

An aerial photograph of a river meandering through a lush green valley. The river flows from the upper left towards the lower right, forming several loops and curves. The surrounding landscape is a mix of vibrant green fields and some brownish patches, possibly indicating different types of vegetation or land use. In the background, a range of mountains stretches across the horizon under a clear blue sky. The overall scene is a natural, rural landscape.

# A Generational Comparison of Restoration Perceptions in the Scott River Watershed in California

Caden Gallagher, Lindsay Coutts & Ashley Robertson

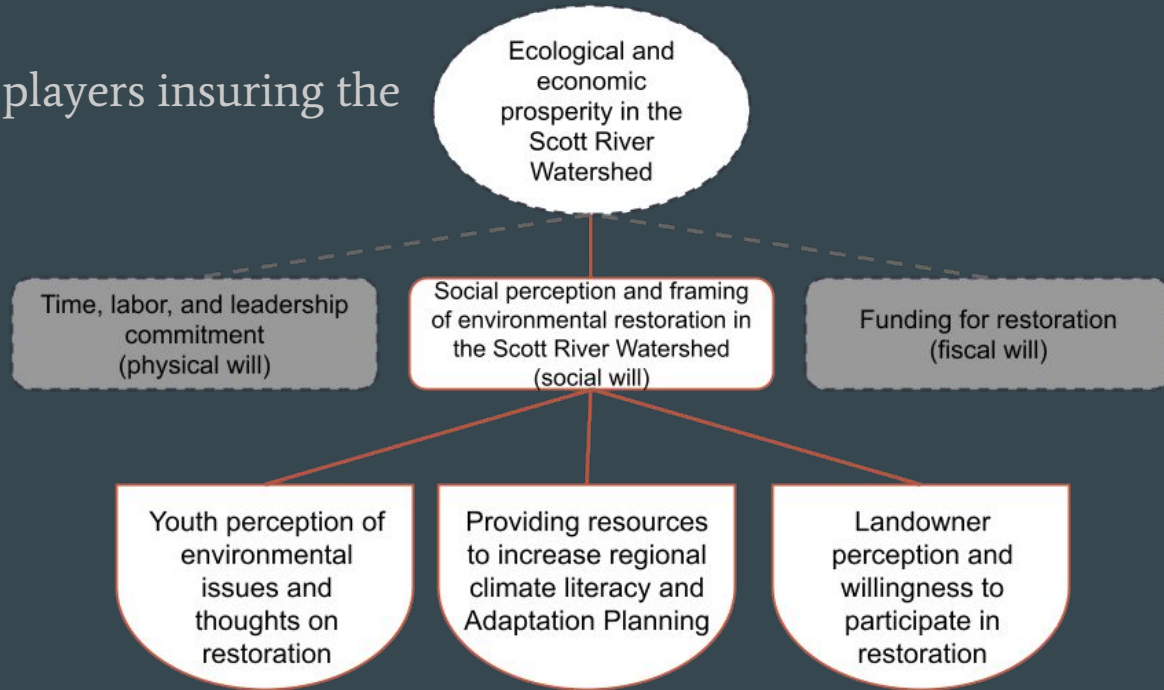
# Need for Improved Social Understanding

Community involvement is vital to restoration in the SRW

Scott Valley landowners are key players insuring the future vitality of the Scott River

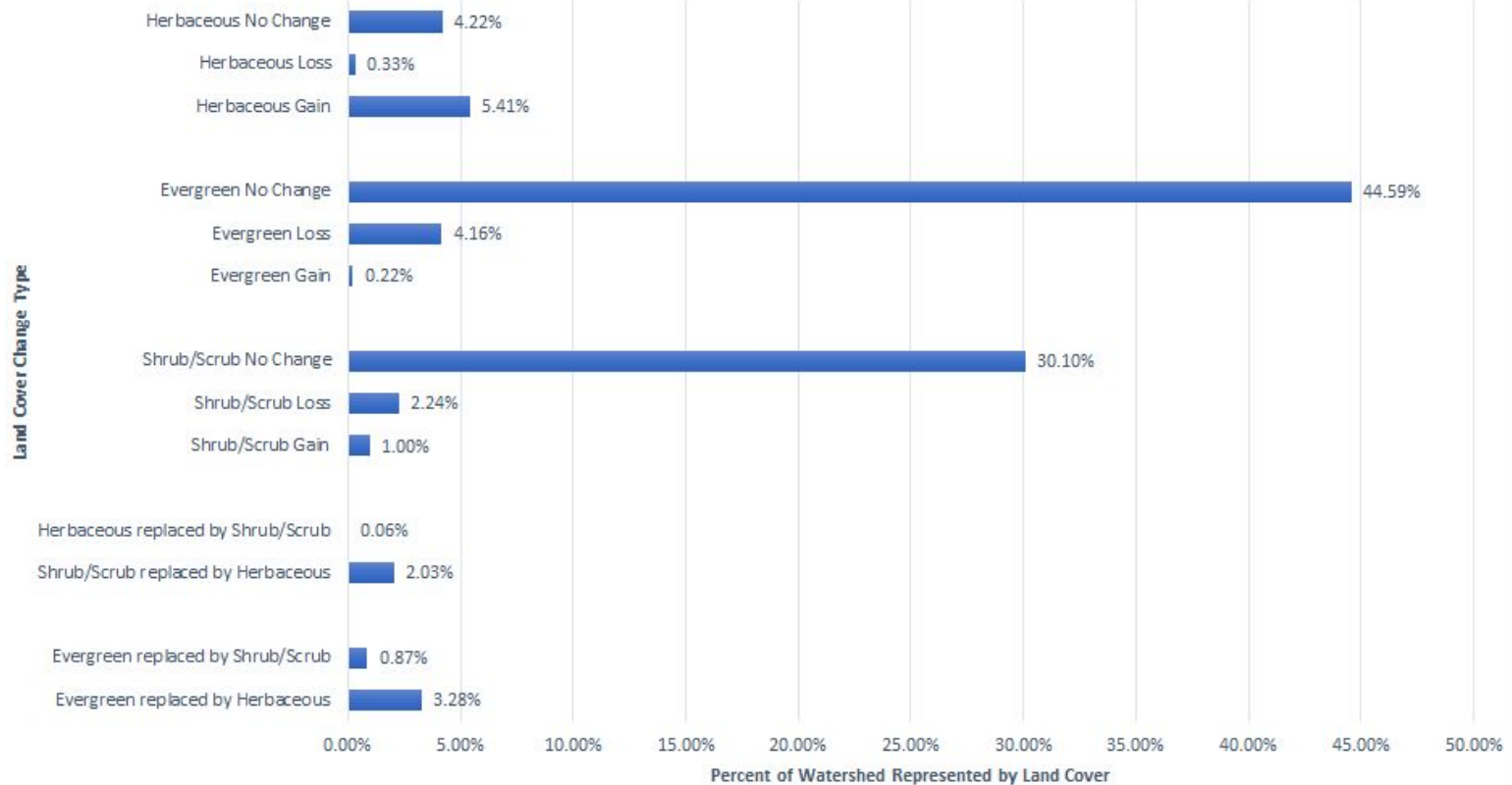
Climate change projection:

[Web App Link](#)



# Vegetation Change Maps

## Percent of Vegetation Land Cover Change by Total Land Area in the Scott River Watershed from 2001 to 2016



Evergreen

Map Sur

Legend

Evergreen Change 2001 to 2016

- Gain from 2001 to 2016
- Loss from 2001 to 2016
- No Change
- Scott Valley Watershed

Cartin Gallagher  
March 14, 2017  
Data received from the Multi-Resolution Land  
Cover Consortium  
NAD 1983 UTM Zone 10N  
Bluesky Project  
Created Using ArcGIS Pro by Esri

0 5

Change to 2016

N

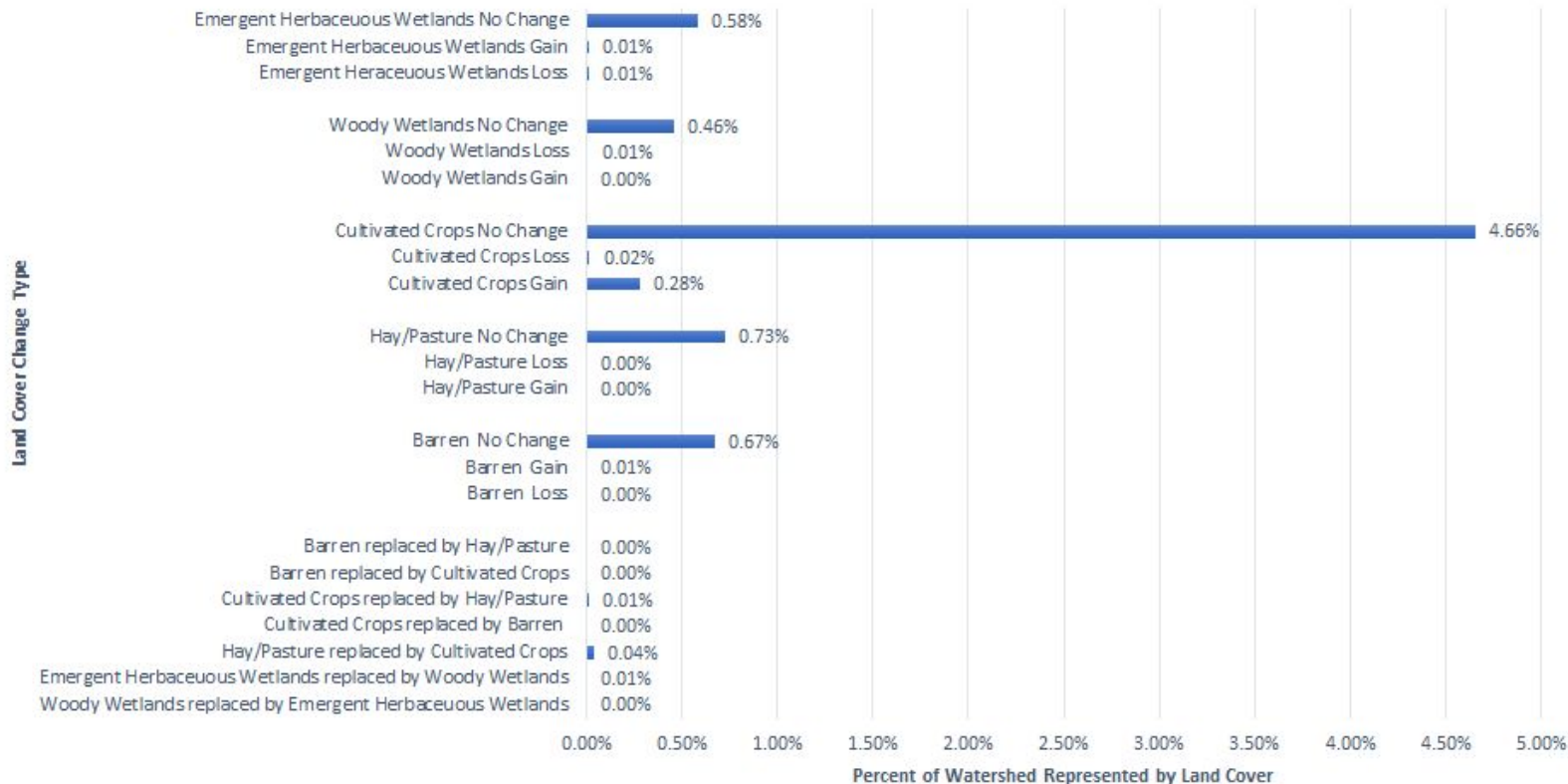
Terratech Geographics

# Agriculture and Wetlands Change Maps

## Agriculture and Barren Land Cover Change

Map Summary: Barren, Hay/Pasture, and Cultivated Crops land cover

### Percent of Agriculture and Wetland Land Cover Change by Total Land Area in the Scott River Watershed from 2001 to 2016



DEM Elevation Program, County Dataset, National Hydrography Dataset, National Transportation, USFS Road Line data, USFS Road Information Unit, U.S. Coastal Relief, refreshed May, 2020.



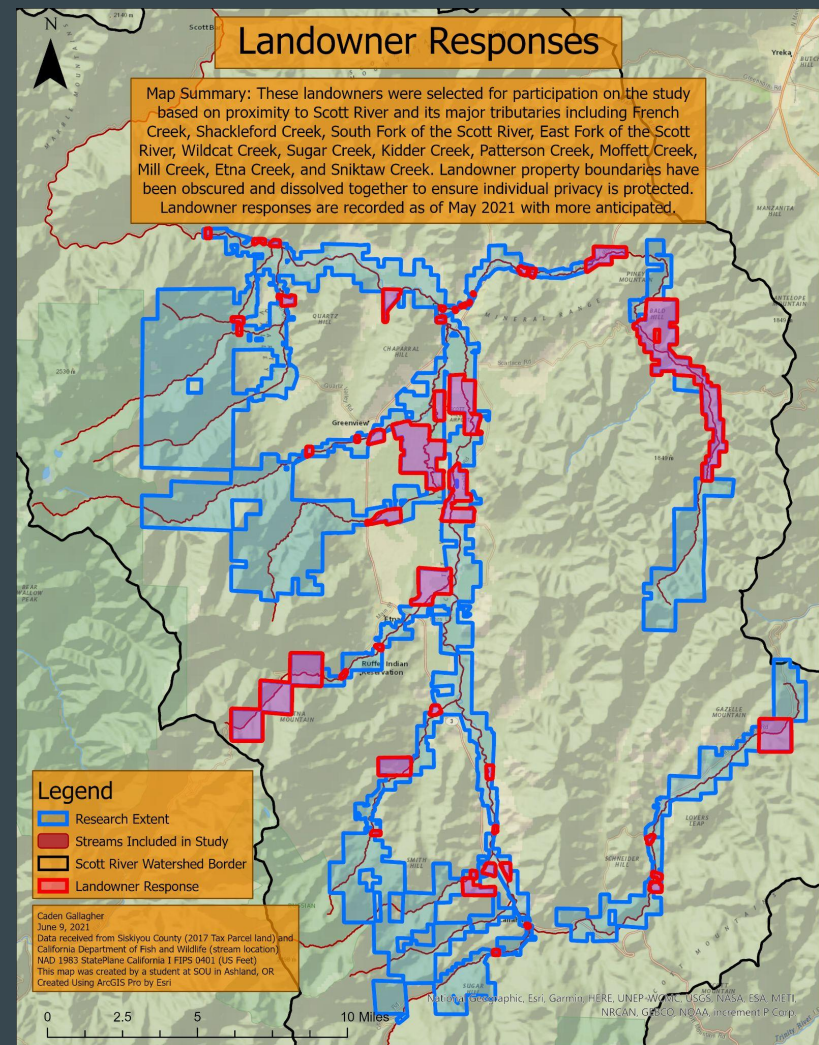
# Landowner Selection & Response

Landowners were selected based on proximity to major tributaries of the Scott River

More than 40 landowners responded

Landowner responses were received from across the SRW

Responses were collected through August 2021 and not included in this study after June 2021



# Methodology

Survey of two generations:

- Students - online survey
- Landowners - printed and mailed out

Purpose:

- Do the two groups have similar opinions?
- Are high school-aged kids going to be the future landowners in the SRW?

# Institutional Review Board (IRB) Process

IRB- a necessary process when human subjects are included in a study

Students:

- Parent consent form- “opt-out”
- Student assent form

Landowners:

- Consent form to be mailed back with survey

# Research Questions

- How do landowners and high schoolers of the Scott River Watershed view restoration projects?
  - Do landowners and high schoolers see environmental issues as personal responsibility or a community responsibility or the responsibility of people at all?
  - How do landowners and high schoolers view the effect of landscape restoration on watershed productivity and community prosperity?
  - Do landowners and high schoolers hold value to the land similar to the way value is placed on community and family?
  - What role do private landowners see themselves in environmental restoration?



## Scott River Watershed Natural Resource Perception Survey

This survey was created in collaboration with Southern Oregon University senior undergraduate Capstone students and the Scott River Watershed Council. We appreciate your help in better understanding how residents of the Scott River Watershed think about natural resources issues. Your response is confidential. We appreciate your time in benefiting Scott Valley.

*'Watershed' (noun): a region or area bounded peripherally by a divide and draining ultimately to a particular watercourse or body of water.*

++ Please respond to the following statements in relation to the Scott River Watershed:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion
1. Individuals should be allowed to use private land for any purpose without government regulation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Landowners should be allowed to utilize wetlands for agricultural or industrial uses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The government should regulate private land use to conserve natural resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Agriculture supports the management of natural resources in the Scott Valley.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I support restoration efforts in the Scott Valley directed by external agencies (non-private landowners).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I support restoration efforts on my property in Scott Valley.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I feel watershed restoration efforts in Scott Valley are necessary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Watershed restoration efforts organized by external agencies (non-private landowners) in Scott Valley will positively affect the financial prosperity of the Scott Valley.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Humans should play a role in the management of natural resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I feel that fishing is an important resource management activity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I feel timber harvest is an important resource management activity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I feel hunting is an important resource management activity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I feel that habitat for certain species should be protected on private property.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. It is my responsibility to help solve natural resource problems in the Scott Valley.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. It is my responsibility to help solve natural resource problems globally.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. The health of the Scott River Watershed affects my health.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I value my close family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I value my community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19. I value the land I live on.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. I feel attached to Scott River due to its visual and aesthetic beauty.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. I feel attached to Scott River due to its association with my family and community heritage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. I feel attached to Scott River due to how it is utilized and financially valued.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. My community and I have a connection/relationship to our local landscapes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. I do not want beavers living on or near my property.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Current laws regarding water quality are much too strict.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. I have immediate family members who live in the Scott Valley outside of my home.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. I plan to continue living in the Scott Valley for the foreseeable future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In the Scott River Watershed, how big of a role should each of these groups play in ensuring that we have a healthy environment?

	Not Responsible	Less Responsible	Somewhat Responsible	More Responsible	Very Responsible	No Opinion
Industry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Government	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental Non-profits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Individuals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (If Applicable): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please rank who you feel should be responsible for making sure that we have a healthy environment in the Scott River Watershed. (1= Most Responsible, 6 = Least Responsible)

\_\_\_\_\_ Industry \_\_\_\_\_ Government \_\_\_\_\_ Environmental Non-profits  
 \_\_\_\_\_ Individuals \_\_\_\_\_ Other (If Applicable): \_\_\_\_\_

In years, how long have you lived in Scott Valley? (Please only respond if you live in the Scott River Watershed) \_\_\_\_\_.

In years, how old are you? \_\_\_\_\_.

For further questions, comments, or concerns please contact researchers: Principal and Supervising Investigator, Vincent Smith, [smithv@sou.edu](mailto:smithv@sou.edu), Co-Investigator, Lindsay Coum, [couml@sou.edu](mailto:couml@sou.edu), Co-Investigator, Caden Gallagher, [gallaghec@sou.edu](mailto:gallaghec@sou.edu), Co-Investigator, Ashley Robertson, [robertas@sou.edu](mailto:robertas@sou.edu).

# Results

Six categories:

Demographics

Value and Attachment of the Land

Restoration Support

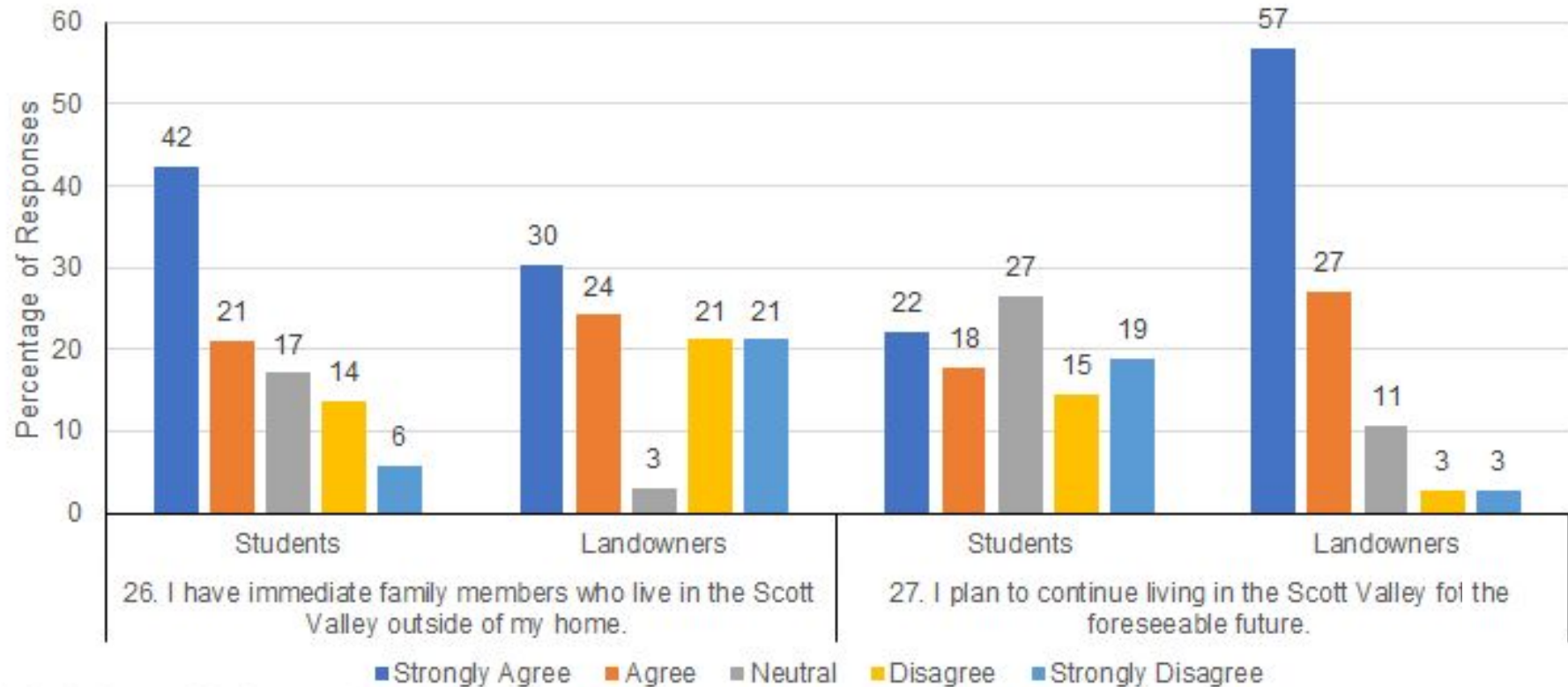
Natural Resource Management

Property Rights

Responsibility for the Health of the Environment

40 landowners and 130 students responses were analyzed

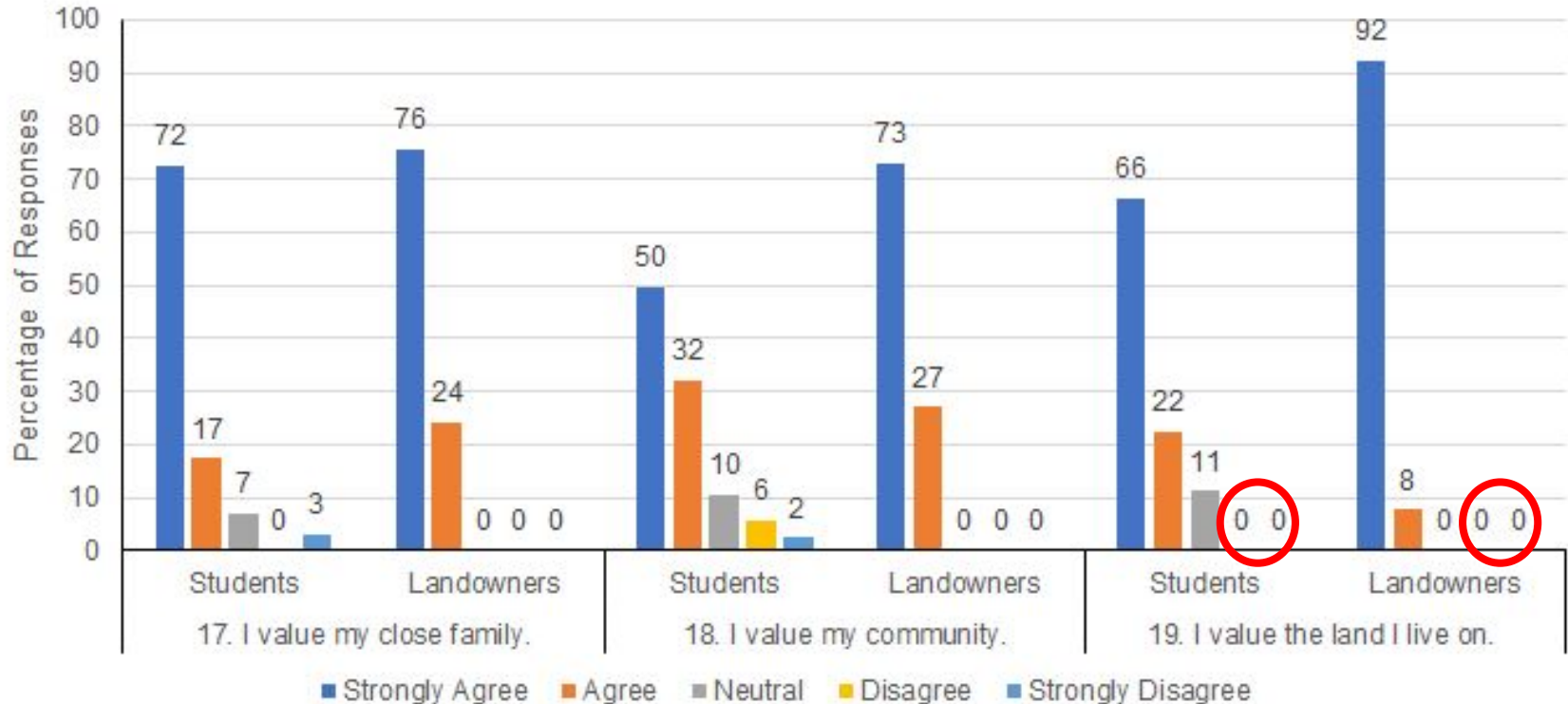
## Demographics



All values have been rounded to the nearest whole number

# Value and Attachment of the Land

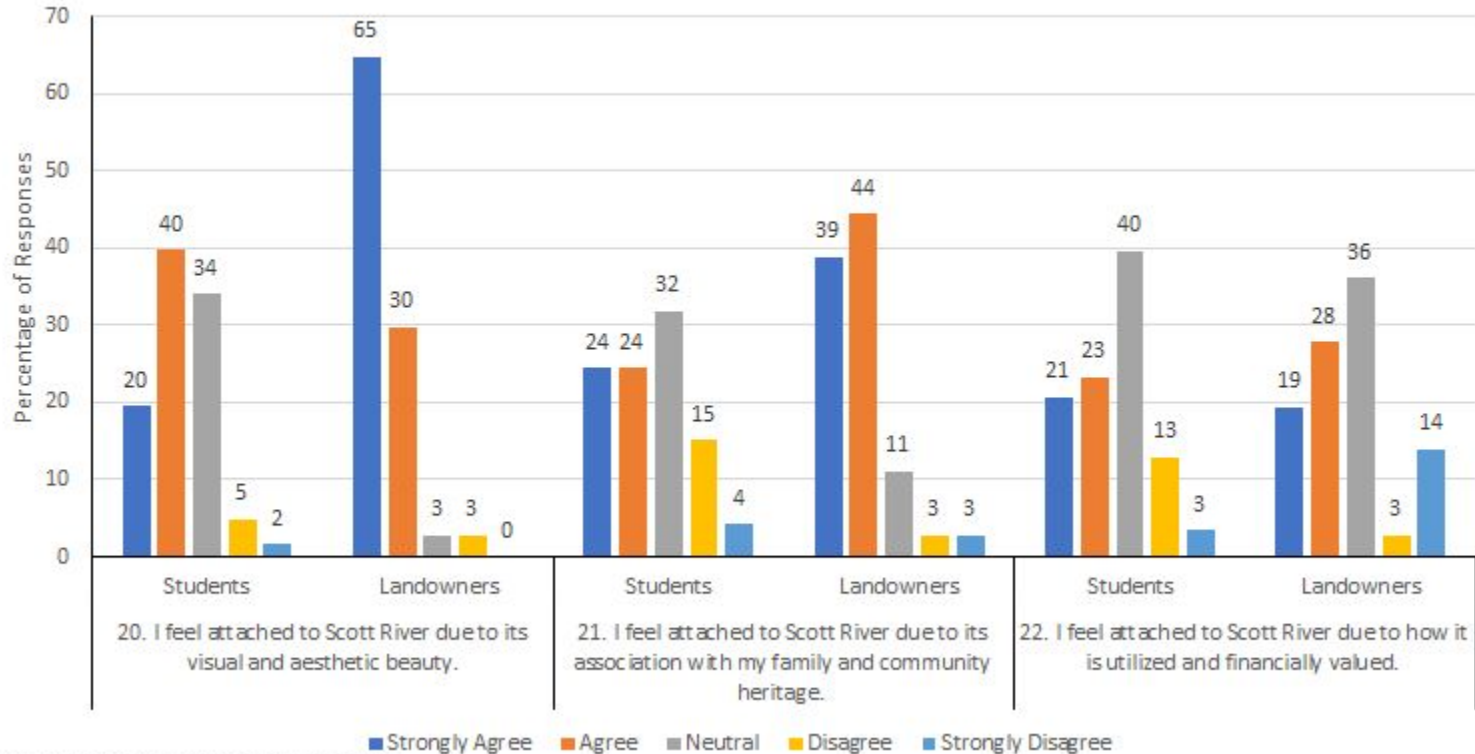
## Value



All values have been rounded to the nearest whole number

# Value and Attachment of the Land

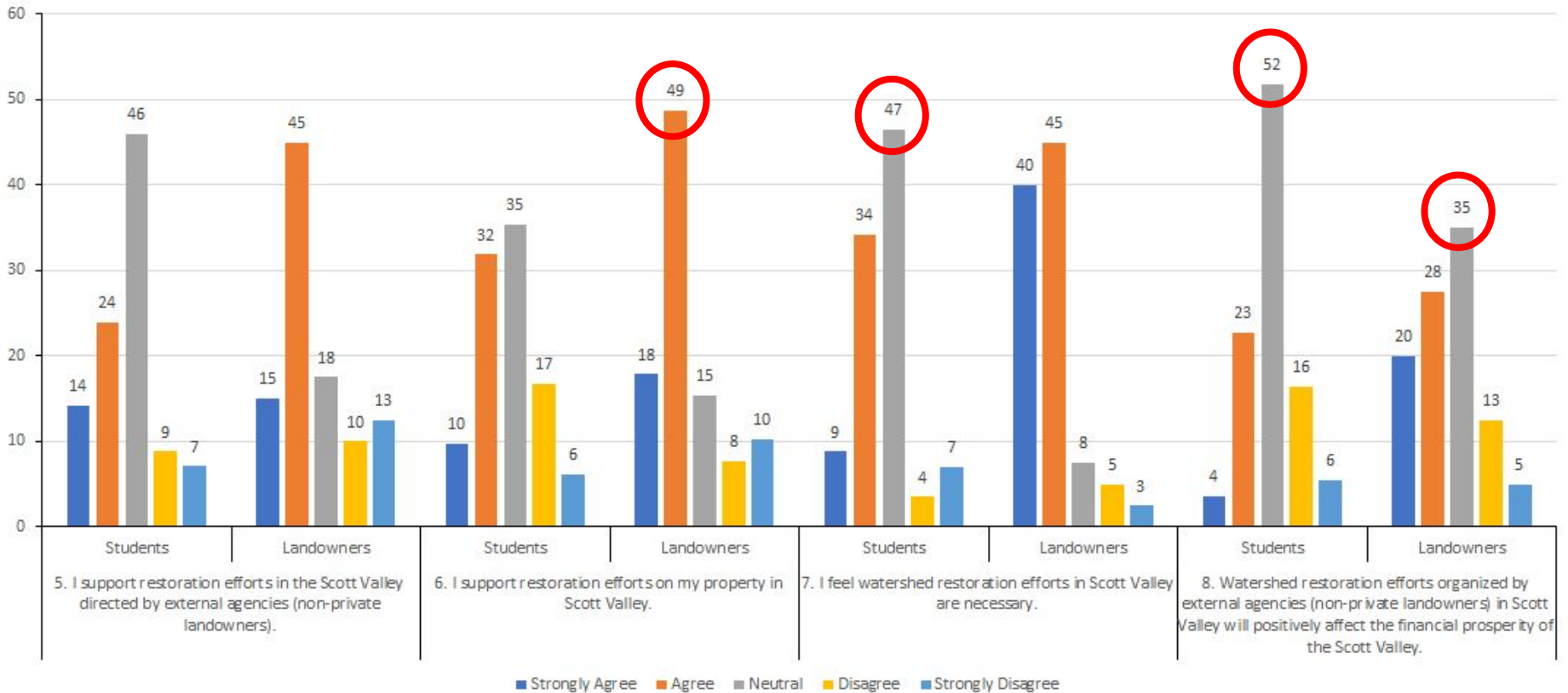
## Attachment



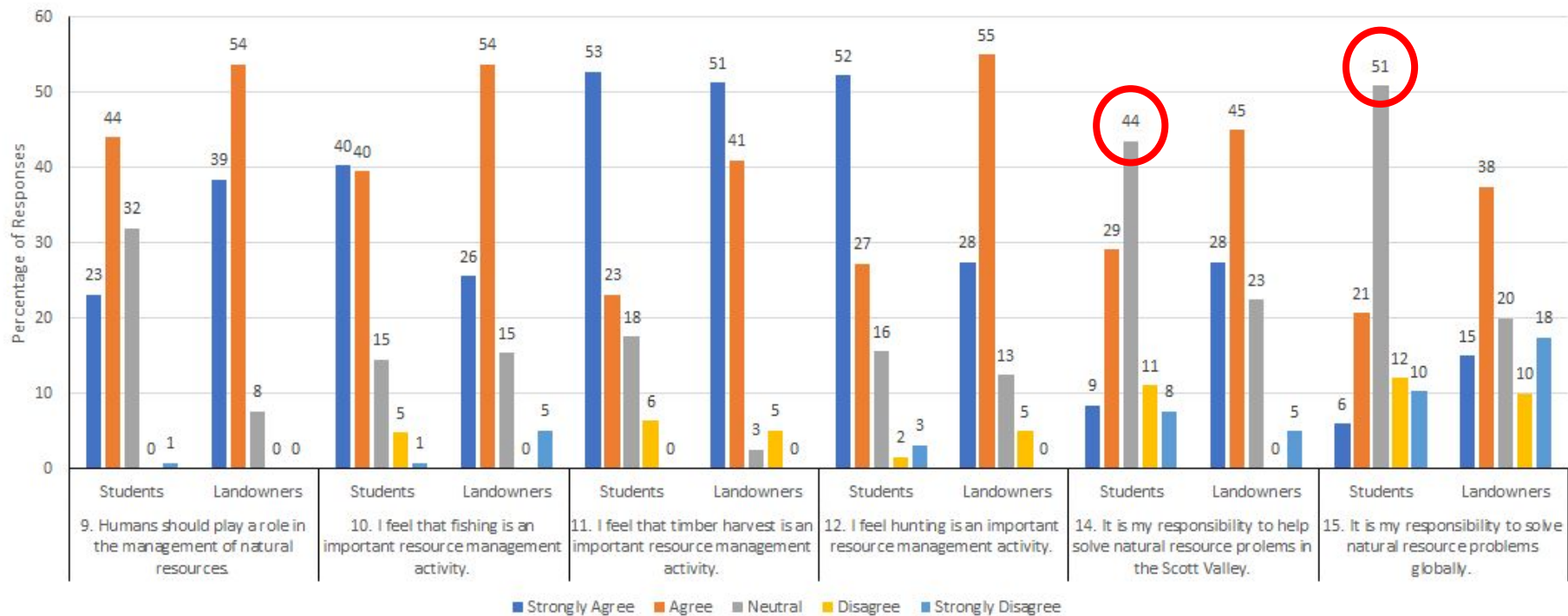
All values have been rounded to the nearest whole number



## Restoration

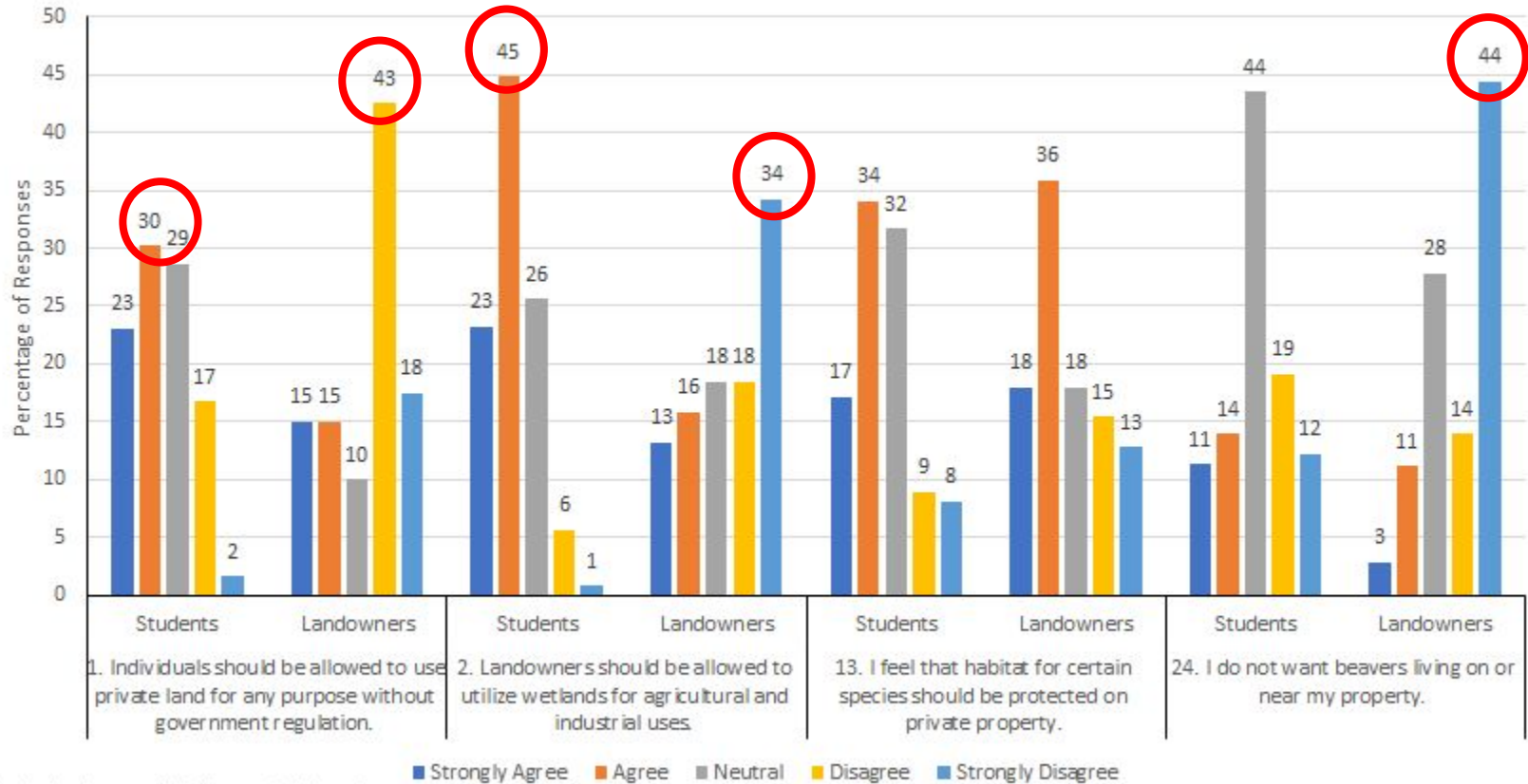


## Natural Resource Management



All values have been rounded to the nearest whole number

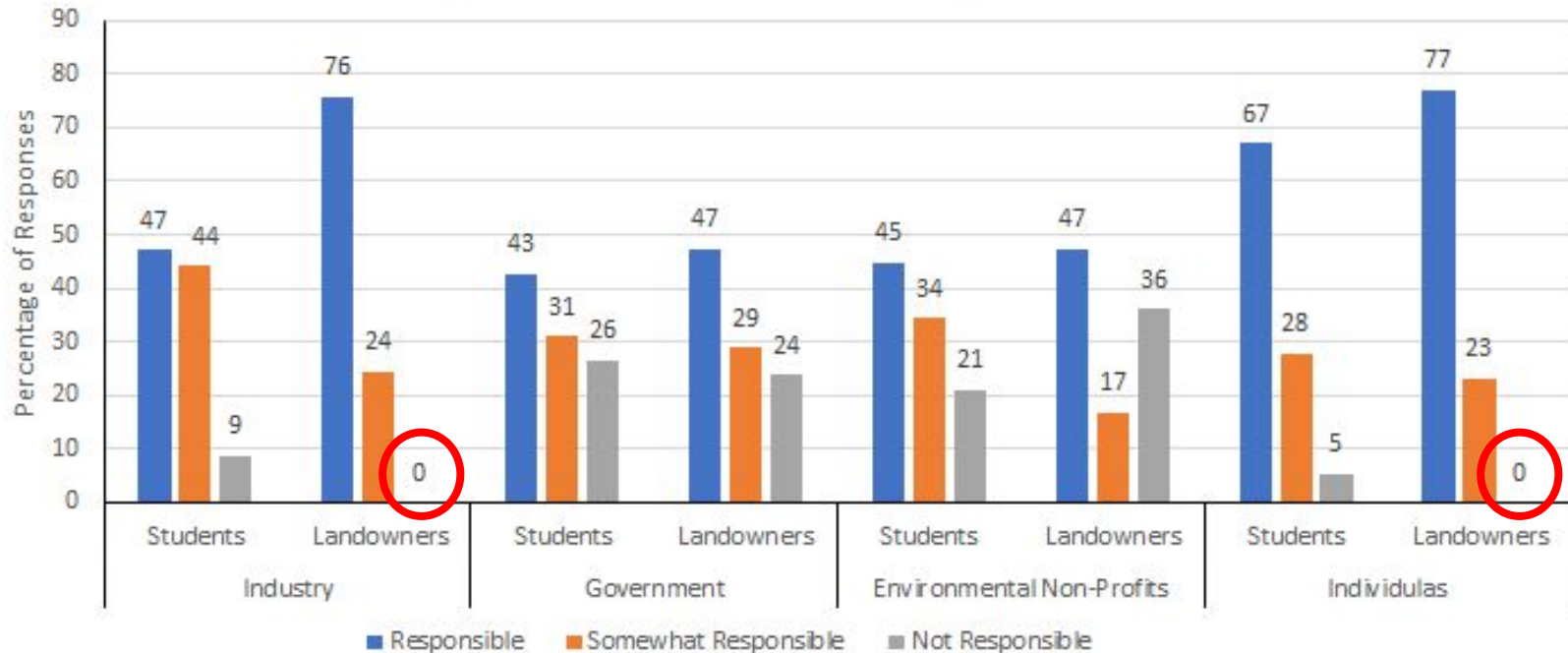
## Property Rights



All values have been rounded to the nearest whole number

# Responsibility for the Health of the Environment

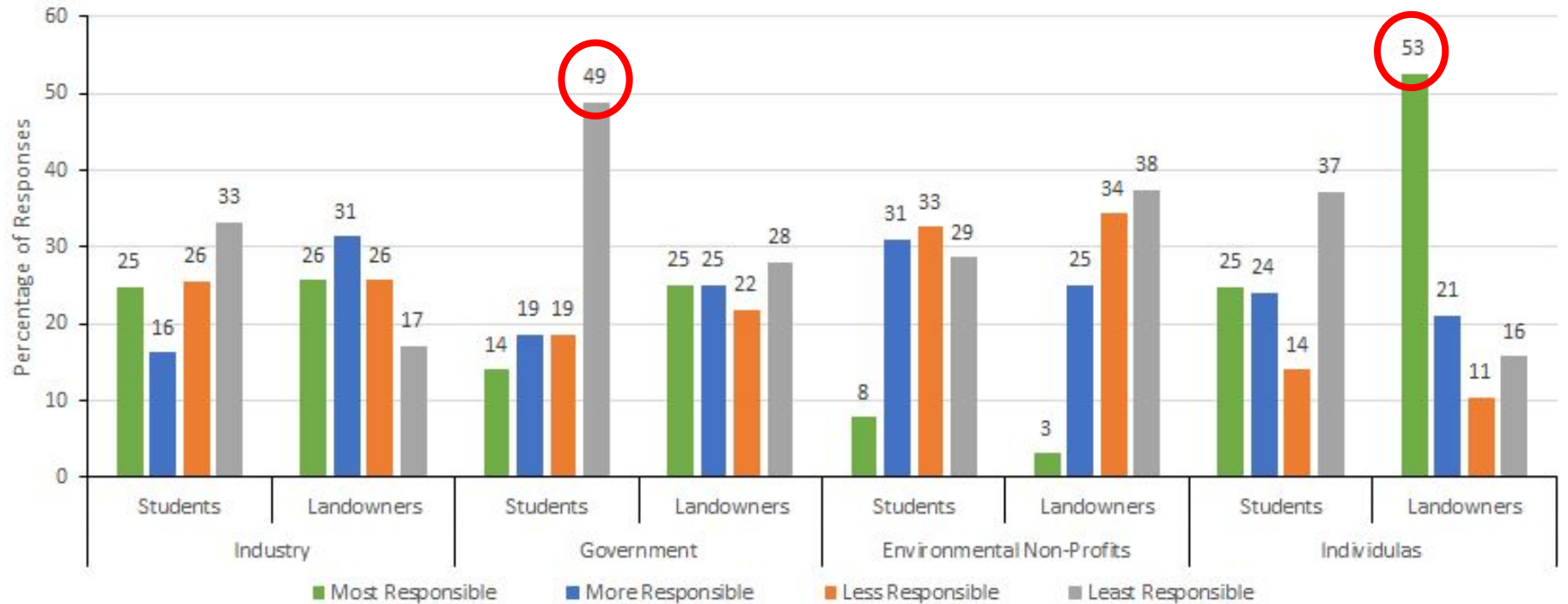
Question 28. How big of a role should each of these groups play in ensuring we have a healthy environment?



All values have been rounded to the nearest whole number.

# Responsibility for the Health of the Environment

Question 29. Ranking of Responsibility



All values have been rounded to the nearest whole number



# Our Contributions

- Web App
- Climate Adaptation Plan
- Land change analysis
- Landowner and student survey response data
- Online survey for future use

# Final Thoughts

- Students generally are less likely to see a need for conservation and link restoration with community prosperity
- Many student responses were neutral indicating space for more restoration conversation
- There is space to address Scott River restoration as a community-based issue with landowners
- Survey responses indicate openness to restoration on landowner's private property
- Opportunity to open conversations about responsibility in land conservation and restoration
- Opportunity to link environmental restoration to community prosperity.
- Opportunity to link the Scott River with utility-based attachment
- There is potential to expand the scope and scale of future social survey projects in the SRW

# Thank You

Charnna Gilmore - Director of the Scott River Watershed Council

SRWC Board of Directors and staff

Regina Hanna - Former Principal at Etna & Scott River High School

Marie Trammell - SOU Research and Grants Compliance Administrator

Dr. Gibbs - Professor of Sociology and Anthropology

Dr. Smith - Chair of Environmental Science & Policy

Dr. Gutrich - Professor of Environmental Science & Policy

Dr. Trammell - Associate Professor of Environmental Science and Policy

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