

## Sustainability Management Plan

Norman Y. Mineta San José International Airport January 2020





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## Message from the Director



Mineta San José International Airport (SJC) continues to take off. We are serving record passenger traffic levels while marking new historical milestones, having reached seven decades of providing commercial air service to our community. We are aligned with Climate Smart San José, a City initiative to reduce air pollution, save water, and create a stronger and healthier community. We now proudly operate a fleet of 10 battery-electric, zero-emission buses - powered by the City's very own San José Clean Energy source - that are shuttling passengers between our parking lots and terminals. To accommodate our rapid growth, we have added six interim boarding gates, allowing us to focus on planning a permanent expansion of our terminal facilities.

Reaching new milestones and growing and enhancing our facilities and services are worthy achievements. As SJC has grown, so has our understanding of the important role that we play in our region's long-term viability. The Airport's Sustainability Management Plan (SMP) describes how SJC, in conjunction with City leadership, will continue to reduce resource consumption, environmental impacts, and greenhouse gas emissions while promoting social responsibility.

As we strive to accommodate passenger growth, we also must adapt to energy, water and other resource constraints by aligning our capital programs, working with our tenants to improve sustainability practices, and collaborating with our airlines to address air quality and greenhouse gas emissions. The SMP will guide us in navigating these sustainability practices in the years to come. We hope you'll be inspired by our efforts so you can identify and implement some of your own.

John Aitken, A.A.E.

Director of Aviation

Mineta San José International Airport (SJC)

## Introduction

Before it became known as the Silicon Valley, the Santa Clara Valley was famously referred to as "The Valley of Heart's Delight" known for its flowery blanket of orchards and the largest fruit production and packing region in the world until the 1960s. However, its transformation into the global center of technology innovation started long ago in 1938 when electronics pioneers became the model for subsequent generations of inventors and game changers as Santa Clara Valley started to grow and prosper after World War II. The breathtaking orchards of Santa Clara Valley were slowly replaced by subdivisions, shopping centers, and industrial parks through the 1950s and 60s. Silicon Valley emerged as waves of technology, from semiconductors to the "cloud," and is now home to some of the world's greatest technology enterprises.

The Norman Y. Mineta San José International Airport (SJC) is located in the heart of Silicon Valley, just minutes away from global technology giants. Conveniently serving a wealthy and diverse region approaching four million people and thousands of Silicon Valley businesses, SJC is Silicon Valley's airport.

While our present times are defined by technological innovation, our region's deep interconnection with our environment remains. As the Airport has grown, so has our understanding of the important role that we play in our region's long-term viability. The City of San José is widely recognized as a leader in climate protection and sustainability, and has adopted numerous ambitious strategies to combat environmental degradation and climate change that include San José's Envision 2040 General Plan, and Climate Smart San José. As an entity of the City, SJC plays an important role in making these strategies come to fruition.

Meanwhile, the notion of airport sustainability has evolved into a strong global movement. As major economic generators and transportation hubs, airports consume energy and water, generate waste, and contribute to air and greenhouse gas emissions through transport activities. At SJC, we understand our responsibility as a global citizen to demonstrate environmental, economic and social accountability, and are formalizing this commitment through our first Sustainability Management Plan.

Our Sustainability Management Plan will serve as our roadmap for reducing resource consumption, environmental impacts, and greenhouse gas emissions while promoting social responsibility. Our Sustainability Management Plan leverages the triple-bottom line approach to sustainability, where environmental, economic and social benefits are optimized. The roadmap includes an implementation plan and will be supported by a monitoring and reporting framework that will enable us to be transparent in demonstrating progress to our stakeholders over time. In implementing future sustainability goals, we will continue to work with our tenants, community, and key stakeholders to maintain transparency and inclusion in the initiatives that directly impact them. Our vision for sustainability, like our history, is grounded in the connections that define SJC and the communities that we serve.

Pursuant to Section 20.07.2 of the current Signatory Airline Agreement, the City will consult with the Signatory Airlines prior to adopting, amending or revising any rules or regulations to achieve the City's sustainability goals at the Airport, and the Airlines will not be subject to any such rules or regulations to the extent that they may conflict with the terms and provisions of the Signatory Airline Agreement. Additionally, the City will consult with other Airport tenants and concessions that may be impacted before adopting, amending or revising rules or regulations related to the sustainability goals of this Plan.



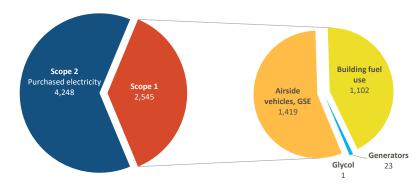
## Setting the Context for Sustainability at SJC

#### **Overview of Our Current State**

Our Sustainability Management Plan (Plan) is our platform for establishing SJC as a global leader in environmental stewardship. The Plan builds several initiatives around eight key dimensions: energy, water, waste, ground transportation, natural resources, social responsibility, sustainability governance and climate action. To set the stage for developing meaningful strategies across these dimensions, we conducted an exploration of our current state, in fall of 2018, that included evaluation of performance data for greenhouse gas emissions, energy use, water use, ground transportation, and solid waste, and developed an inventory of past and current initiatives across these dimensions. The baseline assessment of these metrics provide insights into what is working well and opportunities for improvement with regards to sustainability at SJC.

#### **Greenhouse Gas Emissions Inventory**

In February 2018, the San José City Council approved Climate Smart San José, which includes the goal of becoming one of the first U.S. cities to chart a path to achieving the greenhouse gas emissions reductions contained in the international Paris Agreement on climate change. The Airport understands that it plays an integral part in the advancement of Climate Smart San José and is committed to reducing its contribution to global concentrations of greenhouse gas emissions. Therefore, the Airport has prepared a greenhouse gas emissions inventory to better understand the quantity and source of greenhouse gas emissions at SJC. The inventory estimates emissions from Airport-owned or controlled sources (Scope 1) and indirect emissions from the consumption of electricity (Scope 2) in 2017. Greenhouse gas emissions are measured and recorded as carbon dioxide equivalents (CO2-e). By measuring Scope 1 and 2 emissions, the Airport can better understand the emissions sources and their contribution to greenhouse gas emissions. In 2017, it was estimated that SJC emitted approximately 6,793 metric tones of Scope 1 and 2 emissions of CO2-e with the primary source of emissions being Scope 2 (i.e., electricity generation). An inventory of our Scope 3 emissions, which includes fuel used by aircraft during the landing and take off cycle, engine testing and auxiliary power unit operation, third party ground support equipment (GSE) operations, ground transport by employees and passengers, and business travel, is included as part of our ongoing Master Planning process.



#### **Energy Use**

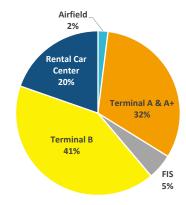
SJC is focused on managing our energy use to improve resilience, demonstrate fiscal responsibility and curb global and regional greenhouse gas emissions. The variability of energy costs, combined with increasing threats posed by climate change drive our commitment to ambitious energy use and greenhouse gas reduction goals. Because airports by nature are energy intensive operations, improving energy management and shifting to cleaner fuel sources will be an integral and impactful part of our Sustainability Management Plan.

Energy used to operate buildings and vehicles at SJC is the Airport's largest source of greenhouse gas emissions and utility expenses. In fiscal year (FY) 2017-2018, SJC consumed approximately 110,000 gigajoules (GJ) of electricity and 20,000 GJ of natural gas for a total utility cost of over \$5 million

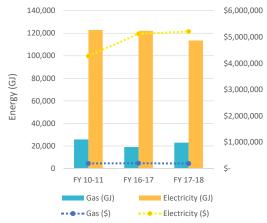
Terminal facilities were the primary consumers of electricity followed by the Consolidated Rental Car Center (CONRAC) (20%), Federal Inspection Station (FIS) (5%), and Airfield (2%). This contributed to approximately 4,248 metric tones of Scope 2 emissions of CO2-e.

San José Clean Energy, our local community choice energy supplier, provides electricity from mostly carbon free and renewable sources, and local municipal agencies are benefiting substantially from this new option.

#### **Annual Electricity** by End Use



#### **Annual Purchased Energy**



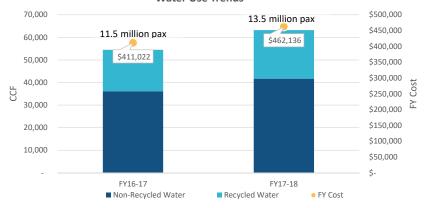
#### A largescale solar photovoltaic

#### Water Use

From 2012 to 2016, the state of California experienced a historic drought contributing to widespread water shortages, wildfires, and heavy groundwater pumping for irrigation. The drought, in addition to long-term uncertainty about water resources across the Western United States, has forced all Californians to rethink the way we use water to conserve resources and reduce associated costs. As with energy, airports are water-intensive by nature due to the needs in daily operations and by passengers. As passenger growth increases, airports must consider unique ways to sustainably manage finite water resources to reduce costs and ensure reliable access for its passengers, community, and environment.

In FY 2017 to 2018, approximately 47.1 million gallons of potable water was used to support the needs of the Airport's passengers, employees, tenants, concessions, and the property we manage, at a cost of \$460,000. This amounts to about 3.5 gallons of water to support a single passenger using the Airport on any given day. To reduce the strain on local potable water supplies, we utilize recycled water for roughly onethird of our water needs. Decreasing our reliance on potable water supplies is central to our strategy for managing our water resources and is a goal outlined in Climate Smart San José.

#### **Water Use Trends**



Recycled water irrigates much of our landscape when watering is necessary.

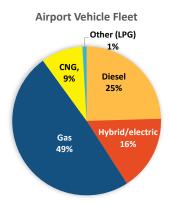




#### **Ground Transportation**

A variety of vehicle types are used to support aircraft operations and provide passenger and employee transportation to, from, and between Airport facilities. As of Fall 2018, SJC owns and operates a fleet of 110 vehicles primarily powered by fossil fuels (84%). The majority of vehicles are light-duty trucks, followed by specialized equipment, and electric scooters. However, many stakeholders and tenant airlines also operate vehicles at the Airport that are not under the direct control of the Airport/City. For example, tenant airlines own and operate GSE, employee shuttle buses, and personal vehicles to support their operations at SJC.

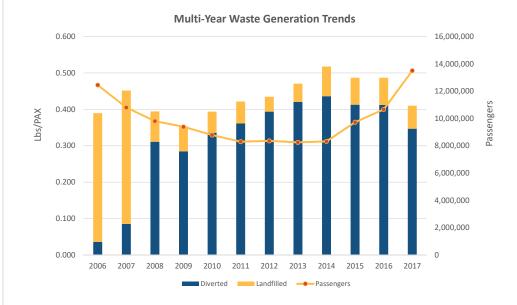
Although the City does not have direct control of certain vehicles in operation at SJC, we can have an influence on the vehicles and equipment used by our tenants. With the continuous evolution in low-carbon alternatives in a wide array of vehicle types used by the Airport, our tenants, employees and passengers, we have more and more opportunities to shift away from fossil fuels in ground transportation. New and emerging technologies have the potential to reduce fossil fuel usage and associated emissions, which can improve air quality in the San José area.



#### **Solid Waste Generation**

Waste prevention and recovery have the potential to reduce costs, generate revenue, and preserve the surrounding environment for present and future generations. Costs can be reduced through the reduction and reuse of everyday materials, and revenue can be generated through the recycling of cardboard. For these reasons, many airports across the globe have developed a different outlook on waste—they see it as a commodity rather than a disposable byproduct. SJC embraces this notion and is striving to reduce waste through recycling and recovery practices.

The City of San José and SJC are serviced by sophisticated waste management systems that have resulted in an 84% diversion rate for non-hazardous solid waste. Of the total 5,532,000 pounds (lbs) of waste generated at SJC in FY 2017 to 2018, only 16% of waste generated went to nearby landfills. This does not include hazardous waste, electronics, or universal waste. However, we recognize that we can improve our waste management practices and continue our successes by preventing and diverting more waste through partnerships with our tenants, the City, and our waste hauler.







## Developing Our Sustainability Management Plan

As our first formal Sustainability Management Plan, we place critical importance on engaging employees from across our organization in order to create a shared vision for sustainability that is supported by ambitious goals and actionable strategies. Our Plan was shaped by a Sustainability Workgroup comprised of staff from nearly all Airport Divisions who contributed to a robust planning process that included an analysis of our current state, goal-setting, a structured ideation and brainstorming effort, and analysis of potential strategies to determine how impactful they will be in contributing to our cross-cutting sustainability goals.

One of the primary tasks of the Workgroup was to prioritize the myriad of ideas that were generated over the course of the development of this Plan. Using a structured set of evaluation activities, the Workgroup screened each idea to determine its potential for advancing us toward our goals against its implementation feasibility. Based on the outcomes of this evaluation, our sustainability initiatives are presented in three overarching categories within our Sustainability Actions (summarized on Page 9), as follows:

Quick Wins:	Initiatives defined as quick wins are those that we can implement with minimal difficulty or expense. These are the low-hanging fruit that will provide rapid benefit toward our sustainability goals. The implementation timeframe for quick wins is up to three years.
High-Priority Initiatives:	Our high-priority initiatives are those that we believe will significantly contribute to helping us achieve our goals with relatively little investment. The implementation timeframe for our high-priority initiatives is up to five years.
Major Projects:	Major projects are long-term investments that will provide significant benefits towards our sustainability goals. They will require substantial staff time, capital and/or operating budgets, and organizational support to be successful. The implementation timeframe for major projects is up to ten years.

The Sustainability Workgroup will continue to provide oversight of the implementation of the Plan and the biennial sustainability reports. The Sustainability Workgroup is approved by Senior Staff, which is accountable for ensuring that the Workgroup is supported with appropriate staff resources, and for providing thoughtful consideration of Workgroup recommendations. Members of the Workgroup are referenced in the Acknowledgements section of this Plan.



## Our Vision for Sustainability

## Committed

We demonstrate and communicate our sustainability commitment transparently to our stakeholders.

We are working to develop an effective governance structure that is communicated at all levels of the organization to facilitate collaboration ir support of the strategies set forth in our Sustainability Management Plan. Our senior leadership is committed to ensuring that we have the resource to successfully execute the Plan, and enable the dedicated staff across our operating Divisions to be effective stewards of the Plan. Rather than solely relying on our Environmental Section, responsibility for our sustainability efforts is shared across our organization. We operate in a manner that is transparent to our stakeholders, and are committed to demonstrating our progress toward our sustainability objective by communicating our successes and challenges to our business partners and customers.

We make connections throughout the Silicon Valley to leverage technology and partnership opportunities.

Connected

Sustainability is part of our

Culture

To achieve optimum benefit from our Sustainability Management Plan, we seek opportunities for engagement and partnerships with the communities that we serve. As the gateway to the Silicon Valley, we embrace and reflect the innovative spirit that defines our region. We leverage the multitude of emerging technologies that can support the environmental, economic, and social benefits we are seeking through our sustainability strategy. In addition, our community partners are central to our success in forging meaningful connections to our workforce and our customers.

and in our decision making.

Sustainability considerations are integrated in our decision process.

Sustainability considerations are integrated in our decision processes to enable the success of our Sustainability Management Plan. We consider the sustainability impacts of our strategic decisions much in the way we consider fiscal responsibility, security, and passenger experience when making investments in infrastructure and Airport operations. We are committed to enabling awareness and literacy in multiple dimensions of sustainability from the highest leadership levels to frontline staff. We encourage staff to examine internal processes and procedures to identify new efficiencies and test recommendations to deliver optimal economic, social and environmental benefits to the Airport and our stakeholders.

We embrace sustainability across our organization



## **Sustainability Dimensions**

From environmental considerations to the social aspects of sustainability, our Sustainability Management Plan cuts across the critical sustainability dimensions that pertain to SJC's operations. In addition to the "topical" aspects of sustainability, we have also identified crucial management, governance and policyrelated issues. The actions and initiatives articulated in our Plan relate to one or more of the following dimensions and were deliberately constructed to leverage as many benefits across these dimensions as possible. The icons below are used throughout this Plan to serve as a quick reference quide and denote how our sustainability strategy connects to these dimensions.





**Natural Resources** 





Social Responsibility





Sustainability Governance & Climate Action



**Ground Transport** 

#### **Connection to United Nations Sustainable Development Goals**

As a global gateway to Silicon Valley and the greater San Francisco Bay Area, we respect our deep connection to the international sustainability movement. The United Nations Sustainable Development Goals are the global framework for promoting prosperity while protecting the planet.



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Our Sustainability Management Plan, and the City of San José's Climate Smart, aligns directly with the universal call to action to build economic growth and address a range of social needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection, as shown to the right.

## **Our Sustainability Goals**

Our Sustainability Management Plan articulates our strategy to achieve multiple, meaningful and ambitious environmental targets that align directly with relevant local and statewide targets that demonstrate leadership across multiple dimensions of sustainability. In addition to the performance targets identified in subsequent chapters of this Plan, SJC will strive to achieve the following aspirational goals within the timelines illustrated below, at least five years in advance of the completion of the implementation of our Airport Master Plan, slated for 2037.



Short-term Medium-term Long-term

As a Department of the City of San José, SJC is in part accountable for supporting and achieving the goals set forth in the Climate Smart San José Plan, which puts the City on course to meet the goals of the Paris Climate Accord. While specific municipal carbon reduction targets are a work in progress, the targets included in our SMP are intended to meet or exceed the targets currently being pursued by the City of San

- <sup>1</sup> In accordance with the Zero Waste International Alliance definition that Zero Waste is diverting 90 percent of all discarded materials from landfills, incinerators and the environment. Waste diversion at SJC is calculated based on tons of waste generated at SJC then overall City-wide diversion rate is applied.
- <sup>2</sup> Airport Carbon Accreditation (ACA) is Airport Council International's carbon management certification standard available to all world airports seeking to reduce emissions of greenhouse gases from airport operations.
- <sup>3</sup> Low- or zero-emission alternatives to certain specialized airport equipment may not be commercially available within this timeline. SJC commits to utilizing the best available technology for Airport equipment when feasible.
- <sup>4</sup> Carbon neutrality at SJC is defined as when the net greenhouse gas emissions (as measured in CO<sub>2</sub>-e) for Airport-controlled property and equipment is zero. This does not include property owned by tenants of SJC.



## Six Actions Toward a Sustainable SJC

Our sustainability strategy is structured to enable connections across the multiple dimensions of sustainability outlined previously while facilitating collaboration across our organization and with our many stakeholders

Track &
Report Our
Sustainability
Performance

Engage Staff,
Tenants &
Passengers in
Our
Sustainability
Commitment

Conserve
Resources
Through
Efficient
Technologies
& Practices

Promote Low-Carbon Energy & Fuels

Advance a
Circular
Economy
Through
Recycling &
Reuse

Foster Health & Wellness for People & the Environment

Our actions are supported by a broad range of initiatives that we will implement in the short, medium and long-term. The following chapters delineate our strategy that support each of these critical actions.

## Track & Report Our Sustainability Performance

Performance indicators can be powerful means to motivate and engage people and create a connection to a strategy, while also helping to track expenditures and demonstrate progress toward our goals. We intend to make our sustainability performance visible through clear and simple metrics which become a part of daily life for our leadership team, our maintenance staff, our vendors, and the traveling public.

We have made progress towards managing our sustainability performance through data analytics across multiple dimensions of sustainability, from greenhouse gas emissions to energy and water use to waste generation and diversion. We will enhance our ability to continuously track our performance against our targets through improved data management systems, and translate the data in a meaningful way through a sustainability dashboard.

Our SMP will serve as a framework for a biennial sustainability reporting process that is grounded in the Global Reporting Initiative (GRI) framework. GRI establishes a standard framework through which to evaluate performance across multiple aspects of sustainability. Our biennial Sustainability Report will make our performance visible to our stakeholders, much in the way that we report financial performance, as well as detail our progress in a range of environmental and social responsibility areas.

#### **Recent Successes**

SJC has developed multiple internal tools that allow us to track our utility data including energy and water usage and waste disposal data. We are in various stages of automating our data management systems and will continue to pursue this in order to enable the development of a sustainability dashboard system. Key successes to date include:

- Tracking of monthly electricity use by facility
- Tracking of potable versus recycled water use
- · Tracking of waste disposal and diversion by weight
- Tracking of Airport-owned GSE fuel consumption

#### **Key Performance Metric And Target**

Metric	2018 Baseline	Target			
Airport Carbon Accreditation Status	Not accredited	Level 3 by 2023			

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#### **QUICK WINS**



#### 1. Automate utility data management

Work with utility providers to digitally automate the tracking of data for energy and water use, waste disposal and diversion, and utility expenditures to facilitate easier data management by SJC.



#### 2. Pursue Airport Carbon Accreditation

The industry standard for greenhouse gas management by airports, ACA provides a systematic framework for airports to measure, reduce and optimize greenhouse gas emissions (Scopes 1 through 3). At this time, we have completed a greenhouse gas emissions inventory for Scope 1 and 2 emissions. An inventory of Scope 3 emissions will be complete in the future.



#### 3. Report on Sustainability Initiatives in Biennial Report

Report our social, economic, and environmental sustainability performance through the Airport's Biennial Report as a means to raise the profile of sustainability to a broader audience and integrate sustainability in the way we measure success.



4. Collaborate with other City Departments in target-setting for municipal operations and align with the Climate Smart San José Plan

Participate in Citywide planning and target-setting activities and leverage initiatives being pursued as a part of Climate Smart San José.



#### 5. Conduct waste audits at SJC and tenant operated spaces

Collaborate with waste hauler to conduct waste audits in Airport and tenant spaces to develop waste characterization data that can inform opportunities for enhanced waste reduction and diversion.



#### HIGH-PRIORITY INITIATIVES





#### 1. Develop governance framework for sustainability management

Continue to convene SJC Sustainability Workgroup to manage the implementation of our Sustainability Management Plan. The Workgroup will review progress on our sustainability initiatives, serve as a channel for policy development, troubleshoot problems, and hold each other accountable for our commitments.



2. Develop real-time dashboard displays in terminals and online showing key sustainability performance metrics

Create a digital dashboard system that communicates our sustainability progress to our stakeholders, ultimately to include real-time energy and water use data as well as metrics related to waste diversion, greenhouse gas emissions and other performance data.



3. Promote SJC's sustainability efforts and successes through social media campaigns and enhanced web-based communications

Leverage social media to tell our story to our stakeholders by promoting specific achievements related to elements of our Sustainability Management Plan. Develop intranet and internet webpages and regular electronic updates on sustainability actions undertaken at the Airport, including targeted internal updates to promote staff engagement.



4. Install submeters and require submeters on all new projects, including tenant spaces

As submetering technologies become more advanced and cost-effective, install submeters in energy and water intensive spaces, and require submeters for all new construction, including concession and office spaces. The use of submeters is to acquire information on tenant energy and water usage as a means to identify possible opportunities for conservation.

# Engage Staff, Tenants & Passengers in Our Sustainability Commitment

Airports are complex, dynamic environments with many functions and audiences to coordinate, plan for and serve. The Airport's stakeholders are diverse and varied, ranging from residents to local government to airlines to other transportation agencies to business leaders. Critical internal stakeholders include Airport employees (i.e., City staff), tenants, passengers and contractors. All of these audiences play an important part in the successful implementation of sustainability initiatives.

As airports work to reduce their carbon footprint, act as economic hubs for businesses and local communities, and address the needs of their passengers in a rapidly changing mobility landscape, they are simultaneously seeking to grow as a stable and resilient enterprise. This requires thoughtful education and engagement of all Airport audiences, as well as optimizing operations and the overall footprint of the Airport. To achieve these ends, we engage with our stakeholders in many different ways and regularly confer and collaborate with them.

#### **Recent Successes**

Reaching out and collaborating with both internal and external stakeholders is an integral role for many Airport employees. Elevating awareness, providing support for programs and community enterprises, and promoting best practices are all part of supporting the Airport's commitment to sustainability. Recent successes include:

- Donating food and supplies to service organizations
- Maintaining a work culture that supports good waste reduction practices, such as: no bottled water supplied; small office waste bins; and efforts to reduce all printed materials
- · Providing transit passes to employees and tenants to promote use of public transportation
- Promoting a green cleaning policy to use less or non-toxic products and materials in terminals and facilities

#### **Key Performance Metrics And Targets**

Metric	2018 Baseline	Target
Percent of City Airport employees receiving sustainability training	0%	100% by 2023
Percent of tenant employees receiving Airport-provided sustainability training	0%	50% by 2028
Number of Airport-supported community-focused events	5 per year	7 per year by 2023

#### **QUICK WINS**



#### 1. SJC Sustainability tours for students

Promote SJC's current and planned sustainability practices and projects by offering periodic sustainability tours for San José students.



#### 2. Provide signage and maps to encourage walking and cycling to and from Airport

Promote walking and cycling to the Airport by developing and disseminating maps and posting welcoming signage that clarifies the user experience for these options of getting to and from Airport.



3. Make it more convenient for those who visit and work at the Airport to utilize new mobility options

Create designated pickup and drop-off area for app-based electric scooters; and promote new electric bus shuttles by improving signage and route information.



#### 4. Promote local environmental history for staff and passengers

Provide information on SJC's website and in onsite visual displays for staff and passengers to understand some of the most unique environmental features of the San José area and their origins.



#### 5. Support new community-focused campaigns

Support community-focused campaigns and events that align with SJC's strategic priorities.



#### HIGH-PRIORITY INITIATIVES



#### 1. Incorporate sustainability in employee onboarding

Design a sustainability module for employee orientation that includes a sustainability staff tour, key metrics and standard operating procedures, and utilize sustainability as a platform for recruiting new talent to the Airport.



#### 2. Provide staff tours of SJC initiatives

Promote and gain input about SJC's sustainability practices and projects by offering periodic tours for SJC employees and City employees.



#### 3. Include sustainability in tenant orientations

Integrate a brief sustainability module (similar to 1 above) targeted to tenant functions into Airport tenant orientations.



### 4. Engage staff and tenants in sustainability through recognition and rewards programs

Develop rewards programs for staff that exemplify behaviors and performance that support SJC's sustainability vision, and make engagement in sustainability worthwhile for staff by providing formal and informal recognition.



#### 5. Educate staff and tenants about waste reduction

Host brief waste reduction trainings at Airport employee meetings.



#### 6. Promote improved deplaned waste separation procedures to airlines

Inquire about current airline deplaned waste separation procedures, identify best practices, and coordinate with and engage airlines in implementation of these practices, when feasible.





#### 7. Improve communications about annual cleanup

Assess past promotion of and lessons learned from annual cleanup, and develop and institute simple best practices to engage and recruit annual cleanup stakeholders.



#### 8. Create more opportunities to donate time and to participate in combined giving

Find ways to boost and promote increased volunteer hours that employees may donate to priority local/community organizations and charities.

#### MAJOR PROJECTS



### 1. Work with tenants on incorporating future sustainability programs and initiatives at SJC

Work with tenants to identify, prioritize and implement sustainability programs and practices at SJC, when feasible.

# Conserve Resources Through Efficient Technologies & Practices

Airports are large consumers of resources and present an opportunity to reduce impacts on the environment by introducing measures to reduce water and energy use and solid waste disposal. There is an opportunity to reduce resource consumption through both design – introduction of efficient technologies and design approaches – and through changing practices, such as materials purchased and waste management. Reducing resource consumption will reduce SJC's overall footprint and will also engage employees and passengers in best practice approaches.

#### **Recent Successes**

'Smart' technologies, including building management system (BMS) controls for HVAC and lighting, are being used to track real time needs and reduce energy consumption. As an ongoing improvement program, existing lighting is continually being replaced with high efficiency LEDs within the terminals, parking facilities and the airfield. Further energy savings are realized from upgrading lighting controls and reducing lighting needs based on occupancy and natural daylight.

New design standards and best practices were applied when developing Terminal B, focusing on reducing energy consumption and conserving resources. For example, tenants are encouraged to track and reduce their energy using EnergyStar benchmarking. Additionally, the City's general purchasing policy incorporates standards for acquiring goods that have a lesser or reduced effect on the environment. This environmentally preferred purchasing policy has been rigorously followed by stakeholders and staff at SJC since its inception. Other notable successes include:

- Use of 'smart' technologies, BMS controls HVAC and lighting
- · Energy savings are tracked for lighting and controls upgrades
- Terminal B (2010) designed with passive and low energy features such as skylights and natural ventilation

#### **Key Performance Metrics And Targets**

Metric	2018 Baseline	Target
Annual Energy Use (GJ)	130,000	110,000 by 2028 (existing facilities)
Annual Energy Use Intensity (kWh/sf/yr.)	39 (terminal average)	30 (new terminals)
Water Use (gallons/passenger)	3.5	2.2 by 2028
Potable Water Use (alternative metric) (gallons/passenger)	2.3	1.3 by 2028
Solid Waste Generated (Ibs/passenger)	0.41	0.25 by 2028

#### **QUICK WINS**



#### 1. Close windows and doors when HVAC in use

Introduce and communicate a policy that requires windows and doors in locations with operable windows and manual doors, such as auxiliary buildings, to be closed when HVAC is in use to reduce demand for summer cooling and winter heating.



#### 2. Control HVAC system zones and setpoints based on occupancy

Use system controls and sensors to reduce or deactivate space conditioning in zones that are not in use.



#### 3. Automate all restroom faucets

Replace all restroom faucets in terminal and offices with automatic, sensor-controlled fixtures.



#### 4. Unsubscribe from unwanted catalogues

Encourage all employees to unsubscribe to all unnecessary mailings, and to utilize electronic subscriptions as much as possible.



#### 5. Maximize electronic communication to external stakeholders

Reduce or eliminate hard copy public communications; replace with digital communication media.



#### 6. Encourage concessionaires to provide disposable foodservice items on-demand only

Encourage concessionaires to reduce and eventually eliminate unnecessary use of disposable foodservice items, where possible.



#### 7. Default printer settings set at 2-sided

Ensure all printers and all employee printer settings default to double-sided printing.

#### HIGH-PRIORITY INITIATIVES





#### 1. Retrofit 100% of light fixtures to LED1

Complete the replacement of all indoor and outdoor lighting fixtures with LED bulbs.



#### 2. Implement a switch-it-off conservation campaign

Engage tenants and employees to conserve energy through an educational campaign that encourages turning off computers, lights and other controllable fixtures and appliances when not in use, and limit the use of personal appliances in workspaces.



#### 3. Maximize use of natural light

In new construction projects, design buildings to maximize the use of natural light. Optimize settings in existing buildings to ensure electrical lighting is only used when necessary due to lack of natural lighting.



### 4. Expand Building Management System to include energy systems in Terminal A

Expand the functionality of the existing BMS system to manage and control HVAC and electrical systems.



#### 5. Continue HVAC retrofit/replacement to maximize energy efficiency

Ensure existing HVAC equipment operates efficiently and that equipment in need of replacement is replaced with the most efficient models.



#### Conduct retro-commissioning and regular audits for existing buildings, and commissioning for all new projects

All new projects should follow best practice commissioning guidelines. For existing buildings, introduce a schedule for regular audits and retrocommissioning every five years.



#### 7. Install only drought tolerant landscaping

All exterior landscaping should be planted with drought-resistant vegetation to reduce the need to irrigate on an ongoing basis.



#### 8. Eliminate unnecessary archiving of paperwork

Enhance electronic filing system and initiate a training or educational campaign on reduction of paper use and transition to digital filing.

<sup>&</sup>lt;sup>1</sup> SJC is committed to retrofitting fixtures with LED, when possible. However, it is important to note that this initiative does not pertain to areas that require high-output lighting, such as high-mast lighting on the airfield.

#### **MAJOR PROJECTS**



#### 1. Redesign Central Plant to use less water or use process water

Look for efficiencies in Central Plant design to reduce water use and reuse water, where possible.



#### 2. Install wet weather irrigation shut off and/or soil moisture controllers

To reduce unnecessary water use for irrigation during wet weather, install sensors, soil moisture controllers, and/or wet weather irrigation shut off capability.



#### 3. Reduce curbside congestion; streamline TNC drop-off and pick-up areas

To reduce congestion and idling, design TNC areas to facilitate one stop drop-off and pickup of passengers.



#### 4. Work with tenants and concessions to purchase locally-sourced food and goods, when feasible

Work with tenants and concessions on contract language to promote a certain percentage of food and other goods to be purchased within the region, when feasible.



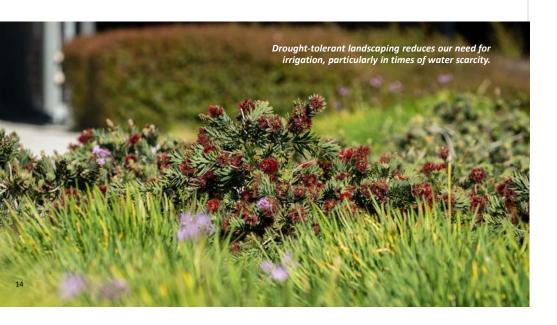
#### Work with concessions to use sustainable serving materials and eliminate packaging waste, when feasible

Work with concessions on adjusting contract language to promote the elimination of unnecessary disposable packaging and serving materials, when feasible.



#### 6. Review and refresh sustainable purchasing policy

Update sustainable purchasing policy to align with evolving SMP priorities over time.



## Promote Low-Carbon Energy & Fuels

Transitioning to a low-carbon fuel supply is essential in reducing the impacts of climate change. At SJC, this means shifting from fossil fuel-based energy sources used for space conditioning, power, cooking, water heating, and vehicles, in favor of zero or low-carbon alternative sources. Our strategy includes the introduction of low-carbon standards for new construction of buildings and central energy plants, and purchase of new vehicles. We will also retrofit and shift to cleaner technologies for our existing assets. This includes promoting the use of induction cooking equipment by concessionaires, when feasible. In addition to reducing our greenhouse gas footprint, these efforts and investments will result in reduced operation and maintenance needs, increased resilience and financial paybacks.

#### **Recent Successes**

SJC recently transitioned to the San José Clean Energy Green Source Program for all SJC buildings. By making the switch, SJC has increased the makeup of our purchased electricity from 69% carbon free to 80% carbon free sources and increased the amount of renewable sources from 33% to 45% renewable sources. As a result, we anticipate an annual reduction of 2,640 tons of CO2-e.

We have also implemented several initiatives to encourage low-carbon fuels for all transportation, fleet vehicles, and GSE. In addition to working to electrify our own fleet of vehicles and shuttle buses, we support the use of electric vehicles by employees, tenants, and the traveling public through the provision of electric vehicle charging stations within our parking facilities. We are also working to provide charging infrastructure to enable the electrification of GSE by Airport tenants. As a part of this action, we will continue to work with tenant Airlines to promote the integration of low-emission vehicles and GSE into Airport operations, when feasible.

Our recent successes in the area of low-carbon energy and fuels include:

- 3.4 acre 1.1 MW solar PV installation on rental car garage, produced 1.67 GWh in 2017
- Conversion of our bus shuttles to electric in May 2019
- 25% of all taxi trips use alternative low-carbon fuels or hybrid vehicles
- 12 electric vehicle charging stations in landside parking lots available for public use

#### **Key Performance Metrics And Targets**

Metric	2018 Baseline	Target
Greenhouse gas emissions (CO <sub>2</sub> -e metric tones) Annually	6,793 (Scopes 1 and 2)	Carbon neutral by 2032 (Scopes 1, 2, and 3)
Percent of Electricity Sourced from Renewable Energy	80%	100% by 2022
Percent of Energy Needs Met Through Onsite Renewables	4%	20% by 2032
Percent of Fleet Comprised of Low-Emission Vehicles	26%	100% by 2027 <sup>1</sup>

<sup>1</sup>Includes contracted services. Applies to vehicles and equipment for which low-emission alternatives are available and feasible

#### **QUICK WINS**



#### 1. Install solar-powered EV charging

For future airside and landside EV charging stations with access to sunlight, install solar-powered charging stations.



#### 2. Explore feasibility of microturbines and other onsite renewable power generation

Conduct a study to determine feasibility of small-scale wind power as an onsite source of renewable energy.



#### 3. Continue improving fleet efficiency as vehicles are replaced

At the time of replacement, prefer all-electric where possible or hybrid/alternatively-fueled vehicles to replace fleet vehicles powered by fossil fuels.



#### 4. Develop employee carpooling program

Re-establish a carpooling program to facilitate ridesharing by Airport employees.



#### 5. Expand secure bicycle parking facilities

Install bicycle lockers and racks to support bicycle commuting by employees and visitors.



#### 6. Promote participation in the Green Trip Challenge among Airport staff

Leverage the San José Green Trip Challenge as a year-round program that enables data collection for employee commute modes.



#### HIGH-PRIORITY INITIATIVES





#### 1. Encourage LEED Gold or Platinum for new construction

Encourage new building projects to achieve LEED Gold or Platinum certification where possible, out-performing the City's LEED Silver requirement.



#### 2. Establish energy use intensity targets for new construction

To ensure efficient and high-performance building design, establish a maximum energy use per square foot target for all new construction projects.



#### 3. Require zero net-energy or carbon neutral new construction

Introduce policy requiring new building projects to be designed all-electric and for all energy demand to be supplied by renewable sources.



#### 4. Purchase San José Clean Energy's 100% renewable ("TotalGreen") option

Opt in to the TotalGreen option offered by San José Clean Energy to procure electricity from 100% renewable sources.



#### 5. Expand solar installations at parking facilities

Explore available area for solar installations on parking facilities to enable electric vehicle charging and other onsite power generation activities, and develop a plan to maximize onsite solar potential through expansion of existing installations.



#### 6. Promote EV or Hybrid TNCs (app-based ride services)

Work with the TNC companies to introduce preferential (front-of-line) access or other controls that promote low- or zero-emission TNC vehicles.



#### 7. Incentivize passenger use of low-carbon ground transport

Develop incentives for passengers that utilize electric vehicles, public transit, and other low-carbon modes to access the Airport.



#### 8. Participate in the Good Traveler (carbon offset) Program and provide points of sale

Encourage passengers to offset the carbon associated with air travel through the Good Traveler Program. Install kiosks in the terminal to enable onsite purchases and program promotion.



#### 9. Work with tenants to create a replacement plan for inefficient vehicles

Within 5 years, work with tenants to formulate a replacement plan that establishes minimum efficiency standards for tenant vehicles.

#### MAJOR PROJECTS



#### 1. Explore alternative energy supply including fuel cells and battery storage

Research costs and benefits of onsite renewable energy supply including fuel cells and battery storage to meet SJC's energy and emissions and resilience objectives.



#### 2. Achieve carbon neutrality for existing buildings

Develop incremental plan to improve efficiency of existing buildings and supply or offset all energy needs with renewable energy.



#### 3. Phase out the use of natural gas by Central Plant

Explore conversion of Central Plant to use electricity over natural gas.



#### 4. Install common use charging infrastructure

Install airside charging infrastructure that is accessible to both airlines and airside operations.



#### 5. Transition to 100% low-emission Airport-owned fleet and GSE

Target 100% low-emission fleet for both Airport-owned vehicles and GSE, using best available technology for specialized equipment when feasible.



#### Consider direct VTA bus connection to/from Airport as part of San José BART opening

Work with BART and VTA to develop timed bus connection from San José BART station upon its opening to enable seamless, high-quality transit options.



#### 7. Promote sustainable aviation fuels

Explore opportunities to promote the use of sustainable aviation fuels, and best practices for working with airlines on this transition.



### 8. Participate in ACI/ICAO working groups on high priority airport partner initiatives related to transport

Provide staff and policy support to ACI and ICAO working groups focused on key industry initiatives, including sustainable aviation fuels development, funding and financial resources for industry climate action, and related topics.

## 5 Advance a Circular Economy Through Recycling & Reuse

The Circular Economy is one in which consumption and emissions are minimized by utilizing reuse, recycling, refurbishing, and repair. It represents a systemic shift that builds long-term resilience, generates business and economic opportunities, and provides social and environmental benefits by decoupling growth from finite natural resources. Through careful design and innovative business models, utilizing this model can ensure that materials flow continuously within the economy.

Underlying this model is a transition to renewable energy sources, and a circular model based on three principles:

- 1. Design out waste and pollution;
- 2. Keep products and materials in use: and
- 3. Regenerate natural systems (Ellen MacArthur Foundation)

Areas important to circular design include: material selection, standardized components, designed-to-last products, design for easy end-of-life sorting, separation or reuse of products and materials, use of reclaimed resources, and design-for-manufacturing criteria that take into account possible useful applications of byproducts and wastes.

#### **Recent Successes**

SJC is engaged in implementing several projects that advance the Circular Economy. Here are just a few recent and/or ongoing activities:

- Installation of "purple pipe" recycled water infrastructure to most landscaped areas and for restrooms in Terminal B
- · Installation of water filling stations at numerous locations in terminals
- Launched food donation and cigarette waste-to-energy programs

#### **Key Performance Metrics And Targets**

Metric	2018 Baseline	Target
Percent of Annual Water Use from Recycled Sources	34%1	50% by 2025
Percent of Waste Diverted from Landfill	84%	Zero Waste by 2023 <sup>2</sup>

<sup>&</sup>lt;sup>1</sup> New interim terminal facility not supplied with recycled water, so a temporary decrease in our recycled water supply will occur until permanent terminal facility is constructed.

<sup>&</sup>lt;sup>2</sup> In accordance with the Zero Waste International Alliance definition that Zero Waste is diverting 90 percent of all discarded materials from landfills. incinerators and the environment.

#### **QUICK WINS**



#### 1. Install and promote use of water refill stations by staff and passengers

Develop a map of all water refill stations as well as desired additional locations in terminals, and implement a plan to install additional stations with pre- and post-checkpoint signage, with counters that track quantity of water bottle waste reduced.



#### 2. Integrate recycling procedures in the FOD walk program

Convene key stakeholders to relaunch the FOD Walk Program and ensure the recycling of materials collected.

#### **HIGH-PRIORITY INITIATIVES**



#### 1. Install condensate recovery in cooling tower

Examine pros and cons and CIP funding requirements for installing condensate recovery in cooling towers and develop a plan for implementation.



#### 2. Require rainwater capture and reuse or other stormwater capture methods for all new construction, when feasible

Define opportunities and, requirements for rainwater capture and reuse by new construction projects.



#### 3. Expand food donation program to involve all concessions

Assess current state of food donations by tenants; identify and promote best practices compatible with existing local opportunities and programs.



#### 4. Promote organic waste separation practices in food preparation and consumption areas as a pilot project

To improve our organics waste diversion, work with concessionaires to separate organic waste in back-of-house locations, and provide composting bins for passenger use near restaurants.



#### 5. Improve separation practices and receptacles in offices, terminal, tenant areas, and airside and landside spaces

Install clear and consistent signage for waste separation, recycling and composting with examples and pictures in all Airport spaces.

#### MAJOR PROJECTS





#### 2. Broaden use of recycled water including extending recycled water lines to all landscaped areas and non-potable uses

infrastructure projects, ensuring that wildlife attractants are mitigated.

Evaluate priorities for expansion of recycled water ("purple pipe") network to include all landscaped areas and other uses not requiring potable water supply.



#### 3. Recycle runway rubber

Determine the current activities, cost, feasibility and benefits of expanding capture of runway rubber from Airport runways to recover the material for additional uses.



## Foster Health & Wellness for People & the Environment

As a gateway to Silicon Valley and the greater San Francisco Bay Area, an international destination for nature admirers and outdoor adventure, SJC embraces the natural beauty that exists right at our doorstep. By providing opportunities for passengers and employees to connect with nature as part of the Airport experience, we will promote wellness while cultivating appreciation of our natural surroundings.

In addition, we know that improved wellness for our employees means better productivity, reduced absenteeism, and enhanced longevity, and we support opportunities to bring wellness concepts to the workplace. We are also working to co-exist with the wildlife that call the Airport and surrounding area home, while reducing safety hazards for Airport operations and wildlife alike.

#### Recent Successes

SJC has long supported the Guadalupe River Trail, which runs adjacent to the airfield, and the adjoining Guadalupe Gardens. The trail is a part of the San José Green Vision Goal of creating 100 miles of interconnected trails which supply commuters with easy access routes and recreation space. The Guadalupe River Trail runs 11 miles through the San José area. This trail and garden foster awareness with the local environment, and much more potential exists to enhance the benefits it provides to foster health and wellness for people and the environment.

#### **Key Performance Metrics And Targets**

Metric	2018 Baseline	Target
Percent of Airport employees participating in Airport-sponsored wellness programs	N/A	75% by 2027
Number of cleanup events (not including regularly scheduled FOD walks)	1 per year	3 per year by 2023

18

#### **QUICK WINS**



 Conduct regular cleanup events along the Guadalupe River and in other airside and landside locations

Improve riparian habitat through regular removal of garbage and debris along the Guadalupe River, and reduce environmental and safety hazards through routine cleanup events both airside and landside.



2. Promote physical challenges such as daily step challenges

Encourage walking and other physical activities as part of employee wellness by promoting step challenges and other friendly competitions for our staff.

#### HIGH-PRIORITY INITIATIVES



1. Explore use of porous pavement and green infrastructure for stormwater management, when feasible

Integrate proven green infrastructure technologies such as porous pavement to improve stormwater infiltration and natural treatment of runoff from impervious surfaces in landside areas



Expand partnerships with Guadalupe River Park Conservancy, Friends of Guadalupe River, and others to enhance our connection to the Guadalupe River with improved amenities and signage

Leverage local organizations focused on the Guadalupe River and Park to provide enhanced infrastructure and signage to promote the use and enjoyment of the River.

#### **MAJOR PROJECTS**



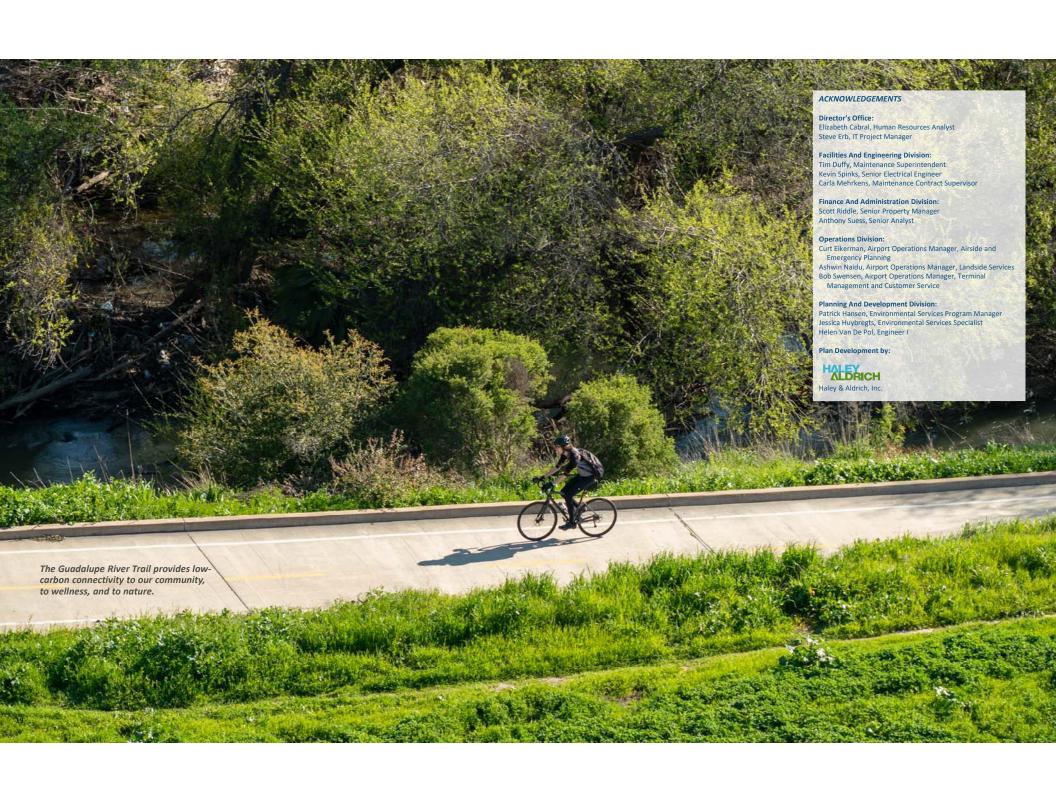
 Provide places for staff and passengers to connect with the outdoors as part of the Airport experience

As part of future development opportunities at SJC, encourage outdoor seating and other amenities that facilitate connections with nature and enjoyment of our world-renowned climate.



Stay current on anticipated regional climate impacts and develop a coordinated resilience strategy that aligns with the City of San José and other regional agencies

Collaborate with City Departments, other Bay Area agencies, and San Francisco and Oakland International Airports on resilience strategies to help manage climate impacts and related disruptors.



## Mapping Our Sustainability Strategy to Our Long-Term Goals



2022 2027 2032

- Educate staff and tenants about waste reduction
- Promote improved deplaned waste separation procedures to airlines
- Expand food donation program to involve all concessions (5HP3)
- Improve separation practices and receptacles in offices, terminal, tenant areas, and airside and landside spaces (5HP5)
- Automate utility data management (1QW1)
- **Pursue Airport** Carbon Accreditation (1QW2)
- Collaborate with other City Departments in target-setting
- Install solarpowered EV charging (4QW1)
- Explore feasibility of microturbines and other onsite renewable power generation (4QW2)
- Purchase San José Clean Energy's 100% renewable ("Total Green") option (4HP4)
- Expand solar installations at parking facilities (4HP5)
- Work with concessions to use sustainable serving materials and eliminate packaging waste,
- Expand food donation program to involve all concessions (5HP3)

when feasible

(3MP5)

Promote organic waste separation practices in food preparation and consumption areas as a pilot project (5HP4)

- Continue improving fleet efficiency as vehicles are replaced (4QW3)
- Transition to 100% lowemission Airport-owned fleet and GSE (4MP5)
- Redesign Central Plant to use less water or use process water (3MP1)
- Install condensate recovery in cooling tower (5HP1)
- capture and reuse or other stormwater capture methods for all new construction, when feasible (5HP2)
- Install stormwater collection and reuse systems, when feasible (5MP1)
- Broaden use of recycled water including extending recycled water lines to all landscaped areas and non-potable uses (5MP2)

- Encourage concessionaires to provide disposable foodservice items on-demand only, when possible
- (3QW6) Work with concessions to use Require rainwater sustainable serving materials
  - and eliminate packaging waste, when feasible (3MP5) Review and refresh
    - sustainable purchasing policy (3MP6) Expand food
      - donation program to involve all concessions (5HP3)
      - Install and promote use of water refill stations by staff and passengers (5QW1)

- · Install solarpowered EV charging (4QW1)
- **Explore feasibility** of microturbines other onsite renewable power generation (4QW2)
- Expand solar installations at parking facilities (4HP5)
- Explore alternative energy supply including fuel cells and battery storage (4MP1)

- Establish energy use intensity targets for new construction (4HP2)
- Require zero net-energy or carbon neutral new construction (4HP3)
- Achieve carbon neutrality for existing buildings (4MP2)
- Phase out the use of natural gas by Central Plant (4MP3)
- Other initiatives in energy and ground transportation goal areas in this table



Water



Ground Transport



Social Responsibility



				Resource Needs				
Initiative		Responsible	Key Stakeholders	Staff	Funding (O&M)	Funding (Capital)	Technical Study	Potential Funding Source
ACTION 1: Tra	ack & Report Our Sustainability Performance							
QW 1***	Automate utility data management	Facilities / ATS	Utilities	•	•	•		
QW 2	Pursue Airport Carbon Accreditation	Planning & Development (Environmental)		•	•			
QW 3	Report on Sustainability Initiatives in Biennial Report	Planning & Development (Environmental)	Planning & Development (Environmental)	•				
QW 4	Collaborate with other City Departments in target-setting for municipal operations and align with Climate Smart San José	Planning & Development, Director's Office	ESD Climate Smart	•				
QW 5	Conduct waste audits in SJC and tenant operated spaces	Planning & Development (Environmental)	ESD-Integrated Waste Management / Properties / Waste hauler	•	•			FAA AIP/City of San José/Haulers
HP 1	Develop governance framework for sustainability management	Senior Staff	Sustainability Workgroup	•				
HP 2	Develop real-time dashboard display in terminals and online showing key sustainability performance metrics	ATS / Planning & Development	Properties / Marketing / Operations / City of San José (Climate Smart dashboard team)	•	•			
НР 3	Promote SJC's sustainability efforts and successes through social media campaigns and enhanced web-based communications	Marketing	Planning & Development (Environmental)	•				
HP 4	Install submeters and require submeters on all new projects, including tenant spaces	Facilities / Planning & Development	Properties / Planning & Development (Environmental)	•		•		FAA FRMA, Section 512
ACTION 2: En	gage Staff, Tenants & Passengers in Our Sustainability Commitmen	t						
QW 1	SJC Sustainability tours for students	Marketing / Planning & Development (Environmental)	Local Schools & Programs	•				Cisco – Silicon Valley Impact Cash Grants
QW 2	Provide signage and maps to encourage walking and cycling to and from Airport	Marketing / Airport Sign Shop / Marketing / Department of Transportation / Caltrans	Airport Tenants / Operations	•	•	•		CalTrans LCTOP
QW 3	Make it more convenient for those who visit and work at the Airport to utilize new mobility options	Operations / Planning & Development / City Hall	Department of Transportation / Scooter Companies	•				LCTOP, CalSTA (rail-related)
QW 4	Promote local environmental history for staff and passengers	Sign Shop / Marketing/Environmental	Santa Clara County Parks / Golden Gate Groups / Operations (Terminal)	•	•			Local company sponsorships
QW 5	Support new community-focused campaigns	Director's office	Sponsors / Operations (Customer Service)	•				



Water



Ground Transport



Social Responsibility



					Resource Needs			
Initiative		Responsible	Key Stakeholders	Staff	Funding (O&M)	Funding (Capital)	Technical Study	Potential Funding Source
HP 1	Incorporate sustainability in employee onboarding	Director's office and Planning & Development (Environmental)	HR / Employee Services / Marketing	•				
HP 2	Provide staff tours of SJC initiatives	Operations (Cust. Service) / Planning & Development (Environmental)	Airlines / Tenants / Operations / Schools	•				
HP 3	Include sustainability in tenant orientations	Properties / Planning & Development (Environmental)	Tenants / Sign Shop	•				
HP 4	Engage staff and tenants in sustainability through recognition and rewards programs	Director's office	Tenants / Properties / Planning & Development (Environmental)	•	•			
HP 5 😘	Educate staff and tenants about waste reduction	Planning & Development (Environmental)	Marketing / Properties / Tenants	•				
HP 6 😘	Promote improved deplaned waste separation procedures to airlines	Properties	Airlines / Marketing / Custodial staff (contract managed by Facilities)	•	•			
HP 7 <b>₩ = 5</b>	Improve communications about annual cleanup	Planning & Development (Environmental)	Airlines / Tenants / Operations/Properties	•				See Action 6 QW1
HP 8 (=)	Create more opportunities to donate time and to participate in combined giving	Director's Office / reach employees in all shifts / HR / Employee Services	Airport staff and sponsors	•				
MP 1	Work with tenants on incorporating future sustainability programs and initiatives at SJC	Properties / Director's office	Airport / Tenants / Planning & Development (Environmental)	•				
ACTION 3: Cor	nserve Resources Through Efficient Technologies & Practices							
QW 1 🔆	Close windows and doors when HVAC in use	Facilities / Properties	Tenants	•				
QW 2	Control HVAC system zones and setpoints based on occupancy	Facilities		•	•			
QW 3	Automate all restroom faucets	Facilities	Tenants	•		•		DWR Water-Energy Grant/SCVWD
QW 4 🤡	Unsubscribe from unwanted catalogues	All employees		•				Catalog Choice
QW 5	Maximize electronic communication to external stakeholders	Marketing	Properties / Finance / Passengers, Broader Community	•				
QW 6	Encourage concessionaires to provide disposable foodservice items on-demand only	Properties	Concessions	•				CA Green Business Program Incentives (with City of San José)
QW 7 🧐	Default printer settings set at 2-sided	Director's Office		•				



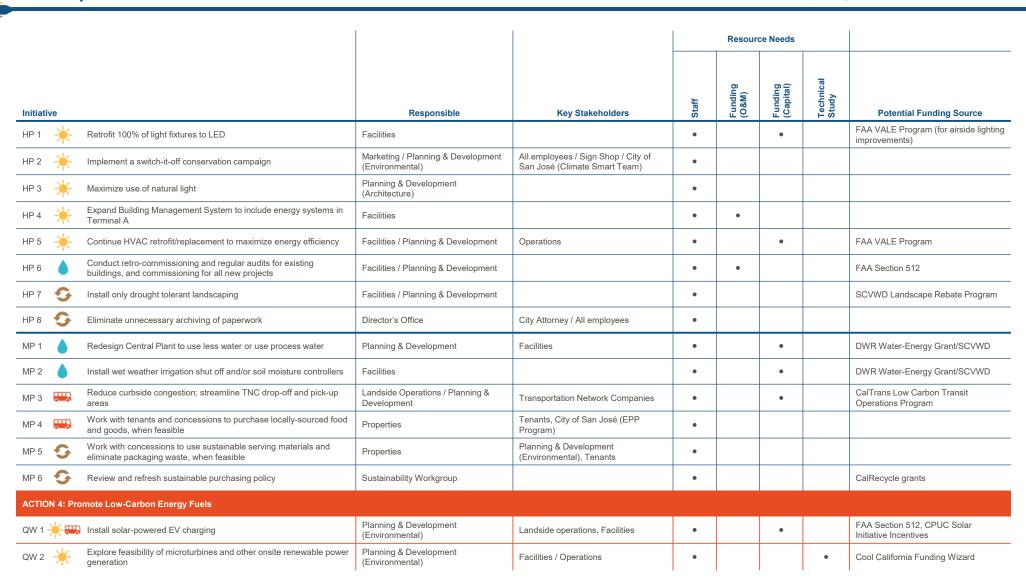


Ground Transport



Responsibility













## Implementation Plan

Water Ground Transport Social Responsibility

Resource Needs

					Resource Needs			
Initiative		Responsible	Key Stakeholders	Staff	Funding (O&M)	Funding (Capital)	Technical Study	Potential Funding Source
QW 3	Continue improving fleet efficiency as vehicles are replaced	Fleet Services (City) / Finance	Airport Divisions (Ops, FN, Planning & Development)	•		•		FAA Section 511, EPA DERA, VW Fund, and/or FAA VALE Program
QW 4 🔛	Develop employee carpooling program	Operations (Landside)	All employees	•				CalTrans LCTOP (with local agencies)
QW 5	Expand secure bicycle parking facilities	Planning & Development (Environmental)	Operations (Landside)	•		•		
QW 6	Promote participation in the Green Trip Challenge among Airport staff	Director's Office	Planning & Development (Environmental)	•				
HP 1	Encourage LEED Gold or Platinum for new construction	Planning & Development	PW / FBOs	•		•		
HP 2	Establish energy use intensity targets for new construction	Planning & Development	PW / FBOs	•				
HP 3 →	Require zero net-energy or carbon neutral new construction	Planning & Development	PW / FBOs	•		•		
HP 4	Purchase San José Clean Energy's 100% renewable ("Total Green option")	Facilities	Planning & Development (Environmental) / Senior Staff / City Hall / CONRAC Operator	•	•			Utility incentives
HP 5 -	Expand solar installations at parking facilities	Planning & Development / Facilities	Operations (Landside) / CONRAC	•		•		FAA Section 512
HP 6	Promote EV or Hybrid TNCs (app-based ride services)	Operations (Landside) / Director's office	TNC's / CARB	•				CalTrans Active Transportation Program
HP 7	Incentivize passenger use of low-carbon ground transport	Marketing / Operations (Landside) / Director's office	Ground Transportation providers	•	•			Strategic Growth Council Affordable Housing & Sustainable Communities Program
HP 8	Participate in the Good Traveler (carbon offset) Program and provide points of sale in terminals	Properties / Director's office	Passenger / Vendor / Operations (Terminal)	•	•			
HP 9	Work with tenants to create a replacement plan for inefficient vehicles	Properties and Planning & Development (Environmental)	Tenants / CARB	•			•	FAA Section 511, EPA DERA, VW Fund, and/or FAA VALE Program
MP 1 -	Explore alternative energy supply including fuel cells and battery storage	Planning & Development / Facilities		•			•	DOE National Energy Tech Lab FY 2019 Grants
MP 2	Achieve carbon neutrality for existing buildings	Planning & Development / Facilities		•		•	•	
MP 3 -	Phase out the use of natural gas by Central Plant	Planning & Development / Facilities		•		•		FAA VALE Program
MP 4 🚃	Install common use charging infrastructure	Facilities/Planning & Development	Properties / Operations / Airlines and ground support tenants	•		•		Electrify America (i.e., California ZEV Investment Plan), VW Fund





Ground Transport



Social Responsibility



				Resource Needs				
Initiative		Responsible	Key Stakeholders	Staff	Funding (O&M)	Funding (Capital)	Technical Study	Potential Funding Source
MP 5	Transition to 100% low-emission Airport-owned fleet and GSE	Airport Finance and PW Fleet	Airport Ops / Planning & Development / Tenants (Airlines & ramp support)	•	•	•	•	FAA VALE Program, EPA DERA, CARB Grants and Credit Programs
MP 6	Consider direct VTA bus connection to/from Airport as part of San José BART opening	VTA, Operations (Landside) / Mayor's office		•				CalTrans LCTOP
MP 7	Promote sustainable aviation fuels	SMP Workgroup / Policy Manager / Planning & Development (Environmental)	Other airports / FAA / Airlines	•				CARB Technology and Fuel Assessment grants
MP 8	Participate in ACI/ICAO working groups on high priority Airport partner initiatives related to transport	Director's office		•				
ACTION 5: Ad	vance a Circular Economy Through Recycling & Reuse							
QW 1 📀	Install and promote use of water refill stations by staff and passengers	Facilities	Vendors / Sign Shop	•	•	•		
QW 2 <b>5 (</b>	Integrate recycling procedures in the FOD walk program	Operations (Airside) and Planning & Development (Environmental)	Ramp side Tenants / Properties	•				
HP 1	Install condensate recovery in cooling tower	Planning & Development / Facilities	Sr. Staff	•		•		
HP 2	Require rainwater capture and reuse or other stormwater capture methods for all new construction, when feasible	Planning & Development / Facilities	ESD / SCVWD / RWQCB / Sr. Staff	•		•		
HP 3 <b>5</b> (E)	Expand food donation program to involve all concessions	Properties and Planning & Development (Environmental)	Tenants / Food Donation NGO's	•				CalRecycle SB 1383 Assistance potential future funding YieldWise Food Loss (Rockefeller Foundation)
HP 4 😘	Promote organic waste separation practices in food preparation and consumption areas as a pilot project	Planning & Development (Environmental) / Properties	San José ESD Integrated Waste team / Concessions / Facilities / Sign Shop	•		•		CalRecycle S 1383 Assistance, City of San José
HP 5	Improve separation practices and receptacles in offices, terminal, tenant areas, and airside and landside spaces	Planning & Development / Signage / Facilities-containers / Airlines - plane waste	Prog. Managers communications with Airlines & Concessions / ESD-IWM	•		•		
MP 1	Install stormwater collection and reuse systems, when feasible	Planning & Development (Environmental) / Facilities	Sign Shop / ESD / Public Works	•		•	•	
MP 2	Broaden use of recycled water including extending recycled water lines to all landscaped areas and non-potable uses	Planning & Development / Facilities	Water Treatment Plant / Sign Shop / ESD / Public Works	•		•		SCVWD
MP 3 🧐	Recycle runway rubber	Facilities / Planning & Development (Environmental)	Recycling Company	•				FAA AIP











Water	Ground Transport		Social Responsibility
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					Resource Needs					
Initiativ	re		Responsible	Key Stakeholders	Staff	Funding (O&M)	Funding (Capital)	Technical Study	Potential Funding Source	
ACTION 6: Foster Health & Wellness for People & the Environment										
QW 1	<b>®</b>	Conduct regular cleanup events along the Guadalupe River and in other airside and landside locations	Planning & Development (Environmental) / Marketing / Water District / CSJ ESD	Trail users, waste hauler	•				SCVWD grants – Priority areas B7, D3, Santa Clara County mini grants	
QW 2		Promote physical challenges such as daily step challenges	Marketing / Safety / HR		•					
HP 1	***	Explore use of porous pavement and green infrastructure for stormwater management, when feasible	Planning & Development	ESD / Water District / Facilities	•		•			
HP 2	<b>B</b>	Expand partnerships with Guadalupe River Park Conservancy, Friends of Guadalupe River, and others to enhance our connection to the Guadalupe River with improved amenities and signage	Planning & Development / Sign Shop	Marketing	•				SC Valley Open Space Authority	
MP 1	<b>9</b>	Provide places for staff and passengers to connect with the outdoors as part of the Airport experience	Planning & Development / Facilities	Director's office	•		•		SC Valley Open Space Authority. SCC mini grants	
MP 2	<b>(</b>	Stay current on anticipated regional climate impacts and develop a coordinated resilience strategy that aligns with the City of San José and other regional agencies	Planning & Development (Environmental), Director's Office		•			•		

## **Current Sustainability Initiatives**



#### **Sustainability Governance & Climate Action**

#### **On-Airport Energy Use**

- · Use BMS to adapt to lighting
- · Track conservation-related savings
- Airfield LED lighting conversion
- 3.4-acre 1.1 MW solar array on CONRAC
- · Construction of LEED Silver Terminal B

#### **On-Airport Ground Transportation**

- · Electric inter-terminal buses
- Electric vehicle charging infrastructure Airport-wide
- · Preconditioned Air and Ground Power Units at all
- · Clean Fuel Vehicle Program policy requires 25% of all taxi trips use cleaner fuel sources

#### **Local Leadership**

- · Climate Smart San José: 100% carbon-free electricity bv 2023
- · Energy benchmarking for large buildings

Tenant Highlight: **Enterprise**  2020 goal to reduce Scope 1 and 2 greenhouse gas emissions by 10%



#### **Energy**

#### Management & Monitorina

- Use of 'smart' technologies, BMS controls HVAC and lighting
- · Energy Benchmarking using Energy Star per AB802

#### Design Standards Renewable Energy

#### **Energy Efficiency** Upgrades

- Terminal B (2010) designed with passive, low energy features
- 1.1 MW solar PV installation on rental car garage, produced 1.67GWh in 2017
- · LED replacements airfield and terminal
- · Lighting control upgrades
- · Natural daylighting

Tenant Highlight: **ABM** 

**Energy Star/LEED certified** buildings, green building vision for clients, Bundled Energy Solutions program

#### Water

#### Water Efficiency & Conservation

#### · Low-water fixtures (automatic faucets, low-flow toilets)

- Leak reporting via text messaging in restrooms
- Native/drought tolerant landscaping planted

#### Water Recycling & Reuse

- · Recycled water used for restrooms and landscaping at Terminal B
- · Closed loop carwash system at CONRAC

**Tenant** Highlight: Jensen

Pursue water-conserving landscape irrigation initiatives and rebates, efficient ET based irrigation timers

#### **Ground Transport**

#### **Alternative Fuel Use**

- · Shuttle buses converted from diesel to CNG
- · FAA ZEV grant to replace CNG shuttle buses with electric (Q1 2019)
- Alternative Fuels Program provides incentives to tenants for converting to cleaner fuel vehicles

#### **EV** Infrastructure

· Electric vehicle charging stations for 12 parking spaces in Lot 5

#### Passenger and **Employee Access**

· VTA and Regional Transit passes to employees and tenants to promote the use of public transportation

**Tenant** Highlight: **AVBase** 

**Battery-operated aircraft towing** equipment

## **Current Sustainability Initiatives**



#### **Waste**

#### Recycling

- State-of-the-art Materials Recovery Facility means high diversion rates citywide
- Many waste types recycled: oil and filters, bulbs, batteries, pallets, metal, pens, cigarette butts

#### **Waste Reduction**

- Waste compacter to reduce trips
- Work culture encourages good waste practices: no bottled water supplied, small office waste bins, efforts to reduce printed materials

#### Food & Liquid Waste

- Liquid dumping stations at checkpoints
- Hydration Stations through terminals and Drop Water vending stations that dispense fillable paper bottles
- Compostable waste segregated off-site

## Construction & Yard Waste

- Yard trimmings collected onsite and composted off-site
- 90% of construction waste from Terminal B recycled

Tenant Highlight: Delta & United

In-flight recycling programs



#### **Social Responsibility**

#### **Charitable Giving**

### Holiday giving program to

- support local charities

   Walk-A-Mile In Her Shoes
- team
- Arrange for food and supply donation to Military Lounge

#### **Workforce Development**

- Living wage standards for all Airport employers
- · Job fair with Airlines
- Airport Concession
   Disadvantage Business
   Enterprise requirements

### Community Impacts

- Noise curfew 11:30 PM 6:30 AM
- Ad Hoc Advisory Committee to address noise impacts on residents when weather requires a "south flow" configuration

Tenant Highlight: Enterprise Over \$37 million charitable gifts to support alternative fuels and clean technologies (Enterprise Institute for Renewable Fuels and others)



#### **Natural Resources**

#### Sustainable Materials

- Green cleaning policy to use lesstoxic products in terminal and facilities, build with lower-VOC materials
- Citywide
   EnvironmentallyPreferable
  Purchasing Policy
  (EP3)

#### Wildlife Protection

eaning
use lessducts in
abuild with

Wildlife Hazard
Management Plan

Burrowing Owl
Management Plan

#### Green Spaces

City of San José, Friends of Guadalupe Gardens to improve bike lanes and Guadalupe Gardens

· Partnership with the

#### **Water Quality**

- Wash racks with oil/water separators at some airside facilities
- Outreach and implementation of the Stormwater Pollution Prevention Plan and Spill Prevention and Countermeasure Plan, including best management practices (BMP), to all Airport operators in industrial areas