

Spring Creek Watershed Survey and Analysis

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Monday, November 30, 2015

22

Total Responses

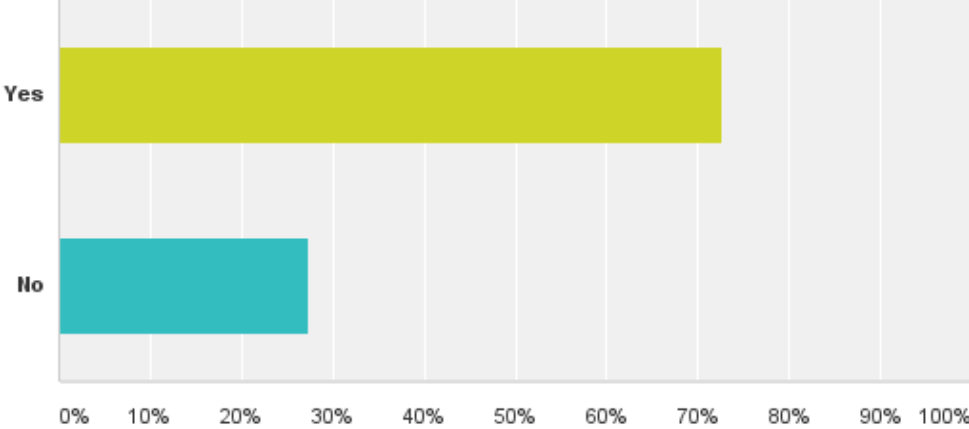
Complete Responses: 22

Data Collection Method

Our method of data collection was through surveys. We mailed 175 postcards to all 175 households that are currently residing on Spring Creek. On each postcard, we explained our project and included a URL to a [surveymonkey.com](https://www.surveymonkey.com) link for the residents to take online. Our survey was quick and anonymous, asking residents 19 questions about the watershed and their practices for protecting storm water. The format of the questions ranged from multiple choice, to fill in the blank, to selecting all that apply. In order to increase our response rate, we sent follow up postcards two weeks later to remind the residents of the survey, and thanked those that had already participated. We ended with a 12.5% response rate.

Q1: Do you live on or own property along Spring Creek?

Answered: 22 Skipped: 0



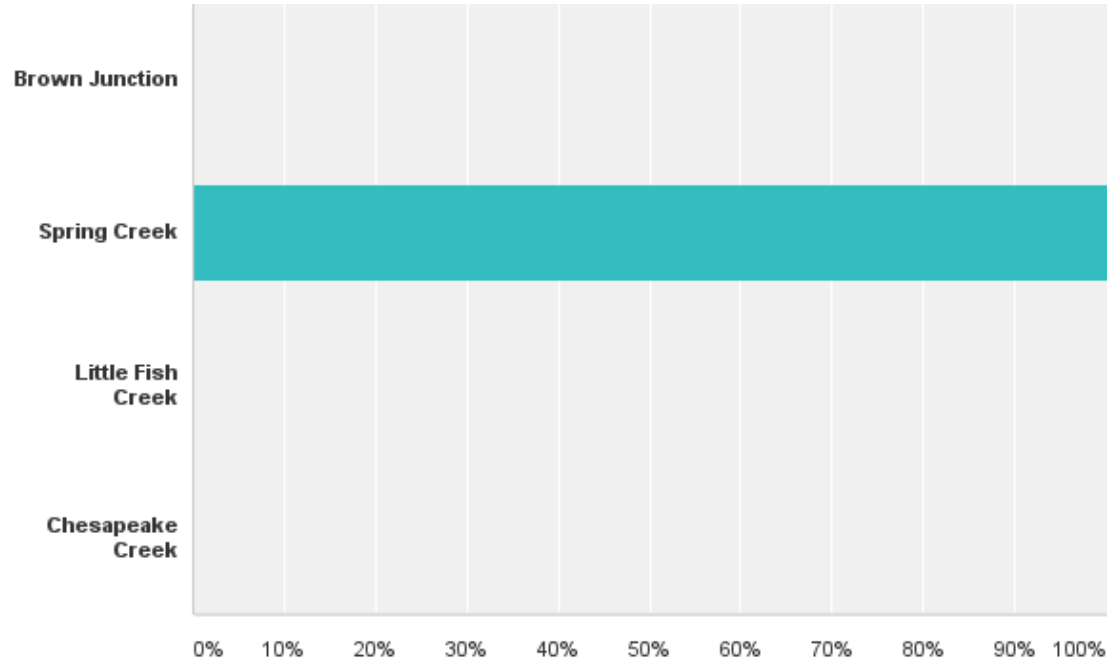
Q1: Do you live on or own property along Spring Creek?

Answered: 22 Skipped: 0

Answer Choices	Responses
Yes	72.73% 16
No	27.27% 6
Total	22

Q3: What is the name of your local watershed?

Answered: 22 Skipped: 0



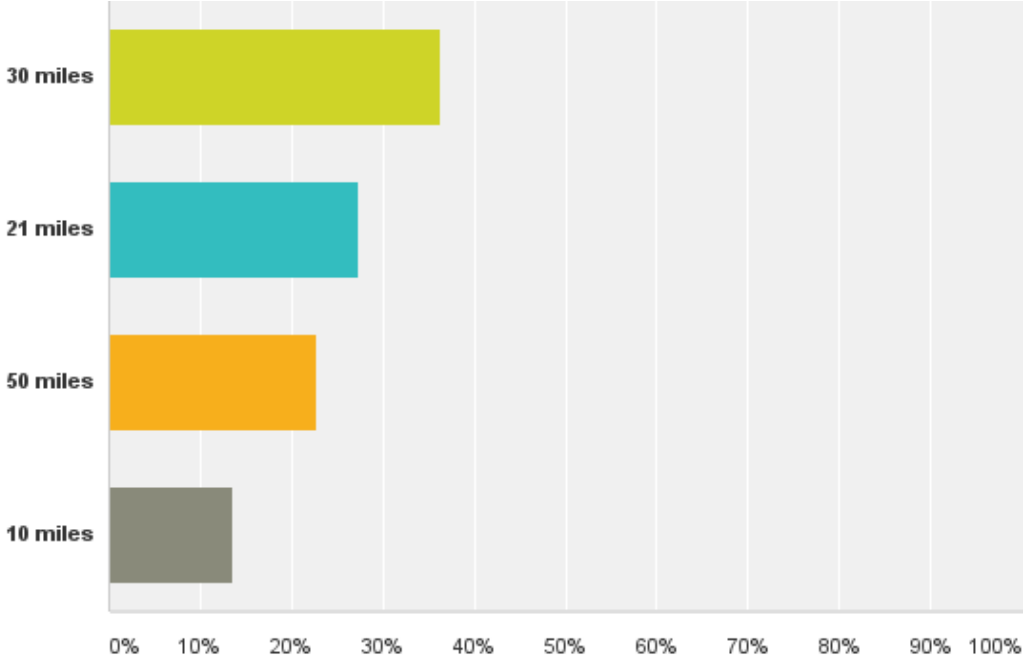
Q3: What is the name of your local watershed?

Answered: 22 Skipped: 0

Answer Choices	Responses
Brown Junction	0.00% 0
Spring Creek	100.00% 22
Little Fish Creek	0.00% 0
Chesapeake Creek	0.00% 0
Total	22

Q4: How long do you think your local watershed is?

Answered: 22 Skipped: 0



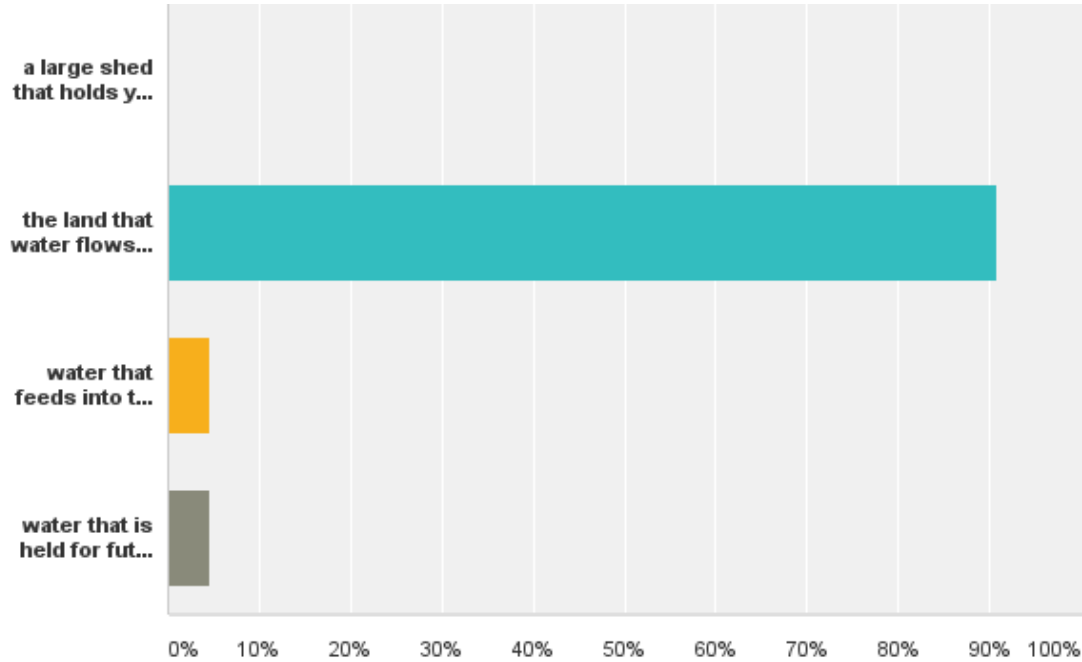
Q4: How long do you think your local watershed is?

Answered: 22 Skipped: 0

Answer Choices	Responses
30 miles	36.36% 8
21 miles	27.27% 6
50 miles	22.73% 5
10 miles	13.64% 3
Total	22

Q5: What BEST describes a watershed?

Answered: 22 Skipped: 0



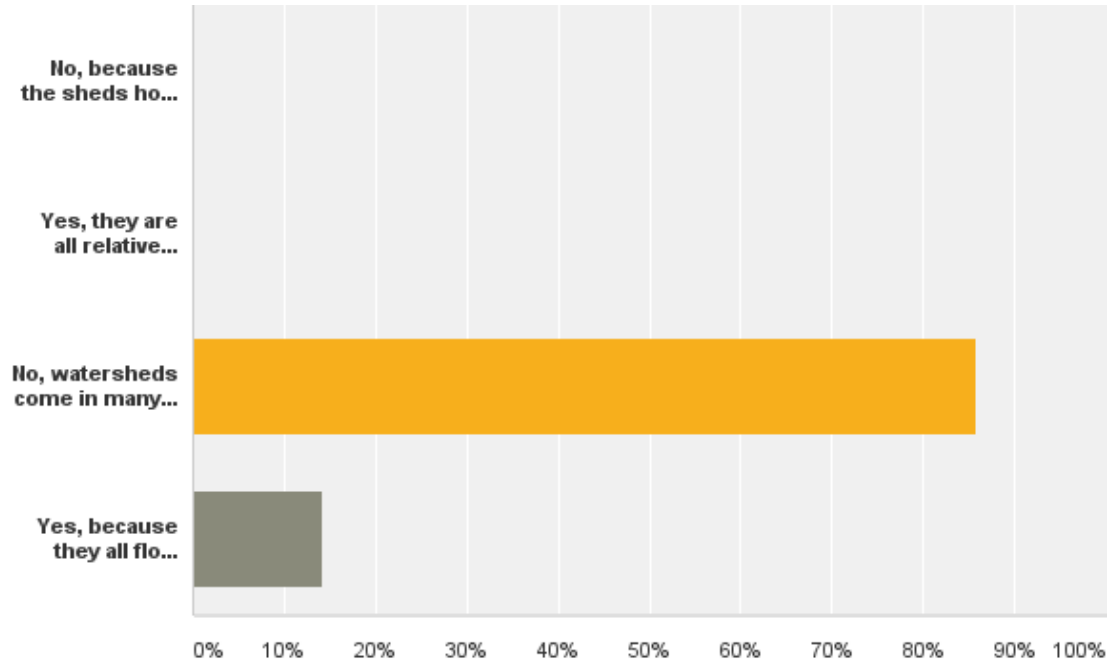
Q5: What BEST describes a watershed?

Answered: 22 Skipped: 0

Answer Choices	Responses
a large shed that holds your household's water	0.00% 0
the land that water flows across or under on its way to a stream, river, or lake	90.91% 20
water that feeds into the oceans	4.55% 1
water that is held for future human use	4.55% 1
Total	22

Q6: Are all watersheds the same?

Answered: 21 Skipped: 1



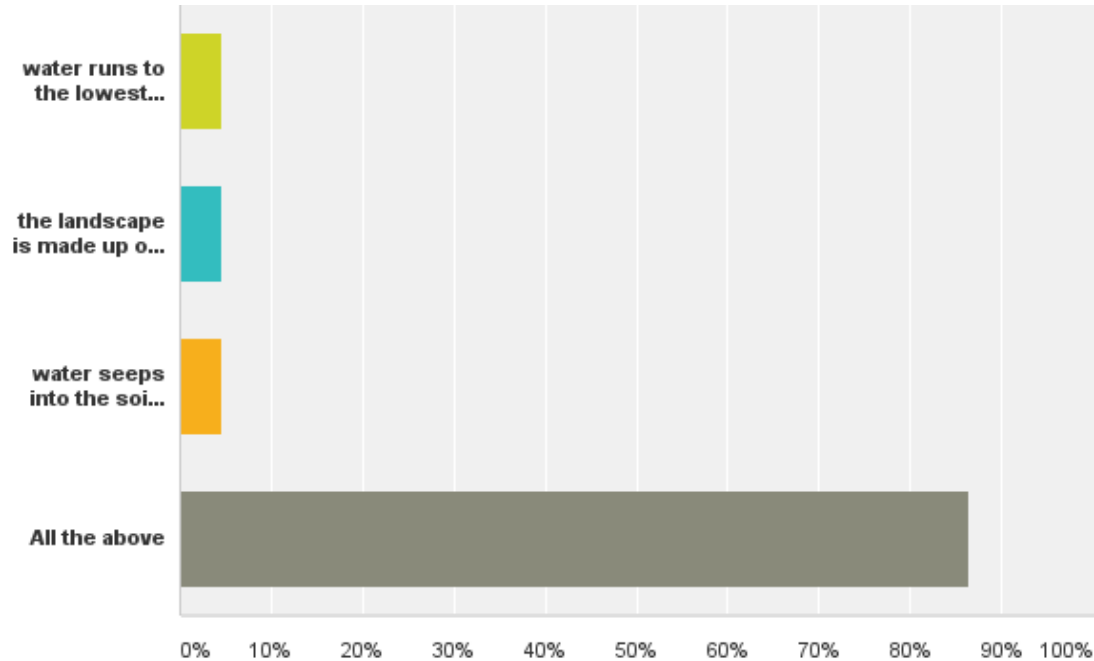
Q6: Are all watersheds the same?

Answered: 21 Skipped: 1

Answer Choices	Responses	
No, because the sheds hold different amounts of water	0.00%	0
Yes, they are all relatively the same size	0.00%	0
No, watersheds come in many different shapes and sizes	85.71%	18
Yes, because they all flow towards the lowest point	14.29%	3
Total		21

Q7: How do you think a watershed works?

Answered: 22 Skipped: 0



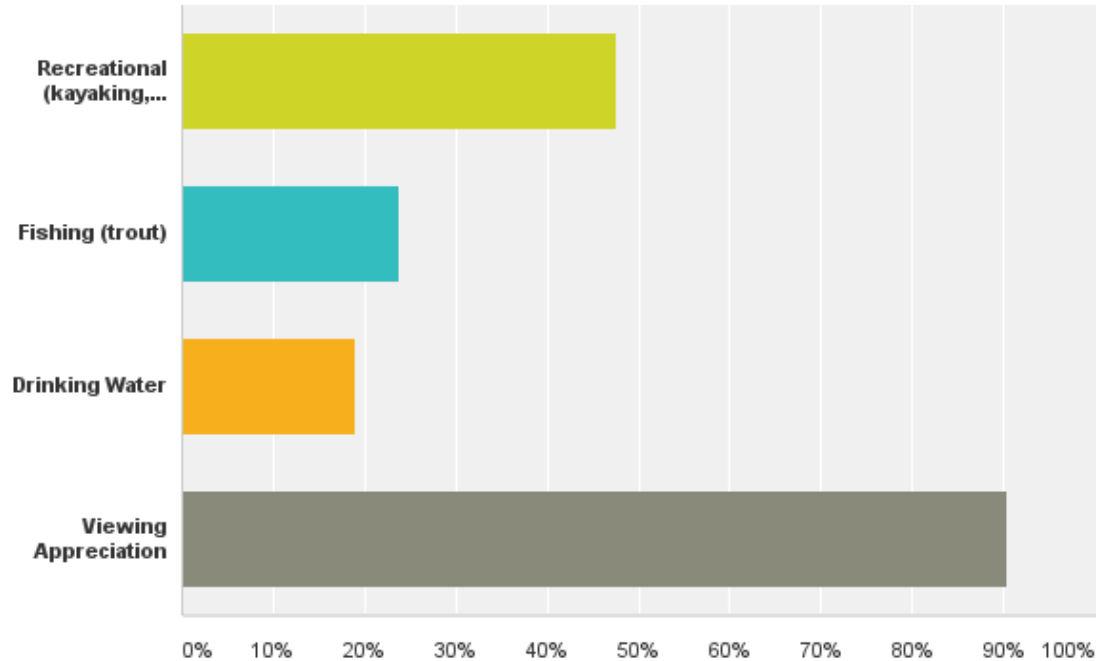
Q7: How do you think a watershed works?

Answered: 22 Skipped: 0

Answer Choices	Responses	
water runs to the lowest point	4.55%	1
the landscape is made up of many interconnected basins	4.55%	1
water seeps into the soil and travels as ground water	4.55%	1
All the above	86.36%	19
Total		22

Q8: What ways do you personally use Spring Creek? (Select all that apply)

Answered: 21 Skipped: 1



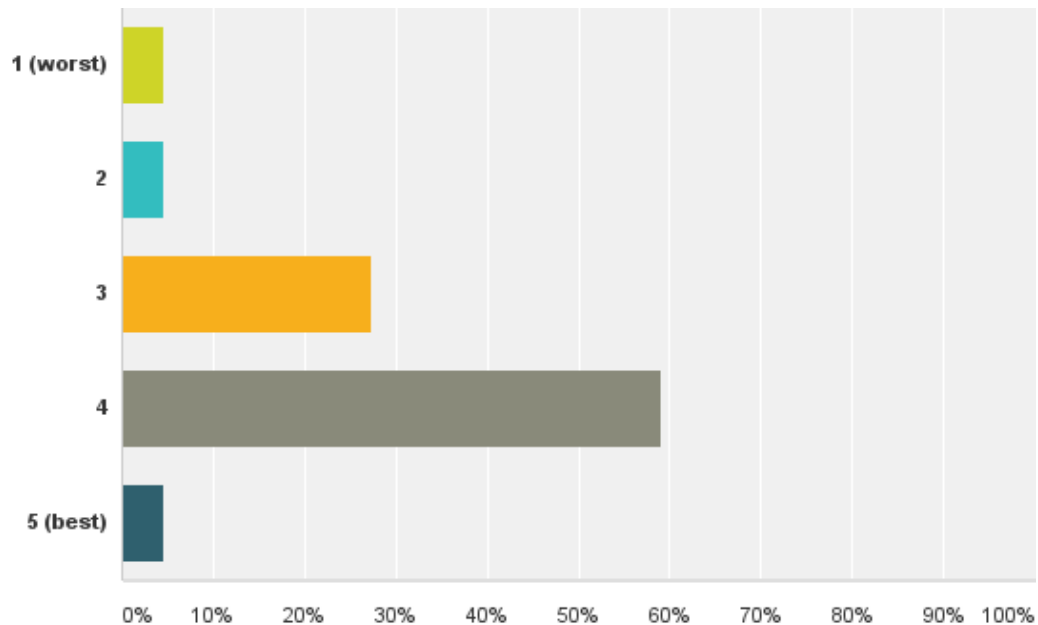
Q8: What ways do you personally use Spring Creek? (Select all that apply)

Answered: 21 Skipped: 1

Answer Choices	Responses
Recreational (kayaking, wading)	47.62% 10
Fishing (trout)	23.81% 5
Drinking Water	19.05% 4
Viewing Appreciation	90.48% 19
Total Respondents: 21	

Q9: On a scale from 1 to 5 (1 being worst, 5 being the best), how would you rate your creek water quality?

Answered: 22 Skipped: 0



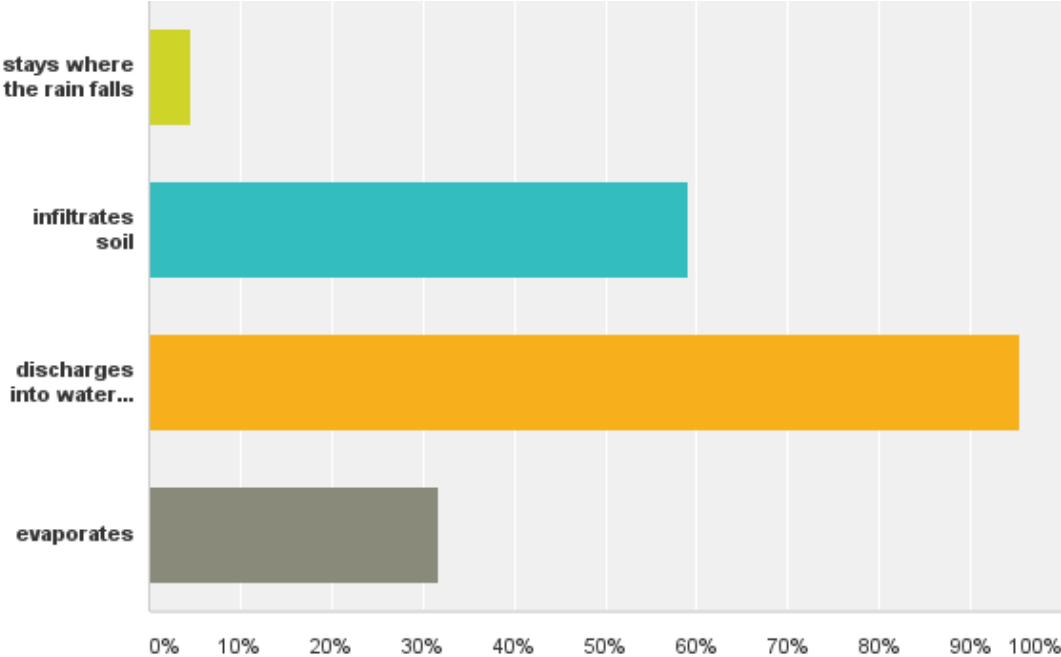
Q9: On a scale from 1 to 5 (1 being worst, 5 being the best), how would you rate your creek water quality?

Answered: 22 Skipped: 0

Answer Choices	Responses	
1 (worst)	4.55%	1
2	4.55%	1
3	27.27%	6
4	59.09%	13
5 (best)	4.55%	1
Total		22

Q10: Where does stormwater runoff travel? (Select all that apply)

Answered: 22 Skipped: 0



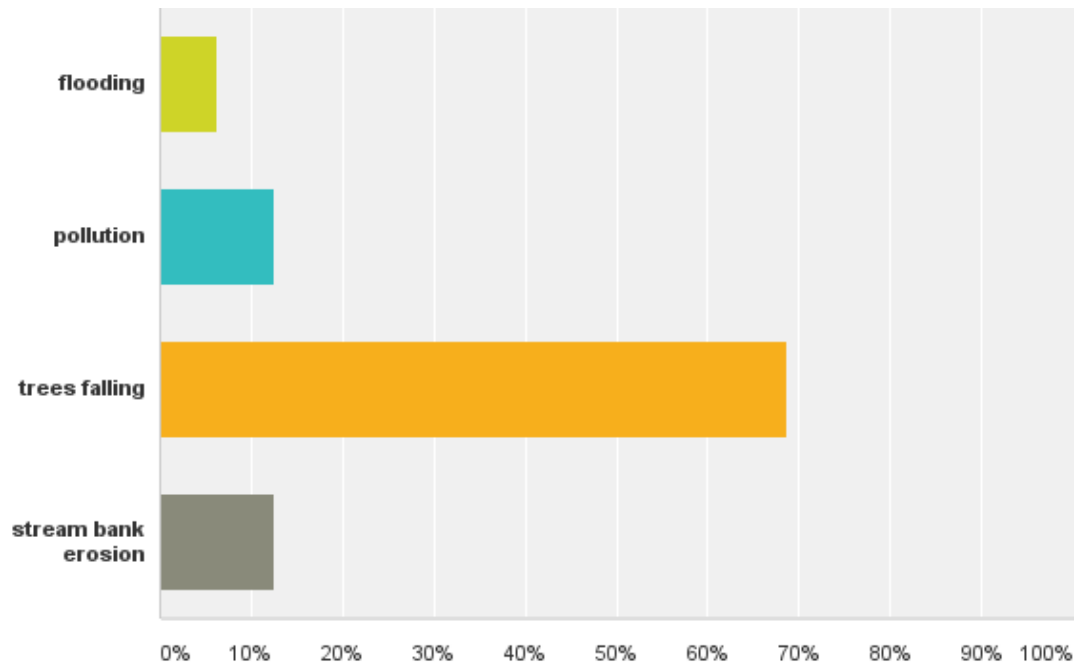
Q10: Where does stormwater runoff travel? (Select all that apply)

Answered: 22 Skipped: 0

Answer Choices	Responses
stays where the rain falls	4.55% 1
infiltrates soil	59.09% 13
discharges into water bodies	95.45% 21
evaporates	31.82% 7
Total Respondents: 22	

Q11: Stormwater can be problematic for communities, what is not a problem that can come from stormwater runoff?

Answered: 16 Skipped: 6



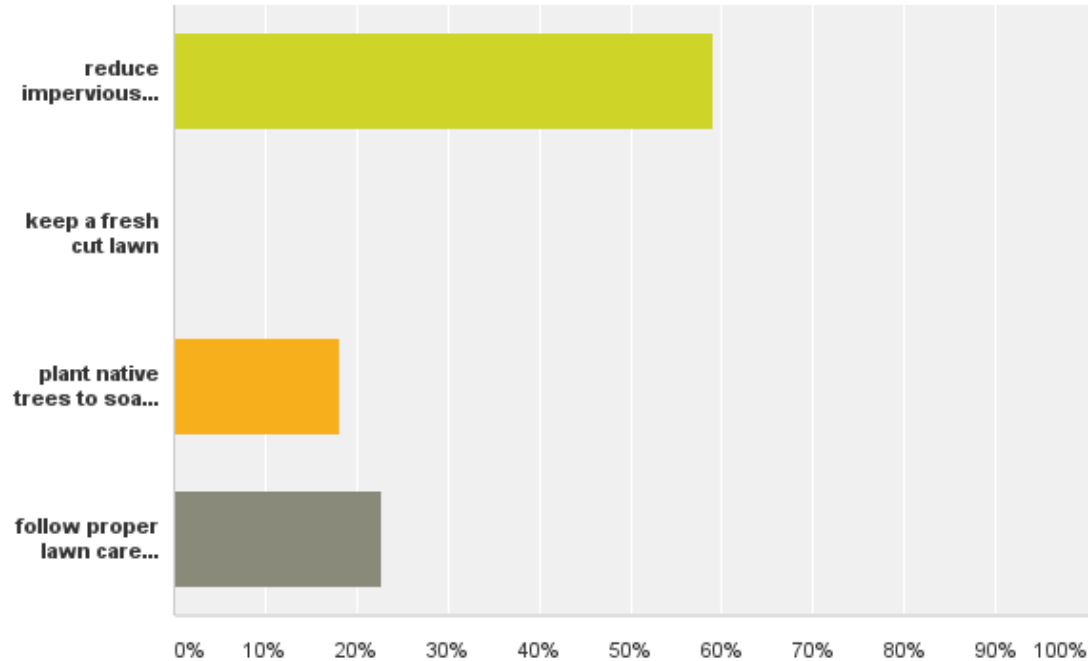
Q11: Stormwater can be problematic for communities, what is not a problem that can come from stormwater runoff?

Answered: 16 Skipped: 6

Answer Choices	Responses
flooding	6.25% 1
pollution	12.50% 2
trees falling	68.75% 11
stream bank erosion	12.50% 2
Total	16

Q12: What are some ways, as home owners, that you can protect the watershed?

Answered: 22 Skipped: 0



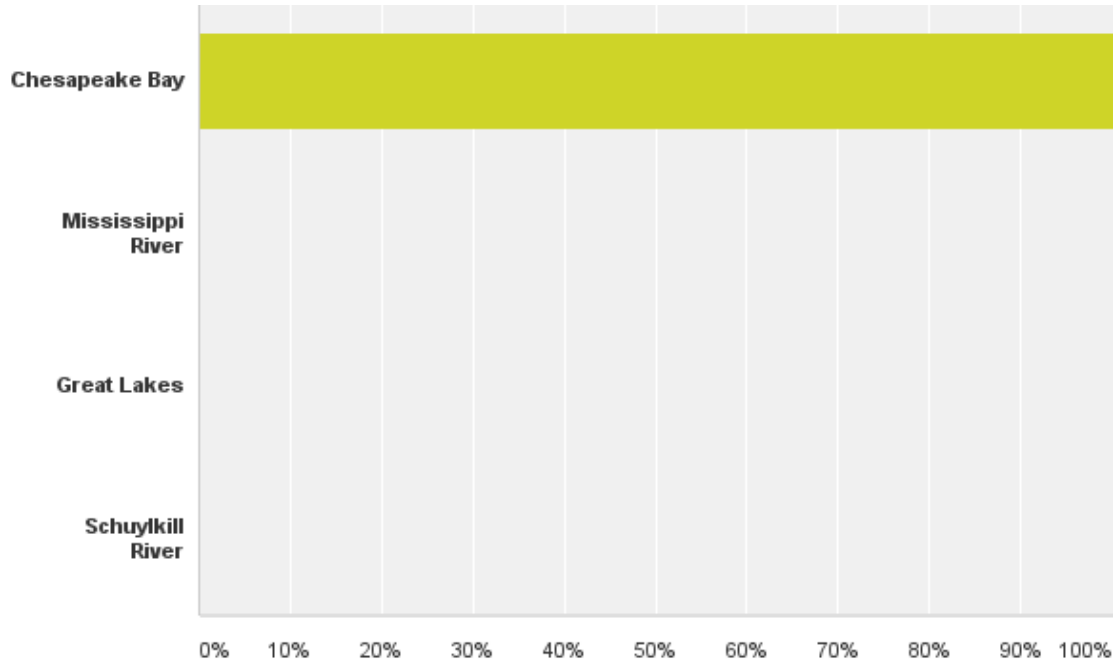
Q12: What are some ways, as home owners, that you can protect the watershed?

Answered: 22 Skipped: 0

Answer Choices	Responses
reduce impervious areas (areas that water cannot soak down, ie: cement driveways)	59.09% 13
keep a fresh cut lawn	0.00% 0
plant native trees to soak up the water	18.18% 4
follow proper lawn care practices	22.73% 5
Total	22

Q13: If a pollutant entered the Spring Creek Watershed, where do you think it would end up?

Answered: 21 Skipped: 1



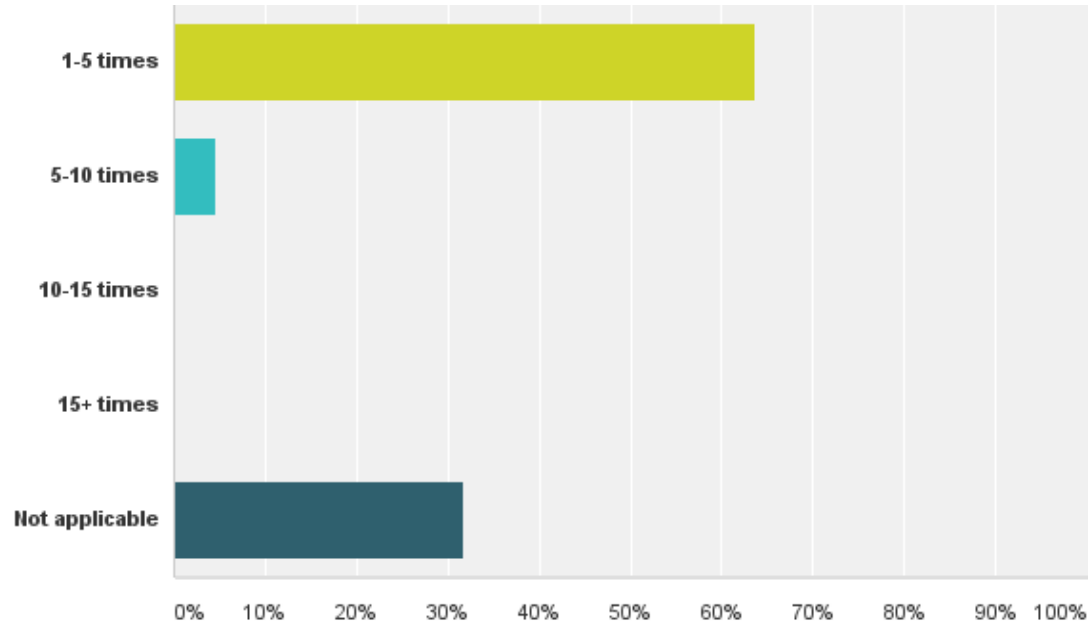
Q13: If a pollutant entered the Spring Creek Watershed, where do you think it would end up?

Answered: 21 Skipped: 1

Answer Choices	Responses
Chesapeake Bay	100.00% 21
Mississippi River	0.00% 0
Great Lakes	0.00% 0
Schuylkill River	0.00% 0
Total	21

Q14: How many times a year does the Spring Creek flood onto your property?

Answered: 22 Skipped: 0



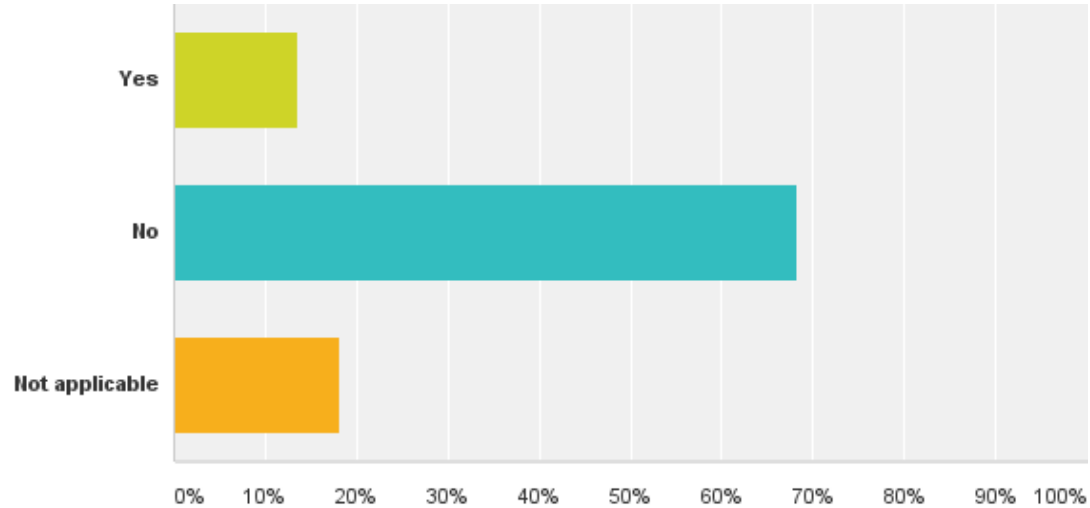
Q14: How many times a year does the Spring Creek flood onto your property?

Answered: 22 Skipped: 0

Answer Choices	Responses
1-5 times	63.64% 14
5-10 times	4.55% 1
10-15 times	0.00% 0
15+ times	0.00% 0
Not applicable	31.82% 7
Total	22

Q15: Do you mow your lawn up to the creek's edge?

Answered: 22 Skipped: 0



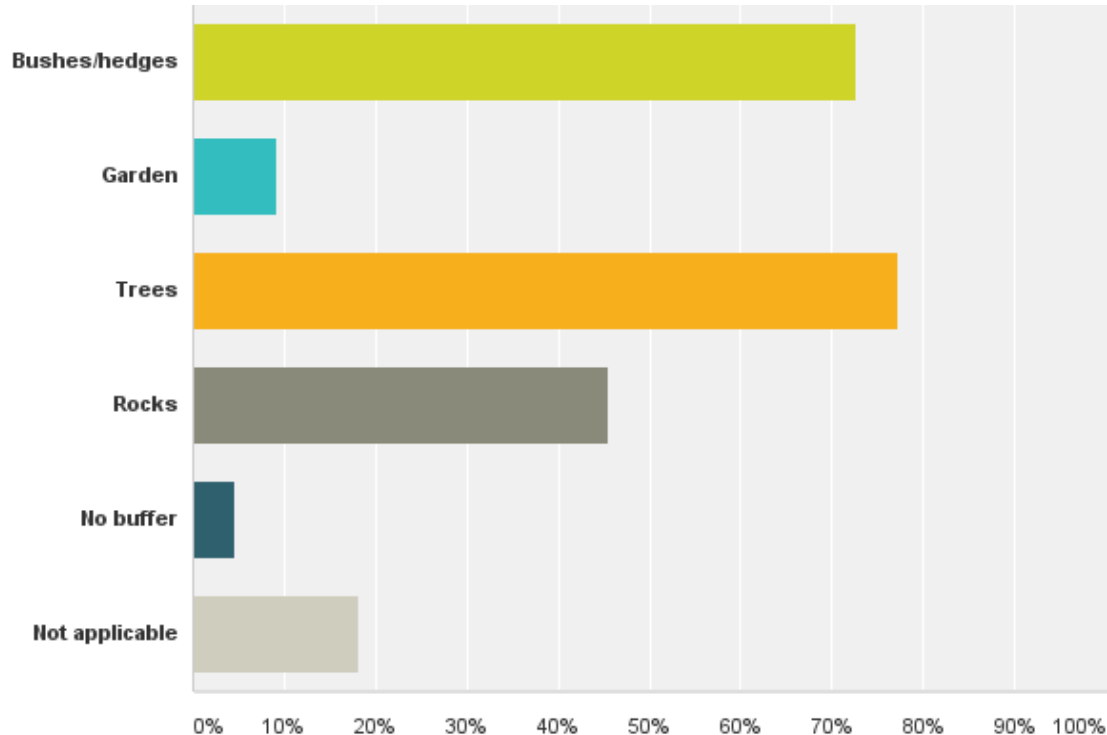
Q15: Do you mow your lawn up to the creek's edge?

Answered: 22 Skipped: 0

Answer Choices	Responses
Yes	13.64% 3
No	68.18% 15
Not applicable	18.18% 4
Total	22

Q16: What type of buffer do you have between Spring Creek and your property? (Select all that apply)

Answered: 22 Skipped: 0



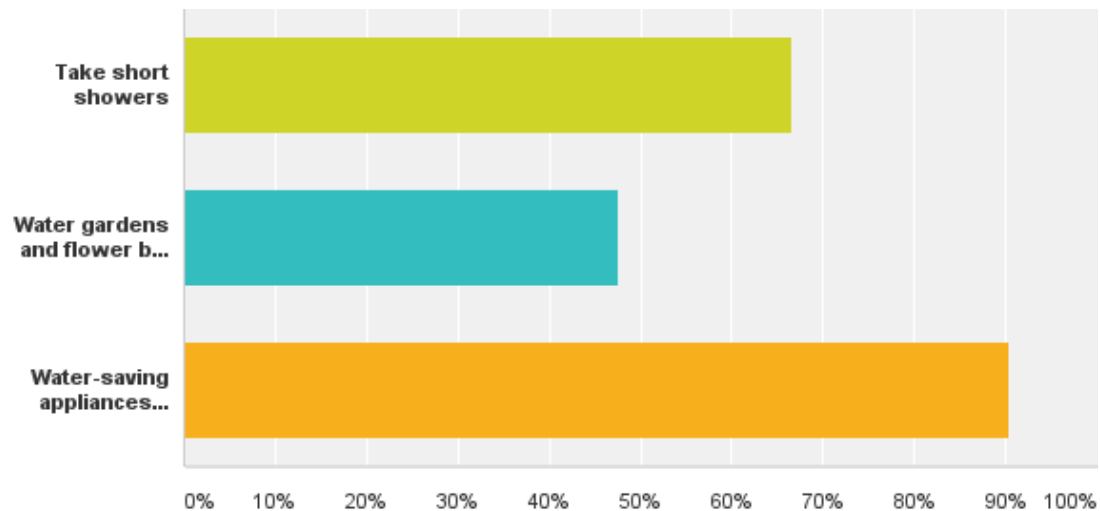
Q16: What type of buffer do you have between Spring Creek and your property? (Select all that apply)

Answered: 22 Skipped: 0

Answer Choices	Responses	
Bushes/hedges	72.73%	16
Garden	9.09%	2
Trees	77.27%	17
Rocks	45.45%	10
No buffer	4.55%	1
Not applicable	18.18%	4
Total Respondents: 22		

Q17: Do you take any of these measures to conserve water in your household? (Select all that apply)

Answered: 21 Skipped: 1



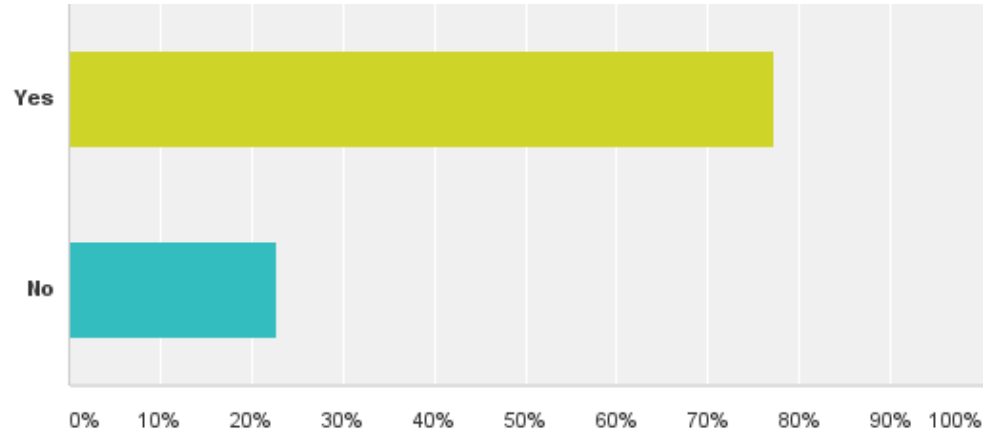
Q17: Do you take any of these measures to conserve water in your household? (Select all that apply)

Answered: 21 Skipped: 1

Answer Choices	Responses	
Take short showers	66.67%	14
Water gardens and flower beds in the morning	47.62%	10
Water-saving appliances (shower heads, toilets)	90.48%	19
Total Respondents: 21		

Q18: Are you aware of the Spring Creek Watershed Association?

Answered: 22 Skipped: 0



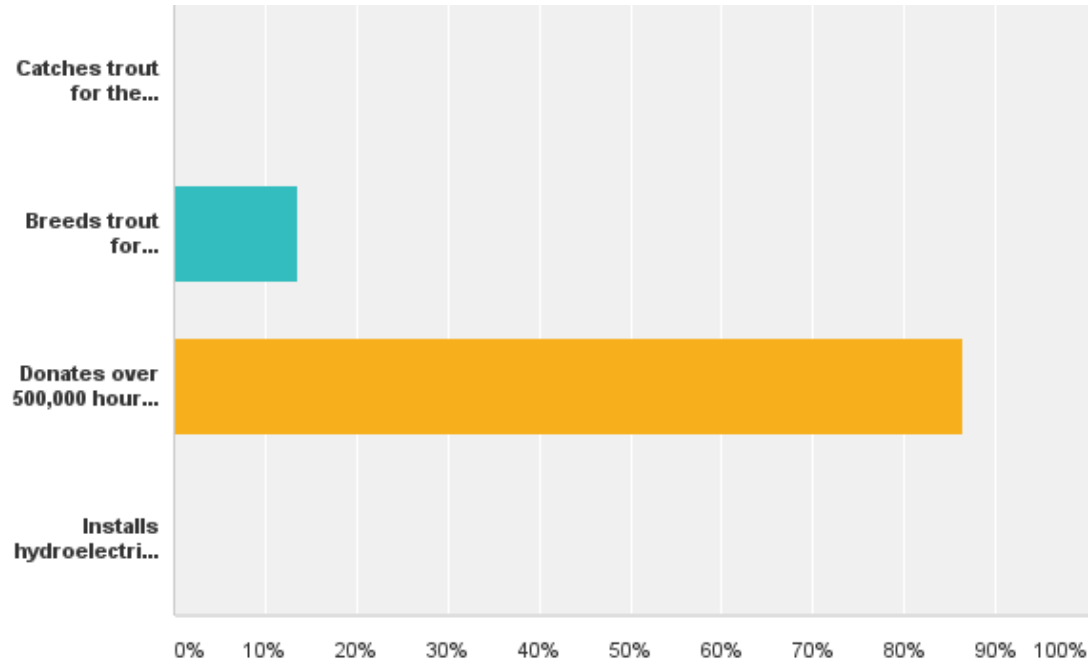
Q18: Are you aware of the Spring Creek Watershed Association?

Answered: 22 Skipped: 0

Answer Choices	Responses
Yes	77.27% 17
No	22.73% 5
Total	22

Q19: What does the Trout Unlimited Spring Creek Chapter accomplish?

Answered: 22 Skipped: 0



Q19: What does the Trout Unlimited Spring Creek Chapter accomplish?

Answered: 22 Skipped: 0

Answer Choices	Responses
Catches trout for the community	0.00% 0
Breeds trout for recreational fishing	13.64% 3
Donates over 500,000 hours every year to clean up polluted streams, restore water to dried-up streams, and teach children about responsible stewardship and good fishing	86.36% 19
Installs hydroelectric dams to give the community discounted electricity	0.00% 0
Total	22

Analysis of Survey

First, we asked whether they live on or own property along Spring Creek, and while they all responded with yes, only 16 were able to confirm this. From our free response question asking them to define a watershed, and the multiple choice question asking them to select the best definition of a watershed, we can see that the vast majority are very aware of what it is. They also knew that their local watershed is called the Spring Creek Watershed.

We asked respondents how they personally use Spring Creek, and the responses mainly centered around “for viewing appreciation” and “recreation.” The majority, at 60%, rated the creek quality as a 4 on a scale of 1 to 5.

Analysis of Survey

The next half of the survey focused on storm water management practices. 95% of the respondents responded knowing that storm-water runoff discharges into water bodies, and every respondent knew that the Spring Creek Watershed eventually discharges into the Chesapeake Bay. When it came to individual homes and preventing storm water pollution, 32% said they either do mow up to the creek's edge or did not feel this question was applicable to them. We asked what type of buffers homeowners currently use to prevent pollution. Of the people who responded that they are employing buffers, 72% are using bushes and hedges, 9% are using a garden, 77% have trees lining the area, and 45% use rocks. However, 23% are not using a buffer or do not feel this applies to them.

Analysis of Survey

When it comes to knowledge of the Spring Creek Watershed Association, 77% of the respondents are aware of it, and 86% are aware of the goals of the Trout Unlimited Spring Creek Chapter.

Analysis of Survey

While our response rate is not representative of the entire population residing on Spring Creek, we have made some conclusions based on the results of the respondents. A majority of the respondents are aware of what a watershed is, their local watershed, and local organizations that work with the Spring Creek Watershed. Some areas that residents should be more informed about include other options for storm-water management. The creek is overall rated high, but to get it to the highest rating by residents, more practices should be put in place by residents to prevent runoff of pollution into the creek. We think information involving cost effective ways to implement best management practices, and the benefits of said practices would be very useful to include in the Spring Creek Watershed Association's atlas page.