



making our airports aspirational

A SUSTAINABLE PATH



Message from Mayor Rahm Emanuel



One of the core focus areas of my administration is to integrate sustainability throughout city government. In this effort, we are committed to increasing employment and entrepreneurship, and enabling Chicago to become the greenest city in the world.

The Chicago Department of Aviation's commitment to greening our City's global gateways, O'Hare and Midway International Airports, is an important part of our sustainability vision. A Sustainable Path complements and promotes the City of Chicago's Sustainable Chicago 2015 Action Plan. This plan offers concrete initiatives, metrics, and strategies ranging from improving citywide energy efficiency and promoting diversified transit options, to launching citywide recycling. Chicago's roadmap is robust and comprehensive, touching upon the full spectrum of life for Chicagoans, whether at home, at work, on our streets or in our parks.

To secure Chicago's global competitiveness we must invest in our future in a manner that creates economic and job opportunities now. Our sustainability vision not only sets the goals that will shape our priorities for years to come, but establishes a swift course of action that will challenge us to create jobs, foster new industries, and reduce costs for residents and businesses.

Sincerely,

A handwritten signature in black ink that reads "Rahm Emanuel". The signature is fluid and cursive, with the first name "Rahm" and last name "Emanuel" clearly distinguishable.

Rahm Emanuel
Mayor
City of Chicago

Message from Commissioner Rosemarie S. Andolino

The Chicago Department of Aviation (CDA) has fully embraced sustainability, with a strong commitment to incorporating the best environmental, social and economic practices at both O'Hare and Midway International Airports. Going green at Chicago's airports is part of our core mission and is embedded into the culture at the CDA.

A Sustainable Path supports our vision to maintain Chicago's competitive position as a global aviation hub for the 21st century, describing five key sustainability goals and the underlying targets to reduce airport emissions, enhance multi-modal connections, generate regional revenue, improve the travel experience for our customers, and protect natural assets.

The CDA is an important part of the City's objective to advance environmental and economic prosperity for Chicago and the region, and we have aligned our vision to mutually benefit our airports and Chicago as a whole.

Chicago's airports provide nonstop service to more than 30 countries and serve a robust domestic network. Combined, O'Hare and Midway serve more than 85 million passengers annually and connect Chicago to the global economy. As our airports continue to evolve and grow, so too will their efficiency and economic output. We will keep challenging ourselves and capitalize on opportunities to make our airports even greener; and we will strive to lead by example in the global aviation industry and beyond.

Sincerely,

A handwritten signature in black ink, reading "Rosemarie S. Andolino". The signature is fluid and cursive, with the first name being the most prominent.

Rosemarie S. Andolino
Commissioner
Chicago Department of Aviation



A photograph of the Chicago Department of Aviation building and its iconic tower. The building is a long, low structure with a grey facade and many windows. The tower is tall and slender, with a distinctive curved design and a glass-enclosed observation deck at the top. The sky is blue with scattered white clouds.

vision

“Chicago is leading a movement to transition towards airport sustainability worldwide. Together with our peers, we have taken ownership of the opportunities before us to reduce our environmental impact, while helping to position the aviation industry for future growth.”

Commissioner Rosemarie S. Andolino, Chicago Department of Aviation

CDA embraces the best possible environmentally, socially and economically responsible practices at our Airports. CDA's Sustainable Path supports our vision to maintain our competitive position as a global aviation hub for the 21st century. CDA plays a crucial role in the City's objective to advance environmental and economic prosperity for Chicago and the region, and we have aligned our vision to mutually benefit our Airports and Chicago as a whole. Our vision complements and promotes the City of Chicago's Sustainable Chicago 2015 Action Agenda.

The Chicago Department of Aviation (CDA) has a long and established history as a leader in airport sustainability. Beginning with the creation of the Sustainable Design Manual (SDM) in 2003, which provided critical guidance for integrating green construction practices in the O'Hare Modernization Program (OMP), CDA continues to advance a wide array of industry-leading sustainability initiatives at O'Hare and Midway International Airports. From our ambitious green roof installations, to the cutting-edge "balanced earthwork" program for the OMP, and our ongoing expansion of the Sustainable Airport Manual and "green airplane rating system", CDA leads the way in integrating sustainability in all aspects of airport construction, operations and maintenance.

We strive to demonstrate our commitment to advancing sustainability and environmental protection through continued evaluation of our progress, exploration of new approaches, and transparency to the communities that we serve. We published our first annual Sustainability Report in 2011 as a means to communicate our achievements to our stakeholders, and are building on the report with our 2012 A Sustainable Path, which aims to provide a framework for our current and future sustainability programming.

SUSTAINABLE AIRPORT MANUAL

The SDM positioned Chicago as the first in the nation to develop sustainability guidelines for design and construction at airports. The SDM evolved into the Sustainable Airport Manual (SAM), which allowed CDA to expand its focus to incorporate sustainability initiatives for airport planning, operations and maintenance, and concessions and tenants. The SAM is an integral part of CDA's ongoing efforts toward implementing more environmentally sustainable airport buildings and civil infrastructure, incorporating best practice guidance for planning, operations and maintenance of all CDA and tenant facilities and functions.

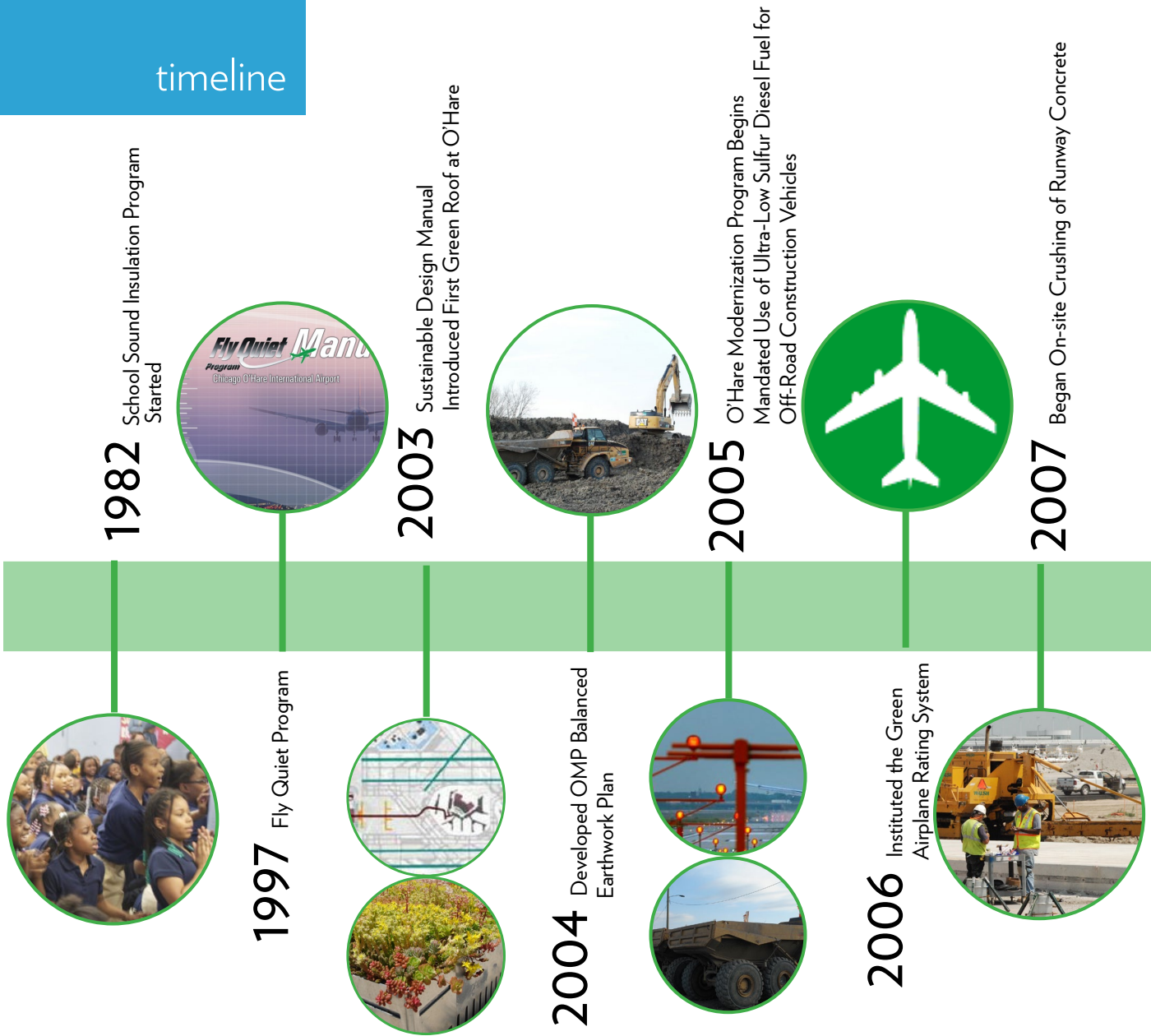
To date, more than 80 projects have been rated under the SAM rating system, and CDA is working diligently with its stakeholders to achieve widespread adoption of the SAM beyond airport construction projects. In 2012, seven restaurants at O'Hare and Midway achieved a rating under the Concessions and Tenants rating system, and the Airport Maintenance Complex at O'Hare achieved a rating for Operations and Maintenance – the first project to achieve a rating in this category.

LEADING THE AIRPORTS GOING GREEN MOVEMENT

There are clear trends in airport efforts to improve environmental, social and economic sustainability. Airports around the globe are focusing greater attention on energy efficiency and renewable energy. Reduction of water demand, better stormwater management practices, and waste diversion are also key focus areas. Increasing overall airport user experience has become a priority, and we are beginning to see more and more examples of how importantly airports view this through various award and ranking programs. In addition, the industry is increasingly focused on providing greater transparency and accountability to stakeholders and the community at large. CDA strives to maintain a leadership position in each of these areas, while continuing to support and learn from our broad network of industry peers.

We are extremely proud of our accomplishments to advance sustainability at our airports, and appreciate the magnitude of opportunity that is before us.

timeline



2008

First LEED Certified North
Air Traffic Control Tower



2009

First Airports Going Green Conference



2010

Sustainable Airport Manual
Introduced



2011

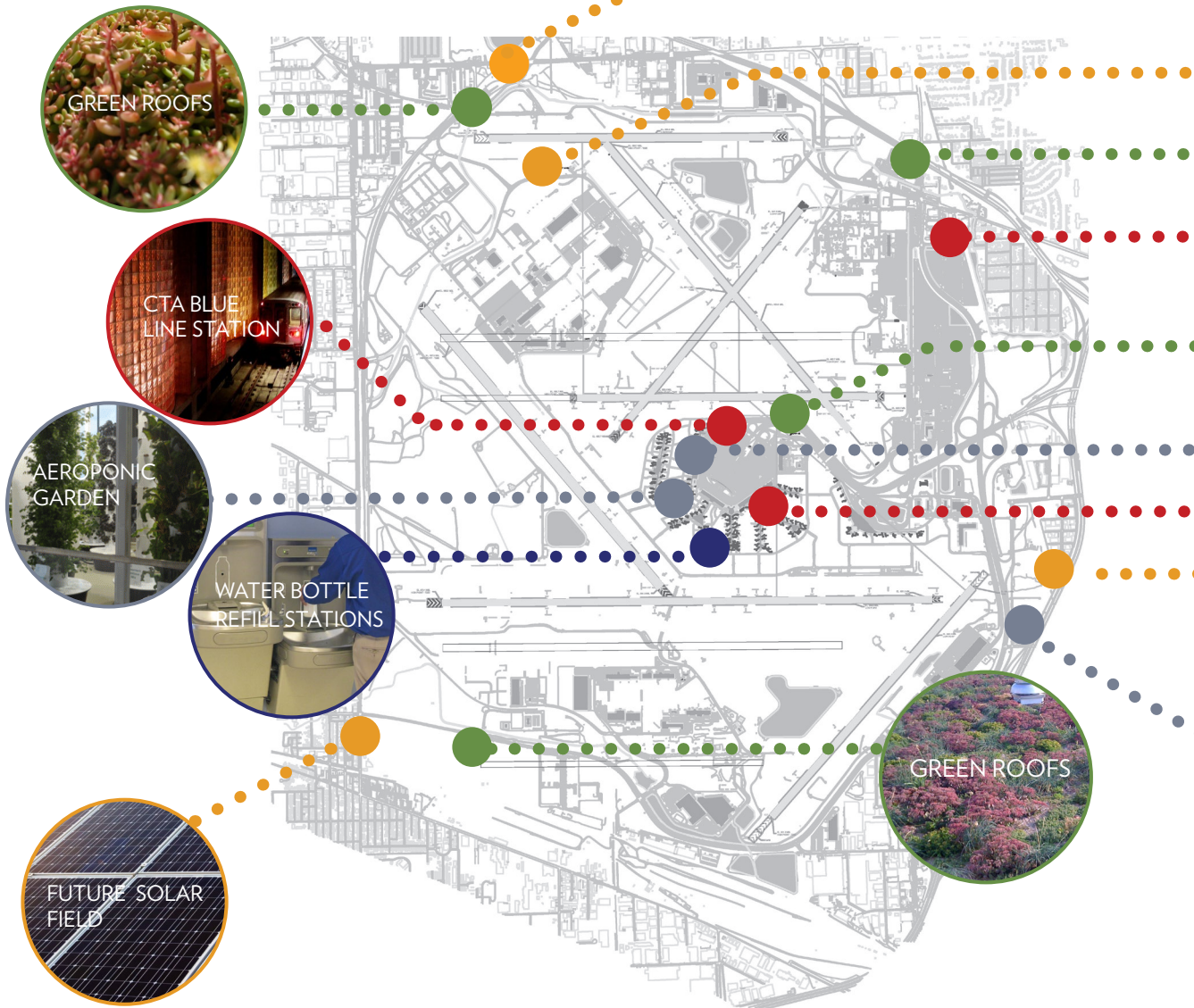
First Airport apiary program at an airport
Aeroponic Garden is Installed in Rotunda
SAM V2.1 broadens sustainability coverage.



2012

Creation of Midwest Aviation
Sustainable Bio-fuels Initiative
Electric Vehicle Charging
stations at O'Hare + Midway

O'Hare





Chicago O'Hare International Airport first began operating commercial flights in 1955 with its first dedicated international terminal opening in 1958. The main terminal complex was commissioned in early 1962. Currently, O'Hare is the second busiest airport in the world in terms of aircraft movements and the fourth busiest airport in terms of numbers of passengers, serving more than 66.5 million passengers in 2011. It is the nation's only dual hub airport, being the Midwest base for American Airlines and United Airlines. The airport occupies 12 square miles of land and has more than 50,000 badged employees.

From the first in-terminal aeroponic garden to the largest square footage of green roofs at any airport in the US, CDA's commitment to sustainability is visible throughout the airport.

Midway

Midway International Airport (originally Municipal Airport) was opened as Chicago's first commercial airport. Before O'Hare opened to commercial flights, Midway was the only commercial airport serving the Chicago area. Midway was the busiest airport from 1948 until it was surpassed by O'Hare in 1961. Midway is just over 1 square mile and has 7,000 badged employees. In 1996, the City of Chicago announced the historic Midway Airport Terminal Development Program which, at the time, was the largest public works project in Illinois. Through the program, Midway saw major infrastructure improvements which have enabled its status as the fastest growing airport in the US. Today Midway serves almost 19 million passengers per year.

From our innovative local restaurant green rating system to our electric vehicle charging stations sustainability has made a mark at Midway.





sustainability goals + targets

The CDA has developed five key sustainability goals that support and align with the City of Chicago's *2015 Sustainable Chicago Action Agenda*:

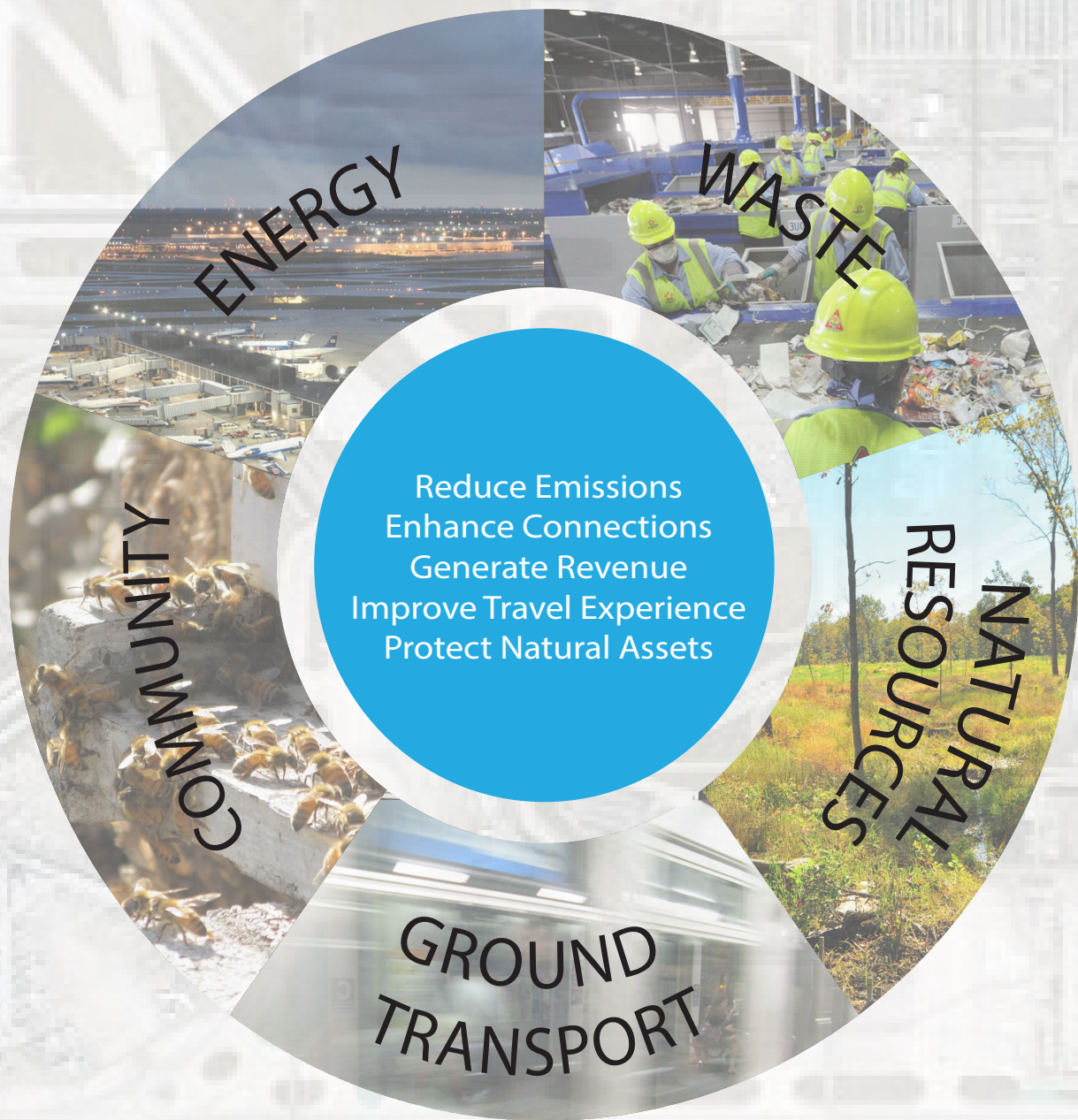
- Reduce airport emissions
- Enhance multi-modal connections
- Generate regional revenue
- Improve travel experience
- Protect natural assets

In addition to these high level goals, we have established targets for each of the impact areas that we can affect, including reducing energy consumption by 15%, diverting a minimum of 50% of airport waste from landfill, and maintaining a ground fleet of at least 20% low emissions vehicles by 2015.

To achieve these goals and meet these targets, we have developed a unique approach that considers the sustainability of CDA facilities areas:

- Energy
- Natural Resources
- Waste
- Ground Transport
- Community

Leveraging the synergies between these aspects of sustainability, we have developed a holistic strategy that drives CDA forward as a leader in innovation and environmental stewardship. We see *A Sustainable Path* as our blueprint to moving forward and attaining the highest levels of sustainability in the industry.




REDUCING OUR ENERGY USE

1 retro-commissioning

2 lighting efficiency

3 energy retrofits



A nighttime photograph of an airport tarmac. In the background, various airport buildings and lights are visible against a dark sky. In the foreground, a large orange rectangular box contains white text. Below the text box, the tail end of a blue and white airplane is visible on the tarmac.

CDA is implementing numerous projects to reduce the energy consumption required to operate our airport facilities in support of Mayor Rahm Emanuel's recent directive to reduce energy consumption by a target of 15% in City buildings by 2015. To be successful in meeting this target, the CDA is working across all of its operations to identify energy conservation opportunities that reduce utility and maintenance costs, and to support the development of renewable energy sources at its airports. We have already achieved reductions in our energy use through "quick win" strategies, including retro-commissioning, lighting, and heating and cooling equipment retrofits. In the near-term, we are pursuing a range of aggressive capital improvements and renewable energy infrastructure projects for the future.

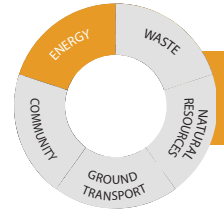
1 retro-commissioning

CDA is working to make our existing airport facilities operate as efficiently as possible through rigorous monitoring and operation of heating, ventilation and air conditioning systems. To ensure that existing systems are working at their peak performance, CDA is embarking on an extensive program to “retro-commission” airport facilities. Retro-commissioning involves comprehensive review and fine tuning of existing building systems to optimize their performance, with minimal capital investment.

In 2011 and 2012, CDA has worked with the Illinois Department of Commerce and Economic Opportunity (DCEO) to retro-commission Terminal 5 and the Aviation Administration Building at O’Hare Airport. The initial

retro-commissioning studies have identified simple, low cost measures to reduce energy cost savings by approximately \$600,000 per year at an implementation cost of only \$80,000 – a smart move with a payback of less than two months.

CDA is moving forward with two more phases of retro-commissioning under the DCEO program. Phase 2 will focus on the central Heating and Refrigeration (H&R) Plant at O’Hare, and the terminal and concourses at Midway; Phase 3 will involve O’Hare Terminals 2 and 3. The potential 5-10% energy reduction in these facilities could lead to cost savings of more than \$1.5 million per year.



O'Hare Heating and Refrigeration Plant

AVIATION
ADMINISTRATION
BUILDING: **35%**
ENERGY
SAVINGS

O'HARE
TERMINAL 5: **41%**
ENERGY
SAVINGS

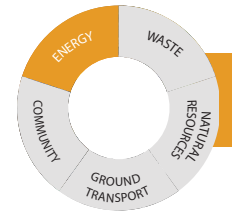
2 lighting efficiency

Keeping airport buildings, property and runways well lit to ensure the safety of planes, passengers and those working at O'Hare and Midway airports while minimizing energy consumption can be one of the CDA's largest challenges. To this end, CDA has completed several major lighting retrofit projects – replacing nearly 6,000 individual lighting fixtures and reducing power consumption by more than 225,000 Watts.

CDA has replaced conventional incandescent taxiway airfield lighting with new LED fixtures, which not only consume less electricity but also offer a significantly longer life, reducing the amount of maintenance hours required of CDA staff. CDA has also replaced many 400-Watt metal halide parking lot fixtures with 250-Watt long lasting induction lamps. In O'Hare's terminal

buildings, CDA has begun replacing existing fluorescent and metal halide fixtures with compact fluorescent and induction lamps. At Midway Airport, lighting improvements are also being made to the baggage sorting rooms.

These upgrades have been made after significant testing and piloting of new technologies, to ensure that CDA is able to maintain a safe and competitive environment for today's airlines and travelers. Mock-up testing allows CDA to optimize a replacement strategy for both illumination quality and maintenance costs on a small scale before widespread implementation. CDA continues to pursue additional tests to evaluate a range of emerging technologies for adoption at its airports.



Low maintenance and energy efficient taxiway airfield and interior lighting technology.

3 energy retrofits

While CDA is realizing the benefits of the quick-payback strategies like retro-commissioning and lighting upgrades, it is implementing higher-impact, longer-term projects such as heating, ventilation and air conditioning retrofits. At O'Hare, these include upgrades to the central Heating and Refrigeration (H&R) Plant to ensure that the airport terminal buildings are supplied with reliable heating and cooling year round. Significant opportunities exist to replace outdated systems to improve operational efficiency while reducing operation and maintenance costs.

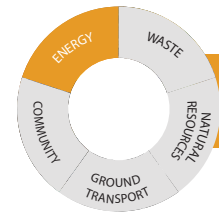
Current projects underway at O'Hare airport include:

- Replacement of four of the original cooling units that produce chilled water for air conditioning in the H&R Plant. The new chillers will use modern, more environmentally friendly refrigerants and consume significantly less energy.
- Replacement of existing ceramic cooling towers that have reached the end of their useful life. The new cooling towers high efficiency equipment will be fitted with energy efficient variable speed fans and water conservation features, and are expected to save over 1,000,000 kilowatt-hours per year.
- Replacement of air handling ventilation units in Terminal T1. The new units will be constructed with low air leakage insulated panels, the most energy efficient motors and digital electronic controls that allow high efficiency operation.

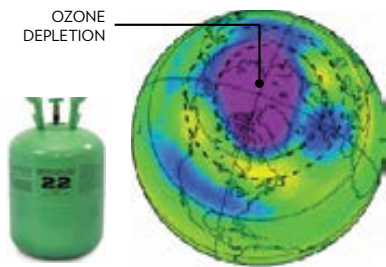
Midway Airport's terminal building is relatively new and therefore has fewer capital upgrades planned. Nevertheless, CDA is pursuing many opportunities to provide better systems control and reduced energy consumption, including:

- Installation of variable speed drives and energy efficient motors for approximately 40 air handling units.
- Adoption of voltage regulators for escalators and moving walkways at Midway to reduce power consumption during low occupancy periods.
- Installation of modern digital electronic controls with central monitoring capabilities to replace existing pneumatic controls on more than 800 air terminal units. This will allow remote adjustment of temperature setpoints during low occupancy periods to save energy.
- Integration of the existing smart lighting control panels into the building automation system to reduce lighting energy during the day and early morning hours.
- Installation of digital controls for the Airport Maintenance Complex to reduce energy consumption and improve comfort.

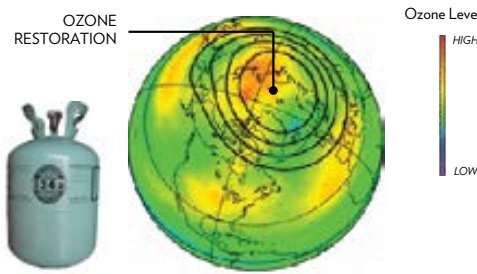
We expect that these projects will result in an annual savings of approximately \$775,000 with a payback of only two (2) years.



OLD H&R PLANT REFRIGERANT R-22



NEW H&R PLANT REFRIGERANT R-134a



O'Hare Heating and
Refrigeration Plant

4 alternative energy

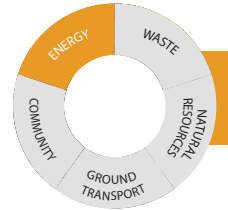
In support of our renewable energy goals, CDA is pursuing the installation of up to 52 acres of ground mounted solar photovoltaic (PV) arrays at seven different locations at O'Hare. The development and implementation of solar PV arrays at O'Hare would provide sustainable and energy saving improvements to one of the City's largest public facilities and a globally-recognized active airport environment.

Through the Request for Proposals (RFP) process, the CDA intends to select a developer to finance, design, construct, and operate the new ground-mounted PV systems. We expect full development of the project by 2016.

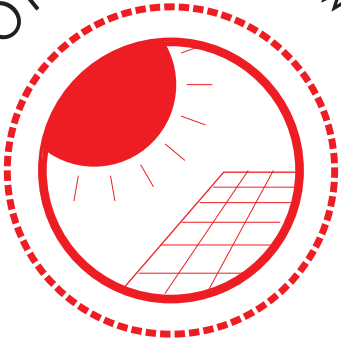
The CDA will enter into a contract Power Purchase Agreement (PPA) with a developer selected through the RFP process to install and operate the PV solar systems.

A PPA is a long-term contract that will allow the developer to install the solar arrays on airport property and for the CDA to buy back the renewable energy that they generate. The PPA will work like a typical energy bill where the CDA will be charged per kilowatt-hour of electric use.

The PV solar generated electricity will be used to support the power needs of a variety of airport infrastructure near the installation and potentially provide additional power back to the grid. Over time, the airport's energy costs would be lowered by diversifying energy sources to include solar power, considering prices for more traditional energy sources can and do fluctuate widely. This project supports the City's broader goal to support the development of renewable energy in Chicago and the Midwest.



O'Hare solar fields would power



=



Airport Transit System

or



10% of the Airport's lighting

or



Main parking garage



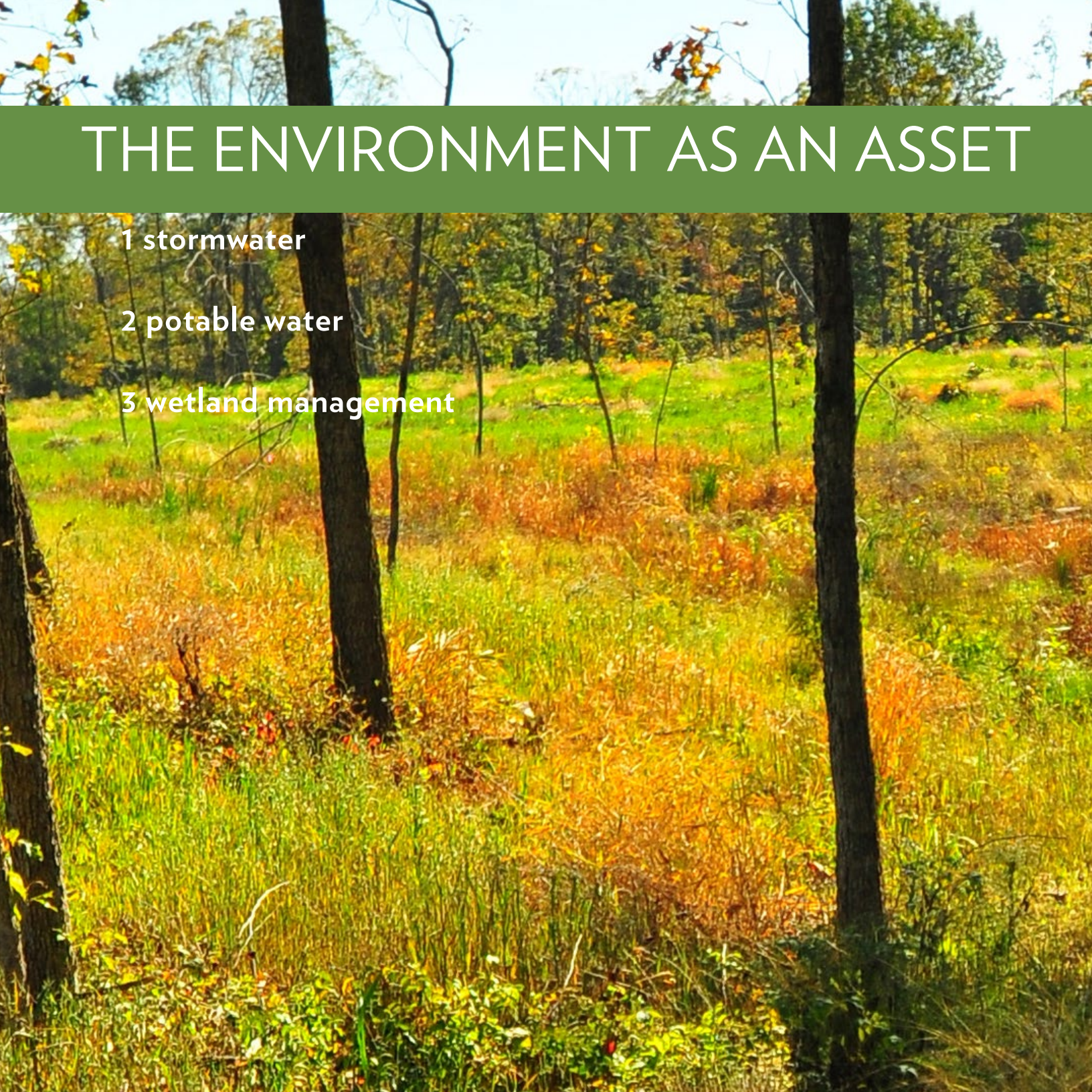
Proposed ground mounted PV system.

THE ENVIRONMENT AS AN ASSET

1 stormwater

2 potable water

3 wetland management



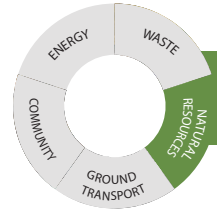


Airports are in a constant state of balancing environmental and safety considerations when it comes to land and water management. CDA has developed a comprehensive stormwater and land management plans for both airports. CDA has set goals and implemented initiatives to minimize the impacts to local land resources and neighboring communities.

1 stormwater

Protecting water quality and minimizing the impacts to water resources at an airport presents challenges associated with activities such as vehicle fueling and maintenance, airport construction, and aircraft and runway deicing. The priority of CDA's stormwater management plan is to safeguard the surrounding waterways and guarantee that their water quality is not compromised. Currently, O'Hare's stormwater is collected into detention basins and then pumped to a wastewater treatment facility. This process is costly to the airport and does not allow CDA to realize the potential benefits of water as a natural resource. CDA is currently in the process of obtaining a permit to discharge its stormwater into the Des Plaines River when water quality has met stringent water quality standards. As an impaired waterway, the Des Plaines River will ultimately benefit from the addition of new freshwater resources.

Impervious surfaces at O'Hare account for nearly 2,300 acres out of the airport's total 7,100 acres, about 10% of which is roof surface. CDA has long embraced the benefits of vegetated roofs, including increased stormwater retention, filtration, and evaporation, which decreases the amount of stormwater infrastructure needed. In 2003, CDA installed its first green roof at O'Hare on its Rescue 3 facility. To date, eight acres of green roofs have been installed, and play a central role in CDA's stormwater management and urban heat island mitigation plan. CDA also promotes permeable pavement strategies, and welcomed the airport's largest installation by United Airlines – a two-acre pervious parking lot at its new cargo facility.



Green Roofs at O'Hare
International Airport

CDA has
installed
8 acres of
green roofs

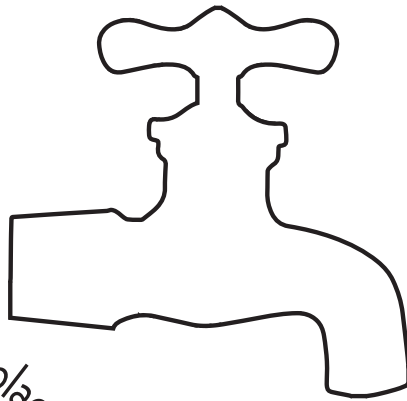
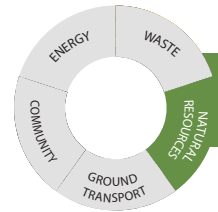
2 potable water

CDA recognizes the importance of water conservation, and is implementing key strategies to make airport facilities and systems more efficient and reduce our potable water demand. We are targeting a 2% annual reduction in potable water consumption annually by improving the efficiency of our fixtures in restrooms, using recycled stormwater for landscape irrigation, and recycling greywater in new facilities.

In most airport buildings, restroom facilities account for the majority of water consumption and therefore offer the greatest water saving potential. Since 1988, CDA has been completing upgrades to its 150 restroom facilities. CDA has developed a plan to modernize facilities by installing high-efficiency fixtures in order to conserve water.

To date, all 900 toilets and urinals have been fit with valves that decrease the water use per flush by 0.9 gallons and 0.5 gallons, respectively. The constant use of these facilities equates to a total annual water savings of over 150 million gallons. CDA has also installed low flow aerators with automatic shutoff on all 800 restroom faucets.

In alignment with the SAM, CDA is also exploring the potential to install rainwater collection systems on new and existing facilities to promote reuse for various non-potable water needs, which will decrease our overall demand for potable water.

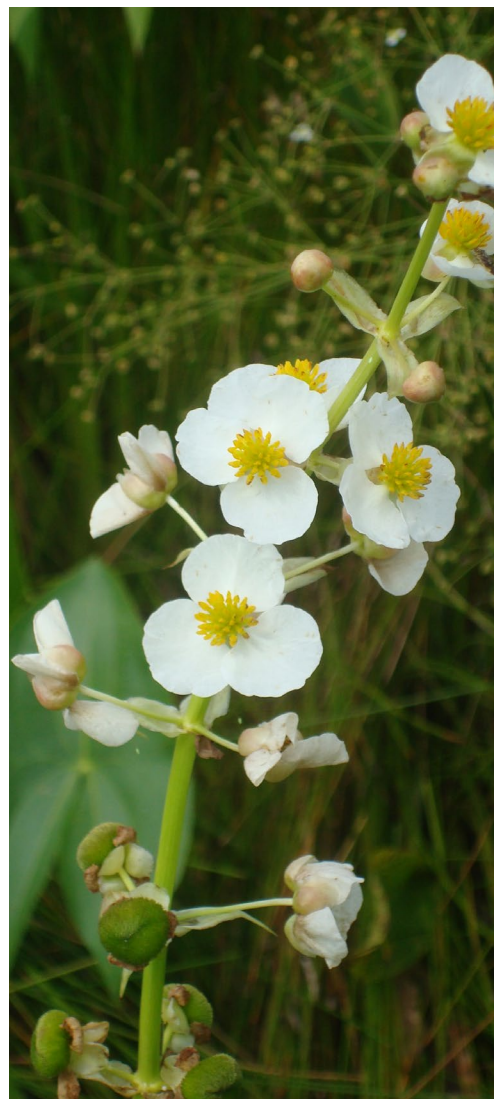
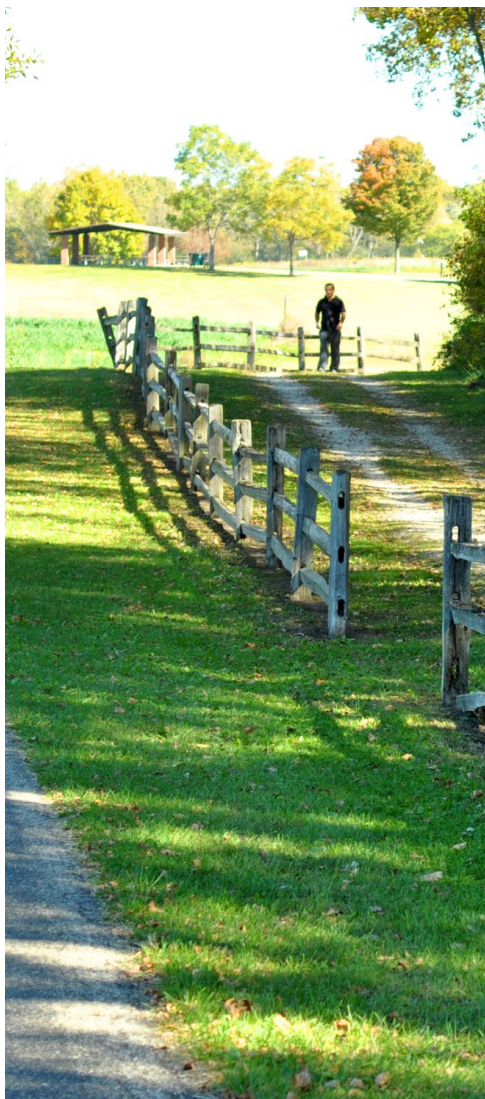


CDA's fixture replacement strategy has saved

the
equivalent
of the annual
water usage of
1,750 Chicago
households

By 2015 CDA
will reduce its
potable water
consumption
by 10%

3 land management



Enhanced and restored wetlands at eight locations throughout the region.

CDA is committed to balancing the growth of our airports with the responsibility to protect and care for our natural resources. The O'Hare Modernization Program necessitated the replacement of wetlands at O'Hare that were small, isolated, and of poor ecological value. The CDA is restoring and enhancing nearly three times the wetland area requiring replacement at eight locations throughout the region, totaling 447 acres. These sites connect to existing wetlands and will enhance their size, quality, and ecological function, while mitigating potential wildlife hazards at O'Hare.

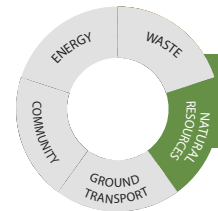
The restoration of these wetlands will further ensure the quality and quantity of the region's drinking water. Healthy native plant communities, such as wetlands, prairies, and savannas, act like sponges by soaking up and storing rainwater. By allowing this rain to stay where it lands, wetlands not only support important natural habitats and wildlife, but also provide drinking water for our growing regional population and reduce the impacts of flooding downstream.

The combined land area of Chicago's two international airports is almost 13 square miles. The two airports have very different

layouts and environmental characteristics. In particular, opportunities to pursue creative approaches to land management abound at O'Hare, given the number of currently vacant sites on the periphery of the airport. In addition to pursuing solar installations on some of these sites, CDA is exploring strategies to find productive interim uses for its properties until they are developed for aviation and related commercial uses. Such strategies include:

- Sustainable landscape management: Replacing the use of conventional vegetation management equipment with low-impact "grazers" such as goats and sheep
- Urban agriculture: Building on the successful O'Hare Urban Garden to support larger-scale food production

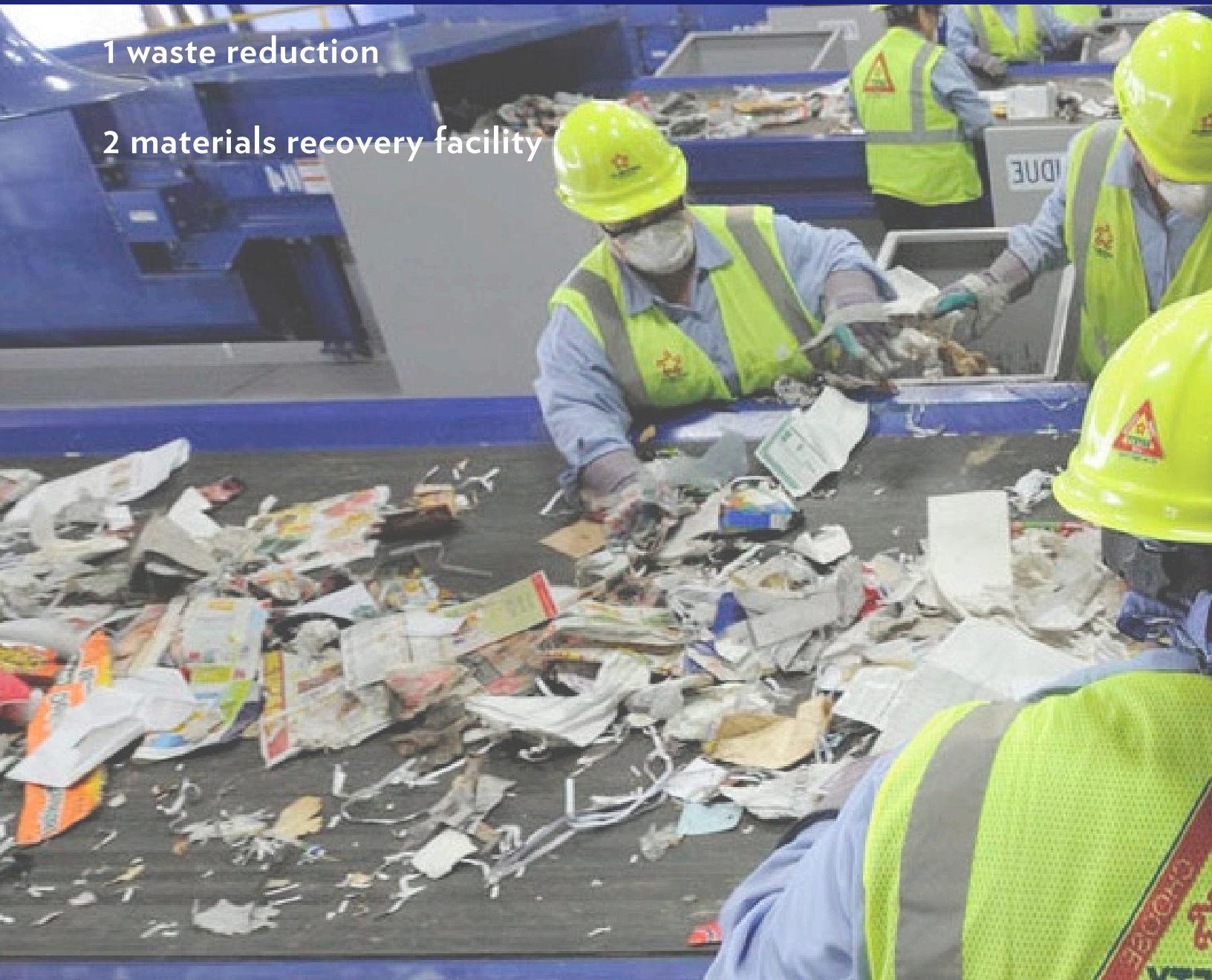
CDA has partnered with the University of Illinois Department of Civil and Environmental Engineering to challenge graduate students to develop additional sustainable land management strategies that the CDA may consider adopting in the future.



GETTING TO ZERO WASTE

1 waste reduction

2 materials recovery facility





CDA continually strives to maintain its leadership position as an environmental steward, and intends to reduce the amount of waste that it sends to landfills. CDA has set goals of 50% waste diversion by 2015 and 75% diversion by 2020, and is in the process of developing a comprehensive waste strategy to meet these goals. Accomplishing these targets would reduce costs for CDA, increase revenue from recovered streams, and increase environmental performance.

CDA has also adopted a waste management hierarchy that provides a framework for its waste strategy, and allows for the prioritization of waste related activities. In order to fully develop the best strategy, CDA established a baseline for waste production and diversion at the airports through waste audits at both O'Hare and Midway, which provide an understanding of the amount and type of waste generated at the airports.

1 waste reduction

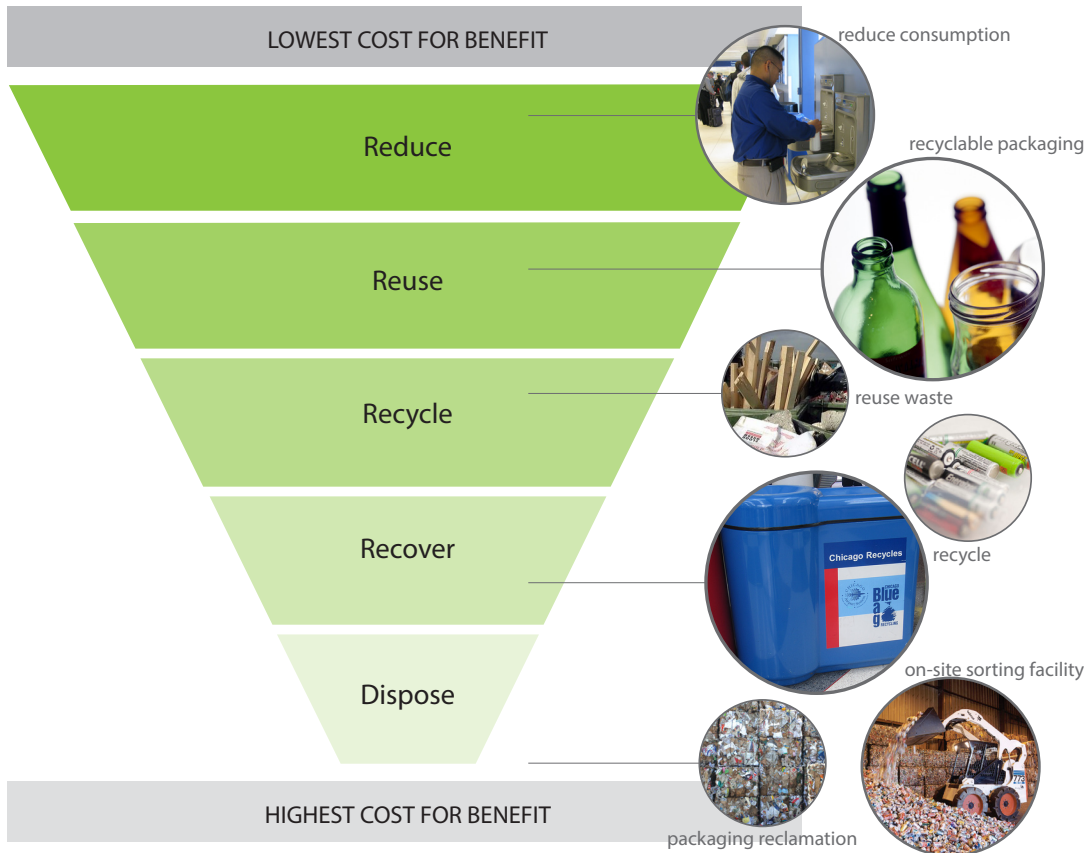
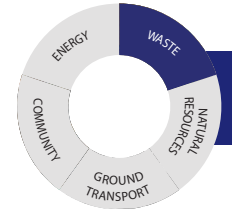
In alignment with the waste management hierarchy, CDA's initial focus to improve its waste diversion rate is to reduce the volume of waste generated at the airports that cannot be recycled or composted.

Through more rigorous policies regarding packaging and disposable items such as plastic bags, food containers and cutlery, CDA can particularly influence the quantity of non-recyclable waste generated by airport concessions. Specifically, CDA is working towards the implementation of stricter standards regarding recyclability and compostability of food packaging, and to prohibit the use of polystyrene foam. Many concessions have already engaged in the SAM rating system for Concessions and Tenants and are moving towards waste reduction strategies, which will aid in the adoption of more rigorous standards. Also with the guidance of the SAM, CDA has been able to see 98% waste diversion for OMP construction waste.

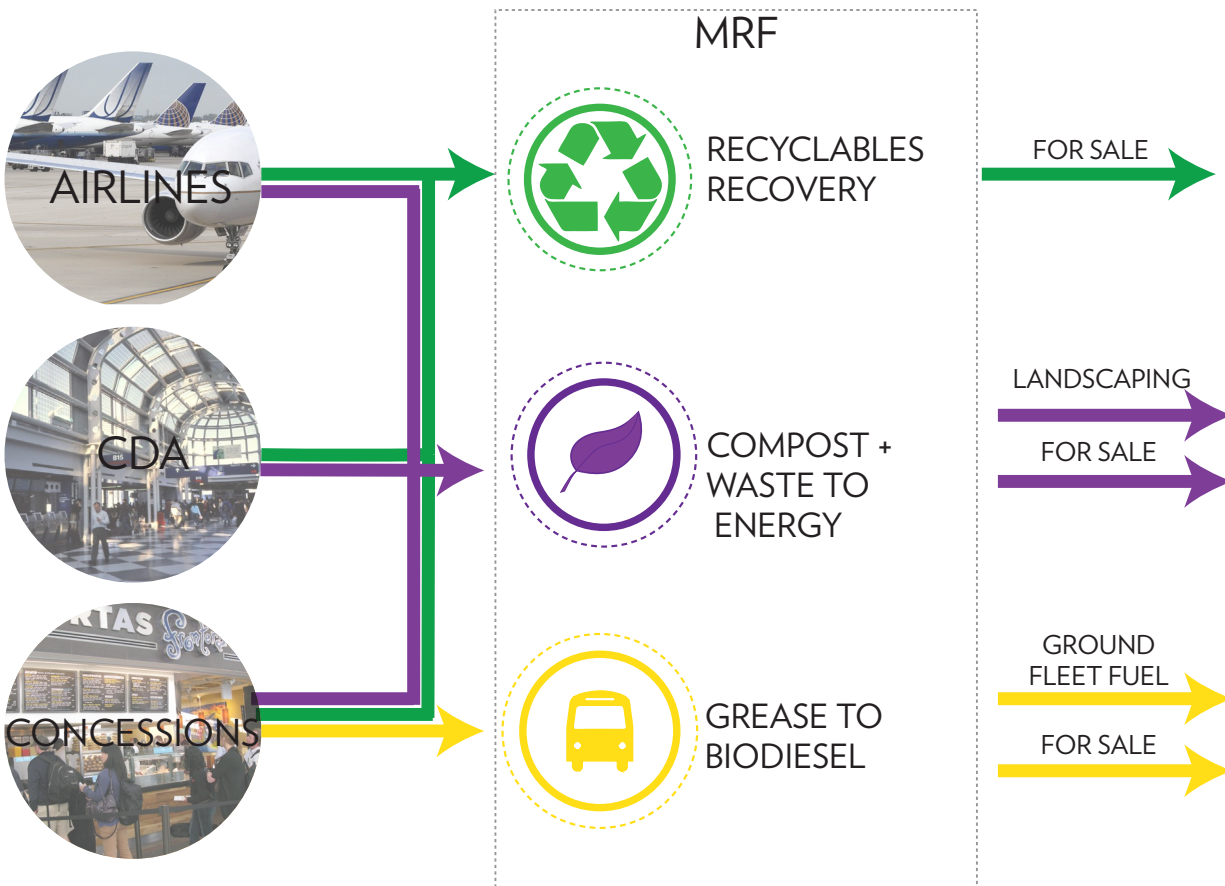
As a means to reduce plastic bottle waste, CDA began installing water bottle refill stations at O'Hare and Midway in 2011 which allow passengers to reuse their bottles while staying hydrated with filtered water. Since the beginning of the program, the program has enabled passengers to eliminate over 100,000 bottles from the waste stream.

In addition, CDA has worked to train airport custodial staff to encourage source separation when cleaning airport facilities to maximize use of our single stream recycling services. Improved "back-of-house" signage and training has allowed us to achieve increased recycling rates, but CDA acknowledges that a fundamental shift in our waste handling is needed to achieve our aggressive goals in this area.

GOALS: GENERATE REVENUE
REDUCE EMISSIONS
PROTECT NATURAL ASSETS



2 materials recycling facility

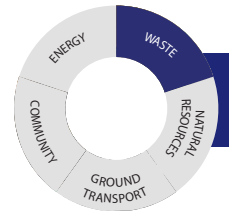


CDA's ultimate goal is to become a zero-waste facility which would provide environmental, economic, and social benefits to the airport and broader community. In support of this goal, CDA intends to develop materials recovery facilities (MRFs) at the airports to support the diversion of a variety of commodities that are currently being sent to landfills.

The MRFs would handle waste from the CDA with the intent to also handle waste from tenants, concessions, and airlines. Consolidating the waste to one facility would help drive CDA's waste diversion goals forward and include airport partners in achieving these goals. The on-site MRF operator would provide recovery services for recycling, composting, conversion of used

grease to biodiesel, and potentially other energy recovery strategies.

The MRFs would facilitate recovery of recyclable and compostable commodities. Recyclable materials, such as glass, plastics, aluminum, paper and cardboard, would be bailed and sold at current market price. Organic materials, such as food and landscape wastes would be converted to nutrient-rich, valuable compost and re-used for airport landscaping or sold at market price. In addition, spent food oils from the concessions would be converted into biodiesel for use by CDA fleet for waste hauling trucks. Organic matter could also be converted into energy to heat and cool the facility as well as supply it with electrical power.



IMPROVING AIRPORT MOBILITY

1 alternative vehicles

2 multi-modal hub





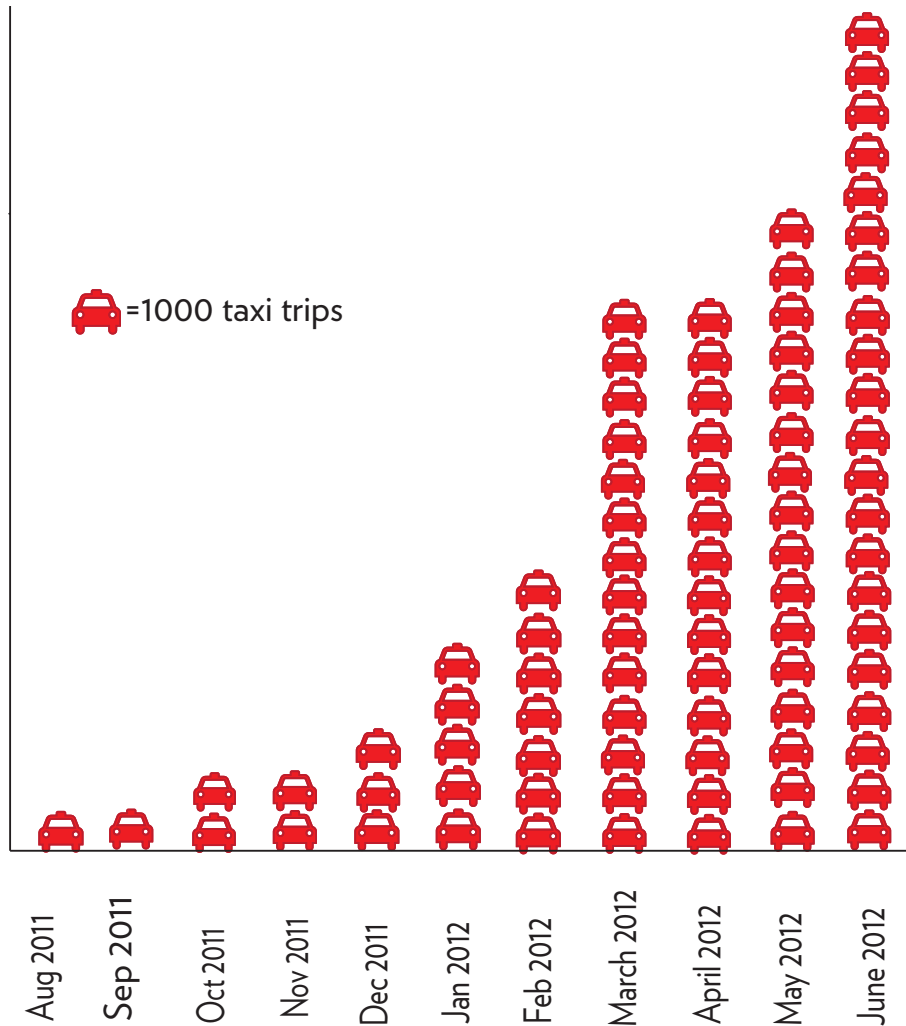
CDA realizes that transportation has a significant impact on the environment and is therefore taking steps to reduce the amount of emissions from ground transportation associated with the airports. Strategies include operating low emission fleet vehicles and supporting the development of infrastructure that promotes wider use of alternative fuels. Another focus of CDA's transportation strategy is to improve accessibility and mobility to and within the airports through the creation of a multi-modal transportation hub at O'Hare.

1 alternative vehicles



CDA's hybrid ground fleet.

Adoption of CNG taxis has expanded rapidly at both airports.

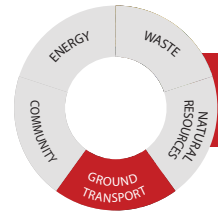


In 2011, CDA started facilitating Chicago's Green Taxi Program which provided an incentive to the taxi industry to reduce its carbon emissions. The program allows preferential access to airport terminals for CNG taxis. This program compliments the City of Chicago's Green Taxi Program as well as its overall sustainability goals. The program has been very successful, and has realized rapid expansion each month since its inception.

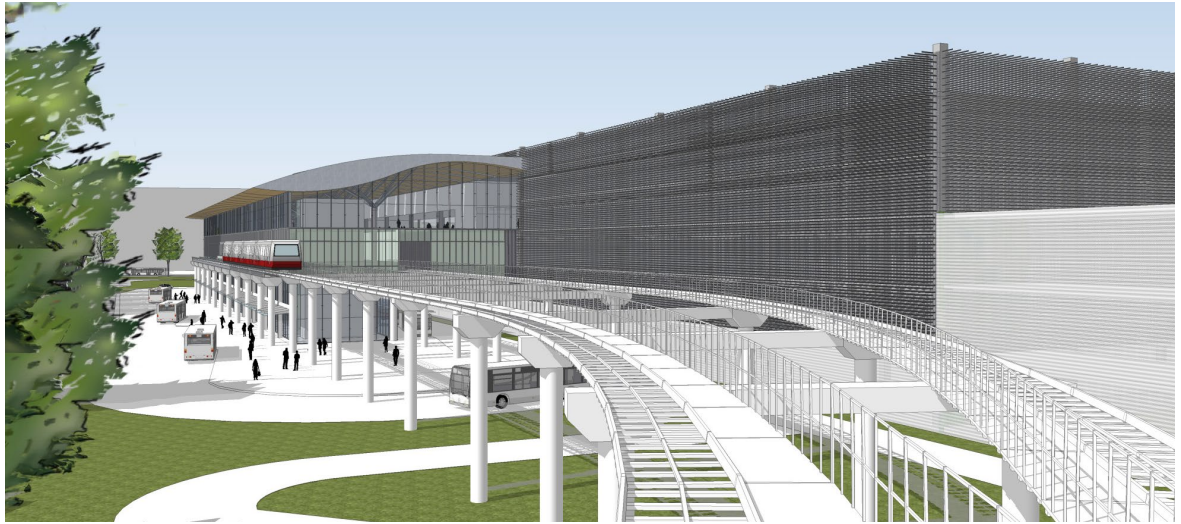
CDA also intends to develop a multi-alternative fueling station in proximity to its commercial vehicle holding lot

and the future consolidated rental car facility at O'Hare. The station will be financed and operated by a private partner and will offer compressed natural gas, electric vehicle charging, biodiesel, and other alternative fuels, and will be accessible to commercial, public, and government vehicles.

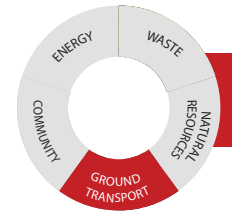
We also plan to expand the number of low-emission "Clean Air" vehicles in our fleet to 20% by 2015. Hybrid, CNG, and electric vehicles will allow CDA to reduce emissions and minimize our carbon footprint.



2 multi-modal hub



Architect's renderings of proposed consolidated rental car facility at O'Hare International Airport.



CDA is pursuing the development of consolidated rental car facilities at both O'Hare and Midway. The joint use rental car and public parking facilities will produce significant environmental, economic, and social benefits, including energy savings, stormwater management, water conservation, innovation, customer experience, and reduced emissions. The facilities will serve all rental car activities in one location, facilitating customer access, and eliminating the need for individually operated shuttle buses that cause congestion in the terminal core area.

The designs of these facilities have been shaped by the SAM and include innovative green features. The Midway facility includes a green roof, recycling of car wash water and will be LEED certified. The future O'Hare facility is being designed to use 50% less energy than a traditionally designed building. In addition, all rainwater will be treated

on-site, and 80% of the water demand will be met with water that has been recycled.

The future facility at O'Hare will provide greatly improved access to public transit, ultimately connecting the Metra Antioch Line to the Blue Line through an expansion of the Airport Transit System. The reduction of congestion at the terminal curb through elimination of the rental car shuttles and improved transit access will reduce greenhouse gas emissions by an estimated 5,000 tons of carbon dioxide equivalents. The City estimates that this program has saved carbon emissions equivalent to the annual electricity use of 600 homes.

THE ECONOMIC VALUE OF COMMUNITY




1 passenger experience

2 outreach initiatives

3 airport noise management

4 economic impact

5 corporate responsibility



CDA believes firmly in a triple-bottom line approach to sustainability, and that our efforts should equally advance people, planet and profit. CDA has worked to enhance our connections to a broad range of airport stakeholders and to the communities that we serve. Through improved concessions and in-terminal services, CDA is improving the amenities offered to travelers and to enhance passenger experience and well-being. In addition, our community engagement and education in environmental programs have helped us advance our sustainability goals, and in some cases, have the added benefit of creating jobs and positively affecting the local economy.

1 passenger experience

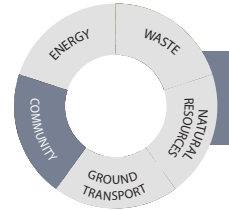
Improving the quality of experience for passengers and employees is key to operating world-class airports. CDA is exploring the International Airport Service Quality (ASQ) program as a means to measure and evaluate passenger experience. The ASQ program benchmarks customer satisfaction, service quality and performance, and provides a repository of industry best practices in these areas. We've set the goal of reaching the ASQ Top Ten ranking by 2015.

In addition, access to daylight and the outdoors are becoming common themes in airports as we become more aware of the positive health and well-being effects on our passengers and employees by providing access to nature. Some airports provide amenities and entertainment features to make passenger experience more pleasurable and less stressful. The incorporation of daylight, outdoor

areas, healthy food options, exercise facilities, spa-like concessions, movie theatres, and even golf courses are becoming more prevalent.

CDA takes the quality of our airport amenities seriously. In partnership with our concessionaires and tenants, we have made constant investments in the food, beverage and retail offerings at O'Hare and Midway. Collectively, we solidified our Green Airplane rating system for concessions and tenants in 2012, which not only promotes green construction and energy efficiency, but also rewards the sourcing of sustainable and healthy food sources. Our concessionaires have invested substantially in creative uses of airport real estate to maximize natural daylight and provide options for a welcoming layover experience for passengers.

GOALS: REDUCE EMISSIONS
GENERATE REVENUE
IMPROVE TRAVEL EXPERIENCE



Natural light filtering through art mural at Midway International Airport.



Healthy food options at O'Hare International Airport.



Natural light-filled concession area at O'Hare International Airport.

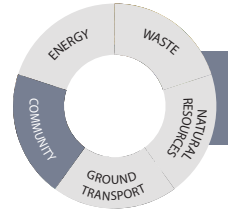
2 outreach initiatives

CDA is uniquely positioned to facilitate “green travel” practices among its passengers through outreach and educational programs. Our popular water bottle refill stations allow passengers to refill their water bottles after passing through security. The program provides convenience and cost savings for passengers, and an opportunity to promote waste reduction with tangible environmental benefits.

CDA also features in-terminal sustainability-themed displays and celebrates “Earth Day” with educational programming. In 2012, CDA partnered with the Chicago Flower and Garden Show to install a recreation of the White House Kitchen Garden to promote awareness of the value of local, homegrown food. Initiatives such as our hydroponic urban garden at O’Hare provide education to travelers and produce to airport restaurants.

We are also committed to ensuring that our employees are educated about sustainability and the environment. CDA’s annual Wellness Fair provides an opportunity to reach all of our staff to encourage green practices at work and at home, and to raise awareness about the connections between health and the environment.

CDA has set a goal of training 100 percent of our employees on our sustainability policies and practices. In 2012, CDA began a “Green Champion” program for its Airport Maintenance Complex (AMC) at O’Hare that will allow for an integrated approach for staff to promote and educate their peers about sustainability issues that are relevant to AMC operations. CDA hopes to expand the Green Champion program to other staff and ultimately to its airline and tenant partners.



White House Kitchen Garden exhibit at O'Hare International Airport.



Water bottle refill station in terminal.

3 airport noise management

Homes in neighborhoods such as Garfield Ridge are part of the sound insulation program.



RSIP and SSIP provide replacement doors and windows and other insulative materials.

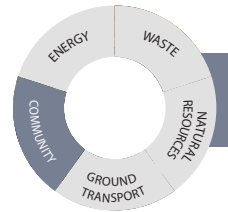


CDA initiated its 'Fly Quiet Program' in 1997 to help mitigate aircraft noise in communities surrounding the airports, and since then we have continued to advance programs that enhance the quality of life for residents and schools in our surrounding communities.

CDA's Residential Sound Insulation Program aims to reduce the impact of aircraft noise in homes surrounding our airports. The goal of the program is to make it easier for eligible homeowners surrounding the airports to talk on the phone, watch TV, listen to music, take a nap, or have a conversation in their homes. By properly sound insulating homes, homeowners not only gain a quieter interior, but may also benefit from long-lasting improvements and increased efficiency in their heating

and cooling utilities. To date, CDA has sound insulated 16,525 homes and will insulate at least 5,600 more homes by 2015.

The School Sound Insulation Program (SSIP) started in 1982 to create a quieter learning environment for students attending schools near our airports. It can provide new windows, roofing, ceiling insulation, new doors and vestibules to mitigate the transmission of noise into the schools. The program is among the largest in the world and has provided approximately \$383 million in federal and airport funds to insulate eligible schools. CDA has insulated 159 schools to date, and will insulate an additional 6 schools by 2015.



4 economic impact



The airports generate 540,000 jobs in the region.



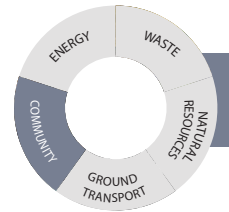
Local concessions create new jobs and revenue streams in the region.

O'Hare and Midway Airports generate 540,000 jobs including 57,000 airport employees, and \$45 billion in regional revenue each year. The OMP alone adds 195,000 jobs and \$18 billion to regional economy.

Implementation of our Sustainable Path has the potential to enhance the local economy by promoting procurement of local goods and services.

Energy efficiency strategies within CDA owned buildings allows financial resources to be invested in other innovative CDA projects. Our residential sound insulation programs allow residents to save money on their energy bills that they can reinvest elsewhere in the community. Finally, new concessions at the airports that support an improved passenger experience have the potential to create new jobs and revenue streams.

**O'Hare Modernization
Program adds 195,000 jobs
to the regional economy.**



5 corporate responsibility



O'Hare's 2012 5K on the Runway benefited the Wounded Warrior Project

Informing our many stakeholders of our sustainability goals, initiatives and accomplishments can aid in gaining a competitive edge in the marketplace. Businesses are increasingly issuing corporate sustainability reports describing their environmental and social stewardship initiatives.

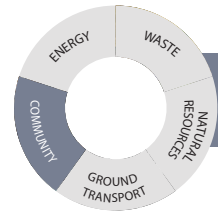
The surge of companies issuing sustainability information reflects a positive change in the manner in which corporate health is measured, reported and evaluated—no longer limited to traditional financial data, it now involves complex indicators of social and environmental impacts as well.

Choosing to provide detailed sustainability information also demonstrates an organization's commitment to transparency in its business practices, accountability and ethics.

This increase in stakeholder communication aides in constructing a strong interface between the organization and the community.

Sustainable values reporting and the dialogue that it promotes results in more democratic and socially and environmentally responsive corporate decision making. This will also serve as a place to report on the targets we have set and our progress in achieving them.

CDA began publishing an annual sustainability report in 2011. As we embark on our journey towards sustainability, we are committed to continue to share our experiences with our stakeholders. It is our intent to deliver on our commitments, and to transparently evaluate our progress towards our goals.

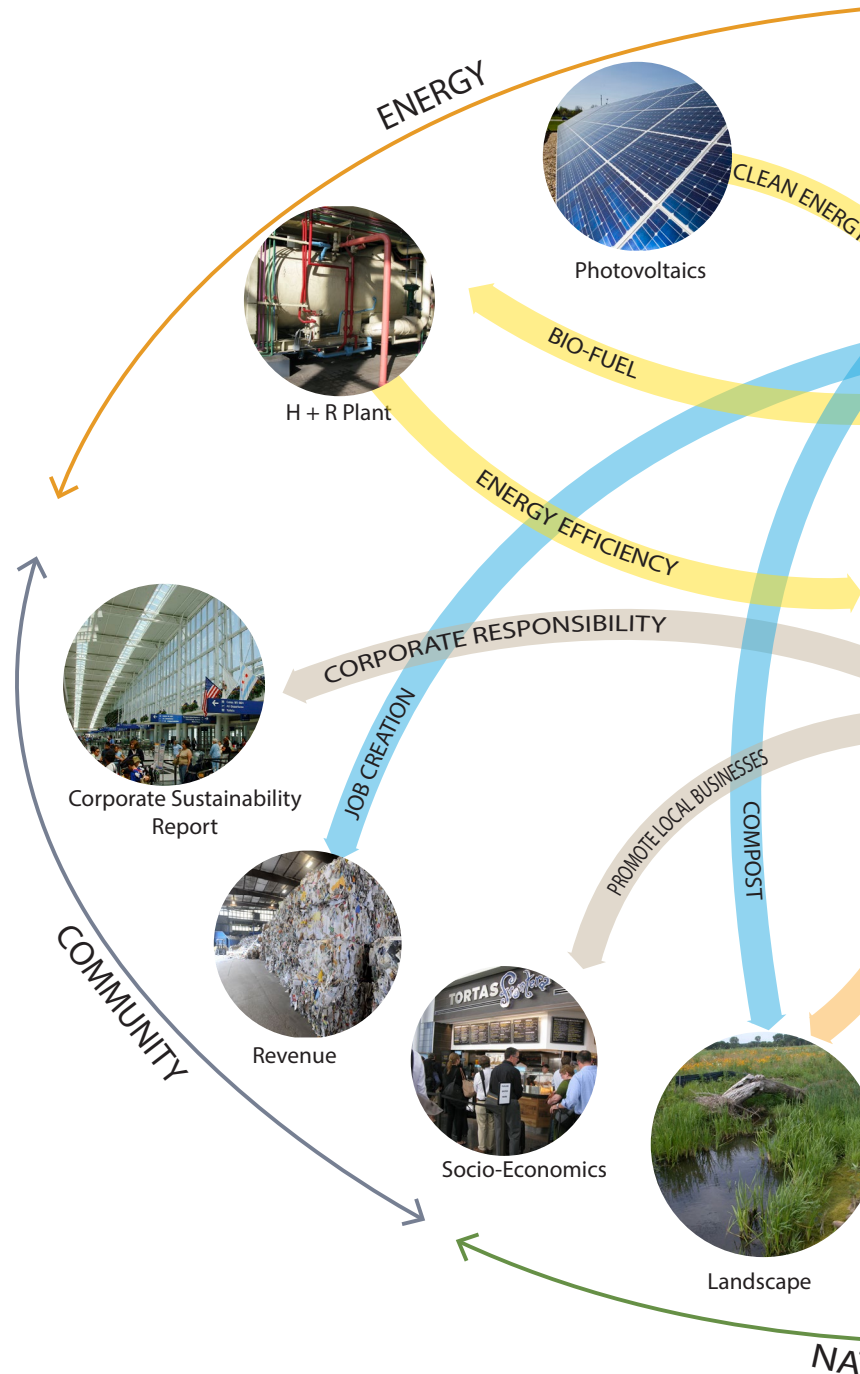


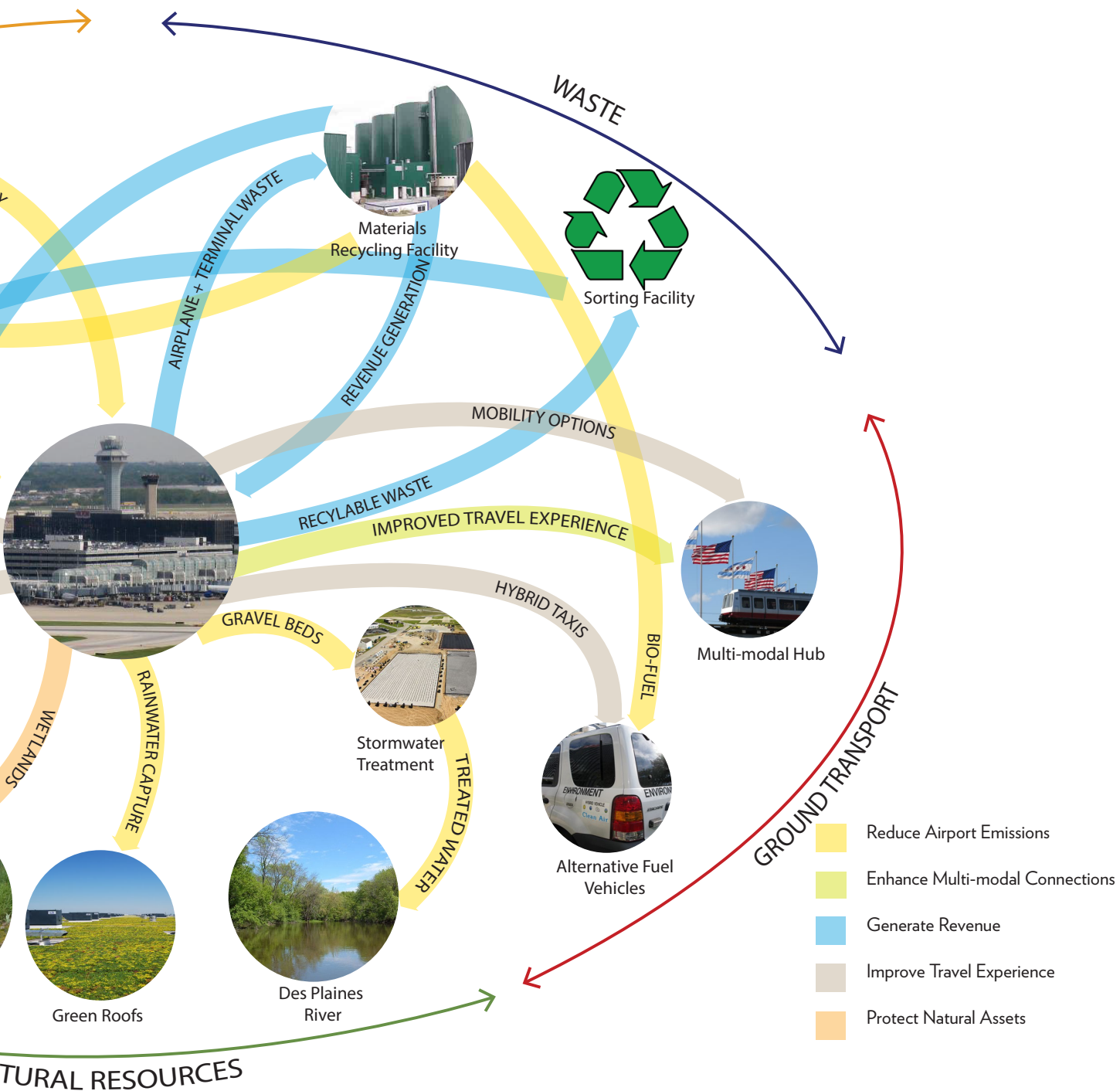
a sustainable path

A *Sustainable Path* is a holistic approach to sustainability, that aims to simultaneously reduce energy consumption while creating a economic and socially responsible environment for the airport's workers, passengers and surrounding community.

The five impact areas - Energy, Natural Resources, Waste, Ground Transport, and Community - set up multiple synergistic relationships that create greater environmental, economic and social benefits than if considered separately.

Moving forward in a sustainable manner requires more than just energy-efficient buildings or increasing the number of alternative fuel vehicles in CDA's fleet. It requires significant, measurable changes in CDA's operations, altering not just how airports look but also how they work - a true integration of the impact areas that leverages these potential synergies.





sustainability metrics tracker

Our Sustainability Tracker includes a range of metrics relative to the targets outlined in this document. Many of our metrics are cumulative since the inception of the OMP. Others – most notably energy use – compare our 2010 baseline to our 2012 data. To enable our success towards our 2015 goals, CDA is committed to managing and evaluating our progress on an annual basis.

METRIC

2010*

2012**

2015 TARGET

Number of SAM Rated Projects*	32	86	
ENERGY			
Electric	364 million kWh	363 million kWh	15% total reduction
Natural Gas	12.3 million Therms	11.2 million Therms	15% total reduction
NATURAL RESOURCES			
Potable Water Use Reduction	N/A	N/A	10%
Green Roofs (# of projects)*	12 + 2 in progress	13 + 2 in progress	
Green Roofs(sq. ft.)*	232,534 SF + 126,456 in progress	341,359 SF + 27,940 in progress	
WASTE			
Construction + Demolition Waste Diverted*	98%	98%	98%
Concrete/Asphalt Recycled	575,000 tons	575,000 tons	
On-site Soil Recycled	18 million cubic yards	20 million cubic yards	
Cost Savings	\$126 million	\$140 million	50%
All Other Waste Diverted	3%	9%	
GROUND TRANSPORT			
CDA Clean Air Vehicles*	45	110	20% of fleet
CDA/CPD Clean Air Vehicles*	0%	100%	100%
Green Taxi Trips	0	241,776	
Clean Air Construction Vehicles (% Tier II or better)	90%	90%	
Clean Air Construction Vehicles + Equipment (% Required to use ULSD fuel)*	100%	100%	100%
COMMUNITY			
Residential Sound Insulation Projects (# of homes)*	13,698 homes	16,925 homes	22,473 homes
School Sound Insulation Projects (# of schools)*	154 schools	159 schools	165 schools
Water Bottle Refilling Stations	2	14	14
Electric Vehicle Charging Stations	0	9	14
Apiary (number of hives)	0	50	
* Cumulative Totals Through 2010			
** Estimated Year-to-Date + End-of-Year Usage			



City of Chicago
Mayor Rahm Emanuel



Chicago Department of Aviation
Commissioner Rosemarie S. Andolino

Special Contributions From:
Michael Boland, First Deputy Commissioner
Khaled Naja, Chief Operating Officer
Amy Malick, Deputy Commissioner, Sustainability
Paul Brown, Deputy Commissioner, Facilities

www.flychicago.com

ADRIAN SMITH + GORDON GILL
ARCHITECTURE



Prepared by:

Adrian Smith + Gordon Gill Architecture

PositivEnergy Practice



RICONDO
& ASSOCIATES

AN AVIATION CONSULTANCY



Contributors:

Ricondo and Associates

Landrum & Brown

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