



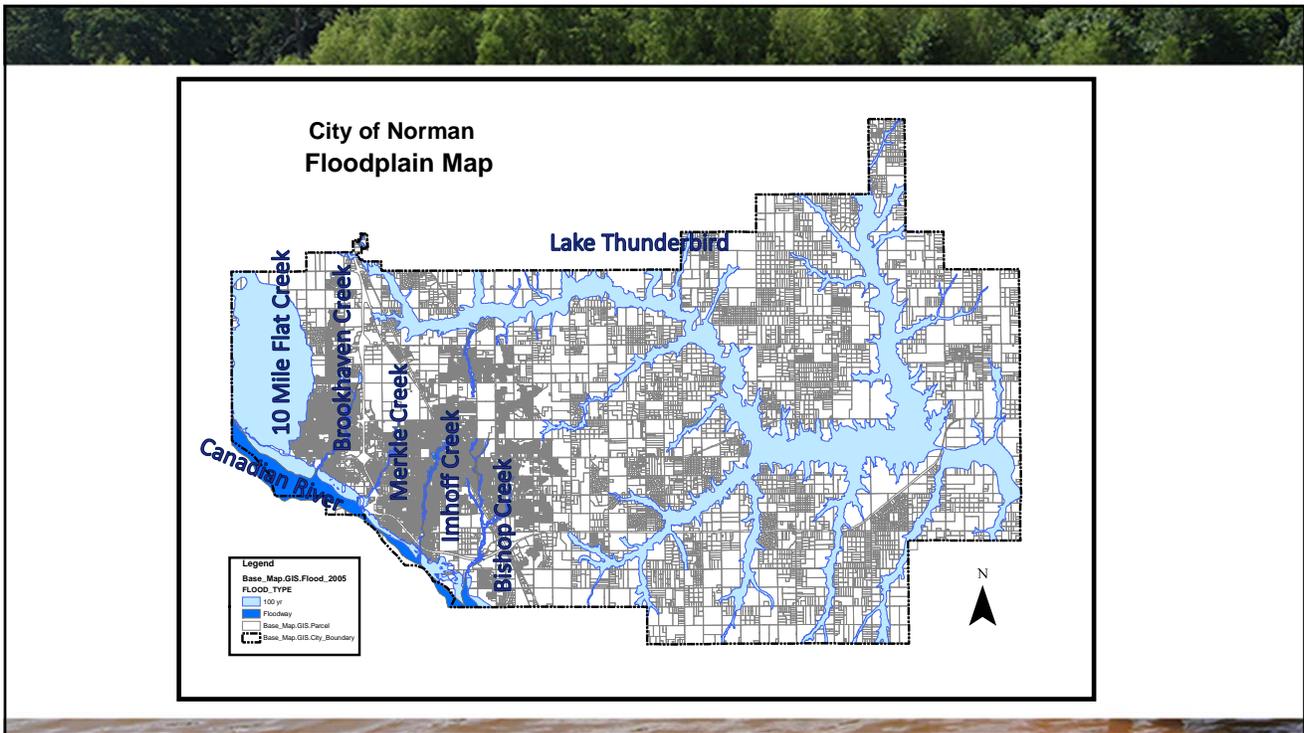
## Protect the Quality

What IS stormwater? It ...

- Is not just rain
- Is the result of rain *flowing over hard surfaces*
- Picks up pollutants and contaminants
- Makes its way via our drainage system, creeks and streams to the Canadian River, and to Lake Thunderbird

*The stormwater story ...*





## Protect the Quality

What are hard surfaces? Hard surfaces ..

- Reduce rainfall's ability to soak into the ground
- Examples are homes and businesses, pavements, driveways, parking lots, and walkways
- Run off carries pollutants into Lake Thunderbird and the Canadian River

This isn't about rain; it's about water quality. Stormwater runoff carries pollution.

# Protect the Quality

An impervious area in Norman

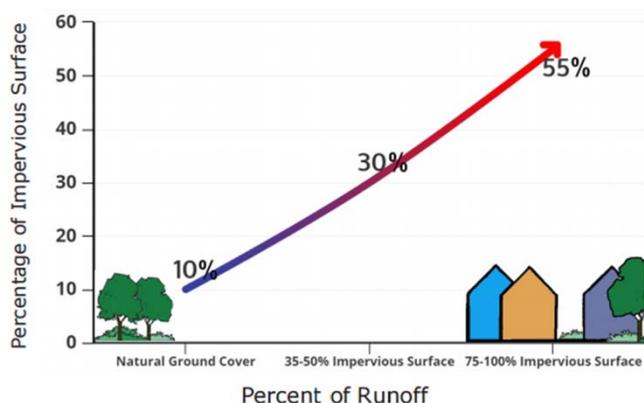


# Protect the Quality

Changes in Runoff Flows from Hard Surfaces

## Runoff Flows from Hard Surfaces

(As the percentage of impervious area increases, the amount of runoff increases.)



(Source: Adopted from Changes in Runoff Flows Resulting from Paved Surfaces. Tourbier, et. al., 1981)

## Protect the Quality

How does the runoff get polluted?

- Rain runs off of hard surfaces
- Over lawns
- Picks up gasoline, motor oil, fertilizers, and pet waste
- Flows over the street, collecting more contaminants, grass, and debris, into the drainage system
- Flows through underground drainage pipes into streams and creeks, and **untreated**, into Lake Thunderbird and the Canadian River



## Protect the Quality

Why establish a stormwater utility?

- **Predictable and stable** funding
- Programs to address stormwater runoff
  - Protect drinking water
  - Maintain creeks, streams, and drainage systems
  - Repair erosion of streams and creeks
  - Meet federal and state regulatory requirements

Norman is the only large city in Oklahoma without a stormwater utility.

## Protect the Quality

What are unfunded mandates?

- State and federal requirements
  - to address polluted runoff
  - protect drinking water
- Additional requirements to address the limits of pollution in Lake Thunderbird
- Possible fines and penalties of up to **\$10,000 per day**



## Protect the Quality

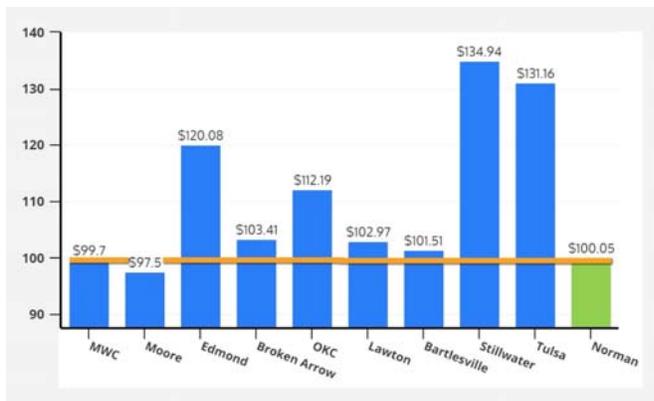
What are the rates for the proposed utility?

- Monthly utility rate is \$1.25 per 1,000 square feet of hard surface area
- \$1 per month stormwater management fee
- Does not include properties that have not been developed

**Example: A 2900 sq ft home with 700 add'l sq ft of hard surface area would pay \$6 per month.**

## Protect the Quality

If the stormwater utility is established, how will my overall utility rates compare to what utility customers pay in other cities in our state?



\* Total monthly residential utility bill, with 10k gallon water usage, and 5/8" or 3/4" meter, and including stormwater fees (with the \$6 average fee for Norman).

## Protect the Quality

Why is the rate based on hard surface area?

- The most common approach used by cities
- More impervious area = more stormwater runoff
  - More contaminants and pollutants
  - More impact to water quality

# Protect the Quality

The stormwater utility is expected to generate **\$4,900,000** in the first full year.



- \$1,100,000 – more maintenance of stormwater pipeline and channels
- \$1,680,000 – to comply with state and federal regulatory requirements
- \$2,120,000 – more maintenance in neighborhoods, small-scale capital flood relief projects

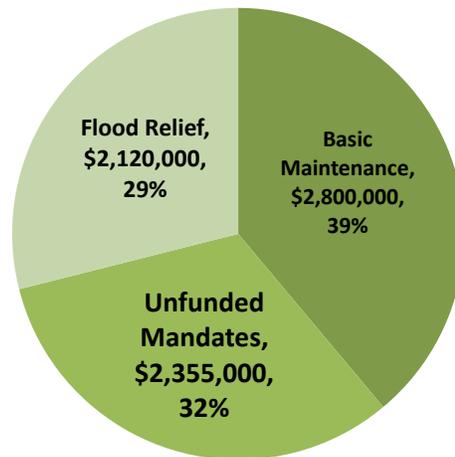


| Current City Stormwater Budget (General Fund) |             |
|---|-------------|
| Basic Maintenance                             |             |
| Stormwater Pipeline/Channel Maintenance       | \$1,700,000 |
| Unfunded Mandates                             |             |
| Street Sweeping                               |             |
| Stormwater Permit                             | \$675,000   |
| TOTAL   | \$2,375,000 |



| Proposed Additional City Stormwater Budget with SWU |             |
|---|-------------|
| Basic Maintenance                                   |             |
| Stormwater Pipeline/Channel Maintenance             |             |
| Enterprise Fund Practices                           | \$1,100,000 |
| Unfunded Mandates                                   |             |
| Street Sweeping (including equipment replacement)   |             |
| Stormwater Quality                                  |             |
| TMDL and Stormwater Permit                          | \$1,680,000 |
| Flood Relief Projects                               |             |
| Enhanced Maintenance in neighborhoods               |             |
| Capital Projects                                    | \$2,120,000 |
| TOTAL   | \$4,900,000 |
| GRAND TOTAL   | \$7,275,000 |

## Proposed Total City of Norman Annual Budget for Stormwater Utility



**Total Budget  
\$7,275,000**

## Protect the Quality of our Water

How will the funds from the utility benefit our community?

- More inspectors



## Protect the Quality **of our Water**

How will the funds from the utility benefit our community?

Dirty water causes harm to humans, wildlife, aquatic life and the local economy.

- More street sweepers
- More educational programs



## Protect the Quality **of our Water**



Each year Lake Thunderbird supplies **3 billion gallons** of water for our community

## Protect the Quality of Our Creeks

How will the funds from the utility benefit our community?

- More repair and restoration of eroding streams
  - threaten property
  - damage water and sewer lines
- More removal of debris that blocks streams, creeks and channels



Imhoff Creek

## Protect the Quality of the Flow

How will the funds from the utility benefit our community?

- More inspection and repair of underground drainage pipes
- More removal of debris that clog pipes
  - Improve the flow through drainage system
- More neighborhood maintenance and flood relief projects



Bishop Creek Channel Washout – City Sewer Pipeline – November 2015



Imhoff Creek Washout – City Sewer Pipeline – August 1, 2016



# Protect the Quality in Norman!



Protecting the Quality means ..

- Cleaner **water**
- Healthier streams and **creeks**
- Reduced risk of flooding from improved **flow** of stormwater

# When is the Vote?



- Vote on Tuesday, August 23
- [www.normanok.gov](http://www.normanok.gov)
- Click on Stormwater Election – August 23<sup>rd</sup>

