

Stewardship Networks: Working Together

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Denver Urban Field Station Coordinator



An Introduction to the Denver Urban Field Station

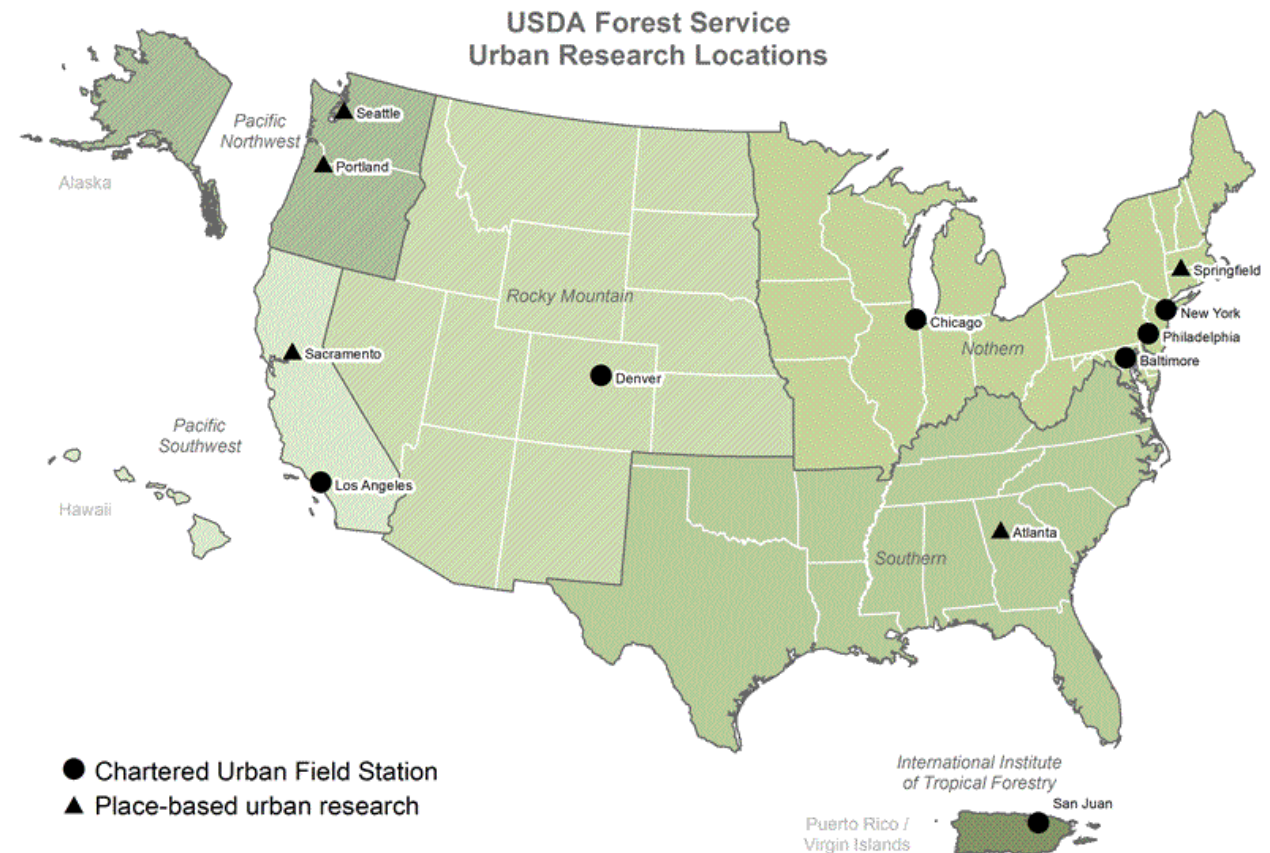


Urban Field Stations

- “ An **Urban Field Station** is both a physical place and an extensive network of interdisciplinary scientists and partners working on developing research, curating data, and advancing and delivering science to improve the quality of life and natural resources in urban and urbanizing areas, using an integrated socio-ecological approach.”

-USDA Forest Service

(<https://www.nrs.fs.fed.us/ufs/>)



UFS mission

- Extends USFS mission and relevance to urban areas and broader segment of population
- Use place-based research and data to improve understanding of:
 - Biophysical
 - Socio-economic
 - Integrative
- Work to improve quality of life in urban areas
- Engage urban resident/ organizations as stewards and collaborators
- Support goals through application of USFS urban forest planning tools



DUFS role for Front Range

- Serve as hub for data, best practices, research results
- Help coordinate, enable and communicate research on critical topics related local and regional “urban socio-ecological systems and natural resource management” for Front Range
- Focus on topics such including those just mentioned, but also uniquely western issues such as....



DUFS role for Front Range

- WUI lands management and fire-smart planning, fuels treatment
- Large public lands recreation access and management
- Headwaters watershed management
- Water-smart landscapes
- Urban forestry for semi-arid region
- Drought management
- Urban dry gulch management



University of Colorado Boulder

The Nature Conservancy



USGS
science for a changing world



DENVER
PARKS & RECREATION

DUFS network role for Front Range

- Help build partnership and serve as a directory and clearinghouse for both **researchers** and **stewardship organizations**
- Two STEW-MAP surveys:
 - Environmental stewardship community (in process)
 - Research community (planned)





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DUFS Partners

STEW-MAP

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Denver Urban Field Station



The Denver Urban Field Station (DUFS) is a collaborative research and practice unit of the USDA Forest Service (USFS) Rocky Mountain Research Station exploring the connections between people and nature and the role of vegetation in semi-arid cities, towns, and developing regions of the Intermountain West and Great Plains.

DUFS is part of the larger network of urban field stations producing place-based research with urban implications. More information about the network of urban field stations can be found at <https://www.nrs.fs.fed.us/ufs/>.

Research at DUFS emphasizes the following:

- Urban Ecosystems
- Stewardship and Civic Engagement
- Ecosystem Services
- Resilience, Health, and Well-being

Highlighted projects

STEW-MAP

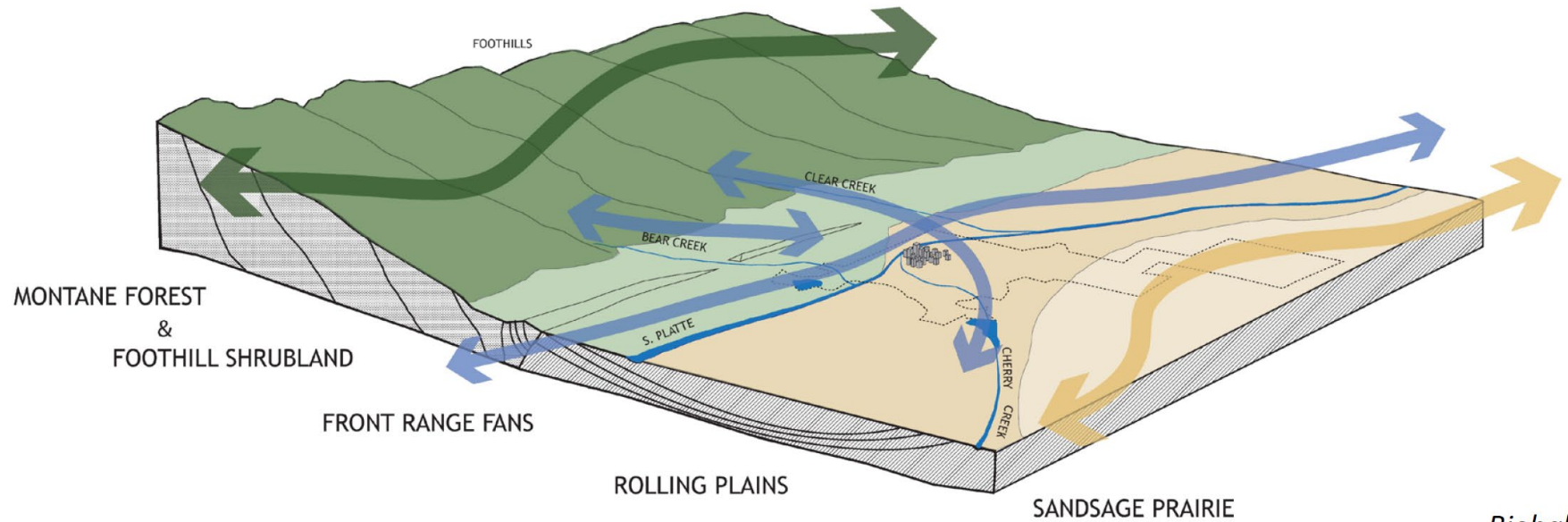
The Denver Environmental Stewardship Mapping (STEW-MAP) Project is the first DUFS collaborative research project. Based on methodology developed by the New York City Urban Field Station and implemented in numerous cities nationwide and internationally, the Denver STEW-MAP is designed to paint a picture of the region's environmental stewardship "landscape", documenting where the many private and public sector organizations

<https://www.fs.usda.gov/rmrs/Denver>

A city is..



Regional Vision for People + Nature



Biohabitats



STEW-MAP locations



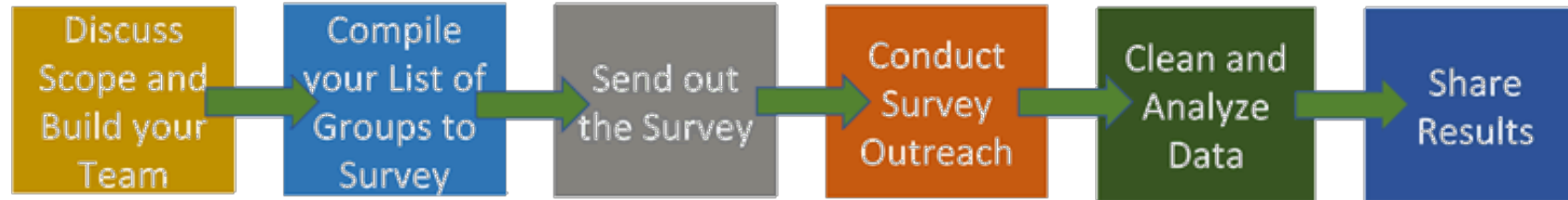
STEW-MAP locations



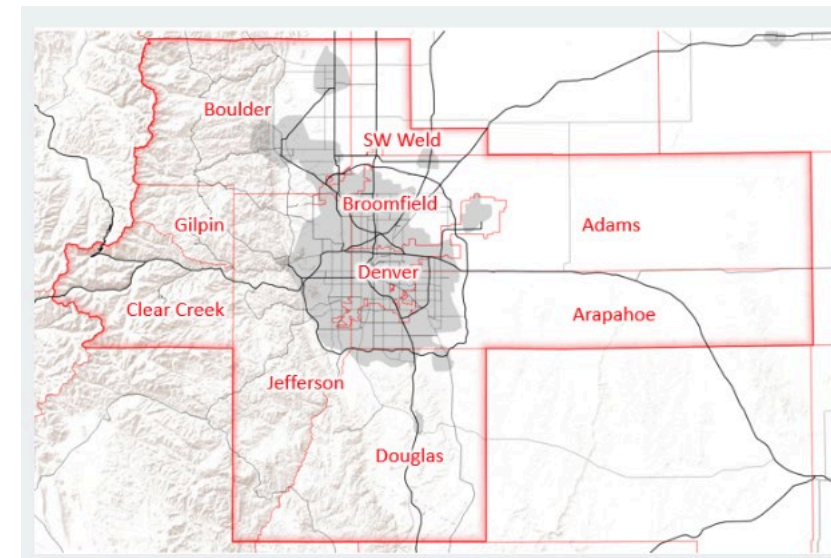
The STEW-MAP Framework

- Provides a comprehensive way to understand and map stewardship capacity to care for the local environment.
- Creates publicly available maps and databases to help support community development and engagement.
- Has been used by local government and civic organizations to support policymaking and natural resource management activities.
- The methodology and tools are standardized and can be adapted for localized needs.

Stew-Map Implementation



- **Step 1. Discuss scope and build your team**



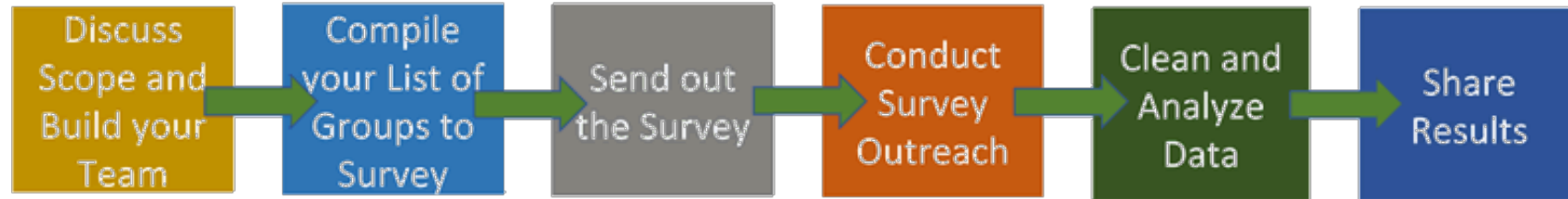
University of Colorado **Denver**

CU IN THE CITY



DENVER
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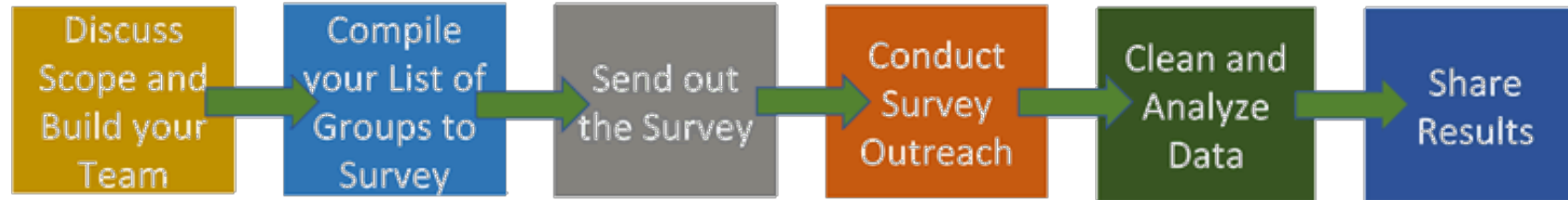
Stew-Map Implementation



- **Step 2: Compile your list of groups to survey**

- Partner with organizations
- Combine mailing lists and databases to create final list of groups
- Build up the sample using snowball sampling
- Census of stewardship groups/organizations NOT individuals

Stew-Map Implementation

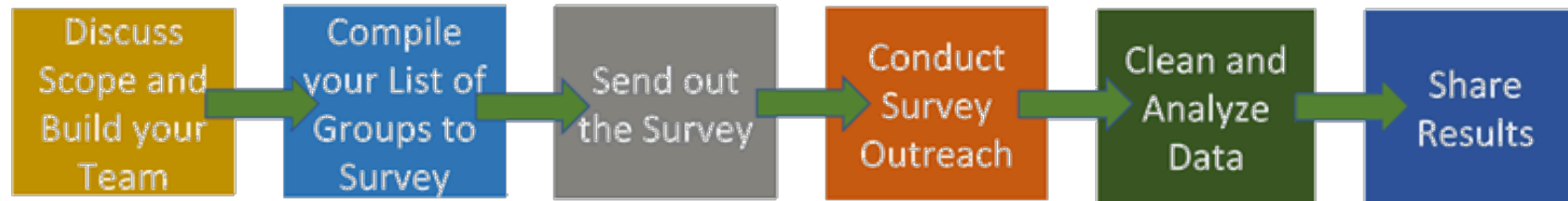


• **Step 3: Send out the survey**

- Determine administration mode (mail, email, combination)
 - Build off existing surveys already programmed (ex. Qualtrics)
- Finalize questions, balancing the need for standardization across Stew-Map locations and local needs
- Develop a cover letter with a good hook
- Get IRB approval if working with a college or university (already have OMB approval)



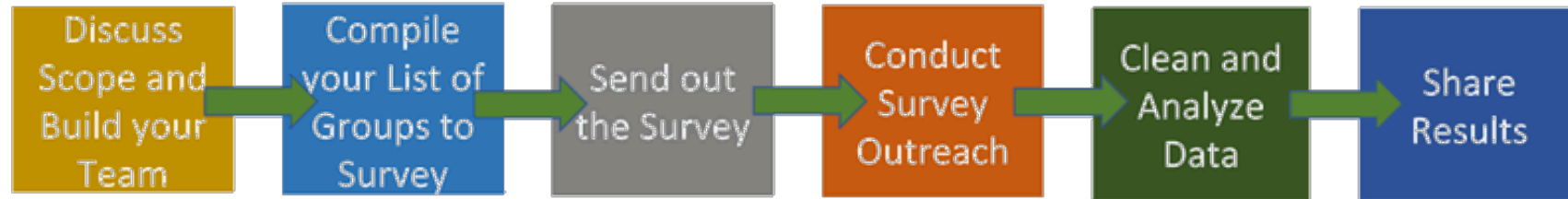
Stew-Map Implementation



- **Step 4: Conduct survey outreach**

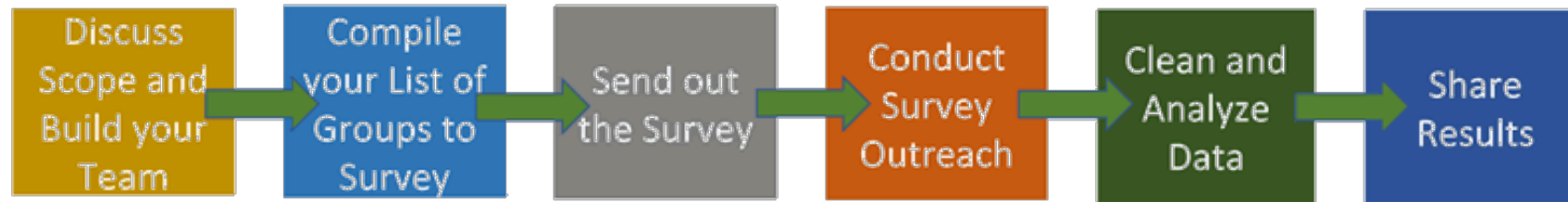
- Once survey is in the field, have partners share info about Stew-Map in newsletters or at conferences
- Conduct follow-up telephone calls with groups who have not yet responded

Stew-Map Implementation



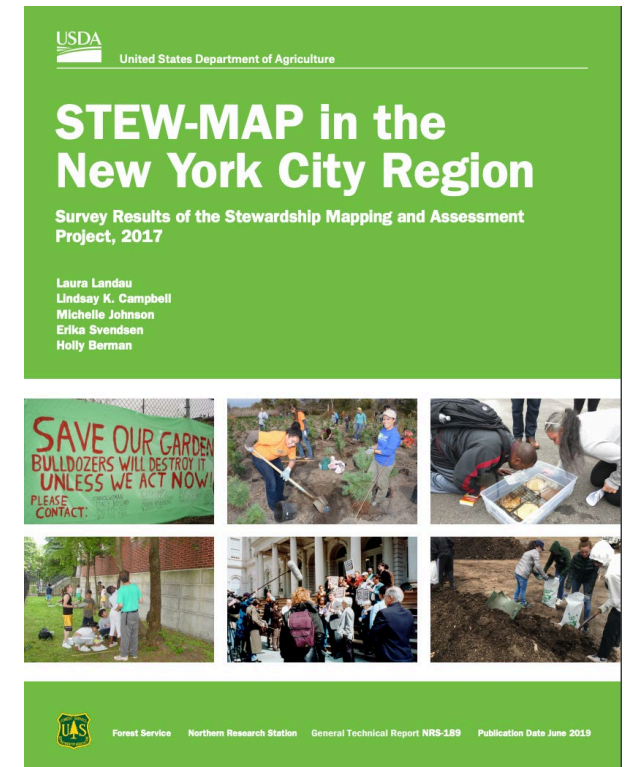
- **Step 5: Clean and analyze data**
 - Organizational characteristics
 - Geographic turf
 - Networks

Stew-Map Implementation



- **Step 6: Share results**

- With data providers and survey participants
- Through social media, blog post, white papers, and peer reviewed publications





STEW-MAP (Stewardship Mapping Project)

Stewardship is..

- Conserving
- Managing
- Transforming
- Monitoring
- Advocating for
- Educating the public about

**the environment and the ways
we are connected to it**

Who takes care of Denver?

STEW-MAP Data Include:



Organizational Characteristics

STEW-MAP provides information about the organizational characteristics of each group including year founded, mission, primary work sites, services offered, budgets and staff. At the same time, STEW-MAP allows you to better understand how each group functions through their expressed goals, impacts and modes of communication.



Geographic Turf

STEW-MAP displays the area of activity, or 'stewardship turf,' of each group. Stewardship turf could be an entire park, a forest patch, or a watershed. These geographic data can demonstrate the overlaps and gaps in stewardship capacity across a landscape and can be analyzed in concert with demographic and environmental characteristics of communities.

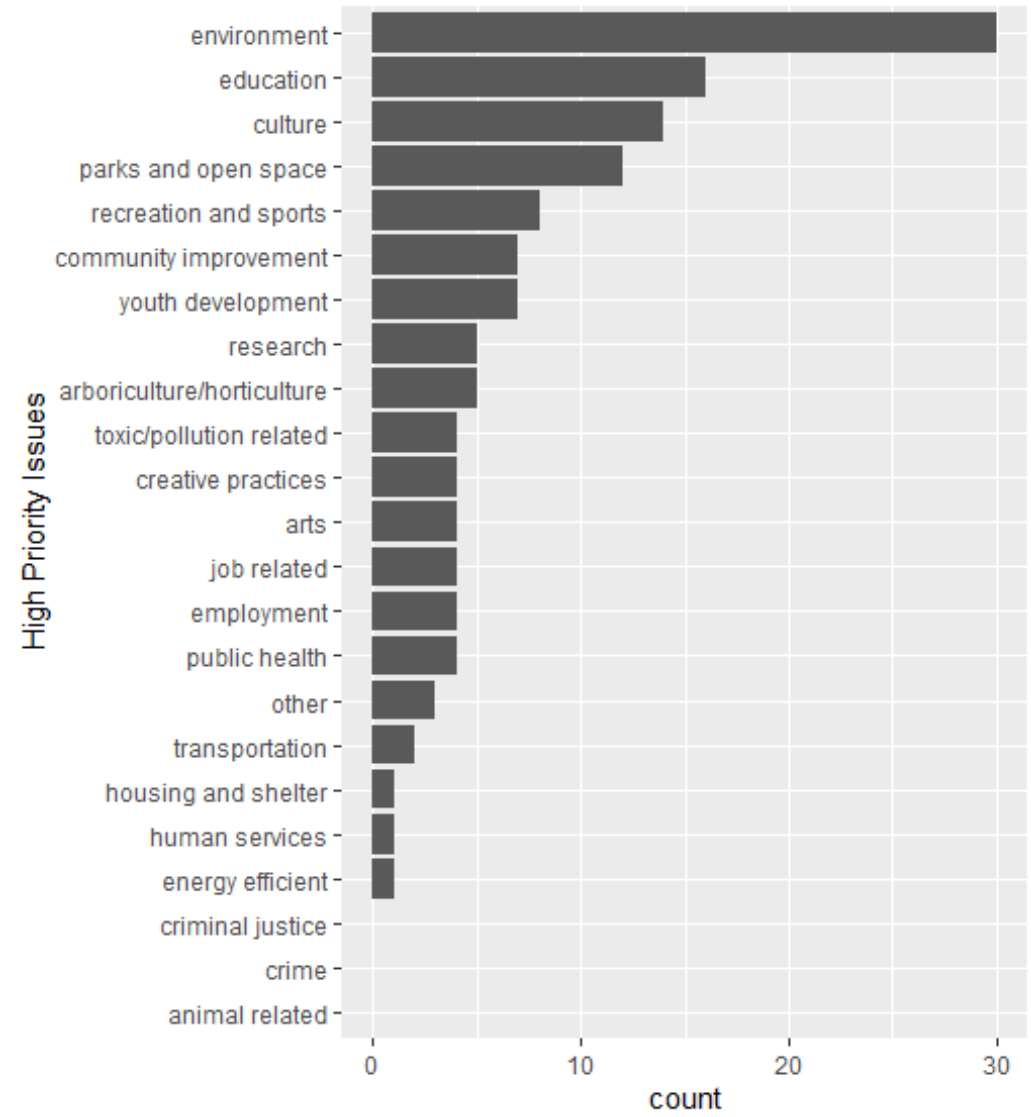


Networks

STEW-MAP displays a group's social network to understand how civic environmental organizations are connected. This enables us to examine the structure and function of environmental stewardship across a city or region. From social network analyses, we can assess which organizations are operating as brokers of information, funding, and services; the role of government in relation to these civic stewardship organizations; and which organizations are more isolated than others.

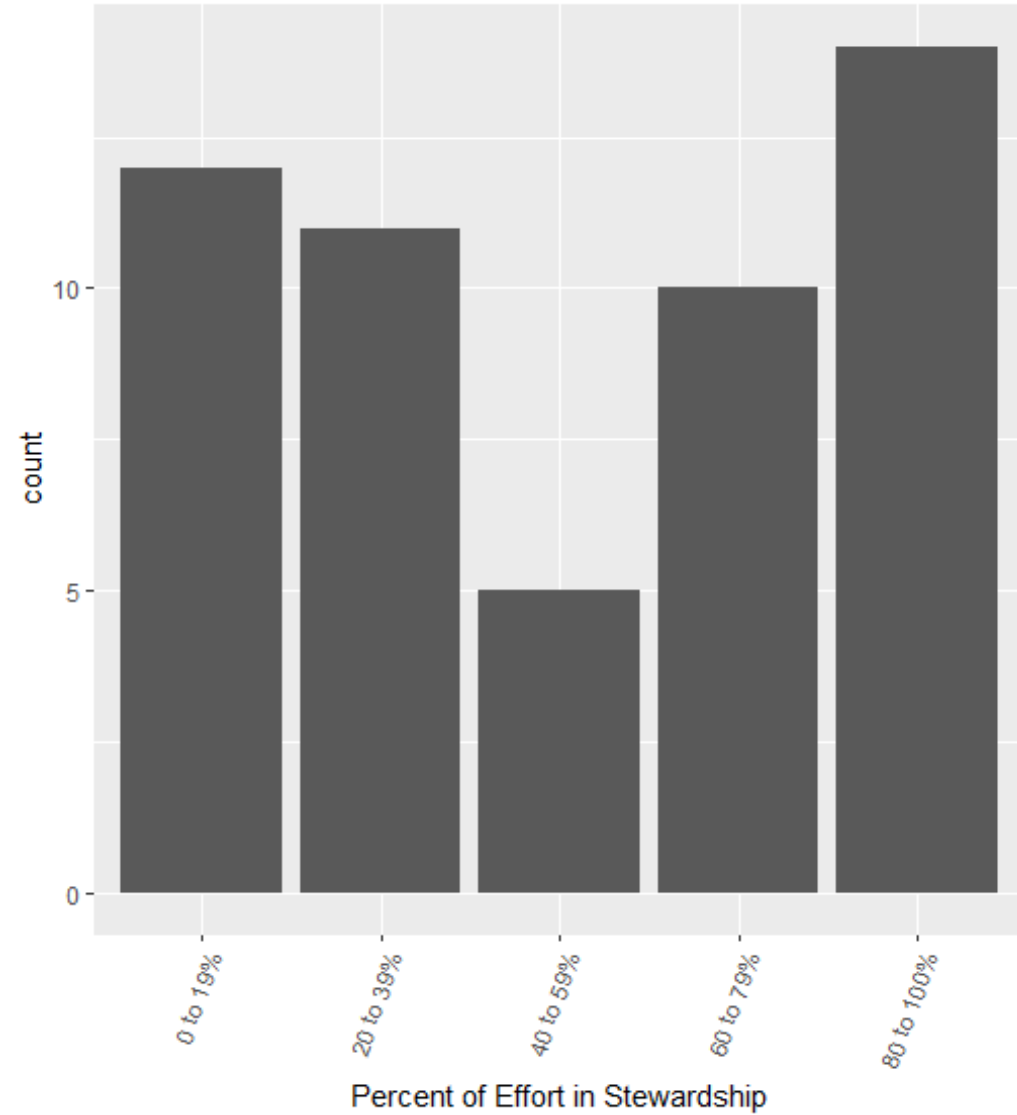
Organizational characteristics

- Of these what are your group/organization's top three priorities?



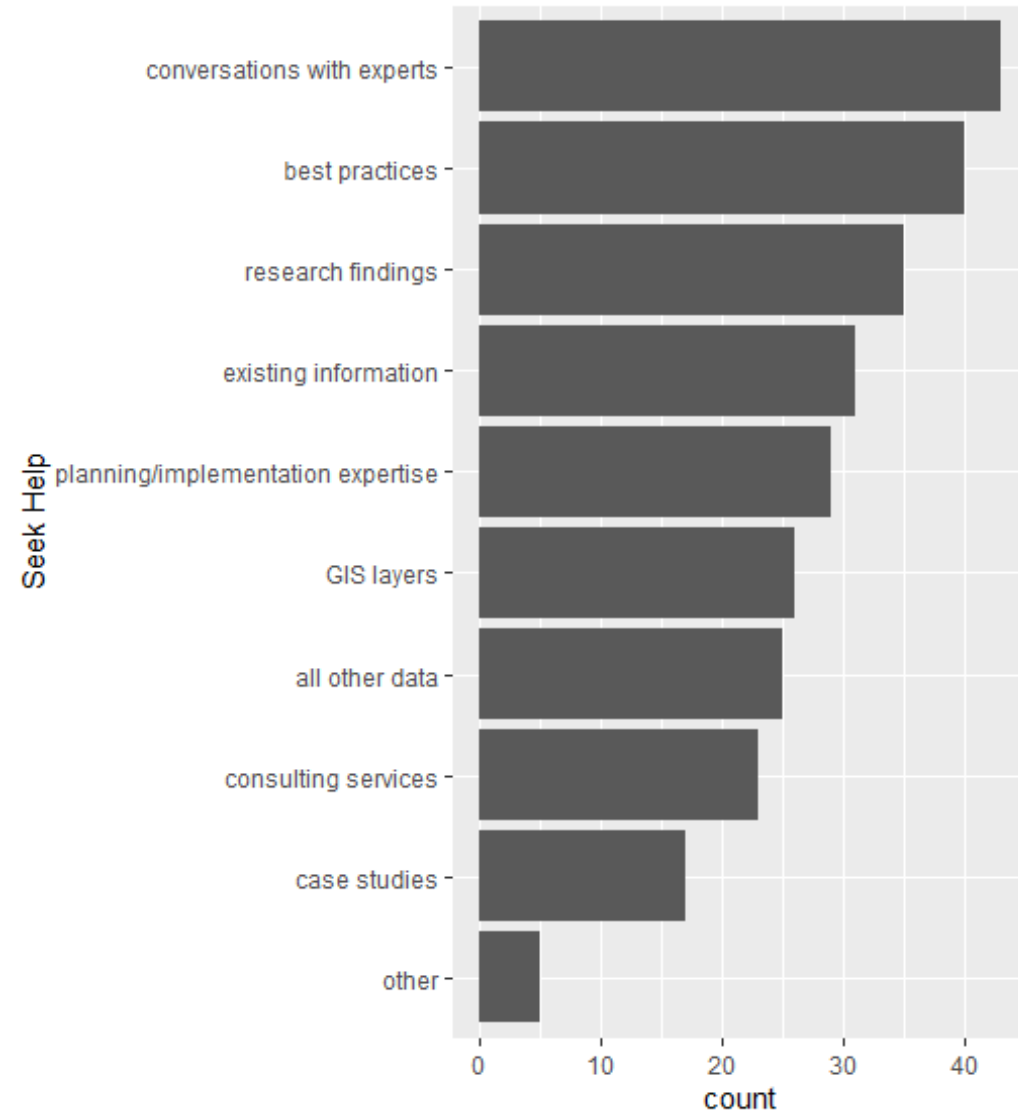
Organizational characteristics

- What percentage of your group/organization's effort has been for stewardship during the past year?

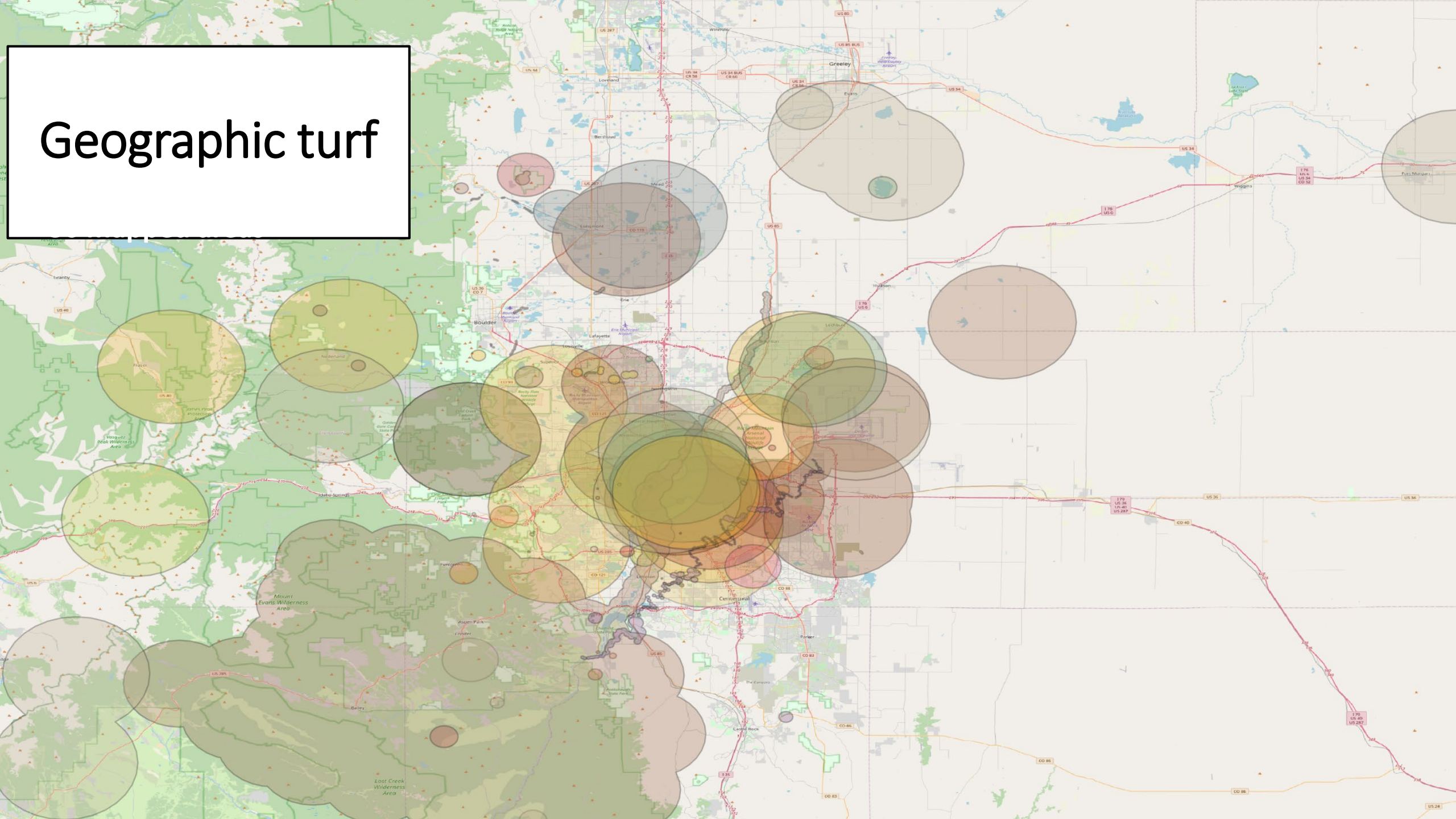


Organizational characteristics

- Types of information regularly **sought from** other groups
- Same results for information **provided to** groups



Geographic turf



Stewardship Networks

51 respondents named at least one group for a total of 377 different named groups.



Average number of connections:
8.69 groups



Top 4 named organizations:

| | |
|--------------------------------------|-----------|
| City and County of Denver | 16 |
| US Forest Service | 12 |
| Colorado Parks & Wildlife | 12 |
| Denver Water | 11 |

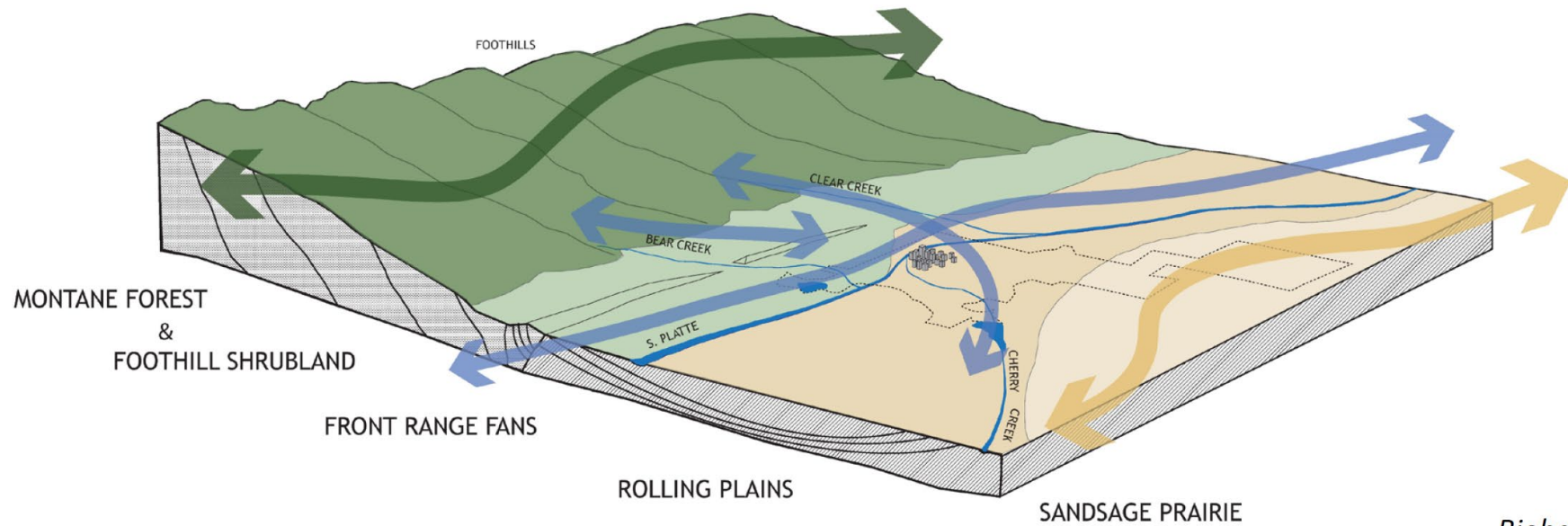
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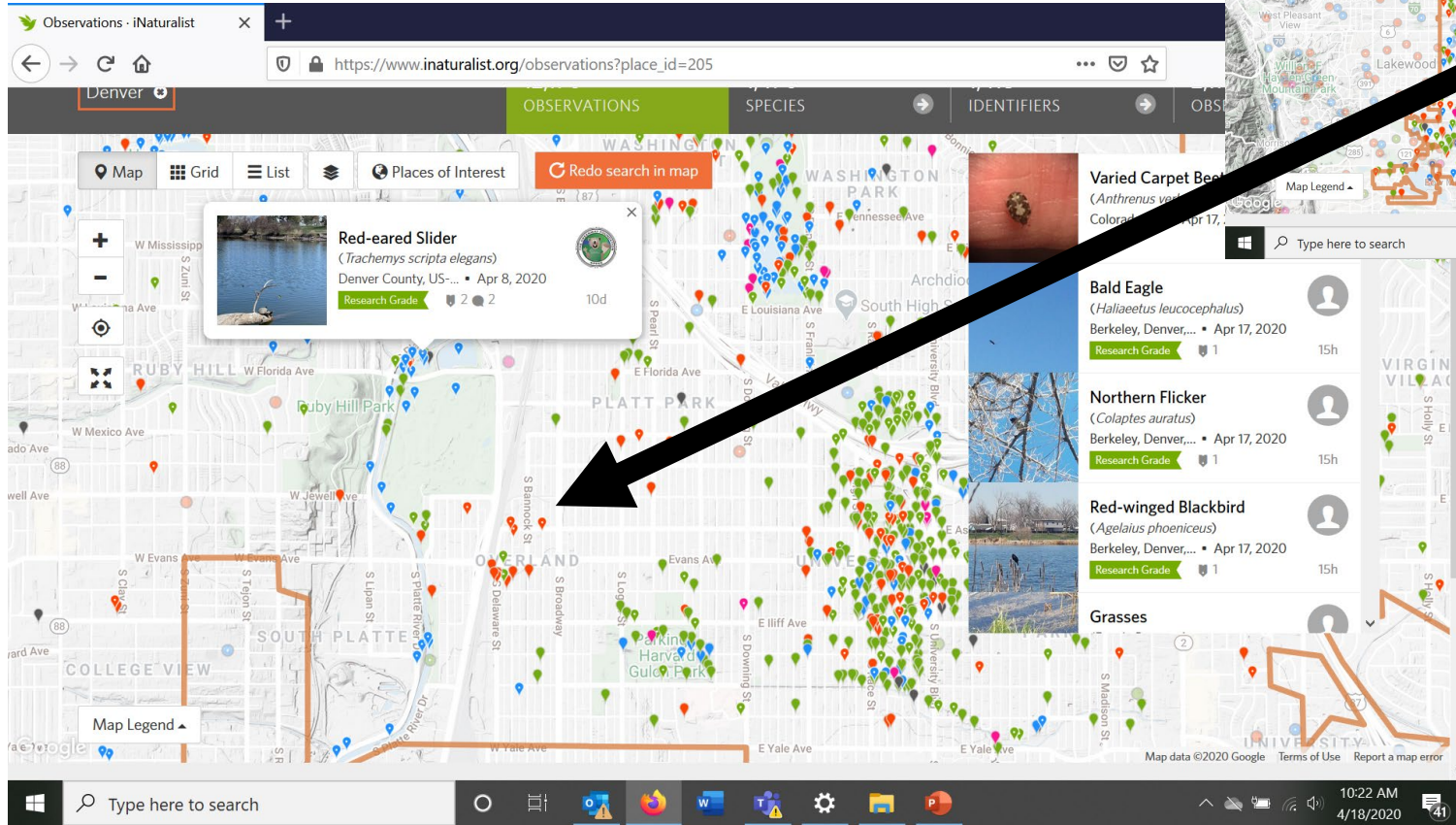
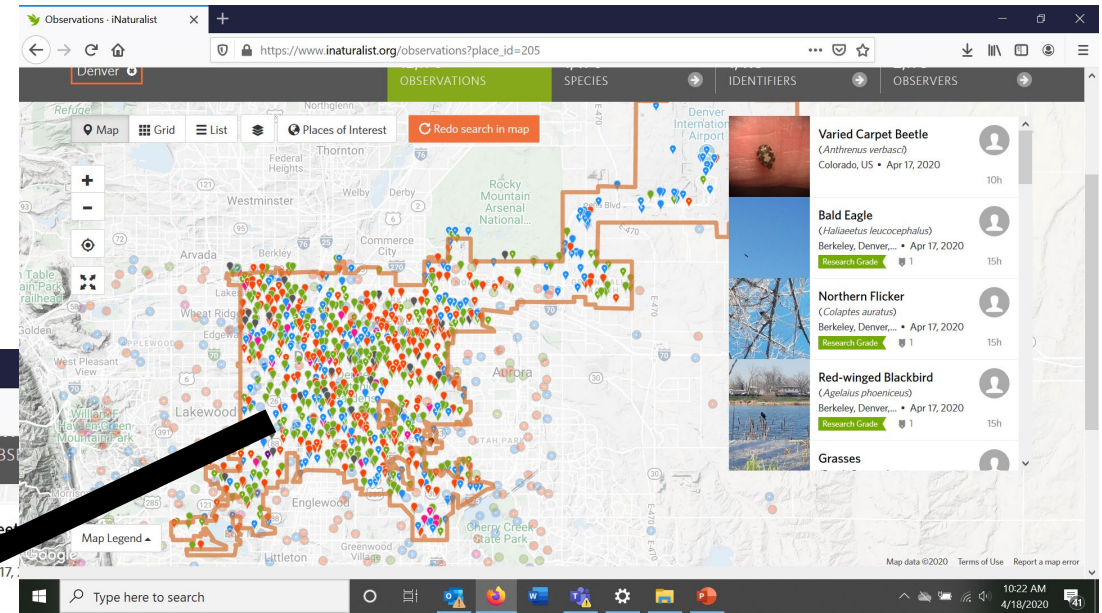


Metro Denver Nature Alliance

Co-Creating a Regional Vision for People + Nature



Biohabitats



Defining the ecological and community goals we share and articulating strategies to achieve those goals is critical to our success in building an active and aligned network of partners and empowering strategic, equitable, and conservation-forward land use decision-making in our region.



Network for Landscape
CONSERVATION



Artist | Artista: David Ocelotl Garcia, "Cultivating Our Community," 2017

How can public art reflect your community?
¿Cómo puede el arte público reflejar tu comunidad?

Bring your ideas and perspectives!
¡Aporta tus ideas y perspectivas!

Who? 16 Denver youth will be invited to work with acclaimed artists David Ocelotl Garcia (Denver) and Piloto (Chicago) in an all-day workshop on Friday, December 27, 2019. Each participant will receive \$50 upon the successful completion of the workshop. You don't need to be an "artist" to participate, just interested.

When/Where? Friday, December 27, 2019, 9 am - 5 pm in Denver (address to be sent to those selected).

¿Quien? 16 jóvenes de Denver serán invitados a trabajar con los aclamados artistas David Ocelotl Garcia (Denver) y Piloto (Chicago) en un taller de todo el día el viernes 27 de diciembre de 2019. Cada participante recibirá \$50 al finalizar el taller. No necesitas ser "artista" para participar, solo interesado.

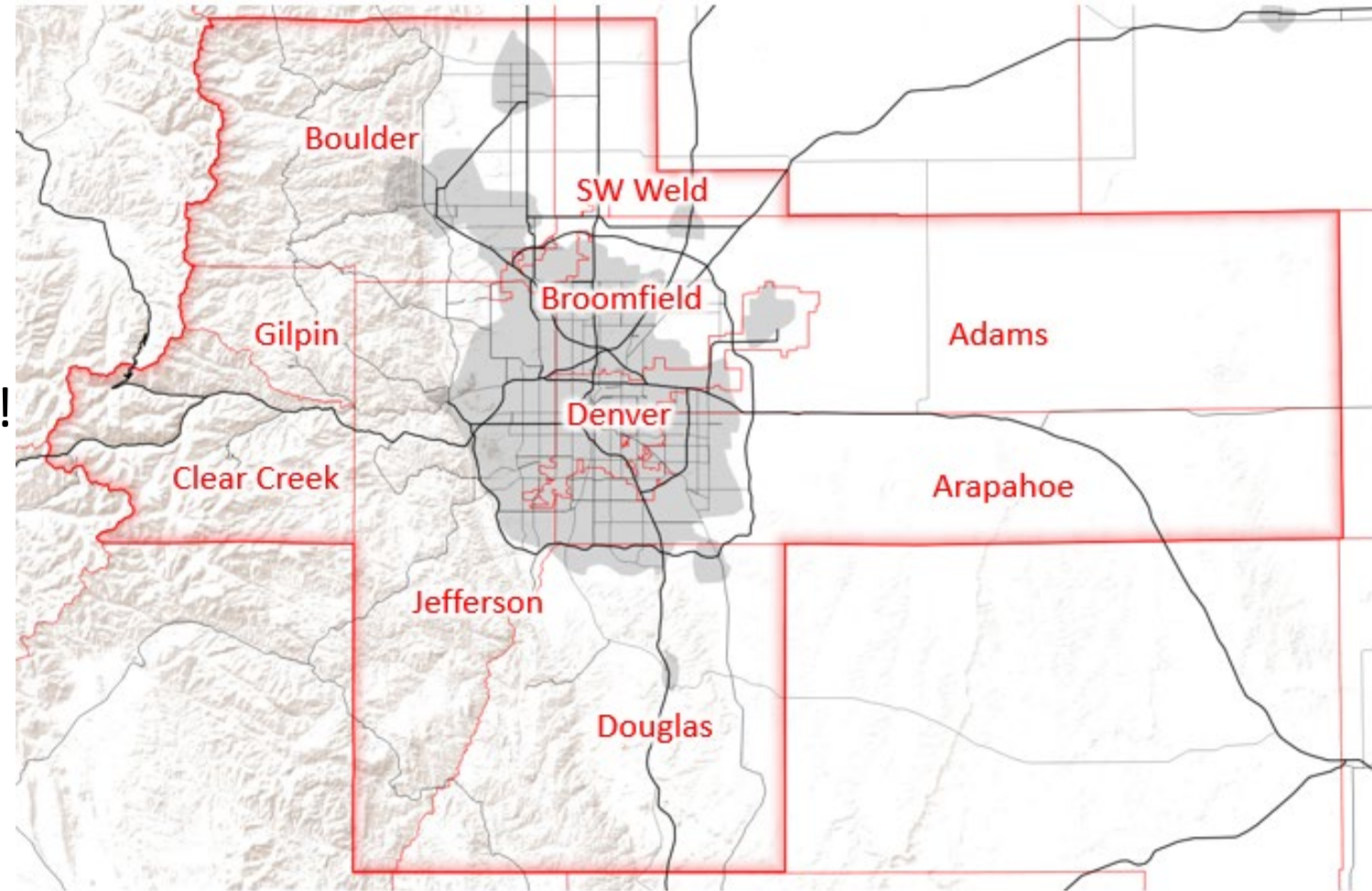
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THE DENVER ENVIRONMENTAL STEWARDSHIP MAPPING PROJECT

If you haven't been mapped, contact us!
rswartzentruber.dufs@gmail.com



Future Projects

- Living Labs
- Monitoring biodiversity, experimental plots, and more



Thank you

