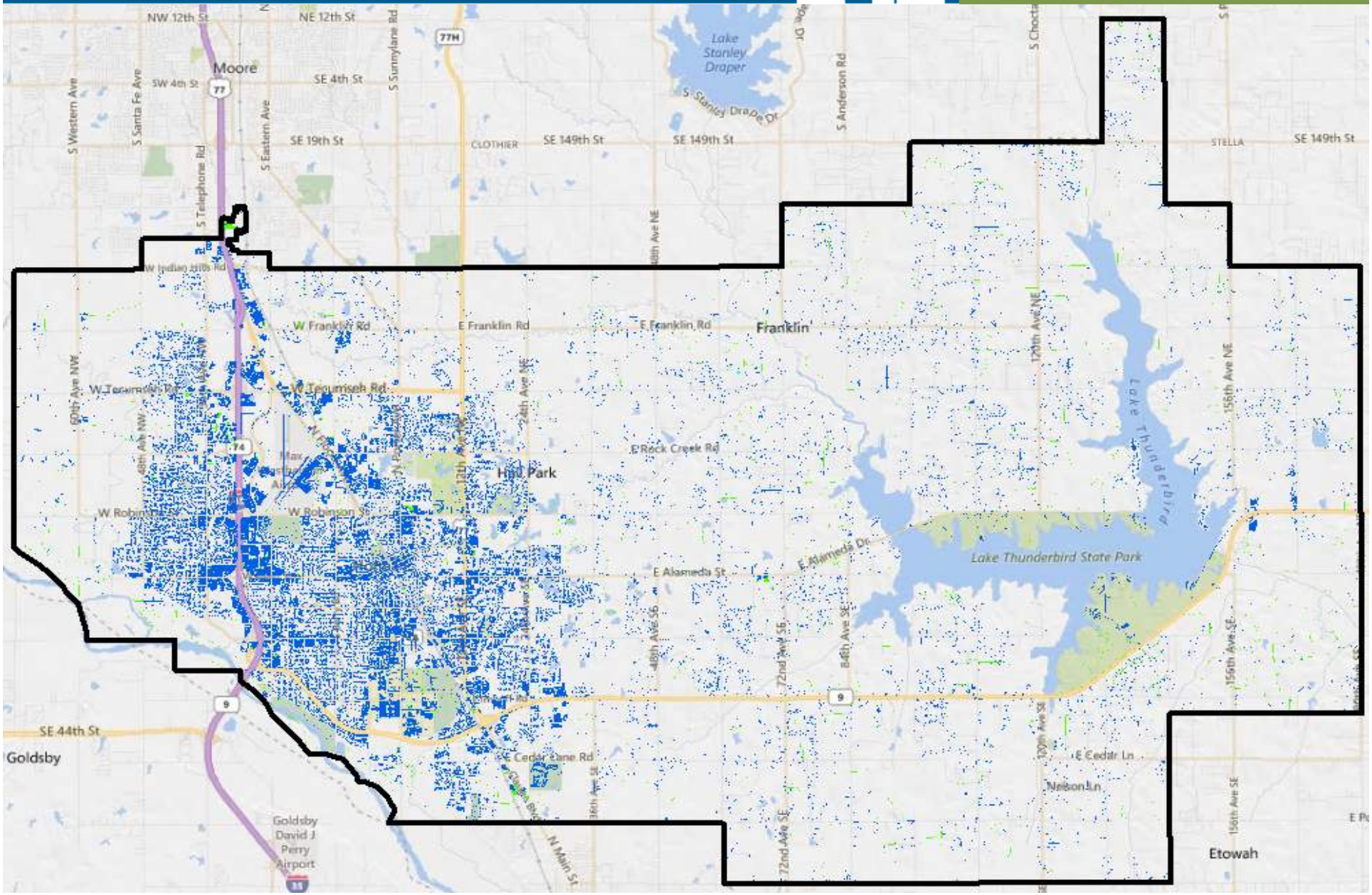
- Pros
  - Minimal cost of administration for billing
- Cons
  - Nominal correlation to storm system use
  - Properties with multiple meters have stormwater rate multiplied
  - Water service area does not fully match stormwater service area

Stormwater Utility
Water meters

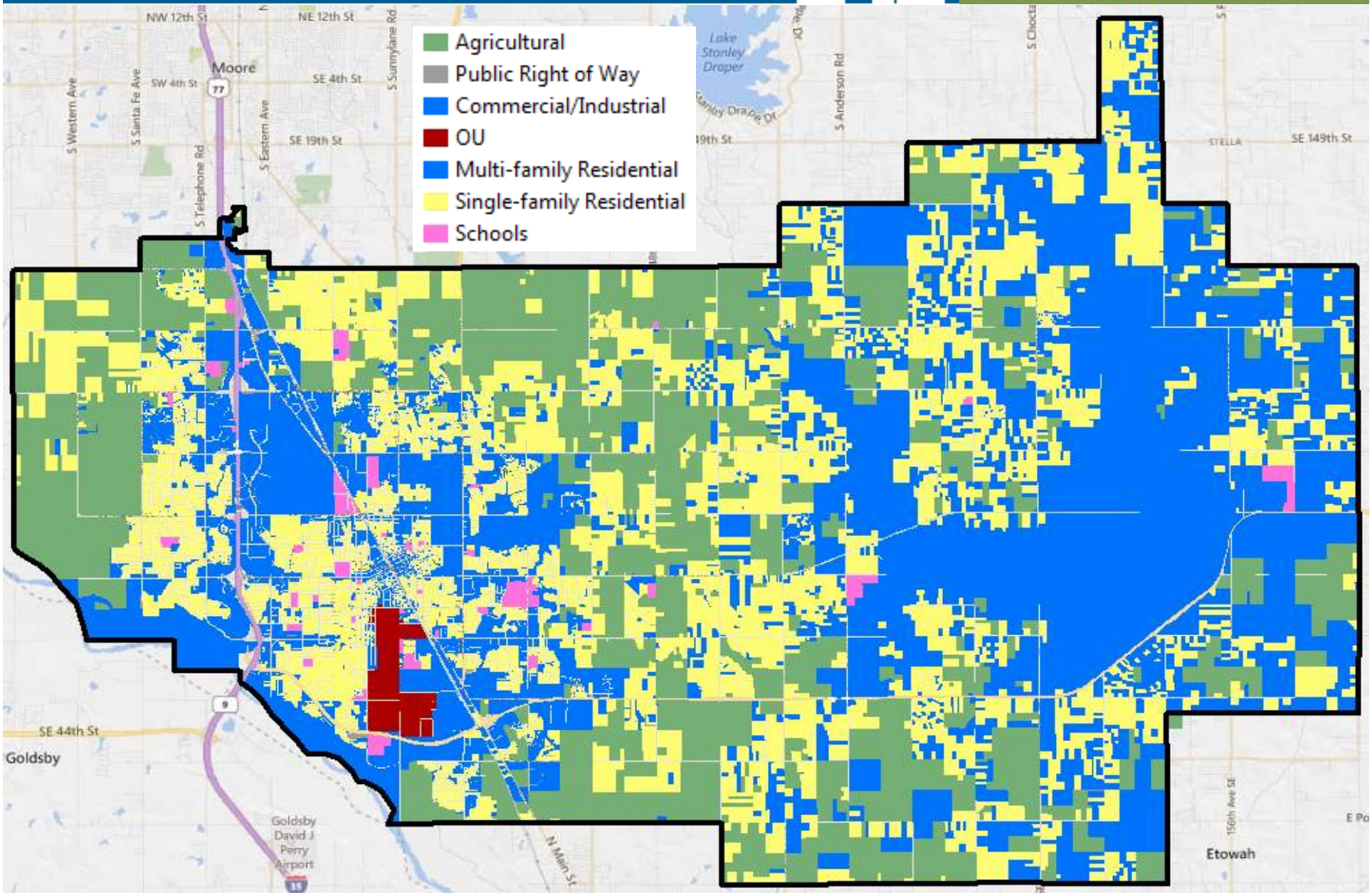


Stormwater Utility

Impervious area

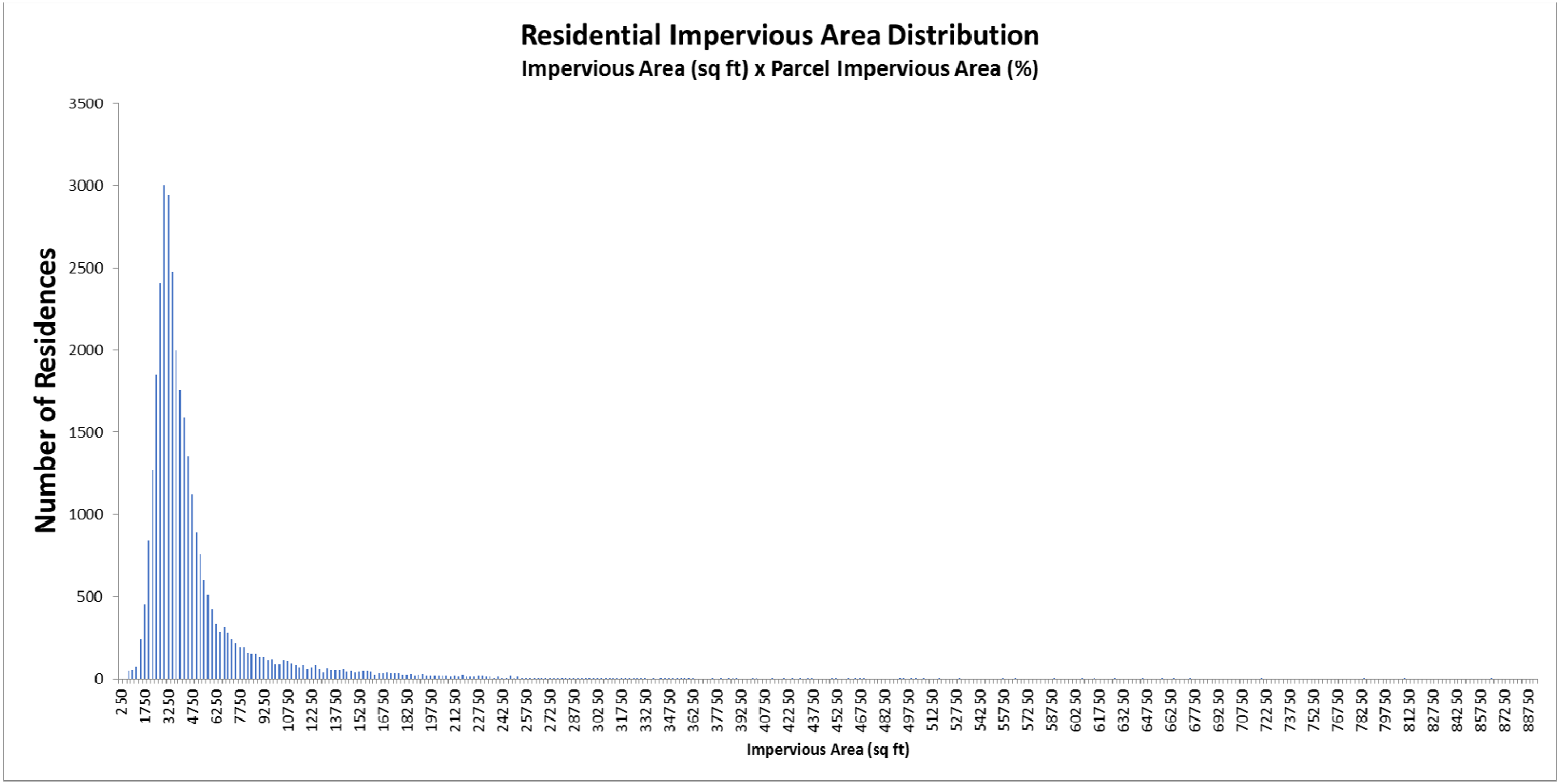


Stormwater Utility
Property Types



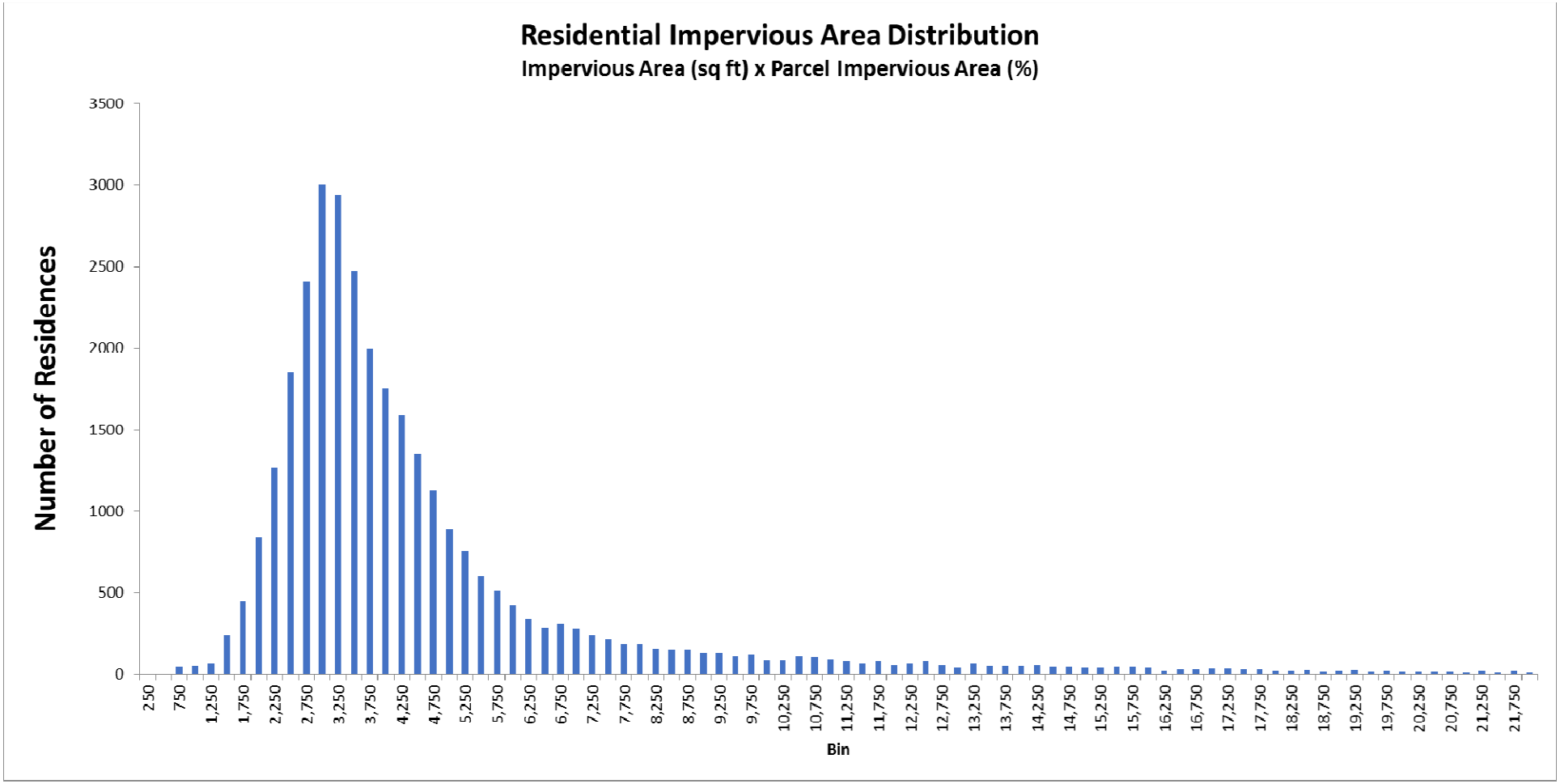
Residential Properties

Impervious Area Distribution



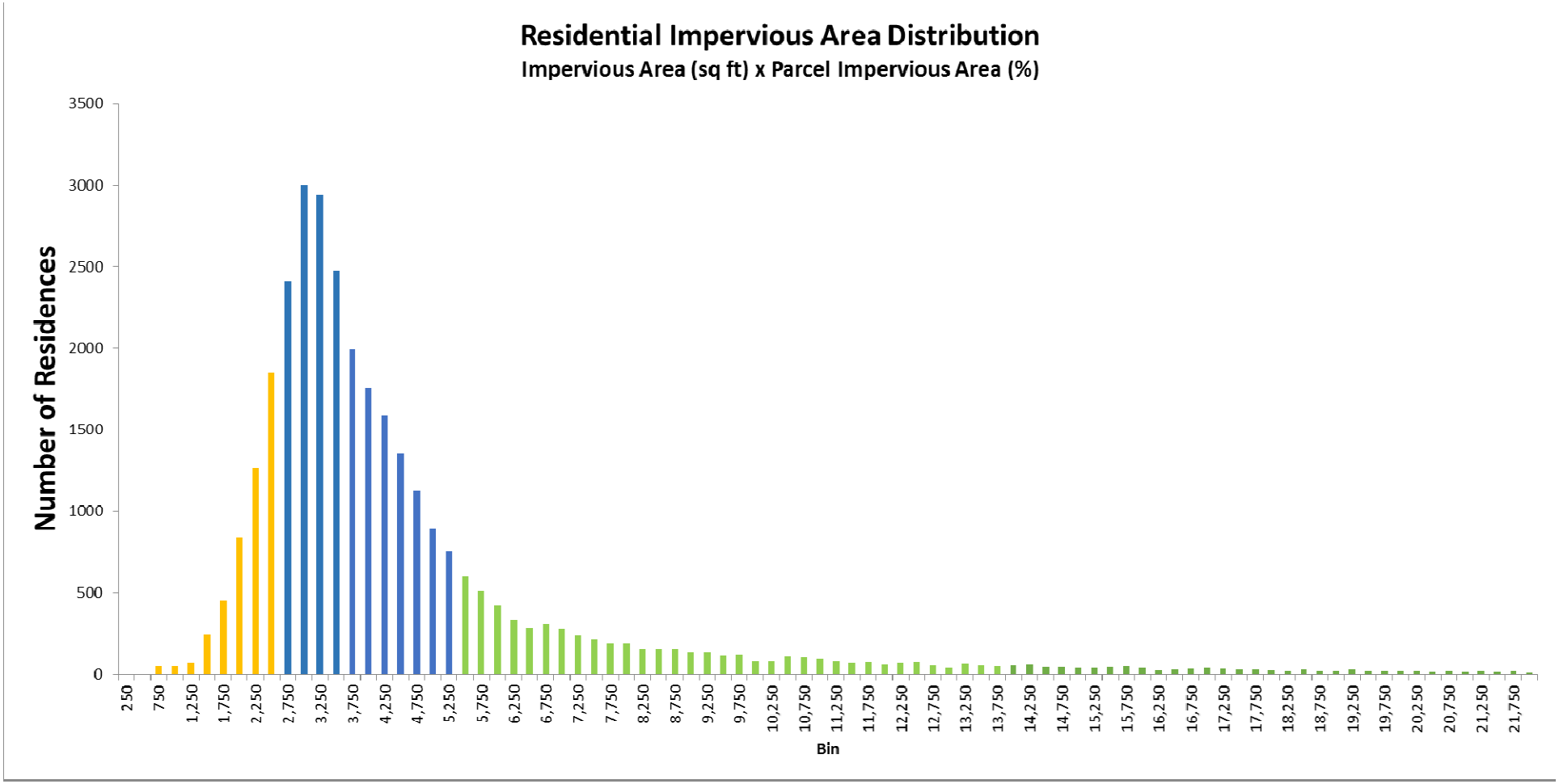
Residential Properties

Impervious Area Distribution



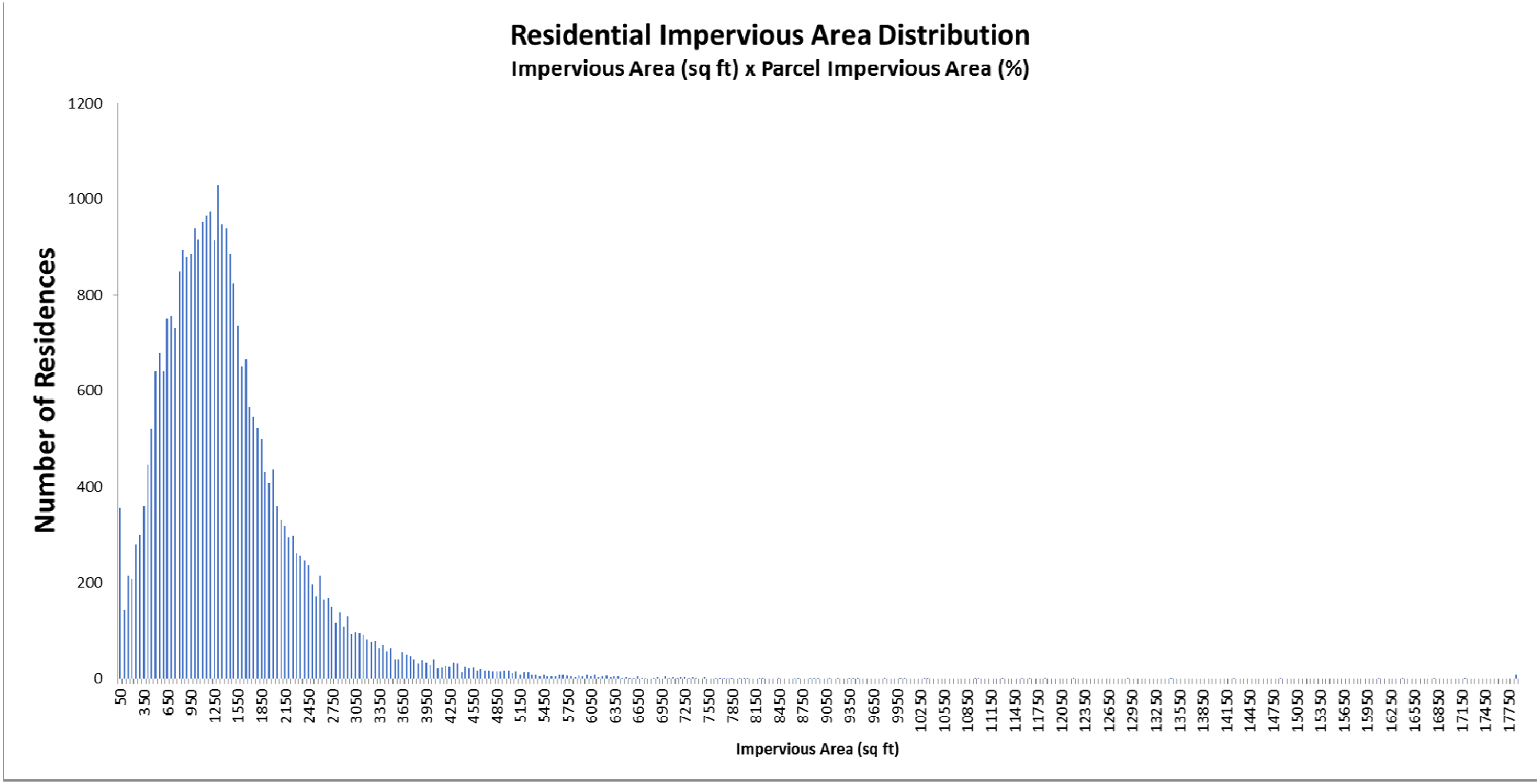
Residential Properties

Impervious Area Distribution - Tiers



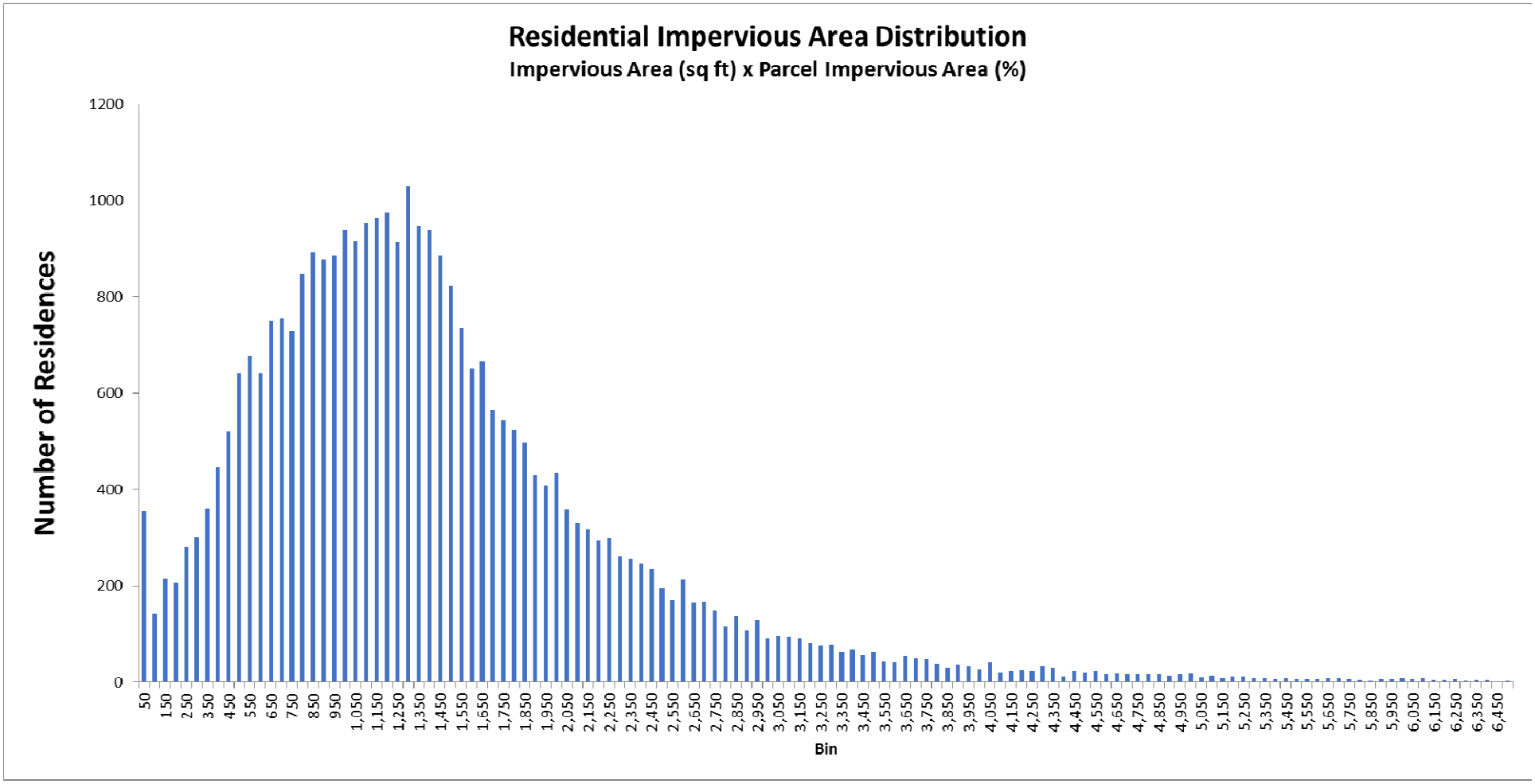
Residential Properties

Parcel Impervious Area Factor



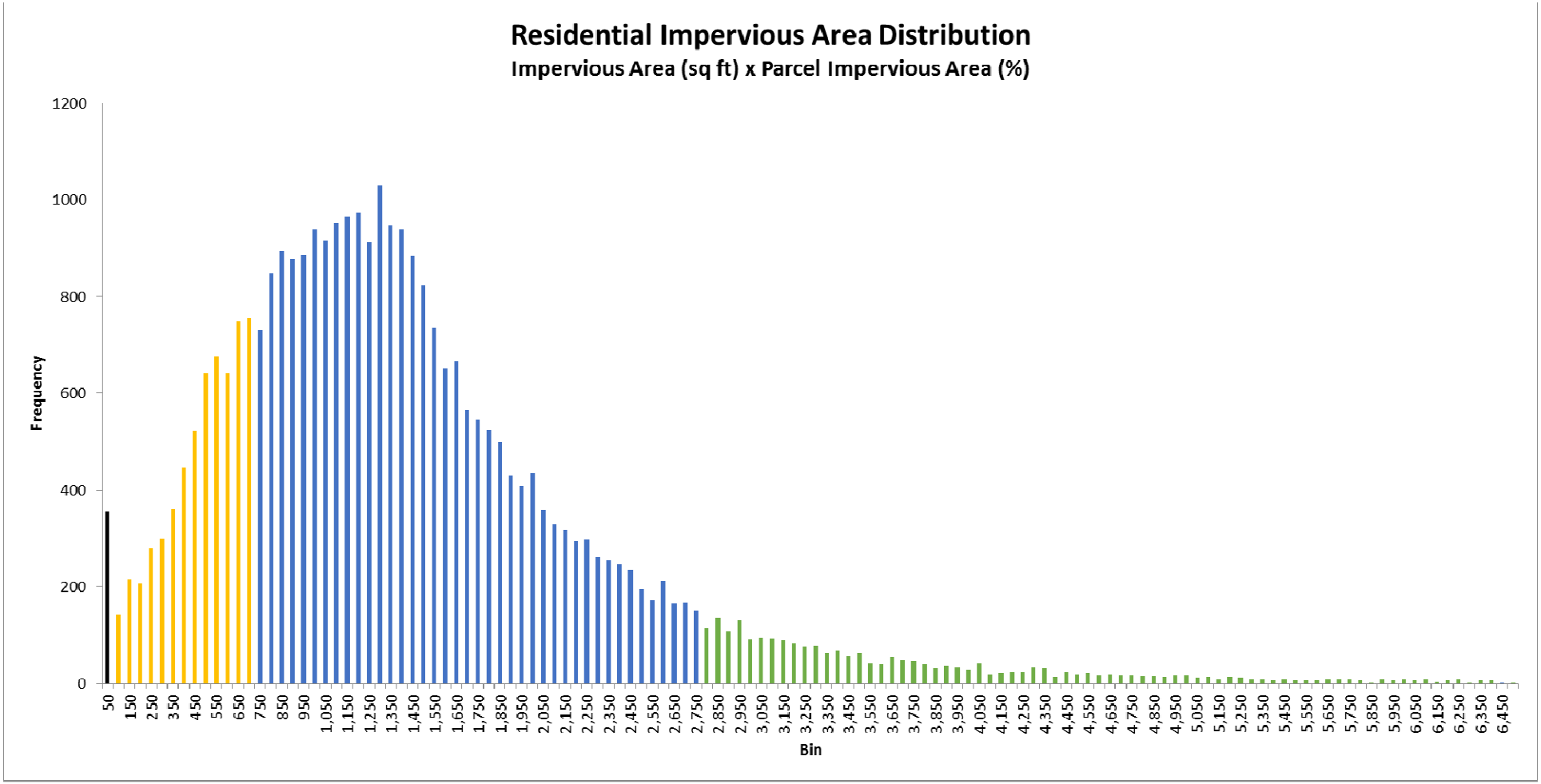
Residential Properties

Parcel Impervious Area Factor



Residential Properties

Impervious Percentage - Tiers



Residential Properties

Factoring Impervious Area and %

1850 sq ft impervious area

37% parcel imperviousness

- Tier 1 of 3 by Impervious Area
- Tier 1 of 3 by Imp. Area (sf) and Imp Area (%)

7000 sq ft impervious area

7% parcel imperviousness

- Tier 3 of 3 by Impervious Area
- Tier 1 of 3 by Imp. Area (sf) and Imp Area (%)

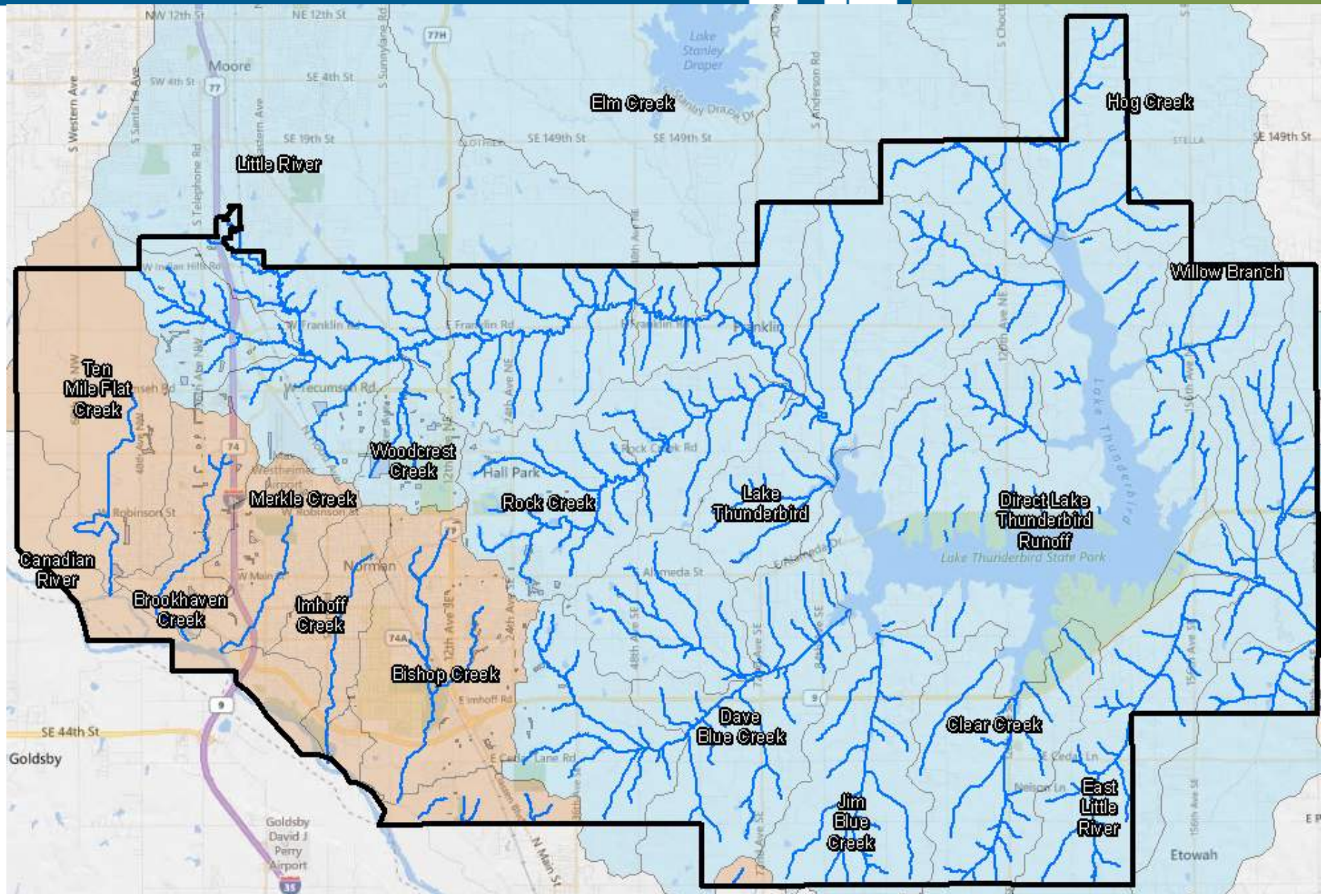
Residential Properties

Effect of Factoring Impervious %

Residential Tier (Impervious Area)	Adjusted Residential Tier (Impervious Area * % Impervious Area)	% of Properties Changing Tier
1	1	50%
	2	50%
2	1	4%
	2	96%
	3	0%
3	1	27%
	2	58%
	3	15%

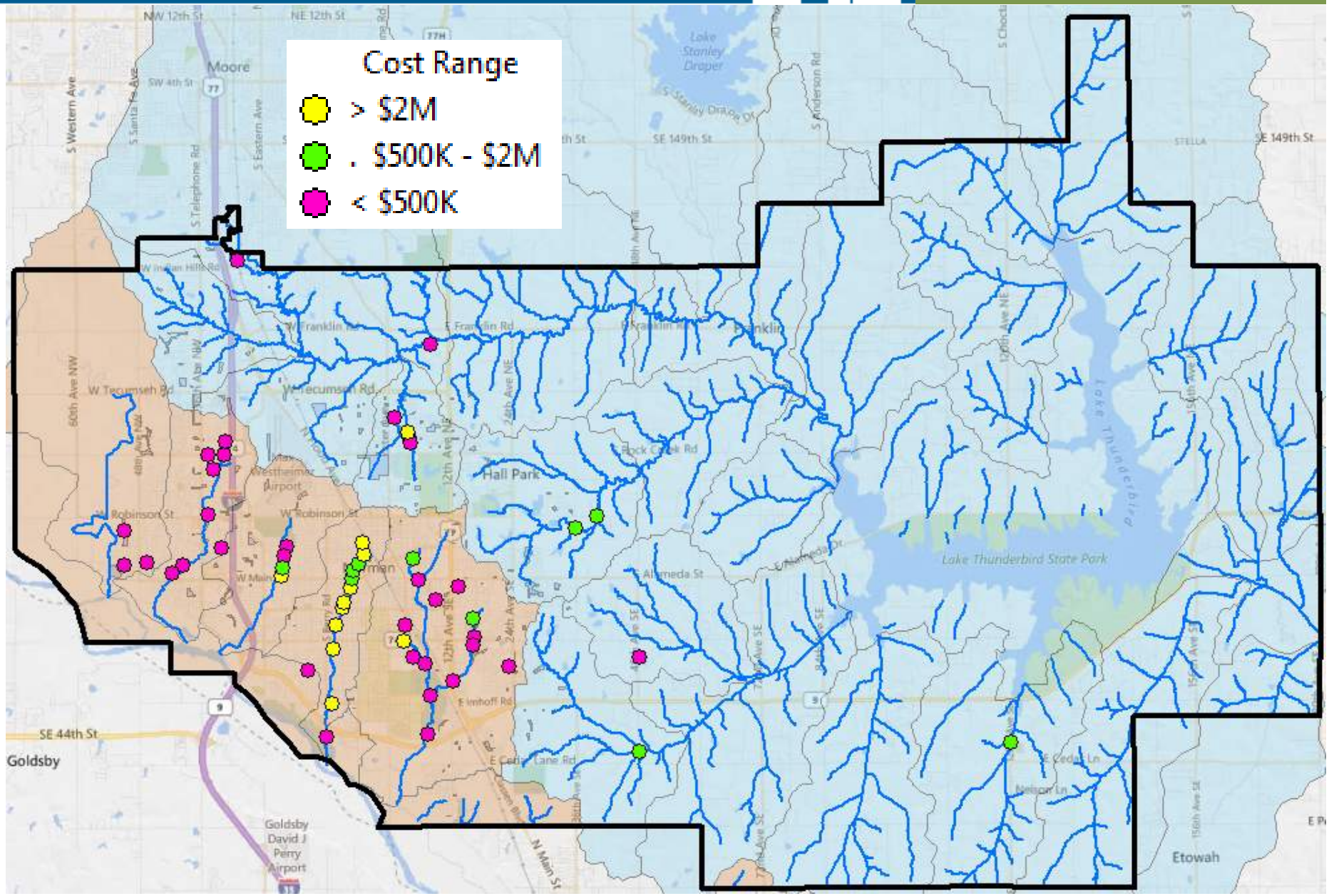
Stormwater Utility

Watersheds



Stormwater Utility

Capital Projects



Stormwater Utility

Runoff Coefficients

TABLE 5005.2

RUNOFF COEFFICIENTS AND PERCENT IMPERVIOUSNESS

Land Use or Surface Characteristic	*Percent Imperviousness*	*Runoff Coefficients*
BUSINESS:		
Commercial Areas	70 to 95	0.70 to 0.95*
Neighborhood Areas	60 to 80	*
RESIDENTIAL:		
Single Family	35 to 60	0.47 to 0.64*
Multi-unit (detached)	45 to 55	*
Multi-unit (attached)	65 to 75	*
1/2 acre lot or larger	30 to 45	*
Apartments	65 to 75	*
INDUSTRIAL		
Light uses	70 to 80	*
Heavy uses	80 to 90	*
PARKS, CEMETERIES	4 to 8	*
PLAYGROUNDS	40 to 60	*
RAILROAD YARDS	35 to 45	*
STREETS		
Paved	90 to 100	0.95
Gravel	50 to 70	0.65
DRIVES AND WALKS	90 to 100	0.95
ROOFS	85 to 95	0.95
LAWNS		
Sandy soils	5 to 10	0.10 to 0.20
Clayey soils	10 to 30	0.13 to 0.35

Stormwater Utility

Impervious Area Definition

Impervious area is a term used to refer to hard surfaces on a property that do not allow rain to penetrate into the ground.

Semi-impervious area allows for some groundwater infiltration

Examples of Impervious Area

- Roofs
- Garages
- Carports
- Storage Sheds
- Commercial Buildings
- Concrete, and Asphalt
- Streets
- Driveways
- Sidewalks
- Parking Lots
- Patios

Examples of Semi-impervious Area

- Gravel
- Caliche
- Maintenance yard
- Unpaved driveways
- Unpaved Alley
- Unpaved Parking
- Caliche surfaces
- Unpaved

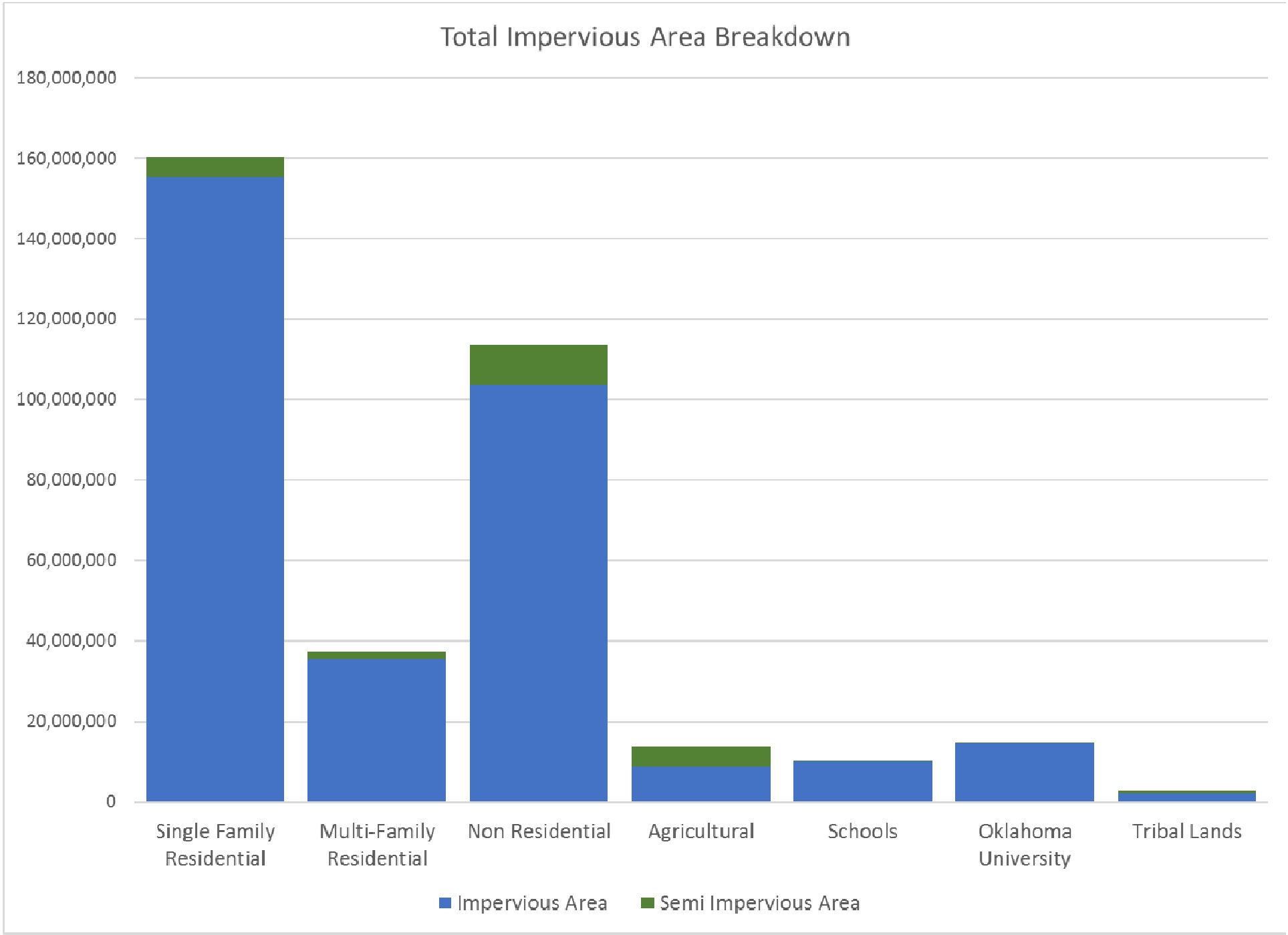
Stormwater Utility

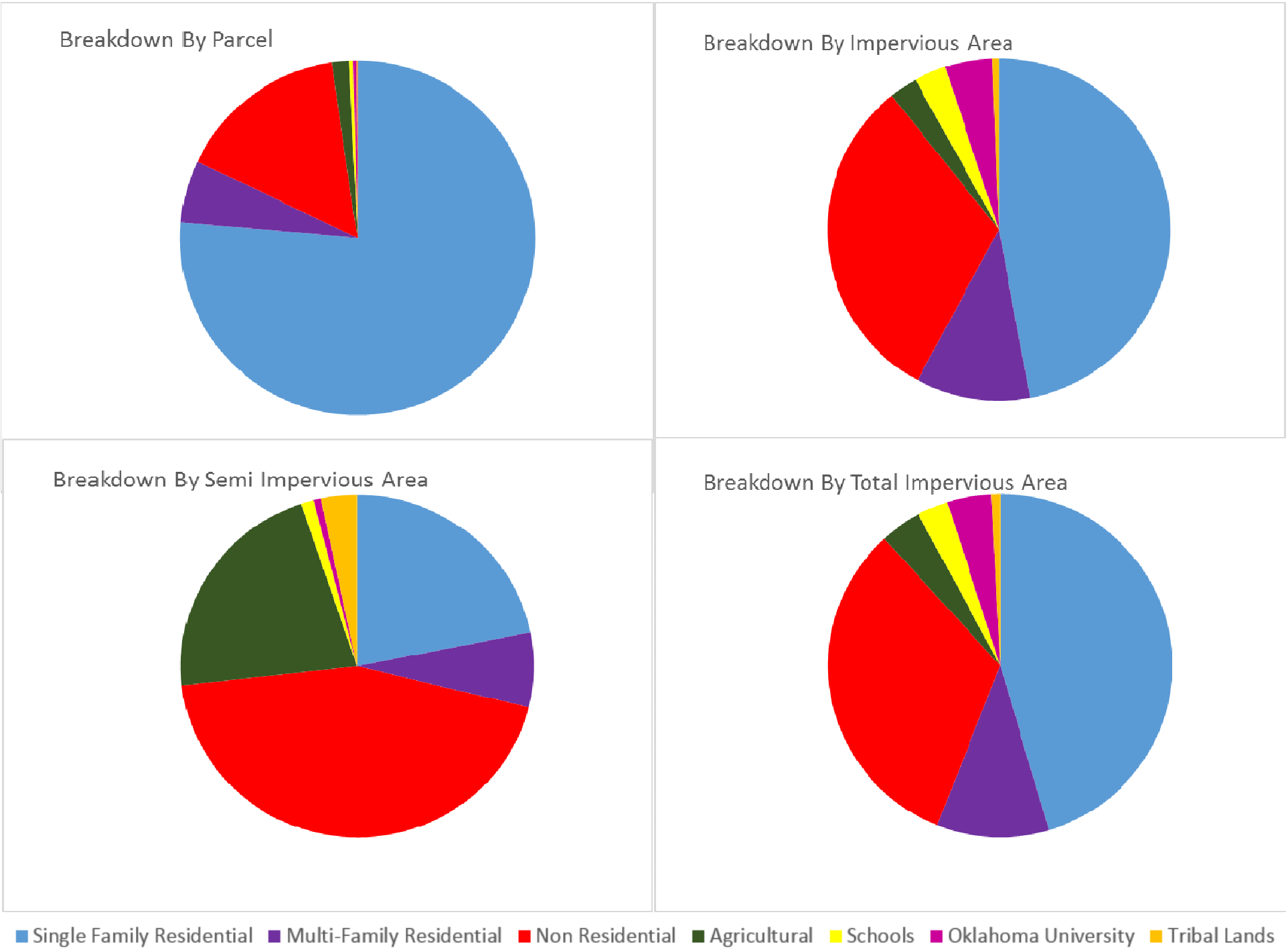
Impervious Area Definition

- Based on current City GIS data:

Impervious and Semi Impervious Area Breakdown				
Classification	**# Parcels**	**Impervious Area (sqft)**	**Semi Impervious Area (sqft)***	**% Semi Impervious Area**
Single Family Residential	33,044	155,250,924	5,007,060	3.2%
Multi-Family Residential	2,454	35,654,963	1,613,589	4.5%
Non Residential	6,743	103,620,427	10,167,688	9.8%
Agricultural	685	8,734,733	4,951,819	56.7%
Exempt	213	1,363,837	80,565	5.9%
Schools	158	9,977,661	272,766	2.7%
Oklahoma State University	102	14,553,216	154,660	1.1%
Tribal Lands	56	2,135,537	761,822	35.7%
Total	43,455	331,291,297	23,009,969	6.9%

* Semi Impervious area defined as unpaved alley, unpaved road, and unpaved parking

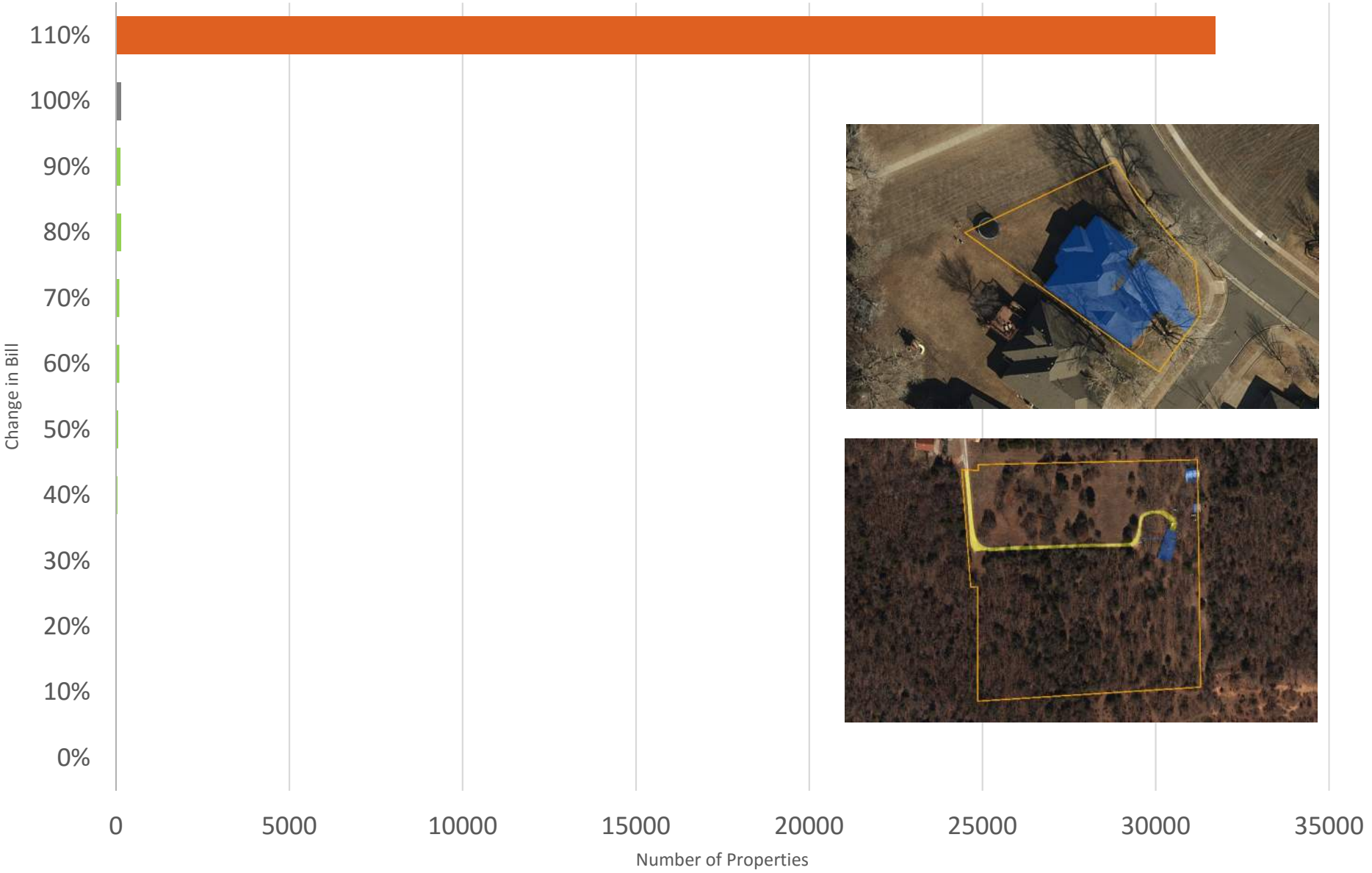

Total Impervious Area Breakdown
180,000,000
160,000,000
140,000,000
120,000,000
100,000,000
80,000,000
60,000,000
40,000,000
20,000,000
0
Single Family Residential
Multi-Family Residential
Non Residential
Agricultural
Schools
Oklahoma University
Tribal Lands
Impervious Area
Semi Impervious Area


Breakdown By Parcel
Breakdown By Impervious Area
Breakdown By Semi Impervious Area
Breakdown By Total Impervious Area
Single Family Residential
Multi-Family Residential
Non Residential
Agricultural
Schools
Oklahoma University
Tribal Lands

Effect on Rate Payers

Exclude Unpaved Surfaces

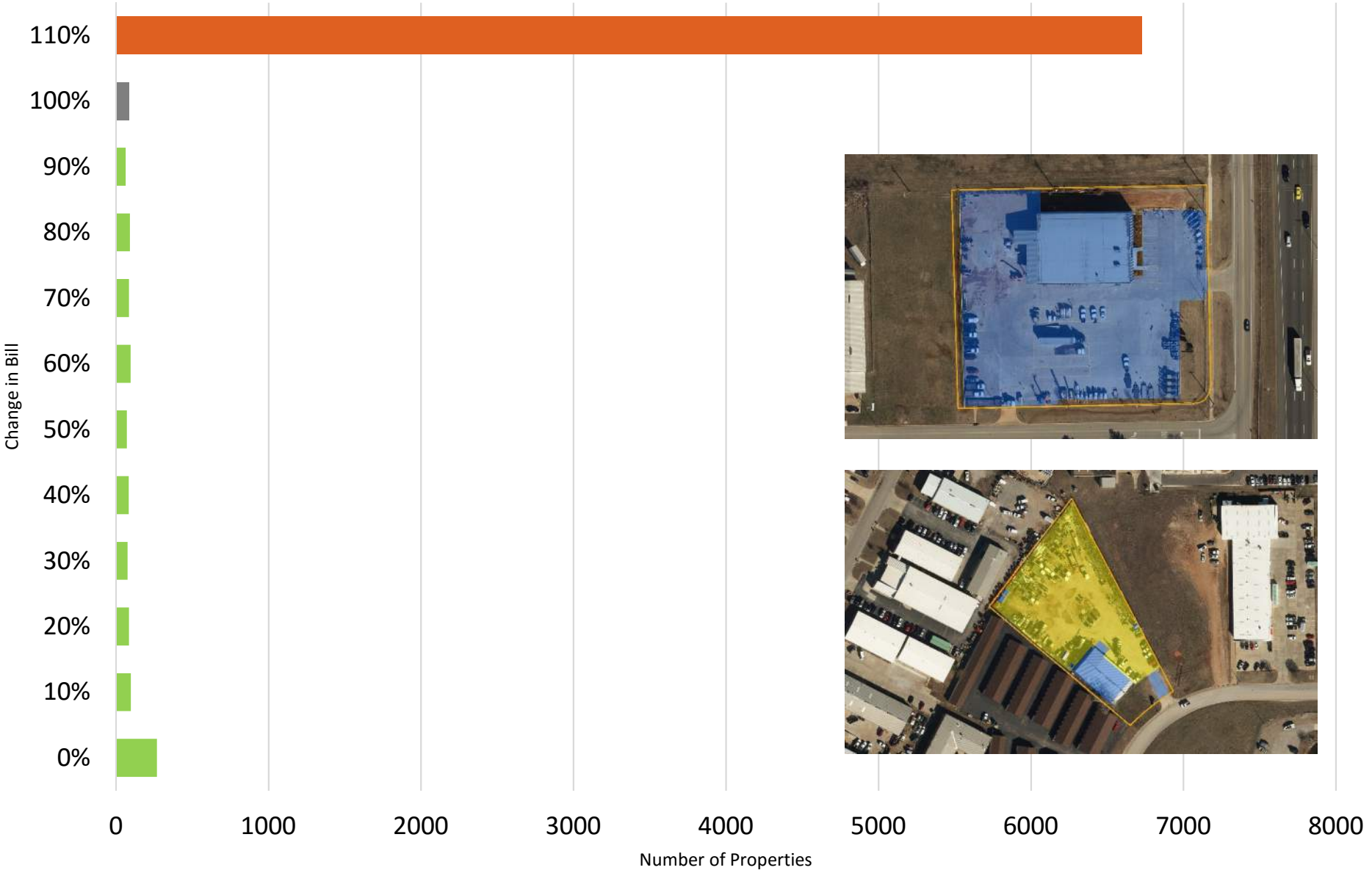
Residential



Effect on Rate Payers

Exclude Unpaved Surfaces

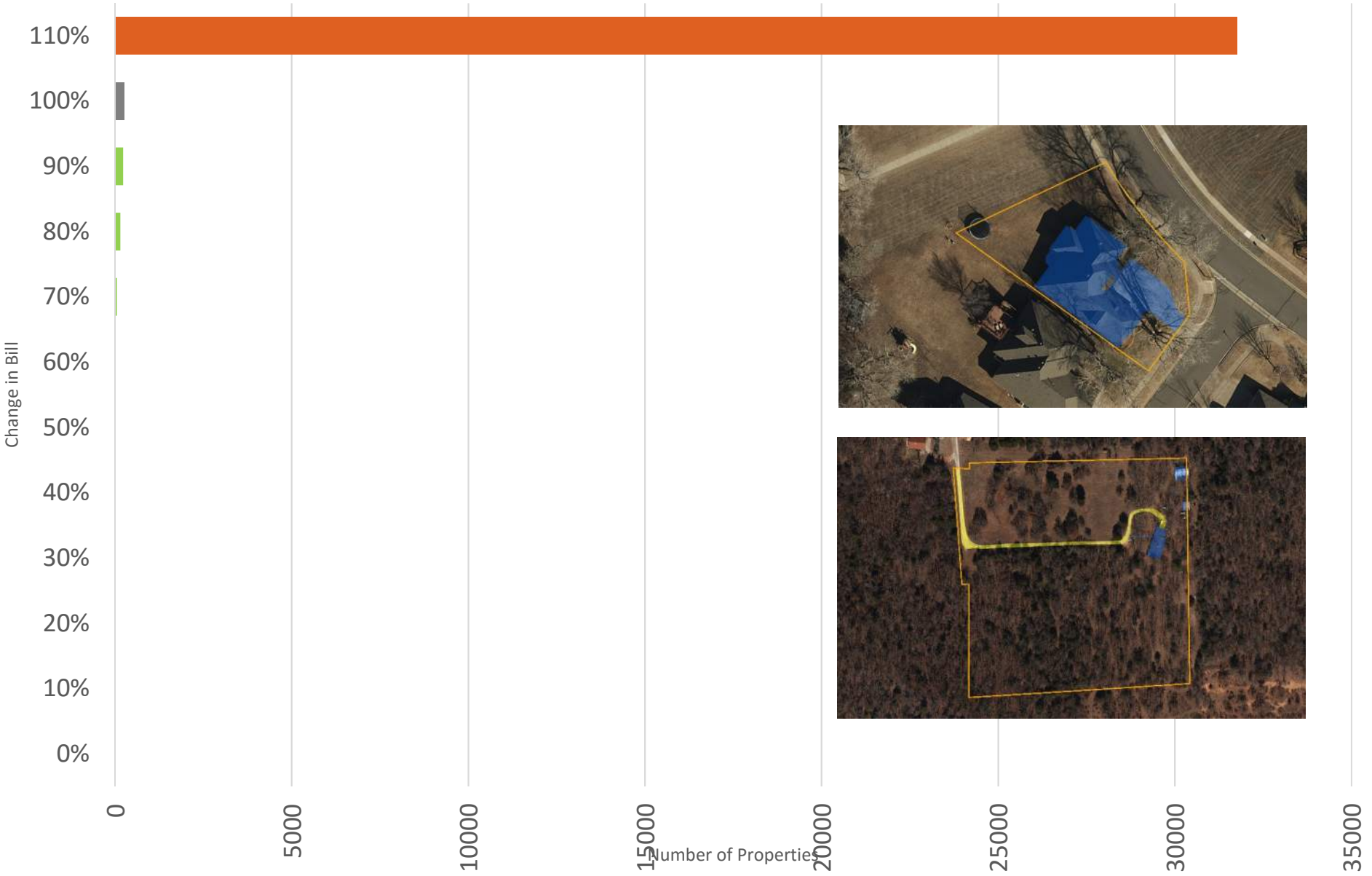
Non Residential



Effect on Rate Payers

Half Rate for Unpaved Surfaces

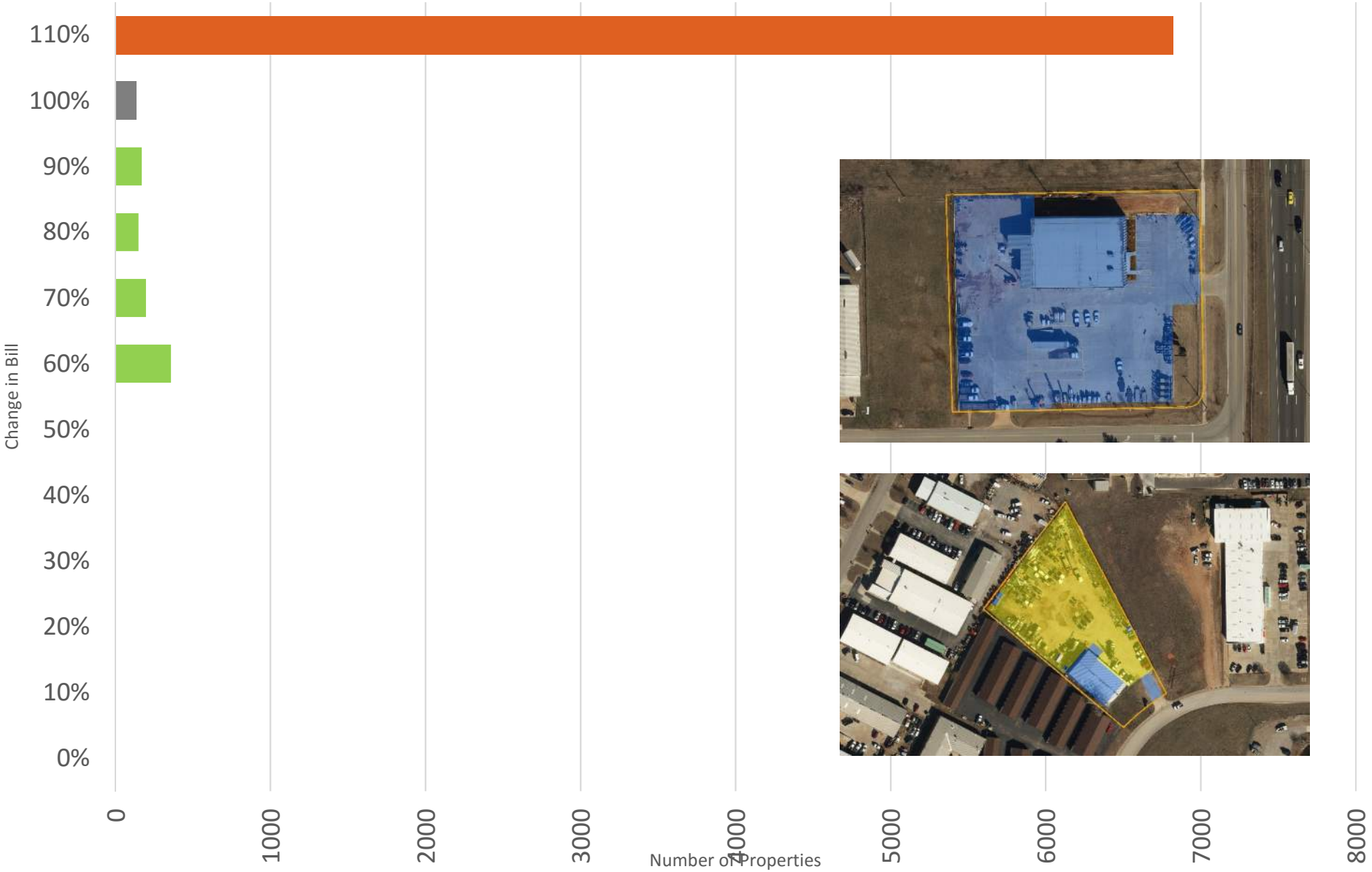
Residential



Effect on Rate Payers

Half Rate for Unpaved Surfaces

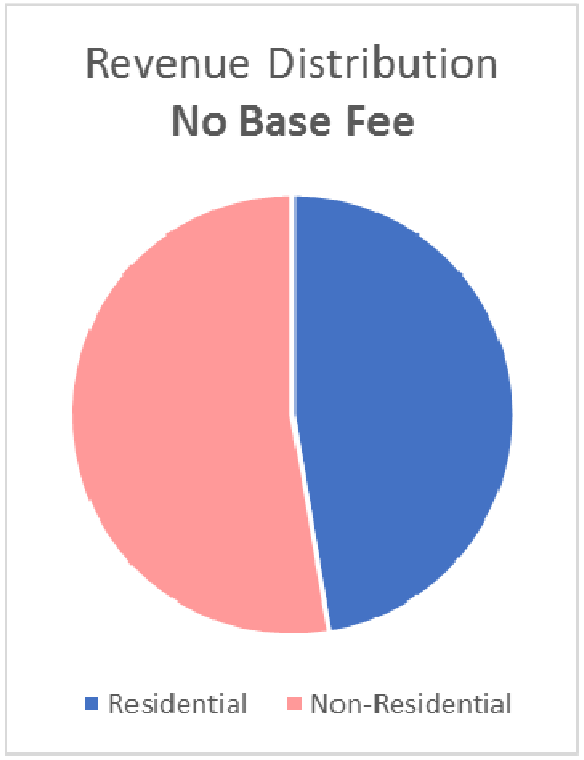
Non Residential

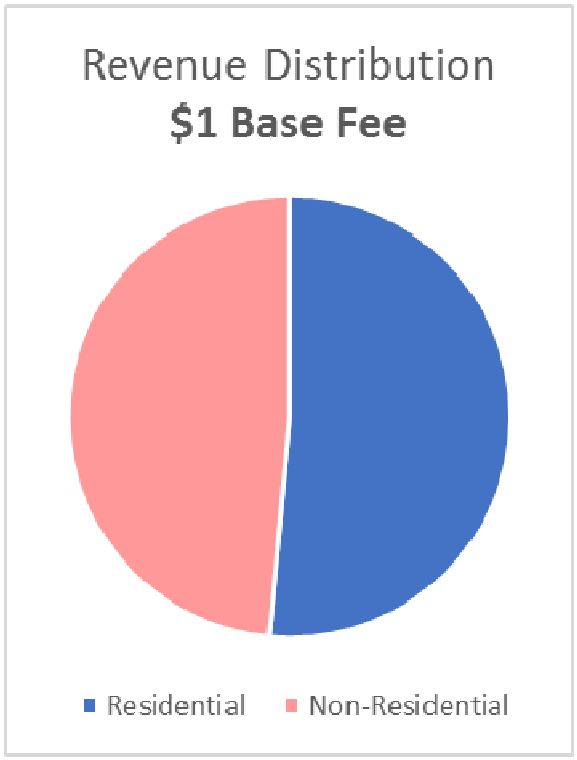


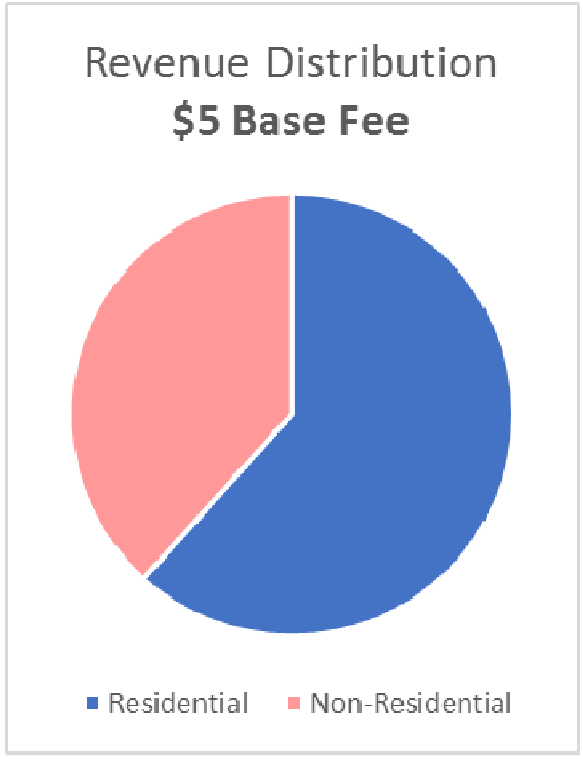
Effect on Rate Payers

Base Fee

City-wide



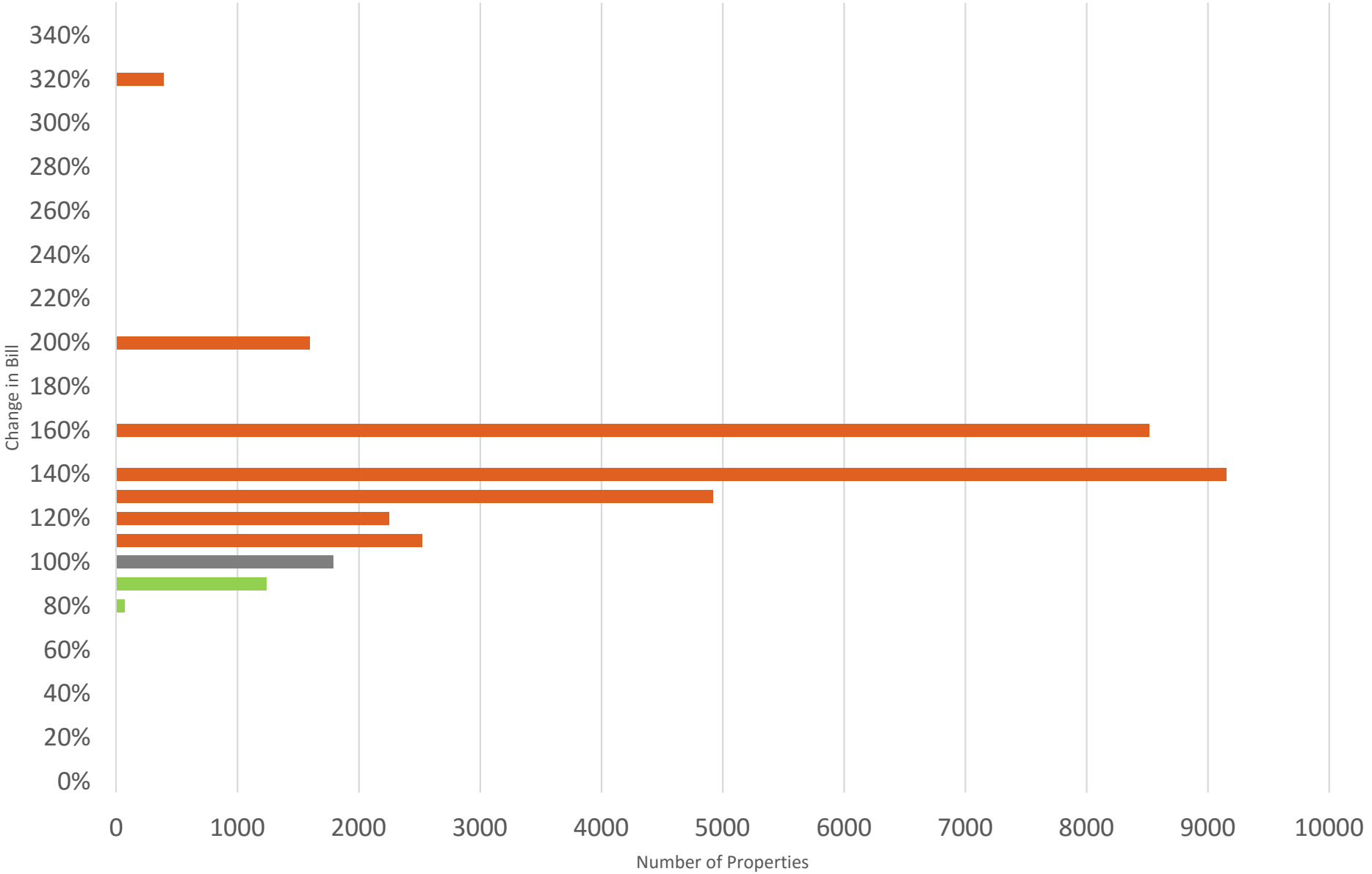




Effect on Rate Payers

Base Fee

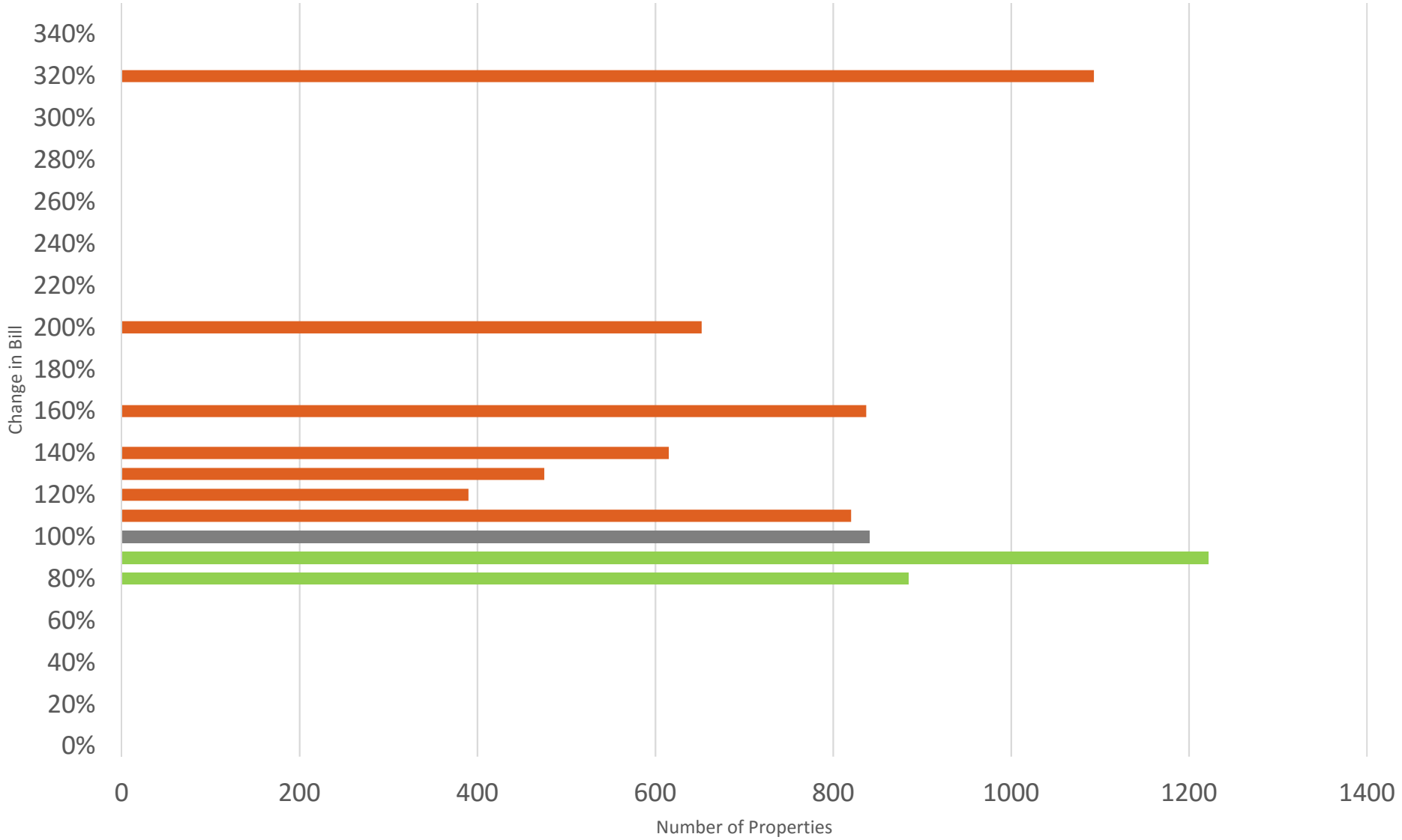
Residential



Effect on Rate Payers

Base Fee

Non Residential



Effect on Rate Payers

Parcel Impervious Area %

Residential

Effect on Rate Payers

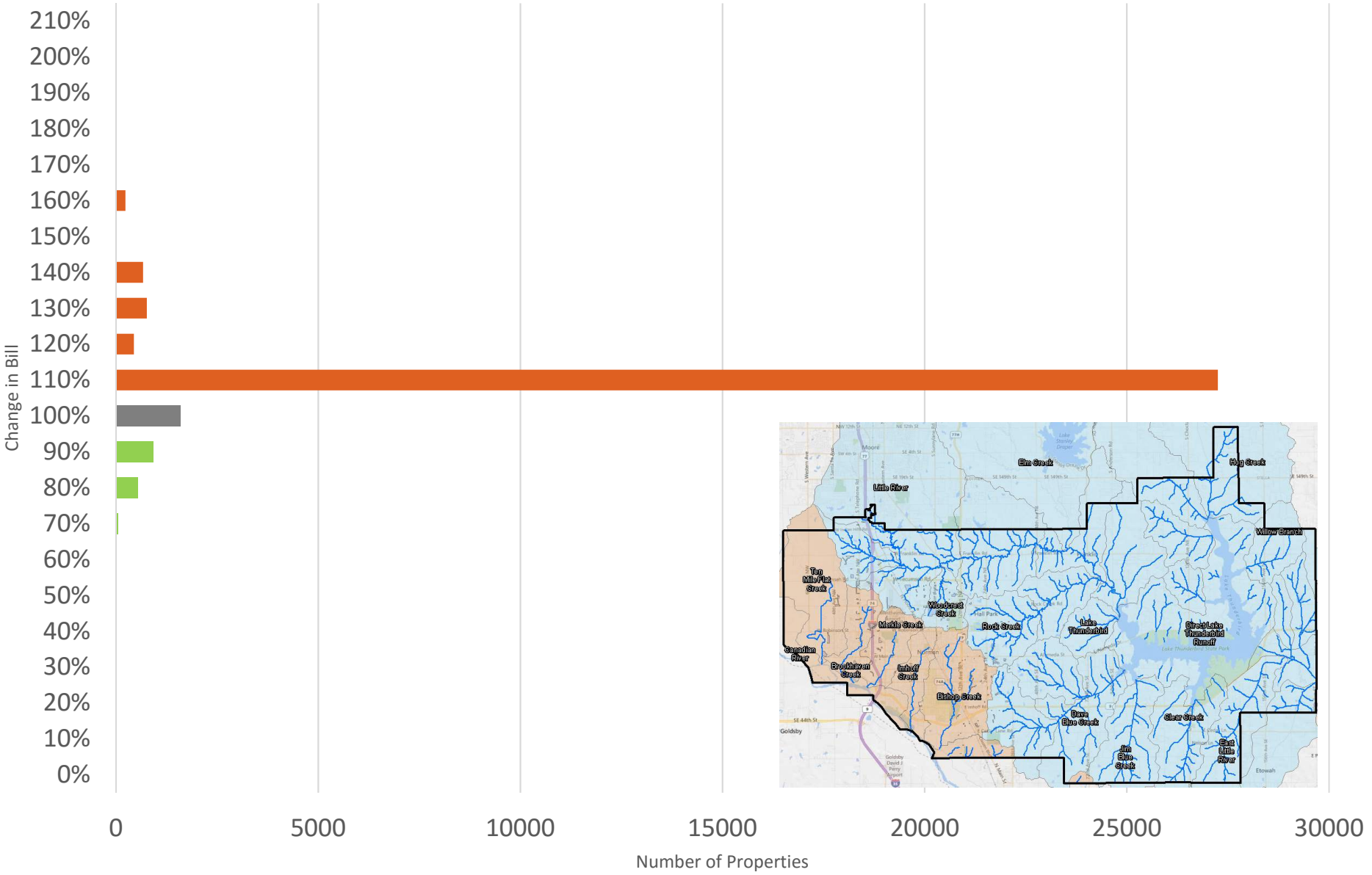
Parcel Impervious Area %

Non Residential

Effect on Rate Payers

Watershed

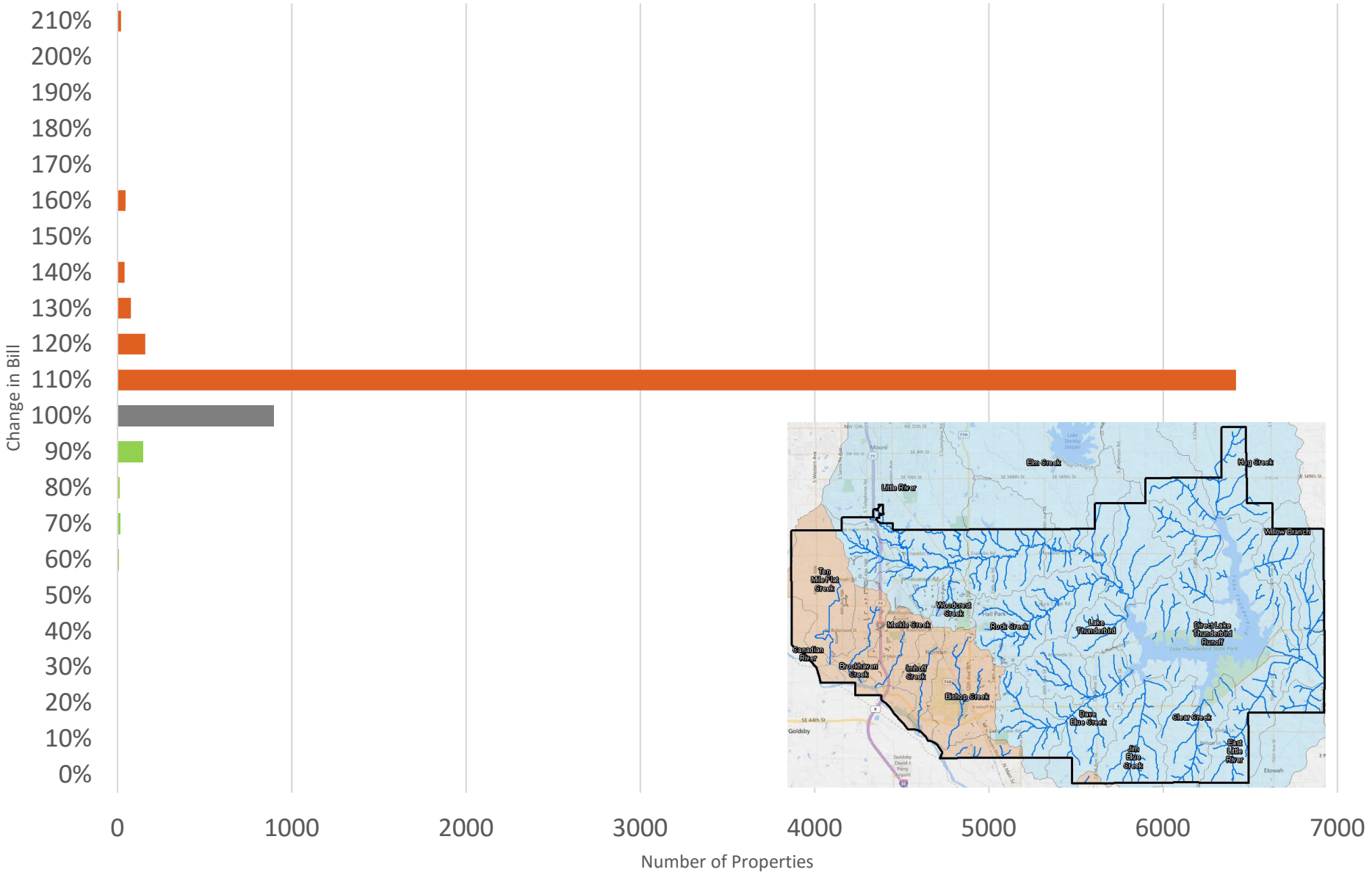
Residential



Effect on Rate Payers

Watershed

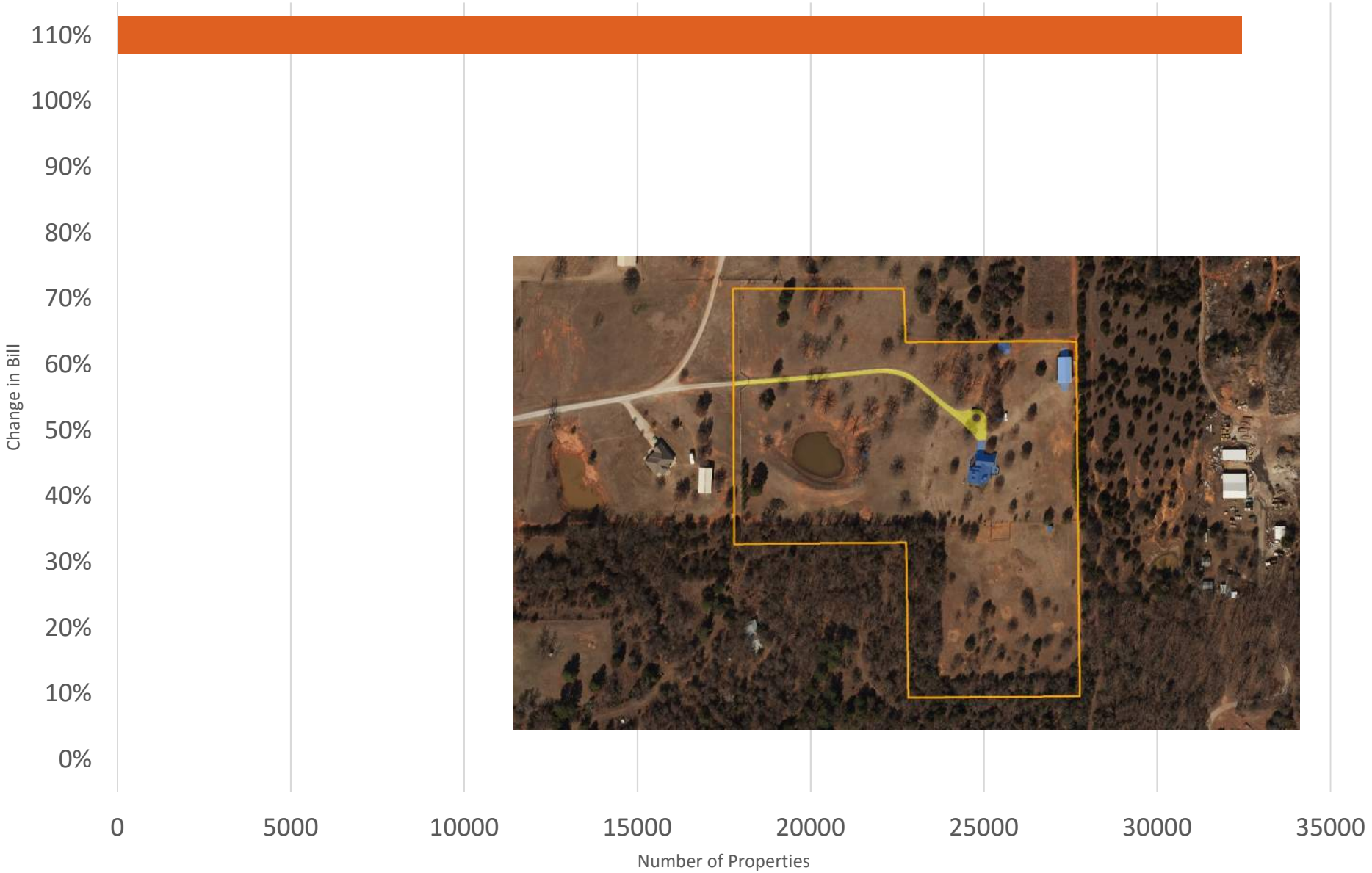
Non Residential



Effect on Rate Payers

On-site Stormwater Facilities

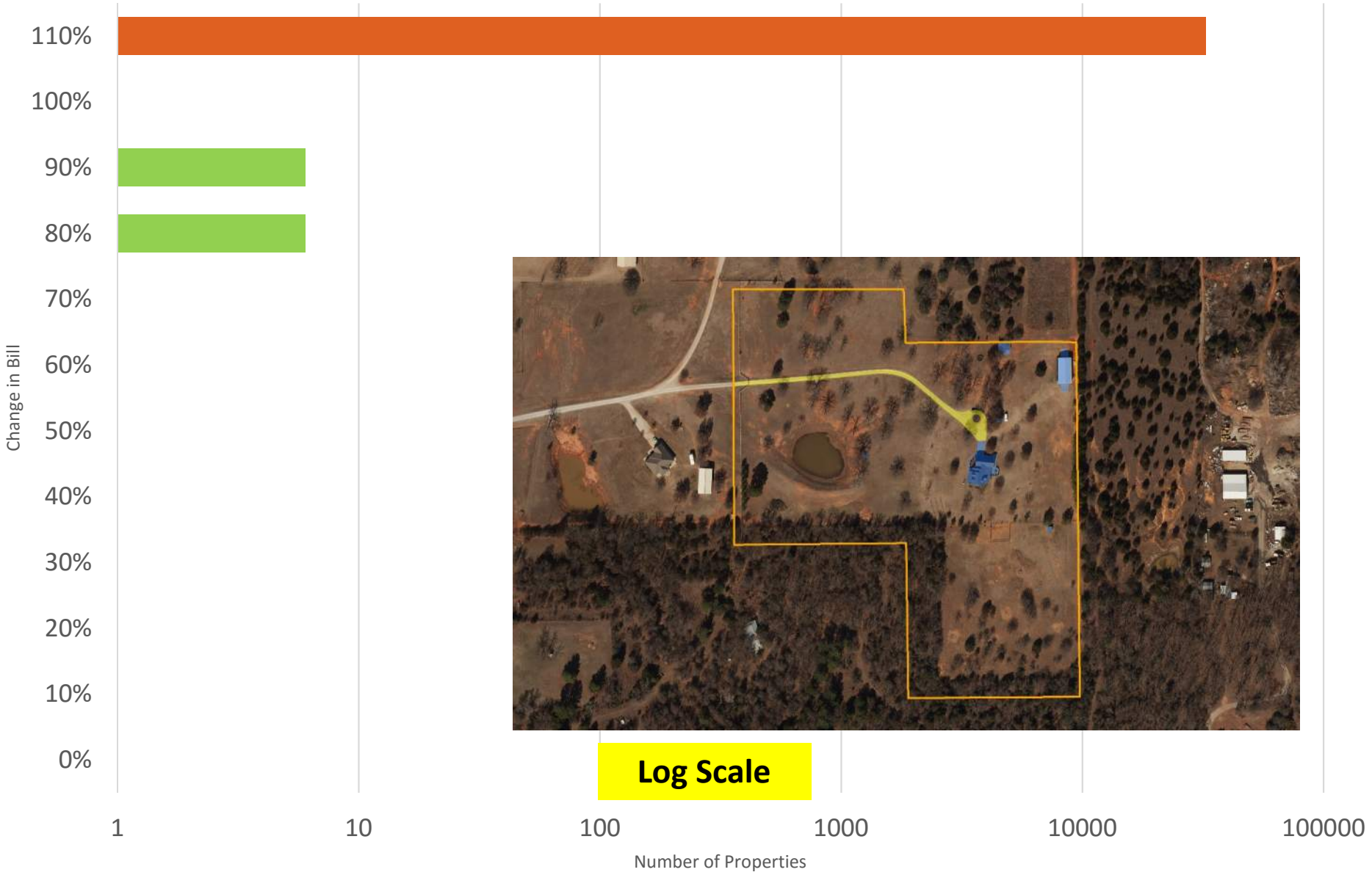
Residential



Effect on Rate Payers

On-site Stormwater Facilities

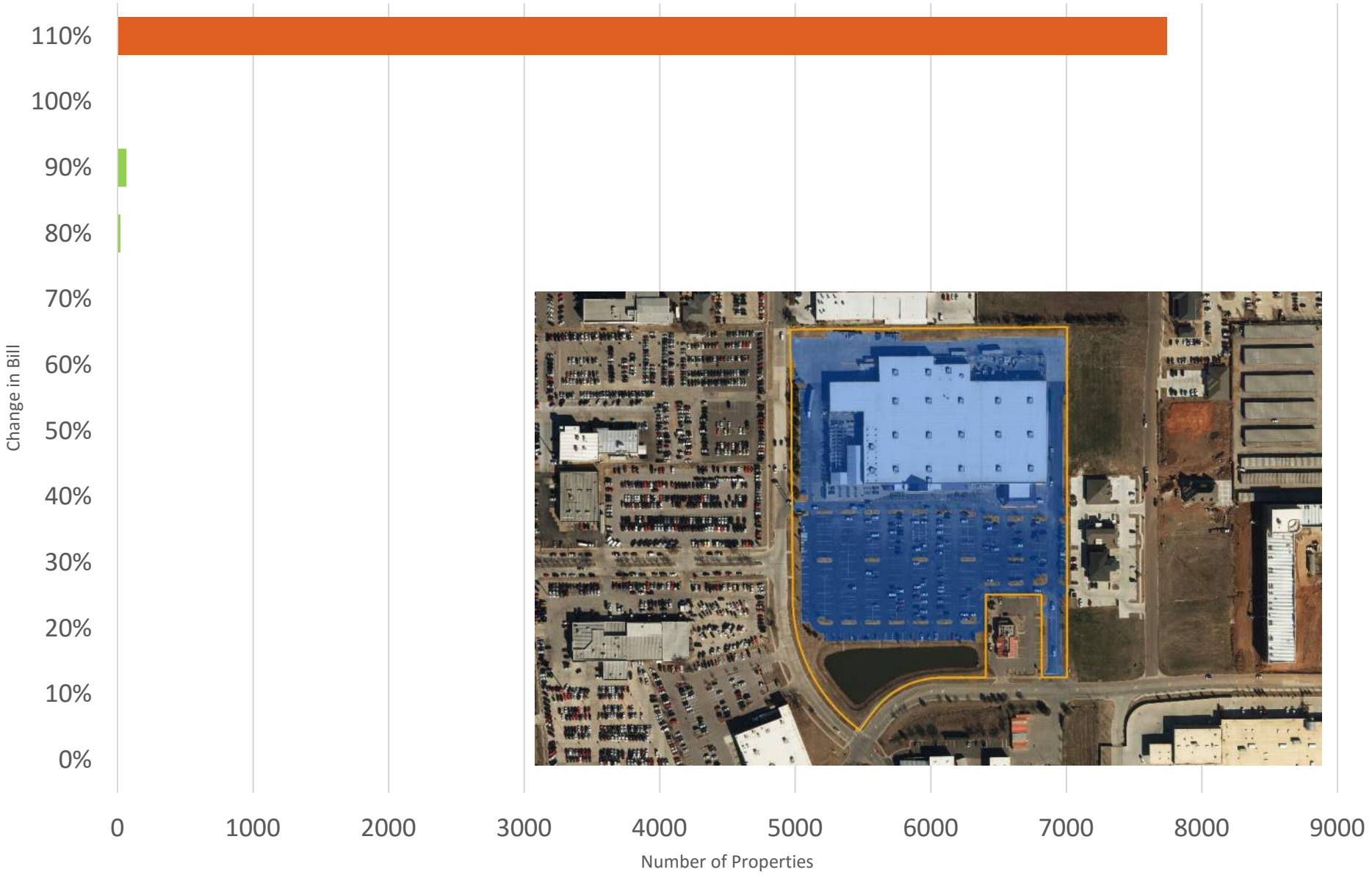
Residential



Effect on Rate Payers

On-site Stormwater Facilities

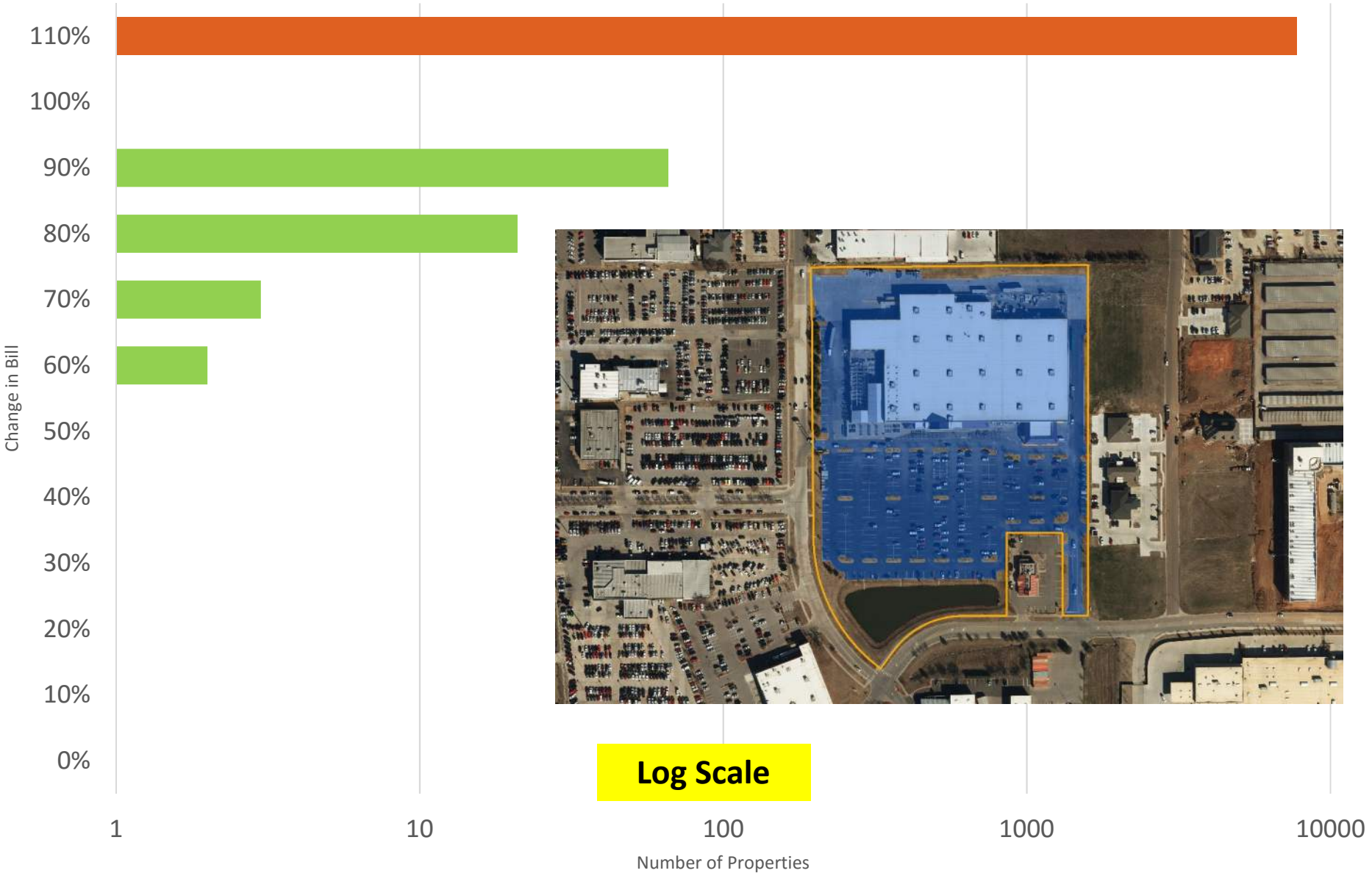
Non Residential



Effect on Rate Payers

On-site Stormwater Facilities

Non Residential

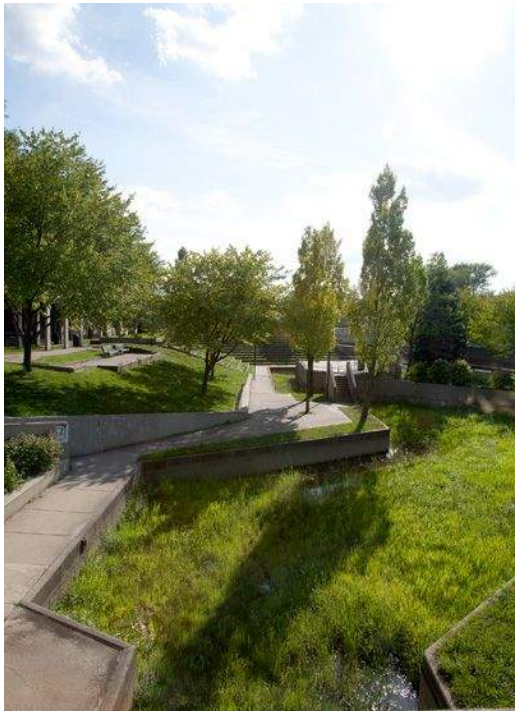


Stormwater Utility

Stormwater Facilities

	Credit Option	Typical Maximum Percent Credit Allowable	Engineering Documentation Required	Maintenance Required	Inspection Required	Annual Self-Report Required
1.	Adopt-a-Street Program	5				X
2.	Vegetated Detention Facilities	5				
3.	Aeration Fountain	5		X	X	X
4.	Parking Lot Sweeping	5				X
5.	Detention or Retention Pond Amenity	10		X		
6.	Permanent Structural Controls	40	X	X	X	X
7.	Velocity Control Credit	20	X	X	X	X
8.	Multi-Stage Detention	15	X	X	X	X
9.	Riparian Preservation	10				
10.	Zero Discharge Credit	40	X	X	X	X

Bioretention / Rainwater Harvesting



Enhanced Swale & Amenity

Stormwater Utility

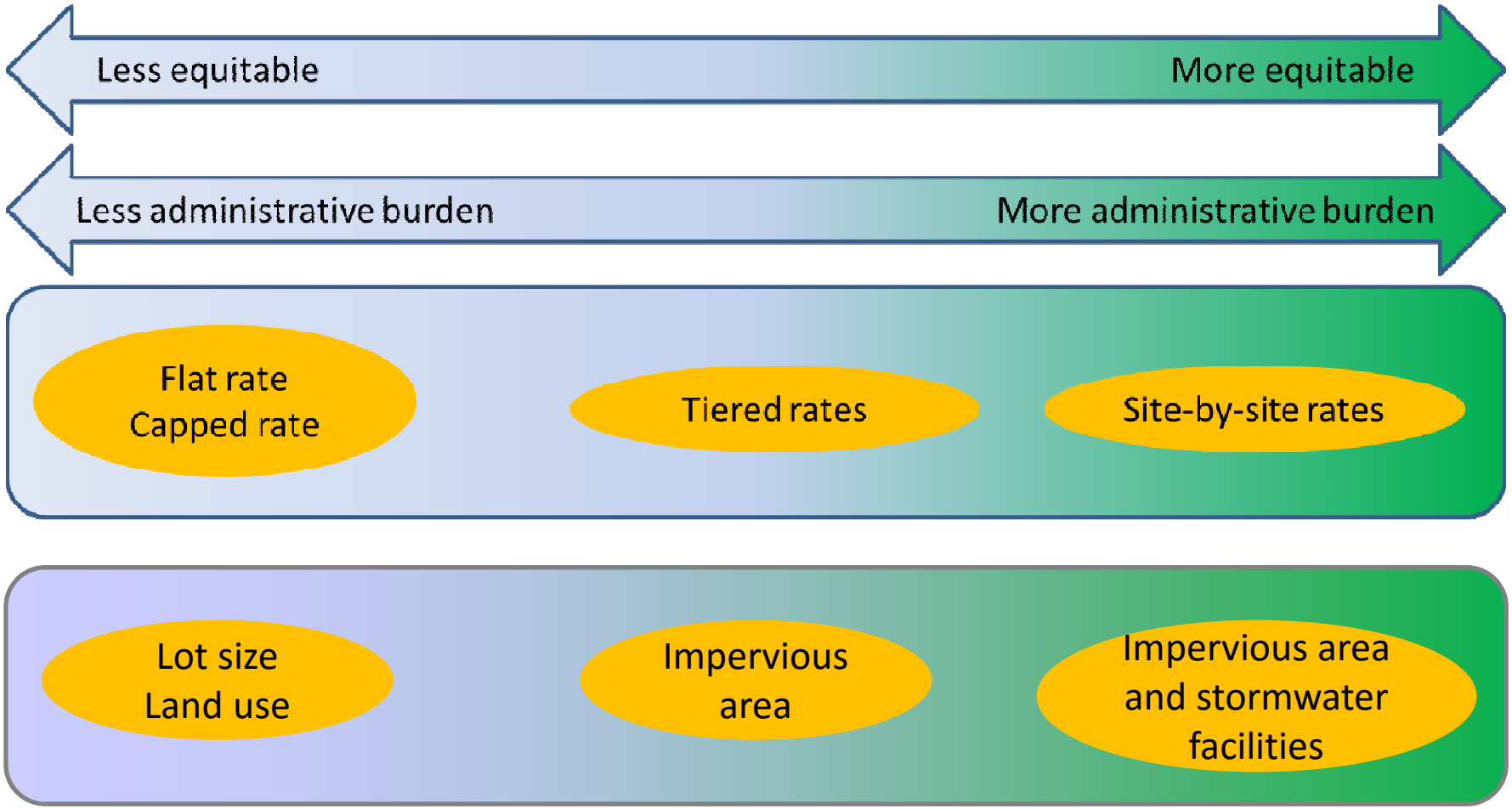
Percent of Impervious Area

IA (sqft) = 4354 ft^2
IA% = 78%

IA (sqft) = 17,951 ft^2
IA% = 3%

Stormwater Utility

Administrative Burden



Stormwater Utility Approaches

BREAKOUT

Program Element	Strong preference for use	Open to consideration for use	Slight preference against use	Strong preference against use	Additional information necessary to answer
Impervious area (sq ft)					
Semi-impervious area (e.g. gravel)					
Impervious percentage					
Water meter (i.e., size)					
Watershed (Canadian, Lake T'bird)					
Property type (residential, school, etc.)					
Residential tiers					
Non-residential tiers					
Exemptions					
Maximum fee					
On-site stormwater facilities (e.g. detention pond, bioswale)					
Off-site stormwater facilities (e.g. HOA pond)					
Base fee					
Other:					
Other:					
Other:					

Agenda

- Introductory Overview
- Stormwater Functions and Services
- Stormwater Funding Mechanisms
- Stormwater Utility Approaches
- **Funding Allocation**
- **Wrap-up and Path Forward**

Funding Allocation Approaches

BREAKOUT

Stormwater Costs	Stormwater Funding Sources							
	General fund	Capital fund	Stormwater utility					
Street sweeping								

Agenda

- Introductory Overview
- Stormwater Functions and Services
- Stormwater Funding Mechanisms
- Stormwater Utility Approaches
- Funding Allocation
- **Wrap-up and Path Forward**

City of Norman
Stormwater Utility Study

Steering Committee Work Session #1

May 15, 2017