

Study conducted for the

STANTEC CONSULTING

EAST CANYON STUDY

January/February 2006

Study conducted by

Dan Jones & Associates, Inc.

Salt Lake City, Utah

TABLE OF CONTENTS

INTRODUCTION

Research Objectives	2
Methodology	4

EXECUTIVE SUMMARY

Summary	5
---------------	---

CONCLUSIONS / RECOMMENDATIONS

Conclusions	9
-------------------	---

TAB: DETAILED ANALYSIS

Question 1: What is your ZIP Code?	10
Question 2: Do you generally wash your car at home or in a commercial car wash?	10
Question 3: Do you was you car on the lawn or do you wash it on the driveway	11
Question 4: What kind of soap do you use most often?	11
Question 5: Do you generally mow your own lawn?	12
Question 6: IF NO Who mows your lawn?	12
Question 7: Who applies fertilizer, weed and feed or similar products to your lawn?	13
Question 8: Do you change your automobile oil at home?	14
Question 9: Do you change you lawn mower or RV oil at home?	14
Question 10: Where do you dispose of the oil?	15
Question 11: How do you handle fuel/oil spills at home?	15
Question 12: Are you aware that there is a place to dispose of household chemicals in Summit County?	16
Question 13: Have you ever used this facility?	16
Questions 14-22: Do you happen to know what you take to the disposal facility?	17
Question 23: How do you dispose of unused medical prescriptions?	18
Question 24: Should unused prescriptions be flushed down the toilet for disposal?	18
Question 25: Do you own a dog?	19
Question 26-27: How do you dispose of the dog waste at home? In public places?	19
Question 28: Are you aware of current environmental concerns regarding water quality and quantity in local creeks and streams?	20

Question 29: What are the concerns you have heard of?.....	20
Questions 30-34: Do you happen to know where the following are located?	21
Question 35: Are you aware of fish consumption advisories on any local creeks?.....	22
Question 36: Do you feel overall water quality of local creeks and streams is a serious issue?	22
Questions 37-38: Who do you think is the largest and second largest contributor to water pollution in local streams?.....	23
Question 39: Does neighborhood storm water go to a treatment plant?.....	23
Question 40: Where does storm water from your property and neighborhood are flow first?	24
Question 41: How serious of a problem is storm water pollution?	25
Question 42: Were you aware that storm water is regulated by the State of Utah and managed by local government?.....	26
Question 43: Have you heard or seen promotions about storm water, or storm water pollution or prevention from the Summit County or Park City governments?.....	26
Questions 44-48: Rate how much various groups contribute to pollution of storm water in the creeks and streams?.....	27
Questions 49-53: Rate the effectiveness of methods to prevent creek water from being polluted?	28
Question 54: If new ideas were given about ways to prevent stream, creek and storm water pollution, how likely do you think people would be to change their habits?	29
Question 55: How serious of a problem do you feel a lack of local water is in the creeks in the area?.....	30
Question 58: Can users who have water rights legally divert water causing a creek to dry up?.....	31
Question 59: Is there a difference between conserving water and protecting water quality?	32
Question 60: Which issue is more important – quality of water in a creek or amount of water in a creek?	33
Questions 61-62: Do you divert water from any local stream/creek? For what purpose?.....	34
Question 64: Do you walk dogs on these (creek) trails?.....	35
Question 65: How do you dispose of the dog waste along the trail?	35
Question 66: Do you use the bag dispensers along the trails to collect and remove the dog’s waste?.....	36
Questions 67-70: Do you use the creeks for fishing, dog swimming, wading or other?	37
Question 71: Do you own any horses or cattle?	38

Question 72: Do your horses or cattle have access to a stream or creek?..... 38
Question 73: What is your main source of news and information about
water issues in Summit County? 39
Question 74: Are you aware of the Park City, Summit County, or East
Canyon Watershed web sites? 40
Question 75: Have you ever visited any of these watershed web sites? 40

APPENDIX A—QUESTIONNAIRE WITH RESULTS

APPENDIX B—RESPONDENT COMMENTS

APPENDIX C—CROSS-TABULATIONS

INTRODUCTION

Dan Jones & Associates, Inc., a full-service, public opinion, and market research firm located in Salt Lake City, Utah, was commissioned by Stantec to conduct and compile a survey of residents in the Park City area.

RESEARCH OBJECTIVES

The main objectives of the study were to:

- Understand residents' current habits regarding car washing, lawn mowing, and changing oil.
- Determine methods residents use to dispose of oil, as well as how they handle oil spills.
- Identify how area dog owners dispose of dog waste.
- Evaluate respondents' awareness and use of the disposal facility in Summit County.
- Measure residents' understanding and awareness of environmental concerns relating to local creeks and streams, including fish consumption advisories, water quality, and contributors to water pollution.
- Examine residents' understanding of storm water and related issues, such as awareness of where storm water goes, storm water regulation, contributors to storm water pollution, and methods to prevent storm water pollution.
- Ascertain residents' views on water quantity in local streams, including identifying the largest users and opinions on whether users can legally divert water to dry up a stream.
- Identify whether conserving or protecting water quality is more important to residents.
- Determine the percentage of residents who divert creek water.
- Measure creek trail use, including frequency and purpose.

- Identify sources of information about water issues and Web site use related to watershed and storm water matters.

METHODOLOGY

DATE CONDUCTED:	January 2006
UNIVERSE:	Residents, age 18 and over, who live in the Summit County zip codes 84060, 84068, and 84098
SAMPLE SIZE:	213 completed interviews
SAMPLE:	RDD sample and telephone listings Multiple callbacks used Interviews conducted during daytime and evening hours
ERROR:	+/- 7.0% (on total data)
QUESTIONNAIRE:	Developed by Dan Jones & Associates in conjunction with Julie Howe, Stantec Consulting; Lee Duncan, Upper Weber River Watershed Coordinator; and Tina Quayle, Swaner Nature Preserve Survey included both structured and unstructured questions
SURVEY LENGTH:	Average interview time was 12 minutes.
INTERVIEWERS:	All interviewers are trained employees of Dan Jones & Associates' Data Collection Center. Bilingual interviewers conducted interviews with non-English speaking households.

Survey results are included in the Detailed Analysis section. Appendices include the questionnaire with results (Appendix A), respondent comments (Appendix B), and demographic cross-tabulations (Appendix C).

Statistically significant findings are noted throughout the report with check marks.

EXECUTIVE SUMMARY

The summary is an overall view of the survey results. Survey questions are grouped together by subject matter.

Current Habits

- The majority of residents use a car wash to clean their vehicles. About one in ten wash their cars at home. Most home car washers use the driveway as opposed to washing their vehicle on the lawn. “Car wash” soap and environmentally safe soaps are used by about half of the respondents, while the other half uses dishwashing soap when washing their car at home.
- The majority of respondents mow their own lawn and apply fertilizer, weed and feed, or similar products. One-fifth of those contacted indicate they do not have a lawn. Professional lawn services are used by most of the residents who do not mow their own lawn.
- Approximately one-quarter of respondents change their lawn mower or RV oil at home, but fewer change their automobile oil at home. Those who change their oil at home generally dispose of it at the recycle center, an automotive center, or a service station. Spills are most commonly handled by wiping them up with rags or towels and using kitty litter or sand.
- Residents say that they put their unused medical prescriptions in the trash/garbage or put them in the toilet/sink. Less common responses were to return them to the doctor/clinic/pharmacy, keep them, or take them to the disposal facility. One-fifth say they never have unused medicine.
- Over half of the respondents say they own a dog. Most use the trash to dispose of dog waste at home, though some bag it or bury it. When in public places, most dog owners bag the dog’s waste or use the trash.

Awareness and Use of the Summit County Disposal Facility

- Though the majority of residents are aware of the disposal facility in Summit County, fewer than half of those contacted have actually used the facility.

- Those aware of the disposal facility believe that the facility takes paint/paint supplies and oil. A significant number of respondents say that batteries, cleaning chemicals, pesticides, and household cleaners can also be taken to the disposal facility.

Local Creeks and Streams Environmental Concerns

- Three-fourths of the respondents are very or somewhat aware of environmental concerns regarding water quality and quantity in local creeks and streams.
- Most respondents say the water quality of local creeks and streams is a serious issue.
- People, mining, construction, and golf courses are seen as the largest contributors to water pollution in local streams.
- Residents are not aware of fish consumption advisories for local creeks, as only one in five indicate they have heard of such advisories.
- The vast majority of respondents know where Swaner Nature Preserve is located. Most know where Silver Creek and East Canyon Creek are, and fewer than half are familiar with the location of Kimball Creek and McLeod Creek.

Storm Water Issues

- Approximately one-third of interviewees say that neighborhood storm water goes to a treatment plant; however, the largest percentage of respondents do not know this.
- Though many residents don't know where storm water from their property goes, one in four believe it goes to East Canyon Creek. Fewer mention Silver Creek, Kimball Creek, and McLeod Creek.

- The majority of residents feel storm water pollution is a serious problem in the Snyderville Basin and Park City area, although most say it is only “somewhat” serious.
- Less than half of the respondents are aware that storm water is regulated by the State of Utah and managed by local government.
- Only one in five respondents have heard or seen promotions about storm water sponsored by Summit County or Park City governments.
- Residents believe that historic mining, residential activities, and commercial activities contribute the most to storm water pollution. Respondents rate the impact of industrial activities and mountain resorts on storm water pollution slightly lower.
- Of the government actions being considered to prevent pollution of creek water, monitoring of water quality is viewed as the most effective method followed by stricter enforcement. Fines are rated as the least effective method of those measured, but were still deemed a good method by many.
- Most respondents believe people will change their habits which contribute to storm water pollution if they are given new ideas about ways to prevent it.

Quantity of Water Flow

- Over three-fourths of the respondents indicate that lack of water in local creeks is a serious problem. Respondents say that golf courses, agriculture, and residents are the largest users of stream water in the area.
- Residents are split on whether users with water rights can legally divert water and cause a creek to dry up; almost half say users cannot divert that amount of water.
- Less than one percent of those interviewed divert water from a local stream or creek.

Conserving or Protecting Water

- The vast majority of the respondents feel there is a difference between “conserving” and “protecting” water quality. Most say the “quality” of the water in a creek is more important than the “amount” of water in a creek.

Use of Creek Trails

- Most residents use creek trails sometime during a year. One in ten uses the trails daily, and another quarter uses them weekly.
- Half of the dog owners use creek trails. Dog owners that use creek trails generally bag dog waste along the trail, and three-quarters always or occasionally use the bag dispensers along the trails to dispose of the dog waste.

Information Sources About Water Issues

- Over half of the respondents say local newspapers are their main source of information about water issues followed by local radio.
- Awareness of water/watershed Web sites is not high, with less than 20% saying they know of a site. Of those aware of any such Web site, four in ten have accessed the site.

CONCLUSIONS AND RECOMMENDATIONS

Survey results indicate that many area residents do not understand the storm water related issues in Summit County.

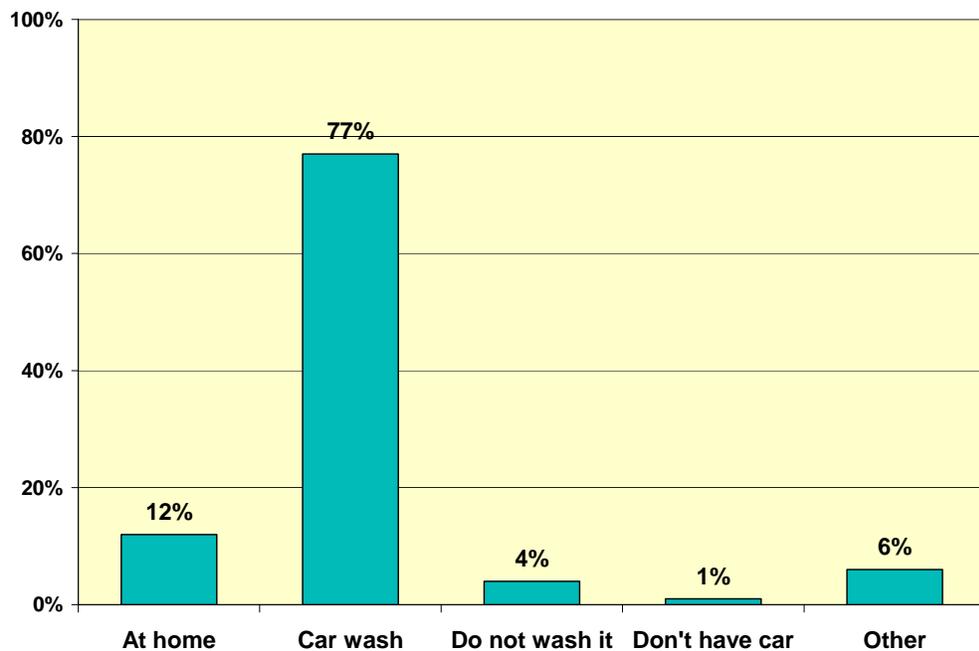
- It is recommended that a public education campaign focus on storm water in the area and where it flows. The importance of water quality and quantity should be part of the effort as well as information about the location and use of local creeks and creek trails.
- With the large number of dog owners, on-going education about the disposal of dog waste both at home and on trails is important.
- More education is needed regarding the County Household Chemical Disposal Facility and what items can be disposed of there.
- The primary methods of relaying information to the public should be newspaper and radio. Residents should be encouraged to use the water related web sites for information about local storm water. The web site locations should be easy to use with current information.

DETAILED ANALYSIS

Question 1. What is your zip code area?

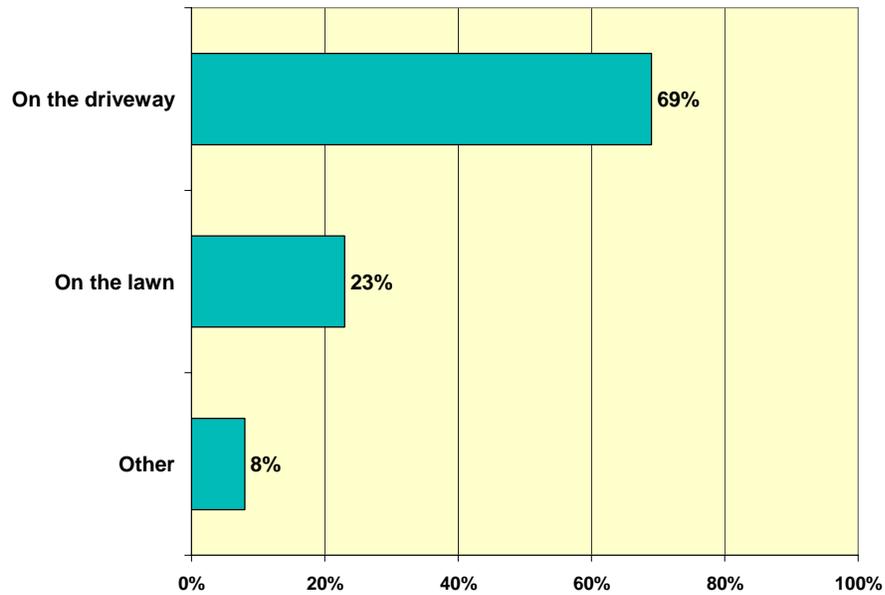
32%	84060
2%	84068
66%	84098
0%	Other (THANK AND TERMINATE – “The survey today does not include issues in your zip code area – Thank you anyway and have a nice day.”)
0%	Don't know / Refuse (THANK AND TERMINATE)

Question 2. Do you generally wash your car at home or in a commercial car wash?

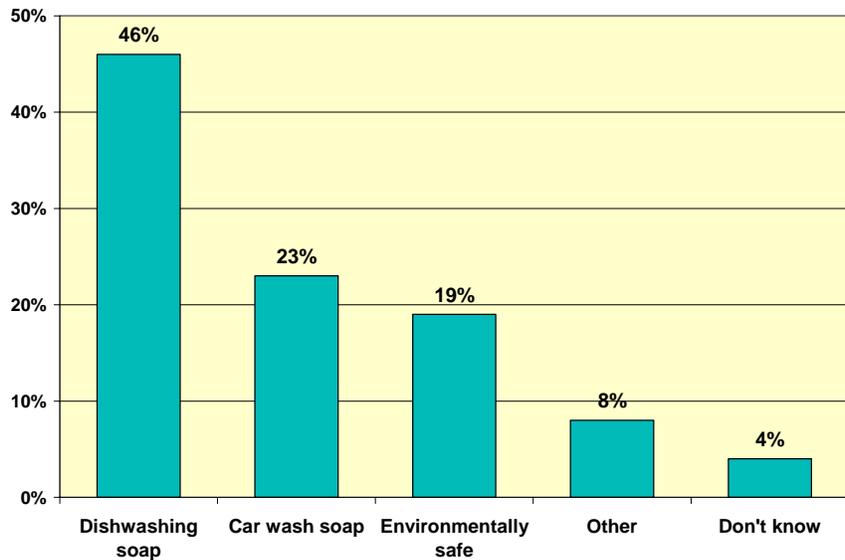


- ✓ Residents with moderate or conservative ideologies, Republicans, independent voters, and those living between I-80 and The Canyons are more likely to say they wash their car at a commercial car wash.

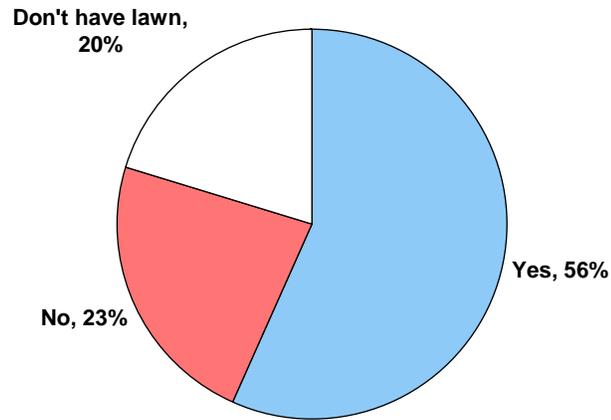
Question 3. (IF WASH CAR AT HOME) Do you generally wash your car on the lawn or do you generally wash it on the driveway? (Number responding – 26)



Question 4. (IF WASH CAR AT HOME) What kind of soap do you use most often to wash your car? (Number responding – 26)

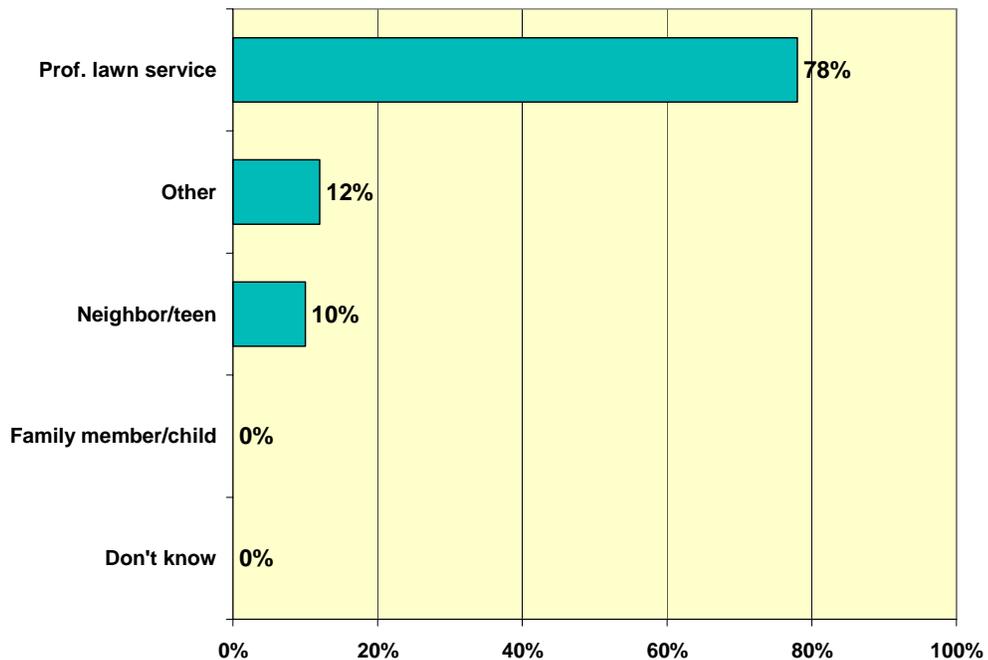


Question 5. Do you generally mow your own lawn?



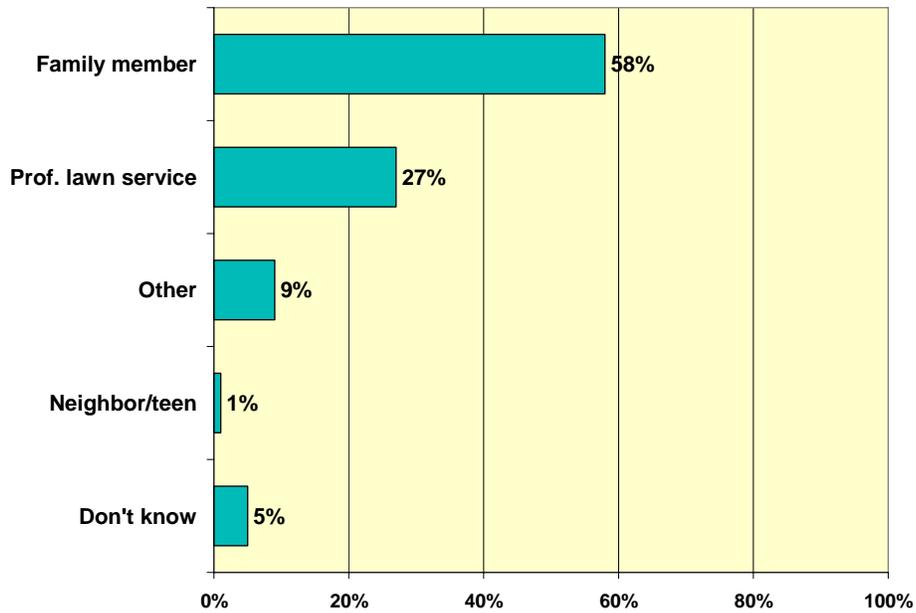
- ✓ Residents whose annual family income is \$80,000 to \$150,000, people who lived in Summit County for a longer period of time, and those who live north of I-80 are more likely to say they generally mow their own lawn.

**Question 6. (IF NO) Who mows your lawn? (UNAIDED)
(Number responding – 50)**

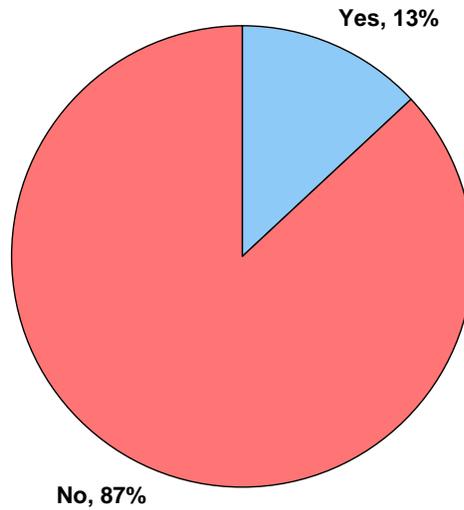


Question 7. Who applies fertilizer, weed and feed or similar products to your lawn? (Number responding-170)

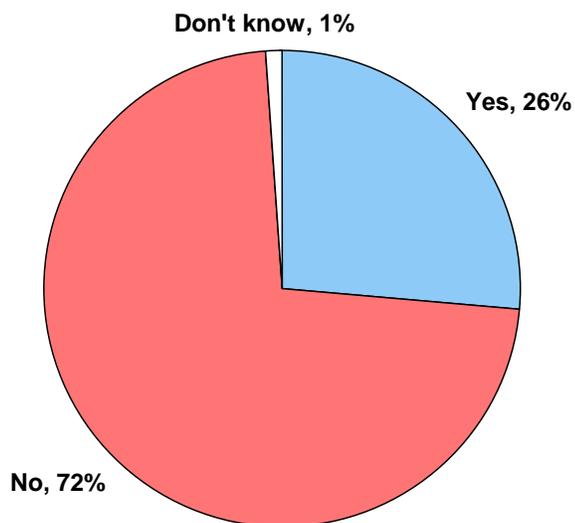
- 58% Family member
- 27% Professional lawn service / professional landscaper
- 1% Teenager / neighbor / child
- 9% Other (VOL-SPECIFY)
- 5% Don't know / refuse (VOL)



Question 8. Do you generally change your automobile (car/truck) oil at home?

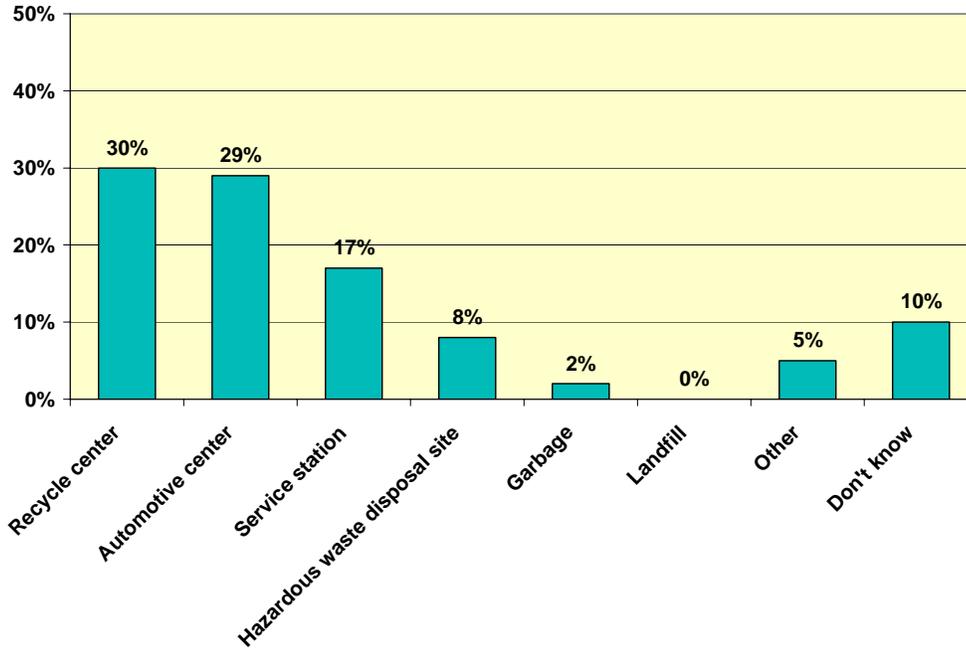


Question 9. And, do you generally change your lawn mower or RV oil at home?



- ✓ Males and people who have lived in Summit County for a longer period of time are more likely to say that they change their lawnmower or RV oil at home.

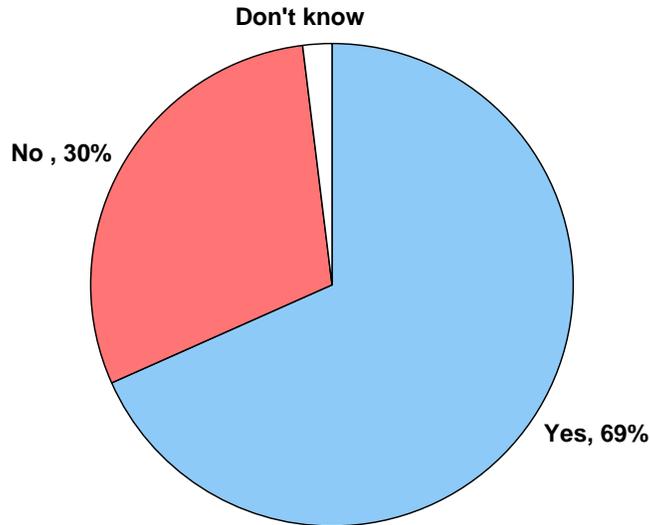
Question 10. (IF CHANGE AUTO, RV, MOWER OIL AT HOME ASK) Where do you generally dispose of the oil? (UNAIDED – DO NOT READ RESPONSES) (Number responding – 63)



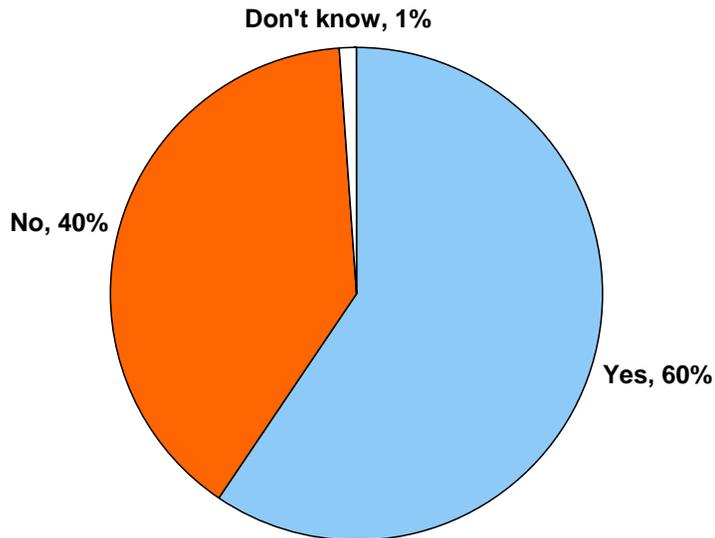
Question 11. (IF CHANGE AUTO, RV, MOWER OIL AT HOME, ASK) How do you handle fuel/oil spills at home? (Number responding – 63)

35%	Don't spill/don't have any
14%	Rags/towels/wipe it up
8%	Kitty litter
8%	Sand/dirt
3%	Sawdust
2%	Pad/mat
2%	Detergent
11%	Miscellaneous
17%	Don't know

Question 12. Are you aware that there is a place to dispose of household chemicals in Summit County?



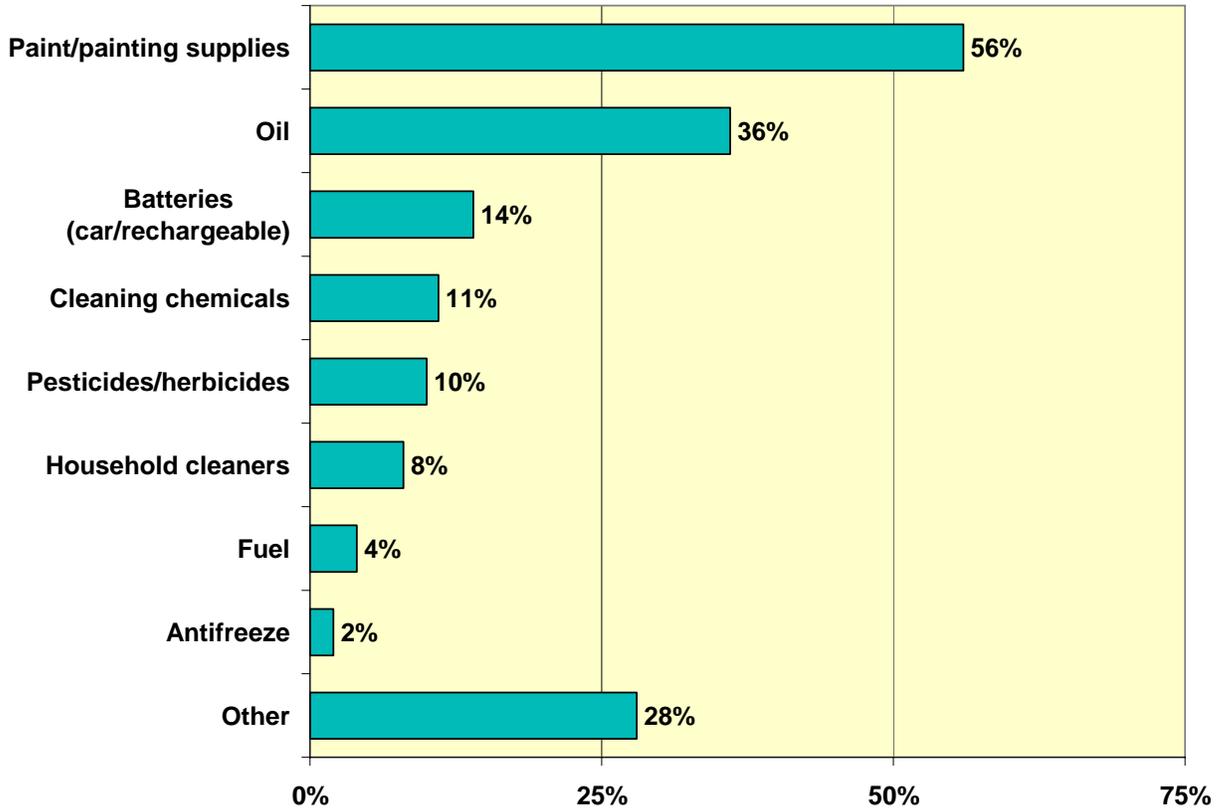
Question 13. (IF AWARE) Have you ever used this facility? (SUMMIT COUNTY HOUSEHOLD CHEMICAL DISPOSAL FACILITY) (Number responding – 146)



- ✓ Residents age 45 to 64, people with moderate to liberal ideologies, Democrats, independent voters, and those who live within Park City are more likely to say they have used the household chemical disposal facility.

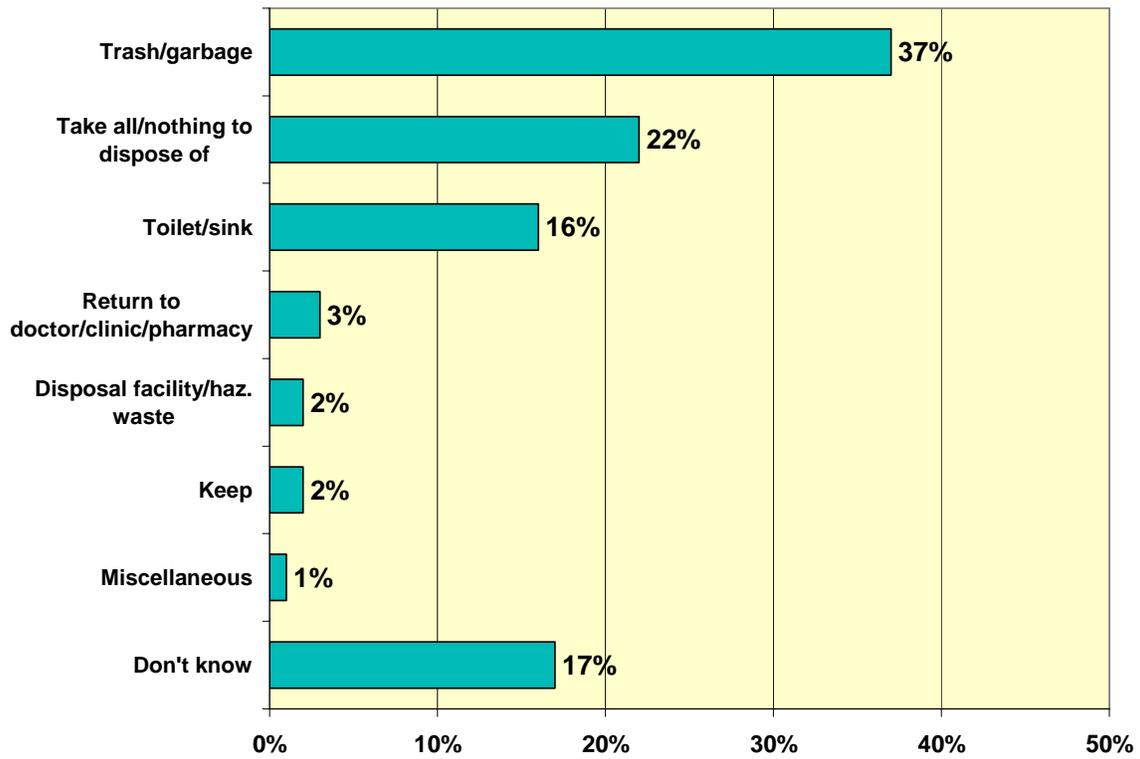
Question 14 – 22. (IF AWARE) Do you happen to know what you can take to the disposal facility? (UNAIDED - MARK EACH MENTIONED – PROBE)

(Number responding – 146)

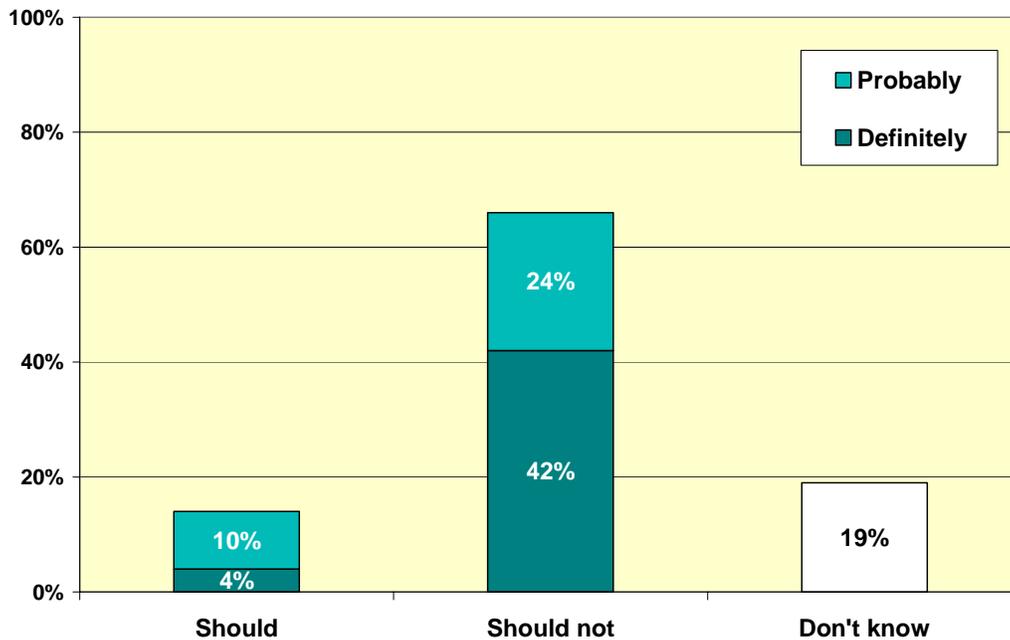


- ✓ Residents age 45 and over, independent voters, and those who have lived in Summit County more than two years are more likely to mention paint and paint supplies.
- ✓ Residents under age or age 45 to 54 are more likely to mention oil.
- ✓ Residents living within Park City are more likely to mention other substances.

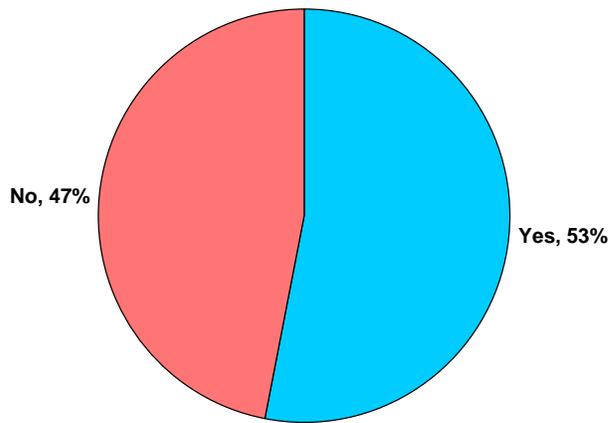
Question 23. How do you dispose of unused medical prescriptions?



Question 24. From what you know or have heard, should unused prescriptions be flushed down the toilet for disposal?

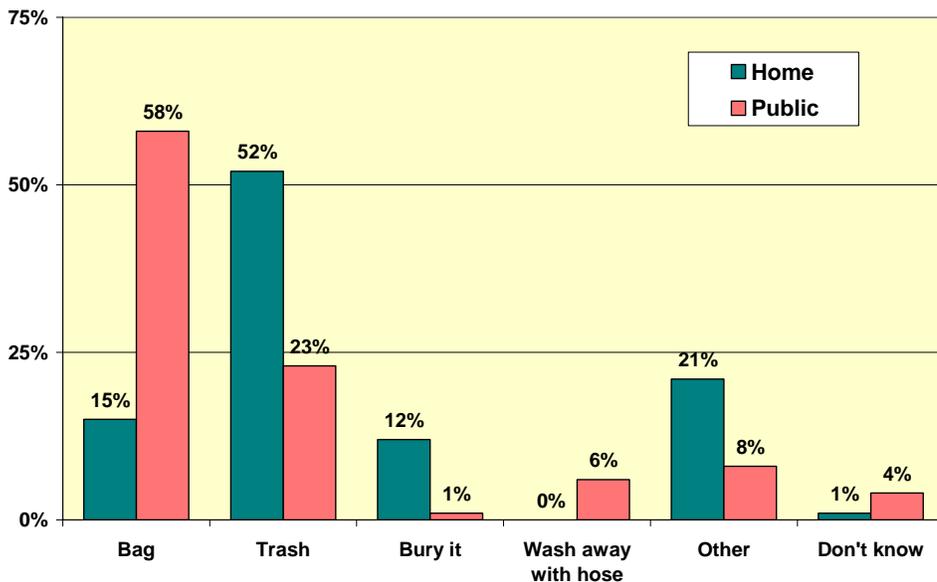


Question 25. Do you own a dog?



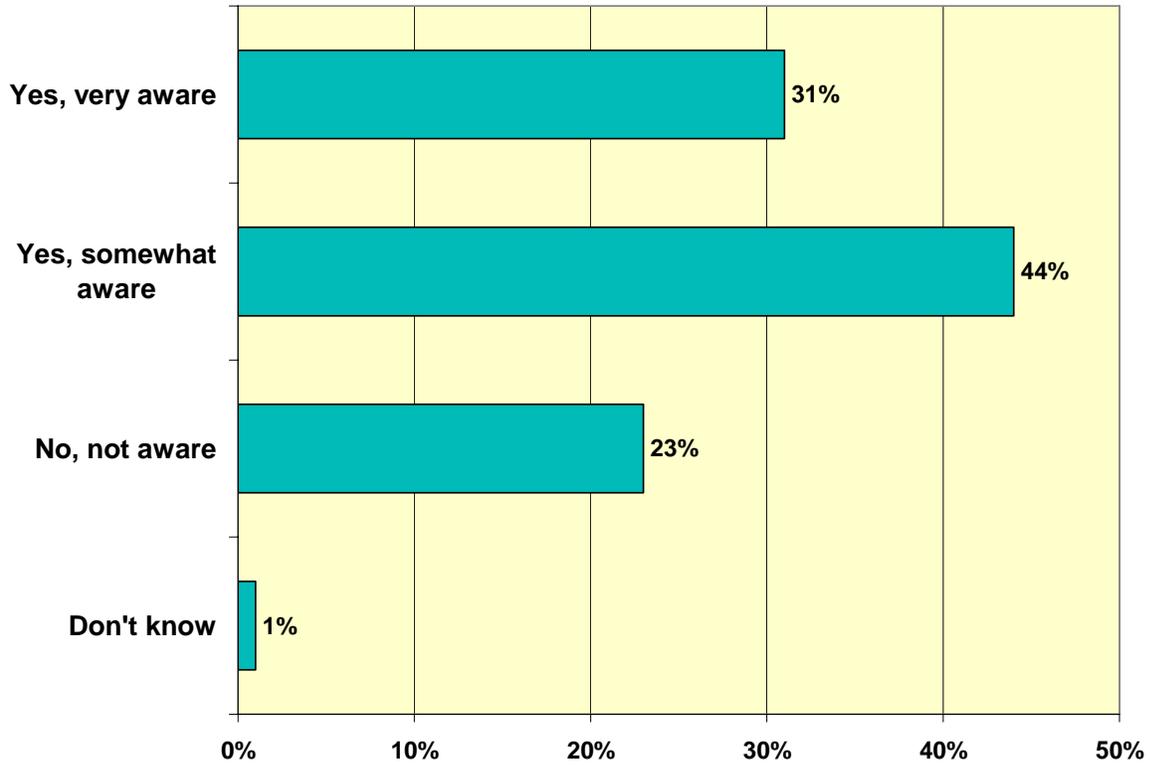
- ✓ Younger residents and those with moderate or liberal ideologies are more likely to say they own a dog.

Question 26-27. (IF HAVE DOG) How do you dispose of the dog waste at home? And when you have the dog in public places, how do you generally dispose of the dog waste? (Number responding – 112)



- ✓ Residents with a college degree and those with an annual family income of \$80,000 or more are more likely to say they use a bag to dispose of dog waste in public.

Question 28. Are you aware of current environmental concerns regarding water quality and quantity in the local creeks and streams like East Canyon Creek and Silver Creek?

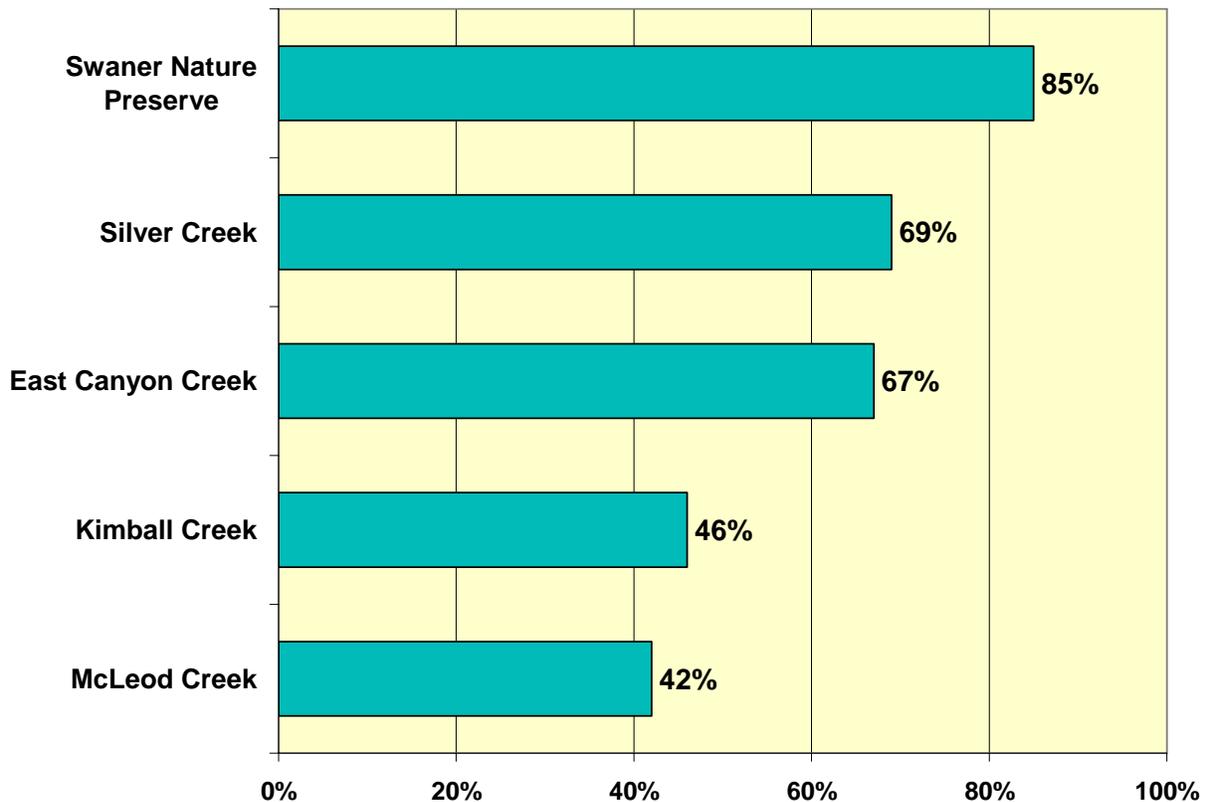


- ✓ Older residents, those with moderate and liberal ideologies, Democrats, independent voters, people who have lived in Summit County for ten or more years, and dog owners are more likely to say they are very aware of current environmental concerns about the water quality in local streams and creeks.

**Question 29. (IF AWARE) What are the concerns you have heard of?
(Number responding –161)**

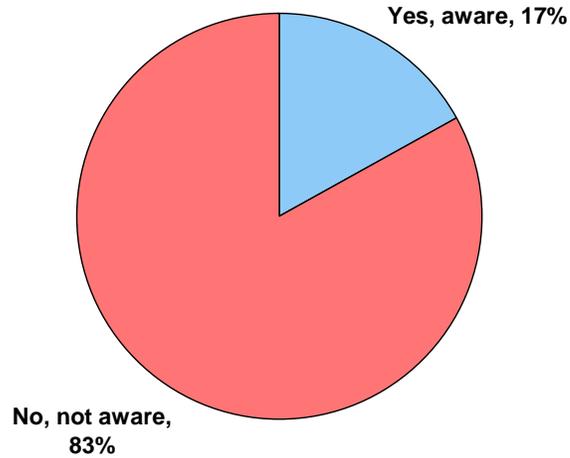
All comments typed – See Appendix B

Questions 30-34. Do you happen to know where the following are located?

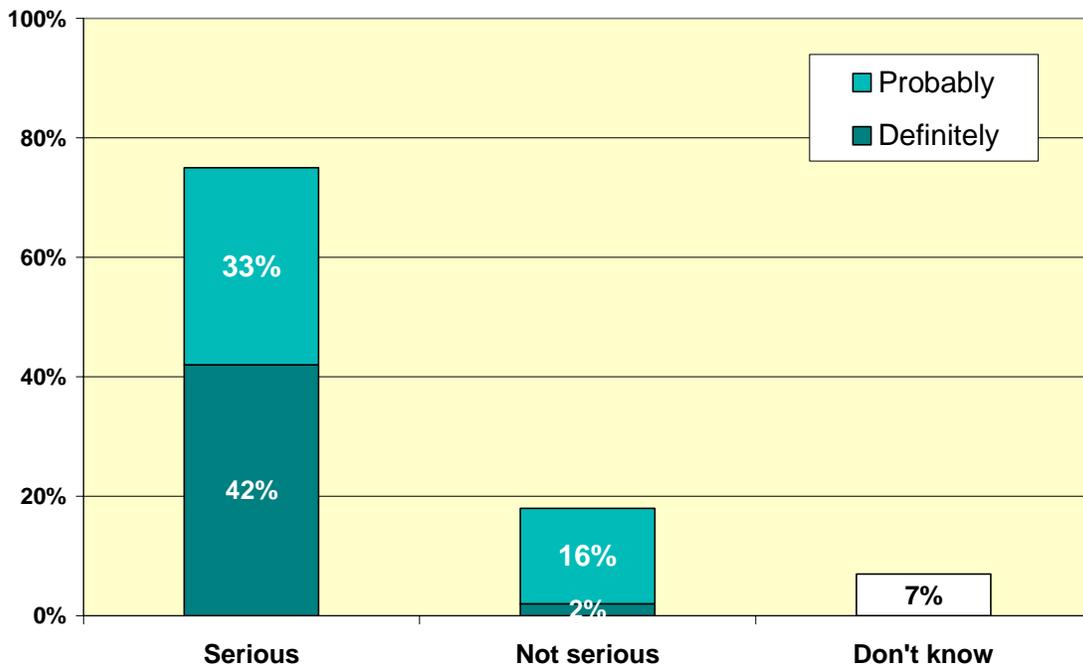


- ✓ Residents over the age of 34, college and post-college graduates, those with more liberal ideologies, people with higher annual family income, and those who have lived in Summit County for at least two years are more likely to say they know where Swaner Nature Preserve is located.
- ✓ People who have lived in Summit County for more than ten years and dog owners are more likely to say they know where East Canyon Creek is located.
- ✓ Residents with higher annual family income and those who have lived in Summit County for ten or more years are more likely to say they know where Kimball Creek is located.
- ✓ Residents age 45 to 54, those who have lived in Summit County for a longer period of time, people living south of I-80, and those who live in the area between The Canyons and Park City or in Park City itself are more likely to say they know where McLeod Creek is located.
- ✓ People who have lived in Summit County two or more years are more likely to say they know where Silver Creek is located.

Question 35. Are you aware of fish consumption advisories on any local creeks?



Question 36. Do you feel overall water quality of local creeks and streams in the Snyderville Basin area or Park City area is a serious issue?

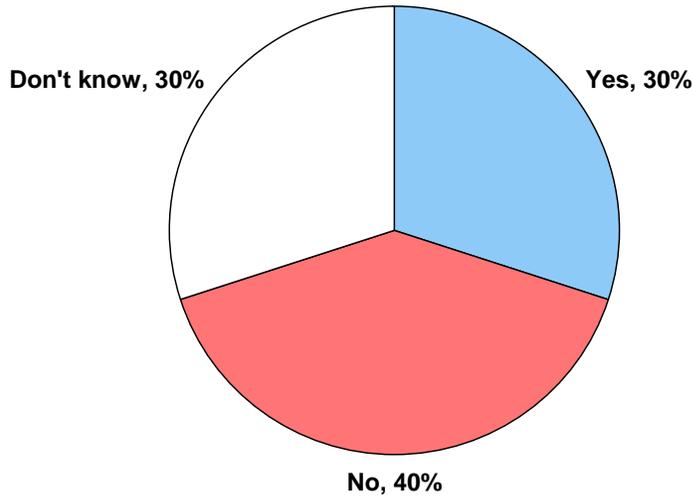


✓ People with more liberal ideologies are more likely to say they feel the overall water quality in the area is a very serious issue.

Questions 37-38. What do you think is the **LARGEST** contributor to water pollution in local streams? (READ OPTIONS) And what do you think is the **SECOND LARGEST** contributor to water pollution in local streams?

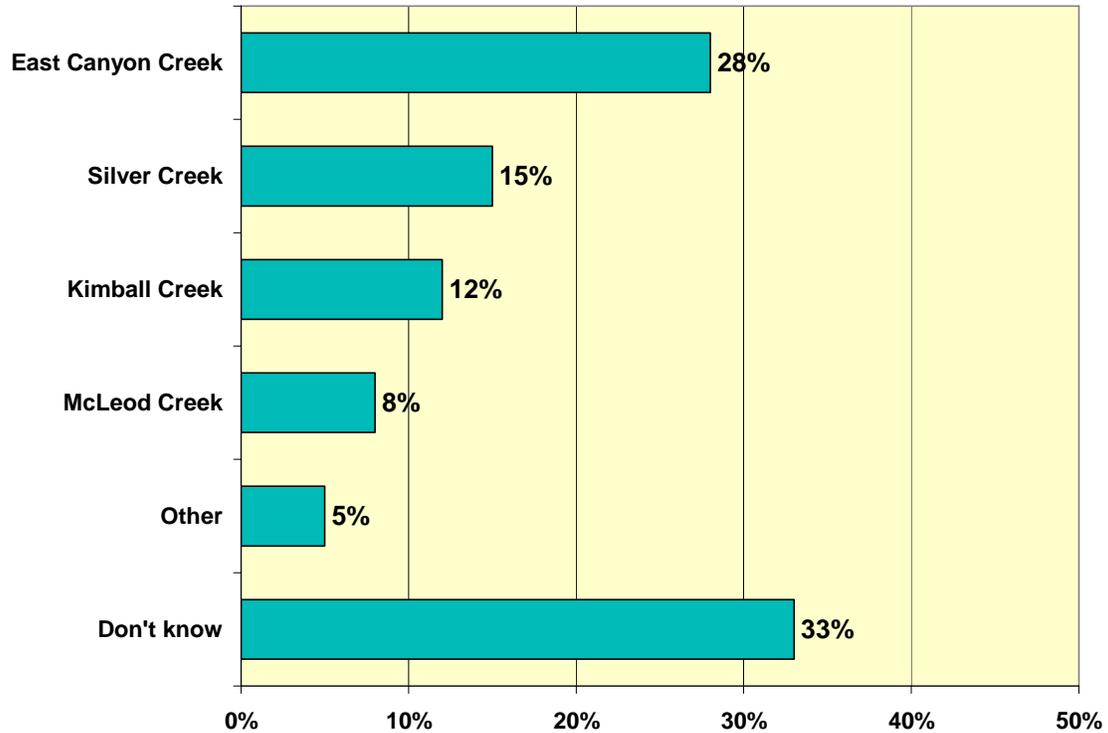
<u>Largest Contributor</u>	<u>2nd Largest</u>	
33%	19%	Residents
6%	8%	Industry
15%	14%	Construction
2%	6%	Animals
1%	2%	Tourists
8%	22%	Golf courses
0%	2%	Mountain resorts
21%	11%	Mining / historic mining
8%	5%	Other (SPECIFY)
6%	11%	Don't know (DO NOT READ)

Question 39. **STORM WATER** is the water from rain, melted snow, and sleet....from what you know or have heard, does neighborhood storm water go to a treatment plant?



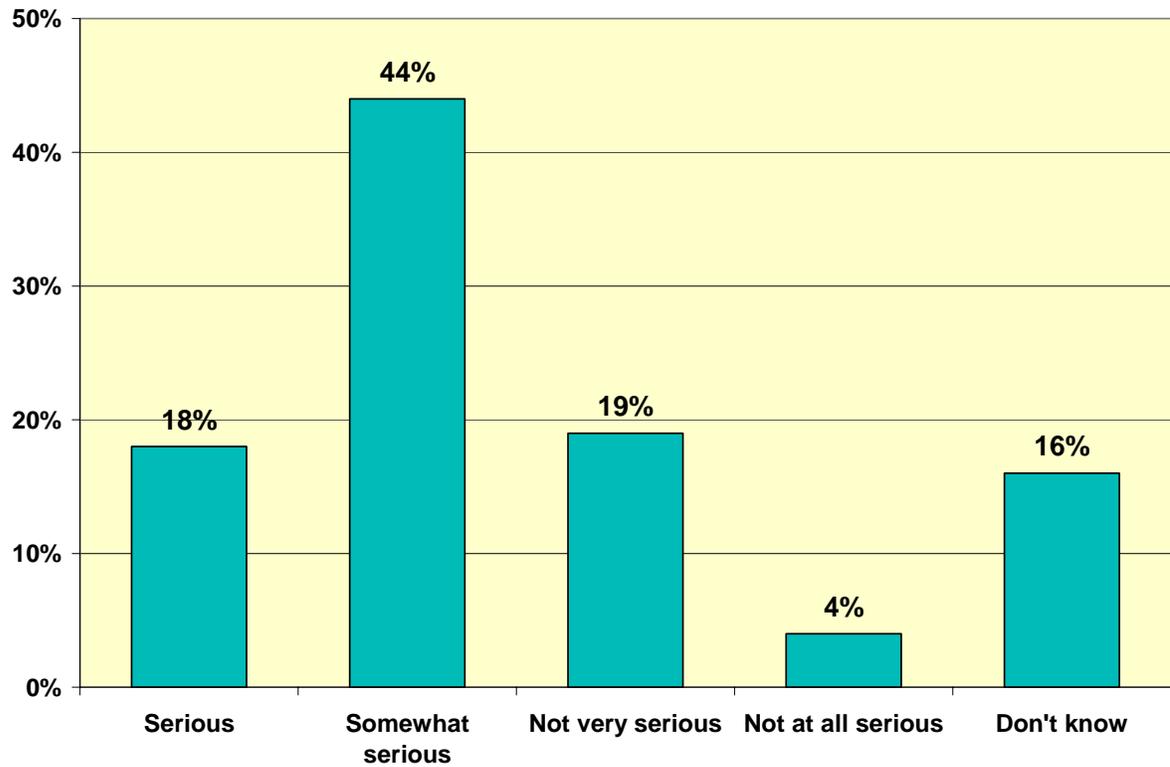
- ✓ Males and residents age 45 to 64 are more likely to say that neighborhood storm water does not get treated.

Question 40. From what you know or have heard, where does storm water from your property and neighborhood area flow first? Is it to...(READ OPTIONS)?



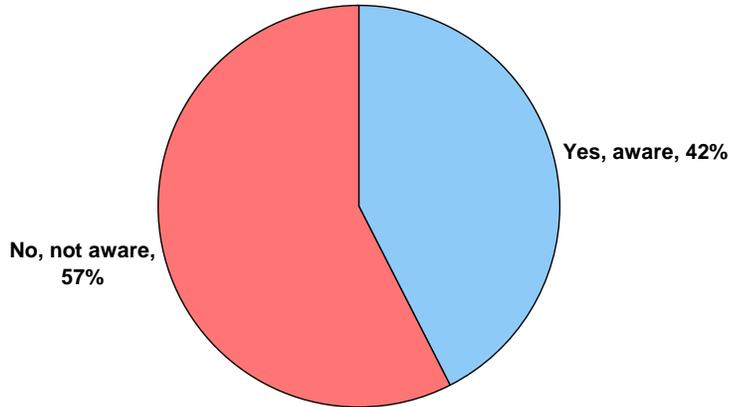
- ✓ People who live north of I-80 are more likely to say that neighborhood storm water flows first to East Canyon Creek.
- ✓ People living between The Canyons and Park City or in Park City are more likely to say that they don't know where neighborhood storm water flows to first.

Question 41. In your opinion, how serious of a problem is storm water pollution in the Snyderville Basin area and Park City area?



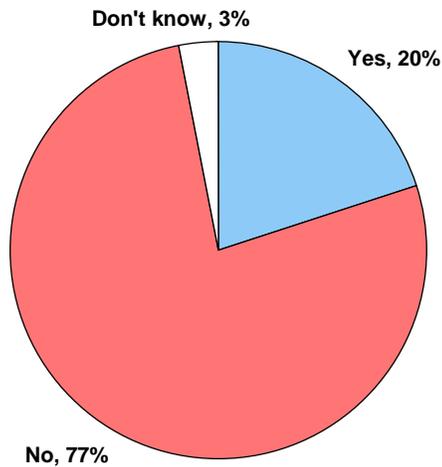
- ✓ Residents with more liberal ideologies and Democrats are more likely to say that storm water pollution in the Snyderville Basin and Park City areas is a very serious problem.

Question 42. Were you aware that storm water is regulated by the State of Utah and managed by local government?



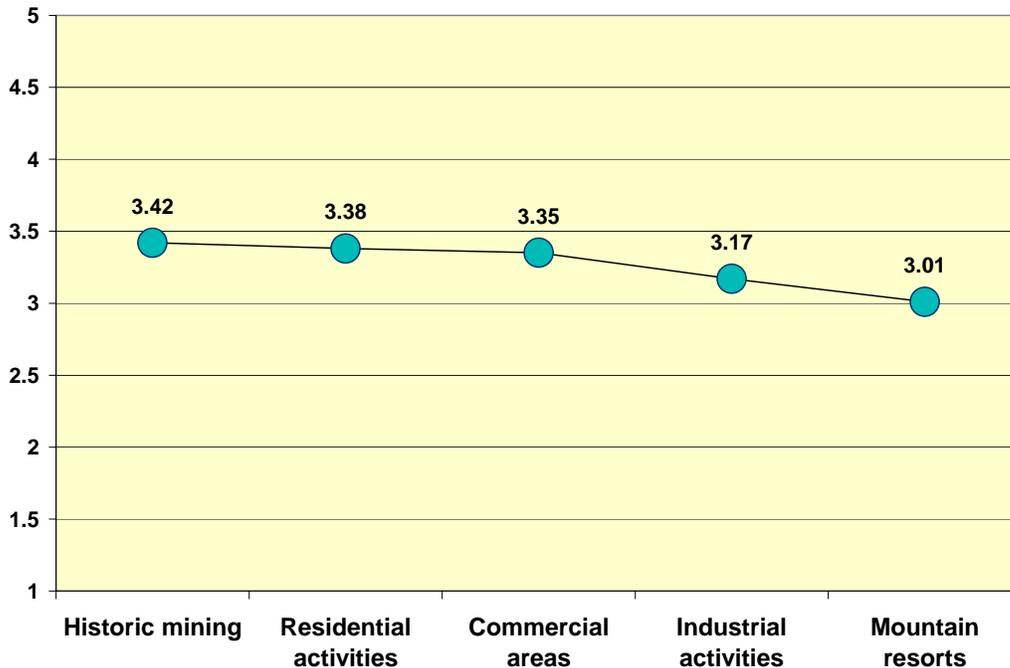
- ✓ Independent voters and residents of Park City are more likely to say they are aware that storm water is regulated by the State of Utah and managed by local government.

Question 43. Have you heard or seen promotions about storm water, or storm water pollution or prevention from the Summit County or Park City governments?



- ✓ People with moderate or somewhat conservative ideologies and those who have lived in Summit County for two to five years are more likely to say they have heard about storm water pollution or prevention.

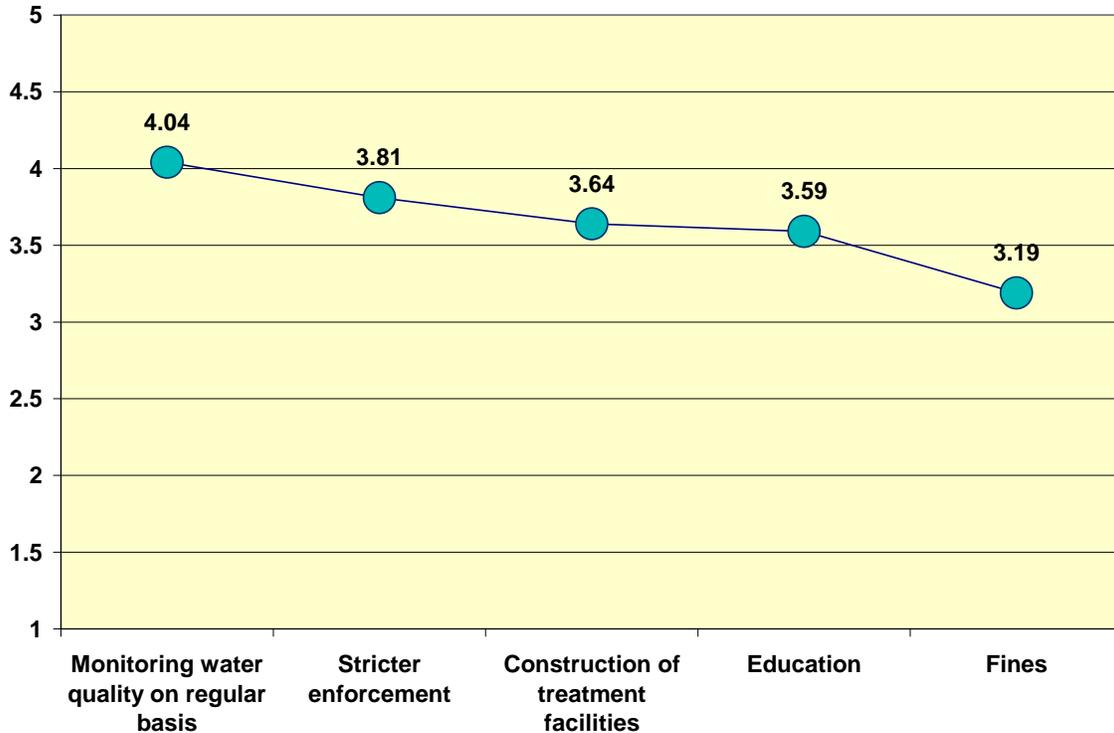
Questions 44 – 48. Please rate each of the following on how much they contribute to pollution of storm water in the creeks and streams in the Snyderville Basin and Park City areas? Using a 1-5 scale with one meaning that the source causes “no pollution” and five meaning it causes “a great deal of pollution.”



- ✓ Females, residents with more liberal ideologies, and independent voters are more likely to say residential activities contribute a great deal to the pollution of storm water in the Snyderville Basin and Park City areas.
- ✓ Females, younger residents, people with less education, those with more liberal ideologies, and people who have lived in Summit County for a shorter period of time are more likely to say that industrial activities contribute a great deal to storm water pollution in the Snyderville Basin and Park City areas.
- ✓ Females, people with more liberal ideologies, Democrats, and independent voters are more likely to say that commercial areas contribute a great deal to storm water pollution in the Snyderville Basin and Park City areas.
- ✓ Females and residents with more liberal ideologies are more likely to say that mountain resorts contribute more to storm water pollution in the Snyderville Basin and Park City areas.
- ✓ Females, people under the age of 55, those with more liberal ideologies, Democrats, and independent voters are more likely to say that historic mining contributes a great deal to storm water pollution in the Snyderville Basin and Park City areas.

(Results showing percent)	None				Great deal	D.K.	Mean
44. Residential activities (car washing, fertilizers, changing car oil):	4%	20%	30%	24%	20%	2%	3.38
45. Industrial activities:	12%	19%	28%	20%	19%	2%	3.17
46. Commercial areas (shopping centers):	4%	15%	35%	29%	15%	2%	3.35
47. Mountain resorts:	8%	23%	33%	24%	8%	3%	3.01
48. Historic mining:	12%	13%	19%	21%	28%	7%	3.41

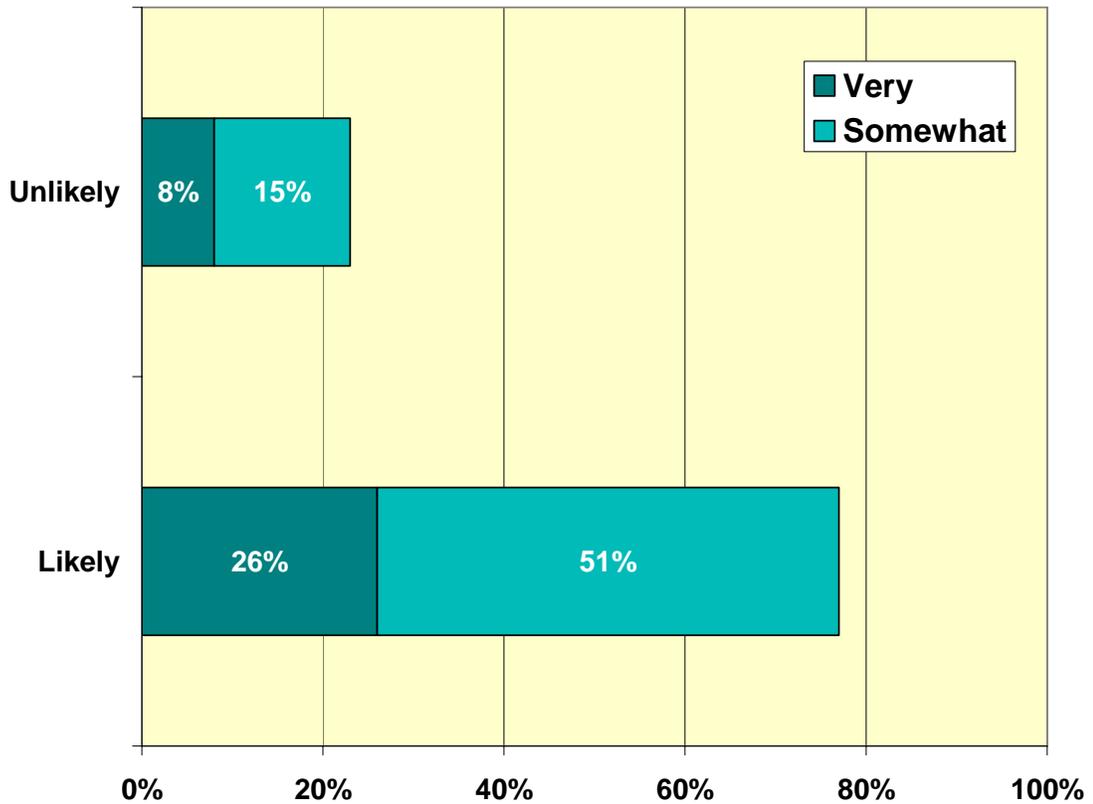
Questions 49-53. Several governmental actions are being considered to prevent creek water from being polluted. Please rate the effectiveness of the following methods on a 1-5 scale, with 1 meaning 'not effective' and 5 meaning 'very effective.' ”



- ✓ College and graduates and people who live south of I-80 are more likely to rate finer as a very effective method of creek water pollution prevention.
- ✓ Females and people with less education are more likely to rate education as a very effective method of creek water pollution prevention.
- ✓ Females, younger residents, those with less education, independent voters, and people who have lived in Summit County for a shorter period of time are more likely to rate stricter enforcement as a very effective method of creek water pollution prevention.
- ✓ Females, residents with less education, and those with more conservative ideologies are more likely to rate constructing treatment facilities as a very effective method of creek water pollution prevention.
- ✓ Females are more likely to rate monitoring water quality as a very effective method of creek water pollution prevention.

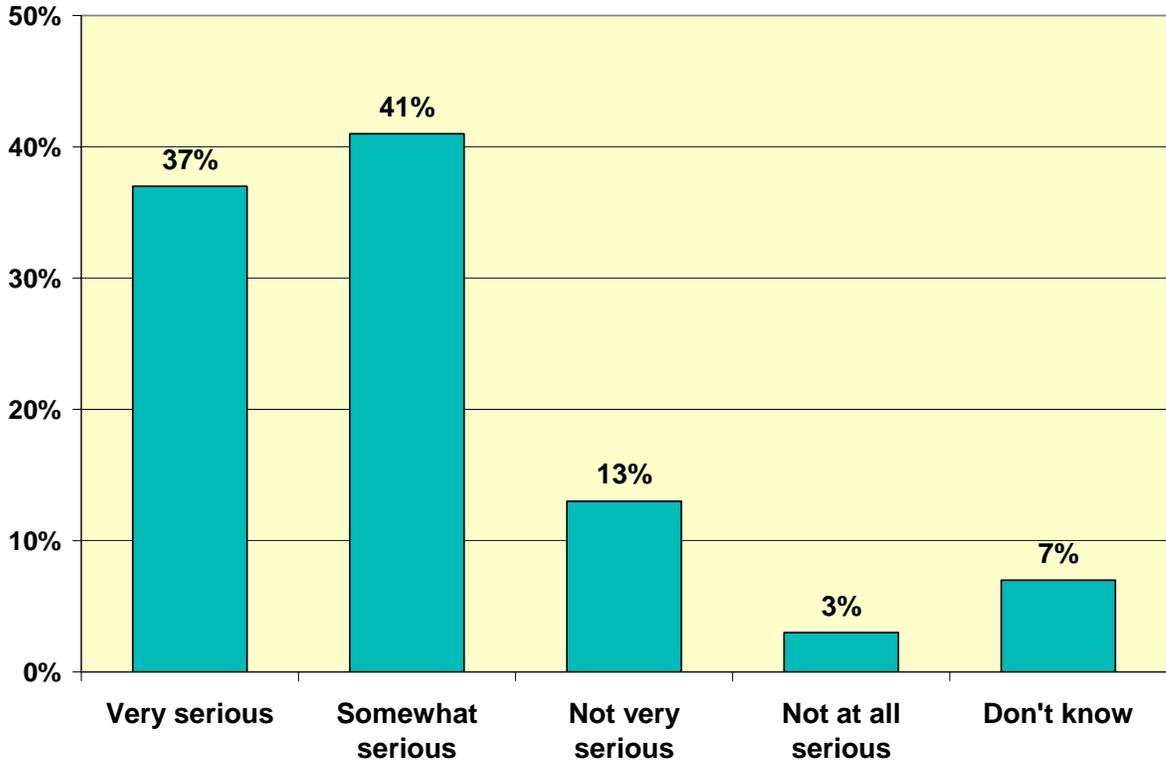
(Results showing percent)							
	<u>Not Effective</u>			<u>Very Effective</u>		<u>D.K</u>	<u>Mean</u>
49. Fines:	15%	13%	26%	19%	21%	6%	3.19
50. Education:	3%	14%	31%	26%	25%	1%	3.59
51. Stricter enforcement:	4%	8%	20%	37%	29%	2%	3.81
52. Construction of treatment facilities:	4%	8%	29%	27%	25%	7%	3.64
53. Monitoring water quality on reg.basis:	3%	4%	21%	30%	41%	1%	4.04

Question 54. If new ideas were given about ways to prevent stream, creek, and storm water pollution, how likely do you think people would be to change their habits?



- ✓ Females and people living between I-80 and Park City are more likely to say they think people would be very likely to change their habits if given new ideas about water pollution.

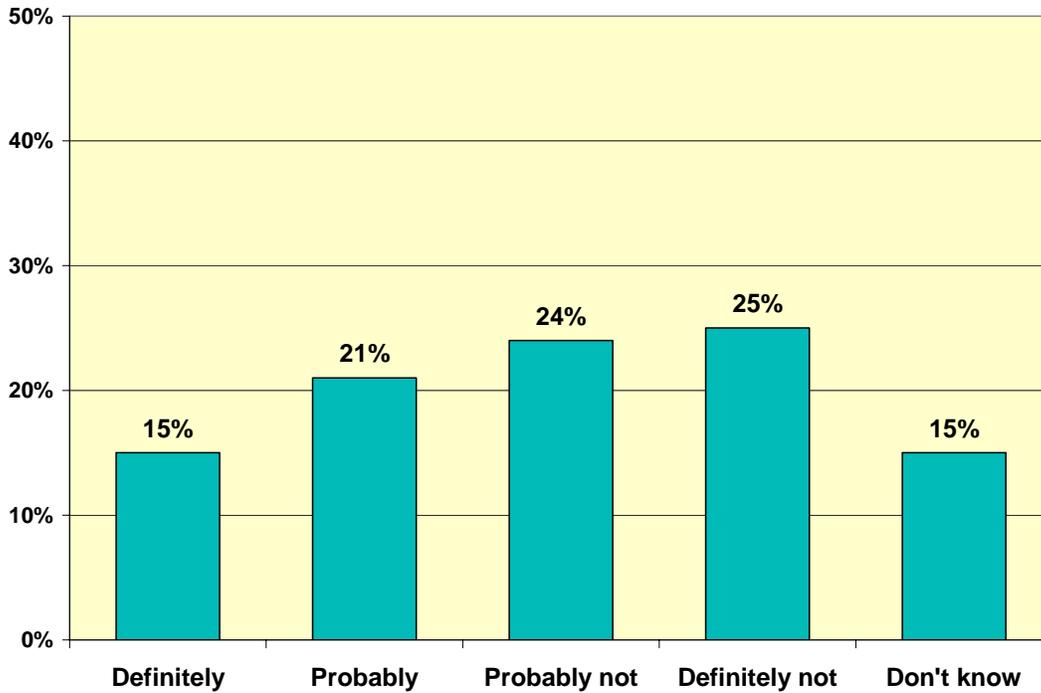
Question 55. How serious of a problem do you feel a lack of local water is in the creeks is in Snyderville Basin area and Park City area?



Questions 56-57. Who do you think is the LARGEST USER of stream water? (READ OPTIONS) And, who do you think is the second (2nd) LARGEST USER of stream water?

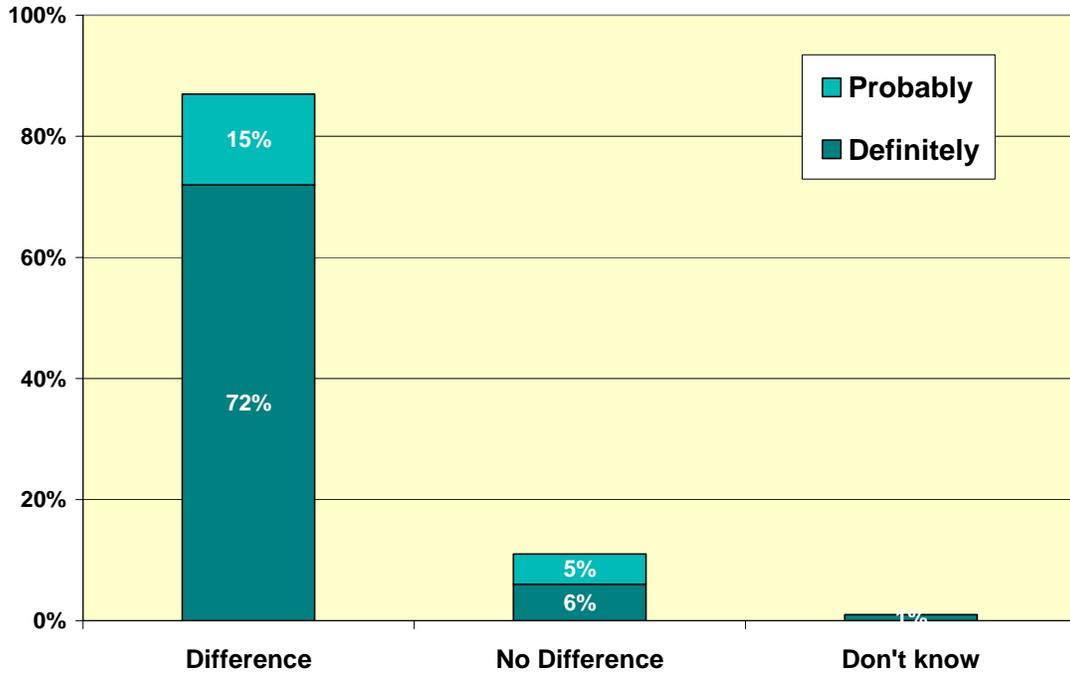
<u>Largest User</u>	<u>2nd Largest</u>	
21%	21%	Residents
2%	5%	Industry
2%	6%	Construction
4%	5%	Animals
0%	2%	Tourists
29%	23%	Golf courses
6%	13%	Mountain resorts
27%	14%	Agricultural irrigation
2%	2%	Or another source / Other (SPECIFY)
7%	8%	Don't know (DO NOT READ)

Question 58. From what you know or have heard... can users who have water rights legally divert water causing a creek to dry up?



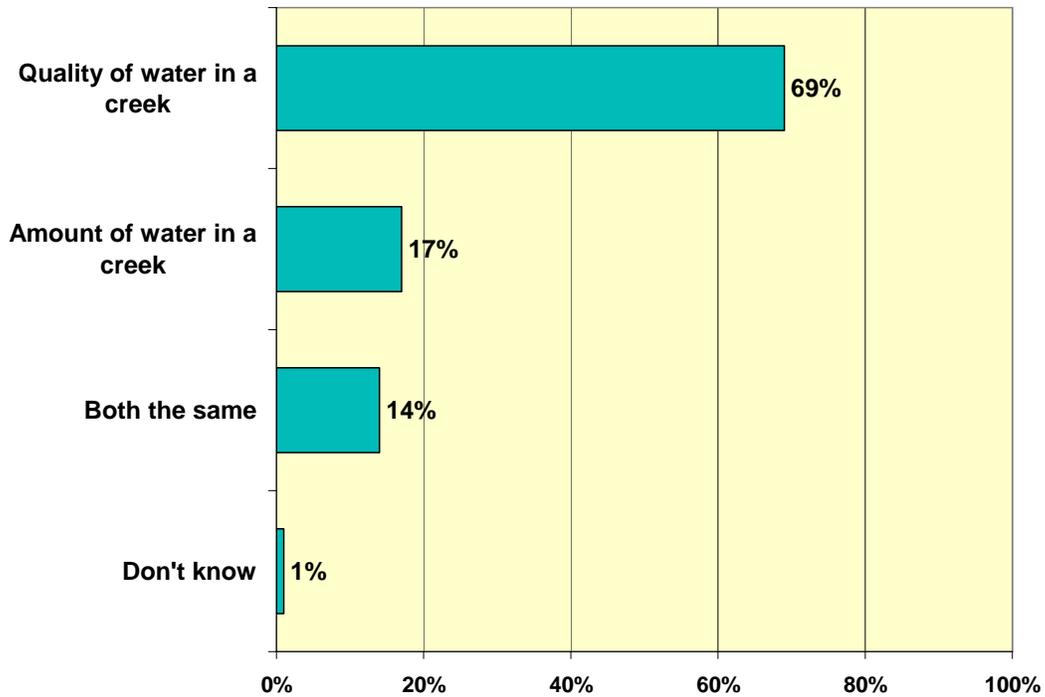
- ✓ Females, people with more conservative ideologies, and those who have lived in Summit County more than five years are more likely to say water rights holders definitely cannot divert water.

Question 59. In your opinion, is there a difference between CONSERVING water and PROTECTING water quality?



- ✓ Residents age 35 to 54, those with higher annual family income, and dog owners are more likely to say there is definitely a difference between conserving and protecting water quality.

Question 60. And, in your opinion, which issue is more important... (READ AND ROTATE RESPONSES)

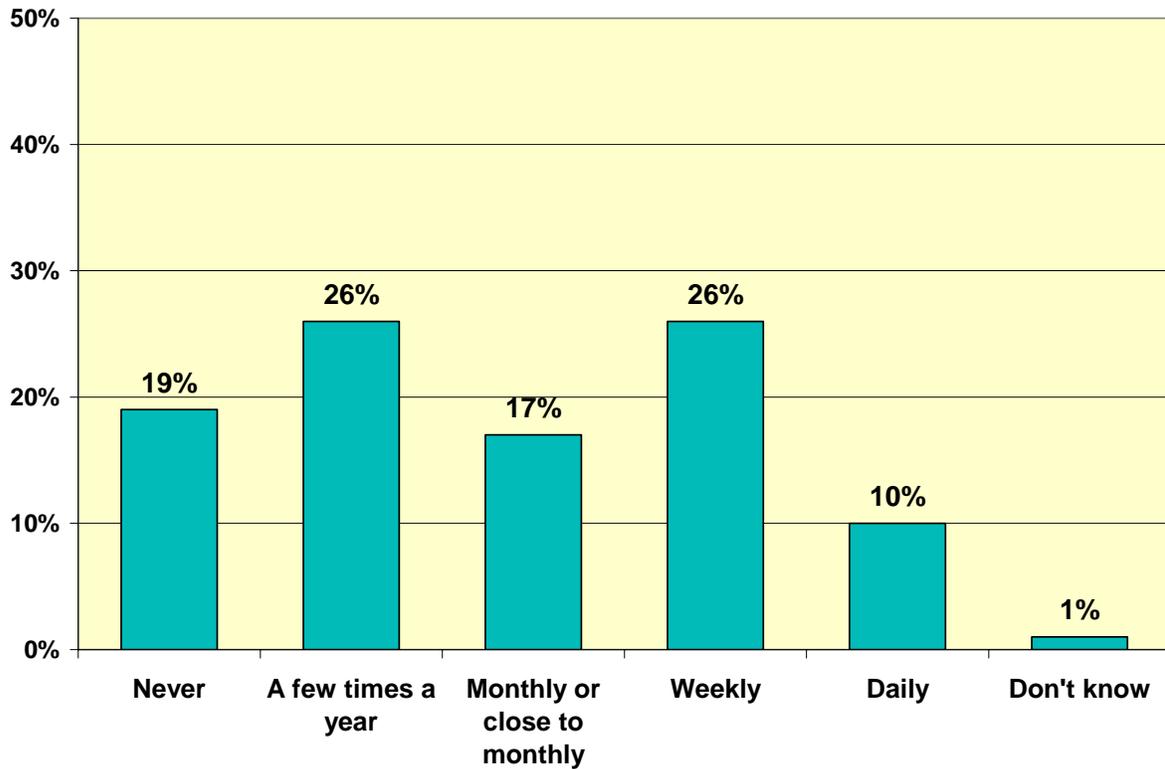


- ✓ Residents whose educational attainment is college graduate or less are more likely to say that the quality of the water is more important and the amount of water in the creek.

**Question 61-62. Do you divert water from any local stream/creek? (IF YES)
For what purpose(s) do you divert water?**

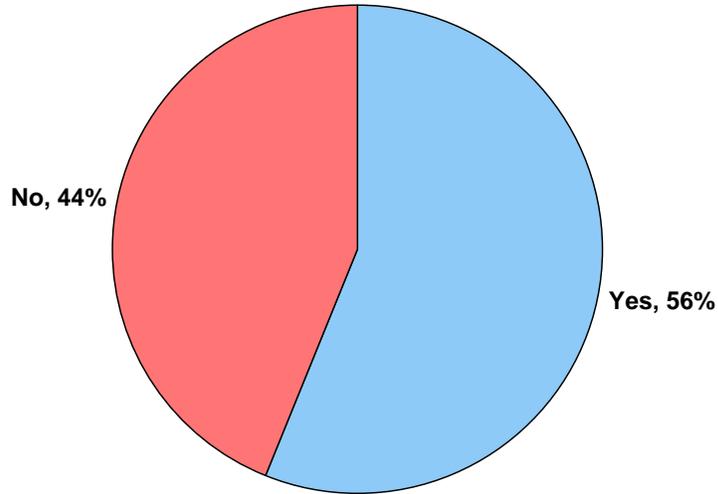
<1% Yes
 99% No (SKIP TO Q.64)
 <1% Don't know (DO NOT READ)

Question 63. How often do you use the creek trails in the Synderville Basin area or the Park City area? (READ OPTIONS)



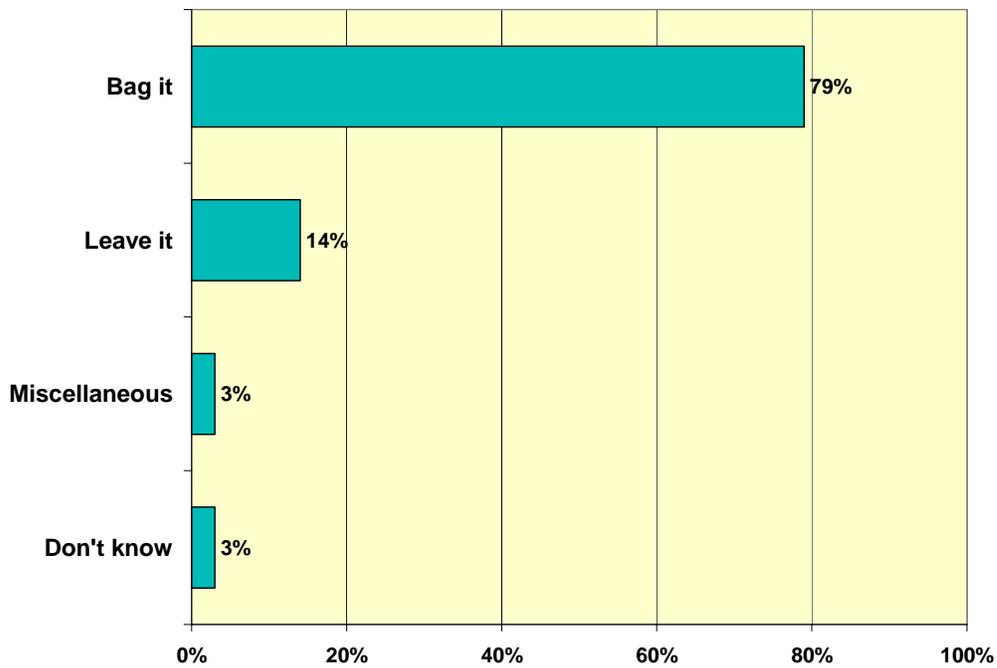
- ✓ Residents age 35 to 44 and those whose annual family income is \$60,000 or over are more likely to say they use Snyderville Basin creek trails daily or weekly.
- ✓ People over the age of 54 are more likely to say they never use the trails.

**Question 64. (IF HAVE DOG): Do you walk dogs on these trails?
(Number responding – 112)**

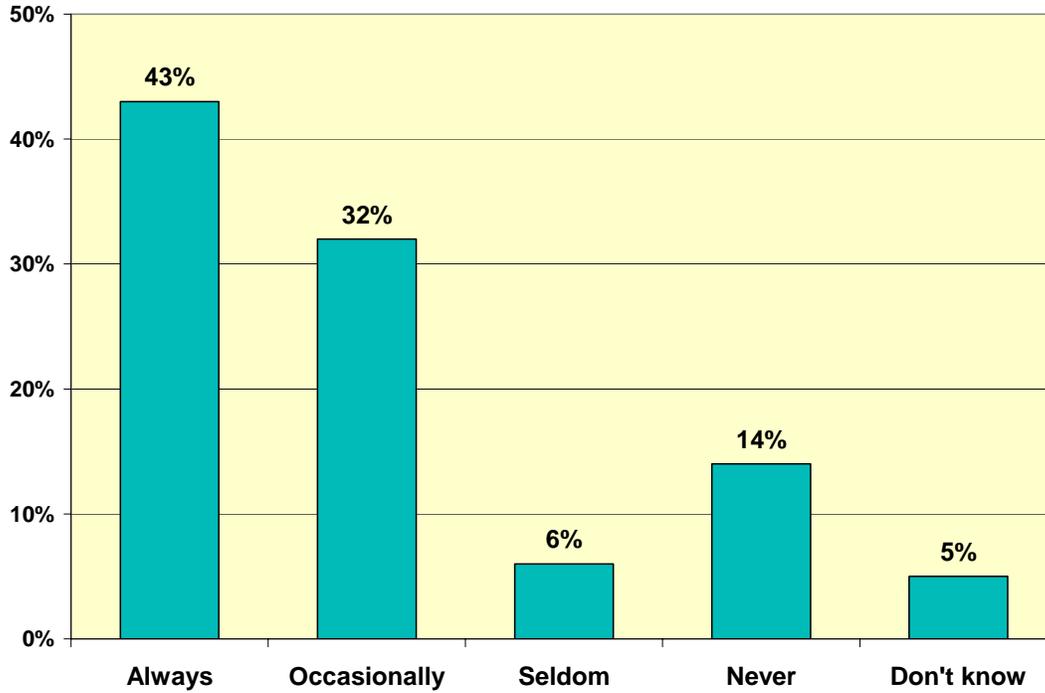


- ✓ Residents with moderate ideologies are more likely to say they do not walk their dogs on these trails.

**Question 65. (IF HAVE A DOG AND USE TRAILS, ASK) How do you dispose of the dog waste along the trail?
(Number responding – 63)**

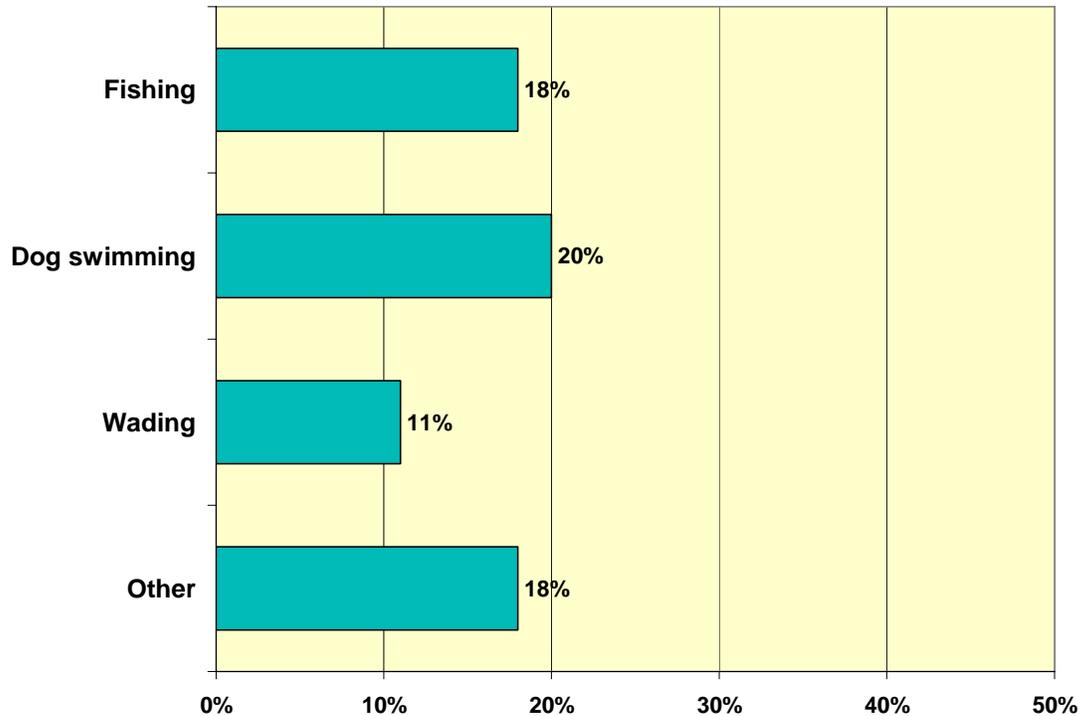


Question 66. (IF HAVE DOG AND USE TRAILS) Do you use the bag dispensers along the trails to collect and remove the dog's waste?
(Number responding – 63)



Questions 67-70. (IF USE TRAILS) Do you generally use the creeks for any of the following... (READ OPTIONS) (Number responding – 209)

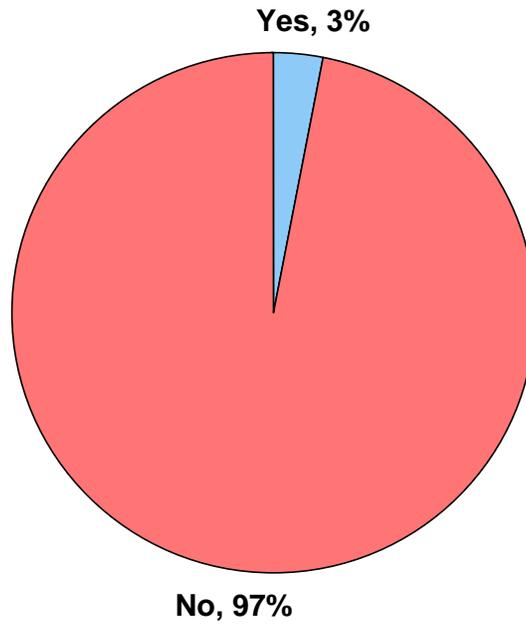
(PERCENTAGES FOR “YES” RESPONSES SHOWN IN GRAPH)



- ✓ Residents age 45 to 54 and people who have lived in Summit County less than two years or more than ten years are more likely to say they use the creeks for wading.
- ✓ People under the age of 55 and those with liberal ideologies are more likely to say they use the creeks for dog walking.
- ✓ Males, residents with annual family income of \$100,000 to \$150,000, those who have lived in Summit County for a shorter period of time, and people who live between I-80 and The Canyons are more likely to say they use the creeks for fishing.
- ✓ Males and people who have lived in Summit County for two to five years or more than ten years are more likely to say they use the creeks for other reasons.

“Other” comments are typed verbatim in Appendix B.

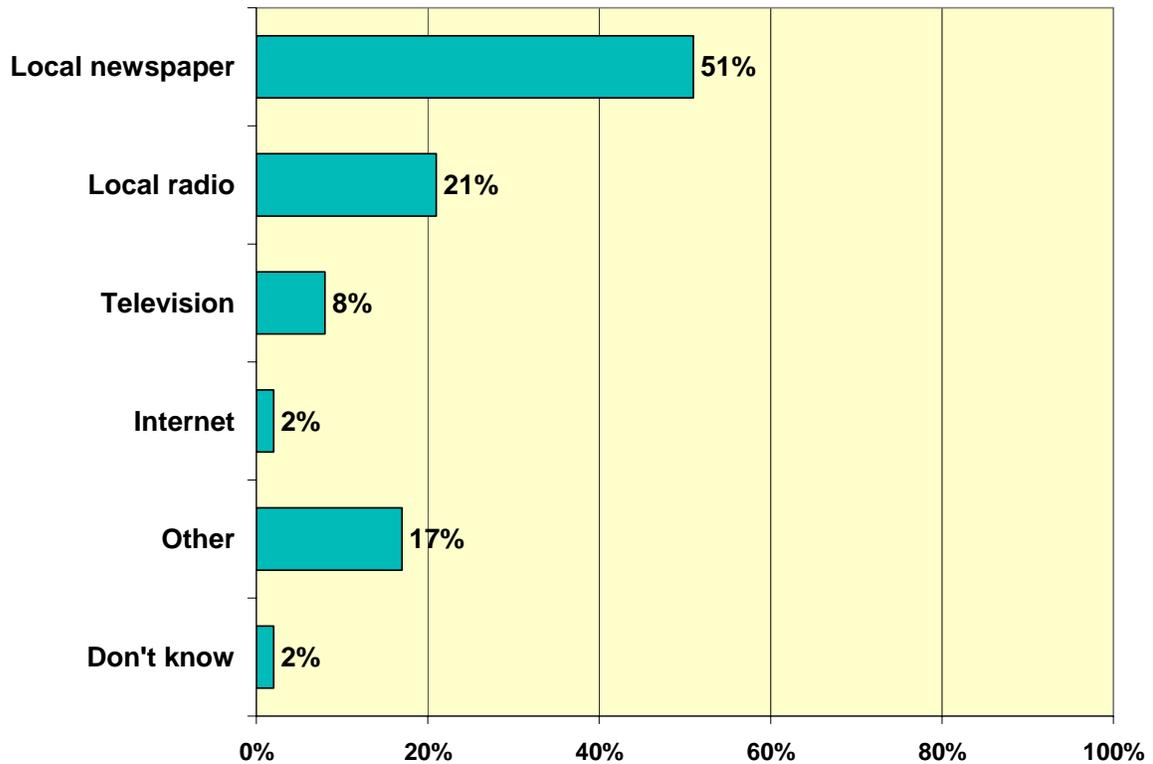
Question 71. Do you happen to own any horses or cattle?



Question 72. (IF HAVE HORSES OR CATTLE, ASK) Do your horses and/or cattle have access to a stream/creek to get water? (Number responding – 6)

17%	Yes
83%	No
0%	Other (DO NOT READ – SPECIFY)
0%	Don't know (DO NOT READ)

Question 73. What is your main source of news and information about water issues in Summit County?



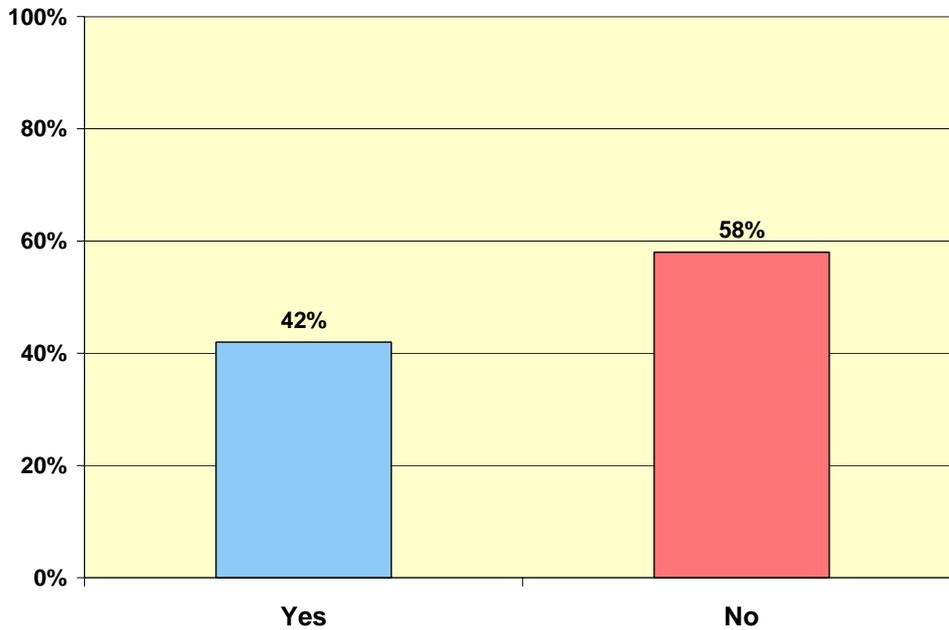
- ✓ Residents with moderate and conservative ideologies, those who declare a political affiliation (either Republican or Democrat), and those with annual family income of \$40,000 to \$59,999 or over \$100,000 are more likely to say they get information about water issues in Summit County from the newspaper.
- ✓ People with liberal ideologies, Democrats, independent voters, and people with annual family income of \$60,000 to \$99,999 are more likely to say they get information about water issues in Summit County from the radio.

“Other” comments are typed verbatim in Appendix B.

Question 74. Are you aware of the Park City, Summit County, or East Canyon Watershed web sites?



Question 75. (IF YES ON Q.74, ASK) Have you ever visited any of these watershed websites? (Number responding – 36)



COPYRIGHT & INTELLECTUAL PROPERTY NOTICE

All materials (whether in hardcopy or electronic media) in this document including, but not limited to text, content, charts, graphs, and images are protected by copyright laws. You may not copy, reproduce, distribute, publish, transmit, display, modify, transfer, sale, create derivative works, or in any way exploit any part of these materials without prior written permission from Dan Jones & Associates (see contact information below) and Stantec who commissioned this study. In addition, these files may not be used to construct any kind of database.

To request permission to copy, please contact:

By mail: Dan Jones & Associates
Copyright Permission Department
515 South 700 East, Suite 3H
Salt Lake City, UT 84102

By phone: 801-322-5722

By fax: 801-322-5725

By e-mail: copyright@djasurvey.com

By website: <http://www.djasurvey.com/copyright>

APPENDIX A
QUESTIONNAIRE WITH RESULTS

Stantec – East Canyon Resident Survey
Conducted: Jan/Feb, 2006
Sample size: 213 completed interviews
Error: ± 7.0%

FINAL RESULTS

Hello. I'm _____ from Dan Jones & Associates, an independent research firm. We are conducting a public opinion survey of Summit County residents regarding some water issues. May I speak with someone who is 18 years of age or older? (IF NEEDED- This is not a marketing or sales call.)

(WHEN TALKING WITH POTENTIAL RESPONDENT) May I ask you some questions?

1. First... what is your zip code area?

	32%	84060
	2%	84068
	66%	84098
today does	0%	Other (THANK AND TERMINATE – “The survey
you anyway		not include issues in your zip code area – Thank
		and have a nice day.”)
	0%	Don't know / Refuse (THANK AND TERMINATE)

In the next questions, we are measuring what most county residents do in the following situations. There are no right or wrong answers.

2. Do you generally wash your car at home or in a commercial car wash?

	12%	At home
	77%	At car wash (SKIP TO Q.5)
	4%	Do not wash it (SKIP TO Q.5)
	1%	Don't have car (SKIP TO Q.5)
	6%	Other (VOL-SPECIFY)
	0%	Don't know (DO NOT READ – SK. TO Q5)

3. (IF WASH CAR AT HOME) Do you generally wash your car on the lawn or do you generally wash it on the driveway? (Number responding – 26)

	23%	On the lawn
	69%	On the driveway
	8%	Other (DO NOT READ-SPECIFY)
	0%	Don't know (DO NOT READ)

4. (IF WASH CAR AT HOME) What kind of soap do you use most often to wash your car? (Number responding – 26)

46%	Dishwashing soap
23%	Car wash soap
19%	Environmentally safe / phosphate free
8%	Other (SPECIFY)
4%	Don't know (DO NOT READ)

5. Do you generally mow your own lawn?

56%	Yes
23%	No
20%	Don't have lawn (SKIP TO Q. 8)
0%	Other (VOL-SPECIFY)
0%	Don't know (VOL - SKIP TO Q. 8)

6. (IF NO) Who mows your lawn? (UNAIDED)
(Number responding – 50)

0%	Family member / child
78%	Professional lawn service / professional landscaper
10%	Teenager / neighbor child
12%	Other (VOL-SPECIFY)
0%	Don't know / refuse (VOL)

7. Who applies fertilizer, weed and feed or similar products to your lawn? (Number responding-170)

58%	Family member
27%	Professional lawn service / professional landscaper
1%	Teenager / neighbor / child
9%	Other (VOL-SPECIFY)
5%	Don't know / refuse (VOL)

8. Do you generally change your automobile (car/truck) oil at home?

13%	Yes
87%	No
0%	Don't know (DO NOT READ)

9. And, do you generally change your lawn mower or RV oil at home?

26%	Yes
72%	No
1%	Don't know (DO NOT READ)

10. (IF YES ON BOTH OR EITHER Q.8 & 9, ASK) Where do you generally dispose of the oil? (UNAIDED – DO NOT READ RESPONSES) (Number responding – 63)

30%	Recycle center
29%	Automotive center
8%	Hazardous waste disposal site
17%	Service station
2%	Garbage
0%	Landfill
5%	OTHER (SPECIFY)
10%	Don't know (DO NOT READ)

11. (IF YES ON BOTH OR EITHER Q.8 & 9, ASK) How do you handle fuel/oil spills at home? (Number responding – 63)

17%	Don't know
35%	Don't spill/don't have any
8%	Kitty litter
8%	Sand/dirt
14%	Rags/towels/wipe it up
2%	Pad/mat
3%	Sawdust
11%	Miscellaneous
2%	Detergent

12. Are you aware that there is a place to dispose of household chemicals in Summit County?

69%	Yes
30%	No (SKIP TO Q. 23)
2%	Don't know (DO NOT READ)

13. (IF YES) Have you ever used this facility? (Number responding – 146)

60%	Yes
40%	No
1%	Don't know (DO NOT READ)

(IF YES ON Q.13) Do you happen to know what you can take to the disposal facility? (UNAIDED - MARK EACH MENTIONED – PROBE) (Number responding – 146)

	<u>Yes</u>	<u>No</u>
14. Paint / painting supplies	56%	44%
15. Cleaning chemicals:	11%	89%
16. Antifreeze	2%	98%
17. Fuel	4%	96%
18. Pesticides / herbicides	10%	90%
19. Oil:	36%	64%
20. Batteries (car and rechargeable):	14%	86%
21. Household cleaners:	8%	92%
22. Other (SPECIFY)	28%	72%

23. How do you dispose of unused medical prescriptions?

17%	Don't know
37%	Trash/garbage
2%	Keep
22%	Take all/nothing to dispose of
16%	Toilet/sink
3%	Return to doctor/clinic/pharmacy
2%	Disposal facility/haz. waste
1%	Miscellaneous

24. From what you know or have heard, should unused prescriptions be flushed down the toilet for disposal?

4%	Definitely should
10%	Probably should
24%	Probably should not
42%	Definitely should not
19%	Don't know (DO NOT READ)

25. Do you own a dog?

53%	Yes
47%	No (SKIP TO Q. 28)
0%	Refuse (DO NOT READ – SKIP TO Q. 28)

26. (IF YES ON Q. 25) How do you dispose of the dog waste at home?
(Number responding – 112)

15%	Bag
52%	Trash
12%	Bury it
0%	Wash away with hose
21%	Other (SPECIFY)
1%	Don't know (DO NOT READ)

27. (IF YES ON Q.25) And when you have the dog in public places, how do you generally dispose of the dog waste? (Number responding – 112)

58%	Bag
23%	Trash
1%	Bury it
6%	Leave it,
8%	Other (SPECIFY)
4%	Don't know (DO NOT READ)

The next questions are about local creeks and streams...

28. Are you aware of current environmental concerns regarding water quality and quantity in the local creeks and streams like East Canyon Creek and Silver Creek?

31%	Yes, very aware
44%	Yes, somewhat aware
23%	No, not aware
1%	Don't know (DO NOT READ)

29. (IF YES) What are the concerns you have heard of? (*Number responding – 161*)

100%	Miscellaneous (All comments typed)
------	------------------------------------

Do you happen to know where the following are located?

	<u>Yes</u>	<u>No</u>	<u>Don't know</u>
30. Swaner Nature Preserve	85%	14%	1%
31. East Canyon Creek	67%	31%	2%
32. Kimball Creek	46%	51%	3%
33. McLeod Creek ("McCloud")	42%	56%	1%
34. Silver Creek	69%	29%	2%

35. Are you aware of fish consumption advisories on any local creeks?

17%	Yes, aware
83%	No, not aware
0%	Don't know (DO NOT READ)

36. Do you feel overall water quality of local creeks and streams in the Snyderville Basin area or Park City area is a serious issue?

42%	Definitely serious
33%	Probably serious
16%	Probably not serious
2%	Definitely not serious
7%	Don't know (DO NOT READ)

37-38. What do you think is the LARGEST contributor to water pollution in local streams? (READ OPTIONS) And what do you think is the SECOND LARGEST contributor to water pollution in local streams?

<u>Largest Contributor</u>	<u>2nd Largest</u>	
33%	19%	Residents
6%	8%	Industry
15%	14%	Construction
2%	6%	Animals
1%	2%	Tourists
8%	22%	Golf courses
0%	2%	Mountain resorts
21%	11%	Mining / historic mining
8%	5%	Other (SPECIFY)
6%	11%	Don't know (DO NOT READ)

On a different issue...As you may know, STORM WATER is the water from rain, melted snow, and sleet....

39. From what you know or have heard, does neighborhood storm water go to a treatment plant?

30%	Yes
40%	No
30%	Don't know (DO NOT READ)

40. From what you know or have heard, where does storm water from your property and neighborhood area flow first? Is it to...(READ OPTIONS)?

28%	East Canyon Creek,
12%	Kimball Creek,
8%	McLeod Creek or
15%	Silver Creek
5%	Other (SPECIFY)
33%	Don't know (DO NOT READ)

41. In your opinion, how serious of a problem is storm water pollution in the Snyderville Basin area and Park City area?

18%	Very serious
44%	Somewhat serious
19%	Not very serious
4%	Not at all serious
16%	Don't know (DO NOT READ)

42. Were you aware that storm water is regulated by the State of Utah and managed by local government?

42% Yes, aware
 57% No, not aware
 0% Don't know (DO NOT READ)

43. Have you heard or seen promotions about storm water, or storm water pollution or prevention from the Summit County or Park City governments?

20% Yes
 77% No
 3% Don't know (DO NOT READ)

Please rate each of the following on how much they contribute to pollution of storm water in the creeks and streams in the Snyderville Basin and Park City areas? Using a 1-5 scale with one meaning that the source causes "no pollution" and five meaning it causes "a great deal of pollution."

	<u>None</u>				<u>A great deal</u>	<u>Don't know</u>	<u>Mean</u>
44. Residential activities (car washing, fertilizers, changing car oil):	4%	20%	30%	24%	21%	2%	3.38
45. Industrial activities:	12%	19%	28%	20%	19%	2%	3.17
46. Commercial areas (shopping centers):	4%	15%	35%	29%	15%	2%	3.35
47. Mountain resorts:	8%	23%	33%	24%	8%	3%	3.01
48. Historic mining:	12%	13%	19%	21%	28%	7%	3.42

Several governmental actions are being considered to prevent creek water from being polluted. Please rate the effectiveness of the following methods on a 1-5 scale, with 1 meaning 'not effective' and 5 meaning 'very effective.'

	<u>Not effective</u>				<u>Very effective</u>	<u>Don't know</u>	<u>Mean</u>
49. Fines:	15%	13%	26%	19%	21%	6%	3.19
50. Education:	3%	14%	31%	26%	25%	1%	3.59
51. Stricter enforcement:	4%	8%	20%	37%	29%	2%	3.81
52. Construction of treatment facilities:	4%	8%	29%	27%	25%	7%	3.64
53. Monitoring water quality on a regular basis:	3%	4%	21%	30%	41%	1%	4.04

54. If new ideas were given about ways to prevent stream, creek, and storm water pollution, how likely do you think people would be to change their habits?

26% Very likely
 51% Somewhat likely
 15% Somewhat unlikely
 8% Very unlikely
 0% Don't know (DO NOT READ)

Regarding the QUANTITY or amount of water flow in the creeks and streams...

55. How serious of a problem do you feel a lack of local water is in the creeks is in Snyderville Basin area and Park City area?

37%	Very serious
41%	Somewhat serious
13%	Not very serious
3%	Not at all serious
7%	Don't know (DO NOT READ)

56-57. Who do you think is the LARGEST USER of stream water? (READ OPTIONS) And, who do you think is the second (2nd) LARGEST USER of stream water? (READ OPTIONS)

<u>Largest User</u>	<u>2nd Largest</u>	
21%	21%	Residents
2%	5%	Industry
2%	6%	Construction
4%	5%	Animals
0%	2%	Tourists
29%	23%	Golf courses
6%	13%	Mountain resorts
27%	14%	Agricultural irrigation
2%	2%	Or another source / Other (SPECIFY)
7%	8%	Don't know (DO NOT READ)

58. From what you know or have heard... can users who have water rights legally divert water causing a creek to dry up?

15%	Definitely
21%	Probably
24%	Probably not
25%	Definitely not
15%	Don't know (DO NOT READ)

59. In your opinion, is there a difference between CONSERVING water and PROTECTING water quality?

72%	Definitely a difference
15%	Probably difference
5%	Probably not
6%	Definitely not
1%	Don't know (DO NOT READ)

60. And, in your opinion, which issue is more important... (READ AND ROTATE RESPONSES)

17%	The AMOUNT of water in a creek
69%	The QUALITY of the water in a creek
14%	Both the same (DO NOT READ)
1%	Don't know (DO NOT READ)

Regarding your use of local streams and creeks...

61. Do you divert water from any local stream/creek?

<1%	Yes
99%	No (SKIP TO Q.64)
<1%	Don't know (DO NOT READ)

62. (IF YES) For what purpose(s) do you divert water? (*Number responding – 1*)

Miscellaneous – Comment typed

63. How often do you use the creek trails in the Synderville Basin area or the Park City area? (READ OPTIONS)

19%	Never
26%	A few times a year
17%	Monthly or close to monthly
26%	Weekly
10%	Daily
1%	Don't know / refuse (DO NOT READ)

64. (IF HAVE DOG – ON Q.25, ASK): Do you walk dogs on these trails?
(*Number responding – 112*)

56%	Yes
44%	No
0%	Don't know (DO NOT READ)

65. (IF HAVE A DOG AND IF YES ON Q. 64, ASK) How do you dispose of the dog waste along the trail?

(*Number responding – 63*)

3%	Don't know
79%	Bag it
14%	Leave it
3%	Miscellaneous

66. (IF YES ON Q. 64, ASK) Do you use the bag dispensers along the trails to collect and remove the dog's waste? (Number responding – 63)

43%	Always
32%	Occasionally
6%	Seldom
14%	Never
5%	Don't know (DO NOT READ)

(IF USE TRAILS) Do you generally use the creeks for any of the following... (READ OPTIONS)

(Number responding – 213)

	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>
67. Wading:	11%	89%	0%
68. Dog swimming:	20%	80%	0%
69. Fishing:	18%	82%	0%
70. Other (SPECIFY):	18%	82%	0%

72. Do you happen to own any horses or cattle?

3%	Yes
97%	No (SKIP TO Q. 73)
0%	Don't know (DO NOT READ)

72. (IF YES, ASK) Do your horses and/or cattle have access to a stream/creek to get water? (Number responding – 6)

17%	Yes
83%	No
0%	Other (DO NOT READ – SPECIFY)
0%	Don't know (DO NOT READ)

73. What is your main source of news and information about water issues in Summit County?

51%	Local newspaper
8%	Television
21%	Local radio
2%	Internet
17%	Other (DO NOT READ – SPECIFY)
2%	Don't know (DO NOT READ)

74. Are you aware of the Park City, Summit County, or East Canyon Watershed web sites?

17%	Yes, aware
83%	No, not aware
0%	Don't know (DO NOT READ)

75. (IF YES ON Q.74, ASK) Have you ever visited any of these watershed websites?
(Number responding – 36)

42%	Yes
58%	No
0%	Don't know / refuse (DO NOT READ)

DEMOGRAPHICS:

76. Gender

52%	Male
48%	Female

77. Age category:

3%	18-24
11%	25-34
22%	35-44
33%	45-54
18%	55-64
11%	65 and older
2%	Refuse (DO NOT READ)

78. What is your ethnic background?

89%	White / Caucasian
4%	Hispanic / Latino
0%	Black / African American
0%	Native American / American Indian
<1%	Asian
0%	Pacific Island
3%	Other
3%	Refuse (DO NOT READ)

79. What is the last level of formal education you completed?

0%	Some high school
5%	High school graduate
17%	Some college/technical
47%	College graduate
30%	Post-college graduate
1%	Refuse (DO NOT READ)

80. Politically speaking, are you...

14%	Very liberal
25%	Somewhat liberal
27%	Moderate
19%	Somewhat conservative
10%	Very conservative
1%	Don't know (DO NOT READ)
2%	Refuse (DO NOT READ)

81. Do you think of yourself as a Republican, Democrat, an independent voter, or other?

24%	Republican
34%	Democrat
34%	Independent voter
4%	Other (SPECIFY)
0%	Don't know (DO NOT READ)
3%	Refuse (DO NOT READ)

82. Is your approximate annual family income category...(READ OPTIONS)?

1%	Under \$20,000
8%	\$20,000 - \$39,999
11%	\$40,000 - \$59,999
13%	\$60,000 - \$79,999
10%	\$80,000 - \$99,999
21%	\$100,000 - \$150,000
27%	Over \$150,000
9%	Refuse (DO NOT READ)

83. Do you own or rent your residence?

90%	Own / buying
8%	Rent
0%	Other (SPECIFY)
1%	Refuse (DO NOT READ)

84. How long have you lived in Summit County?

12%	Less than 2 years
19%	2-5 years
20%	6-10 years
48%	Over 10 years
1%	Refuse (DO NOT READ)

85. Do you live north or south of I-80, (if south of I-80, between I-80 and Canyons, Canyons and Park City, in Park City)

27%	North
71%	South
2%	Refuse

86. Area.

54%	Between I-80 and Canyons
8%	Between Canyons and Park City
34%	Park City
4%	Refuse

AREA:

28%	North of I-80
41%	Between I-80 and Canyons
6%	Between Canyons and Park City
26%	Park City

APPENDIX – B
RESPONDENT COMMENTS

Question 2: Do you generally wash your car at home or in a commercial car wash?

OTHER (specify)

A little of both.

At home sometimes and at car wash sometimes, about 50/50.

Both. (5)

Depending on the time of year half at home and half at a car wash.

Half and half in a car wash and at home.

It is split between the two.

It's about 50/50.

Sometimes at home and sometimes at commercial car wash.

Wash it at work.

Winter--at car wash, summer--at our house.

Question 11: How do you handle fuel/oil spills at home?

Being careful not to have any.

Clean it up, an then throw it away.

Clean them up. I don't know.

Clean them with cat litter.

Clean them with laundry detergent.

Clean up with dirt.

Cover it up with dirt.

Don't Know (3)

Don't have any. (16)

Either pressure wash or suck it up.

Floor dry it.

Have not had one but would throw cat litter on it.

I clean them up with the rags in the waste.

I have absorbent towels.

I mop them up.

I try not to have any but if I do I mop it up.

I would apply sand or some kind of substance to absorb it.

Kitty litter. (3)

Mop it up. (2)

Never really had one, if 1/2 cover with saw dust and then empty in trash

Oil dry

Put cat litter on it, sweep up and put it in trash to go to county waste dump. These are just little spills.

Put some dry stuff on it, then sweep up.

Sand

Saw dust to absorb it up.

Soak it up.

Try not to have them, I don't have absorbent blankets.

Try to clean them up as best I can. I usually do it in the garage so it is on the cement.

We use a pad under the cars.

Wipe it up and throw rag in garbage.

Wipe with rag. (2)

**Question 22: Do you happen to know what you can take to the disposal facility?
Other (Specify)**

All hazardous materials.

Aluminum cans and glass.

Anything except ashes or construction materials.

Anything.

Brake fluid.

Cardboard and glass.

Glass, plastic, newspaper, aluminum, and cardboard.

Glass, cardboard, and aluminum cans.

Glass, cardboard, plastic, tin, aluminum, newspaper and chemicals.

Everything.

Aerosols.

Any flammable stuff.

Anything toxic. (4)

Bug spray.

Computer equipment.

Computers, toxic things and glass.

Computers. (3)

Fertilizers.

Gasoline.

Mercury.

Plastics, computers, and car stuff.

Poison substances and gasoline.

Pool chemicals.

Prescription medicine.

Printer cartridges.

Solvents. (2)

Batteries

Fertilizer and household products.

Gas.

Hazardous chemicals.

Other chemicals.

Oxygen tanks.

**Question 22: Do you happen to know what you can take to the disposal facility?
Other (Specify)**

Tires.

Varnish.

Cell phone batteries.

Lawn mowers and leaf chippers.

Refrigerators and air conditioners.

Question 23 How do you dispose of unused medical prescriptions?

Bring them back to the doctor.

Bring them back to the pharmacy.

Don't have any. (23)

Don't put them down the toilet or take them to the plant.

Don't know maybe throw them away.

Down the sink.

Flush them down the toilet. (37)

Throw them away in the trash.(82)

Empty in garbage can, take label off.

Garbage. (8)

Don't ever have any leftover. (26)

Hold on to them.

I've taken them to the disposal facility.

I don't have any, I'm fortunate enough not to have to use prescriptions, I never throw it away because I never buy any.

I don't know. (3)

I don't really dispose of them. They just sit around for a long time.

I haven't had any, but if I did, I would probably throw them in the trash.

I try to take them all. But if there is any left I return them to the doctors office or flush them down the toilet.

I usually pour them down the sink, and I know you're not supposed to do that.

I was taking them to the pharmacists, but they don't take them anymore.

I would just throw them in the garbage.

In garbage disposal.

Keep them in cupboard.

Landfill.

My wife does that.

Recycle them.

Take out of bottle and either put them in trash or use them all.

Take them back to the pharmacy.

Take them to a recycle center.

The go to the landfill via BFI.

Throw them in the garbage or flush them down the toilet.

Question 23 How do you dispose of unused medical prescriptions?

Throw them in the garbage, or down the drain.

Usually I just throw them away or dissolve in water.

We don't dispose of them, we keep them.

We keep them. We take them to the HazMat facility or wrap tightly in aluminum foil and depose in the trash.

We would we give them back to the clinic.

Question 26 How do you dispose of dog waste at home?

Bag and trash it.

Bury or put it in bag in the trash. (3)

Combine it with the compost pile.

Decomposes.

Dog goes out into the wild, shovel in the winter.

Export it.

Flush it down the toilet.

Goes out in the woods

He goes in the forest.

He has four acres to do it.

Just goes outside.

Leave it on a undeveloped hillside.

Leave it. (3)

Nothing to pick up.

Out in the woods.

Sits on the lawn.

They go in the woods.

We don't, leave it in the meadow.

We live in the mountains.

Question 27: And when you have the dog in public places, how do you generally dispose of the dog waste?

Other (Specify)

Carry a plastic bag and take it home.

Dog doesn't go to public places. (2)

Don't generally have the dog in public.

Mutt mitts.

Never in public.

She rarely does that.

We don't take him out.

We don't.

Question 29: What are concerns you have heard of?

Affluence into water because of supply and demand.

Agricultural run-off, drought, and residential use.

All of our pollution is running downhill into our water streams.

Animal waste can get into the water. Minerals in the water that affect the fish life.

Animal waste - dog waste particularly. Another is pesticides and fertilizers.

Animals around the water like dogs. Washing of the car goes into the sewage system to the waste water system and into the soil.

Antimonies (?) in the water.

Any kind of contamination but what is normally in the stream.

Arsenic in Silver Creek.

Arsenic in the water.

Arsenic and antimonies and other heavy metals.

Basically of low water levels, and contaminants and run-off concerns.

Chemicals from golf courses and lawn. Not as much water flow.

Chemicals in the water.

Contaminants coming from businesses and houses, and lower water levels.

Development up streams drying out the creek. Too many water rights, too little water.

Dewatering by business, intoxication by the sewage treatment plant, uncontrolled run-off by large parking lots, metals from mines, and the salt they put on the highways which ends up in the creek.

Different chemicals coming from the sewage plant and construction areas.

Dog issues.

Dog waste getting into drinking water.

Dog waste, pollution, overuse, and people stealing water from it upstream.

Dogs need to be constrained. They need to be leashed.

Drinking water too high with chemicals.

Dumping stuff in the streams and not keeping them clean.

During the drought they dry up and kill the fish.

East Canyon Creek - high phosphates as a result of sewer plant. Promotes algae growth - kills fish.

East Canyon Creek dried up last summer and they said it was because of the amount of water being used for the golf courses.

East river stream is polluted,. Ttry to be careful with washing anything into ground.

Fertilizer getting into the creeks and killing the fish.

Question 29: What are concerns you have heard of?

Fish dying, and contaminants being put into the streams.

Fish dying, heavy metal in water, toxic to animals, humans, and environment.

Flooding. Major construction in our yard.

Going through my house is Poison Creek. From mining it has mercury and lead in it.

Ground level pollution going into streams.

Ground water level an general water.

Having heavy usage in those areas.

Hazardous waste - contaminated water.

Heavy metals.

High arsenic levels.

High nitrites. Construction dirt and that getting into streams.

How clean it is and what minerals are in it.

I've heard that you shouldn't eat fish out of East Canyon Creek.

I don't drink the water. I buy my water and my ice.

I just know it is an ongoing issue.

I know that they don't like animals near the streams.

I know there are problems with East Creek, but I don't know them specifically. A problem with sewage, maybe, and the trout population.

Issue with goldfish in our lake and too many fertilizers.

It's drying up. They think that the golf course is taking a lot of water out of it. The Jeremy Ranch dumped stuff in there that killed fish.

Its been very minimal.

Just shortage of water and pollution.

Just the one that runs by Jeremy Ranch. There are issues that say there are fewer fish in the stream. They are putting sewers in right now. Fertilizer run-off in the area is there too.

Lack of water. Construction and farmland runoff.

Last couple of years there has been a concern of low water levels.

Low flow and temperature.

Low water in creeks and water being upstream for some reason and the fish dying.

Low water levels.

Lower water table and emptying streams.

Mainly the concerns are the price of water.

May have to clean it up.

Mine lead in the water.

Question 29: What are concerns you have heard of?

Minerals, arsenic and mining tailings. Cleanliness.

Mostly it's about looking toward the future at what our water options are and whether we'll have enough to support the community.

Near a watershed - no animals. Use and destruction.

Nitrogen from golf courses and over consumption.

No specifics. I know that dog waste is a concern.

Not enough storage for water and people waste water. Those with money think they can do what they want.

Not much...problems in East Canyon Creek.

Nutrients in the streams and algae blooms that kill the fish and the water has become too warm.

Overbuilding. Build too close to Kimball Creek.

Overuse. Overbuilding for the amount of water that we have. Pollution.

People disposing of things improperly in streams.

People letting their dogs play in the creek and not picking up dog waste.

Phosphorous.

Phosphate from the treatment plant. Fertilizer from the golf course, water getting sucked away. Fish dying.

Phosphates concerns, nitrogen, and lack of flow. Loss of wetlands.

Poisons from past mining. What people are putting in the water system.

Pollutants in the streams.

Polluting in general.

Pollution and the lack of water.

Pollution, fertilizers, and waste.

Pollution. There was something about damming that caused the water level to go down in the creek.

Pollution. Watershed. Snowmobiles.

Population pressure - water not as clean. Not as much water.

Preserving the flow. Preserving the quality.

Problem with being contaminated.

Putting bad things in the creek.

Quantity of water and agricultural chemicals.

Regulations, contaminations, and excess phosphorous in streams.

Run-off, parking lot run-off, trash being thrown into the stream.

Runoff from excessive landscape fertilizing makes them grow nothing but grass. Fill up ponds.

Question 29: What are concerns you have heard of?

Runoff from golf course maintenance poisoning fish. Flows affected my water share holders - effecting environmental quality.

Runoff from lawn fertilizer.

Runoff, dogs and animals and parasites.

Runoff silt.

Some run-off. Some things that have been dumped in there. The mine 'tailing'.

Sulfur in the East Canyon.

Tailings in the water.

The amount of water. They want people to conserve water, but the usage went up.

That the fertilizer from the golf courses is polluting the creek and killing the fish.

That the waters are contaminated.

That they're polluted to the point that fish are having trouble surviving and non-native species are taking over.

That they are dumping mine waste into the Silver Creek watershed, Richardsen Labs is.

That they are polluting the creeks and they have been flowing into others and drying out in late July.

The amount of flow has been so varied that it's basically destroyed the local habitat. They're trying to get people upstream to maintain flow, but I believe it's a losing battle because they've let them get so far. The Summit County Sewer processing plant also dumps into them.

The amount of substances being flushed into the creeks.

The antimony. The over-use.

The arsenic and heavy metals in the water. Also fertilizers from the golf courses are a problem.

The chemicals that are released from the sewage plant.

The construction, mostly that's going on around it and people letting their animals run and swim, et cetera. But mostly the construction around the streams.

The drought, when the fish were dying. Other areas were drawing water away from that particular area, so they were working on re-diverted it.

The East Canyon Creek is not as clean as it used to be, and trying to make it clean again.

The fish are dying. They isn't a fish population.

The fish are eating the ones they want to catch.

The fish dying in Canyon Creek when water shares used up. Horse pollution.

The horse exposure to the streams need to be minimized. Wildlife needs to be able to drink out of the streams.

The lack of water.

The metal waste that are left over the mining.

Question 29: What are concerns you have heard of?

The pesticides and other things I've read about are the lack of natural vegetation. Hot water from treatment plant.

The phosphorous, which is fertilizers going down into the waterway. There is an awful shortage of water.

The quantity of water and pollution because of development.

The sewage plant at Jeremy Ranch, and phosphate levels.

The sewer plant and all the phosphates going in from the golf courses and lawns.

The sheer volume of water through East Creek is pretty low and its increasing concentrations of pesticides from the golf course.

The shortage of water.

The toxins going into them.

The water drying up. Water rights. There is not enough water for the fish. Driveway runoff.

The water is diverted upstream so there is low flow downstream which is killing the fish.

The water level and pollution.

The water level has dropped.

The water quality and they are running low, a couple of years ago, one ran out.

There's not enough water in it, they're taking too much out. They're killing the fish.

There's not enough water in the creeks; it's been taken up by those with water rights; there are issues with the contamination of water.

There are natural minerals going into water and the local businesses use it to dispose of some of their products.

There is levels of arsenic and everything from the mining processes in the mountains. Issues of filtration processes.

There is no minimal flow requirements.

There is not enough water for the area.

There isn't enough water for the population. People need to stop having lawns. They are getting polluted from runoff from golf courses, and mutating the fish.

There might be some issues with contamination from mining, and there might be fertilizer leak from golf courses into Provo River. Water supply is monitored for possibility of lead getting into it, from snow making activity.

There was the East Canyon: something to do with the fish in the creek and certain levels of something. I haven't heard about that one in a while.

Things get dumped in them.

Too many phosphates and lots of junk going down.

Too much algae or something that was killing the fish.

Vendors take all the water out of the creek, spread poison, and steal water from the fish.

Very little water and the fishes are dying.

Question 29: What are concerns you have heard of?

Water availability and bio-chemical demands.

Water being tainted because of snow levels.

Water flow has gotten low. Runoffs from agriculture causes water to not be pristine.

Water level was so low it was killing the fish.

Water quantity because of upstream water rights. Stuff coming out of golf courses and homes.

Water runoff from oil spills that gets into ground water. Chemical runoff.

Watershed area there is no dog allowed.

We've gone to bottled water. Regular water isn't clean.

We are polluting our plant. Not as clean as it used to be.

We don't have enough water.

We just dealt with goldfish getting into the lake. We had to drain the lake and take out five tons of goldfish.

We just have signs on our street where the water goes--to drinking water or a water shed or something like that--so we know we are not supposed to put anything down the storm drain.

We should just all be careful not to dispose of anything in our creeks.

Weed killer.

Well dog poop is one, changing of oil, and not enough flow or water.

Question 38: What do you think is the SECOND LARGEST contributor to water pollution in local streams?

A little bit of everything.

All of the above. (5)

Depends on where you are.

Developers and home owners consuming their product.

Fertilizer.

Fertilizers on lawns and golf courses.

Phosphates.

Residential and golf courses.

Road salt.

Run off from the parking lots and roadways.

Using too much water.

Water treatment plant.

Question 41: From what you know or have heard, where does storm water from your property and neighborhood area flow first?

All except Silver

Creek attached to Park City golf course.

Poison creek. (4)

Poison Creek, that goes through the park.

Poison Creek, then to East Canyon.

The one by I 80.

Treated first.

Question 56-57: Who do you think is the LARGEST USER of stream water? And who do you think is the 2nd LARGEST USER of stream water?

Promontory point.

Resorts.

This is about growth and people being in the area and the inability of this area to continue to support them without this turning into a city just like Irvine in California. We will need to build pipelines and bring in more water if we do not curtail or stop growth. This is the decision that needs to be made.

Water systems.

Businesses. (2)

Commercial.

Ranchers.

Recreation.

Question 65: How do you dispose of the dog waste along the trail?

Bag it and carry it out.(22)

Dog bags. (2)

I'm not sure how I should answer that because I walk on a road right next to the creek. I would probably bag my dog's poop.

I don't.(4)

I have bags with me, I pick the poop up in the bag and throw it away in a trashcan.

I pick it up. (4)

Just push it off the trail.

Kick it away from the stream.

Leave it.(3)

Pick it up and put it in garbage.(7)

Pick it up, bag it, bring it home.(9)

Sometimes I pick it up, sometimes I kick it off the trail.

The Mutt Mitts at trail heads.

Trash.

With the baggies provided at the trails.

Question 73: What is your main source of news and information about water issues in Summit County?

A letter.

T.V. and radio.

Anything that Snyderville Basin puts out.

County government.

Flyers.

Flyers by city government.

Friend in the water department.

Gorgoza or Snyderville water reclamation.

I'm an environmental engineer.

I'm a member of the High Country Life Fisher's.

I hear about it through my job.

I used to work for the Snyderville Basin District.

I'm on most of the committees that deal with the issues.

Information with the bills.

Internet and local newspaper.

Letter in the mail.

Local newsletter.

Local what's going on with our community. Swaner Nature Preserve.

My husband is a civil engineer.

Newspaper and radio. (4)

Park record. (3)

Summit Quarterly.

Summit water.

Water bill.

Water company.(2)

Water department information.

Water reclamation stuff.

APPENDIX – C
COMPUTER CROSS-TABULATIONS