

APPENDIX M – Yellowstone Study Questionnaire – Internet Version

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National Park Service
U.S. Department of the Interior



YELLOWSTONE NATIONAL PARK BACKCOUNTRY SURVEY

Thank you for taking the time to complete this survey. We would like to start by asking you about the dates you traveled in the backcountry at Yellowstone National Park (abbreviated as YELL) and the group of people you traveled with. We define the BACKCOUNTRY as those wilderness areas of the parks that (1) require a permit to enter, (2) are reached primarily by hiking, boating, or horseback, and (3) lack most facilities and services. You may refuse to answer any question at any time. Please put a mark in the box beside the correct answer or fill in the blanks (as appropriate). For this first series of questions, you may want to have a calendar available.

BACKCOUNTRY TRAVEL

Q1. On what date did you enter the backcountry at Yellowstone National Park (abbreviated as YELL)? (This is not necessarily the date you entered YELL itself). If you do not know the exact date, please enter the month.

|_|_|_|-|_|_|_|-2008
M M D D

Q2. Did you travel with another person or a group of people into the backcountry? (Note: your group is defined as all the people listed on your backcountry permit) (PLEASE CHECK ONLY ONE ANSWER)

- YES (GO TO Q.3)
- NO (GO TO Q.5)
- DON'T KNOW (GO TO Q.5)

Q3. How many people were in your group, NOT INCLUDING YOURSELF?

|_|_|_| persons DON'T KNOW

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Q4. How many people were in each of the following categories, NOT INCLUDING YOURSELF?

Male Adults |__|__|__|

Female Adults |__|__|__|

Male Children (younger than 18 years) |__|__|__|

Female Children (younger than 18 years) |__|__|__|

DON'T KNOW

Q5. While you were in the backcountry, did you follow the itinerary as outlined on your backcountry permit? (PLEASE CHECK ONLY ONE ANSWER)

YES

NO

DON'T KNOW

Q6. On what date did you leave the backcountry at YELL? (This is not necessarily the date you left YELL itself). If you do not know the exact date, please enter the month.

|__|__|__|_|-|__|__|__|_|-2008
M M D D

Next, we would now like to ask you questions about your activities and exposures WHILE YOU WERE IN THE BACKCOUNTRY at YELL. These questions are about drinking water, food and food preparation, sanitation and hygiene, recreational water activities, and contact with animals.

DRINKING WATER

Q7. What were your sources of drinking water while you were in the backcountry at Yellowstone National Park (abbreviated as YELL)?

(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- Lake/pond (or other standing body of water) in the backcountry **(GO TO Q.8)**
- Stream/river (or other flowing water, e.g., waterfalls) in the backcountry **(GO TO Q.8)**
- Spring in the backcountry **(GO TO Q.8)**
- Commercially bottled water purchased before entering the backcountry **(GO TO Q.9)**
- Other water brought in from outside YELL **(GO TO Q.9)**
- Water obtained from a faucet/tap inside YELL prior to entering the backcountry **(GO TO Q.9)**
- Water obtained from a lake/pond (or other standing body of water) inside YELL prior to entering the backcountry **(GO TO Q.8)**
- Water obtained from a stream/river (or other flowing body of water, e.g., waterfalls) inside YELL prior to entering the backcountry **(GO TO Q.8)**
- Water obtained from a spring inside YELL prior to entering the backcountry **(GO TO Q.8)**
- Other (**specify**) _____ **(GO TO Q.9)**
- Don't Know **(GO TO Q.9)**

Q8. You indicated you drank water from the following source(s) while you were in the backcountry. What did the water at the source(s) look like? (FOR EACH

NATURAL WATER SOURCE YOU LISTED IN Q7, PLEASE CHECK ONE ANSWER)

WATER SOURCE	Flowing and clear	Flowing but <u>somewhat</u> murky / cloudy / turbid	Flowing but <u>quite</u> murky / cloudy / turbid	Non-flowing and clear	Non-flowing and <u>somewhat</u> murky / cloudy / turbid	Non-flowing and <u>quite</u> murky / cloudy / turbid	Other (specify in space below)	Don't know
Lake / pond in backcountry	•	•	•	•	•	•		•
Stream / river in backcountry	•	•	•	•	•	•		•
Spring in backcountry	•	•	•	•	•	•		•
Lake / pond prior to entry into backcountry	•	•	•	•	•	•		•
Stream / river prior to entry into backcountry	•	•	•	•	•	•		•
Spring prior to entry into backcountry	•	•	•	•	•	•		•

Q9. Did you drink untreated water in the backcountry at YELL? By “untreated water” we mean water that was not treated using filtration, boiling, disinfection, or another

treatment method before you drank it. Untreated water excludes bottled water and tap water. (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q10. Did you (or another member of your group) treat your water in YELL before you drank it? (Note: your group is defined as all the people listed on your backcountry permit) (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS **(GO TO Q.11)**
- USUALLY **(GO TO Q.11)**
- SOMETIMES **(GO TO Q.11)**
- NEVER **(GO TO Q.72)**
- DON'T KNOW **(GO TO Q.72)**

Q11. Was there a specific person (or persons) in your group who was (were) designated to treat the water for the group? (PLEASE CHECK ONLY ONE ANSWER)

- YES **(GO TO Q.12)**
- NO **(GO TO Q.13)**
- DON'T KNOW **(GO TO Q.13)**

Q How many people in your group were designated to treat the water? (PLEASE CHECK ONLY ONE ANSWER)

One

Two

Three

Four

Five

More than five

Don't Know

Q13. What method(s) was (were) used to treat the water?
(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

Filtration

Boiling

Disinfection drops/ tablets/ powder (e.g., chemicals like chlorine, iodine)

Ultraviolet (UV) light

Mixed oxidants / electrolysis

Clarification using a flocculating agent

Other (specify) _____

Don't Know

Q14. If MULTIPLE METHODS were selected in the previous question (Q.13), was one method alone used to treat the water before drinking it or were multiple methods sometimes used together to treat the water before drinking it?
(PLEASE CHECK ONLY ONE ANSWER)

Always only one method used (GO TO Q.16)

Always multiple methods used together (GO TO Q.15)

Sometimes one method used, sometimes multiple methods used together
(GO TO Q.15)

Other (specify) _____ (GO TO Q.15)

Don't Know (GO TO Q.16)

Q15. If MULTIPLE METHODS TOGETHER, which methods were used together? (PLEASE CHECK ALL THAT APPLY)

Filtration and boiling

Filtration and disinfection with chemicals

Filtration and ultraviolet (UV) light

Filtration and mixed oxidants / electrolysis

Filtration and clarification using a flocculating agent

Filtration and other method

Boiling and disinfection with chemicals

Boiling and ultraviolet (UV) light

Boiling and mixed oxidants / electrolysis

Boiling and clarification using a flocculating agent

Boiling and other method

Disinfection with chemicals and ultraviolet (UV) light

Disinfection with chemicals and mixed oxidants / electrolysis

Disinfection with chemicals & clarification using a flocculating agent

Disinfection with chemicals and other method

Ultraviolet (UV) light and mixed oxidants / electrolysis

Ultraviolet (UV) light and clarification using a flocculating agent

Ultraviolet (UV) light and other method

Mixed oxidants / electrolysis and clarification using a flocculating agent

Mixed oxidants / electrolysis and other method

Clarification using a flocculating agent and other method

Other combination (**specify**) _____

Q16. If you FILTERED your water, please answer the following questions. If you did not filter your water, please go to Q.28:

Q17. You indicated that you drank filtered water while you were in the backcountry at YELL. Did you filter your drinking water or did someone else filter it for you?

(PLEASE CHECK ONLY ONE ANSWER)

- I filtered my drinking water **(GO TO Q.18)**
- Someone else filtered my drinking water **(GO TO Q.19)**
- Sometimes I filtered, sometimes someone else filtered **(GO TO Q.18)**
- Other (**specify**) _____ **(GO TO Q.18)**
- Don't Know **(GO TO Q.22)**

Q18. Did **you** ever filter water before this trip into the backcountry at YELL? (PLEASE CHECK ONLY ONE ANSWER)

- YES
- NO
- DON'T KNOW
- I DID NOT FILTER WATER ON THIS TRIP

Q19. Did the **other people** who filtered water on this trip ever filter water in the past? (PLEASE CHECK ONLY ONE ANSWER)

- YES
- NO
- DON'T KNOW
- I WAS THE ONLY PERSON WHO FILTERED WATER ON THIS TRIP

Q20. Did **you** wash your hands before filtering the water? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
-
-
-

USUALLY

SOMETIMES

NEVER

DON'T KNOW

I DID NOT FILTER WATER ON THIS TRIP

Q21. Did the **other people** who filtered water wash their hands before filtering the water?

(PLEASE CHECK ONLY ONE ANSWER)

ALWAYS

USUALLY

SOMETIMES

NEVER

DON'T KNOW

I WAS THE ONLY PERSON WHO FILTERED WATER ON THIS TRIP

Q22. Regarding the filter(s) used on this trip, can you easily distinguish between (1) the filter hose that brings raw untreated water from the water source into the filter (intake hose), and (2) the hose that removes finished filtered water from the device (outflow hose)?

(PLEASE CHECK ONLY ONE ANSWER)

- YES, the intake and outflow hoses look different on all the filters used
- NO, the hoses look the same on all the filters used and are interchangeable
- YES and NO, the hoses look different on one or more filters but look the same and are interchangeable on the other filter(s)
- DON'T KNOW

Q23. After the water was filtered, was the intake hose emptied and dried? The intake hose is the one that brings raw unfiltered water from the water source into the filter.

(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q24. How many individual filter devices did you/your group use while you were in the backcountry at YELL?

(PLEASE CHECK ONLY ONE ANSWER)

- One
-
-
-
-

Two

Three

Four

Five

More than five

Don't Know

Q25. Which filter(s) were used to filter water during your trip into the backcountry at YELL?

(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

I / WE USED THIS FILTER	BRAND	NAME
•	Alpine	Water Filter Bottle
•	Aquamira	Water Bottle and Filter
•	Basic Designs	Ceramic Filter Pump
•	Basic Designs	High-Flow Ceramic Water Filter
•	Bota of Boulder	Outback Water Filter
•	Coghlan's	Water Filter
•	Eddie Bauer	Outdoor Water Filtration Bottle
•	First Need	Base Camp Portable Water Purifier
•	First Need	Deluxe Water Purifier
•	First Need	Microlite Microfiltration Unit
•	First Need	Trav-L-Pure Water Purifier
•	Fountain of Youth	Water Filtration Bottle
•	Frontier	Emergency Water Filter / Purification System
•	Homeland Preparedness	Emergency Water Filtration Bottle
•	Katadyn	Camp Microfilter with Gravity Siphon Filter System
•	Katadyn	Combi or Combi Plus Water Filter
•	Katadyn	Cyst Filter
•	Katadyn	Expedition Water Filter
•	Katadyn	Exstream Mackenzie Water Bottle Purifier
•	Katadyn	Exstream Orinoco Water Bottle Filter
•	Katadyn	Exstream Water Bottle Purifier
•	Katadyn	Exstream XR Water Purifier / Bottle

•	Katadyn	Gravidyn Drip Water Filter
•	Katadyn	Guide Water Filter / Microfilter
•	Katadyn	Hiker PRO Water Filter / Microfilter
•	Katadyn	Hiker Water Filter / Microfilter
•	Katadyn	Micro Filter Water Bottle
•	Katadyn	Mini Ceramic Filter / Microfilter
•	Katadyn	Pocket Filter / Microfilter
•	Katadyn	TRK Drip Water Filter with Ceradyn Element

CONTINUED ON NEXT PAGE

I / WE USED THIS FILTER	BRAND	NAME
•	MSR (Mountain Safety Research)	MiniWorks EX Ceramic Water Filter
•	MSR (Mountain Safety Research)	SweetWater Microfilter / Purifier System
•	MSR (Mountain Safety Research)	WaterWorks EX Ceramic Water Filter
•	NviroHealth	Grip Hydrol Filter Bottle
•	Platypus	Gravity Filtration System
•	ProForce	Pocket Water Purifier
•	ProForce	Ranger Water Purifier
•	ProForce	Trekker Water Purifier
•	Quake Kare	Water Filtration Bottle
•	Relags	Adventure Filter
•	Relags	Travel Filter
•	Sawyer Biological	Water Filtration Bottle
•	SweetWater	Guardian Microfilter
•	SweetWater	Walkabout Filter
•	Timberline	Eagle Filtration Pump System
•	Timberline	Water Filter
•	Timberline	Basecamp Filter
•	Other (specify) _____	
•	DON'T KNOW	

Q26. What was the pore size(s) of the filters that were used?
(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- Smaller than 0.2 micron (μm)
- 0.2 micron (μm) absolute
- 0.2 micron (μm) nominal or normal or average
- Greater than 0.2 micron (μm) but smaller than 1 micron
- 1 micron (μm) absolute
- 1 micron (μm) nominal or normal or average
- Greater than 1 micron (μm)
- Other (**specify**) _____
- Don't Know

Q27. While you were in the backcountry at YELL, how often did you drink water that had been filtered?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q28. If you BOILED your water, please answer the following questions. If you did not boil your water, please go to Q.30:

Q29. You indicated that you drank boiled water while you were in the backcountry at YELL. How often did you drink water that had been boiled? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q30. If you DISINFECTED your water with chemicals, please answer the following questions. If you did not disinfect your water, please go to Q.41:

Q31. You indicated that you drank water that was disinfected with chemicals while you were in the backcountry at YELL. Did you disinfect your drinking water or did someone else disinfect it for you? (PLEASE CHECK ONLY ONE ANSWER)

- I disinfected my drinking water **(GO TO Q.32)**
- Someone else disinfected my drinking water **(GO TO Q.33)**
- Sometimes I disinfected, sometimes someone else disinfected **(GO TO Q.32)**
- Other (**specify**) _____ **(GO TO Q.32)**
- Don't Know **(GO TO Q.36)**

Q32. Did **you** ever disinfect water before this trip into the backcountry at YELL?
(PLEASE CHECK ONLY ONE ANSWER)

- YES
- NO
- DON'T KNOW
- I DID NOT DISINFECT WATER ON THIS TRIP

Q33. Did the **other people** who disinfected the water on this trip ever disinfect water in the past?
(PLEASE CHECK ONLY ONE ANSWER)

- YES
- NO
- DON'T KNOW
- I WAS THE ONLY PERSON WHO DISINFECTED WATER ON THIS TRIP

Q34. Did **you** wash your hands before disinfecting the water?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW
-

I DID NOT DISINFECT WATER ON THIS TRIP

Q35. Did the **other people** who disinfected the water wash their hands before disinfecting the water?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW
- I WAS THE ONLY PERSON WHO DISINFECTED WATER ON THIS TRIP

Q36. Did the people disinfecting the water (including yourself, if applicable) use the recommended amount of chemicals (i.e., as recommended by the manufacturer)?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS **(GO TO Q.38)**
- USUALLY **(GO TO Q.37)**
- SOMETIMES **(GO TO Q.37)**
- NEVER **(GO TO Q.37)**
- DON'T KNOW **(GO TO Q.38)**

Q37. Why was more or less than the recommended amounts of chemicals used? (PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- Bad or unpleasant taste
- Didn't buy / bring enough
- The recommended amount was more than was needed to kill all the germs
- The recommended amount was less than was needed to kill all the germs
- Concern about the health effects from too much of the chemical(s)
- The water in this area did not pose a significant health risk
- Had a difficult time estimating the volume of the water storage container
- Other (**specify**) _____
- Don't Know

Q38. Did you and / or others wait the recommended time after adding the chemicals before drinking the water? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q39. Which chemical(s) was (were) used to disinfect the water?
(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- Chlorine tablets that come in a bottle
- Chlorine tablets individually wrapped in foil
- Chlorine drops/liquid
- Chlorine powder/crystals
- Chlorine dioxide tablets that come in a bottle
- Chlorine dioxide tablets individually wrapped in foil
- Chlorine dioxide drops/liquid
- Chlorine dioxide powder
- Iodine tablets
- Iodine drops/liquid
- Iodine powder/crystals
- Silver ions
- Other (**specify**) _____
- Don't Know

Q40. While you were in the backcountry, how often did you drink water that had been disinfected with chemicals?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
-

DON'T KNOW

Q41. If you treated your water with **ULTRAVIOLET (UV) LIGHT**, please answer the following questions. If you did not treat your water this way, please go to Q.50:

Q42. You indicated that you drank water treated with UV light while you were in the backcountry at YELL. Did you treat your drinking water with UV light or did someone else treat it with UV light for you? (PLEASE CHECK ONLY ONE ANSWER)

- I treated my drinking water with UV light **(GO TO Q.43)**
- Someone else treated my drinking water with UV light **(GO TO Q.44)**
- Sometimes I treated, sometimes someone else treated **(GO TO Q.43)**
- Other (**specify**) _____ **(GO TO Q.43)**
- Don't Know **(GO TO Q.47)**

Q43. Did **you** ever treat water with UV light before this trip into the backcountry at YELL?
(PLEASE CHECK ONLY ONE ANSWER)

- YES
- NO
- DON'T KNOW
- I DID NOT TREAT WATER WITH UV LIGHT ON THIS TRIP

Q44. Did the **other people** who treated water with UV light on this trip ever treat water with UV light in the past?
(PLEASE CHECK ONLY ONE ANSWER)

- YES
- NO
- DON'T KNOW
-

I WAS THE ONLY PERSON WHO TREATED WATER WITH ULTRAVIOLET (UV) LIGHT ON THIS TRIP

Q45. Did **you** wash your hands before treating the water with UV light? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW
- I DID NOT TREAT WATER WITH ULTRAVIOLET (UV) LIGHT ON THIS TRIP

Q46. Did the **other people** who treated the water with UV light wash their hands before treating the water this way? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW
- I WAS THE ONLY PERSON WHO TREATED WATER WITH ULTRAVIOLET (UV) LIGHT ON THIS TRIP

Q47. Which device(s) was (were) used to treat water with UV light? (PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- SteriPEN Water Purifier
- Other (**specify**) _____
- Don't Know

Q48. While you were in the backcountry at YELL, how often did you drink water that had been treated with UV light?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q49. How many individual UV light devices did you/your group use while you were in the backcountry at YELL
(PLEASE CHECK ONLY ONE ANSWER)

- One
- Two
- Three
- Four
- Five
- More than five
- Don't Know

Q50. If you treated your water with **MIXED OXIDANTS** or **ELECTROLYSIS**, please answer the following questions. If you did not treat your water this way, please go to **Q.59**:

Q51. You indicated that you drank water treated with mixed oxidants or electrolysis while you were in the backcountry at YELL. Did you treat your drinking water with mixed oxidants or electrolysis or did someone else treat it for you?

(PLEASE CHECK ONLY ONE ANSWER)

- I treated my drinking water with mixed oxidants or electrolysis
(GO TO Q.52)
- Someone else treated my drinking water with mixed oxidants or electrolysis (GO TO Q.53)
- Sometimes I treated, sometimes someone else treated
(GO TO Q.52)
- Other (**specify**) _____ (GO TO Q.52)
- Don't Know (GO TO Q.56)

Q52. Did **you** ever treat water with mixed oxidants or electrolysis before this trip into the backcountry at YELL?

(PLEASE CHECK ONLY ONE ANSWER)

- YES
- NO
- DON'T KNOW
- I DID NOT TREAT WATER WITH MIXED OXIDANTS OR ELECTROLYSIS ON THIS TRIP

Q53. Did the **other people** who treated water with mixed oxidants or electrolysis ever treat water this way in the past?

(PLEASE CHECK ONLY ONE ANSWER)

- YES
- NO
- DON'T KNOW
- I WAS THE ONLY PERSON WHO TREATED WATER WITH MIXED OXIDANTS OR ELECTROLYSIS ON THIS TRIP

Q54. Did **you** wash your hands before treating the water with mixed oxidants or electrolysis? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW
- I DID NOT TREAT WATER WITH MIXED OXIDANTS OR ELECTROLYSIS ON THIS TRIP

Q55. Did the **other people** who treated the water with mixed oxidants or electrolysis wash their hands before treating the water in this way? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW
- I WAS THE ONLY PERSON WHO TREATED WATER WITH MIXED OXIDANTS OR ELECTROLYSIS ON THIS TRIP

Q56. Which device(s) was (were) used to treat water with mixed oxidants or electrolysis?

(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- MSR MIOX Water Purifier
- Other (**specify**) _____
- Don't Know

Q57. While you were in the backcountry at YELL, how often did you drink water that had been treated with mixed oxidants or electrolysis?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q58. How many individual mixed oxidants / electrolysis devices did you/your group use while you were in the backcountry at YELL?
(PLEASE CHECK ONLY ONE ANSWER)

- One
- Two
- Three
- Four
- Five
- More than five
- Don't Know

Q59. If you treated your water with **CLARIFICATION USING A FLOCCULATING AGENT**, please answer the following questions. If you did not treat your water this way, please go to Q.70:

Q60. You indicated that you drank water clarified using a flocculating agent while you were in the backcountry at YELL. Did you clarify your drinking water or did someone else clarify it for you?
(PLEASE CHECK ONLY ONE ANSWER)

- I clarified my drinking water **(GO TO Q.61)**
- Someone else clarified my drinking water **(GO TO Q.62)**
- Sometimes I clarified, sometimes someone else clarified
(GO TO Q.61)
- Other (**specify**) _____ **(GO TO Q.61)**
- Don't Know **(GO TO Q.65)**

Q61. Did **you** ever clarify water using a flocculating agent before this trip into the backcountry at YELL?
(PLEASE CHECK ONLY ONE ANSWER)

- YES
- NO
- DON'T KNOW
- I DID NOT CLARIFY WATER USING A FLOCCULATING AGENT ON THIS TRIP

Q62. Did the **other people** who clarified water using a flocculating agent ever treat water this way in the past?
(PLEASE CHECK ONLY ONE ANSWER)

- YES
- NO
- DON'T KNOW
- I WAS THE ONLY PERSON WHO CLARIFIED WATER USING A FLOCCULATING AGENT ON THIS TRIP

Q63. Did **you** wash your hands before clarifying the water using a flocculating agent? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
-
-
-

USUALLY

SOMETIMES

NEVER

DON'T KNOW

I DID NOT CLARIFY WATER USING A FLOCCULATING
AGENT ON THIS TRIP

Q64. Did the **other people** who clarified the water using a flocculating agent wash their hands before treating the water in this way? (PLEASE CHECK ONLY ONE ANSWER)

ALWAYS

USUALLY

SOMETIMES

NEVER

DON'T KNOW

I WAS THE ONLY PERSON WHO TREATED WATER WITH
MIXED OXIDANTS OR ELECTROLYSIS ON THIS TRIP

Q65. Did the people clarifying the water (including yourself, if applicable) use the recommended amount of flocculating agent (i.e., as recommended by the manufacturer)? (PLEASE CHECK ONLY ONE ANSWER)

ALWAYS (GO TO Q.67)

USUALLY (GO TO Q.66)

SOMETIMES (GO TO Q.66)

NEVER (GO TO Q.66)

DON'T KNOW (GO TO Q.67)

Q66. Why was more or less than the recommended amount of flocculating agent used? (PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

Bad or unpleasant taste

- Didn't buy/bring enough
- The recommended amount was more than was needed to kill all the germs
- The recommended amount was less than was needed to kill all the germs
- Concern about the health effects from too much of the chemicals
- The water in this area did not pose a significant health risk
- Had a difficult time estimating the volume of the water storage container
- Other (**specify**) _____
- Don't Know

Q67. Did you and / or others wait the recommended time after adding the flocculating agents before drinking the water?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q68. Which flocculating agents were used to disinfect the water?
(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- US Military Water Purification Tablets
- Other (**specify**) _____
-

Don't Know

Q69. While you were in the backcountry, how often did you drink water that had been clarified with a flocculating agent? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q70. If you treated your water with some OTHER METHOD, please answer the following questions. If you did not treat your water this way, please go to Q.72:

Q71. You indicated that you drank water that was treated by some other method. While you were in the backcountry at YELL, how often did you drink water that had been treated with this other method? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q72. Do you think it is safe to drink water from natural sources in any of the backcountry areas in YELL without first treating the water? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
-
-
-

SOMETIMES

NEVER

DON'T KNOW

Q73. Do you think it is safe to drink water from natural sources in any of the backcountry areas within the United States without first treating the water?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q74. What were your sources of information about treating water in the backcountry? (PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- The National Park Service
- Manufacturers of treatment devices or chemicals
- Staff at a camping / outdoor supplies / sports retail store
-

Backpacking / hiking magazine

- Backpacking / hiking website
- Backpacking / hiking book or guide book
- Wilderness training course
- Physician / healthcare provider
- The Centers for Disease Control and Prevention
- Friends / family / colleagues
- Other (**specify**) _____
- Don't Know

Q75. Did you share water bottles with other people in the backcountry?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

FOOD AND FOOD PREPARATION

Q76. Did you eat or taste any of the following foods while you were in the backcountry at Yellowstone National Park (abbreviated as YELL)?
(PLEASE CHECK ONLY ONE ANSWER FOR EACH FOOD ITEM)

FOOD	YES	NO	DON'T KNOW
Eggs carried raw into the backcountry?	•	•	•

Ground beef carried raw into the backcountry?	•	•	•
Beef carried raw into the backcountry (e.g., steak)?	•	•	•
Chicken carried raw into the backcountry?	•	•	•
Raw fruit?	• (GO TO Q.77)	• (GO TO Q.82)	• (GO TO Q.82)
Raw vegetables?	• (GO TO Q.77)	• (GO TO Q.82)	• (GO TO Q.82)
Wild berries found in the backcountry?	• (GO TO Q.77)	• (GO TO Q.82)	• (GO TO Q.82)
Wild plants found in the backcountry?	• (GO TO Q.77)	• (GO TO Q.82)	• (GO TO Q.82)

Q77. While you were in the backcountry, did you or a member of your group wash these raw foods before you ate them (i.e., raw fruit, raw vegetables, wild berries, wild plants)? (PLEASE CHECK ONLY ONE ANSWER) (Note: your group is defined as all the people listed on your backcountry permit)

- ALWAYS (GO TO Q.78)
- USUALLY (GO TO Q.78)
- SOMETIMES (GO TO Q.78)
- NEVER (GO TO Q.82)
- DON'T KNOW (GO TO Q.82)

Q78. What type of water was used to wash these raw foods? (PLEASE CHECK ONLY ONE ANSWER)

- Untreated water only
- Treated drinking water only (treatment includes filtering, boiling, disinfecting with chemicals, UV light, mixed oxidants/electrolysis, clarification, and commercially bottled water)
-

Sometimes untreated water, sometimes treated drinking water

Other (**specify**) _____

Don't Know

Q79. Who washed these raw foods while you were in the backcountry?
(PLEASE CHECK ONLY ONE ANSWER)

I washed the food

Another member(s) of my group washed the food

Sometimes I washed, sometimes another member(s) washed the food

Other (**specify**) _____

Don't Know

Q80. Did **you** wash your hands before washing the raw foods?
(PLEASE CHECK ONLY ONE ANSWER)

ALWAYS

USUALLY

SOMETIMES

NEVER

DON'T KNOW

I DID NOT WASH RAW FOODS ON THIS TRIP

Q81. Did **other people** wash their hands before washing the raw foods?
(PLEASE CHECK ONLY ONE ANSWER)

ALWAYS

USUALLY

SOMETIMES

NEVER

DON'T KNOW

I WAS THE ONLY PERSON WHO WASHED RAW FOODS ON THIS TRIP

Q82. Who prepared or cooked food for you while you were in the backcountry?
(PLEASE CHECK ONLY ONE ANSWER) (Note: your group is defined as all the people listed on your backcountry permit)

- I prepared or cooked all the food I ate or tasted **(GO TO Q.83)**
- Someone else in my group prepared or cooked all the food I ate or tasted
(GO TO Q.84)
- Someone outside of my group prepared or cooked all the food I ate or tasted
(GO TO Q.84)
- Sometimes I prepared or cooked the food, sometimes someone else in my group prepared or cooked the food **(GO TO Q.83)**
- Sometimes I prepared or cooked the food, sometimes someone outside my group prepared or cooked the food **(GO TO Q.83)**
- Sometimes someone else in my group prepared or cooked the food, sometimes someone outside my group prepared or cooked the food **(GO TO Q.84)**
- Food was prepared or cooked by me, my group members, and people outside my group **(GO TO Q.83)**
- Other (**specify**) _____ **(GO TO Q.83)**
- Don't Know **(GO TO Q.85)**

Q83. Did **you** wash your hands before preparing and cooking food in the backcountry? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
-

DON'T KNOW

I DID NOT PREPARE OR COOK FOOD ON THIS TRIP

Q84. Did **other people** wash their hands before preparing and cooking food in the backcountry? (PLEASE CHECK ONLY ONE ANSWER)

ALWAYS

USUALLY

SOMETIMES

NEVER

DON'T KNOW

I WAS THE ONLY PERSON ON THIS TRIP WHO PREPARED OR COOKED FOOD

Q85. Did you use cold or unheated water to rehydrate food you ate while you were in the backcountry? (PLEASE CHECK ONLY ONE ANSWER)

YES (**GO TO Q.86**)

NO (**GO TO Q.89**)

I DID NOT EAT FOOD THAT REQUIRED REHYDRATION (**GO TO Q.89**)

DON'T KNOW (**GO TO Q.89**)

Q86. Was the water boiled in the process of rehydrating the food? (PLEASE CHECK ONLY ONE ANSWER)

ALWAYS

USUALLY

SOMETIMES

NEVER

DON'T KNOW

Q87. Was the water treated before it was used to rehydrate food? (Note: treatment includes filtering, boiling, disinfecting with chemicals, UV light, mixed oxidants/electrolysis, clarification, and commercially bottled water)
(PLEASE CHECK ONLY ONE ANSWER)

- YES (GO TO Q.88)
- NO (GO TO Q.89)
- DON'T KNOW (GO TO Q.89)

Q88. What method was used to treat the water before it was used to rehydrate food? (PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- Filtration
- Boiling
- Disinfection drops/ tablets/ powder (e.g., chemicals such as chlorine, iodine)
- Ultraviolet (UV) light
- Mixed oxidants/ electrolysis
- Clarification using a flocculating agent
- Bottled water purchased before entering the backcountry
- Other (specify) _____
- Don't Know

Q89. Did you use water to cook any of the food you ate while you were in the backcountry? (PLEASE CHECK ONLY ONE ANSWER)

- YES (GO TO Q.90)
- NO (GO TO Q.93)
- I DID NOT EAT FOOD THAT REQUIRED COOKING (GO TO Q.93)
- DON'T KNOW (GO TO Q.93)

Q90. Was the water boiled in the process of cooking the food?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q91. Was the water treated before it was used for cooking? (Note: treatment includes filtering, boiling, disinfecting with chemicals, UV light, mixed oxidants/electrolysis, clarification, and commercially bottled water)
(PLEASE CHECK ONLY ONE ANSWER)

- YES (**GO TO Q.92**)
- NO (**GO TO Q.93**)
- DON'T KNOW (**GO TO Q.93**)

Q92. What method was used to treat the water before using it for cooking?
(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- Filtration
- Boiling
- Disinfection drops/ tablets/ powder (e.g., chemicals such as chlorine, iodine)
- Ultraviolet (UV) light
- Mixed oxidants/ electrolysis

- Clarification using a flocculating agent
- Bottled water purchased before entering the backcountry
- Other (**specify**) _____
- Don't Know

Q93. Did you wash your hands before eating in the backcountry?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q94. Were cooking utensils, cutlery, and dishes washed and/or rinsed and/or soaked while you were in the backcountry (e.g., pots, pans, knives, forks, spoons, plates, bowls, glasses, cups, mugs)? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS (**GO TO Q.95**)
- USUALLY (**GO TO Q.95**)
- SOMETIMES (**GO TO Q.95**)
- NEVER (i.e., never washed/rinsed/soaked but perhaps were wiped off or licked)
(GO TO Q.104)

- DOES NOT APPLY – NO UTENSILS / CUTLERY / DISHES WERE USED
(GO TO Q. 104)
- DON'T KNOW (GO TO Q. 104)

Q95. Was untreated water ever used to wash/rinse/soak the cooking utensils, cutlery, or dishes? (Note: untreated water is water that would not be used for drinking and was never filtered, boiled, disinfected with chemicals, treated with UV light, treated with mixed oxidants/electrolysis, clarified, or commercially bottled – e.g., water taken directly from a creek)

(PLEASE CHECK ONLY ONE ANSWER)

- YES (GO TO Q.96)
- NO (GO TO Q.99)
- DON'T KNOW (GO TO Q.99)

Q96. Was soap used to wash/rinse/soak the cooking utensils, cutlery, or dishes in addition to the water? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q97. Was disinfectant (e.g., chlorine, iodine) added to the water just before the water was used to wash/rinse/soak the cooking utensils, cutlery, or dishes? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
-

DON'T KNOW

Q98. What temperature was the water when it was used to wash/rinse/soak the cooking utensils, cutlery, or dishes?
(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- COLD
- WARM
- HOT BUT NEVER BOILING
- BOILING (OR HOT WATER THAT HAD PREVIOUSLY BOILED)
- DON'T KNOW

Q99. Was treated drinking water ever used to wash/rinse/soak the cooking utensils, cutlery, or dishes? (Note: treated drinking water is water that was filtered, boiled, disinfected with chemicals, treated with UV light, treated with mixed oxidants/electrolysis, clarified, or commercially bottled – e.g., water previously treated for drinking, hygiene, etc.)
(PLEASE CHECK ONLY ONE ANSWER)

- YES (**GO TO Q.100**)
- NO (**GO TO Q.103**)
- DON'T KNOW (**GO TO Q.103**)

Q100. Was soap used to wash/rinse/soak the cooking utensils, cutlery, or dishes in addition to the water? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q101. Was additional disinfectant (e.g., chlorine, iodine) added to the water just before the water was used to wash/rinse/soak the cooking utensils, cutlery, or dishes? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q102. What temperature was the water when it was used to wash/rinse/soak the cooking utensils, cutlery, or dishes? (PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- COLD
- WARM
- HOT BUT NEVER BOILING
- BOILING (OR HOT WATER THAT HAD PREVIOUSLY BOILED)
- DON'T KNOW

Q103. How were these utensils/cutlery/dishes dried? (PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- Air dried
- Single-use disposable towel
- Reusable towel used only to dry utensils / cutlery / dishes
- Reusable towel used for multiple purposes (e.g., drying hands, drying dishes)
- Clothes
-
-

Other (**specify**) _____

Don't Know

Q104. Did you share cutlery and dishes with other people in the backcountry (e.g., knives, forks, spoons, plates, bowls, glasses, cups, mugs)?

(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q105. Did you share food or a meal out of a communal or shared container / plate where everyone put their utensils into the same food?

(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q106. Did you share food or a meal out of a communal or shared container / plate where everyone put their hands into the same food? Examples include but are not limited to food such as trail mix, dried fruit, nuts, fresh fruit or vegetables, jerky, chips, candy, cookies, and crackers. (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS (**GO TO Q.107**)
- USUALLY (**GO TO Q.107**)
- SOMETIMES (**GO TO Q.107**)
- NEVER (**GO TO Q.109**)
- DON'T KNOW (**GO TO Q.109**)

Q107. How often did you wash your hands before eating from a communal or shared container / plate? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q108. How often did others wash their hands before eating from a communal or shared container / plate? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

SANITATION AND HYGIENE

Q109. Did you brush your teeth while you were in the backcountry at Yellowstone National Park (abbreviated as YELL)?

(PLEASE CHECK ONLY ONE ANSWER)

- YES (**GO TO Q.110**)
- NO (**GO TO Q.111**)
- DON'T KNOW (**GO TO Q.111**)

Q110. What water source did you use to brush your teeth with?
(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

Untreated water

Treated drinking water (treatment includes filtering, boiling, disinfecting with chemicals, UV light, mixed oxidants/electrolysis, clarification, and commercially bottled water)

Sometimes untreated water, sometimes treated drinking water

Other (**specify**) _____

Don't Know

Q111. Did you bathe or shower while you were in the backcountry?
(PLEASE CHECK ONLY ONE ANSWER)

YES (**GO TO Q.112**)

NO (**GO TO Q.119**)

DON'T KNOW (**GO TO Q.119**)

Q112. What water source did you use for bathing or showering?
(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

Lake/pond (or other standing body of water)

Stream/river (or other flowing water, e.g., waterfalls)

Spring

Hot spring

Other (**specify**) _____

Don't Know

Q113. Did you get water splashed in your face when you bathed or showered?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q114. Did you put your face or head in or under the water when you bathed or showered? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q115. Did you get any water in your mouth when you bathed or showered?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS **(GO TO Q.116)**
- USUALLY **(GO TO Q.116)**
- SOMETIMES **(GO TO Q.116)**
- NEVER **(GO TO Q.117)**
- DON'T KNOW **(GO TO Q.117)**

Q116. Did you swallow any of this water?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q117. Did you dive or jump into any of the water you bathed in or showered with? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q118. Did you use soap when you bathed or showered while you were in the backcountry? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q119. While you were in the backcountry, did you ever wash your hands? (PLEASE CHECK ONLY ONE ANSWER)

- YES (GO TO Q.120)
- NO (GO TO Q.122)
- DON'T KNOW (GO TO Q.122)

Q120. What did you use to wash your hands with?
 (PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- Untreated water
- Treated drinking water (treatment includes filtering, boiling, disinfecting with chemicals, UV light, mixed oxidants/electrolysis, clarification, and commercially bottled water)
- Soap and untreated water
- Soap and treated drinking water (treatment includes filtering, boiling, disinfecting with chemicals, UV light, mixed oxidants/electrolysis, clarification, and commercially bottled water)
- Hand sanitizer that doesn't require water
- Other (**specify**) _____
- Don't Know

Q121. What did you use to dry your hands with?
 (PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- Nothing – air dried
- Single-use disposable towel
- Re-usable towel used only to dry hands and used only by you
- Re-usable towel used only to dry hands and used by more than one person
- Re-usable towel used for multiple purposes (e.g., drying hands, drying dishes) and used only by you
-
-
-
-

Re-usable towel used for multiple purposes (e.g., drying hands, drying dishes) and used by more than one person

Clothes

Other (**specify**) _____

Don't Know

Q122. While you were in the backcountry, did others you traveled with ever wash their hands? (PLEASE CHECK ONLY ONE ANSWER)

- YES (**GO TO Q.123**)
- NO (**GO TO Q.125**)
- DON'T KNOW (**GO TO Q.125**)
- I TRAVELED BY MYSELF (**GO TO Q.125**)

Q123. What did they use to wash their hands with?
(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- Untreated water
- Treated drinking water (treatment includes filtering, boiling, disinfecting with chemicals, UV light, mixed oxidants/electrolysis, clarification, and commercially bottled water)
- Soap and untreated water
- Soap and treated drinking water (treatment includes filtering, boiling, disinfecting with chemicals, UV light, mixed oxidants/electrolysis, clarification, and commercially bottled water)
-

Hand sanitizer that doesn't require water

Other (**specify**) _____

Don't Know

Q124. What did they use to dry their hands with?
(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

Nothing – air dried

Single-use disposable towel

Re-usable towel used only to dry hands and used only by a single person

Re-usable towel used only to dry hands and used by more than one person

Re-usable towel used for multiple purposes (e.g., drying hands, drying dishes) and used only by a single person

Re-usable towel used for multiple purposes (e.g., drying hands, drying dishes) and used by more than one person

Clothes

Other (**specify**) _____

Don't Know

Q125. While you were in the backcountry, did you wash your hands after urination?
(PLEASE CHECK ONLY ONE ANSWER)

ALWAYS

USUALLY

SOMETIMES

NEVER

I DID NOT URINATE WHILE I WAS IN THE BACKCOUNTRY

DON'T KNOW

Q126. While you were in the backcountry, did you wash your hands after bowel movements? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS (GO TO Q.127)
- USUALLY (GO TO Q.127)
- SOMETIMES (GO TO Q.127)
- NEVER (GO TO Q.127)
- I DID NOT HAVE A BOWEL MOVEMENT WHILE I WAS IN THE BACKCOUNTRY (GO TO Q.132)
- DON'T KNOW (GO TO Q.127)

Q127. While you were in the backcountry, how did you dispose of your feces? (PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- I did not have a bowel movement while I was in the backcountry (GO TO Q.132)
- I used an outhouse / latrine / wooden box-style toilet (GO TO Q.130)
- I buried my feces in a hole (GO TO Q.128)
- I defecated directly on the ground and did not bury (GO TO Q.129)
- Other (specify) _____ (GO TO Q.129)
- Don't Know (GO TO Q.129)

Q128. You indicated you buried your feces. On average, how deep were these holes? (PLEASE CHECK ONLY ONE ANSWER)

- Less than 1 inch
- 1 to 2 inches
- 3 to 5 inches
- 6 to 8 inches
- 9 to 12 inches
- Deeper than 12 inches
- I did not bury my feces
-

Don't Know

Q129. On average, how far away from a water source did you defecate (e.g., lake, pond, river, stream, waterfall, spring, hot spring)? For your a reference, a typical city transit bus is approximately 40 feet long, an Olympic-size swimming pool is 164 feet long, and an American football field is 360 feet long.
(PLEASE CHECK ONLY ONE ANSWER)

- Less than 10 feet
- 10 to 29 feet
- 30 to 49 feet
- 50 to 74 feet
- 75 to 99 feet
- 100 to 124 feet
- 125 to 149 feet
- 150 to 200 feet
- More than 200 feet
- Don't Know

Q130. While you were in the backcountry, did you use toilet paper?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS (**GO TO Q.131**)
- USUALLY (**GO TO Q.131**)
- SOMETIMES (**GO TO Q.131**)
- NEVER (**GO TO Q.132**)
- DON'T KNOW (**GO TO Q.132**)

Q131. Did the toilet paper last through the entire backcountry trip?
(PLEASE CHECK ONLY ONE ANSWER)

- YES
-
-

NO

DON'T KNOW

RECREATIONAL WATER ACTIVITIES

Q132. Did you canoe, kayak, or boat while you were in the backcountry at Yellowstone National Park (abbreviated as YELL)?

(PLEASE CHECK ONLY ONE ANSWER)

- YES
- NO
- DON'T KNOW

Q133. Did you wade, soak your body, or swim in water while you were in the backcountry at YELL? (PLEASE CHECK ONLY ONE ANSWER)

- YES (**GO TO Q.134**)
- NO (**GO TO Q.140**)
- DON'T KNOW (**GO TO Q.140**)

Q134. What water source(s) did you use to wade, soak, or swim in?
(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- Lake/pond (or other standing body of water)
- Stream/river (or other flowing water, e.g., waterfalls)
- Spring
- Hot spring
- Other (**specify**) _____
- Don't Know

Q135. Did you get water splashed in your face when you waded, soaked, or swam? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q136. Did you put your face or head in or under the water when you waded, soaked, or swam? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q137. Did you get any water in your mouth when you waded, soaked, or swam? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS **(GO TO Q.138)**
- USUALLY **(GO TO Q.138)**
- SOMETIMES **(GO TO Q.138)**
- NEVER **(GO TO Q.139)**
- DON'T KNOW **(GO TO Q.139)**

Q138. Did you swallow any of this water? (PLEASE CHECK ONLY ONE ANSWER)

ALWAYS

USUALLY

SOMETIMES

NEVER

DON'T KNOW

Q139. Did you dive or jump into any of this water?
(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

CONTACT WITH ANIMALS

Q140. Did you touch animal feces while you were in the backcountry at Yellowstone National Park (abbreviated as YELL) (e.g., while trying to remove feces from shoes or camping gear)? (PLEASE CHECK ONLY ONE ANSWER)

- YES
- NO
- DON'T KNOW

Q141. Did you see pack animals (e.g., horses, ponies, donkeys, mules *remove llamas*) while you were in the backcountry at YELL?
(PLEASE CHECK ONLY ONE ANSWER)

- YES (**GO TO Q.142**)
-
-

NO (GO TO Q.143)

DON'T KNOW (GO TO Q.143)

Q142. Did you have physical contact with a pack animal while you were in the backcountry at YELL?

(PLEASE CHECK ONLY ONE ANSWER)

YES

NO

DON'T KNOW

We would now like to ask you questions about your health **DURING AND AFTER** the time you were traveling in the backcountry at YELL.

YOUR HEALTH

Q143. When you first entered the backcountry at Yellowstone National Park (abbreviated as YELL), were you having any of the following symptoms?

(PLEASE CHECK THE ONE CORRECT ANSWER FOR EACH SYMPTOM)

CONDITION	YES	NO	DON'T KNOW
Diarrhea? (<i>defined as 3 or more loose bowel movements in 24 hours</i>)	•	•	•
Nausea?	•	•	•
Vomiting?	•	•	•
Abdominal pains or cramps?	•	•	•

Q144. Since you entered the backcountry at YELL until now, did you develop or experience any of the following symptoms or conditions that you did not have when you first entered the backcountry? (PLEASE CHECK ALL THAT APPLY)

Please also tell us on what date you first became ill or injured with this condition and whether this is the actual or estimated date.

CONDITION	YES, I developed this symptom or condition	DATE FIRST BECAME ILL OR INJURED (MM/DD/YYYY)
A cold, nasal congestion, sinus infection, or sore throat?	•	__/__/____ • actual • estimated
Chest congestion?	•	__/__/____ • actual • estimated
Chest tightness?	•	__/__/____ • actual • estimated
Shortness of breath at rest?	•	__/__/____ • actual • estimated
Cough?	•	__/__/____ • actual • estimated
A lung infection (e.g., bronchitis, pneumonia)?	•	__/__/____ • actual • estimated
An asthma attack?	•	__/__/____ • actual • estimated
Wheezing?	•	__/__/____ • actual • estimated
Allergies (e.g., hayfever)?	•	__/__/____ • actual • estimated
Eye irritation (e.g., itchy, painful, burning, watery)?	•	__/__/____ • actual • estimated
Blurred vision?	•	__/__/____ • actual • estimated

CONTINUED ON NEXT PAGE

CONDITION	YES, I developed this symptom or condition	DATE FIRST BECAME ILL OR INJURED (MM/DD/YYYY)
Eye twitching?	•	__/__/____ • actual • estimated
An eye infection?	•	__/__/____ • actual • estimated
An ear infection or earache?	•	__/__/____ • actual • estimated
Headache?	•	__/__/____ • actual • estimated
Dizziness or light-headedness?	•	__/__/____ • actual • estimated
Balance problems, stumbling, or difficulty walking?	•	__/__/____ • actual • estimated
Weakness or decreased exercise performance?	•	__/__/____ • actual • estimated
Loss of appetite?	•	__/__/____ • actual • estimated
Diarrhea? (defined as 3 or more loose bowel movements in 24 hours)	•	__/__/____ • actual • estimated

Blood in stools or bowel movements?	•	__ / __ / ____ • actual • estimated
Nausea?	•	__ / __ / ____ • actual • estimated
Vomiting?	•	__ / __ / ____ • actual • estimated
Abdominal pains or cramps?	•	__ / __ / ____ • actual • estimated
Constipation?	•	__ / __ / ____ • actual • estimated
A urinary tract infection, pain or burning during urination, urinary discharge, or blood in the urine?	•	__ / __ / ____ • actual • estimated
A tick bite(s)?	•	__ / __ / ____ • actual • estimated
Other insect bite(s)? (specify)	•	__ / __ / ____ • actual • estimated
A wound, cut, laceration, (<i>delete "or" here</i>) skin abrasion, or scrape?	•	__ / __ / ____ • actual • estimated

CONTINUED ON NEXT PAGE

CONDITION	YES, I developed this symptom or condition	DATE FIRST BECAME ILL OR INJURED (MM/DD/YYYY)
A wound infection?	•	__ / __ / ____ • actual • estimated
A rash or skin infection?	•	__ / __ / ____ • actual • estimated
Blisters on your feet?	•	__ / __ / ____ • actual • estimated
Burn (<i>from fire or sparks, not sunburn</i>)?	•	__ / __ / ____ • actual • estimated
Sunburn?	•	__ / __ / ____ • actual • estimated
Joint pain or sprain?	•	__ / __ / ____ • actual • estimated
Back pain or strain?	•	__ / __ / ____ • actual • estimated
Other muscle cramps, strain, or pull?	•	__ / __ / ____ • actual • estimated
A fracture or broken bone?	•	__ / __ / ____ • actual • estimated
A dislocated joint?	•	__ / __ / ____ • actual • estimated
Another injury or wound? (specify)	•	__ / __ / ____

		• actual • estimated
Another illness? (specify)	•	__ / __ / ____ • actual • estimated
Psychological condition (e.g., <i>loneliness, boredom, depression</i>)?	•	__ / __ / ____ • actual • estimated
Excessive fatigue?	•	__ / __ / ____ • actual • estimated
Insomnia or problems sleeping?	•	__ / __ / ____ • actual • estimated
Poor concentration	•	__ / __ / ____ • actual • estimated
Social condition (e.g., <i>problems with other backcountry users</i>)?	•	__ / __ / ____ • actual • estimated
Lack of physical conditioning?	•	__ / __ / ____ • actual • estimated
Hypothermia?	•	__ / __ / ____ • actual • estimated
Other? (specify)	•	__ / __ / ____ • actual • estimated

Q145. Did you cut short your time in the backcountry because of any illnesses, injuries, or other conditions you had while you were in the backcountry?

PLEASE CHECK ONLY ONE ANSWER

- YES (**GO TO Q.146**)
- NO (**GO TO Q.147**)
- DON'T KNOW (**GO TO Q.147**)

Q146. Did you have to leave the backcountry sooner than you planned because of any of the following condition(s)? How many days did you lose from your backcountry trip? (IF YOU LOST LESS THAN ONE FULL DAY FROM YOUR PLANNED TRIP INTO THE BACKCOUNTRY, PLEASE WRITE THE NUMBER "0" [ZERO])

CONDITION	I CUT SHORT MY TRIP BECAUSE OF THIS/ THESE CONDITION(S) (CHECK ALL THAT APPLY)	NUMBER OF DAYS I LOST FROM MY PLANNED TRIP INTO THE BACKCOUNTRY
A cold, nasal congestion, sinus infection, or sore	•	_____ days

throat?		
Chest congestion?	•	_____ days
Chest tightness?	•	_____ days
Shortness of breath at rest?	•	_____ days
Cough?	•	_____ days
A lung infection (e.g., bronchitis, pneumonia)?	•	_____ days
An asthma attack?	•	_____ days
Wheezing?	•	_____ days
Allergies (e.g., hayfever)?	•	_____ days
Eye irritation (e.g., itchy, painful, burning, watery)?	•	_____ days
Blurred vision?	•	_____ days
Eye twitching?	•	_____ days
An eye infection?	•	_____ days
An ear infection or earache?	•	_____ days
Headache?	•	_____ days
Dizziness or light-headedness?	•	_____ days
Balance problems, stumbling, or difficulty walking?	•	_____ days
Weakness or decreased exercise performance?	•	_____ days

CONTINUED ON NEXT PAGE

CONDITION	I CUT SHORT MY TRIP BECAUSE OF THIS/ THESE CONDITION(S) (CHECK ALL THAT APPLY)	NUMBER OF DAYS I LOST FROM MY PLANNED TRIP INTO THE BACKCOUNTRY
Loss of appetite?	•	_____ days
Diarrhea? (defined as 3 or more loose bowel movements in 24 hours)	•	_____ days
Blood in stools or bowel movements?	•	_____ days
Nausea?	•	_____ days
Vomiting?	•	_____ days
Abdominal pains or cramps?	•	_____ days
Constipation?	•	_____ days
A urinary tract infection, pain or burning during urination, urinary discharge, or blood in the urine?	•	_____ days
A tick bite(s)?	•	_____ days
Other insect bite(s)? (specify)	•	_____ days
A wound, cut, laceration, (delete "or" here) skin abrasion, or scrape?	•	_____ days
A wound infection?	•	_____ days
A rash or skin infection?	•	_____ days

Blisters on your feet?	•	_____ days
Burn (from fire or sparks, not sunburn)? (When I choose this option, the sunburn date question also shows up – can you fix this?)	•	_____ days
Sunburn?	•	_____ days
Joint pain or sprain?	•	_____ days
Back pain or strain?	•	_____ days
Other muscle cramps, strain, or pull?	•	_____ days
A fracture or broken bone?	•	_____ days
A dislocated joint?	•	_____ days
Another injury or wound? (specify)	•	_____ days
Another illness? (specify)	•	_____ days
Psychological condition (e.g., loneliness, boredom, depression)?	•	_____ days
Excessive fatigue?	•	_____ days
Insomnia or problems sleeping?	•	_____ days

CONTINUED ON NEXT PAGE

CONDITION	I CUT SHORT MY TRIP BECAUSE OF THIS/ THESE CONDITION(S) (CHECK ALL THAT APPLY)	NUMBER OF DAYS I LOST FROM MY PLANNED TRIP INTO THE BACKCOUNTRY
Poor concentration	•	_____ days
Social condition (e.g., problems with other backcountry users)?	•	_____ days
Lack of physical conditioning?	•	_____ days
Hypothermia?	•	_____ days
Other? (specify)	•	_____ days
_____	•	_____ days

Q147. If you had a tick bite, please specify the location(s). Otherwise, continue to the next question. (PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- | | |
|-----------------------------------|-----------------------------------|
| <input type="checkbox"/> Head | <input type="checkbox"/> Back |
| <input type="checkbox"/> Neck | <input type="checkbox"/> Abdomen |
| <input type="checkbox"/> Shoulder | <input type="checkbox"/> Buttocks |

Arm

Leg

Hand

Foot

Chest

Other (**specify**) _____

Don't Know

Q148. If you had some other insect bite(s), please specify the location(s). Otherwise, continue to the next question.

(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

Head

Back

Neck

Abdomen

Shoulder

Buttocks

Arm

Leg

Hand

Foot

Chest

Other (**specify**) _____

Don't Know

Q149. If you had a wound, cut, laceration, skin abrasion, or scrape, please specify the location(s). Otherwise, continue to the next question.

(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- | | |
|---|-----------------------------------|
| <input type="checkbox"/> Head | <input type="checkbox"/> Back |
| <input type="checkbox"/> Neck | <input type="checkbox"/> Abdomen |
| <input type="checkbox"/> Shoulder | <input type="checkbox"/> Buttocks |
| <input type="checkbox"/> Arm | <input type="checkbox"/> Leg |
| <input type="checkbox"/> Hand | <input type="checkbox"/> Foot |
| <input type="checkbox"/> Chest | |
| <input type="checkbox"/> Other (specify) _____ | |
| <input type="checkbox"/> Don't Know | |

Q150. If you had a wound infection, please specify the location(s). Otherwise, continue to the next question. (PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- | | |
|---|-----------------------------------|
| <input type="checkbox"/> Head | <input type="checkbox"/> Back |
| <input type="checkbox"/> Neck | <input type="checkbox"/> Abdomen |
| <input type="checkbox"/> Shoulder | <input type="checkbox"/> Buttocks |
| <input type="checkbox"/> Arm | <input type="checkbox"/> Leg |
| <input type="checkbox"/> Hand | <input type="checkbox"/> Foot |
| <input type="checkbox"/> Chest | |
| <input type="checkbox"/> Other (specify) _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> Don't Know | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |

Q151. If you had a rash or skin infection, please specify the location(s). Otherwise, continue to the next question.

(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

-
-
-

Head

Back

Neck

Abdomen

Shoulder

Buttocks

Arm

Leg

Hand

Foot

Chest

Other (**specify**) _____

Don't Know

Q152. If you had a burn, please specify the location(s). Otherwise, continue to the next question. (PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

Head

Back

Neck

Abdomen

Shoulder

Buttocks

Arm

Leg

Hand

Foot

Chest

Other (**specify**) _____

Don't Know

Q . If you had a sunburn, please specify the location(s). Otherwise, continue to the next question. (PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

Head

Back

Neck

Abdomen

Shoulder

Buttocks

Arm

Leg

Hand

Foot

Chest

Other (**specify**) _____

Don't Know

Q154. If you had a joint pain(s) or sprain(s), please specify the location(s). Otherwise, continue to the next question.

(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

Shoulder

Knee

Neck

Ankle

Elbow

Toe

Wrist

Finger or thumb

Hip

Other (**specify**) _____

Don't Know

Q . If you had some other muscle cramp(s), strain(s), or pull(s), please specify the location(s). Otherwise, continue to the next question.

(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

Head

Abdomen

Neck

Groin

Shoulder

Buttocks

Arm

Leg

Hand

Foot

Chest

Other (**specify**) _____

Don't Know

Q156. If you had a fracture or broken bone, please specify the location(s). Otherwise, continue to the next question.

(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

Skull

Rib

Neck

Back

Clavicle

Hip

Shoulder blade or shoulder

Pelvis

Arm

Leg

Elbow

Knee

Wrist

Ankle

Hand

Foot

Finger or thumb

Toe

Other (**specify**) _____

Don't Know

Q157. If you had a dislocated joint, please specify the location(s). Otherwise, continue to the next question. (PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- | | |
|---|--------------------------------|
| <input type="checkbox"/> Shoulder | <input type="checkbox"/> Knee |
| <input type="checkbox"/> Elbow | <input type="checkbox"/> Ankle |
| <input type="checkbox"/> Wrist | <input type="checkbox"/> Toe |
| <input type="checkbox"/> Finger or thumb | |
| <input type="checkbox"/> Hip | |
| <input type="checkbox"/> Other (specify) _____ | |
| <input type="checkbox"/> Don't Know | |

Q158. If you had another injury or wound, specify the location(s). Otherwise, continue to the next question. (PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- | | |
|---|-----------------------------------|
| <input type="checkbox"/> Head | <input type="checkbox"/> Abdomen |
| <input type="checkbox"/> Neck | <input type="checkbox"/> Buttocks |
| <input type="checkbox"/> Shoulder | <input type="checkbox"/> Groin |
| <input type="checkbox"/> Arm | <input type="checkbox"/> Hip |
| <input type="checkbox"/> Elbow | <input type="checkbox"/> Leg |
| <input type="checkbox"/> Wrist | <input type="checkbox"/> Knee |
| <input type="checkbox"/> Hand | <input type="checkbox"/> Ankle |
| <input type="checkbox"/> Finger or thumb | <input type="checkbox"/> Foot |
| <input type="checkbox"/> Chest | <input type="checkbox"/> Toe |
| <input type="checkbox"/> Back | |
| <input type="checkbox"/> Other (specify) _____ | |
| <input type="checkbox"/> Don't Know | |

Q159. We would now like to ask you more questions about the diarrhea or vomiting you developed SINCE YOU ENTERED the backcountry at Yellowstone National Park (abbreviated as YELL) UNTIL NOW. IF YOU HAVE NOT HAD DIARRHEA OR VOMITING SINCE YOU ENTERED THE BACKCOUNTRY UNTIL NOW, GO TO Q.169.

DIARRHEA OR VOMITING

Q160. You indicated that you developed diarrhea after you entered the backcountry. What was the maximum number of loose bowel movements you had in any 24-hour period during this illness?

NUMBER |__|__|__| maximum number of loose bowel movements in any 24-hour period

DON'T KNOW

I HAVE NOT HAD DIARRHEA SINCE I ENTERED THE BACKCOUNTRY
(GO TO Q.163)

Q161. Do you currently have diarrhea? (PLEASE CHECK ONLY ONE ANSWER)

YES (GO TO Q.163)

NO (GO TO Q.162)

DON'T KNOW (GO TO Q.163)

Q162. How many days did your diarrhea (loose bowel movements) last? By this we mean from the first day of diarrhea up to and including the last day of diarrhea. If the diarrhea stopped and started in between, do not subtract the diarrhea-free days in between the day your diarrhea started and the day it ended

completely. (IF THE NUMBER OF DAYS IS LESS THAN ONE FULL DAY, PLEASE WRITE/TYPE THE NUMBER "0" [ZERO])

NUMBER |__|__|__| days before diarrhea completely ended
[DO NOT SUBTRACT DAYS IN BETWEEN WITHOUT DIARRHEA]

If you do not know the number of days, on what date did the diarrhea completely end? (IF YOU DO NOT KNOW THE EXACT DATE PLEASE ESTIMATE)

|__|__|_|-|__|__|_|-2006
M M D D

Is this date the actual or estimated date?
(PLEASE CHECK ONLY ONE ANSWER)

ACTUAL ESTIMATED

Q163. You indicated that you developed vomiting after you entered the backcountry. What was the maximum number times you vomited in any 24-hour period during this illness?

NUMBER |__|__|__| maximum number of times vomited in any
24-hour period

DON'T KNOW

I HAVE NOT VOMITTED SINCE I ENTERED THE BACKCOUNTRY
UNTIL NOW (**GO TO Q.166**)

Q164. Are you still ill with vomiting? (PLEASE CHECK ONLY ONE ANSWER)

YES (**GO TO Q.166**)

NO (**GO TO Q.165**)

DON'T KNOW (**GO TO Q.166**)

Q165. How many days did your vomiting last? By this we mean from the first day of vomiting up to and including the last day of vomiting. If the vomiting stopped and started in between, do not subtract the vomiting-free days in between the day your vomiting started and the day it ended completely. (IF THE NUMBER OF DAYS IS LESS THAN ONE FULL DAY, PLEASE WRITE/TYPE THE NUMBER "0" [ZERO])

NUMBER |__|__|__| days before vomiting completely ended
[DO NOT SUBTRACT DAYS IN BETWEEN WITHOUT VOMITING]

If you do not know the number of days, on what date did the vomiting completely end? (IF YOU DO NOT KNOW THE EXACT DATE, PLEASE ESTIMATE)

date: |__|__|_|-|__|__|_|-2006
M M D D

Is this date the actual or estimated date?
(PLEASE CHECK ONLY ONE ANSWER)

ACTUAL ESTIMATED

Q166. Did you lose any weight while you had diarrhea and / or vomiting?
(PLEASE CHECK ONLY ONE ANSWER)

- YES (**GO TO Q.167**)
- NO (**GO TO Q.169**)
- DON'T KNOW (**GO TO Q. 169**)
- I DID NOT HAVE DIARRHEA OR VOMITING SINCE I ENTERED THE BACKCOUNTRY UNTIL NOW (**GO TO Q. 169**)

Q167. How much weight did you lose?
(PLEASE FILL OUT EITHER POUNDS OR KILOGRAMS)

NUMBER |__|__|__| pounds OR NUMBER |__|__|__| kilograms

DON'T KNOW

Q168. What is your usual weight?
(PLEASE FILL OUT EITHER POUNDS OR KILOGRAMS)

NUMBER |__|__|__| pounds OR NUMBER |__|__|__| kilograms

DON'T KNOW

Q169. We would now like to ask you questions about the diagnosis and treatment of any diarrhea or vomiting you developed **SINCE YOU ENTERED** the backcountry at YELL **UNTIL NOW**. IF YOU HAVE NOT HAD DIARRHEA OR VOMITING SINCE YOU ENTERED THE BACKCOUNTRY UNTIL NOW, GO TO Q. 180.

DIAGNOSIS AND TREATMENT OF DIARRHEA OR VOMITING

Q170. After you left the backcountry at Yellowstone National Park (abbreviated as YELL), did you consult a healthcare provider about any diarrhea or vomiting? (PLEASE CHECK ONLY ONE ANSWER)

- YES (GO TO Q.171)
- NO (GO TO Q.180)
- DON'T KNOW (GO TO Q. 180)

Q171. Did you consult a healthcare provider over the phone? (PLEASE CHECK ONLY ONE ANSWER)

- YES
- NO
- DON'T KNOW

Q172. Did you visit a healthcare provider? (PLEASE CHECK ONLY ONE ANSWER)

- YES (GO TO Q.173)
- NO (GO TO Q.174)
- DON'T KNOW (GO TO Q.174)

Q173. How many times did you visit a healthcare provider (in total) for diarrhea or vomiting?

|_|_|_| times Don't Know

Q174. Did you visit an Emergency Room because of diarrhea or vomiting? (PLEASE CHECK ONLY ONE ANSWER)

- YES (GO TO Q.175)
-
-

NO (GO TO Q.176)

DON'T KNOW (GO TO Q.176)

Q175. How many times did you visit the Emergency Room (in total) for diarrhea or vomiting?

|_|_|_| times

Don't Know

Q176. Were you admitted to the hospital because of diarrhea or vomiting?
(PLEASE CHECK ONLY ONE ANSWER)

YES (GO TO Q.177)

NO (GO TO Q.178)

DON'T KNOW (GO TO Q.178)

Q177. How many days (in total) were you hospitalized for diarrhea or vomiting? (IF YOU WERE HOSPITALIZED FOR LESS THAN ONE FULL DAY, PLEASE WRITE/TYPE THE NUMBER "0" [ZERO])

|_|_|_| days

Don't Know

Q178. At any time after you left the backcountry were you given intravenous fluids for diarrhea or vomiting? (PLEASE CHECK ONLY ONE ANSWER)

YES

NO

DON'T KNOW

Q179. Once your diarrhea or vomiting began, how long were you ill before you first consulted a healthcare provider (either by phone or in person)?
(IF YOU DO NOT KNOW THE EXACT LENGTH OF TIME, PLEASE ESTIMATE)

|_|_|_| days / weeks / months (CIRCLE THE APPROPRIATE LENGTH OF TIME)

DON'T KNOW

Is this the actual or estimated length of time?
(PLEASE CHECK ONLY ONE ANSWER)

ACTUAL

ESTIMATED

Q180. We would now like to ask you questions about any diarrhea or vomiting

among the other members of the group you traveled with into the backcountry in YELL. Your group is defined as all the people listed on your backcountry permit. IF NONE OF YOUR GROUP MEMBERS HAD DIARRHEA OR VOMITING WHEN THEY ENTERED THE BACKCOUNTRY AND IF NONE HAVE HAD DIARRHEA OR VOMITING SINCE THEY ENTERED THE BACKCOUNTRY UNTIL NOW, GO TO Q.203.

DIARRHEA OR VOMITING IN GROUP MEMBERS

Q181. When you first entered the backcountry at Yellowstone National Park (abbreviated as YELL), did any member(s) of your group (NOT INCLUDING YOURSELF) have diarrhea or vomiting? (PLEASE CHECK ONLY ONE ANSWER)

YES (GO TO Q.182)

NO (GO TO Q. 185)

DON'T KNOW (GO TO Q. 185)

Q182. How many group members had diarrhea or vomiting when they first entered the backcountry, NOT INCLUDING YOURSELF?

|_|_|_| persons

Don't Know

Q183. Were any of these ill group members younger than 18 years of age? (PLEASE CHECK ONLY ONE ANSWER)

YES (GO TO Q.184)

NO (GO TO Q.185)

DON'T KNOW (GO TO Q. 185)

Q184. How many of these ill group members were younger than 18 years of age?

|_|_|_| persons

Don't Know

Q185. Since entering the backcountry at YELL until now, did any member of your group (NOT INCLUDING YOURSELF) develop diarrhea or vomiting that he/she did not have when he/she first entered the backcountry? (PLEASE CHECK ONLY ONE ANSWER)

YES (GO TO Q.186)

NO (GO TO Q.190)

DON'T KNOW (GO TO Q.190)

Q186. Since entering the backcountry until now, how many group members have had diarrhea or vomiting, NOT INCLUDING YOURSELF?

|_|_|_| persons

Don't Know

Q187. Were any of these ill group members younger than 18 years of age?
(PLEASE CHECK ONLY ONE ANSWER)

YES (GO TO Q.188)

NO (GO TO Q.189)

DON'T KNOW (GO TO Q.189)

Q188. How many of these ill group members were younger than 18 years of age?

|_|_|_| persons

Don't Know

Q189. IF YOU WERE ILL WITH DIARRHEA OR VOMITING WHEN YOU ENTERED THE BACKCOUNTRY **OR** IF YOU BECAME ILL WITH DIARRHEA OR VOMITING SINCE ENTERING THE BACKCOUNTRY UNTIL NOW, PLEASE ANSWER THE FOLLOWING QUESTION. IF NOT, PLEASE GO TO **Q203**.

For each ill group member, please indicate whether these group members became ill before, at the same time, or after you became ill with vomiting or diarrhea.

GROUP MEMBER	BEFORE	AT THE SAME TIME	AFTER	DON'T KNOW
Group member #1	•	•	•	•
Group member #2	•	•	•	•
Group member #3	•	•	•	•
Group member #4	•	•	•	•
Group member #5	•	•	•	•
Group member #6	•	•	•	•
Group member #7	•	•	•	•
Group member #8	•	•	•	•
Group member #9	•	•	•	•
Group member #10	•	•	•	•

Q190. You indicated you had diarrhea or vomiting while you were in the backcountry at YELL. After you became ill, did you treat drinking water that others drank? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q191. After you became ill, did you wash, prepare, or cook food that others ate or tasted? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q192. After you became ill, did you wash or dry cooking utensils, cutlery, or dishes (e.g., pots, pans, knives, forks, spoons, plates, bowls, glasses, cups, mugs) that others ate or cooked with? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q193. After you became ill, did you share cutlery and dishes with other people in the backcountry (e.g., knives, forks, spoons, plates, bowls, glasses, cups, mugs)?

(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q194. After you became ill, did you share food or a meal out of the same container or off the same plate with other people in the backcountry where everyone put their utensils into the same food?

(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q195. After you became ill, did you share food or a meal out of the same container or off the same plate with other people in the backcountry where everyone put their hands into the same food?

(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q196. IF A MEMBER OR MEMBERS OF YOUR GROUP WERE ILL WITH DIARRHEA OR VOMITING WHEN HE / SHE / THEY ENTERED THE BACKCOUNTRY **OR** IF HE / SHE / THEY BECAME ILL WITH DIARRHEA OR VOMITING SINCE ENTERING THE BACKCOUNTRY UNTIL NOW, PLEASE ANSWER THE FOLLOWING QUESTION. IF NOT, PLEASE GO TO **Q203**.

After he / she / they became ill, did he / she / they treat drinking water that others drank? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q197. After he / she / they became ill, did he / she / they treat drinking water that you drank? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q198. After he / she / they became ill, did he / she / they wash, prepare, or cook food that others ate or tasted (including yourself)?

(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q199. After he / she / they became ill, did he / she / they wash or dry cooking utensils, cutlery, or dishes (e.g., pots, pans, knives, forks, spoons, plates, bowls, glasses, cups, mugs) that others ate or cooked with (including yourself)?

(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q200. After he / she / they became ill, did he / she / they share cutlery and dishes with other people in the backcountry (including yourself) (e.g., knives, forks, spoons, plates, bowls, glasses, cups, mugs)?

(PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q201. After he / she / they became ill, did he / she / they share food or a meal out of the same container or off the same plate with other people in the backcountry (including yourself) where everyone put their utensils into the same food? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q202. After he / she / they became ill, did he / she / they share food or a meal out of the same container or off the same plate with other people in the backcountry (including yourself) where everyone put their hands into the same food? (PLEASE CHECK ONLY ONE ANSWER)

- ALWAYS
- USUALLY
- SOMETIMES
- NEVER
- DON'T KNOW

Q203. Lastly, we would like to ask you some basic questions about yourself. Some of these questions are of a sensitive nature. You may refuse to answer any question at any time.

DEMOGRAPHICS

Q204. Have you ever been told by a physician that you have any of the following illnesses or have you ever had any of the following medical procedures? (PLEASE CHECK ONE ANSWER FOR EVERY MEDICAL CONDITION)

CONDITION	YES	NO	DON'T KNOW
Chronic diarrhea?	•	•	•

Crohn's disease?	•	•	•
Irritable bowel disease?	•	•	•
Colitis or ulcerative colitis?	•	•	•
Surgery to remove part of the stomach or intestine?			
Immunosuppression (e.g., cancer currently treated with chemotherapy or radiation, lupus or systemic lupus erythematosus, HIV or AIDS, organ transplant taking immunosuppressant drugs)	•	•	•

Q205. What is your sex? (PLEASE CHECK ONLY ONE ANSWER)

MALE

FEMALE

Q206. What is your age? (PLEASE CHECK ONLY ONE ANSWER)

18 to 24 years of age

25 to 34 years of age

35 to 44 years of age

45 to 54 years of age

55 to 64 years of age

65 to 74 years of age

Older than 74 years of age

Don't Know

Q207. Do you consider yourself to be Hispanic or Latino?
(PLEASE CHECK ONLY ONE ANSWER)

YES

NO

DON'T KNOW

Q208. What race or races do you consider yourself part of?
(PLEASE CHECK ALL THAT APPLY)

- White
- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or other Pacific Islander
- Don't Know

Q209. What is the highest level of formal schooling you have completed or the highest degree you have received? (PLEASE CHECK ONLY ONE ANSWER)

- Less than 1st grade
- 1st through 8th grade
- 9th through 12th grade (No Diploma)
- High school graduate: high school diploma or equivalent (GED)
- Some college but no degree
- Associate degree in college (AA, AS)
- Bachelor's degree (e.g., BA, BS) (*delete "AB"*)
- Master's degree (e.g., MA, MS, MEng, MSW, MBA)
-
-
-

Doctorate degree (e.g., MD, DVM, PhD, JD)

Technical degree

Other (**specify**) _____

Don't Know

Q210. Which one of the following places best describes where you live for the majority of the year? (PLEASE CHECK ONLY ONE ANSWER)

City or urban area

Suburban area

Town or village

Rural area but not a farm

Farm

Other (**specify**) _____

Don't Know

Q211. What category best describes your total household income before taxes? (PLEASE CHECK ONLY ONE ANSWER)

Less than \$10,000

\$10,000 to less than \$20,000

\$20,000 to less than \$40,000

\$40,000 to less than \$60,000

\$60,000 to less than \$80,000

\$80,000 to less than 100,000

\$100,000 to less than \$150,000

- \$150,000 or more
- Other (**specify**) _____
- Don't Know

Q212. What category best describes your primary employment type?
(PLEASE CHECK ONLY ONE ANSWER)

- White collar (e.g., non-manual work generally performed at a desk, such as professionals [doctors, lawyers] and employees in administrative or clerical positions)
- Blue collar (e.g., manual, unskilled or semiskilled labor, such as in a factory or maintenance trades)
- Sales/Service
- Farming
- Student
- Retired
- Unemployed
- Other (**specify**) _____
- Don't Know

Q213. Including this trip, how many times in your life have you been on a backcountry trip that required an overnight stay in the backcountry?

Number of Trips (PLEASE CHECK ONLY ONE ANSWER)

- None

- 1 to 3 trips
- 4 to 6 trips
- 7 to 9 trips
- 10 to 19 trips
- 20 or more trips
- Don't Know

Q214. Including this trip, what are the durations of the overnight backcountry trips that you have experienced? *(Mark – you have this question as a single answer – it should be a multiple answer question)*

Trip Duration (PLEASE CHECK ALL THAT APPLY)

- No overnight backpacking trips
- Trips lasting less than 3 days
- Trips lasting from 3 days to less than 1 week
- Trips lasting 1-2 weeks
- Trips lasting for more than 2 weeks
- Don't Know

Q215. Between May 1, 2006 and October 31, 2006, how many separate times have you obtained a permit and traveled into the backcountry at YELL?

|_|_|_| (ENTER A NUMBER BETWEEN 1 AND 180)

Q216. Have you or will you work or volunteer in YELL between May 1, 2006 and Oct. 31, 2006? (PLEASE CHECK ONLY ONE ANSWER)

- YES **(GO TO Q.217)**
- NO **(GO TO Q.218)**
- DON'T KNOW **(GO TO Q.218)**

Q217. What was / is / will be your job description?
(PLEASE CHECK ALL THAT APPLY ON THE FOLLOWING LIST)

- Volunteer
- National Park Service employee
- Concessionaire
- Other (**specify**) _____
- Don't Know

Q218. Under whose name was your backcountry permit issued?

First name: _____
Last name: _____

DON'T KNOW

Q219. On what date did you complete this questionnaire?

|_|_|-|_|_|-2008
M M D D

DON'T KNOW

This concludes our survey. The National Park Service and the Centers for Disease Control and Prevention would like to thank you very much for your time, patience, and cooperation in answering our questions.

Do you have any comments about the survey? Please let us know:

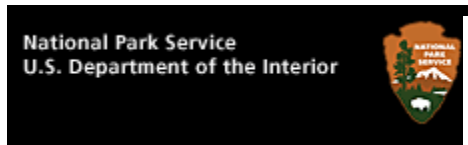
Further information about the study and about travel-related illness and injury is

available on the following websites:



Centers for Disease Control and Prevention
Yellowstone National Park Backcountry Survey

<https://www2a.ncid.cdc.gov/backcountry/backcontry.htm>



National Park Service
Sequoia & Kings Canyon National Parks Backcountry Survey
http://www.nps.gov/public_health/inter/backcountry/seki_bc_survey.htm

If you have any questions about this study or your rights as a participant please call:

Centers for Disease Control and Prevention

Study questions: Please call Dr. Sharon Roy at 770-488-4412

Rights of participants: Please call CDC's Deputy Associate Director for Science at 1-800-584-8814 and leave a message including your name and phone number. Say you are calling about the Division of Parasitic Diseases' web-based survey of Yellowstone National Park Backcountry Users (protocol #4583). Someone will call you back as soon as possible.

National Park Service

Study questions: Please call Lieutenant Commander David Wong at 202-513-7160 or Captain Charles Higgins at 202-513-7217