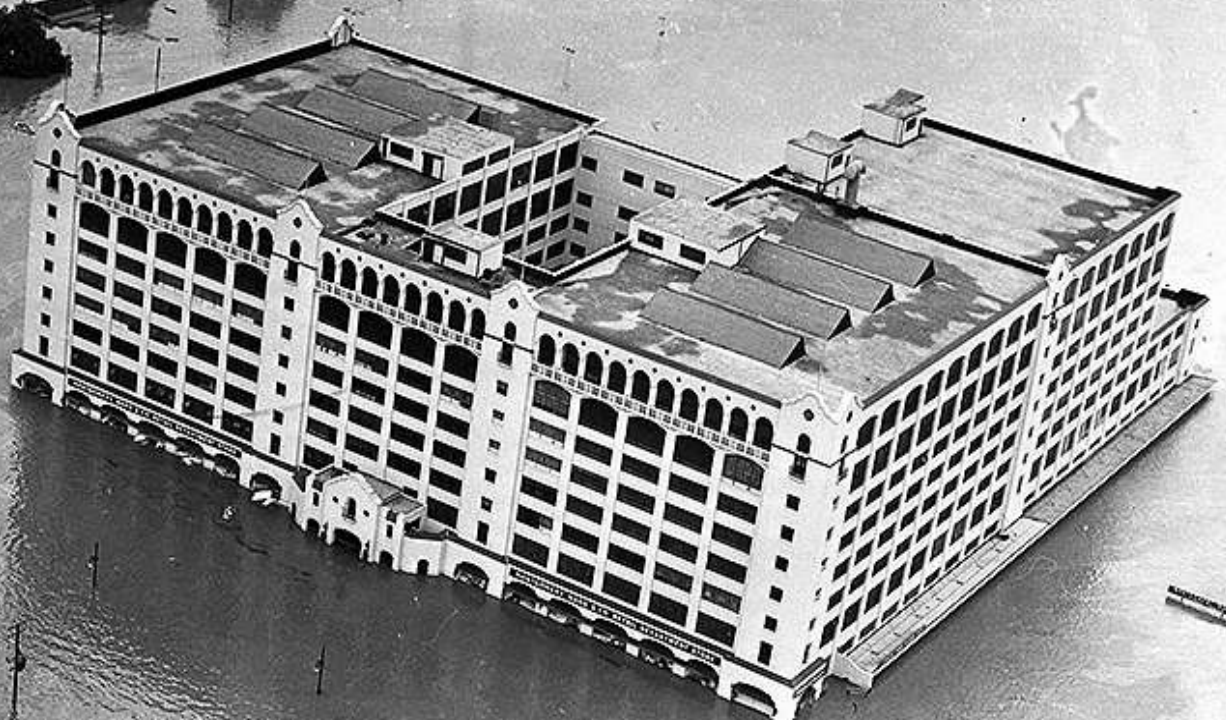


# Too Many Projects, Not Enough Money

## Practical Solutions to Optimize Limited Funding

*2018 ASFPM*

*June 21, 2018*



# Agenda

A bar chart with five horizontal bars of different colors (green, orange, red, brown, and light green) pointing to the right. The bars are of varying lengths, with the top bar being the longest and the bottom bar being the shortest. The text for each bar is written in white and is centered within the bar.

Background & Objectives

Prioritization System

Results

Database

Conclusions

# Background & Objectives



# Stormwater Mission

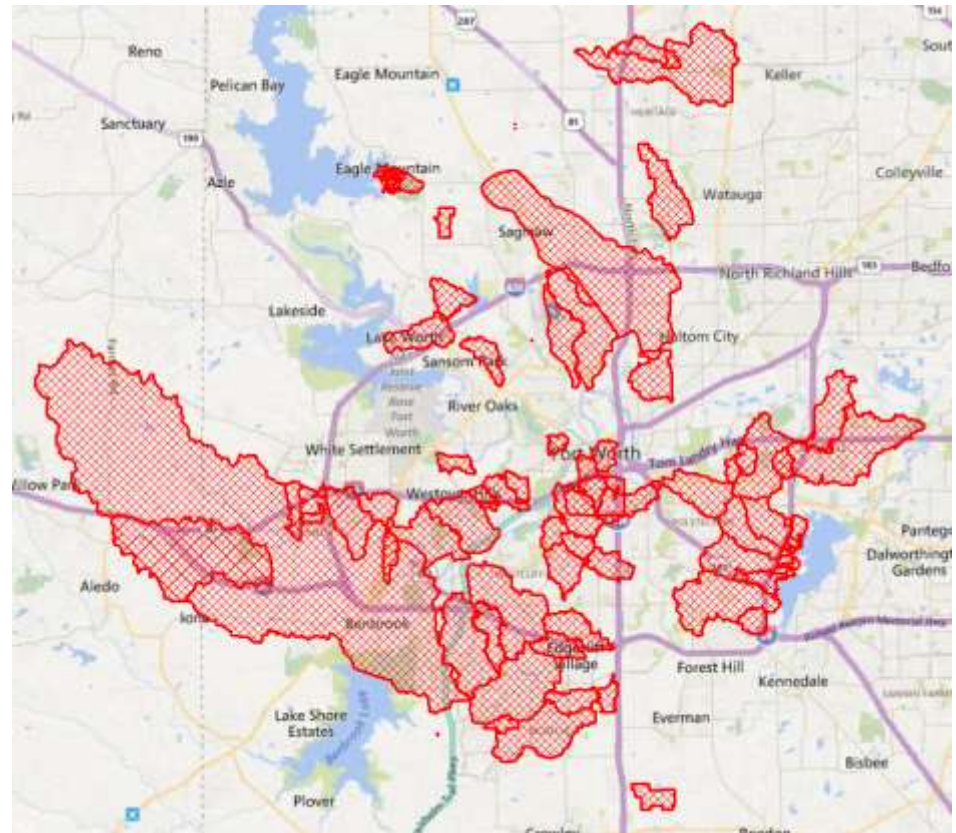
- To protect people and property from the harmful effects of stormwater



Lubbock at Devitt (2004)

# Prior Planning Efforts

- 89 reports, 500 investigated alternatives





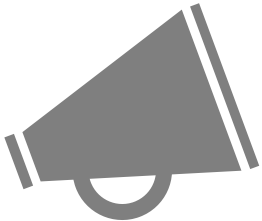
- 



# Objectives



Objective and repeatable process as a foundation for decision-making



Understandable system which can be communicated internally and externally



Ability to reference and update on a daily basis

# Objectives

- Guide projects through the life cycle



## What & Where?

- Objectives
- Constraints
- Preferred strategy
- Extents
- Conceptual cost

## Fatal Flaws?

- External coordination
- Land acquisition, ROW
- Community opposition/support
- Refined cost

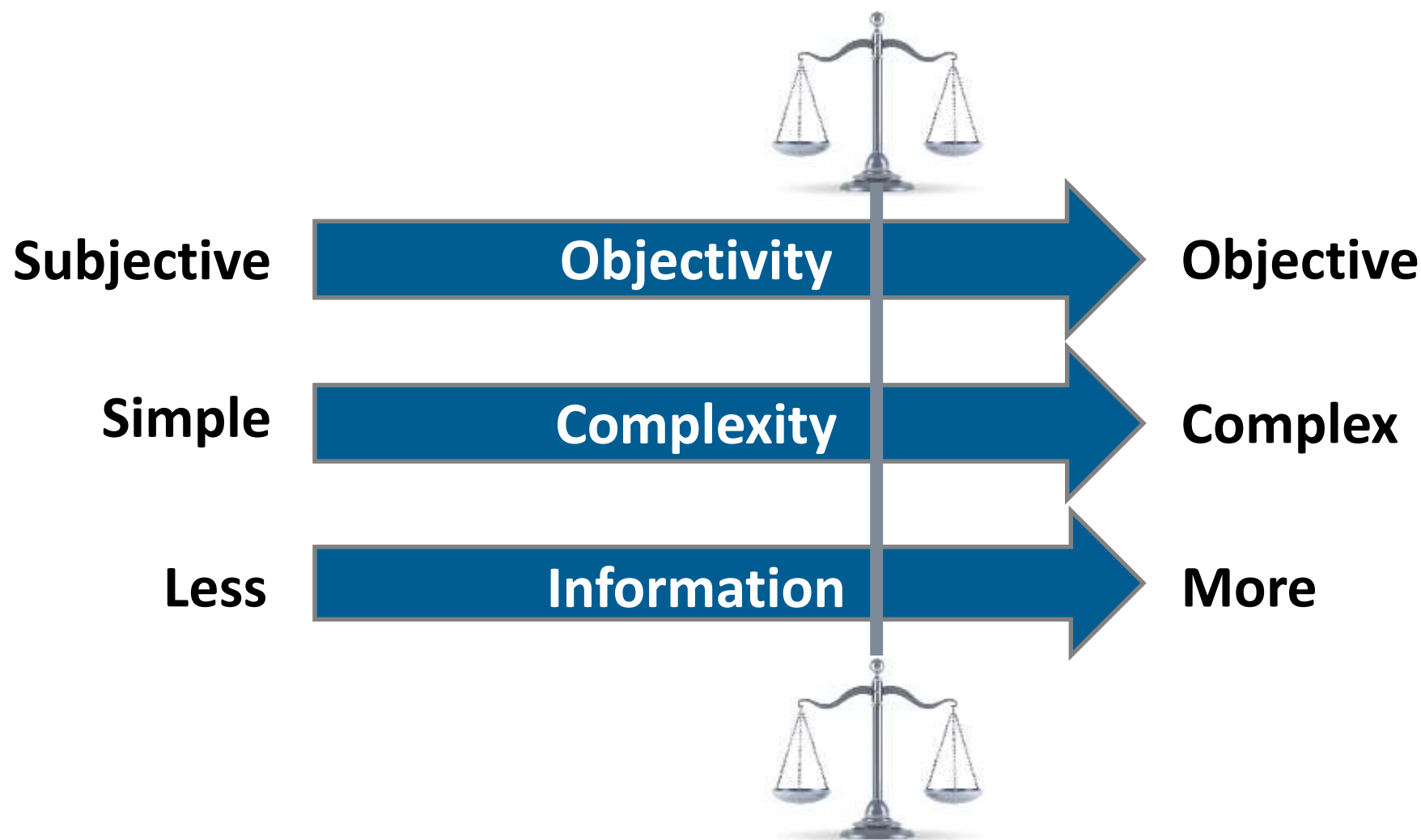
## Exactly How?

- Utilities
- Constructability
- Scheduling
- Implementation risks
- Geotech
- Cost



# Prioritization System

# Challenges



# Prioritization Process

**BUY IN**



The diagram illustrates the Prioritization Process as a sequence of four steps, each represented by a circular icon on a large, light gray arrow that curves from the bottom left towards the top right. A thick green arrow, labeled 'BUY IN', points diagonally upwards from the bottom left towards the top right, passing over the first three steps. The steps are: 1. Establish Criteria, 2. Determine Weighting Factors, 3. Establish Scoring Process, and 4. Project Priority Rankings.

**Project  
Priority  
Rankings**

**Establish  
Scoring  
Process**

**Determine  
Weighting  
Factors**

**Establish  
Criteria**



# Criteria Selection

- Aligned with broader City objectives, focused on the Stormwater mission

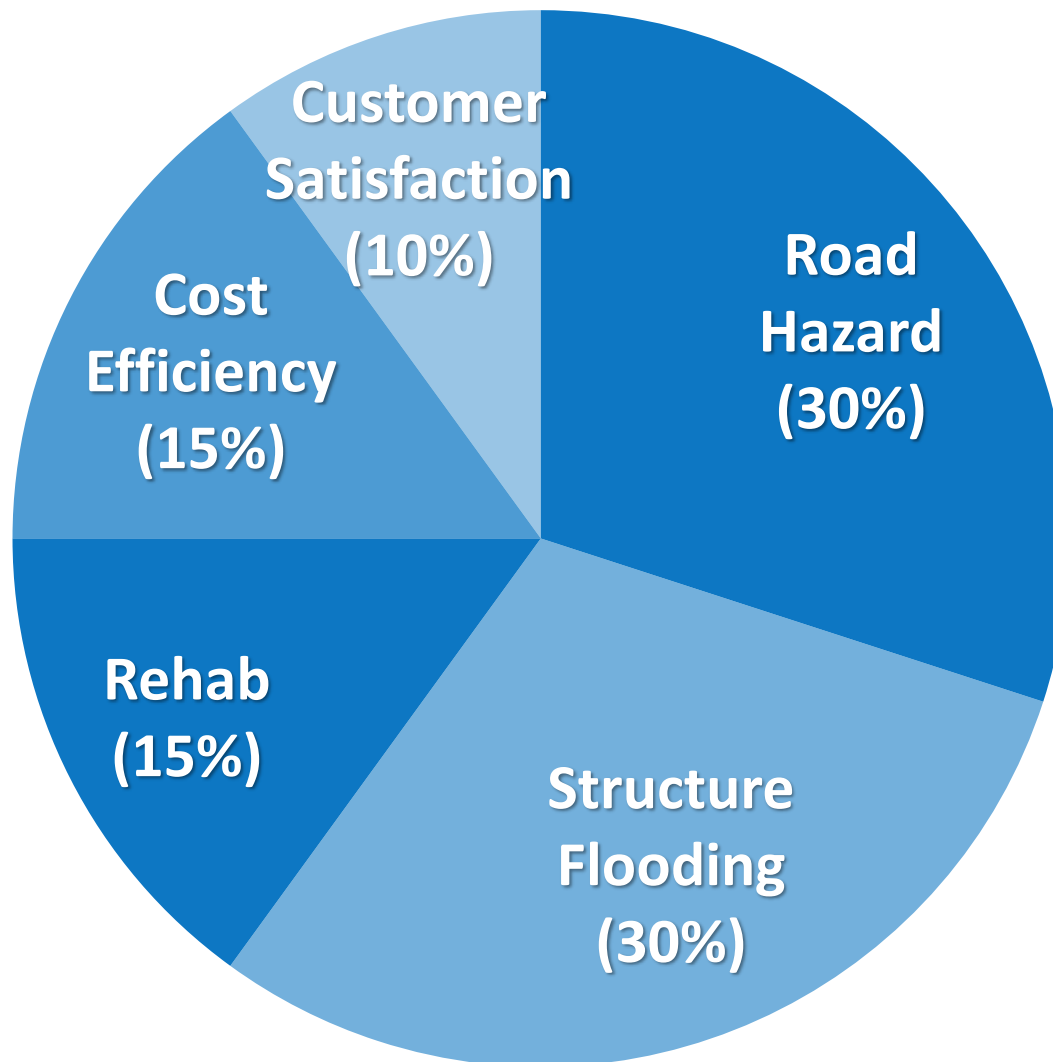


→ 18 criteria



5 criteria

# Criteria Weights



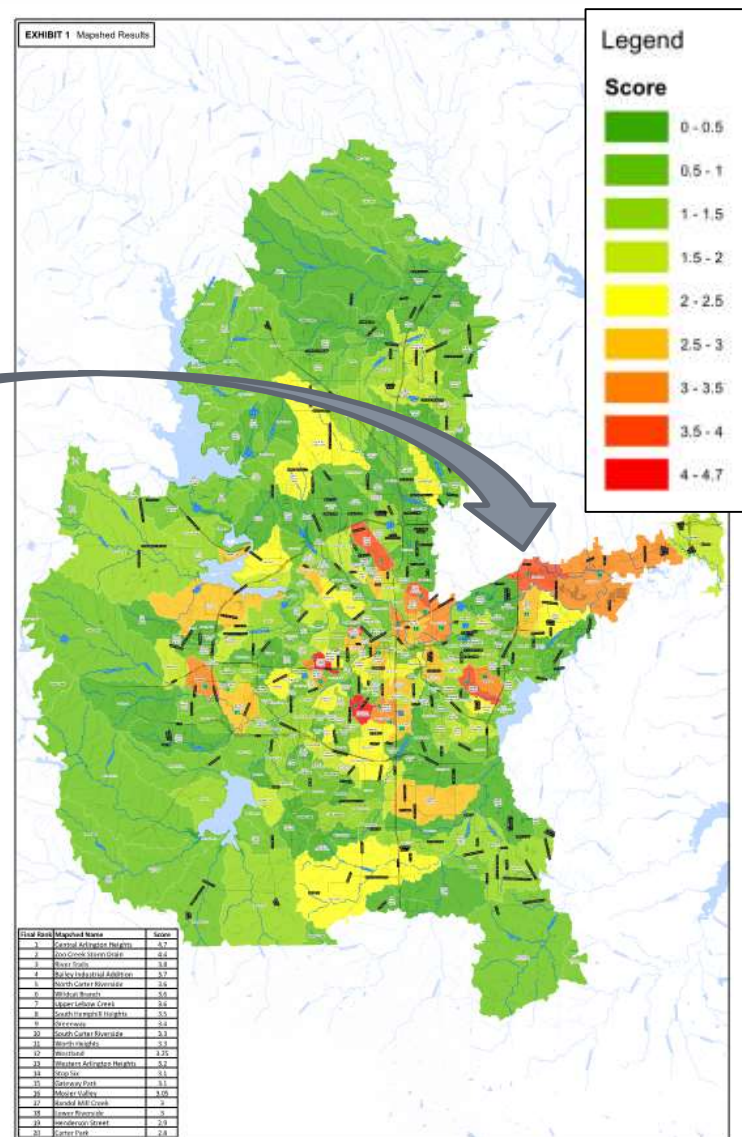
# Mapshed

Criteria	Metric
Road Hazard	Low water crossings High water rescues Fatalities
Structure Flooding	At-risk structures Repetitive loss areas
Rehab	Criticality
Capacity	Pipe grades
Customer Satisfaction	Reported flood incidents



# Mapshed Prioritization

- Identifying future planning efforts using available spatial datasets



# Scoring Criteria & Metrics

Criteria	Metric
Road Hazard	Risk-based hazard reduction
Structure Flooding	Risk-based flood reduction
Infrastructure Rehab	Criticality
Cost Efficiency	Score-to-cost ratio
Customer Satisfaction	Support/opposition, Reported flood incidents

# Scoring System

Criteria	Score	Weight	Weighted Score
Road Hazard	35	30%	10.5
Structure Flooding	50	30%	15
Rehab	20	15%	3
Cost Efficiency	50	15%	7.5
Customer Satisfaction	50	10%	5
TOTAL			41



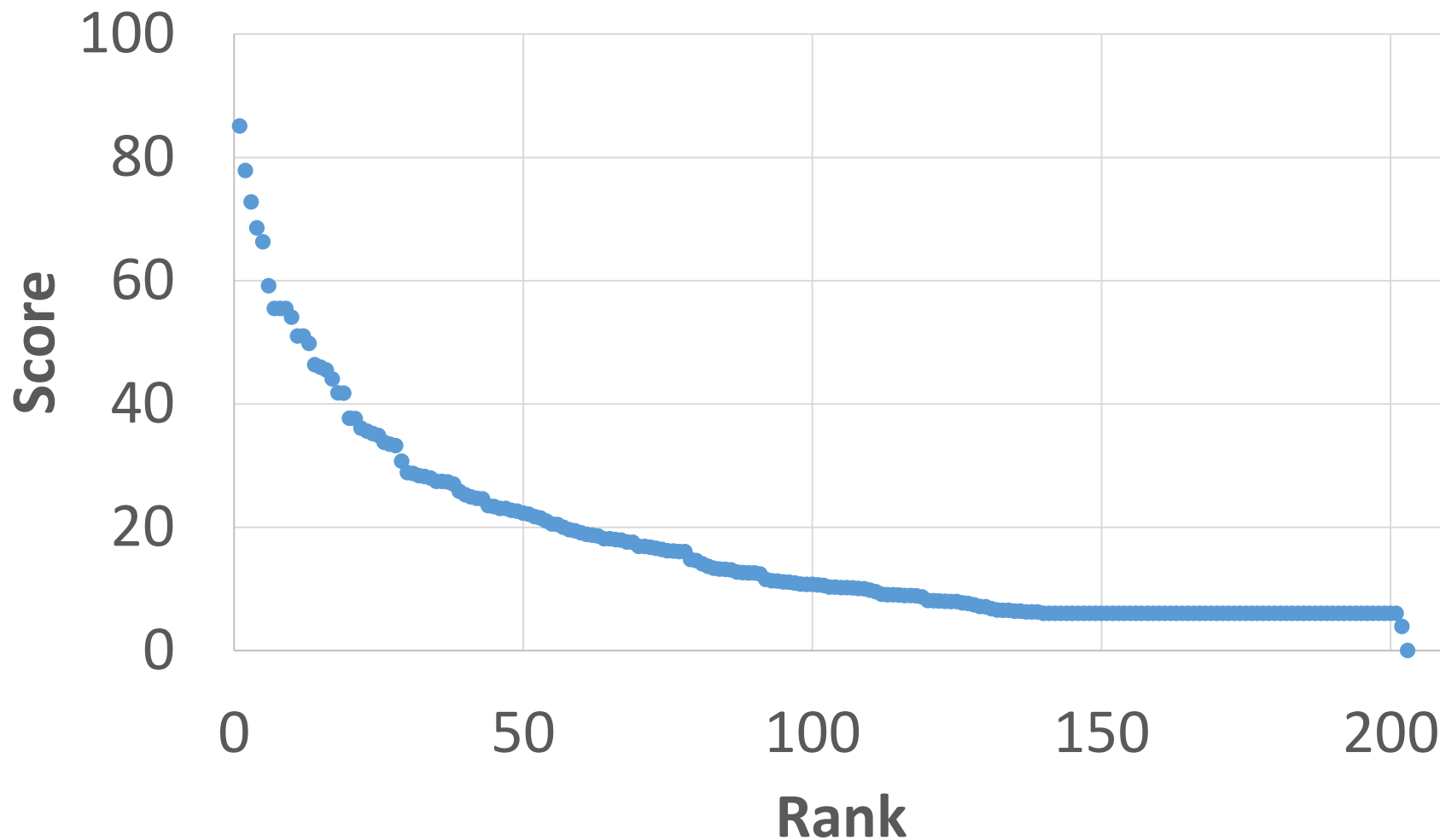
# Results

# Ranking

## Enhanced Prioritization Ranked List of Alternatives with Scores

Grouped Rank	DBID	Report Name	Alternative Name	Individual Rank	Score	D1 Weighted	D3 Weighted	D4 Weighted	S1 Weighted	T1 Weighted	V1 Weighted	SW Cost	MSCR	Precondition	Data Class
1	128	SWS-005 Greenfield	Option 2 - Storm Drain and Detention Improvements	2	77.2	30	9.32	11.33	16.55	10	0	\$5,500,000	10.5	Street CIP	3
2	506	CIP#01669 Westcliff Drainage Improvements (Surrey Street)	Westcliff Drainage Improvements (Overall)	3	72.72	30	2.72	0	30	10	0	N/A	N/A		1
	510	CIP#01669 Westcliff Drainage Improvements (Surrey Street)	Westcliff Drainage Improvements - Phase 1	1	84.38	30	2.72	11.66	30	10	0	\$5,800,000	10.8		3
	511	CIP#01669 Westcliff Drainage Improvements (Surrey Street)	Westcliff Drainage Improvements - Phase 3	22	36.86	13.62	0	0	13.24	10	0	N/A	N/A		1
3	62	00084 Lebow Creek Master Plan	Upper Lebow Channel Improvements and Detention (Overall)	4	68.37	30	0	2.37	30	6	0	\$26,977,841	2.2		3
4	411	CIP#00626 Loving Avenue Culvert and Channel Improvements	Alternative 1 - Culvert and Channel Improvements	5	65.59	30	1.22	11.55	16.82	6	0	\$4,500,000	10.7		3
5	14	00080 Central Arlington Heights	2.a. Voluntary Property Acquisition and Demolition with Greenway Detention	6	59.13	30	0	15	10.13	4	0	\$1,659,174	24.2		3
6	523	SWS-025 Glenwood Creek	Glenwood Conveyance (Overall)	7	56.57	18.57	0	0	30	8	0	N/A	N/A		1
	254	SWS-025 Glenwood Creek	Vickery Riverside Culvert	106	10.14	0	0	0.86	1.28	8	0	\$1,636,427	0.8		3
	253	SWS-025 Glenwood Creek	Alternative Zero - UPRR Culvert Improvements	8	56.57	18.57	0	0	30	8	0	N/A	N/A	Downstream Improvements	3
7	452	CIP#01607 Overton Woods Drainage Improvements	Alternative A - 12X10 RCB Culvert - Bellaire Drive Diversion to Stream CF-3	9	53.8	30	0	4.42	13.38	6	0	\$10,622,151	4.1		3
8	328	SWS-041 Plantation Creeks	Improvement Alternative 1: 10-YR LOS Culvert Improvements	10	51	0	0	15	30	6	0	\$1,120,739	26.8		3
9	229	SWS-017 Wildcat Branch	Alternative 4 - Purchase of At Risk Structures - 5-yr	11	51	30	0	15	0	6	0	\$495,312	60.6		3
10	257	SWS-026 Prairie Dog Creek	Project 3 - Channel Improvements at Parker Henders on Road	12	49.06	0	0	13.06	30	6	0	\$2,480,736	12.1	Street CIP	3
11	224	SWS-017 Wildcat Branch	Alternative 2B - Lower Channel Improvements and Culvert Replacements	13	47.17	18.16	4.48	6.37	12.16	6	0	\$5,851,745	5.9		3
	225	SWS-017 Wildcat Branch	Alternative 2C - Lower Channel Overbank Cuts	17	42.69	18.16	0	6.37	12.16	6	0	\$5,166,353	5.9		3
12	514	SWS-036 Edgcliff Branch	McCart Avenue at Edgcliff Branch Drainage Improvements - Alternative 2 (Overall)	15	45.39	2.75	0	4.64	30	8	0	\$7,541,693	4.3	Street CIP	3
	306	SWS-036 Edgcliff Branch	Alternative 2 - Phase 1 (25-YR Design) - McCart Avenue at Edgcliff Branch Improvements	14	45.82	2.75	0	5.07	30	8	0	\$6,961,801	4.7	Street CIP	3
	307	SWS-036 Edgcliff Branch	Alternative 2 - Phase 2 (25-YR Design) - Misty Meadow Channel Stormwater Detention	24	35.16	0	0	15	12.16	8	0	\$579,892	21		3
13	36	00083 East Central Business District	Project 2A - 4th Street Trunkline Outfall Improvements	16	44.37	5.5	14.49	15	3.38	6	0	\$1,684,649	13.9		3
	38	00083 East Central Business District	Project 3A - 4th Street Trunkline Capacity Improvements	57	19.93	2.06	0	5.18	6.69	6	0	\$1,819,246	4.8	Street CIP	3
14	521	CIP#01853 Royal Creek Channel Repair	Royal Creek Channel Repair and Culvert Improvements	18	41.76	0	0.49	15	20.27	6	0	\$1,097,926	18.9		3
15	522	SWS-025 Glenwood Creek	Glenwood Detention (Overall)	19	38	0	0	0	30	8	0	N/A	N/A		1
	251	SWS-025 Glenwood Creek	Alternative Three - Combination of Alternatives One and Two	86	12.94	0	0	2.37	2.57	8	0	\$1,150,746	2.2		3

# Ranking



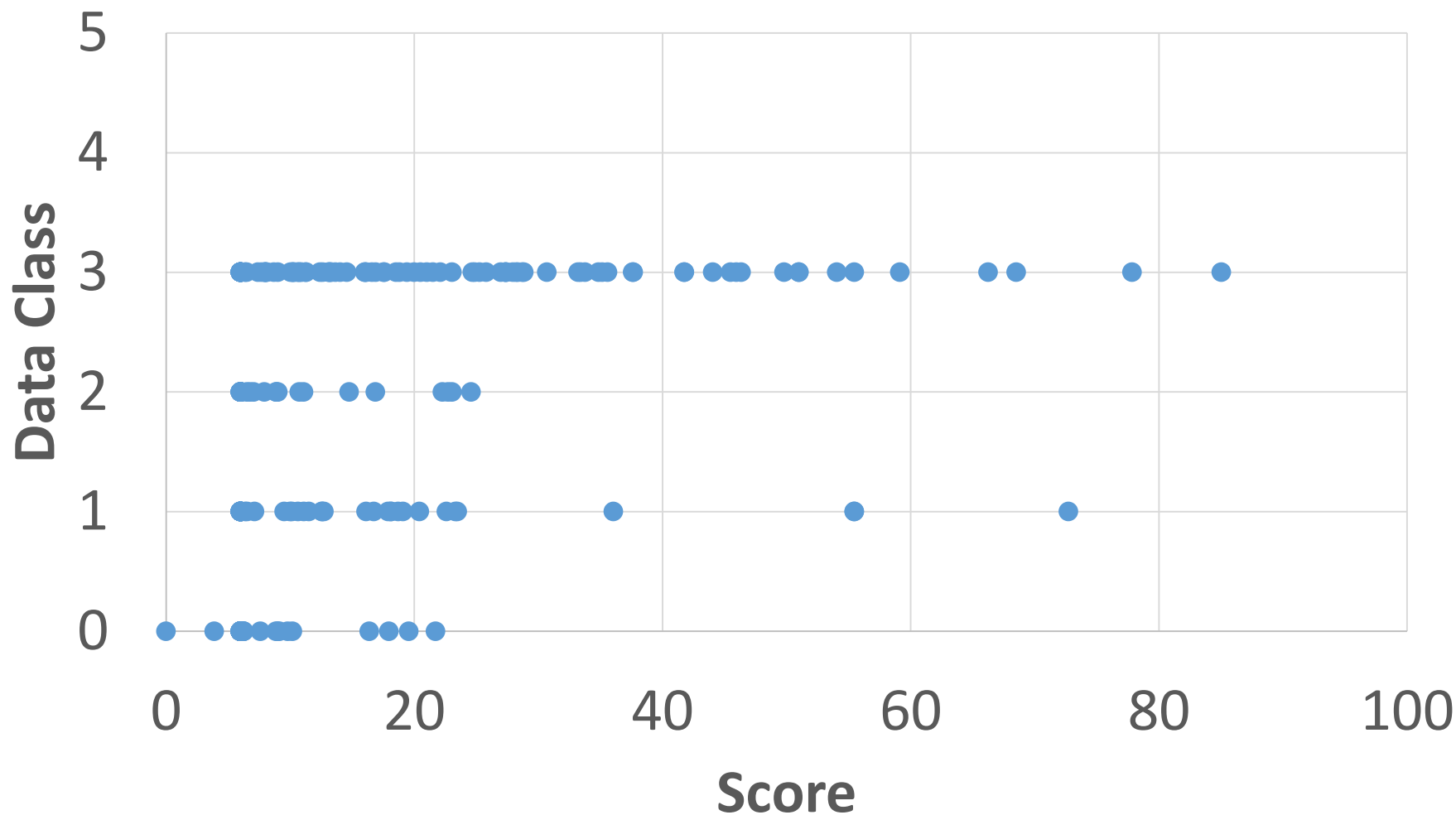




# Data Class

Data Class	Description
0	Limited information, no model
1	Limited information, model available
2	Adequate information, no model
3	Adequate information, model available
4	Partial spreadsheet documentation
5	Complete spreadsheet documentation

# Data Class



# Database

# Data Entry



**Data Entry** | Results | Project Assessment Form | Funding Request Criteria

Report Number: SWS-017 | Report Name: SWS-017 Wildcat Branch | Database ID: 224

Alternative Name: Alternative 2B - Lower Channel Improvements and Culvert Replacements

Date Identified: 5/1/2016 | Consultant: Halff Associates | Source Information Link: [Link]

Related Report Number: | Related Report Name: [Link]

Report Type: Planning | Analysis Type: InfoWorks | Project Type: Roadway Crossings and Channel Improvements

Scheduled Start: | Status: Planning | Planning Stage: Strategic | Precondition: [Link]

Phase: | Related Alternative DBID: 225 | Relationship Type: Alternate

Related Alternative Name: Alternative 2C - Lower Channel Overbank Cuts

Council District: 5 | Mapshed Number: 138 | Planning Sector: Southeast | Source of Flooding: Wildcat Branch

☐ Land Acquisition Needs | Count of flood prone parcels acquired: 0 | Count of properties taken out of FEMA floodplain: 66

Description: Channel improvements from Village Creek Drive to the existing channel drop near Candace/Burger. The alternative also includes culvert improvements at Dillard Street and Stelcup Road. Increased conveyance would need to be mitigated with additional culvert capacity at IH-820 or improvements to the frac pond. A Corps permit and mitigation would be required.

Comments: [Text Area]

Longitude (X): -97.2402538177 | Photo 1 Link: Pictures/Photos/224.jpg | Photo 2 Link: Pictures/Photos/224\_2.jpg | Map Link: Pictures/Maps/DBID\_224.jpg

Latitude (Y): 32.70680625244 | Photo 1 Description: Downstream face of Dillard Street culverts | Photo 2 Description: Upstream face of Dillard Street culverts | Area Map Link: Pictures/Area Maps/OOBID\_224.jpg

☒ Recommended (Report) | ☒ Viable Alternative | ☒ Include in Ranking | ☒ Data Mining | Data Class: 3 | Filter Tag: [Link] | Clear All Filter Tags

**STRUCTURE FLOODING**

Count of flood prone structures pre-project:	76
Count of structures with reductions in structural flooding:	66
Lowest return event at which structural flooding begins pre-project:	100
Lowest return event at which structural flooding begins post-project:	Greater than 100-yr
Count of affected repetitive loss structures:	0
Count of affected critical facilities:	0

Comments: [Text Area]

Page 45

Cumulative length-times-BRE for existing system: 18657.17

Comments: [Text Area]

Community response: Unknown

Count of reported drainage issues: 4

Comments: [Text Area]

Figure 2.1

[Scoring Guidelines](#)

**ROAD HAZARD**

Count of hazardous crossings/sumps pre-project:	6
Count of improved crossings/sumps post-project:	2
Pre-project level of service:	2
Post-project level of service:	25
Road classification:	Neighborhood/Local

Comments: [Text Area]

Page 35, Page 45

Benefit (from report):	\$549,600
Cost (from report):	\$5,822,000
Cost (Updated OPC):	\$5,851,745
Updated OPC Date:	5/1/2017
SW Share:	100%

Potential Funding Partners: [Text Area]

Grouped Rank: 11 | Rank: 13

Last Modified: 6/28/2017 12:20:44 PM

[Add Project](#) | [Update Rankings](#)

[Apply Filter/Sort](#) | [Remove Filter/Sort](#)

[One Page Report Current Project](#) | [One Page Report Filtered Projects](#)

[Input Report Current Project](#) | [Input Report Filtered Projects](#)

[Combined Report Current Project](#) | [Combined Report Filtered Projects](#)

[Ranked List All Projects](#) | [Ranked List Filtered Projects](#)

[Export to Excel All Data](#) | [Export to Excel Ranked List](#)



# Photos



Data Entry		Results		Project Assessment Form		Funding Request Criteria	
Report Number:	SWS-017		Report Name:	SWS-017 Wildcat Branch		Database ID: 224	
Alternative Name:	Alternative 2B - Lower Channel Improvements and Culvert Replacements						
Date Identified:	5/1/2016	Consultant:	Hafl Associates		Source Information Link		
Related Report Number:		Related Report Name:					
Report Type:	Planning	Analysis Type:	InfoWorks	Project Type:	Roadway Crossings and Channel Improvements		
Scheduled Start:		Status:	Planning	Planning Stage:	Strategic	Precondition:	
Phase:		Related Alternative ID:	225	Relationship Type:	Alternate		
Related Alternative Name:	Alternative 2C - Lower Channel Overbank Cuts						
Council District:	5	Mapshed Number:	138	Planning Sector:			
<input type="checkbox"/> Land Acquisition Needs		Count of flood prone parcels acquired:					
<b>Description</b> Channel improvements from Village Creek Drive to the existing channel drop near Candace, includes culvert improvements at Dillard Street and Stalcup Road. Increased conveyance v additional culvert capacity at IH-820 or improvements to the frac pond. A Corps permit and							
Longitude (X):	-97.2402538177	Photo 1 Link:	Pictures\Photos\224.jpg	Photo 2 Link:	Pictures\Ph		
Latitude (Y):	32.70980625244	Photo 1 Description:	Downstream face of Dillard Street culverts	Photo 2 Des:	Upstream fa		
<input checked="" type="checkbox"/> Recommended (Report)		<input checked="" type="checkbox"/> Viable Alternative		<input checked="" type="checkbox"/> Include in Rank			
<b>STRUCTURE FLOODING</b> Count of flood prone structures pre-project: 76 Count of structures with reductions in structural flooding: 66 Lowest return event at which structural flooding begins pre-project: 100 Lowest return event at which structural flooding begins post-project: Greater than 100-y Count of affected repetitive loss structures: 0 Count of affected critical facilities: 0 Comments:							
Page 45							
Cumulative length-times-BRE for existing system:		18657.17					
Comments:							
Community response:		Unknown					
Count of reported drainage issues:		4					
Comments:							
Figure 2.1							
Scoring Guidelines							
Benefit (from report):		\$549,600		Combined Report Current Project		Combined Report Filtered Projects	
Cost (from report):		\$5,822,000		Ranked List All Projects		Ranked List Filtered Projects	
Cost (Updated OPC):		\$5,851,745		Export to Excel All Data		Export to Excel Ranked List	
Updated OPC Date:		5/1/2017		Add Project		Update Rankings	
SW Share:		100%					
Potential Funding Partners:							
Grouped Rank:		11		Rank:		13	
Last Modified:		6/28/2017 12:20:44 PM					



# Project Location



Data Entry Results Project Assessment Form Funding Request Criteria

Report Number: SWS-017 Report Name: SWS-017 Wildcat Branch Database ID: 234

Alternative Name: Alternative 2B - Lower Channel Improvements and Culvert Replacements

Date Identified: 5/1/2016 Consultant: Half Associates Source Information Link

Report Schedule Phase Related Council

Description Channel includes additional

Longitude: -97.24023 Latitude: 32.709806

STRUCTURE Count of the Count of st Lowest return Unwet return Count of an Count of all Comments: Page 45 Cumulative Comments: Comments: Comments: Count of re Comments: Comments: Figure 2.1 Scoring Guidelines

Google Maps

Google recommends using Chrome Try a fast, secure browser with updates built in NO THANKS YES

Search Google Maps

Map

Imagery ©2017 DigitalGlobe, Texas Orthoimagery Program, U.S. Geological Survey, USDA Farm Service Agency, Map data ©2017 Google 3D Earth view is not available Terms Send feedback

200 ft

Mike Dis Food Store

Grouped Rank: 11 Rank: 13 Last Modified: 6/28/2017 12:20:44 PM

Add Project Update Rankings



# Filters



Data Entry | Results | Project Assessment Form | Funding Request Criteria

Report Number: SWS-017 | Report Name: SWS-017 Wildcat Branch | Database ID: 234

Alternative Name: Alternative 2B - Lower Channel Improvements and Culvert Replacements

Date Identified: 5/1/2016 | Consultant: Halff Associates | Source Information Link

Related Report Number: | Related Report Name:

Report Type: Planning | Analysis Type: InfoWorks | Project Type: Roadway Crossings and Channel Improvements

Scheduled Start: | Status: Planning | Planning Stage: Strategic | Precondition:

**Filter Form**

Filter Name: **Ranked List** | New Blank Filter | Delete Filter

**FILTER FIELDS**

Report Name	Alternative Name

**FILTER FIELDS**

	IS BLANK	IS NOT BLANK
Project Type	<input type="checkbox"/>	<input type="checkbox"/>
Status	<input type="checkbox"/>	<input type="checkbox"/>
Planning Stage	<input type="checkbox"/>	<input type="checkbox"/>
Precondition	<input type="checkbox"/>	<input type="checkbox"/>
Phase	<input type="checkbox"/>	<input type="checkbox"/>
Mapshed Number	<input type="checkbox"/>	<input type="checkbox"/>
Planning Sector	<input type="checkbox"/>	<input type="checkbox"/>
Source of Flooding	<input type="checkbox"/>	<input type="checkbox"/>
SW Cost	<input type="checkbox"/>	<input type="checkbox"/>
Date Identified	<input type="checkbox"/>	<input type="checkbox"/>
Scheduled Start	<input type="checkbox"/>	<input type="checkbox"/>
Council District	<input type="checkbox"/>	<input type="checkbox"/>
Data Class	<input type="checkbox"/>	<input type="checkbox"/>
Rank	<input type="checkbox"/>	<input type="checkbox"/>
Related Rank	<input type="checkbox"/>	<input type="checkbox"/>
Grouped Rank	<input type="checkbox"/>	<input type="checkbox"/>
Score	<input type="checkbox"/>	<input type="checkbox"/>
MSCR	<input type="checkbox"/>	<input type="checkbox"/>
Filter Tag	<input type="checkbox"/>	<input type="checkbox"/>

**SORT FIELDS**

Related Rank
Relationship Type
Phase (n of N)
Rank
Alternative Name

Apply | Cancel

Filter Tag: | Clear All Filter Tags

Apply Filter/Sort | Remove Filter/Sort

One Page Report Current Project | One Page Report Filtered Projects

Input Report Current Project | Input Report Filtered Projects

Combined Report Current Project | Combined Report Filtered Projects

Ranked List All Projects | Ranked List Filtered Projects

Export to Excel All Data | Export to Excel Ranked List

Add Project | Update Rankings

Comments: Figure 2.1 | Scoring Guidelines

Grouped Rank: 11 | Rank: 13

Last Modified: 6/28/2017 12:20:44 PM





Report Number:

Alternative Name:

Date Identified:

Related Report Number:

Report Type:

Scheduled Start:

Phase:

Related Alternative:

Council District:

Land Acquisition:

Description:

Channel Improvements includes culvert improvements and additional culvert capacity.

Longitude (X):

-97.2402538277

Latitude (Y):

32.70980625244

Recommended (R):

STRUCTURE FLOODING

Count of flood prone:

Count of structures within flood zone:

Lowest return event a:

Lowest return event b:

Count of affected riparian:

Count of affected critical:

Comments:

Page 45

Cumulative length-benefit:

Comments:

Community Response:

Count of reported distress:

Comments:

Figure 2.1

Scoring Guidelines

One Page Report

SWS-017 Wildcat Branch

Alternative 2B - Low Channel Improvements and Culvert Replacements

Database ID:

224

Project Type:

Roadway/Coverings and Channel Improvements

Rank:

33

Council District:

5

Planning Stage:

Strategic

Status:

Planning

Score:

47.17

Map Sheet Number:

138

Precondition:

Phase:

Planning Sector:

Southeast

Date Identified:

5/1/2016

Source of Funding:

Wildcat Branch

Scoring Breakdown

E1 - Road Hazard:

26%

D1 - Structure Flooding:

38%

D2 - Criticality:

8%

D3 - Score/Cost:

14%

T1 - Citizen Satisfaction:

13%

V1 - Unmet Variable:

0%

Potential Funding Partners:

SW Share:

100%

SW Cost:

\$5,851,745

MSCN:

3.9

Benefit:

\$588,072

Cost:

\$5,851,745

BCR:

0.1

Related Alternative Database ID:

225

Rank:

Relationship Type:

Alternate

Data Mining Complete:

Yes

Data Class:

3

Road Hazard:

Cost of improved coverings/slope:

2

Pre-post-project level of service:

2

Pre-post-project level of service:

25

Structure Flooding:

Cost of structure with reductions in structural flooding:

66

Pre-post-project cost of flooding:

100

Greater than 100-yr

Description:

Channel improvements from Village Creek Drive to the existing channel drop near Candace Boggs. The alternative also includes culvert improvements at Dillard Street and Estabrook Road. Increased conveyance would need to be mitigated with additional culvert capacity at BF-820 or improvements to the flow pool. A Corps permit and mitigation would be required.

Map

Map showing project location and surrounding area.

Comments:

Downstream face of Dillard Street culverts

Database ID:

224

Filter Tag:

Clear All Filter Tags

Apply Filter/Sort

Remove Filter/Sort

One Page Report Current Project

One Page Report Filtered Projects

Input Report Current Project

Input Report Filtered Projects

Combined Report Current Project

Combined Report Filtered Projects

Ranked List All Projects

Ranked List Filtered Projects

Export to Excel All Data

Export to Excel Ranked List

Add Project

Update Rankings

# Ranked List



Data Entry | Results | Project Assessment Form | Funding Request Criteria

Report Number: SWS-017 | Report Name: SWS-017 Wildcat Branch  
 Alternative Name: Alternative 2B - Lower Channel Improvements and Culvert Replacements  
 Date Identified: 5/1/2016 | Consultant: Half Associates | Source Information Link  
 Related Report Number: | Related Report Name:

Database ID: 234

## Enhanced Prioritization Ranked List of Alternatives with Scores

Grouped Rank	DBID	Report Name	Alternative Name	Individual Rank	Score	D1 Weighted	D3 Weighted	D4 Weighted	S1 Weighted	T1 Weighted	V1 Weighted	SW Cost	MSCR	Precondition	Data Class
1	128	SWS-005 Greenfield	Option 2 - Storm Drain and Detention Improvements	2	77.2	30	9.32	11.33	16.55	10	0	\$5,300,000	10.5	Street CIP	3
2	506	CIP#01669 Westcliff Drainage Improvements (Surrey Street)	Westcliff Drainage Improvements (Overall)	3	72.72	30	2.72	0	30	10	0	N/A	N/A		1
	510	CIP#01669 Westcliff Drainage Improvements (Surrey Street)	Westcliff Drainage Improvements - Phase 1	1	84.38	30	2.72	11.66	30	10	0	\$5,800,000	10.8		3
	511	CIP#01669 Westcliff Drainage Improvements (Surrey Street)	Westcliff Drainage Improvements - Phase 3	22	36.86	13.62	0	0	13.24	10	0	N/A	N/A		1
3	62	00084 Lebow Creek Master Plan	Upper Lebow Channel Improvements and Detention (Overall)	4	68.37	30	0	2.37	30	6	0	\$26,977,841	2.2		3
4	411	CIP#00626 Loving Avenue Culvert and Channel Improvements	Alternative 1 - Culvert and Channel Improvements	5	65.59	30	1.22	11.55	16.82	6	0	\$4,500,000	10.7		3
5	14	00080 Central Arlington Heights	2a. Voluntary Property Acquisition and Demolition with Greenway Detention	6	59.13	30	0	15	10.13	4	0	\$1,659,174	24.2		3
6	523	SWS-025 Glenwood Creek	Glenwood Conveyance (Overall)	7	56.57	18.57	0	0	30	8	0	N/A	N/A		1
	254	SWS-025 Glenwood Creek	Vickery Riverside Culvert	106	10.14	0	0	0.86	1.28	8	0	\$1,636,427	0.8		3
	253	SWS-025 Glenwood Creek	Alternative Zero - UPRR Culvert Improvements	8	56.57	18.57	0	0	30	8	0	N/A	N/A	Downstream Improvements	3
7	452	CIP#01607 Overton Woods Drainage Improvements	Alternative A - 12X10 RCB Culvert - Bellaire Drive Diversion to Stream CF-3	9	53.8	30	0	4.42	13.38	6	0	\$10,622,151	4.1		3
8	328	SWS-041 Plantation Creeks	Improvement Alternative 1: 10-YR LOS Culvert Improvements	10	51	0	0	15	30	6	0	\$1,120,739	26.8		3
9	229	SWS-017 Wildcat Branch	Alternative 4 - Purchase of At Risk Structures - 5-yr	11	51	30	0	15	0	6	0	\$495,312	60.6		3
10	257	SWS-026 Prairie Dog Creek	Project 3 - Channel Improvements at Parker Hendon on Road	12	49.06	0	0	13.06	30	6	0	\$2,480,736	12.1	Street CIP	3
11	224	SWS-017 Wildcat Branch	Alternative 2B - Lower Channel Improvements and Culvert Replacements	13	47.17	18.16	4.48	6.37	12.16	6	0	\$5,851,745	5.9		3
	225	SWS-017 Wildcat Branch	Alternative 2C - Lower Channel Overbank Cuts	17	42.69	18.16	0	6.37	12.16	6	0	\$5,166,353	5.9		3
12	514	SWS-036 Edgely Branch	McCart Avenue at Edgely Branch Drainage Improvements - Alternative 2 (Overall)	15	45.39	2.75	0	4.64	30	8	0	\$7,541,693	4.3	Street CIP	3
	306	SWS-036 Edgely Branch	Alternative 2 - Phase 1 (25-YR Design) - McCart Avenue at Edgely Branch Improvements	14	45.82	2.75	0	5.07	30	8	0	\$6,961,801	4.7	Street CIP	3
	307	SWS-036 Edgely Branch	Alternative 2 - Phase 2 (25-YR Design) - Misty Meadow Channel Stormwater Detention	24	35.16	0	0	15	12.16	8	0	\$579,892	21		3
13	36	00083 East Central Business District	Project 2A - 4th Street Trunkline Outfall Improvements	16	44.37	5.5	14.49	15	3.38	6	0	\$1,684,649	13.9		3
	38	00083 East Central Business District	Project 3A - 4th Street Trunkline Capacity Improvements	57	19.93	2.06	0	5.18	6.69	6	0	\$1,819,246	4.8	Street CIP	3
14	521	CIP#01853 Royal Creek Channel Repair	Royal Creek Channel Repair and Culvert Improvements	18	41.76	0	0.49	15	20.27	6	0	\$1,097,926	18.9		3
15	522	SWS-025 Glenwood Creek	Glenwood Detention (Overall)	19	38	0	0	0	30	8	0	N/A	N/A		1
	251	SWS-025 Glenwood Creek	Alternative Three - Combination of Alternatives One and Two	86	12.94	0	0	2.37	2.57	8	0	\$1,150,746	2.2		3

6/29/2017

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Clear All Filter Tags  
 Apply Filter/Sort  
 Remove Filter/Sort  
 One Page Report  
 One Page Report Filtered Projects  
 Input Report  
 Input Report Filtered Projects  
 Combined Report  
 Combined Report Filtered Projects  
 Ranked List  
 Ranked List Filtered Projects  
 Export to Excel  
 Export to Excel Ranked List  
 Update Rankings



# Project Assessment Form



Report Number:

Alternative Name:

Date Identified:

Related Report ID:

Report Type:

Scheduled Start Phase:

Related Alternative:

Council District:

Land Acquisition:

Description:

Channel Improvement includes culvert improvement and additional culvert construction.

Longitude (X):

-97.2402538177

Latitude (Y):

32.70980625244

☒ Recommended ID:

STRUCTURE FLOODING:

Count of flood prone:

Count of structures:

Lowest return event:

Unwet return event:

Count of affected roads:

Count of affected structures:

Comments:

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Cumulative length:

Comments:

Cost:

Comments:

Figure:

Source:

Results

Project Assessment Form

SWS-017 Wildcat Branch

Alternative 2B - Lower Channel Improvements and Culvert Replacements

Planning Stage: Strategic

Date: 5/4/2017

Council District: 5

Database ID: 224

Planning Section: Southeast

Instructions: Reviewer to rate each item for completeness and provide comments with relevant information.

Item	Strategic Assessment	Response
1	Objective and constraints identified	Yes
2	Planning level hydrologic and hydraulic analysis have been performed	Yes
3	Recommended strategy identified with supporting rationale	Yes
4	Recommended strategy is in alignment with current division priorities	Yes
5	Project location and general extents are defined	Yes
6	Project benefits are well understood and documented	Yes
7	Conceptual cost estimate has been prepared and is considered affordable for the project scale	Yes
8	Proceed to feasibility assessment?	Yes

Comments: Significant potential USACE permitting and mitigation costs. BH-320 culvert improvements would need to be preceded by road improvements. Improvements would be necessary to offset downstream impacts from conveyance improvements.

Item	Feasibility Assessment	Response
1	External coordination/permitting requirements are known (TxDOT, USACE, RR, FEMA, etc.)	
2	Internal city coordination requirements are known	
3	Easement ROW needs are known	
4	Acceptability to the community is known	
5	Refined cost estimate has been prepared	
6	Significant utility conflicts based on City-GIS and site visits are known	
7	No fatal flaws have been identified to date, so proceed to next level of evaluation	

Comments:

Item	Project Development	Response
1	Concept design of critical elements has been completed (if necessary)	
2	City utility relocations are known	
3	Franchise utility relocations are known	
4	Constructability issues are known	
5	Schedule timing constraints are known	
6	Other implementation risks are known	
7	Geotechnical information evaluated (dependent on project type and scale)	
8	Hydrologic and hydraulic performance has been verified	
9	No significant changes to design and construction costs are expected (within 5-10%)	
10	Project should proceed to capital project design	

Database ID: 224

Wildcat Branch

Floodplain: 66

s\DBID\_224.jpg

Maps\O0BID\_224.jpg

3

Filter Tag:

Clear All Filter Tags

6

Apply Filter/Sort

Remove Filter/Sort

2

One Page Report Current Project

One Page Report Filtered Projects

Input Report Current Project

Input Report Filtered Projects

Combined Report Current Project

Combined Report Filtered Projects

Ranked List All Projects

Ranked List Filtered Projects

Export to Excel All Data

Export to Excel Filtered List

Add Projects

Rankings

STRATEGIC

FEASIBILITY

PROJECT DEVELOPMENT

CIP

31

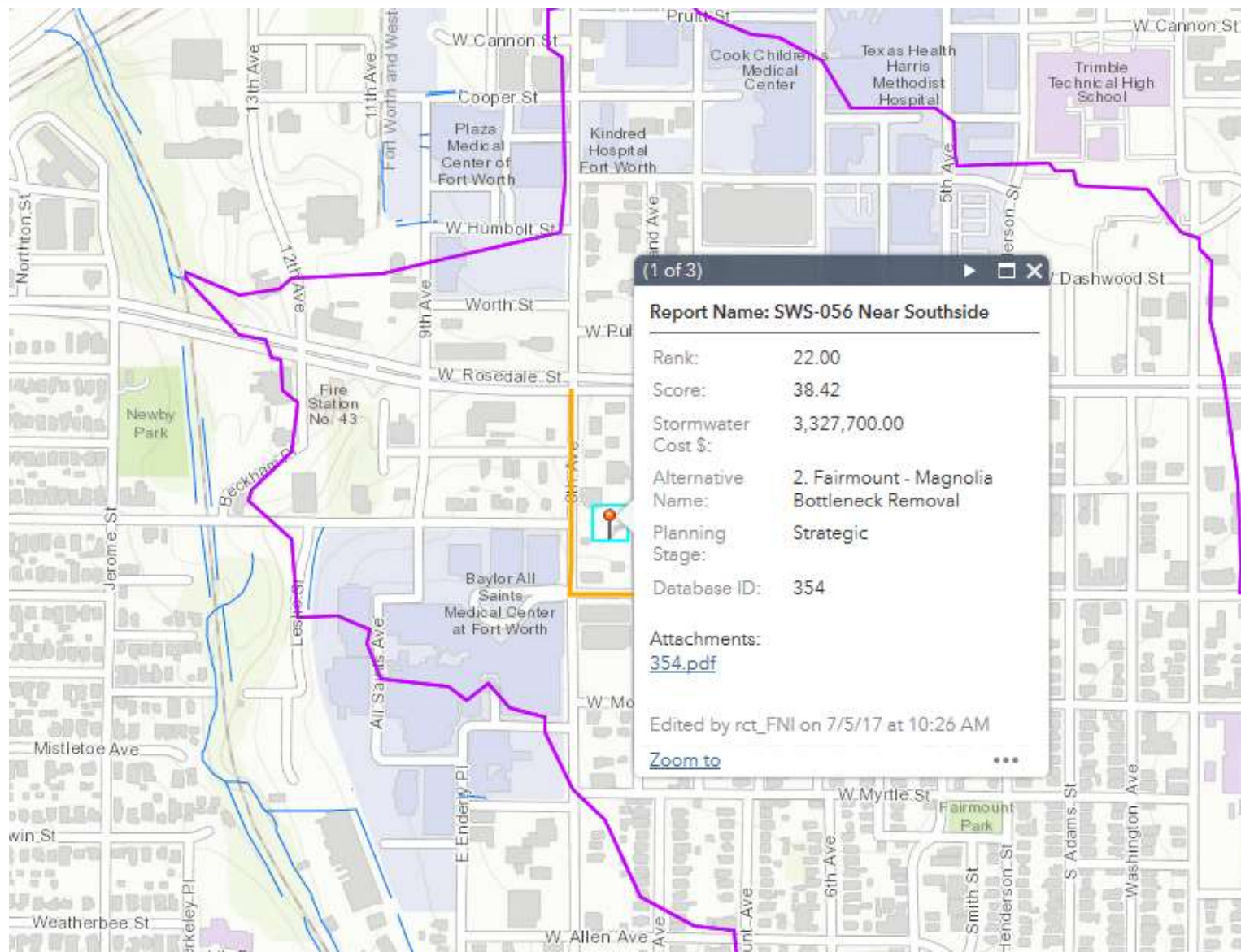
# Spreadsheet Export



Data Entry | Results | Project Assessment Form | Funding Request Criteria

Report Number: SWS-017 | Report Name: SWS-017 Wildcat Branch | Database ID: 224  
 Alternative Name: Alternative 2B - Lower Channel Improvements and Culvert Replacements  
 Date Identified: 5/1/2016 | Consultant: Halff Associates | Source Information Link  
 Related Report Number: | Related Report Name: |  
 Report Type: Planning | Analysis Type: InfoWorks | Project Type: Roadway Crossings and Channel Improvements  
 Scheduled Start: | Status: Planning | Planning Stage: Strategic | Precondition: |  
 Phase: | Related Alternative ID: 225 | Relationship Type: Alternate  
 Related Alternative Name: Alternative 2C - Lower Channel Overbank Cuts  
 Council District: 5 | Mapshed Number: 138 | Planning Sector: Southeast | Source of Flooding: Wildcat Branch  
 Land Acquisition Needs: | Count of flood prone parcels acquired: 0 | Count of properties taken out of FEMA floodplain: 66  
 Description: Channel improvements from Village Creek Drive to the existing channel drop near Candace/Burger. The alternative also includes culvert improvements at Dillard Street and Stelcup Road. Increased conveyance would need to be mitigated with additional culvert capacity at IH-820 or improvements to the frac pond. A Corps permit and mitigation would be required.  
 Comments: |  
 Longitude (X): -97.2402538177 | Photo 1 Link: Pictures/Photos/224.jpg | Photo 2 Link: Pictures/Photos/224.jpg  
 Latitude (Y): 32.70680625244 | Photo 1 Description: Downstream face of Dillard Street culverts | Photo 2 Description: Upstream face of Dillard Street culverts  
☒ Recommended (Report) | ☒ Viable Alternative | ☒ Include in Ranking  
**STRUCTURE FLOODING**  
 Count of flood prone structures pre-project: 76  
 Count of structures with reductions in structural flooding: 66  
 Lowest return event at which structural flooding begins pre-project: 100  
 Lowest return event at which structural flooding begins post-project: Greater than 100-yr  
 Count of affected repetitive loss structures: 0  
 Count of affected critical facilities: 0  
 Comments: |  
 Page 45  
 Cumulative length-times-BRE for existing system: 18657.17  
 Comments: |  
 Community response: Unknown  
 Count of reported drainage issues: 4  
 Comments: |  
 Figure 2.1  
 Scoring Guidelines  
 SW Share: 100%  
 Potential Funding Partners: |  
 Grouped Rank: 11 | Rank: 13  
 Last Modified: 6/28/2017 12:20:44 PM  
 Add Project | Update Rankings  
 Filter Tag: | Clear All Filter Tags  
 Apply Filter/Sort: | Remove Filter/Sort  
 One Page Report Current Project | One Page Report Filtered Projects  
 Input Report Current Project | Input Report Filtered Projects  
 Combined Report Current Project | Combined Report Filtered Projects  
 Ranked List All Projects | Ranked List Filtered Projects  
 Export to Excel All Data | Export to Excel Ranked List  
 Database\_20170404\_114741.xlsx  
 Database\_20170512\_091509.xlsx  
 Ranked\_List\_20170404\_122041.xlsx  
 Ranked\_List\_20170501\_125922.xlsx  
 Ranked\_List\_20170501\_130153.xlsx  
 Ranked\_List\_20170512\_151757.xlsx  
 Ranked\_List\_20170612\_132500.xlsx  
 Ranked\_List\_20170613\_103826.xlsx  
 Ranked\_List\_20170613\_104936.xlsx  
 Ranked\_List\_20170628\_174216.xlsx

# Potential Extensions





# Conclusions

# Conclusions

- **Objective foundation** for decision-making in alignment with the Stormwater mission
- Facilitates **transparent disclosure** of decision-making criteria
- **Risk-based metrics** focus on chronic issues
- **Statistics-based rules** enable flexibility and an accurate picture of relative benefits
- **Database** improves access to information





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