



ALTA ENVIRONMENTAL CENTER
SUSTAINABILITY REPORT
2024

Sustainability Navigation

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A Message From Mike Maughan General Manager of Alta Ski Area

Alta is a majestic and special place renowned for its ski terrain, beauty and snow quality. It is also a popular summer destination for camping, hiking, wildflower gazing and wildlife viewing. While skiing is our primary focus, we are deeply committed to stewardship of the natural resources within the ski area. Since 2008, the Alta Environmental Center has been at the forefront of our efforts to educate visitors, mitigate impacts and preserve the land and ecosystems within the ski area.

This report summarizes some of our accomplishments over the past year. Thank you to our visitors and employees for helping us achieve these goals.





Our Mission Is Sustainability

The Alta Environmental Center (AEC) was established in 2008, to guide the ski area's sustainability efforts and protect the natural environment in which we operate. Alta Ski Area is a private business that operates under a special-use permit on National Forest Service land. In conjunction with this agreement, we collaborate closely with the US Forest Service to achieve shared management goals for the forest.

Guided by three pillars—environment, community and footprint—the Alta Environmental Center is committed to enhancing sustainable practices at Alta Ski Area. These principles drive us to serve as a resource for the community, uphold high standards in project selection and implementation and lead initiatives to conserve water, energy and air quality.

Climate change presents challenges and opportunities for us to shape the future of our canyon. With support from local and national communities, we work to address the environmental impacts of recreation, transportation and operations. At the local level, we engage through educational programs and stewardship events in partnership with local nonprofit organizations. Nationally, we participate in the National Ski Areas Association's Climate Challenge. By tracking our annual carbon emissions, setting goals and measuring our progress, we identify ways to lead by example and inspire others in the ski industry. We hope this report offers a transparent view of our efforts toward creating a positive impact in Little Cottonwood Canyon.



ENVIRONMENT

Alta is committed to achieving sustainability by conserving energy, water and land. We aim to minimize and mitigate our impact on the natural environment while providing recreational opportunities to Little Cottonwood Canyon visitors.



COMMUNITY

Alta strives to be a valuable resource for our community by actively promoting sustainable initiatives through stewardship opportunities. We also encourage environmental education and research through internal and third-party collaboration.



FOOTPRINT

Alta is committed to supporting the economic well-being of our community while minimizing our environmental impact by fostering economic initiatives that prioritize long-term sustainability and resource efficiency.



Land Conservation

This summer, the Alta Environmental Center planted 13,000 native plants across 14 acres of Alta’s mountainous terrain, restoring areas impacted by ski area projects. This work reflects Alta’s dedication to mitigating our impacts on the natural mountain environment. These restoration efforts are made possible through the commitment of our team, partners and volunteers as stewards of the land.



14 ACRES OF RESTORATION



13,000 NATIVE PLANTS PLANTED



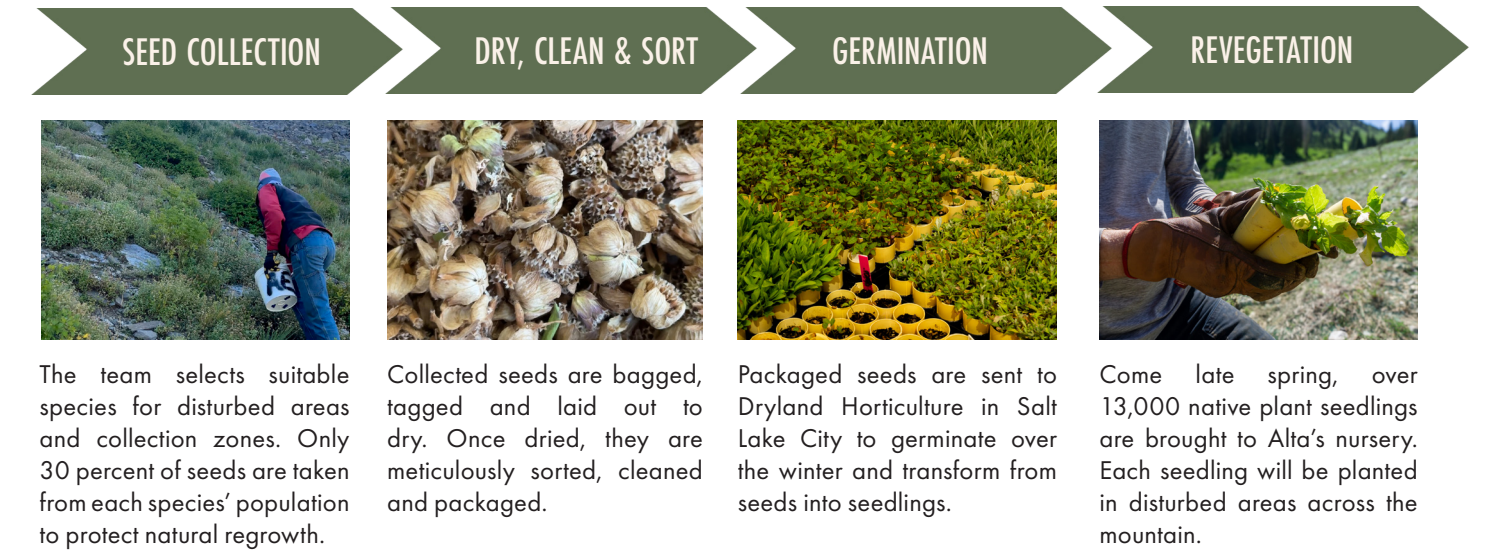
800 SPRUCE SEEDLINGS PLANTED



138 TREES HARVESTED

It All Started With A Seed

Seed collection occurred this fall as cooler temperatures settled into the mountains. Approximately 13,000 seeds were collected from 23 native plant species across Alta’s slopes to be used for next year’s revegetation projects.



Native Species Collected		
Forbs	Fireweed <i>Chamerion angustifolium</i>	Wasatch penstemon <i>Penstemon cyananthus</i>
Nettleleaf Horsemint <i>Agastache urticifolia</i>	Whorled buckwheat <i>Eriogonum heracleoides</i>	Silverleaf phacelia <i>Phacelia hastata</i>
Pearly everlasting <i>Anaphalis margaritacea</i>	Sulphur buckwheat <i>Eriogonum umbellatum</i>	White Jacobs Ladder <i>Polemonium foliosissimum</i> var. <i>alpinum</i>
Pussy toes <i>Antennaria parvifolia</i>	Sticky geranium <i>Geranium vicossimum</i>	Western coneflower <i>Rudbeckia occidentalis</i>
Hairy arnica <i>Arnica montana</i>	Manyflowered stickseed <i>Hackelia floribunda</i>	
White sage <i>Artemisia ludoviciana</i>	One-head Mounding Sunflower <i>Helianthella uniflora</i>	Shrubs
Englemans aster <i>Aster engelmannii</i>	Gordens ivesia <i>Ivesia gordonii</i>	Red Elderberry <i>Sambucus racemosa</i>
Blueleaf aster	Mountain bluebells <i>Mertensia ciliata</i>	Twinberry honeysuckle <i>Lonicera involucrata</i>
	Coyote mint <i>Monardella odoratissima</i>	Gooseberry <i>Ribes montigenum</i>

Conveyors, Willows and Artifacts

This summer, Alta Ski Area initiated a project to enhance the experience for beginner skiers and improve transportation from the Transfer Tow area to the Alf Engen Ski School base. Alta constructed two new conveyor systems on the south side of the Albion Ticket Office. Before breaking ground, the Alta Environmental Center and the U.S. Forest Service (USFS) assessed the project's potential environmental impacts. Two primary challenges were identified in the project area: one concerning environmental impacts and the other related to historic preservation. To effectively address these challenges, unique disturbance mitigation measures were implemented.



Environmental Impacts

One of the new conveyors passed directly through a riparian zone¹, which contains a perennial drainage² located just south of the Albion parking lot. To avoid filling the riparian zone and drainage, we constructed a bridge above it to support the conveyor. This design allows water to flow underneath and enables native riparian plants to grow around the structure. During construction, five native shrubs and 15 upland vegetation plugs were removed from the conveyor's path and replanted around the conveyor once the construction was complete.

Historical Artifacts

The conveyor project site was in the historic site of the original Town of Alta—established during Alta's silver mining era 1870-1900. Excavating in this area often uncovers previously undiscovered artifacts. To monitor the excavation process, professional archaeologists from SWCA were hired to oversee every scoop of dirt removed from the site. Archaeologist uncovered shards of glass bourbon bottles, butter knives, remnants of shoes, shell buttons, original chinaware and glass goblets were unearthed. These items were carefully recovered, documented and preserved by SWCA.



Town of Alta in the late 1800's with Mount Superior in the background.



¹ A riparian zone is the interface between land and a stream.

² Perennial drainages refer to natural or man-made channels that carry water year-round, during normal precipitation.



Conveyor construction along the old Town of Alta with Mount Superior in the background.

Willow Relocation

Willows are typically found in areas where water is present. Before construction on the conveyors began, the Forest Service requested a large clump of willows be preserved through relocation. Willow transplants have had success in the past due to their resilient temperament.

We employed two different strategies for this relocation:

The first approach involved removing large sections of willows and their root system with an excavator. These willows were immediately replanted into the banks of nearby drainages.



For the second approach, clippings of young willow growths were collected and placed in water to keep them healthy until the fall. These clippings were planted into Alta's slopes as propagations.



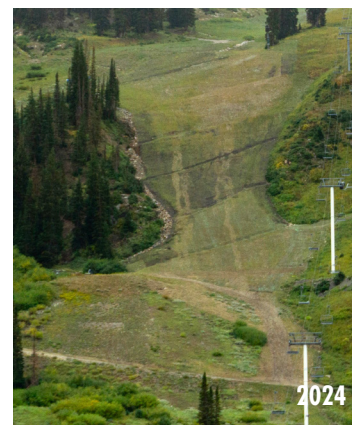
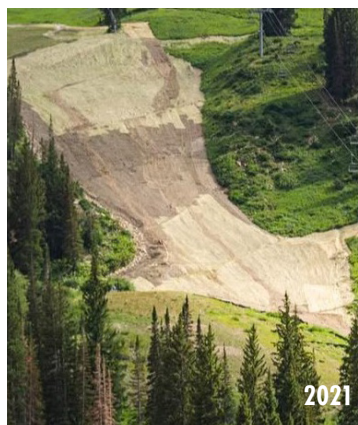
2024 Restoration Projects

Restoration projects are specially designed to suit their environment, some requiring more specific considerations than others. Factors such as plant community types, the presence or absence of riparian conditions and susceptibility to erosion are crucial in planning these projects. A notable example is the wetland mitigation sites in the Albion Basin, which have wetter conditions, higher sensitivity and less common species. For more information on the mitigation process for wetland sites, please refer to the next page.



Sleepy Hollow—a popular ski run in the Supreme Area—was once a steep and rugged slope featuring a large top-to-bottom gully. Due to the shape of the terrain, the run required significant snowfall to be deemed skiable, sometimes delaying the opening of the Supreme Area by a month.

In 2022, the gully was filled by Alta Ski Area. Restoration work on Sleepy Hollow began in 2023 and establishing vegetation for erosion control on this steep and rocky slope was a top priority. Native seed was laid underneath an erosion-control fabric—woven from hemp and coconut—which was then stapled to the ground. The seeds will germinate under the shade of the fabric and push through to the light from small openings. Vegetation is the most effective erosion control measure, so we doubled down by planting 7,000 forbs and shrubs. Usually, Mother Nature’s irrigation schedule does the trick for these plants, but a six-week dry period forced us to drive an Alta watering truck to the top of Supreme, where hoses were laid out from its large basin to trickle water down the slope. Manual watering and some late summer storms kept the site alive.



Nina’s—a steep face in Collins Gulch—is a three-acre terrain change project that has experienced substantial vegetation regrowth since revegetation efforts began in 2021. Over three years, 9,000 plants were introduced to the site. Given the steepness and size of the area, erosion was a significant concern, but vegetation on this slope has thrived. One advantage of Nina’s location is the presence of snowmaking lines. During periods of dry weather, hoses and sprinkler heads were connected to a nearby snowmaking line to water the slope and prevent the new vegetation from drying up. Although revegetation efforts on Nina’s have concluded after three years, the site will continue to be monitored in the coming years.



Wetland Restoration

This summer marks the conclusion of a multi-year wetland mitigation and restoration project at three wetland sites—Cecret, Bend and Berm—in the Albion Basin. Mitigation work successfully restored 11,240 square feet (sq ft) of wetland, offsetting the loss of 2,238 sq ft from the 2017 Albion parking lot expansion and Supreme lift installation.

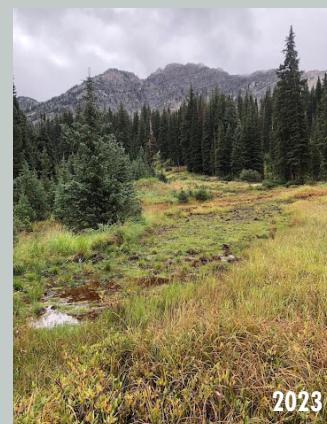
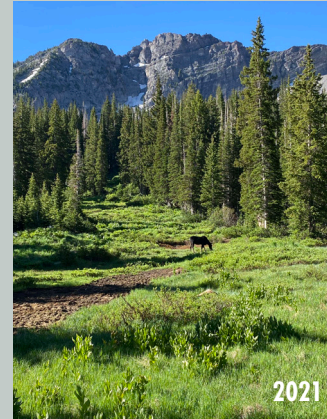
Cecret



Bend



Berm



The restoration process began with a native wetland seed mix designed explicitly for Alta's native grasses. These grasses quickly established themselves, creating a more suitable habitat for other plants to thrive. Between 2021 to 2024, approximately 3,500 native wetland plants were planted, over 100 five-gallon wetland vegetation plugs were transplanted from surrounding areas and numerous willow propagations were introduced. The AEC carefully monitored, recorded and removed invasive species by hand. Seeds were harvested from nearby undisturbed areas and over-seeded across the sites each fall.

Throughout the restoration process, a survey was conducted each year to inventory plant species at each site. 55 percent of the identified species held a wetland indicator species¹ of either obligate², facultative wetland³ or facultative⁴ species. Monitoring these species helps confirm that ideal conditions for their growth are being established, indicating that the restoration process is effective. The combination of water presence and these species lays the groundwork for the formation of hydrophytic soils⁵, a key characteristic of wetlands.

2,238 sq ft

11,240 sq ft

Area Disturbed
Area Restored

- 1 Wetland indicator status refers to the likelihood of a plant species naturally occurring in a wetland
- 2 Obligate wetland species almost always occur in wetlands (chances are >99%).
- 3 Facultative wetland usually occurs in wetlands but may also occur in non-wetlands (67%-99% probability).
- 4 Facultative is equally likely to occur in wetlands and non-wetlands (34%-66%).
- 5 Hydrophytic soils form in waterlogged conditions with little oxygen, supporting wetland plants



Community Conservation Brings People Together

Through volunteer events and educational programs, we invite local and visiting stewards to join in hands-on restoration efforts that are vital for fostering community engagement and raising environmental awareness. This summer, we hosted 20 events that attracted 1,960 new and returning stewards—facilitating face-to-face interactions that are becoming rare in our communities. By cultivating stewards of both the land and the community, these events offer memorable opportunities to learn, give back and play outside.






We are grateful to our Salt Lake and Little Cottonwood Canyon community for helping us make a lasting mark on our slopes!

With the support of our partners, we organized a variety of stewardship and educational events, including three Community Volunteer Days, Tree Harvesting Day, Tree Planting Day, three Employee Planting Days, the Wasatch Wildflower Festival, Kids’ Day, three HawkWatch Birds of Prey shows, 10 Birding Hikes and a Historical Mining Hike through Grizzly Gulch.

Tree Planting Day: Reforesting Alta

During Alta’s annual Tree Planting Day, 50 volunteers planted 800 Engelmann spruce seedlings. This event is part of a long-standing tradition of reforestation at Alta. The seedlings are sourced from trees in Alta, ensuring the region maintains its age and species diversity. Each fall, the Alta Environmental Center works with the Forest Service climbers to collect seeds from trees along Alta’s slopes and send them to Idaho for germination. After a year of growth, the seedlings return to Alta and are planted within 24 hours of their arrival. On Tree Planting Day, volunteers were divided into five groups to plant the seedlings in Collins Gulch and along Backside Road. The success of these trees relies on careful planting, with special attention given to factors such as location, elevation and aspect. Although we may not see these trees mature in our lifetime, Alta’s commitment to reforestation remains a deeply rooted tradition.



Employee Planting Days

Alta employees are at the heart of our sustainability efforts. This summer, team members from various departments came together on the mountain for Alta's summer Employee Planting Days—helping the AEC achieve key milestones and set new planting records. These events allow employees to actively participate in restoring the land that unites us all and set an example for the community that inspire others to become stewards of the land.



Native Plants on Nina's

A record-breaking 2,095 native plants were planted in a single day on Nina's during Employee Planting Day. This marked our revegetation efforts' third and final year for Nina's regrading project.



Shrubs on Sleepy Hollow

Alta employees planted 202 Snowberry shrubs into the slopes of Sleepy Hollow to restore natural vegetation and stabilize the soil. These shrubs were propagated right here at Alta.



Relocating Harvested Trees

In 2023, 105 Engelmann spruce saplings were harvested from groomed runs and relocated to our tree nursery. This year, those trees found new homes in the woods of Sugarloaf.

Birds of Alta: Conservation and Education

Alta's feathered friends took flight this summer with 13 birding events that brought together over 100 bird enthusiasts. Led by Tracy Aviary and HawkWatch International, these events provided an up-close educational experience with Alta's unique avian residents while emphasizing the importance of bird conservation.

Birding Hikes with Tracy Aviary



The Tracy Aviary Conservation Team leads monthly Birding Hikes at Alta to survey non-breeding birds—part of the Alta Bird Monitoring Program that was established in 2015. This program aims to promote bird-friendly practices at Alta and monitor the health of this unique high-altitude ecosystem. Guided by expert birders, participants learn to identify local birds by sight and sound. These hikes are a fantastic opportunity to connect with fellow bird enthusiasts, whether you are new to birding or an experienced observer.

HawkWatch International's Bird of Prey Show

HawkWatch International joined us in the mountains for three Bird of Prey Shows this summer. As leaders in raptor research and conservation, their educators brought raptors who serve as educational ambassadors. Each show featured two rescued and rehabilitated raptors that are unable to return to the wild. These shows allowed the community to connect and support bird conservation efforts at Alta and beyond.



Summer Recreation

This past summer marked Alta’s seventh season managing Albion Basin operations. Albion Basin serves as a hub for recreational activities with visitors engaging in hiking, wildflower viewing, wildlife watching and educational programs—making it another memorable season in the mountains. The Summer Road opened to the public on July 3, 2024, and closed on October 17, 2024. Based on vehicle counts, it is estimated that 207,045 people visited Albion Basin this summer.



Visitor Engagement

To enhance visitor experiences, representatives from the U.S. Forest Service, Alta Ski Area, Friends of Alta and the Cottonwood Canyons Foundation guided and educated visitors on weekends and holidays. They offered tips on responsible recreation within a protected watershed, provided trail etiquette and shared insights into Alta’s unique flora and fauna. Interpretive stations at the Albion base area and Cecret Lake trailhead provided visitors with additional guidance and insights throughout the season.



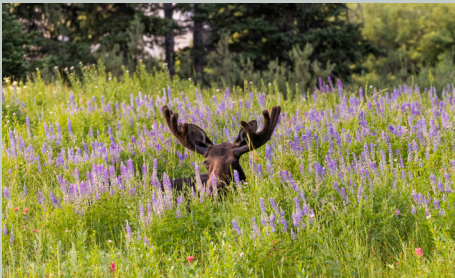
Albion Basin Campground

The Albion Basin Campground opened for reservation-only camping during the 2024 summer season, welcoming visitors for a total of 57 nights. The campground operated from July 12 to September 7. Reservations for all campsites were available exclusively online through recreation.gov. Campers had convenient access to hiking trails and opportunities for wildflower viewing in Albion Basin.



The Alta Store

The Alta Store, situated at the junction of the Cecret Lake trailhead and the entrance to Albion Basin Campground, served as a hub for visitors during the summer season of 2024. It was open daily from July 3 to August 4 and on weekends until Labor Day. Over the course of 41 days, the store offered concessions, retail items and information to enhance the visitor experience in Albion Basin.



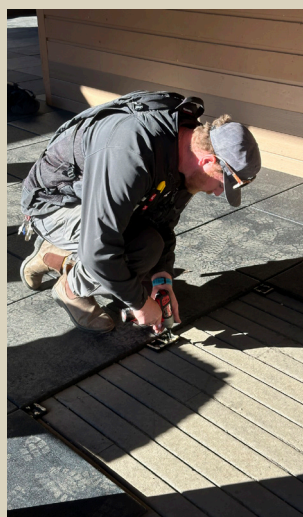
FOOTPRINT

Rubber Recycling

Ski boots are designed for peak performance on the slopes, but walking in them can be challenging—off-mountain slips, trips and falls are common. To help skiers avoid these risks, Alta Ski Area installs non-slip rubber flooring in highly trafficked walkways. Over time, the rubber flooring wears down and begins to crumble, losing its effectiveness and necessitating the installation of new floor tiles.

Alta Ski Area recently joined a circular program with Ecore, a rubber product manufacturer that recycles and transforms old rubber into new products. The process is simple: we send them our worn-out rubber floor tiles and in return, they send us “new” tiles made from recycled rubber. Around and around it goes!

This summer, Alta sent 14,000 lbs (7 tons) of old rubber flooring to Ecore. This material will be reduced to crumb rubber and repurposed in various applications. In exchange, Alta receives tiles made from discarded vehicle tires. Vehicle tires often end up in landfills or are burned as fuel in cement kilns, releasing toxic chemicals into the air. To combat this, Ecore transforms these tires into flooring for gyms, turf infill, speed humps, rubber mulch and hospitality base layers. These materials can be recycled again into new rubber flooring products in their next life.



Snowmaking Efficiency

This year, Alta replaced 20 snowmaking lances and two tower fan guns to improve the efficiency of its snowmaking system. According to future weather forecast models¹, the number of days with temperatures cold enough for snowmaking has decreased and is expected to continue declining. Thus, having an efficient snowmaking system is essential for making the most of cold temperatures when they occur.

Alta replaced a variety of lances from the 1990–2005 era with brand-new DEMACLENKO EOS 4.0 lances, which can produce three times more snow than the older models, resulting in a 200 percent increase in efficiency. Two tower guns from the late 1900s—the Techno Alpin M12 and T40—were replaced. The new tower guns now produce twice as much snow from the same amount of energy as the 25+-year-old models.

The increase in efficiency is illustrated by the Energy-Snow Ratio (ESR), measured in kWh/m³. This ratio describes how much energy (kilowatt hours) is used to produce one cubic yard (m³) of snow; the lower the ESR figure, the better the efficiency.

For example, in 2000, a fan gun achieved an ESR of 1.45 kWh/m³ at a wet bulb temperature of –4°C, whereas a 2024 fan gun operates at 0.7 kWh/m³. Thus, producing twice as much snow with the same energy input is now possible.

¹ Climate Change and Utah Ski Resorts: Impacts, Perceptions and Adaptation Strategies, Emily J. Wilkins, Hadia Akbar, Tara C. Saley, Rachel Hager, Colten M. Elkin, Patrick Belmont, Courtney G. Flint, Jordan W. Smith



Renewable Energy Credits

Alta Ski Area matched 100% of its electricity use in renewable energy through the Blue Sky Select program. This program, managed by Rocky Mountain Power, allows Alta to reduce its carbon footprint by an estimated 3,567 metric tons of carbon dioxide this year by purchasing these credits. The RECs were generated by a solar farm in southern Utah and are fed into the Rocky Mountain Power grid. Electricity use makes up more than 50 percent of the ski area's annual greenhouse gas emissions. As a business that relies on snow, Alta Ski Area recognizes the impact of climate change. By reducing greenhouse gas emissions, we align with our mission statement to provide authentic skiing experiences within a natural mountain environment. To ensure that future generations can continue to enjoy the Alta experience, the ski area is dedicated to conserving and protecting the natural environment in which we operate. Blue Sky products are Green-e® Energy certified, meeting the environmental and consumer-protection standards established by the nonprofit Center for Resource Solutions.

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