

COMMUNITY BASED INDIGENOUS SCIENCE FOR RESTORATION AND RECONCILIATION

LIVERMORE, CO

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PROJECT INTRODUCTION

The Native American Cultural Center, Warner College of Natural Resources, and CSU Extension have partnered together to engage in a **community based Indigenous science education project** to address a long-standing need for Indigenous education, serving CSU's commitments as a land grant institution and needs identified by our local Native community.

This project is focused on engaging Indigenous and climate resilient design principles to develop a site that will support experiential learning and research opportunities for students, students, faculty, staff, and community members.

Research, outreach, and activities at this field site broadly focused on ecological restoration and cultural reconciliation efforts. The preliminary research based on Indigenous and climate-resilient models inform a design plan for structures and outdoor areas that include community-informed environmental, social, and cultural outcomes.

INTERNSHIP GOALS

1. Identify and compile a portfolio of existing Indigenous and climate - resilient program models to inform architecture and design.
2. Apply principles of climate-resilient landscape architecture and work in partnership with a natural resource survey intern to assess the natural elements of the site including the climate, soil, slope, drainage, sunlight, and vegetation.
3. Develop a stakeholder assessment plan for identifying needs and functionality the site could serve (e.g., Indigenous garden, phenology walk, workshops and retreats, climate-monitoring station, greenhouse for plant propagation, etc.)

Education Application

- Develop reciprocal relationship with the landowner
- Determine/apply site analysis data to design
- Research existing Indigenous and climate-resilient models
- Incorporate history of land and cultural aspects into design
- Design scaled site plans with research findings
- Incorporate native plant guide into longterm designs

WHAT WE DID

In order to reach our primary goals, our team completed intern evaluations prior to starting our internship.

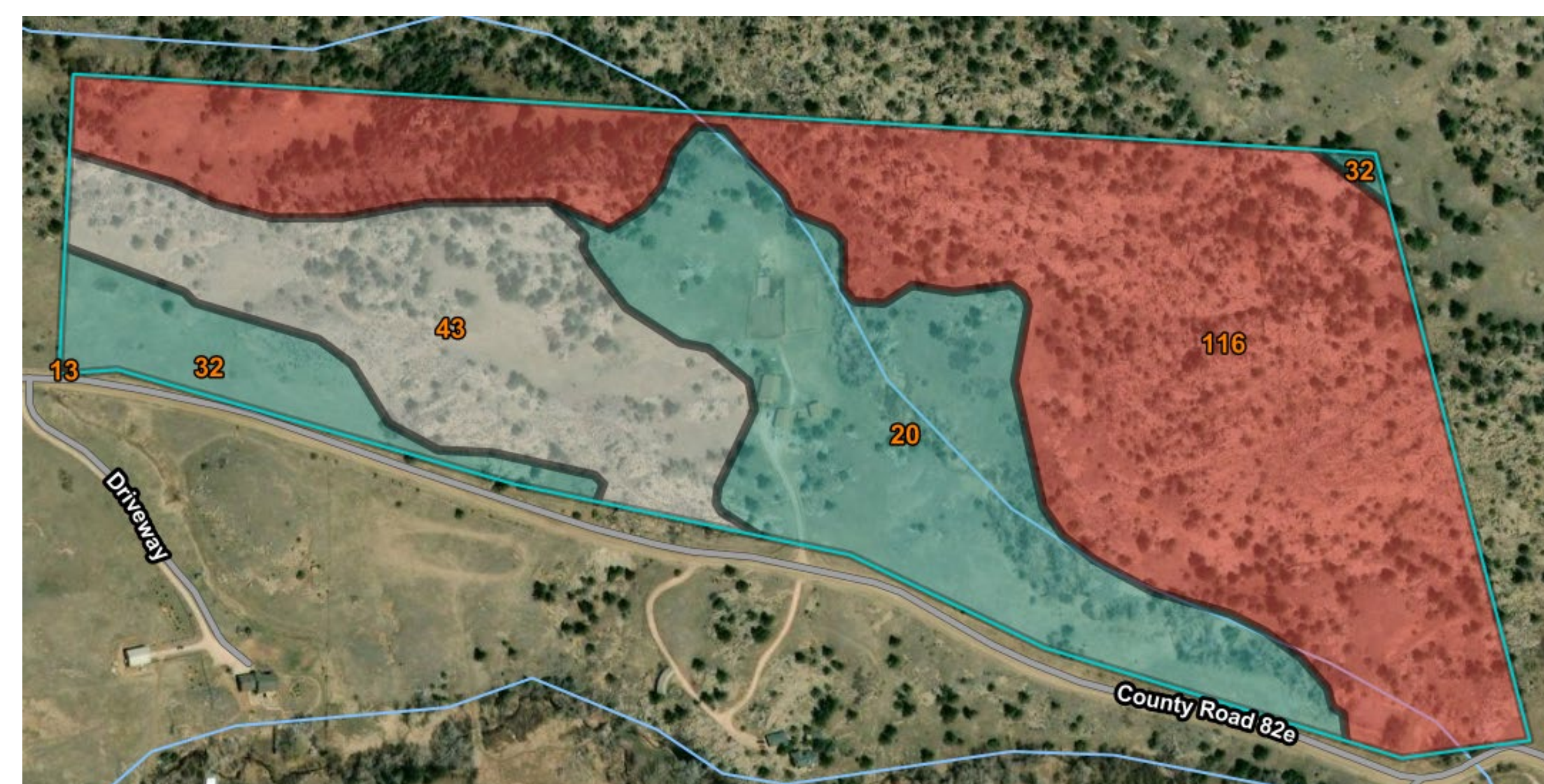
Being able to visit the site in Haystack Gulch was an amazing experience to understand the landscape on a ecological level. During this site visit we identified the native plant species that were present.

After collecting this data and spending time with the land it allowed for me to better understand the GIS data that I was responsible for researching. After completing these site analysis diagrams I was able to start incorporating Indigenous design components into the scaled site plan that represents the structures and outdoor areas that include community-informed environmental, social, and cultural outcomes

I spent a good amount of time this past summer researching and identifying key components of Indigenous designs applied in similar community-based Indigenous science program models. What really stood out to me was being able to engage with the University of New Mexico's Building Community Resilience Education Team. Being able to engage with this team opened up my eyes to acknowledging the history and presence of the Indigenous tribes that are home to the land.

Figure 1. (image)

Site boundary with current soil separations



WHAT WE LEARNED

This internship experience was an unbelievable learning opportunity for myself as I was able to grow academically and professionally. Not only was I able to learn from ecologists but also really got to understand the process behind research surveys. I learned how to conduct and carry out line point intercept surveys.

This opportunity allowed for me to grow as a landscape architect as I have never been on a team like this before where everyone has their own role into contributing to our overall goal. Being the only designer on the team allowed me to flourish with my creativity and design the vision our mentors and the landowner have.

I learned that you can positively impact your community for generations to come. This research and retreat area can and will be used by future generations of native students. Being able to give back to the local Native community was very impactful for me.

NEXT STEPS

- Produce a draft budget in collaboration with CSU development team staff
- Present research findings and design proposal in a variety of formats including a multi media proposal, conference poster, and Extension-style fact sheets.
- Compile portfolio of design proposals and work with the landowner to implement each section with the corresponding financial requirements.

