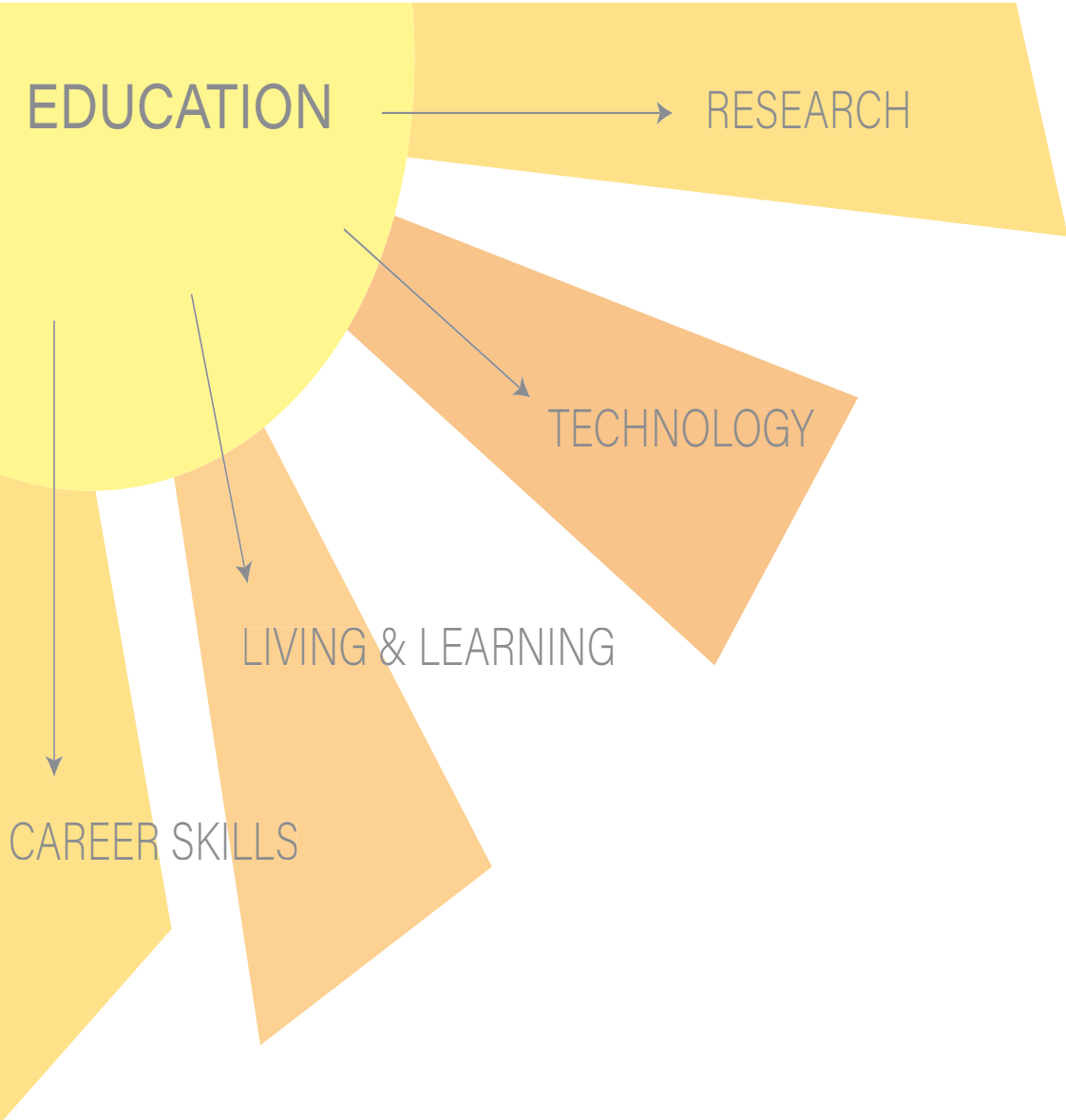




NATURE'S EMBRACE

Are you embracing nature or is nature embracing you?

This project aims to immerse visitors in the natural environment of Swanton Pacific Ranch located in Santa Cruz, California. The ranch, donated to California Polytechnic State University in 1993 meant to be used as a place for educational research and professional career exploration, was badly damaged in a fire in late 2020. Therefore, with this project, it has become our goal to revitalize the ranch. In doing so, connect the existing main office to the current inaccessible marsh as well as connect to a new student housing area. Designing each site accordingly and fluidly with one another to create an immersive, educational lifestyle in nature. Simultaneously, designing with sustainable materials and natural processes to display them and how they work with the natural environment and portay NATURE'S EMBRACE. Overall, we want to foster a collective belief in care and respect for the natural environment in practicing Cal Poly's idea of Learn By Doing.



Vision Statement:

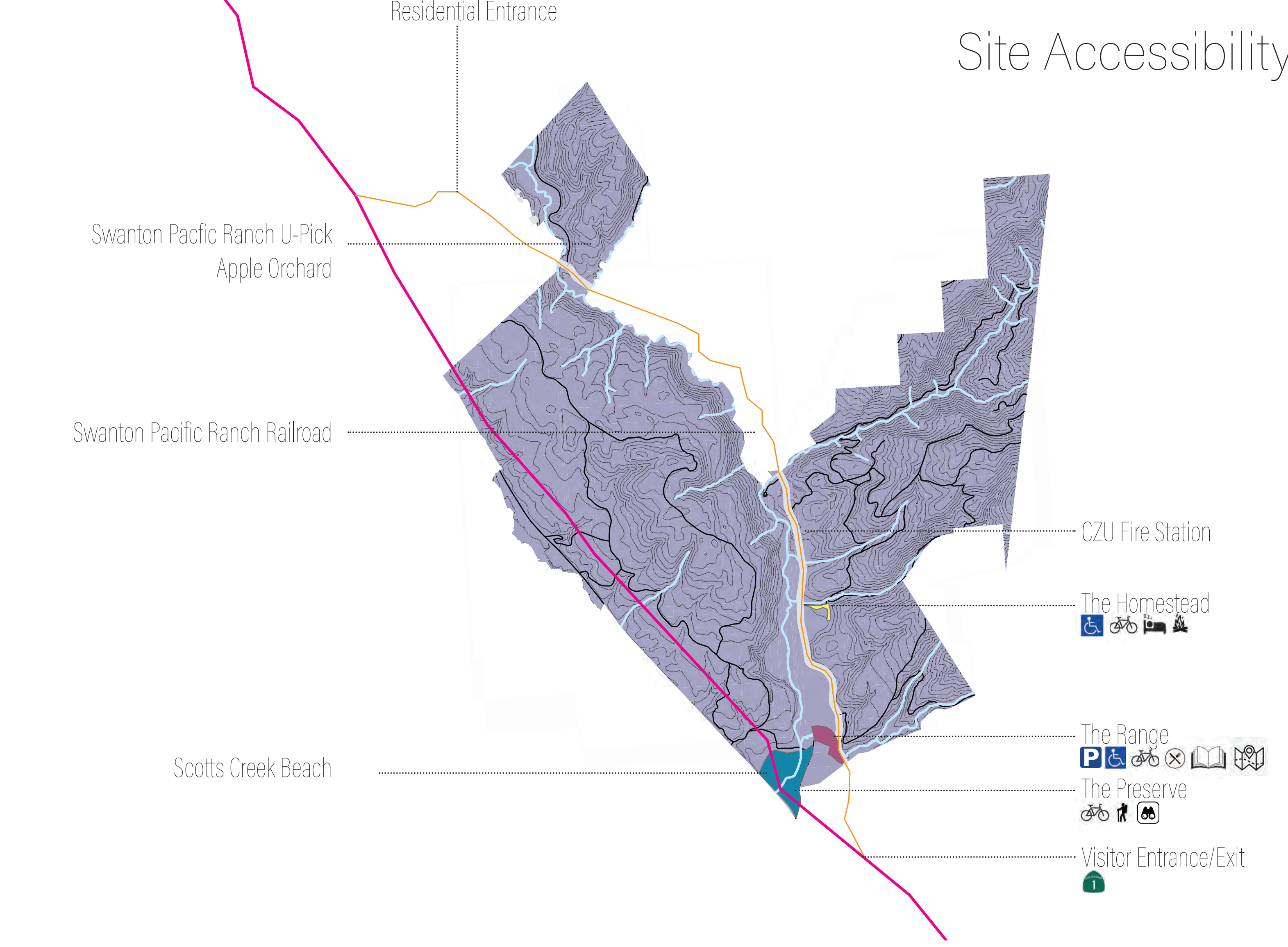
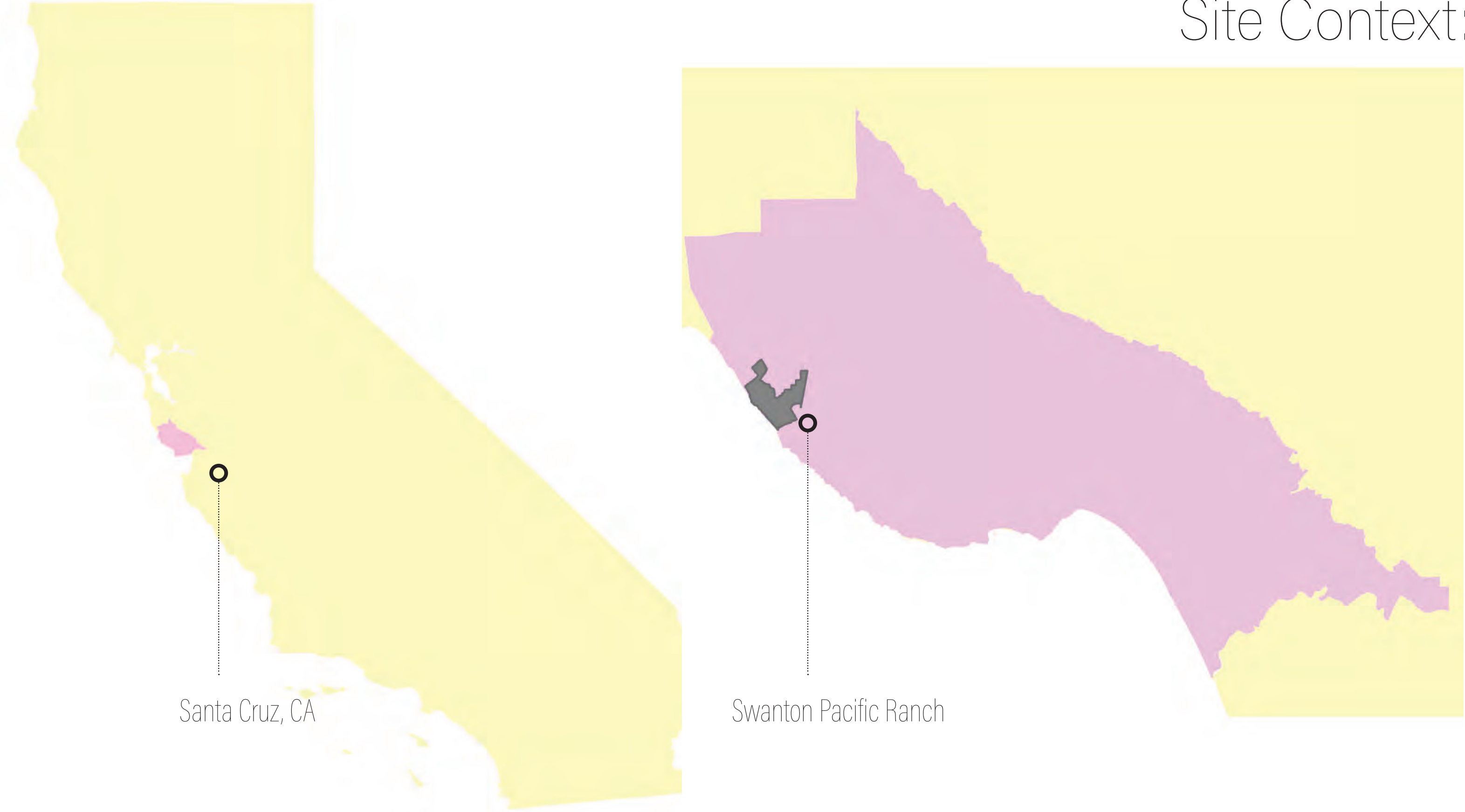
This project immerses visitors in the natural environment that is Swanton Pacific Ranch. By focusing on ecology first, the Ranch would implment a variety of sustainable practices. Rather than hiding these practices we want to display them as demonstration stations for teaching. We want to foster a care for the environment by embracing the natural world by Cal Poly's Learn By Doing.

Goals

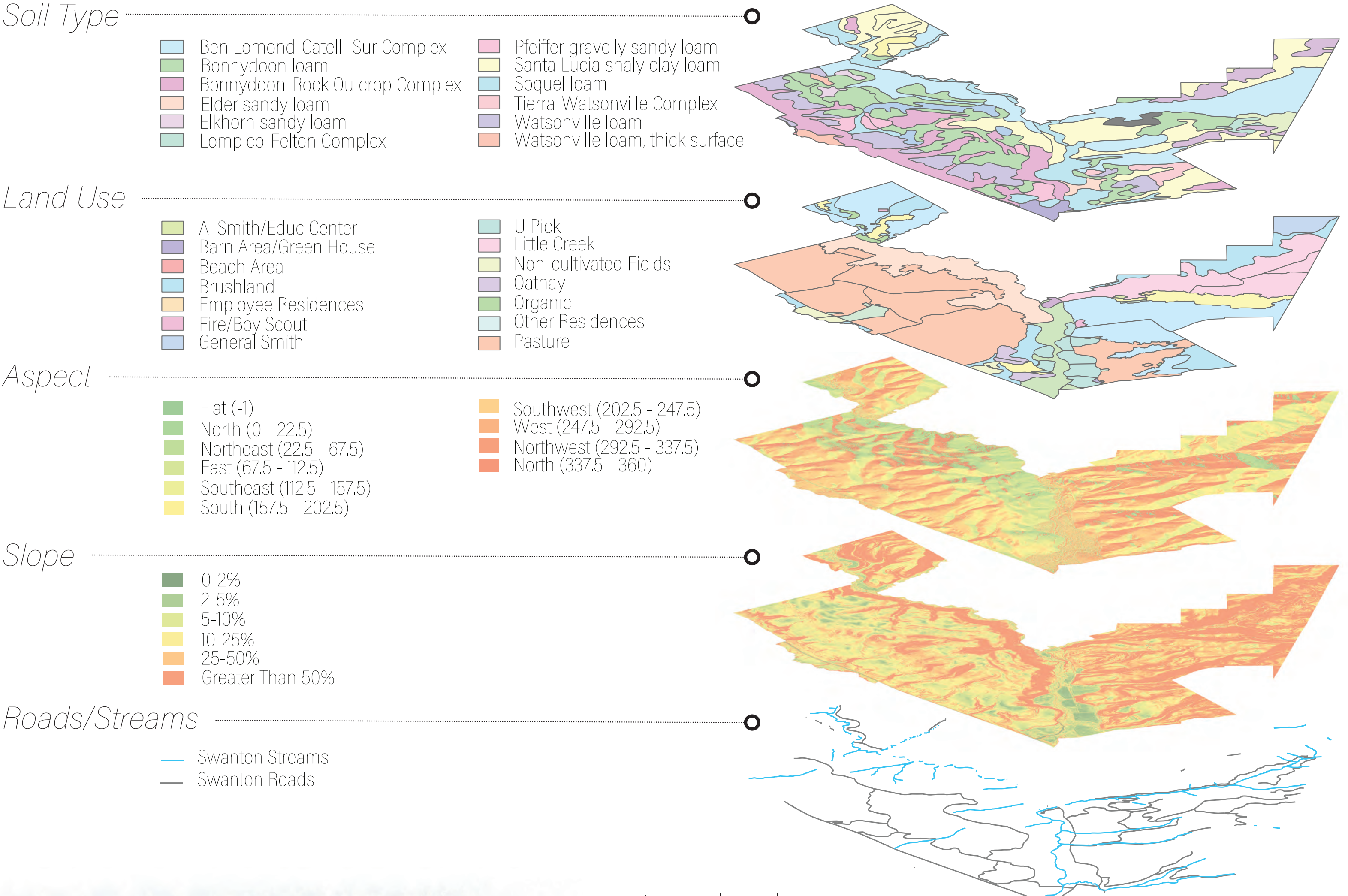
- Guides education through authentic ecological exploration
- Create a immersive, educational lifestyle
- Develop a distinct sence of place at Swanton Pacific Ranch
- Simple design framework that optimizes user experience in nature and utilizes minimalistic principles to tell as story
- A design that takes into account seasonal changes and reacts with regenerative landscape techniques that limit natural disturbance

Objectives

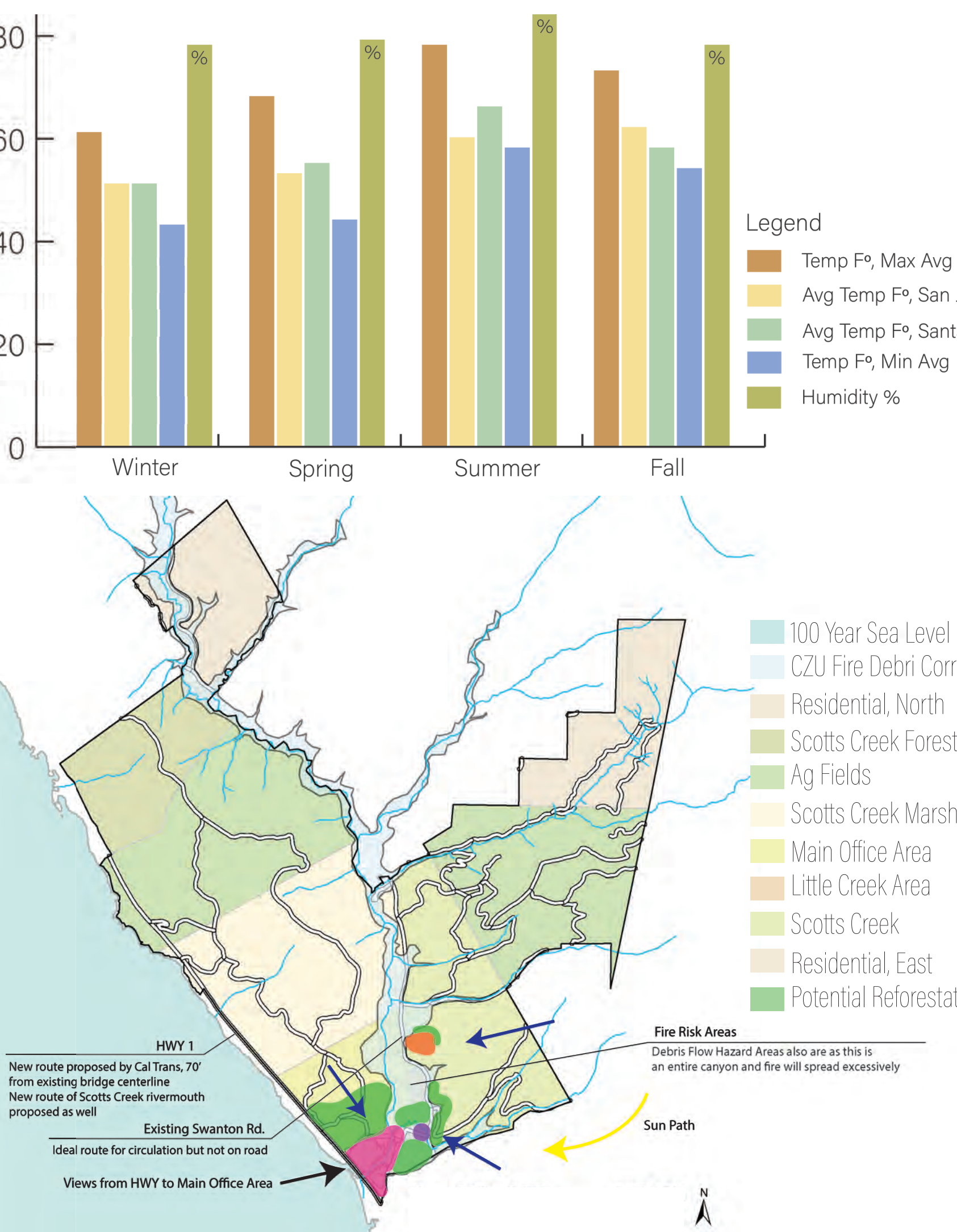
- Connectivity
- Restoration
- Collaboration
- Group and solo spaces
- Highlight cultural vernacular
- Use on site materials
- Keep space between sites
- Simplicity and Chronology
- Use regenerative practices when possible
- Warm and welcoming environment



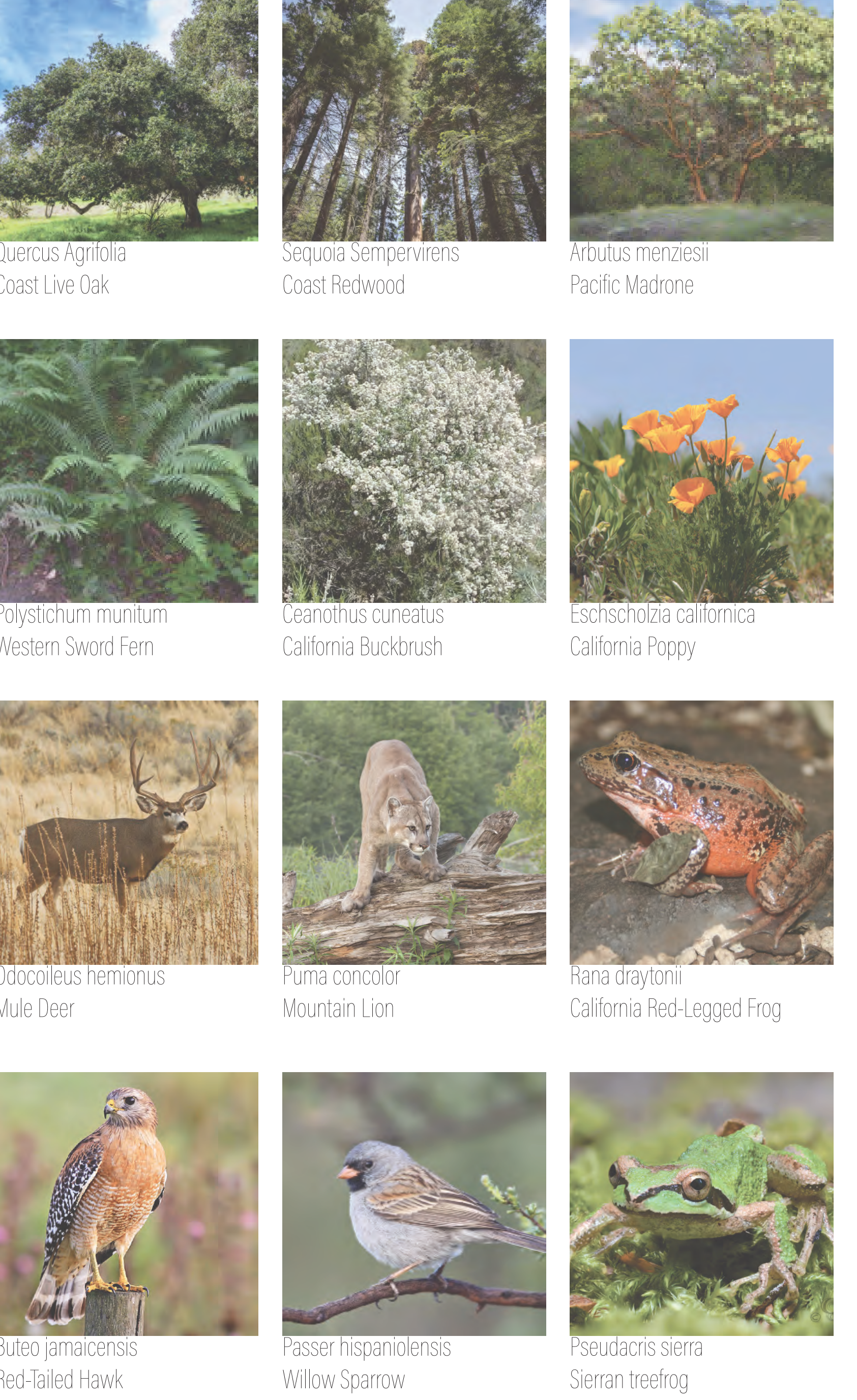
Inventory:



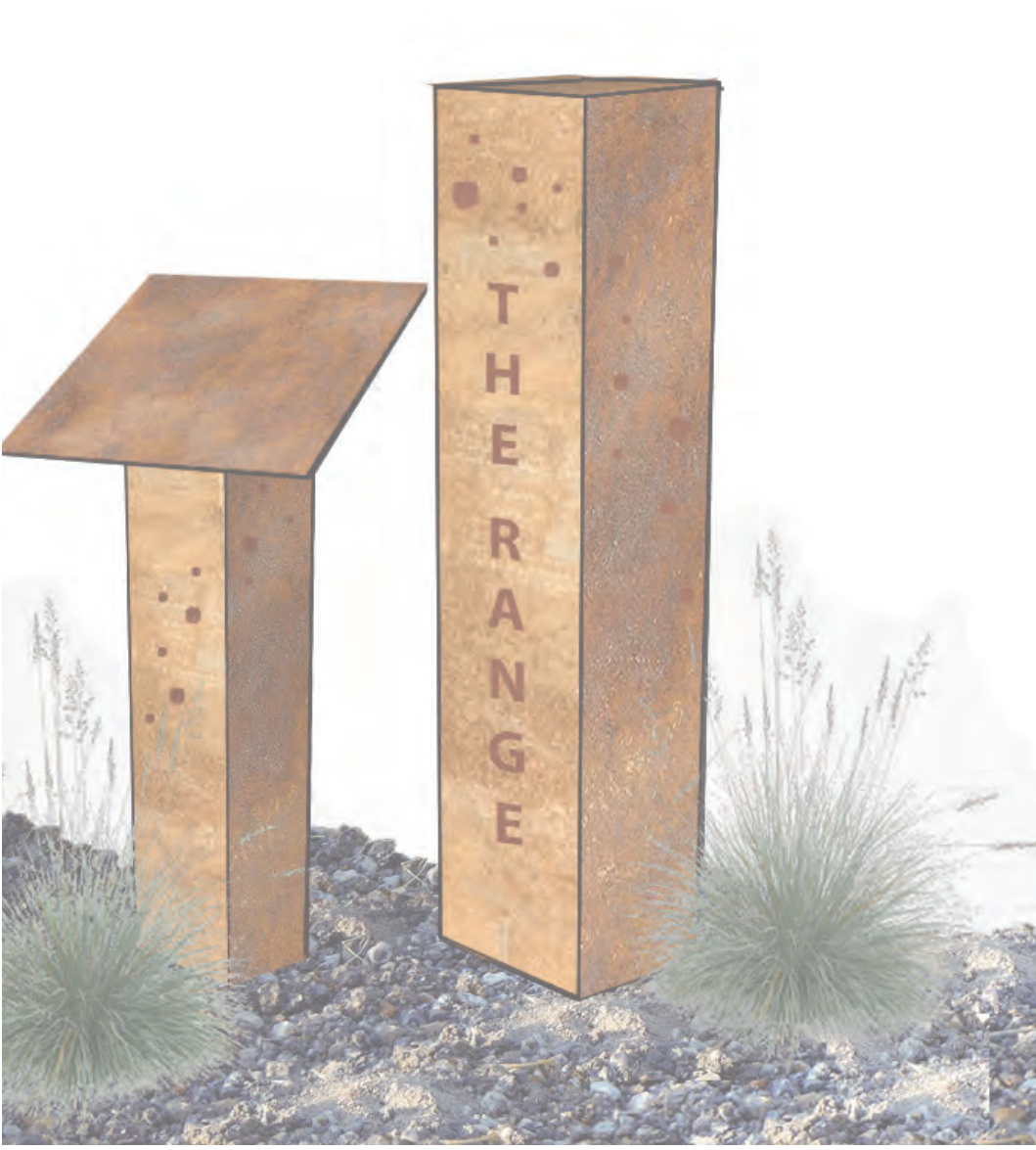
Analysis:



Site Plants and Animals:



Informational Signage/Wayfinding:



The Range

Inspired by the Intimate and Enclosed Nature Experience That is Created When Light Shines Through the Leaves of a tree, The Range serves to provide an intimate and educational entrance experience for visitors of Swanton Pacific Ranch. By creating a mix of intimate social spaces and introspective nature experiences, this is the perfect place to enjoy some time outside learning with peers. The Range uses sustainable principles and demonstrates a strong understanding of the natural systems of Swanton Ranch by implementing regenerative landscape techniques and using materials/principles that will ensure longevity of the site and its resources. On a typical day at The Range, you will see students studying, exploring, dining, and enjoying their stay at Swanton Pacific Ranch.

Goals:

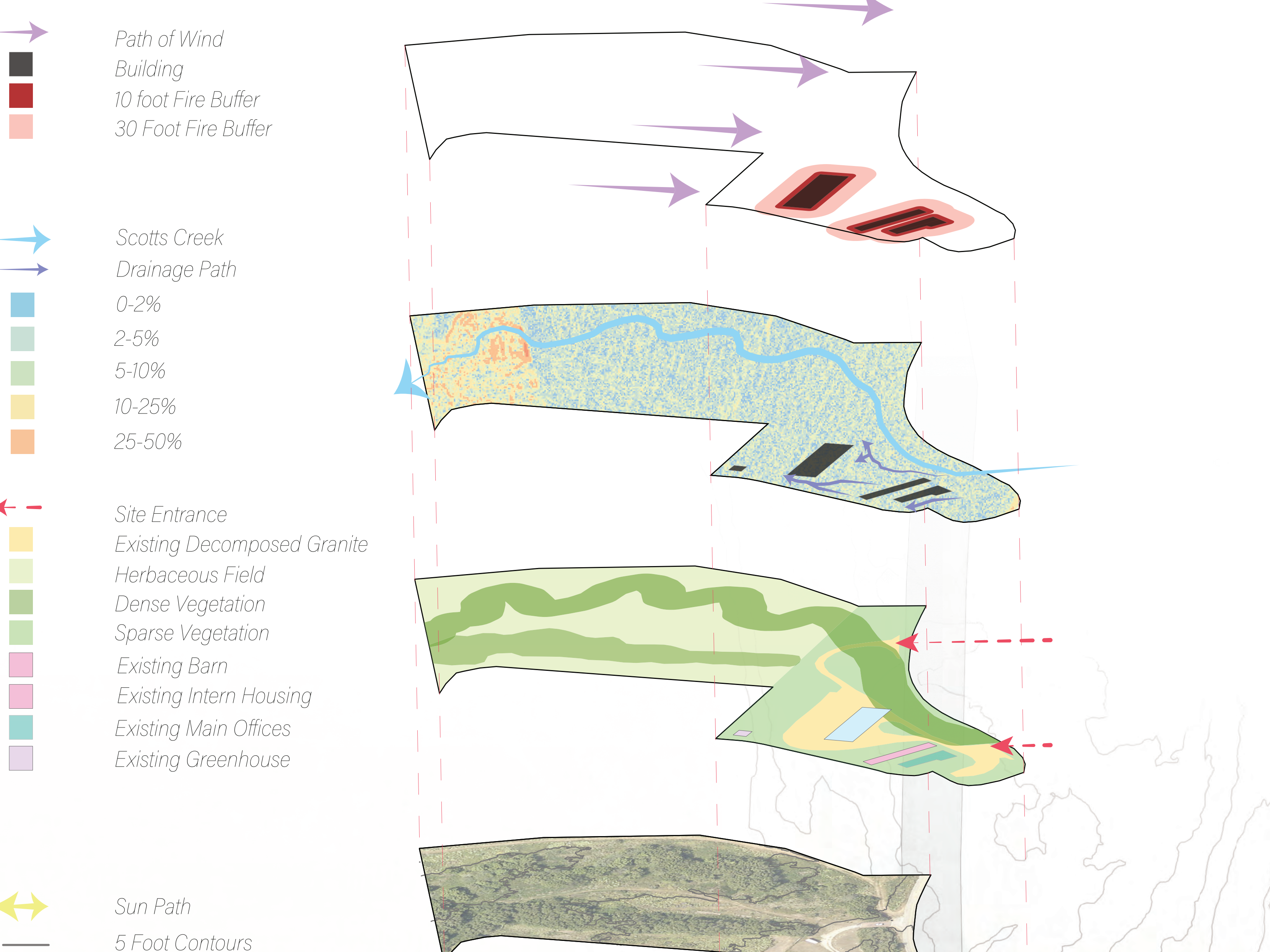
- Create an educational environment that fosters creativity and exploration.
- Forms that replicate nature and represent the beauty of Swanton Pacific Ranch.
- A design that uses regenerative landscape techniques that limit natural disturbance.
- Implementation of sustainable principles that enhance ecological function and ensure longevity of site and its resources.
- Creates a welcoming entrance to Swanton Pacific ranch that educates and orients visitors to the site.
- A design that works with ecological processes of site and represents a strong understanding of Swanton Ranch and its ecological value.

Objectives:

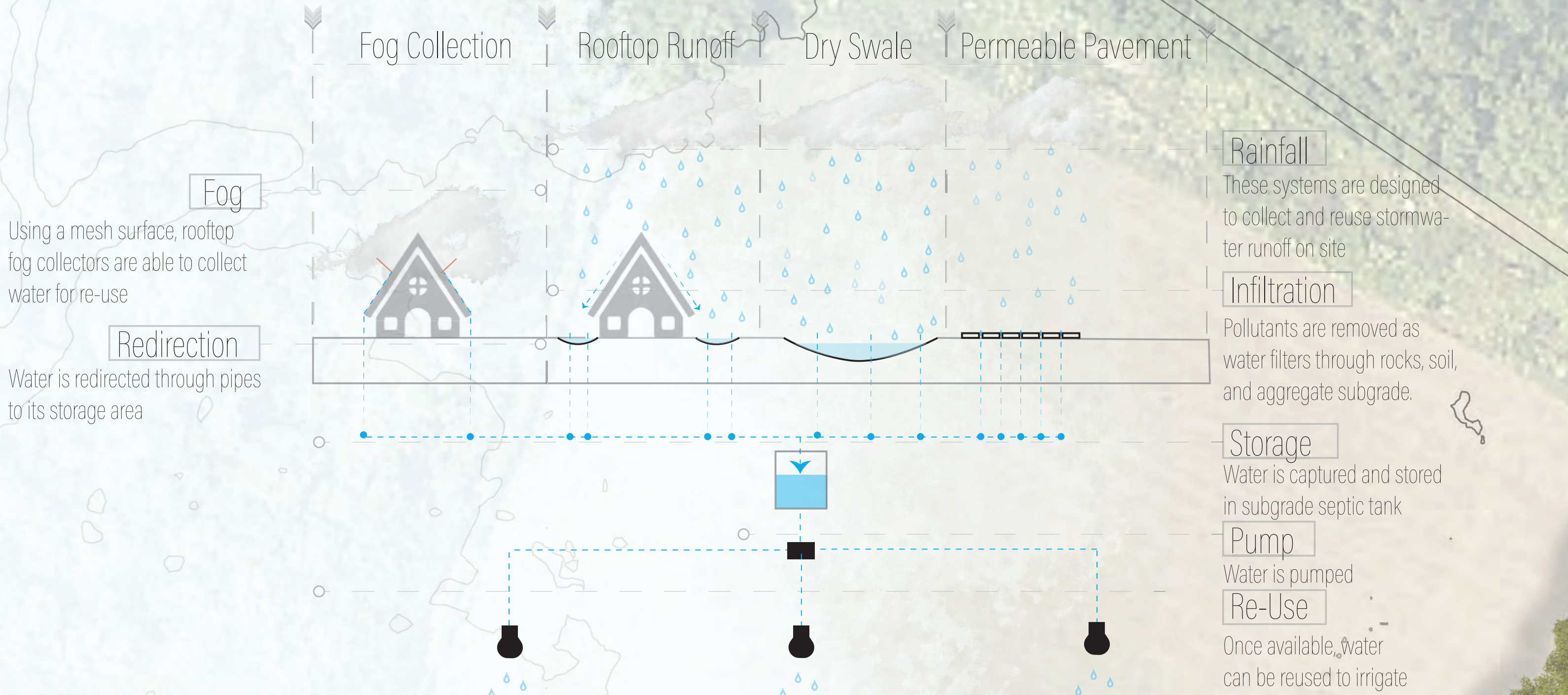
- Immersive outdoor rooms that offer a mix of introspective and social spaces.
- Outdoor classrooms that offer unique educational opportunities.
- Use of Best Management Practices in order to create a mutually beneficial relationship between human and landscape.
- Harvest rainwater for reuse on site.
- A design that is inclusive and welcomes everybody with open arms.
- Creates a fun environment for students to dine, study, and explore
- Uses materials and ecological principles that ensure longevity of the site and it's resources.



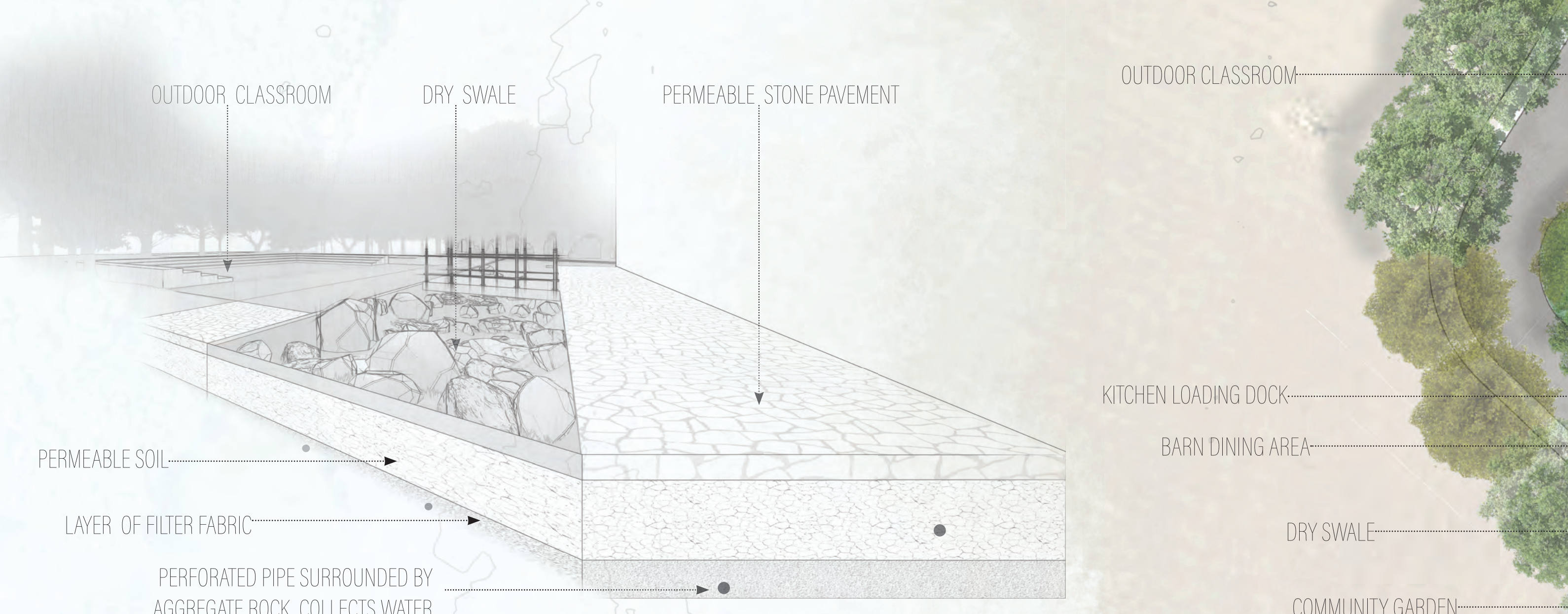
Site Inventory and Analysis:



Water Management Systems:

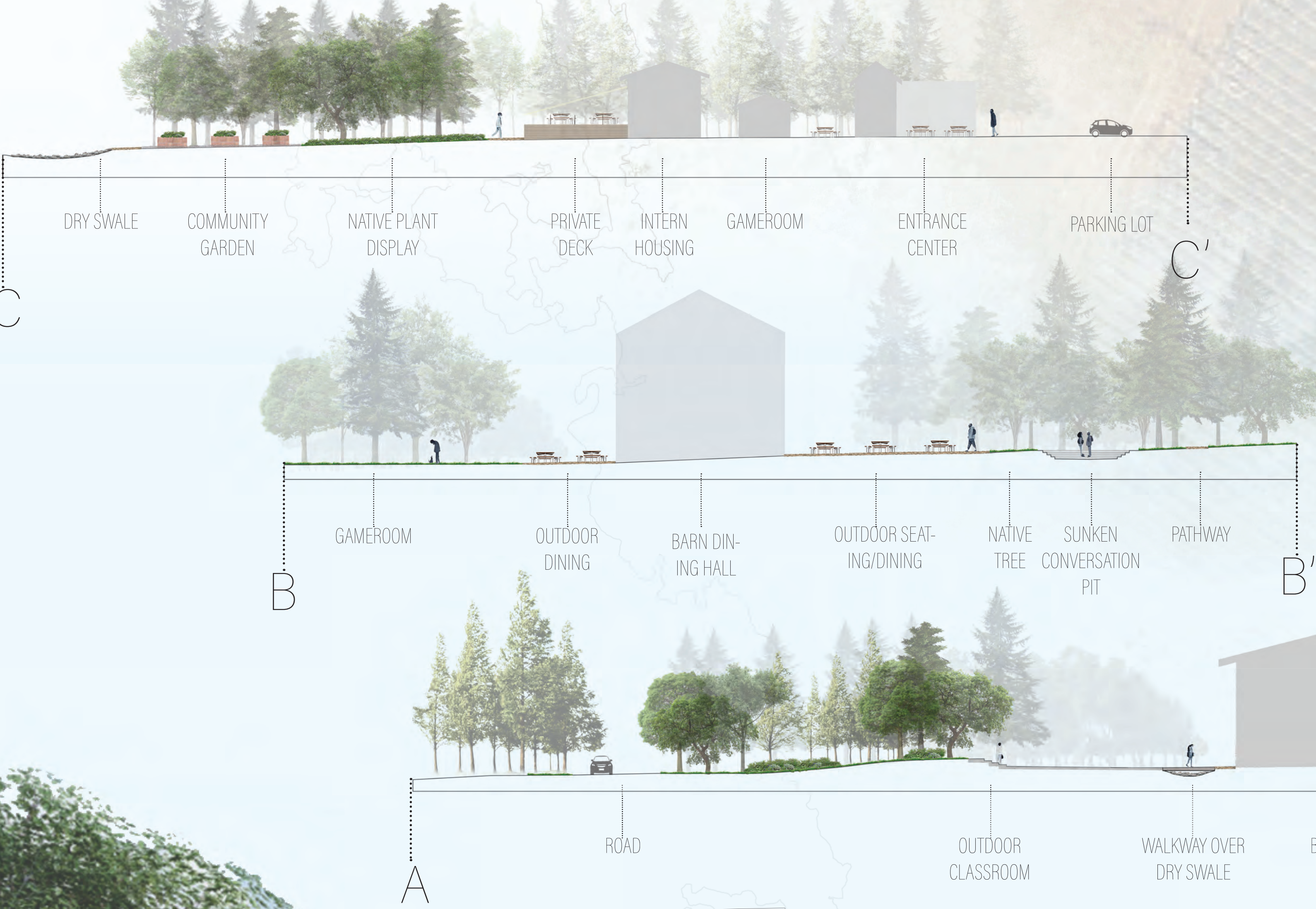


Water Re-use at Outdoor Classroom:



Sections:

SCALE 1"=20'



The Homestead

The Homestead is a refuge for the visiting students of Swanton Pacific Ranch. Students will not just live on the ranch, but will be fully immersed in the natural world around them. By living side by side with nature, students are encouraged to learn through the site and through the sustainable practices that are on display and demonstration. Focusing first on the ecological processes of the site, we are able to create a place that uses sustainable practices that can be taught and passed on to others outside of the ranch. Ultimately, the Homestead is a place where students can come back after a long day of trekking through Swanton Pacific Ranch and feel welcomed and comfortable in the natural world around them.

Goals

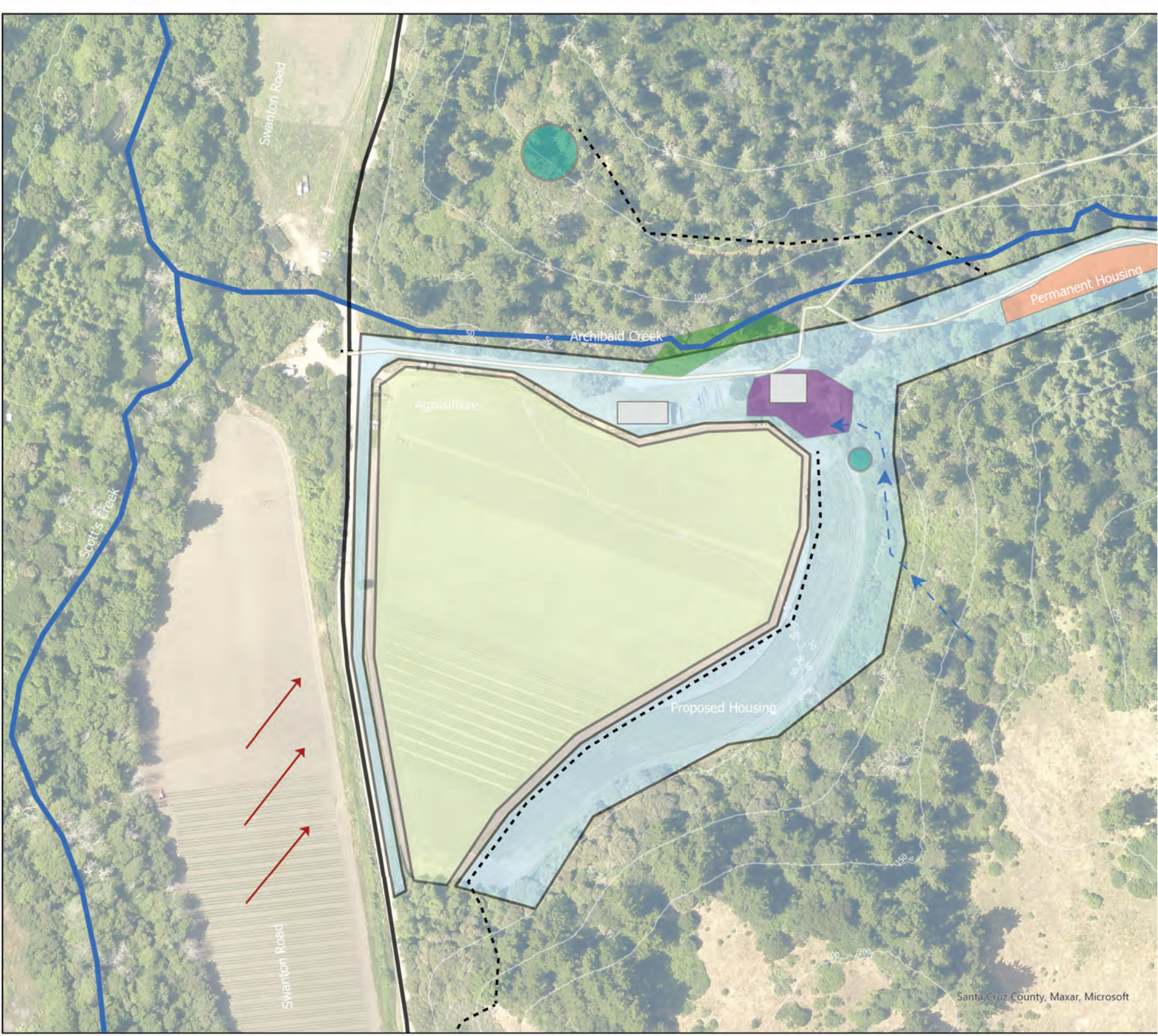
- Create communal space for students
- Provide leisure space
- Incorporate natural features in design
- Manage debris flow
- Handle all water on site
- Prioritize fire resilient design
- Use educational signage around site
- Work with existing systems rather than

Objectives

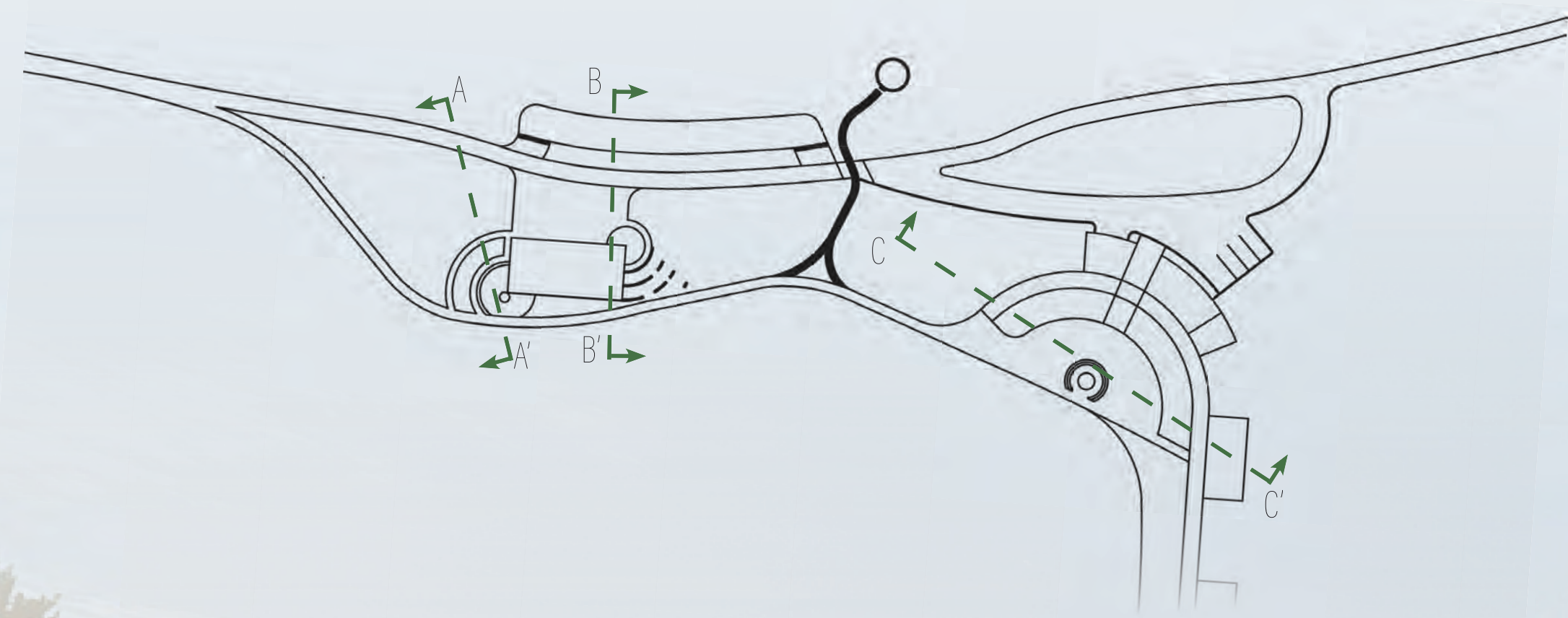
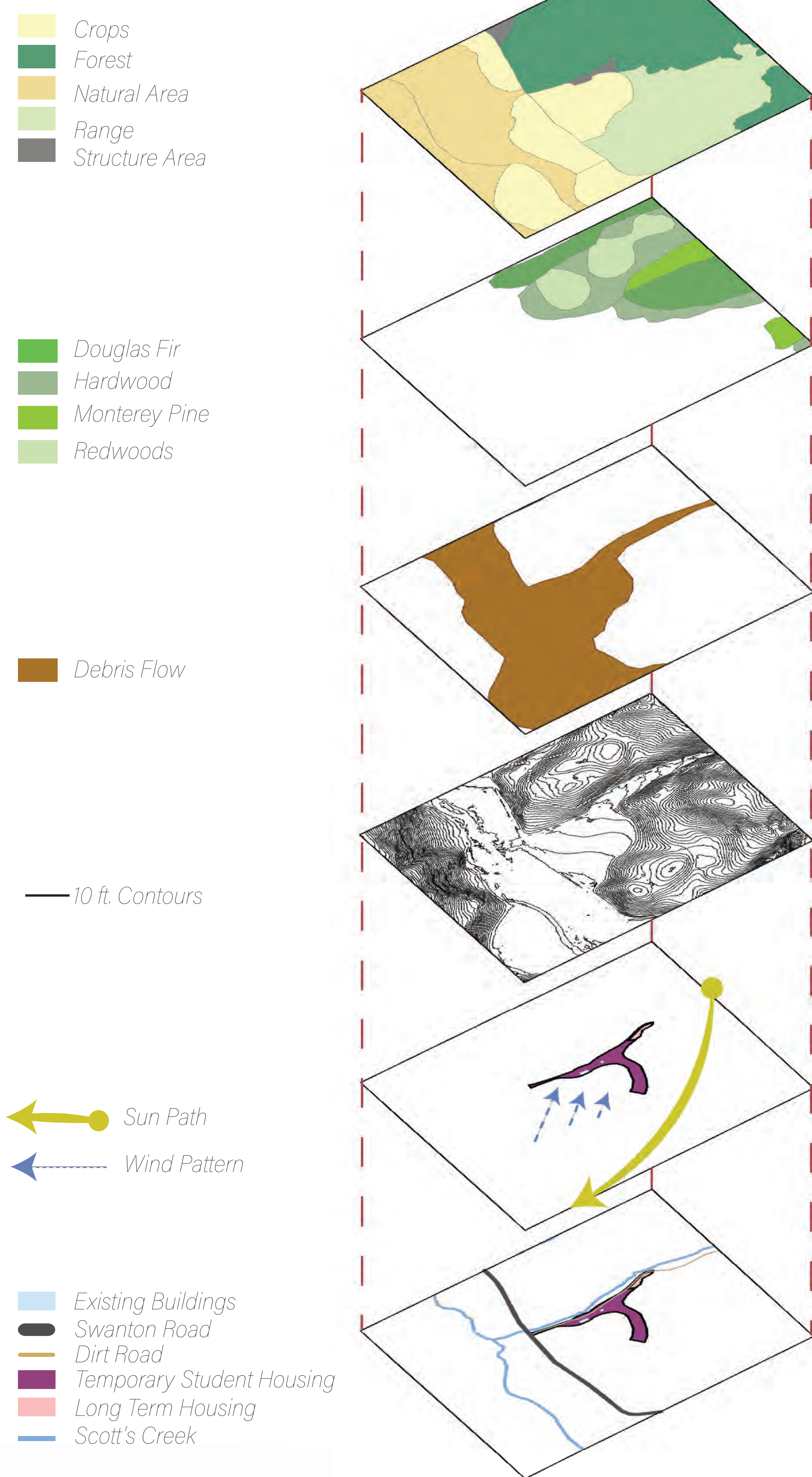
- Create a welcoming and comfortable haven for visiting students to reside.
- Take advantage of the surrounding environment to create an immersive experience.
- Use sustainable practices to create educational opportunities.
- Provide a sense of place without overdeveloping the area.
- Encourage students to embrace nature.
- Do not disrupt natural systems or animal patterns in the area.



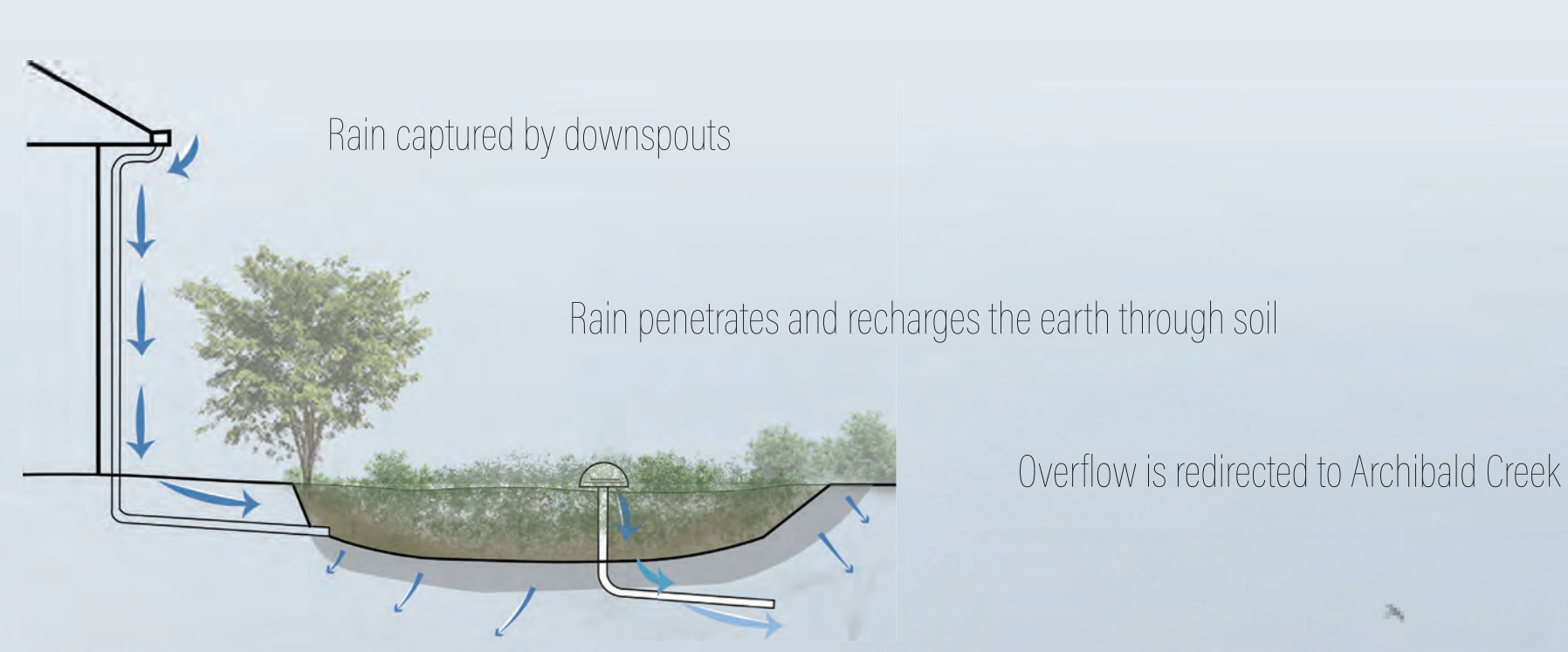
Site Analysis



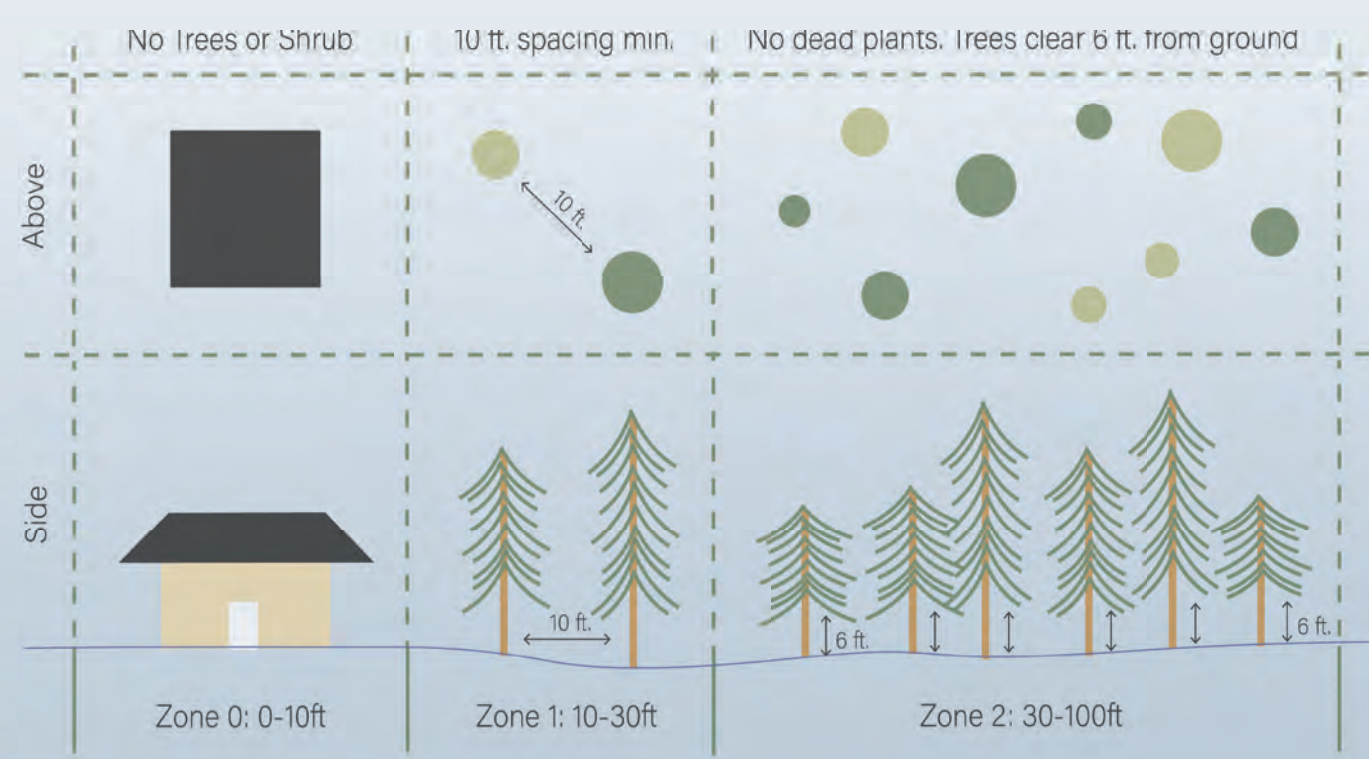
Site Inventory



Rain Garden System



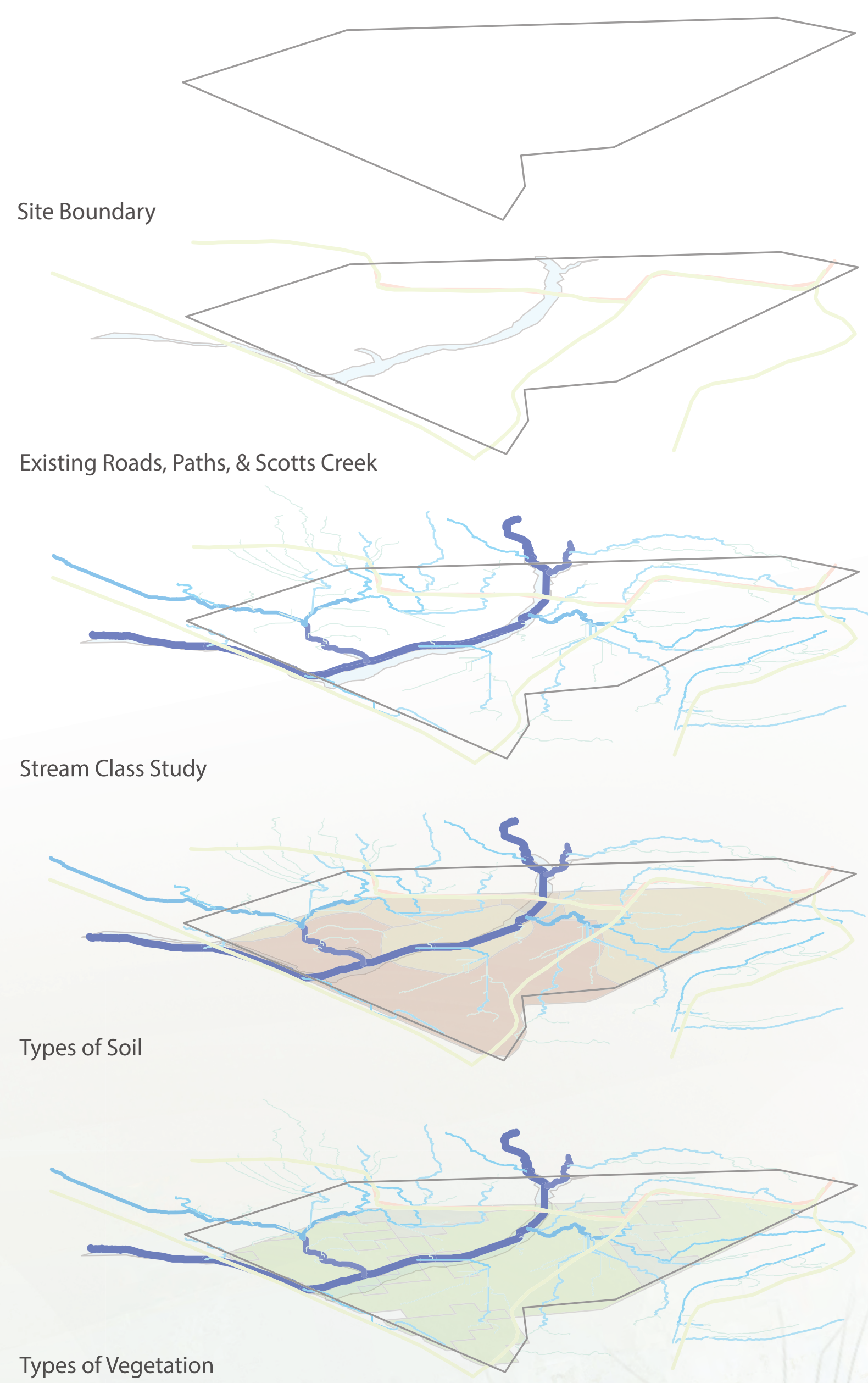
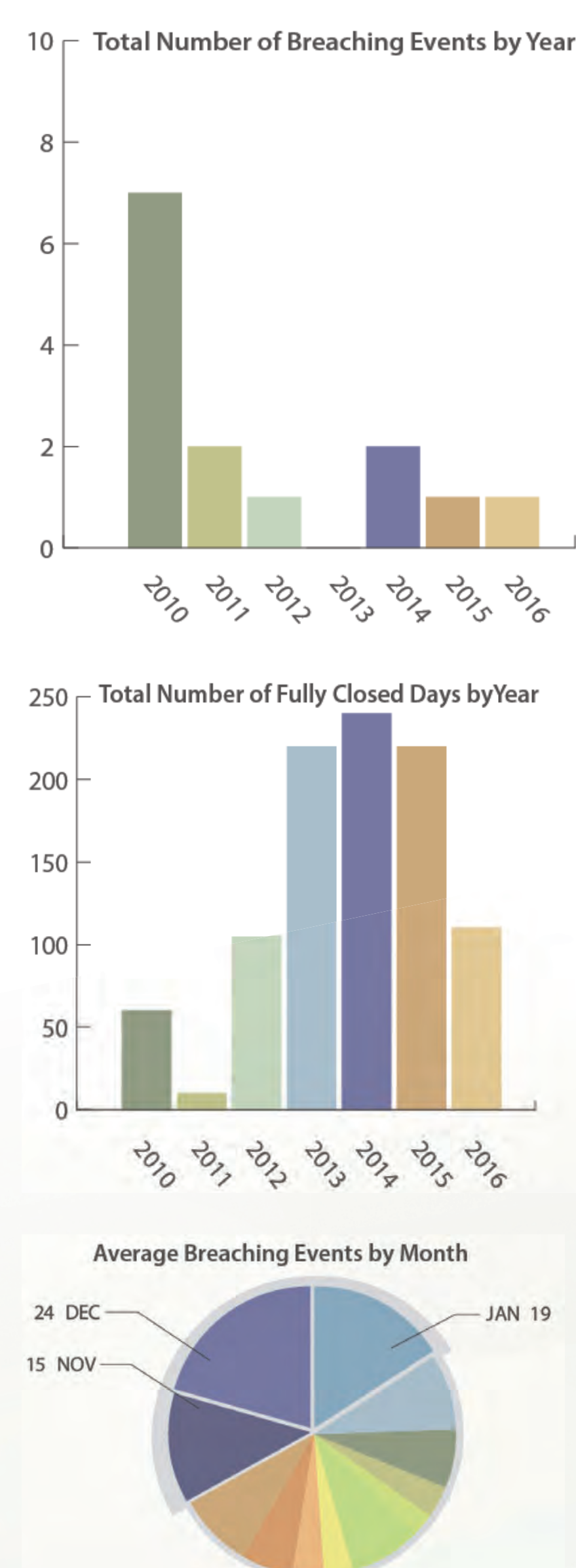
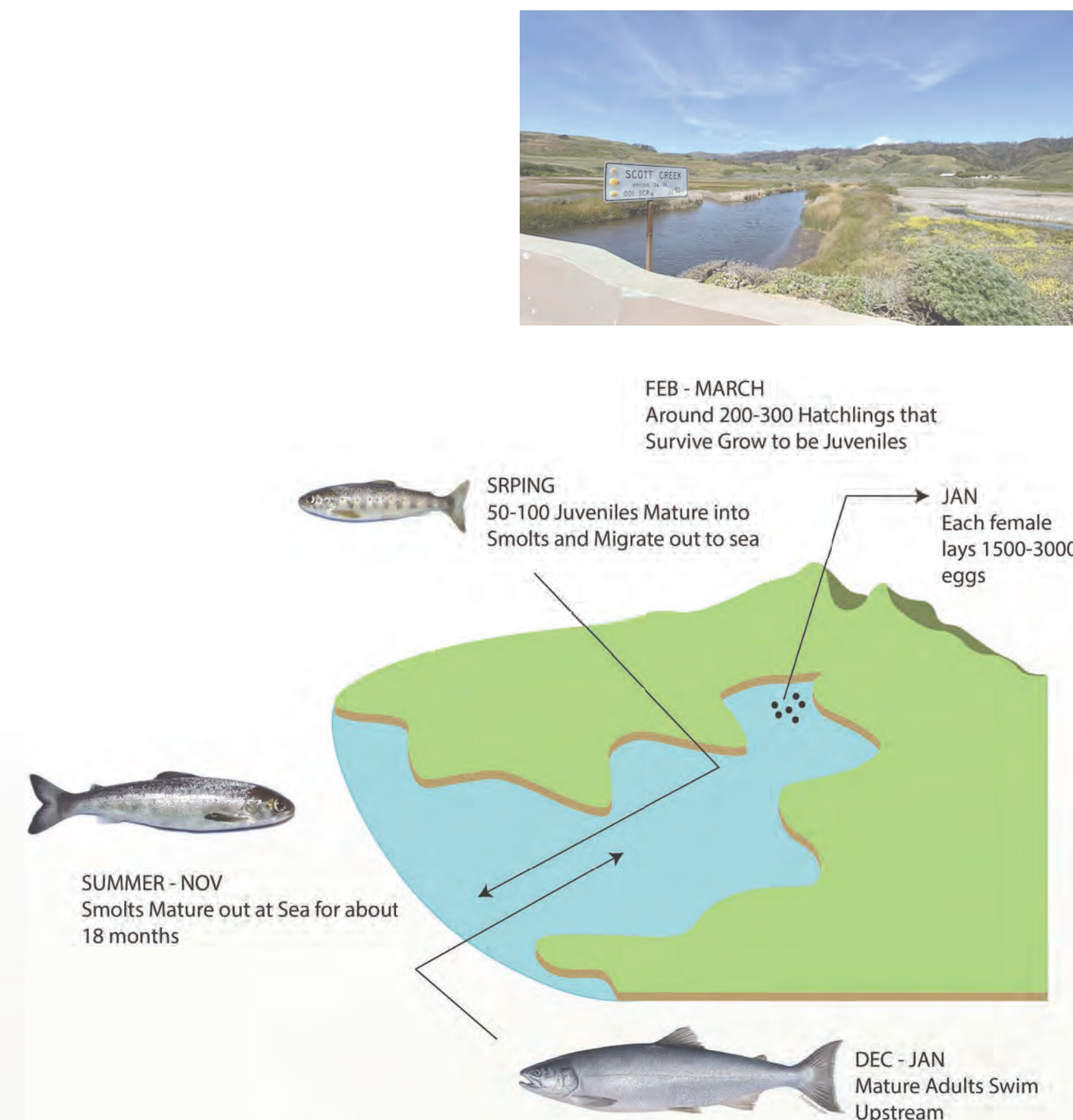
Fire Buffer Regulations



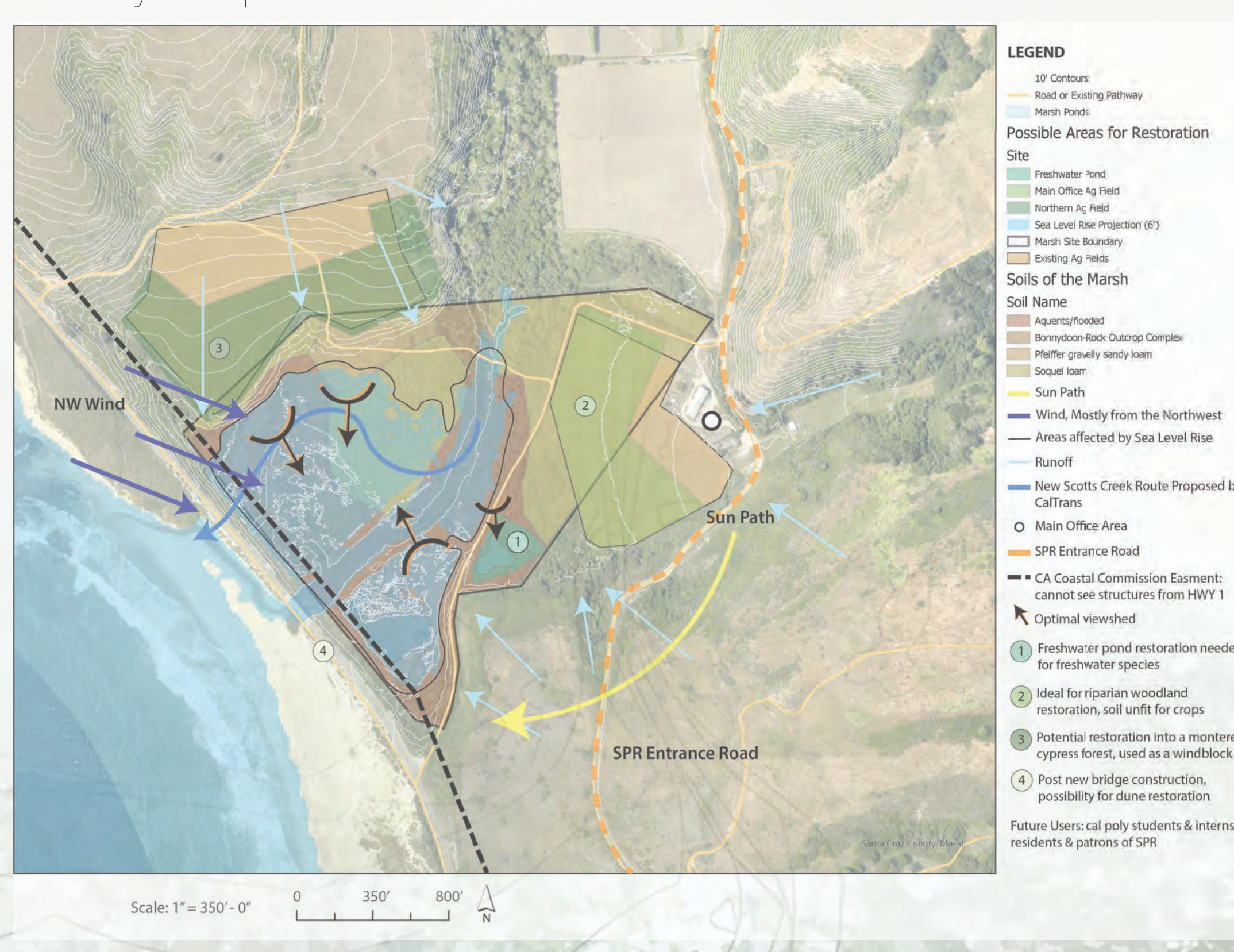
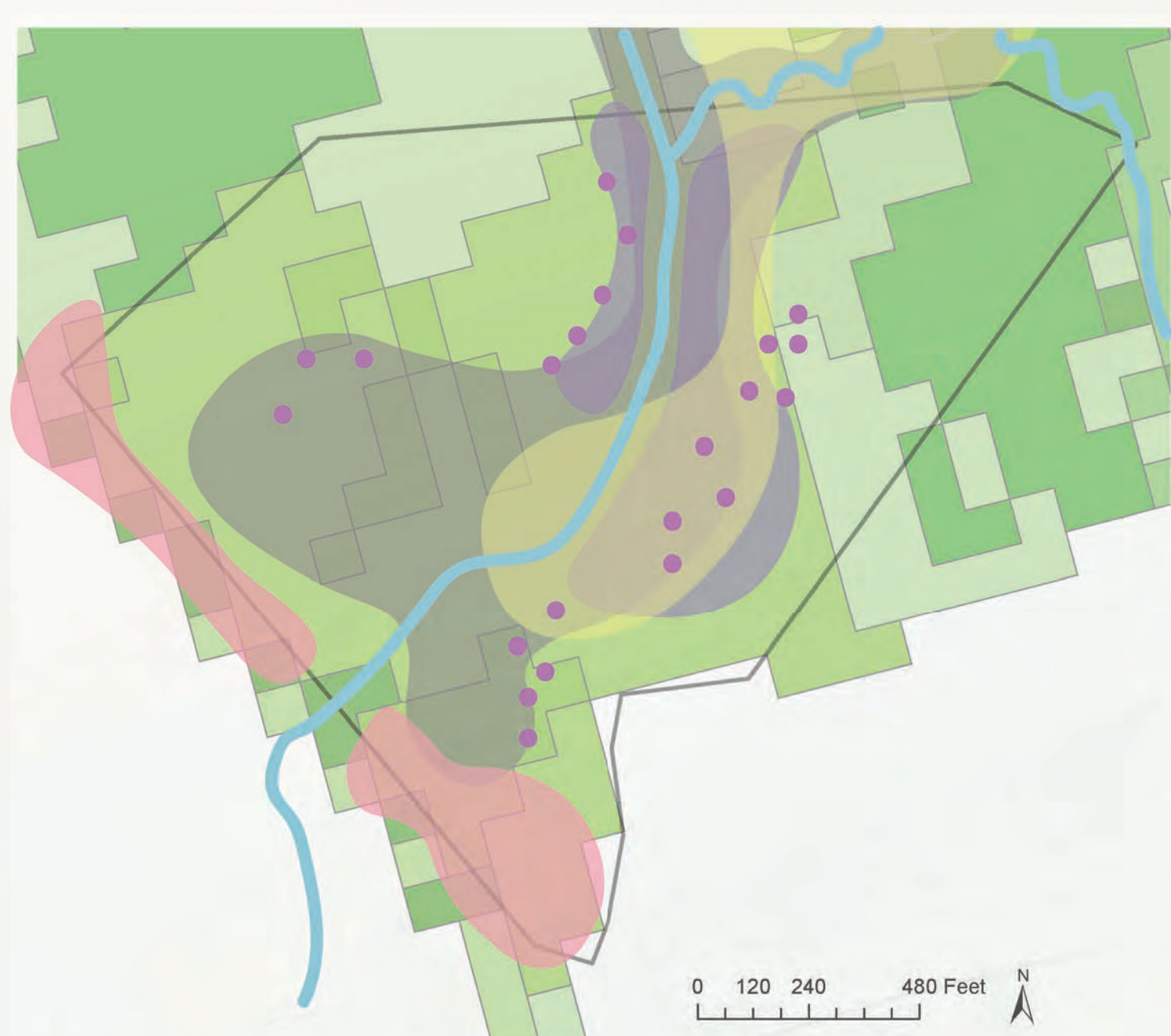
Scotts Creek Marsh is located at the base of the Scotts Creek watershed, where the creek meets the ocean. The marsh acts as an estuary making it an extremely diverse ecosystem, housing countless types of wildlife and plant species. The marsh borders scenic HWY 1, however, the current bridge that goes over the river mouth is in poor condition beyond repair, according to the California Department of Transportation. Therefore, CalTrans has developed an entire redesign plan. This includes the construction of a new, larger bridge 70 feet inland from where it is now but also reverting the creek's route to that of the original route from 1925 - the natural route.

- Develop a design that forces the user to contemplate nature rather than just view it
- Brand the marsh as the hub of ecological exploration at Swanton Pacific Ranch
- Highlight natural processes and the importance of being in harmony with nature
- Encourage a sense of journey through the marsh but with limited exploration
- Take into account existing and future environmental factors & issues

- Restoration of areas that hug the marsh, Coho Salmon habitat revitalization
- Highlight natural processes of the estuary
- Demonstrate the meeting of the different ecosystems
- Circulation around the marsh
- Using sustainable materials
- Design for the projected rise in sea level
- Encourage student collaboration



Invasive Plants Map:



The natural process that the marsh design highlights is called amalgamation, meaning the process of mixing. An estuary is an ecosystem that combines not only the mixing of water, flora, and fauna, but also ties several types of ecosystems together. Going along with the overall theme of Nature's Embrace, the marsh design moves to symbolize the mixing and combining of all types of ecosystems at Swanton Pacific Ranch. Therefore, both the user and the marsh itself are embraced by the contemplative paths that end in a soft crescendo of bird blind hallways and framed viewing platforms. In doing so, encouraging the user to stop and be fully immersed and embraced by nature.

