GIS for the Non-GIS Professional:
Empowering Public Outreach

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What We Do

Land Acquisition Services

Civil & Roadway Design

Hydrologic & Hydraulic Engineering

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GIS Services

Planning Services

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What Is GIS For?

What is GIS?

GIS is Information, by definition

If "Bigger is Better", isn't a bigger GIS a better GIS?

But "Bigger" how? File size? Feature extent? Feature count? Disk drives used?

Live For A Purpose

People want purpose; doesn't information too?

Even if it's not living, the best GIS is the one that best informs

All information needs an audience; otherwise it's not informing anyone

Unboxing GIS

GIS Applications, Uses, Users, and Benefits

GIS for the Non-GIS Professional: Emergency Management

Emergency Managers and GIS

Emergency Managers don't – and can't -- live in ArcGIS Desktop all day

But most of what they do has some geographic component – and almost all information they need to collect or share does
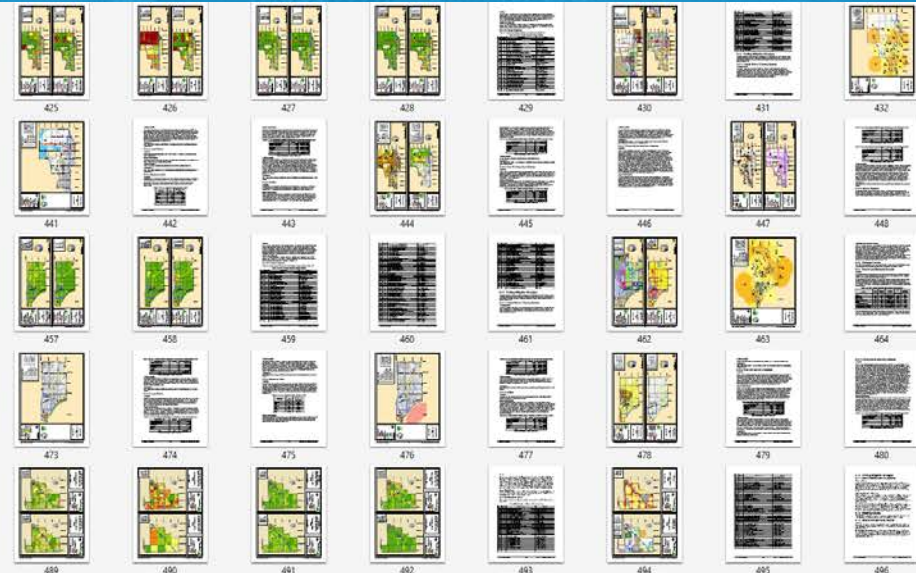
How else to "map" and share this data?

Emergency Management Case Study:
Tulsa Hazard Mitigation Plan 2019 Update

The City of Tulsa has one of the flagship hazard mitigation plans in the region; GIS is a staple of HMP production

Bigger Isn't Always Better:
➜ 1000 pages long
➜ Dozens of maps
➜ Printed
➜ Engaging?
➜ Easy to update?

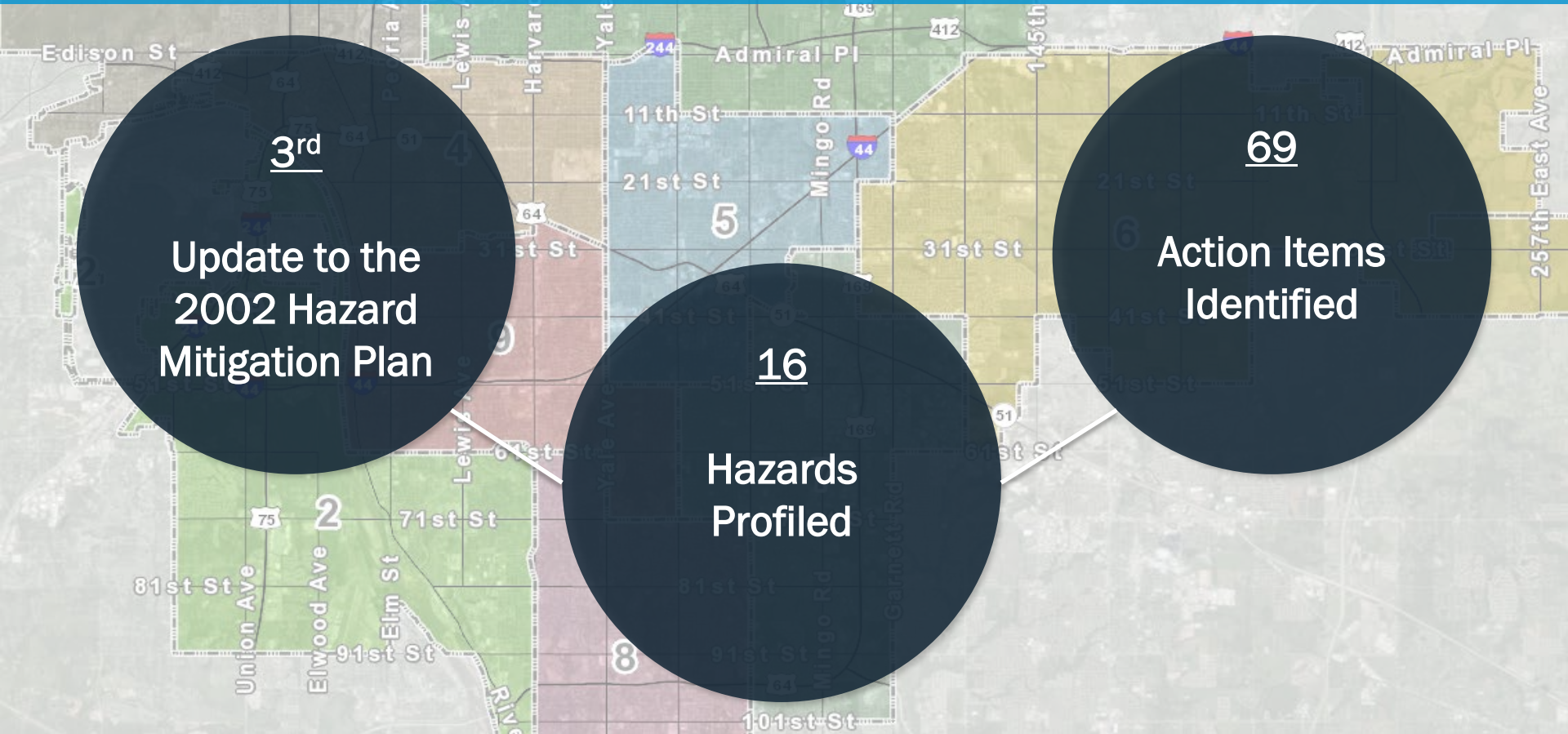# City of Tulsa Hazard Mitigation Plan (2014)

<u>3rd</u>

Update to the 2002 Hazard Mitigation Plan

<u>16</u>

Hazards Profiled

<u>69</u>

Action Items Identified

Emergency Management Case Study: Tulsa Hazard Mitigation Plan 2019 Update

In 2019 Update, the goal was to take as much of the plan itself online as possible

➜ Easier to update (a small set of map services)
➜ More engaging (scales and extents, per person)
➜ Online platform is more accessible, especially in the "digital native" era
➜ Can also be used to garner **public input and engagement** in drafting process

Emergency Management Case Study:
# Tulsa Hazard Mitigation Plan 2019 Update

Online Program Benefits:

→ Reduced labor

→ Enhanced public awareness and outreach (link accessible to public and advertised on media and City / community websites and social channels)

→ Public can enter address or retrieve current GPS position (smartphone / tablet) to see the risks around them, wherever they are

Emergency Management Case Study: Tulsa Hazard Mitigation Plan 2019 Update

The public Tulsa hazards viewer; a separate stakeholder viewer contains more detailed data and allows tracking of project implementation

This was deployed using Esri Story Maps
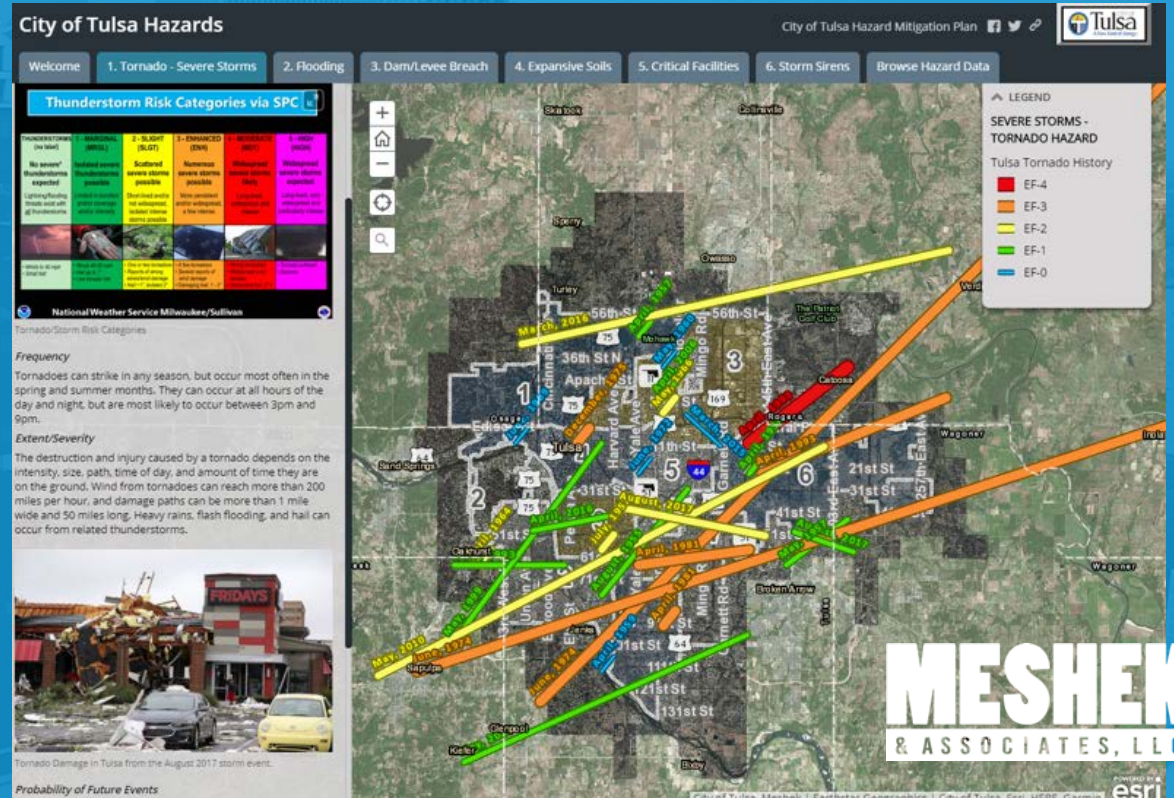
GIS for the Non-GIS Professional: Community Planning

Community Planning and GIS

Community Planners – and those enacting projects such as Capital Improvement and General Obligation Bond projects – are deeply engaged with the community, and vice versa

These projects have direct, tangible, and obvious impacts on the lives of citizens – through the duration of the project and subsequent years

Community Planning and GIS

Traditional Outreach:
➜ Public Meetings
➜ Press Releases
➜ Signs

Image Source: The Oklahoman

PROGRESS AS PROMISED
CITY OF TULSA
CONCRETE CHANNEL REPAIR
LITTLE JOE CREEK
FUNDING SOURCE: 2005 BOND
CONTRACTOR: CROSSLAND HEAVY CONTRACTORS
ARCHITECT / ENGINEER: MESHEK & ASSOCIATES, P.L.C.
COMPLETION DATE: MARCH 2013
DEWEY BARTLETT JR., MAYOR

% COMPLETED
100%
75%
50%
25%
0%

Each has pros and cons

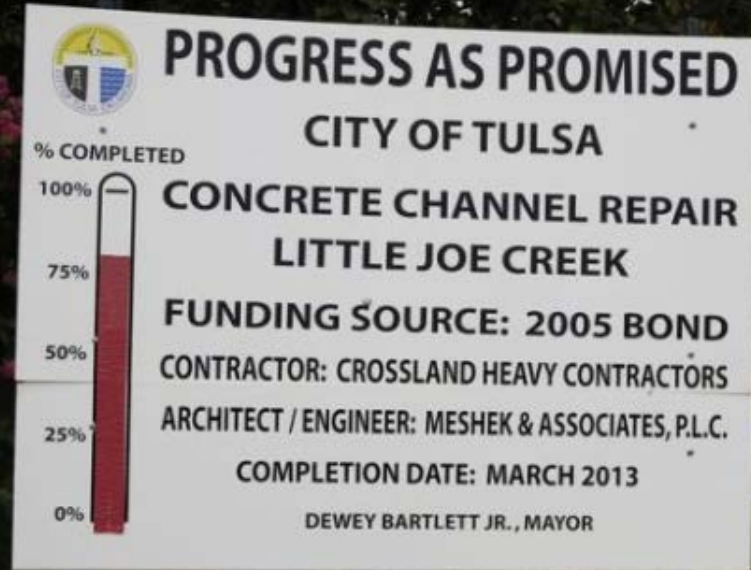Are there other ways to engage the public through GIS?

Image Source: Tulsa World

Community Planning Case Study:
Broken Arrow General Obligation Bond Tracking Viewer

Broken Arrow Needs:

➜ Large and growing suburb of Tulsa

  ○ Population is about 1/4 Tulsa; approximately doubled in size since 1990

  ○ Consistently rated in top values for home buyers

➜ Growth trend continues...

➜ To maintain quality of life, improvements needed – enter the 2018 GO Bond vote

Broken Arrow / Population

108,303 (2017)

120,000

100,000

80,000

60,000

1990   1995   2000   2005   2010   2015

● Broken Arrow
108,303

● Broken Arrow
58,481 (1990)

Community Planning Case Study:
Broken Arrow General Obligation Bond Tracking Viewer

On Aug. 28, 2018, Broken Arrow residents voted, approving all propositions:

Proposition 1: Transportation -- $142.625M – 74%

Proposition 2: Public Safety -- $20.35M – 71%

Proposition 3: Parks and Recreation – $17.75 M – 68%

Proposition 4: Public Facilities – $16.8M – 62%

Proposition 5: Stormwater -- $7.5M – 75%

Proposition 6: Drainage – $5.5M – 73%

At over $200M in projects and average 71% approval, the City's need to prove project performance to the public was critical

Community Planning Case Study:
Broken Arrow General Obligation Bond Tracking Viewer

City chose to implement an online bond tracking viewer powered by GIS

Primary challenge was converting map figures and tables developed before the vote into something more online-user friendly. City also included other projects.
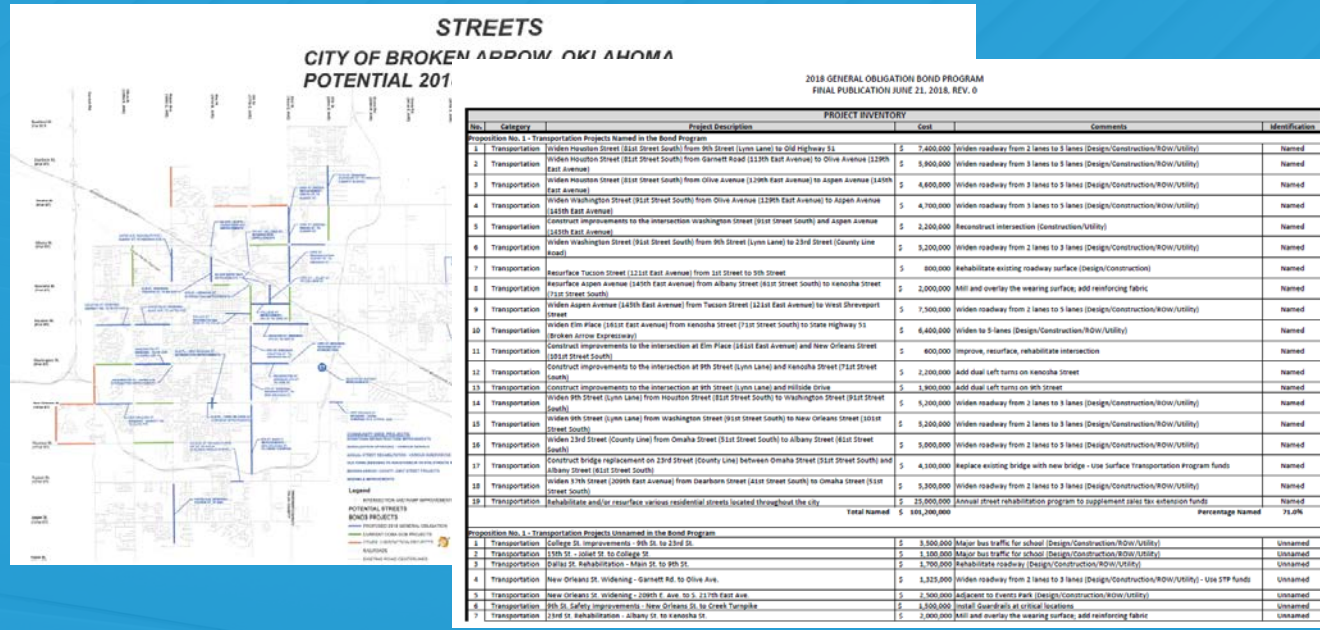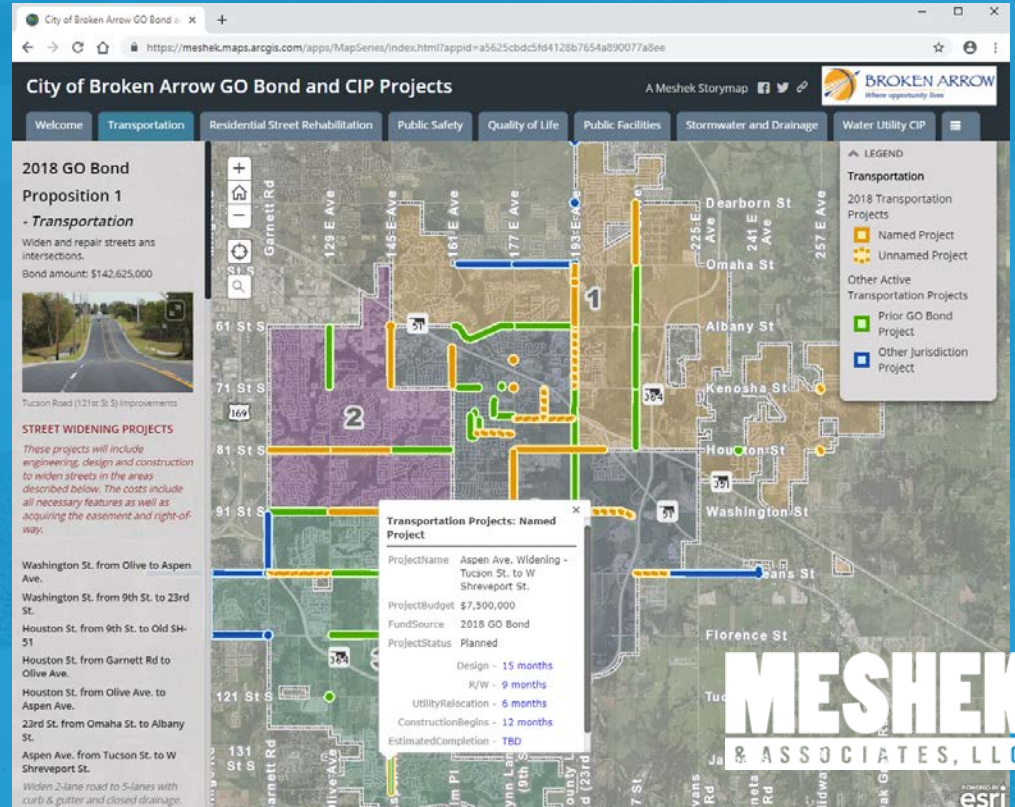
Community Planning Case Study:
Broken Arrow General Obligation Bond Tracking Viewer

The Broken Arrow GO Bond and CIP Projects tracking viewer

Developed by contractor to augment limited staff capacity, intent is to migrate to City's organization for maintenance after build

This was deployed using Esri Story Maps