

# ANNUAL REPORT 2023-24

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Campus Program



Auraria  
Sustainable  
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AURARIA  
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# WHERE WE ARE NOW

As I reflect on the 2023–2024 academic year, I'm struck by the undeniable momentum we've built together. Sustainability at Auraria is no longer a peripheral effort—it's become an integral part of campus life, shaped by bold student leadership, innovative operations, and a shared commitment to systemic change.

This year, we took groundbreaking steps that not only reflect our values, but also set the pace for what's possible. We launched an in-house compost program that diverted over 22 tons of organic waste from the landfill—a student-led, closed-loop system that now powers our campus composting infrastructure and inspires active participation across departments, events, and institutions. With the collaboration from our campus community, we're on the cusp of producing finished compost right here on campus—a true model for circularity.

Our solar array on the Auraria Library, funded entirely by students, continues to shine—both literally and symbolically. It generated over 754,000 kWh of electricity this year, saving the campus more than \$43,000 in energy costs. It stands as a beacon for what student-led investment in climate solutions can achieve.

We also made significant headway in our energy efficiency work with the Tivoli Student Union lighting upgrade. Through collaboration between ASCP, Auraria Facilities, and student volunteers, the building's LED coverage jumped from 9% to over 30%, reducing emissions and improving long-term cost savings.

These efforts are not just data points—they are stories of perseverance, collaboration, and progress. The results of our bi-annual student survey confirm what we already know: this community cares deeply about sustainability. Students overwhelmingly prioritize waste diversion, energy efficiency, and water conservation. They're not just asking for change—they're driving it.

At ASCP, we operate with the belief that local action creates global impact. This report tells the story of how that belief is becoming reality—through every pound diverted, every kilowatt saved, and every voice that demands a better future. Thank you for being part of this journey. Let's keep building forward.

Cassy Cadwalladerr  
**Director of Sustainability**

# OUR MISSION

## Global impact through local action.

The ASCP is a campus-wide program with the explicit mission of reducing the Auraria Campus' ecological impact and dependence on fossil fuels. We work to accomplish this through projects, events, and programs. This annual report for the 2023-2024 Academic school year highlights our accomplishments.

**The Values of the ASCP:** Three core principles that we make sure to uphold throughout our programs, projects, and work culture.

| Collaborative Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Social and Environmental Justice For All                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Fearless Leadership                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| We do the work that needs to be done by creating buy-in with our constituents through engaging, educating, and executing projects that will foster collaboration and coalition building to maximize our impact. Recognizing our position as global citizens, we commit to dedicating our time here to the shared responsibility of a more prosperous future for all. We will strive to incorporate employee and student perspectives into all projects and lift those on the front lines instead of issuing changes from the top down. We will intentionally include people that may not have been included historically and, in our commitment to DEI, explore diverse perspectives on issues with those that may have differing experiences to our own. | While our mission is to reduce the ecological impacts and the greenhouse gas emissions from the Auraria Campus, we acknowledge that looking at only impacting the built environment ignores those affected by social and environmental consequences beyond their control. We take a holistic lens of sustainability and push for social and environmental justice in tandem with our more explicit goals and consider the broader impacts of our projects, programming, and existing conditions. | We will make the strongest case possible in environmental, social, and fiscal terms so that we may influence a wide and diverse array of leaders, students, staff, faculty, and other stakeholders. The right thing to do will not always be the easy thing to do, but we will not allow barriers to get in our way. Through a factful foundation, strong relationships, and respectful discourse we will overcome adversity in the face of the climate crisis. |

*The ASCP proudly serves three institutions on the Auraria Campus in Denver, Colorado.*



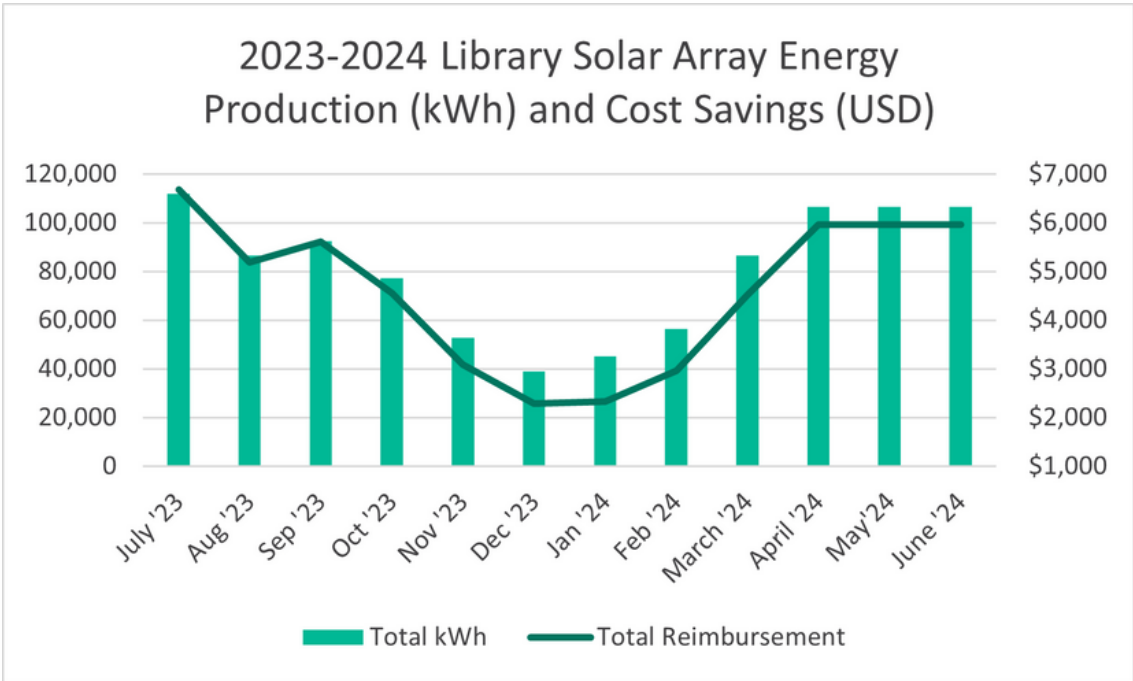
for the 2023-2024 Academic Year

# IMPACT BY METRIC

The ASCP installed the largest solar array in downtown Denver on the Auraria library during 2019-2020. The panels and installation of this award winning array were entirely student funded. Over the 2023-2024 academic year, it produced 754,336 kilowatts per hour (kWh) of electricity that saved the Auraria Campus \$43,172.37 in energy costs. This array serves as an inspiration for the development of future solar installations on campus, as laid out in the ASCP Photovoltaic Roadmap.



Aerial view of Auraria Library solar array

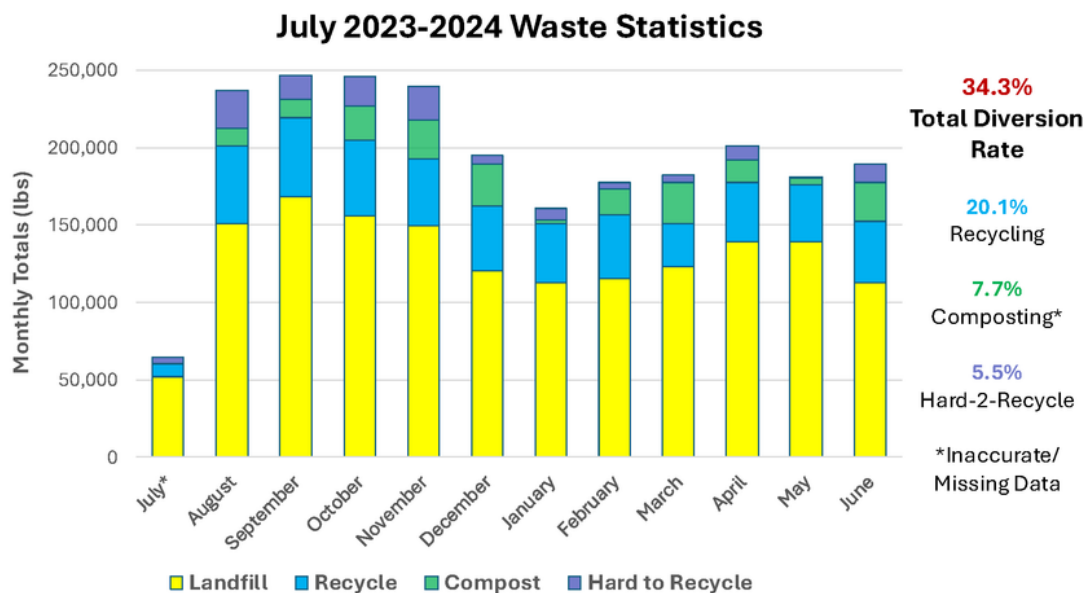


**2023-2024 Library Solar Array Energy Production (kWh) and Cost Savings (USD).** This chart presents the energy production in kilowatt-hours (kWh) and the corresponding cost savings in U.S. dollars (USD) for the library's solar array from July 2023-June 2024. The data indicates lower production and savings during the winter and higher values during the summer.

for the 2023-2024 Academic Year

# IMPACT BY METRIC

In the '23-'24 school year, we saw significant improvements in our overall campus diversion rate. By the end of the fall semester, the diversion rate was at 29.8%, about 7% higher than the previous semester. In the spring, it continued to increase, with an average rate of 34.3% for the semester. There are several factors that contributed to increased diversion rates and a more robust waste diversion program overall. Some notable accomplishments in this area include implementation of hand-sorting our compost stream, solidifying the move-in and move-out programs, improving the Free Store, expanding hard-to-recycle materials collection, and focused education and outreach.



**July 2023-2024 Waste Statistics.** Monthly waste totals in pounds (lbs.), categorized by destination: Landfill, Recycle, Compost, and Hard-to-Recycle. The data spans from July 2023 to June 2024. The overall waste diversion rate for the period was 34.3%, with recycling contributing the largest share at 20.1%. Composting accounted for 7.7% of the diversion, while hard-to-recycle materials made up 5.5%.

# PROGRAM HIGHLIGHTS

*Our mission in action.*

## Compost Program

This year, we took compost operations internally on the Auraria Campus. In August, we hired our Compost Operations Manager, Robbie Tepperberg, to help move us into the next collection, sorting, and processing phase. In addition, we hired two student staff members to assist in the hauling, sorting, and reporting.

Forty 35-gallon compost toters were deployed around campus for organics collection. We purchased two custom-built electric tricycles to assist in hauling organics from the various collection docks to the Compost Outpost. Throughout the transition, we worked with the various custodial teams, vendors, and event staff, providing training and assistance.

At the Compost Outpost, a sorting area was established where students meticulously went through each bag, recorded weights, and sorted out contamination. Once all of the contaminants were removed, the organics were hauled to a larger compost processing facility while waiting for our in-vessel unit. We also prepared the site by laying a concrete slab and acquiring a 20ft modified shipping container to eventually house the unit. Single-phase electricity was also installed. The Bio Speed M4 arrived in late January and was nestled inside the shipping container. Minor setbacks occurred in needing a special electrical certification (UL certification) in the United States in order to pass an electrical inspection.



*Installation of Bio Speed M4 In-Vessel Unit.*



*Tour of Compost Outpost at the Ribbon Cutting.*

After obtaining the UL certification, we were able to turn on the unit and begin filling it with organics in May. Over the course of a month, we slowly started to increase the volume of materials inside the unit, but no materials exited during this fiscal year.

Since beginning collecting and sorting organics in the fall of 2023, we have seen a significant increase in participation among vendors, offices,



*35-gallon compost totes*

institutions, and events, which has contributed to our successes. We have diverted 43,925 lbs. (22 tons) of organic materials from the landfill. This is the equivalent of 114,205 lbs. of CO<sub>2</sub> avoided. Establishing this program has been a success, and we look forward to the next fiscal year when we are able to use the finished product here on campus.



*Compost Outpost, where staff hand-sort collected materials.*

## Green Events

As a part of our waste diversion efforts and composting program, the ASCP has been working to capture and divert waste from all events on campus. This year, we had a huge breakthrough with exposure to events and having a hand in their waste management. Through partnerships with events committees and organizers from each of the three schools, as well as with external event companies, we were able to divert more waste from events than we ever have before.

In the fall semester, we offered compost services at 29 events, and in the spring semester, we helped with waste diversion at 120 internal events. Other advancements in the spring included adding more tri-stream bins to event spaces and implementing plans and procedures to offer waste diversion services for external events. Not only will this help increase the campus diversion rate, but taking on external events will provide a new revenue stream to support recycling and composting efforts at Auraria.



*From left to right: ASCP Student Associate loading compost totes onto the e-trike; tri-stream bins on campus; ASCP Staff tabling at an event on campus with their waste sorting game.*

## Tivoli Lighting Upgrade

Beginning in the 2022-23 academic year, the ASCP partnered with the Auraria Higher Education Center's (AHEC) Facilities Department and student volunteer groups to convert lighting in the Tivoli Student Union from fluorescent and incandescent to LED. Each light replaced will increase efficiency by between 10% and 20%. The team successfully installed >2000 lamps, alongside the Auraria Facilities electrical team, who lead the safety and technical components for the project. They also replaced ~60 ballasts to ensure fixture compatibility with the new LED lamps. This effort will reduce the building's greenhouse gas emissions, energy costs, and has moved the building from ~9% to ~30% LED! The project's target areas included all public spaces and essential private offices that serve students.



*ASCP Staff installing LED lights.*

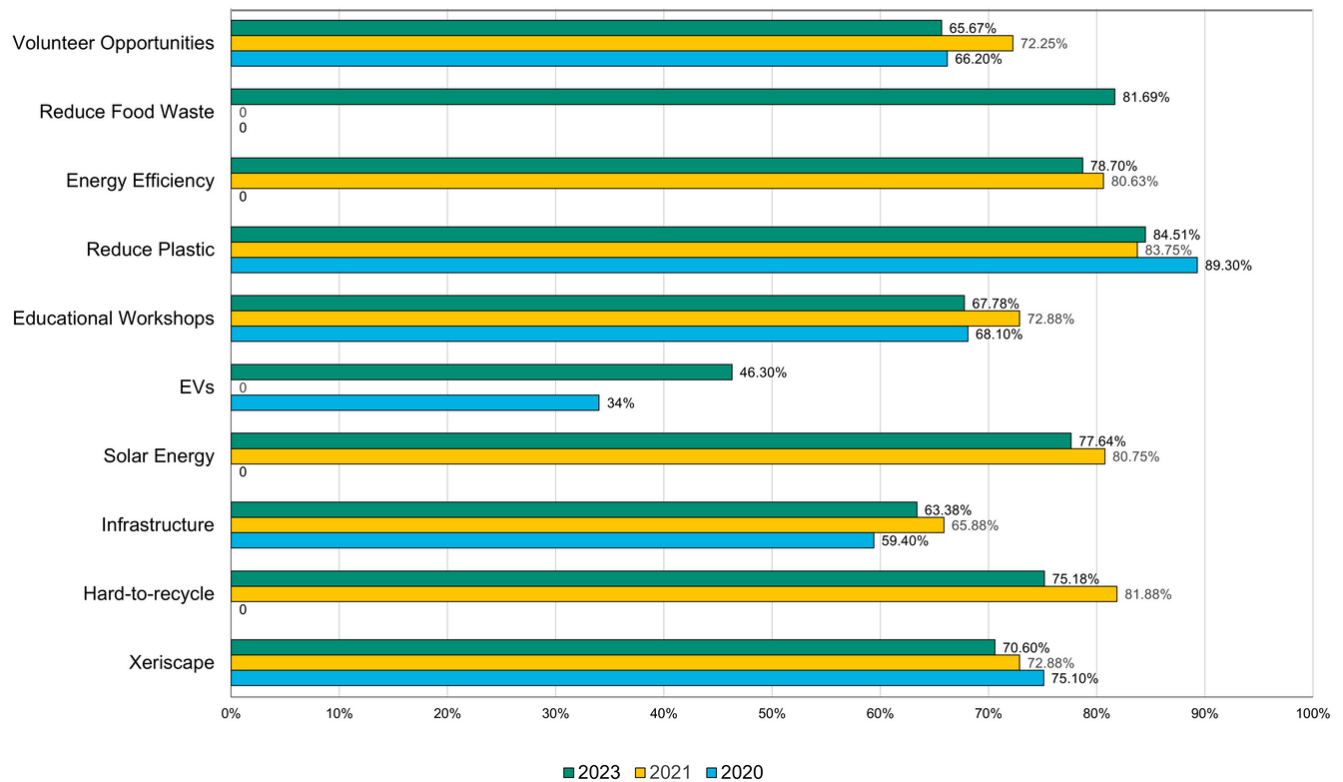
## Bi-Annual Survey

As a student-fee funded program, the ASCP is invested in gathering regular feedback on the efficacy and impact of the program. One form of gathering information is gathering data via a bi-annual survey, with the most recent taking place in the 2023-24 academic year. When comparing the previous three surveys, common themes found across responses include priority in waste diversion, energy efficiency, and water conservation, with special emphasis on reducing food and plastic waste.



*ASCP Staff tabling on campus.*

### ASCP Programs 2020, 2021, 2023



*ASCP Programs, 2020, 2021, 2023.* This bar graph illustrates how students prioritized different ASCP sustainability programs during 2020, 2021, and 2023. It displays the percentage interest for various programs, including Volunteer Opportunities, Reducing Food Waste, Energy Efficiency, and Educational Workshops. The largest interest area from 2020 - 2023 was reducing plastic. Other programs students wanted the campus to prioritize were reducing food waste, energy efficiency, solar energy, and the Hard-to-recycle program.



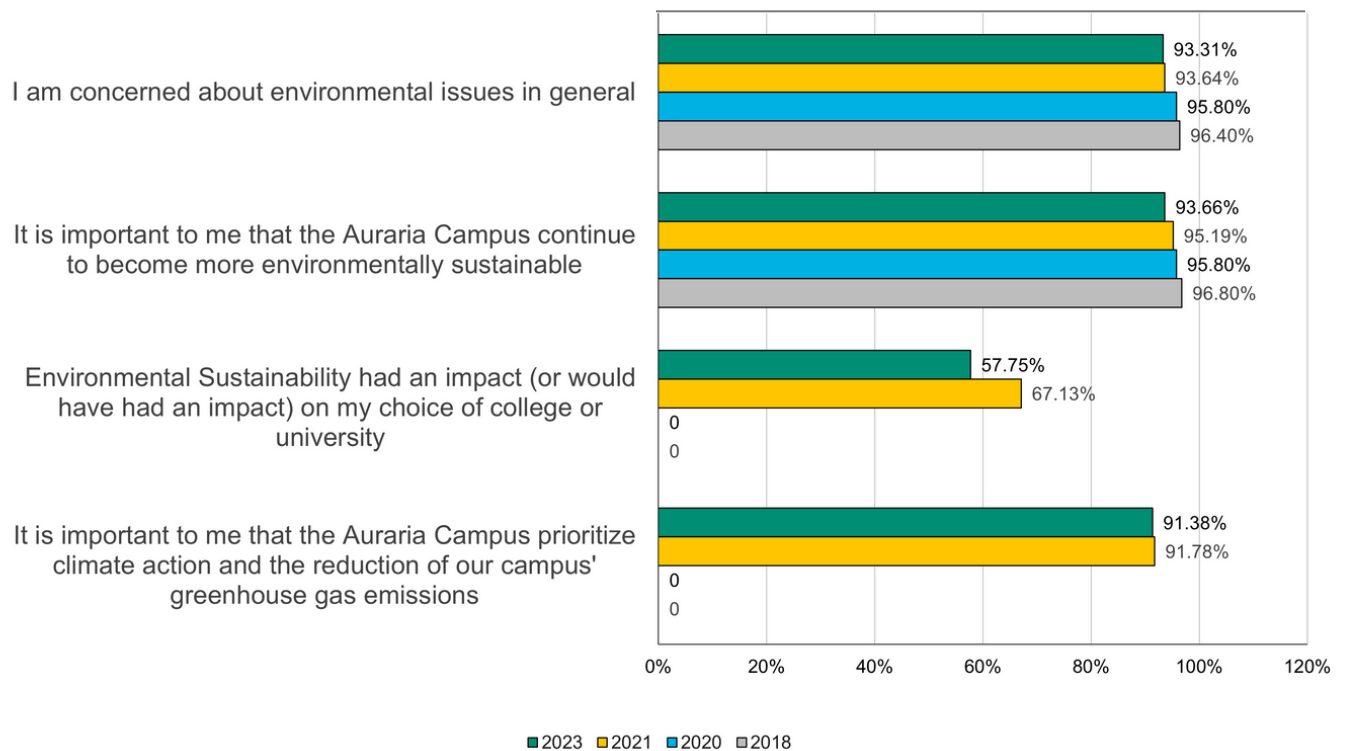
*ASCP Student Associate at the Soft Plastics Hard-to-recycle station on campus*



*Electronics Hard-to-recycle station*

There is also a high percentage of students who report being concerned about environmental issues and desire the Auraria Campus to become more sustainable, verifying that the work of the ASCP is supported and beneficial. Over 90% of students reported that it is important for Auraria Campus to prioritize climate action and the reduction of greenhouse gas emissions on campus.

## General Concern Regarding Environmental Issues & Campus Sustainability



**General Concern Regarding Environmental Issues and Campus Sustainability.** This bar graph presents the level of concerns amongst students regarding environmental issues and campus sustainability. It shows the percentage of respondents agreeing with four specific statements from 2018, 2020, 2021, and 2023. Over 90% of students reported they are concerned about environmental issues in general and that it is important to them that Auraria Campus continue to become more environmentally sustainable every year.