

# One Truckee River Community Watershed Knowledge Survey

## Executive Summary

From Section 1.0 of UCED Technical Report:

### 1.1 Summary of Question

1: Do people that spend time by the river have more insight or knowledge about the river?

There was no statistical improvement in the understanding of the term nonpoint source pollution as visitation or direct usage of the Truckee River increased. However, there was general improvement in the understanding of where the survey respondent's tap water comes from, where water goes when it is collected by gutters and storm drains, and individual awareness of storm drain stencils in the respondent's community or neighborhood as visitation and direct usage of the Truckee River improved from no use to multiple or daily use of the Truckee River.

### 1.2 Summary of Question

2: Is there a correlation between length of residency in the area and their knowledge level about the river?

In general, there was no positive correlation between the survey respondent's length of residency or their understanding of where their tap water comes from and where water collected by gutters and storm drains eventually goes. However, regardless of length of residency, survey respondents demonstrated a generally good understanding that between 90 percent and 100 percent of their tap water comes from the Truckee River and an even stronger understanding that water collected in gutters and storm drains eventually drains into the Truckee River.

### 1.3 Summary of Question

3: How does owning a home compared to renting a home affect cultural practices?

In regards to the frequency in which survey respondents admitted to picking up litter, the frequency in which survey respondents admitted to picking up after their pet when outdoors, the frequency in which survey respondents admitted to washing their car, and whether or not the survey respondent washes their car at a car wash or at home, there was no statistically significant difference in behavior or cultural practices between survey respondents that owned their own home or rented their or home. In regards to the frequency of how often survey respondents admitted to recycling and in regards to the frequency in which survey respondents admitted to disposing of hazardous materials, such as oil, antifreeze, and batteries, at proper collection sites, survey respondents that rented their own home were statistically significantly more likely to engage in these types of behaviors or cultural practices than survey respondents that owned their own home. In regards to the possibility of owning a lawn, the possibility of using fertilizer to fertilize their lawn or garden, and the frequency of how often survey respondents admitted to using fertilizer on their lawn or garden, survey respondents that rented their own homes were statistically significantly more likely to own a lawn, use fertilizer, and use fertilizer more often than survey respondents that owned their own home.

### 1.4 Summary of Question

4: Does being an owner or a renter affect where residents get their information?

In general, there was only minor statistical variance in regards to how survey respondents get their information between survey respondents that own their own home and survey respondents that rent their own home. Regardless of whether or not the survey respondent indicated that they owned their own home or rented their own home, the most popular sources of information about local water quality or water pollution included the Reno Gazette-Journal, the water district, agency, company or department, the Internet, social media, and television news.

### 1.5 Summary of Question

5: Tie the results of the demographic data collected from survey respondents to the results of the survey respondent's cultural practices as collected from survey respondents.

University Center for Economic Development faculty and staff performed a number of individual factor analyses and multivariate regression analyses between the demographic questions (Question 1 through Question 10) in the 2017 One Truckee River Community Watershed Knowledge Survey and the various behavioral and cultural practices questions (Question 27 through Question 42). The analyses performed by University Center for Economic Development faculty and staff were designed to test the type (positive or negative) and strength of statistical relationship between the various demographic questions (treated as the independent variable) and the various behavioral and cultural practices questions (treated as the dependent variable).

Upon completing the factor analyses and multivariate regression analyses, University Center for Economic Development faculty and staff could find no statistically significant relationship between any of the various demographic questions and the various behavioral and cultural practices questions. Using basic descriptive statistical analysis techniques, University Center for Economic Development faculty and staff were able to develop a series of ten general conclusions and observations regarding the results of the demographic questions (Question 1 through Question 10) and a series of 16 general conclusions and observations regarding the results of the behavioral and cultural practices questions (Question 27 through Question 42). These general conclusions and observations are summarized here.

#### 1.5.1 Summary Statistical Analysis of the Demographic Questions (Question 1 through Question 10)

The ten general conclusions and observations for the demographic questions are:

- First, a survey respondent's geographic location, determined by zip code, did not predict any type of particular pattern about the respondent's various behavioral and cultural practices answers.
- Second, a significant number of survey respondents had generally lived in the Truckee Meadows area for a significant number of years.
- Third, a majority of the survey respondents to the 2017 One Truckee River Community Watershed Knowledge Survey were self-identified owners of their own home.
- Fourth, a majority of the survey respondents indicated that they lived more than one mile from the Truckee River.
- Fifth, a significant number of the survey respondents indicated that they lived more than one mile from a tributary that flows into the Truckee River.

- Sixth, in general, survey respondents who answered Question 6 of the 2017 One Truckee River Community Survey were relatively young.
- Seventh, a significant majority of survey respondents identified themselves as Caucasian or White.
- Eighth, a majority of survey respondents that answered the survey and provided a valid answer to Question 8 identified as female.
- Ninth, in general, survey respondents who answered Question 9 identified as a college graduate.
- Tenth, in general, respondents who provided a valid answer for Question 10 had relatively high total annual household incomes.

#### 1.5.2 Summary Statistical Analysis of the Behavioral and Cultural Practices Questions (Question 27 through Question 42)

The 16 general conclusions and observations for the behavioral and cultural practices questions are:

- First, when it comes to picking up litter, survey respondents generally indicated that they do pick up litter, either sometimes, more often than not, or always.
- Second, a majority of survey respondents indicated that they always recycle.
- Third, a majority of survey respondents who provided a valid answer for Question 29 indicated that they always dispose of hazardous materials, such as oil, antifreeze, or batteries, at a proper collection site.
- Fourth, if the survey respondent indicated that they had a pet, a significant majority of survey respondents who provided a valid answer to Question 30 indicated that they always pick up after their pet when outdoors.
- Fifth, a majority of survey respondents indicated that they generally wash their car between once a month, every other month, and two to three times a year.
- Sixth, for those survey respondents that indicated that they do wash their car, a significant majority of the respondents that provided a valid answer for Question 32 indicated that they wash their car at a car wash.
- Seventh, a significant majority of survey respondents indicated that they did have a lawn.
- Eighth, a majority of survey respondents that indicated having a lawn further indicated that they do use fertilizer on their lawn.
- Ninth, a significant number of survey respondents indicated that they only fertilize their lawn or garden once a season if they do have a lawn and if they use fertilizer on their lawn.
- Tenth, a majority of survey respondents indicated that they already wash their car at a car wash instead of washing their car at home.
- Eleventh, a majority of survey respondents indicated that they already promptly pick up and dispose of their pet's waste.
- Twelfth, a majority of survey respondents indicated that they are willing to have their septic tank serviced every three to five years. One Truckee River Community Watershed Knowledge Survey Page 6 of 68 August 2017
- Thirteenth, a majority of survey respondents indicated that they already sweep excess fertilizer and grass clippings from pavement onto their lawn or that they throw the excess fertilizer and grass clippings into the garbage or compost.
- Fourteenth, a majority of survey respondents indicated that they already have chosen to landscape their yard with low-water use plants.
- Fifteenth, a majority of survey respondents indicated that they already have chosen to water their lawn less often.

- Sixteenth, a majority of survey respondents indicated that they would be willing to direct rain-gutter runoff away from paved areas and into their lawn.

#### 1.6 Summary of Question

6: Compare people spending a lot of time by the river with their level of stewardship.

Of the 16 possible activity-related answers that survey respondents could select from for Question 45, Walking/Running, Enjoying the Beauty, Festivals/Recreational Events, and Enjoying the Solitude were the most popular activities selected by survey respondents.

#### 1.7 Summary of Question

7: Categorize the information for all 'open ended/write-in' questions and summarize the findings.

Question 20 of the 2017 One Truckee River Community Watershed Knowledge Survey asked survey respondents to indicate what, in their opinion, are the biggest challenges facing the Truckee River Watershed today. Survey respondents generally agreed that pollution, water (generally quality), the river (with answers ranging from accessibility and ease of use), and ongoing drought and potential future drought conditions were the four most common challenges facing the Truckee River Watershed today as identified by survey respondents.

Question 21 of the 2017 One Truckee River Community Watershed Knowledge Survey asked survey respondents to indicate where they thought their tap water comes from. Survey respondents generally agreed that their tap water comes from the Truckee River, other sources of potable water, and the Truckee Meadows Water Authority.

If survey respondents answered 'no' to Question 46, 'Do you feel safe while spending time along the Truckee River?', the survey respondent was encouraged to write-in a reason as to why they did not feel safe while spending time along the Truckee River. Survey respondents generally agreed that the immediate area's homeless population, the general condition and area around the Truckee River within the urban environments of the City of Reno and the City of Sparks, general feelings of being unsafe while being near the Truckee River, and the various characteristics of other people who frequent the Truckee River within the urban environments of the of the City of One Truckee River Community Watershed Knowledge Survey Page 7 of 68 August 2017 Reno and the City of Sparks were the most common contributing factors as to why some survey respondents answered 'no' to Question 46.

#### 1.8 Summary of Question

8: Are the responses provided by survey respondents for the demographic questions statistically significant?

Except for percentage of total population identified as female and percentage of total population with a Bachelor's degree or higher, the results of the 2017 One Truckee River Community Watershed Survey can be considered representative of the population living in each of the 31 valid Nevada-based zip codes. The results of the 2017 One Truckee River Community Watershed Survey, however, cannot be considered representative of either the female population or the population with a Bachelor's degree or higher and living within each of the 31 valid Nevada-based zip codes identified in the survey.