



## Green Building Program

# 2008 **Annual Report**



# Contents

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- 2008 Program Accomplishments** ..... 1
- Basic Elements of the Green Building Program** ..... 3
- Green Building Projects that Qualify for LEED Certification** ..... 3
- Green Building Project Descriptions and Accomplishments** ..... 5
  - Department of Executive Services - Facilities Management Division ..... 5
  - Department of Transportation - Transit Division ..... 6
  - Department of Transportation - Road Services Division ..... 6
  - Department of Natural Resources and Parks - Wastewater Treatment Division ..... 7
  - Department of Natural Resources and Parks - Solid Waste Division ..... 10
  - Department of Natural Resources and Parks - Water and Land Resources Division ..... 11
  - Department of Natural Resources and Parks - Parks Division ..... 11
  - Department of Development and Environmental Services ..... 13

## 2008 Program Accomplishments

As directed in King County Ordinance 16147, *Green Building and Sustainable Development*, we are pleased to submit this 2008 annual report highlighting the accomplishments of the King County Green Building Program. This program supports King County's commitment to minimize the environmental impacts of county sites, facilities, and structures in all phases – from design, construction, operation, renovation, and maintenance to deconstruction.

On July 1, 2008, King County Ordinance 16147 went into effect. The new ordinance builds on previous mandates and strengthens green building requirements, standards, and practices for the county. The intent of the ordinance is to ensure that the design, construction, maintenance and operation of any King County-owned or financed capital project is consistent with the latest green building and sustainable development practices. Key points of the ordinance are:

- All Leadership in Energy and Environmental Design (LEED®)-eligible capital projects must register with the U.S. Green Building Council and strive to achieve a LEED Gold rating.
- All non-LEED-eligible projects must incorporate sustainable development practices, and project managers must fill out a sustainable development scorecard that shows the strategies that are being used.
- Projects should incorporate an integrated design process and life-cycle assessment to optimize design approaches.
- Green Operations and Maintenance Guidelines will be developed for use in existing buildings. The guidelines will provide direction on green practices in minor remodels and renovations, water conservation, waste reduction and recycling expectations, green cleaning standards, and retro commissioning to improve a facility's operating performance.
- Specific reporting requirements must be used to enable divisions to better summarize the green building and sustainable development practices being reported to the King County Council annually.
- The county-wide "Green Building Team" will continue in its work. The ordinance clarifies its roles and responsibilities.
- Project managers will be trained in green building and sustainable development practices.

In 2008, county departments continued to make strides in

developing 10 building projects seeking certification in the LEED process. Some of the buildings are in the initial design phases while others were completed this year. There are also a number of county projects where LEED certification is not economically feasible or applicable, but where green building practices are being applied.

In September, the Green Building Program held its third annual Green Building conference, *Greening in Place*, this year actively recruiting suburban cities to attend. This event was highly successful, providing a venue for sharing green building information among county and city project managers and highlighting project successes. More than 150 project staff attended the event where eight *Excellence in Building Green* awards were presented. These awards recognize individuals and projects that exemplify King County and the suburban cities' commitment to building green.



Road Services Division employees accept an award from Executive Ron Sims for the SE 304th Street at 124th Ave SE intersection improvement project

Also in September, the Solid Waste Division's new Shoreline Recycling and Transfer Station received a LEED Platinum rating – the highest rating that can be achieved. This station's sustainable design features include solar panels installed on the south-facing roof, a rainwater collection system to use for washing the floors and equipment, translucent panels in the roof and windows to maximize the amount of natural daylight, drought-tolerant plants, and recycled-content materials used throughout the building.





*2007 LEED grant recipient Mercer Slough Environmental Education Center. This project also received a 2008 "Excellence in Building Green Award."*

In 2008, the Solid Waste Division's GreenTools Green Building Program, in partnership with the Wastewater Treatment Division, the Water and Land Resources Division's Grant Exchange Program, and the Built Green™ program, awarded six grants to commercial projects seeking LEED certification and six grants to residential projects seeking a Built Green rating. Residential projects must meet four- or five-star Built Green certification, while commercial projects must meet Silver LEED certification or higher. In addition to receiving a green building certification, the projects must also meet key environmental performance criteria, which include:

- Recycling at least 75 percent of project construction and demolition (C&D) debris.

- Meeting or exceeding the King County Post-Construction Soil Standard, which ensures that soil health is maintained or restored when construction projects are complete.

- Demonstrating that the King County 2005 Surface Water Design Manual Standards have been met or exceeded; these standards protect streams and wildlife from the potential negative effects of stormwater runoff.

The six grants for commercial projects seeking LEED certification were awarded to local governments, businesses, and organizations, including the Cities of Auburn and Kenmore, Google, the YWCA of Seattle-King County, the Highline Historical Society, and CAC Real Estate Management. The grant awards ranged from \$20,000 to \$25,000, totaling \$130,000.

The six grants for residential projects seeking Built Green ratings were awarded to single-family and affordable multi-family housing projects in Seattle, Federal Way, Issaquah, and Redmond. Many cutting-edge technologies are represented in these projects, including solar energy, grey water recycling, reclaimed materials, and deconstruction strategies. The six grant awards totaled \$67,000.

What follows is a brief description of the structure and background of the Green Building Program. The remainder of this annual report focuses on two primary areas of progress:

- The status of county projects that qualify for certification or rating under the LEED process.
- The strides made by various agencies of the Green Building Team in integrating green building elements into the many internal construction projects within the county.

## Basic Elements of the Green Building Program

In accordance with the Green Building and Sustainable Development Ordinance, the Solid Waste Division (SWD) of the Department of Natural Resources and Parks (DNRP) manages the Green Building Program. The ordinance requires county departments to incorporate green building elements in all construction projects. It establishes the LEED rating system as the guiding principle for meeting this goal. In cases where LEED certification may not be economically feasible or applicable for a project, such as open-air bus passenger shelters, restroom facilities, pump stations, and conveyance lines, county departments are encouraged to apply as many green building elements as possible.

SWD coordinates the countywide Green Building Team, which provides a forum for exchanging information on green building practices among county agencies and assists in guiding green building practices at county facilities. Team members include representatives from the following agencies throughout the county:

- **Executive Services**, including the Facilities Management Division (FMD)
- **Department of Transportation**, including –
  - Transit Division (Transit)
  - Road Services Division (Roads)

- **DNRP**, including –
  - Wastewater Treatment Division (WTD)
  - SWD
  - Water and Land Resources Division (WLRD)
  - Parks and Recreation Division (Parks)
- **Department of Development and Environmental Services (DDES)**

The Green Building Team is charged with helping countywide project teams achieve the maximum possible standards of green building on their projects.

In addition, SWD's GreenTools program provides support to project teams through training and technical assistance. With this support, design teams can achieve the maximum possible standards of green building on their projects by encouraging practices that conserve resources, use recycled-content materials, maximize energy efficiency, and address other environmental and social considerations. These practices result in economic benefits, such as reduced operating costs, enhanced asset value, optimal building performance, and a healthier workplace for employees.

## Green Building Projects that Qualify for LEED Certification

Standards for establishing and rating green building practices are based on criteria developed by the U.S. Green Building Council using the nationally recognized LEED rating system. LEED is a point-based system that ranks sites according to the number of green building elements incorporated in the project. The types of projects where LEED standards are most readily applied include office buildings, transfer stations, maintenance facilities, recreational facilities, and medical facilities. LEED promotes a whole-building approach to sustainability by recognizing performance in six key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, indoor environmental quality, and innovation in design. Up until mid-2008, departments were directed to apply LEED criteria in the pre-design and design phases of projects, and were encouraged to seek the highest LEED certification applicable to the project. With the new ordinance now in place, eligible projects are required to seek a LEED Gold rating.

Since its inception, a number of LEED programs have evolved to suit different types of buildings. These include LEED for New Construction and Major Renovation (NC), Existing Buildings (EB), Existing Buildings Operation and Maintenance (EBOM), Core and Shell (CS), and Commercial Interiors (CI). Project managers are encouraged to register with the U.S. Green Building Council early in the project, but a final rating is not awarded until after the project is completed and monitored for compliance.

In 2008, county departments made significant progress on 10 county building projects in various phases of the LEED certification process. These projects are summarized in Table 1 and are described in more detail in this section. The table also lists projects that have completed the LEED certification process since the program's inception.

**Table 1. Status of County Buildings in the LEED Certification Process**

<b>Project Name</b>	<b>Division</b>	<b>Building Type</b>	<b>Pending Rating</b>	<b>Rating Achieved</b>	<b>Year Rating Achieved</b>
<b>Projects in Design Phase</b>					
<b>Blackriver Building</b>	FMD/DDES	Office	EBOM - Silver		
<b>Atlantic/Central Base Operations Complex</b>	Transit	Office	NC - Silver		
<b>Brightwater Environmental Education Center</b>	WTD	Meeting/ community center	NC - Gold		
<b>Projects in the Construction Phase</b>					
<b>Bow Lake Recycling &amp; Transfer Station</b>	SWD	Industrial	NC - Silver		
<b>South Plant Administration Building</b>	WTD	Office/ laboratory	NC - Silver		
<b>9th and Jefferson</b>	FMD	Office	NC - Silver		
<b>Projects Completed - Pending Certification</b>					
<b>Carnation Treatment Plant</b>	WTD	Industrial	NC - Silver		
<b>Atlantic/Central Base Communication and Control Center</b>	Transit	Office	NC - Gold		
<b>Atlantic/Central Base Tire and Millwright Shop</b>	Transit	Office/ workshop	NC - Certified		
<b>Chinook Building</b>	FMD	Office	CS - Gold CI - Platinum		
<b>Projects Completed and Certified</b>					
<b>Kent Pullen Regional Communication &amp; Emergency Coordination Center</b>	FMD	Office		NC - Certified	2005
<b>King Street Center</b>	FMD	Office		EB - Gold	2004
<b>Power Distribution Headquarters</b>	Transit	Office/ workshop		NC - Certified	2007
<b>Marymoor Maintenance Facility</b>	FMD/Parks	Office/ workshop		NC - Certified	2008
<b>Shoreline Recycling &amp; Transfer Station</b>	SWD	Industrial		NC - Platinum	2008

## Green Building Project Descriptions and Accomplishments

(by Department)

Many of the construction projects undertaken by the county do not qualify for LEED certification; however, county departments are committed to using LEED standards as a guideline for incorporating green building practices into all projects. Such practices include using recycled materials, recycling construction waste, using innovative stormwater control strategies, reducing energy and water use, and other measures that reduce a project's impact on the environment. The projects described below demonstrate the variety of ways in which these strategies are being employed.



*DDES Blackriver building entry. Project staff is working to get this building certified under LEED for Existing Building: Operations and Maintenance.*

### Department of Executive Services - Facilities Management Division

FMD staff incorporates green building strategies into projects whenever possible. Many of the FMD projects are focused on replacing individual systems of a facility, so the focus of that project may involve a single strategy. Many of the projects highlighted here focus on energy efficiency.

FMD staff, in coordination with DDES staff, is working to get the DDES Blackriver Building certified under the LEED for EBOM rating system. The project was started in 2008, and the project team expects to receive LEED EBOM Silver certification in 2010.

Table 2. Facilities Management Division Projects

Project	Green Building Features	Project Description
<b>King County Courthouse Superior Court Courtrooms</b>	Sustainable materials	This project will replace the existing vinyl asbestos tile with linoleum tile. Linoleum is made from natural materials and is very durable, negating the need to replace the tile every 5 years.
<b>Issaquah District Court new HVAC design and upgrade</b>	Energy efficiency	This project will test and balance the HVAC system that is currently not functioning properly. The goal is to design a new system that is 15 percent more efficient than current American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) standards.
<b>King County Correctional Facility exterior lighting</b>	Energy efficiency	Outdated lighting was replaced with energy-efficient ballasts and lamps. In addition, existing sidewalk lighting fixtures were fitted with LED lamps and, in some cases, solar panels were installed to provide power.
<b>Eastgate Public Health direct digital control HVAC upgrades</b>	Energy efficiency	Upgrades to the direct digital control HVAC system will provide 15 percent more efficiency than the ASHRAE minimum.
<b>Federal Way Public Health direct digital control HVAC upgrades</b>	Energy efficiency	Upgrades to the direct digital control HVAC system will provide 15 percent more efficiency than the ASHRAE minimum.
<b>Regional Justice Center Detention HVAC improvements</b>	Energy efficiency	This project will upgrade all 24 existing air handling unit motors at the RJC Detention Building's inmate areas, with new, energy-saving motors with variable frequency drives. The new system will be at least 15 percent more energy efficient than the existing one.





*Drawing of the planned Operations Building for the Atlantic/Central Base.*

**Department of Transportation - Transit Division**

Transit is awaiting certification on two LEED buildings and is working on a third at the Atlantic/Central Base. The Communications and Control Center and Tire and Millwright Shop building projects have been completed. In 2008, the project teams completed the submittal packages for LEED

certification and are now awaiting the results. The project teams expect a Gold certification for the Communications and Control Center and a Certified certification for the Tire and Millwright Shop buildings.

Because of budget constraints during 2008, the scope and budget of the Atlantic/Central Base Operations building was reduced. As a result, this project, now at 90 percent design, is targeted for Silver certification. Also, the new Police Building was eliminated from the budget. Instead, once the new Operations building is completed, the old Operations building will be renovated to house the Police functions. Only essential upgrades to the

present Operations building are being contemplated, sufficient to ensure an additional 7 years of useful life.

In June, 25 transit project managers took classes in LEED to give them a better understanding of the rating system requirements.

**Table 3. Transit Division Projects**

Project	Green Building Features	Project Description
Atlantic/Central Base Operations Building	Energy efficiency, recycled material, C&D recycled, water efficiency	Some of the innovation credits that this project will seek include green house-keeping, green building education, and 95 percent diversion of construction waste from the landfill.

**Department of Transportation - Road Services Division**

Roads continued its efforts to incorporate green building practices into transportation infrastructure projects. For example, Low Impact Development (LID) strategies are considered for all capital projects and implemented whenever practicable. One such project that used LID is the SE 304th Street at 124th Avenue SE project in Auburn, which won an "Excellence in Building Green" award in 2008. Another example is the measures being taken to maximize construction reuse and recycling, such as for bridge replacement projects.



*Mt. Si Bridge in North Bend as it is deconstructed.*



**Table 4. Roads Services Division Projects**

Project	Green Building Features	Project Description
Mt. Si Bridge	C&D recycled	When the bridge was replaced, as much material as possible was recycled. 22,500 tons of steel and 250 cubic yards of concrete were recycled.
SE 304th Street at 124th Avenue SE in Auburn	Low impact development and water efficiency	The project team chose to replace an existing signalized intersection with a single-lane roundabout. Roundabouts provide a variety of environmental benefits: they decrease greenhouse gas emissions by decreasing the amount of time cars idle at the intersection, decrease noise by eliminating the need for cars to stop and then accelerate, and decrease energy use by eliminating the need for an electronic signal. Porous concrete cement for new sidewalks was used to minimize the impervious surfaces and the roundabout was planted with native species.

**Department of Natural Resources and Parks - Wastewater Treatment Division**

In 2008, the King County Green Building Initiative guided all of the WTD construction projects in varying capacities. Some of the larger projects were able to attain or will aim for LEED Certification. Smaller projects, that aren't eligible for LEED Certification, were still able to incorporate green building techniques in the highest capacity possible.

WTD worked on three projects pursuing LEED Certification: the South Treatment Plant Administration Building which is currently under construction and pursuing LEED Silver Certification, the Brightwater Treatment Plant Environmental Education/Community Center which is currently in the design phase and pursuing LEED Gold Certification, and the Carnation Treatment Plant which completed construction in February 2008. The completion of the Carnation Treatment Plant was a notable achievement with considerable savings in



*Carnation Treatment Plant Operations and Maintenance building.*

energy efficiency, water efficiency, the use of recycled materials, and recycling during construction and demolition. This project will potentially achieve LEED Silver Certification and is currently under review by the U.S. Green Building Council.

**Table 5. Wastewater Treatment Division Projects**

Project	Green Building Feature	Project Description
<b>South Treatment Plant (Silver Certification)</b>	Energy efficiency, low impact development, recycled material, C&D recycled, water efficiency	142.98 tons of material was diverted for construction waste management.
<b>Carnation Treatment Plant (Silver Certification)</b>	Energy efficiency, low impact development, recycled material, C&D recycled, and water efficiency.	A total of 479.31 tons of C&D was generated with 97 percent of that recycled. With the use of drought-tolerant plant species, efficient irrigation, and planting design, a 62 percent water use reduction will be realized. The Operations Building performs 33 percent better than ASHRAE 90.1 – 1999 requirements using the LEED Energy Cost Budget methodology.

**Table 5. Wastewater Treatment Division Projects Continued**

<b>Project</b>	<b>Green Building Feature</b>	<b>Project Description</b>
<b>Brightwater Treatment Plant (Gold Certification)</b>	Energy efficiency, low impact development, recycled material, C&D recycled, and water efficiency.	The Brightwater Environmental Education/Community Center will pursue LEED Gold Certification. In 2008, construction activities diverted 725 tons of debris from landfills and reused 280,000 tons of material, keeping 28,000 trucks off the roadways with an estimated round trip distance of 25 miles per truck. In addition, 7,700 tons of fly ash was recycled in the 2008 construction efforts.
<b>Hidden Lake Pump Station/Boeing Creek Trunk</b>	Energy efficiency, low impact development, and water efficiency.	Green building elements include light pollution reduction, native drought vegetation, trenchless technology, and pervious paving.
<b>53rd Street Pump Station</b>	Energy efficiency	This project will add variable fan drives to a pump station that did not have them before, decreasing energy consumption. It will also provide energy-efficient pumps, fans, and lighting.
<b>Juanita Bay Pump Station</b>	Energy efficiency, low impact development, recycled material, C&D recycled, and water efficiency.	LEED elements targeted during design included site selection, LEED-accredited professional on the design team, reduced site disturbance through landscaping design, stormwater management, light pollution reduction, water-efficient landscaping, construction waste management, and indoor air quality features in design and construction. LEED elements achieved in construction will be reported in the 2009 report after construction is completed.
<b>Lake Hills Interceptor &amp; EBI 2 Rehabilitation</b>	Water efficiency	By using a new method to rehabilitate sewer pipes, water use during construction was reduced from 771,000 gallons to 3,800 gallons. The new method involves inserting a resin-impregnated fabric sock filled with hot water into the pipes. The hot water is circulated inside the sock until the sock cures and hardens into the new pipe. This project saved 767,200 gallons of water.



*Hidden Lake Pump Station Replacement – Odor Control Stack Disguised as a Tree Snag*



*South Treatment Plant Administration Building – Front Entrance During Construction*

Table 5. Wastewater Treatment Division Projects Continued

Project	Green Building Feature	Project Description
<b>South Treatment Plant Dewatering Equipment Replacement</b>	Energy efficiency	This project will replace belt filter presses with three high solids centrifuges. These will produce biosolids with a concentration of approximately 25-27 percent as opposed to 17-18 percent concentration. This will result in the reduction of biosolids truck traffic by 2 trucks a day.
<b>West Point Treatment Plant Waste-to-Energy (W2E) Project</b>	Energy efficiency	This project will develop a cogeneration facility that will use the digester gas that is currently being wasted through a flaring process.
<b>West Point Digestion Improvements</b>	Low impact development	This project will use trenchless methods such as microtunneling to avoid impacts to streams and wetlands in the project corridor.
<b>South Plant Energy Efficient Aeration Blowers</b>	Energy efficiency	The projected annual savings in kWh/yr = 194, 260. Projected annual savings in dollars = \$25,611.19.
<b>Bellevue Pump Station</b>	Energy efficiency, low impact development, recycled material, and water efficiency.	A high-efficiency irrigation system will use 50 percent less potable water.



Brightwater Environmental Education Center



**Department of Natural Resources and Parks - Solid Waste Division**

In February 2008, SWD opened its newest transfer station – the Shoreline Recycling and Transfer Station. Its sustainable design features include solar panels installed on the south-facing roof, a rainwater collection system to use for washing the floors and equipment, translucent panels in the roof and windows to maximize the amount of natural daylight, drought-tolerant plants, and recycled-content materials used throughout the building. The station also features expanded recycling areas, including separate yard waste recycling, and a garbage compactor that will lessen truck trips between the station and the landfill. The



*Drawing of the new Bow Lake Recycling and Transfer Station.*

project received a LEED NC Platinum certification. The project is believed to be the first facility of its kind worldwide to have achieved this level of certification. The project also received a number of awards and honors, including Grand Award – Project of the Year and Green Project of the Year from the Northwest Construction Consumer Council, as well as What Makes It Green? – Honorable Mention from the American Institute of Architects, Seattle Committee on the Environment.

Other projects that SWD is working on, described below, also

incorporate LEED principles. The Bow Lake Recycling and Transfer Station will also be seeking LEED certification.

SWD's GreenTools program has also been providing green building assistance on projects for county residents, businesses, cities, and other agencies. This program includes training, financial incentives, research, project review, and development of strategies and policies to support green building throughout the county.

**Table 6. Solid Waste Division Projects**

<b>Project</b>	<b>Green Building Features</b>	<b>Project Description</b>
<b>Skykomish Drop Box</b>	C&D recycled	The Skykomish Drop Box roof collapsed under excessive snow load in early 2008. The collapsed metal roof was recycled and construction of a new metal roof was completed. In all, 11,710 tons of metal was recycled.
<b>Houghton Transfer Station Roof Replacement &amp; Site Improvements</b>	Energy efficiency, recycled material, C&D recycled.	This project involves replacing the roof and improving site conditions at the Houghton Transfer Station. For the site improvement work, the contractor will be using ecology blocks, made from recycled concrete with 40 percent fly ash as cement substitute. To reduce energy consumption, time controlled lighting will be installed. The project is currently in the design phase and is using the LEED checklist as a guide.
<b>Bow Lake Recycling and Transfer Station</b>	Energy efficiency, recycled material, C&D recycled, and water efficiency.	This new facility will be constructed on the site of the existing Bow Lake Transfer Station in Tukwila. Some of the sustainable features to be incorporated include passive ventilation, natural daylighting, rainwater harvesting, highly-reflective roofs, solar panels, water-efficient landscaping, recycled-content building materials, mitigation of old landfill areas, and restoration of stream buffers on the adjacent property. The first phase of construction will begin in early 2009 with site preparation. The project team anticipates at least a LEED Silver rating for this project.



**Department of Natural Resources and Parks  
- Water and Land Resources Division**

WLRD’s capital projects generally involve open space land acquisition, aquatic habitat improvement, river flood control, and stormwater flow control and water quality treatment. These projects are not eligible for LEED certification. The Coordinate Reduction of Waste (CROW) program, which stresses recycling of excavated soil, pipe, and concrete, and use of recycled material or materials with recycled content (such as recycled plastic lumber and GroCo made form biosolids), is in place at all of WLRD’s facilities. Wood waste from projects is ground up and used as a soil amendment, and compost is used to amend soils. Specifications for buying compost, topmost (a mixture of topsoil and compost), and GroCo are available for project managers.

As in past years, WLRD staff provided a significant amount of

technical support to private project proponents and their consultants in the use of LID techniques. These projects included subdivisions and commercial and single-family residences. WLRD staff also provided support to citizens proposing residential and farm projects through the Rural Stewardship (1 plan completed) and Farm Planning programs (32 citizens assisted). These programs use LID and other green approaches to limiting environmental impacts from rural-area projects.

WLRD staff also worked on the design for a retrofit and expansion of a park and ride lot on Vashon Island that uses permeable pavement and bioretention areas where stormwater is retained and filtered through vegetation. In addition, WLRD received two grants from Washington State Department of Ecology to study retrofitting two urbanized drainage basins to improve stormwater treatment. These grants are for a 3-year term and LID approaches will be evaluated in both these studies.

**Department of Natural Resources and Parks**

**- Parks and Recreation Division**

Many of the Parks projects featured this year were able to either salvage or reuse many materials. From the salvage of an old dock to the reuse of bridge decking, Parks, with technical assistance from FMD, conserved many resources. Planning for a new Central Maintenance Facility got underway this year. The project team anticipates that the project will try to achieve a LEED Gold rating for the building. An eco-charrette was held in 2008. However, funding for the construction of the facility has not yet been allocated.



*East Lake Sammamish Trail.*

**Table 7. Parks and Recreation Division Projects**

Project	Green Building Features	Project Description
<b>Burke Gilman Trail Improvement</b>	C&D recycled	This project replaces the asphalt pavement along two miles of the Burke Gilman Trail in Lake Forest Park. At four locations adjacent to wetlands, semi-pervious asphalt will be used. 1,290 cubic yards of asphalt will be recycled and subgrade gravel reused.
<b>Lake Sammamish Master Trail – Redmond Segment</b>	Recycled material	This project consists of paving and widening a two mile segment of the gravel trail. The project will reuse the existing gravel for widening the trail by 8 feet. 4,100 linear feet of split rail and 1,200 linear feet of chain link fence will be reused.

**Table 7. Parks and Recreation Division Projects Continued**

<b>Project</b>	<b>Green Building Features</b>	<b>Project Description</b>
<b>Maury Island Marine Park Pier Removal</b>	C&D recycled	This project involved deconstruction of a 285-foot dilapidated pier and the salvage of reusable materials for future use on the site for a potential observation deck. 575 linear feet of rail system and 4,275 square feet of timber decking was salvaged. This Community Partnership Grant Project will coordinate with the "Friends of Maury Island" community group.
<b>Lakewood Park Dock Removal</b>	C&D recycled	This project was able to salvage or recycle much of the 130-foot dock that was deconstructed at Lake Hicks in White Center's Lakewood Park. 11.23 tons of timber piles and all metals were recycled. 28 timber piles were salvaged for reuse and 4,000 square feet of 7-in thick concrete was salvaged for reuse.
<b>Cedar River Bridge Improvements</b>	C&D recycled	This project involves the deconstruction/replacement and rehabilitation of two bridges on the Cedar River Trail. It is expected to divert 96 percent of construction waste for reuse.
<b>Soos Creek Trailhead Phase IV</b>	C&D recycled	The trailhead was constructed within the footprint of an approximately 500-square-foot residential lot. All reusable materials from the existing house were salvaged.



*Dorre Don bridge before and after deconstruction.*



### Department of Development and Environmental Services

Several activities at the DDES Permit Center which will help people seeking information on green building were completed in 2008. A newly updated display at the permit center features new posters on construction and demolition, the affordable housing Greenbridge Hope VI project, and home energy efficiency. Also, some new brochures were added to the display that include the do-it-yourself home energy audit, green home buyer's guide, green septic systems, rural green building brochure, and a Greenbridge affordable housing community case study. More than 1,500 brochures on these topics have already been distributed. In addition, more than 1,000 green home remodel guides have also been distributed.

To better inform customers, a handout about the DDES Green Building Program and Incentives was produced and inserted into all customer application packets. Staff handled more than 80 green building technical assistance projects, including responding to customer phone calls and voice mails, as well as meeting with customers about their projects and attending pre-application meetings for commercial projects. As part of the Green Building Program Incentives, free project

management, priority processing, and technical assistance were provided to a 5-star Built Green project and two 4-star Built Green single-family homes.

Staff also continued to provide special assistance to the Built Green/Low Impact Development Demonstration Ordinance projects: Hope VI Greenbridge project in White Center and Sunflower project on Vashon, two affordable housing projects.

DDES staff has also been involved in various efforts that are seeking to reduce the effects of climate change. One such effort is participating on a committee that is developing mitigation strategies for the State Environmental Policy Act Greenhouse Gas Ordinance that will require projects to account and mitigate for their greenhouse gas emissions. The ordinance was transmitted to the King County Council for its consideration in early 2009. Another effort that staff is participating in is representing the County in support of comprehensive energy code changes at the national code change hearings, part of the Cool Counties 30 percent Solution.

In order to give the best service to customers, DDES staff took part in several trainings that were provided that covered all phases of sustainable construction.



New display panels in the DDES permit center.

This material will be provided in alternate formats  
upon request by contacting:

**King County Solid Waste Division**

206-296-4466,

1-800-325-6165, ext. 6-4466,

TTY Relay: 711,

[www.kingcounty.gov/solidwaste](http://www.kingcounty.gov/solidwaste)



**King County**

Department of  
Natural Resources and Parks  
**Solid Waste Division**







Green Building Program

# Annual Report

2008