



2022-2023 Biennial Report

Executive Summary



This Biennial Report is submitted to the National Park Service (“NPS”) under subsection 13(h) of the 1983 Use Agreement between the United States Department of the Interior (the “Department”) and the Jackson Hole Airport Board. It describes the Airport Board’s activities and operations for the 2022 and 2023 biennium, and the efforts to provide leadership in sustainability and reduce environmental impacts of Jackson Hole Airport operations on Grand Teton National Park (the “Park”) and surrounding areas.

Over the last two years, the Airport has remained focused on the role as a steward of the environment and the Airport's unique location. In 2022 the Airport completed the Runway Reconstruction project, which involved the re-use of onsite materials and emission-reduction measures - it is one of the most environmentally respectful airfield pavement projects any airport has undertaken. In 2023, as a result of careful planning, rooted in a firm commitment to safety and environmental protection, the Airport became one of the first airports in the United States to transition to fluorine-free firefighting foam (F3). Along with these efforts, the Airport modified and enhanced the process to address community noise concerns and ensure safe access to the traveling public and visitors. The following pages highlight the Airport's accomplishments for the 2022-2023 period. These highlights are followed by the full Biennial Report.

Highlights of Accomplishments



Environment

- Honored with the 2023 Airports Council International – North America (ACI-NA) Environmental Achievement – Innovation Award for the Runway Reconstruction Project
- Received Honorable Mention at the 2023 Airports Going Green Conference for integrating outstanding sustainability initiatives in the Runway Reconstruction Project
- Received the National Corrugated Steel Pipe Association (NCSPA) 2023 Project of the Year award in the Polymer Coating category for the Runway Reconstruction Project
- Successfully completed requirements necessary to renew the Business Emerald Sustainability Tier (BEST) Certification in 2023 (BEST Certified Sustainability Leader since 2019)

PFAS Progress

- Prepared and executed fluorine-free foam (F3) transition plan, including disposal of all PFAS-containing AFFF, making Jackson Hole Airport one of the first airports in the United States to replace AFFF with approved F3
- Purchased two new ARFF vehicles that will be delivered in 2024. Those new trucks will only be filled with F3
- Continued groundwater sampling for on-Airport and eligible residential wells to monitor PFAS levels
- Installed 22 additional water filtration systems in eligible residential homes in 2022 and 2023

Waste Diversion

- Increased waste diversion from 18% in 2016 to 45% in 2023
- Composted over 6,000 pounds of food waste in 2022 and 2023
- Rented out 4,507 bear spray canisters in 2023

Climate Action

- Collaborated with the Jackson Hole Climate Action Collective to develop the Climate Action Roadmap that was released in May 2023
- Initiated Airports Council International (ACI) Airport Carbon Accreditation (ACA) Program – on track to receive designation in 2024
- Participated in the Good Traveler Marketing & Messaging Group, and continued offsetting carbon emissions through the Good Traveler Program
- Renewed U.S. Environmental Protection Agency (EPA) Green Power Partnership, therefore committing to continue using green energy
- Worked with Lower Valley Energy to forecast airport energy demands to secure a resilient energy future for the Airport



Community and Stakeholder Based Initiatives

- Initiated collaboration with DarkSky International in pursuit of DarkSky designation for the Airport, which would make Jackson Hole the first airport designated under the International DarkSky Places Program
- Presented at Riverwind Foundation’s Sustainable Business Leaders Programs
- Continued membership with the Greater Sage Grouse working group
- Participated in the JH Travel & Tourism Board Sustainable Destination Management Plan working group
- Presented on resilience topics at aviation industry events
- Supported Riverwind Foundation and Womentum through Old Bill’s Fun Run race
- Supported JH Rotary Club scholarships
- Partnered with START to launch an Airport Shuttle Pilot Program to address parking shortage and evaluate demand for bus service
- Engaged with stakeholders to prioritize Water Quality Actions being considered for Teton County’s Water Quality Management Plan
- Participated in the JH EcoFair and Touch a Truck events
- Panelist on the 2023 Airports Going Green “Sustainability Ambition: Leaning Forward” session
- Presented the Airport’s Runway Reconstruction Project at the 2023 ACI-NA Environmental Awards Showcase
- Volunteered at the Protect Our Water Jackson Hole’s 2023 Rally for Clean Water Event
- Conducted presentations for various local organizations to educate the community on Airport initiatives



Operational Enhancements

- Collaborated with FAA and community members that represented public lands and communities around the Airport on a Southern Departure Procedure Study
- Implemented additional metrics in Fly Quiet Program to enhance the evaluation of noise – including installation of additional noise monitoring stations
- On May 1, 2023, Airport staff took over management of the Fixed Based Operator (FBO)
- Received \$3.1 million in FAA Airport Climate Challenge (supplemental discretionary funding) grant funding to expand the Stormwater Detention and Filtration System

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- Received \$180,000 in FAA Airport Climate Challenge grant funding (supplemental discretionary funding) to develop a Net Zero Roadmap
 - On May 1, 2023, the Airport successfully transitioned operation of the passenger security screening services to the Transportation Security Administration (TSA)
 - Reconstructed the TSA Checkpoint to allow for upgraded technology as it becomes available
 - Transitioned to 10 gates in the hold room/gate area to allow for flexibility in operations
 - Continued evaluation of cybersecurity initiatives and increased camera coverage to enhance security
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Introduction

Federal statutes authorize the Secretary of the Interior to enter into agreements with public agencies, such as the Jackson Hole Airport Board, for the operation of airports in or near national parks. Pursuant to that authority, the Department and the Board entered into an Agreement dated April 27, 1983 (the “1983 Use Agreement”), for the operation of the Jackson Hole Airport in Grand Teton National Park. In 2011 the Department and the Board entered into a Third Amendment to the 1983 Use Agreement (the “Third Amendment”) which added two additional 10-year options to renew. It also expanded the Board’s obligations to work in good faith and in coordination and cooperation with the National Park Service (“NPS”) to develop and implement reasonable mitigation measures as may be available to reduce environmental effects on the Park.

Per the Third Amendment requiring submittal to the NPS, this seventh Biennial Report documents the Airport’s activities and operations during calendar years 2022 and 2023. Actions related to sustainability and resiliency initiatives and programs are highlighted throughout the report, with a focus on reducing negative environmental impacts, and continuing efforts to reduce noise impacts on the Park.

Through all its actions the Airport aims to meet its Airport Board Vision statement:

“To be a recognized leader delivering a positive and unique guest experience, an unwavering commitment to environmental stewardship, and a culture based on people helping people.”

Airport staff conducted a retreat in 2023 to explore priorities and goals for the future of the Airport. Four key themes were identified: environmental stewardship, Airport infrastructure, People Helping People 2.0, and community (and user) relations. These themes are intended to inspire long-term, innovative goals and actions for the future of Jackson Hole Airport and are apparent in the activities documented in this Biennial Report.

Airport Board Organization

Under Wyoming Statutes, the Jackson Hole Airport Board is both a “body corporate,” and a “local governmental entity” which has separate existence and is distinct from the Town and County. Though it has certain governmental powers, in most instances the Board operates the Airport in its “proprietary capacity”. It has no power to tax. Its revenue comes only from its operations and grant funding.

Since 1967 the Board has had the power, delegated by the Town and County, to acquire lands for airport purposes (by lease or otherwise). The Board exercised this power by entering into the 1983 Use Agreement in its own name with the Department of Interior. Also delegated to the Board was the power to acquire other property and to construct facilities for airport purposes. All facilities of the Airport have therefore been constructed and acquired in the name of the Board. The 2013 Joint Powers Agreement with the Town and County confirmed that the Board owns all Airport improvements and facilities.

Per Paragraph 4(i) of the 1983 Use Agreement, the Board is obligated to explore reasonably available environmental mitigation measures to reduce effects on the Park. Section 12 of the 1983 Use Agreement, as amended, requires the Board and the NPS to discuss and identify mitigation measures which may be available to comply with the requirements of Paragraph 4(i). Finally, Section 13(h) requires the Board to submit to the NPS a report describing the Board’s activities and operations during the previous two calendar years, its efforts at reducing negative environmental impacts, and specifically, its efforts to reduce noise impacts on the Park. This is the seventh Biennial Report submitted under this requirement and covers the Board’s activities and operations during calendar years 2022-2023. Appendix A provides information on Airport Board members that served during the 2022-2023 period, as well as Jackson Hole Airport Staff that supported the Board’s activities in aligning with the 1983 Use Agreement. Throughout the remainder of this report, all actions, whether Jackson Hole Airport Board or Jackson Hole Airport, are referred to as “Airport” actions.



Environmental

The Airport is committed to sustainable aviation excellence where innovation and environmental stewardship align. Through state-of-the-art green building design, environmental mitigation efforts, and considerations to protect surrounding communities, the Airport provides thoughtful solutions to minimize environmental impact, while simultaneously elevating the travel experience.



Existing and Ongoing Noise Abatement and Mitigation Measures

Background

The 1983 Use Agreement includes specific requirements to address noise associated with the Airport and further requires the Airport to maintain and update a noise control plan. The requirements of the 1983 Use Agreement are implemented in part through a Noise Abatement Plan and Noise Abatement Rule, reviewed and updated through periodic noise studies in accordance with Federal Aviation Regulation Part 150 (Airport Noise Compatibility Planning). The Airport also considers noise abatement and mitigation through targeted efforts, including, during the reporting period, the Southern Departure Procedure Study and the Fly Quiet Program (described herein). The Southern Departure Procedure Study report, published in September 2022, includes a comprehensive review of the Airport's noise abatement and mitigation efforts (see Appendix A of the [Noise White Paper](#) of the Southern Departure Procedure Report).

The Airport's noise abatement and mitigation measures and improvements to these measures are tracked annually, as listed on the next page. Summaries with greater detail follow.

Summary of 2022-2023 Noise Measurements and Modeling:

- Noise Monitoring System Updates
- 2022-2023 Noise Monitoring Results: DNL Levels
- 2022-2023 Noise Monitoring
- 2022-2023 Annual Average Daily Departure (ADDs per Airline Access Plan)
- 2022-2023 Noise Monitoring Results: Single Event Levels
- Preferential Runway Use
- Voluntary Curfew
- Summary of Noise Monitoring Results and Trends
- Developing Measures: NEXTGEN
- Fly Quiet Program
- Reporting of Trends

Summary of 2022-2023 Noise Measurements and Modeling

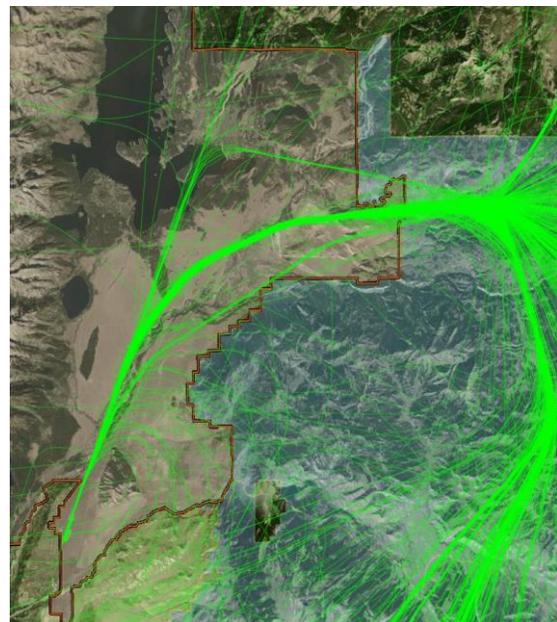
The 1983 Use Agreement noise requirements are monitored to ensure compliance using noise measurements and modeling that is completed annually and has evolved to be more sensitive and comprehensive over time. Enhancements to the monitoring system include integrating radar and flight information (to correlate aircraft with noise events), low noise microphones, weather sensors, the ability to measure the 1/3 octave spectra, and the measurement of Time Above to approximate detectability. The “detectability” measurement is used to show the audible contribution of aircraft and other noise sources to the Park’s natural background environment.

This allows the system to better quantify aircraft audibility levels at these locations. Based in part on these noise measurements, the Airport’s noise consultant, BridgeNet International, produces a noise report each year. The results are presented on a first of its kind, three-dimensional display of aircraft noise and aircraft flight paths that is available on the Airport’s website and is also summarized below.

Noise Monitoring System Updates

In 2020, an ADS-B extender was installed at the Airport to provide improved low altitude radar coverage for use in the noise monitoring system. ADS-B is the FAA’s NextGen radar surveillance that was fully implemented by January 1, 2020 (**Figure 1**). The extender provides improved coverage over the FAA’s ADS-B surveillance by providing a receiver closer to the Airport. The extender allows the Airport to have more accurate coverage of aircraft operations (landings and take offs) down to the Airport surface elevation (including aircraft taxiing on the airfield). To track an aircraft, there must be line of sight between the aircraft and the extender ground station at the Airport, and the aircraft must have its transponder on. So, some low-level operations near terrain will not have complete coverage. As of January 1, 2020, all aircraft operating in busy airspaces were required to

Figure 1: JAC Arrival Flight Paths - North



Data from both the conventional radar and ADS-B surveillance can be used to record flight paths, identify approach types, and provide nearly real time flight tracking with noise contour modeling of individual aircraft.

be equipped with an ADS-B transponder. While Jackson airspace does not require such equipment, most operators are now equipped with ADS-B transponders so they can fly to or through busy airspaces, which require these transponders.

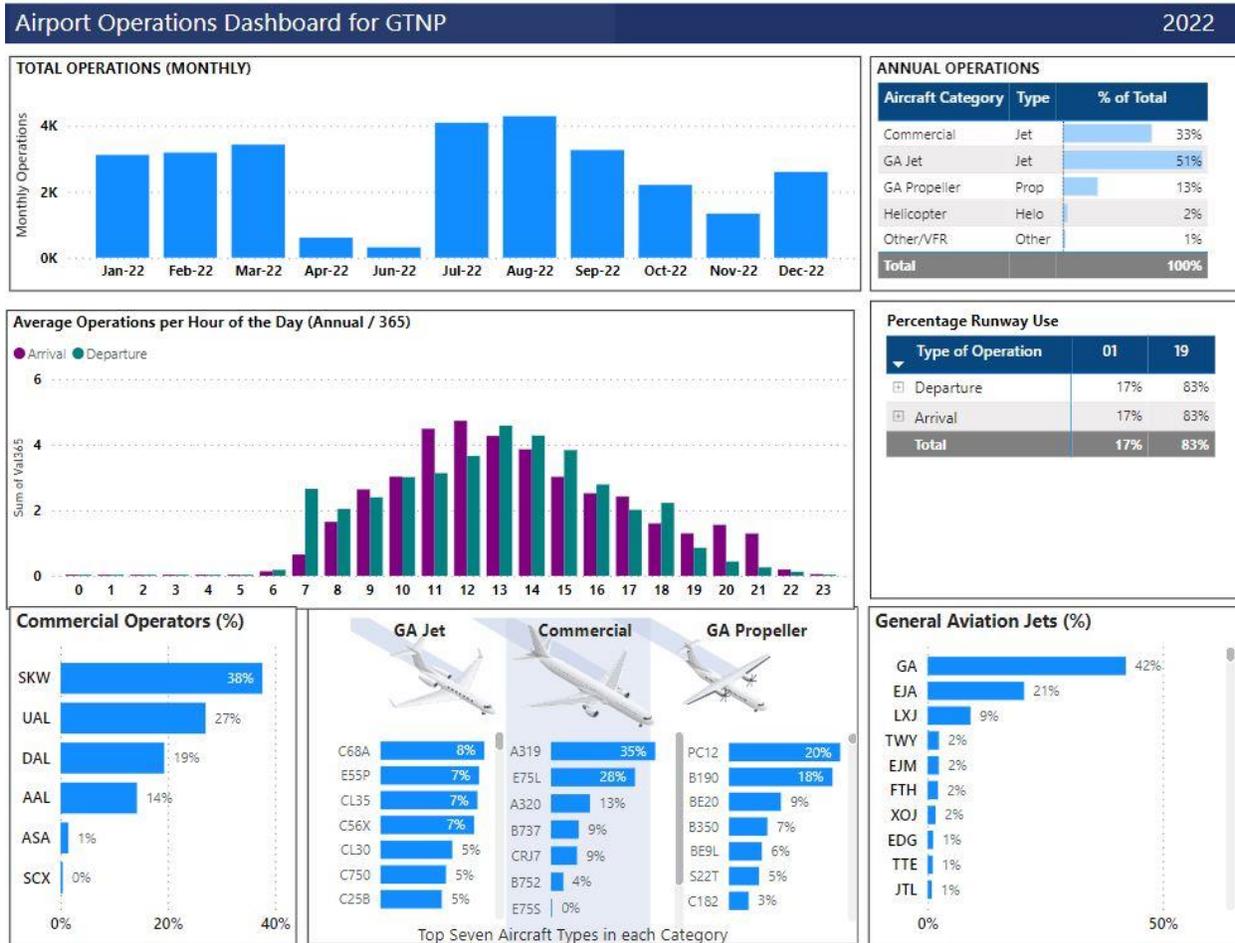
Since the implementation of the ADS-B extender, the Airport has improved tracking and identification of aircraft flying over or near the Park. The Airport now collects more meaningful data to inform noise monitoring efforts. Specifically, ADS-B data includes flight information for every ADS-B equipped aircraft, as well as position information along the flight track. Each flight is also assigned a unique identification number so all the data for any flight can be collected and stored. The flight information includes data such as aircraft type, airline code, departing and arriving airport codes, unique aircraft N-number, and flight ID number. The position information includes the X and Y coordinates, as well as the altitude of the aircraft at each point with greater accuracy than conventional radar information. The location information provides the data necessary to determine the direction of flow for runway usage.

During the 2022-2023 time period, there were also two new long-term noise monitors installed south of the Airport. These sites are in residential areas of the Bar-B-Bar development and the West Zenith area.

The Airport has also implemented more advanced tracking and reporting of aircraft operations with data tracking in near real-time to help identify trends. This data includes operations by aircraft, runway use, time of day and flight procedure use and Fly Quiet measures.

Figures 2 and 3 provide an overview of annual airport operations for years 2022 and 2023 as generated from the Airport's Noise Monitoring System.

Figure 2: 2022 Annual Airport Operations Dashboard



Note: The information presented in this figure is generated from the Airport's Noise Monitoring System and may vary from the FAA's tower counts.

Figure 3: 2023 Annual Airport Operations Dashboard



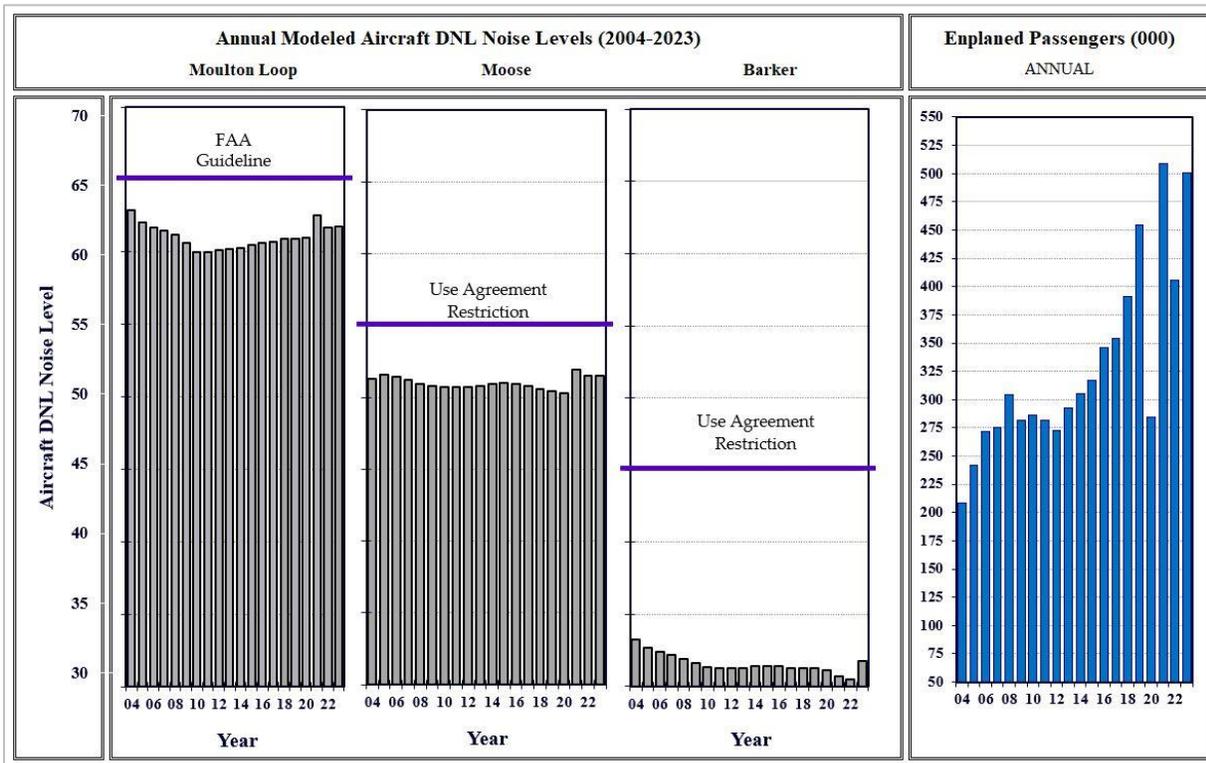
Note: The information presented in this figure is generated from the Airport's Noise Monitoring System and may vary from the FAA's tower counts.

2022-2023 Noise Monitoring Results: DNL Levels

- The 65 DNL (average day/night noise) contours did not extend beyond the Airport boundary, and therefore no residential or other non-compatible land uses (as defined by FAA) were exposed to the 65 DNL.
- Single event and cumulative noise levels remained relatively steady for 2022; however, there was a small increase in 2023 due to the overall increase in operations between 2022 and 2023. While there were year-over-year increases in operations, in 2023 the total operations were still below those in 2021. It should be noted again that the Airport was closed for approximately 78 days in 2022, which affected the annual operations. In 2022, commercial operations decreased; in 2023 those operations increased as a reflection of market demand. For the same time period between 2022 and 2023, general aviation operations increased; however, these operations are still below levels in 2021. The changes in aircraft operations represent an increase in overall noise, however the combination of quieter, more efficient jet aircraft has largely offset the change in noise. Additionally, the success of procedural changes and Fly Quiet measures also contribute to noise reductions over the sensitive areas of the Park.

Figure 4, shown below, demonstrates that the Airport is in compliance with the cumulative noise standards contained within the 1983 Use Agreement.

Figure 4: Modeled DNL and Number of Passengers



The purple horizontal lines shown on Figure 4 illustrate the relation between modeled DNL at the Moose and Barker noise monitoring locations relative to the Use Agreement noise levels and the 65 DNL at Moulton Loop. The purple lines are not located on the property of these locations.

2022-2023 Noise Monitoring

- As seen in **Figure 4** above, the aircraft cumulative DNL noise levels within the Park were below the noise levels specified in the 1983 Use Agreement. The purple line depicts the Use Agreement restriction level with the actual levels included in grey. These results are also documented in the annual noise report that is submitted to the Park Service. The noise level at the Moose site showed the same levels in 2022 and 2023.

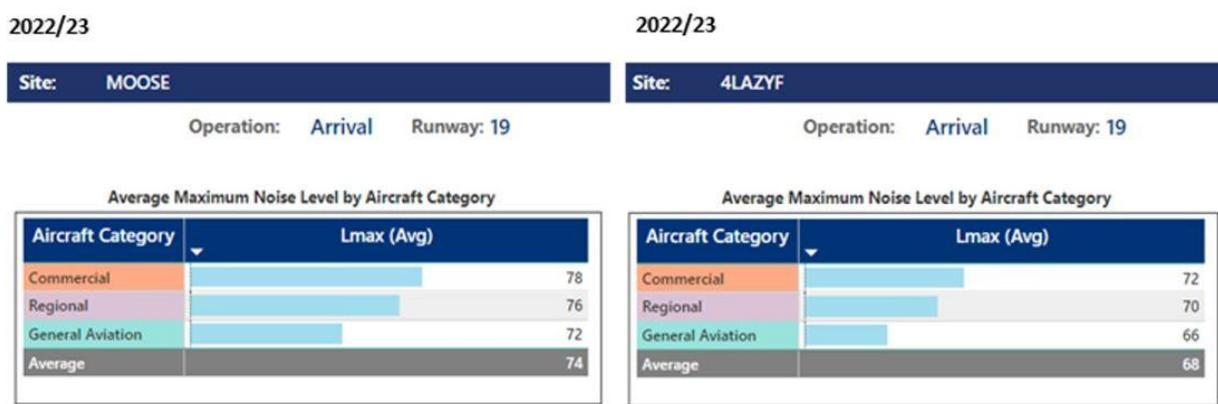
2022-2023 Noise Monitoring and Access Results: Annual Average Daily Departure

- Based on advances in aircraft noise technology since 1984, the 45 dBA (A-weighted decibels) and 55 dBA DNL contours have never been exceeded, and the number of average daily departures (ADDs per access plan) has remained below the specified limit of 6.5 “Base Class” aircraft equivalents.
- Annual Average Daily Departures (ADDs) for 2022 were 2.76 and for 2023 were 3.03, which are below the 1983 Use Agreement stated operational limit of 6.5 ADDs averaged annually (quarterly annual average daily departures).

2022-2023 Noise Monitoring Results: Single Event Noise Levels

- The noise monitoring system measures both DNL noise levels and single event noise levels. The Lmax (maximum noise level from an aircraft fly over) summary results are presented in **Figure 5** for the Moose and 4 Lazy F noise measurement sites. The data shows the average Lmax noise level for each category of aircraft and a histogram of the range in the measured levels.
- The Moose site is representative of a location closest to the Airport to the north, and the 4 Lazy F Ranch site is representative of a location farther to the north of the Airport. These results show the range in noise level generated by aircraft events that occur at each site and the difference in noise category of aircraft, which are all jet arrivals to the south on Runway 19.

Figure 5: Measured Single Event Noise Levels (2022/2023)



Preferential Runway Use

The 1983 Use Agreement requires the Airport, to the extent feasible, to limit approaches from and departures to the north, and to encourage pilots approaching from or departing to the north to maintain a course east of Highway 26/89 north of Moose.

The prevailing wind direction is from the south. As a result, the primary flow is departures to the south and arrivals from the north. This is reinforced by the fact that Runway 19 has the primary instrument landing system, and, as a result, that is the primary runway used during poor weather. In 2022, 83% of aircraft utilized the preferred departure runway, (Runway 19 departing to the south) with 17% departing to the north; 17% of aircraft utilized the preferred arrival runway (Runway 01 landing from the south) with 83% arriving from the north. In 2023, 83% of aircraft utilized the preferred departure runway (with 17% departing to the north); and 18% of aircraft utilized the preferred arrival runway (with 82% arriving from the north).

Voluntary Curfew

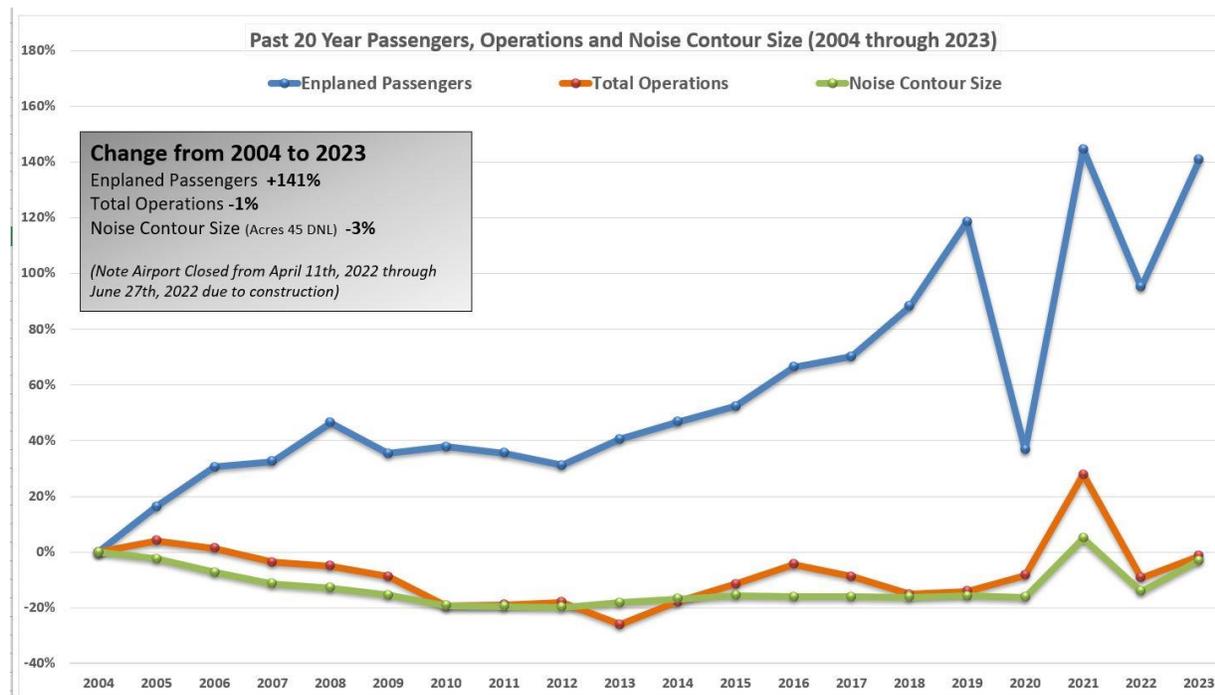
The Airport cannot unilaterally impose a mandatory curfew. The Airport has adopted a voluntary curfew for general aviation aircraft. Prior to September 21, 2022, aircraft were requested to avoid operations between 11:30 p.m. and 6:00 a.m. for landing, and between 10:00 p.m. and 6:00 a.m. for takeoff. On September 21, 2022, the Airport approved extending the curfew to 9:30 p.m. through 7:00 a.m. for both landing and takeoff. This change was implemented as a response to continued community noise concerns. Pilots also are advised that the Airport and tower are not staffed overnight, that fire/rescue and other services are not available during this period, and in winter, the runway, taxiway, and ramp are not plowed after the last

scheduled passenger flight arrives, so that incoming planes risk landing on a snow-covered runway. The Airport receives a report from the Airport Noise system that includes N-numbers, allowing staff to look up the addresses and companies that operate during the voluntary curfew. Any aircraft that do not conform to the voluntary curfew are sent a notification letter. (Note that due to Life Flights' mission of emergency service, they do not receive a notification letter.) Although the curfew is voluntary, the Airport finds that the letter notifications reduce the number of nighttime operations during the curfew. Monitoring of curfew non-compliance is also an element in the Fly Quiet Program for general aviation aircraft.

Summary of Noise Monitoring Results and Trends

Improved engine technology and changes in fleet mix have contributed to generally lowering the overall noise contour size (see **Figure 6**) over the past 20 years. In the past few years, the number of commercial operations has increased, but at a much slower rate than the number of passengers has increased. This is driven primarily by a shift in commercial aircraft types. The Airport has seen a move away from smaller capacity (19-30 seat) turbo prop aircraft to larger regional jet and mainline jet aircraft ranging in capacity from 70 – 187 seats. The Airport has also seen improvements in load factor, which is a measurement of how much seating capacity is being utilized. For example, a flight with an 80% load factor utilizes 80% of its seating capacity. The combination of higher capacity aircraft, with a more efficient use of that capacity, has allowed the Airport to serve more passengers with less overall environmental impact.

Figure 6: Historical Passengers, Operations and Noise Contour (2004 to 2023)



Developing Measures: NEXTGEN

Previously, the Airport worked extensively with the FAA and the Park to provide a “NextGen” satellite-based precision arrival procedure from the north that makes the landing path to Jackson safer, with less flight miles, while avoiding most noise sensitive areas of the Park. NextGen is an umbrella term for the FAA’s

ongoing transformation from a ground-based to a satellite-based system of air traffic management. NextGen is designed to increase safety while reducing environmental effects. When fully implemented, NextGen will allow aircraft to safely fly closer together on more direct routes flying more repeatable and predictable paths. Because routes are more direct, there are reductions of delays both in the air and on the ground. These benefits should reduce carbon emissions, fuel consumption, and noise, as well as enhance safety.

A NextGen approach to Runway 19 was implemented by the FAA in March 2013. When it was sanctioned and adopted, it was the first instrument procedure in the United States with a curved approach component that included design for noise abatement purposes. While initially having minimal use over the conventional arrival, in 2022 and 2023 the Global Positioning System (GPS) approach was being used by approximately 99% of jet aircraft flying the Instrument approach to Runway 19. This procedure has become the dominate instrument approach procedure flown at the Airport.

In December 2021, the FAA Air Traffic Division implemented a new flight procedure at the Airport that uses more advanced technology to shift noise further from the Park. This procedure uses Required Navigation Performance (RNP) technology and is designed to include noise abatement goals developed within the Part 150 Study (with the goal to reduce noise). This new procedure provides for noise abatement benefits by shifting noise further to the east over or east of Highway 89 and away from the noise sensitive areas of the Park as defined by the Use Agreement. Procedures are developed under specific flight procedure design criteria that comply with safety and terrain separation standards. While initially there is limited use of this new procedure it is expected to become more widely used over time.

The FAA also implemented a new departure procedure in December 2021 for north flow departures on Runway 01. This procedure, called DIYMD, is a NextGen RNAV departure procedure. RNAV is the acronym for Area Navigation that is a type of satellite-based navigation technology. The current north flow departure procedure, called GEYSR, is based on conventional technology. With this new procedure technology (DIYMD), the path was designed to be further to the east than the current procedure, moving it east of the Park and away from the Snake River.

In 2022, the Airport initiated a Southern Departure Procedure Study to examine potential departure procedures to the south using similar technology to address community concerns about noise. The purpose of the study was to further investigate the feasibility of a procedure for southern departures that could reduce noise for the entire community south of the Airport, while taking into consideration other noise sensitive areas such as the Elk Refuge, U.S. Forest Service, and National Park Service lands. The Study sought to determine if one or more such procedures are feasible and if so, to conceptually design them. The intent of the study was to build upon the well-developed existing noise abatement program and look for ways to further refine and reduce noise.

The Southern Departure Procedure Study was released in September 2022. The report is summarized below, and the full report can be found on the Airport's website.

- To facilitate community input, the Airport established the Southern Departure Procedure Task Force. The Task Force was charged with evaluating a range of departure alternatives to determine if any of them could result in a safe and efficient procedure that reduced noise on noise sensitive uses and was acceptable to all parties. The Task Force included community members that represented public lands and communities around the Airport, including the National Park Service, U.S. Fish and Wildlife Service, U.S. Forest Service, and a local pilot. The Task Force retained a

team of consultants and subject matter experts, including Mead & Hunt, Flight Tech Engineering, BridgeNet International, Aviation- a Woolpert Company, and a facilitator.

- The study identified potential Runway 19 departure procedure concepts that were designed based on four fundamental constraints: surrounding terrain/obstacles, Terminal Instrument Procedures (TERPS) and Navigational Specifications (NavSpec) design criteria, air traffic control (ATC) procedures, and aircraft equipment and performance limitations.
- The study designed six procedure concepts, one of which was designed by the FAA, and compared to the existing ALPIN procedure. These include the FAA's KICNE ONE (RNA), Concept 1-RNAV to the southeast, Concept 2-RNP to the southeast, Concept 3-RNAV to the southwest, Concept 4-RNP to the southwest, and Concept 5-RNP to the east (corkscrew).
- The Task Force received inquiries about the potential for “fanning” departures, which would distribute the flight tracks over multiple departure procedures. The study found that, while this can technically be accomplished, the arrangements for using the procedures would need to be very specific and would be difficult to adjust once put in place.
- Given the existing terrain and noise sensitive uses surrounding the Airport, none of the procedure concepts were acceptable to all parties, therefore the existing ALPIN procedure remains in use. The main findings are as follows:
 - With today's technology there is no procedure which meets FAA criteria and is acceptable to all parties.
 - RNP procedures are not likely to be available for many of the aircraft for a 5-year time period.
 - There are air traffic constraints in turning left because there is a mix of arrivals and departures in the same airspace.
 - There are air traffic constraints with fanning.
 - All new procedures modeled would result in a noticeable movement of noise from one noise sensitive area to another.
 - Public land managers expressed opposition to procedures that turn left and thus increase noise over the Park, Elk Refuge, or National Forest properties.

Fly Quiet Program

The Fly Quiet Program is a custom tailored environmental compliance plan to encourage airlines and general aviation jet operators (single and fractional owners) to operate newer generation quieter aircraft and operate aircraft as quietly as possible at the Airport. The primary purpose of a Fly Quiet Program is to foster a participatory approach to complying with existing noise abatement procedures and objectives by including stakeholders in the process from the beginning.

The development of a Fly Quiet Program for the Jackson Hole Airport was approved in the Part 150 Noise Study; the inaugural Fly Quiet Program debuted in 2021. Under this Program each airline and general aviation jet operator with a minimum number of flights is graded and ranked on its performance on a quarterly basis; these scores are then made available to the public via the Airport's website, newsletters, and publications. The top five performing operators from each aircraft category are awarded by being highlighted in the local papers and national aviation platforms (in both print and digital media) following each ranked quarter. The Fly Quiet Program rankings also show whether an operator is improving its performance and ranking.

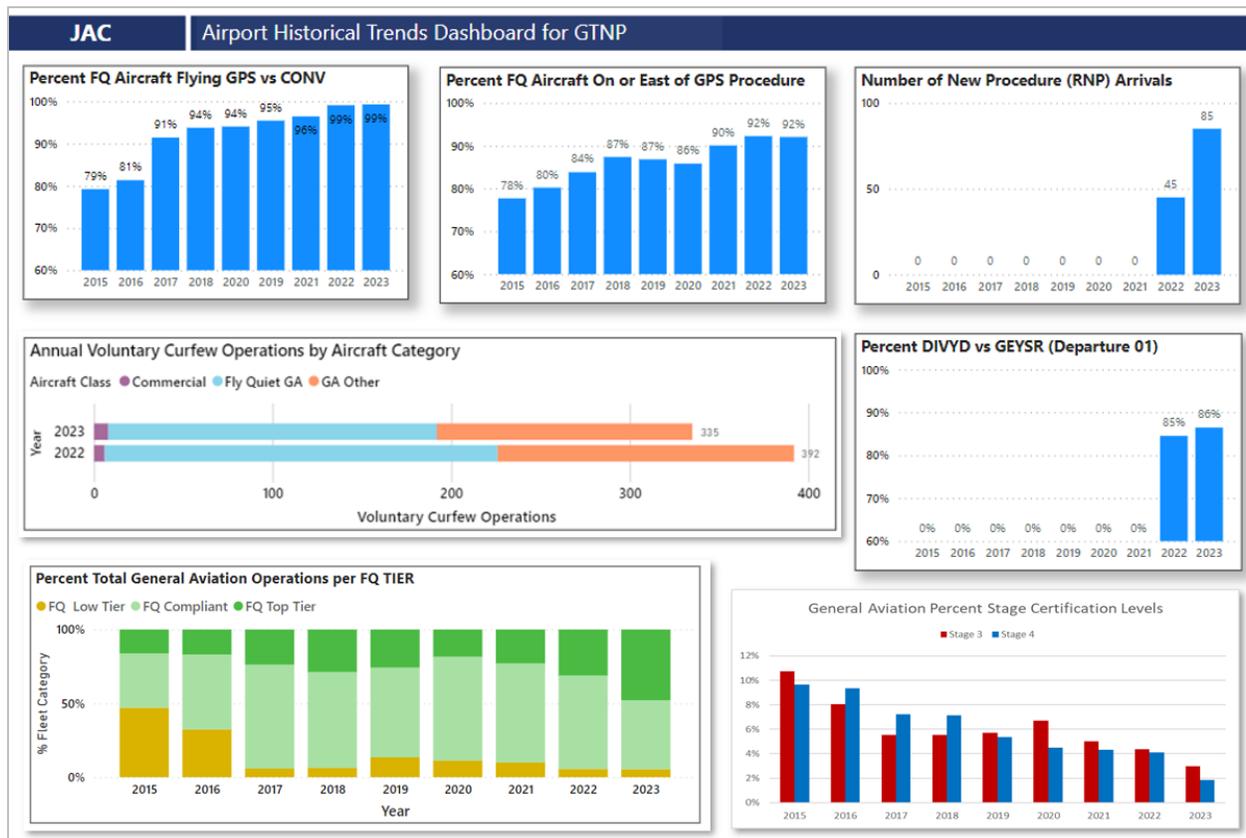
Since its implementation, the Fly Quiet Program has focused on continued improvement and collaboration with the users to reduce noise on a voluntary basis. Fly Quiet score cards, updates, and a link to current and historical radar tracks can be found on the Airport's website. One of the criteria that influences an operator's score is adherence to the voluntary curfew. For the new extended voluntary curfew hours, there were 228 operations in 2022 and 192 in 2023 by aircraft operations tracked as part of the Fly Quiet Program, which focuses on jet aircraft. The number of propeller operations, which are not tracked in the Fly Quiet Program, during the voluntary curfew also decreased from 2022 to 2023.

We anticipate a continued decrease in curfew violations in the future as the new curfew timeframe becomes more established. Scoring criteria may be reevaluated and updated to encourage Fly Quiet compliance with the ultimate goal of mitigating noise over sensitive areas of the community and the Park.

Reporting of Trends

The Airport has prepared dashboard reports to show the trends in noise abatement measures implemented that pertain to the Park (see **Figure 7**). This data has been collected since 2015, which was the first full year that radar data with operational tags became available to the noise system. These results are presented in the following figure and show year-over-year trends of improvement. This shows trends with respect to flight procedures that are preferred for noise abatement purposes, use of new generation quieter aircraft, minimizing nighttime operations and improvements in overall Fly Quiet Airport-wide scores.

Figure 7: Airport Historical Trends Dashboard (2015 to 2023)





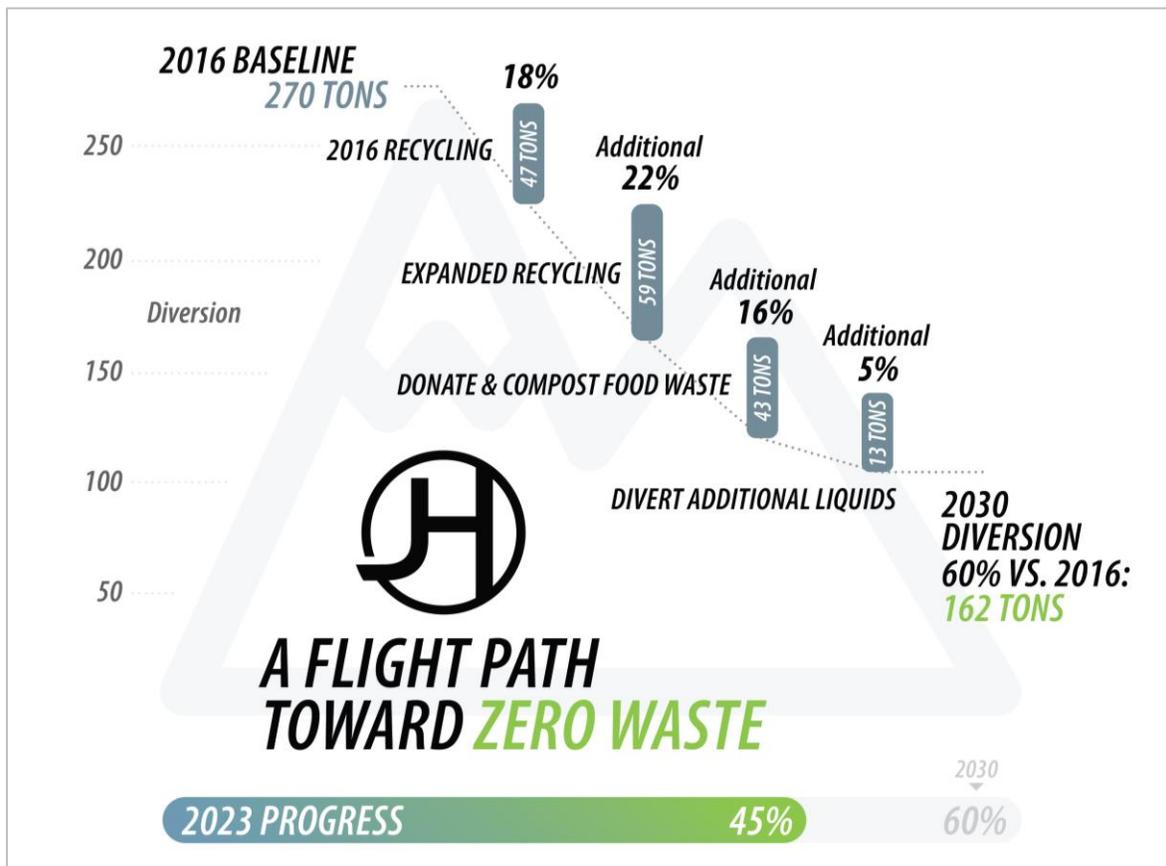
Waste Management And Recycling

Recycling

The recycling program at the Airport has grown from a small effort in the 1990s collecting a limited number of recyclables to today's much larger multi-stream program. Materials that can be recycled at the Airport include aluminum, #1 plastic, glass, and newspaper. The Airport also recycles cardboard, white paper, magazines, textiles, fluorescent bulbs, ink/toner cartridges, batteries, e-waste (electronic devices, parts, and equipment), waste motor oil, waste cooking oil and bear spray. Recycling efforts are in partnership with the Teton County Integrated Solid Waste & Recycling Center (ISWR), Master Environmental, and Haderlie Farms, a local composting organization.

In 2018, the Airport conducted a waste audit and developed a Waste Management Plan. As part of the Plan, the Airport approved an ambitious goal called the *Flight Path Toward Zero Waste*: a goal of 60% diversion by 2030 (compared to the 2016 baseline, see **Figure 8**). This goal aligns with local organizations that are focused on an objective of net zero waste.

Figure 8: A Flight Path Toward Zero Waste



To maintain progress toward this goal, the Airport continues to keep pace with the Waste Diversion Program by installing new waste and recycling units in the Terminal, completing a pilot project for recycling and liquid at the rental car facilities, expanding the composting program.

Based on recommendations from the Waste Management Plan the Airport has implemented additional waste-related initiatives. Notable progress in 2022-2023 includes:

- The new waste and recycling units in the Terminal have proven to be successful by improving the customer experience and consistency of use.
- The composting program at the Airport restaurant was on pause during the Runway Reconstruction Project between April and December 2022. Composting operations were successfully continued in 2023.
- Some of the liquid diversion stations have been connected directly to pipes to be plumbed, which reduces the time and effort for staff to physically empty liquid holding tanks. For these stations, the Airport uses assumptions based on historic data to extrapolate liquid diversion estimates.
- A recycling bin is on order for the current Fixed Base Operator (FBO) building. Once installed, recycling efforts will be further enhanced.

Runway Reconstruction

After nearly 50 years of use and four rehabilitations, the Airport's runway was fully reconstructed in 2022. Beginning in spring 2022, the project required three phases and a 78-day runway closure (the National Forest Service Helitack Base remained operational throughout the closure). The Runway Reconstruction project was one of the most environmentally respectful airfield pavement projects any airport has undertaken. This is worth mentioning in the waste management and recycling section because of the sustainability initiatives that were integrated during the planning, design, and construction of the project to reduce waste and increase reuse and recycling. These features included:



- Nearly 6 miles of slot drains were installed (two on each shoulder, covering the full length of runway & paved safety area). The slot drains divert runoff water to the Airport's existing stormwater filtration system, which capture virtually all of the stormwater and deicing within the entire airfield and has a positive impact on water quality. The addition of the slot drains reduced the capacity of the stormwater filtration system from a 100-year flood event to a 5-year flood event. In 2025, the Airport plans to expand stormwater detention to capture 100% of stormwater from both airside and landside facilities.
- Screened and crushed ~20,000 cubic yards (CY) of subbase course onsite at the Airport using native material excavated onsite:
 - Kept ~1,300 to 2,000 trucks off the road (that would have likely hauled material from Idaho Falls)
 - Saved ~28,000 to 45,000 gallons in fuel for hauling alone (roundtrip to/from the Airport to Idaho Falls)

- Reused and recycled a portion of the existing pavement section and incorporated into the new pavement section as full depth reclamation—amounts to ~85,000 CY:
 - Kept ~5,500 to 8,500 trucks off the road (would have likely hauled to Idaho Falls)
 - Saved ~120,000 to 187,000 gallons in fuel for hauling alone (roundtrip to/from the Airport to Idaho Falls)
- Revegetated using native seed mixes acquired by Park staff.

The Airport completed the project by the end of September 2022, with minimal impacts, by adhering to the highest environmental standards that could be achieved on such a project. Runway Reconstruction sustainability initiatives are summarized in **Figure 9**.

Figure 9: Runway Reconstruction Sustainability Initiatives



Waste Reduction

To monitor efforts towards the *Flight Path Toward Zero Waste* goal, the Airport tracks and reviews the waste diversion over time. The Airport has seen a 6% increase in waste diversion between 2022 and 2023. This occurred while also experiencing an approximate 24% increase in overall passenger activity over the same period. This equates to an approximate 20% decrease in waste per passenger. It should be noted that 2022 data does not reflect typical annual data due to the Runway closure from April to June 2022, and the restaurant/terminal reconstruction from April to December 2022. In 2023, the diversion rate was 45%.

In 2019 the Airport added the ability for passengers to rent bear spray through an onsite vendor. The rental program results in a reduction in waste material, in part because TSA bans travel with bear spray and a large volume of bear spray containers would otherwise be discarded. In the waste hierarchy, reduction is considered preferable to recycling, and preventing people from “owning” and then discarding unused bear spray, visitors now have the option to rent bear spray and then return any unused spray. In 2023, 2,979 requests for bear spray were placed, and the Airport rented out a total of 4,507 bear spray canisters (1 to 2 canisters per request). This program has nearly eliminated the number bear spray containers that are being discarded at the Airport.

To continue toward the goal of 60% waste diversion by 2030, the Airport will focus on what measures have been working, as well as where improvements in these programs can be made. Elements targeted for 2024

include reduction in materials used and adding new waste stations where needed. The Airport will continue to track overall waste diversion and work to identify additional opportunities for improvement in programs while working with other environmental stakeholders to put into place new programs and technologies beneficial to increasing the diversion rate. Waste diversion progress since 2020 is illustrated in **Figure 10**. A comparison of waste diversion progress metrics between 2021 and 2023 is illustrated in **Figure 11**.

Figure 10: Waste Diversion Progress

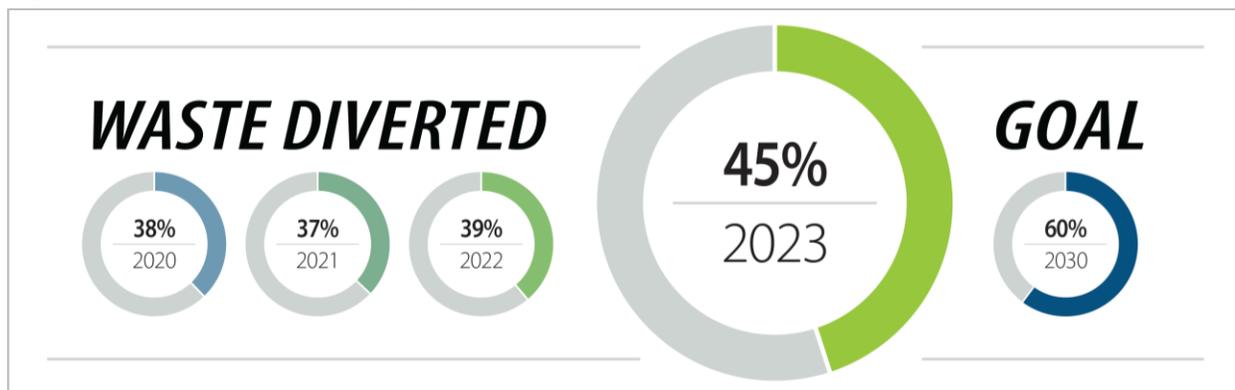


Figure 11: Airport Waste Diversion Metrics – 2023 Progress as Compared to 2021

▲ 29.3 tons
Waste Combusted*

▼ 0.2 tons
Waste Donated

▲ 14.9 tons
Waste Recycled

▼ 7.6 tons
Waste Composted**

*Pallets from recent construction projects were combusted in May 2023

**The Airport restaurant did not restart composting until September 2023 due to changes/vendor issues related to the remodel.



Air Quality and Emissions

Greenhouse Gas (GHG) Emissions Reduction Efforts

In 2022 and 2023, the Airport continued to work on measures to reduce greenhouse gas emissions. The Airport is planning to officially enter the Airports Council International (ACI) Airport Carbon Accreditation Program – the only accredited carbon-tracking program for airports. Data collection for the inventory began at the end of 2023, and analysis will start in 2024. Additionally, in 2023 the Airport submitted an application for FAA Climate Challenge funding to develop a Net Zero Roadmap (“Roadmap”). Of the \$2.4B dollars that were requested for funding, only approximately \$250M was awarded, of which the Airport was awarded \$180,000 to go in part to develop the Roadmap. This effort, which will start development in 2024, will analyze terminal buildings and systems, vehicles, and energy sources to identify energy efficiency and emission reduction measures to achieve Net Zero Emissions by 2050. This goal aligns with the FAA’s and

ACI's goal of Net Zero Emissions by 2050. Emission reduction efforts in the Roadmap will focus on Scopes 1 and 2, including sources such as heating, cooling, and lighting of facilities, Airport-owned and controlled vehicles and purchased electricity, and will also include actions to influence Scope 3, including emissions produced by tenants, employees, and customers.

Renewable Energy

The Airport approaches design and remodel of buildings and facilities as an opportunity to improve energy efficiency and reduce the Airport's carbon footprint. As part of the Restaurant Renovation project, the Airport replaced an aging chiller with a geothermal cooling system. Water is drawn from a well and passed through heat exchangers in the Terminal basement to provide air conditioning in the Terminal. The water is then reinjected into the aquifer through a second well, down gradient from the supply well. The water is contained within the closed-loop piping system throughout the process, so the aquifer is protected from contamination. The discharge water is just slightly warmer than when it was withdrawn at the supply well. The geothermal system is less prone to breakdowns and is significantly more energy efficient than the chiller.

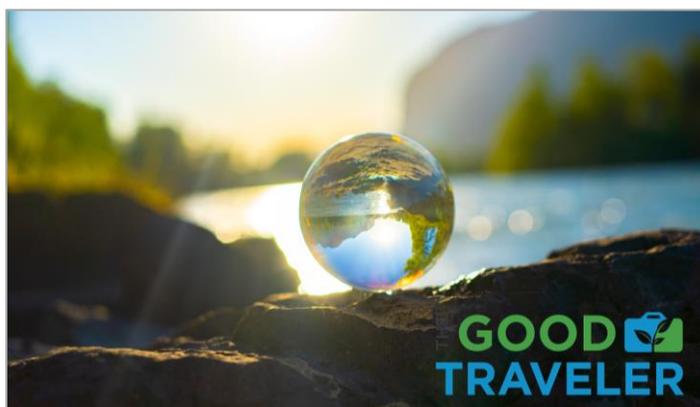
Further, the Airport has committed to expand the use of geothermal energy in the future. As the Airport facilities are redeveloped, geothermal energy will be the primary source of heating and cooling for all the FBO buildings. Electric boilers will only be used when there is a system malfunction or a very long duration of extreme cold that requires supplemental heat for a short period after opening the hangar doors. The airport will also use an improved geothermal system that only requires a single well for both supply and reinjection.

Good Traveler Program

The Airport has been an active advisory board member of the Good Traveler Program since 2019. The program specifically focuses on airports' needs for offsetting greenhouse gas emissions. In 2022 and 2023, the Airport offset all airport-related business travel. The Airport contributed to the following accredited carbon offset projects: University of Illinois Energy Efficiency Project (IL), Hudson Farms Forestry Project (NJ), Shaan Seet Forestry Project (AK), Middlebury Forestry Project (VT), and AIM Hamilton Composting Project (Canada).

For travelers, these offsets are available and advertised through the Jackson Hole Airport Wi-Fi landing page and social media outlets. Based on website analytics, to date, there were 197 views of The Good Traveler website from travelers in the Jackson, Wyoming and surrounding geographical areas. These views resulted in approximately \$744.52 in offset purchases.

Originally, the Good Traveler Program offered only traditional certified carbon offsets that support accredited carbon offset projects. However, in 2022, at the urging of its member airports (including Jackson Hole Airport), a second offsetting option was developed to allow travelers to donate to local non-profit organizations that are working to fight climate change. Jackson Hole Airport partnered with Yellowstone-Teton Clean Cities as part of



the program. This donation option not only amplifies carbon reduction efforts, but also contributes to climate change mitigation closer to home.

Climate Action Roadmap - Partnership

As a working member of the Jackson Hole Climate Action Collective, the Airport partnered with the Collective on the Climate Action Roadmap Development. Because airport-related emissions are evaluated using an airport-specific methodology, the Airport was able to contribute airport-specific data for inclusion in the Roadmap. In May 2023, the Climate Action Roadmap was released. The Roadmap highlights goals for emission reductions and strategies to implement in six sectors that aim to achieve greenhouse gas reduction in the Town of Jackson, Teton County, and surrounding communities and public lands. The Roadmap follows local recommendations from the Town of Jackson and Jackson/Teton County to reach carbon neutrality by 2030. The Airport participated in the development of the Roadmap and will continue to look for additional ways to partner with community stakeholders to mitigate for climate change.



Energy And Power

Energy and Power

Since 2019, the Airport has participated in Lower Valley Energy's Green Power program, which uses 100% renewable energy sources. This voluntary program that encourages organizations to purchase green power (power generated by renewable energy sources) to reduce their environmental impact. The Airport works with Lower Valley Energy to procure 100% of its annual electric use through local and regional green power sources such as Horse Butte Wind Farm, and several micro-hydroelectric facilities and other regional wind farms.

Jackson Hole Airport embraces energy efficiency as a baseline in all facility design efforts. For example, in 2023 designs developed for the Administration and FBO Building include high-performance buildings that will show dramatic improvements over the existing facilities. The updated Jackson Hole Airport FBO hangars and buildings will include components in their all-electric building systems design that signal a strong commitment to the Airport's environmental and sustainability goals. Additionally, in 2022 and 2023, the Airport implemented various energy efficiency upgrades throughout facilities, including:

- LED lighting and other energy efficient improvements to the checkpoint area hold room, and restaurant.
- Added passenger amenities (e.g., outlets) to every chair throughout the secured area.
- Integration of energy efficiency measures such as LED lighting, occupancy sensors, geothermal, and code compliance in all designs of new facilities.



Stormwater Detention and Filtration

In connection with the Runway Reconstruction Project that was completed in the spring of 2022, the Airport installed nearly 6 miles of slot drains, two (2) on each runway shoulder, the full length of runway and paved safety area. The slot drain system diverts runoff water to the Airport's existing storm water filtration system. This captures virtually all of the stormwater and debris within the entire airfield. Though it has reduced the capacity of the filtration system (reduction to a 5-year flood event rather than the 100-year event), it will have a positive impact on water quality by filtering all airfield stormwater runoff. This project was awarded the 2023 Airports Council International – North America (ACI-NA) Environmental Achievement Award for the Runway Reconstruction's recycling and slot drain project components.



To address the reduction in capacity of the stormwater detention and filtration system, the Airport plans to expand this system. In January 2023, the Airport applied for and was successfully awarded funding from the 2022 Competitive Funding Opportunity: Airport Improvement Program Supplemental Discretionary Grant. The project will expand the existing stormwater detention and filtration system to capture and treat surface stormwater runoff from all of the Airport's paved area. This will allow for a significant decrease in total suspended solids (80% minimum) and a decrease in total petroleum hydrocarbons (upwards of 90%) from the stormwater captured and treated when compared to the no-action taken scenario. Additionally, and consistent with stormwater best management practices, the system will be capable of capturing and filtering through a 100-year storm even to minimize negative discharge impacts to downstream watersheds during large storm events.

Per Airport recommendation, staff worked with consultants to set up testing protocols for the existing stormwater system to verify that the system is functioning as originally intended. One test was conducted in November 2023. The system was originally designed to capture the stormwater and slow it down, which it does well, instead of the previous sheet off the airport. It is also designed to capture suspended solids (TSS). Based on the one test conducted, the effluent as it relates to TSS was 8 mg/L. As a comparative, TSS for stormwater discharge is 100 mg/L or less.

PFAS (Per- and Polyfluoroalkyl Substances)

PFAS comprises more than 10,000 individual man-made substances. PFAS is designed to be resistant to biological, chemical, and thermal breakdown. It is found in many products, such as non-stick pans, water repellent fabrics and applications, microwave popcorn, pizza boxes and even some brands of dental floss. It is also found in Aqueous Film Forming Foam (AFFF) which was previously mandated for use by some fire departments and at commercial service airports in the United States. Of the more than 10,000 individual substances, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) are two of the substances most commonly associated with AFFF.

With an understanding of the environmental and human health considerations of PFAS, an industry effort began in the late 2010s to find a fire extinguishing agent that could have the performance of AFFF, but not contain PFAS. After extensive testing of potential firefighting foams by the FAA, in January 2023 the FAA

announced that fluorine-free firefighting (F3) foams which do not contain PFAS could be used at airports served by airlines. It was not until September 2023 that the first F3 foam was certified by the FAA for use at airports. Presently, airports have the option to use AFFF containing PFAS or certified F3 foams to meet FAA requirements.

Jackson Hole Airport’s F3 Transition

Jackson Hole Airport was one of the first airports in the United States to transition to fluorine-free firefighting foam (F3). This was due to the Airport proactively developing an approach for the transition to F3 foam once it was certified for use. Airport staff coordinated with subject matter experts (SMEs), legal representatives, operations managers from other airports, environmental consultants, industry trade association groups, foam manufacturers, and ARFF vehicle manufacturers. In September 2023, when the DoD certified the first F3 firefighting extinguishing agent liquid concentrate to meet the requirements of the new performance specification (MIL-PRF-32725), the Airport immediately initiated plans for its purchase. By the end of October 2023, the Airport ordered, received, and transitioned to F3. Upon delivery of F3, the Airport transitioned its Airport Rescue and Fire Fighting (ARFF) vehicles for its use. The Airport coordinated disposal of the AFFF with Clean Harbors, a waste management and disposal service. The Airport ordered 840 gallons of F3 and disposed of over 1,000 gallons of AFFF. The Airport purchased two new ARFF vehicles – they are anticipated to be delivered in 2024. Once delivered they will immediately be filled with only F3.

The transition to F3 was the result of careful planning and rooted in a firm commitment to safety and environmental protection. The Airport coordinated with leading resources throughout the industry and moved as quickly and deliberately as any airport of any size in the country. The Airport remains committed to the safety and health of our passengers, staff, and surrounding community.

Investigation Summary

EPA has regulatory authority to promulgate drinking water standards, or Maximum Contaminant Levels (MCLs). Since 2016, EPA has been researching a small subset of PFAS to determine appropriate levels in drinking water for the protection of human health. These updates are monitored and described in the [Airport’s PFAS Management Plan](#), which can be found on the Airport’s website. At the time of this report, PFAS has not been classified as a hazardous or toxic substance, or as a carcinogen, by EPA or the Wyoming Department of Environmental Quality. Table 1 provides a timeline of EPA’s issuance of PFAS drinking water levels.

Table 1: Timeline for EPA’s Issuance of PFAS drinking water levels

Dates of Relevant Thresholds	Threshold levels, ppt
2016	LHA: 70 70 - PFOA or 70 - PFOS or 70 - total PFOS and PFOA
June 15, 2022	Revised LHA: 0.004 - PFOA 0.02 - PFOS
November 2022	RSL: 60 - PFOA 40 - PFOS

March 2023	Proposed MCL: 4 - PFOA 4 - PFOS
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LHA - Lifetime Health Advisory

RSL - Regional Screening Levels for groundwater

MCLs - maximum contaminant level for drinking water

Understanding that fire-fighting foam containing PFAS has been used on Airport property in the past, in 2020 the Airport proactively initiated groundwater sampling on and off Airport property to determine if and to what extent PFAS exists and had migrated. This investigation was voluntary; the Airport had not been directed by any agency, authority, or regulatory requirement to undertake this process. The Airport has provided all investigation reports to, and communicates regularly with, the Wyoming Department of Environmental Quality, Teton County Public Health, the Teton Conservation District and Grand Teton National Park. The Airport continually updates a PFAS Management Plan that is posted to the Airport website to ensure transparency in all efforts conducted as part of the PFAS investigation.

The Airport continues to monitor both on- and off-airport water wells and to determine next steps for PFAS mitigation and remediation. The Airport has committed to semi-annual (approximately February and August) testing for selected residences to monitor the plume's migration off airport, in addition to semi-annual well testing on the airfield. The Airport chose this path as part of its commitment to protect the community and the natural environment. Activities conducted in 2022 and 2023 as part of the continued monitoring efforts are summarized below.

Airport Well Testing

- Spring and Fall 2022: The Airport did not conduct on-airport testing of wells due to the Runway Reconstruction Project.
- May/June 2023: the Airport conducted a round of testing from nine of the on-airfield monitoring wells and the Control Tower drinking water well. Levels have decreased such that only PFOS concentrations detected in one on-airfield monitoring well are now above the current RSL. PFOA detected concentrations in all 10 wells were not above its current RSL.
- November 2023: the Airport conducted a round of testing from eight of the on-airfield monitoring wells and the Control Tower drinking water well. PFOS concentrations were slightly higher in some of the monitoring wells when compared with previous sampling events, which may be a result of the lower groundwater elevations. PFOS detected concentrations in three wells were above its current RSL; while PFOA detected concentrations in all eight wells were not above its current RSL.

Residential Well Testing

- February 2022: 18 domestic water wells that had previously been tested were re-tested to evaluate potential trends in concentrations. Results for all 18 samples were below the 2016 LHA level. Some results were higher and some lower than in previous testing.
- August 2022: 20 domestic water wells that had previously been tested were re-tested to evaluate potential trends in concentrations. Results were generally consistent with prior testing events, but some wells showed slight increases in PFOA or PFOS.
- February 2023: 22 domestic water wells that had previously been tested were re-tested. Results were generally consistent with previous testing events. A comparison of these results with the 2023

proposed MCLs for PFOS and PFOA (e.g., 4 ppt individually for PFOA and PFOS) indicated the following:

- One PFOA result exceeded 4 ppt with a maximum value of 5.5 ppt
- Thirteen PFOS results exceeded 4 ppt with a maximum value of 46 ppt.
- August 2023: 22 domestic water wells were re-tested. Results were generally consistent with previous testing events, although concentrations were typically slightly lower. A comparison of these results with the 2023 proposed MCLs for PFOS and PFOA indicated the following:
 - No PFOA results exceed 4 ppt
 - Fourteen PFOS results exceeded 4 ppt with a maximum value of 39 ppt.

The Airport will continue to re-test these domestic and on-airport wells at least through 2024, both in wet and dry seasons, for further analysis. The next round of domestic and on-airport testing is scheduled for spring of 2024.

Eligibility Boundary for Airport-Provided Residential Drinking Water Filters

In June 2022 the Airport expanded the Eligibility Boundary area for whole-house filtration system installations from the previous 10 ppt level to *any* detection of PFOS and PFOA. This means, the Eligibility Boundary (EB), defines an area where it is estimated that any concentration of PFOS or PFOA would be detected in groundwater, or in which PFOS and PFOA were actually detected (see Eligibility Boundary illustrated in **Figure 12**).

Residents whose parcels fall within the Eligibility Boundary are eligible to receive, at no cost to them, a whole-house domestic water filtration system that is certified to remove PFOS and PFOA. Water filters are provided for domestic water wells only. **Figure 13** provides a summary of the filter systems installed as of December 2023.

Figure 12: Eligibility Boundary for Airport-Provided Drinking Water Filters

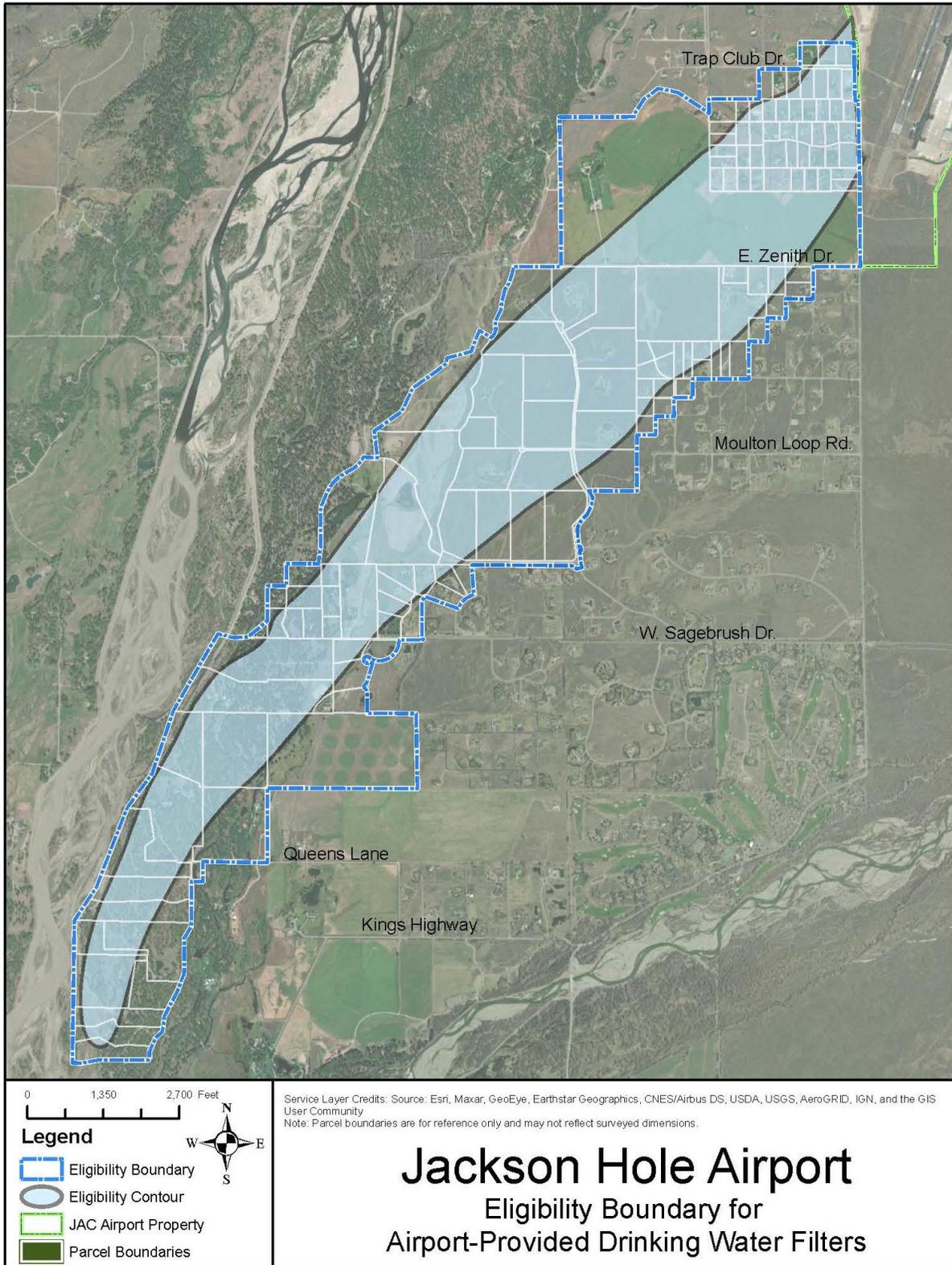


Figure 13: Water Filtration Systems Installed to Date

Number of Filter Systems



Number of Homes



The Airport also decided to provide, at its expense, replacement filters through 2024 for each system installed. The original and replacement filters will together maintain the systems for a period of two years after initial installation.

If a new residence is constructed on an eligible parcel, it may be eligible to receive a filter system. The owners of new residences must submit a copy of their Teton County building permit and coordinate the timing of installation with their construction.

If a parcel that falls within the Eligibility Boundary is subdivided in the future, only new domestic water wells on newly delineated parcels where some portion is within the Eligibility Boundary will be eligible to be provided with filter systems. The owners of new residences on qualified new sub-parcels must also submit a copy of their Teton County building permit and coordinate the timing of installation with their construction.

Additional PFAS Sampling

The Airport reconstructed its runway in the Spring of 2022. Before the project began, the Airport wanted to test disturbed soils which might be contaminated with PFAS. In December 2020, the Airport therefore conducted an on-site investigation within the 2022 runway project area to determine the extent to which PFAS is found in Airport soils. The investigation consisted of 28 soil borings with three samples taken at various depths and into the water table with a “grab” groundwater sample collected.

PFAS compounds were detected in 14 of the 28 borings. PFOA and PFOS were not detected above the modified Human Health Screening Level in the zero to five feet below surface level in any of the 28 borings. Findings from this study were used to inform planning and design for both the Stormwater Filtration and Detention System and proposed expansion of the de-icing pad.

The Airport continues to evaluate next steps in the process to better refine its understanding of PFAS in groundwater under and around the Airport. The Airport plans to continue collecting data to determine the extent to which PFAS levels in groundwater vary seasonally and change over time. The Airport continually updates its PFAS webpage and is dedicated to keeping the public informed. It also continues to work with local partners on this issue.

Water Quality Monitoring

The Airport has long supported water quality modeling due to its location in the National Park and because the Snake River is identified as a Class 1 watershed. The United States Geological Survey (USGS) has been conducting the Airport’s water quality monitoring for over 10 years at 19 wells located north of the Airport, and to the south and southwest of the Airport.

The Airport entered into a contract with USGS to do annual water quality modeling near the Airport. The previous contract, for Fiscal Year (FY) 2019 to 2023, cost the Airport approximately \$358,218. In 2023, the Airport updated their contract with USGS for FY 2023 to 2025 for a cost of approximately \$233,925. This ensures that annual water quality modeling and monitoring will continue, supplemented by the additional PFAS monitoring noted above.

Results from the historic studies include:

- Water in the Snake River Alluvial Aquifer down gradient from the Airport was determined to be of good quality with no constituents exceeding EPA maximum contaminant levels or advisories.
- Previous studies did not detect petroleum products or glycols above laboratory reporting levels; however, results of water quality monitoring indicated low dissolved oxygen and corresponding high iron and manganese concentrations, as well as low concentrations of triazoles, which can be indicative of small amounts of deicing fluid seeping into the groundwater system from deicing products applied to aircraft prior to the current deicing pad being constructed.

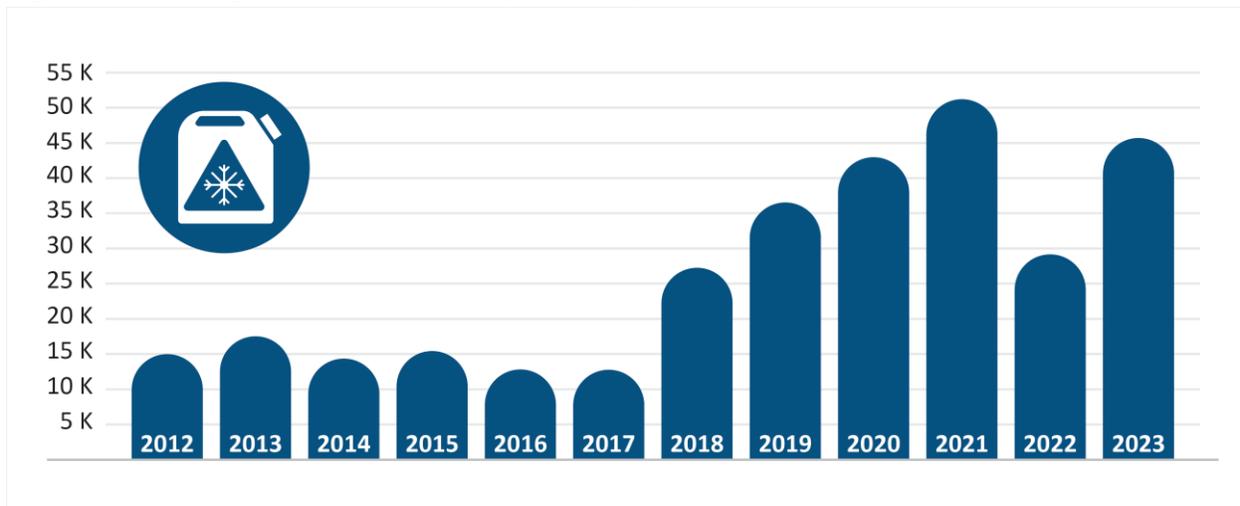
The Airport is currently coordinating with USGS about the most recent water quality monitoring report. The Airport will continue to work with USGS and other agencies and partners to better understand the conditions within the aquifer.

Glycol Recovery

The Airport has constructed an aircraft de-icing pad at the north end and just to the east of Taxiway Alpha. The de-ice pad parking spots have been reconfigured and are large enough to handle two Boeing 757s or three 737s simultaneously. There are two spent glycol collection drains on the east and south sides of the pad, which funnel the used glycol into a 30,000-gallon underground collection tank, which is just south of the concrete pad. There is also an underground valve that can be closed to divert rainwater and other precipitation away from the collection tank during times (or seasons) when de-icing of aircraft is no longer necessary.

Before the spent glycol is collected, it flows thru two oil-water separators which are 1,000 gallons, and 3,000 gallons respectively. When glycol is applied to aircraft some falls to the ground and is available for collection. Although the concentration of glycol in the fluid collected at the pad is lower than historical levels, the amount of glycol collected is significantly higher than in the past, which can be due to many factors, including airline deicing practices. The recovery data after construction of the deicing pad is included in the following graphic. The Airport's goal is to collect and recycle as much glycol as possible. This means that snow melt and other water is collected as well. When snow and other water is collected (depending on weather conditions), this leads to lower concentrations, but maximizes the glycol removed from the environment, which benefits overall water quality. **Figure 14** depicts gallons of deicing fluid recovered since 2012.

Figure 14: Deicing Gallons Recovered (2012-2023)



Wildlife Management

The Airport has a Wildlife Hazard Management Plan (WHMP) that was developed in coordination with the National Park Service. In support of the WHMP, a Greater Sage-Grouse Habitat Restoration Plan was developed to set forth strategies to (a) increase separation between aircraft and sage grouse, through restoration of brood rearing habitat in disturbed areas of the Park, to draw sage grouse hens farther from aircraft movement areas and eventually outside of the Airport boundary; (b) restore two historic lek sites and develop a satellite lek near the restored brood-rearing habitat located off-Airport to attract male sage grouse; and (c) modify Airport conditions to make areas within Airport boundaries less attractive to sage grouse. Implementation of the WHMP alternatives and Greater Sage-Grouse Habitat Restoration Plan should enable the Airport to minimize the risks of wildlife and bird strikes within this environmentally sensitive ecosystem.



In 2023, the NPS worked on a satellite lek off Airport property to restore brood-rearing habitat and to safely draw hens outside of the Airport boundary. The Airport reimbursed the Park for their time and expense for this work. In 2022 and 2023, the Airport continues to be a contributing member of the Greater Sage-Grouse working group.



Community & Employee Programs

We are committed to creating a more sustainable and responsible future for our airport and the community we serve. “People Helping People,” the mission of the Airport, speaks to the Airport’s core value of supporting its employees, airport users, and the local community. The Airport strives to support its partners, staff, and broader community initiatives through the various collaborations, programs, and by serving as a reliable, hospitable, and safe transportation resource for the region. The achievements described below demonstrate how the Airport supports its employees, users, and community.



Certifications and Awards

Jackson Hole Airport is proud of its achievements in demonstrating sustainability, environmental stewardship, and social responsibility. Recognition and certifications help verify the path that the Airport is taking and how it stands in the community and the industry. The Airport received the following certifications and awards in 2022 and 2023:

- **BEST Assessment and Certification (Emerald Tier) Renewal** through the Riverwind Foundation: five years consecutively. The standards in the BEST program are comparable to the world’s “*most rigorous and comprehensive environmental, community, and economic sustainability criteria.*”¹
- Honored with the **2023 Airports Council International – North America (ACI-NA) Environmental Achievement – Innovation Award** for the slot drain installation component of the

¹Riverwind Foundation Press Release, <https://www.jacksonholeairport.com/wp-content/uploads/2019/07/JAC-BEST-Certification-Press-Release.FINAL-004.pdf>

Runway Reconstruction project. Since 1997, ACI-NA has recognized airports that strive to protect and preserve the environment while keeping airport projects on schedule, minimizing community and regulatory controversy, and maximizing overall cost-benefit. The ACI-NA Environmental Achievement Awards are presented annually to specific airport projects that showcase notable and innovative efforts to develop and implement programs that protect the environment. The Jackson Hole Airport received this award because the slot drains capture 100% of runoff, therefore diverting runoff water to the Airport's existing storm water filtration system.

- In recognition of the Runway Reconstruction Project, the Airport received an **Honorable Mention at the 2023 AAE Airports Going Green Conference**, representing outstanding achievement in pursuit of sustainability within the aviation industry. The Airports Going Green Awards were established with the firm belief that industry recognition is a key element to fostering sustainability achievement and innovation.
- Received the **National Corrugated Steel Pipe Association (NCSPA) 2023 Project of the Year** award in the Polymer Coating category for the Runway Reconstruction project.



Collaborations

Collaboration within the community and broader agencies is a cornerstone of how the Airport operates. As part of our commitment to being a good neighbor, in 2022 and 2023 the Airport participated in the following events and outreach programs.

Community Events and Outreach

We engage with the local community by providing sponsorship, leadership, or assistance to local organizations. Below are some of the sponsorships initiated and/or maintained in 2022-2023.

- Touch a Truck Event with Jackson Hole Children's Museum, Title Sponsor
- Participation in 4th of July Parade and other holiday parades
- EcoFair event sponsorship and participation
- Rotary Club High School Scholarships
- Dubois Aviation Days (2022)
- Flights and Feathers Program – partnership with Teton Raptor Center
- Pet Partners Program – therapy dog teams
- Airport Host program
- High School Ambassador program
- High School Job Fair sponsorships and participation
- JH Chamber program
- Womentum Women in Leadership Participation
- Leadership Jackson Hole Program (2022)



- “Behind the Scenes” tours to school groups
- Expansive Terminal Art Program. Local Jackson Hole artist, Amy Ringholz, created the 18-foot art installation titled “Boundless” (pictured right). Donated to the Airport by the Eastman family, the painting includes fifty wildlife animals found in Jackson’s diverse and unique ecosystem. In the painting, these animals are situated in an infinity symbol to represent the never-ending circle of life and the creatures’ ability to coexist in harmony². The Airport is proud to honor local artists and to showcase “Boundless” for thousands of people to enjoy.



- Water quality communications and coordination
- Homeowners Association (HOA) meetings, local organizations, and other presentations for community
- Isaac Crabtree – Construction video blogs
- Construction communication for Runway Reconstruction Project

Community Partners

In addition to the specific events listed above, the Airport’s community outreach program highlights key partners with whom the Airport collaborates. The Airport is grateful to have community partners that support the overall mission of the Airport, and is committed, in turn, to supporting these organizations. The list below identifies community partners in 2022-2023:

- Grand Teton Foundation Store
- Teton Conservation District
- The Good Traveler Program
- Jackson Hole Climate Action Collective
- Yellowstone -Teton Clean Cities
- Riverwind Foundation: Jackson Hole & Yellowstone Sustainable Destination Program
- Habitat for Humanity–ReStore
- Jackson Hole Children’s Museum
- Jackson Cupboard
- Jackson Hole Community Fall Festival
- Jackson Hole Food Rescue: Reduce Food Waste (by donating all nonperishable food items collected at the checkpoint)
- Teton County Integrated Solid Waste and Recycling: “RRR” (Reduce, Reuse, Recycle) Business Leader

² <https://buildmagazine.com/blog/boundless-in-jackson-hole-by-amy-ringholz-of-ringholz-studio/>

- Energy Conservation Works: Partner for Energy Efficiency
- Lions Club International: eyeglass recycling
- Browse and Buy: thrift store donations
- Jackson Hole Chamber of Commerce
- Northwest Chapter of AAAE Annual Conference Planning committee
- Wyoming Stargazing
- Southern Teton Area Rapid Transit (START) - Airport Shuttle Pilot Program
- Donations to various schools in Wyoming School District #7: Donated all good quality, unclaimed, sanitized Airport Lost & Found water bottles
- Spread the Love Commission – Local Jackson Hole branch: Donated good quality, unclaimed Airport Lost & Found items that homeless people could need (camping gear, clothing, electronics, sunglasses, luggage, pillows/blankets, etc.)



The Jackson Hole Airport represents a gateway to Grand Teton National Park and many other outdoor recreational opportunities – which don't always occur during the day. To support access to nighttime recreation under Wyoming's starry skies, in 2023 the Airport initiated the pursuit of designation as an Urban Night Sky Place (UNSP) under the International Dark Sky Places (IDSP) Program. The IDSP Program certifies areas that employ measures to preserve and protect the night sky and reduce light pollution. While certification under the program is not a guarantee, pursuit of improvements to protect night skies aligns with the airport's responsibility as a good steward of its unique and special location within the Park. Should the airport achieve certification, Jackson Hole Airport would be the first airport in the world to receive any IDSP designation.



Employee Benefit Program

Employee Housing Program

Located in a competitive and expensive housing market, the Airport provides a housing and transportation stipend of \$1,000 a month per employee to full-time staff. This may allow some employees to live near Jackson while it assists others with their transportation expenses.

Additionally, the Airport has expanded master leasing opportunities as part of a longer-term housing strategy. Historically, the Airport had two master leases for a 2-bedroom apartment in Victor and a 1-bedroom apartment in Kelly. In 2022 and 2023, the Airport expanded the leases to include an additional 2-bedroom apartment and a 3-bedroom apartment in Victor, and the Airport purchased and owns a 3-bedroom unit in Jackson. These units will be used for short-to-medium terms for new employees moving from out of town, employees in transitional housing circumstances, or potentially for short-term emergency housing for someone who loses their housing. For now, these units have already proved to be highly valuable to our staff in providing stable and secure housing.

Employee Referral and Incentive Program

To attract and retain high-level employees, the Airport continues to provide employees with a sign-on bonus of \$5,000 and a referral bonus of \$5,000. This program was developed to be competitive in the hiring market, assist staff with the high cost of living, and help with recruiting and retention. Additionally, the Airport continues to update the Career Portal on the Airport's web site. This page provides information on current job openings, benefits, instructions on how to apply, and contact information for the Human Resources Department.

Employee Training and Certification Program

The Airport supports continuing education of its employees. In 2022 and 2023, numerous Airport employees advanced their professional development. Certifications, trainings, and designations were achieved for many employees across the Airport. Some of the specific certifications and designations are below:

- ACE (Airport Certified Employee) Programs for Security, Operations, Finance, and Trusted Agent
- AAEE (American Association of Airport Executives) Certified Member Program
- AOPA (Aircraft Owners and Pilots Association) GA Security
- AAEE Accredited Airport Executive Program
- Airport Master Firefighter
- Other Firefighting Certifications
- ICS (Incident Command System)
- EMT (Emergency medical technician)
- MPA (Master of Public Administration)



Airport Host Program

Throughout 2022 and 2023, the Airport continued its Airport Host Program. The hosts greet arriving and departing guests, assisting with travel needs and questions about the facility and local area. The hosts are essential to our guest experience, and we continuously strive to go above the expectations of Airport users. The Jackson Hole Chamber assists the Host Program in partnership with the Airport during the winter months. The Chamber staff provide guests with local knowledge, hand out reusable shopping bags and serve beverages in the baggage claim area for arriving guests.

Employee Storm Support

During adverse weather events, the Airport provides staff with hotel rooms, if needed. This initiative supports a sustainable work force while allowing the Airport to provide a high level of service during storm events.

Employee Volunteer Program

In support of our motto, "People Helping People," the Airport encourages employees to participate in volunteer activities by providing the benefit of paid Volunteer Time Off (VTO). Employees may use VTO to contribute their time and talents to recognized charities, causes and not-for-profit organizations in the surrounding community. Employees may take up to 16 hours of VTO per calendar year to participate in their chosen volunteer program.



Resilient Resource

The community at Jackson Hole Airport is like none other in the world – the town of Jackson Hole, Grand Teton National Park, and the National Elk Refuge, among other special locations. To support the local community, the Airport continues to focus on resilient planning, design, and operation. In this vein, the Airport is committed to sustainable practices, resource efficiency, and forward-thinking resilience strategies. This approach provides a financially responsible framework and ensures that operations remain adaptive and robust. The Airport prides itself on the fact of being self-sustaining, with no use of local property or sales tax dollars. The achievements below show how the Airport is a resilient resource to the community and aviation industry.



Operations

The Airport serves the Town of Jackson and Teton County, and is a gateway to Grand Teton National Park, Yellowstone National Park, and other nearby natural areas such as the National Elk Refuge. The Airport is part of the National Plan of Integrated Airport Systems (NPIAS) and is classified by FAA as a non-hub primary commercial service airport. The operational health of the Airport allows it to serve the community in a resilient and efficient way.

The following is a description of the major categories of operations at the Airport during the 2022-2023 reporting period.

Air Carrier and General Aviation Operations

The figures below show the 20-year overall operations at the Airport (**Figure 15**) and recent total enplanements (**Figure 16**). General aviation operations, with “operations” being defined as either a landing or a takeoff, totaled 19,796 operations in 2022 and 21,630 operations in 2023. Commercial airlines operating regularly scheduled service at the Airport, either year-round or seasonally, change from time-to-time. For 2022-2023, the airlines serving the Airport were American, Delta, Alaska, and United Airlines, with

Sun Country providing summer seasonal service to Minneapolis. Total commercial enplanements, or the number of passengers that board an aircraft, were 405,693 in 2022 and 500,742 in 2023.

Figure 15: Overall Operations - 20-Year Historical Trend

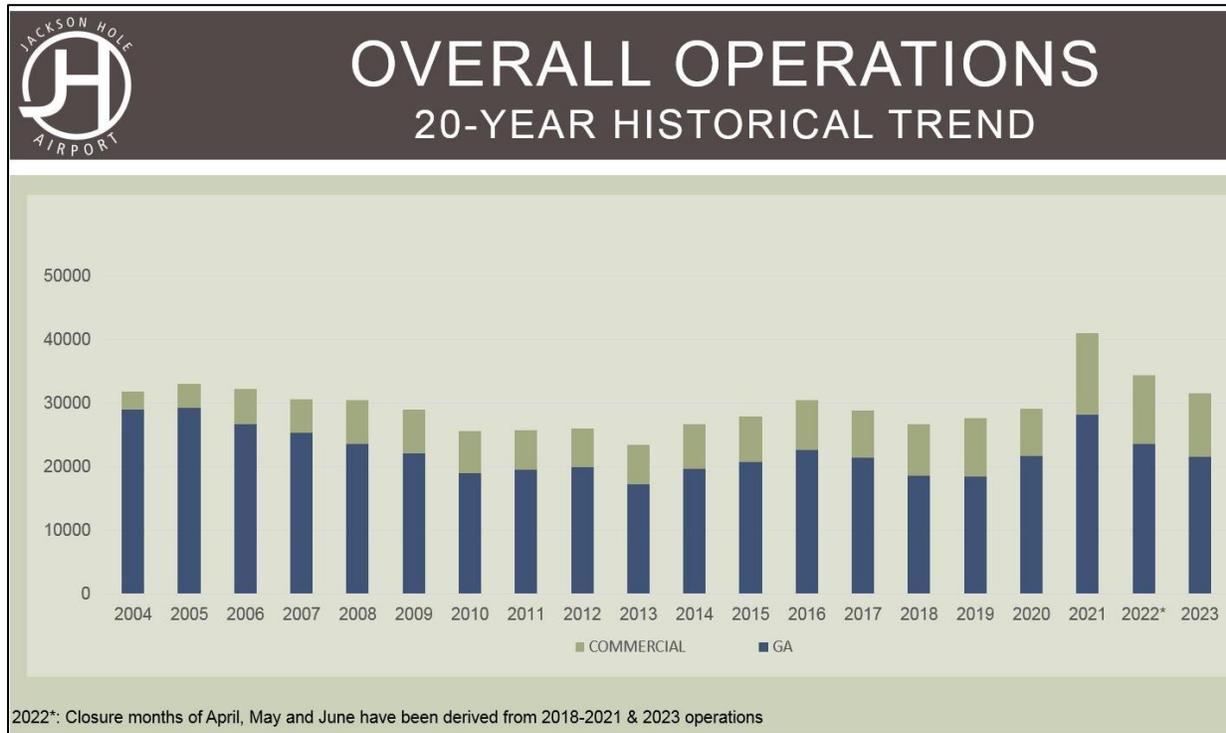
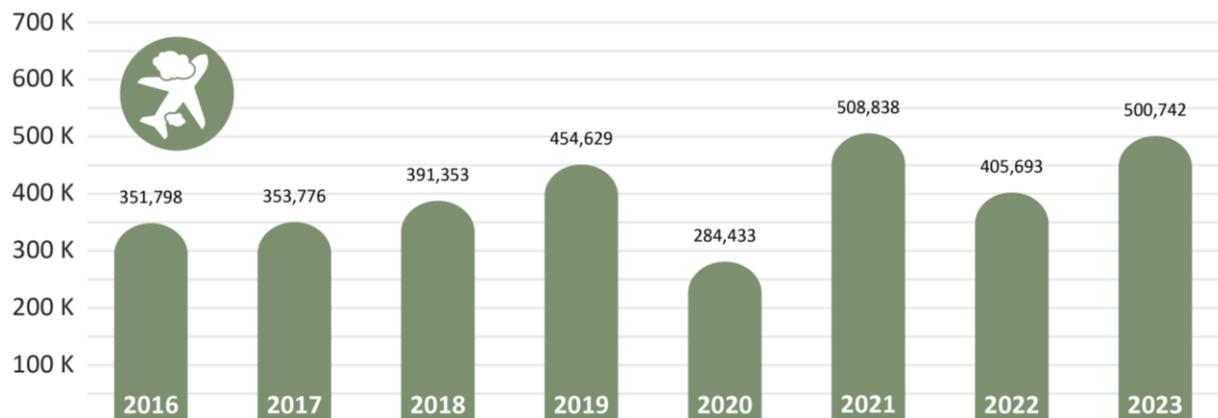


Figure 16: Jackson Hole Airport Commercial Enplanements



Ground Transportation Activity

The Airport is located nine miles from the Town of Jackson and 21 miles from Teton Village. Public ground transportation is therefore important to meet the needs of the traveling public. The Airport enters into annual contracts with providers of ground transportation services at the Airport. In 2022 and 2023, the Airport entered into contracts with 27 ground transportation providers.

New in 2023, the START Bus launched a shuttle pilot program from the Airport for the 2023-24 winter season. The program began on December 16th, 2023, and will run through April 14th, 2024. This pilot program is aimed at addressing the parking shortage, gauging the demand for bus service, and learning more about its riders and service quality. Data collected during the study will be evaluated to determine if ridership could support an established route to and from the Airport in the future.



Two transportation network companies (TNCs) also operate at the Airport. Under these contracts the independent drivers of Uber and Lyft may operate at the Airport. Airport access fees are charged using a “geo fence” which electronically detects when any in-service Uber or Lyft vehicle enters the Airport. These operations have increased from 24,867 in 2022 to 33,735 in 2023.

Rental Car Activity

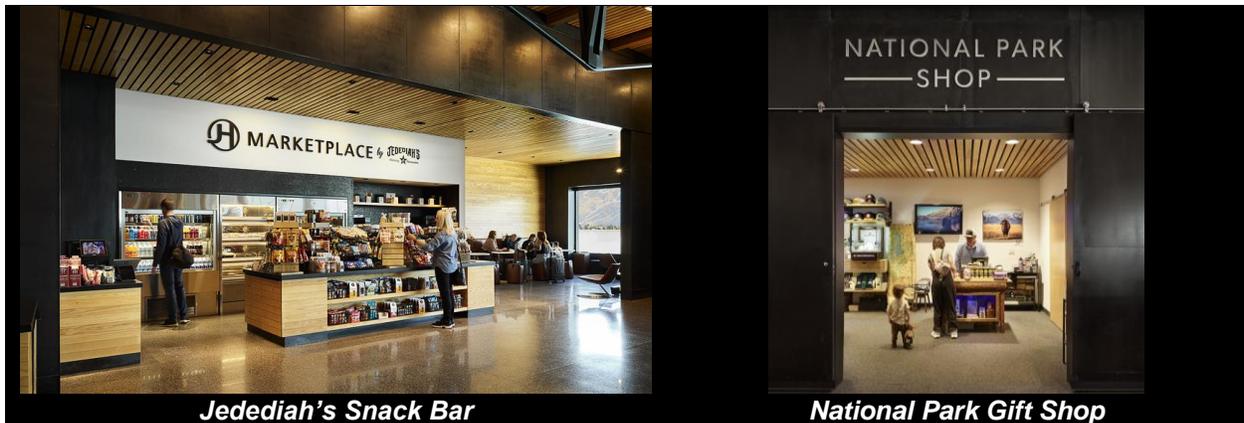
The Airport periodically solicits competitive proposals for a limited number of rental car companies that will be permitted to maintain a base of operations on the Airport (“on-airport rental cars”). In 2022 and 2023, the Airport was served by three on-airport rental car companies including National/Alamo, Enterprise, and Avis/Budget. The Airport is also served by several off-airport rental car companies which offer shuttle service from the Airport to their locations in the Town of Jackson. These include Hertz, Dollar, and Thrifty.

The current rental car contracts expire on April 30, 2024. The Airport went through a bid process in the fall of 2023 and the new rental car agreements will go into effect on May 1, 2024. Sustainability language was included in the rental car contract language. Onsite will be Hertz, Enterprise/National, and Avis/Budget. The FBO will have an onsite operator as well – Go Rentals.

In 2021, the Airport entered into an agreement with Turo, a car sharing company that allows individually owned cars parked at the Airport to be used similar to the TNCs. In 2021, rental cars experienced a shortage, and Turo provided users of the Airport additional options, while giving locals the opportunity to make money from an otherwise unused vehicle. The Airport has continued working with Turo to provide additional transportation solutions for the traveling public and visitors.

Terminal Businesses

Multiple businesses are located or supported in the Terminal building. Jedediah Corporation operates a restaurant in the secure passenger holding room and a snack bar in the non-secure lobby of the Terminal building. The contract with Jedediah’s was renewed in 2019 and included sustainability language regarding the support of the Airport’s waste diversion policies. Jedediah’s worked with the Airport to refine the composting program. In 2021, in response to the pandemic and in preparation of the closure for renovations in 2022, the contract with Jedediah’s was amended and extended. The NPS operates a gift shop inside the passenger holding area.



Inter-Agency Helibase Operations

Pursuant to a Second Amendment to the 1983 Use Agreement, Bridger-Teton National Forest and the Grand Teton National Park have established an interagency Helibase adjoined to the Airport. The joint base consists of a 3,200 square foot building, two 30' by 30' helicopter landing pads and one 40' by 40' pad. In 2021, construction of two additional helicopter landing pads north of the existing location was completed. There is also spill containment parking for fuel trucks and a mobile communications trailer.

The Helibase building houses offices, a crew ready room, a physical fitness room, a training/meeting room, a storage area stocked with gear and equipment for response crews, and an operations center. The crew based at the Helibase responds to wildland fires and conducts short-haul search and rescue (SAR) operations in the Park and National Forest. The Helibase directly serves 2.5 million acres of federal land and is available to assist in rescue and fire operations on 18 million acres across the Greater Yellowstone Ecosystem.



Environmental Planning

Effective planning allows the Airport to adjust to changing conditions, meet tenant and user needs, and reduce impacts. Based on existing and future needs, below are several projects that the Airport either initiated or continued during 2022 and 2023 timeframe.

- Updates to the PFAS Management Plan to provide information to the public and governmental agencies.
- Noise Frequently Asked Questions (FAQs) and PFAS FAQs, accessible on the Jackson Hole Airport website, continue to be updated with new information.
- Prepared and executed an F3 transition plan, including disposal of all AFFF, making Jackson Hole Airport one of the first airports in the United States to replace AFFF with approved F3.
- Initiated ACI's ACA Program – on track to receive designation in 2024.
- Completed a Conceptual DarkSky Lighting Assessment in 2023. The Assessment identified general areas that require lighting improvement to be in adherence with the DarkSky International criteria, while maintaining the FAA requirements. The Airport plans to pursue DarkSky designation in 2024, with the potential to be the first airport in the United States with this designation.

Airport Staff Workshop & Retreat

In November 2023, Airport staff conducted a Workshop & Retreat to explore priorities and goals for the future of the Airport. The objective was to brainstorm and identify a long-term goal that is clear, compelling, and inspiring for the organization; takes 10 to 25 years to achieve; inspires employees to take action; and requires innovation and maximum effort to achieve. This planning exercise used a forward-thinking focus and was anchored by the Airport Board Vision Statement, “To be a recognized leader delivering a positive and unique guest experience, an unwavering commitment to environmental stewardship, and a culture based on people helping people.” Four key themes, and associated long-term goals and priorities, were developed during the Workshop & Retreat (**Figure 17**). The outcomes from this Workshop & Retreat will provide a framework for the Airport’s long-term planning goals.

Figure 17: Workshop & Retreat Themes, Goals, & Priorities



Facility Improvements

Terminal and Terminal Area Improvements

Based on existing and future needs, several projects were in the planning, design, or construction phase in 2022 and 2023 to make terminal area improvements. Terminal improvements include:

- **Checkpoint Project:** The Security Screening Checkpoint was the oldest part of the terminal building. To accommodate new security screening technology, a remodel and expansion of the Checkpoint was completed in January through June 2022. The holdroom area (where passengers wait to board aircraft) adjacent to the Checkpoint was expanded by 1,000 square feet to create additional seating and flexible space.
- **Gate Remodel and Expansion:** The gate area adjacent to the restaurant was expanded in April through November 2022, adding two additional gates and common use technology for flexibility with space and airline operations. The pet relief area and mothers' room were also relocated.

- Restaurant Remodel and Expansion: A remodel and expansion of the restaurant area to twice its original size was completed in April through November 2022, and has allowed for additional space and updated seating and service areas. This includes a full basement to allow for additional storage and other needs. The design has taken into account flow of foot traffic, ease of access and efficiency.



Airside Improvements

Additional airside improvements during 2022-2023, apart from the Runway Reconstruction Project that was already mentioned, include:

- Construction of Hangar 3 and the associated Ground Support Equipment (GSE) support area: due to be completed before the end of 2024. As part of this effort, the Airport is expanding the use of geothermal energy. Geothermal systems are less prone to breakdowns and are significantly more energy efficient than traditional chillers.
- De-Icing Pad Improvements: The Airport plans to accommodate five 737s simultaneously at the de-icing pad. This will further enhance the Airport's efforts to improve water quality.
- Exploring options for a new Aviation Safety Facility.

General Aviation Operations

A fixed-base operator (FBO) is an entity which is granted the right by an airport to provide aeronautical services such as fueling, hangaring of aircraft, tie-down and parking, and aircraft maintenance. At some airports, the FBO also provides aircraft rental, aircraft charter and flight instruction. To ensure that a wide variety of aeronautical services are available to the public on an airport, the airport owner typically grants the FBO the right to sell fuel, which is usually a lucrative activity, in exchange for the FBO's agreement to also make available a wide range of less lucrative aeronautical services.

The on-airport FBO was previously owned and operated by Jackson Hole Aviation, LLC ("JHA-LLC"). On May 1, 2023, JHA-LLC's lease term expired, and the Airport began managing the FBO, now named Jackson Hole Flight Services. The Airport exercises a "proprietary exclusive right", as recognized by the FAA, which means that the Airport reserves the sole right to provide FBO services. The FBO provides fueling and ground services to general aviation (private and corporate) and commercial airlines. It also operates hangars, located south of the Terminal, providing storage for aircraft.

General Aviation Capital Program

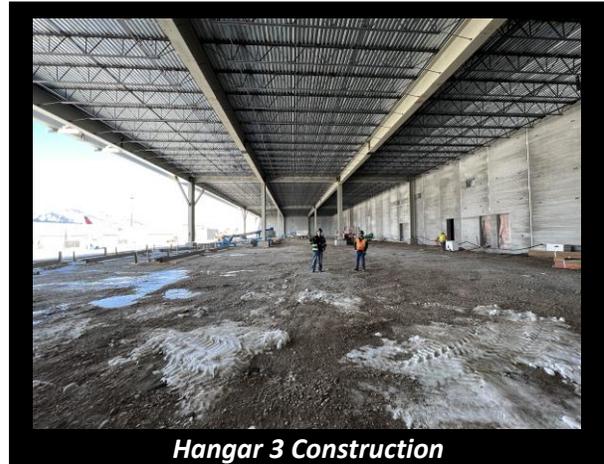
The Airport is undertaking a Capital Program to replace outdated general aviation facilities located at the southern end of the Airport Development Subzone. The existing facilities are over thirty years old and are scheduled to be replaced over the course of several years. This Capital Program is intended to replace outdated facilities with environmentally respectful buildings that will provide a safe and efficient workspace for Airport staff and customers.

In 2018 the Airport went out for the selection of a designer for the general aviation facilities and awarded a contract in June 2018. The Jackson Hole Airport FBO Concept Design Report was issued in 2019, which

provided direction and conceptual designs for the General Aviation Capital Program. The conceptual designs were then refined through the final design process for each individual building.

In October 2022, the Airport approved a Guaranteed Maximum Price (GMP) Amendment to the Wadman Construction Manager at Risk (CMAR) Agreement for the construction of Hangar 3 and a GSE facility. This new facility will be located just south of the fuel farm and will replace hangars that were previously torn down. The Hangar 3/GSE building construction will be completed in the fall of 2024. Once complete, the facility will provide inside storage for critical GSE and allow aircraft that were displaced when the previous hangars were torn down to return to hangar space.

In January 2024, the Airport approved the construction of an Administration and FBO Building. The existing Hangar 4 which includes aircraft storage, equipment storage, and office space will be torn down and replaced with the new facility. The new facility will house airport administration offices, employee support space, and services for general aviation customers. This new facility is anticipated to be completed in the fall of 2025.



Hangar 3 Construction

Future plans for the General Aviation Capital Program have not yet been approved. The existing FBO Terminal and attached Hangar 5 are aging facilities that have notable safety concerns. The next project in the General Aviation Capital Program would be the replacement of these Hangar facilities with new hangars that meet current code and are environmentally respectful. The existing FBO Terminal will be vacated after the completion of the construction of the new Administration and FBO Building.



Security And Screening Updates

The Airport currently employs seven security officers to ensure all airport security requirements are met, outside of passenger and baggage screening. The security team's primary responsibilities include maintaining access control to restricted areas, facility safety, and issuing badges to personnel requiring access to restricted areas in accordance with TSA and federal regulatory requirements. Information related to the badging and security of the Airport is regularly audited and the maintenance of this information is tasked to the airport security team.

Operation of Passenger Screening

Prior to April 30, 2023, the Jackson Hole Airport was one of several airports that participated in the Transportation Security Administration's (TSA) Screening Partnership Program (SPP). Security screening for SPP airports is performed by screening contractors under agreements with TSA which provide standards and funding. At the Airport this program employed approximately 58 screeners plus administration staff. On April 30, 2023, this security screening contract ended, and security screening is now performed by TSA. These officers operate both the passenger screening checkpoint and checked baggage screening, in accordance with TSA standards and operating procedures. In 2023, more than 500,000 passengers and their checked baggage were screened.

A passenger screening area improvement project was completed in 2022 to accommodate the next generation of screening technology. Staff worked with screeners and the public to minimize disruptions during this construction project. Upon completion, travelers now have an improved customer service experience at the TSA Checkpoint with four active screening lanes, raised ceilings, and an improved flexible space that created additional seating and allows for upgraded technology as it becomes available.

Law Enforcement and Security

The Airport maintains an Intergovernmental Agreement with the Town of Jackson (“Town”), under which law enforcement officers from the Jackson Police Department are stationed at the Airport. In light of the volume of passengers and the Airport’s distance from the Town, law enforcement personnel are required to be physically present during all hours in which passengers or baggage screening is conducted. The Agreement fulfills the federal law requirements to ensure a law enforcement presence is at the Airport. This presence ensures the safety and security of the security screening operations for departing passengers. Under the Intergovernmental Agreement, the Airport reimburses the Town to provide these law enforcement services.

Information Technology Updates

Many updates have been completed in the last two years to account for airlines operating at the Airport, including adapting to additional user needs with a focus on user experience and efficiency. The following technology-related projects were completed during 2022 and 2023.

Terminal Construction

- Transitioned to 10 gates in the hold room/gate area, of which seven are common use. This allows for flexibility in operations and allows airlines to utilize limited space more efficiently.
- Information screens are available at all gates and are Airport-owned.
- Added six screens above the TSA checkpoint area to aid in departing passenger safety and information.
- Added six informational screens in the baggage claim area to increase passenger awareness of Grand Teton National Park, Airport environmental initiatives, and the uniqueness of the area.
- Upgraded WiFi in all terminal spaces. Guests and passengers continue to enjoy internet access thanks to Silver Star’s 10Gb connection.
- Improved camera coverage.

Additional IT Improvements

- Transition from physical banners to digital screens. This shortens the timeline to get new information out to passengers and reduces waste associated with physical banners.
- Cybersecurity – many internal initiatives are underway or have been completed. The Airport is following guidelines and requirements shared by TSA and Cybersecurity and Infrastructure Security Agency (CISA). These policies include, but are not limited to, granular network segmentation and a zero-trust access model.
- The server rooms are continuously transitioning to a multi-tenant model with more standardized cabinet placement, allowing more parties to operate in a smaller space. Many tenants do not

require full cabinet space, and deployment of “cube” cabinets allow better physical security while maintaining good density.

- ADS-B in ground vehicles helps with situational awareness between maintenance crews, ATCT, and aircraft.
- New airfield lighting system was installed that is more intelligent and can be managed and supported remotely.



Financial Management And Planning

Responsible financial planning and management allows the Airport to identify short- and long-term needs and remain an important economic resource for the community. Below is a summary of the financial management efforts, which support the overall financial health of the Airport.

Overview of Airport Finance Requirements

In terms of operating revenues, the Airport is a financially self-sustaining entity. In 2022 and 2023, the Airport received no operating revenue from Teton County, the Town of Jackson, or the State of Wyoming. All operating expenses are matched by operating revenues, which are generated by rentals and fees from airport users. These include airport tenants such as airlines, rental car operators, the fixed base operator and ground transportation providers. The Airport also receives landing fees, fuel flowage fees, and user fees from others who conduct business on the Airport.

Each year the Airport establishes an operating budget based on expected revenues. Cash reserves are retained for those years in which revenues do not match anticipated expenses to account for both operating needs as well as capital project expenses.

The Airport receives grants from the FAA, along with occasional grants from the Wyoming Aeronautics Commission for capital improvements at the Airport.

To protect the FAA’s investment, federal law provides that revenue generated by the Airport will be expended for the costs of the Airport, the local airport system, or other local facilities owned or operated by the Jackson Hole Airport Board as the airport owner, and which directly and substantially relate to the air transportation of passengers or property. This is generally described as a “revenue diversion” prohibition.

The Airport operates under other financial constraints. The 1983 Use Agreement requires that all rates and fees charged to the public by the Airport and its subcontractors and licensees shall be fair and reasonable. As the recipient of FAA grants, the Airport is also subject to an FAA requirement that it establish a fee structure which will make the Airport as self-sustaining as possible under the circumstances. In most cases, this requires the Airport to charge market rentals and fees to airport tenants and users.

Summary of Finances

The Airport’s operating revenues and expenses from year to year will depend to a significant degree on the Airport’s aircraft and passenger volume. For example, fees received from many tenants are on a “percentage of gross” basis; parking revenues are directly related to parking lot usage; landing fees and fuel flowage fees are directly related to aircraft activity. Operating revenues can therefore be expected to mirror future changes in aircraft and passenger volumes. However, operating expenses do not immediately

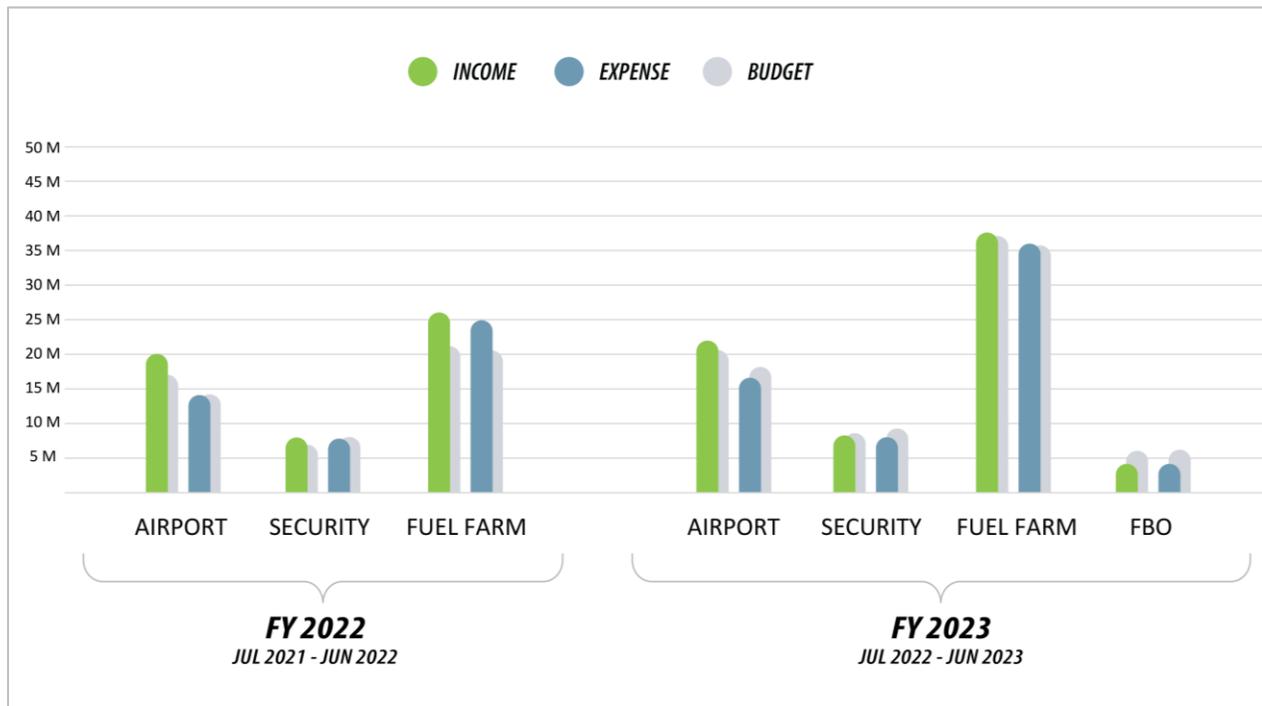
and automatically mirror aircraft and passenger volume and must therefore be closely monitored and changed by the Airport when appropriate.

A capital outlay is an expense for the purpose of constructing or extending the life of a fixed asset, such as the runway or a building. Capital outlays at the Airport are funded in large part through grant revenues and Passenger Facility Charge ("PFC") project reimbursements. Grant revenues are dependent on both the appropriation of federal funds, and the Airport's aircraft and passenger volume upon which the level of grant funding is partially based. A PFC is defined as a congressionally authorized charge imposed by airlines on each ticketed passenger that utilizes the Airport, up to established caps on each passenger's entire trip. PFCs may be used by the Airport for capital outlays approved by the FAA. The amount of PFC fees is directly related to passenger volumes at the Airport.

As previously noted, on May 1, 2023, the Airport took over management of the FBO including capital assets. On the same day, the Airport discontinued operation of the passenger security screening services under contract from the Transportation Security Administration (TSA). These actions are accounted for in changes to revenue and expenses for the Airport. A summary of the major sources of revenue and expenses are included below, followed by a list of major projects. Note that the summary of income and expenses are listed by Fiscal Year. FY 2022 runs from July 2021 to June 2022, and FY 2023 runs from July 2022 to June 2023.

A summary of the major sources of revenue and expenses are shown in **Figure 18** below, followed by a list of major projects. Note that the summary of income and expenses are listed by Fiscal Year.

Figure 18: Fiscal Year Income/Expenses (2022 and 2023)



Capital Improvement Plan

Eligibility for FAA and/or WYDOT grant funding requires the Airport maintain a Capital Improvement Plan (CIP), which projects the estimated uses of federal grant funds over a five-year time horizon. Proposed capital improvements must be reflected on the CIP to be eligible for federal funding. Recently completed or planned projects are included below.

Table 2: Recently Completed or Planned Projects

Project	Expected/Approved Contract
Terminal Improvements - Expand Restaurant & Hold Room (2021-2022)	\$11,951,053
Terminal Improvements - TSA Screening Area – Construction (2022)	\$13,500,000
Airfield / Landside Improvements (2022)	\$1,070,000
Terminal Improvements Local Funds Only (2022)	\$50,000
Acquire SRE (1 Dozer & 1 Mid-Size Loader) Local Funds Only (2022)	\$990,000
Rehabilitate Taxiway A - North, Deice Pad Improvements, and Bypass Taxilane (2022-2024)	\$27,562,667
Acquire Airfield Rubber Removal Truck (2023)	\$650,000
Air Traffic Control Tower (ATCT) Improvements Project (2023)	\$1,795,000
Expand Existing Stormwater Detention and Filtration System (2023)	\$3,300,000
Mark Pavements (Locally Funded) (2023)	\$320,166
Acquire Airport Operation Vehicles (2 Electric Utility Vehicles) Local Funds Only (2023)	\$80,000
Acquire SRE (Plow Truck) Local Funds Only (2023)	\$400,000
Fuel Farm Expansion (Locally Funded) (2023)	\$2,500,000



Conclusion

2022 and 2023 were remarkable years for the Airport. The continued commitment to sustainability has yielded notable achievements. The Airport is proud of successfully incorporating environmental and sustainability initiatives into the Runway Reconstruction Project, for which the Airport was awarded the 2023 ACI-NA Environmental Achievement Award in the Innovation category and receiving Honorable Mention at the 2023 Airports Going Green Conference. Further, the Airport leads the aviation industry in becoming one of the first U.S. airports to transition to F3, allowing the Airport to dispose of all PFAS-containing AFFF by the end of October 2023, and positioning the Airport to receive two new ARFF vehicles in 2024, which will only be filled with F3.

In addition, the Airport took additional measures to enhance the Fly Quiet Program to address community noise concerns and further improved user experience by completing the TSA Checkpoint Remodel, Restaurant and Gate Expansion/Remodel, and Runway Reconstruction Project. The Airport also developed plans to continue the sustainability vision as stated by the Airport Board's mission statement. These plans include initiating collaboration with DarkSky International in pursuit of DarkSky designation, which would make Jackson Hole the first U.S. airport with this designation; and contracting with consultants to pursue certification under the Airports Council International Airport Carbon Accreditation program.

These specific accomplishments, along with other projects listed throughout this report, exemplify the Airport's dedication to environmental stewardship, conservation, and resiliency. The Airport and staff are proud of progress thus far and remain steadfast in the pursuit of becoming a model for sustainable aviation practices in the industry.



Appendix A

Members of the Jackson Hole Airport Board

The five members of the Board are appointed jointly by the Town and County, each for a five-year term. In February of each year the Board reorganizes and appoints new officers. By tradition, Board members rotate positions, with each member thereby having the opportunity to serve as Member (Past-President), Secretary, Treasurer, Vice President, and President during their five-year term. At the time of this report, March 2024, the current Board members and their respective positions include:

- Valerie Brown – President
- Rob Wallace – Vice President
- Melissa Turley – Treasurer
- Bob McLaurin – Secretary
- Ed Liebzeit – Member (Past President)

Board members that served during this reporting period (2022-2023) included:



Jerry Blann (previous Board member). After serving for 22 years, Jerry transitioned away from the Board in February 2022. From 1995 to 2018, Jerry was the President and Board Member of the Jackson Hole Mountain Resort where he oversaw the resort through several years of intense development. Jerry is on the Executive Committee and was also the founding member for JH AIR. Previously, Jerry served on the Wyoming Business Council, the National Ski Area Association, and has received various awards throughout his career. The Airport appreciates Jerry's long-standing commitment to the improvement of the Airport.



John Eastman (previous Board member). After serving two consecutive terms (10 years), John transitioned away from the Board in February 2023. In addition to serving on the Jackson Hole Airport Board, John has been active in several professional and community organizations, including serving on St. John's Hospital Board, and as Commissioner for the County Board for Historic Preservation. The Airport appreciates John's commitment and service towards the betterment of the Airport.



Ed Liebzeit. Ed was appointed to the Airport Board in 2020. Ed is the past President and CEO of Jackson Hole Sotheby's International Realty and currently practices real estate. Previously, Ed was an executive of Procter & Gamble where he held senior roles. More recently, he was recognized with the Town of Jackson Hometown Hero Award for his efforts in the community. The National Association of Realtors selected Ed for the Good Neighbor Award for his accomplishments with the Community Safety Network.



Bob McLaurin. Bob moved to Wyoming in 1979 to pursue his passion for rock climbing and mountaineering skiing. In 1985 he began his employment with the Town of Jackson. He was the Jackson Town Manager from 1990 through 1994. From 1994 through 2003 he was the Town Manager for Vail, Colorado. In 2003 he returned to Jackson to serve the Jackson Town Manager. He held this position until retiring in 2018. He has been active in numerous nonprofits in Jackson including the Teton Literacy Center, Jackson Hole Historical Society and the Jackson Hole Rotary Club.



Valerie Brown. Valerie was appointed to the Airport Board in 2021. Valerie brings an extensive financial background to the Board. Throughout her career, Valerie has received numerous awards and has held a number of executive and senior leadership positions. She is actively involved in various boards and committees spanning environmental, business, and finance. Valerie has a chemical engineering degree from Oregon State University and MBA from Stanford University – Graduate School of Business.



Rob Wallace. Rob was appointed to the Airport Board in 2022. Rob is a Natural Resource and Energy Consultant with former experience as the U.S. Department of Interior Assistant Secretary for Fish, Wildlife and Parks; Head of Congressional Relations for the National Park Service in Washington, DC; Founding member of the Grand Teton National Park Foundation; and a former member of the Yellowstone Park Foundation, the JH Historical Society, and the JH Land Trust. Rob earned a Bachelor of Sciences degree in engineering from the University of Texas at Austin.



Melissa Turley. Melissa was appointed to the Airport Board in 2023. Melissa previously served on the Teton County Commission and Jackson Town Council for a decade. Melissa helped found and served on the boards of Girls Actively Participating, Womentum, and the Jackson Hole Perinatal Advocacy Project. A native of Colorado, Melissa graduated from the University of Montana and is an alumna of Leadership Wyoming and Leadership Jackson Hole.

Airport Staff

The Airport has a full-time, year-round staff of approximately 100 personnel, which include administration, airfield operations and maintenance, project management, aviation fuel facility operations, community outreach, hospitality, security, and other ordinary airport functions. Seasonal and part-time staff adds approximately 20-30 personnel. With an average employment of 120 staff, the Airport is one of the larger employers in Teton County. The Airport's senior staff include:



Jim Elwood, Executive Director. Jim came to the Jackson Hole Airport in 2014. Before coming to Jackson, Jim was the director of Aspen/Pitkin County Airport in Aspen, CO. While in Aspen he had significant accomplishments in improving the environmental stewardship of the airport. Prior to working in Aspen, Jim served as the Airport Manager in both Eagle County Airport and Pueblo Airport in Colorado. His many accomplishments in the industry include serving as Chair for the American Association of Airport Executives in 2008. Since his arrival to Jackson Hole Airport, Jim has implemented many new environmental measures and is an active member of the Jackson Hole community.



Dustin Havel, Assistant Airport Director – Operations. Dustin Havel came to the Jackson Hole Airport in May of 2016. Prior to working at the Jackson Hole Airport, he was the Assistant Aviation Director – Operations at the Aspen/Pitkin County Airport. Dustin Havel graduated Magna Cum Laude from Central Missouri State University with a Master of Science in Aviation Safety and has over 10 years of experience in Airport Operations and Management. He also has a Bachelor's degree in Aviation Technology – Maintenance Management and Bachelors in Business Administration – Computer Information Systems. An accredited Airport Executive, Certified Aircraft Rescue & Fire Fighter and Airport Certified Employee in all facets, Dustin has also logged over 250 hours of Instrument Rated Private Pilot flying time.



Aimee Crook, Assistant Airport Director - Security Operations. Aimee Crook is a Jackson Hole native who started working at the Airport the year she graduated high school. In 2000, Aimee graduated from the University of Wyoming with a Bachelor of Arts in Criminal Justice. Aimee was promoted to the Director of Security Screening in 2002 and played an intricate role in obtaining a Private Security Screening Contract on behalf of the Jackson Hole Airport Board. In 2016 Aimee became the Manager of Security Operations. Aimee is a Certified Member of the American Association of Airport Executives and currently serves as the Assistant Airport Director – Security.



Michelle Anderson, Assistant Airport Director - Finance and Administration. Michelle started working at the Jackson Hole Airport as the Office Manager in 2002. While working for the Airport, she earned her Executive MBA from the University of Wyoming. She has also earned her Accredited Airport Executive designation with the American Association of Airport Executives. During her time at the Airport, Michelle has helped the Airport successfully bid the private screening contract with TSA multiple times. Michelle was promoted to Assistant Airport Director in 2017. Her accomplishments include being awarded Wyoming's 40 Under 40 Award for 2017, and her appointment to the Board of the Wyoming Airport Operators Association.



Craig Foster, General Manager- Jackson Hole Flight Services. Craig joined the Jackson Hole Airport team mid-2022, assisting and preparing for the FBO transition. Craig has been in FBO management for more than 25 years. After earning a B.A. in Business Administration and his private pilot license at Walla Walla University Craig started servicing aircraft at John Wayne Airport in Orange County, CA while continuing his pilot training. He moved into management leading FBOs at John Wayne Airport, Palm Springs Airport, McClellan-Palomar Airport (Carlsbad, CA), and Rocky Mountain Metropolitan Airport (Broomfield, CO). Craig has experience with both Federal Aviation Regulations Part 135 Charter and Federal Aviation Regulations Part 145 Maintenance operations.