

# *2010 Sedgwick County Stormwater Survey Results*

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## **Findings Report**

conducted for



Sedgwick County Kansas Public Works

and  
Patti Banks Associates

by  
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# *2010 Sedgwick County Stormwater Resident and Business Survey*

## Executive Summary Report

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### **Overview and Methodology**

ETC Institute administered a Stormwater Survey for Sedgwick County, Kansas for the first time in July and August of 2010 with both residents and businesses in the County. The surveys measured the importance of many stormwater issues, the general understanding of the issues for the purpose of further education, the extent of current problems with stormwater and the funding preferences for improving stormwater control in the County.

**Resident Survey.** The seven-page survey was mailed to a random selection of 1,500 residents in Sedgwick County. It took an average of 10 to 15 minutes to complete. It was administered by mail or phone to 428 residents. The overall results of the survey have a precision of at least +/-5% at the 95% level of confidence.

This report contains:

- an executive summary of the methodology and major findings
- charts depicting the overall results of both the resident and business surveys
- tabular data for the overall results to each question of the surveys
- copies of the survey instruments.

**Interpretation of “Don’t Know” Responses:** The percentage of persons who gave “don’t know” responses is important because it often reflects the level of understanding of a service. For graphing purposes, the percentage of “don’t know” responses has been excluded. The percentage of “don’t know” responses for each question is provided in the Tabular Data Section of this report. When the “don’t know” responses have been excluded, the text of this report will indicate that the responses have been excluded with the phrase “*who had an opinion.*”

**Business Survey.** In addition to a random sample of residents, a survey was also administered to a sample of 587 community business leaders. A total of 151 business owners or managers completed the survey. The results of the community leader survey are shown separately in Sections 4, 5, and 6 of this report.

## Major Findings - Residents

- **Preserving the Kansas Environment.** The highest levels of importance placed on 12 issues relating to preserving the Kansas environment, based upon the combined percentage of “very important” and “important” responses from residents who had an opinion, were; clean drinking water (100%), maintaining water quality (98%), and clean rivers and streams (97%). Though none of the twelve issues were seen as unimportant, the 2 issues that were rated lowest in importance were improving health and fitness for area residents (83%) and increasing economic development potential (82%).
- **Status of Flooding in the Area where Residents Live.** Three percent (3%) of those surveyed felt that the flooding in their area was getting much better, 11% felt that it was getting somewhat better, 60% felt it was staying the same, 16% felt it was getting worse and 10% did not have an opinion.
- **Level of General Understanding of Watersheds.** The best way of providing education about an issue is to first determine the current level of understanding. Three questions were asked of residents;
  - **What location best describes where you live?** Only 9% knew that they lived in a watershed, 23% thought they lived near a watershed, 27% thought that they didn’t live near a watershed, and 41% did not know.
  - **Where does rain water go after it enters the storm drain?** Forty-three percent (43%) felt it went directly into lakes and streams, 16% thought it went to wastewater treatment plant, and 41% did not know.
  - **What is the status of the quality of water in lakes and streams in your area?** A small percentage (1%) felt it was getting much better, 6% felt it was getting somewhat better, 40% felt it was staying the same, and 34% felt it was getting worse. Nineteen percent (19%) did not have an opinion.
- **Basement Flooding from Stormwater Backups.** Ten percent (10%) of residents indicated that they had basement flooding from stormwater backups (not surface flooding). Of the 10%, 20% had flooding once, 24% had flooding twice, 32% had flooding three times, and 24% had flooding 4 or more times. **Residents who had flooding were also asked about the source of the water in the basement.** Seventy-one percent (71%) said that water entered through cracks in the floor, 7% reported that rainwater entered through windows, window wells, doors or the roof, and 22% said that the source of the water was unknown.
- **Problems from Stormwater Surface Drainage.** Fifty-five percent (55%) of those surveyed had never had problems from surface flooding, but 11% had problems at least once, 17% had problems 2 to 4 times, and 17% had problems 5 or more times.

The kinds of problems cited were street flooding (23%), temporary ponding on their property (22%), and drainage from adjacent properties (15%).

- **Importance of Various Issues to Stormwater Management.** Of several stormwater management issues, those viewed by residents to be most important were developing a county-wide stormwater system maintenance plan (88%), protection of rural streams (86%), and restriction of building in floodplains (85%). The least important was close development to infiltrate stormwater naturally (57%).
- **Support for Local Government Cooperation in County Stormwater Management.** Since local streams cross City and County boundaries, those surveyed were asked about their level of support for local governments working together to plan, manage, and fund stormwater improvements in the County. Fifty-four percent (54%) of all respondents were very supportive, 27% were somewhat supportive, 4% were not supportive, and 16% were not sure.
- **Priorities for Improvements by both Existing and New Development.** Though asked in two separate questions, the priorities for both existing and new development were the same, with regard to stormwater improvements; 1) protect water quality, 2) minimize street flooding, and 3) limit damage to structures.
- **Willingness of Residents to Help the Environment with Certain Actions.** Residents were most willing to participate in the following activities to reduce pollution; take household hazardous waste to disposable facility (92%), dispose of yard waste properly (89%), and use environmentally friendly products on the lawn (78%).
- **Funding for Stormwater Improvements.** Residents were asked about the maximum amount per household that they would pay to support the funding of stormwater improvements; at least 75% would pay \$1 per month, at least 44% would pay \$2.50 per month, and 17% would pay \$5 per month. Twenty-four percent (24%) would pay nothing and 1% did not respond.

## **Major Findings - Business**

### **Businesses Affected by Stormwater Drainage Problems in Sedgwick County.**

Seventy-five percent (75%) of businesses surveyed had never had problems with stormwater drainage; 7% had problems once, 10% had problems 2 to 4 times, and 8% had problems 5 or more times. The kinds of problems that businesses had were street flooding (19%), temporary ponding hampering access to property (8%), and drainage from adjacent properties (6%).

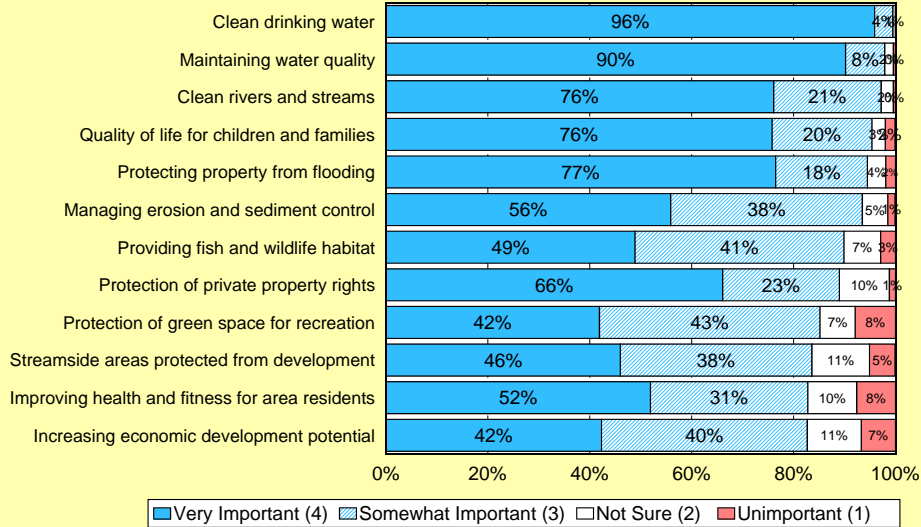
- **Importance of Various Issues to Stormwater Management within Communities in Sedgwick County.** Of several stormwater management issues, those viewed by businesses to be most important were developing a county-wide stormwater system maintenance plan (91%), protection of rural streams (89%), and restriction of building in floodplains (85%). The least important was minimizing paved areas (53%).
- **Support for Local Government Cooperation in County Stormwater Management.** Since local streams cross City and County boundaries, those surveyed were asked about their level of support for local governments working together to plan, manage, and fund stormwater improvements in the County. Sixty percent (60%) of all respondents were very supportive, 23% were somewhat supportive, 2% were not supportive, and 15% were not sure.
- **Priorities for Improvements by both Existing and New Development.** Though asked in two separate questions, the priorities for both existing and new development were the same for businesses, but in a slightly different order with regard to stormwater improvements. For new development, the order of the top three was 1) protecting water quality, 2) minimizing street flooding, and 3) limiting damage to structures. For existing development, the order of the top three was 1) minimizing street flooding, 2) limiting damage to structures, and 3) protecting water quality.
- **Funding for Stormwater Improvements.** Businesses were asked about the maximum amount per household, as an example, that they would support to provide the funding of stormwater improvements; at least 77% would support \$1 per month, at least 33% would support \$2.50 per month, and 45% would support \$5 per month. Twenty-three percent (23%) would support nothing.

*Section 1:*  
***Charts & Graphs - Residents***

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### Q1. How Important do you think each of the following activities should be in preserving the Kansas environment?

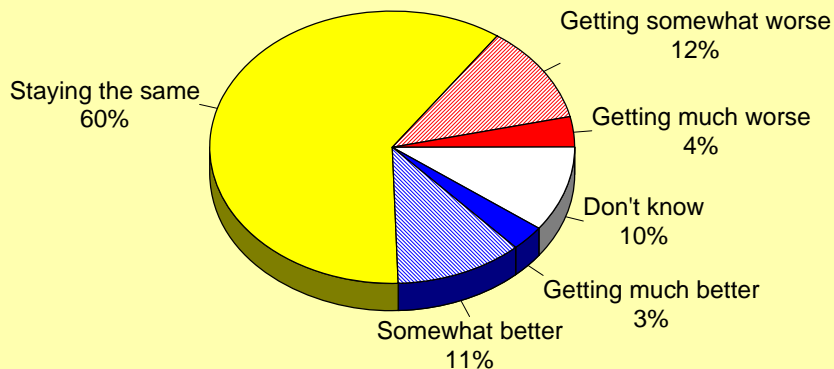
by percentage of respondents who rated the item as a 1 to 4 on a 4-point scale (without "not provided")



Source: ETC Institute (2010)

### Q2. Do You Think That Flooding In the Area Where you Live is:

by percentage of respondents (without "not provided")

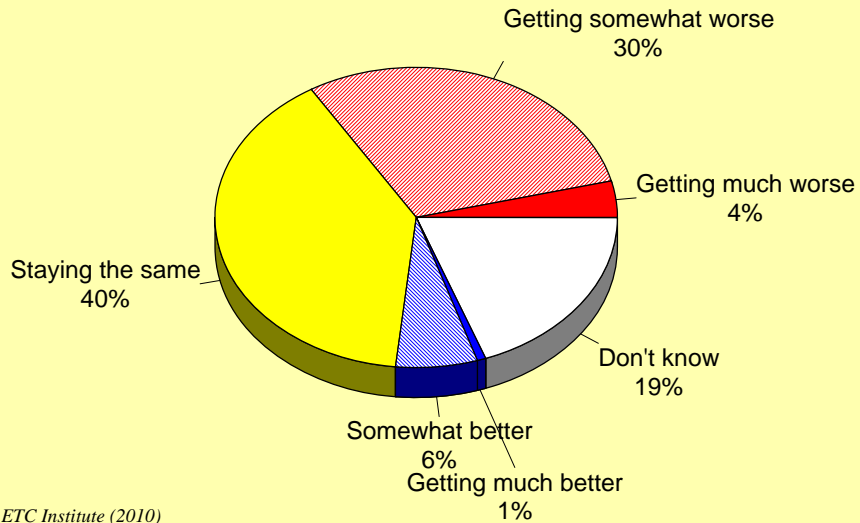


Source: ETC Institute (2010)



### Q3. Do You Think the Quality of Water in Lakes and Streams in the Area Where You Live Is:

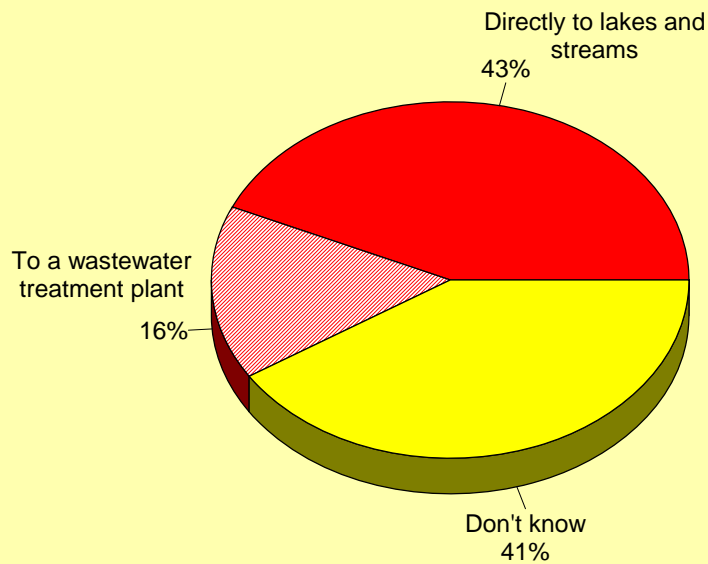
by percentage of respondents (without "not provided")



Source: ETC Institute (2010)

### Q4. Where Does Stormwater (Rain Water) Go After it Enters A Storm Drain in Your Community?

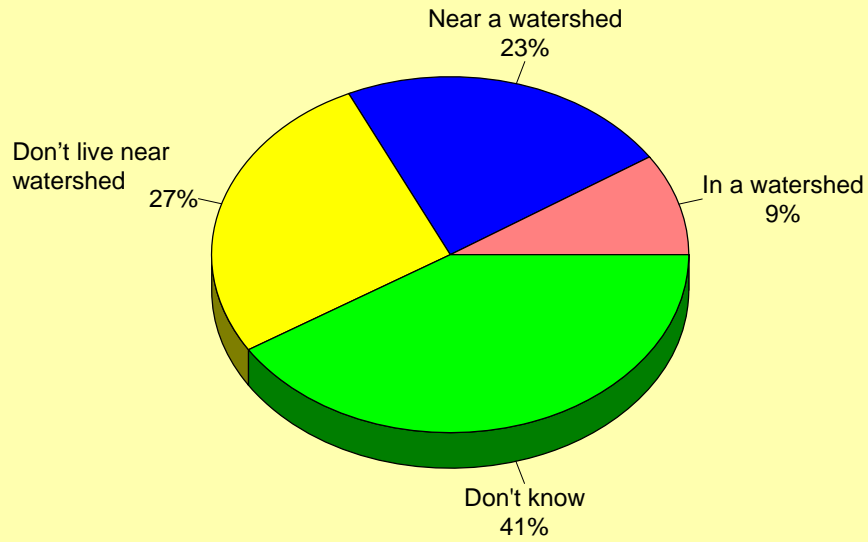
by percentage of respondents (without "not provided")



Source: ETC Institute (2010)

**Q5. Which ONE of the Following BEST Describes the Location Where You Live?**

by percentage of respondents ( without "not provided")

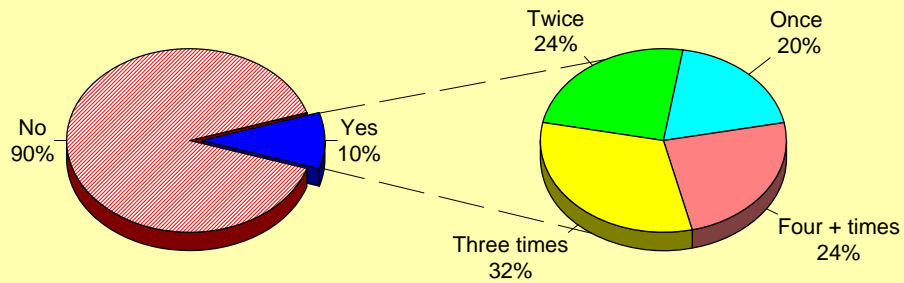


Source: ETC Institute (2010)

**Q6. Have You Had ANY Water In Your Basement From Stormwater Backups Where You Currently Live (from backups only, NOT from surface flooding)?**

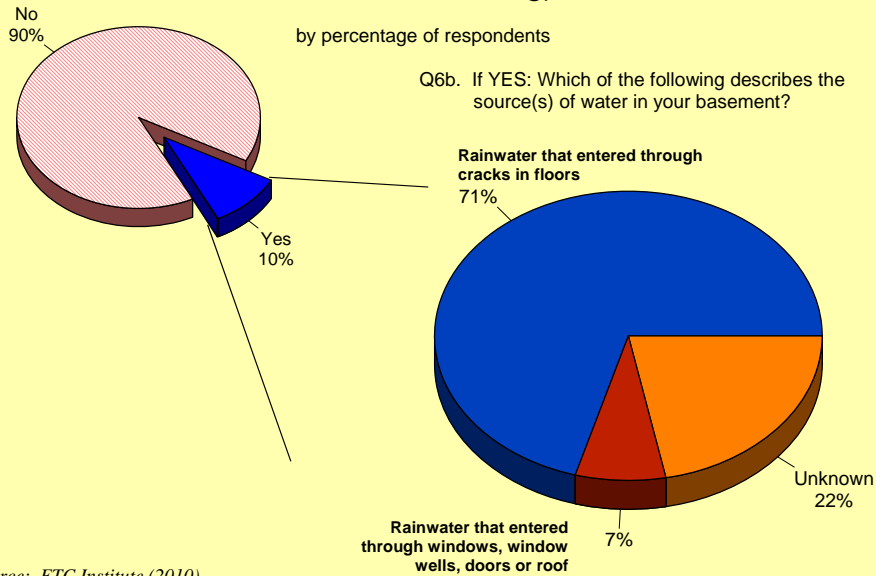
by percentage of respondents

Q6a. If YES: How many times during the past 10 years have you had water in your basement from stormwater backups where you currently live?

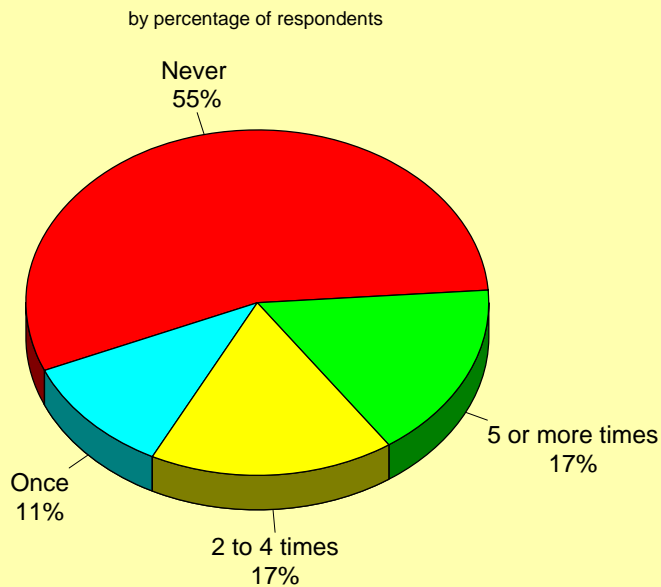


Source: ETC Institute (2010)

**Q6. Have You Had ANY Water In Your Basement From Stormwater Backups Where You Currently Live (from backups only, NOT from surface flooding)?**

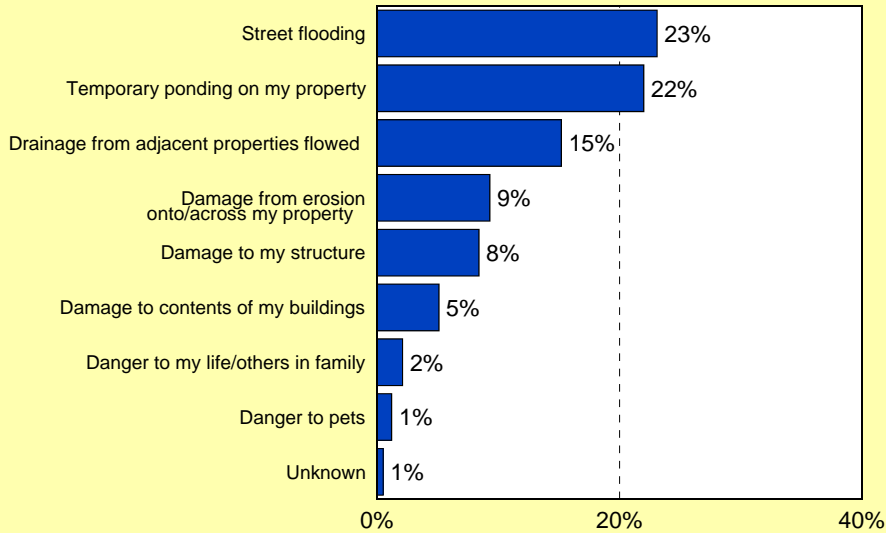


**Q7. How Often Have You Been Affected by Stormwater Surface Drainage Problems in the Area Where You Live?**



### Q7a. If you have had problems, please indicate the problems that you had.

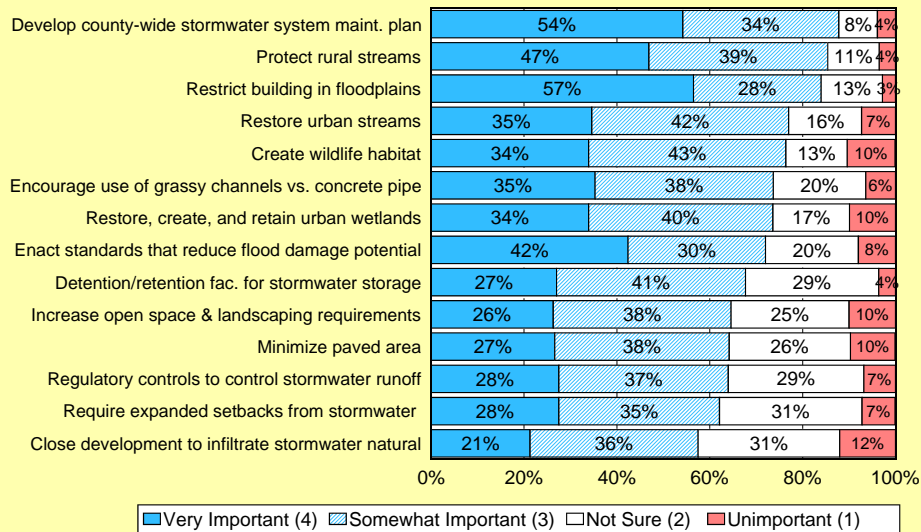
by percentage of respondents (multiple responses were allowed)



Source: ETC Institute (2010)

### Q8. How Important Do You Think Each of the Following Activities Should Be in the Management of Stormwater Within Communities in Sedgwick County?

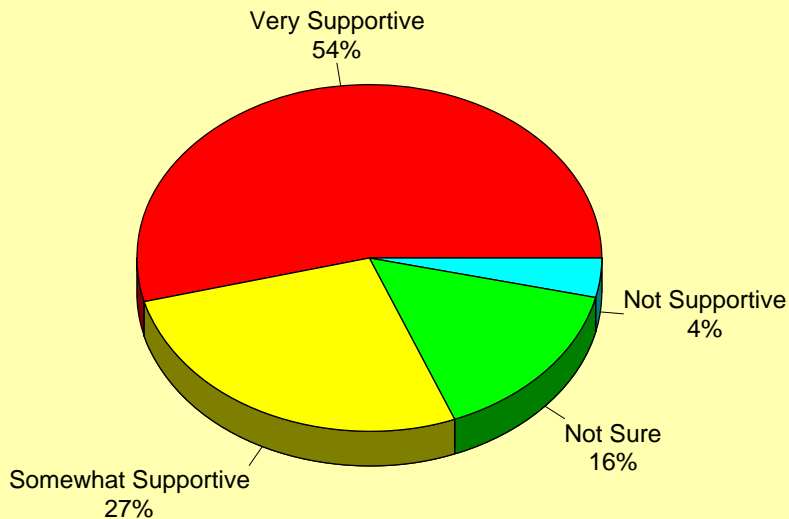
by percentage of business respondents who rated the item as a 1 to 4 on a 4-point scale (without "not provided")



Source: ETC Institute (2010)

**Q9. Recognizing that our local streams cross city and county boundaries, how supportive would you be of having local governments work together to plan, manage, and fund stormwater improvements in the County?**

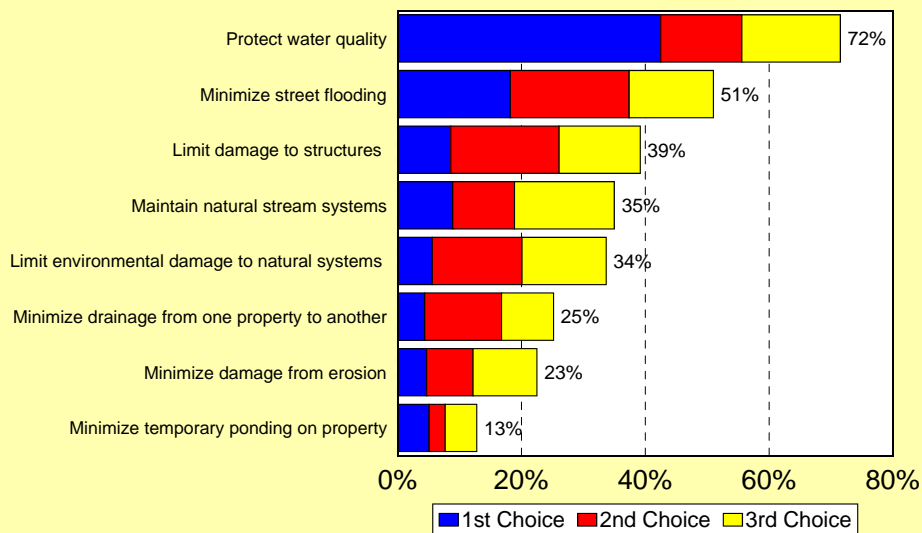
by percentage of respondents



Source: ETC Institute (2010)

**Q10. For NEW Development in communities within Sedgwick County, which should be the Top THREE priorities for improvements?**

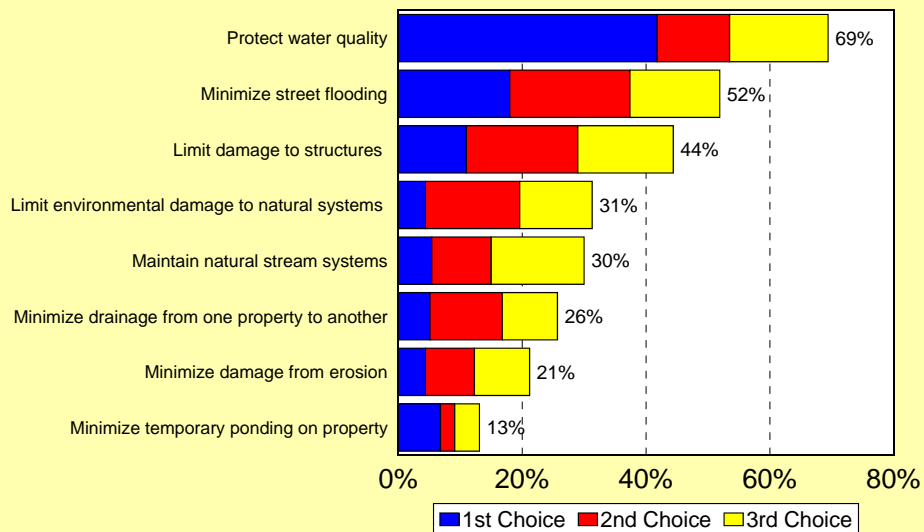
by percentage of respondents who selected the item as one of their top three choices



Source: ETC Institute (2010)

### Q11. For EXISTING Development in communities within Sedgwick County, which should be the Top THREE priorities for improvements?

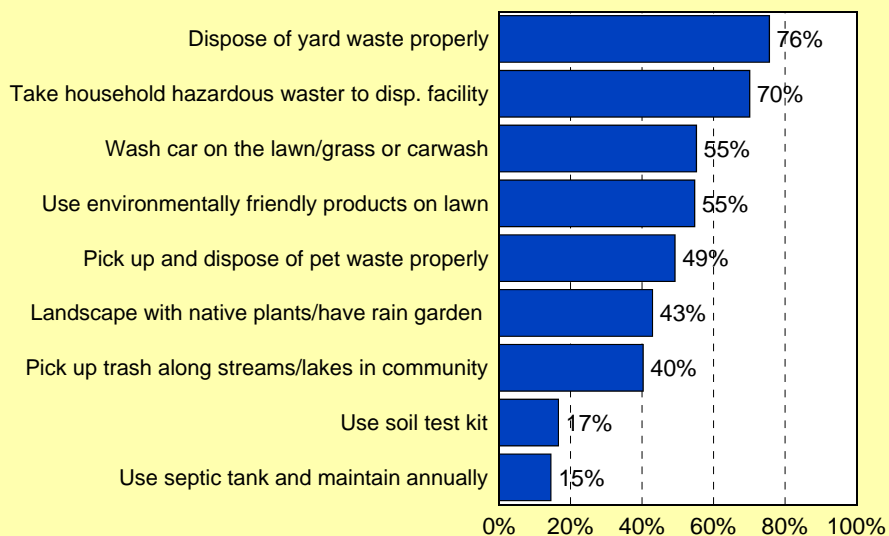
by percentage of respondents who selected the item as one of their top three choices



Source: ETC Institute (2010)

### Q12. Do you Currently Participate in Any of the Behaviors Listed?

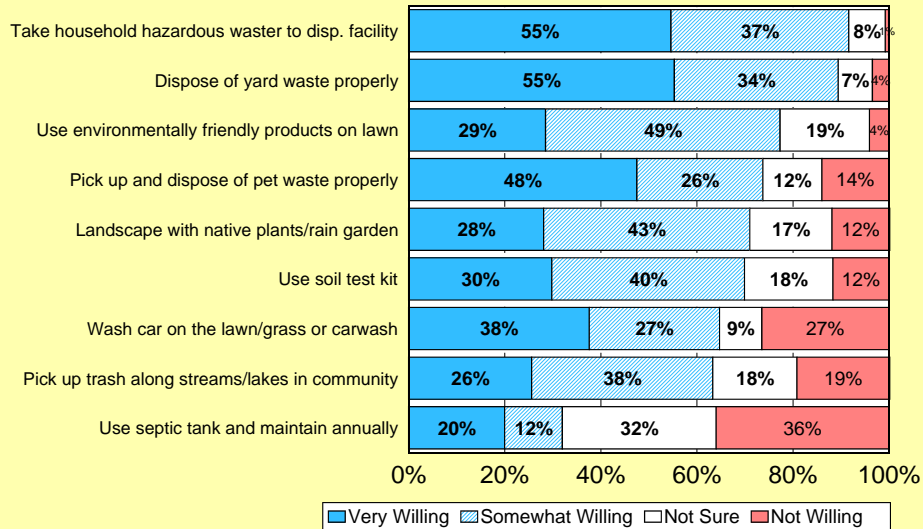
by percentage of respondents (multiple choices could be made)



Source: ETC Institute (2010)

### Q12a. How Willing Would You Be to Participate in the Behaviors Listed?

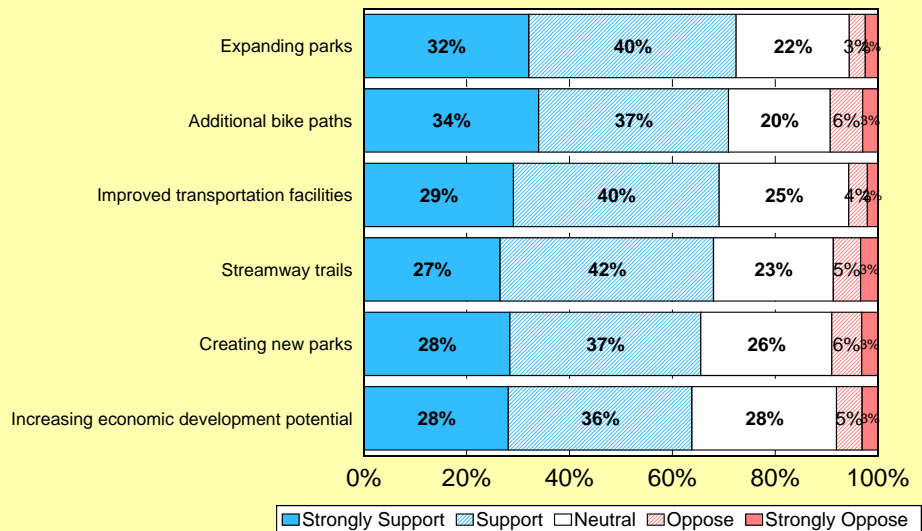
by percentage of respondents who rated the item as a 1 to 4 on a 4-point scale  
(excluding not applicable)



Source: ETC Institute (2010)

### Q13. How Supportive Respondents Are to the Enhancement and Development of the Following Areas in Conjunction with Stormwater Facilities?

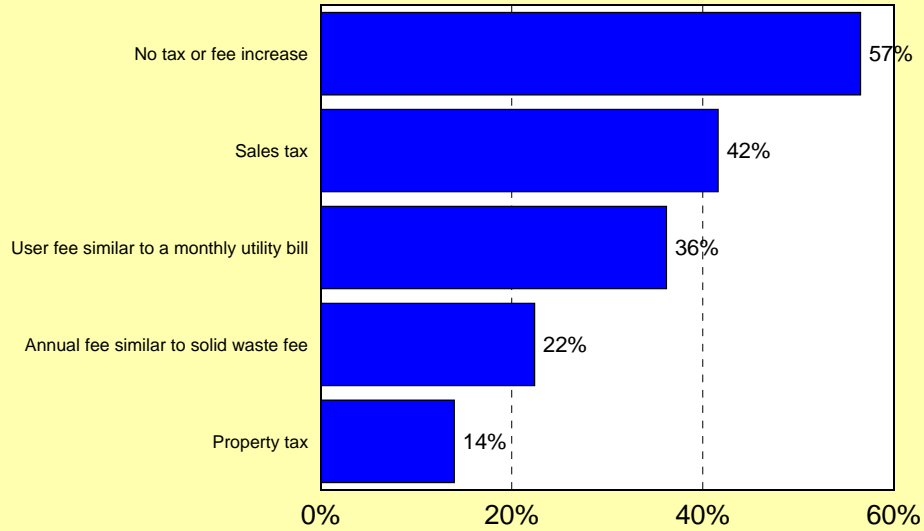
by percentage of business respondents who rated the item as a 1 to 5 on a 5-point scale



Source: ETC Institute (2010)

**Q14. If additional funding is needed to address flooding due to stormwater, which two potential funding options would you choose?**

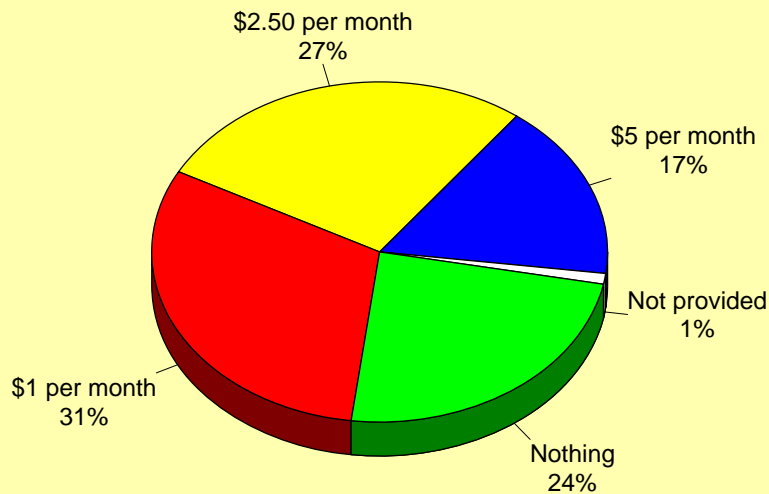
by percentage of respondents who selected the item as one of their top two choices



Source: ETC Institute (2010)

**Q15. If a stormwater fee or tax were implemented, what is the maximum amount per household that you would support to fund stormwater improvements?**

By percentage of respondents

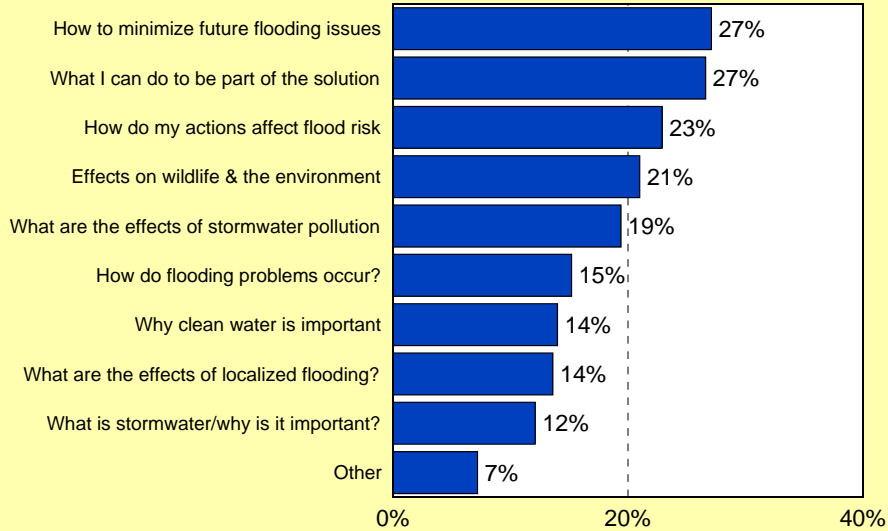


Source: ETC Institute (2010)



**Q16. What types of information about local flooding, water quality or stormwater management would you like to receive?**

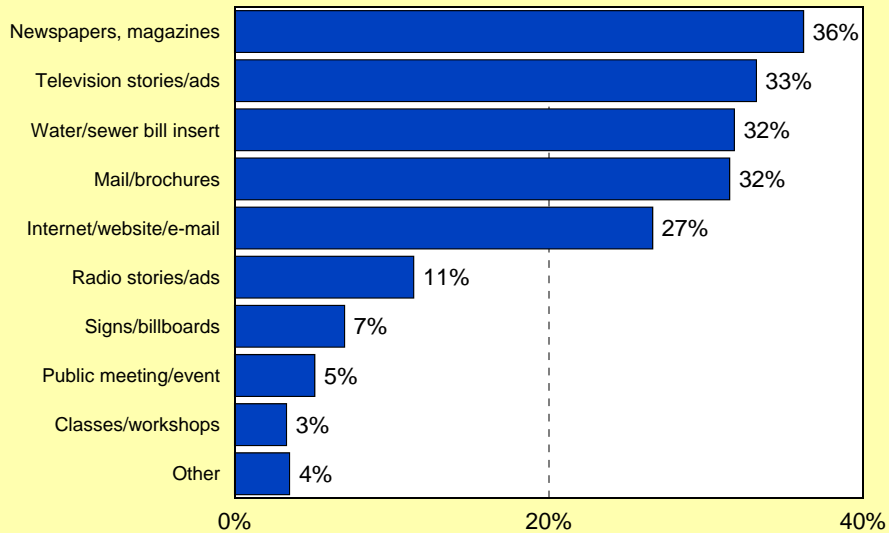
by percentage of respondents (multiple responses could be made)



Source: ETC Institute (2010)

**Q17. How would you prefer to receive information about flooding, water quality or stormwater management?**

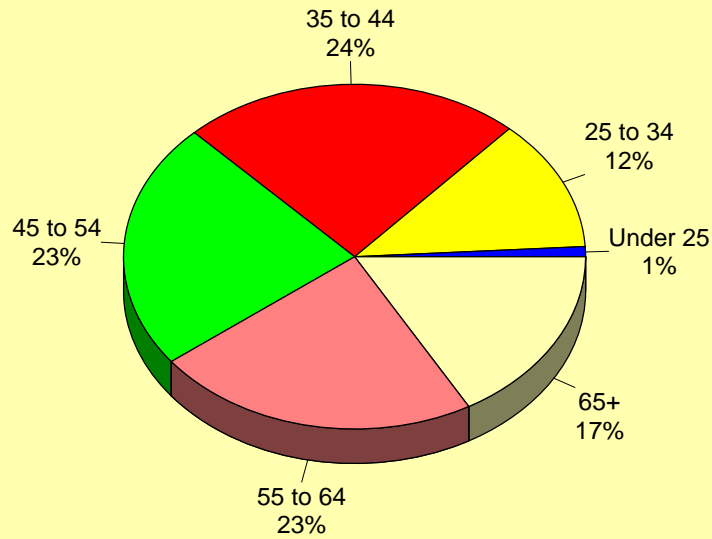
by percentage of respondents (multiple choices could be made)



Source: ETC Institute (2010)

### Q18. Demographics: What Is Your Age?

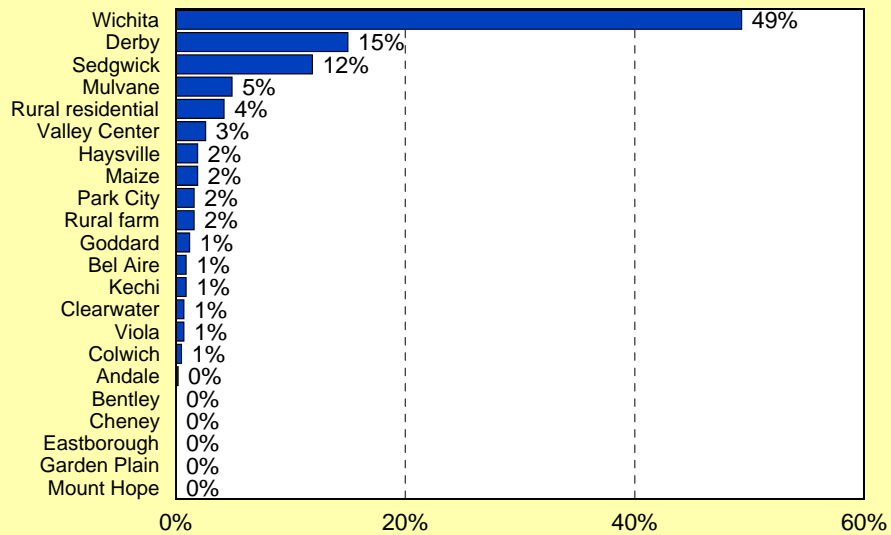
By percentage of respondents



Source: ETC Institute (2010)

### Q19. Demographics: What Area of the County Do You Live In?

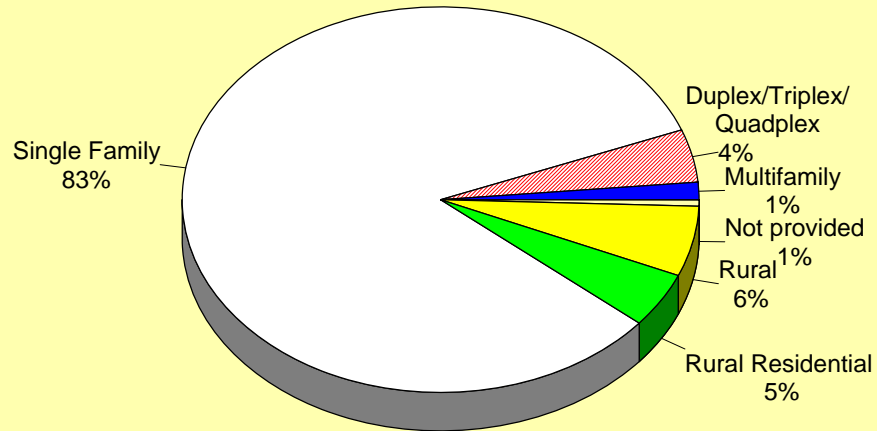
by percentage of respondents



Source: ETC Institute (2010)

### Q20. Which of the Following Best Describes Your Home?

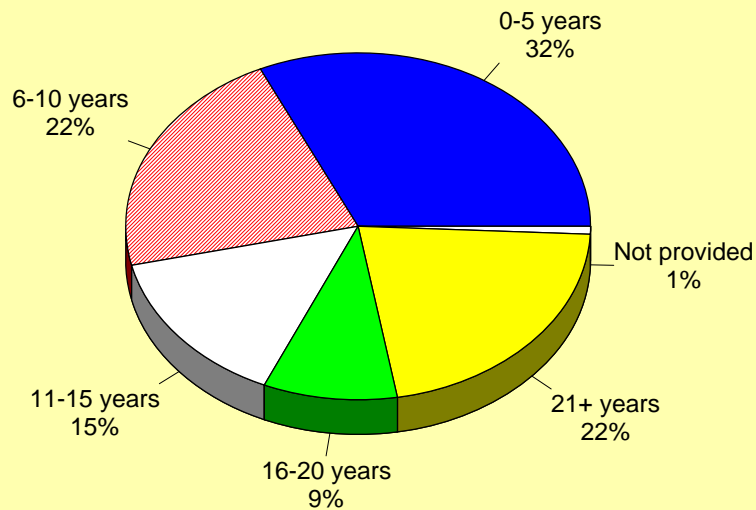
by percentage of business respondents



Source: ETC Institute (2010)

### Q21. Demographics: Approximately How Many Years Have You Lived at this Location?

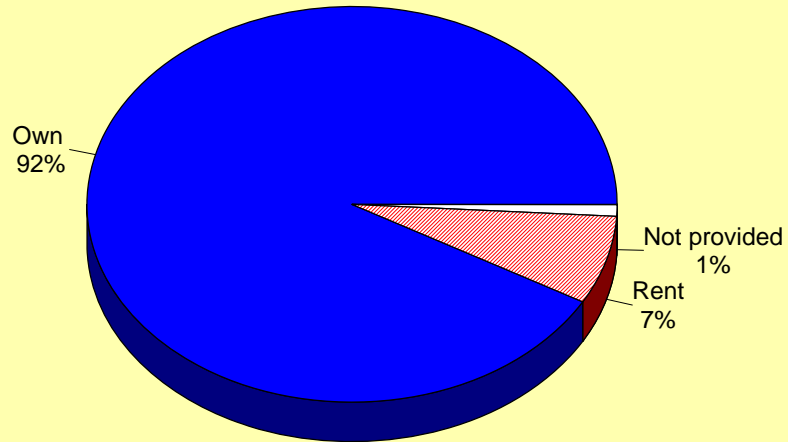
by percentage of respondents



Source: ETC Institute (2010)

### Q22. Demographics: Do You Own or Rent?

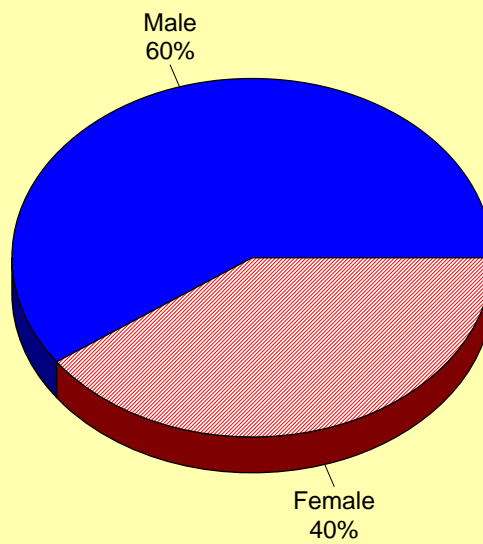
by percentage of respondents



Source: ETC Institute (2010)

### Q23. Demographics: Gender

by percentage of respondents



Source: ETC Institute (2010)

*Section 2:*  
***GIS Mapping***

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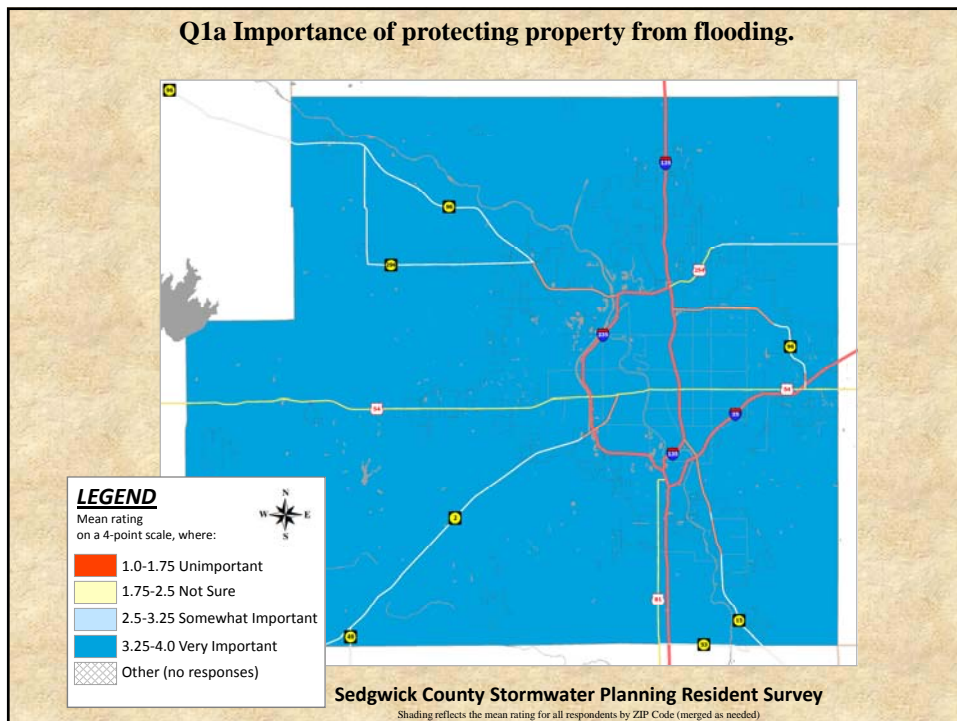
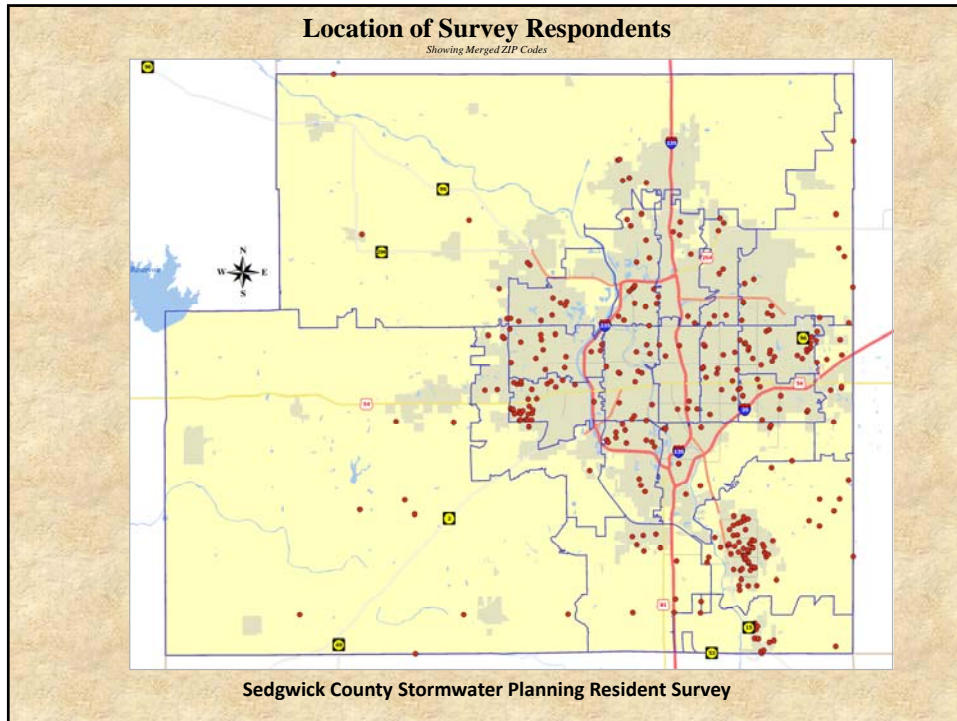
## Interpreting the Maps

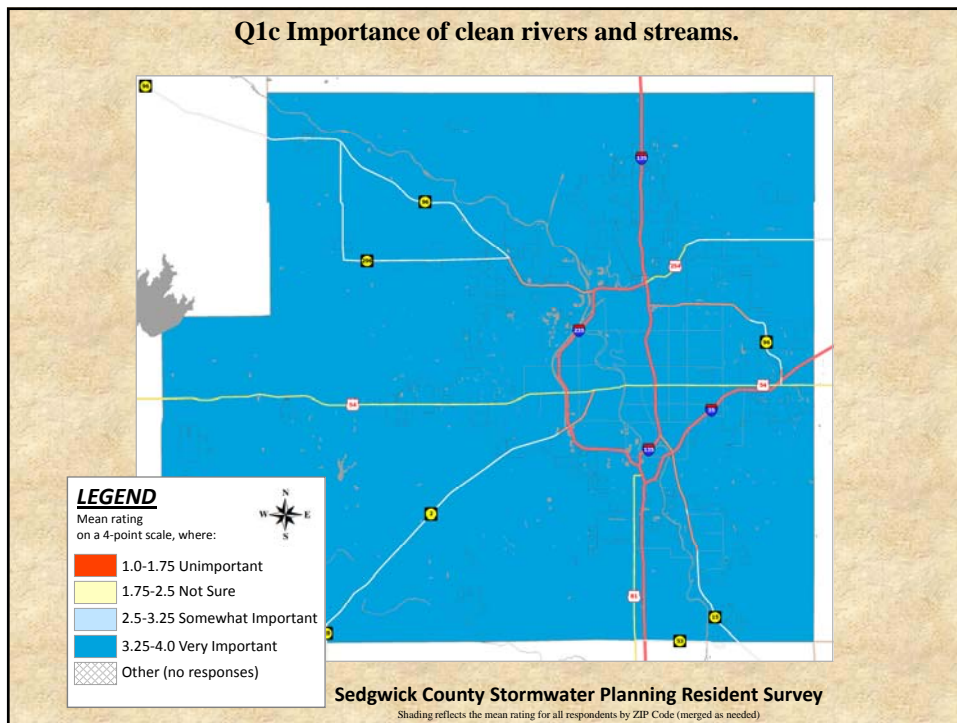
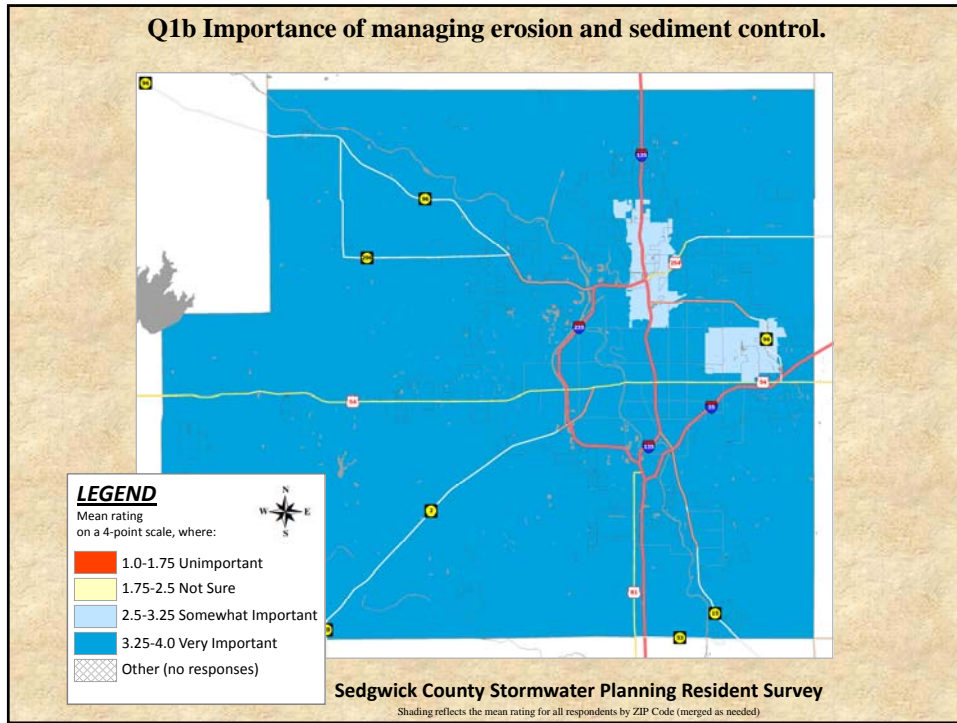
The maps on the following pages show the mean ratings for several questions on the survey by Census Block Group. A Census Block Group is an area defined by the U.S. Census Bureau, which is generally smaller than a zip code but larger than a neighborhood.

If all areas on a map are the same color, then residents generally feel the same about that issue regardless of the location of their home.

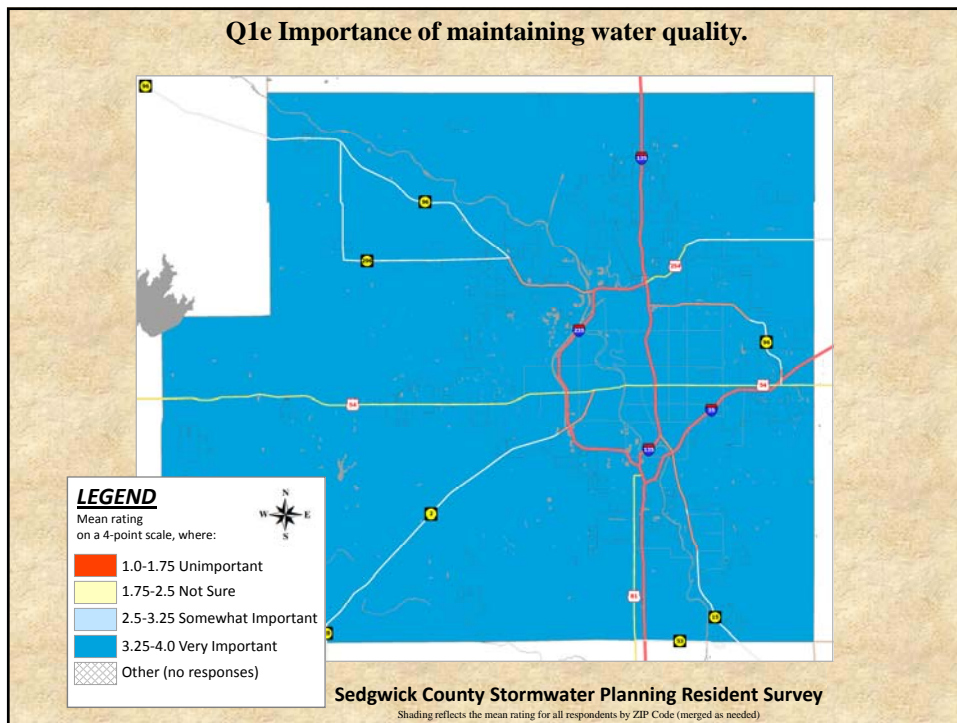
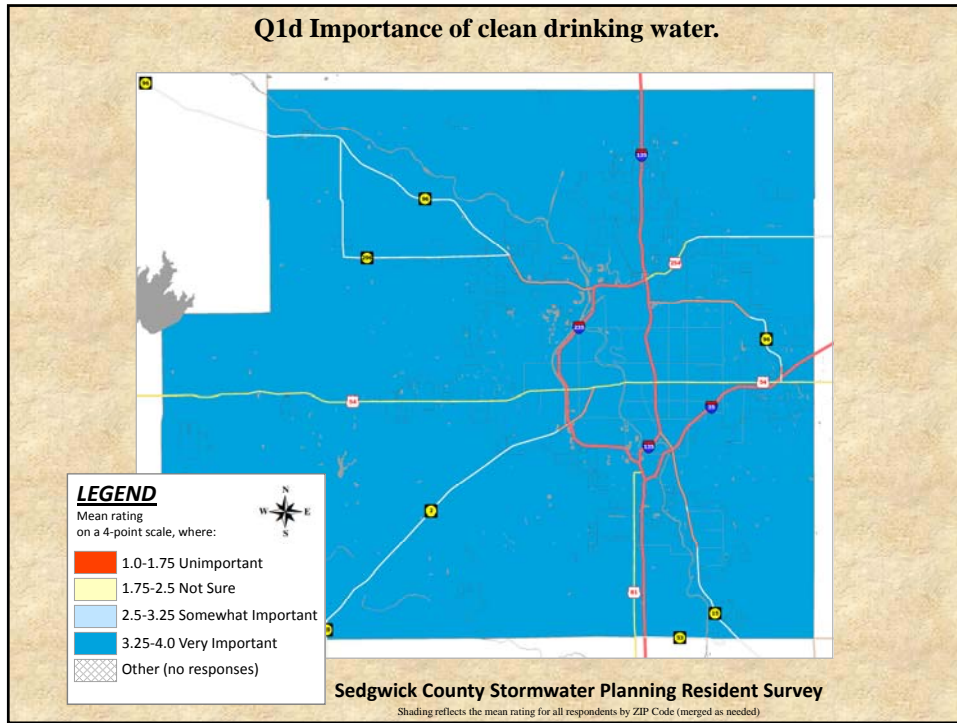
When reading the maps, please use the following color scheme as a guide:

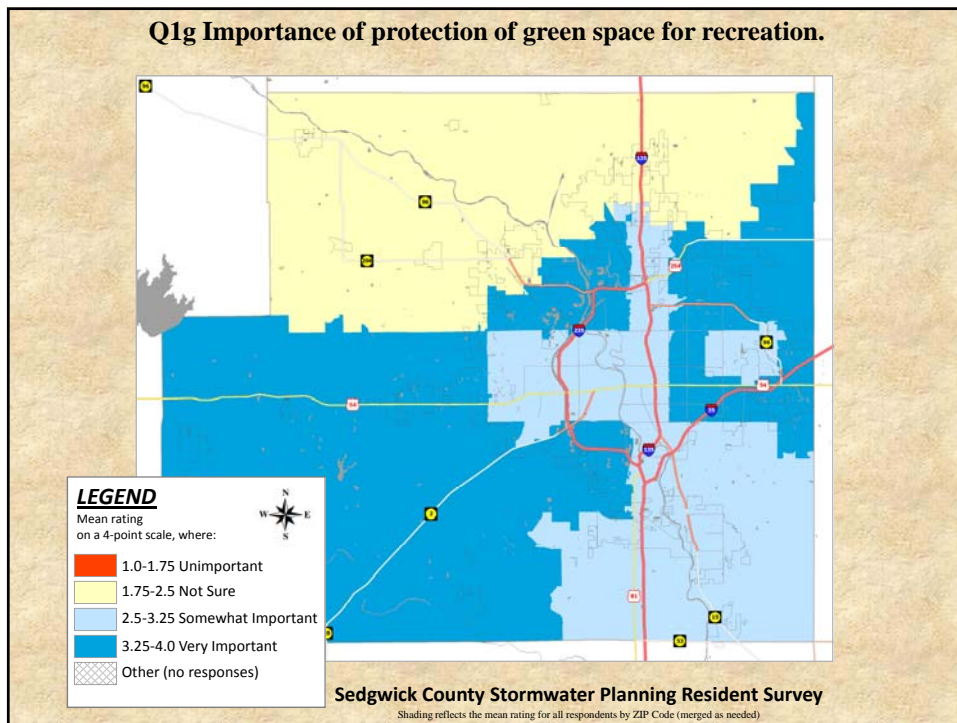
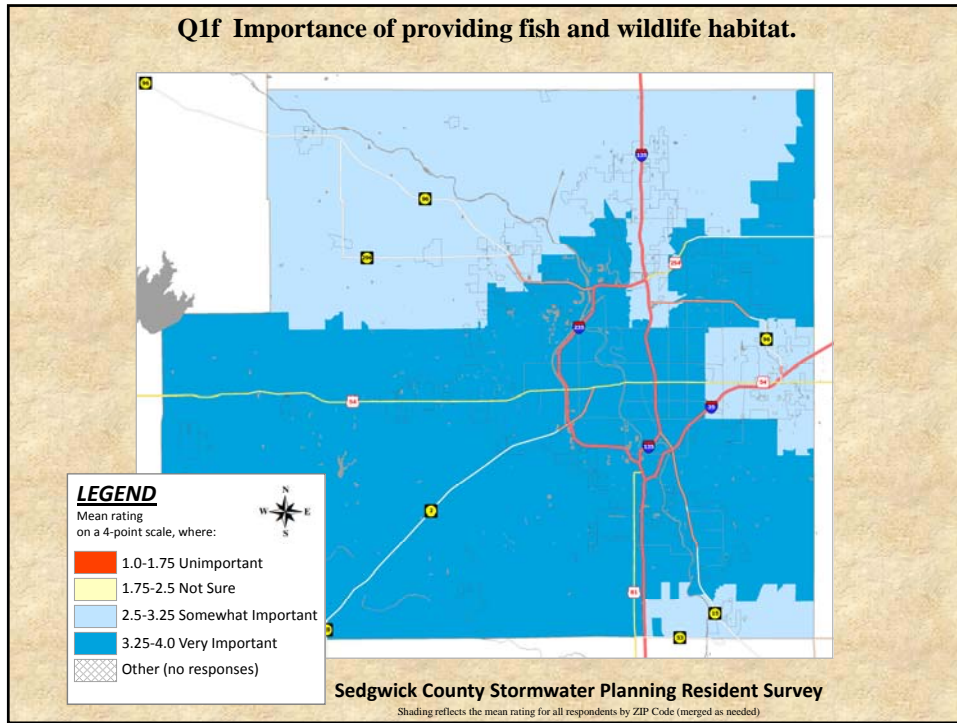
- **DARK/LIGHT BLUE** shades indicate POSITIVE ratings. Shades of blue generally indicate satisfaction with a service.
- **OFF-WHITE** shades indicate NEUTRAL ratings. Shades of neutral generally indicate that residents thought the quality of service delivery is adequate.
- **ORANGE/RED** shades indicate NEGATIVE ratings. Shades of orange/red generally indicate dissatisfaction with a service.

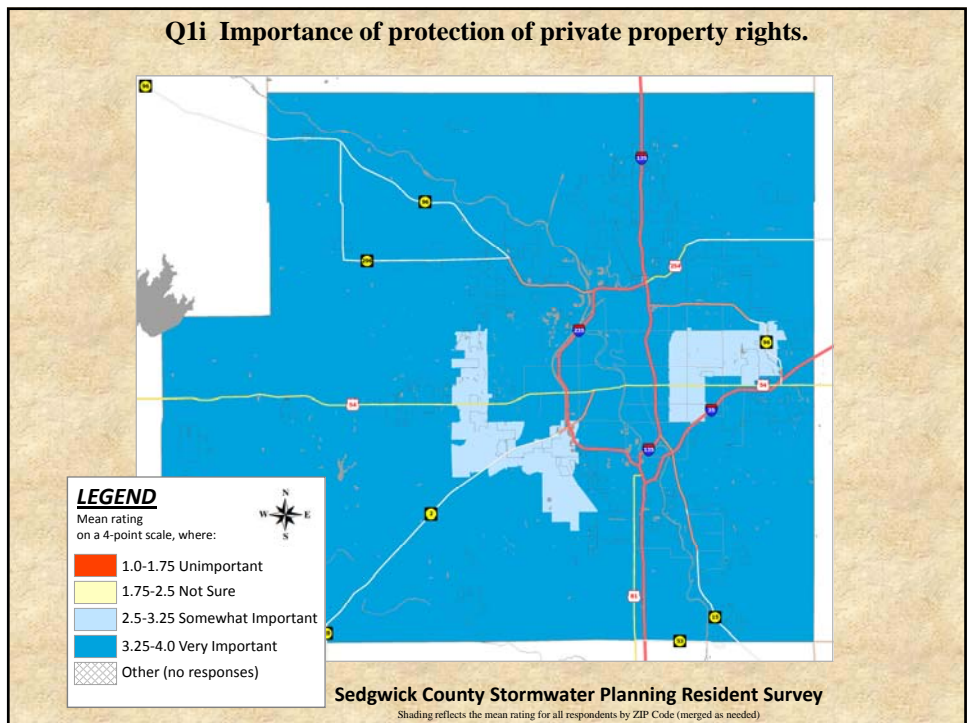
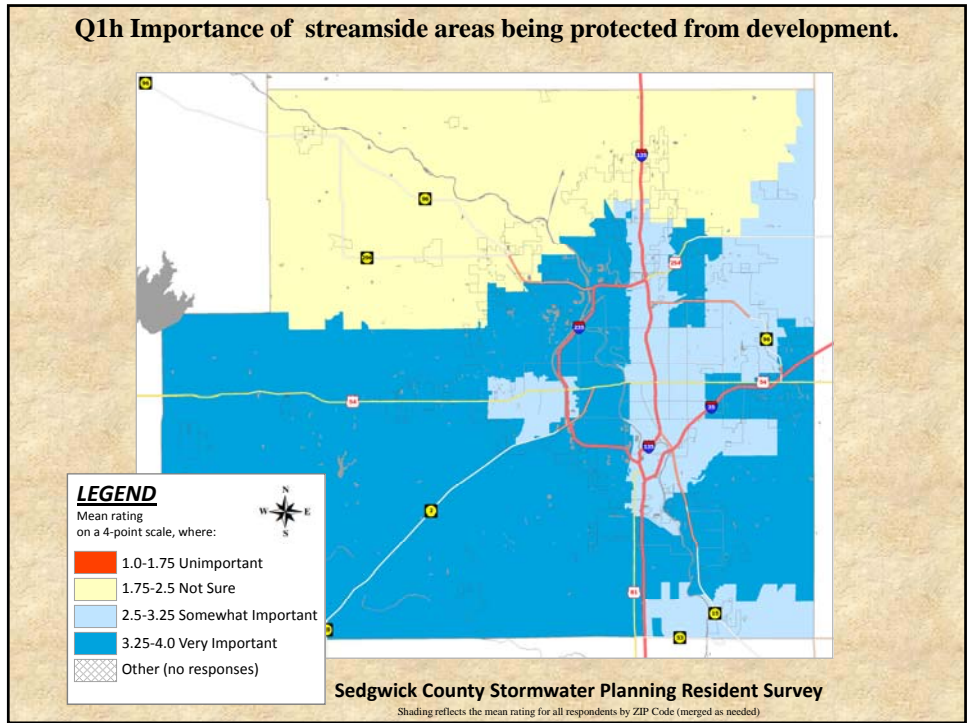


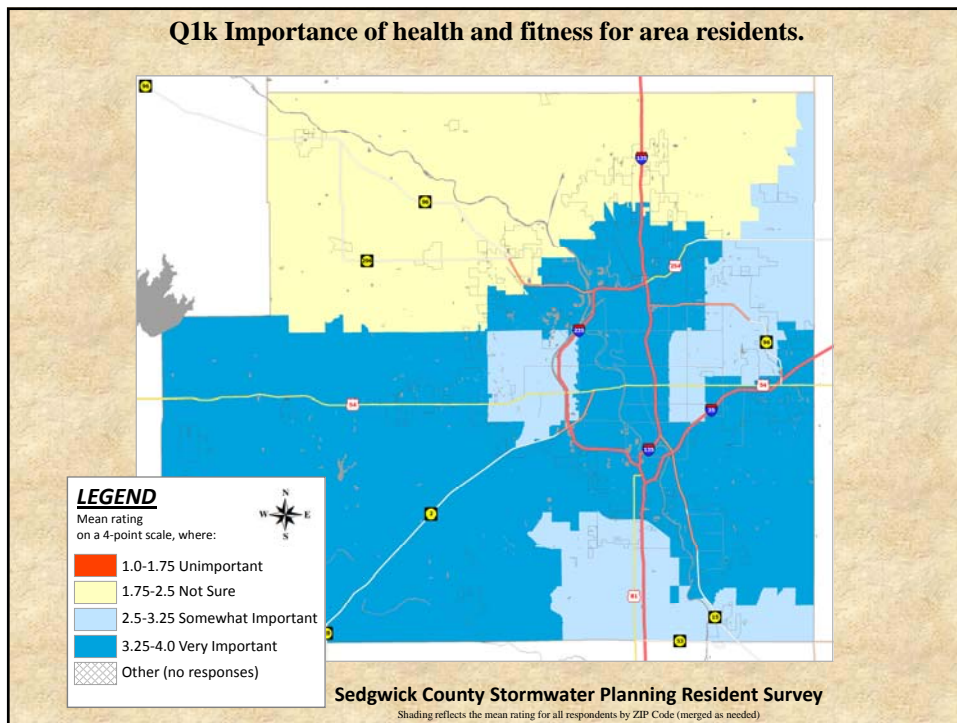
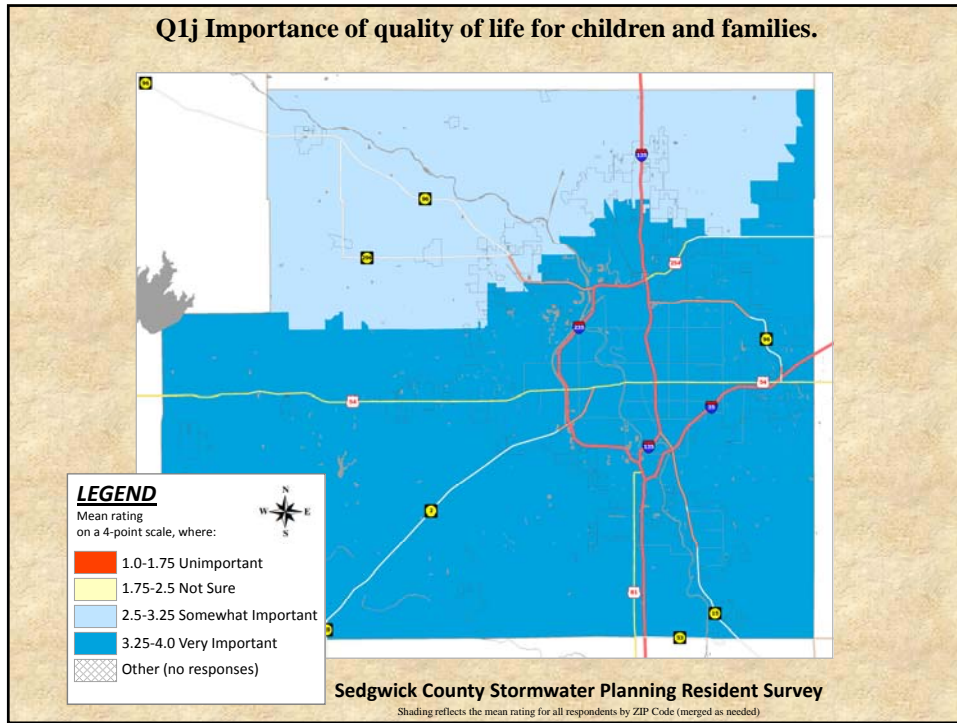


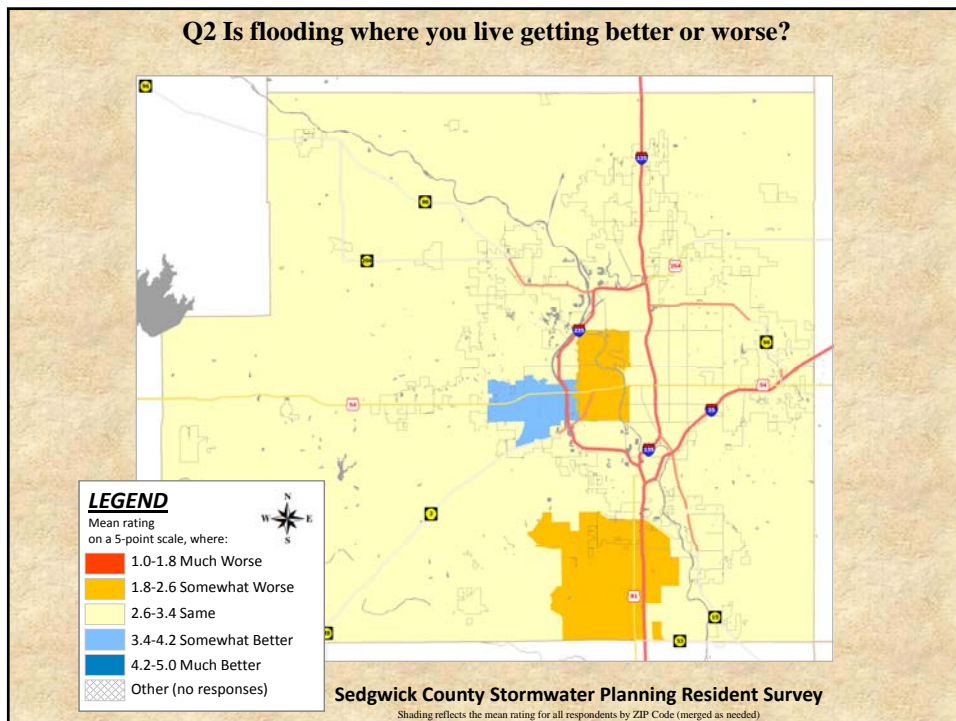
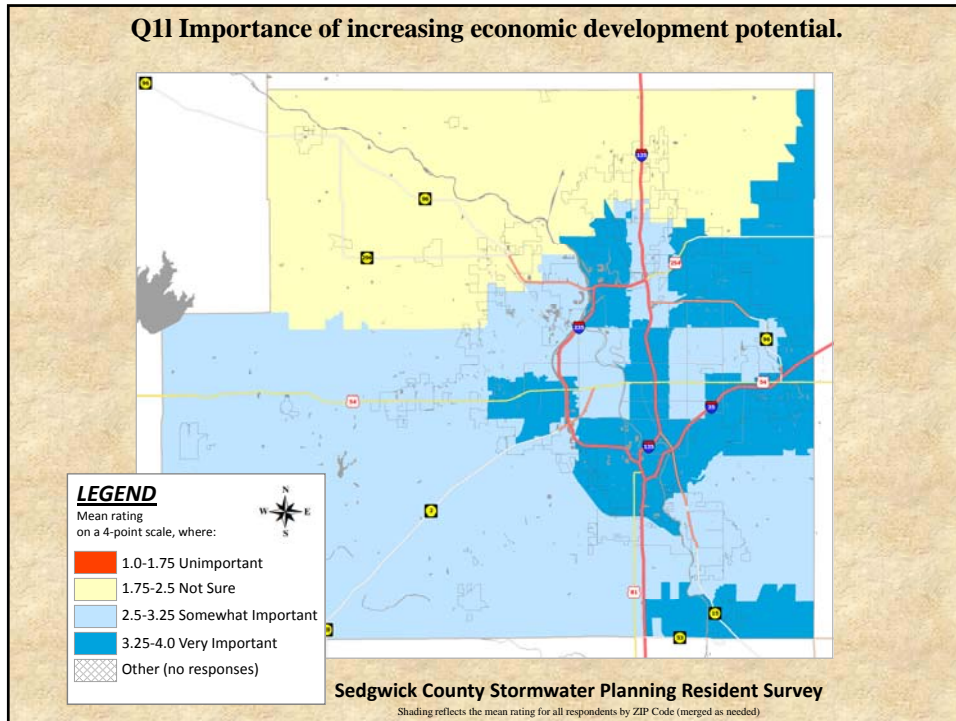


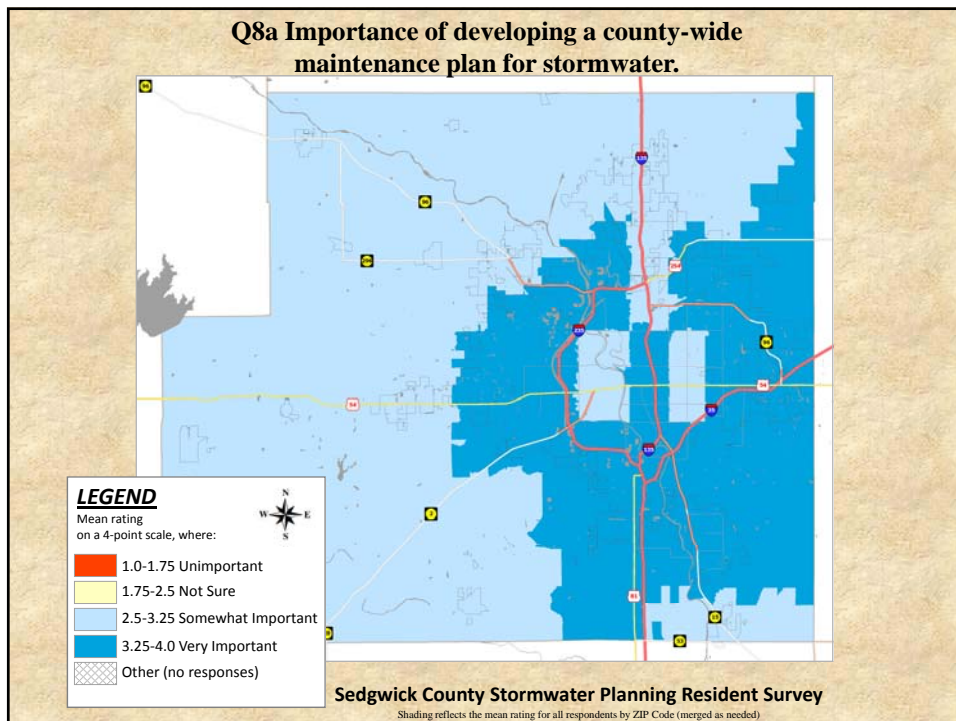
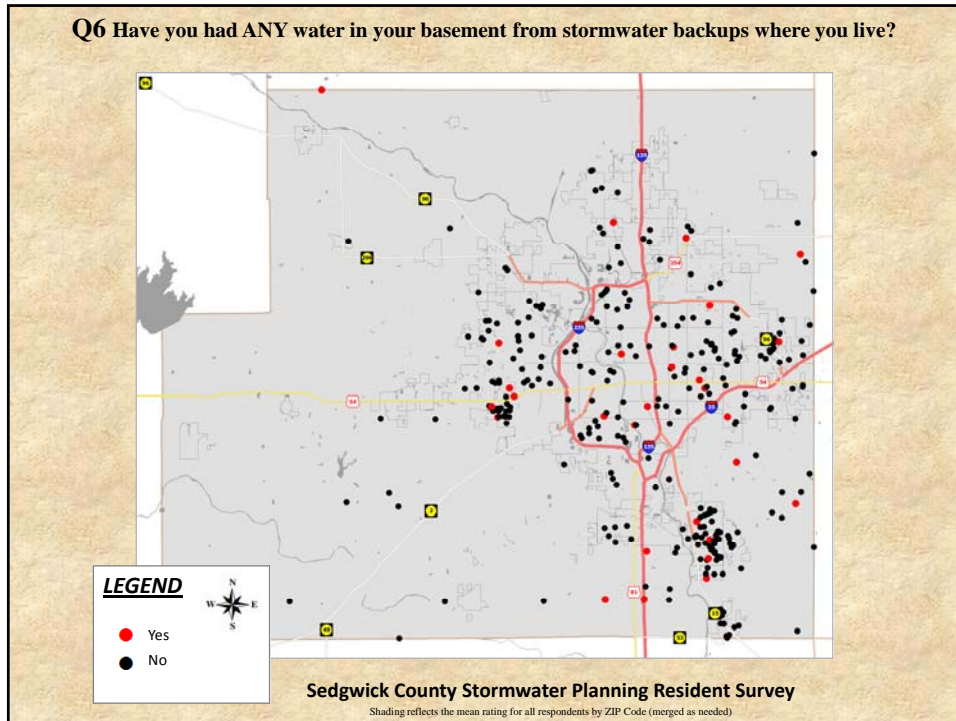


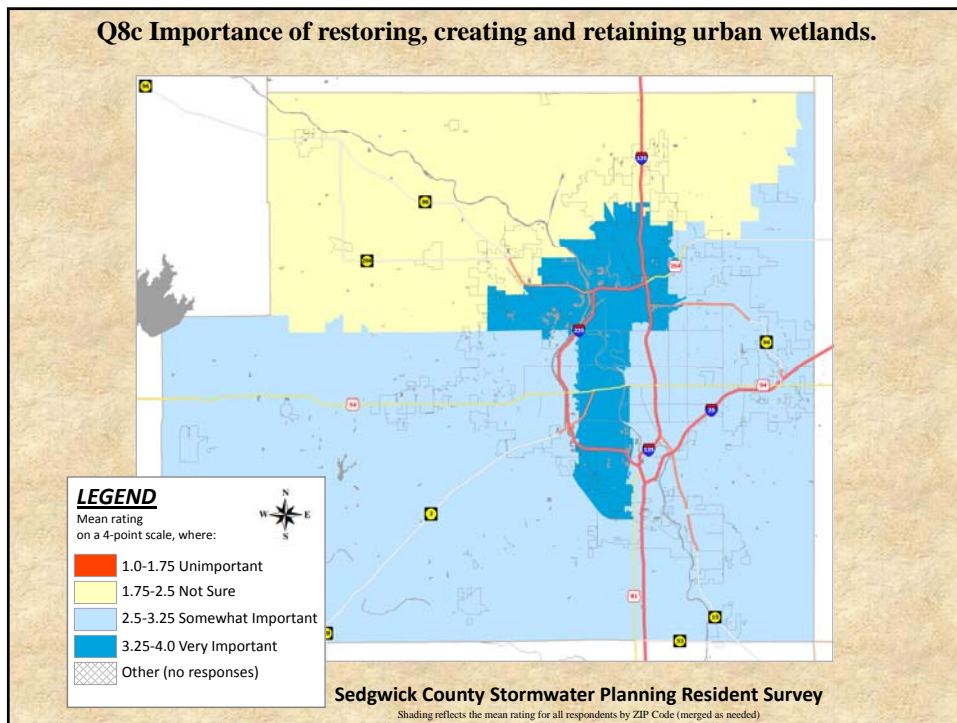
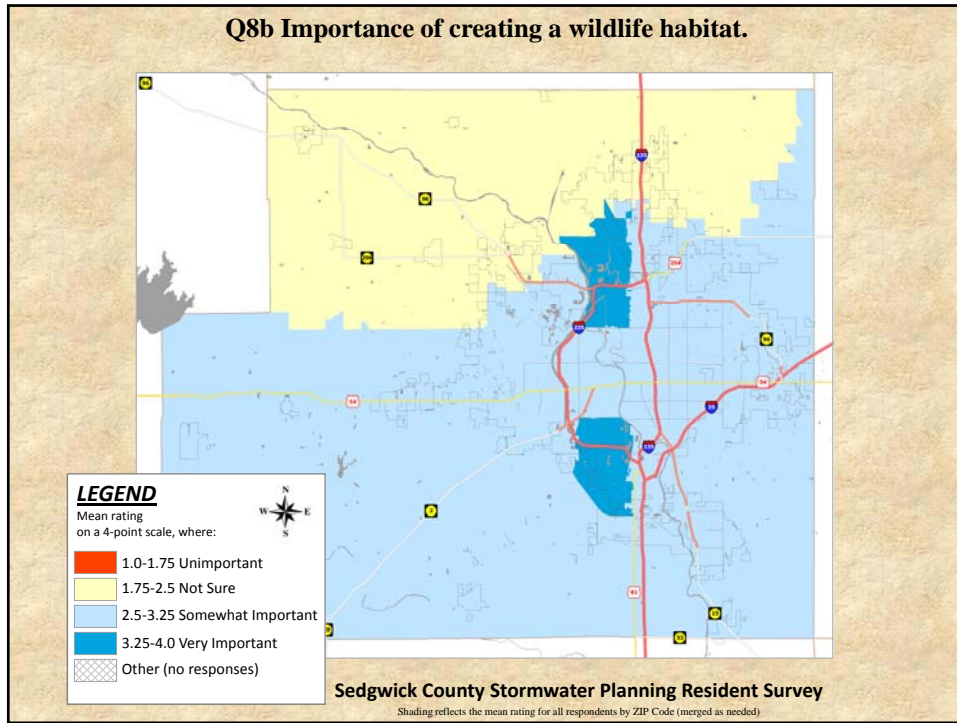


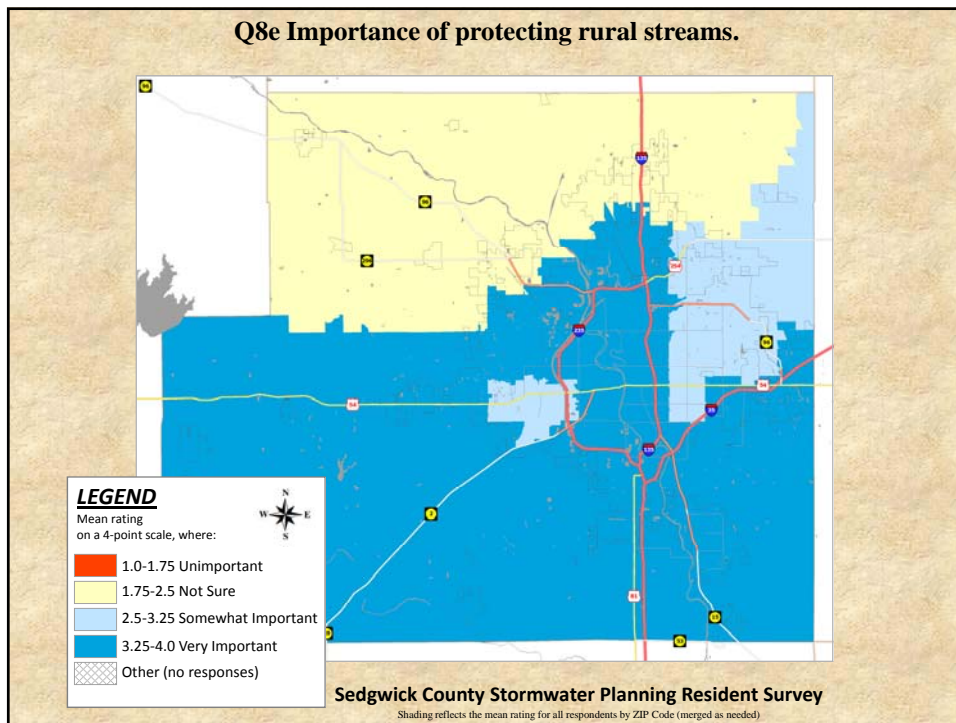
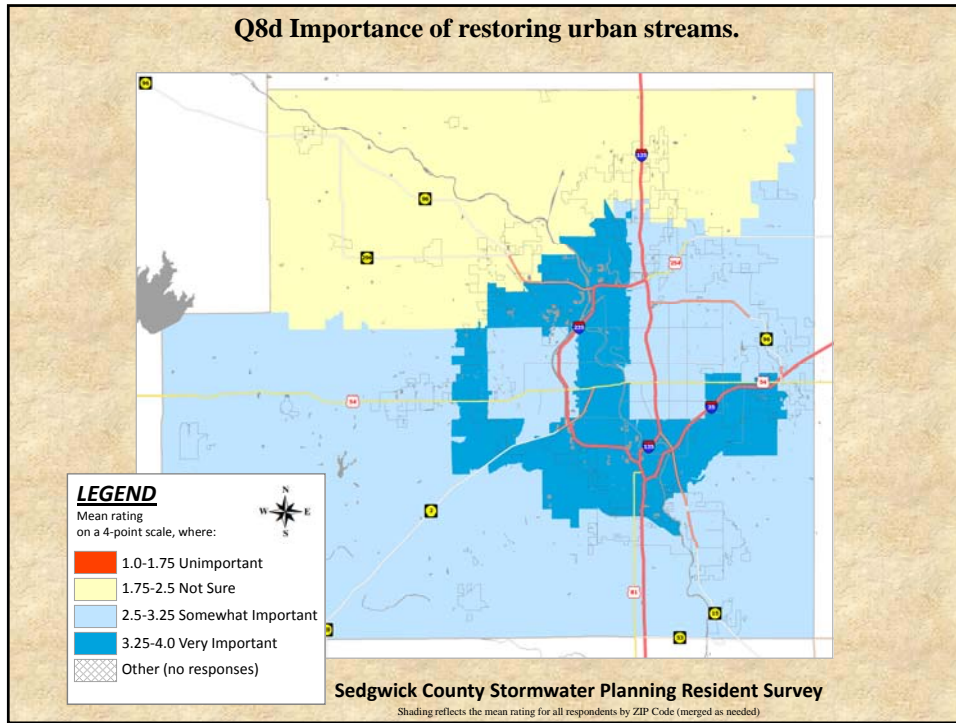




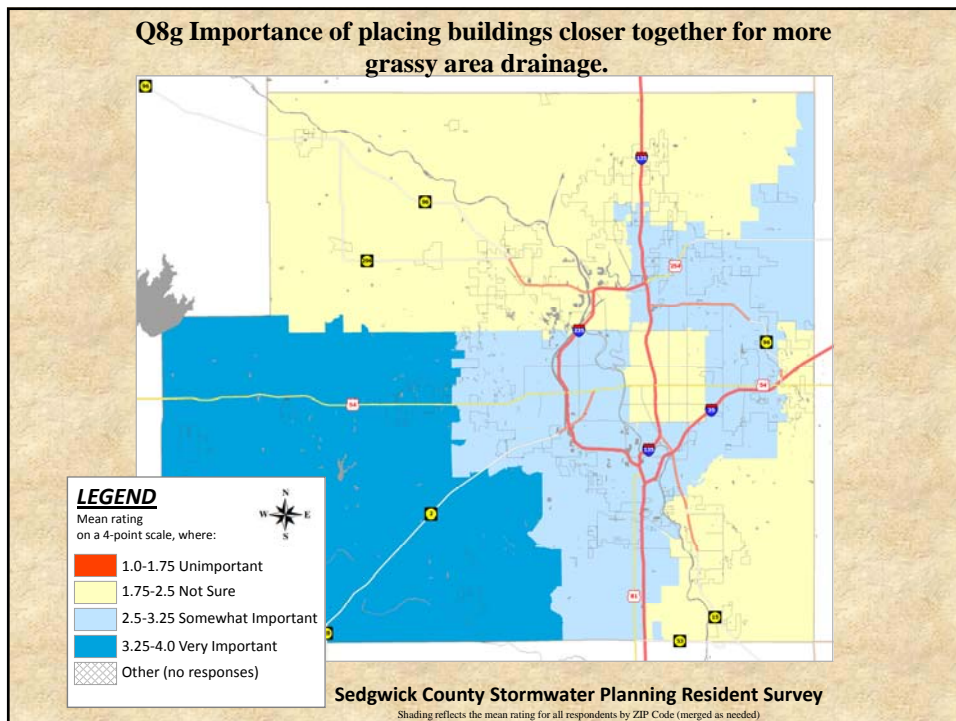
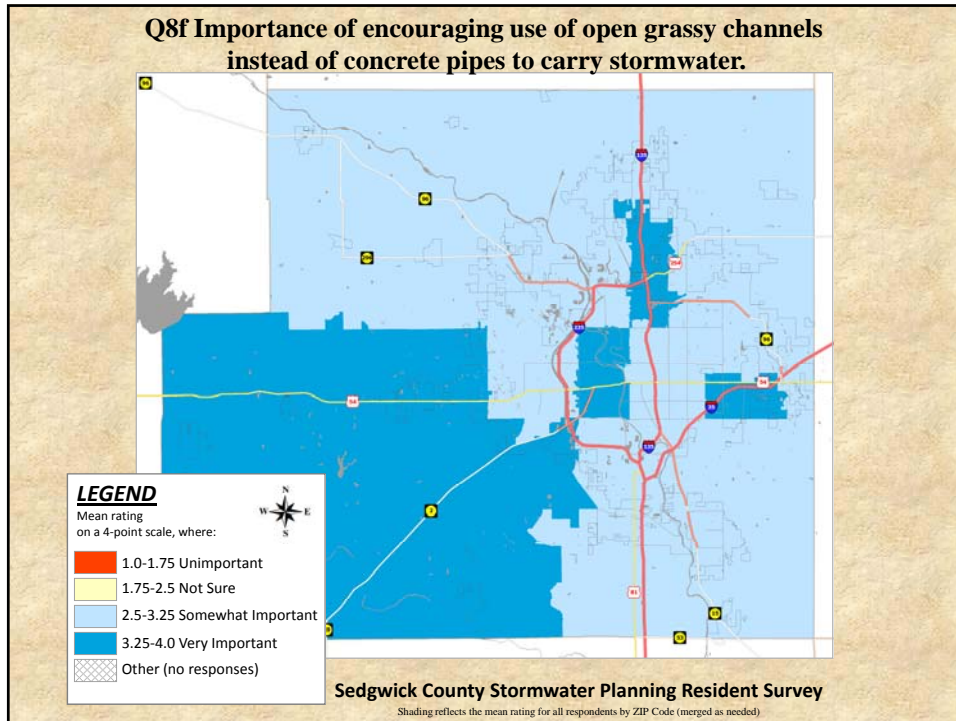


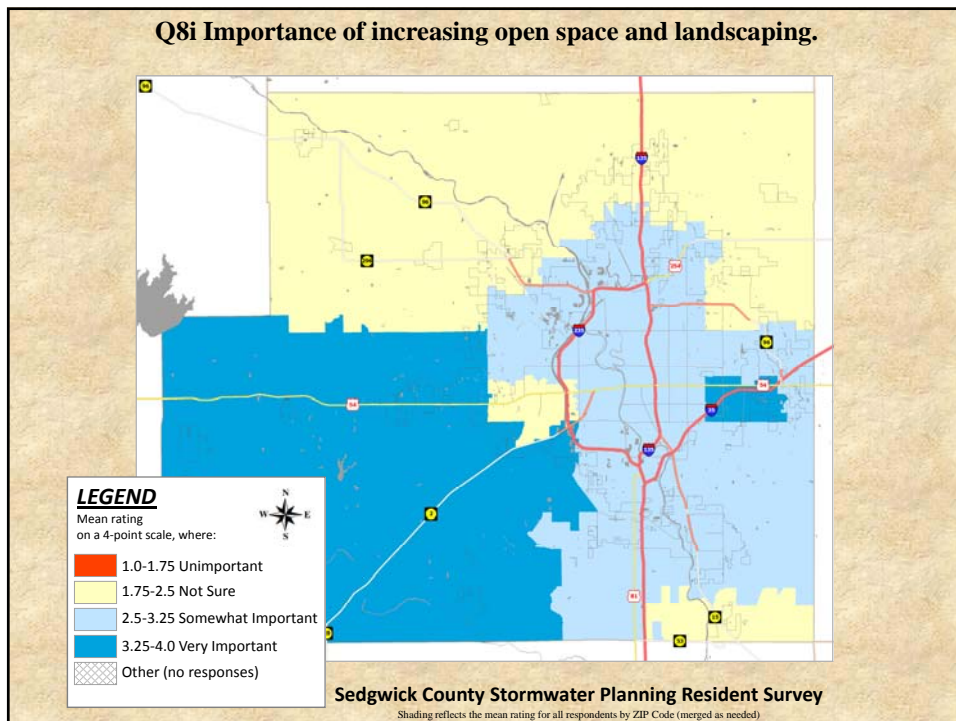
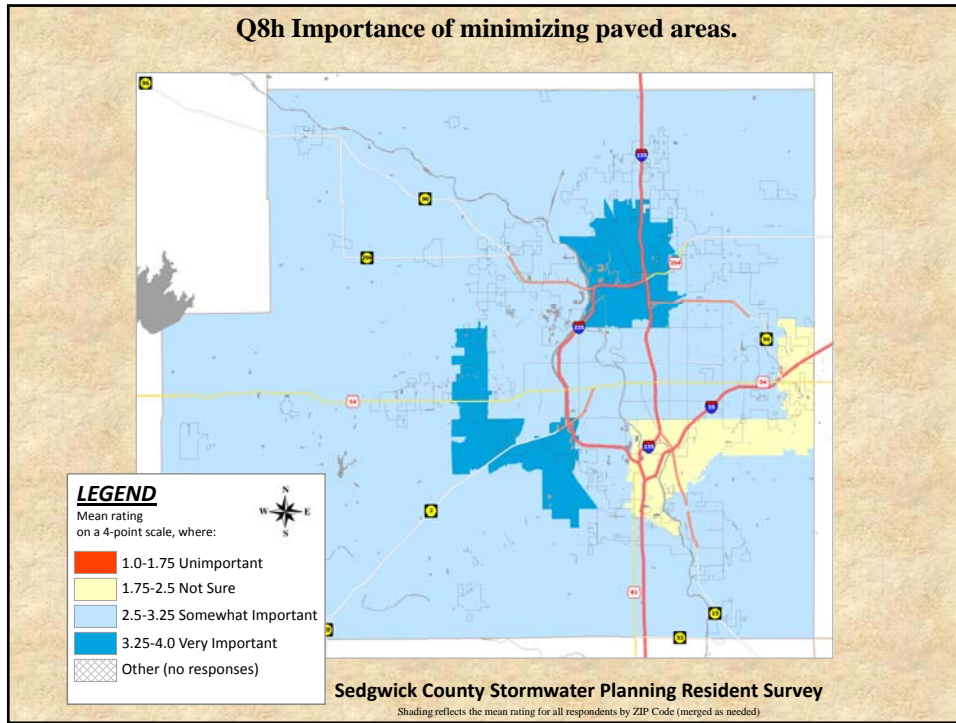


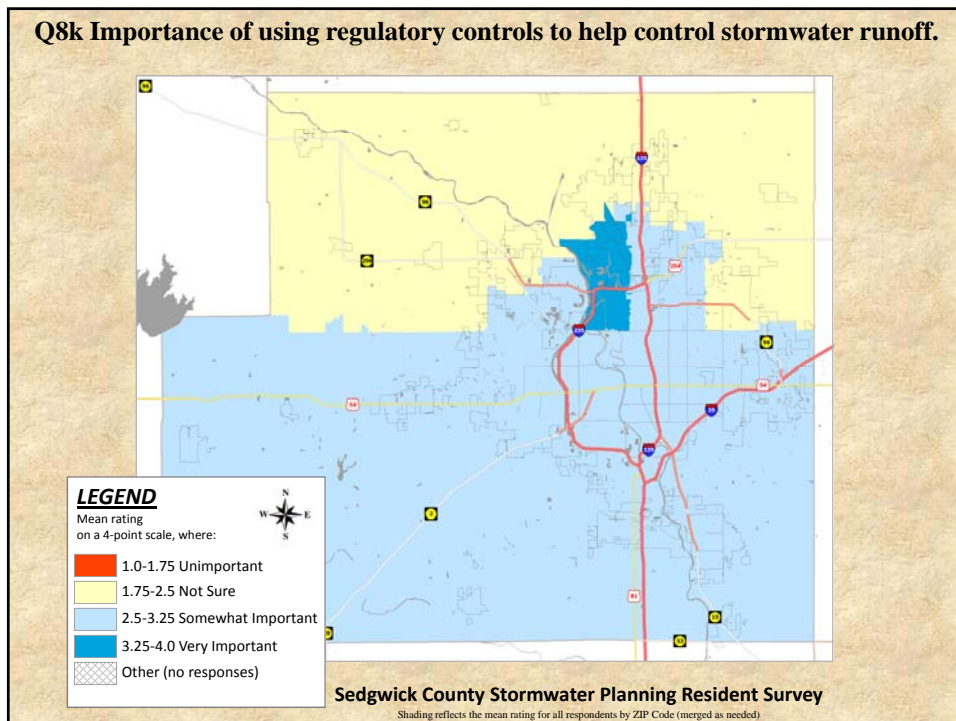
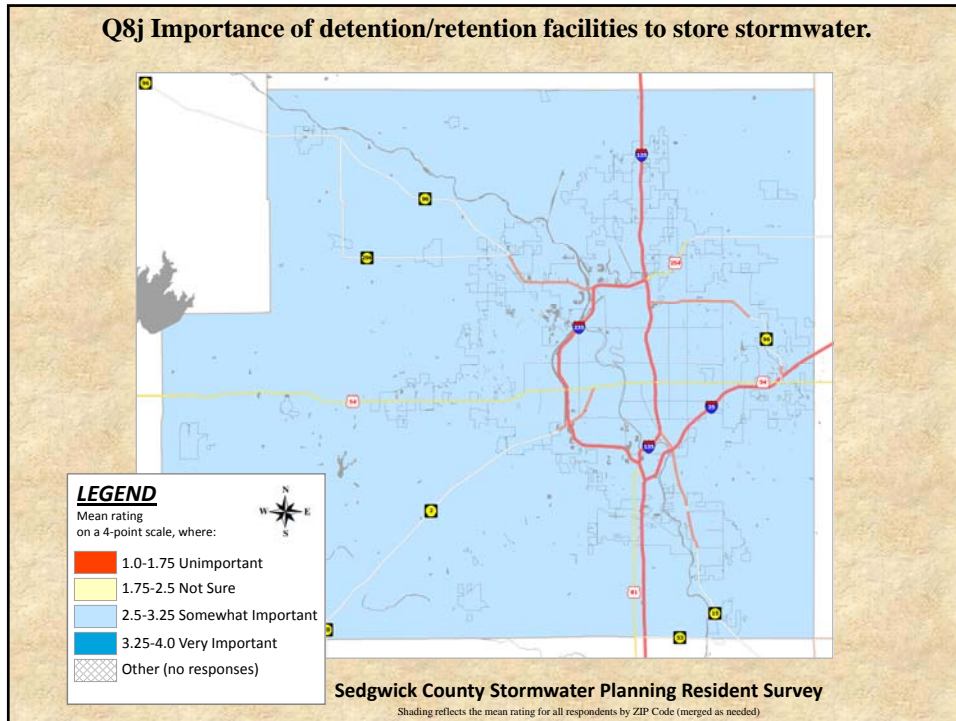


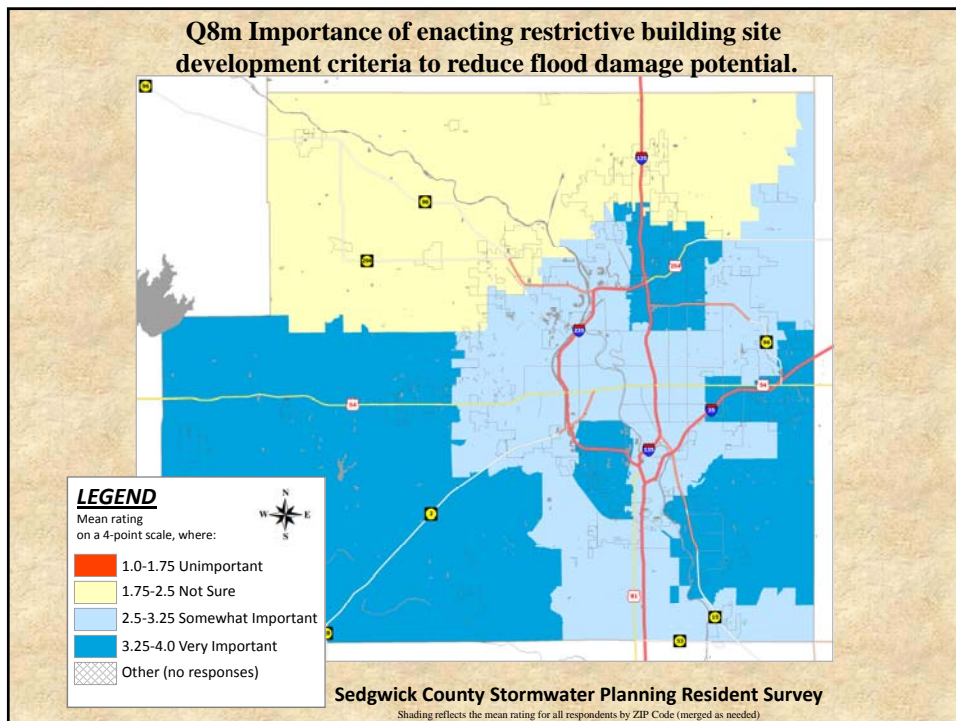
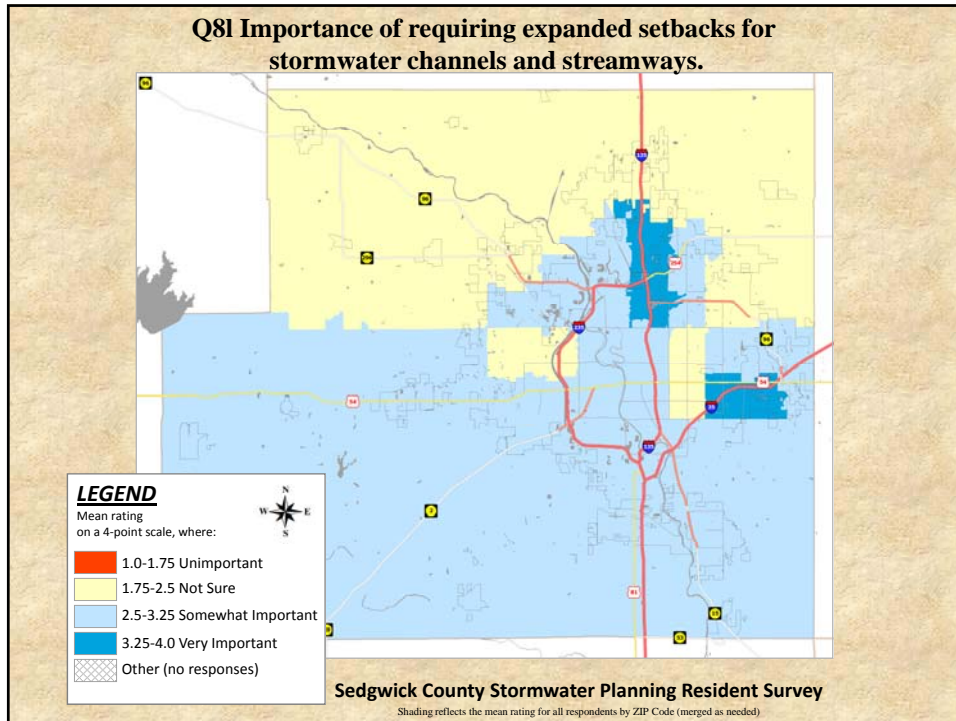


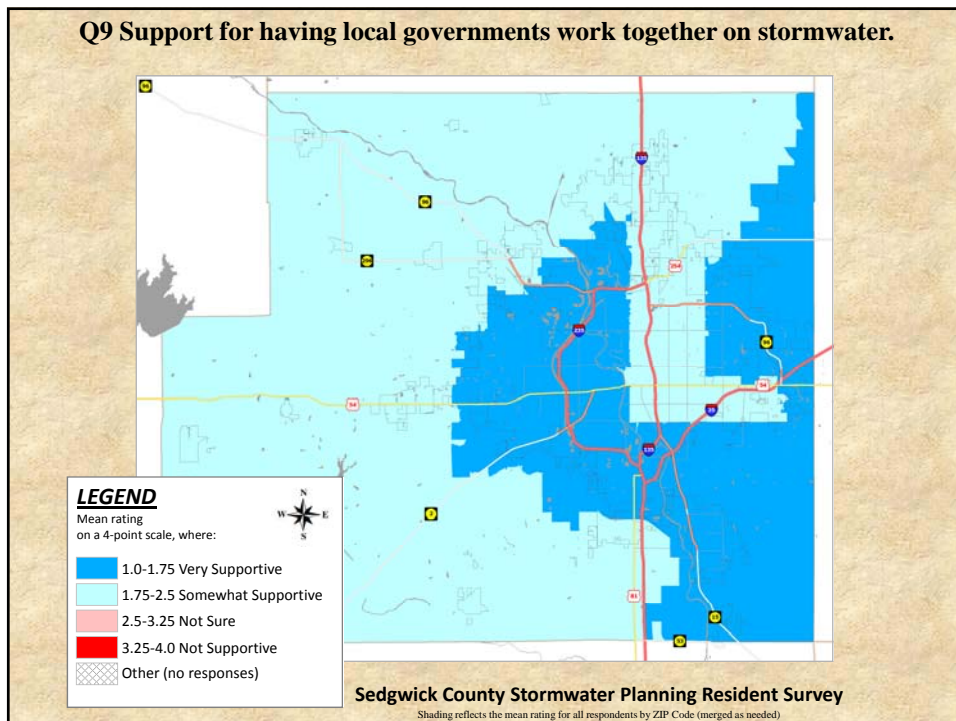
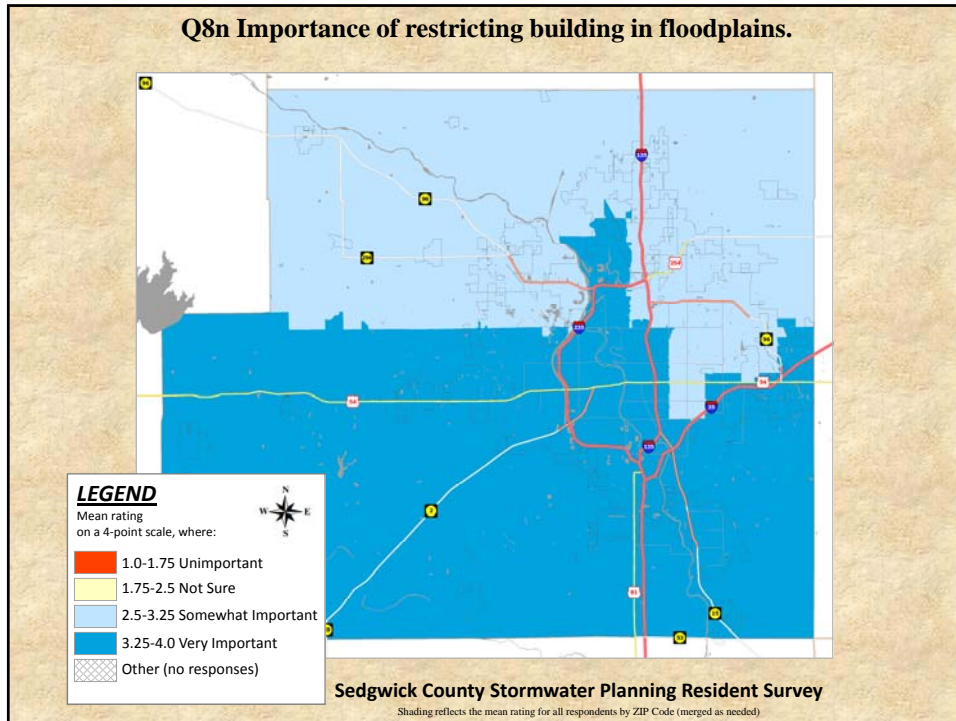


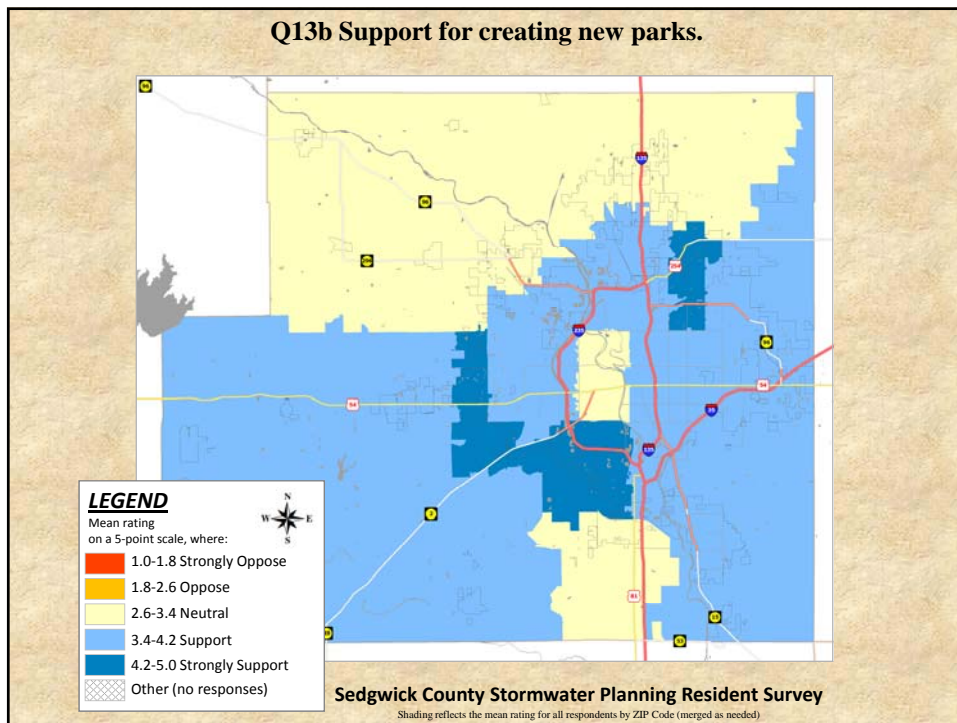
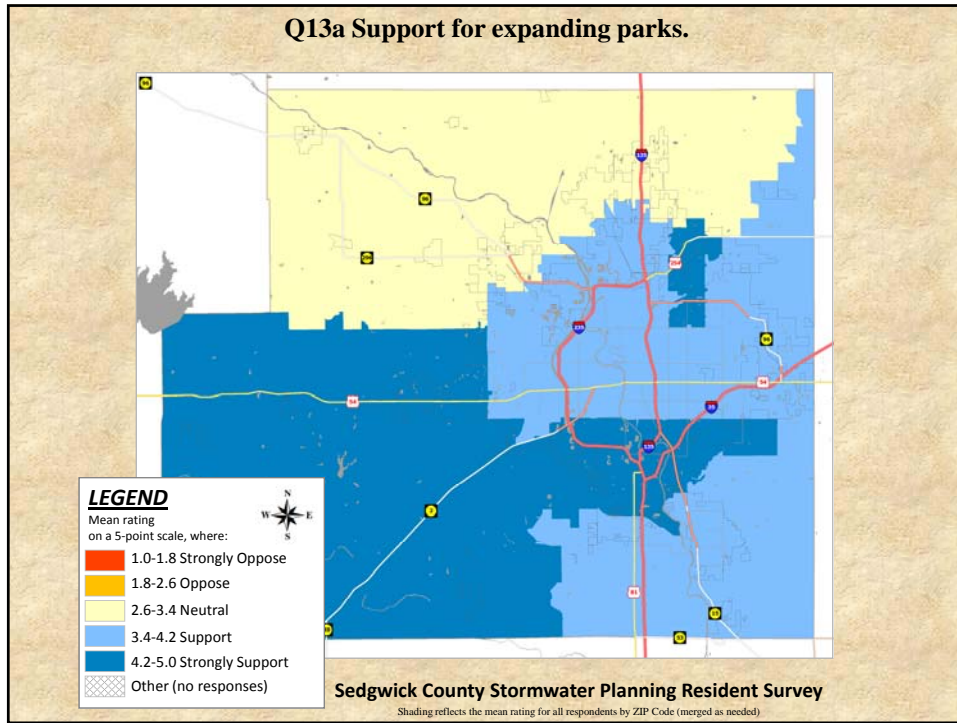


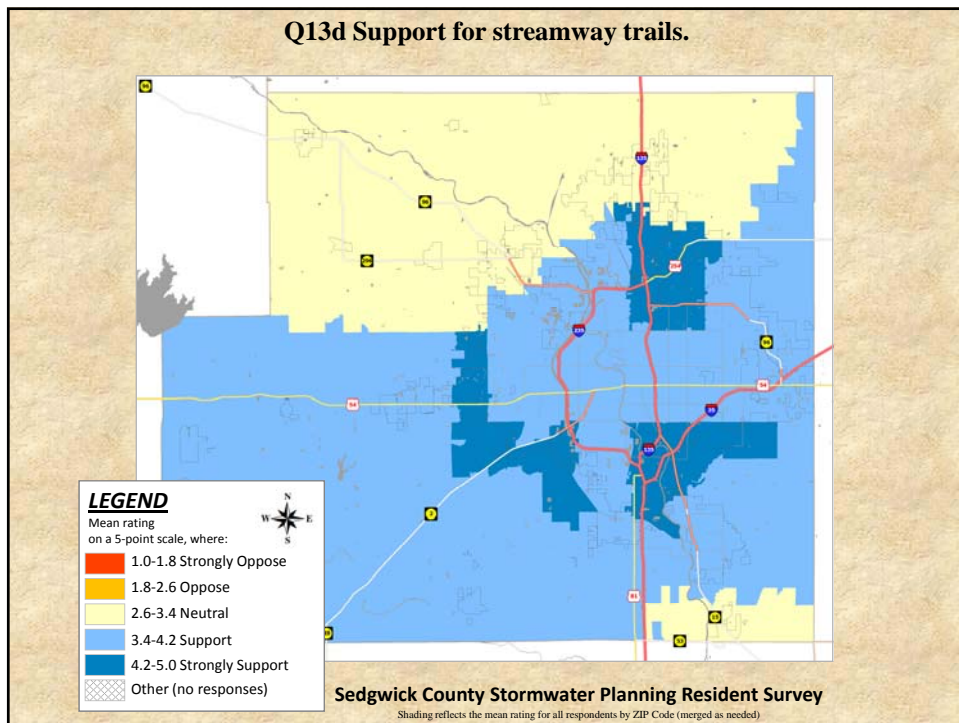
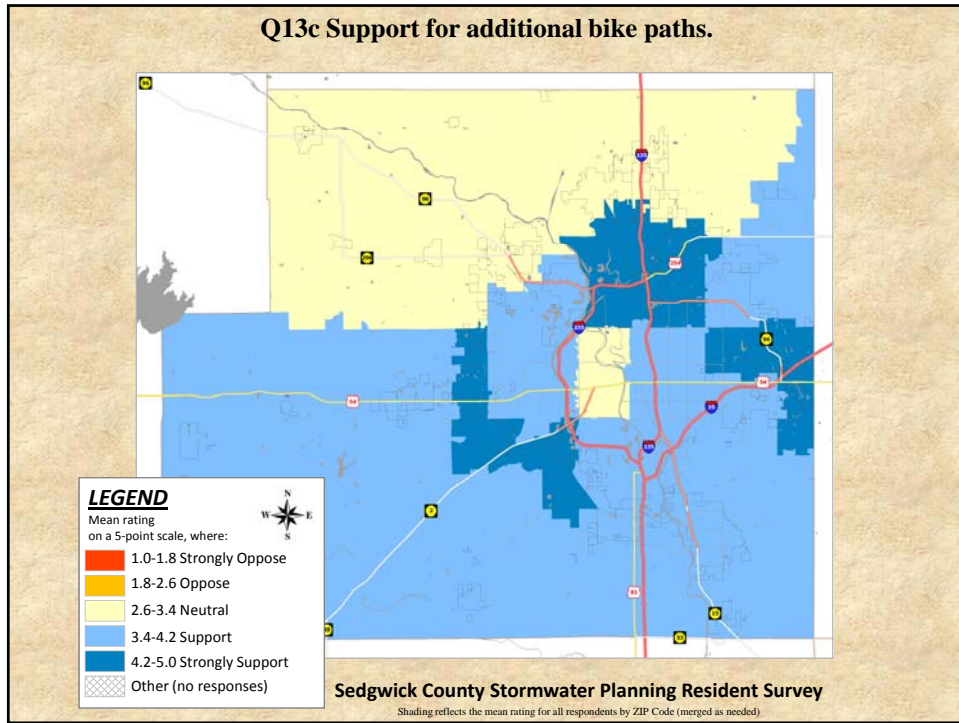


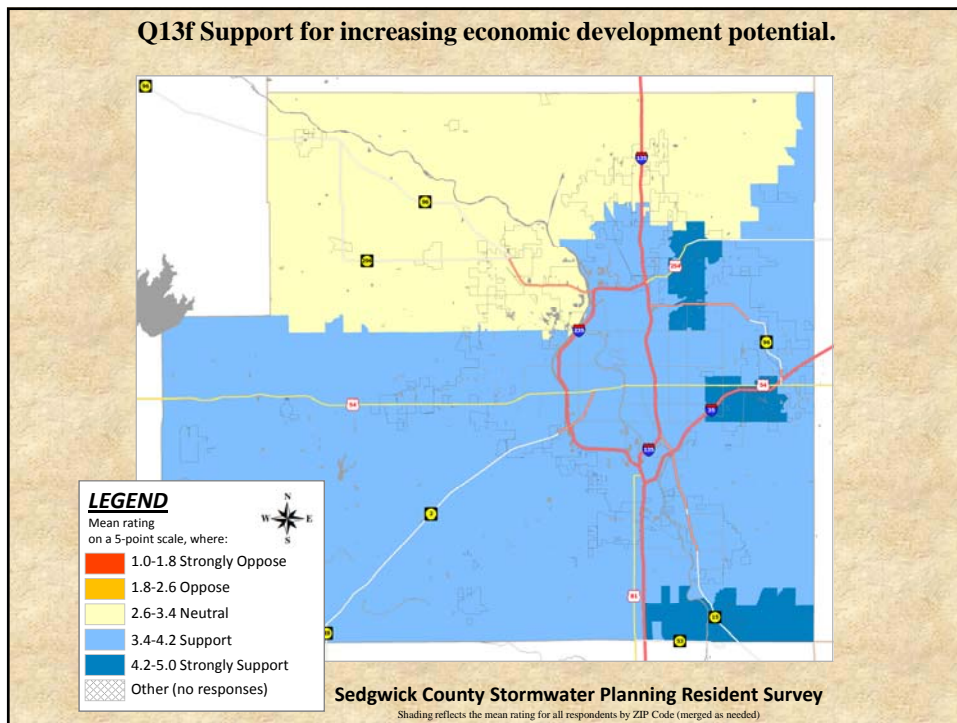
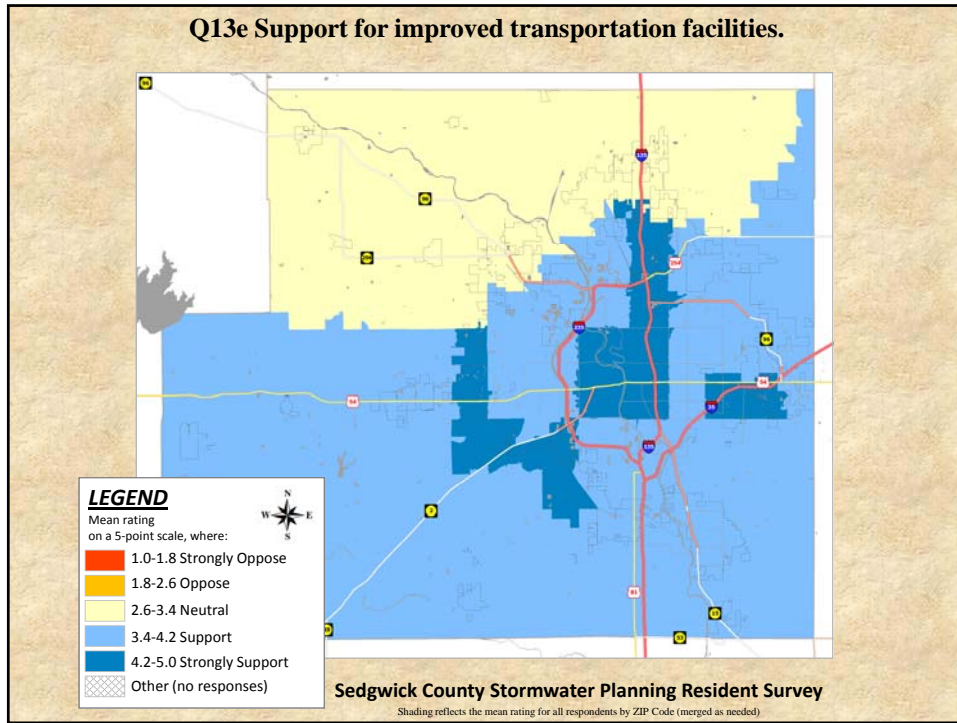














*Section 3:*  
***Resident Tabular Data***

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**Q1 How important do you think each of the following activities should be in preserving the Kansas environment?**

(N=428)

	Unimportant	Not sure	Somewhat Important	Very Important	Not Provided
Q1a Protecting property from flooding	1.9%	3.6%	17.9%	76.0%	0.7%
Q1b Managing erosion and sediment control	1.4%	5.0%	37.4%	55.5%	0.7%
Q1c Clean rivers and streams	0.5%	2.4%	20.9%	75.5%	0.7%
Q1d Clean drinking water	0.0%	0.5%	3.6%	95.0%	1.0%
Q1e Maintaining water quality	0.5%	1.7%	7.6%	89.5%	0.7%
Q1f Providing fish and wildlife habitat	2.9%	7.1%	40.7%	48.6%	0.7%
Q1g Protection of green space for recreation	7.8%	6.9%	43.0%	41.6%	0.7%
Q1h Streamside areas protected from development	5.0%	11.1%	37.2%	45.5%	1.2%
Q1i Protection of private property rights	1.2%	9.7%	22.7%	65.6%	0.7%
Q1j Quality of life for children and families	1.9%	2.6%	19.5%	75.3%	0.7%
Q1k Improving health and fitness for area residents	7.6%	9.5%	30.6%	51.5%	0.7%
Q1l Increasing economic development potential	6.7%	10.5%	40.1%	42.0%	0.7%

**Q1 How important do you think each of the following activities should be in preserving the Kansas environment? (Without Not Provided)**

(N=428)

	Unimportant	Not sure	Somewhat Important	Very Important
Q1a Protecting property from flooding	1.9%	3.6%	18.0%	76.5%
Q1b Managing erosion and sediment control	1.4%	5.0%	37.6%	55.9%
Q1c Clean rivers and streams	0.5%	2.4%	21.1%	76.1%
Q1d Clean drinking water	0.0%	0.5%	3.6%	95.9%
Q1e Maintaining water quality	0.5%	1.7%	7.7%	90.2%
Q1f Providing fish and wildlife habitat	2.9%	7.2%	41.0%	48.9%
Q1g Protection of green space for recreation	7.9%	6.9%	43.3%	41.9%
Q1h Streamside areas protected from development	5.0%	11.3%	37.6%	46.0%
Q1i Protection of private property rights	1.2%	9.8%	22.9%	66.1%
Q1j Quality of life for children and families	1.9%	2.6%	19.6%	75.8%
Q1k Improving health and fitness for area residents	7.7%	9.6%	30.9%	51.9%
Q1l Increasing economic development potential	6.7%	10.6%	40.4%	42.3%

**Q2 Do you think that flooding in the area where you live is:**

Q2 Do you think that flooding in the area where you live is	Number	Percent
Not Provided	3	0.7 %
Getting much worse	15	3.5 %
Getting somewhat worse	50	11.7 %
Staying the same	256	59.8 %
Getting somewhat better	48	11.2 %
Getting much better	13	3.0 %
Don't know	43	10.0 %
Total	428	100.0 %

**Q2 Do you think that flooding in the area where you live is: (Without Not Provided)**

Q2 Do you think that flooding in the area where you live is	Number	Percent
Getting much worse	15	3.5 %
Getting somewhat worse	50	11.8 %
Staying the same	256	60.2 %
Getting somewhat better	48	11.3 %
Getting much better	13	3.1 %
Don't know	43	10.1 %
Total	425	100.0 %

**Q3 Do you think the quality of water in lakes and streams in the area where you live is:**

Q3 Do you think the quality of water in lakes and streams in the area where you live is	Number	Percent
Getting much worse	16	3.7 %
Getting somewhat worse	127	29.7 %
Staying the same	169	39.5 %
Getting somewhat better	27	6.3 %
Getting much better	3	0.7 %
Don't Know	83	19.4 %
Not Provided	3	0.7 %
Total	428	100.0 %

**Q3 Do you think the quality of water in lakes and streams in the area where you live is: (Without Not Provided)**

Q3 Do you think the quality of water in lakes and streams in the area where you live is	Number	Percent
Getting much worse	16	3.8 %
Getting somewhat worse	127	29.9 %
Staying the same	169	39.8 %
Getting somewhat better	27	6.4 %
Getting much better	3	0.7 %
Don't Know	83	19.5 %
Total	425	100.0 %

**Q4 Where does stormwater (rain water) go after it enters a storm drain in your community?**

Q4 Where does stormwater (rain water) go after it enters a storm drain in your community?	Number	Percent
Directly to lakes and streams	184	43.0 %
To a wastewater treatment plant	66	15.4 %
Don't Know	174	40.7 %
Not Provided	4	0.9 %
Total	428	100.0 %

**Q4 Where does stormwater (rain water) go after it enters a storm drain in your community? (Without Not Provided)**

Q4 Where does stormwater (rain water) go after it enters a storm drain in your community?	Number	Percent
Directly to lakes and streams	184	43.4 %
To a wastewater treatment plant	66	15.6 %
Don't Know	174	41.0 %
Total	424	100.0 %

**Q5 Which ONE of the following BEST describes the location where you live?**

Q5 Which ONE of the following BEST describes the location where you live?	Number	Percent
I live in a watershed	39	9.1 %
I live near a watershed	96	22.4 %
I don't live near a watershed	114	26.6 %
Don't know (not familiar with the term "watershed")	174	40.7 %
Not Provided	5	1.2 %
Total	428	100.0 %

**Q5 Which ONE of the following BEST describes the location where you live? (Without Not Provided)**

Q5 Which ONE of the following BEST describes the location where you live?	Number	Percent
I live in a watershed	39	9.2 %
I live near a watershed	96	22.7 %
I don't live near a watershed	114	27.0 %
Don't know (not familiar with the term "watershed")	174	41.1 %
Total	423	100.0 %

**Q6 Have you had ANY water in your basement from stormwater backups where you currently live (from backups only, NOT from surface flooding)?**

Q6 Have you had ANY water in your basement from stormwater backups where you currently live (from backups only, NOT from surface flooding)?

	Number	Percent
Yes	41	9.6 %
No	385	90.0 %
Don't Know	2	0.5 %
Total	428	100.0 %

**Q6a If YES: How many times during the past 10 years have you had water in your basement from stormwater backups where you currently live?**

Q6a If YES: How many times during the past 10 years have you had water in your basement from stormwater backups where you currently live?

	Number	Percent
Once	8	19.5 %
Twice	10	24.4 %
Three times	13	31.7 %
Four or more times	10	24.4 %
Total	41	100.0 %

**Q6b Which of the following describes the source(s) of water in your basement?**

Q6b Which of the following describes the source(s) of water in your basement?

	Number	Percent
Rainwater that entered through cracks in the foundation or floors	29	70.7 %
Rainwater that entered through windows, window wells, doors, or your roof	3	7.3 %
Unknown	9	22.0 %
Total	41	100.0 %



**Q7 How often have you been affected by stormwater surface drainage problems in the area where you live?**

<u>Q7 How often have you been affected by stormwater surface drainage problems in the area where you live?</u>	<u>Number</u>	<u>Percent</u>
Never	234	54.7 %
Once	48	11.2 %
2 to 4 times	72	16.8 %
5 or more times	70	16.4 %
Not provided	4	0.9 %
Total	428	100.0 %

**Q7a If you have had problems, please check the problems that you have had.**

<u>Q7a First problem</u>	<u>Number</u>	<u>Percent</u>
Temporary ponding on my property	94	22.0 %
Street flooding	99	23.1 %
Damage from erosion	40	9.3 %
Drainage from adjacent properties flowed on to/across my property	65	15.2 %
Danger to my life and others in my family	9	2.1 %
Danger to pets	5	1.2 %
Damage to my structure (home, other buildings)	36	8.4 %
Damage to contents of my buildings	22	5.1 %
Unknown	2	0.5 %
None/Not Applicable	3	0.7 %
Total	375	

**Q8 How important do you think each of the following activities should be in the management of stormwater within communities in Sedgwick County?**

(N=428)

	Unimportant	Not sure	Somewhat Important	Very Important	Not Provided
Q8a Develop a county-wide stormwater system maintenance plan	3.8%	8.1%	32.7%	52.7%	2.6%
Q8b Create wildlife habitat	10.2%	13.1%	42.1%	33.6%	1.0%
Q8c Restore, create, and retain urban wetlands	9.8%	16.2%	39.0%	33.3%	1.7%
Q8d Restore urban streams	7.1%	15.5%	41.7%	34.0%	1.7%
Q8e Protect rural streams	3.6%	11.0%	38.1%	46.4%	1.0%
Q8f Encourage use of open grassy channels (ditches and rain gardens) to carry stormwater instead of concrete pipes	6.4%	19.7%	38.0%	34.9%	1.0%
Q8g Encourage development that allows buildings to be closer together if more space is used for grassy areas to carry and infiltrate stormwater naturally	11.9%	30.2%	35.9%	21.1%	1.0%
Q8h Minimize paved areas	9.5%	25.8%	37.2%	26.3%	1.2%
Q8i Increase open space and landscaping requirements	9.8%	24.9%	37.6%	25.9%	1.7%
Q8j Use detention/retention facilities for temporary storage of stormwater	3.6%	28.3%	40.2%	26.7%	1.2%
Q8k Use regulatory controls to help control stormwater runoff	6.7%	28.8%	36.1%	27.2%	1.2%

**Q8 How important do you think each of the following activities should be in the management of stormwater within communities in Sedgwick County?**

	Unimportant	Not sure	Somewhat Important	Very Important	Not Provided
Q8l Require expanded setbacks from stormwater channels and streamways	7.0%	30.2%	34.1%	27.1%	1.7%
Q8m Enact more restrictive building site development design criteria and standards that reduce flood damage potential (even if construction costs increase)	7.9%	19.8%	29.3%	41.9%	1.2%
Q8n Restrict building in floodplains	2.8%	13.0%	27.2%	55.8%	1.2%

**Q8 How important do you think each of the following activities should be in the management of stormwater within communities in Sedgwick County? (Without Not Provided)**

(N=428)

	Unimportant	Not sure	Somewhat Important	Very Important
Q8a Develop a county-wide stormwater system maintenance plan	3.9%	8.3%	33.6%	54.2%
Q8b Create wildlife habitat	10.3%	13.2%	42.5%	33.9%
Q8c Restore, create, and retain urban wetlands	9.9%	16.5%	39.7%	33.9%
Q8d Restore urban streams	7.3%	15.7%	42.4%	34.6%
Q8e Protect rural streams	3.6%	11.1%	38.5%	46.9%
Q8f Encourage use of open grassy channels (ditches and rain gardens) to carry stormwater instead of concrete pipes	6.5%	19.9%	38.4%	35.3%
Q8g Encourage development that allows buildings to be closer together if more space is used for grassy areas to carry and infiltrate stormwater naturally	12.0%	30.5%	36.2%	21.3%
Q8h Minimize paved areas	9.6%	26.1%	37.6%	26.6%
Q8i Increase open space and landscaping requirements	10.0%	25.4%	38.3%	26.3%
Q8j Use detention/retention facilities for temporary storage of stormwater	3.6%	28.7%	40.7%	27.0%
Q8k Use regulatory controls to help control stormwater runoff	6.8%	29.2%	36.5%	27.5%

**Q8 How important do you think each of the following activities should be in the management of stormwater within communities in Sedgwick County? (Without Not Provided)**

	Unimportant	Not sure	Somewhat Important	Very Important
Q8l Require expanded setbacks from stormwater channels and streamways	7.1%	30.7%	34.6%	27.5%
Q8m Enact more restrictive building site development design criteria and standards that reduce flood damage potential (even if construction costs increase)	8.0%	20.0%	29.6%	42.4%
Q8n Restrict building in floodplains	2.9%	13.2%	27.5%	56.5%

**Q9 Recognizing that our local streams cross city and county boundaries, how supportive would you be of having local governments work together to plan, manage, and fund stormwater improvements in the county?**

Q9 Recognizing that our local streams cross city and county boundaries, how supportive would you be of having local governments work together to plan, manage, and fund stormwater improvements in the county?

	Number	Percent
Very supportive	228	53.3 %
Somewhat supportive	114	26.6 %
Not sure	66	15.4 %
Not supportive	15	3.5 %
Not provided	5	1.2 %
Total	428	100.0 %

**Q9 Recognizing that our local streams cross city and county boundaries, how supportive would you be of having local governments work together to plan, manage, and fund stormwater improvements in the county? (Without not provided)**

Q9 Recognizing that our local streams cross city and county boundaries, how supportive would you be of having local governments work together to plan, manage, and fund stormwater improvements in the county?

	Number	Percent
Very supportive	231	54.6 %
Somewhat supportive	118	27.9 %
Not sure	58	13.7 %
Not supportive	16	3.8 %
Total	423	100.0 %

**Q10 For NEW development in communities within Sedgwick County, which should be the top 3 priorities for improvements? Please use the letters from the list below to indicate the top 3 priorities.**

<u>Q10 First priority</u>	<u>Number</u>	<u>Percent</u>
Minimize temporary ponding on property	22	5.1 %
Minimize street flooding	78	18.2 %
Minimize damage from erosion	20	4.7 %
Minimize drainage from one property to another	19	4.4 %
Maintain natural stream systems	38	8.9 %
Limit damage to structures (e.g., home, businesses, other buildings)	37	8.6 %
Limit environmental damage to natural systems such as creeks	24	5.6 %
Protect water quality	182	42.5 %
<u>Not provided</u>	8	1.9 %
Total	428	100.0 %

**Q10 For NEW development in communities within Sedgwick County, which should be the top 3 priorities for improvements? Please use the letters from the list below to indicate the top 3 priorities.**

<u>Q10 Second priority</u>	<u>Number</u>	<u>Percent</u>
Minimize temporary ponding on property	11	2.6 %
Minimize street flooding	82	19.2 %
Minimize damage from erosion	32	7.5 %
Minimize drainage from one property to another	53	12.4 %
Maintain natural stream systems	43	10.0 %
Limit damage to structures (e.g., home, businesses, other buildings)	75	17.5 %
Limit environmental damage to natural systems such as creeks	62	14.5 %
Protect water quality	56	13.1 %
<u>Not provided</u>	14	3.3 %
Total	428	100.0 %

**Q10 For NEW development in communities within Sedgwick County, which should be the top 3 priorities for improvements? Please use the letters from the list below to indicate the top 3 priorities.**

Q10 Third priority	Number	Percent
Minimize temporary ponding on property	22	5.1 %
Minimize street flooding	58	13.6 %
Minimize damage from erosion	44	10.3 %
Minimize drainage from one property to another	36	8.4 %
Maintain natural stream systems	69	16.1 %
Limit damage to structures (e.g., home, businesses, other buildings)	56	13.1 %
Limit environmental damage to natural systems such as creeks	58	13.6 %
Protect water quality	68	15.9 %
Not provided	17	4.0 %
Total	428	100.0 %

**Q10 For NEW development in communities within Sedgwick County, which should be the top 3 priorities for improvements? Please use the letters from the list below to indicate the top 3 priorities.(Top Three)**

Q10 Sum of top three choices	Number	Percent
Minimize temporary ponding on property	55	12.9 %
Minimize street flooding	218	50.9 %
Minimize damage from erosion	96	22.4 %
Minimize drainage from one property to another	108	25.2 %
Maintain natural stream systems	150	35.0 %
Limit damage to structures (e.g., home, businesses, other buildings)	168	39.3 %
Limit environmental damage to natural systems such as creeks	144	33.6 %
Protect water quality	306	71.5 %
None	1	0.2 %
Total	1246	



**Q11 NOW, addressing EXISTING development in communities within Sedgwick County, which should be the top 3 priorities for improvements? Please use the letters from the list below to indicate the top 3 priorities.**

<u>Q11 First priority</u>	<u>Number</u>	<u>Percent</u>
Minimize temporary ponding on property	29	6.8 %
Minimize street flooding	77	18.0 %
Minimize damage from erosion	19	4.4 %
Minimize drainage from one property to another	22	5.1 %
Maintain natural stream systems	23	5.4 %
Limit damage to structures (e.g., home, businesses, other buildings)	47	11.0 %
Limit environmental damage to natural systems such as creeks	19	4.4 %
Protect water quality	179	41.8 %
<u>Not provided</u>	<u>13</u>	<u>3.0 %</u>
Total	428	100.0 %

**Q11 NOW, addressing EXISTING development in communities within Sedgwick County, which should be the top 3 priorities for improvements? Please use the letters from the list below to indicate the top 3 priorities.**

<u>Q11 Second priority</u>	<u>Number</u>	<u>Percent</u>
Minimize temporary ponding on property	10	2.3 %
Minimize street flooding	83	19.4 %
Minimize damage from erosion	34	7.9 %
Minimize drainage from one property to another	50	11.7 %
Maintain natural stream systems	41	9.6 %
Limit damage to structures (e.g., home, businesses, other buildings)	77	18.0 %
Limit environmental damage to natural systems such as creeks	65	15.2 %
Protect water quality	50	11.7 %
<u>Not provided</u>	<u>18</u>	<u>4.2 %</u>
Total	428	100.0 %

**Q11 NOW, addressing EXISTING development in communities within Sedgwick County, which should be the top 3 priorities for improvements? Please use the letters from the list below to indicate the top 3 priorities.**

<u>Q11 Third priority</u>	<u>Number</u>	<u>Percent</u>
Minimize temporary ponding on property	17	4.0 %
Minimize street flooding	62	14.5 %
Minimize damage from erosion	38	8.9 %
Minimize drainage from one property to another	38	8.9 %
Maintain natural stream systems	64	15.0 %
Limit damage to structures (e.g., home, businesses, other buildings)	66	15.4 %
Limit environmental damage to natural systems such as creeks	50	11.7 %
Protect water quality	68	15.9 %
Not provided	25	5.8 %
Total	428	100.0 %

**Q11 NOW, addressing EXISTING development in communities within Sedgwick County, which should be the top 3 priorities for improvements? Please use the letters from the list below to indicate the top 3 priorities.(Top Three)**

<u>Q11 Sum of top three choices</u>	<u>Number</u>	<u>Percent</u>
Minimize temporary ponding on property	56	13.1 %
Minimize street flooding	222	51.9 %
Minimize damage from erosion	91	21.3 %
Minimize drainage from one property to another	110	25.7 %
Maintain natural stream systems	128	29.9 %
Limit damage to structures (e.g., home, businesses, other buildings)	190	44.4 %
Limit environmental damage to natural systems such as creeks	134	31.3 %
Protect water quality	297	69.4 %
None	4	0.9 %
Total	1232	

**Q12 Things you can do to reduce flooding and stormwater pollution in communities within Sedgwick County are listed below. Please indicate if you currently participate in the behavior listed by circling YES or NO.**

(N=428)

	Yes	No
Q12a Use environmentally friendly products on your lawn	54.7%	45.3%
Q12b Use a soil test kit to determine the proper care of your lawn	16.6%	83.4%
Q12c Pick up trash along streams and lakes in your community	40.3%	59.7%
Q12d Take household hazardous waste, such as paint & motor oil to a disposal facility	70.1%	29.9%
Q12e Wash your car on the lawn/grass or carwash instead of the street or driveway	55.2%	44.8%
Q12f Landscape with native plants and/or have a rain garden	42.9%	57.1%
Q12g Pick up and dispose of pet waste properly	49.2%	50.8%
Q12h Dispose of yard waste properly	75.6%	24.4%
Q12i Use a septic tank and maintain it annually	14.5%	85.5%

**Q12 If you DO NOT currently participate, please indicate whether you would be "very willing," "somewhat willing," "not sure," or "not willing" to do each of the following by circling the corresponding number below.**

(N=428)

	Very Willing	Somewhat Willing	Not sure	Not Willing	Not Applicable
Q12a-Use environmentally friendly products on your lawn	25.8%	44.2%	16.8%	3.7%	9.5%
Q12b-Use a soil test kit to determine the proper care of your lawn	26.6%	35.8%	16.5%	10.4%	10.7%
Q12c-Pick up trash along streams and lakes in your community	22.9%	33.7%	15.7%	17.3%	10.4%
Q12d- Take household hazardous waste, such as paint & motor oil to a disposal facility	51.6%	34.9%	7.1%	0.8%	5.6%
Q12e-Wash your car on the lawn/grass or carwash instead of the street or driveway	34.8%	25.0%	8.2%	24.5%	7.6%
Q12f-Landscape with native plants and/or have a rain garden	25.7%	39.2%	15.6%	11.0%	8.4%
Q12g-Pick up and dispose of pet waste properly	27.2%	15.0%	7.0%	8.0%	42.7%
Q12h-Dispose of yard waste properly	46.5%	28.7%	5.9%	3.0%	15.8%
Q12i-Use a septic tank and maintain it annually	7.0%	4.2%	11.2%	12.6%	65.1%

**Q12 If you DO NOT currently participate, please indicate whether you would be "very willing," "somewhat willing," "not sure," or "not willing" to do each of the following by circling the corresponding number below. (Without Not Applicable)**

(N=428)

	<u>Very Willing</u>	<u>Somewhat Willing</u>	<u>Not sure</u>	<u>Not Willing</u>
Q12a-Use environmentally friendly products on your lawn	28.5%	48.8%	18.6%	4.1%
Q12b-Use a soil test kit to determine the proper care of your lawn	29.8%	40.1%	18.4%	11.7%
Q12c-Pick up trash along streams and lakes in your community	25.6%	37.7%	17.5%	19.3%
Q12d- Take household hazardous waste, such as paint & motor oil to a disposal facility	54.6%	37.0%	7.6%	0.8%
Q12e-Wash your car on the lawn/grass or carwash instead of the street or driveway	37.6%	27.1%	8.8%	26.5%
Q12f-Landscape with native plants and/or have a rain garden	28.1%	42.9%	17.1%	12.0%
Q12g-Pick up and dispose of pet waste properly	47.5%	26.2%	12.3%	13.9%
Q12h-Dispose of yard waste properly	55.3%	34.1%	7.1%	3.5%
Q12i-Use a septic tank and maintain it annually	20.0%	12.0%	32.0%	36.0%

**Q13 Please indicate to what degree you would support or oppose enhancement and development of the following areas in conjunction with stormwater facilities.**

(N=428)

	Strongly Oppose	Oppose	Neutral	Support	Strongly Support
Q13a Expanding parks	2.4%	3.1%	22.0%	40.3%	32.1%
Q13b Creating new parks	3.1%	5.8%	25.5%	37.1%	28.4%
Q13c Additional bike paths	3.1%	6.3%	19.8%	36.9%	34.0%
Q13d Streamway trails	3.4%	5.3%	23.3%	41.5%	26.5%
Q13e Improved transportation facilities (bridges over streams and drainage ways)	1.9%	3.6%	25.2%	40.0%	29.1%
Q13f Increasing economic development potential	3.1%	5.0%	28.1%	35.7%	28.1%

**Q14 If additional funding is needed to address flooding due to stormwater, which two of these potential funding options would you choose. Please check the two that you would prefer.**

Q14 If additional funding is needed to address flooding due to stormwater, which two of these potential funding options would you choose. Please check the two that you would prefer.

	Number	Percent
Sales tax	178	41.6 %
Property tax	60	14.0 %
User fee similar to a monthly utility bill	155	36.2 %
Annual fee similar to a solid waste fee	96	22.4 %
No tax or fee increase	242	56.5 %
Total	731	

**Q15 If a stormwater fee or tax were implemented, what is the maximum amount per household that you would support to fund stormwater improvements?**

Q15 If a stormwater fee or tax were implemented, what is the maximum amount per household that you would support to fund stormwater improvements?

	Number	Percent
\$5 per month	71	16.6 %
\$2.50 per month	117	27.3 %
\$1 per month	131	30.6 %
Nothing	102	23.8 %
Not provided	7	1.6 %
Total	428	100.0 %

**Q16 What types of information about local flooding, water quality or stormwater management would you like to receive?**

Q16 What types of information about local flooding, water quality or stormwater management would you like to receive?

	Number	Percent
What is stormwater & why is it important?	52	12.1 %
How do flooding problems occur?	65	15.2 %
What are the effects of localized flooding?	58	13.6 %
How do my actions affect flood risk?	98	22.9 %
What are the effects of stormwater pollution?	83	19.4 %
Why clean water is important.	60	14.0 %
How to minimize future flooding issues.	116	27.1 %
Effects on wildlife & the environment.	90	21.0 %
What I can do to be part of the solution.	114	26.6 %
Other	31	7.2 %
Total	767	



**Q16 Other**

Q16 Other

---

ALL ITEMS FROM Q12

ANY TEACHING MATERIALS

COST

MAP OF WATERSHEDS

NONE

NONE

NONE

NONE

NONE

NONE

NONE

NONE

NONE

NONE

NONE

NONE

NONE

NONE

WHAT IS BEING DONE BY DEVELOPERS

WHAT SOLUTIONS HAVE BEEN MADE

WHAT YOU ARE DOING ABOUT IT

WHERE DOES STORMWATER GO

WHERE DOES STORMWATER GO

WHY IS THERE NO FLUORIDE IN WATER?!!

WHY IS THERE NO FLUORIDE IN WATER?!!

**Q17 How would you prefer to receive information about flooding, water quality or stormwater management?**

Q17 How would you prefer to receive information about flooding, water quality or stormwater management?	Number	Percent
Newspapers, magazines	155	36.2 %
Water/sewer bill insert	136	31.8 %
Public meeting/event	22	5.1 %
Mail/brochures	135	31.5 %
Classes/workshops	14	3.3 %
Television stories/ads	142	33.2 %
Radio stories/ads	49	11.4 %
Internet/website/e-mail	114	26.6 %
Signs/billboards	30	7.0 %
Other	15	3.5 %
Not Provided	1	0.2 %
Total	813	

**Q18 What is your age?**

<u>Q18 Age</u>	<u>Number</u>	<u>Percent</u>
Under 25	4	0.9 %
25 to 34	53	12.4 %
35 to 44	102	23.8 %
45 to 54	99	23.1 %
55 to 64	97	22.7 %
65+	72	16.8 %
Not Provided	1	0.2 %
Total	428	100.0 %

**Q18 What is your age? (Without Not Provided)**

<u>Q18 Age</u>	<u>Number</u>	<u>Percent</u>
Under 25	4	0.9 %
25 to 34	53	12.4 %
35 to 44	102	23.9 %
45 to 54	99	23.2 %
55 to 64	97	22.7 %
65+	72	16.9 %
Total	427	100.0 %

**Q19 What area of the county do you live in?**

Q19 What area of the county do you live in?	Number	Percent
Andale	1	0.2 %
Bel Aire	4	0.9 %
Clearwater	3	0.7 %
Colwich	2	0.5 %
Derby	64	15.0 %
Goddard	5	1.2 %
Haysville	8	1.9 %
Kechi	4	0.9 %
Maize	8	1.9 %
Mulvane	21	4.9 %
Park City	7	1.6 %
Sedgwick	51	11.9 %
Valley Center	11	2.6 %
Viola	3	0.7 %
Wichita	211	49.3 %
Rural farm	7	1.6 %
<u>Rural resident</u>	<u>18</u>	<u>4.2 %</u>
Total	428	100.0 %

**Q20 Which of the following best describes your home?**

Q20 Which of the following best describes your home?

	Number	Percent
Multifamily	6	1.4 %
Duplex/Triplex/Quadplex	19	4.4 %
Single family	356	83.2 %
Rural Residential (less than 5 acres)	20	4.7 %
Rural Residential (greater than 5 acres)	25	5.8 %
Not Provided	2	0.5 %
Total	428	100.0 %

**Q21 Approximately how many years have you lived at this location?**

Q21 Approximately how many years have you lived at this location?

	Number	Percent
0 to 5 years	136	31.8 %
6 to 10 years	93	21.7 %
11 to 15 years	64	15.0 %
16 to 20 years	39	9.1 %
21+ years	93	21.7 %
Not Provided	3	0.7 %
Total	428	100.0 %

**Q22 Do you own or rent?**

<u>Q22 Do you own or rent?</u>	<u>Number</u>	<u>Percent</u>
Own	393	91.8 %
Rent	31	7.2 %
Not Provided	4	0.9 %
Total	428	100.0 %

**Q23 Your gender:**

<u>Q23 Gender</u>	<u>Number</u>	<u>Percent</u>
Male	256	59.8 %
Female	172	40.2 %
Total	428	100.0 %

*Section 4:*  
***Resident Survey Instrument***

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## SEDGWICK COUNTY PUBLIC WORKS

1144 S. SENECA  
WICHITA, KANSAS 67213-4443  
(316) 383-7901  
FAX: (316) 263-9241

**David C. Spears, P.E.**  
*Director/County Engineer*

July 2010

Dear Sedgwick County Resident:

Sedgwick County is committed to serving its residents and businesses. To fulfill this commitment to you, we need your input as we develop policies, programs and priorities for the Stormwater Management program.

Sedgwick County has begun the process of updating and expanding its stormwater business plan. This plan will potentially affect property owners in cities as well as the rural area. The completed plan will establish policies and procedures to manage stormwater runoff, provide a basis for correcting existing problems, and create strategies to avoid building future liabilities. Recommendations on how to pay for the plan also will be included.

### ***What is stormwater and why is it important to everyone?***

*Stormwater is water from rain or melting snow that "runs off" across the land instead of seeping into the ground. This runoff flows into a drainage system or the nearest stream, river, or lake. On its way, runoff water can pick up and carry many substances that pollute water. When stormwater falls on hard surfaces like roads, roofs, and parking lots, it cannot seep into the ground, so it runs off to lower areas. Because more water runs off hard surfaces and at higher rates of speed, developed low land areas can experience local flooding. The high volume and velocity of water also causes stream banks to erode and washes the wildlife that lives there downstream.*

### ***What causes flooding problems?***

*As communities grow and we build more buildings, driveways, streets and other hard or impervious surfaces, the land's capacity to soak up and carry away excess water decreases. As a result, conditions that might result in a flood once every 100 years in an undeveloped area can cause flooding every four or five years after development has covered the land with impervious surfaces.*

### ***What can you do to help?***

*What we as a community can do to address the inevitable runoff and its resulting effects, will have far reaching implications on the health and safety of future generations as well as on the region's economic vitality. You can help us act wisely in the future by assisting us in gathering valid information today.*

Please take a few minutes to respond to this survey. Your thoughts and suggestions are important to us as we do our planning. ETC Institute, a national research firm that specializes in customer surveys, is helping us design and execute this survey. This survey will help assure that our business plan will be accurate and reflect the needs and preferences of our community. Please have an adult head-of-household spend a few minutes to answer all the questions and return the survey in the enclosed postage-paid envelope.

If you have any questions, please call me at (316) 660-3040. Sedgwick County thanks you for your time!

Sincerely,

James Weber, P.E.  
Deputy Director of Public Works  
Direct Line: (316) 660-3040

***Si usted tiene preguntas or no habla ingles,  
Por favor llame al 1-800-801-5368 y habla con Terry.***



# Sedgwick County Stormwater Planning Resident Survey

**1. How important do you think each of the following activities should be in preserving the Kansas environment? Please indicate the level of importance of each of these issues by circling a number 1-4 of the following options.**

		<i>Very Important</i>	<i>Somewhat Important</i>	<i>Not sure</i>	<i>Un- important</i>
A.	Protecting property from flooding	4	3	2	1
B.	Managing erosion and sediment control	4	3	2	1
C.	Clean rivers and streams	4	3	2	1
D.	Clean drinking water	4	3	2	1
E.	Maintaining water quality	4	3	2	1
F.	Providing fish and wildlife habitat	4	3	2	1
G.	Protection of green space for recreation	4	3	2	1
H.	Streamside areas protected from development	4	3	2	1
I.	Protection of private property rights	4	3	2	1
J.	Quality of life for children and families	4	3	2	1
K.	Improving health and fitness for area residents	4	3	2	1
L.	Increasing economic development potential	4	3	2	1

**2. Do you think that flooding in the area where you live is:**

- |   |  |
|---|--|
| <input type="checkbox"/> (1) Getting much worse     | <input type="checkbox"/> (4) Getting somewhat better |
| <input type="checkbox"/> (2) Getting somewhat worse | <input type="checkbox"/> (5) Getting much better     |
| <input type="checkbox"/> (3) Staying the same       | <input type="checkbox"/> (9) Don't know              |

**3. Do you think the quality of water in lakes and streams in the area where you live is:**

- |   |  |
|---|--|
| <input type="checkbox"/> (1) Getting much worse     | <input type="checkbox"/> (4) Getting somewhat better |
| <input type="checkbox"/> (2) Getting somewhat worse | <input type="checkbox"/> (5) Getting much better     |
| <input type="checkbox"/> (3) Staying the same       | <input type="checkbox"/> (9) Don't know              |

**4. Where does stormwater (rain water) go after it enters a storm drain in your community?**

- |  |   |
|--|---|
| <input type="checkbox"/> (1) Directly to lakes and streams   | <input type="checkbox"/> (9) Don't know |
| <input type="checkbox"/> (2) To a wastewater treatment plant |   |

**5. Which ONE of the following BEST describes the location where you live? (Check ONE)**

- |  |  |
|--|--|
| <input type="checkbox"/> (1) I live in a watershed   | <input type="checkbox"/> (3) I don't live near a watershed                       |
| <input type="checkbox"/> (2) I live near a watershed | <input type="checkbox"/> (9) Don't know (not familiar with the term "watershed") |

**6. Have you had ANY water in your basement from stormwater backups where you currently live (from backups only, NOT from surface flooding)?**

- (1) Yes (go to Q 6a and 6b)       (2) No (go to Q7)

**6a. If YES: How many times during the past 10 years have you had water in your basement from stormwater backups where you currently live?**

- (1) Once     (2) Twice     (3) Three times     (4) Four or more times

**6b. Which of the following describes the source(s) of water in your basement? (check all that apply)**

- (1) Rainwater that entered through cracks in the foundation or floors  
 (2) Rainwater that entered through windows, window wells, doors, or your roof  
 (3) Unknown



11. NOW, addressing **EXISTING development** in communities within Sedgwick County, which should be the top 3 priorities for improvements? Please use the letters from the list below to indicate the top 3 priorities.

First: \_\_\_\_\_ Second: \_\_\_\_\_ Third: \_\_\_\_\_

A.	Minimize temporary ponding on property
B.	Minimize street flooding
C.	Minimize damage from erosion
D.	Minimize drainage from one property to another
E.	Maintain natural stream systems
F.	Limit damage to structures (e.g., home, businesses, other buildings)
G.	Limit environmental damage to natural systems such as creeks
H.	Protect water quality

12. Things you can do to reduce flooding and stormwater pollution in communities within Sedgwick County are listed below. Please indicate if you currently participate in the behavior listed by circling YES or NO. If you DO NOT currently participate, please indicate whether you would be “very willing,” “somewhat willing,” “not sure,” or “not willing” to do each of the following by circling the corresponding number below.

***If NO, How Willing Would You Be?***

<b>Do you currently do this activity?</b>	Very Willing	Somewhat Willing	Not Sure	Not Willing	Not Applicable
YES NO (A) Use environmentally friendly products on your lawn .....	1	2	3	4	9
YES NO (B) Use a soil test kit to determine the proper care of your lawn .....	1	2	3	4	9
YES NO (C) Pick up trash along streams and lakes in your community.....	1	2	3	4	9
YES NO (D) Take household hazardous waste, such as paint & motor oil to a disposal facility.....	1	2	3	4	9
YES NO (E) Wash your car on the lawn/grass or carwash instead of the street or driveway .....	1	2	3	4	9
YES NO (F) Landscape with native plants and/or have a rain garden .....	1	2	3	4	9
YES NO (G) Pick up and dispose of pet waste properly .....	1	2	3	4	9
YES NO (H) Dispose of yard waste properly.....	1	2	3	4	9
YES NO (I) Use a septic tank and maintain it annually .....	1	2	3	4	9

13. Please indicate to what degree you would support or oppose enhancement and development of the following areas in conjunction with stormwater facilities.

Importance to Stormwater Management		Strongly Support	Support	Neutral	Oppose	Strongly Oppose
A.	Expanding parks	5	4	3	2	1
B.	Creating new parks	5	4	3	2	1
C.	Additional bike paths	5	4	3	2	1
D.	Streamway trails	5	4	3	2	1
E.	Improved transportation facilities (bridges over streams and drainage ways)	5	4	3	2	1
F.	Increasing economic development potential	5	4	3	2	1

14. If additional funding is needed to address flooding due to stormwater, which two of these potential funding options would you choose. Please check **the two** that you would prefer.

- |   |  |
|---|--|
| <input type="checkbox"/> (1) Sales tax                                  | <input type="checkbox"/> (4) Annual fee similar to a solid waste fee |
| <input type="checkbox"/> (2) Property tax                               | <input type="checkbox"/> (5) No tax or fee increase                  |
| <input type="checkbox"/> (3) User fee similar to a monthly utility bill |  |

**15. If a stormwater fee or tax were implemented, what is the maximum amount per household that you would support to fund stormwater improvements?**

- (1) \$5 per month                       (3) \$1 per month  
 (2) \$2.50 per month                       (4) Nothing

**16. What types of information about local flooding, water quality or stormwater management would you like to receive? (check all that apply)**

- (01) What is stormwater & why is it important?                       (06) Why clean water is important.  
 (02) How do flooding problems occur?                       (07) How to minimize future flooding issues.  
 (03) What are the effects of localized flooding?                       (08) Effects on wildlife & the environment.  
 (04) How do my actions affect flood risk?                       (09) What I can do to be part of the solution.  
 (05) What are the effects of stormwater pollution?                       (10) Other: \_\_\_\_\_

**17. How would you prefer to receive information about flooding, water quality or stormwater management? (check all that apply)**

- (01) Newspapers, magazines                       (06) Television stories/ads  
 (02) Water/sewer bill insert                       (07) Radio stories/ads  
 (03) Public meeting/event                       (08) Internet/website/e-mail  
 (04) Mail/brochures                       (09) Signs/billboards  
 (05) Classes/workshops                       (10) Other: \_\_\_\_\_

**DEMOGRAPHICS**

**18. What is your age?**

- (1) Under 25                       (3) 35 to 44                       (5) 55 to 64  
 (2) 25 to 34                       (4) 45 to 54                       (6) 65+

**19. What area of the county do you live in?**

- (01) Andale                       (09) Garden Plain                       (17) Sedgwick  
 (02) Bel Aire                       (10) Goddard                       (18) Valley Center  
 (03) Bentley                       (11) Haysville                       (19) Viola  
 (04) Cheney                       (12) Kechi                       (20) Wichita  
 (05) Clearwater                       (13) Maize                       (21) rural farm  
 (06) Colwich                       (14) Mount Hope                       (22) rural residential  
 (07) Derby                       (15) Mulvane  
 (08) Eastborough                       (16) Park City

**20. Which of the following best describes your home?**

- (01) Multifamily                       (04) Rural Residential (less than 5 acres)  
 (02) Duplex/Triplex/Quadplex                       (05) Rural (greater than 5 acres)  
 (03) Single Family

**21. Approximately how many years have you lived at this location?**

- (01) 0-5 years                       (04) 16-20 years  
 (02) 6-10 years                       (05) 21+ years  
 (03) 11-15 years

**22. Do you own or rent?**

- (01) Own                       (02) Rent

**23. Your gender:**  (1) Male  (2) Female

**Comments:** \_\_\_\_\_

(Please attach additional comments as necessary)

**Email address for future information about this issue:** \_\_\_\_\_

**This concludes the survey. Thank you for your time!**

Please return your completed survey in the enclosed postage paid envelope addressed to:  
ETC Institute, 725 W. Frontier Circle, Olathe, KS 66061

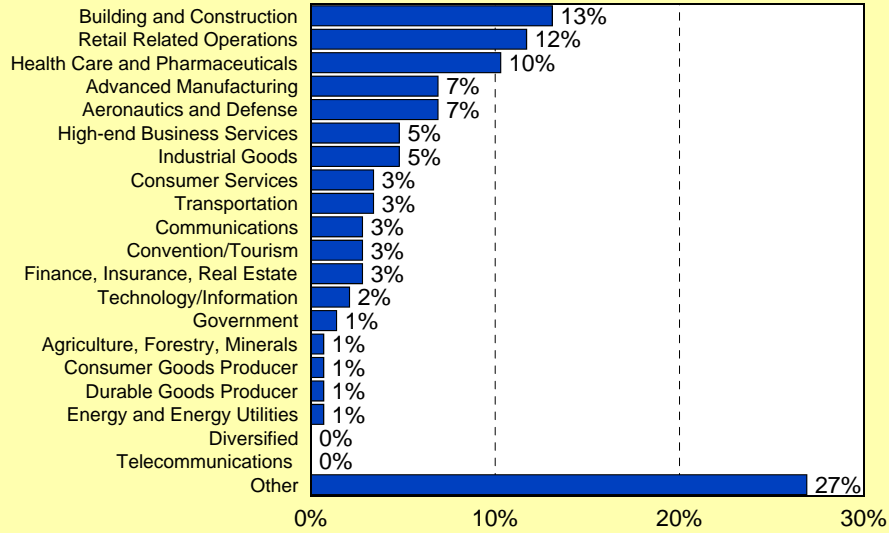
Your responses will remain Completely Confidential. The information printed on the sticker to the right will ONLY be used to help identify the commission district where you reside. If your address is not correct, please provide the correct information.

*Section 5:*  
***Charts and Graphs- Business***

---

### Q1. Which of the following best describes your business organization?

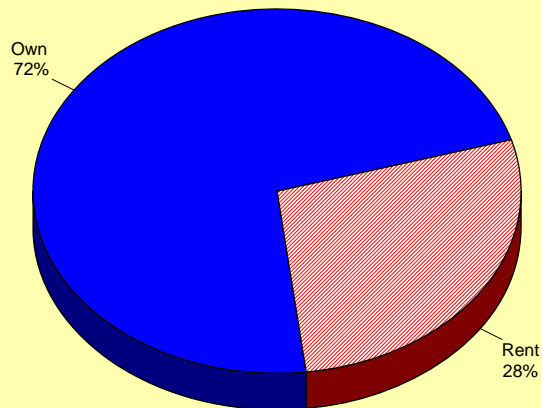
by percentage of respondents (multiple responses were allowed)



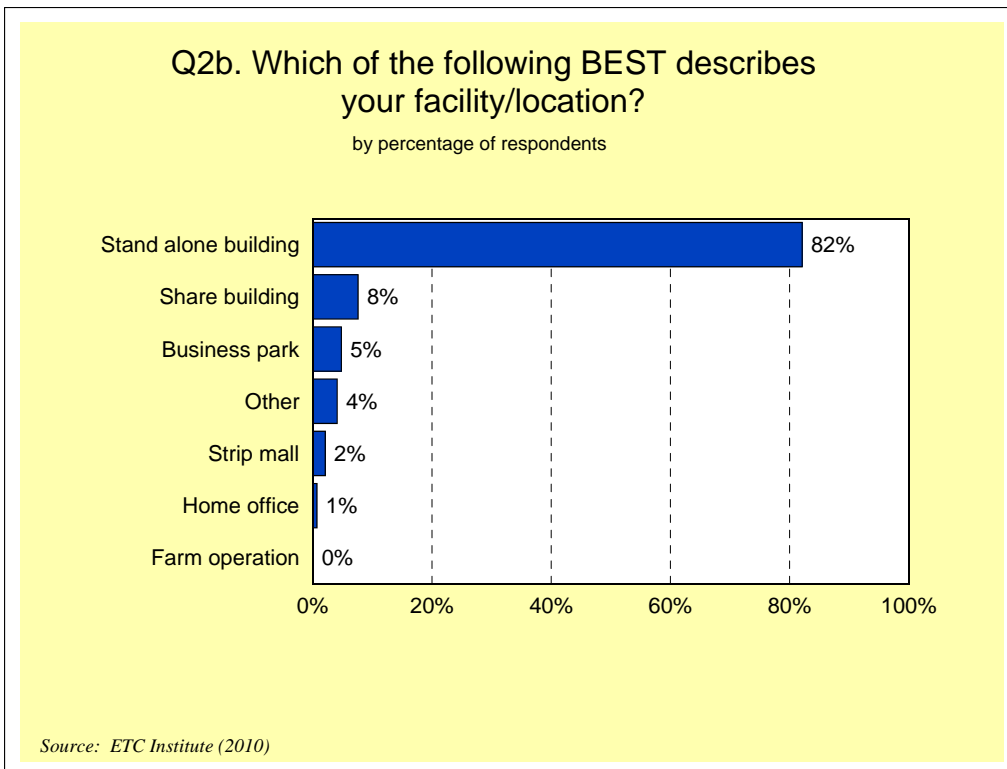
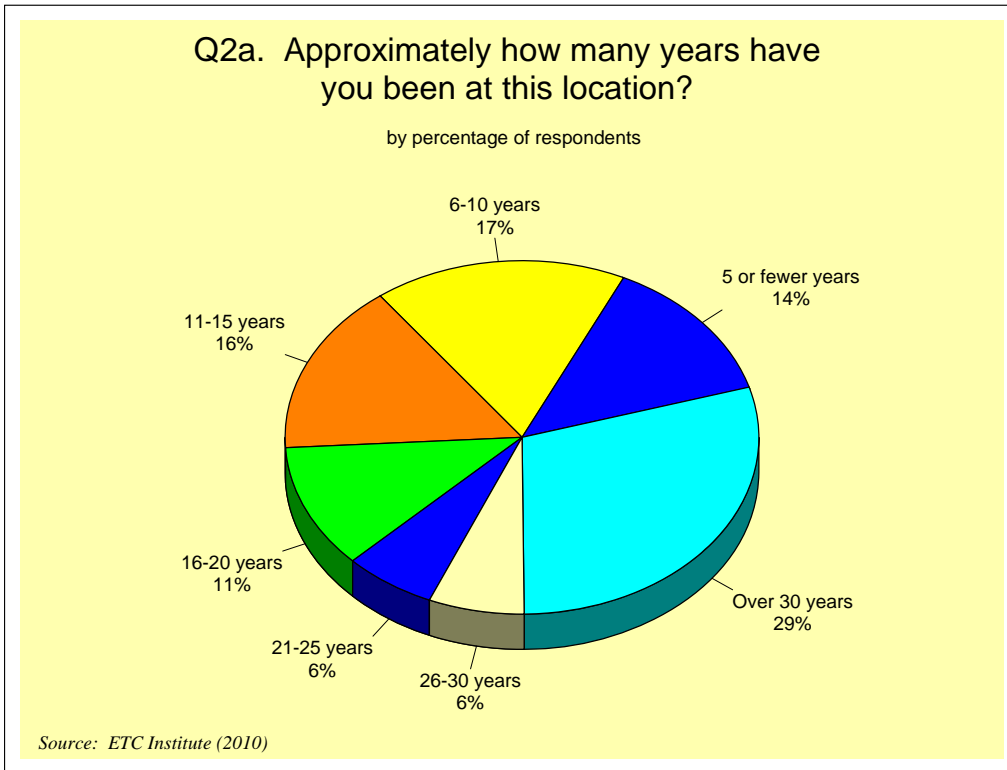
Source: ETC Institute (2010)

### Q2. Do you own or rent your building?

by percentage of respondents

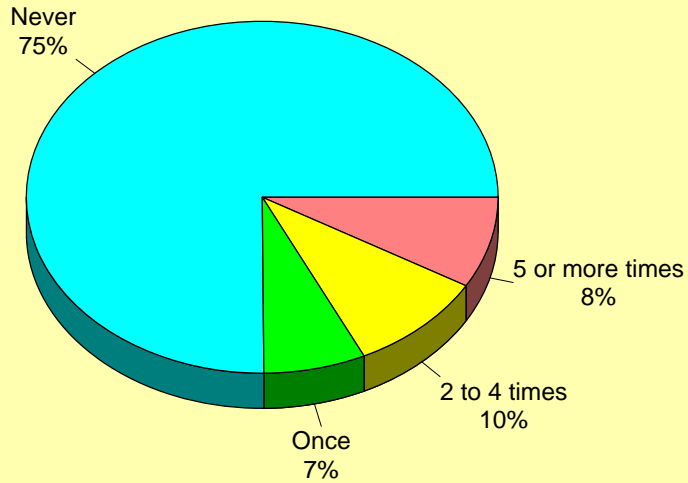


Source: ETC Institute (2010)



**Q3. How often has your business been affected by storm drainage problems in Sedgwick County during the last year?**

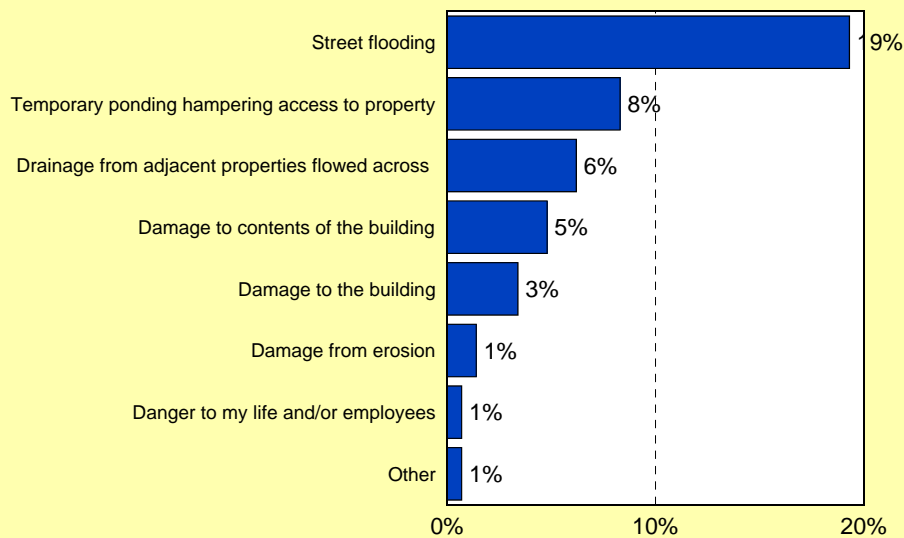
by percentage of respondents



Source: ETC Institute (2010)

**Q3a. Problems that Businesses Have Had:**

by percentage of respondents (multiple responses were allowed)

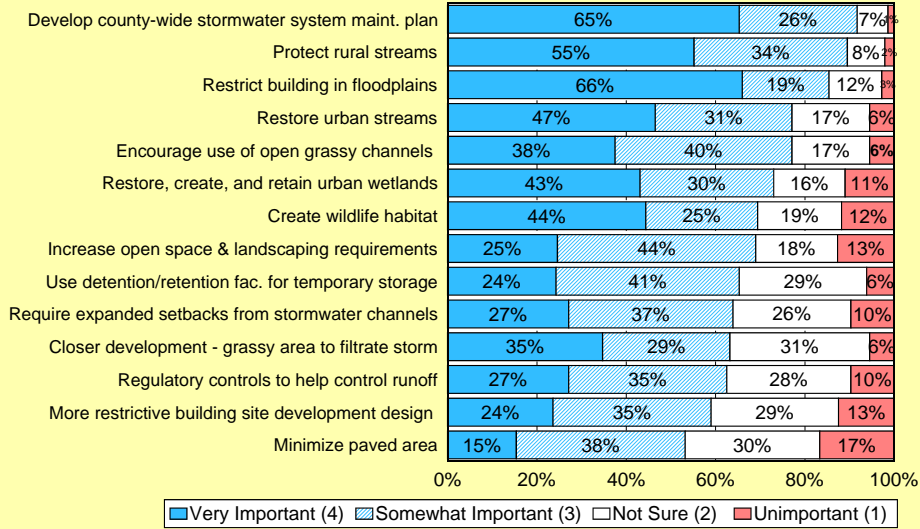


Source: ETC Institute (2010)



**Q4. How important do you think each of the following activities should be in the management of stormwater within communities in Sedgwick County?**

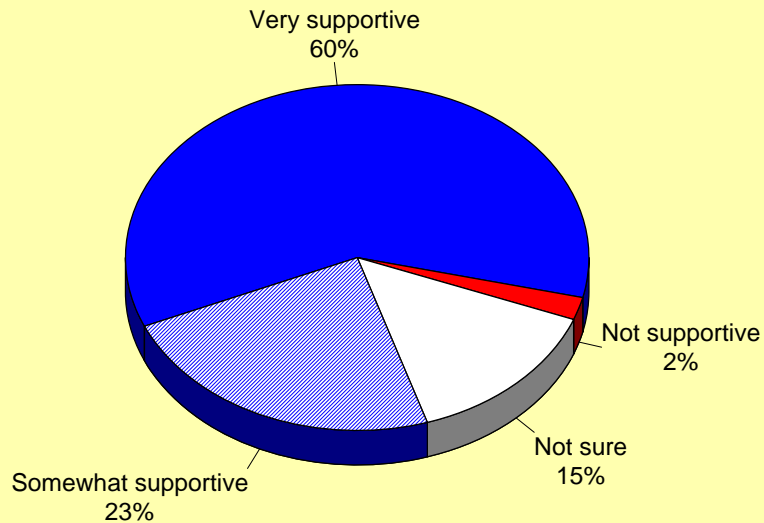
by percentage of business respondents who rated the item as a 1 to 4 on a 4-point scale  
(excluding not provided)



Source: ETC Institute (2010)

**Q5. How supportive would you be of having local governments work together to plan, manage, and fund stormwater improvements in the County?**

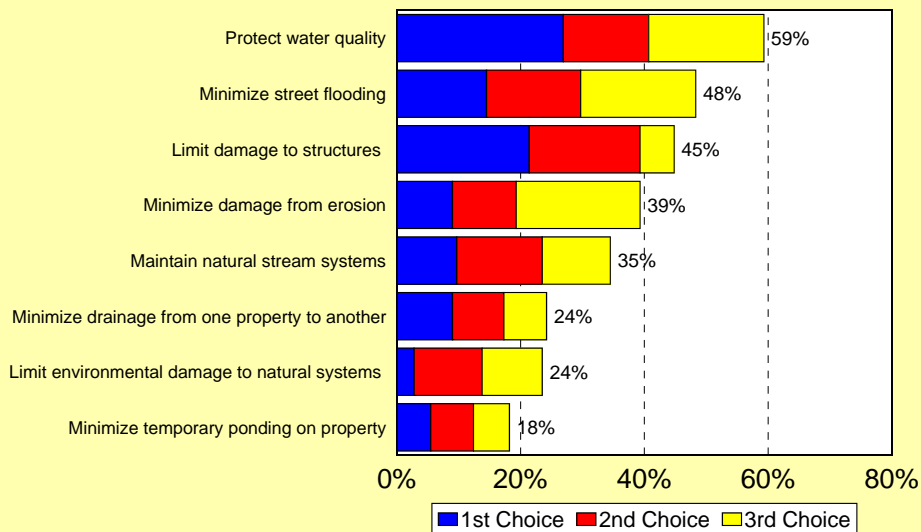
by percentage of respondents



Source: ETC Institute (2010)

**Q6. For NEW Development in Communities Within Sedgwick County, Which Should be the Top THREE Priorities for Improvements?**

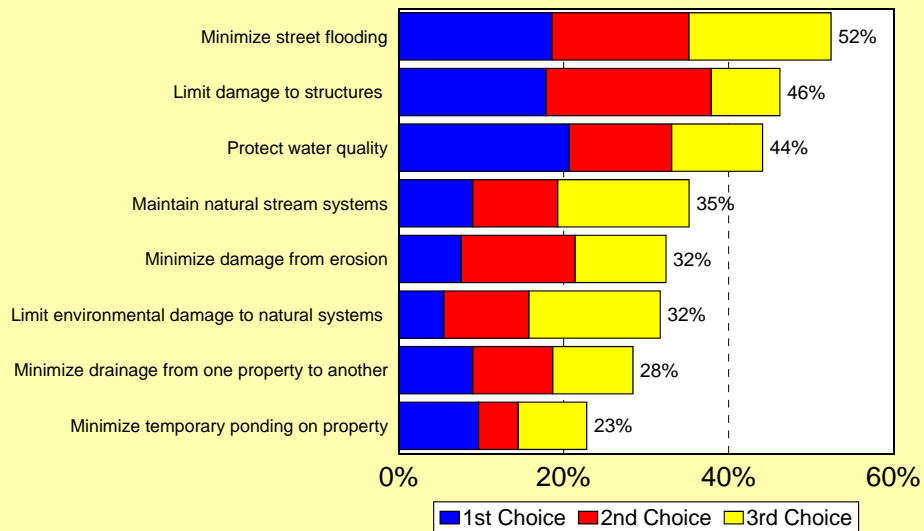
by percentage of respondents who selected the item as one of their top three choices



Source: ETC Institute (2010)

**Q7. For EXISTING Development in Communities within Sedgwick County, Which Should Be the Top THREE Priorities for Improvements?**

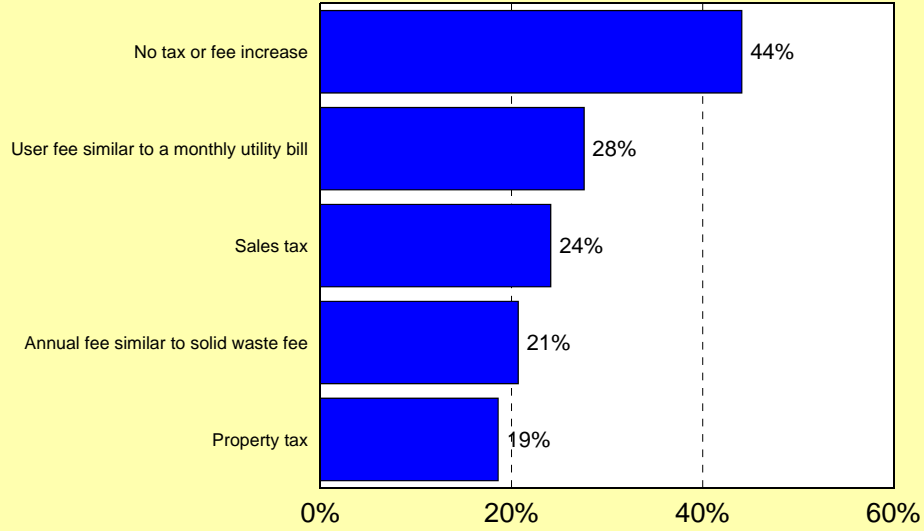
by percentage of respondents who selected the item as one of their top three choices



Source: ETC Institute (2010)

**Q8. If additional funding is needed to address flooding due to stormwater, which TWO of these potential funding options would you choose?**

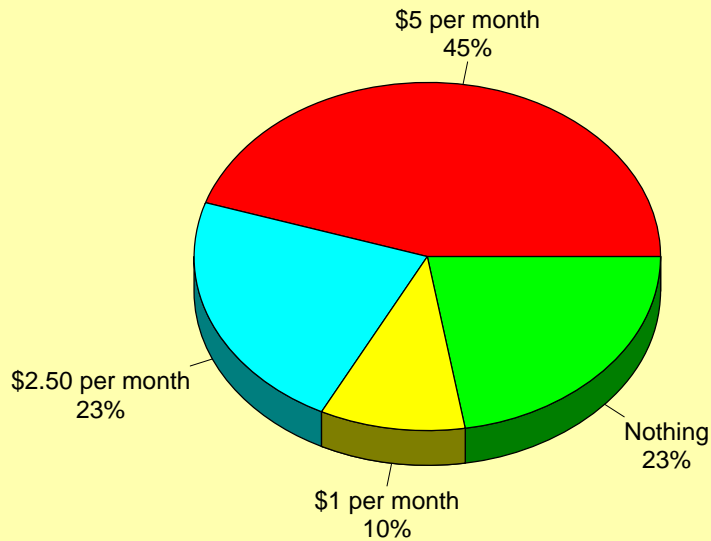
by percentage of respondents who selected the item as one of their top two choices



Source: ETC Institute (2010)

**Q9. If a stormwater fee or tax were implemented, what is the maximum amount per household, as an example, that you would support to fund stormwater improvements?**

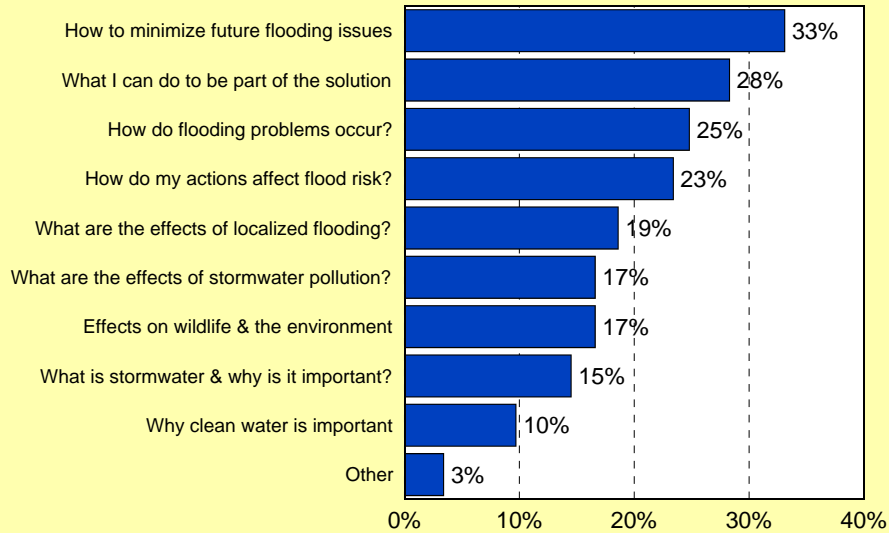
by percentage of respondents



Source: ETC Institute (2010)

**Q10. What types of information about local flooding, water quality or stormwater management would you like to receive?**

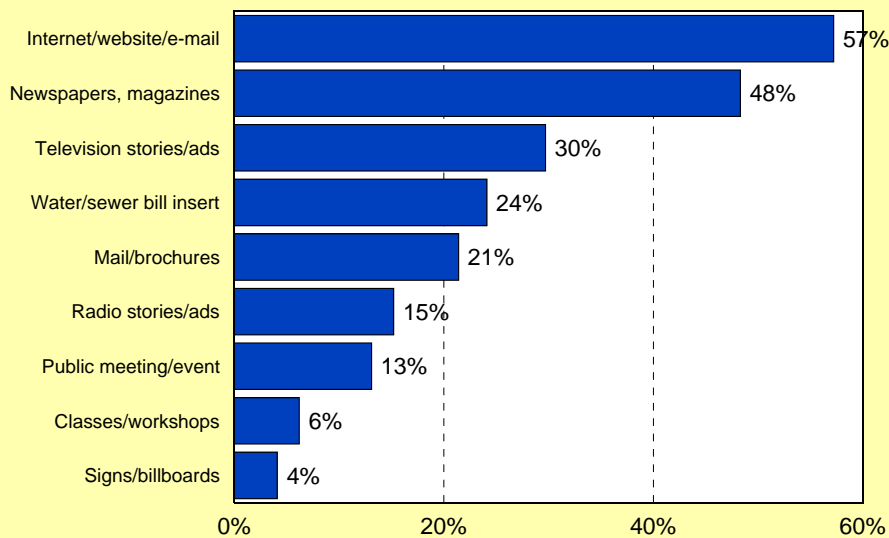
by percentage of respondents (multiple responses were allowed)



Source: ETC Institute (2010)

**Q11. How would you prefer to receive information about flooding, water quality or stormwater management?**

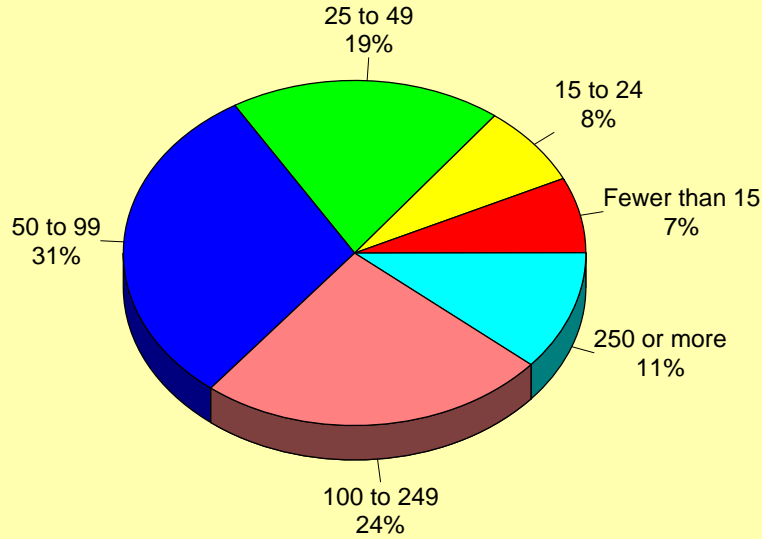
by percentage of respondents (multiple responses were allowed)



Source: ETC Institute (2010)

**Q12. Approximately how many full-time equivalent employees work at this location?**

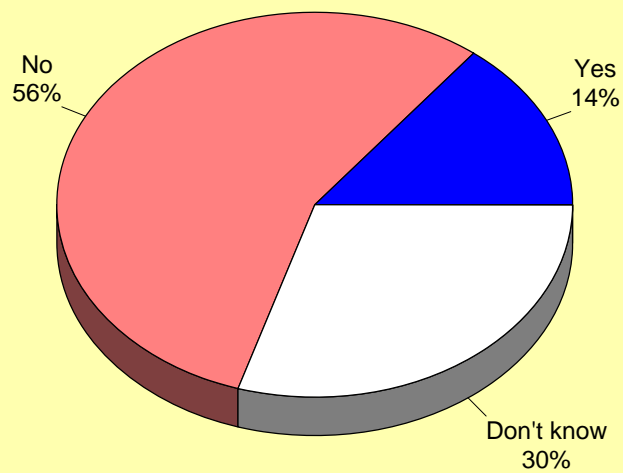
by percentage of respondents



Source: ETC Institute (2010)

**Q13. Do you purchase flood insurance for your business?**

By percentage of respondents



Source: ETC Institute (2010)

*Section 6:*  
***Business Tabular Data***

---

**Q1 Which of the following best describes your business organization?**

Q1 Which of the following best describes your business organization?	Number	Percent
Advanced Manufacturing	10	6.9 %
Aeronautics and Defense	10	6.9 %
Agriculture, Forestry, Minerals	1	0.7 %
Building and Construction	19	13.1 %
Communications	4	2.8 %
Consumer Goods, Producer	1	0.7 %
Consumer Services	5	3.4 %
Convention/Tourism	4	2.8 %
Durable Goods Producer	1	0.7 %
Energy and Energy Utilities	1	0.7 %
Finance, Insurance, Real Estate	4	2.8 %
Government	2	1.4 %
Health Care and Pharmaceuticals	15	10.3 %
Industrial Goods	7	4.8 %
Retail Related Operations	17	11.7 %
Technology/Information	3	2.1 %
Transportation	5	3.4 %
Other	39	26.9 %
Not provided	3	2.1 %
Total	151	

**Q1 Which of the following best describes your business organization? (Without Not Provided)**

Q1 Which of the following best describes your business organization?	Number	Percent
Advanced Manufacturing	10	6.9 %
Aeronautics and Defense	10	6.9 %
Agriculture, Forestry, Minerals	1	0.7 %
Building and Construction	19	13.1 %
Communications	4	2.8 %
Consumer Goods, Producer	1	0.7 %
Consumer Services	5	3.4 %
Convention/Tourism	4	2.8 %
Durable Goods Producer	1	0.7 %
Energy and Energy Utilities	1	0.7 %
Finance, Insurance, Real Estate	4	2.8 %
Government	2	1.4 %
Health Care and Pharmaceuticals	15	10.3 %
Industrial Goods	7	4.8 %
Retail Related Operations	17	11.7 %
Technology/Information	3	2.1 %
Transportation	5	3.4 %
Other	39	26.9 %
Total	148	





**Q2 Do you own or rent your building?**

<u>Q2 Do you own or rent your building?</u>	<u>Number</u>	<u>Percent</u>
Own	105	72.4 %
Rent	40	27.6 %
Total	145	100.0 %

**Q2a Approximately how many years have you been at this location (Without Not Provided)?**

<u>Q2a Approximately how many years have you been at this location?</u>	<u>Number</u>	<u>Percent</u>
5 or fewer years	19	13.6 %
6-10 years	24	17.1 %
11-15 years	22	15.7 %
16-20 years	16	11.4 %
21-25 years	9	6.4 %
26-30 years	9	6.4 %
Over 30 years	41	29.3 %
Total	140	100.0 %

**Q2b Which of the following BEST describes your facility/location?**

<u>Q2b Which of the following BEST describes your facility/location?</u>	<u>Number</u>	<u>Percent</u>
Strip mall	3	2.1 %
Business park	7	4.8 %
Stand alone building	119	82.1 %
Share building (not in strip mall) with another business(es)	11	7.6 %
Home office	1	0.7 %
Other	6	4.1 %
Total	147	

**Q2b Other**

Q2b Other

---

CAMPUS INDUSTRIAL

HIGH SCHOOL

INDUSTRIAL PARK

LARGE INDUSTRIAL SITE

SCHOOL

SERVICE CENTER

**Q3 How often has your business been affected by storm drainage problems in Sedgwick County during the last year?**

Q3 How often has your business been affected by storm drainage problems in Sedgwick County during the last year?

	Number	Percent
Never	109	75.2 %
Once	10	6.9 %
2 to 4 times	14	9.7 %
5 or more times	12	8.3 %
Total	145	100.0 %

**Q3a Please check any problems that you have had:**

Q3a Please check any problems that you have had:	Number	Percent
Temporary ponding hampering accessibility to your property	12	8.3 %
Street flooding	28	19.3 %
Damage from erosion	2	1.4 %
Drainage from adjacent properties flowing across the property	9	6.2 %
Danger to my life and/or employees	1	0.7 %
Damage to the building	5	3.4 %
Damage to contents of the building	7	4.8 %
Other	1	0.7 %
Total	65	

**Q4 How important do you think each of the following activities should be in the management of stormwater within communities in Sedgwick County?**

(N=145)

	Unimportant	Not Sure	Somewhat Important	Very Important	Not Provided
Q4a Develop a county-wide stormwater system maintenance plan	1.4%	6.9%	26.2%	64.8%	0.7%
Q4b Create wildlife habitat	11.7%	18.6%	24.8%	44.1%	0.7%
Q4c Restore, create, and retain urban wetlands	11.0%	15.9%	29.7%	42.8%	0.7%
Q4d Restore urban streams	5.5%	17.2%	30.3%	46.2%	0.7%
Q4e Protect rural streams	2.1%	8.3%	33.8%	54.5%	1.4%
Q4f Encourage use of open grassy channels (ditches and rain gardens) to carry stormwater instead of concrete pipes	5.5%	17.2%	39.3%	37.2%	0.7%
Q4g Encourage development that allows buildings to be closer together if more space is used for grassy areas to carry and infiltrate stormwater naturally	5.5%	31.0%	28.3%	34.5%	0.7%
Q4h Minimize paved area	16.6%	29.7%	37.2%	15.2%	1.4%
Q4i Increase open space and landscaping requirements	12.4%	17.9%	43.4%	24.1%	2.1%
Q4j Use detention/retention facilities for temporary storage of stormwater	6.2%	28.3%	40.7%	24.1%	0.7%
Q4k Use regulatory controls to help control stormwater runoff	9.7%	27.6%	35.2%	26.9%	0.7%

**Q4 How important do you think each of the following activities should be in the management of stormwater within communities in Sedgwick County?**

	Unimportant	Not Sure	Somewhat Important	Very Important	Not Provided
Q4l Require expanded setbacks from stormwater channels and streamways	9.7%	26.2%	36.6%	26.9%	0.7%
Q4m Enact more restrictive building site development design criteria and standards that reduce flood damage potential (even if construction costs increase)	12.4%	28.3%	35.2%	23.4%	0.7%
Q4n Restrict building in floodplains	2.8%	11.7%	19.3%	65.5%	0.7%

**Q4 How important do you think each of the following activities should be in the management of stormwater within communities in Sedgwick County? (Without Not Provided)**

(N=145)

	Unimportant	Not Sure	Somewhat Important	Very Important
Q4a Develop a county-wide stormwater system maintenance plan	1.4%	6.9%	26.4%	65.3%
Q4b Create wildlife habitat	11.8%	18.8%	25.0%	44.4%
Q4c Restore, create, and retain urban wetlands	11.1%	16.0%	29.9%	43.1%
Q4d Restore urban streams	5.6%	17.4%	30.6%	46.5%
Q4e Protect rural streams	2.1%	8.4%	34.3%	55.2%
Q4f Encourage use of open grassy channels (ditches and rain gardens) to carry stormwater instead of concrete pipes	5.6%	17.4%	39.6%	37.5%
Q4g Encourage development that allows buildings to be closer together if more space is used for grassy areas to carry and infiltrate stormwater naturally	5.6%	31.3%	28.5%	34.7%
Q4h Minimize paved area	16.8%	30.1%	37.8%	15.4%
Q4i Increase open space and landscaping requirements	12.7%	18.3%	44.4%	24.6%
Q4j Use detention/retention facilities for temporary storage of stormwater	6.3%	28.5%	41.0%	24.3%
Q4k Use regulatory controls to help control stormwater runoff	9.7%	27.8%	35.4%	27.1%

**Q4 How important do you think each of the following activities should be in the management of stormwater within communities in Sedgwick County? (Without Not Provided)**

	Unimportant	Not Sure	Somewhat Important	Very Important
Q4l Require expanded setbacks from stormwater channels and streamways	9.7%	26.4%	36.8%	27.1%
Q4m Enact more restrictive building site development design criteria and standards that reduce flood damage potential (even if construction costs increase)	12.5%	28.5%	35.4%	23.6%
Q4n Restrict building in floodplains	2.8%	11.8%	19.4%	66.0%



**Q5 Recognizing that our local streams cross city and county boundaries, how supportive would you be of having local governments work together to plan, manage, and fund stormwater improvements in the county?**

Q5 Recognizing that our local streams cross city and county boundaries, how supportive would you be of having local governments work together to plan, manage, and fund stormwater improvements in the county?

	Number	Percent
Very supportive	87	60.0 %
Somewhat supportive	34	23.4 %
Not sure	21	14.5 %
Not supportive	3	2.1 %
Total	145	100.0 %

**Q6 For NEW development in communities within Sedgwick County, which should be the top 3 priorities for improvements? Please use the letters from the list below to indicate the top 3 priorities.**

<u>Q6 First Priority</u>	<u>Number</u>	<u>Percent</u>
Minimize temporary ponding on property	8	5.5 %
Minimize street flooding	21	14.5 %
Minimize damage from erosion	13	9.0 %
Minimize drainage from one property to another	13	9.0 %
Maintain natural stream systems	14	9.7 %
Limit damage to structures (e.g., home, businesses, other buildings)	31	21.4 %
Limit environmental damage to natural systems such as creeks	4	2.8 %
Protect water quality	39	26.9 %
<u>None chosen</u>	<u>2</u>	<u>1.4 %</u>
Total	145	100.0 %

**Q6 For NEW development in communities within Sedgwick County, which should be the top 3 priorities for improvements? Please use the letters from the list below to indicate the top 3 priorities.**

<u>Q6 Second Priority</u>	<u>Number</u>	<u>Percent</u>
Minimize temporary ponding on property	10	6.9 %
Minimize street flooding	22	15.2 %
Minimize damage from erosion	15	10.3 %
Minimize drainage from one property to another	12	8.3 %
Maintain natural stream systems	20	13.8 %
Limit damage to structures (e.g., home, businesses, other buildings)	26	17.9 %
Limit environmental damage to natural systems such as creeks	16	11.0 %
Protect water quality	20	13.8 %
<u>None Chosen</u>	<u>4</u>	<u>2.8 %</u>
Total	145	100.0 %

**Q6 For NEW development in communities within Sedgwick County, which should be the top 3 priorities for improvements? Please use the letters from the list below to indicate the top 3 priorities.**

<u>Q6 Third Priority</u>	<u>Number</u>	<u>Percent</u>
Minimize temporary ponding on property	8	5.5 %
Minimize street flooding	27	18.6 %
Minimize damage from erosion	29	20.0 %
Minimize drainage from one property to another	10	6.9 %
Maintain natural stream systems	16	11.0 %
Limit damage to structures (e.g., home, businesses, other buildings)	8	5.5 %
Limit environmental damage to natural systems such as creeks	14	9.7 %
Protect water quality	27	18.6 %
None Chosen	6	4.1 %
Total	145	100.0 %

**Q6 For NEW development in communities within Sedgwick County, which should be the top 3 priorities for improvements? Please use the letters from the list below to indicate the top 3 priorities.**

<u>Q6 Sum of top three choices</u>	<u>Number</u>	<u>Percent</u>
Minimize temporary ponding on property	26	17.9 %
Minimize street flooding	70	48.3 %
Minimize damage from erosion	57	39.3 %
Minimize drainage from one property to another	35	24.1 %
Maintain natural stream systems	50	34.5 %
Limit damage to structures (e.g., home, businesses, other buildings)	65	44.8 %
Limit environmental damage to natural systems such as creeks	34	23.4 %
Protect water quality	86	59.3 %
Total	423	

**Q7 NOW, addressing EXISTING development in communities within Sedgwick County, which should be the top 3 priorities for improvements?  
Please use the letters from the list below to indicate the top 3 priorities.**

<u>Q7 Top Priority</u>	<u>Number</u>	<u>Percent</u>
Minimize temporary ponding on property	14	9.7 %
Minimize street flooding	27	18.6 %
Minimize damage from erosion	11	7.6 %
Minimize drainage from one property to another	13	9.0 %
Maintain natural stream systems	13	9.0 %
Limit damage to structures (e.g., home, businesses, other buildings)	26	17.9 %
Limit environmental damage to natural systems such as creeks	8	5.5 %
Protect water quality	30	20.7 %
<u>None chosen</u>	<u>3</u>	<u>2.1 %</u>
Total	145	100.0 %

**Q7 NOW, addressing EXISTING development in communities within Sedgwick County, which should be the top 3 priorities for improvements?  
Please use the letters from the list below to indicate the top 3 priorities.**

<u>Q7 Second Priority</u>	<u>Number</u>	<u>Percent</u>
Minimize temporary ponding on property	7	4.8 %
Minimize street flooding	24	16.6 %
Minimize damage from erosion	20	13.8 %
Minimize drainage from one property to another	14	9.7 %
Maintain natural stream systems	15	10.3 %
Limit damage to structures (e.g., home, businesses, other buildings)	29	20.0 %
Limit environmental damage to natural systems such as creeks	15	10.3 %
Protect water quality	18	12.4 %
<u>None chosen</u>	<u>3</u>	<u>2.1 %</u>
Total	145	100.0 %

**Q7 NOW, addressing EXISTING development in communities within Sedgwick County, which should be the top 3 priorities for improvements?  
Please use the letters from the list below to indicate the top 3 priorities. (Without None Chosen)**

<u>Q7 Third Priority</u>	<u>Number</u>	<u>Percent</u>
Minimize temporary ponding on property	12	8.3 %
Minimize street flooding	25	17.2 %
Minimize damage from erosion	16	11.0 %
Minimize drainage from one property to another	14	9.7 %
Maintain natural stream systems	23	15.9 %
Limit damage to structures (e.g., home, businesses, other buildings)	12	8.3 %
Limit environmental damage to natural systems such as creeks	23	15.9 %
Protect water quality	16	11.0 %
<u>None chosen</u>	4	2.8 %
Total	145	100.0 %

**Q7 NOW, addressing EXISTING development in communities within Sedgwick County, which should be the top 3 priorities for improvements?  
Please use the letters from the list below to indicate the top 3 priorities.**

<u>Q7 Top Priority</u>	<u>Number</u>	<u>Percent</u>
Minimize temporary ponding on property	33	22.8 %
Minimize street flooding	76	52.4 %
Minimize damage from erosion	47	32.4 %
Minimize drainage from one property to another	41	28.3 %
Maintain natural stream systems	51	35.2 %
Limit damage to structures (e.g., home, businesses, other buildings)	67	46.2 %
Limit environmental damage to natural systems such as creeks	46	31.7 %
<u>Protect water quality</u>	64	44.1 %
Total	425	

**Q8 If additional funding is needed to address flooding due to stormwater, which two of these potential funding options would you choose. Please check the two that you would prefer.**

Q8 If additional funding is needed to address flooding due to stormwater, which two of these potential funding options would you choose. Please check the two that you would prefer.

	Number	Percent
Sales tax	35	24.1 %
Property tax	27	18.6 %
User fee similar to a monthly utility bill	40	27.6 %
Annual fee similar to a solid waste fee	30	20.7 %
No tax or fee increase	64	44.1 %
Not provided	1	0.7 %
Total	197	

**Q8 If additional funding is needed to address flooding due to stormwater, which two of these potential funding options would you choose. Please check the two that you would prefer. (Without Not Provided)**

Q8 If additional funding is needed to address flooding due to stormwater, which two of these potential funding options would you choose. Please check the two that you would prefer.

	Number	Percent
Sales tax	35	24.1 %
Property tax	27	18.6 %
User fee similar to a monthly utility bill	40	27.6 %
Annual fee similar to a solid waste fee	30	20.7 %
No tax or fee increase	64	44.1 %
Total	196	

**Q9 If a stormwater fee or tax were implemented, what is the maximum amount per business entity, as an example, that you would support to fund stormwater improvements?**

Q9 If a stormwater fee or tax were implemented, what is the maximum amount per business entity, as an example, that you would support to fund stormwater improvements?

	Number	Percent
\$5 per month	64	44.1 %
\$2.50 per month	32	22.1 %
\$1 per month	14	9.7 %
Nothing	32	22.1 %
Not Provided	3	2.1 %
Total	145	100.0 %

**Q9 If a stormwater fee or tax were implemented, what is the maximum amount per business entity, as an example, that you would support to fund stormwater improvements? (Without Not Provided)**

Q9 If a stormwater fee or tax were implemented, what is the maximum amount per business entity, as an example, that you would support to fund stormwater improvements?

	Number	Percent
\$5 per month	64	45.1 %
\$2.50 per month	32	22.5 %
\$1 per month	14	9.9 %
Nothing	32	22.5 %
Total	142	100.0 %

**Q10 What types of information about local flooding, water quality or stormwater management would you like to receive?**

Q10 What types of information about local flooding, water quality or stormwater management would you like to receive?	Number	Percent
What is stormwater & why is it important?	21	14.5 %
How do flooding problems occur?	36	24.8 %
What are the effects of localized flooding?	27	18.6 %
How do my actions affect flood risk?	34	23.4 %
What are the effects of stormwater pollution?	24	16.6 %
Why clean water is important.	14	9.7 %
How to minimize future flooding issues.	48	33.1 %
Effects on wildlife & the environment.	24	16.6 %
What I can do to be part of the solution.	41	28.3 %
Other	5	3.4 %
Not provided	55	37.9 %
Total	329	

**Q10 What types of information about local flooding, water quality or stormwater management would you like to receive? (Without Not Provided)**

Q10 What types of information about local flooding, water quality or stormwater management would you like to receive?	Number	Percent
What is stormwater & why is it important?	21	14.5 %
How do flooding problems occur?	36	24.8 %
What are the effects of localized flooding?	27	18.6 %
How do my actions affect flood risk?	34	23.4 %
What are the effects of stormwater pollution?	24	16.6 %
Why clean water is important.	14	9.7 %
How to minimize future flooding issues.	48	33.1 %
Effects on wildlife & the environment.	24	16.6 %
What I can do to be part of the solution.	41	28.3 %
Other	5	3.4 %
Total	274	



**Q10 Other**

Q10 Other

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COWSKIN CREEK PLAN

NONE

NOTHING

SPECIFIC RISK AT OUR LOCATION

WHAT IS BEING DONE

**Q11 How would you prefer to receive information about flooding, water quality or stormwater management?**

Q11 How would you prefer to receive information about flooding, water quality or stormwater management?	Number	Percent
Newspapers, magazines	70	48.3 %
Water/sewer bill insert	35	24.1 %
Public meeting/event	19	13.1 %
Mail/brochures	31	21.4 %
Classes/workshops	9	6.2 %
Television stories/ads	43	29.7 %
Radio stories/ads	22	15.2 %
Internet/website/e-mail	83	57.2 %
Signs/billboards	6	4.1 %
None chosen	13	9.0 %
Total	331	

**Q11 How would you prefer to receive information about flooding, water quality or stormwater management? (Without Not Provided)**

Q11 How would you prefer to receive information about flooding, water quality or stormwater management?	Number	Percent
Newspapers, magazines	70	48.3 %
Water/sewer bill insert	35	24.1 %
Public meeting/event	19	13.1 %
Mail/brochures	31	21.4 %
Classes/workshops	9	6.2 %
Television stories/ads	43	29.7 %
Radio stories/ads	22	15.2 %
Internet/website/e-mail	83	57.2 %
Signs/billboards	6	4.1 %
Total	318	

**Q12 Approximately how many full-time equivalent employees work at this location?**

Q12 Approximately how many full-time equivalent employees work at this location?	Number	Percent
Fewer than 15	10	6.9 %
15 to 24	11	7.6 %
25 to 49	27	18.6 %
50 to 99	44	30.3 %
100 to 249	35	24.1 %
250 or more	16	11.0 %
Not Provided	2	1.4 %
Total	145	100.0 %

**Q12 Approximately how many full-time equivalent employees work at this location? (Without Not Provided)**

Q12 Approximately how many full-time equivalent employees work at this location?	Number	Percent
Fewer than 15	10	7.0 %
15 to 24	11	7.7 %
25 to 49	27	18.9 %
50 to 99	44	30.8 %
100 to 249	35	24.5 %
250 or more	16	11.2 %
Total	143	100.0 %

**Q13 Do you purchase flood insurance for your business?**

Q13 Do you purchase flood insurance for your business?	Number	Percent
Yes	21	14.5 %
No	81	55.9 %
Don't know	43	29.7 %
Total	145	100.0 %

**Q14 Please describe any major stormwater problems affecting your business.**

Q14 Major stormwater problems

1503 E SANDPOINTE CT EROSION PROBLEM  
35TH ST N & OLIVER FLOODS  
A LOT OF WORK ACCOMPLISHED STORMWATER  
CARS WERE FLOODED IN PARKING AREA  
DAMAGE TO BUILDING & CONTENT  
DRAINAGE & STREET FLOODING  
FINALLY FIXED WEST STREET  
FLOODING AT SKINNER ST & MEAD ST  
HAVE NO AFFECTS/AT A HIGH POINT IN ELEVATION  
HEAVY RAIN FLOODS NORTHERN STREET  
HEAVY RAIN WATER BACKS UP IN BASEMENT  
INTERSECTION OF PAWNEE & CUSTER FLOODS  
MAJOR UPGRADES WITH STORM SEWERS & DRAIN  
MANAGE THE WATER BETTER  
MOVE STORMWATER INTO CITY SYSTEM  
NONE  
NONE  
NONE  
NONE  
NONE  
NONE  
NONE  
NONE  
OTHERS DRAINING ON OUR PROPERTY  
POOR DRAINAGE FROM SUBDIVISION  
RAIN CAUSES DITCHES TO SURGE & OVERFLOW  
SIDE STREET HAS NO DRAINAGE  
SOME FLOODING ON FRONT DRIVEWAY  
STREET FLOODING  
STREET FLOODING NEAR FACILITY  
STREET FLOODS AFTER EVERY RAIN  
THE RR UNDERPASS ON 2ND ST USED TO FLOOD  
WATER PUSHED OVER HERE FROM NEXT DOOR

*Section 7:*  
***Business Survey Instrument***

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**SEDGWICK COUNTY  
PUBLIC WORKS**

1144 S. SENECA  
WICHITA, KANSAS 67213-4443  
(316) 383-7901  
FAX: (316) 263-9241

**David C. Spears, P.E.**  
*Director/County Engineer*

July 2010

Dear Sedgwick County Business:

Sedgwick County is committed to serving its residents and businesses. To fulfill this commitment to you, we need your input as we develop policies, programs and priorities for the Stormwater Management program.

Sedgwick County has begun the process of updating and expanding its stormwater business plan. This plan will potentially affect businesses in cities as well as the rural area. The completed plan will establish policies and procedures to manage stormwater runoff, provide a basis for correcting existing problems, and create strategies to avoid building future liabilities. Recommendations on how to pay for the plan also will be included.

***What is stormwater and why is it important to everyone?***

*Stormwater is water from rain or melting snow that "runs off" across the land instead of seeping into the ground. This runoff flows into a drainage system or the nearest stream, river, or lake. On its way, runoff water can pick up and carry many substances that pollute water. When stormwater falls on hard surfaces like roads, roofs, and parking lots, it cannot seep into the ground, so it runs off to lower areas. Because more water runs off hard surfaces and at higher rates of speed, developed low land areas can experience local flooding. The high volume and velocity of water also causes stream banks to erode and washes the wildlife that lives there downstream.*

***What causes flooding problems?***

*As communities grow and we build more buildings, driveways, streets and other hard or impervious surfaces, the land's capacity to soak up and carry away excess water decreases. As a result, conditions that might result in a flood once every 100 years in an undeveloped area can cause flooding every four or five years after development has covered the land with impervious surfaces.*

***What can you do to help?***

*What we as a community can do to address the inevitable runoff and its resulting effects, will have far reaching implications on the health and safety of future generations as well as on the region's economic vitality. You can help us act wisely in the future by assisting us in gathering valid information today.*

Please take a few minutes to respond to this survey. Your thoughts and suggestions are important to us as we do our planning. ETC Institute, a national research firm that specializes in customer surveys, is helping us design and execute this survey. This survey will help to assure that our business plan will be accurate and reflect the needs and preferences of our community. Please spend a few minutes to answer all the questions and return the survey in the enclosed postage-paid envelope.

If you have any questions, please call me at (316) 660-3040. Sedgwick County thanks you for your time!

Sincerely,

James Weber, P.E.  
Deputy Director of Public Works  
Direct Line: (316) 660-3040

***Si usted tiene preguntas or no habla ingles,  
Por favor llame al 1-800-801-5368 y habla con Terry.***

# Sedgwick County Stormwater Planning Business Survey

---

## 1. Which of the following best describes your business organization?

- |  |   |
|--|---|
| <input type="checkbox"/> (1) Advanced Manufacturing          | <input type="checkbox"/> (12) Finance, Insurance, Real Estate |
| <input type="checkbox"/> (2) Aeronautics and Defense         | <input type="checkbox"/> (13) Government                      |
| <input type="checkbox"/> (3) Agriculture, Forestry, Minerals | <input type="checkbox"/> (14) Health Care and Pharmaceuticals |
| <input type="checkbox"/> (4) Building and Construction       | <input type="checkbox"/> (15) High-end Business Services      |
| <input type="checkbox"/> (5) Communications                  | <input type="checkbox"/> (16) Industrial Goods                |
| <input type="checkbox"/> (6) Consumer Goods Producer         | <input type="checkbox"/> (17) Retail Related Operations       |
| <input type="checkbox"/> (7) Consumer Services               | <input type="checkbox"/> (18) Technology/Information          |
| <input type="checkbox"/> (8) Convention/Tourism              | <input type="checkbox"/> (19) Telecommunications              |
| <input type="checkbox"/> (9) Diversified                     | <input type="checkbox"/> (20) Transportation                  |
| <input type="checkbox"/> (10) Durable Goods Producer         | <input type="checkbox"/> (21) Other _____                     |
| <input type="checkbox"/> (11) Energy and Energy Utilities    |   |

## 2. Do you own or rent your building?

- (1) Own     (2) Rent

**2a. Approximately how many years have you been at this location?** \_\_\_\_\_ years

## 2b. Which of the following BEST describes your facility/location?

- (1) Strip mall  
 (2) Business park  
 (3) Stand alone building  
 (4) Share building (not in strip mall) with another business(es)  
 (5) Home office  
 (6) Farm operation  
 (7) Other: \_\_\_\_\_

## 3. How often has your business been affected by storm drainage problems in Sedgwick County during the last year?

- (0) Never (GO to Question 4)  
 (1) Once  
 (2) 2 to 4 times  
 (3) 5 or more times

## 3a. Please check any problems that you have had:

- (1) Temporary ponding hampering accessibility to your property  
 (2) Street flooding  
 (3) Damage from erosion  
 (4) Drainage from adjacent properties flowed across the property  
 (5) Danger to my life and/or employees  
 (7) Damage to the building  
 (8) Damage to contents of the building  
 (9) Other (Please describe): \_\_\_\_\_

**4. How important do you think each of the following activities should be in the management of stormwater within communities in Sedgwick County?**

<i>Importance to Stormwater Management</i>		<i>Very Important</i>	<i>Somewhat Important</i>	<i>Not sure</i>	<i>Unimportant</i>
A.	Develop a county-wide stormwater system maintenance plan	4	3	2	1
B.	Create wildlife habitat	4	3	2	1
C.	Restore, create, and retain urban wetlands	4	3	2	1
D.	Restore urban streams	4	3	2	1
E.	Protect rural streams	4	3	2	1
F.	Encourage use of open grassy channels (ditches and rain gardens) to carry stormwater instead of concrete pipes	4	3	2	1
G.	Encourage development that allows buildings to be closer together if more space is used for grassy areas to carry and infiltrate stormwater naturally	4	3	2	1
H.	Minimize paved area	4	3	2	1
I.	Increase open space and landscaping requirements	4	3	2	1
J.	Use detention/retention facilities for temporary storage of stormwater	4	3	2	1
K.	Use regulatory controls to help control stormwater runoff	4	3	2	1
L.	Require expanded setbacks from stormwater channels and streamways	4	3	2	1
M.	Enact more restrictive building site development design criteria and standards that reduce flood damage potential (even if construction costs increase)	4	3	2	1
N.	Restrict building in floodplains	4	3	2	1

**5. Recognizing that our local streams cross city and county boundaries, how supportive would you be of having local governments work together to plan, manage, and fund stormwater improvements in the county?**

- (1) Very supportive                       (3) Not sure  
 (2) Somewhat supportive                       (4) Not supportive

**6. For NEW development in communities within Sedgwick County, which should be the top 3 priorities for improvements? Please use the letters from the list below to indicate the top 3 priorities.**

First: \_\_\_\_\_ Second: \_\_\_\_\_ Third: \_\_\_\_\_

A.	Minimize temporary ponding on property
B.	Minimize street flooding
C.	Minimize damage from erosion
D.	Minimize drainage from one property to another
E.	Maintain natural stream systems
F.	Limit damage to structures (e.g., home, businesses, other buildings)
G.	Limit environmental damage to natural systems such as creeks
H.	Protect water quality



7. NOW, addressing EXISTING development in communities within Sedgwick County, which should be the top 3 priorities for improvements? Please use the letters from the list below to indicate the top 3 priorities.

First: \_\_\_\_\_ Second: \_\_\_\_\_ Third: \_\_\_\_\_

A.	Minimize temporary ponding on property
B.	Minimize street flooding
C.	Minimize damage from erosion
D.	Minimize drainage from one property to another
E.	Maintain natural stream systems
F.	Limit damage to structures (e.g., home, businesses, other buildings)
G.	Limit environmental damage to natural systems such as creeks
H.	Protect water quality

8. If additional funding is needed to address flooding due to stormwater, which two of these potential funding options would you choose. Please check the two that you would prefer.

- |   |  |
|---|--|
| <input type="checkbox"/> (1) Sales tax                                  | <input type="checkbox"/> (4) Annual fee similar to a solid waste fee |
| <input type="checkbox"/> (2) Property tax                               | <input type="checkbox"/> (5) No tax or fee increase                  |
| <input type="checkbox"/> (3) User fee similar to a monthly utility bill |  |

9. If a stormwater fee or tax were implemented, what is the maximum amount per household, as an example, that you would support to fund stormwater improvements?

- |   |  |
|---|--|
| <input type="checkbox"/> (1) \$5 per month    | <input type="checkbox"/> (3) \$1 per month |
| <input type="checkbox"/> (2) \$2.50 per month | <input type="checkbox"/> (4) Nothing       |

10. What types of information about local flooding, water quality or stormwater management would you like to receive? (check all that apply)

- |   |   |
|---|---|
| <input type="checkbox"/> (01) What is stormwater & why is it important?     | <input type="checkbox"/> (06) Why clean water is important.             |
| <input type="checkbox"/> (02) How do flooding problems occur?               | <input type="checkbox"/> (07) How to minimize future flooding issues.   |
| <input type="checkbox"/> (03) What are the effects of localized flooding?   | <input type="checkbox"/> (08) Effects on wildlife & the environment.    |
| <input type="checkbox"/> (04) How do my actions affect flood risk?          | <input type="checkbox"/> (09) What I can do to be part of the solution. |
| <input type="checkbox"/> (05) What are the effects of stormwater pollution? | <input type="checkbox"/> (10) Other: _____                              |

11. How would you prefer to receive information about flooding, water quality or stormwater management?

- (check all that apply)
- |   |   |
|---|---|
| <input type="checkbox"/> (01) Newspapers, magazines   | <input type="checkbox"/> (06) Television stories/ads  |
| <input type="checkbox"/> (02) Water/sewer bill insert | <input type="checkbox"/> (07) Radio stories/ads       |
| <input type="checkbox"/> (03) Public meeting/event    | <input type="checkbox"/> (08) Internet/website/e-mail |
| <input type="checkbox"/> (04) Mail/brochures          | <input type="checkbox"/> (09) Signs/billboards        |
| <input type="checkbox"/> (05) Classes/workshops       | <input type="checkbox"/> (10) Other: _____            |

**12. Approximately how many full-time equivalent employees work at this location?**

- |  |  |
|--|--|
| <input type="checkbox"/> (1) Fewer than 15 | <input type="checkbox"/> (4) 50 to 99    |
| <input type="checkbox"/> (2) 15 to 24      | <input type="checkbox"/> (5) 100 to 249  |
| <input type="checkbox"/> (3) 25 to 49      | <input type="checkbox"/> (6) 250 or more |

**13. Do you purchase flood insurance for your business?**

- (1) Yes       (2) No       (3) Don't know

**14. Please describe any major stormwater problems affecting your business.**

\_\_\_\_\_ ...  
\_\_\_\_\_

**15. Other comments and suggestions?**

\_\_\_\_\_ ...  
\_\_\_\_\_

**Optional: We would appreciate receiving your name, mailing address and email so that we can keep you informed about our process.**

Name: \_\_\_\_\_

Business or Group Name (if applicable): \_\_\_\_\_

Mailing Address: \_\_\_\_\_

\_\_\_\_\_ Zip code: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

**This concludes the survey. Thank you for your time!**

Please return your completed survey in the enclosed postage paid envelope addressed to:  
ETC Institute, 725 W. Frontier Circle, Olathe, KS 66061