Getting the Locals to Go Along

Keys to Tulsa’s Successful Floodplain Management
Presented by:

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The Keys to Tulsa’s (Anybody’s) Successful Floodplain Management Program:

1. History – 1898-1970
2. Events/Disasters
3. Media / Public Info. Ed.
4. Citizen Involvement
5. Local Champions
6. Partnerships
7. Vision / CRS
8. Programs / Implementation
9. Higher Regulatory Standards
10. Funding- Utility Fee
History

1898 - 1970
Oklahoma is at the Convergence of the Three Climatic Zones, Making for Extreme Weather Patterns
Arkansas River Flooding

1908  1923  1943  1957  1959
Media

Communications, Public Information & Education
THOUSANDS FLEE AREA HOMES

Many Evacuate Brookside, Garden City; More Rains Swell Oklahoma Streams

Arkansas Expected to Reach Peak Here Tonight; Some in Imperiled Region Resist Evacuation Pleas

Damage Runs High; Record Crests Mount

Many Roads Closed, Bridges Out; Worst Rampage on Cimarron

School Authorities Pitch In

Boy Rescued Alive After 23 1/2 Hours Buried in Well

Bixby Is Hoping for Best, Grimly Ready for Worst

DOCTORS SAY

CD AND OTHER AGENCIES AID IN EMERGENCY

Red Cross, Firemen, Police, Guard Begin Flood Relief Work

Emergency evacuation efforts by the Civil Defense Administration in Tulsa and other cities were up to the 8 a.m. Friday for

Tulsa Daily World
Tulsa, Oklahoma Saturday, May 18, 1967
28 Pages 3 Parts Price Five Cents
CAROL’S POND
A STORM WATER MANAGEMENT BASIN

THIS LOCATION WAS THE SCENE OF
HOMES REPEATEDLY DEVASTATED BY
ITS TRANSFORMATION TO A PLACE OF
PEACE AND RECREATION WAS BROUGHT
ABOUT WITH HEROIC EFFORT. INSPIRED
AND LED BY THE FLOOD VICTIMS
THEMSELVES. ONE RESIDENT OF THIS
The Promise of Urbanization
Concrete-Lined Single Purpose Urban Drainage Channel
The 1970’s

Flooding Every 2 To 4 Years
Mother's Day Flood of 1970

$163,000 Damages

Tulsa Joins The NFIP

Mother's Day Flood of 1970
June 8, 1974 Flood

$18 Million Damages
More Than 120 Injured
Memorial Day Flood Of 1976

Three Killed!

$40 Million Damages
Citizens Involvement & Participation
Citizen Leaders Converge on City Hall to Demand Action on Flooding Problems
Developers Vs Concerned Citizens

Figure 4-2 Citizen And Government Interest And Involvement Hydrograph

Flood Wars Of The 70’s & 80’s
Local Champions
Stan Williams
&
Commissioner Norma Eagleton
Honoring Charles Hardt, Tulsa’s Floodplain Management Guiding Light
Partnerships
Larry Larsen, Director, 
Association of State Floodplain Managers
Dr. Jon Kusler
Association of State Wetland Managers
A Lifetime of Service
Denver’s Urban Drainage & Flood Control District, Wright Water Engineers, Ann Patton
Commissioner Metcalfe & Gilbert White at ASFPM
What is Influencing the Trend of Increased Property at Risk

Current National Policy:

- Promotes intensification in risk areas
- Ignores changing conditions
- Ignores adverse impacts to existing properties
- Undervalues natural floodplain functions
A Different Approach

- Basin-wide Master Drainage Plans
- Floodplain Acquisitions
- Multi-Use Facilities
- Stricter Floodplain Regulations
  - No Increase In Runoff
  - Onsite Detention
- Fully Urbanized 1% Storm Designs
Use a comprehensive watershed approach

CRS can provide a guide and Framework for going beyond the NFIP’s minimum requirements
Tulsa’s Drainage Basins & Master Drainage Plans
1 Ft. rise in water Surface Elevation

FEMA's Existing Conditions Floodplain - Fill Allowed

Floodway (Channel)

Fill

FEMA’s NFIP Floodplain
Legally Permitted Development after Basin Urbanization
Tulsa’s Regulatory Floodplain -

Full Urbanization of the Basin
No Increase of Peak Discharges
No Rise in Flood Elevation
No Net Loss of Floodplain Storage
Multi-Disciplinary Design Team
Engineers, Planners, Architects, Landscape Architects
Public Meetings during the Planning Process
Basin-wide Comprehensive Master Drainage Plan
Recommended Plan - A Mix of Structural and Non-Structural Solutions
Progress & Implementation

1984 - 1990
Memorial Day Flood Of 1984

- 14 Dead
- 288 Injured
- 14 Deaths
- 7,000 Buildings Flooded
- $183 Million Damages
1984 Flood Damages to Residential Neighborhoods
Courageous Mayor Terry Young
Moving a Flooded House from the Mingo Creek Acquisition Area (1985)
Our 1984 Vision for the Mingo Creek Floodplain
Plan for Metcalfe Detention Pond
Mingo Creek Detention Pond During Flooding Event
McClure Multi-Use Park & Stormwater Detention Facility
CRS

Higher Standards
Tulsa, Nation’s First CRS Class 3 Community
October, 2000
2003 – Tulsa Receives Nation’s First CRS Class 2 Designation
City of Tulsa 2014 Official Notice

Flood Hazard Information About Your Property

Your property is located in or near an area subject to flooding. It may be within a FEMA Special Flood Hazard Area (SFHA), or the City of Tulsa Regulatory Floodplain within the City of Tulsa.

The FEMA SFHA is an area subject to inundation by the base (one percent annual chance) flood. What does this mean for you? Please read on.

Flood Insurance Available for All Properties in Tulsa

The Federal Emergency Management Agency says that if your home is located in a high-risk flood zone, there is a 26 percent chance it will flood during the life of a 30-year mortgage. Up to 25 percent of all National Flood Insurance Program claims come from structures outside of high-risk areas. Did you know the City of Tulsa has a 40 percent discount for homeowners in a SFHA on flood insurance, and a 10 percent discount for all other properties? Most homeowners' policies do not cover flood losses. You can protect your home and contents through the National Flood Insurance Program.

You should obtain coverage for structure and contents. There can be more damage to the contents than the structure. Renters can buy contents coverage even if the owner does not insure the structure. There is a 30-day waiting period before the policy becomes effective.

Flood insurance is required by law in order to obtain federally secured financing to buy, build, or renovate a structure located in a FEMA SFHA. This financing includes federal grants, FHA and VA loans, and most conventional mortgage loans.

To find out more about flood insurance, contact any licensed property/casualty agent or broker—the same person who sells your home and auto policies. All agencies charge the same premiums.
Tulsa’s Arkansas River Parks Trail
Mingo Creek Multi-Use Regional Stormwater Detention Pond
Multi-Use Greenways along Tulsa’s Urban Streams
Funding

Storm Drainage Utility Fee

Administration
Planning & Engineering
Maintenance & Operations
Small Drainage Projects
Sustained Funding Allows Improvements & Ongoing Maintenance
Creating Multi-Use Places where Families can enjoy Nature
Challenges

Complacency
Apathy
Urban Natural Channels
Implementation of LID
Creating a more Natural Approach to the City’s Streams
Lessons Learned:

Learn from Others