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ONLINE APPENDIX

**COMMUNITY
SURVEY SUMMARY**

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Hill Country Land, Water, and Natural Infrastructure Plan

DRAFT Summary of Community Survey (Survey #2)

August 2022

1. Executive Summary

The Community Survey for the Hill Country Land, Water, and Natural Infrastructure Plan is a central part of the project's overall engagement strategy. Over 2,800 community members participated in the survey between late May and early August 2022. Survey results and methods are summarized below.

1.2 Key Findings/Themes

- **There is VERY strong support for increasing public funding to protect land, water, and natural infrastructure.** Nearly 85% of survey respondents said they would support increasing public funding; 12% said they might, and only 2% said they would not. Urban residents are somewhat more likely to support funding than rural residents. The amount that residents would be willing to pay follows income levels fairly closely. Participants with the lowest household incomes generally indicate the lowest levels of potential investment. Of those with household incomes of \$200,000 or more 36% would invest \$250 to \$1,000 per year and 18% would invest more than \$1,000 per year.
- **Protecting water is survey participants' highest priority conservation goal**, which echoes the results of the earlier survey of members of the Texas Hill Country Conservation Network (THCCN). The highest priorities after protecting water quality and water supply were protecting wildlife habitat and reducing the risk of wildfires.
- **Most residents are somewhat satisfied with their access to outdoor recreation and nature, but would like more access.** Nearly 70% do not strongly agree that they have enough access to outdoor recreation and nearly 68% do not strongly agree that they have enough access to spend time in nature. Rural residents are mostly likely to be satisfied with their existing access to outdoor recreation and nature. Connecting with nature is the most popular reason that respondents would like access to parks, trails, waterways, and open spaces (followed by exercise, relaxation, and recreation). Rural residents are more likely than those in more urban areas to value access for hunting and fishing and urban residents are more likely than others to value access for exercise.
- **There is a lot of room for education about what constitutes natural infrastructure.** Slightly fewer than 46% of respondents indicated that all of the options presented represented natural infrastructure (which is true as defined by this project). Hispanic/Latinx respondents were mostly likely to see all of the options presented as aspects of natural infrastructure (59.4%). Rural residents were by far the most likely to identify "well-managed rangeland" as natural infrastructure (51.3% of rural respondents versus 29.1% of urban respondents).

- **There is significant community concern about preventing light pollution and preserving night skies.** Light pollution was mentioned 100 times by survey participants. A substantial number of responses to open-ended questions involved the need to preserve dark skies in the Hill Country to protect human health, ecological health, and the aesthetic and economic benefits of dark skies.
- **There are some notable differences in the ways that various demographic groups see conservation goals. Importantly, Hispanic/Latinx residents rated all of the conservation goals from protecting water quality to preserving rural farms and ranches as more important than other ethnic/racial groups did.** Rural residents rated water and wildlife goals as slightly more important than urban residents did (though relative ranking was the same). Rural survey participants and Black and Native American survey participants are more likely than others to say that preserving rural working lands is one of their top two priorities. Climate resilience goals are less likely to be top priorities for rural residents and those with the highest household incomes.
- **There are big differences in how different groups have experienced and perceive climate-related risks.** Urban respondents were much more likely to say they have been impacted by water and air pollution, and rural respondents were more likely to say they have been impacted by extreme heat. Hispanic/Latinx survey participants were much more likely than other racial/ethnic groups to say they have been impacted by extreme heat. Overall, reducing extreme heat was a relatively low priority compared with reducing the risk of wildfire despite many more respondents indicating that they have been affected by extreme heat.

1.3 Who Responded

There were 2,815 responses to the community survey. The survey was available in both English and Spanish, and all responses were received online. Participants were asked to fill out several optional demographic questions to help us track how closely respondent demographics match overall regional demographics. Between 250 and 340 respondents declined to respond to the demographic questions, with the largest number opting out of a question related to household income.

Hispanic/Latinx participants were significantly underrepresented in survey responses, while white/non-Hispanic, Asian, and Native American participants were overrepresented. Black residents were slightly underrepresented. While across the region, Latinx residents make up 46.7% of the population, they made up only 11.3% of survey responses. White/non-Hispanic residents make up 41.6% of the region's population and 71.3% of survey responses. Meanwhile, 8% of survey respondents indicated that they have Native American heritage, while (at least officially) Native Americans represent only 0.2% of the regional population. The racial/ethnic breakdown of survey respondents compared with the regional population is shown in more detail in Table 23 in Section 3.3 (Demographics). Nearly 12% of survey respondents said that they primarily speak Spanish at home. Rural residents are somewhat overrepresented;

overall, 37% of respondents said they live in a rural or mostly rural area. White respondents and those from rural areas tended to skew somewhat older than other survey participants.

2. Methods

The survey was available online for approximately 2.5 months from late May through early August 2022. The survey was available in both Spanish and English. Outreach for the survey was conducted through:

- Social media and email/newsletter posts by members of the Texas Hill Country Conservation Network and their partners;
- Distribution of flyers and conducting intercept surveys in San Antonio and more rural communities, including Comfort, Kerrville, Leakey, Uvalde, Hondo;
- Amplification of outreach through community-based organizations that were compensated for their work, including Go Austin Vamos Austin (GAVA), PODER, Indigenous Cultures Institute, Latino Outdoors, and Black Women Who Kayak +; and
- Posting announcements in local newspapers including the Fredericksburg Standard, Junction Eagle, Comfort News, Uvalde Leader, and La Prensa.

Where possible, survey responses were analyzed using cross-tabulation of demographic subgroups based on race/ethnicity, geography (rural, mostly rural, suburban, urban), and income level. The results of this subgroup analysis are noted below in Section 3 (Detailed Survey Results) when there were differences in responses among groups that were both statistically significant and analytically meaningful.

3. Detailed Survey Results

3.1 Understanding Priorities

Q1 to Q8 Which conservation/natural infrastructure priorities are most important?

Survey participants were asked to rate the importance of the following on a scale from 1 to 5 with 1 being not at all important and 5 being extremely important:

1. Protecting water quality
2. Ensuring availability of water (water supply)
3. Providing habitat for wildlife
4. Access to outdoor recreation and nature
5. Reducing the risk of flooding
6. Reducing the risk of extreme heat

7. Reducing the risk of wildfires
8. Preserving rural farms and ranches

Key Findings

- Ranked order of priorities is fairly consistent across demographic subgroups: (1) Water quality and water supply (essentially tied); (2) Wildlife habitat; and then (3) Reducing the risk of wildfire
- Additional options are close to tied after that, but Black and Native respondents were more concerned about preserving farms and ranches than others; rural residents were also more likely to rate preserving rural farms and ranches as slightly more important
- Black and Asian/Pacific respondents were more concerned about the risk of flooding
- Extreme heat was consistently the lowest priority

Breakdown by Race/Ethnicity

Table 1. Importance of Conservation/Natural Infrastructure Goals (breakdown by race/ethnicity)

Conservation Goal	Black	Asian	Native	Latinx	White*	Overall
Protecting water quality	4.2	3.9	4.2	4.7	4.6	4.6
Ensuring availability of water (water supply)	4.2	3.9	4.2	4.7	4.6	4.5
Providing habitat for wildlife	4.0	3.7	4.1	4.6	4.4	4.4
Access to outdoor recreation and nature	3.8	3.6	4.0	4.4	4.1	4.1
Reducing the risk of flooding	4.0	3.7	3.9	4.3	4.1	4.1
Reducing the risk of extreme heat	3.7	3.5	3.9	4.4	4.1	4.1
Reducing the risk of wildfires	3.9	3.7	4.0	4.5	4.3	4.3
Preserving rural farms and ranches	3.9	3.6	4.0	4.3	4.1	4.1
Total Responses	129	186	204	287	1,857	2,817

Note: Red = numbers that are outliers compared with other groups

*White in these tables means white and non-Hispanic/Latinx

Table 2. Comparison of Importance of Conservation/Natural Infrastructure Goals (breakdown by race/ethnicity)

Conservation Goal	Black	Asian	Native	Latinx	White	Overall
Protecting water quality	1	1	1	1	1	1
Ensuring availability of water (water supply)	1	1	1	1	1	2
Providing habitat for wildlife	3	3	3	3	3	3
Reducing the risk of wildfires	5	3	4	4	5	4
Access to outdoor recreation and nature	7	6	4	5	4	5
Reducing the risk of flooding	3	3	7	7	5	5
Reducing the risk of extreme heat	8	8	7	5	5	5
Preserving rural farms and ranches	5	6	4	7	5	5

Breakdown of Rural/Urban

Table 3. Importance of Conservation/Natural Infrastructure Goals (breakdown of rural/urban)

Conservation Goal	Rural	Mostly Rural	Suburban	Urban
Protecting water quality	4.8	4.7	4.6	4.4
Ensuring availability of water (water supply)	4.8	4.6	4.6	4.3
Providing habitat for wildlife	4.5	4.4	4.4	4.2
Access to outdoor recreation and nature	4.1	4.1	4.2	4.0
Reducing the risk of flooding	4.0	4.1	4.2	4.1
Reducing the risk of extreme heat	4.1	4.1	4.1	4.1
Reducing the risk of wildfires	4.4	4.3	4.3	4.1
Preserving rural farms and ranches	4.4	4.2	4.1	4.0
Total	281	608	718	954

Table 4. Comparison of Importance of Conservation/Natural Infrastructure Goals (breakdown of rural/urban)

Conservation Goal	Rural	Mostly Rural	Suburban	Urban
Protecting water quality	1	1	1	1
Ensuring availability of water (water supply)	1	1	1	2
Providing habitat for wildlife	3	3	3	3
Access to outdoor recreation and nature	6	6	5	7
Reducing the risk of flooding	6	6	5	4
Reducing the risk of extreme heat	8	6	7	4
Reducing the risk of wildfires	4	4	4	4
Preserving rural farms and ranches	4	5	7	7

Q9. Which of the following is most important for the Hill Country region? (pick up to two)

Key Findings

- Preserving working lands is a higher priority in rural and mostly rural areas and for Black and Native residents
- Climate resilience goals are more likely to be top priorities for urban than for rural residents and are less likely to be top priorities for those with the highest household incomes

Table 5. Top Two Most Important (Overall)

Answer Choices	Responses	
Ensuring availability of water (water supply)	48.4%	1361
Protecting water quality	43.5%	1223
Providing wildlife habitat	21.2%	598
Preserving rural farms and ranches	18.7%	526
Reducing the risk of wildfires	15.6%	439
Access to outdoor recreation and nature	13.3%	374
Reducing the risk of flooding	12.6%	354
Reducing the risk of extreme heat	12.1%	340
	Answered	2815
	Skipped	0

Table 6. Top Two Most Important (breakdown by race/ethnicity)

Conservation Goal	Black	Asian	Native	Latinx	White*
Protecting water quality	32%	26%	38%	49%	45%
Ensuring availability of water (water supply)	37%	30%	34%	52%	51%
Providing habitat for wildlife	19%	19%	20%	23%	22%
Access to outdoor recreation and nature	19%	13%	12%	12%	14%
Reducing the risk of flooding	15%	18%	15%	11%	12%
Reducing the risk of extreme heat	13%	16%	13%	13%	13%
Reducing the risk of wildfires	18%	18%	16%	16%	15%
Preserving rural farms and ranches	27%	17%	23%	11%	18%
<i>Total Number per Group</i>	128	185	203	286	1811

Table 7. Top Two Most Important (breakdown by rural/urban)

Conservation Goal	Rural	Mostly Rural	Suburban	Urban
Protecting water quality	48%	43%	49%	39%
Ensuring availability of water (water supply)	61%	55%	50%	39%
Providing habitat for wildlife	18%	21%	25%	21%
Access to outdoor recreation and nature	8%	12%	13%	16%
Reducing the risk of flooding	6%	12%	10%	17%
Reducing the risk of extreme heat	7%	7%	12%	18%
Reducing the risk of wildfires	12%	15%	13%	17%
Preserving rural farms and ranches	28%	23%	15%	15%
<i>Total Number per Group</i>	281	608	718	954

**Q10. Which of the following would you consider natural infrastructure?
(select all that apply)**

Key Findings

- Woodlands and forests absorbing air pollution were most likely to be seen as natural infrastructure and green spaces in parks were least likely to be seen as natural infrastructure
- Fewer than 46% of respondents indicated that all of the options represent natural infrastructure
- Rural residents are by far the most likely to identify “well-managed rangeland” as natural infrastructure (51.3%)

- Urban respondents were least likely (33.7%) and Latinx respondents were mostly likely (59.4%) to answer “all of the above”

Table 8. What is Considered Natural Infrastructure (overall responses)

Answer Choices	Responses	
Woodlands and forests absorbing air pollution	48.4%	1,345
Natural wetlands preventing flooding	45.4%	1,262
Protected riverbanks protecting water quality	42.7%	1,188
Diverse natural areas providing habitat for wildlife	42.7%	1,186
Healthy agricultural soils retaining carbon and nutrients	41.1%	1,142
Well-managed forests protecting drinking water supplies	39.2%	1,091
Urban trees providing shade	38.8%	1,078
Grasslands providing pollinator habitat and preventing soil erosion	37.6%	1,045
Well-managed rangeland providing wildlife habitat	37.4%	1,040
Constructed wetlands treating wastewater	33.5%	931
Bioswales or rain gardens absorbing heat and storm water in cities	31.1%	864
Green spaces in parks providing space for recreation and for flood control	30.0%	833
<i>ALL OF THE ABOVE</i>	45.8%	1,273
<i>NOT SURE</i>	2.4%	67
	Answered	2,780
	Skipped	35

Percent indicating “well-managed rangeland”

Urban = 29.1%
 Suburban = 40.4%
 Mostly rural = 43.3%
 Rural = 51.3%

Percent answering “all of the above”

Urban = 33.7%
 Suburban = 53.6%
 Mostly rural = 52.3%
 Rural = 50.0%

Black = 26.8%
 Asian = 12.5%
 Native = 24.1%
 Latinx = 59.4%
 White = 50.0%

3.2 Access to Natural Infrastructure

Q11. Where does your household water come from? (check as many as apply)

Key Findings

- Rural areas are much more likely to get water from private wells (60.0%) and urban and suburban areas much more likely to get water from a utility (66.4% and 71.1%)
- Rural areas are also much more likely to rely on rainwater (21.2%) versus 6.4% for urban areas

Table 9. Sources of Household Water

Answer Choices	Responses	
Water utility	59.4%	1561
Private well	29.6%	777
Groundwater	24.4%	642
Surface water	15.9%	419
Rainwater	10.7%	281
Unsure	4.6%	122
	Answered	2628
	Skipped	187

Q12. Which of the following have impacted your household in the past 10 years? (check as many as apply)

Key Findings

- Respondents were most likely to say they had been impacted by extreme heat (43%) and air pollution (39.2%) and least likely to say they had been impacted by lack of access to water (29.1%) or wildfire (21.6%)
- Urban respondents were more likely say they have been impacted by water and air pollution
 - Water pollution: 37.0% urban versus 25.0% for rural
 - Air pollution: 42.0% urban versus 28.2% for rural
- Rural respondents are more likely to say they've been impacted by extreme heat 59.0% versus 34.5% for urban
- Latinx survey participants are by far the most likely to say that they've been impacted by extreme heat: Black (14.8%), Asian (13.3%), Native (23%), Latinx (63.3%), White (47.4%)

Table 10. Environmental Risks Impacting Survey Respondents

Answer Choices	Responses	
Extreme heat	43.0%	1,106
Air pollution	39.2%	1,008
Water pollution	35.0%	899
Flooding	32.4%	832
Lack of reliable access to water	29.1%	748
Wildfire	21.6%	555
Other (please specify)	7.6%	195
	Answered	2,572
	Skipped	243

Q13 and Q14. Access to outdoor recreation and nature

Respondents were asked to indicate their agreement with the following statements on a scale from 1 to 5 where “1” indicates “strongly disagree” and “5” indicates “strongly agree.”

Key Findings

- Most residents are somewhat satisfied with their access to outdoor recreation and nature, but would like more access.
 - Nearly 70% do not strongly agree that they have enough access to outdoor recreation and nearly 68% do not strongly agree that they have enough access to spend time in nature.
 - Only 30% strongly agree that they have enough outdoor recreation access right now and only 33% strongly agree that they have enough access to spend time in nature
- Rural residents are most likely to be satisfied with their access to outdoor recreation and spending time in nature

I have enough access to places to recreate outdoors near my home. Average = 3.7

I have enough access to places to spend time in nature near my home. Average = 3.8

Table 11. Access to Recreate Outdoors

Enough access to places to recreate outdoors	Number	Percent
1 = strongly disagree	91	3.5%
2	253	9.6%
3	730	27.8%
4	764	29.1%
5 = strongly agree	791	30.1%
Total	2629	100.0%

Table 12. Access to Spend Time in Nature

Enough access to spend time in nature	Number	Percent
1 = strongly disagree	96	3.7%

2	241	9.2%
3	679	25.9%
4	754	28.7%
5 = strongly agree	855	32.6%
Total	2625	100.0%

Table 13. Access to Outdoor Recreation and Nature (breakdown by race/ethnicity)

	Black	Asian	Native	Latinx	White
Enough access to places to recreate outdoors	3.5	3.5	3.6	3.6	3.8
Enough access to spend time in nature	3.5	3.6	3.7	3.6	3.8

Table 14. Access to Recreation and Nature (breakdown by rural/urban)

	Rural	Mostly Rural	Suburban	Urban
Enough access to places to recreate outdoors	4.1	3.9	3.6	3.6
Enough access to spend time in nature	4.2	4.0	3.6	3.7

Q15. What are the primary reasons that you use (or would like to use) parks, trails, waterways, or other open spaces?

Key Findings

- Connecting with nature is the most popular reason that respondents would like access to parks, trails, waterways, and open spaces (followed by exercise, relaxation, and recreation)
- Rural residents are more likely than those in more urban areas to value access for hunting and fishing and urban residents are more likely than others to value access for exercise

Table 15. Reasons for Using Parks, Trails, Waterways, and Other Open Spaces

Answer Choices	Responses	
Connecting with nature	62.2%	1,632
Exercise	59.5%	1,563
Relaxation	54.6%	1,433
Recreation	52.0%	1,366
Gathering with friends and family	41.9%	1,099
Hunting and fishing	19.1%	501
Other (please specify)	3.8%	99
	Answered	2,626
	Skipped	189

- Urban residents more likely to say exercise (62.9%) versus rural 52%
- Rural residents more likely to say hunting and fishing (28.7%) versus 13.7% for urban
- Wealthiest respondents are also most likely to indicate that they hunt and fish (28.0%) versus 12.5% for the participants with the lowest household incomes

Q18. Would you vote “yes” to increase public funding to protect land, water, and natural infrastructure resources in your community?

Key Findings

- There is very strong support for increasing public funding to protect land, water, and natural infrastructure; only 2% definitely did not support
- Urban residents are most likely to say “yes;” 89.5% versus 73% of rural residents
- Rural residents are most likely to say “maybe;” 21.4% versus 8.0% of urban residents
- No clear trends based on income levels

Table 16. Support for Increasing Public Funding to Protect Land, Water, and Natural Infrastructure

Answer Choices	Responses	
Yes	84.5%	2,198
No	2.0%	51
Maybe/not sure	12.0%	313
Not applicable	1.5%	38
	Answered	2,600
	Skipped	215

Q19. How much would you be willing to spend as an investment in protecting land, water, and natural infrastructure resources in the Hill Country?

Key Findings

- Trends follow income levels fairly closely
- Participants with the lowest household incomes generally indicate the lowest levels of potential investment. Of those with household incomes of \$200,000 or more 35.9% would invest \$250 to \$1,000 per year and 18.0% would invest more than \$1,000 per year

Table 17. Willingness to Pay for Protecting Land, Water, and Natural Infrastructure

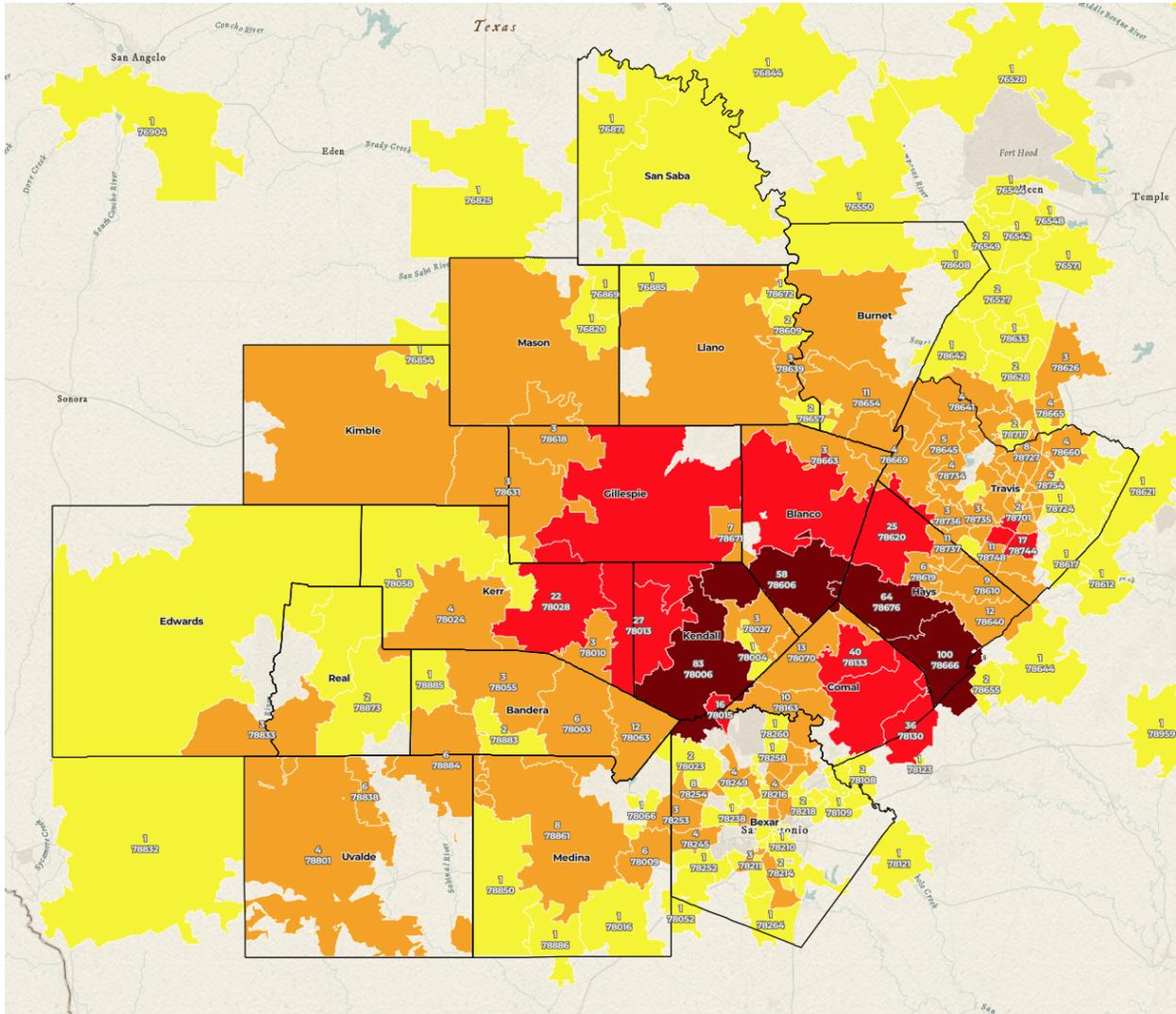
Answer Choices	Responses	
Less than \$24 per year or \$2 per month	14.3%	367
Less than \$120 per year or \$10 per month	32.4%	831
Less than \$240 per year or \$20 per month	27.4%	702
\$250-\$1,000 per year	18.2%	467
More than \$1,000 per year	7.7%	196
	Answered	2562
	Skipped	253

3.3 Demographics

Q20 What is your zip code?

Figure 1 below shows where survey respondents live throughout (and outside) the Hill Country. There were 249 responses from people living in zip codes outside of the Hill Country.

Figure 1. Distribution of Responses by Zip Code



Q21 How would you describe the area where you live?

Of the 4.2 million people living in the 18-county Hill Country region, about 60% (2.5 million) live in the area's two largest cities: San Antonio (1.53 million) and Austin (966,000). Many more residents live in smaller cities and towns throughout the region. Among survey participants, 65.3% indicated they live in urban or suburban areas and 34.7% indicated they live in rural or

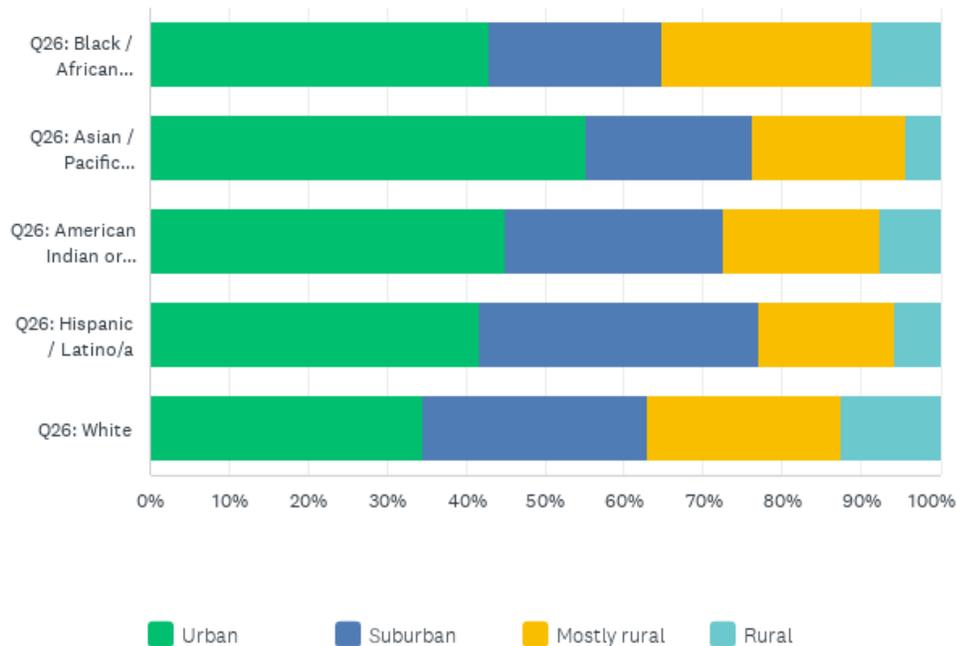
mostly rural areas. Based on these results, rural residents are somewhat overrepresented in survey participation.

Table 18. Urban/Rural Breakdown

Answer Choices	Responses	
Urban	37.3%	954
Suburban	28.0%	718
Mostly rural	23.7%	608
Rural	11.0%	281
	Answered	2561
	Skipped	254

- A higher proportion of Asian/Pacific Islander respondents live in urban areas (55%) compared with other racial/ethnic groups (34.6% to 45.0%)
- A higher proportion of Latinx respondents live in suburban areas (35%) compared with other groups (21.1% to 27.5%)
- A higher proportion of white residents live in rural areas (12.4%) compared with other groups (4.3% to 8.6%)

Figure 2. Urban/Rural Breakdown by Race/Ethnicity



Q22 Do you live on or have regular access to a farm or ranch?

Table 19. Access to Farm or Ranch

Answer Choices	Responses	
Yes	61.0%	1562
No	39.0%	998
	Answered	2560
	Skipped	255

Black (74.8%), Asian (81.6%), and Native American (75%) respondents were more likely than Latinx (37.2%) and white (59.8%) respondents to say that they have regular access to a farm or ranch.

Q23 What is your age?

Table 20. Age Breakdown

Answer Choices	Responses	
Younger than 18	0.6%	14
18 to 24	11.1%	285
25 to 34	38.3%	982
35 to 44	14.7%	376
45 to 54	9.4%	241
55 to 64	11.4%	292
65+	14.5%	372
	Answered	2562
	Skipped	253

- Urban and suburban respondents skewed younger than rural participants. 51.3% of urban respondents were 25 to 34 and only 5.3% were 65 or older. Meanwhile, only 15.7% of rural respondents were 25 to 34 and 32.7% were 65 or older.
- White respondents were more likely than other groups to be 65 or older

Q24 What is your gender?

Table 21. Gender Breakdown

Answer Choices	Responses	
Female	54.4%	1395
Male	44.3%	1135
Other	1.4%	35
	Answered	2565
	Skipped	250

Q25 What is your annual household income?

Table 22. Breakdown of Household Income

Answer Choices	Responses	
Less than \$20,000	5.5%	137
\$20,000 to \$49,999	25.5%	633
\$50,000 to \$74,999	20.3%	503
\$75,000 to \$99,999	17.2%	426
\$100,000 to \$199,999	22.7%	563
\$200,000 or more	8.8%	219
	Answered	2481
	Skipped	334

- Urban residents were more likely to have household incomes between \$20,000 and \$49,999 (29.8%) versus 17.9% for rural residents
- Rural residents were more likely to indicate the highest income levels
 - \$100,000 to \$199,999 in annual household income: 18.9% urban, 27.4% rural
 - \$200,000 or more: 6.7% urban, 12.9% rural)

Q26 What is your race/ethnicity?

Table 23. Survey Responses Race/Ethnicity vs. Regional Demographics

Race/Ethnicity	SURVEY		REGION (2020 Census)	
	Number	Percent	Number	Percent
Black/African American	129	5.1%	277,663	6.6%
Asian/Pacific Islander	186	7.3%	187,394	4.5%
American Indian/Alaska Native	204	8.0%	10,508	0.2%
Hispanic/Latinx	287	11.3%	1,964,725	46.7%
White, Non-Hispanic/Latinx	1,811	71.3%	1,744,077	41.6%
Total	2,539		4,203,375	

- Urban and suburban residents were most likely to be Hispanic/Latinx (12.4% and 14.3%)
- Rural residents were most likely to be white (83.8%)

Q27 What is the primary language you speak at home?

Table 24. Breakdown of Language Spoken at Home

Answer Choices	Responses	
Spanish	11.8%	301
English	91.6%	2337
Other (please specify)	0.6%	16
	Answered	2551
	Skipped	264

- Urban residents were most likely say that they primarily speak Spanish at home (17.6%)
- 36.5% of Latinx respondents indicated that they speak Spanish at home

3.4 Closing

Q28 Do you have any final thoughts you would like to share?

A sample of responses (approximately every 100 responses):

- I grew up in North Austin with family ties to the Eastside before they were pushed out by gentrification. It's difficult to find the words to describe how I feel. My anger, frustration, and sadness has turned to hopelessness and resentment. I'm tired of the changes negatively impacting minority communities and native Austinites. It's blatant disrespect and disregard for the communities that made this city so special. City officials don't care. It's all about money. They're not one of us and they never will be.
- Caring for the environment is what everyone must do
- I think that the rate of development and general opinions surrounding conservation (or lack thereof) held by many citizens in the Hill Country at this point are immensely concerning....Many have said this, but reiterating the point that individual re-connection with nature is key to changing public perception and appreciation is important; as this is what changes legislation and eventually what our region looks like.
- One of the reasons we moved to the Hill Country was to enjoy the nature surrounding us whether it be kayaking at a river or hiking the trails at the state park. Spending time outdoors is healthy both mentally and physically.
- Favor regalen árboles para que yo los siembre y los cuidare hasta que ellos puedan solos así tratate de ayudar a la tierra y a nosotros (Please provide trees so that I can plant them and I will take care of them until they can on their own so I will try to help the earth and us)
- Hope that people together to protect the environment, solve ecological problems, to create a beautiful ecological environment of the home
- The Texas Hill Country is the most beautiful place in North America. Keeping its natural infrastructure should be a matter of civic pride for all Texans. Clean and sustainable water is tantamount to survival for over a million Texans in this region and the diverse wildlife. We need to do all that can be done to sustain its long-term health. Continued education about the flora and fauna in the Hill Country is a way to galvanize interest in protecting this natural habitat.
- I have lived here for 20 years and have gotten more interested in conservation as the years pass. I've also been to almost every trail/park multiple times. In the cooler half of the year, this is what we do most weekends. If this project involves opening more land for public recreation, that would be welcome. But I also understand that setting aside undisturbed natural habitat may be just as important.
- I'm a staunch constitutional conservative who believes government Only exists to protect life, liberty and pursuit of happiness. However, to that end, the government has a responsibility to step in and curtail unchecked development and individual irresponsibility. I am not in favor of overreaching environmental regulations that hamper good business. But I am in favor of more responsible oversight in Texas to bring healthy & sustainable growth.
- I feel our county should provide more parks and trails that are free and accessible using the real estate taxes paid in our areas--pecially since that base has grown exponentially over the past 10 years with no new amenities and many closed to us regularly

- For the last 30 years my wife and I have tried to stay ahead of the population growth in the Hill Country. We moved from the outer edges of San Antonio to Bergheim to Spring Branch and then to Comfort, all in that attempt. We have watched as fields, farms, woodlands and wetlands have been destroyed in the name of "progress." We've witnessed native wildlife driven from the safety of their homes into areas where they are considered "pests." It's sad, but at this point we're resigned to the fact that the political will in this state sees little value in the natural world we inhabit and will continue to allow, no ... to encourage, its destruction until there's not much left. Thus we are looking beyond Texas, hoping to find a place where nature is valued, to go to next.
- 保护环境人人有责任, 空气好人就健康, , , 一起保护大自然吧 (Everyone has the responsibility to protect the environment. If the air is good, people will be healthy. Let's protect nature together.)
- Water resources are very important to human beings, so it is important and urgent to protect water quality, and it is very important to control the flow of industrial and agricultural wastewater into rivers, seas and rivers
- I love this land! Thanks for trying to protect it. I also think permaculture and regenerative agriculture need some focus in Texas!
- Thank you for the work you do. It's vitally important. Everyone is so stressed by the immediate concerns like covid, inflation, political upheaval...but the thing that matters most to our daily lives, health, survival and well-being is our water resources and environment. But because it's not an immediate crisis, Long-term planning to protect our water resources and natural infrastructure doesn't get the attention it deserves. There are thousands of us out here who see the slow crisis happening and yet we feel powerless to do anything. Your organization and work gives me hope!
- Surprised light pollution wasn't addressed. Bird migration is dependent on our limiting the amount of light escaping into the night sky. It also hinders our ability to view phenomenon of stars, planets and our moon.
- Thank you for this survey seeking community input. It shows you actually care what people are thinking. The problem with the Edwards Aquifer Habitat Plan I mentioned earlier is that there is little opportunity for the community to have input. A lot of money is being spent in altering the natural environment in ways that have been misrepresented to the people. I know this survey is not connected to that; I just have become frustrated with a program that has been promoted as protecting habitat, and I don't think that is what it is doing. Again, I appreciate the opportunity to have input.
- My concern is for the aquifers and the Rivers. I feel these 2 things deserve strict adherence to regulation. BUT getting local governance that will not be 'influenced' (money) by developers is difficult. imo, rivers and aquifers should be considered before all others.
- The question on how much would I be willing to spend is too vague. We already spend quite a lot in land and water stewardship on our own property that is beneficial to our neighbors and downstream community. What [I would] be unhappy to do is pay high taxes to fund another government entity.
- Urban sprawl and uncontrolled development are the two baseline issues driving the majority of the environmental impacts the hill country faces now and in the future.
- Things like Low Impact Development and stormwater best management practices like batch detention can help to treat and slow down water during and after rain events. We must work hard to ensure that cities and municipalities in our region adopt these into their UDC, so that new development will have proper infrastructure. We need to plan ahead. We do not want to have a Dripping Springs issue where we have to slow down development due to a lack of proper utilities. If we can play this right, we can have both development and improvements while keeping the culture of the hill country intact.

- We would really like to see more opportunities to engage young people in conservation-related, earn and learn experiences that will help them gain professional skills and access careers in the outdoors while taking part in making a positive difference across our region, such as already being done through programs like the Texas Conservation Corps or Austin Civilian Conservation Corps programs at American YouthWorks.

Supplemental Qualitative Data Analysis of Selected Community Survey Questions

Prepared by Sophia Cumplido-Wilson
January 2023

1. Executive Summary

The Community Survey for the Hill Country Land, Water, and Natural Infrastructure Plan is a central part of the project's overall engagement strategy. Over 2,800 community members participated in the survey between late May and early August 2022. Survey results and methods are summarized below.

1.2 Key Findings/Themes

- **Water is survey participants' greatest common feature amongst all the cited special places.** Specifically the top six most used relevant words about special places include four that are directly linked to water with rivers, lakes, creeks, and springs.
- **Both rivers and parks represent eight percent of total words in the responses, indicating a strong attachment to these types of natural areas.** State parks are also greatly valued and appeared the most frequently in the two word phrase analysis.
- **Water and water pollution are by far the greatest environmental concerns that have the biggest impact on survey participants and their families.** They are almost twice as frequently cited as the next top concern.
- **Major themes expressed respectively by order of importance (based on number of occurrences) are water, air, climate, the state of current resources and the sky.** These broader themes regroup subcategories that embody the complexity of these concerns. For example, the question of availability versus quality demonstrates different participants' perspectives and cause of distress.
- **Environmental concerns that impact participants and their families are highly interconnected.** Despite having the topic of water at the root of most concerns, it is deeply intertwined with almost all other themes.
- **Final thoughts provided further understanding of the community's frustrations, fears and hopes.**
 - Disgust and anger at urban sprawl and lack of construction regulation was salient.
 - Criticism around budget allocation and a call for environmental priority in terms of funding. A demand to redistribute political and urban planning power into the hands of the city and county was frequently mentioned. Desire to gain community control on how rural land is taken care of.
 - With extreme climate patterns becoming more common, the fear of consequences on health, living conditions and local flora and fauna was expressed throughout the answers.

- The frustration of individual-centric versus group-centric thinking and emphasized as being short term versus long term.
- Need for continued and shared responsibility for the current environmental situation. Demand for active involvement of big players and at the individual level through environmental education.
- The need to treasure the limited resources available in the Hill Country and the region's beauty and natural value.
- The importance of including local indigenous leadership in environmental preservation.
- **Light pollution was mentioned 66 times in the open-ended question for final feedback as being another key impact of urbanization of the Hill Country.** A phenomenon not covered in the options for “Which of the following have impacted people in your household in the past 10 years? (check as many as apply)”.

2. Methods for Qualitative Analysis

All responses were translated to English. Spanish responses were translated by a bilingual Spanish research assistant. Other languages (generally Chinese) were translated using Google Translate. Invalid responses such as non-word answers were excluded and counted as a non answer in the analysis. Text Analyzer, a software utility which calculates the most frequent phrases and frequencies of words, was applied to two of the open-ended questions concerning special places and concerns. Further analysis and graph generation was done in Excel and Cauliflower, an online software using advanced Natural Language Processing, a branch of Artificial Intelligence to identify the most important topics, their relevance, evaluation and relationships.

3. Detailed Survey Results

3.1 Special Places: Q16. What places in the Hill Country have the most special meaning to you?

A thousand nine hundred and thirty eight (1,938) people responded to this question mentioning special places.

The tables below show the frequency of relevant individual words and two word phrases about special places in the Hill Country and the percentage of respondents that indicated that specific word in their response (Table 1). Based on these results, bodies of water appear to be the most valued by the community as the four of the top six most frequently mentioned relevant words are directly linked to water (respectively rivers, lakes, creeks and springs). Both rivers and parks represent eight percent of total words in the responses, indicating a strong attachment to these types of natural areas. State parks are also greatly valued and appeared the most frequently in the two word phrase analysis.

The analysis was run for both individual words and two word phrases in order to account for multi-word locations and to differentiate specific locations mentioned. The words and phrases of special places were consolidated considering heterogeneity in describing the same places in the Hill Country. Punctuation marks as well as singular versus plural form were not distinguished. The cutoff at the top twenty words and two word phrases was chosen arbitrarily. The designation of “relevant” indicates that only key phrases were retained and linking words were excluded in the analysis. Results are in both table and graph form and percentages were rounded to the nearest hundredth decimal.

Table 1. Frequency of Relevant Individual Words About Places That Have Special Meaning in the Hill Country

Rank	Top relevant individual words	Occurrences	Percentage of Total
1	river(s)	635	4.33
2	park(s)	538	3.67
3	lake(s)	254	1.73
4	state	199	1.36
5	creek(s)	177	1.21
6	spring(s)	161	1.10
7	guadalupe	138	0.94
8	trail(s)	128	0.87
9	marcos	122	0.83
10	blanco	116	0.79
11	environment	112	0.76
12	natural	101	0.69
13	barton	88	0.60
14	good	87	0.59
15	canyon	86	0.59
16	hill(s)	84	0.57
17	water	80	0.55
18	nature	78	0.53
19	ranch	72	0.49
20	pedernales	70	0.48

Figure 1. Frequency of Relevant Individual Words About Places That Have Special Meaning in the Hill Country

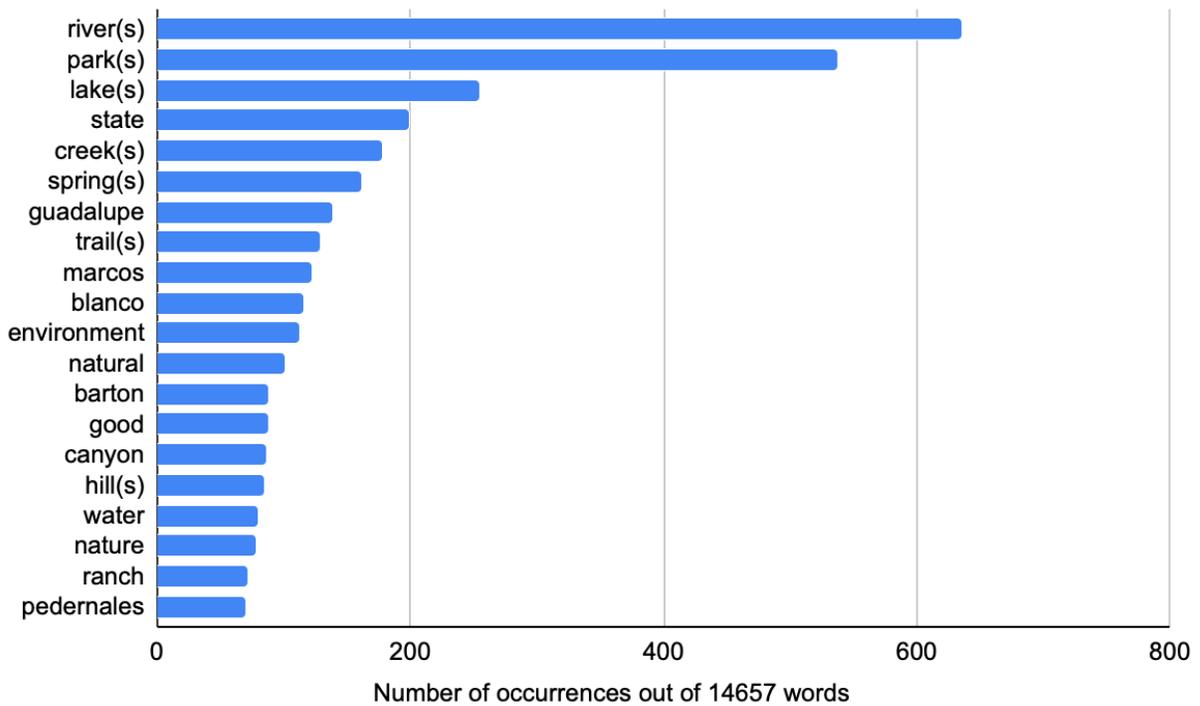


Table 2. Top Most Frequent Relevant Two Word Phrases About Places That Have Special Meaning in the Hill Country

Rank	Top relevant phrases containing two words	Occurrences
1	state park	165
2	guadalupe river	156
3	san marcos	129
4	blanco river	109
5	barton springs/creek	95
6	canyon lake	86
7	jacob's well/river	71
8	the environment	70
9	blue hole	63
10	enchanted rock	63
11	hill country	50
12	natural area(s)	44
13	pedernales falls	44
14	hamilton pool	39
15	creek greenbelt	34
16	llano river	31

17	lost maples	27
18	san antonio	26
19	frio river	26
20	cibolo nature	25

3.2 Environmental Concerns: Q17. What environmental concerns have the biggest impacts on you and your family?

Two thousand and forty seven (2,047) people elaborated on this question focused on environmental concerns.

The following tables represent the frequency of relevant individual words and two word phrases about environmental concerns in the Hill Country. Both analyses reveal that water and water pollution are by far the greatest environmental concerns that have the biggest impact on survey participants and their families. These two topics of worry are almost twice as frequently cited as the following concern in rank two.

Both individual words and two word phrases of responses were analyzed to gain insight on subcategories of broader concepts such as pollution and quality. Importantly, examining two word phrases revealed more specific concerns linked to air, water or the sky for example. Phrases that were separated by linking words such as “air and water pollution” or “pollution of water” were regrouped with their corresponding environmental concept. The software Text Analyzer is insensitive to punctuation which was accounted for in order to avoid double counting when studying the two word phrases. The cutoff of the top most frequently used words and phrases was chosen arbitrarily.

Table 3. Top 10 Most Frequently Used Relevant Words About Environmental Concerns in the Hill Country

Rank	Top relevant individual words	Occurrences
1	water	1090
2	pollution	595
3	air	317
4	heat	270
5	quality	212
6	development	192
7	extreme	171
8	environment	150
9	drought	147
10	flood	125

Table 4. Top 50 Most Frequently Used Relevant Words About Important Environmental Concerns in the Hill Country

Rank	Top relevant individual words	Occurrence
1	water	1090
2	pollution	595
3	air	317
4	heat	270
5	quality	212
6	development	192
7	extreme	171
8	environment	150
9	drought	147
10	flood	125
11	fire	107
12	climate	96
13	river	92
14	change	91
15	wildlife	86
16	flooding	82
17	access	76
18	supply	73
19	light	66
20	wildfire	63
21	aquifer	60
22	resource	59
23	population	59
24	clean	57
25	urban	56
26	polluted	47
27	growth	39
28	weather	38
29	global	36
30	warming	32
31	drinking	31
32	nature	29
33	health	29
34	destruction	27
35	waste	25
36	building	24
37	sprawl	23
38	traffic	22
39	soil	21

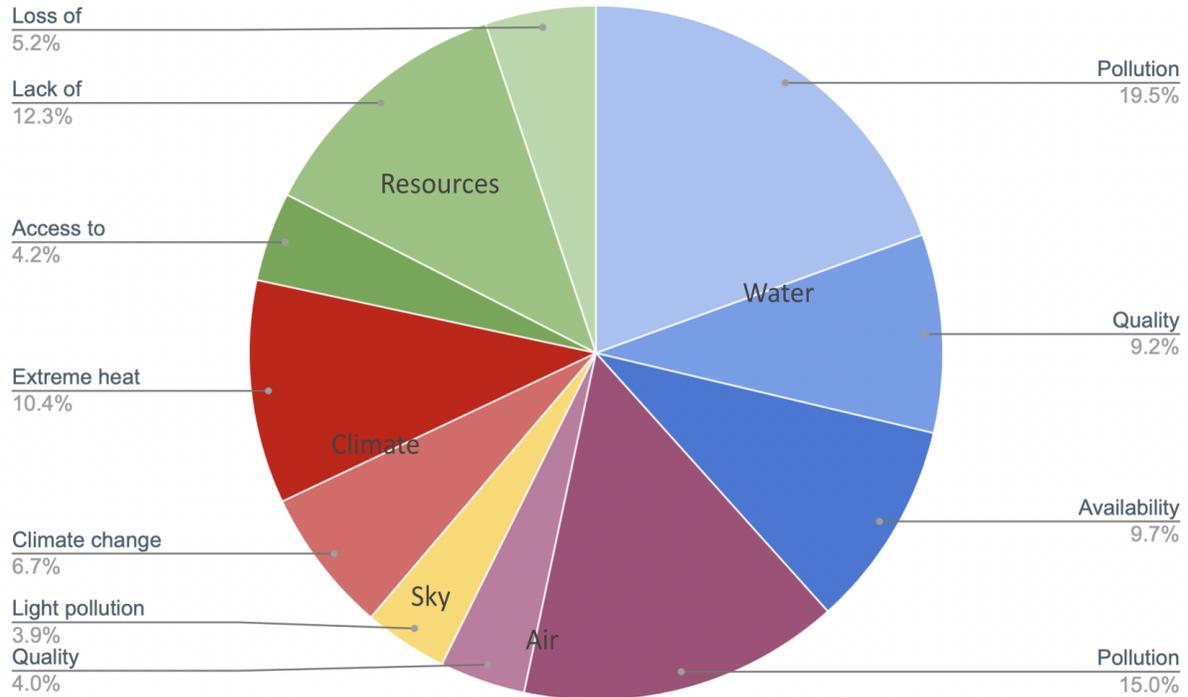
40	overdevelopment	20
41	safe	19
42	plant	18
43	temperature	18
44	native	16
45	preservation	16
46	construction	14
47	road	14
48	local	14
49	scarcity	14
50	disaster	12

Table 5. Top Most Frequent Relevant Two Word Phrases About Environmental Concerns in the Hill Country

Rank	Top relevant phrases containing two words	Occurrences
1	water pollution	234
2	air pollution	180
3	lack of	148
4	extreme heat	125
5	water quality	111
6	climate change	81
7	loss of	62
8	water supply	62
9	water availability	54
10	access to	50
11	air quality	48
12	light pollution	47

The word and phrase frequency revealed several key themes and their various facets. The graph below emphasizes survey participants' concerns centered respectively by order of importance (based on number of occurrences) on water, air, climate, the state of current resources and the sky. These broader themes are broken up into subgroups which provide further information about the elements highlighted by various participants. Similarly to the special places analysis, water is at the core of environmental concerns that impacts survey participants and their families representing more than a third of the overall themes (38.4%).

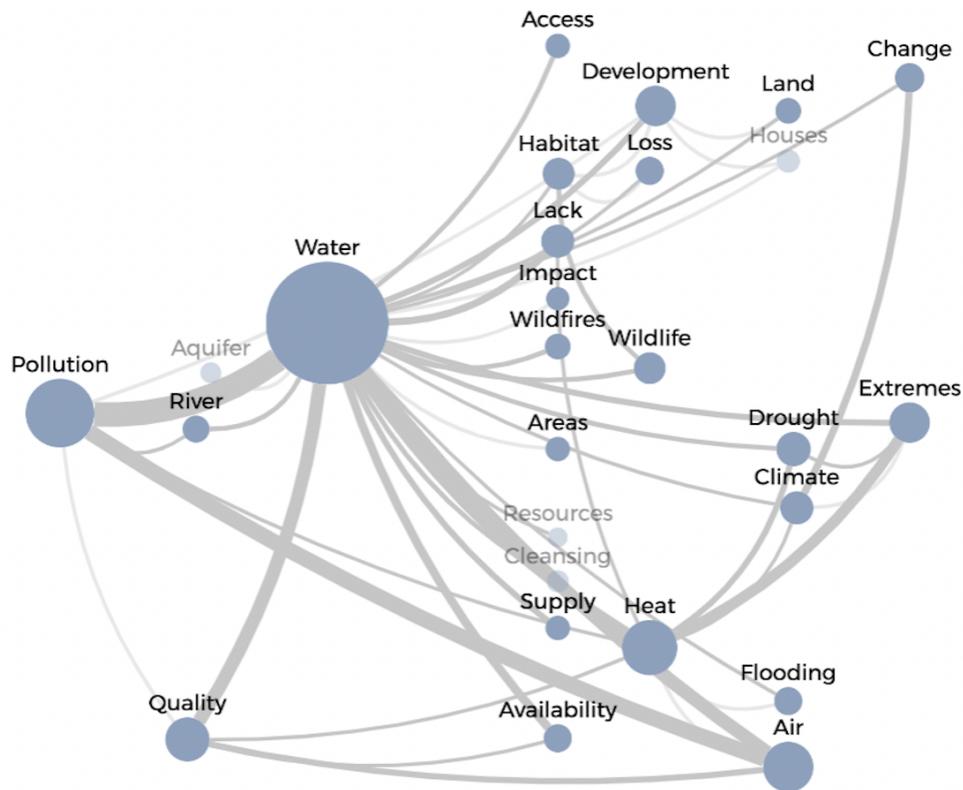
Figure 2. Thematic Analysis of Environmental Concerns in the Hill Country



The following graph underlines the interconnectivity of these environmental concerns. These are not individual or isolated topics and more so a cluster of major concerns closely interlinked. It is clear again that water is at the heart of this thematic web as it is associated with almost all other dots.

The network shows the connections between the top 30 topics. The size of the dot indicates the share in the survey responses as a whole. A connection between two topics indicates the common occurrence in survey responses. The thickness of the connecting lines indicates the frequency of co-occurrence.

Figure 3: Network of how Individual Topics of Environmental Concerns are Related



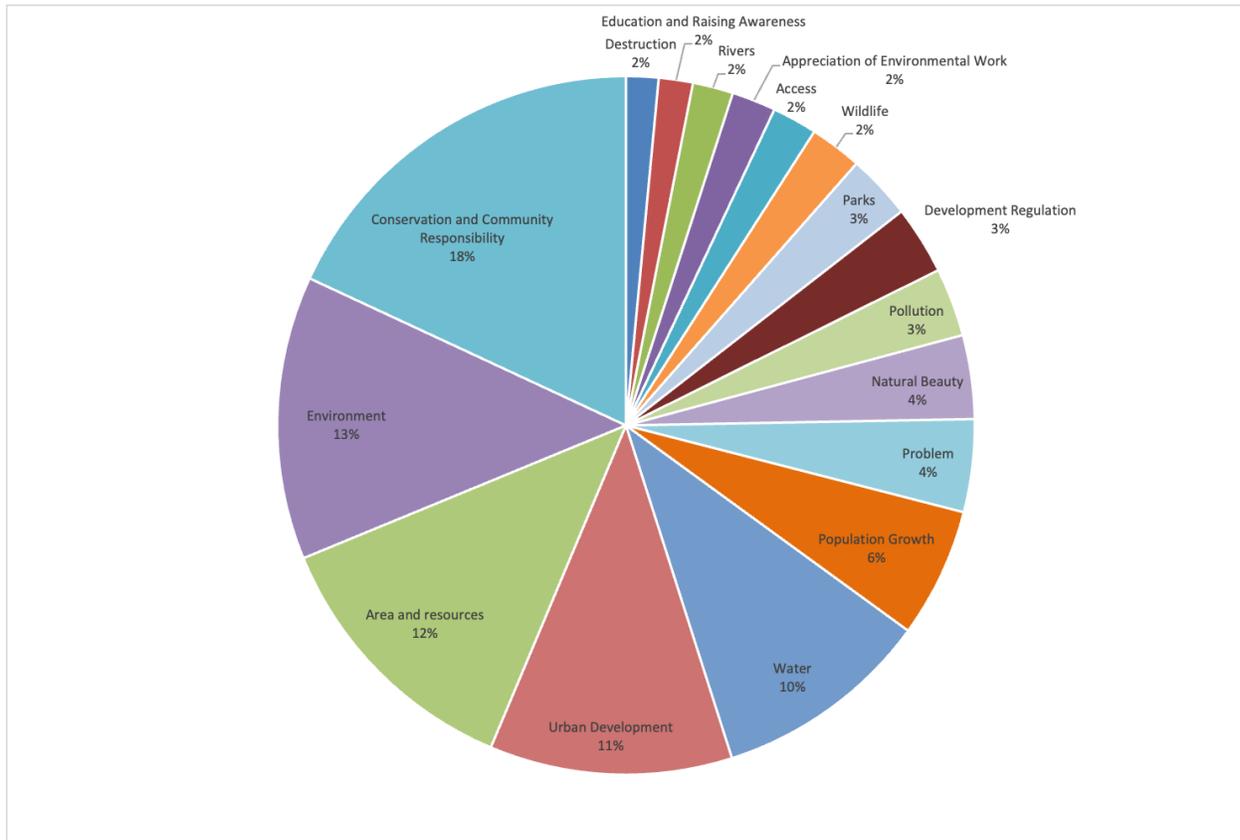
3.3 Final Thoughts: Q28. Do you have any final thoughts you would like to share?

A thousand five hundred and fifty six (1,556) people responded to this question providing additional thoughts on the topic of the Hill Country and the Community Survey for the Hill Country Land, Water, and Natural Infrastructure Plan.

Many participants highlighted the essentiality of protecting water and local wildlife habitat, the need for education in order to raise awareness and increase environmental behaviors, concern around perceived climate changes and finally a call for greater involvement of influential players such as elected officials and state agencies.

Most final thoughts conveyed strong emotions such as shock, sadness, concern, fear and disgust at the lack of regulation of urbanization as well as admiration and love of their natural surroundings.

Figure 4: Thematic Analysis of Final Thoughts Shared by Participants



3.4 Representative Quotes

Some quotes were selected out of the 1,556 participants who answered this question. Those responses are shown below and were chosen according to various criteria such as summarization of frequently mentioned concepts, striking facts or observation, and powerful analogies. These quotes are an attempt at directly voicing the emotionality linked to the Hill Country and the current natural and urban circumstances.

- *Educate schools, churches and neighborhood associations*
- *it's crucial to follow indigenous leadership when carrying out these projects. There's no restoration of the land without restoration of the people who have always been native to it*
- *I find the general public to be ignorant and/or misinformed about climate change and ecosystems. Many Americans can't tell you where their water supply comes from, other than "the faucet". Public education and information must be forthcoming and immediate*
- *...holding elected officials accountable.*
- *Regional wide stewardship based on ecological systems and not human constructs is essential to maintain sustainable natural systems*
- *We have watched as fields, farms, woodlands and wetlands have been destroyed in the name of "progress." We've witnessed native wildlife driven from the safety of their homes into areas where they are considered "pests."(It's sad, but at this point we're resigned to the*

fact that the political will in this state sees little value in the natural world we inhabit and will continue to allow, no ... to encourage, its destruction until there's not much left.)

- *Stop allowing big corporate money to take over the natural landscape.*
- *I'm so concerned about all the round-up and glyphosate seeping into the lake for all of us to drink.*
- *Protecting the environment is everyone's responsibility.*
- *To protect nature is to protect ourselves.*
- *It is very important to control the flow of industrial and agricultural wastewater into rivers, seas and rivers.*
- *Please consider investing in programs working with our youth. In order to save our natural world, we need to be educating all children and providing them immersive experiences in nature so that they grow a love that inspires them to protect our precious planet. Our current young population spends even more time indoors on screens than even 5 years ago.*
- *At the very least if building new homes is not going to be controlled there should be restrictions placed on new builds such as xeriscaping for yards, no sod and no sprinkler systems and grey water usage put in place if possible.*
- *Stop urbanization of rural ranch lands.*
- *I don't feel our leadership communicates the idea in this low-information area that protecting our environment takes the whole village.*
- *I feel the biggest threat to our Hill Country is unregulated widespread development.*
- *Our tax dollars need to be prioritized to protect our resources. Elected officials need to be held accountable.*
- *Natural resources should be handed on to the next generation intact.*
- *Xeric lawns: we need to help the traditional lawn grass and mulch industry transition to native drought tolerant plants.*
- *If developers get a free pass to do anything they want this whole area will become Austin and Dripping Springs. Blanco County is really in trouble with all these developments being planned, as is Gillespie County. They will make their money and move on. Leaving us to clean the rivers, find water, care for our wildlife and hope we can still see the stars.*
- *The exceptionally fast and poorly designed growth in the hill country is heart wrenching.*
- *The state needs to allow the counties to have more control over development of rural lands.*
- *We went to Stage 3 water restrictions on the first day of Summer.*
- *I'm angry about the corporate and municipal greed and shortsightedness*
- *Everyone is so stressed by the immediate concerns like covid, inflation, political upheaval...but the thing that matters most to our daily lives, health, survival and well-being is our water resources and environment. But because it's not an immediate crisis, Long-term planning to protect our water resources and natural infrastructure doesn't get the attention it deserves.*
- *State agencies such as Texas A&M Forest Service, Texas AgriLife, Texas Railroad Commission, GLO, TCEQ, Texas Highway Dept etc need to advocate for stream protection. It's everybody's job.*
- *Our property taxes are excessive. They're increasing 10%/ year.*
- *Let the community decide. The less bureaucratic involvement the better.*

- *Someone needs to do something yesterday before there is no longer a viable, beautiful Texas hill country. This growth was talked about in the 80's during by New Braunfels Chamber members many times yet not much was done.*
- *Texas needs to change the water laws. The "biggest pump wins" is criminal.*
- *The problem is allocation of funds.*
- *The projected increase in the population of Texas from 20 million to 50 million people in 10 years is disturbing.*
- *Growth for the sake of growth is the ideology of a tumor. We need to be smart and think about the future BEFORE it is a problem, not after.*
- *I prefer to donate to existing private environmental and conservation organizations than to vote for funding that may be re-directed.*
- *How do we shift a whole culture from self-oriented to other-oriented? If we considered all those around us we could solve these problems quickly... because people would all care.*
- *This unplanned, unregulated, fast and chaotic urbanization is ecocide, suicide, and homicide all rolled into one ball.*
- *The Texas Hill Country is a "lovely" place, but we're loving it to death.*
- *Selfish focus on "freedom" and not on "responsibility" drives many of the issues this state is facing.*

4 Additional Feedback & Notes

- *#19 is a challenging question. While more funding is always needed for conservancies to do great work if local and state development and redevelopment and environmental policies are not supporting the same missions it's a wash. Development in the hill country will happen. Emphasis on working with counties and cities to adjust development requirements is critical to this discussion. Unfortunately we will have NIMBY to development but it's happening and proactive policy and requirements for green space preservation, lighting requirements, green infrastructure, etc should all be on the table. Additionally the minimal public lands is sad and an embarrassment in this state. Finding ways to land bank property that can have public, environmental, and economic benefits should be a priority.*
- *On question 10- I agree they all help, but feel "natural" was misleading. Most require human action/intervention to occur in our area. ***More small neighborhood parks would be beneficial.*
- *Several requests to mention light pollution in the survey.*
- *One request to have a "prefer not to state" option for salary/ethnicity/race*
- *Question on financial contribution*
 - *The question on how much would I be willing to spend is too vague. We already spend quite a lot in land and water stewardship on our own property that is beneficial to our neighbors and downstream community. What If be unhappy to do is pay high taxes to fund another government entity.*
 - *How much I'd be willing to spend would directly depend on whether I thought the programs were reasonable, practice, and effective.*
- *Overall Feedback/Suggestions about survey*

- *I hope this survey will be promoted to/and completed by persons who vote and who live in more urban communities -- it's important to assess their understanding and awareness of the need for LWNI. Thank you.*
- *Your classification of grasslands as good for pollinators and erosion control and forests as good for water supply is grossly misinformed and misinforming. The rhetoric that characterizes these issues in the Hill Country is embarrassing. Taking this survey reveals that THCCN is an active part of the problem.*
- *-Thank you for your work! I think it would be great to coordinate with Williamson County to create another conservation group for that small corner of the Edwards plateau (San Gabriel Rivers). Might be too late with the rapid development, but I think there is still opportunity.*
- *Why are you using the term natural infrastructure instead of green infrastructure? Seems counterintuitive to the broader movement. Broad support from a large coalition of organizations should be involved. Check out the interwine.*