EcoMentality©

MINIMIZING ENVIRONMENTAL IMPACTS AT DANE COUNTY REGIONAL AIRPORT

A natural prairie landscape at DCRA provides a beautiful backdrop while eliminating the need for daily watering and maintenance.

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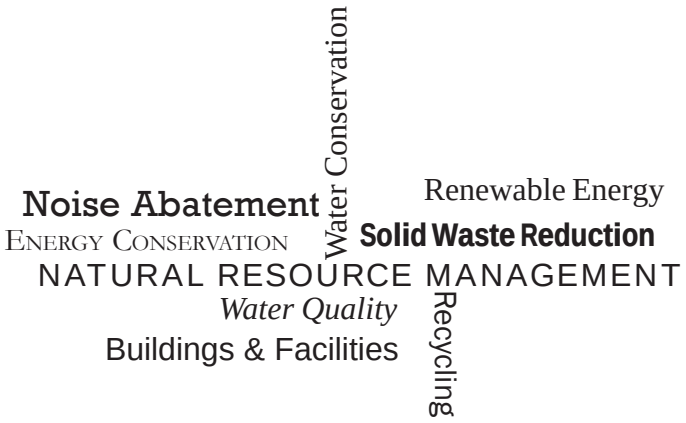

The Dane County Regional Airport (DCRA) views environmental sustainability and responsibility (EcoMentality©) as an integral part of its operational plan. DCRA is committed to reducing its contribution to global warming, improving air and water quality, reducing the impact of noise, and improving and preserving natural resources.

In an ongoing effort to reduce the airport's environmental footprint, DCRA is continuously developing and implementing new environmental conservation plans and strategies.

DCRA is subject to the National Environmental Policy Act (NEPA) and other stringent environmental regulations set forth by the Environmental Protection Agency and Wisconsin Department of Natural Resources. The Federal Aviation Administration also actively promotes an environmentally sustainable industry by requiring NEPA conformance in the Airport Improvement Program grant process. In addition, NEPA publishes operational guidelines and best practices aimed at helping airports meet and exceed other environmental requirements. Such requirements include: air and water quality, solid waste and hazardous materials management, and natural resource protection and improvement.

Greenspace Development

This program includes specific procedures using vegetation that detracts from animal habitat development within the landing area. Non-woody plantings as well as the use of switchgrass vegetation reduce the need for other methods of wildlife management. In addition, these vegetation choices minimize maintenance and care issues while providing an attractive appearance. Airport landscaping includes native, drought tolerant species that require less watering. DCRA works closely with the Wisconsin Department of Natural Resources to ensure that all operations prevent and control chemical and fuel discharges into nearby watersheds.

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Cherokee Marsh Enhancements

Previous airport construction projects have required the conversion and improvement of several wetland areas. In 2004, DCRA completed a re-establishment of the Cherokee Marsh through the realignment of the Canadian Pacific railroad. The project included enhanced track placement and elevation to protect the natural habitats. In addition, airport engineers developed natural erosion control features and protected key water runoffs, thus restoring the marsh to a natural and self-sustaining wetland.

Starkweather Creek Restoration

DCRA has worked diligently to include the Starkweather Creek as part of its Master Plan. This important waterway traverses the airport property and connects to other larger Dane County tributaries. DCRA continues to monitor the water quality of this natural habitat. Starkweather Creek water is tested as it leaves airport property to ensure that current protection programs are effective. In addition, DCRA works to ensure a quality riparian and fishery habitat through an effective storm water management system.

Dane County Regional Airport's Cherokee Marsh is home to a variety of flora and fauna.

An airplane is deiced at dusk at Dane County Regional Airport.

Water Quality

DCRA works deligently to conserve and protect water quality. From water saving landscapes, low-flow plumbing fixtures, and a high-tech glycol recovery system, environmental impacts are minimized. These holistic strategies balance the day to day needs of airport operations without compromising health, safety, budgets or the environment. In addition, DCRA is actively engaged in ensuring tenant compliance with spill prevention procedures, pollutant discharges, and stormwater management.

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Chemical Use

The purchase of solvents, cleaners, and other chemicals for custodial services, fleet maintenance, surface deicing, and facility maintenance is limited to those that are both effective and environmentally friendly. A majority of the chemicals and cleaners in use at DCRA are natural, biodegradable, and made with ingredients that preserve human health and environmental quality.

The use of green cleaning techniques and products avoid the use of chemically reactive and toxic cleaning agents, some of which emit volatile organic compounds.

Glycol Recovery System

During deicing months, the DCRA glycol recovery system collects storm water runoff that may contain harmful glycol. This innovative system samples, tests, stores, and discharges only clean water into the nearby watershed. Water that does not meet minimum sanitary requirements is diverted to treatment facilities before the water is discharged.

Low-flow Plumbing Fixtures

More than 122 faucets, urinals, and toilets in public and staff restrooms at DCRA are equipped with water-saving low-flow fixtures. As fixtures are repaired, or replaced, waterless, high efficiency (dual flush), or low-flow toilets are integrated as appropriate. DCRA estimates that over 8.5 gallons of water is saved with each use of these low-flow fixtures.

Green building, energy conservation, and sustainability concepts play a prominent role in Dane County Regional Airport facilities development.

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Solar Energy

The Airport has installed 660 square feet of solar panels on the roof of the rental car return kiosks with a 10 kW capacity, generating 13,607 kWh annually. This generated power is fed directly to the Airport's power distribution system, resulting in a reduction of 2.45 tons of equivalent CO_2 emissions each year. Future airport development may include additional solar panels to further augment current power generation.

Energy Offset Credits

Working closely with the Madison Gas & Electric Green Power Tomorrow program, DCRA continues to purchase renewable energy offset credits. Throughout 2010, more than 33% of Airport power was converted to green power. This power purchase is estimated at 260,000 kWh/month and correlates to more than 3,400 tons per year of CO_2 offset.

EPA Green Power Partnership Member

EPA's Green Power Partnership is a voluntary program helping to encourage the use of green power among leading U.S. organizations. DCRA's membership supports the development of new renewable generation capacities nationwide. These combined energy credit purchases ensure a global reduction of greenhouse gases. Member partners account for the purchase of billions of killowatt-hours of green power annually.

Solar panels atop the car rental return kiosks provide green power.

Noise Management

DCRA works closely with airport partners to reduce the impact of noise on the surrounding community by encouraging the use of noise abatement procedures and other takeoff/landing methods that reduce noise pollution over noise sensitive areas.

To further reduce noise, DCRA has also completed numerous improvements to the airfield as well as implementing several noise management strategies. The success of this noise abatement strategy depends largely on the cooperation of all aviation partners.

NOISE MANAGEMENT IN ACTION

Construction of runway 3/21 allows aircraft to arrive and depart over less densely populated areas.

Preferred runway take-off procedures for military and commercial aircraft.

The installation of ramp, parking apron and gate location signage that details airport noise abatement procedures to aircraft pilots.

Noise Abatement Flight Procedures Program.

The construction of a “Hush House” that deflects noise skyward when testing military aircraft engines.

A semi-annual noise meeting with the community and stakeholders.

Monitoring and tabulation of aircraft noise including the type, weather, location, frequency, and event.

Numerous additional measures and information can be found at: www.msnairport.com/ecomentality

Solid Waste Reduction & Recycling

DCRA is committed to reducing its environmental footprint in an efficient, cost-conscious manner. Recycling, reuse and management of non-hazardous and hazardous wastes each play a role in managing our fiscal costs while protecting our environment. The recycling of routine items inculding: paper, glass and plastic provide a bulk of these efforts. During construction projects other items such as concrete, metal and wood are recycled.

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Pavement Recycling

Concrete pavement is crushed and processed on-site and the remaining particulates are used as substructure for new layers of concrete. Concrete that cannot be used as substructure is utilized in roadway drain tiles and as erosion control materials.

Asphalt pavement is restored using “cold central-plant recycling.” In this technique, stockpiled milled asphalt from the road is processed in a nearby plant for reuse under a new hot-mix asphalt overlay.

For each ton of cement and asphalt recycled at DCRA, more than 2,000 gallons of water are saved and the emission of nearly 4,000 pounds of CO_2 gas is eliminated.

Consumer Waste Recycling

New sorting stations (a single garbage collection bin where recyclables are sorted by the user) have been placed around the terminal to encourage and assist visitors with recycling. More than 80% of DCRA waste is sorted for recycling. Materials recycled in this stream include mixed paper, steel cans, aluminum cans, glass bottles and plastic bottles.

Paperless/Recycled Paper Office Procedures

DCRA continues to move away from a traditional paper-based operational strategy through the use of e-mail, web, and other non-paper reporting systems. Most recently, the DCRA Operations Department replaced a paper intensive reporting system with an electronic system. Progressive website technologies are continually improved to provide paperless form reporting reducing the necessity for paper faxing, reproduction, and distribution methods.

In addition to paperless office procedures, DCRA works closely with service and product vendors to utilize high percentage post-consumer recycled paper for reproductions. This includes Airport stationery, envelopes, business cards, reports, manuals, brochures, and day-to-day copy machine reproductions.

Building Sustainability

Building sustainability programs include energy management systems, Leadership In Energy and Environmental (LEED) building certifications, innovative architecture, and energy optimization programs. DCRA focuses on strategies aimed at improving facility performance including: energy reduction, water efficiency, emissions reductions, recycled resource usage, and indoor air quality improvement.

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Energy Management Control Systems

DCRA utilizes a system of computer-aided tools to control, and optimize the performance of building functions. These tools monitor heating and cooling, electricity distribution and control, lighting, and illumination as well as other operational power systems.

LEED Building Certifications

The DCRA parking control building was designed and built using strategies intended to improve performance in energy savings, water efficiency, CO_2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their environmental effects – while reducing operational costs by nearly 63% based specifically on other traditional commercial building methods.

Air Conditioning Systems

An ice building system is used to cool airport facilities rather than traditional chiller systems alone. During cooler evening hours and off-peak electricity time, ice is built and stored for daytime cooling, to reduce the need for conventional HVAC cooling systems during peak daytime cooling hours.

Dane County Regional Airport - Dusk

The Future of EcoMentality©...

Dane County Regional Airport leadership is committed to the future implementation of environmental initiatives. A robust airport strategic plan includes ambitious future environmental goals focused on successful EcoMentality© guidance. These future goals will improve and expand current achievements and ensure that DCRA continues to provide a cleaner and quieter transportation hub for South-Central Wisconsin.

Future EcoMentality© programs and services will include:

- LEED certified buildings and facilities
- Water reclamation reuse systems
- Solar energy panel deployment
- Paperless technology improvements
- Low-emission/future fuel vehicle fleets
- Green waste reduction
- Geothermal installations
- Liquid collection stations
- Environmental offset credits
- Pervious pavement upgrades
- Buy-local food products

A Sandhill Crane enjoys the lush landscape of the Cherokee Marsh.

DANE COUNTY REGIONAL AIRPORT MADISON

For additional information on environmental programs or projects at Dane County Regional Airport contact:

Mr. Bradley S. Livingston, AAE
Airport Director
4000 International Lane
Madison, WI 53704
airinfo@msnairport.com

Or visit: msnairport.com/ecomentality

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