



# Strategic Plan for Energy Conservation and Resource Use Fiscal Year 2014-2015

## VISION

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To effectively manage and minimize Ada County government's consumption of natural resources and disposal of wastes to enhance the environment.

## MISSION

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To find cost-effective strategies to meet the demands of an increasing population and higher energy costs through a partnership of people, resources, and ideas. To develop creative methods for controlling utility costs and reducing waste to save tax dollars. To make energy and resource efficiency a cost-effective part of day-to-day business.

## PHILOSOPHY

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It's our commitment to incorporate "sustainability" into the daily operations of Ada County by proactively identifying and implementing methods to improve building efficiency, control utility costs, reduce waste, and conserve natural resources. The strategic plan establishes Ada County's energy-related goals and initiatives for Ada County facilities. The Energy Plan Partnership consolidates Ada County's commitment to the environment and provides for public participation in the process.

We believe that wisely using resources in public buildings will reduce utility bills while creating a healthy indoor environment for building occupants. We also believe that energy-efficient building design and construction practices, countywide recycling programs, and the proper disposal of waste within the County will improve the community's environment.

The strategic plan establishes Ada County's energy-related goals and initiatives for Ada County facilities.

A healthy environment in Ada County is directly related to the efficient use of natural resources via energy-efficient building design and construction and responsible operating practices. Ada County demonstrates to employees and the community that its buildings are operated in a cost-effective manner, saving resources and tax dollars. Management and staff work together to accurately measure energy efficiency and develop a phased approach for efficiency implementation.

## OVERALL OBJECTIVES

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The objectives, as established by the Energy Plan Partnership, benefit all citizens of Ada County. These priorities should meet the needs of County citizens, County Commissioners, Elected Officials, management, maintenance staff, and building occupants.

- Promote and facilitate the Ada County Energy Plan Partnership.
- Ensure that conservation and responsible resource use remains a priority for Ada County.
- Provide administration and oversight to quantify benefits and savings of energy conservation projects at all County facilities.
- Provide data tracking and continuous commissioning associated with the operation and occupancy of all County facilities.
- Provide support and technical assistance to the enterprise funds' staff and facilities within the Solid Waste Management and Parks and Waterways departments.
- Support Idaho's Chapter of the US Green Building Council and provide oversight for all County LEED projects.

## ISSUES AND CHALLENGES

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Following are major issues and challenges affecting the organization, now and in the future. They are potential barriers to effective program implementation:

- Identification of strategies that are not supported by the County staff who are key to their successful implementation.
- Appropriation of resources, staff, partners, and dollars, to produce effective and timely implementation of measures.
- Increasing utility costs and reduced dollars available for building projects and programs.
- As building systems age, operational costs increase.
- Population growth increases demands on facilities and drives up maintenance costs.
- Certain upgrades and equipment change-outs require advanced personnel training.
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## GENERAL FIVE-YEAR GOALS

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These represent broad accomplishments the organization would like to achieve over the next several years. (Not in priority order)

- Make County facilities as energy and resource efficient as reasonably possible.
- Increase the overall comfort and productivity of staff.
- Limit, control, and lower utility costs.
- Uphold high maintenance standards.
- Increase the number of facilities with comprehensive, preventive maintenance programs.
- Identify building operation and efficiency improvements that require action.
- Upgrade building systems with energy efficient equipment.
- Utilize energy savings for other building and County purposes.
- Incorporate building commissioning efforts into construction projects.
- Educate facility staff about building systems, energy efficient operations, maintenance principles and practices.
- Protect the environment through the proper disposal of waste.
- Educate County employees to make good energy and resource decisions.
- Increase employee involvement in conserving energy and natural resources.
- Increase the County's recycling programs in facilities and at the Landfill.
- Increase employee involvement in recycling.
- Promote and expand the partnership.

## ANNUAL STRATEGIC PLAN REVIEW

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The County relies on its in-house expertise along with local business partners such as utility representatives, architects, engineers and other local professionals to provide input from their unique perspectives and ensure a more comprehensive plan. The business partners include professional service and business organizations that have an investment in the community.

The Partnership meets every year to review the goals and tasks planned for the fiscal year. The plan is reviewed at a predetermined public meeting where updates are also provided on the accomplishments and successes achieved in the previous year. Partners may use portions of the plan or the information contained in it for newsletters and publications to promote the program.

## ORGANIZATION AND RESPONSIBILITIES

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The Partnership is supported from the top down beginning with the Board of Ada County Commissioners. Financial support comes through the established County budgetary process. The continuing planning process is designed to bring on-going support from partners and other stakeholders as they are identified.

### **Director of Operations**

The Director of Operations is the lead for the County Partnership. The Director's role is to provide the focus, leadership, staff and monetary resources that support the development and implementation of a successful program.

### **Energy Specialist**

The Ada County Energy Specialist reports to the Director of Operations and is the lead for updating and implementing the County's action plan. Responsibilities also include:

- Maintaining utility management software and databases
- Tracking utility costs and rate changes for budgeting purposes
- Recommending operation and maintenance, resource, and efficiency changes
- Providing measurement and verification reports for retrofit projects
- Coordinating project and data requirements for LEED certification
- Submitting applications and support documentation for utility incentives
- Tracking revenue from green power projects

### **Building Maintenance and Custodial Staff**

County building maintenance and custodial personnel are responsible for carrying out the day-to-day operation and maintenance activities and are involved in the development and implementation of planned activities which can produce significant cost savings.

### **Building Occupants**

Each building occupant is important to the program as well, though not specifically listed as a partner. Their behavior, such as turning off unused lights and equipment etc., can reduce building energy use by 10%, a significant contribution to County expenditure reduction.

### **Plan Partners**

Plan Partners are specifically recruited and selected to bring their particular expertise and experience to the program. Each partner is requested or challenged to assist Ada County in determining both short and long range goals and objectives that can be accomplished. As Energy Plan Partners, these organizations may provide program recommendations, planning resources, technical support, and services that are both in-kind or for pay.

### **Ada County Staff**

Jesse Barcroft  
Bob Batista  
Dave Case  
Doug Cox  
Jessica Donald  
Rick Emerson  
Angie Gilman  
Dolly Hall  
Ted Hutchinson  
Scott Koberg  
Bruce Krisko  
Meg Leatherman  
Dave Logan  
Rebecca Lovelace  
Larry Maneely  
Selena O'Neal  
Stephen O'Meara  
Bob Perkins  
Larry Reiner  
Jim Tibbs  
Jan Wallace  
Darby Weston  
Brian Wilbur  
Scott Williams  
Rick Yzaguirre

### **Business Partners**

Brad Acker  
Greg Allen  
Ken Baker  
Craig Caldwell  
Doug Cooper  
Karen Danley  
Byron Defenbach  
Dave Fisher  
Jon Gunnerson  
Matt Hightree/A Perreira  
Geoff Johnson  
Bill Kissinger  
Rachele Klein  
Richard Llewellyn  
Jeff Osterman  
Bruce Poe  
Jennifer Pope  
Scott Roberts  
Mark Snider  
Scott Sparks  
Lew Staley  
Scott Wendell  
Brian Wewers  
Mike Wisdom

### **Department / Position**

Director of Indigent Services  
Director of Expo Idaho  
Board of Ada County Commissioners  
Operations, Construction Manager  
Dept of Administration, Communications Specialist  
Operations, Facility Maintenance Superintendent  
Development Services, County Engineer  
Operations, Office Manager  
Solid Waste Management, Landfill Manager  
Director of Parks and Waterways  
Operations, Construction Manager  
Director of Development Services  
Director of Operations and Solid Waste  
Director of Family Advocacy Cntr & Education Svcs (FACES)  
BOCC Chief of Staff  
Operations, Energy Specialist  
Director of Information Technology  
Director of Purchasing  
Trial Court Administrator  
Board of Ada County Commissioners  
Director of Juvenile Court Services  
Director of Paramedics  
Director of Weed, Pest, and Mosquito Abatement  
Deputy Director of Operations  
Board of Ada County Commissioners

### **Company / Organization**

Integrated Design Lab  
Hummel Architects  
K energy Consultant  
CH2M Hill  
McKibben+Cooper Architects  
Stakeholder and County Resident  
Intermountain Gas Company  
Republic Services  
City of Boise, Public Works  
City of Boise, Public Works  
Eidam & Associates  
ATS Inland NW  
Republic Services  
Stakeholder and County Resident  
CH2M Hill  
Modus Architecture  
Idaho Office of Energy Resources  
CTA  
United Water  
Idaho Power  
Fortistar Methane Group  
Lombard Conrad Architects  
Idaho Power  
Engineering Inc

## County Facilities

Ada County owns and operates diverse portfolio of buildings to provide a variety of services to the general public, along with office space for its employees. Each facility is continually monitored and assessed, on an individual basis, to identify ways to make them more energy efficient.

### Major County facilities:

- ❖ Courthouse and Administration Building
- ❖ Public Safety Building and Field Services
- ❖ Jail, Medical Unit, and Work Release Center
- ❖ Juvenile Court Services and Detention Facility
- ❖ Barber Park Administration Building and Raft Rental
- ❖ Barber Park Event Center
- ❖ Expo Idaho
- ❖ Solid Waste Management Landfill Office and Hazardous Waste Building
- ❖ Weed, Pest, and Mosquito Abatement Facility
- ❖ Morris Hill Morgue and Storage Facility
- ❖ The Justice Center / FACES
- ❖ Benjamin Bldg: Elections, Vehicle Licensing, Adult Drug Court, Juvenile Programs
- ❖ Paramedics Administration and Training Facility
- ❖ Paramedics Emergency Medical Stations

## Energy Tracking and Reporting

Monthly utility billing information is compiled in Utility Manager software for electricity, natural gas, water, sewer, and trash to establish a baseline of energy use for each buildings. This data is used to identify and prioritize buildings with high utility costs, determine potential energy-saving measures, evaluate future energy and resource use and savings, and assess post-improvement performance of retrofitted buildings.

## Energy Use Index

An Energy Use Index has been developed for the major facilities to measure a facility's energy performance on a per square foot basis. It is used to establish baseline energy consumption and quantify subsequent savings from Energy Conservation Measures. A current energy use index can be found in the section on Buildings and Energy Use.

## Building Assessments

Building assessments are conducted on the County buildings using a variety of resources. Assessments identify specific building-by-building O&M's for maintenance staff implementation. Priority is based on analysis of utility data, County needs, and financial capabilities.

### **Selection criteria for building assessments:**

- ❖ The potential for building energy savings
- ❖ An estimate of time and dollars needed to perform the measures
- ❖ The availability of time and resources to devote to the project
- ❖ The potential of implementing effective ECMs

Assessments include an in-depth analysis of the whole building including the building envelope, lighting and control systems, engineering analysis of mechanical systems such as air flows and equipment operating efficiencies, metered water use and sewer billing, and trash records.

### **Assessment reports include:**

- ❖ Recommended ECM's
- ❖ An estimated cost for ECM implementation and calculation of ECM simple payback
- ❖ Life Cycle Costing optimization where appropriate
- ❖ Identification of existing operating efficiencies
- ❖ Identification of funding options for measure implementation
- ❖ Identification of Operations & Maintenance's (O & M's)
- ❖ Recommendation to reduce water consumption and sewer bills
- ❖ Recommendation to reduce trash volumes and costs

Under the direction of the Energy Specialist, a contract engineer may lead the assessment team along with County staff. An assessment report will be prepared with recommendations for ECM actions for the County's consideration. Life cycle cost analysis will be utilized for ECM assessment to facilitate Ada County in optimizing their return on investment. A 20% IRR (internal rate of return) will be programmed for each project.

### **Building Retrofits**

Building retrofits can generate savings that enable the County to purchase new equipment, add new employees, or expand existing programs. In most circumstances, when retrofit objectives are identified in advance, the objectives can be incorporated and completed with other remodeling projects and building additions.

Retrofit projects designed to increase the efficiency of building systems will positively affect concerns that are important to Ada County officials. Concerns such as:

- ❖ Building safety
- ❖ Comfort and productivity of occupants
- ❖ Increased employee productivity
- ❖ Reductions in system failures
- ❖ Expansion of anticipated life-cycle or intended use
- ❖ Reduced maintenance and utility costs

# HIGHLIGHTS AND MAJOR ACCOMPLISHMENTS FOR FY 14-15

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**TOTAL REVENUE AND SAVINGS FY 14-15 = \$435,000**

## 1. Building Upgrades and Projects

- ✓ Expo Idaho Administration Office and Fair Entrance – Designed to LEED standards
- ✓ Ridenbaugh Paramedics Station – Designed and built to earn LEED Silver certification
- ✓ Remodeled space in Courthouse, relocating multiple departments to make space for future Courtroom
- ✓ Replaced 100-ton chiller at the Ada County Jail

## 2. Utilities / Operating Expenses

- ✓ Participated in the Kilowatt Crackdown Competition, earned Special Recognition award
- ✓ Earned ENERGY STAR for 400 Benjamin Building
- ✓ Major overhaul of Courthouse Geothermal Heat Exchanger

## 3. Renewable Energy

- ✓ Landfill Gas to Energy, 3.2 MW capacity  
Generated 18,242,849 kWh @ \$0.013/kWh **REVENUE: \$231,000/YR**
- ✓ Barber Dam, 4.1 MW capacity **REVENUE: \$28,000/YR**  
Annual lease payment from ENEL
- ✓ Barber Park PV System, 11 KW capacity **\$SAVINGS: \$1,000/YR**  
Generated 14,600 kWh

## 4. Landfill

- ✓ Launched E-Waste Program **EST \$SAVINGS: \$175,000/YR**  
Ship out 2 million+ pounds per year
- ✓ Conducted Waste Stream Analysis
- ✓ Restructured Landfill's Permit to Construct (DEQ air permit)
- ✓ Designed and implemented a partial closure of Hidden Hollow Landfill
- ✓ Installed a hydrogen sulfide (H<sub>2</sub>S) scrubber to clean the methane gas
- ✓ Recycled 1 million+ pounds of Household Hazardous Waste
- ✓ Recycled 100,000+ cubic yards of Wood Waste and divert 6,000+ vehicle tires

## 5. Communication and Education

- ✓ Held Annual Energy Plan Meeting
- ✓ Participated in the Idaho Green Fest
- ✓ Issued Press Release to announce ENERGY STAR for Benjamin Building



# GOALS FOR FY 15-16

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## 1. Building Upgrades and Projects

- LED Lighting Upgrades
  - Juvenile Court Services, 6300 W Denton Street, Boise  
Replace 52 exterior wall packs, 15 parking lot pole lights, 16 gymnasium lights  
Project Cost: \$23,226, Annual energy savings: \$3,000 = 5 yr payback w/incentive  
Lamps last 5-10 times longer, from 10,000 hrs for the wall packs to 50,000 hrs  
New parking lots lights rated at 100,000 hours, 11 years of continuous use
  - Courthouse, 200 W Front Street, Boise  
Replace 24 exterior wall packs (250w metal halides) with 60w LEDs  
Estimated Savings: 133,000 kWh/yr
  - Benjamin Campus, 400 N Benjamin Lane, Boise  
Replace exterior lighting with LED fixtures
  - Extension Office, 5880 Glenwood Blvd, Boise  
Replace exterior lighting with LED fixtures
- Ada County Paramedics, Medic Station 17, Complete LEED certification
- 911 Dispatch Center – Design and build to LEED standards, including commissioning
- Juvenile Probation Services West – Design to earn LEED Silver certification

## 2. Utilities / Operating Expenses

- Track utilities and update Energy Use Index for all major County facilities
- Actively manage Courthouse geothermal usage and regulate use in the summer months
- Earn ENERGY STAR for the Ada County Courthouse and the Benjamin Campus
- Rebid Parking Services, savings \$30,000/yr

## 3. Renewable Energy

- Barber Dam, 4.1 MW capacity
  - Work with co-licensee / dam operator (Enel) to meet FERC requirements
  - Work to develop short-term and long-term maintenance objectives
  - Work to begin developing relicensing plan
- Landfill Gas to Energy, 3.2 MW capacity
  - Develop plans for addition of 2 generators
- Barber Park PV System, 11 KW capacity
  - Continue to use power to offset energy used by buildings at Barber Park

## 4. Landfill

- Find long-term, economical solution for Wood Waste
- Plan and design new E-waste Recycling facility
- Plan and design proposed Phase III of the North Cell Ravine

### ***5. Communication and Education***

- Participate in Ada County's Solid Waste Advisory Committee
- Chair Ada County's newly formed Environmental Advisory Committee
- Hold Annual Energy Plan Meeting

# Contents

ADMINISTRATIVE GOALS	SECTION 1
COMMUNICATION AND EDUCATION	SECTION 2
BUILDINGS AND ENERGY USE	SECTION 3
RENEWABLE ENERGY	SECTION 4
TRANSPORTATION AND FUEL	SECTION 5
WASTE MANAGEMENT	SECTION 6

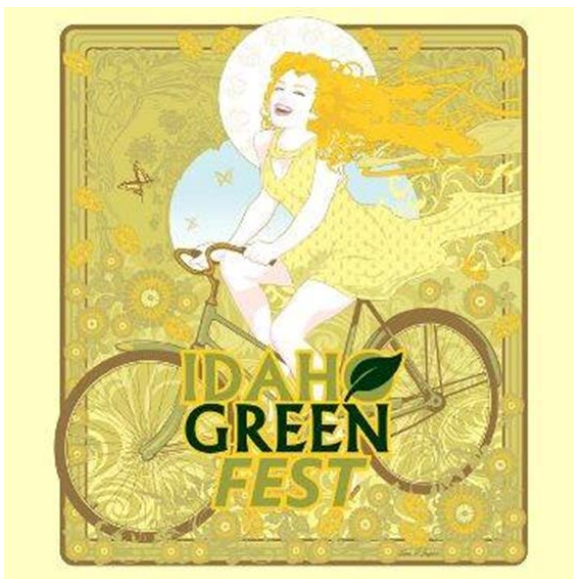
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## ADMINISTRATIVE GOALS

1. SERVE THE PUBLIC GOOD
2. PROMOTE SUSTAINABILITY AND EXPAND ADA COUNTY'S ENERGY PLAN PARTNERSHIP
3. PROMOTE SUSTAINABILITY WITHIN ALL COUNTY DEPARTMENTS
4. TRACK ADA COUNTY'S ECOLOGICAL FOOTPRINT AND EMISSIONS INVENTORY
5. SUPPORT THE US GREEN BUILDING COUNCIL (USGBC)

### Tasks to support the Goals

- Build and operate green buildings to demonstrate responsible use of taxpayer dollars and improve markets for environmentally friendly products and practices.
- Proactively promote public image and community involvement.
- Mentor other organizations to develop energy plans.
- Communicate with elected officials and department heads to establish "green" goals.
- Stay abreast of developments in greenhouse gas and emissions reporting requirements.
- Inventory and monitor greenhouse gas emissions from building energy use, transportation fuel use, and waste generation for emissions inventory.
- Quantify offsets from alternative transportation, green buildings, renewable energy, and recycling programs.
- Support the Idaho Energy and Green Building Conference.
- Be an advocate for the US Green Building Council.
- Provide information and case studies for County LEED projects.
- Have a LEED Accredited Professional on staff.



Rachele Klein, Republic Services, explaining the Build a Modern Landfill exhibit at the 2015 Idaho Green Fest in Boise.

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## COMMUNICATION AND EDUCATION GOALS

1. IMPLEMENT MARKETING/PR PROGRAM FOR ADA COUNTY'S ENERGY PLANS
2. CREATE A MASTER PLAN FOR AN ENERGY-RELATED EDUCATION PROGRAM
3. EDUCATE MAINTENANCE STAFF AND BUILDING OCCUPANTS ON ENERGY CONSERVATION MEASURES AND PRACTICES
4. FOSTER PEER EXCHANGE
5. Tasks to support the Goals
  - Use Earth Day, America Recycles Day, and other events to promote awareness of Ada County's energy plan.
  - Promote internally to Ada County employees.
  - Promote externally to Ada County residents.
  - Keep website updated with current information about projects and County facilities.
  - Use website and social media to establish ongoing communication.
  - Provide energy code education and training for government and private sector.
  - Provide Building Operator Certification training for maintenance staff.
  - Educate employees on recycling programs.
  - Provide building tours to individuals and groups as requested.
  - Meet with other Counties, building owners, maintenance staff, etc. to share ideas.



Brian Wewers, Idaho Power, presenting a utility update at the 2014 Energy Plan Partnership meeting.

Also shown (left to right):  
Byron Defenbaugh, Intermountain Gas  
Brad Acker, Integrated Design Lab  
Jennifer Pope, Office of Energy Resources  
John Tensen, City of Boise  
Mark Snider, United Water  
Steve Benner, CSHQA  
Dolly Hall, Ada County



## FACILITY AWARDS AND RECOGNITION

Ada County seeks opportunities to raise public awareness about its energy efficient operations and high performance facilities through various awards and certification programs.

### ENERGY STAR

ENERGY STAR is a voluntary U.S. Environmental Protection Agency (EPA) program that delivers environmental benefits and financial value through superior energy efficiency. By certifying top-performing products, homes, and buildings, ENERGY STAR helps us all make energy-efficient choices. It's best known as the little blue mark on consumer products, but since 1992, EPA has also worked with businesses and public-sector organizations to transform the way that commercial buildings and industrial plants use energy. On average, ENERGY STAR certified buildings use 35 percent less energy and cause 35 percent fewer greenhouse gas emissions than similar buildings.

Through ENERGY STAR, EPA offers the 1 – 100 ENERGY STAR score, which is available for more than 30 different types of buildings and plants. An ENERGY STAR score enables you to compare your facility's actual energy performance to similar facilities nationwide. A score of 50 represents typical performance, while a score of 75 indicates that your facility performs better than 75 percent of all similar facilities nationwide. A score of 75 or greater earns the ENERGY STAR plaque, which is renewed every 12 months through demonstrating ongoing energy performance.

2004	Courthouse & Administration Building	76
2005	Courthouse & Administration Building	75
2006-2008	Courthouse & Administration Building	82
2009-2010	Courthouse & Administration Building	81
2011	Courthouse & Administration Building	84
2012	Courthouse & Administration Building	82
2013	Benjamin Building	77
2014	Courthouse & Administration Building	75
2014	Benjamin Building	78



### LEED® Certifications

As a member of the US Green Building Council since 2003, Ada County uses the Leadership in Energy and Efficiency Design (LEED) program to ensure we build green, high performance buildings. Ada County has the distinction of earning the first LEED certification for any building in Idaho with the Ada County Courthouse.

2005	Courthouse & Administration Bldg	LEED-EB Silver
2006	Development Services Remodel	LEED-CI Certified
2006	Barber Park Headquarters	LEED-NC Certified
2008	Weed, Pest, & Mosquito Abatement	LEED-NC Silver
2008	Paramedics Station, Meridian	LEED-NC Silver
2009	Civic Plaza Office Complex	LEED-CI Gold
2010	Paramedics Station, Star	LEED-NC Gold
2012	Paramedics Administration Bldg	LEED-NC Silver
2015	Paramedics Station, Ridenbaugh, Medic 17	LEED-NC Silver (in process)
2016	Juvenile Probation West	LEED-NC Silver (under construction)



*EB - Existing Building, NC - New Construction, CI - Commercial Interior*





**LEED® Certified Building Projects**





## May in Motion Alternative Transportation Awards

Ada County partners with the Ada County Highway District and Valley Regional Transit to provide employees with alternatives to driving to work. May in Motion is an annual event that allows organizations to become Alternative Transportation Champions and gain recognition for their employee participation and transportation benefits.

2007	Alternative Transportation Champion Award	Bronze
2008	Alternative Transportation Champion Award	Silver
2009	Alternative Transportation Champion Award	Silver
2010	Alternative Transportation Champion Award	Silver
2011	Alternative Transportation Champion Award	Silver
2012	Alternative Transportation Champion Award	Silver
2013	Alternative Transportation Champion Award	Silver
2014	Alternative Transportation Champion Award	Silver
2015	Alternative Transportation Champion Award	Silver



## Other Achievements

2004	EnviroGuard Award from the City of Boise
2008	Award of Citation in Architecture from The American Institute of Architects, to McKibben+Cooper Architects for the Barber Park Administration and Raft Rental buildings
2008	Best Green Building Project in Idaho under \$5 million from The Intermountain Contractors, to CSHQA Architects for the Civic Plaza TI project
2010	ASHRAE High Performing Buildings Magazine, Summer edition, 10-page article on Courthouse
2012	NACO Energy Efficient County Buildings study
2014	Kilowatt Crackdown, Special Recognition Award: Most Dedicated – Benjamin Building
2015	Ada County Named a Bronze Bicycle Friendly Business by the League of American Bicyclists



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## BUILDINGS AND ENERGY USE GOALS

1. ENSURE COUNTY BUILDINGS ARE AS ENERGY AND RESOURCE EFFICIENT AND POSSIBLE
2. CREATE HEALTHY WORK SPACES FOR OPTIMAL OCCUPANT HEALTH AND COMFORT
3. PROVIDE MAINTENANCE AND SUPPORT FOR ENTERPRISE FUNDS: PARAMEDICS, EXPO IDAHO, AND THE LANDFILL
4. INCORPORATE ENERGY STAR PROGRAMS INTO ADA COUNTY FACILITIES
5. PARTICIPATE IN LOCAL UTILITY INCENTIVE PROGRAMS

### Tasks to support the Goals

- Track monthly consumption and costs of electricity, natural gas, water, sewer, and trash utility bills.
- Evaluate data and create energy reports to document savings.
- Maintain an annual Energy Use Index for all buildings over 10,000 square feet.
- Maintain and update equipment as needed.
- Recommission buildings as necessary.
- Manage indoor air quality in all occupied spaces.
- Conduct low-cost energy audits on all buildings, including after-hours visits and night walks.
- Evaluate actual lighting needs and choose best lighting solution during renovations.
- Install/retrofit lighting and HVAC systems with energy efficient options wherever feasible.
- Update HVAC refrigerant when changing out mechanical systems.
- Apply for ENERGY STAR for eligible buildings.
- Benchmark building energy usage using ENERGY STAR's Portfolio Manager.
- Use Integrated Design Lab's free Buildings Metrics Labeling program to track EUI, ENERGY STAR, and walkability scores (sample on next page)
- Evaluate and incorporate energy conservation measures (ECMs) for all facilities.
- Apply for utility incentives when applicable.
- Evaluate ways to reduce peak load in the summer.



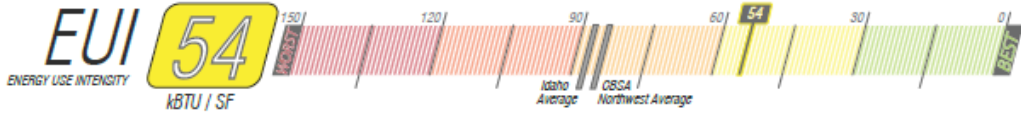
New Paramedics Station, Medic 17  
Completed June 2015, LEED Certification in process



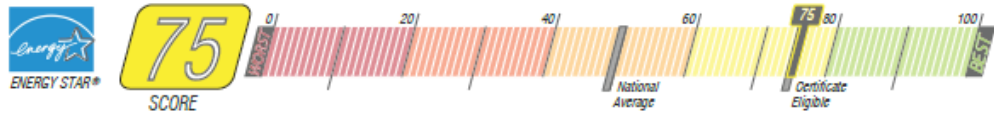
# Building Metrics Labeling



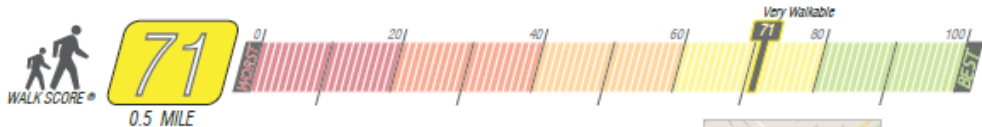
Building:  
**Ada County Courthouse (356,300 sq.ft.)**  
Address: 200 W Front Street



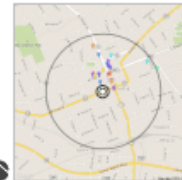
“Energy use intensity, is a unit of measurement that describes a building's energy use, which is represented as kBTu/SF/yr.”  
Commercial Building Energy Consumption Survey, 2003



“A rating of 50 indicates average energy performance, while a rating of 75 or better indicates top performance.”  
www.energystar.gov



- AMENITIES WITHIN 1/2 MILE RADIUS
- 20+ PHARMACIES
  - 1 BICYCLE REPAIR
  - 20+ MEDICAL FACILITIES
  - 16 RESTAURANTS
  - 2 COFFEE SHOPS
  - 4 CUPCAKE SHOPS
  - 4 SAMS
  - 2 BAKERY STORES
  - 3 ENTERTAINMENT VENUES
- WWW.WALKSCORE.COM



The utility account(s) included in the EUI calculation:  
IMG (from October 2013 to September 2014); IPOs (from October 2013 to September 2014);

Prepared by Selena O'Neal on November 19, 2014 at 16:34 MST.

simple and free to generate at [www.idlboise.com/bml](http://www.idlboise.com/bml)

All utility usage data, ENERGY STAR® score, and window/skylight information used in the metric calculations is input by the preparer of this BML sheet. Idaho Power Company and the Integrated Design Lab do not verify this information, and are not responsible for any inaccuracies. The ENERGY STAR score displayed on this sheet does not indicate the building is a certified ENERGY STAR building. (v1.0)

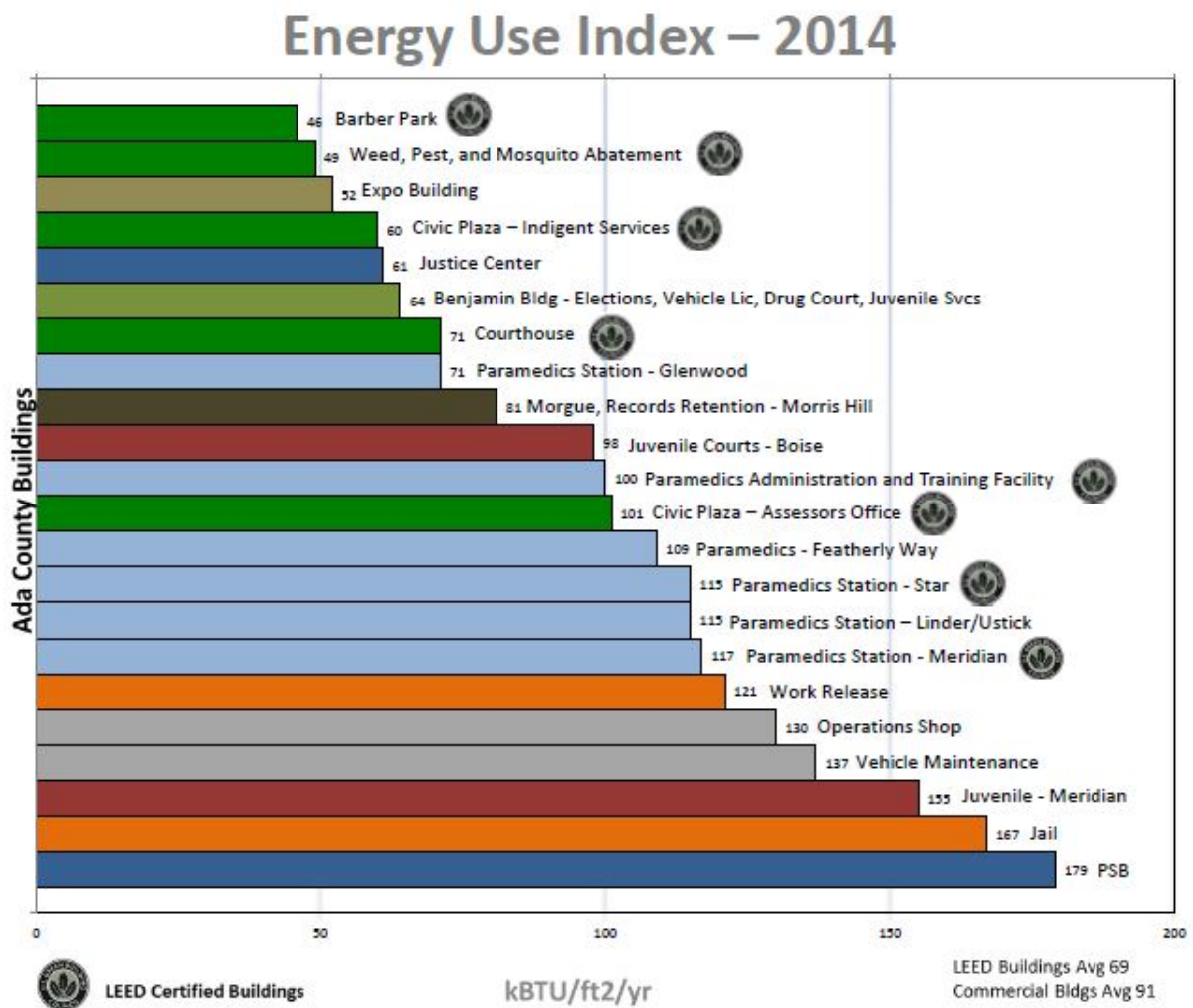


## ENERGY USE INDEX (EUI)

### What is an EUI?

An Energy Use Index is a basic measure of a facility's energy performance on a per square foot basis. It is typically measured as kBtUs of energy used annually per square foot. A BTU, British Thermal Unit, is a basic measure of heat value (energy content) of fuels. All energy consumed by a particular building; i.e., electricity, natural gas, etc., is converted to thousand BTU's, added together, and divided by the total square footage.

Below is a current EUI chart for most of Ada County's buildings. Generally, a low EUI signifies good energy performance.




Certain building types will always use more energy than others. For example, a park building with seasonal use requires relatively little energy compared to a paramedic station that operates 24/7. Similarly, a small office building with 50-100 employees will use less energy than a jail facility that supports nearly 1,000 people on a continual basis.



## UTILITY INCENTIVES

Efficiency programs not only save the County money, but also defer the need to build new power plants and prevent the utility from acquiring power from more expensive sources to meet growing customer demand. Ada County takes advantage of Idaho Power's incentive programs in any new or remodel building project.

			
Location	Incentive	Measures	
Barber Park	\$2,374	Lighting, AC, Roofing, Commissioning	
Courthouse	\$2,223	Controls	
	FY 06-07	\$4,597	
Weed, Pest, and Mosquito*	\$7,896	Lighting, AC, Roofing, Windows	
Paramedics Station, Meridian*	\$2,476	Lighting, AC, Roofing, Windows	
Morris Hill Warehouse	\$4,440	Lighting retrofit - T12s to T8s	
Expo Idaho - South Wing	\$6,300	Lighting retrofit - T12s to T8s	
Indigent Services	\$11,105	Lighting, AC, Controls	
Assessors Office*	\$15,375	Lighting, AC, Controls	
Benjamin Phase 1*	\$13,528	Lighting, AC, Roofing	
Expo Idaho - North Wing	\$8,500	Lighting retrofit - T12s to T8s	
Emergency Operations Center	\$480	Lighting retrofit - T12s to T8s	
	FY 07-08	\$70,100	
Courthouse	\$3,600	Variable Speed Drives for HVAC pump	
Benjamin Phase 2*	\$12,601	Lighting, AC, Roofing	
Juvenile West, Meridian	\$705	13 SEER AC w/ programmable Tstat	
Paramedics Station, Star	\$2,076	Lighting, AC, Roofing	
	FY 08-09	\$18,982	
Benjamin Phase 3	\$4,668	Lighting, AC, Roofing	
Jail Dorm 5	\$1,000	AC	
Extension Office Bldg	\$4,490	Lighting, AC	
Jail Dorms 2 & 4	\$2,000	AC	
400 Benjamin	\$455	Windows in SE corner, 2nd floor	
	FY 09-10	\$12,613	
Paramedics Admin, 370 Benjamin	\$7,865	Lighting, AC, Roofing, Windows, Controls	
Paramedics Shop, 370 Benjamin	\$3,525	Lighting, AC, Roofing, Windows	
Expo Idaho RV Park	\$265	HVAC for the Laundry/Shower Bldg	
Expo Idaho RV Park	\$577	Lighting for the Laundry/Shower Bldg	
Paramedics Station, Linder	\$897	Lighting, AC, Roofing	
	FY 10-11	\$13,129	
Expo Idaho - Expo Building	\$10,000	HVAC Controls	
Expo Idaho - Small Animal Barn	\$4,284	HVAC Controls	
Expo Idaho - Western Town	\$2,700	HVAC Controls	
Jail Pod D	\$4,573	Exit Signs, HVAC, Roofing, Var Speed Drives	
	FY 12-13	\$21,557	
Public Safety Building Complex	\$24,007	LED Lighting Upgrade	
	FY 13-14	\$24,007	
Paramedics Admin, 370 Benjamin	\$188	LED Lighting Upgrade	
Expo Idaho Admin and Entrance	\$2,500	Lighting, HVAC, Roofing, Appliances	
Paramedics Station 17, Ridenbaugh	\$2,000	Lighting, HVAC, Roofing, Appliances	
Juvenile Detention, Boise	\$5,507	LED Lighting Upgrade	
	FY 14-15	\$10,195	
<b>TOTAL 2006-2015</b>	<b>\$175,180</b>		

*Italicized projects are pending*



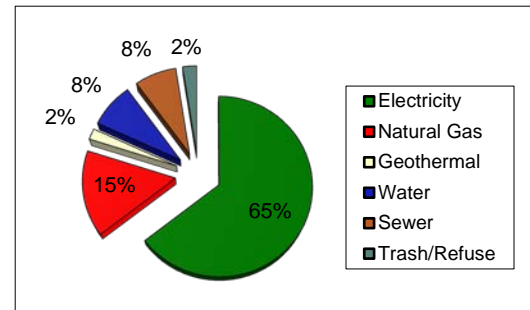


## UTILITY SUMMARY

The Ada County Operations Department now manages, maintains, and pays utilities for nearly 1.5 million sf of building space and more than 250,000 sf of parking facilities. Approximately 10,000 sf of existing space was remodeled and rebuilt in FY 14-15 with an additional 27,000 sf of new space planned in FY 15-16.

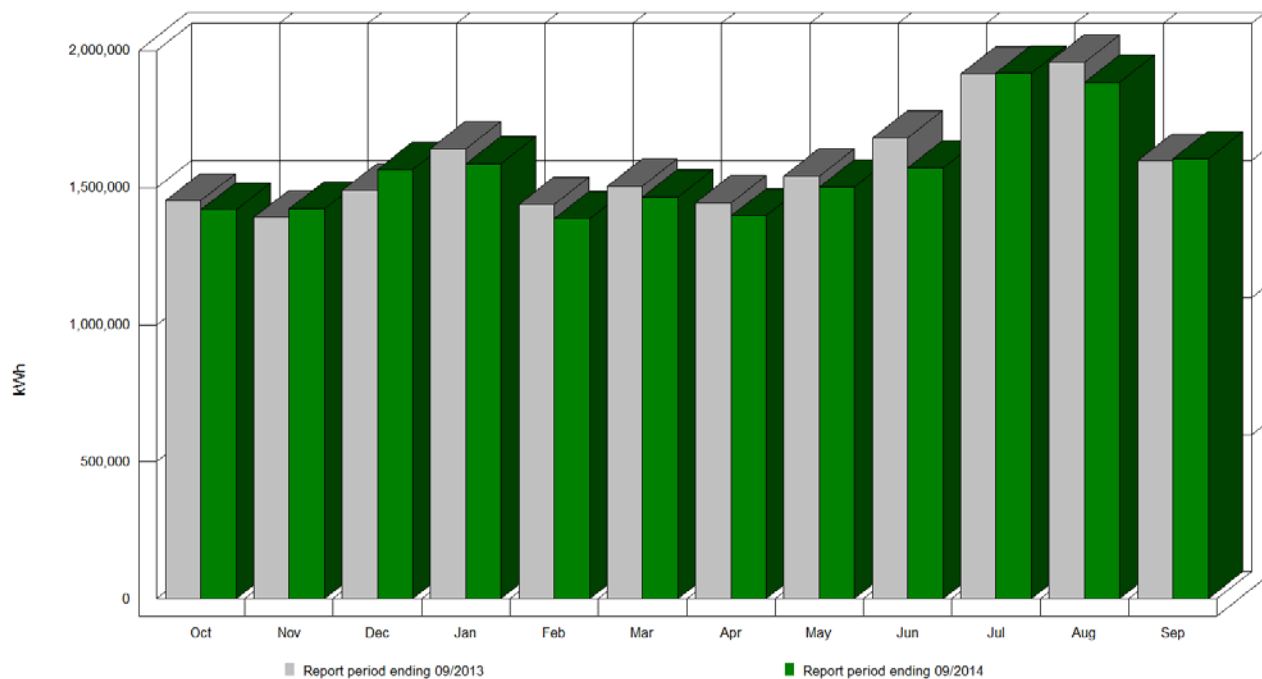
The total cost to the County for all utilities combined increased 5%, or \$100,173, from FY12-13 to FY13-14. Interestingly, although electricity and natural gas **usage decreased** 2% and 5% respectively, the **total costs** paid by the County for electricity and natural gas **increased** 9% and 8%, respectively.

FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	
\$943,379	\$930,072	\$987,201	\$1,172,745	\$1,283,648	Electricity
\$364,369	\$360,938	\$319,952	\$283,637	\$307,288	Natural Gas
\$38,064	\$40,966	\$43,409	\$65,459	\$38,833	Geothermal
\$133,247	\$141,412	\$157,853	\$162,341	\$161,721	Water
\$132,329	\$142,102	\$142,995	\$156,361	\$149,761	Sewer
\$48,075	\$47,643	\$51,051	\$49,877	\$49,342	Trash/Refuse
\$1,659,463	\$1,663,133	\$1,702,461	\$1,890,420	\$1,990,593	
-3%	0.2%	2.4%	11.0%	5.3%	Increase/Decrease
1.6%	2.3%	1.1%	1.0%	0.0%	SQ FT ADDED



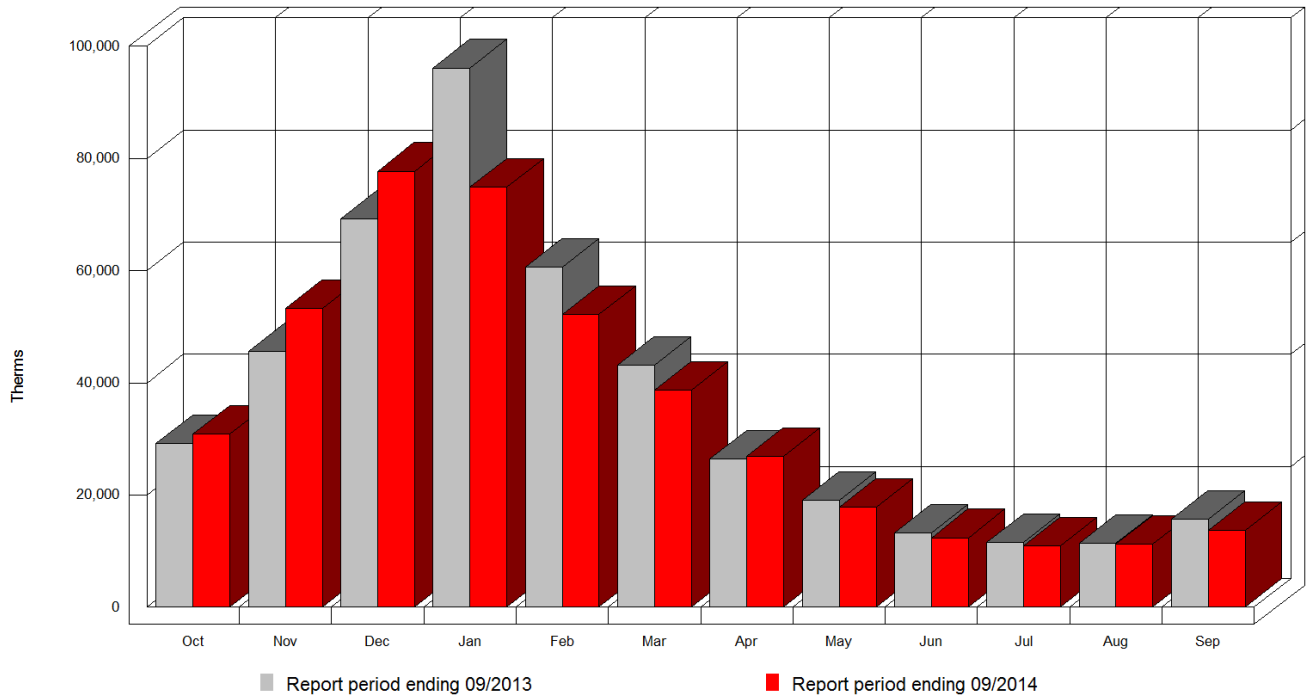
The following graphs compare usage and costs for the major utilities; i.e., electricity, natural gas, water, sewer, trash, for all County buildings combined for fiscal years ending September 2013 and 2014.

Monthly Electricity Use for Ada County



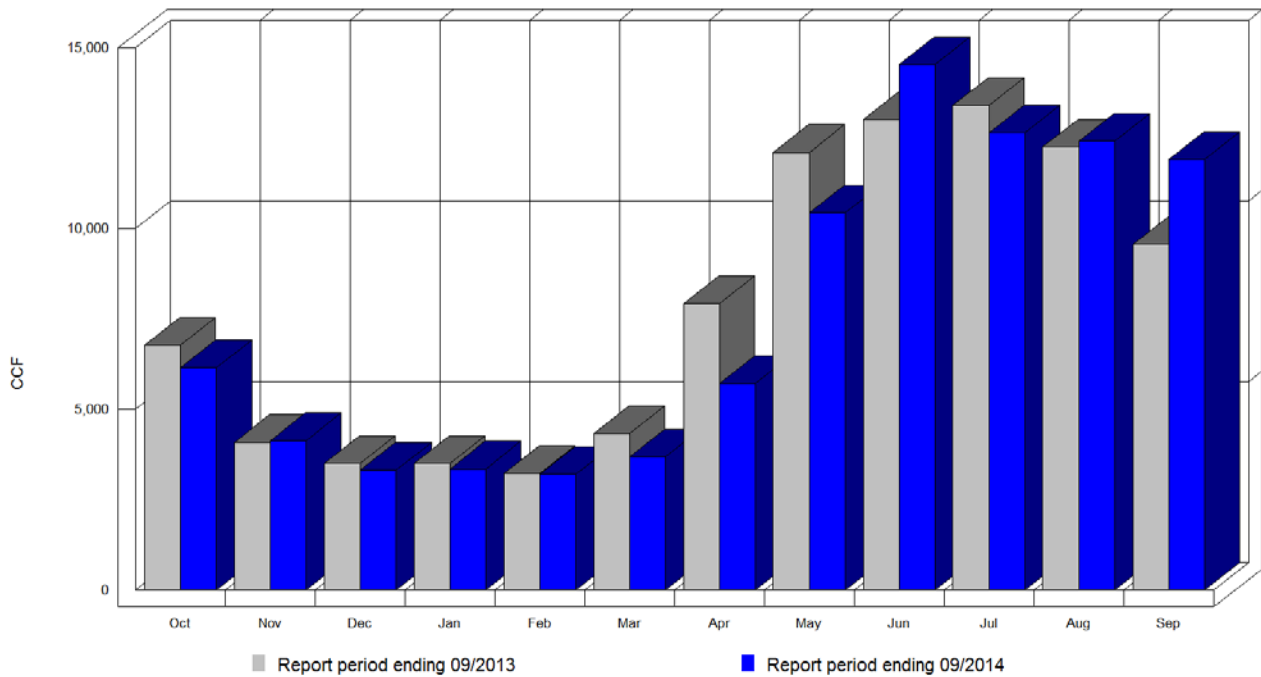
Electricity Usage      2% Decrease  
 Electricity Costs      9% Increase

### Monthly Natural Gas Use for Ada County



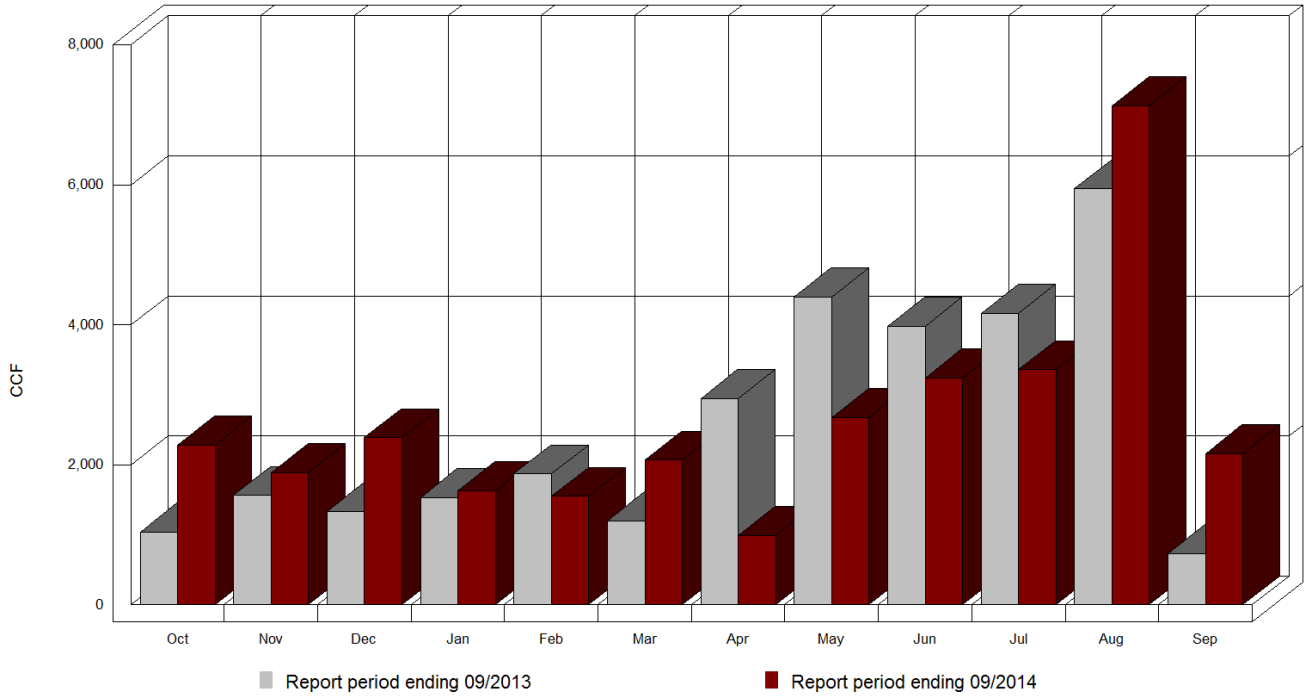
**Natural Gas Usage**                      5% Decrease  
**Natural Gas Costs**                      8% Increase

### Monthly Water Use for Ada County



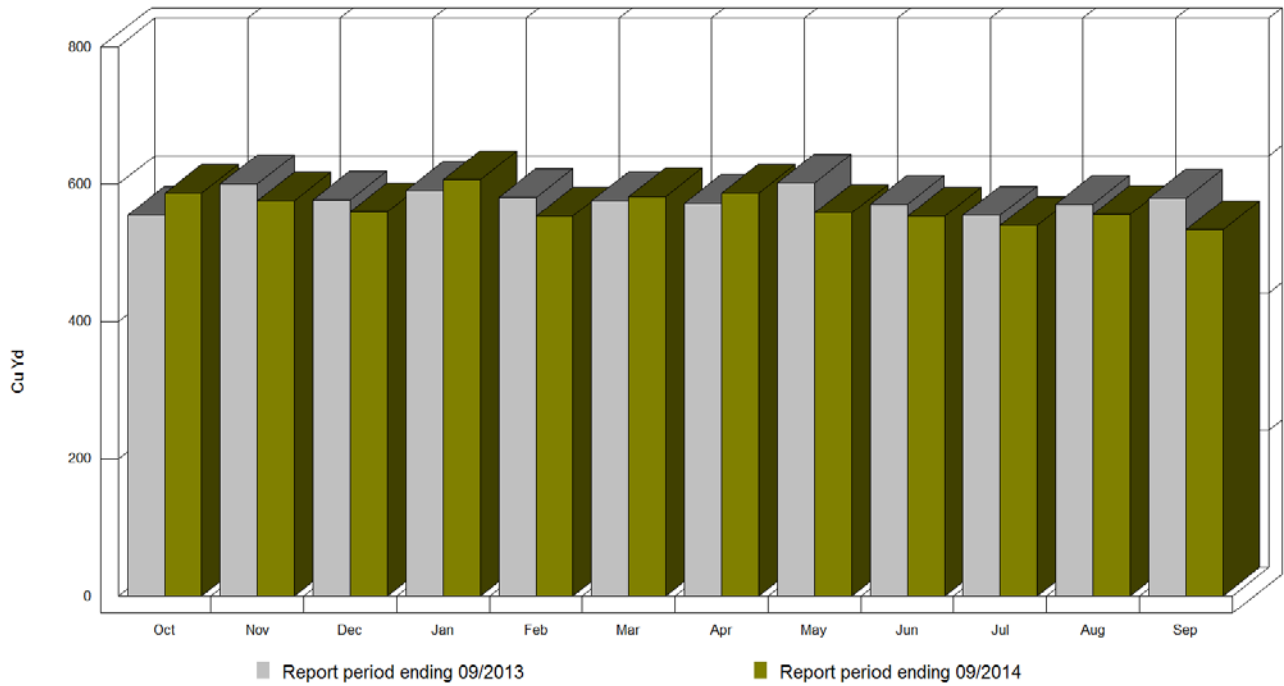
**Water Usage**                                2% Decrease  
**Water Costs**                                2% Increase

**Monthly Sewer Use for Ada County**



Sewer Usage            2% Increase  
 Sewer Costs            4% Decrease

**Monthly Refuse Use for Ada County**



Trash Usage            2% Decrease  
 Trash Costs            1% Decrease





Utility Summary - Annual Usage and Costs by Utility Type											
	CONSUMPTION					COSTS					Difference
	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	
<b>Electricity (kWh)</b>											
Oct	1,270,342	1,361,069	1,442,628	1,452,604	1,418,860	\$73,966	\$71,554	\$69,912	\$80,219	\$93,846	
Nov	1,231,519	1,339,094	1,413,985	1,391,984	1,422,346	\$71,485	\$69,337	\$67,831	\$76,352	\$93,185	
Dec	1,372,551	1,444,327	1,474,810	1,488,646	1,566,102	\$77,226	\$72,772	\$69,412	\$79,706	\$99,556	
Jan	1,323,051	1,522,409	1,505,066	1,641,003	1,586,719	\$75,523	\$75,494	\$71,758	\$87,031	\$100,509	
Feb	1,185,035	1,357,955	1,399,508	1,438,569	1,387,695	\$69,231	\$69,166	\$67,855	\$78,175	\$90,986	
Mar	1,290,629	1,459,538	1,434,124	1,505,636	1,465,176	\$74,869	\$73,875	\$70,725	\$81,953	\$94,886	
Apr	1,218,472	1,336,116	1,370,866	1,444,737	1,397,619	\$70,906	\$68,481	\$68,877	\$80,107	\$92,504	
May	1,242,983	1,386,697	1,476,936	1,541,813	1,501,730	\$72,521	\$70,748	\$74,113	\$86,995	\$99,020	
Jun	1,364,195	1,442,857	1,490,676	1,681,575	1,571,098	\$83,491	\$82,502	\$94,837	\$126,220	\$121,014	
Jul	1,602,302	1,637,819	1,831,313	1,915,207	1,916,922	\$95,137	\$91,927	\$118,799	\$143,581	\$146,229	
Aug	1,702,112	1,881,296	1,954,052	1,956,815	1,883,778	\$102,004	\$105,003	\$126,377	\$145,659	\$142,739	
Sep	1,444,819	1,611,675	1,556,816	1,597,714	1,605,726	\$77,020	\$79,213	\$86,705	\$106,747	\$109,174	
	16,248,010	17,780,852	18,350,780	19,056,303	18,723,771	\$943,379	\$930,072	\$987,201	\$1,172,745	\$1,283,648	\$ 110,903
	0%	9%	3%	4%	-2%	5%	-1%	6%	19%	9%	
<b>Natural Gas (therms)</b>											
Oct	33,318	25,900	29,708	29,147	30,808	\$28,755	\$21,611	\$23,107	\$20,873	\$23,348	
Nov	54,860	48,344	55,147	45,610	53,272	\$44,125	\$39,188	\$41,234	\$25,130	\$39,050	
Dec	80,092	70,766	77,609	69,297	77,748	\$62,374	\$55,222	\$55,576	\$35,507	\$55,126	
Jan	67,082	76,616	75,425	96,160	74,897	\$52,565	\$59,661	\$53,645	\$63,091	\$53,106	
Feb	51,097	58,084	59,862	60,565	52,127	\$40,063	\$45,356	\$41,235	\$39,935	\$37,129	
Mar	47,874	48,581	46,496	43,117	38,627	\$38,285	\$38,740	\$32,633	\$29,292	\$28,263	
Apr	35,121	36,468	28,139	26,403	26,929	\$29,272	\$30,458	\$20,707	\$18,855	\$20,626	
May	25,499	28,321	19,304	19,093	17,798	\$21,308	\$23,701	\$14,242	\$13,643	\$13,647	
Jun	16,073	17,266	13,538	13,226	12,368	\$13,460	\$14,448	\$10,014	\$9,475	\$9,490	
Jul	12,561	12,588	11,188	11,569	10,935	\$10,550	\$10,565	\$8,292	\$8,295	\$8,408	
Aug	12,718	11,944	11,474	11,432	11,194	\$10,672	\$10,028	\$8,501	\$8,200	\$8,611	
Sep	15,465	14,518	14,664	15,615	13,671	\$12,940	\$11,960	\$10,766	\$11,341	\$10,484	
	451,760	449,396	442,554	441,234	420,374	\$364,369	\$360,938	\$319,952	\$283,637	\$307,288	\$ 23,651
	4%	-1%	-2%	0%	-5%	-19%	-1%	-11%	-11%	8%	
<b>Geothermal (Kgals)</b>											
Oct	492	452	782	932	326	\$1,941	\$1,737	\$3,003	\$3,576	\$1,140	
Nov	910	972	1,461	1,260	1,144	\$3,523	\$3,729	\$5,601	\$4,831	\$3,991	
Dec	1,398	1,895	2,248	2,094	3,120	\$5,174	\$7,260	\$8,612	\$7,807	\$10,877	
Jan	1,481	2,040	1,680	4,670	2,278	\$5,488	\$7,817	\$6,439	\$16,277	\$7,943	
Feb	1,152	1,585	1,497	2,573	1,346	\$4,278	\$6,073	\$5,738	\$8,971	\$4,696	
Mar	1,051	1,228	1,097	2,160	930	\$3,941	\$4,708	\$4,206	\$7,534	\$3,245	
Apr	1,029	836	538	1,549	848	\$4,011	\$3,205	\$2,065	\$5,407	\$2,956	
May	820	537	593	1,712	633	\$3,220	\$2,061	\$2,276	\$5,970	\$2,207	
Jun	738	344	272	1,084	285	\$2,901	\$1,323	\$1,046	\$3,780	\$995	
Jul	486	224	347	169	7	\$1,920	\$862	\$1,334	\$593	\$30	
Aug	134	247	370	14	21	\$537	\$951	\$1,420	\$48	\$75	
Sep	288	323	435	190	194	\$1,130	\$1,240	\$1,669	\$665	\$678	
	9,979	10,683	11,320	18,407	11,132	\$38,064	\$40,966	\$43,409	\$65,459	\$38,833	\$ (26,626)
	-27%	7%	6%	63%	-40%	1%	8%	6%	51%	-41%	
<b>Water (CCF)</b>											
Oct	6,682	11,650	8,988	6,767	6,151	\$9,932	\$14,848	\$13,613	\$11,482	\$10,890	
Nov	3,930	5,102	3,903	4,088	4,135	\$6,835	\$7,548	\$7,653	\$8,196	\$8,434	
Dec	3,627	3,834	3,699	3,510	3,322	\$6,451	\$7,806	\$7,259	\$7,701	\$7,425	
Jan	3,642	3,808	3,730	3,509	3,356	\$6,515	\$7,409	\$7,458	\$7,549	\$7,489	
Feb	3,710	3,356	3,564	3,230	3,206	\$6,684	\$6,602	\$7,653	\$7,045	\$7,105	
Mar	4,005	3,824	3,924	4,326	3,685	\$7,332	\$7,566	\$8,308	\$8,820	\$8,317	
Apr	3,943	4,064	4,585	7,926	5,720	\$8,052	\$8,393	\$9,590	\$13,633	\$11,025	
May	5,085	4,495	9,343	12,110	10,432	\$9,690	\$9,275	\$15,039	\$18,888	\$16,828	
Jun	11,698	8,832	12,029	13,020	14,542	\$17,758	\$14,949	\$19,047	\$20,829	\$23,686	
Jul	11,171	12,783	12,787	13,411	12,645	\$17,345	\$19,601	\$20,717	\$21,560	\$22,115	
Aug	13,000	12,289	13,277	12,267	12,413	\$19,873	\$19,306	\$21,407	\$20,116	\$20,484	
Sep	10,503	11,577	12,523	9,563	11,915	\$16,780	\$18,109	\$20,109	\$16,522	\$17,923	
	80,996	85,614	92,352	93,727	91,522	\$133,247	\$141,412	\$157,853	\$162,341	\$161,721	\$ (620)
	-6%	6%	8%	1%	-2%	1%	6%	12%	15%	2%	
<b>Sewer (CCF)</b>											
Oct	1,684	1,229	1,159	1,041	2,280	\$10,059	\$11,450	\$11,746	\$11,284	\$12,644	
Nov	1,582	678	950	1,561	1,889	\$9,839	\$10,365	\$10,734	\$11,805	\$12,033	
Dec	1,599	626	599	1,335	2,386	\$10,433	\$10,936	\$10,998	\$12,141	\$12,711	
Jan	872	865	980	1,533	1,630	\$9,852	\$11,145	\$11,446	\$12,425	\$11,856	
Feb	1,114	1,002	851	1,872	1,548	\$9,514	\$10,531	\$10,596	\$12,211	\$11,098	
Mar	1,426	860	2,198	1,197	2,067	\$11,094	\$11,589	\$12,829	\$12,872	\$13,001	
Apr	1,026	1,669	2,618	2,944	987	\$10,386	\$11,849	\$12,745	\$14,430	\$11,360	
May	1,169	2,558	3,975	4,396	2,673	\$11,016	\$12,304	\$13,829	\$14,392	\$11,920	
Jun	2,259	3,249	1,186	3,978	3,240	\$12,024	\$13,143	\$11,146	\$13,996	\$12,529	
Jul	2,740	3,014	1,027	4,165	3,359	\$12,773	\$13,186	\$11,317	\$14,281	\$12,804	
Aug	3,876	4,713	4,492	5,941	7,132	\$13,424	\$14,533	\$14,597	\$15,796	\$16,402	
Sep	2,171	815	1,051	732	2,160	\$11,915	\$11,071	\$11,012	\$10,728	\$11,403	
	21,518	21,278	21,086	30,695	31,351	\$132,329	\$142,102	\$142,995	\$156,361	\$149,761	\$ (6,600)
	-26%	-1%	-1%	46%	2%	5%	7%	1%	9%	-4%	
<b>Trash/Refuse (Cu Yd)</b>											
Oct	542	517	594	555	587	\$4,503	\$3,679	\$4,786	\$3,689	\$4,570	
Nov	518	521	549	601	576	\$3,999	\$3,730	\$3,905	\$4,592	\$4,165	
Dec	526	544	578	577	560	\$3,965	\$4,468	\$4,444	\$4,140	\$3,863	
Jan	515	554	578	590	607	\$3,654	\$4,304	\$4,446	\$4,467	\$4,789	
Feb	552	493	566	581	554	\$4,283	\$2,994	\$4,291	\$4,309	\$3,597	
Mar	572	560	577	576	583	\$4,647	\$4,375	\$4,420	\$4,130	\$4,282	
Apr	519	541	564	573	587	\$3,710	\$4,118	\$4,257	\$4,028	\$4,323	
May	523	572	548	602	558	\$3,740	\$4,692	\$3,959	\$4,644	\$3,855	
Jun	553	552	564	571	553	\$4,281	\$3,928	\$4,226	\$4,014	\$4,086	
Jul	498	533	555	555	540	\$3,309	\$3,699	\$4,021	\$3,741	\$3,751	
Aug	534	533	547	572	556	\$3,920	\$3,714	\$3,908	\$4,092	\$4,152	
Sep	538	551	577	579	534	\$4,064	\$3,942	\$4,388	\$4,031	\$3,909	
	6,390	6,471	6,797	6,932	6,795	\$48,075	\$47,643	\$51,051	\$49,877	\$49,342	\$ (535)
	6%	1%	5%	2%	-2%	9%	-1%	7%	-2%	-1%	
<b>TOTAL</b>						\$1,659,463	\$1,663,133	\$1,702,461	\$1,890,420	\$1,990,593	\$ 100,173
<b>Increase / Decrease</b>						-3%	0.2%	2.4%	11.0%	5.3%	
<b>sq FT ADDED</b>						1.6%	2.3%	1.1%	1.0%	0.0%	



## PHOTOVOLTAIC (PV) POWER – BARBER PARK

Ada County has an 11.5 KW solar photovoltaic (PV) system on the rooftop of the Barber Park Administration Building that is net-metered by Idaho Power. Each year hundreds of people launch their rafts and inflatables to float the scenic Boise River. Ada County maintains a launch site at Barber Park complete with free air pumps. The solar energy generated by the PV system offsets these costs with “free” energy from the sun.



The system was designed and installed in September 2011 using federal grant money from the American Recovery and Reinvestment Act. It generated 15,213 kWh in calendar year 2013 and 12,918 kWh in 2014, with an estimated annual value of approximately \$1,200.

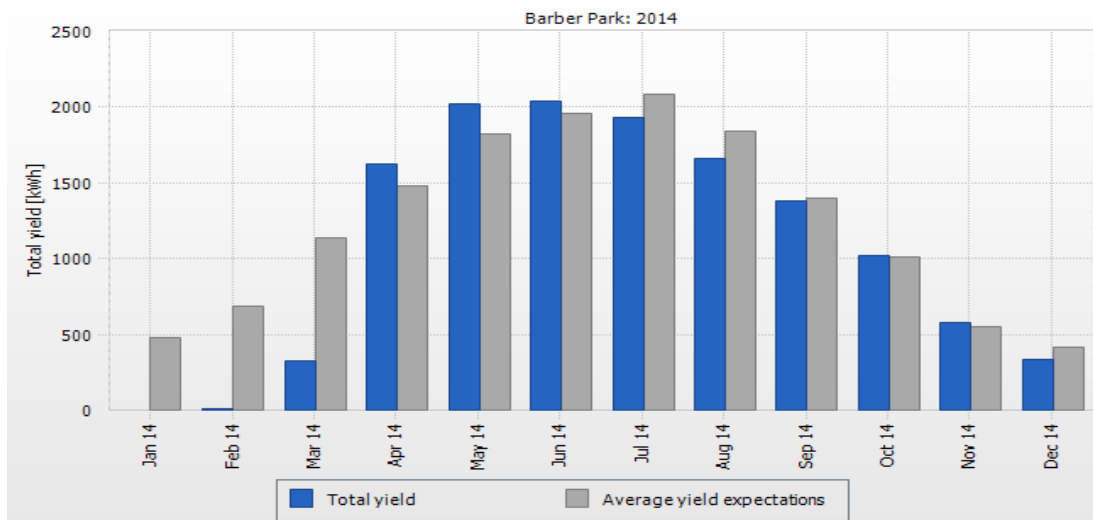
### Solar PV System Specs:

60 Solyndra Panels, @ 191 watts

1 Midnight Solar Combiner Box

2 5000-US SMA Inverters

1 SMA Sunny WebBox Monitoring System



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## HYDROELECTRIC POWER – BARBER DAM

The Barber Dam is a timber-crib dam on the Boise River located about 3 mi (5 km) east of Boise, Idaho. The dam was constructed between 1904 and 1906 to serve as a mill pond for timber. A power plant was also constructed in conjunction with the dam to power the mill and the town of Barberton (Barber) circa 1910. The mill closed down during the Great Depression in 1934.

Ada County acquired the dam in 1977. In 1988, Ada County found an experienced, qualified hydro operating partner and entered into a 35-year lease with Fulcrum to operate the dam. Ada County earns approximately \$28,000 per year for the lease of the dam.

Ada County and Fulcrum are co-licensees of the FERC license that expires in 2023. Fulcrum LLC is a subsidiary of Enel Green Power North America. Fulcrum employees operate the dam and the electricity is sold directly to Idaho Power.

The power house currently contains two Kaplan turbine generators with a combined capacity of 4.14 MW. Power fluctuates with the seasons, but they typically generate about 12,000,000 kWh per year (12,000 MWh) enough energy to power 1,000 homes. (Typical home uses about 1,000 kWh per month. )



# LANDFILL GAS TO ENERGY PROJECT (LFGTE)

## Overview

Harnessing the power of landfill gas (LFG) energy provides environmental and economic benefits to landfills, energy users, and Ada County. In particular, LFG energy projects:

- Reduce emissions of greenhouse gases that contribute to global climate change.
- Offset the use of non-renewable resources, such as coal, oil and natural gas.
- Improve local air quality.
- Provide revenue for Ada County and energy cost savings for users of LFG energy.
- Create jobs and economic benefits for the communities and businesses.

## What is LFG?

LFG is a natural byproduct of the decomposition of organic material in municipal solid waste (MSW) in anaerobic conditions. LFG contains roughly 50 percent methane and 50 percent carbon dioxide and trace amounts of inorganic and other compounds. When waste is first deposited in a landfill, it undergoes an aerobic (i.e., with oxygen) decomposition stage during which little methane is generated. Then, typically within less than one year, anaerobic (i.e., without oxygen) conditions are established and methane-producing bacteria decompose the waste and produce methane and carbon dioxide. Methane is a potent greenhouse (i.e., heat trapping) gas – over 20 times more potent than carbon dioxide, the primary cause of global warming. Landfills are the second largest human-caused source of methane in the United States. This is why LFG must either be burned via flare or controlled combustion at the Hidden Hollow site as heat input to produce electricity.



## Benefits to Ada County

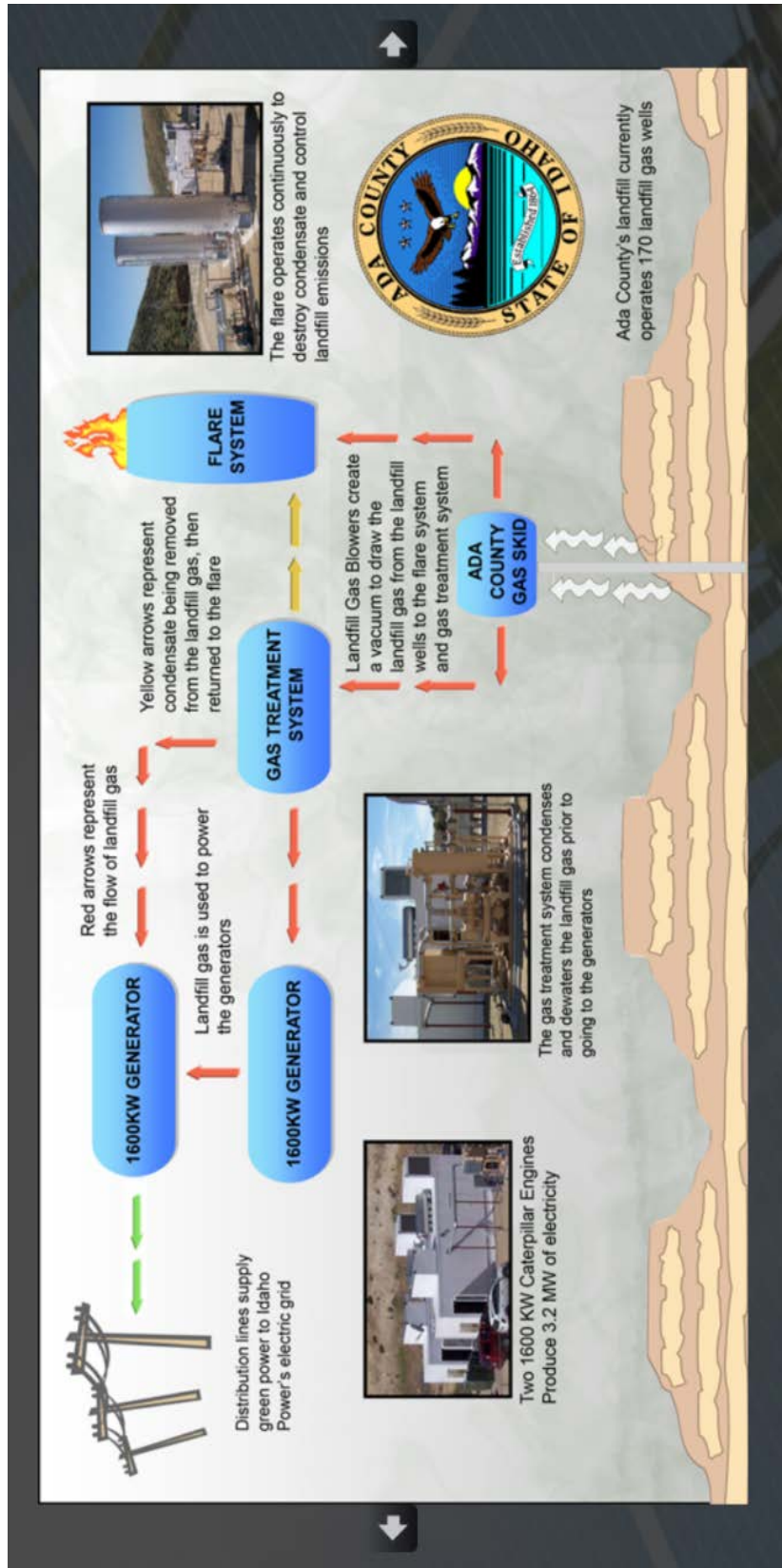
The 3.2 MW LFGTE system at the Hidden Hollow Landfill consists of two 1600 KW Caterpillar reciprocating engines generating almost 2,000,000 kWhs per month which is sold directly to Idaho Power. Hidden Hollow is planning to add two more engines to combust more LFG, increasing the output to 6.4 MW and doubling the revenue to Ada County.

## Annual Energy Production and Revenue

	kWh	Gas	Green Tags	Total
2007	18,364,800	\$157,871.82	\$34,888.56	\$266,147.58
2008	21,435,206	\$192,380.91	\$49,388.60	\$294,731.74
2009	21,370,914	\$194,734.04	\$49,119.17	\$243,853.21
2010	23,093,621	\$215,267.77	\$60,021.95	\$275,289.72
2011	23,683,902	\$225,865.82	\$60,787.84	\$286,653.67
2012	21,722,451	\$211,937.67	\$56,470.07	\$268,407.74
2013	20,278,871	\$202,410.26	\$52,708.08	\$255,118.34
2014	18,242,849	\$186,309.66	\$47,414.48	\$230,990.59
<b>GRAND TOTAL</b>				<b>\$2,121,192.59</b>







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## TRANSPORTATION AND FUEL GOALS

1. PROMOTE ALTERNATIVE TRANSPORTATION FOR COUNTY EMPLOYEES

2. REDUCE EMISSIONS AND FUEL CONSUMPTION FROM COUNTY-OWNED VEHICLES

3. PROMOTE ALTERNATIVE FUELS INFRASTRUCTURE AND USE OF BIOFUELS

4. IMPLEMENT ENVIRONMENTALLY PREFERABLE PURCHASING (EPP) POLICY FOR VEHICLES

5. SUPPORT THE PARKS AND WATERWAYS DEPARTMENT IN MAINTAINING BIKE PATHS AND TRAILS WITHIN THE COUNTY

### Tasks to support the Goals

- Manage alternative transportation program.
- Track employee incentives for vanpool riders.
- Oversee free bus service program for employees.
- Install bike racks and repair stations at County facilities.
- Promote May in Motion to stimulate regular ridership among employees.
- Manage downtown employee parking lots.
- Maintain “No Idling” policy at the Landfill to reduce emissions and fuel use. Provide information about options for flex fuel and hybrid vehicles.
- Participate in the Treasure Valley Clean Cities Coalition.
- Evaluate options to increase use of ethanol-blended fuel.
- Participate in program to make waste cooking oil from Jail and Expo kitchens available for biodiesel.
- Set goal that 50% of new vehicles purchased for the County fleet will be hybrid or flex fuel vehicles.
- Encourage elected officials and department heads to adopt EPP vehicle policies.
- Work with the Parks and Waterways Department to secure funding for improvements and ongoing maintenance of the existing trail system.
- Provide resources such as construction management for trail repairs and improvement projects.



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## Employee Transportation and Parking Program

Ada County partners with the Ada County Highway District, Valley Regional Transit, and others to bring employees some great alternatives to driving to work. While employee parking is available at all County facilities, Ada County also provides easy, affordable alternative transportation options to reduce the need for parking and reduce commuter traffic, while improving air quality in Ada County.

### Bicycles

Bike racks are located at all Ada County facilities for public and employee use. Free, secured bike storage is available to employees in the Civic Plaza parking garage, east of the Courthouse in downtown Boise. Shower facilities are provided in some County locations for employees who walk or bicycle to work. Contact the Operations Department for locations and access codes.



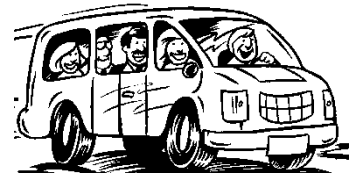
### Bus Passes

All regular Ada County employees can ride the bus for FREE using their employee id card, including employees who commute between Ada and Canyon counties. Just hop on and present your id card!



### Commuteride Vanpools

Commuteride is a local vanpool program run by the Ada County Highway District. Ada County employees are eligible for a free 1-month trial. New regular riders then receive a \$20 transi-check for months 2-4 (provided by ACHD) plus a \$32 voucher (provided every month by Ada County BOCC) which are applied toward the monthly fare. The rider pays any remaining amount. Fees vary depending on routes. Checks and vouchers are distributed each month by the Operations Dept.

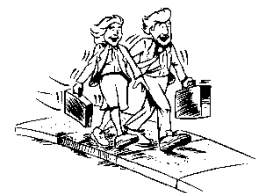


Note: The \$20 transi-checks are only for first time riders.

The \$32 vouchers are provided every month to every rider.

### Guaranteed Ride Home

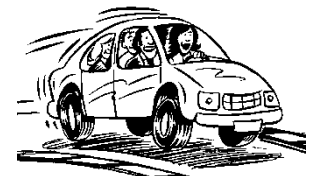
BE SURE TO SIGN UP FOR THE GUARANTEED RIDE HOME PROGRAM IF YOU REGULARLY USE ALTERNATIVE TRANSPORTATION. Commuters in carpools, vanpools, buses - even cyclists and walkers - are eligible for reimbursement for a taxi ride home for emergencies or overtime situations. The participant must be registered with Commuteride prior to the taxi ride and must have arrived to work using one of the modes listed above. An annual maximum benefit per participant is six taxi rides or a total cost of \$300.00. This program is funded by ACHD.



### Parking - Downtown

Limited free or metered parking is available on downtown streets near the Courthouse on a first-come, first-served basis. Employees may purchase a parking space for \$10/month in a surface lot or \$20/month in the parking garage.

Free monthly parking is available downtown for employees who carpool with at least 1 other County employee. Drivers must share a single keycard, but there is no fee for the card. Vanpools and vanpool drivers are also eligible for free, preferred parking.



### County Fleet

The County owns over 472 vehicles for use by employees, with 230 of them driven by the Sheriff's Office. The County operates two fuel islands and several vehicle shops to support its fleet. Replacing old vehicles allows the County to reduce fuel costs through increased efficiency and alternative fuel choices. As of 2015, 25% of the County's vehicles were either hybrid or flex fuel (able to run on 85% ethanol fuel).

Contact the Employee Transportation Coordinator at (208) 287-7100 for additional information.

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## WASTE MANAGEMENT GOALS

1. ADOPT ENVIRONMENTALLY PREFERABLE PURCHASING (EPP) PRACTICES

2. SUPPORT INFORMATION TECHNOLOGY'S COMPUTER PURCHASING STANDARDS

3. ESTABLISH RECYCLING PROGRAMS FOR ALL COUNTY-OWNED FACILITIES

4. SUPPORT WOOD RECYCLING PROGRAM AT THE LANDFILL

5. DEVELOP CONSTRUCTION WASTE RECYCLING PROGRAM

6. MAINTAIN ON-SITE RECYCLING STATIONS AT THE LANDFILL

7. ASSIST WITH MANAGEMENT AND EXPANSION OF THE LANDFILL GAS TO ENERGY PROJECT

### Tasks to support the Goals

- Consider efficiency in the cost analysis equation when making purchasing decisions.
- Purchase products made with recycled material when practical and feasible.
- Identify and “advertise” the standard setup of PCs for reduced energy usage.
- Incorporate PC purchasing standards into EPP program.
- Reuse and recycle PCs.
- Find ways to Reduce and Reuse.
- Provide assistance and recycling incentives for all County-owned facilities.
- Replace paper shredders with shredding service to reduce waste and increase paper recycling.
- Use secure shredding service to destroy County records, ensuring material is recycled and conserving landfill space.
- Support local material reuse programs.
- Continue incentives to Contractors who source separate material.
- Facilitate recycling of gypsum for LEED projects within the County.
- Provide roll-off bins for self-sorting of recyclable material at the landfill.
- Measure and verify LFG quality and volumes derived from the LFG collection system.
- Ensure all contractual obligations of generator to provide documentation of revenue are met.
- Participate in EPA’s Landfill Methane Outreach Program (LMOP).



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# Completed and Current Projects

## FY 2014-2015

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## ADA COUNTY LANDFILL: Hidden Hollow Cap: Stage 2

### OVERVIEW

Ada County has been managing the County's municipal solid waste at the landfill since 1972. The majority of the waste has been deposited in the Hidden Hollow Cell. As the Hidden Hollow cell nears capacity, the County has started the process of installing its cap.

Capping a landfill requires a final, thick layer of soil be put in place, and then native vegetation is planted to blend in with the natural surrounding landscape.

About half of the Hidden Hollow cell was capped in Stage 1 about 10 years ago. This project will cap and close another portion of the Hidden Hollow cell and move the primary operation to the highly engineered, fully lined North Ravine cell.



### HIGHLIGHTS

<b>Location:</b>	Ada County Landfill 10300 N Seaman's Gulch Road Boise, ID 83714
<b>Project Size:</b>	30+ acres
<b>General Contractor:</b>	Knife River
<b>Completion Date:</b>	October 2014
<b>Project Cost:</b>	\$1,800,000 (approx)

### INFO CONTACT

**Ada County Operations**  
 Dave Logan, Director  
 Andrew Zior, Construction Manager  
 Telephone: (208) 287-7100  
 Email: [azior@adswb.net](mailto:azior@adswb.net)

### MAIN FEATURES

- Design work for excavation includes drawings and specifications for the regulatory soil cap
- Detailed requirements and qualifications for construction
- Construction schedule and requisite documents for review by various regulatory agencies and the general public
- Hauling and placement of soil cap soils
- Continuous monitoring for gas emissions and groundwater contamination according to regulation requirements

### PROJECT BENEFITS

- Will help reduce odors by preventing landfill gas from escaping through the landfill cover
- Native vegetation planted to blend in with surrounding landscape
- Most of the daily operations and depositing of municipal solid waste will be moved to the fully lined North Cell Ravine

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**Project Profile**



**ADA COUNTY LANDFILL GAS HYDROGEN SULFIDE REDUCTION**

**OVERVIEW**

As material decomposes in a landfill it creates landfill gas (LFG). LFG is about 50-55% methane and 40-45% carbon dioxide. The balance is made up of many other compounds including nitrogen, oxygen, and a small percentage of Hydrogen Sulfide (H<sub>2</sub>S). While methane and carbon dioxide are odorless, H<sub>2</sub>S is not. Consequently, H<sub>2</sub>S is considered a major source of landfill odor because the human nose can detect it in very small concentrations



The project includes the purchase and installation of a system to remove or "scrub" H<sub>2</sub>S from the landfill gas stream. Reducing H<sub>2</sub>S will help reduce odors and allowing more gas to be drawn for destruction. More gas increases the amount of renewable electricity that is generated.

**HIGHLIGHTS**

<b>Location:</b>	Ada County Landfill 10300 N Seaman's Gulch Road Boise, ID 83714
<b>Design/Build Contractor:</b>	SCS Engineers
<b>Completion Date:</b>	November 2014
<b>Project Cost:</b>	\$3,200,000

**INFO CONTACT**

**Ada County Operations**  
 Dave Logan, Director  
 Andrew Zior, Construction Manager  
 Telephone: (208) 287-7100  
 Email: [azior@adaweb.net](mailto:azior@adaweb.net)

**MAIN FEATURES**

- The Ada County Landfill has an extensive underground gas collection system that draws LFG to help control odors and reduce greenhouse gas emissions
- Some of the LFG collected is run through engines to produce 3.2 MW of renewable electricity
- Excess LFG is burned in enclosed utility flares
- The volume of LFG collected and destroyed is determined by an air permit that limits sulfur oxide emissions
- Installing a system to remove H<sub>2</sub>S from the gas, allows more gas to be collected

**PROJECT BENEFITS**

- Reduces the fugitive gas and related H<sub>2</sub>S odors from escaping through the landfill
- Increases the amount of gas available to generate renewable electricity
- Improves Ada County's ability to better manage the LFG collection system

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## EXPO IDAHO – New Main Entrance Gates and Admin Office Bldg

### OVERVIEW

This project creates a fresh new look for Expo Idaho by replacing 1960's era facilities with a 3,000 sf Administration building and a 2,300 sf ticketing and grand entrance area. The heating and cooling system exceeds the current energy standards by 20% and the lighting uses low-energy LED lamp technology.

The new entry greets visitors with a convenient, safe, and welcoming image. Restrooms and outdoor seating is provided for people entering or leaving the fairgrounds. A new decorative fence and gate system replaces the old chain link fencing. The main drive in the front plaza uses permeable pavers to filter and absorb storm water.



### HIGHLIGHTS

<b>Location:</b>	Expo Idaho 5610 Glenwood Boise, Idaho 83714
<b>Project Size:</b>	2,300 sf Main Entrance + 3,000 sf Admin Bldg
<b>Architect:</b>	Hummel Architects
<b>Civil:</b>	Breckon Land Design
<b>Electrical:</b>	Mulder Engineering Inc
<b>Mechanical:</b>	Engineering Inc
<b>General Contractor:</b>	Jordan-Wilcomb
<b>Cx Agent:</b>	SEEDidaho PC
<b>Completion:</b>	May 2015
<b>Project Cost:</b>	\$1,500,000 (est)

### INFO CONTACT

**Ada County Operations**  
Dave Logan, Director  
Bruce Krisko, Construction Manager  
Telephone: (208) 287-7100  
Email: [bkrisko@adaweb.net](mailto:bkrisko@adaweb.net)

### MAIN FEATURES

- A modern, user-friendly main entrance to Expo Idaho for patrons.
- New ticket rooms, accessible restrooms, and open plaza area at the main entrance gates.
- Improved office space for Expo Idaho staff.
- Upgraded landscaping around the entrance gates, admin office, and roadways in the immediate area.

### PROJECT BENEFITS

- The design concept will maximize sustainability in all five of the categories outlined in the LEED Green Building Rating System including: sustainable sites, water efficiency, energy and atmosphere, indoor environmental quality, and materials and resource efficiency. (LEED certification will not be part of the project.)
- Indoor environmental quality measures will include the use of low VOC adhesives, carpets, paints, and composite woods.
- Demo material and construction waste will be recycled to the maximum extent possible
- New building materials must contain recycled content wherever feasible
- Building materials must be locally sourced wherever possible
- Storm water management using Best Management Practices to keep water on-site.
- Water efficient landscaping.
- Reduced Heat Island effect using hardscape and landscape features.
- Locally sourced materials include exterior CMU, metal wall panels, concrete walks, exposed concrete floors and millwork.
- Interior material characteristics include recycled content, Low VOC emissions and formaldehyde free content for millwork materials.





## Idaho River Reflections

### Free Flows from Those Who Know at Idaho Rivers United



## New Expo Idaho entrance is more than pretty; it's practical

**Video by Matt Sato, IRU Intern**

**Words by Page Warren, IRU Intern**

Green building practices that will help conserve the Boise River have arrived at Expo Idaho in Garden City.

Construction is wrapping up this month at the facility's grand entrance and administration buildings, where remodels include more water-wise, energy-smart appliances, along with new environmentally friendly storm-water infrastructure.

Construction is wrapping up down at Expo Idaho where the Grand Entrance and Administration Buildings have been remodeled to include more water-wise/energy-smart appliances along with new storm-water infrastructure.

According to Selena O'Neal, energy specialist for Ada County Operations, the indoor environmental improvements at the administration buildings range from use of low VOC adhesives, carpets, paints and composite woods along new recycled and locally sourced building materials. Low-flow toilets and LED lighting were also used.

The new administration building and the grand entrance were designed to maximize sustainability as outlined by LEED Green building standards. However, the county did not seek LEED certification due to associated costs and the relatively small size of the project.

Just outside of the main entrance are a series of planters that boast drip irrigation systems and drought tolerant shrubs and trees. Considering that, on average, 75 percent of a buildings total water use is for landscaping, these seemingly small improvements may have a large impact on overall water consumption for the facility.

Additionally, green storm-water infrastructure lines the driveway between the main entrance and the facility's parking lot. This takes the form of permeable pavers (layered concrete pavers separated by joints filled with small stones). The pavers will effectively retain storm water from the new buildings on site and significantly reduce pollution. The pavers will also take on additional storm water from the adjacent parking lot and reduce the environmental impact from that area as well.

Landscaping for the project was designed by Jon Breckon of Breckon Land Design.

"I think the biggest issue Idaho will face concerning water is quantity," Breckon said in a recent interview.

Small changes in water consumption can make a big difference. The new construction at Expo Idaho is a great start, keep your eyes open for Ada County's next green move.

Article posted on **July 20, 2015** by **admin**



## ADA COUNTY PARAMEDICS STATION 17 - RIDENBAUGH

### OVERVIEW

The project will completely remodel the existing paramedic response station at 1666 W Ridenbaugh, to provide an efficient facility for a two- to three-person crew of Ada County Paramedics. Situated on a .154 acre lot, it was built in 1954 as a fire station and has been used as a paramedics station since 1996.

The 2,136 sf building is located in Boise City's North End Historic District and is subject to regulations imposed by the district. The existing footprint will be the limit for construction, with no expansion or alteration of the building's exterior footprint. The project is also subject to a conditional use permit from the City of Boise, and any design and plans will require review and approval from the City of Boise.



### HIGHLIGHTS

**Location:** 1666 W Ridenbaugh  
Boise, Idaho

**Project Size:** 2,135 sf

**Architect:** McKibben+Cooper  
Architects

**General Contractor:** BriCon, Inc

**Completion Date:** June 2015

**Project Cost:** \$900,000 (est)

### INFO CONTACT

**Ada County Operations**  
Dave Logan, Director  
Bruce Krisko, Construction Manager  
Telephone: (208) 287-7100  
Email: [azior@adaweb.net](mailto:azior@adaweb.net)

### MAIN FEATURES

- Remove all existing interior walls and systems and construct new interior walls, finishes, HVAC, plumbing, and electrical systems
- New windows, doors, and roof
- 3 bedrooms and WF bathrooms with showers
- Dayroom, kitchen, laundry, and report writing room
- All new low-water use landscaping and irrigation system
- Sidewalks to be replaced

### ENVIRONMENTAL BENEFITS

- The design concept will maximize sustainability in all five of the categories outlined in the LEED Green Building Rating System including: sustainable sites, water efficiency, energy and atmosphere, indoor environmental quality, and materials and resource efficiency
- Energy performance will be designed to be approximately 21% above ASHRAE 90.1-2004 standard
- Indoor environmental quality measures will include the use of low VOC adhesives, carpets, paints, and composite woods
- Demo material will be recycled to the maximum extent possible
- New building materials must contain recycled content wherever feasible
- Building materials must be locally sourced wherever possible



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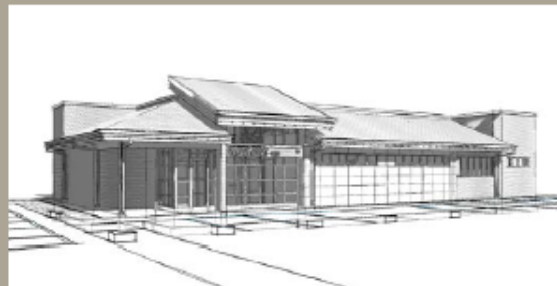


## ADA COUNTY JUVENILE PROBATION SERVICES - WEST

### OVERVIEW

The project will deconstruct the existing 2,500 square foot building located at 124 W Franklin Road in Meridian, and design and construct a new, larger building in its place. The new facility is intended to provide office space for probation officers and other employees, as well as meeting space and group rooms to serve the expanding juvenile population in west Ada County.

Demolition of the old building and construction of the new facility will begin in July 2015 with completion planned for the spring of 2016. In the meantime, the 11 Juvenile Probation staff normally housed there will serve about 245 juveniles and their families from the Boise location at 400 N Benjamin Lane.



### HIGHLIGHTS

<b>Location:</b>	124 W Franklin Road Meridian, Idaho
<b>Project Size:</b>	5,000 sf
<b>Architect:</b>	Lombard Conrad Architects
<b>General Contractor:</b>	Morgan Construction
<b>Completion Date:</b>	May 2016
<b>Project Cost:</b>	\$1,348,000 (est)

### INFO CONTACT

Ada County Operations  
 Dave Logan, Director  
 Doug Cox, Construction Manager  
 Telephone: (208) 287-7100  
 Email: [dcox@adaweb.net](mailto:dcox@adaweb.net)

### MAIN FEATURES

- New office space and improved work environment
- Enhanced meeting room facilities
- Increased parking availability
- Improved floor plan to meet service delivery needs

### PROJECT BENEFITS

- Supports the mission of the Juvenile Court Services Department to provide professional services that build, reinforce, and sustain skills to enhance the lives of youth and families
- Provides a convenient site in West Ada County for juveniles to meet with probation officers
- Affords appropriate space to provide services in West Ada County eliminating Meridian residents commuting to Boise for same services

### ENVIRONMENTAL BENEFITS

- The design concept will maximize sustainability in all five of the categories outlined in the LEED Green Building Rating System including: sustainable sites, water efficiency, energy and atmosphere, indoor environmental quality, and materials and resource efficiency.
- The project is targeting LEED v2009 NC silver-level certification
- Energy performance designed to be above ASHRAE 90.1-2004 standard
- Indoor environmental quality measures will include the use of low VOC adhesives, carpets, paints, and composite woods.
- Demo material will be recycled to the maximum extent possible
- New building materials contain recycled content wherever feasible
- Building materials will be locally sourced wherever possible



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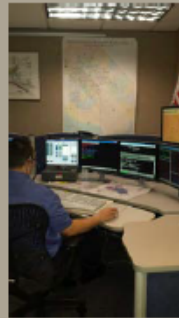


## ADA COUNTY 911 DISPATCH CENTER

### OVERVIEW

The project will design and construct a new 25,000 sf 911 Dispatch Center at the Meridian Campus, near the intersection of Locust Grove and Pine Street. It will be done in three phases: 1— total design of the project, 2— shell and core bid package and construction, 3- interior tenant improvements and the remaining build-out of the buildings and site.

A Request For Qualifications (RFQ) for architectural and construction services was released in February 2014. CTA was selected as the Architects of record. Programming has started with Ada County Dispatch, Ada County IT, and Boise City IT. Ada County Emergency Management will not be a part of the project.



### HIGHLIGHTS

**Location:** Meridian Campus  
Pine Street  
Meridian, Idaho

**Project Size:** 25,000 sf

**Architect:** CTA

**General Contractor:** tbd

**Completion Date:** Design: tbd  
Construction: tbd

**Project Cost:** \$7,300,000 (est)

### INFO CONTACT

Ada County Operations  
Dave Logan, Director  
Bruce Krisko, Construction Manager  
Telephone: (208) 287-7100  
Email: [bkrisko@adaweb.net](mailto:bkrisko@adaweb.net)

### MAIN FEATURES

- Consolidated 911 and Dispatch center for all of Ada County including medical, fire, and local law enforcement agencies
- Administration space for approximately 14 offices and restrooms
- A dispatch floor with approximately 25 dispatchers
- Training room with capacity for 10 people

### PROJECT BENEFITS

- Meridian Campus provides a centralized location and meets the known space and hazard-avoidance requirements
- Portions of the facility will meet critical services criteria for data centers
- Will be NFPA 1221 compatible, which means fully redundant systems and structure designed to withstand certain impacts and earthquake loads

### ENVIRONMENTAL BENEFITS

- The design concept will maximize sustainability in all five of the categories outlined in the LEED Green Building Rating System including: sustainable sites, water efficiency, energy and atmosphere, indoor environmental quality, and materials and resource efficiency. (LEED certification will not be part of the project.)
- Energy performance will be designed to be approximately 21% above ASHRAE 90.1-2004 standard
- Indoor environmental quality measures will include the use of low VOC adhesives, carpets, paints, and composite woods.
- Demo material will be recycled to the maximum extent possible
- New building materials contain recycled content wherever feasible
- Building materials will be locally sourced wherever possible



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# Contacts

## ADA COUNTY OPERATIONS

**Dave Logan, Director, [dlogan@adaweb.net](mailto:dlogan@adaweb.net)**

**Scott Williams, Deputy Director, [opwillis@adaweb.net](mailto:opwillis@adaweb.net)**

**Selena O'Neal, Energy Specialist, [soneal@adaweb.net](mailto:soneal@adaweb.net)**

**Bruce Krisko, Construction Manager, [bkrisko@adaweb.net](mailto:bkrisko@adaweb.net)**

**Doug Cox, Construction Manager, [dcox@adaweb.net](mailto:dcox@adaweb.net)**

**Phone: 208.287.7100**



## 2015 BOARD OF ADA COUNTY COMMISSIONERS

**Dave Case, District 3 Commissioner**

**Jim Tibbs, District 1 Commissioner**

**Rick Yzaguirre, District 2 Commissioner**

**Website: [www.adacounty.id.gov](http://www.adacounty.id.gov)**

**Email: [boccl@adaweb.net](mailto:boccl@adaweb.net)**

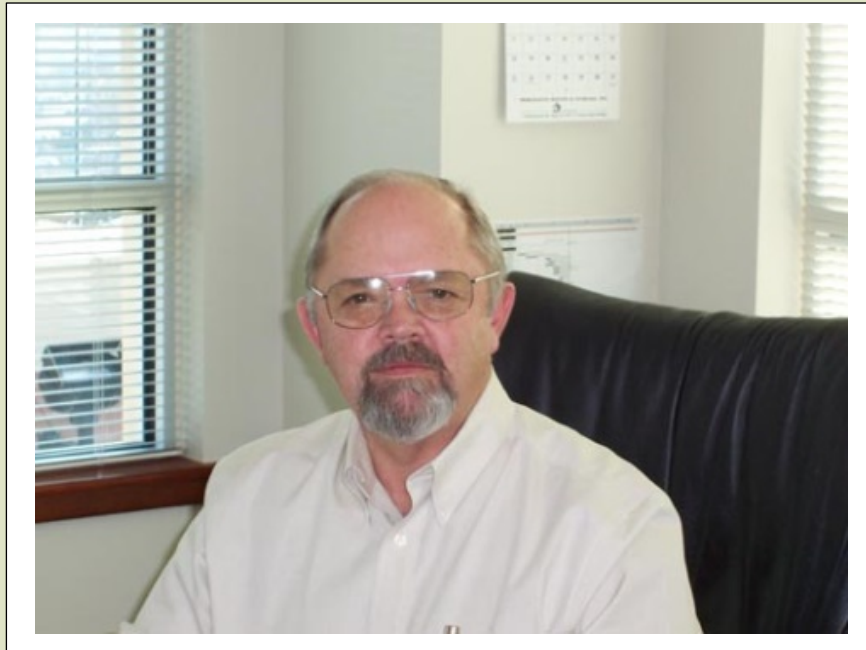
**Phone: 208.287.7000**



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*Cheers to Dave Logan  
on his retirement after 32 years of  
dedicated service to Ada County.*

**Thanks for the “sustainable” memories!**



*You truly are a great leader  
and because of your efforts,  
Ada County is a leader as well.*

**We applaud you and we will miss you!!!**