

2022 *Sustainability Report*



ARAPAHOE BASIN
COLORADO





Contents:

LETTER FROM SUSTAINABILITY TEAM....	3
POWER TO SAVE THE POWDER....	4
ROADMAP 2025: 7 GOALS IN 7 YEARS....	5
PROJECTS AND ACHIEVEMENTS....	13
PARTNERS....	14
(WE ALL HAVE THE) POWER TO SAVE THE POWDER....	15

ARAPAHOE BASIN ENVIRONMENTAL POLICY

As stewards of an exceptional mountain environment, Arapahoe Basin Ski Area is committed to providing quality outdoor recreation experiences. Our staff and guests realize that Arapahoe Basin is a priceless natural treasure. We strive to continually improve our environmental performance in order to provide enjoyment of Arapahoe Basin for future generations of snow and mountain enthusiasts.



Greetings, Snow Huggers!

Welcome back to another Arapahoe Basin sustainability report. This year's report takes a close look at the 2021-2022 ski and ride season, our 75th in operation! 21/22 was a season-long anniversary party that included another full season of summer activities. Major projects around the mountain highlighted yet another unprecedented year for The Basin. A brand-new chairlift and a top-to-bottom bike trail, The Beavers Loop, were just a few of the major projects defining A-Basin's 2022. The mountain's first EV chargers came online during the winter season. And during the summer, A-Basin staff, alongside the US Forest Service and expert ecologists, hydrologists, and soil scientists, completed work on a major wetland and streambed restoration at the old Norway Chairlift site. The project addressed decades-past environmental impacts and committed the Basin to ongoing stewardship and restoration efforts all over the mountain. To say that 2021-2022 was a fun and busy year would be an understatement!

The biggest news of last season was the replacement of the Lenawee Mountain Chair. Welcome the Lenawee Express, the Basin's first high-speed six-pack! As with any major project, A-Basin and the Forest Service worked closely to avoid environmental impacts. Stunningly, a total of just five trees were cut during the lift's installation. Reuse of existing tower footers avoided dozens of individual disturbances in the alpine. A helicopter and a spider hoe were employed again, completely avoiding new roads and the use of heavy, ground-disturbing equipment, further preserving these sensitive alpine plants and soils. Plus, the tediously constructed Wall (you read about it in AI's blog) kept the lift's bottom terminal from encroaching on any of the nearby wetlands. The old chairlift, still in good working order, even got a second chance at life as it was carefully disassembled and installed at another nearby resort, avoiding tons of waste and significant impacts. All told, the Lenawee replacement was a shining example of collaboration, communication, planning, and execution when it comes to major ski area improvements.

Sustainability is baked into every A-Basin project, including expanding existing solar arrays while finishing work on Steilhang and Il Rifugio last season, but sometimes it gets to star in its show too. In January the Basin's first electric vehicle charging infrastructure came online. 10 level II charging ports opened for business in the front row of the Early Riser parking lot. The charging stations, free for the first year and located in the best parking spots at the mountain, further incentivized the sustainable behavior already exhibited by our guests. They also helped fill a critical charging gap along the I-70 travel corridor and help make possible an all-electric trip to the mountains and ski areas like Arapahoe Basin.

Read on to discover more ways Arapahoe Basin addresses sustainability concerns at the mountain and far outside our ski area boundary. And be sure to check out what A-Basin is doing on-site the next time you visit.

Join us, because we can all do simple things to walk lighter on the planet
— even in our ski and snowboard boots!

Thank you from the A-Basin Sustainability Team,

Mike Nathan, Sustainability Manager
Sha Miklas, Sr. Manager of Guest Services and Sustainability
Alan Henceroth, Chief Operating Officer
Tony Cammarata, Director of Development and Planning





Power to Save the Powder

ROADMAP 2025: 7 SUSTAINABILITY GOALS IN 7 YEARS

During the summer of 2018 the A-Basin sustainability team, senior leadership, and The Brendle Group – a Colorado-based sustainability consulting firm – met to establish a new direction and focus for the ski area's sustainability and master development plans. What began with a survey that highlighted A-Basin employees' desire to grow the sustainability program quickly grew into this new sustainability strategic plan, establishing 7 sustainability goals to be achieved in 7 years, by 2025, culminating in becoming a completely carbon free ski area!

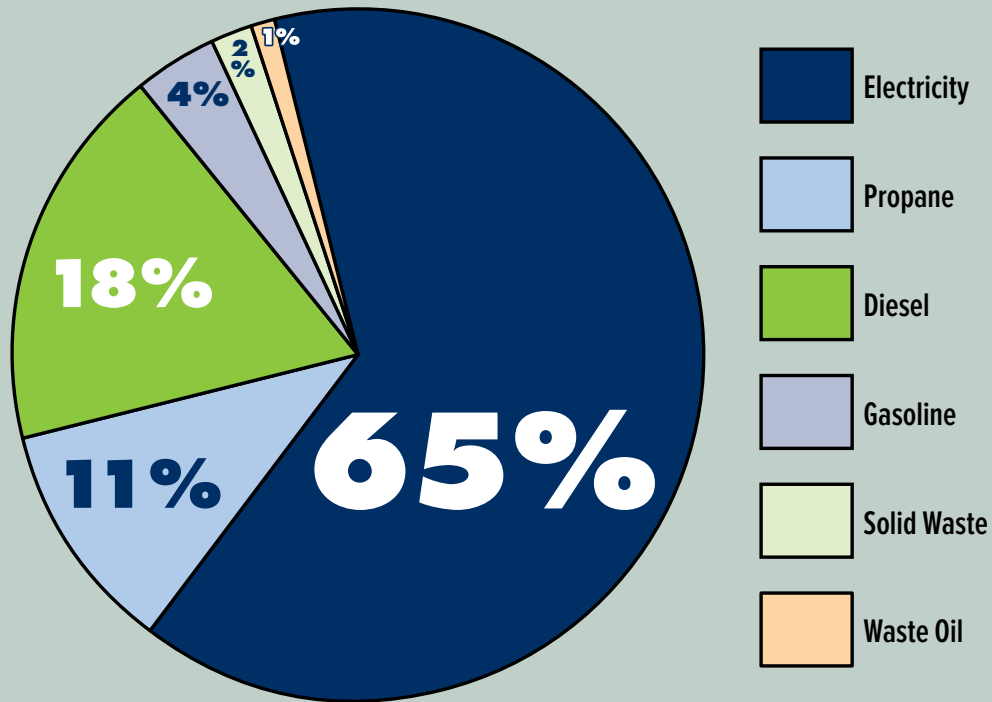
We are excited to continue this challenging endeavor and share our progress, but we will need your help. Visit our sustainability website arapahoebasin.com/sustainability, follow #sustainablenessunday on our social media outlets, or better yet—find us at the ski area, to see how you can get involved and track our progress!



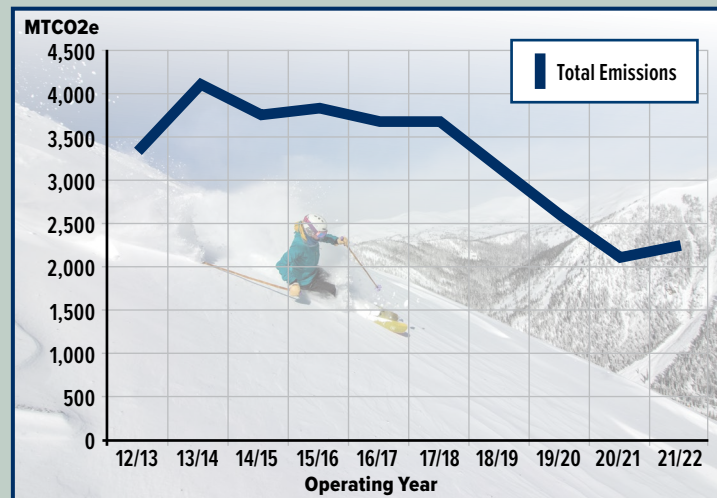
Carbon Neutral by 2025

Every ski area relies on a variety of resources to keep the lifts turning, snowcats grooming, and hot chocolate flowing. A-Basin continues to track resource use in order to see progress and discover inefficiencies.

CUMULATIVE CARBON EMISSIONS—GREENHOUSE GAS EMISSIONS BY SOURCE

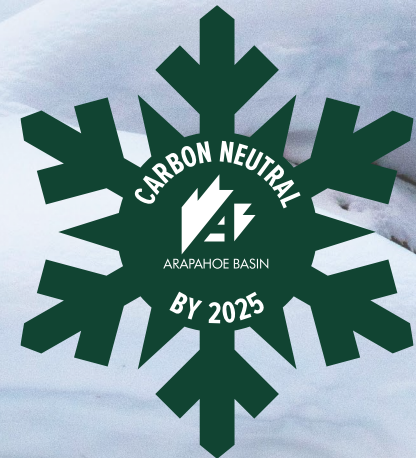


TOTAL EMISSIONS (10-YEAR TREND)



With the implementation of this strategic sustainability plan, and the seven goals highlighted in these pages, A-Basin now has a realistic roadmap to achieve completely carbon neutral operations by 2025.

The goals that follow all have significant bearing on the success of this overarching goal of Carbon Neutrality. Please read on to learn about our 7 Goals in 7 Years and to catch a glimpse into a few of the projects, partners, and initiatives that will help us get there.





Roadmap 2025: 100% Renewable Electricity

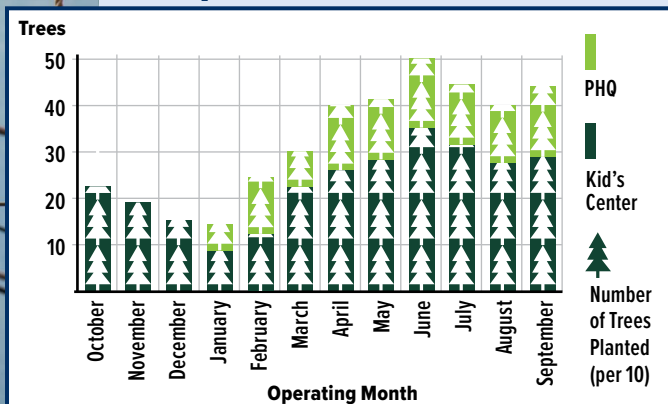
Perhaps the most significant of our 7 Goals, achieving 100% Renewable Electricity will get us closer to Carbon Neutrality than any of our other goals or initiatives. As such, renewable electricity has become a centerpiece in A-Basin's sustainability model, with both on-site solar arrays and utility and community-scale projects all contributing to The Basin's renewable energy portfolio.

The 13.5 kW Kids' Center solar array, installed in 2015, provides about 20% of the building's electricity needs and compliments the sustainable-building measures in place in the Kids Center.

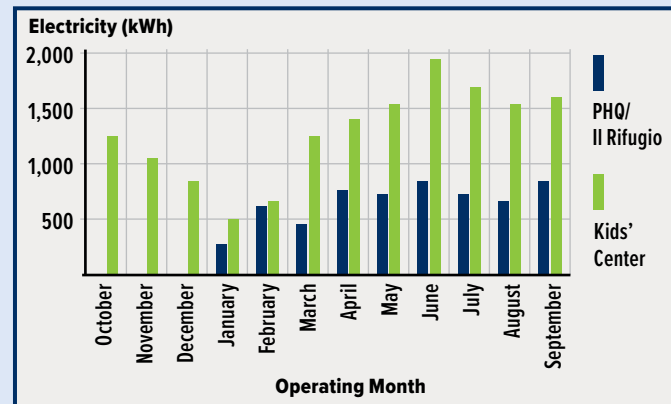
At 12,456', the 8.25 kW Snowplume solar array not only provides more than 90% of the building's needs, including the electricity usage at Il Rifugio—our European-inspired mountaintop bistro—and ski patrol headquarters, it is also the highest ski area-based renewable energy project anywhere in the world!

A-Basin also partnered with Xcel Energy to acquire 20% of its overall electricity needs from a utility-owned solar farm in Deer Path, CO—enough to power the entire snowmaking operation and a portion of chairlifts' electricity needs.

21/22 CO₂ EMISSIONS REDUCTION EQUIVALENT



21/22 MONTHLY SOLAR PRODUCTION

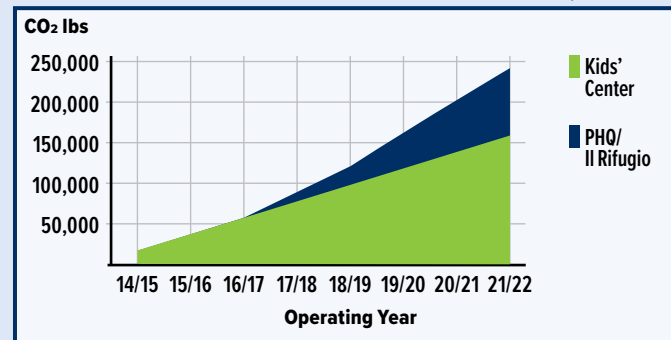


Notes:
Planting one tree offsets the same amount of carbon emissions as generating 55.3 kilowatt-hours of electricity through renewable sources like solar

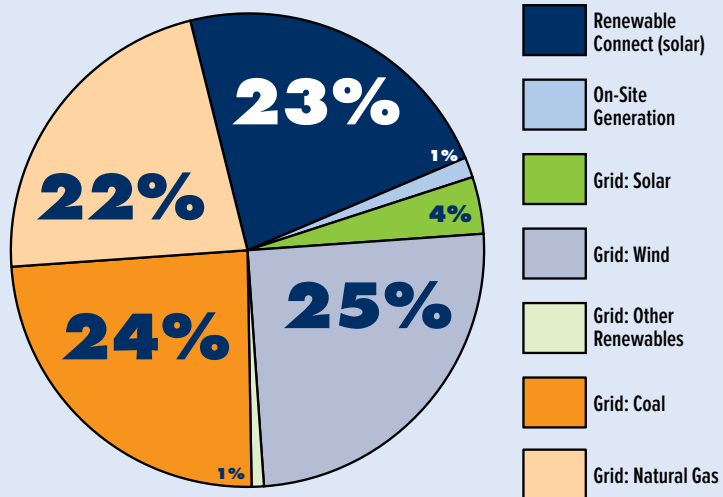
TOTAL SOLAR PRODUCTION BY SEASON

SEASON	KIDS CENTER	PHQ	TOTAL
14/15	8,378 kWh	0	8,378 kWh
15/16	15,175 kWh	0	15,175 kWh
16/17	12,309 kWh	0	12,309 kWh
17/18	10,510 kWh	10,504 kWh	21,014 kWh
18/19	12,505 kWh	11,061 kWh	23,566 kWh
19/20	15,131 kWh	12,637 kWh	27,768 kWh
20/21	14,888 kWh	8,774 kWh	23,662 kWh
21/22	15,256 kWh	5,976 kWh	21,232 kWh

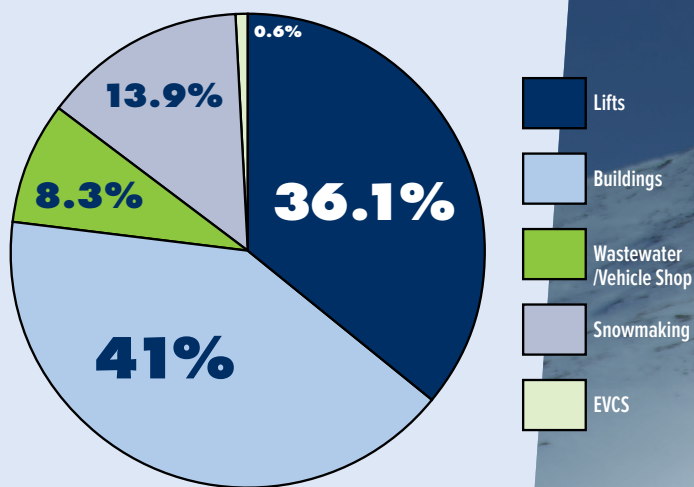
CUMULATIVE EMISSIONS REDUCTION (CO₂ lbs)



21/22 ELECTRICITY SOURCING



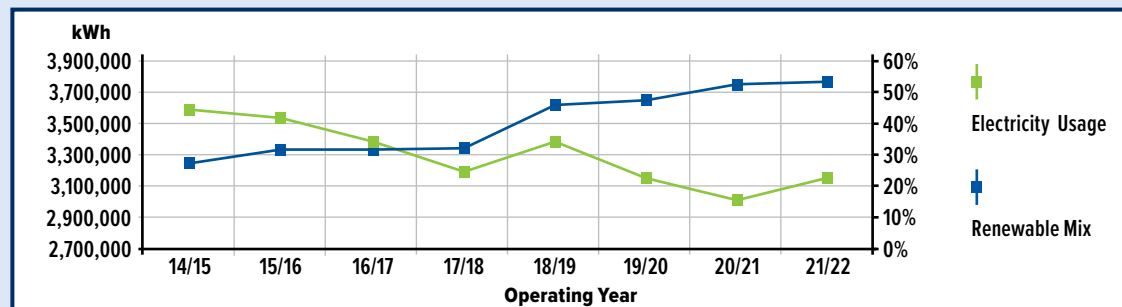
ELECTRICITY USE BY FUNCTION: PERCENTAGE



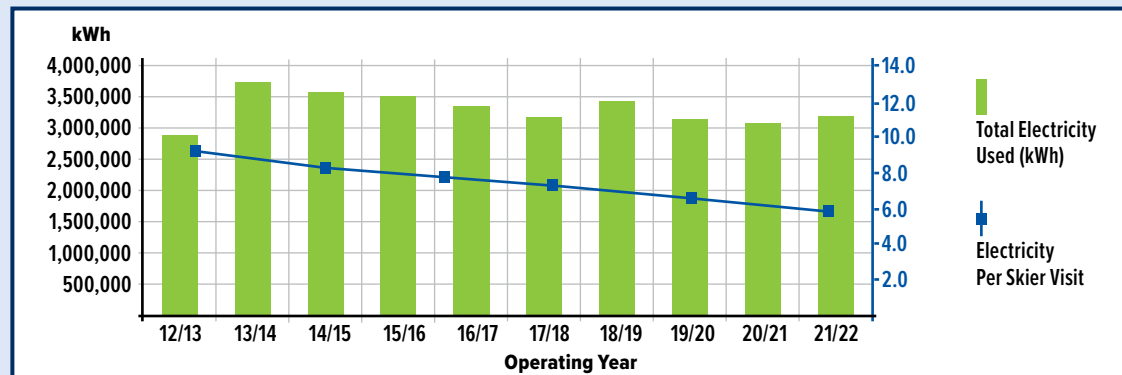
Electricity is used primarily to turn chairlifts, which run on fully electric motors 99% of the time, and to heat and power buildings. A significant amount of electricity also goes towards powering on-site water and wastewater treatment facilities.

In addition to sourcing more and more of its electricity needs from renewables, A-Basin also continually works to reduce their overall energy needs through better behavior and more efficient equipment.

ELECTRICITY USE AND RENEWABLES



AREA-WIDE ELECTRICITY USE



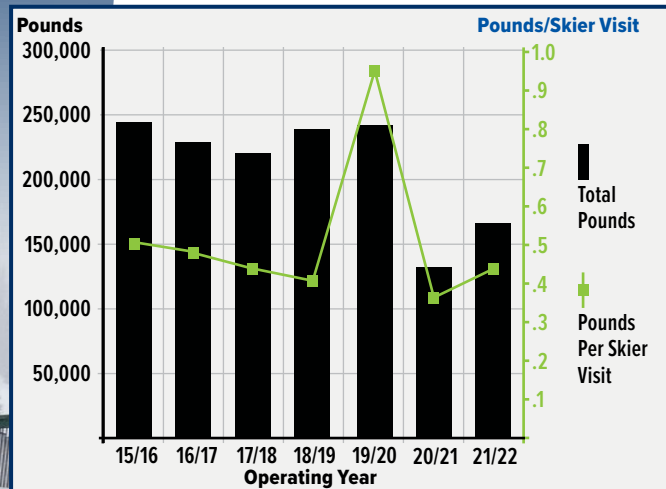


Roadmap 2025: 75% Waste Diversion

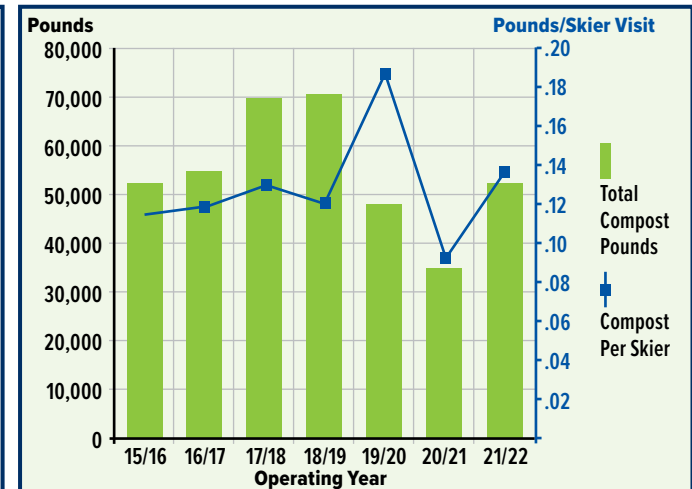
Solid waste—aka the trash we send to the landfill—only accounts for roughly 2-3% of our overall greenhouse gas emissions. However, waste reduction is an accessible way to get involved in sustainable action and a significant focus in our Summit County community.

Recycling and composting bins are provided wherever waste bins are encountered. Staff are encouraged to bring compost and recycling from home, and unique strategies are employed to divert any and all material we can from the landfill.

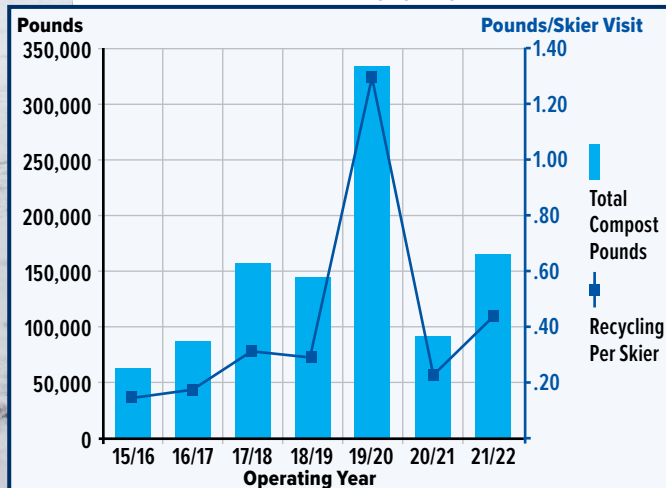
AREA-WIDE WASTE



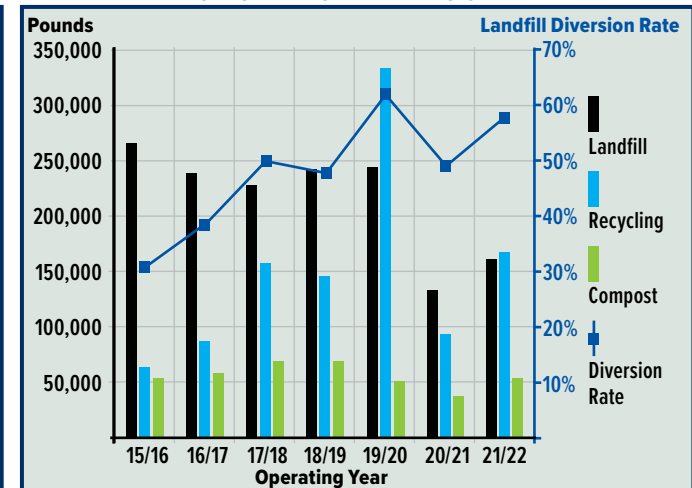
AREA-WIDE COMPOST



AREA-WIDE RECYCLING



WASTE STREAMS AND DIVERSION RATE

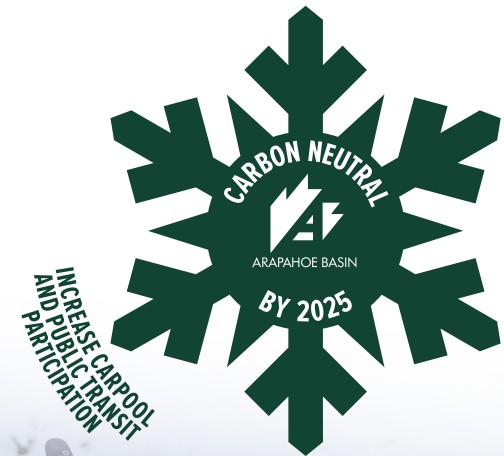


Roadmap 2025: Carpooling and Public Transportation

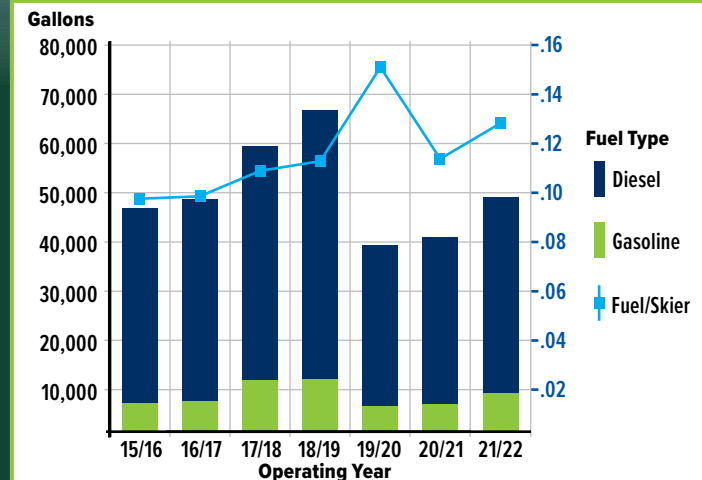
Arapahoe Basin strongly encourages guests and employees to ride the Summit Stage—Summit County’s free bus system—or to carpool to the ski area. Lift ticket discounts and premium parking spaces are available to guests who do so. Employees are required to carpool or ride the bus to work on many Saturdays and Sundays.

In an effort to reduce A-Basin’s fuel consumption and transportation-related emissions, a no-idling policy is in place at the ski area. Innovative grooming techniques and vehicle sign-outs and logs also help keep fuel-usage low.

Starting in 2019, A-Basin also began partnering with the Colorado Carbon Fund to offset all of the ski area’s fuel-related emissions. The CO Carbon Fund supports forestry, renewable energy, and farming projects here in Colorado that help reduce emissions at the source as well as sequester carbon already in the atmosphere.



AREA-WIDE FUEL USE





LEAD IN ECOSYSTEM
STEWARDSHIP &
WILDLIFE MANAGEMENT



Roadmap 2025: Len Chair and Norway Wetland Project

Ecosystem stewardship and secondary restoration have always been priorities at A-Basin. A Golden Eagle award from the NSAA recognized the extra efforts put in place during the Montezuma Bowl expansion and recently, during the ski area's expansion into The Beavers and Steep Gullies, those efforts were renewed again.

The Lenawee Lift replacement, like Montezuma Bowl and The Beavers before, utilized a helicopter and spider hoe to move materials and do most of the construction of the new lift. These machines, with the help of countless trips on foot, helped avoid the construction any new roads. Special attention was paid to tundra plants and soils and reuse of many of the old lift's tower footers avoided further disturbances to these sensitive alpine areas. A total of five trees were cut during the lift upgrade, an astonishingly low number.

2022 also saw the completion of a significant wetland mitigation project at the former site of the Norway chairlift. At the bottom of Old Norway, a historically degraded area with impacts dating back to at least the 1940's, the goal of this project was to restore natural hydrology and jump-start

a thriving wetland ecosystem. With the help of the Forest Service and a team of experts, A-Basin staff first removed about 18" of "fill" from atop the entire area, then regraded roughly 3,000 square feet to allow for natural pooling and seasonal flows of water. Two culverts and a maintenance road were also removed while returning the local stream to its natural gradient and meandering course. Another 8,000 square feet of "upland" area was prepped to increase vegetative cover and diversity around the new wetland. A locally-sourced upland seed mix was spread in this area after the addition of High Country Compost into the seedbed. More than 1,000 native wetland seedlings and willow saplings were planted in the areas of the Norway and stream wetlands with a similar locally-sourced wetland seed mix introduced last.

These restored wetlands will commit A-Basin to ongoing monitoring and secondary restoration to ensure they succeed, as well as pave the way for future restoration projects around the mountain. The natural stream and healthy plant and soils communities will add resiliency to the Basin's fragile alpine ecosystems and help restore the flow (and natural retention) of water within the watershed.

Roadmap 2025: No Net Increase in Water Use

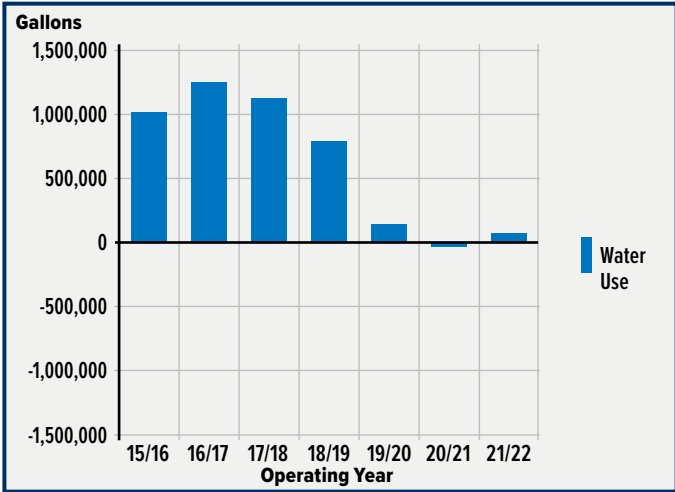
Arapahoe Basin is home to two on-site drinking water treatment facilities and one on-site waste-water treatment facility. Water is processed at BML and beneath the A-Frame for drinking, cooking, dish washers, toilets and hand wash sinks. While a necessity, much of the infrastructure behind these services was aging and inefficient, thus using much more than necessary. Through a number of recent upgrades, A-Basin is confident that consumptive water use will not only

stay flat despite continued increases in business volume and length of season, but will actually begin to noticeably decrease.

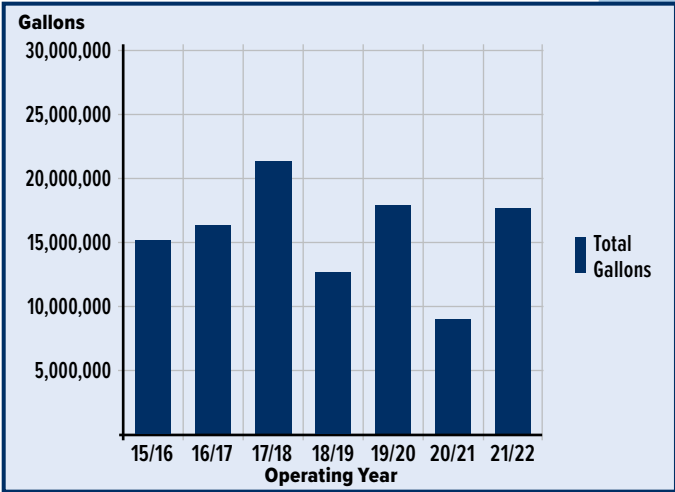
Highly efficient dishwashers in the kitchen, waterless urinals, and low-flow toilets and faucets are just a few of the water saving pieces of equipment being installed at the mountain as we speak.



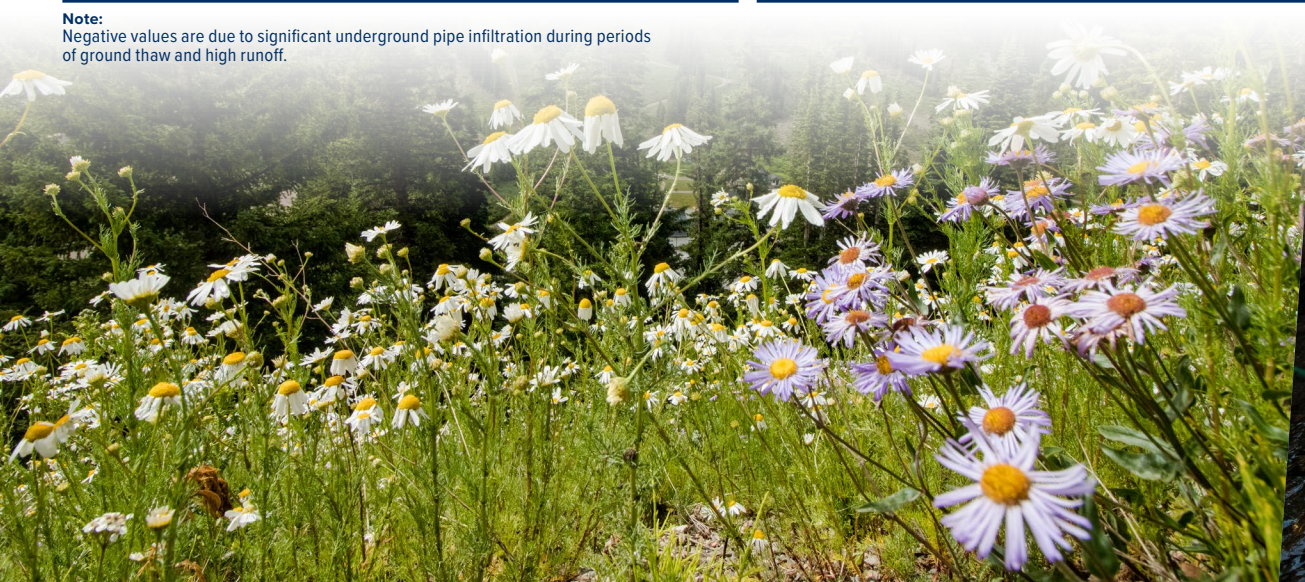
CONSUMPTIVE WATER USE



WATER USED FOR SNOWMAKING



Note:
Negative values are due to significant underground pipe infiltration during periods of ground thaw and high runoff.





Roadmap 2025: Centralize Purchasing

Centralizing Purchasing will be an important tool to leverage a number of the other goals you've just read about. A more streamlined purchasing process will reduce fuel-usage by limiting the number of delivery trucks coming to and from the ski area. It will also save on packing and shipping-related waste, which is a significant source of non-recyclable plastics at the ski area. Also, a more centralized purchasing process

will allow A-Basin to flex its purchasing power in an attempt to improve sustainability within supply chains.

A-Basin has a sustainable purchasing policy in place that allows purchasers to spend more to get better, more sustainable products. Also, buyers in the retail and rental shops have created a letter to vendors stressing the importance of sustainability in their purchasing decisions.

PROJECTS AND ACHIEVEMENTS

ELECTRIC VEHICLE CHARGING STATION

In 2021, work began on installing the first electric vehicle charging stations at the ski area. Thanks partially to State funding through the Colorado Energy Office's Charge Ahead program, and solid preliminary infrastructure work from Xcel Energy as part of their EV Readiness, Make Ready program, The Basin installed five dual port, level II Chargepoint EV chargers. These 10 EV charging ports were situated in the front row of the Early Riser parking lot, where they occupy the best real estate and most sought-after parking at the mountain. Free for their first year of use, these front-row, EV-designated parking spaces incentivized our guests' existing strong environmental ethic and further rewarded their choice of taking an EV to the mountain. After a full year of operation, the stations have delivered roughly 35 megawatts of electricity and accounted for a carbon reduction of approximately 25 MTCO_{2e}.

WATER EFFICIENT RESTROOM RENOVATION

In 2019, the restrooms in the A-Frame lodge, our primary bathrooms, received a much-needed upgrade. Water efficient fixtures and systems were at the core of the improvements. 15 urinals, 20 toilets and 10 handwash sinks were replaced with hyper-efficient options: hybrid urinals that only flush once per day, dual-flush, low-flow toilets, and motion-activated, low-flow aerated faucets. This efficient equipment, working alongside other efficiency upgrades in our

kitchen, has saved more than 500,000 gallons in its first year of operation. With our onsite water and wastewater treatment facilities, accounting for roughly 15% of our overall energy use, these significant water savings directly translate into electricity savings and emissions reductions as well.

BLACK MOUNTAIN LODGE CONTROLS

During the summer of 2017, to go along with a suite of new energy efficient lighting and HVAC equipment, comprehensive building controls were installed at Black Mountain Lodge. The controls, which provide programmable settings as well as real-time monitoring for the building's lighting, HVAC system, water heaters and kitchen equipment allow the building managers to maintain a functional space while decreasing the building's energy needs by as much as 40%.

FREEAIRE REFRIGERATION SYSTEM

In December 2015, an innovative new refrigeration system was installed in one of our walk-in coolers. The Freeaire System monitors the temperature inside the cooler, as well as outside the building, and when possible, cycles the outside air into the cooler to keep it cold. By taking advantage of our clean, cold air at 10,800', conventional refrigeration components like evaporator and condenser motors can remain idle. With less run time, these components accumulate far less ice build-up, decreasing our need for defrost cycles. The Freeaire system helps us run this cooler using up to 90 percent less energy.

2022 NSAA GOLDEN EAGLE AWARD: CLIMATE CHANGE IMPACT AWARD—FROM THE NSAA

In 2022 A-Basin earned multiple Golden Eagle nominations for the ways in which they tackle environmental work. They promote climate action and advocacy at a resort level, and encourage their consumer base, community and political leaders to do the same. A-Basin's strategic sustainability plan culminates in the ski area becoming a 100% carbon neutral operation by 2025. Their new EV chargers, free for the first year and placed in some of the best parking, encourage guests to be more green themselves. Arapahoe Basin is directly contributing to the continued removal of barriers to EV adoption in mountain towns and being vocal about it. The organization has signed on to business letters and even written their own op-ed urging for climate action at state and federal levels.

2018 SKI MAGAZINE AND NSAA GOLDEN EAGLE AWARD—HERO OF SUSTAINABILITY—SHA MIKLAS

In May 2018, Arapahoe Basin Senior Manager of Guest Services & Sustainability Sha Miklas received recognition from NSAA and Ski Magazine as Hero of Sustainability for her efforts in creating and leading the Arapahoe Basin sustainability program. Under her supervision, the program has steadily grown into one of the leading sustainability programs in the industry, equally encompassing high level capital projects as well as everyday behavioral changes among staff and guests.

2017 SUMMIT COUNTY RESOURCE WISE PROGRAM—SILVER BUSINESS

Arapahoe Basin is the first and currently the only ski area in Summit County to receive the designation of silver-level business in Summit County's Resource Wise Program. This program is a partnership of county government, the Towns of Breckenridge, Dillon, Frisco and Silverthorne and the High Country Conservation Center. It recognizes business that positively impact our community by reducing carbon emissions, energy use, and waste, and by improving recycling, composting and green purchasing practices.

2017 COLORADO ASSOCIATION FOR RECYCLING—OUTSTANDING BUSINESS RECYCLING PROGRAM

In June 2017, Arapahoe Basin received recognition from the Colorado Association for Recycling for the ski area's efforts in developing its recycling program. This award is bestowed upon the Colorado business that best exemplifies strong commitment, innovation and leadership in waste reduction.

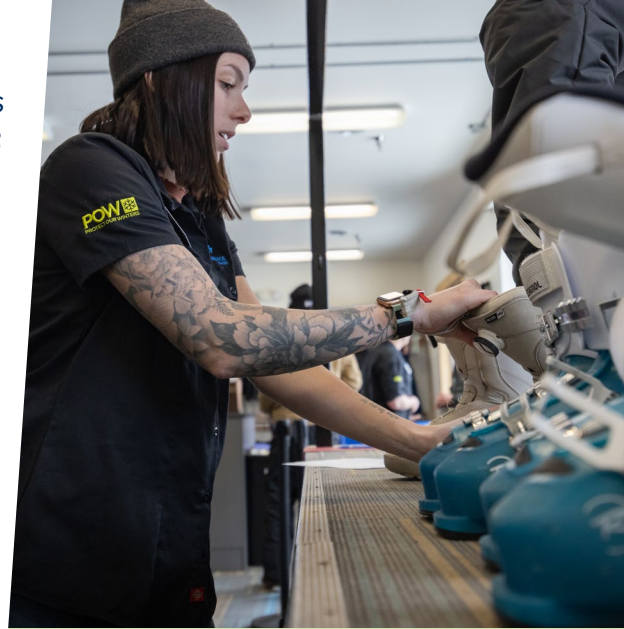




Arapahoe Basin began its partnership with HC3 in 2008 with the introduction of the Snow Huggers Club and the Save Our Snow celebration. More than \$100,000 has been raised through Snow Huggers programs, all of which has benefitted the nonprofit. The Snow Huggers Club provides members with exclusive discounts at A-Basin facilities while the Save Our Snow Celebration is our yearly event focused on educating our guests, building collaboration, and having fun! The event includes a green village of our environmental partners, an on-snow gear demo, a prize drawing and silent auction, and live music. In addition to funds raised through the auctions and demo, A-Basin donates a dollar for each skier at the mountain that day.



HIGH COUNTRY
CONSERVATION CENTER



PARTNERS

HIGH COUNTRY CONSERVATION CENTER is a non-profit organization dedicated to promoting practical solutions for waste reduction and resource conservation in our mountain community. High Country Conservation Center works with residents, businesses and schools in areas including waste reduction, energy efficiency and clean energy and sustainable food production.

[HIGHCOUNTRYCONSERVATION.ORG](https://highcountryconservation.org)

NATIONAL FOREST FOUNDATION engages Americans in community-based and national programs that promote the health and public enjoyment of the 193-million-acre National Forest System and administers private gifts of funds and land for the benefit of the National Forests.

[NATIONALFOREST.ORG](https://nationalforest.org)

EAGLE SUMMIT WILDERNESS ALLIANCE was formed to raise cash and in-kind donations to help the Dillon Ranger District of the White River National Forest maintain the Summit County portions of the Eagles Nest, Ptarmigan Peak and Holy Cross Wilderness areas.

[EAGLESUMMITWILDERNESS.ORG](https://eaglesummitwilderness.org)

THE COLORADO CARBON FUND is dedicated to carbon reduction within our state, to ensure you have clean air, a sustainable water source, and healthy soils for generations to come.

[COLORADOCARBONFUND.ORG](https://coloradocarbonfund.org)

THE SUMMIT STAGE is Summit County's free county-wide bus system that provides access to Arapahoe Basin from November through May. Guests who take the Summit Stage get dropped off right at the ski area and can receive lift ticket discounts for taking public transportation.

[SUMMITSTAGE.COM](https://summitstage.com)

COLORADO OPEN LANDS is dedicated to preserving the unique open spaces of the Central Rockies, through land stewardship, public education and landowner consultation, to ensure and enhance the rural mountain character of our communities.

[COLORADOOPENLANDS.ORG](https://coloradoopenlands.org)

PROTECT OUR WINTERS unites and mobilizes the snowsports and outdoor communities against climate change. POW focuses on youth education, climate advocacy and community activism. Every guest can be a part of the solution by reducing their carbon footprint, supporting strong climate policy, and being a vocal advocate against climate change.

[PROTECTOURWINTERS.ORG](https://protectourwinters.org)

(WE ALL HAVE THE) POWER TO SAVE THE POWDER

MAKE A CLEAN GETAWAY

When buying your next car, pick the least polluting, most efficient vehicle that meets your needs. Maybe it's a hybrid that combines a gasoline engine with electric motors, or an innovative all-electric vehicle. More and more car manufacturers offer an electric vehicle as part of their production line, while vehicle charging stations pop up in more locations every year.

DON'T BE A DRAG

Take your ski rack off your car and replace your snow tires with your regular tires at the end of the season. Both could save you six percent at the pump. A tune-up could boost your miles per gallon anywhere from four to 40 percent. A new air filter could get you 10 percent more miles per gallon.

SHARE A RIDE

When heading to the mountain, carpool or take public transit or shuttles to help reduce greenhouse gas (GHG) emissions associated with your travel.

BE AN EFFICIENT CONSUMER

Believe it or not, picking the right appliances, air conditioners and computers can make a big difference in reducing pollution from power plants. So look for the most energy-efficient models. You might have to spend a bit more up front, but you'll save on electricity bills.

HAVE A BRIGHTER IDEA

Incredible improvements in lighting technology in recent years have made LED bulbs affordable and more efficient than ever. Not only do LEDs use far less energy than conventional bulbs, they also last more than 20 times as long, making replacements and

associated disposal unnecessary. Replacing a single 60W incandescent bulb with a comparable LED can save more than 1200 kWh over the life of the bulb, or about \$160.

CONSIDER CLEANER ENERGY

If you live in a state that lets you choose your power company, pick one that generates at least some of its power from wind, solar or other clean energy sources. If you don't have the option to select a supplier yet, you might still be able to support renewable energy through an option on your electricity bill.

STAND UP AND BE COUNTED

Contact your elected representatives and ask them to do more to reduce CO₂ emissions and keep winter cool for skiing and snowboarding. Be sure to vote in all local, state, and national elections.

BE AN ADVOCATE

Become involved in grassroots environmental action. Find a cause that's meaningful to you and support it with your time and enthusiasm!

SPREAD THE WORD

Tell your lift mates, family and friends!





ARAPAHOE BASIN COLORADO

EMAIL

abasin@a-basin.net

WEBSITE

www.arapahoebasin.com

MAIN PHONE

1-888-ARAPAHOE
(1-888-272-7246)

1-970-468-0718

POSTAL ADDRESS

Arapahoe Basin Ski Area
P.O. Box 5808
Dillon, Colorado 80435

PHYSICAL ADDRESS

Arapahoe Basin Ski Area
28194 US Hwy 6
Dillon, CO 80435

