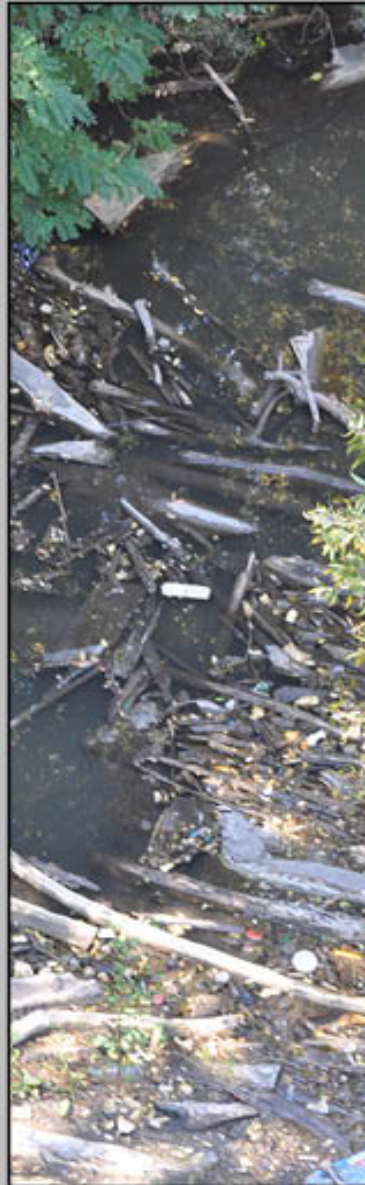


*Prepared for*  
**City of San Jose**  
Environmental Services Department

*Prepared by*  
**San Jose State University**  
Urban & Regional Planning Department

July 2015

**CLEAN CREEKS, HEALTHY COMMUNITIES PROJECT  
FINAL PROJECT SURVEY RESULTS**



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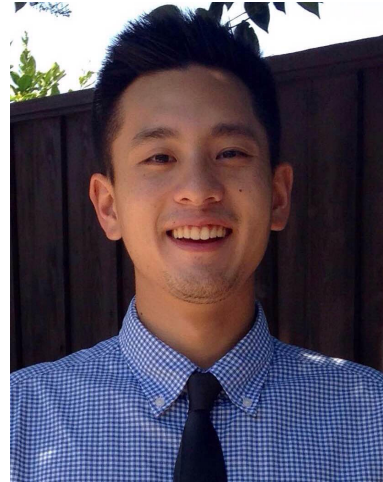
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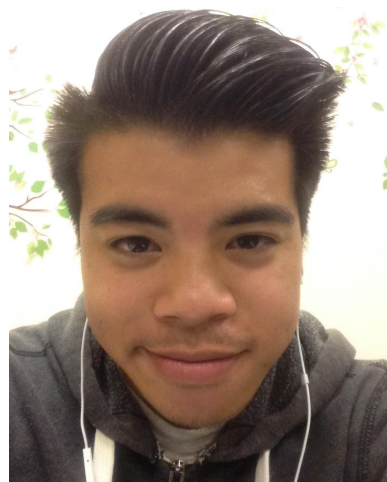
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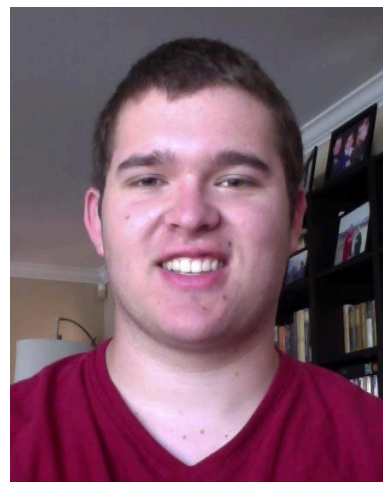
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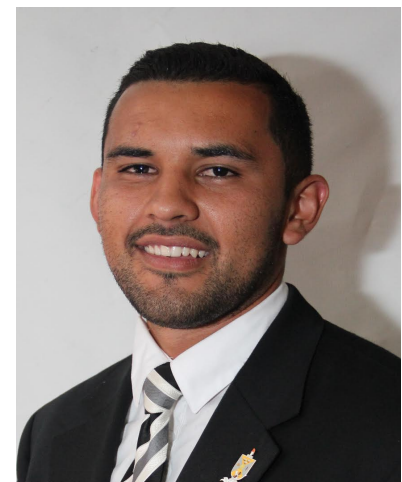
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## Introduction

The purpose of the Clean Creeks, Healthy Communities (CCHC) project is to improve water quality in Coyote Creek by preventing and removing trash that is the result of littering, illegal dumping, and homeless encampments along the creek.

In partnership with the City of San José Environmental Services Department (ESD), San José State University's Urban and Regional Planning Department has engaged residents in the neighborhoods surrounding the Coyote Creek Corridor in a series of surveys. The first survey was conducted in 2011. A second, mid-point survey was conducted in 2013 and a final survey was completed in 2015.

### **Project Location**

The study area is in the City of San José and consists of residential neighborhoods within one-half mile of Coyote Creek, between E. Williams Street and Tully Road. This area includes portions of the following neighborhoods: Brookwood Terrace, Spartan-Keyes, and Tully-Senter (see Figure 1).

In order to reduce trash in the creek, it is important to engage with local residents to establish community stewardship of the creek corridor. To achieve this goal, the project has been divided into three phases. The first phase was completed in 2011 when a baseline was developed of who lives in the community, what their awareness was of the creek, and what their attitudes were towards the creek. In 2011, students enrolled in the Master of Urban Planning program at San José State University conducted a baseline analysis by collecting U.S. Census Bureau data for the study area, surveying residents in the study area, and conducting a trash assessment in the study area. The project report can be accessed at [http://www.sjsu.edu/urbanplanning/docs/CCHC\\_Report\\_Final.pdf](http://www.sjsu.edu/urbanplanning/docs/CCHC_Report_Final.pdf). The second phase, completed in 2013, entailed surveying residents on their awareness of, and attitudes towards the creek, as well as their awareness of the Clean Creeks, Healthy Communities project. The mid-project report can be accessed at [http://www.sjsu.edu/urbanplanning/docs/CCHC-Report\\_December2013\\_Final.pdf](http://www.sjsu.edu/urbanplanning/docs/CCHC-Report_December2013_Final.pdf). The third phase was completed in the Spring of 2015 and includes a final survey of the study area and subsequently provides an assessment of observed changes in people's awareness and attitudes of Coyote Creek over the project's four years.

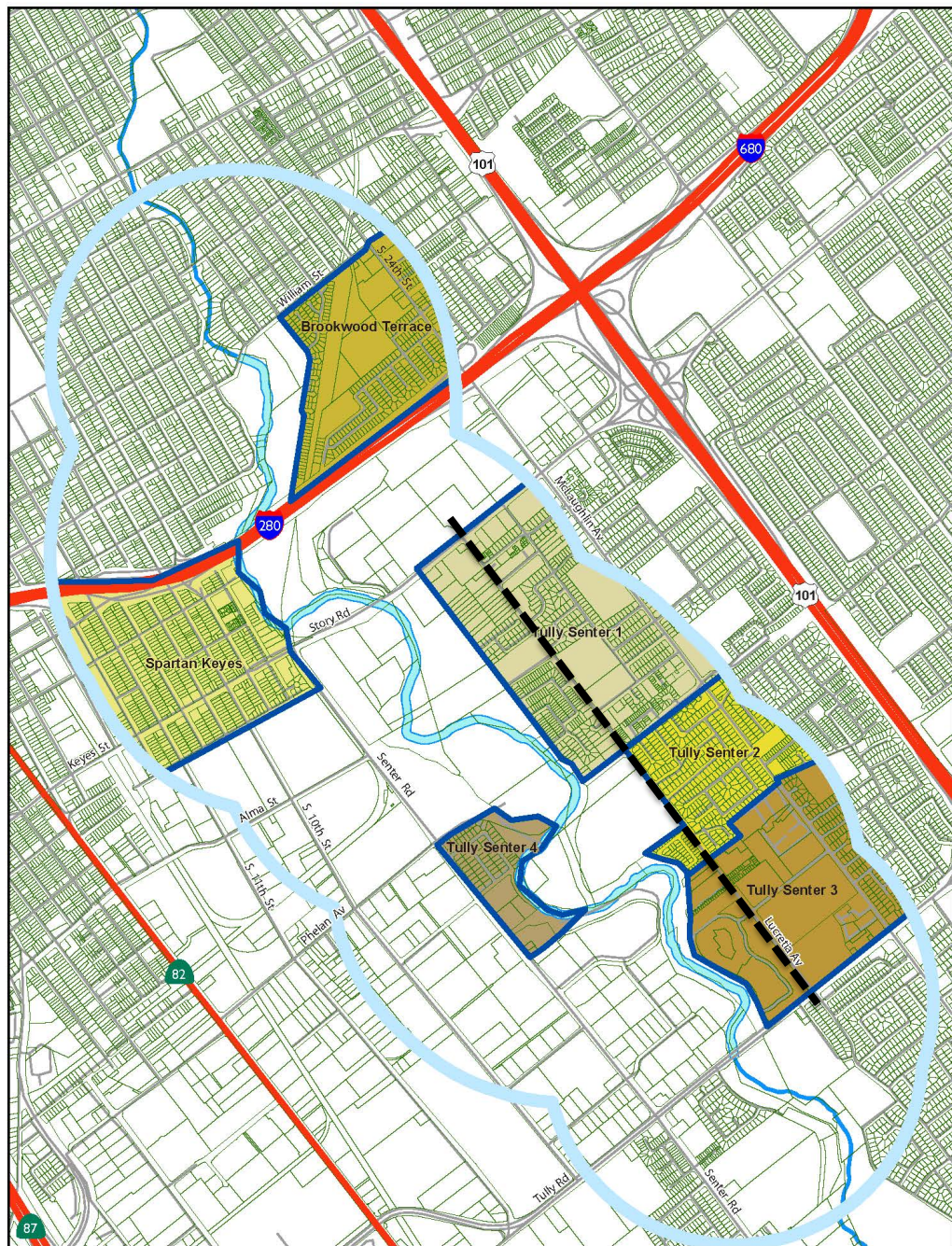


Figure 1: Survey Areas

Note: In 2011 and 2013, the neighborhoods shown in Figure 1 were completed canvassed as part of the survey process. In 2015, the survey area in Tully-Senter 1, Tully-Senter 2, and Tully-Senter 3 was restricted to only residents living west of Lucretia Ave. (noted on the map with a dotted line).

Throughout the duration of the project, the City of San José Environmental Services Department has continued to spearhead efforts to clean Coyote Creek and engage with local residents. Through a partnership with the non-profit Downtown Streets Team, they engaged the homeless population in removing trash from the creek by supplying incentives, training, and a path out of homelessness for participating individuals. The Downtown Streets Team operated during the first two years of the four-year term of the project providing weekly creeks cleanups and outreach to the homeless population. During the final two years of the project, the ongoing maintenance of the cleanliness of the creek and prevention of further trash pollution was the responsibility of the community and City staff.





## Section I: Phase Three Survey Results, 2015

As was done in 2011 and 2013, San José State University graduate and undergraduate students conducted door-to-door in-person surveys within the portions of Brookwood Terrace, Spartan-Keys, and Tully-Senter neighborhoods that fell inside the study area (i.e., a half mile of Coyote Creek between East Williams Street and Tully Road). These surveys were conducted during the months of April and May of 2015, at varying times of day, on both weekdays and weekends with the majority of surveys gathered on weekdays. A total of 245 individuals were surveyed. The survey instrument used in 2015 was slightly revised from the 2011 and 2013 survey instruments, and has been provided in Appendix A.

We evaluated the 2015 survey responses against the 2011 and 2013 results. This comparison allows for conclusions to be made that help measure the progress of the CCHC project at the end-point of the project's term. The results can aid city staff in revising and adjusting actions and programs to elicit more significant change in the creek corridor in an effort to reach the project goals.

### Demographic Comparisons

As was the case in 2011, the survey respondents continue to closely match the residents who live in the study area. Figure 2 shows the household income brackets for three survey years and the 2010 Census. There is little difference between the known population (2010 Census) and survey respondents.

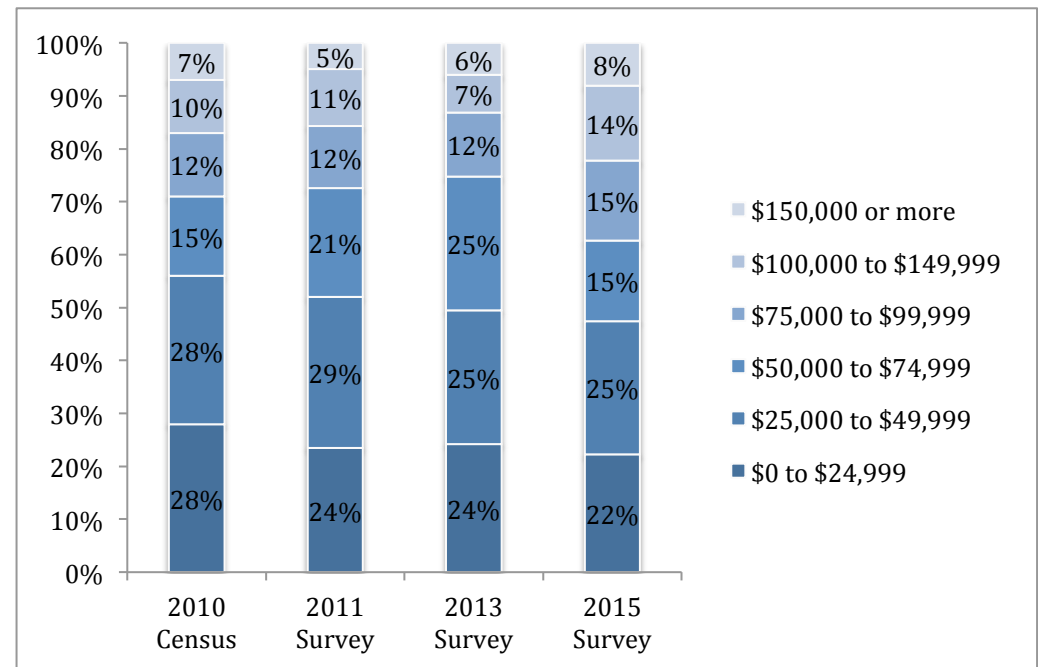


Figure 2: Household Income Comparison

As shown in Figure 3, there is an underrepresentation of individuals who do not have a high school diploma, however, this is not unexpected, as people with higher levels of education are more likely to take part in surveys.<sup>1</sup>

Figure 4 compares age of survey respondents across the three surveys to the 2010

Census population data. The major difference is for respondents under 18 where our surveyers were instructed, when possible, to avoid surveying individuals under 18 years of age.

A greater proportion of 2015 survey respondents own their home compared with the 2013 and 2011 respondents. As shown in Figure 5, 53 percent of residents in the study area own their home in 2015. This is an ongoing trend across the three surveys and as of 2015,, the sample more closely reflects the likely underlying population based on 2010 Census data.

The issue of race and ethnicity is more difficult to accurately describe. While the survey allowed respondents to indicate all racial or ethnic categories that apply to them, those who identify as Hispanic often did not also select whether they were white, black, or of another race. Therefore, the survey data might have given an overrepresentation of Hispanic respondents. Nevertheless, as shown in Figure 6, the survey appears to be fairly representative, as the proportion of 2011, 2013, and 2015 respondents of all major racial and ethnic groups are nearly identical to the proportion of residents in the study area that identify as Hispanic, White (non-Hispanic), and Asian (non-Hispanic).

The number of respondents that have children that live at home, are dog owners,

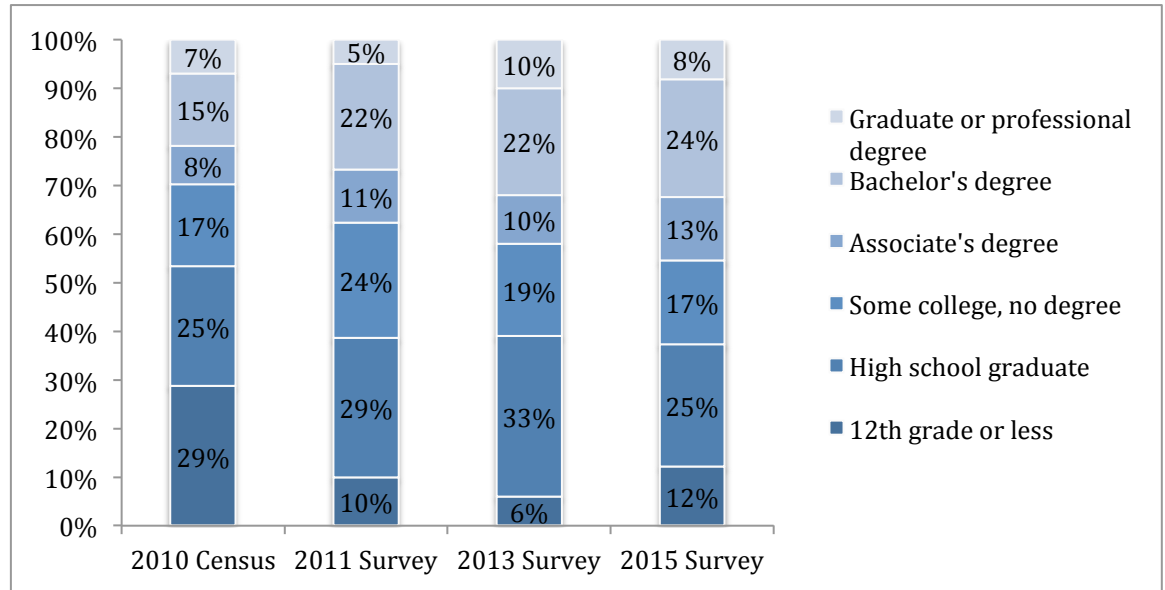


Figure 3: Education Comparison

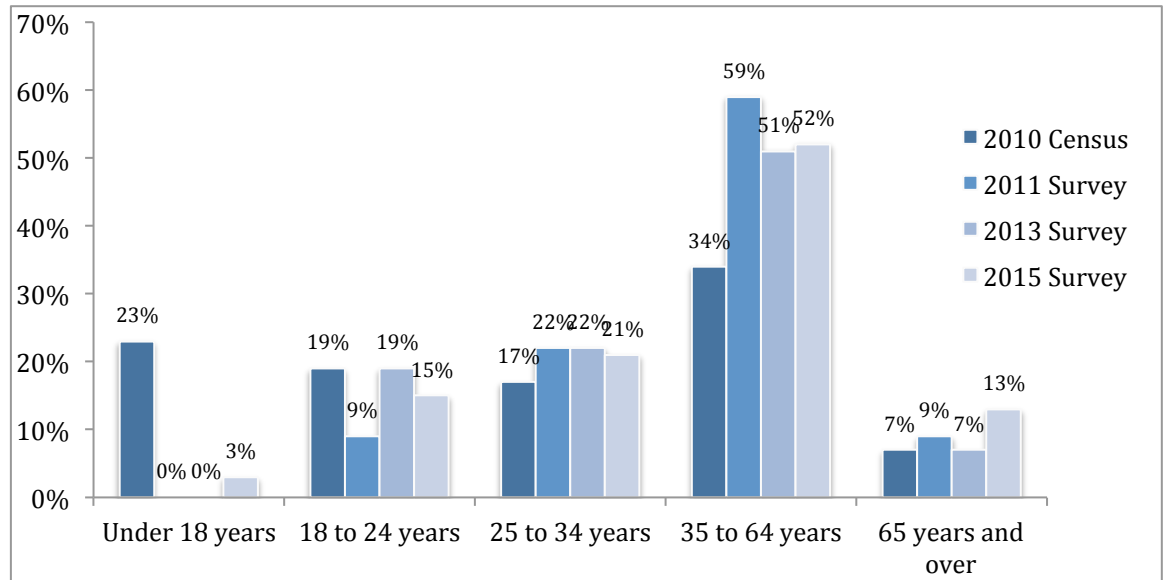


Figure 4: Age Comparison

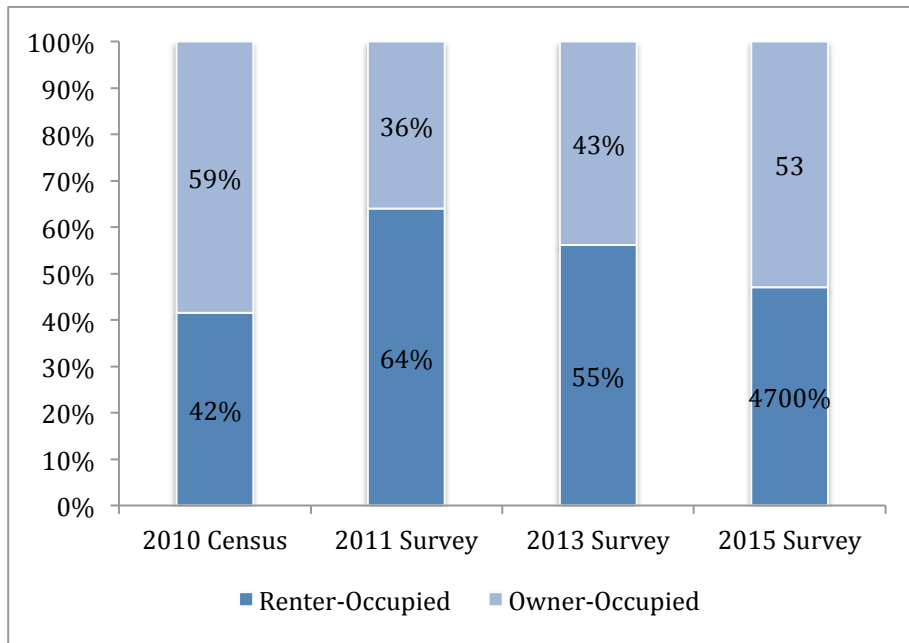


Figure 5: Occupancy Status Comparison

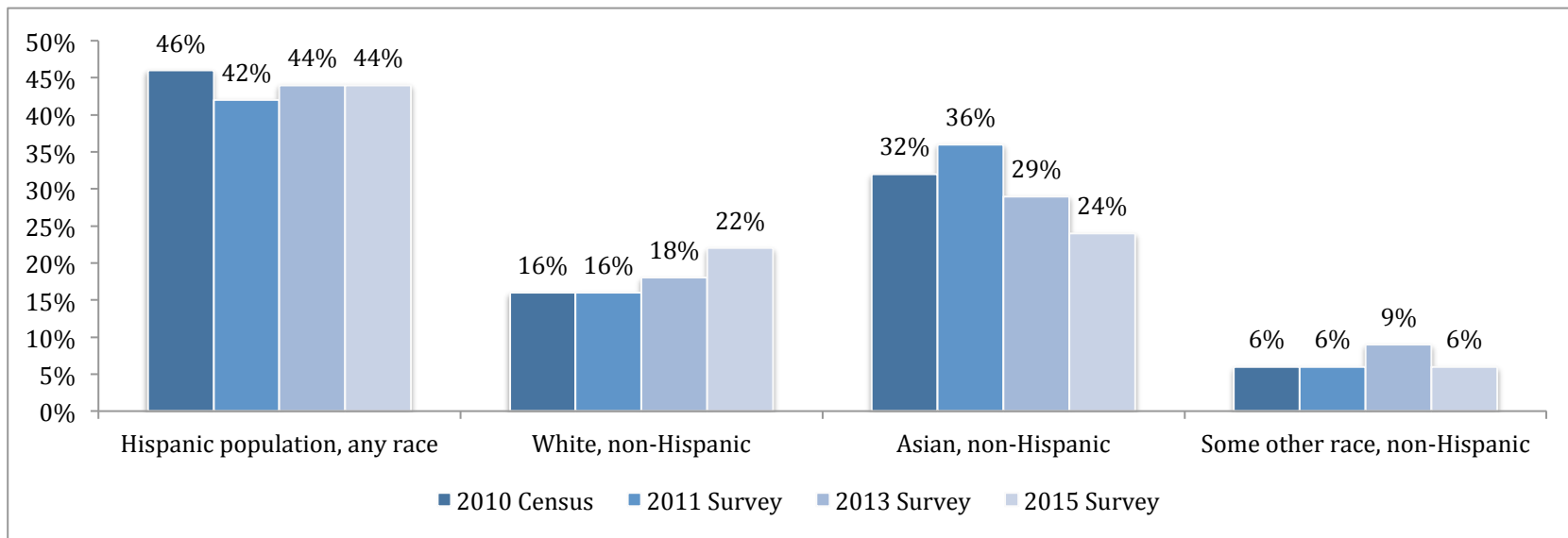


Figure 6: Race and Ethnicity Comparison

and are long-term residents has remained fairly consistent throughout the project period. Approximately half of the survey respondents indicated that they have children who live with them and roughly 40 percent of respondents said they had a dog at home. In addition, about 40 percent have lived in the neighborhood for more than 10 years, while about one-quarter have lived in the neighborhood for 1 to 4 years.

Finally, the length of time respondents have lived in the same location has remained fairly stable over the project period. There was a noticeable increase in the percent of respondents who had lived in the same location for more than 10 years in the 2015 survey, compared to the 2011 and 2013 survey (see Figure 7).

**Respondents’ Awareness, Attitudes, and Engagement**

The primary purpose of the 2015 survey was to complete the four-year study regarding residents’ awareness and knowledge, attitudes, and engagement in recreational and/or stewardship activities along the Coyote Creek Corridor. In the following section, survey responses are analyzed. In some instances, respondents did not answer every question. Missing data is excluded from our analysis and all percentages listed in the section below represent valid percentages based on the number of respondents who answer the specific question.

*Awareness and Knowledge of Coyote Creek*

Long before an individual can show an interest in recreational activities or stewardship projects in the Coyote Creek riparian area, they must first be aware of the creek. In 2011, 2013, and 2015, respondents were asked two questions designed to assess their general level of awareness about the creek (see Table 1). In 2015, seventy-six percent of those surveyed stated that they knew of a creek near their home. This is very similar to 2013, but an increase of nine percent over 2011 respondents. When asked the name of the creek; there was a remarkable thirteen percent increase in the 2015 respondents'

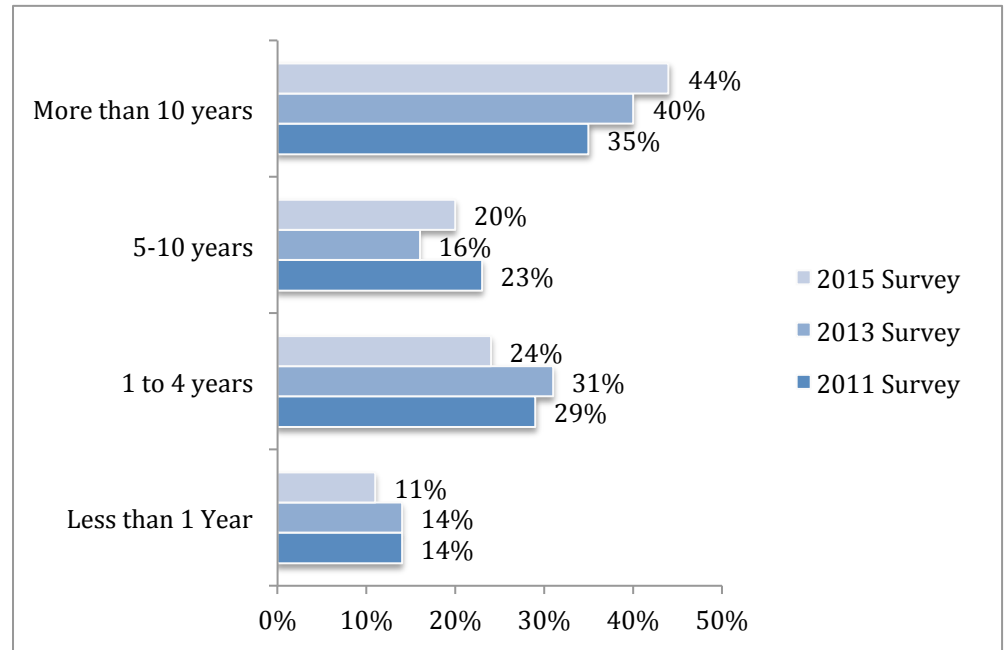


Figure 7: Length of Time in this Location

answers, over the 2013 thirty-eight percent (note, an error was listed in the 2013 survey report showing this value at 28 percent).

The large decrease in the percentage of those knowing the name of Coyote Creek from 2011 to 2013, despite an increase in respondents acknowledging a creek was nearby their home, can be explained by a change in the survey tool. The second question in the 2011 survey (“Do you know the name of that creek?”) did not ask respondents to actually demonstrate that they knew the name, and they may have responded with “yes” even if they didn’t know. To address possible misrepresentation in the results, the 2013 survey tool was changed to record an affirmative response only when respondents could identify the creek as “Coyote Creek.” This method was once again repeated in 2015. As the question and survey approach was consistent from 2013 to 2015, we see an increase in knowledge of the creek’s name by thirteen percent, over the final two years.

**Table 1 Respondents’ Awareness and Knowledge of Coyote Creek**

	Percent of Respondents Answering “Yes”		
	Survey 2011	Survey 2013	Survey 2015
Is there a creek near your home?	67%	74%	76%
Do you know the name of the creek? (of those respondents that knew a creek was near their home)	65%	38%	51%

*Notes.* Missing values have been excluded from the analysis.

*Recreational and Stewardship Activities Along the Coyote Creek Corridor*

The initial 2011 survey respondents indicated that the majority of individuals did not use the creek corridor for recreation (58 to 95 percent, depending on activity as shown in Table 2). The 2013 survey data showed little change from 2011 with 68 to 87 percent indicating they never used the corridor for recreation.

**Table 2 Participation in Recreational Activities Along the Coyote Creek Corridor**

	Percent of Respondents														
	2011 Survey					2013 Survey					2015 Survey				
	Never	Rarely	Sometimes	Often	Very Often	Never	Rarely	Sometimes	Often	Very Often	Never	Rarely	Sometimes	Often	Very Often
Walking/ jogging	58%	12%	13%	8%	9%	68%	7%	12%	7%	6%	52%	13%	11%	9%	15%
Bicycling	76%	6%	9%	3%	5%	81%	6%	7%	3%	3%	73%	7%	7%	5%	8%
Nature Watching	81%	4%	7%	3%	6%	84%	1%	6%	3%	6%	78%	4%	5%	4%	9%
Walking pets	79%	6%	8%	4%	4%	87%	2%	4%	4%	2%	66%	8%	10%	7%	10%
Other	95%	0%	0%	0%	5%	82%	2%	4%	7%	4%	88%	3%	2%	3%	5%

*Notes.* Missing values have been excluded from the analysis.

In 2015 we did see an increase across activities. Those stating that they never used the creek decreased to 52 to 88 percent. Additionally, those stating that they used the creek "very often" rose six percent for 3-of-the-5 categories. For those 2015 respondents who did participate in recreational activities, walking or jogging continued to be most popular, followed by walking pets, bicycling, and nature walking. Some of the “other recreational activities” listed by respondents include: (visiting a) park, walking to Wal-

Mart, and playing various sports (volleyball, football, baseball, and golf).

Engagement in stewardship activities saw a dramatic increase over the project period. In 2015, the percent of respondents stating that they engaged in some type of stewardship activity ranged from 14 percent to 29 percent (see Table 3). This is particularly significant compared to 2013, when only 1 percent to 9 percent of respondents stated that they engaged in some stewardship activities. The 2015 survey saw a profound drop in respondents who claimed to "never" participate in stewardship activities. Water

**Table 3 Participation in Stewardship Activities Along the Coyote Creek Corridor**

	Percent of Respondents														
	2011 Survey					2013 Survey					2015 Survey				
	Never	Rarely	Sometimes	Often	Very Often	Never	Rarely	Sometimes	Often	Very Often	Never	Rarely	Sometimes	Often	Very Often
Creek Cleanup	86%	6%	4%	2%	2%	91%	4%	3%	2%	0%	83%	7%	5%	2%	2%
Water Monitoring	94%	3%	1%	1%	1%	96%	2%	0%	1%	0%	71%	12%	8%	5%	5%
Creek Restoration	94%	2%	3%	1%	0%	99%	1%	0%	0%	0%	76%	4%	7%	6%	7%
Other	93%	1%	3%	3%	1%	96%	3%	1%	0%	0%	86%	4%	5%	1%	3%

*Notes.* Missing values have been excluded from the analysis.

monitoring saw the biggest change in stewardship, a stunning twenty-three percent decline in the percent of respondents saying they “never” participate in stewardship activities compared to 2011 and twenty-five percent over 2013. Compared to 2013, when no respondents indicated that they “very often” participated in stewardship activities, those rates went up from 2 percent to 7 percent depending on activity. These results are quite promising. The Clean Creeks program has been actively involved in engaging residents in stewardship activities and there has been an increased focus on water conservation by the media and the state government over the past two years.

*Reasons Why People Aren’t Using the Coyote Creek Corridor and Changes Needed for People to Use the Corridor More*

**Table 4 Reasons Why People Are Not Using the Coyote Creek Corridor**

	Percent of Respondents <sup>d</sup>		
	2011 Survey	2013 Survey	2015 Survey
Presence of homeless people living there	37%	37%	51%
Don't feel it is a safe environment	37%	37%	36%
Trash in or near the creek	29%	29%	34%
There is no easy access to the creek	25%	25%	28%
Not interested in going down to the creek	24%	24%	32%
Other	15%	15%	13%
Concerned about injuries	13%	13%	36%

*Notes.* Missing values have been excluded from the analysis.  
<sup>a</sup> Respondents could select multiple options, so these values do not sum to 100.

As in 2011 and 2013, 2015 survey respondents were asked to identify the reasons why they did not use the creek corridor. A summary of these responses is shown in Table 4. The two main reasons respondents listed for not using the creek corridor continue to be the “presence of homeless people living there” (51 percent in 2015) and “don’t feel it is a safe environment” and "concerned about injuries" (both 36 percent in 2015). Thirty-two

percent indicated that they were not interested in going down to the creek, and 34 percent explained that trash in and around the creek was a barrier. Access to the creek continued to be a barrier in 2015, with 28 percent of individuals explaining that there is no easy access to the creek.

In 2013, 29 percent of respondents indicated that the presence of trash in or near the creek explained why they did not use it; in 2015 this increased to 34 percent of respondents. However, in response to the question of what changes along the creek need to happen for them to start using it, nearly half indicated that trash needs to be cleaned up in both 2011 and 2013, and surpassed half to 54 percent in 2015. As shown in Table 5 trash removal and reducing the presence of homeless people became the most frequently stated changes needed to start using the creek corridor in 2015. The number of individuals in 2015 indicating that recreational trails along the creek should be improved in order for them to use the creek corridor increased slightly to 47 percent from 43 percent in 2013. The number of respondents selecting “I am unlikely ever to use the creek regardless of improvements,” increased 3 percent between 2013 and 2015 – a total of 7 percent more than 2011, which continues to suggest that many residents would likely not use the creek corridor regardless of any appreciable change occurring.

Table 5 Changes that Need to Happen for People to Start Using the Creek Corridor

	Percent of Respondents <sup>a</sup>		
	2011 Survey	2013 Survey	2015 Survey
Clean up the trash in the creek	49%	49%	54%
Reduce presence of homeless people in the creek area	42%	55%	54%
Improve recreational trails along the creek	41%	43%	47%
Improve access to the creek	34%	43%	43%
Other	15%	19%	10%
I am unlikely ever to use the creek regardless of improvements	13%	17%	20%
<i>Notes.</i> Missing values have been excluded from the analysis.			
<sup>a</sup> Respondents could select multiple options, so these values do not sum to 100.			

### *Beliefs About Coyote Creek*

As shown in Table 6, respondents were asked to indicate their level of agreement or disagreement with a series of statements about Coyote Creek. Consistent with previous results that indicate people don’t use the creek area because of trash and that cleanup would be a needed change before people would use the creek, more than two-thirds (73 percent) of respondents in 2015 agreed or strongly agreed with the statement, “Trash is a problem along the creek.” This represents an increase of 2 percent from 2013, and 9 percent from 2011. Concern for the creek continues to grow amongst respondents. In terms of its role as habitat for fish and wildlife, those individuals that agreed or strongly

agree remained fairly stable, with an increase of 1 percent over 2013 (84 percent). Similarly, in 2015, nine out of ten individuals agreed or strongly agreed that the creek’s health and cleanliness is personally important. This is down 1 percent from 2013, yet remains 9 percent higher than 2011. As in the mid-project survey, only 6 percent of respondents disagreed or strongly disagreed with this statement.

Table 6 Statements Concerning Coyote Creek

	Percent of Respondents <sup>a</sup>								
	2011 Survey			2013 Survey			2015 Survey		
	Strongly Disagree/ Disagree	Neither Agree Nor Disagree	Strongly Agree/ Agree	Strongly Disagree/ Disagree	Neither Agree Nor Disagree	Strongly Agree/ Agree	Strongly Disagree/ Disagree	Neither Agree Nor Disagree	Strongly Agree/ Agree
Trash is a problem along the creek	16%	17%	66%	17%	11%	71%	14%	14%	73%
The creek is an important habitat for fish and wildlife	16%	11%	73%	11%	6%	83%	9%	7%	84%
The health and cleanliness of the creek is important to me	13%	7%	81%	6%	4%	91%	6%	4%	90%
My Personal actions can have a positive or negative impact in the creek	27%	16%	58%	11%	12%	76%	14%	13%	73%
Coyote creek is a safe place for me and my family to visit	58%	18%	23%	53%	13%	34%	54%	16%	31%

<sup>a</sup> Notes. Missing values have been excluded from the analysis.  
<sup>a</sup> Respondents could select multiple options, so these values do not sum to 100.

An important goal for the CCHC project is that respondents recognize that their personal actions can impact the creek. In 2011, only 58 percent of survey respondents agreed or strongly agreed with this statement. However, at that time, students conducting the survey noted that this question might have been unclear. Some respondents seemed to think the question was asking if they had personally littered along the creek. For the 2013 and 2015 surveys, this statement was revised to include both negative and positive impacts as a result of the respondent’s personal actions. The result was that 73 percent, in 2015, down 3 percent from the 76 percent in 2013, of respondents agreed or strongly agreed with this statement.

Not surprisingly, creek safety continues to be a major concern for respondents. In 2011, 58 percent disagreed or strongly disagreed with the statement, “Coyote Creek is a safe place for me and my family to visit.” This number decreased to 53 percent in 2013, indicating a slight improvement in the perception of safety along the creek corridor. There was an increase in 1 percent in 2015, showing a relatively stable belief about the creek. With the stability of residents feeling unsafe in the Coyote Creek area, it remains obvious that significant work will be needed to change those beliefs.

*Opinions Regarding Sources of Trash in Coyote Creek*

In 2015, as in 2013, respondents continued to feel that large quantities of trash come from illegal dumping and homeless encampments (see Table 7). The number of



respondents in 2015 indicating that litter from people in the neighborhood contributes “an excessive amount” did not change noticeably from 2013, but is up 18 percent over 2011. Trash from yards or construction projects saw a slight increase of 2 percent, over 2013, a growth of a 15 percent over 2011. One respondent had indicated that they had witnessed a construction crew dumping cement into the creek. The survey asks questions in terms of “none,” “moderate,” and “excessive” amounts. An overall examination, across all categories, shows that there is a trend of the belief that there is worsening trash problems. Over the past four years there has been an intensification of media attention, as well as public outreach, toward the Coyote Creek area. With this increase in awareness of the region, one may see a shift in residents' awareness of the riparian area. The “none” categories continue to decrease, whereas the amount of perceived litter continues to increase.

Table 7 Respondents' Rating of How Much Various Activities Contribute to Trash in Coyote Creek

	Percent of Respondents <sup>a</sup>								
	2011 Survey			2013 Survey			2015 Survey		
	None	A Moderate Amount	An Excessive Amount	None	A Moderate Amount	An Excessive Amount	None	A Moderate Amount	An Excessive Amount
Litter from cars	35%	33%	31%	36%	21%	43%	28%	28%	44%
Litter from people in the neighborhood	17%	34%	49%	15%	17%	68%	9%	24%	67%
Overflowing trash from cans and dumpsters	36%	32%	33%	34%	16%	49%	20%	34%	46%
Trash from yard or construction projects	44%	35%	21%	45%	20%	34%	34%	30%	36%
Illegal dumping	16%	17%	68%	15%	8%	77%	11%	18%	71%
Homeless encampments	12%	17%	72%	10%	13%	77%	8%	14%	78%

Notes: Missing values have been excluded from the analysis.  
<sup>a</sup> Respondents could select multiple options, so these values do not sum to 100.

### *Attitudes About Impacts of Illegal Dumping, Litter, and Homeless Encampments*

We also asked participants to indicate their level of agreement or disagreement with a series of statements designed to gauge their attitude toward the impacts of illegal dumping, litter, and homeless encampments (see Table 8). This section was modified in 2013 in an effort to simplify and more effectively use the respondents' time. The number of categories was reduced by 25 percent by collapsing statements about property values and neighborhood safety into a single statement encompassing both ideals: “my neighborhood or community.” This approach remained consistent in the 2015 survey.

Not surprisingly, in 2011 people tended to agree with most statements as they were worded in a manner that focused more on the negative aspects of these activities (i.e., in all cases, the survey inquired about the potential “harm” of each activity). This was the case in 2013 and 2015 as well. With regard to attitudes about illegal dumping, 2013 and 2015 responses remained similar, although a few specific categories showed considerable deviations. Litter was seen as 16 percent more harmful to fish and wildlife

habitats, as compared to 2013 (92 percent in 2015). This closely resembles the 90 percent expressed in 2011. Perhaps the greatest series of increases can be seen in the respondents' beliefs about the harmful impacts of homeless encampments: There was a 15 percent increase in respondents stating that "homeless encampments are harmful to personal well being" in 2015 compared to 2013; a 19 percent increase respondents stating that "homeless encampments are harmful to the neighborhood and community"; and a 16 percent increase in respondents stating that "homeless encampments are harmful to the habitat of fish and wildlife."

Table 8 Attitudes About the Impacts of Illegal Dumping, Litter, and Homeless Encampments

	Percent of Respondents <sup>a</sup>								
	2011 Survey			2013 Survey			2015 Survey		
	Strongly Disagree/Disagree	Neither Agree Nor Disagree	Strongly Agree/Agree	Strongly Disagree/Disagree	Neither Agree Nor Disagree	Strongly Agree/Agree	Strongly Disagree/Disagree	Neither Agree Nor Disagree	Strongly Agree/Agree
<b>Illegal dumping is harmful to...</b>									
My personal well being	15%	16%	69%	12%	9%	79%	8%	9%	82%
The neighborhood and community	14%	19%	67%	9%	6%	85%	7%	7%	87%
The habitat of fish and wildlife	13%	8%	79%	5%	3%	92%	7%	3%	89%
<b>Litter is harmful to...</b>									
My personal well being	21%	14%	65%	12%	7%	81%	10%	11%	79%
The neighborhood and community	20%	19%	62%	4%	8%	88%	6%	7%	88%
The habitat of fish and wildlife	4%	6%	90%	11%	13%	76%	5%	3%	92%
<b>Homeless encampments are harmful to...</b>									
My personal well being	32%	18%	50%	33%	21%	47%	22%	16%	62%
The neighborhood and community	16%	17%	69%	21%	18%	60%	12%	9%	79%
The habitat of fish and wildlife	18%	16%	66%	14%	19%	66%	8%	11%	82%

*Notes.* Missing values have been excluded from the analysis.  
<sup>a</sup> Respondents could select multiple options, so these values do not sum to 100.

Averaged across all three statements, 86 percent agreed or strongly agreed with statements about the harmful impacts of litter; this is equal for statements about illegal dumping. The lowest average level of agreement regarding the potential harmful impacts of either illegal dumping, litter, or homeless encampments was found for the latter. In 2011, 62 percent agreed or strongly agreed with statements about the harmful impacts of homeless encampments. This decreased to 57 percent in 2013. The 2015 survey found a large increase to 74 percent. There is also a difference with regard to the individual ranking of the three statements compared to attitudes toward illegal dumping or litter. In 2011, the highest level of agreement was for the statement about the impact of homeless encampments on the neighborhood or community (68 percent). This decreased in 2013 to 60 percent, and rose to 79 percent in 2015.

*Awareness of the Clean Creeks, Healthy Communities Program*

A new question on the 2013 survey tool was added to evaluate the proportion of neighborhood residents that are aware of the CCHC project. The question asked

residents “in the last two years have you participated in or heard of the Clean Creeks, Healthy Communities Project?” Only 25 percent of respondents stated that they were aware of the CCHC project. This question was again asked in 2015. There was an increase to 32 percent over the previous survey. This question aims to test how effectively the CCHC project has been at permeating the neighborhood. There has been an improvement of 7 percent, with nearly two-thirds of respondents stating that they are aware of the program. This shows that an increased emphasis on neighborhood outreach should continue to improve the program's visibility. Increasing awareness of similar programs should be a priority for future projects.

**Table 9 Respondents' Awareness of the Clean Creeks, Healthy Communities Program**

	Percent of Respondents	
	Survey 2013	Survey 2015
Yes	25%	32%
No	75%	68%
<i>Notes. Missing values have been excluded from the analysis.</i>		

## Section II: Progress Toward Overall Project Goals

The CCHC project aims to reach specific goals by the end of the project. A set of metrics was developed in order to quantify and illustrate the relationship between the community development activities conducted by ESD as part of the overall grant project and the impact on attitudes and awareness of Coyote Creek by residents. This section focuses on presenting the data results and analysis of key goals identified in the beginning stages of the CCHC project. The keys goals that will be addressed are as follows:

1. By the end of the project, at least 66 percent of residents surveyed are aware of Coyote Creek and its environmental significance and 50% of residents surveyed report that the health of Coyote Creek is important to them.
2. By the end of the project, at least 66 percent of residents surveyed are aware that their personal conduct can result in litter in Coyote Creek, and that litter and illegal dumping is harmful to personal well-being.
3. By the end of the project, at least 33 percent of residents surveyed report participating in recreation that directly involves Coyote Creek riparian corridor.
4. By the end of the project, at least 66 percent of residents surveyed report that they feel they could safely visit the Coyote Creek corridor.
5. By the end of the project, at least 66 percent of residents surveyed report that the quantity of litter in their neighborhood has been reduced.

### **GOAL #1: AWARENESS AND ENVIRONMENTAL SIGNIFICANCE OF COYOTE CREEK**

The first goal is to, by the end of the project, find that at least 66 percent of residents surveyed are aware of Coyote Creek and its environmental significance and that at least 50% of residents surveyed report that the health of Coyote Creek is important to them. The respondents answered two questions pertaining to awareness of Coyote Creek. The first asked if the respondent knew if a creek was located within a ½ mile of their home, and the second asked if they knew the name of that creek. In 2011, 67 percent of survey respondents recognized that there was a creek near their home, and the 2013 data uncovered a seven percent increase in this measure to 74 percent, which indicates a growing awareness of Coyote Creek over the past two years. By 2015, that number has increased slightly to 76

percent. While respondents' awareness that a creek exists nearby is quite high, just slightly more than half knew the name in 2015. This is definitely much higher than in 2013 and suggests that efforts to increase awareness is working.

With regard to residents' awareness of the environmental importance of Coyote Creek, there was an observed increase among respondents indicating that the creek is an important resource. Between 2011 and 2013, the number of individuals that agreed or strongly agreed that the creek is important for fish and wildlife increased by 10 percent from 73 percent to 83 percent. The percentage of residents surveyed about the importance of the creek's health and cleanliness also increased by 10 percent during the last two years to 91 percent. These numbers remained fairly stable between 2013 and 2015.

In terms of meeting the established project goals, that has been achieved. More importantly, however, is that awareness of the creek has grown over the project period and the vast majority of respondents recognize that the healthy and cleanliness of the creek is important to them and that it serves as an important habitat for fish and wildlife.

## **GOAL #2: AWARENESS THAT PERSONAL CONDUCT CAN RESULT IN LITTER IN COYOTE CREEK**

The second goal is to find that at least 66 percent of residents surveyed are aware that their personal conduct can result in litter in Coyote Creek, and that litter and illegal dumping are harmful to personal well-being. This goal was realized in 2013, in which the data indicated that the percentage of survey respondents who agreed or strongly agreed with the statement "my personal actions can have a positive or negative impact on trash in the creek" was 76 percent and attitudes remained fairly stable over the final two years of the project period.

The survey question that asked residents to rate how strongly they agree with the statements "illegal dumping is harmful to my personal well-being" and "litter is harmful to my personal well-being" showed an increase in the percentages of respondents who answered strongly agree/agree from 2011 to 2013 and remained fairly consistent in 2015. The percentage of people who said that they strongly agree or agree that illegal dumping is harmful to their person well-being increased from 69 to 82 percent over the project period. And, the percentage of respondents who indicated the same level of agreement with regard to litter increased from 65 to 79 percent.

## **GOAL #3: PARTICIPATION IN RECREATION THAT INVOLVES COYOTE CREEK**

The third goal is to identify that at least 33 percent of residents surveyed report participating in recreation that directly involves the Coyote Creek riparian corridor. During the last two years of the project period, in particular, recreational participation rates did increase. Nearly half of all respondents reported walking or jogging along the Coyote Creek corridor. In addition, 34 percent of respondents reported walking pets along the corridor. Other recreational activities, such as bicycling or nature watching did not have as high a participate rate. It was of particular interest that while participation rates actually seemed to decline slightly during the first two years of the project period, that trend reversed in the last two years.

#### **GOAL #4: SENSE OF SAFETY WHEN VISITING COYOTE CREEK**

The fourth goal is to, by the end of the project, find that at least 66 percent of the residents surveyed feel they could safely visit the Coyote Creek corridor. In 2011, 23 percent of survey respondents strongly agreed or agreed with the statement “Coyote Creek is a safe place for me and my family to visit.” In 2013, 34 percent of respondents strongly agreed or agreed with the statement, showing an 11 percent increase. However, in the 2015 survey, the percent of respondents agreeing with this statement declined to 31 percent indicating that safety is still a major concern for residents living near the creek.

#### **GOAL #5: REDUCTION IN LITTER IN THE NEIGHBORHOODS**

During the first survey in 2011, a baseline litter assessment was conducted. This assessment was discontinued for the 2013 and 2015 surveys so tracking this goal using this approach was not possible. However, there were some survey questions that address a similar issue. Specifically, respondents were asked about the problem of trash along the creek. IN 2011, two-thirds of respondents stated that it was a problem. This number increased to 71 percent and 73 percent, respectively, in the 2013 and 2015 surveys. In addition, in 2011, about half of all respondents indicated that litter from people in the neighborhood contributed to trash in the creek. That increased to two-thirds in the 2013 and 2015 surveys. These results indicate that litter remains a problem and respondents are not seeing major litter reductions.

### Section III: Conclusion and Recommendations

Over the four-year Clean Creeks, Healthy Communities project, there were a number of key goals realized. In particular, residents recognize the environmental significance of Coyote Creek and understand how their personal actions can impact the Creek. In addition, residents participating in recreational activities within the creek corridor significantly increased over the project period. However, residents still feel unsafe along the creek and express concerns regarding the quantity of trash along Coyote Creek and in the neighborhoods.

Although not an explicitly-stated goal, the fact that there is increased awareness by the residents of the Clean Creeks, Healthy Communities project is important. As more residents become aware of the project and opportunities to get involved through neighborhood clean-ups and creek clean-ups, the more likely they are to engage in those activities over the long-run and also become more involved in other neighborhood activities.

Appendix B provides some additional insights and qualitative data that was not captured in the surveys. Key themes focus on concerns related to homelessness, including sanitation and water, creek maintenance, recommendation for how to better engage with residents, and feedback on the survey instrument itself, particularly in terms of outreach to non-English-speaking residents.

Given limited resources within the City, partnering with local organizations such as Friends of Coyote Creek Watershed and their Restore Coyote Creek initiative or the Friends of Coyote Creek sub-committee of the Campus Community Association may be an excellent way to continue to outreach to residents living along the creek and focus on long-term stewardship activities.

## Appendix A: 2015 Survey Instrument

1. In the last two years have you participated in or heard of the Clean Creeks, Healthy Communities Project?

1. Yes
2. No

2. Is there a creek within a ½ mile distance of your home?

1. Yes– if yes, do you know the name of the creek? \_\_\_\_\_
2. No – if no, prompt with information about location of creek

3. On a scale of 1 to 5, with 1=never and 5=very often, how often do you use the open space around Coyote Creek for the following activities?

	1	2	3	4	5	DK
Walking/jogging						
Bicycling						
Walking pets						
Nature watching (birds, animals)						
Other (please specify)						

1=never, 2=rarely, 3=sometimes, 4=often, 5=very often, DK=don't know

4. On a scale of 1 to 5, with 1=never and 5=very often, how often do you participate in any of the following activities on or near Coyote Creek?

	1	2	3	4	5	DK
Creek cleanup						
Neighborhood cleanup						
Water monitoring						
Other conservation/creek protection activity (specify)						

1=never, 2=rarely, 3=sometimes, 4=often, 5=very often, DK=don't know

5. If you rarely or never use Coyote Creek, what are the reasons why? (select as many as apply)

1. There is no easy access to the creek
2. Trash in or near the creek
3. Presence of homeless people living there
4. Concerned about injuries
5. Don't feel it is a safe environment
6. Not interested in going down to the creek
7. Other (please specify) \_\_\_\_\_

6. If you rarely or never use Coyote Creek, what changes along the creek need to happen for you to use it? (select as many as apply)

1. Improve recreational trails along the creek
2. Improve access to the creek
3. Clean up the trash in the creek
4. Reduce presence of homeless people in the creek area



- 5. Other (please specify) \_\_\_\_\_
- 6. I am unlikely ever to use the creek regardless of improvement

7. On a scale of 1 to 5, with 1=strongly disagree and 5=strongly agree, how strongly do you agree or disagree with the following statements about Coyote Creek?

	1	2	3	4	5	DK
Trash is a problem along the creek						
The creek is an important habitat for fish and wildlife						
The health and cleanliness of the creek is important to me						
My personal actions can have a positive or negative impact on trash in the creek						
Coyote Creek is a safe place for me and my family to visit						

1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree, DK=don't know

8. On a scale of 1 to 3, with 1=none and 3=a lot, to what degree do you think the following activities result in trash in the creek?

	1	2	3	DK
Litter from cars				
Litter from people in the neighborhood				
Overflowing trash from cans or dumpsters				
Trash from yard or construction projects				
Illegal dumping				
Homeless encampments				

1=none, 2=some, 3=a lot, DK=don't know

9. On a scale of 1 to 5, with 1=strongly disagree and 5=strongly agree, how strongly do you agree or disagree with the following statements?

	1	2	3	4	5	DK
<b>Illegal dumping is harmful to...</b>						
my personal well-being						
my neighborhood or community						
the habitat of fish and wildlife						
<b>Litter is harmful to...</b>						
my personal well-being						
my neighborhood or community						
the habitat of fish and wildlife						
<b>Homeless encampments are harmful to...</b>						
my personal well-being						
my neighborhood or community						
the habitat of fish and wildlife						

1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree, DK=don't know

*I have a few more questions to ask. These questions about yourself will help us better understand the data we collect and will be used for statistical purposes only.*

10. What is your race/ethnicity? (select all that apply)
1. Asian-American / Asian
  2. Caucasian / White
  3. Hispanic / Latino/a
  4. African-American / Black
  5. American Indian / Pacific Islander
  6. Other (specify) \_\_\_\_\_
11. What year were you born? \_\_\_\_\_
12. What level of education have you completed?
1. Less than HS / no diploma
  2. High school / GED
  3. Some college
  4. 2-year college degree (Associates)
  5. 4-year college degree (BA, BS, etc.)
  6. Professional / graduate degree (JD, MA, Ph.D., etc.)
13. What was your total annual household income last year?
1. Less than \$25,000
  2. \$25,000 to \$49,999
  3. \$50,000 to \$74,999
  4. \$75,000 to \$99,999
  5. \$100,000 to \$149,999
  6. \$150,000 to \$199,999
  7. \$200,000 or more
14. Do you rent or own your home?
1. Rent
  2. Own
  3. Other (specify) \_\_\_\_\_
15. How long have you lived in this location?
1. Less than 1 year
  2. 1 to 4 years
  3. 5 to 10 years
  4. More than 10 years
16. Do you have a dog?
1. Yes – if yes, is it a small, medium or large dog? \_\_\_\_\_
  2. No
17. Do any children live in the home?
1. Yes
  2. No

## Appendix B: Focus Group

Upon completion of the 2015 survey; the research assistants and the project manager conducted a focus group. The purpose of this focus group was to ascertain qualitative data that was not easily identifiable from the surveys that were conducted. A focus group was used, as compared to one-on-one interviewing, in an effort to spark memories of particular conversations between the research assistance and the survey respondents. Basically, we were trying to understand if there were certain themes that emerged that were not readily evident on the physical survey itself. Many residents expressed attitudes and beliefs about Coyote Creek, which did not find their place in the survey instrument.

This focus group not only provides the research assistants an opportunity to share their own experiences with the project manager and each other, it also provides a vital space for neighbor input that was not available through the survey instrument. There is a certain truth that can be reached through these types of debriefings that would not be available through other means. The 2015 survey provided surprisingly few comments in questions with an "other" category: some respondents used this category, yet few respondents chose to take this opportunity to provide their input about Coyote Creek. Although the surveys did not elaborate on some of the reasons why people did not use the creek, or what they wished to see as additional resources; residents often did engage in conversations with the research staff about Coyote Creek's issues. A few themes emerged from these conversations.

The first issue is one that actually is reflected in the survey data – that of homelessness. There has been intensification in awareness of the homeless in and around Coyote Creek. Residents in the area see homelessness, whether it be encampments near the creek or persons living in vehicles along the creek corridor, as a major quality of life issue in these neighborhoods. Generally speaking, those that had listed higher levels of education on their surveys saw homelessness as more of a systemic problem, yet still inhibitive to creek access and as affecting quality of community life. Drug use, cleanliness, and safety were of top concerns of these respondents. Many residents saw homelessness as a major contributing factor to these problems. Some neighbors had suggestions that they believed would help the problem.

As cleanliness and neighbor privacy were expressed as issues for some respondents, they believed that the area homeless has inadequate access to certain municipalities: namely sanitation and water. Some neighbors complained that homeless persons had been taking water from their outside faucets. Also, trash was not adequately contained. Lighting and video surveillance were also suggested by some neighbors. Creating access to potable water, bathrooms, waste disposal, and sufficient lighting could reduce the impact of the homeless community on the neighboring population.

Many respondents suggested that creek maintenance had room for improvements. This includes access points and physical trail condition. Some neighbors suggested that the condition of the trail was inhibitive to their usage of it, due to their belief that they may become injured. Raising the physical condition of the access points, pedestrian and cycle access, and lighting may create increased usage of the creek corridor. In particular, residents found the access point at 12th Street, in the Spartan/Keyes area a problem. Generally, public accessibility could be improved.

Secondarily, many of the younger respondents suggested that they would like to become more involved in creek actions. They were not aware of any of the potential advocacy options that were available to them. Creating community centered advocacy/action events would increase visibility, environmentalism, and participation in the Coyote Creek corridor amongst interested neighborhoods and communities. Sufficiently promoted, actionable, events would increase stakeholder participation in creek stewardship.

Finally, the focus group produced feedback about the survey instrument itself. The primary issue was with the language of the document, in particular the translation into Vietnamese and Spanish. One member of the research team had some proficiency in Vietnamese. Despite this, the research assistants expressed difficulty in communicating the meaning of the survey to the residents. The Likert scales proved to be a difficult concept to translate. The idea of "indifference" did not accurately describe the beliefs about the creek.

The Spanish language surveys held additional challenges for the research assistants. Two of the three teams had fluent Spanish speakers. One of the research assistants had

familial Spanish from Michoacán, Mexico, and the other had familial Spanish from Columbia. The survey document had Spanish translation in the Castilian dialect. According to the research assistants administering the survey, many of the Spanish-speaking respondents spoke a Spanish dialect originating from Michoacán, Mexico. This proved challenging in communicating the cursory knowledge of the creek itself. For instance, the Castilian translation of "creek" is *arroyo*, which is the way that academic translation would be expressed. For the Michoacán dialect speakers, a more accurate translation would be "*ri-ito*," or "little-river."

With the assumption that those speaking English would be more likely to have experience taking surveys, it makes sense that there would be a greater input from English speakers. The method of survey administration proves to provide an excellent source of quantifiable data about Coyote Creek. However, for the Spanish and Vietnamese respondents a much more conversational approach proved useful in communicating the meanings of the survey questions. A more conversational, perhaps focus group or interview, style of data gathering would yield higher levels of input from these communities. Likert scales, in particular, proved to be of the highest level of difficulty in translation. This makes sense, especially if this is a communication instrument that is not familiar to the populations being surveyed. In the future, when seeking input from these groups, a sample survey could prove useful prior to data gathering.