

**Appendix B**

**Socioeconomic Survey Questionnaires**

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## Lower Esopus Creek Socioeconomic Study Questionnaire

### **Section A: Introduction**

The New York State Department of Environmental Conservation (DEC), as State Environmental Quality Review Act lead agency, has directed New York City Department of Environmental Protection (DEP) to prepare an Environmental Impact Statement (EIS) to support the modification of the Catalum SPDES Permit. As part of this EIS, we are looking at the socioeconomic impacts of various ways of managing Ashokan Reservoir to enhance benefits to the community, improve flood attenuation, and provide better water quality. Your responses will greatly aid in the evaluation of potential impacts from changes to water conditions in lower Esopus Creek.

We would like to have a representative of your household over the age of 18 fill out the questionnaire.

Your address was randomly selected from addresses located near or in the vicinity of lower Esopus Creek. The survey is voluntary and we appreciate your participation.

The survey is entirely confidential. Your survey responses will only be analyzed after all personal identifying information is removed. Survey responses will be aggregated and used only for the socioeconomic analyses.

The survey will take approximately 10-12 minutes.

We have an online option if you prefer to do the survey online. Please visit [WWW.SURVEYMONKEY.COM/R/LECSS\\_R](http://WWW.SURVEYMONKEY.COM/R/LECSS_R) . Please use your unique survey ID: 20902.

Please complete your questionnaire by November 26, 2018. If you have any questions about this study, you can contact [catalumeis@dep.nyc.gov](mailto:catalumeis@dep.nyc.gov) or call Nicolette Leung with Hazen and Sawyer at 212-539-7293.

<b>Section B: <u>Recreational Activities in the Area</u></b>
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Please confirm your address.

(This information will not be used for any purpose other than the administration of this survey.)

Address \_\_\_\_\_

City or Town \_\_\_\_\_

State \_\_\_\_\_

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

**The following questions help us measure the level of enjoyment you and your guests derive from activities related to lower Esopus Creek.**

B1. Does your property border lower Esopus Creek?

a. Yes

b. No

B2. On average, how many days per year do you, your family or guests have recreational activities **along lower Esopus Creek either on your property (if your property borders lower Esopus Creek) and/or on public property (such as a park) or commercial property (such as a marina or leisure activity business)?** If no recreational activities occur along lower Esopus Creek, enter the value of 0 for number of days.

Number of days: \_\_\_\_\_

If 0, Go To Section C, page 4.

B3. On average, how many days per year do you or a family member(s) or guest(s) participate in the following recreational activities along the lower Esopus Creek **by season where applicable?**

Activity	Spring	Summer	Fall	Winter
	Number of days in Mar, Apr, May	Number of days in Jun, Jul, Aug	Number of days in Sep, Oct, Nov	Number of days in Dec, Jan, Feb
Motor Boating				
Canoeing, Rowing, Kayaking or Sailing				
Fishing				
Swimming				
Picnicking				
Other: _____				

B4. On average, how much money per year do you and your household spend for goods and services that are used to participate in recreational activities along lower Esopus Creek?

Items/Services	Average spending per activity					
	Motor Boating	Canoeing, Rowing, Kayaking or Sailing	Fishing	Swimming	Picnicking	Other: _____
Food and drinks						
Fishing tackle, bait and ice						
Fishing license						
Equipment, such as paddles, canoes, paddle boards, life jackets, fishing rods and reels, etc.						
Boat fuel and oil						
Marina slip rental & dockage fees						
Boat purchase and repair						
Dock purchase and repair						
Other: _____						

### Section C: Lower Esopus Creek Scenarios

The following questions ask your opinions about changes in recreational activities compared to typical Creek conditions over the past three years for five hypothetical Creek conditions as represented by the five photos below taken at different locations and times on the Creek.



This photo is representative of the Creek under moderate flow with clear water conditions.



This photo is representative of the Creek under moderate flow with cloudy water conditions.



This photo is representative of the Creek under high flow with very cloudy water conditions.



This photo is representative of the Creek under high flow with clear water conditions.



This photo is representative of the Creek under very low flow conditions (i.e., dry).

While the part of the lower Esopus Creek which you are familiar with and use may look different from the sections depicted in these examples, **what is important for you to note** as you answer the following hypothetical scenarios is how the clarity, height, and flow of the water could affect your activities.



Suppose lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under moderate flow with clear water conditions.

C1. Do you believe that the frequency of recreational activities on lower Esopus Creek by you, your household, and/or your guests would increase, decrease, or remain the same while the Creek was in this condition compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in the number of recreational days compared to typical conditions over the past three years. Your estimates need only be approximate.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% change in number of days over Mar, Apr, May	Circle Choice	% change in number of days over Jun, Jul, Aug	Circle Choice	% change in number of days over Sep, Oct, Nov	Circle Choice	% change in number of days over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	

Suppose lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under moderate flow with cloudy water conditions.

C2. Do you believe that the frequency of recreational activities on lower Esopus Creek by you, your household, and/or your guests would increase, decrease, or remain the same while the Creek was in this condition compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in the number of recreational days compared to typical conditions over the past three years. Your estimates need only be approximate.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
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↑   ↓		↑   ↓		↑   ↓		↑   ↓	



Suppose lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under high flow with very cloudy water conditions.

C3. Do you believe that the frequency of recreational activities on lower Esopus Creek by you, your household, and/or your guests would increase, decrease, or remain the same while the Creek was in this condition compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in the number of recreational days compared to typical conditions over the past three years. Your estimates need only be approximate.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% change in number of days over Mar, Apr, May	Circle Choice	% change in number of days over Jun, Jul, Aug	Circle Choice	% change in number of days over Sep, Oct, Nov	Circle Choice	% change in number of days over Dec, Jan, Feb
↑		↑		↑		↑	
↓		↓		↓		↓	

Suppose lower Esopus Creek looked like this on a given day



This photo is representative of the Creek under high flow with clear water conditions.

C4. Do you believe that the frequency of recreational activities on lower Esopus Creek by you, your household, and/or your guests would increase, decrease, or remain the same while the Creek was in this condition compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

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If there is no change within a season, please leave the cell blank.

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↑   ↓		↑   ↓		↑   ↓		↑   ↓	

Suppose lower Esopus looked like this on a given day.



This photo is representative of the Creek under very low flow conditions (i.e., dry).

C5. Do you believe that the frequency of recreational activities on lower Esopus Creek by you, your household, and/or your guests would increase, decrease, or remain the same while the Creek was in this condition compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in the number of recreational days compared to typical conditions over the past three years. Your estimates need only be approximate.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% change in number of days over Mar, Apr, May	Circle Choice	% change in number of days over Jun, Jul, Aug	Circle Choice	% change in number of days over Sep, Oct, Nov	Circle Choice	% change in number of days over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	

C6. Please provide any additional comments on how changes to Creek conditions alter your activities.

**THANK YOU. YOUR QUESTIONNAIRE IS NOW COMPLETE. PLEASE INSERT YOUR COMPLETED QUESTIONNAIRE INTO THE PREPAID ENVELOPE AND DROP IN A MAILBOX, OR FAX TO 845-985-2282.**



Department of  
Environmental  
Conservation



## Lower Esopus Creek Socioeconomic Study Questionnaire

### **Section A: Introduction**

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We would like to have a representative of your business such as an owner or manager who is familiar with your operations fill out the questionnaire.

Your business was selected from addresses located near or in the vicinity of lower Esopus Creek. The survey is voluntary and we appreciate your participation.

The survey is entirely confidential. Your survey responses will only be analyzed after all personal identifying information is removed. Survey responses will be aggregated and used only for the socioeconomic analyses.

The survey will take approximately 8-10 minutes.

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Please complete your questionnaire by November 26, 2018. If you have any questions about this study, you can contact the [catalumeis@dep.nyc.gov](mailto:catalumeis@dep.nyc.gov) or call Nicolette Leung with Hazen and Sawyer at 212-539-7293.

**Section B: Customer Sales**

Please supply the following information on your job title and business.

(This information will not be used for any purpose other than the administration of this survey).

Job Title \_\_\_\_\_

Name of Business \_\_\_\_\_

Address \_\_\_\_\_

City or Town \_\_\_\_\_

State \_\_\_\_\_

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



This survey asks your opinion about changes in your business compared to typical Creek conditions over the past three years for five hypothetical conditions as represented by the five photos below taken at different locations and times on the Creek.



This photo is representative of the Creek under moderate flow with clear water conditions.



This photo is representative of the Creek under moderate flow with cloudy water conditions.



This photo is representative of the Creek under high flow with very cloudy water conditions.



This photo is representative of the Creek under high flow with clear water conditions.



This photo is representative of the Creek under very low flow conditions (i.e., dry).

While the part of the lower Esopus Creek which you are familiar with and use may look different from the section depicted in these examples, **what is important for you to note** as you answer the following questions is how the clarity, height, and flow of the water could affect your activities.

B1. On average, what are your approximate annual gross sales by type of goods or services that best describes your establishment (select one), **by season where applicable?**

Type of Goods or Services	(Select best one)	Gross Sales (\$)			
		Spring: March, April, May	Summer: June, July, August	Fall: September, October, November	Winter: December, January, February
Restaurant or Fast Food Stores					
General merchandise (including gifts, souvenirs and/or antiques)					
Food and/or beverages stores					
Gasoline stores					
Clothing and clothing accessories stores					
Sporting goods, hobby stores					
Building material and garden equipment and supplies stores					
Other:					

B2. Do you believe that your business is potentially affected by changing Creek conditions?

Yes \_\_\_\_ or No \_\_\_\_

If Yes, please complete the rest of the survey.

If No, Thank you. Your questionnaire is now complete. Please insert your completed questionnaire into the prepaid envelope and drop in a mailbox, or fax to 845-985-2282.

### Section C: Lower Esopus Creek Scenarios

The following questions ask your opinion about changes in your business **compared to typical Creek conditions over the past three years** for five hypothetical conditions as represented by the five photos below taken at different locations and times on the Creek.

Suppose the entire stretch of lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under moderate flow with clear water conditions.

C1. How many weeks would the Creek need to be in this condition before you would see a change to your average daily sales, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C3)

C2. Do you believe that your average daily sales would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your **average daily sales**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% Change in Average Daily Sales over Mar, Apr, May	Circle Choice	% Change in Average Daily Sales over Jun, Jul, Aug	Circle Choice	% Change in Average Daily Sales over Sep, Oct, Nov	Circle Choice	% Change in Average Daily Sales over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	



Suppose the entire stretch of lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under moderate flow with cloudy water conditions.

C3. How many weeks would the Creek need to be in this condition before you would see a change to your average daily sales, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C5)

C4. Do you believe that your average daily sales would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your **average daily sales**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% Change in Average Daily Sales over Mar, Apr, May	Circle Choice	% Change in Average Daily Sales over Jun, Jul, Aug	Circle Choice	% Change in Average Daily Sales over Sep, Oct, Nov	Circle Choice	% Change in Average Daily Sales over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	

Suppose the entire stretch of lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under high flow with very cloudy water conditions.

C5. How many weeks would the Creek need to be in this condition before you would see a change to your average daily sales, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C7)

C6. Do you believe that your average daily sales would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

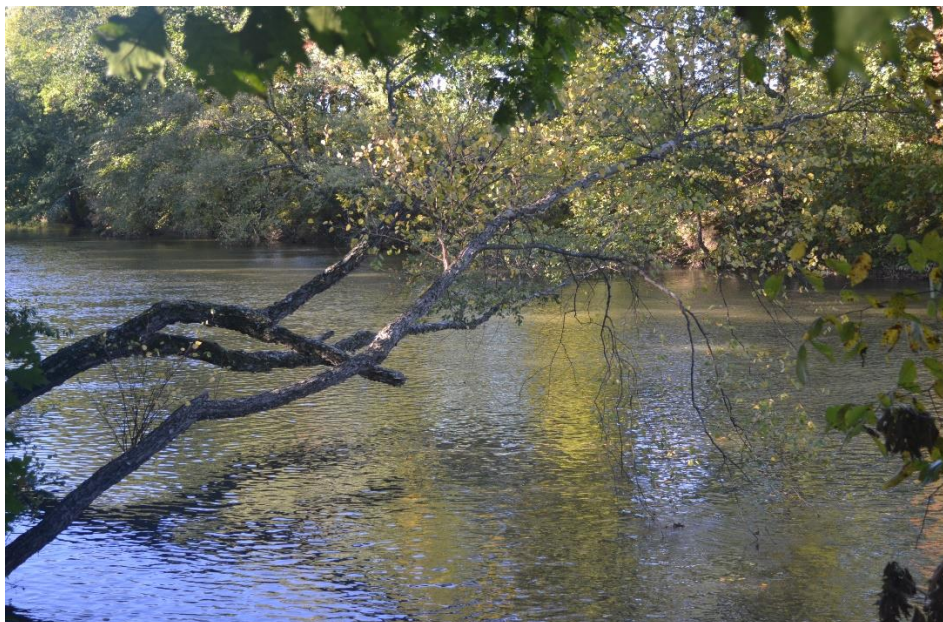
Please estimate what would be **the percent change** (increase or decrease) in your **average daily sales**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% Change in Average Daily Sales over Mar, Apr, May	Circle Choice	% Change in Average Daily Sales over Jun, Jul, Aug	Circle Choice	Change in Average Daily Sales over Sep, Oct, Nov	Circle Choice	% Change in Average Daily Sales over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	

Suppose the entire stretch of lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under high flow with clear water conditions.

C7. How many weeks would the Creek need to be in this condition before you would see a change to your average daily sales, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C9)

C8. Do you believe that your average daily sales would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your **average daily sales**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% Change in Average Daily Sales over Mar, Apr, May	Circle Choice	% Change in Average Daily Sales over Jun, Jul, Aug	Circle Choice	% Change in Average Daily Sales over Sep, Oct, Nov	Circle Choice	% Change in Average Daily Sales over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	



Suppose the entire stretch of lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under very low flow conditions (i.e., dry).

C9. How many weeks would the Creek need to be in this condition before you would see a change to your average daily sales, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C11)

C10. Do you believe that your average daily sales would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your **average daily sales**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	Change in Average Daily Sales over Mar, Apr, May	Circle Choice	% Change in Average Daily Sales over Jun, Jul, Aug	Circle Choice	% Change in Average Daily Sales over Sep, Oct, Nov	Circle Choice	% Change in Average Daily Sales over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	

C11. Please provide any additional comments on how changes to Creek conditions alter your business' activities (e.g., changed flow conditions affecting customers' use of the Creek or its setting, etc.).

**THANK YOU. YOUR QUESTIONNAIRE IS NOW COMPLETE. PLEASE INSERT YOUR COMPLETED QUESTIONNAIRE INTO THE PREPAID ENVELOPE AND DROP IN A MAILBOX, OR FAX TO 845-985-2282.**



Department of  
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## Lower Esopus Creek Socioeconomic Study Questionnaire

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We would like to have a representative of your business such as an owner or office manager who is familiar with your operations fill out this questionnaire.

Your business was selected from lodgings located near or in the vicinity of lower Esopus Creek. The survey is voluntary and we appreciate your participation.

The survey is entirely confidential. Your survey responses will only be analyzed after all personal identifying information is removed. Survey responses will be aggregated and used only for the socioeconomic analyses.

The survey will take approximately 8-10 minutes.

**We have an online option if you prefer to do the survey online. Please visit [WWW.SURVEYMONKEY.COM/R/LECSS\\_L](http://WWW.SURVEYMONKEY.COM/R/LECSS_L). Please use your unique survey ID: xxxx.**

**Please complete your questionnaire by November 26, 2018. If you have any questions about this study, you can contact [catalumeis@dep.nyc.gov](mailto:catalumeis@dep.nyc.gov) or call Nicolette Leung with Hazen and Sawyer at 212-539-7293.**

**Section B: Occupancy Rates in the Past Year**

Please supply the following information on your job title and business.

(This information will not be used for any purpose other than the administration of this survey).

Job Title \_\_\_\_\_

Name of Business \_\_\_\_\_

Address \_\_\_\_\_

City or Town \_\_\_\_\_

State \_\_\_\_\_

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



The following questions ask your opinion about changes in your business compared to typical Creek conditions over the past three years for five hypothetical conditions as represented by the five photos below taken at different locations and times on the Creek



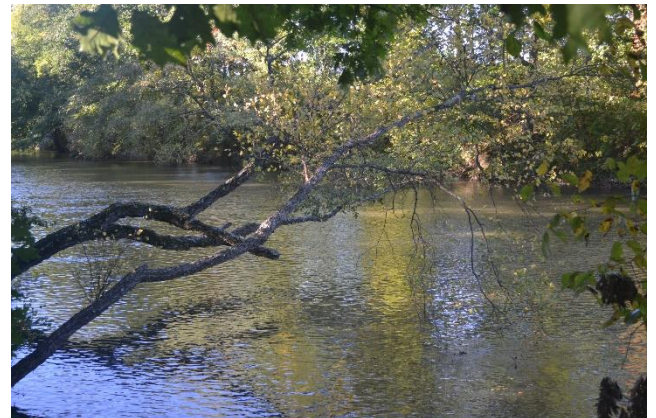
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This photo is representative of the Creek under high flow with very cloudy water conditions.



This photo is representative of the Creek under high flow with clear water conditions.



This photo is representative of the Creek under very low flow conditions (i.e., dry).

While the part of the lower Esopus Creek which you are familiar with and use may look different from the section depicted in these examples, **what is important for you to note** as you answer the following questions is how the clarity, height, and flow of the water could affect your activities.

B1. On average, how many units in your lodging are available to rent? \_\_\_\_\_

B2. On average, what is the number of people per unit rented? \_\_\_\_\_

B3. On average, what is your occupancy rate (percent of available units that were rented) **by season where applicable?**

Occupancy Rate (%)	Spring: March, April, May	Summer: June, July, August	Fall: September, October, November	Winter: December, January, February

B4. On average, what is your daily rental per unit, not including taxes, **by season where applicable?**

Daily Rental Rate Per Unit (\$/unit)	Spring: March, April, May	Summer: June, July, August	Fall: September, October, November	Winter: December, January, February

B5. Do you believe that your business is potentially affected by changing Creek conditions?

Yes \_\_\_\_ or No \_\_\_\_

If Yes, please complete the rest of the survey.

If No, Thank you. Your questionnaire is now complete. Please insert your completed questionnaire into the prepaid envelope and drop in a mailbox, or fax to 845-985-2282.



### Section C: Lower Esopus Creek Scenarios

The following questions ask your opinion about changes in your business compared to typical Creek conditions over the past three years for five hypothetical conditions as represented by the five photos below taken at different locations and times on the Creek.

Suppose the entire stretch of lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under moderate flow with clear water conditions.

C1. How many weeks would the Creek need to be in this condition before you would see a change to your occupancy rate, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C3)

C2. Do you believe that your occupancy rate would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your **occupancy rate**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% Change in Occupancy Rate over Mar, Apr, May	Circle Choice	% Change in Occupancy Rate over Jun, Jul, Aug	Circle Choice	% Change in Occupancy Rate over Sep, Oct, Nov	Circle Choice	% Change in Occupancy Rate over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	

Suppose the entire stretch of lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under moderate flow with cloudy water conditions.

C3. How many weeks would the Creek need to be in this condition before you would see a change to your occupancy rate, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C5)

C4. Do you believe that your occupancy rate would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

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C5. How many weeks would the Creek need to be in this condition before you would see a change to your occupancy rate, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C7)

C6. Do you believe that your occupancy rate would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

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Please estimate what would be **the percent change** (increase or decrease) in your **occupancy rate**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% Change in Occupancy Rate over Mar, Apr, May	Circle Choice	% Change in Occupancy Rate over Jun, Jul, Aug	Circle Choice	% Change in Occupancy Rate over Sep, Oct, Nov	Circle Choice	% Change in Occupancy Rate over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	

Suppose the entire stretch of lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under very low flow conditions (i.e., dry).

C9. How many weeks would the Creek need to be in this condition before you would see a change to your occupancy rate, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to question C11)

C10. Do you believe that your occupancy rate would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your **occupancy rate**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% Change in Occupancy Rate over Mar, Apr, May	Circle Choice	% Change in Occupancy Rate over Jun, Jul, Aug	Circle Choice	% Change in Occupancy Rate over Sep, Oct, Nov	Circle Choice	% Change in Occupancy Rate over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	

C11. Please provide any additional comments on how changes to Creek conditions alter your business (e.g., changed Creek flow altering visitors' use of the Creek or its setting, etc.).

**THANK YOU. YOUR QUESTIONNAIRE IS NOW COMPLETE. PLEASE INSERT YOUR COMPLETED QUESTIONNAIRE INTO THE PREPAID ENVELOPE AND DROP IN A MAILBOX, OR FAX TO 845-985-2282.**





Department of  
Environmental  
Conservation



## Lower Esopus Creek Socioeconomic Study Questionnaire

### **Section A: Introduction**

The New York State Department of Environmental Conservation (DEC), as State Environmental Quality Review Act lead agency, has directed New York City Department of Environmental Protection (DEP) to prepare an Environmental Impact Statement (EIS) to support the modification of the Catalum SPDES Permit. As part of this EIS, we are looking at the socioeconomic impacts of various ways of managing Ashokan Reservoir to enhance benefits to the community, improve flood attenuation, and provide better water quality. Your responses will greatly aid in the evaluation of potential impacts from changes to water conditions in lower Esopus Creek.

We would like to have a representative of your farm such as an owner or manager who is familiar with your operations fill out the questionnaire.

Your farm was selected from addresses located near or in the vicinity of lower Esopus Creek. The survey is voluntary and we appreciate your participation.

The survey is entirely confidential. Your survey responses will only be analyzed after all personal identifying information is removed. Survey responses will be aggregated and used only for the socioeconomic analyses.

The survey will take approximately 8-10 minutes.

**We have an online option if you prefer to do the survey online. Please visit [WWW.SURVEYMONKEY.COM/R/LECSS\\_F](http://WWW.SURVEYMONKEY.COM/R/LECSS_F) . Please use your unique survey ID: xxxx.**

**Please complete your questionnaire by November 26, 2018. If you have any questions about this study, you can contact [catalumeis@dep.nyc.gov](mailto:catalumeis@dep.nyc.gov) or call Nicolette Leung with Hazen and Sawyer at 212-539-7293.**

**Section B: Farm Production in the Past Year**

Please supply the following information on your farm.

(This information will not be used for any purpose other than the administration of this survey).

Name of Farm \_\_\_\_\_

Address \_\_\_\_\_

City or Town \_\_\_\_\_

State \_\_\_\_\_

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

This survey asks your opinion about changes at your farm compared to typical Creek conditions over the past three years for five hypothetical conditions as represented by the five photos below taken at different locations and times on the Creek.



This photo is representative of the Creek under moderate flow with clear water conditions.



This photo is representative of the Creek under moderate flow with cloudy water conditions.



This photo is representative of the Creek under high flow with very cloudy water conditions.



This photo is representative of the Creek under high flow with clear water conditions.



This photo is representative of the Creek under very low flow conditions (i.e., dry).

While the part of the lower Esopus Creek which you are familiar with and use may look different from the section depicted in these examples, **what is important for you to note** as you answer the following questions is how the clarity, height, and flow of the water could affect your activities.

B1. On Average, what are your approximate annual gross sales by type of farming, **by season where applicable?**

Types of Farming	Gross Sales (\$)			
	Spring: March, April, May	Summer: June, July, August	Fall: September, October, November	Winter: December, January, February
Grain farming				
Vegetable farming				
Fruit farming				
Tree nut farming				
Greenhouse, nursery, and floriculture production				
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming				
Dairy cattle and milk production				
Poultry and egg production				
Animal production, except cattle and poultry and eggs				
Other 1: _____				
Other 2: _____				
Other 3: _____				

B2. Do you believe that your farm is potentially affected by changing Creek conditions?

Yes \_\_\_\_ or No \_\_\_\_

If Yes, please complete the rest of the survey.

If No, Thank you. Your questionnaire is now complete. Please insert your completed questionnaire into the prepaid envelope and drop in a mailbox, or fax to 845-985-2282.



**Section C: Lower Esopus Creek Scenarios**

The following questions ask your opinion about changes in your farm compared to typical Creek conditions over the past three years for five hypothetical conditions as represented by the five photos below taken at different locations and times on the Creek.

Suppose lower Esopus Creek along your property looked like this on a given day.



This photo is representative of the Creek under moderate flow with clear water conditions.

C1. How many weeks would the Creek need to be in this condition before you would see a change to your business, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C4)

C2. Do you believe that your annual sales would increase, decrease, or remain the same while the Creek was in this condition for the weeks you have indicated compared to typical conditions observed over the past three years?

If you believe annual sales would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your **annual sales**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Types of Farming	Spring		Summer		Fall		Winter	
	Circle Choice	% Change in Annual Sales over Mar, Apr, May	Circle Choice	% Change in Annual Sales over Jun, Jul, Aug	Circle Choice	% Change in Annual Sales over Sep, Oct, Nov	Circle Choice	% Change in Annual Sales over Dec, Jan, Feb
Grain farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Vegetable farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Fruit farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Tree nut farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Greenhouse, nursery, and floriculture production	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Dairy cattle and milk production	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Poultry and egg production	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Animal production, except cattle and poultry and eggs	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Other 1: _____	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Other 2: _____	↑ ↓		↑ ↓		↑ ↓		↑ ↓	



C3. Do you believe your **annual operating costs** would increase, decrease or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years. **Annual operating costs** would:

:

a. Increase \_\_\_\_ Decrease \_\_\_\_ No Change \_\_\_\_

b. If your operating costs would change (i.e., increase or decrease), can you provide examples of how this creek condition contributed to the changes (e.g., reduction in water flow requiring alternative irrigation methods, high water flow requiring alternative irrigation methods due to changes in pump operations)?

---

Suppose lower Esopus Creek along your property looked like this on a given day.



This photo is representative of the Creek under moderate flow with cloudy water conditions.

C4. How many weeks would the Creek need to be in this condition before you would see a change to your business, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C7)

C5. Do you believe that your annual sales would increase, decrease, or remain the same while the Creek was in this condition for the weeks you have indicated compared to typical conditions observed over the past three years?

If you believe annual sales would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your **annual sales**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Types of Farming	Spring		Summer		Fall		Winter	
	Circle Choice	% Change in Annual Sales over Mar, Apr, May	Circle Choice	% Change in Annual Sales over Jun, Jul, Aug	Circle Choice	% Change in Annual Sales over Sep, Oct, Nov	Circle Choice	% Change in Annual Sales over Dec, Jan, Feb
Grain farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Vegetable farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Fruit farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Tree nut farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Greenhouse, nursery, and floriculture production	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Dairy cattle and milk production	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Poultry and egg production	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Animal production, except cattle and poultry and eggs	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Other 1: _____	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Other 2: _____	↑ ↓		↑ ↓		↑ ↓		↑ ↓	

C6. Do you believe your **annual operating costs** would increase, decrease or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years. **Annual operating costs** would:

a. Increase \_\_\_\_ Decrease \_\_\_\_ No Change \_\_\_\_

b. If your operating costs would change (i.e., increase or decrease), can you provide examples of how this creek condition contributed to the changes (e.g., reduction in water flow requiring alternative irrigation methods, high water flow requiring alternative irrigation methods due to changes in pump operations)?

---

Suppose lower Esopus Creek along your property looked like this on a given day.



This photo is representative of the Creek under high flow with very cloudy water conditions.

C7. How many weeks would the Creek need to be in this condition before you would see a change to your business, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C10)

C8. Do you believe that your annual sales would increase, decrease, or remain the same while the Creek was in this condition for the weeks you have indicated compared to typical conditions observed over the past three years?

If you believe annual sales would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your **annual sales**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Types of Farming	Spring		Summer		Fall		Winter	
	Circle Choice	% Change in Annual Sales over Mar, Apr, May	Circle Choice	% Change in Annual Sales over Jun, Jul, Aug	Circle Choice	% Change in Annual Sales over Sep, Oct, Nov	Circle Choice	% Change in Annual Sales over Dec, Jan, Feb
Grain farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Vegetable farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Fruit farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Tree nut farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Greenhouse, nursery, and floriculture production	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Dairy cattle and milk production	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Poultry and egg production	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Animal production, except cattle and poultry and eggs	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Other 1: _____	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Other 2: _____	↑ ↓		↑ ↓		↑ ↓		↑ ↓	



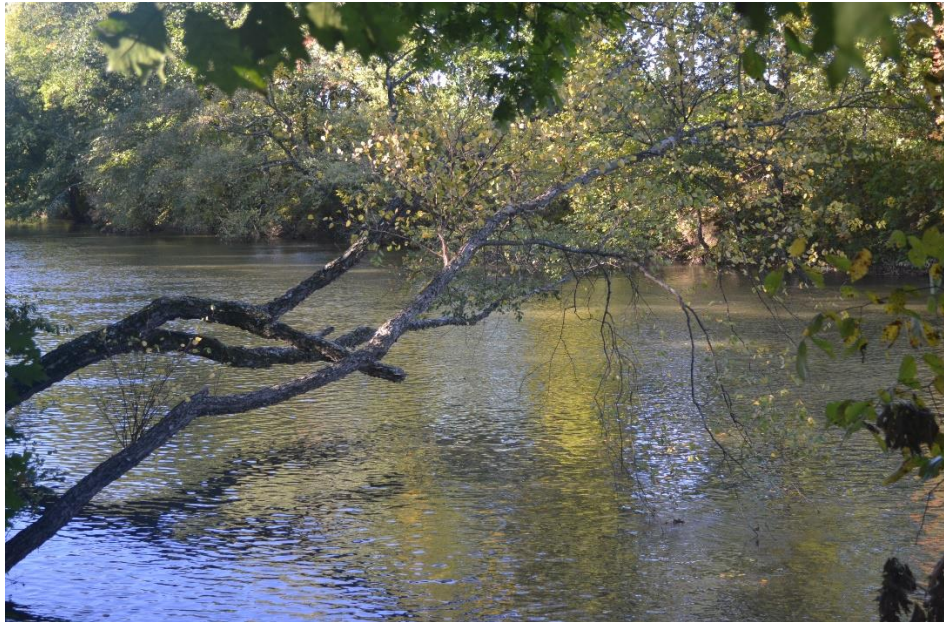
C9. Do you believe your **annual operating costs** would increase, decrease or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years. **Annual operating costs** would:

a. Increase \_\_\_\_ Decrease \_\_\_\_ No Change \_\_\_\_

b. If your operating costs would change (i.e., increase or decrease), can you provide examples of how this creek condition contributed to the changes (e.g., reduction in water flow requiring alternative irrigation methods, high water flow requiring alternative irrigation methods due to changes in pump operations)?

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Suppose the entire stretch of lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under high flow with clear water conditions.

C10. How many weeks would the Creek need to be in this condition before you would see a change to your business, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C13)

C11. Do you believe that your annual sales would increase, decrease, or remain the same while the Creek was in this condition for the weeks you have indicated compared to typical conditions observed over the past three years?

If you believe annual sales would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your **annual sales**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Types of Farming	Spring		Summer		Fall		Winter	
	Circle Choice	% Change in Annual Sales over Mar, Apr, May	Circle Choice	% Change in Annual Sales over Jun, Jul, Aug	Circle Choice	% Change in Annual Sales over Sep, Oct, Nov	Circle Choice	% Change in Annual Sales over Dec, Jan, Feb
Grain farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Vegetable farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Fruit farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Tree nut farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Greenhouse, nursery, and floriculture production	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Dairy cattle and milk production	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Poultry and egg production	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Animal production, except cattle and poultry and eggs	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Other 1: _____	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Other 2: _____	↑ ↓		↑ ↓		↑ ↓		↑ ↓	

C12. Do you believe your **annual operating costs** would increase, decrease or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years. **Annual operating costs** would:

a. Increase \_\_\_\_ Decrease \_\_\_\_ No Change \_\_\_\_

b. If your operating costs would change (i.e., increase or decrease), can you provide examples of how this creek condition contributed to the changes (e.g., reduction in water flow requiring alternative irrigation methods, high water flow requiring alternative irrigation methods due to changes in pump operations)?

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Suppose lower Esopus Creek along your property looked like this on a given day.



This photo is representative of the Creek under very low flow conditions (i.e., dry).

C13. How many weeks would the Creek need to be in this condition before you would see a change to your business, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and thank you. Your questionnaire is now complete. Please insert your completed questionnaire into the prepaid envelope and drop in a mailbox, or fax to 845-985-2282.)

C14. Do you believe that your annual sales would increase, decrease, or remain the same while the Creek was in this condition for the weeks you have indicated compared to typical conditions observed over the past three years?

If you believe annual sales would increase or decrease, please **circle** **↑ for increase** or **↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your **annual sales**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Types of Farming	Spring		Summer		Fall		Winter	
	Circle Choice	% Change in Annual Sales over Mar, Apr, May	Circle Choice	% Change in Annual Sales over Jun, Jul, Aug	Circle Choice	% Change in Annual Sales over Sep, Oct, Nov	Circle Choice	% Change in Annual Sales over Dec, Jan, Feb
Grain farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Vegetable farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Fruit farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Tree nut farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Greenhouse, nursery, and floriculture production	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Dairy cattle and milk production	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Poultry and egg production	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Animal production, except cattle and poultry and eggs	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Other 1: _____	↑ ↓		↑ ↓		↑ ↓		↑ ↓	
Other 2: _____	↑ ↓		↑ ↓		↑ ↓		↑ ↓	

C15. Do you believe your **annual operating costs** would increase, decrease or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years. **Annual operating costs** would:

a. Increase \_\_\_\_ Decrease \_\_\_\_ No Change \_\_\_\_

b. If your operating costs would change (i.e., increase or decrease), can you provide examples of how this creek condition contributed to the changes (e.g., reduction in water flow requiring alternative irrigation methods, high water flow requiring alternative irrigation methods due to changes in pump operations)?

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**THANK YOU. YOUR QUESTIONNAIRE IS NOW COMPLETE. PLEASE INSERT YOUR COMPLETED QUESTIONNAIRE INTO THE PREPAID ENVELOPE AND DROP IN A MAILBOX, OR FAX TO 845-985-2282.**



## Lower Esopus Creek Socioeconomic Study Questionnaire

### **Section A: Introduction**

The New York State Department of Environmental Conservation (DEC), as State Environmental Quality Review Act lead agency, has directed New York City Department of Environmental Protection (DEP) to prepare an Environmental Impact Statement (EIS) to support the modification of the Catalum SPDES Permit. As part of this EIS, we are looking at the socioeconomic impacts of various ways of managing Ashokan Reservoir to enhance benefits to the community, improve flood attenuation, and provide better water quality. Your responses will greatly aid in the evaluation of potential impacts from changes to water conditions in lower Esopus Creek.

We would like to have a representative of your park such as office manager or administrator who is familiar with your operations fill out the questionnaire.

Your park was selected since it is located within the vicinity of lower Esopus Creek. The survey is voluntary and we appreciate your participation.

The survey is entirely confidential. Your survey responses will only be analyzed after all personal identifying information is removed. Survey responses will be aggregated and used only for the socioeconomic analyses.

The survey will take approximately 8-10 minutes.

**We have an online option if you prefer to do the survey online. Please visit [WWW.SURVEYMONKEY.COM/R/LECSS\\_P](http://WWW.SURVEYMONKEY.COM/R/LECSS_P). Please use your unique survey ID: xxxx.**

**Please complete your questionnaire by November 26, 2018. If you have any questions about this study, you can contact [catalumeis@dep.nyc.gov](mailto:catalumeis@dep.nyc.gov) or call Nicolette Leung with Hazen and Sawyer at 212-539-7293.**



**Section B: Park Attendance in Past Year**

Please supply the following information on your job title and park.

(This information will not be used for any purpose other than the administration of this survey).

Job Title \_\_\_\_\_

Name of Park \_\_\_\_\_

Address \_\_\_\_\_

City or Town \_\_\_\_\_

State \_\_\_\_\_

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

This survey asks your opinion about changes in your park attendance compared to typical Creek conditions over the past three years for five hypothetical conditions as represented by the five photos below taken at different locations and times on the Creek



This photo is representative of the Creek under moderate flow with clear water conditions.



This photo is representative of the Creek under moderate flow with cloudy water conditions.



This photo is representative of the Creek under high flow with very cloudy water conditions.



This photo is representative of the Creek under high flow with clear water conditions.



This photo is representative of the Creek under very low flow conditions (i.e., dry).

While the part of the lower Esopus Creek which you are familiar with and use may look different from the section depicted in these examples, **what is important for you to note** as you answer the following questions is how the clarity, height, and flow of the water could affect your activities.

B1. On average, what is the number of people who visit your park per day, **by season, where applicable?**

Average number of people visiting per day			
Spring: March, April, May	Summer: June, July, August	Fall: September, October, November	Winter: December, January, February

B2a. Does your park charge an entry fee and/or parking fee?

Yes \_\_\_\_\_

No \_\_\_\_\_ If no, go to B3.

B2b. On average, what are your daily total sales from entry fees and/or parking fees, **by season, where applicable?**

Average daily total sales			
Spring: March, April, May	Summer: June, July, August	Fall: September, October, November	Winter: December, January, February

B3. Please break down the percentage of visitors participating in the following activities, on average, **by season where applicable**. The percentages do not have to total 100% since visitors can do more than one activity per visit.

Percentage of Visitors Participating in Activities				
Activity	Summer: June, July, August	Fall: September, October, November	Winter: December, January, February	Summer: June, July, August
Motor Boating				
Canoeing, Kayaking or Sailing				
Fishing				
Swimming				
Picnicking				
Playing in playground				
Visiting				
Other: _____				

B4. Do you believe that your attendance is potentially affected by changing Creek conditions?

Yes \_\_\_\_ or No \_\_\_\_

If Yes, please complete the rest of the survey.

If No, Thank you. Your questionnaire is now complete. Please insert your completed questionnaire into the prepaid envelope and drop in a mailbox, or fax to 845-985-2282.

### Section C: Lower Esopus Creek Scenarios

The following questions ask your opinion about changes in your park attendance compared to typical Creek conditions over the past three years for five hypothetical conditions as represented by the five photos below taken at different locations and times on the Creek.

Suppose lower Esopus Creek along this park looked like this on a given day.



This photo is representative of the Creek under moderate flow with clear water conditions.

C1. How many weeks would the Creek need to be in this condition before you would see a change to park attendance, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C3).

C2. Do you believe that your park attendance would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your **average number of park visitors per day**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% Change in Average number over Mar, Apr, May	Circle Choice	% Change in Average number over Jun, Jul, Aug	Circle Choice	% Change in Average number over Sep, Oct, Nov	Circle Choice	% Change in Average number over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	



Suppose lower Esopus Creek along this park looked like this on a given day.



This photo is representative of the Creek under moderate flow with cloudy water conditions.

C3. How many weeks would the Creek need to be in this condition before you would see a change to park attendance, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C5).

C4. Do you believe that your park attendance would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your **average number of park visitors per day**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% Change in Average number over Mar, Apr, May	Circle Choice	% Change in Average number over Jun, Jul, Aug	Circle Choice	% Change in Average number over Sep, Oct, Nov	Circle Choice	% Change in Average number over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	

Suppose lower Esopus Creek along this park looked like this on a given day.



This photo is representative of the Creek under high flow with very cloudy water conditions.

C5. How many weeks would the Creek need to be in this condition before you would see a change to park attendance, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C7).

C6. Do you believe that your park attendance would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

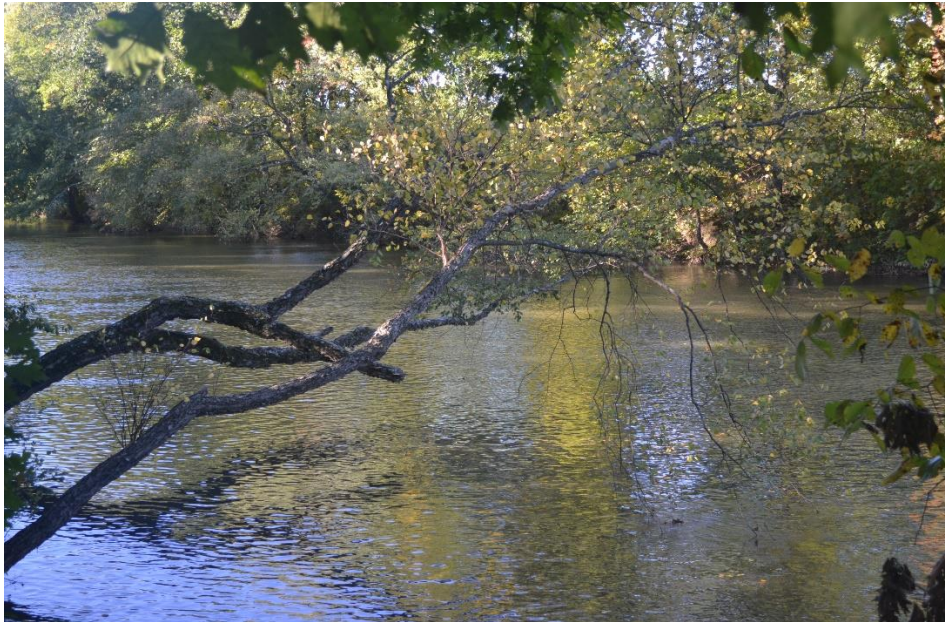
Please estimate what would be **the percent change** (increase or decrease) in your **average number of park visitors per day**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% Change in Average number over Mar, Apr, May	Circle Choice	% Change in Average number over Jun, Jul, Aug	Circle Choice	% Change in Average number over Sep, Oct, Nov	Circle Choice	% Change in Average number over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	

Suppose the entire stretch of lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under high flow with clear water conditions.

C7. How many weeks would the Creek need to be in this condition before you would see a change to park attendance, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C9).

C8. Do you believe that your park attendance would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your **average number of park visitors per day**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% Change in Average number over Mar, Apr, May	Circle Choice	% Change in Average number over Jun, Jul, Aug	Circle Choice	% Change in Average number over Sep, Oct, Nov	Circle Choice	% Change in Average number over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	



Suppose lower Esopus Creek along this park looked like this on a given day.



This photo is representative of the Creek under very low flow conditions (i.e., dry).

C9. How many weeks would the Creek need to be in this condition before you would see a change to park attendance, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C11).

C10. Do you believe that your park attendance would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your **average number of park visitors per day**.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% Change in Average number over Mar, Apr, May	Circle Choice	% Change in Average number over Jun, Jul, Aug	Circle Choice	% Change in Average number over Sep, Oct, Nov	Circle Choice	% Change in Average number over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	

C11. Please provide any additional comments on how changes to Creek conditions alter park attendance (e.g., changed Creek conditions altering park use for swimming, picnicking, etc.).

**THANK YOU. YOUR QUESTIONNAIRE IS NOW COMPLETE. PLEASE INSERT YOUR COMPLETED QUESTIONNAIRE INTO THE PREPAID ENVELOPE AND DROP IN A MAILBOX, OR FAX TO 845-985-2282.**





Department of  
Environmental  
Conservation



## Lower Esopus Creek Socioeconomic Study Questionnaire

### ***Section A: Introduction***

The New York State Department of Environmental Conservation (DEC), as State Environmental Quality Review Act lead agency, has directed New York City Department of Environmental Protection (DEP) to prepare an Environmental Impact Statement (EIS) to support the modification of the Catalum SPDES Permit. As part of this EIS, we are looking at the socioeconomic impacts of various ways of managing Ashokan Reservoir to enhance benefits to the community, improve flood attenuation, and provide better water quality. Your responses will greatly aid in the evaluation of potential impacts from changes to water conditions in lower Esopus Creek.

We would like to have a representative of your business such as an owner or office manager who is familiar with your operations fill out the questionnaire.

Your business was selected from addresses located near or in the vicinity of lower Esopus Creek. The survey is voluntary and we appreciate your participation.

The survey is entirely confidential. Your survey responses will only be analyzed after all personal identifying information is removed. Survey responses will be aggregated and used only for the socioeconomic analyses.

The survey will take approximately 8-10 minutes.

**We have an online option if you prefer to do the survey online. Please visit [WWW.SURVEYMONKEY.COM/R/LECSS\\_M](http://WWW.SURVEYMONKEY.COM/R/LECSS_M). Please use your unique survey ID: xxxx.**

**Please complete your questionnaire by November 26, 2018. If you have any questions about this study, you can contact [catalumeis@dep.nyc.gov](mailto:catalumeis@dep.nyc.gov) or call Nicolette Leung with Hazen and Sawyer at 212-539-7293.**

**Section B: Boating Services in the Past Year**

Please supply the following information on your job title and business.

(This information will not be used for any purpose other than the administration of this survey).

Job Title \_\_\_\_\_

Name of Marina \_\_\_\_\_

Address \_\_\_\_\_

City or Town \_\_\_\_\_

State \_\_\_\_\_

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

The following questions ask your opinion about changes in your business compared to typical Creek conditions over the past three years for five hypothetical conditions as represented by the five photos below taken at different locations and times on the Creek.



This photo is representative of the Creek under moderate flow with clear water conditions.



This photo is representative of the Creek under moderate flow with cloudy water conditions.



This photo is representative of the Creek under high flow with very cloudy water conditions.



This photo is representative of the Creek under high flow with clear water conditions.



This photo is representative of the Creek under very low flow conditions (i.e., dry).

While the part of the lower Esopus Creek which you are familiar with and use may look different from the section depicted in these examples, **what is important for you to note** as you answer the following hypothetical scenarios is how the clarity, height, and flow of the water could affect your activities.

B1. What is your average number of boats per day by marina service, **by season where applicable?**

Service	Average number of boats per day			
	Spring: March, April, May	Summer: June, July, August	Fall: September, October, November	Winter: December, January, February
Boat storage				
Boat docking				
Boat winterization				
Boat ramps				
Boat fueling				
Boat repair				
Boat hauling				
Other: _____				

B2. What are your approximate annual gross sales, **by season where applicable?**

Gross Sales (\$)			
Spring: March, April, May	Summer: June, July, August	Fall: September, October, November	Winter: December, January, February

B3. Do you believe that your business is potentially affected by changing Creek conditions?

Yes \_\_\_\_ or No \_\_\_\_

If Yes, please complete the rest of the survey.

If No, Thank you. Your questionnaire is now complete. Please insert your completed questionnaire into the prepaid envelope and drop in a mailbox, or fax to 845-985-2282.



### Section C: Lower Esopus Creek Scenarios

The following questions ask your opinion about changes in your business compared to typical Creek conditions over the past three years for five hypothetical conditions as represented by the five photos below taken at different locations and times on the Creek.

Suppose the entire stretch of lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under moderate flow with clear water conditions.

C1. How many weeks would the Creek need to be in this condition before you would see a change to your business, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C3)

C2. Do you believe that your business would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your average number of boats per day.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% Change in Number over Mar, Apr, May	Circle Choice	% Change in Number over Jun, Jul, Aug	Circle Choice	% Change in Number over Sep, Oct, Nov	Circle Choice	% Change in Number over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	



Suppose the entire stretch of lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under moderate flow with cloudy water conditions.

C3. How many weeks would the Creek need to be in this condition before you would see a change to your business, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C5)

C4. Do you believe that your business would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your average number of boats per day.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% Change in average number over Mar, Apr, May	Circle Choice	% Change in average number over Jun, Jul, Aug	Circle Choice	% Change in average number over Sep, Oct, Nov	Circle Choice	% Change in average number over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	

Suppose the entire stretch of lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under high flow with very cloudy water conditions.

C5. How many weeks would the Creek need to be in this condition before you would see a change to your business, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C7)

C6. Do you believe that your business would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

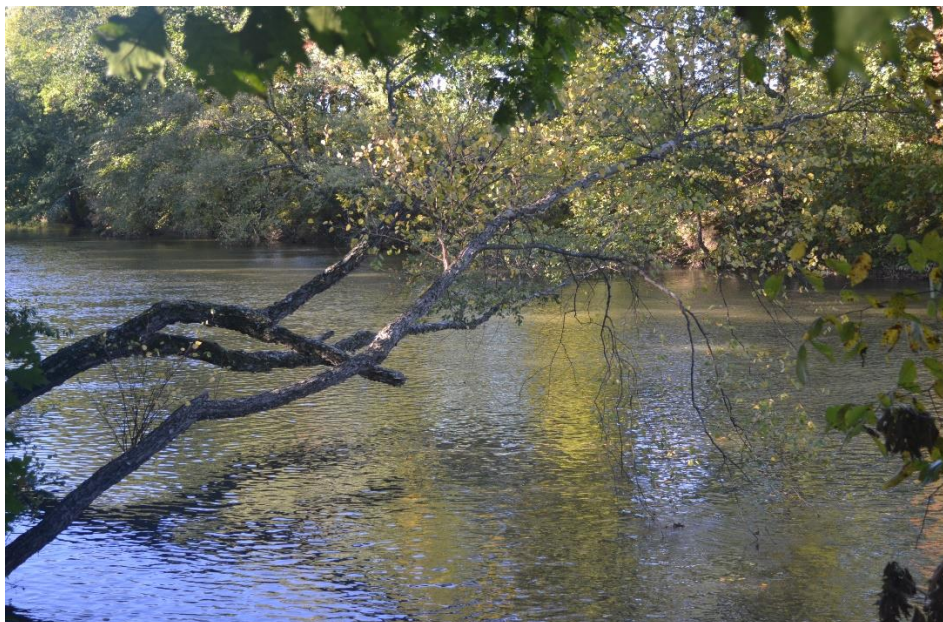
Please estimate what would be **the percent change** (increase or decrease) in your average number of boats per day.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% Change in Number over Mar, Apr, May	Circle Choice	% Change in Number over Jun, Jul, Aug	Circle Choice	% Change in Number over Sep, Oct, Nov	Circle Choice	% Change in Number over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	

Suppose the entire stretch of lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under high flow with clear water conditions.

C5. How many weeks would the Creek need to be in this condition before you would see a change to your business, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C7)

C6. Do you believe that your business would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your average number of boats per day.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% change in number over Mar, Apr, May	Circle Choice	% change in number over Jun, Jul, Aug	Circle Choice	% change in number over Sep, Oct, Nov	Circle Choice	% change in number over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	



Suppose the entire stretch of lower Esopus Creek looked like this on a given day.



This photo is representative of the Creek under very low flow conditions (i.e., dry).

C7. How many weeks would the Creek need to be in this condition before you would see a change to your business, if at all? \_\_\_\_\_ Weeks (If no change, leave blank and proceed to C9)

C8. Do you believe that your business would increase, decrease, or remain the same while the Creek was in this condition **for the weeks you have indicated** compared to typical conditions observed over the past three years?

If you believe it would increase or decrease, please **circle ↑ for increase or ↓ for decrease** in the table below, where applicable by season.

Please estimate what would be **the percent change** (increase or decrease) in your average number of boats per day.

Please estimate in increments of five percent (e.g. 5%, 10%, 15%, etc.).

If there is no change within a season, please leave the cell blank.

Spring		Summer		Fall		Winter	
Circle Choice	% Change in Number over Mar, Apr, May	Circle Choice	% Change in Number over Jun, Jul, Aug	Circle Choice	% Change in Number over Sep, Oct, Nov	Circle Choice	% Change in Number over Dec, Jan, Feb
↑   ↓		↑   ↓		↑   ↓		↑   ↓	

C9. Please provide any additional comments on how changes to Creek conditions alter your business (e.g., changed Creek flow or water quality conditions affecting the customers' fishing or boating habits, etc.).

**THANK YOU. YOUR QUESTIONNAIRE IS NOW COMPLETE. PLEASE INSERT YOUR COMPLETED QUESTIONNAIRE INTO THE PREPAID ENVELOPE AND DROP IN A MAILBOX, OR FAX TO 845-985-2282.**