



Sustainability Initiative



The use of the leaf with the RPC logo represents a connection to sustainability at the Champaign County Regional Planning Commission. This will be used to certify documents, processes, materials and operations as they meet our sustainability goals.

Sustainability Initiative

Champaign County
Regional Planning Commission

February 2009

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Baseline Inventory

Commence Action on Sustainability

On August 22, 2008, the Champaign County Regional Planning Commission (CCRPC) approved a sustainability initiative developing methodological shifts to help achieve a balance of environmental, economic, and social tradeoffs. Initially, themes were identified for further study including paper use, Styrofoam use, energy efficiency, office supplies, building systems and more. The sustainability initiative is designed to be more than a formal plan or strategy. The initiative reduces the amount of research and goal setting required, and moves quickly to implementation. Research is limited to developing baselines and specific directions that will have the greatest impact. The result is a series of actions and changes in practice that better comply with social and environmental concerns of the day. The initiative establishes baselines and recommends trusted mitigation and adaptation measures.

Office Sustainability Defined

Sustainability is defined as: *Meeting the needs of the present without compromising the ability of future generations to meet their own needs.* This definition started through an international conversation about sustainable development; however, it is used for many other variations of the term sustainability. In the case of the CCRPC Sustainability Initiative, the definition is translated to “office sustainability” and reinterpreted to operations, practices, or systems in order to better balance the needs of current generations and future generations.

Sustainability Committee Formation

The CCRPC Sustainability Committee formed with representatives from with the objective of brainstorming specific tasks for personnel in each division of CCPRC. This was accomplished through meetings as well as surveys completed by committee members and staff (Appendix A.- Staff Survey) Templates were modified and used based on strategies developed by the City of Portland, Oregon. The Committee first met on September 16th, 2008 to discuss the definition of office sustainability and a sustainability commitment statement. The group provided valuable information and insight into their divisions as well as different aspects of sustainability.

The Organization has Limitations but Can Overcome Them

The identified measures and changes that are proposed require coordination with operational controls currently in place at the CCRPC. The organization currently has limited control of the building due to rental agreements, shared janitorial services, and shared utility bills. Other limitations are self induced through existing monitoring systems that do not

These systems can be changed, and as a tenant, the CCRPC can take a leading role in helping Champaign County realize opportunities for greater efficiency in their buildings and more sustainable office practices.

Systematic Changes can be Made

Staff members from each CCRPC division are given purchasing responsibilities without a comprehensive system for record keeping. For example, current systems do not track the number of reams purchased in order to continually monitor paper consumption. This prevents the CCRPC from assessing ways to reduce paper waste and environmental impacts derived from the use of virgin paper products. Refining the system to a single point of contact that tracks purchases would allow CCRPC to better understand consumption and provide information that can help reduce environmental impacts.

Educate about Change that RPC cannot Control

Additional limitations occur due to CCRPC's rental agreement for its primary location in Brookens Administrative Center. Billing for electricity and gas based on square footage makes it impossible to determine actual consumption of resources. This also minimizes any potential financial savings that CCRPC might realize through implementing energy cost reduction measures (ECRM's) by spreading the benefit across the entire building. CCRPC can express its desire and possibly help fund necessary changes to better identify consumption habits. Educating about savings and energy efficiency would provide a dual benefit for CCRPC, greater partnerships with the county, and the benefits realized through increased building efficiency.

Baseline Data Collection

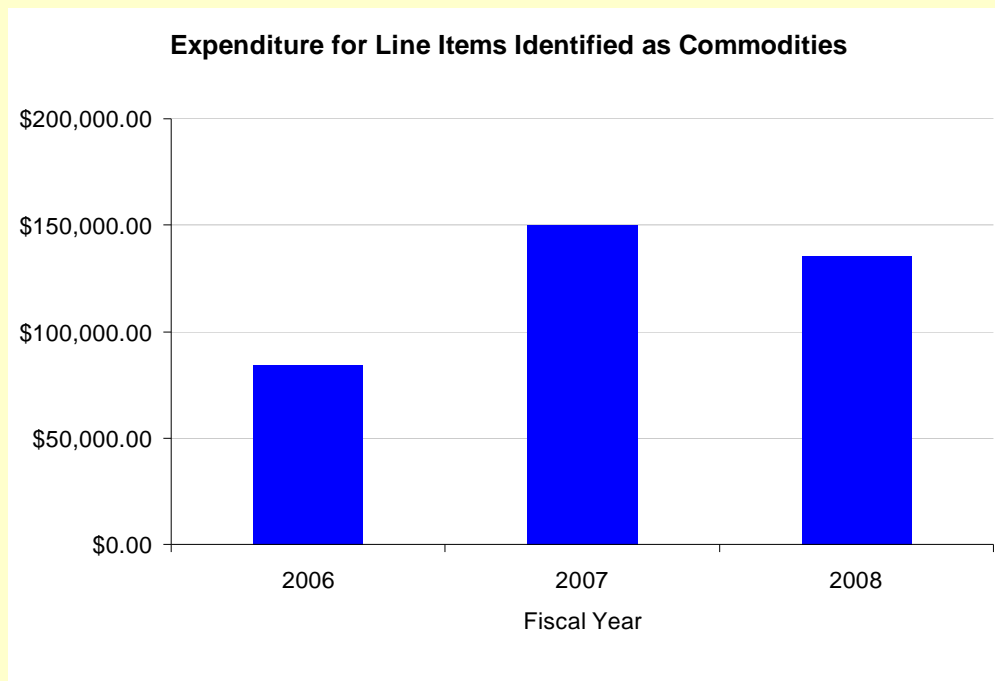
To begin tracking impacts and progress towards sustainability, baseline data was collected going back to 2006 depending upon data availability. A series of tools and checklists were used to connect potential office practices to sustainability goals. The baseline inventory is organized by sustainability goals (underlined) that were adopted by the Commissioners. Profiles are used to connect CCRPC to the goals and establish systems that will track progress towards the objectives. Under broad topic areas, there is information about the background theme, current CCRPC practice, objective specific baseline data, and CCRPC strategies. Of particular importance are the highlighted strategy bullets. These statements include suggestions for greater information collection. Once this data is developed, it will be included in the baseline inventory.

Consume Less

Spending Profile

Consumed goods purchased for CCRPC are common to all offices. This includes paper, envelopes file folders, staplers, tape dispensers, post-it notes, pens, pencils, computers, printers, software, and materials used in meetings. Company expenditures for FY2008 can be summarized as the following: Personnel – 34%, Commodities 2%, Services – 62%, Capital Outlay 2%. The following graph shows spending by line item category for the past three fiscal years. Personnel and services make up the majority while commodities and capital outlay comprise a very small portion of annual expenses. Even though commodities represent only a fraction of all CCRPC expenditures, there is greater potential savings there than are present in personnel or services categories.

Further analysis of expenditures shows that 'Office Supplies' and 'Equipment less than \$1,000' comprise a significant share of commodities purchased, 22.9% and 40.5% respectively in 2008. Purchases itemized as office supplies include kitchen supplies, file folders and pens. Those itemized as Equipment include a range of higher cost items like furniture and software licenses. Energy is consumed to create a suitable working environment (temperature, lighting) and power equipment used on a daily basis. The consumption of energy is furthered addressed in the Energy Efficiency section.



Printer and Copier Paper

Background:

Concerns about paper use are widely known and commonly debated. Paper has been an essential part of our life and work, but its use has serious environmental consequences. The Environmental Defense Fund¹ has researched issues related to office paper use and provides a list of what is at stake. They also provide suggestions for what consumers can do.

What is at stake?

- Functional value of forests
- Water quality as a result of high impact fiber harvesting
- Impairment of the integrity, health and diversity of ecosystems
- Water, chemical and energy consumption during manufacturing
- Air and water pollution emitted during manufacturing
- Solid waste generation from manufacturing
- Pollution from waste collection, land filling and incineration

What can businesses do?

- Systematically take action to reduce the use of paper
- Recycle used paper
- Purchase paper that has maximum postconsumer content consistent with functional and economic considerations
- Purchase paper products that can be recycled after use.
- Give preference to paper suppliers who are in compliance with the American Forest and Paper Association (AF&PA) or Sustainable Forestry Initiative (SFI).
- Give preference to minimum-impact mills.

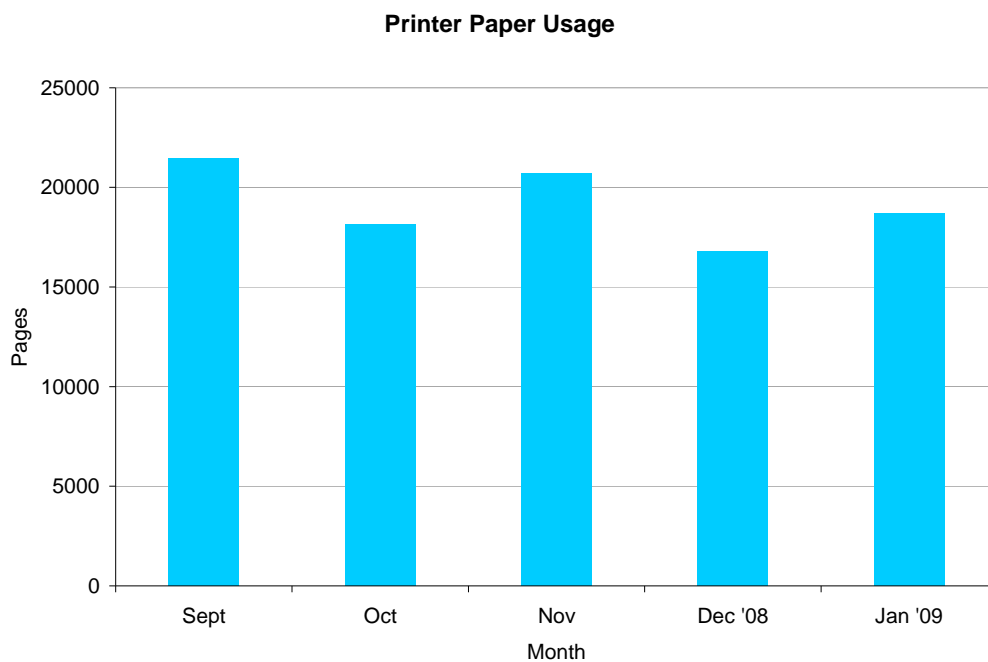
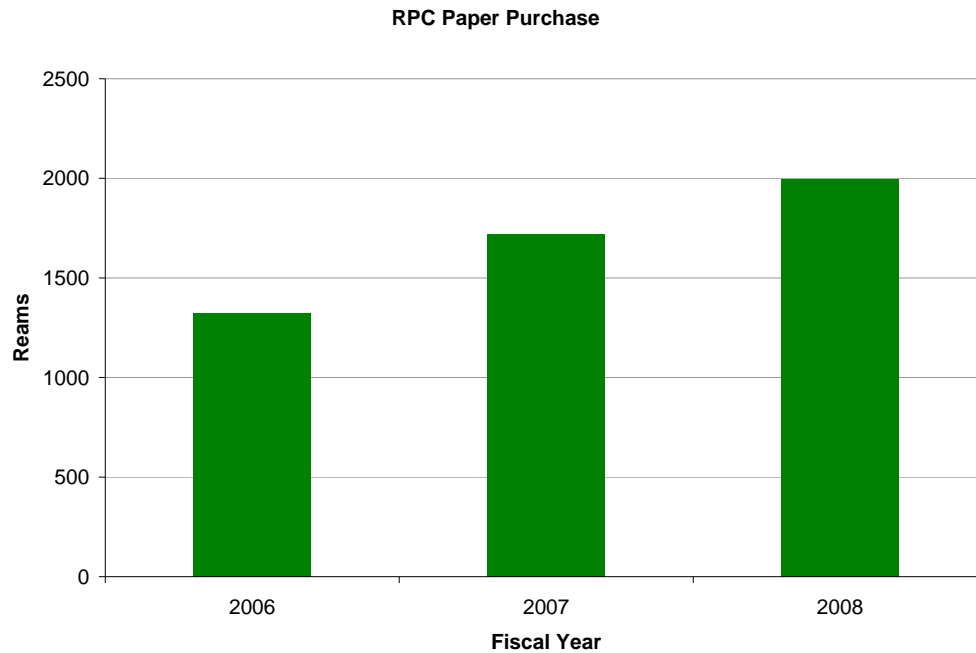
While recycled paper also uses resources and generates negative environmental impacts, it requires fewer inputs and generates fewer outputs than virgin paper and is therefore a better choice.

Practice:

CCRPC currently purchases paper through Rogards Office Supply Store and the County Stocks office. Reliable data has been collected for FY 2008 but comparison to prior years is impossible due to differences in reporting under the Xerox contract. Estimates were used to develop the baseline, but should no longer be used when sufficient data is acquired.

- In FY 2007, CCRPC increased its paper purchase by 30 %, from FY 2006
- In FY 2008, CCRPC purchased 1336 reams of paper at a cost of \$6,204

¹ Source: Environmental Defense Fund Paper Task Force
<http://www.edf.org/article.cfm?ContentID=1635>



RPC Strategies:

- Adopt a policy to reduce paper use
- Set fax machine to not print cover pages
- Make budget materials available and reviewable electronically
- Set copiers and printers to duplex print by default
- Distribute paystubs electronically
- Distribute monthly budget reports electronically
- Convert paper documents to electronic format for storage

Sustainable Office Checklist – Paper Use

2008 2009

Fax machine set to not print cover sheets
 Printers set to not print banner sheets
 Copiers default set to two sided copying
 Printers default set to two sided printing
 Employees use e-mail rather than paper correspondence
 Forms and documents created and distributed electronically
 Paper documents are converted to an electronic form for storage
 Paycheck stubs distributed electronically

**Disposable Plates and Cups****Background:**

CCRPC purchases paper plates for guest and employee use in the break room. Paper plates technically are biodegradable, however when placed in a landfill, are plainly covered and sealed, resulting in no benefit or cycle of materials. There is no clear sustainable choice for disposable plates. CCRPC should focus on reducing consumption of disposable items and provide incentives for using reusable dishware and disincentives for disposable items.

CCRPC purchases Polystyrene cups for use by guests and employees for drinking hot beverages. These are often referred to as Styrofoam, which is a creation of DOW Chemicals, not a separate chemical composition. Polystyrene is comprised of Benzene, Styrene, Ethylene, and a blowing agent (now generally hydrochlorofluorocarbons (HCFC's)). Benzene is a clear colorless liquid with a noted pleasant odor that is extracted from coal. Styrene is a clear oily liquid that is extracted from petroleum, though it is naturally found in many foods including strawberries, coffee, peanuts and beans. Ethylene is a colorless gas that, like HCFC's, is used as a blowing agent. Polystyrene waste easily breaks into pieces but takes a long time to dissolve into its liquid origins, if dissolves at all².

There is little conclusive evidence about the health and environmental impacts associated with using polystyrene cups. The materials used to create polystyrene containers have been shown to pose human health risks. While studies have been done, there is little known about migration of the chemicals from container to ingested foods. The benefits of using either paper or polystyrene disposable cups are debatable, with no clear sustainable choice. Paper cups often require a sleeve which may increase the amount of paper used. Paper does biodegrade, but in landfills, any organic matter is captured and stored in the landfill. The obvious choice is to use reusable cups as the most sustainable product³.

² <http://www.ecojoes.com/styrofoam-cups-vs-paper-cups/>

³ http://www.americanchemistry.com/s_plastics/sec_pfpag.asp?CID=1439&DID=5231
<http://www.grinningplanet.com/2008/04-08/foam-cups-polystyrene-cups-article.htm>

Practice:

Over the past two years, the RPC has purchased 3,000 polystyrene containers cups⁴.

2007 – 1500 cups (\$43.30)
 2008 – 1500 cups (\$40.08)

RPC Strategies:

- Reduce number of disposable cups used
- Establish a disincentive for using polystyrene cups
- Reduce availability of polystyrene cups

Office Supplies

Background:

The majority of office products manufactured today do not represent the interests of tomorrow. They are made for limited use with limited options for reuse and reclamation. This idea is captured and solved in the ideology termed Cradle to Cradle⁵, where manufactured goods are created with the ability to reclaim all materials to redevelop into other goods. A refrigerator is manufactured ensuring material reusability so that it does not end up in a landfill. One method of achieving this proposed by the Cradle to Cradle ideology is to place the burden on manufacturers through lease agreements or a take back clause.

Practice:

In 2007, office supplies under \$1,000 comprised nearly 50% of all CCRPC commodity expenditures⁶. A number of CCRPC staff are authorized to initiate these types of purchases even though strict inventories are generally not maintained that would help determine the actual need for a particular supply. While staplers are convenient to have at every desk, one per office is more than necessary. We currently share copiers, paper cutters, and other supplies. This should be paradigm for all office supplies.

RPC Strategies:

- Share as many office supplies as possible.
- Purchase office products that can be reclaimed (either in full or as raw material).
- Maintain inventories of commonly needed office supplies.

⁴ Established from RPC invoice records

⁵ McDonough, William, Braungart, Michael. Cradle to Cradle. North Point Press. New York. 2002

⁶ 2007 RPC Financial Report

Generate Less Waste

Waste Profile

Waste in this instance is defined as material that is destined for a landfill. Staff responded to a survey a question about what they most often found in their garbage. Respondents stated that food scraps, food packaging, plastic wrappers, napkins and tissues made up the majority of waste generated at CCRPC. A subsequent survey of garbage cans showed that paper, mailing tabs, and cardboard are also commonly sent to landfills as well. Waste is a direct result of purchases. Purchases that account for potential waste generated through packaging or limited usefulness can greatly reduce the amount of waste generated.

CCRPC staff members at Brookens Administrative Center are currently able to recycle a great variety of materials by placing them in blue bins in offices and common areas throughout the office. Signs are placed in highly visible locations noting materials that are recyclable. Approximately half of all offices currently have a recycle bin located next to the desk. 3 of the 5 print stations have recycle bins located next to them.

Reuse and Recycle

Background:

After establishing ways to consume as little as possible, it is important to reuse and recycle all materials. Reuse saves natural resources, reduces toxicity of waste and can reduce costs incurred from purchasing new⁷. Recycling can provide jobs, reduces the need for landfilling and incineration, prevent some sources of pollution, save energy, conserve raw material resources, and help sustain the environment for future generations⁸.

Practice:

The supply room provides a place to collect and reuse and share office materials. The CCRPC Brookens location currently contracts with Allied Waste Management for solid waste and recycling disposal. Recycling occurs in a single stream process where all recyclables are collected together and eventually sorted at a facility. Recycling bins are located in nearly approximately half of the offices and cubicles and large bins are located in high traffic areas.

RPC Strategies:

- Consume as little as possible, and then reuse and recycle
- Provide recycling drop-off for materials not collected by hauler (glass, batteries, lights)
- Educate staff
- Share equipment when possible
- Estimate amount of waste/recycling CCRPC generates

⁷ <http://www.epa.gov/epawaste/conserve/rrr/reduce.htm>

⁸ <http://www.epa.gov/epawaste/conserve/rrr/recycle.htm>

<u>Sustainable Office Checklist – Recycling and Reuse</u>	2008	2009
Employees are aware of recycling policies and opportunities		
Signs are used to remind employees of recycling opportunities		
Recycling is a part of new employee orientation		
Inform employees about recycling policies and opportunities		
Recycling bins are conveniently located		
Recycling bins are located near copiers and printers		
Recycling bins are located in offices		
The office has a recycling policy		
Alternatives exist for recyclable materials that are not picked up		
Batteries		
Glass		
Light bulbs		
Recycling policy incorporates local fire code		
Are cardboard boxes available for reuse		
Can suppliers use alternative packaging materials		
Can other nearby offices reuse cardboard boxes		
White goods are recycled, traded or reused (refrigerators, desks)		
Janitorial staff trained and supervised to comply with recycling /reuse policy		

Packaging

Background:

Nearly all products purchased in the United States are packaged to some degree for easy handling, safety, and theft deterrence. The regular use of plastics in packaging is highly detrimental to our environment and produces vast quantities of waste. Manufacturers are beginning to find that they can save money and help reduce waste by redesigning their packaging. Common goals are to have packaging that is low impact, minimizes waste, compliant with environmental standards, and recyclable.

Practice:

The CCRPC purchases products on regular basis, including batteries, pens, and paper. Each of these products has a variety of brands and packaging that if considered, could help the RPC significantly reduce the waste it generates, specifically waste destined for a landfill.

RPC Strategies:

- Amend purchasing policy to reduce amount of packaging on purchased goods.
- Reduce food packaging waste by purchasing snack products with biodegradable/recyclable/reusable containers.

Composting

Background:

Composting is nature's way of recycling. It can be done in the backyard, at offices and at schools. People and organizations use composting because it is a natural process of decomposition that turns into a valuable product and it saves money by reducing the cost to hauling the waste. Office materials that could be composted include food scraps coffee grounds, coffee filters and tea bags for nitrogen rich inclusions; paper plates, shredded paper, and dried grass clippings provide carbon rich materials. This type of initiative could not only save money (in the long term) for the county, but it could provide jobs and even provide a source of income, by providing compost drop-off for a fee and then selling the soil additive. Boulder County Colorado has established a goal of zero waste "or darn near" and to that end has initiated a number of methods for residents to learn about and participate in composting. Opportunities include curbside pick, back yard bins, and numerous drop-off sites.

Practice:

In a 2008 CCRPC staff survey about sustainability, respondents stated that food scraps were one of the main items in their trash cans. There currently is no method for large scale composting of food scraps in Champaign County. Staff can be encouraged to take food scraps to home compost bins; however there is an opportunity to utilize space on the county campus to create a food compost area that serves county buildings including the jail, nursing home, and administrative center⁹. If the majority of our solid waste is compostable, we could virtually eliminate solid waste from CCRPC through composting. The CCRPC currently has no method available for collecting compostable materials. Some employees might take food scraps home for composting.

RPC Strategies:

- CCRPC can work with local governments to develop a composting program that diverts organic material from landfills.
- Encourage RPC employees to compost at home until the office can participate in a county wide program.

⁹ <http://www.bouldercounty.org/recycling/compost/comphome.htm>
<http://www.jgpress.com/biocyte.htm>

Conserve Water

Water Profile

No method currently exists to measure water consumption for CCRPC. Implementing objectives related to conserving water will be used as a metric for achieving this goal. Water use is limited to the kitchen sink and restrooms in the Brookens Administrative Center. Water use is more extensive at Head Start sites for meal services. However, primary concern is for use of water in the outdoor environment. Greatest consumption of water is often tied to playing fields and gardens. While CCRPC doesn't currently care for any these types of spaces, working with property owners could have a tremendously beneficial impact on water. Impervious surfaces overload storm sewers and wash pollutants into surface waterways. Allowing storm water to seep into the ground, or capturing it for grey water uses may provide cost savings and would certainly benefit the environment.

Background:

Water use and consumption broadly envelops all water entering and leaving the site or facility. This includes potable water, water entering drains, rain water, groundwater wells, and surface waters. We are faced with the uncertainty of future water supplies and water quality locally and nationally. As a valuable resource, water is purchased, sold, and transported. To ensure its long term local viability, it is important to implement local controls. Three fundamental principles exist: use as little water as possible, use water to the maximum extent before letting it leaving a site, and water (that is not connected to sanitary systems) should be as clean or cleaner when leaving a site. Implementation measures for reducing consumption can include installing low flow faucets and toilets. For maximum use might be collecting rooftop water in rain barrels and using it to water gardens. For cleaning water, rain gardens with native plants and plants intended for phytoremediation.

Sustainable water use refers to capturing water and using it as many ways as feasible before it is released. This may include building systems that reuse water from the sink or drinking fountain to water plants or capturing water from impervious surfaces like rooftops or parking lots and using that for watering purposes rather than using potable water sources. An additional measure is to plant native vegetation or hydro-efficient vegetation that needs little or no watering.

Practice:

The CCRPC consciously uses water primarily for drinking, washing dishes, and in the washrooms which are fairly nominal amounts. Applicable implementation measures are dependent upon site and building ownership, nature and size of existing systems, and building limitations. Focus should be placed on areas of highest consumption such as lawn and garden watering and areas of concentrated impervious surfaces.

RPC Strategies:

- Reduce the amount of water that enters the drain.
- Develop and help implement water conservation plans for interior and exterior of RPC sites.

Sustainable Office Checklist – Outdoor Environments

2008 2009

Energy efficient lighting is used

hydro-efficient / xeriscaping plants are used

Rain water is harvested and used

Spray irrigation is sensitive to moisture content

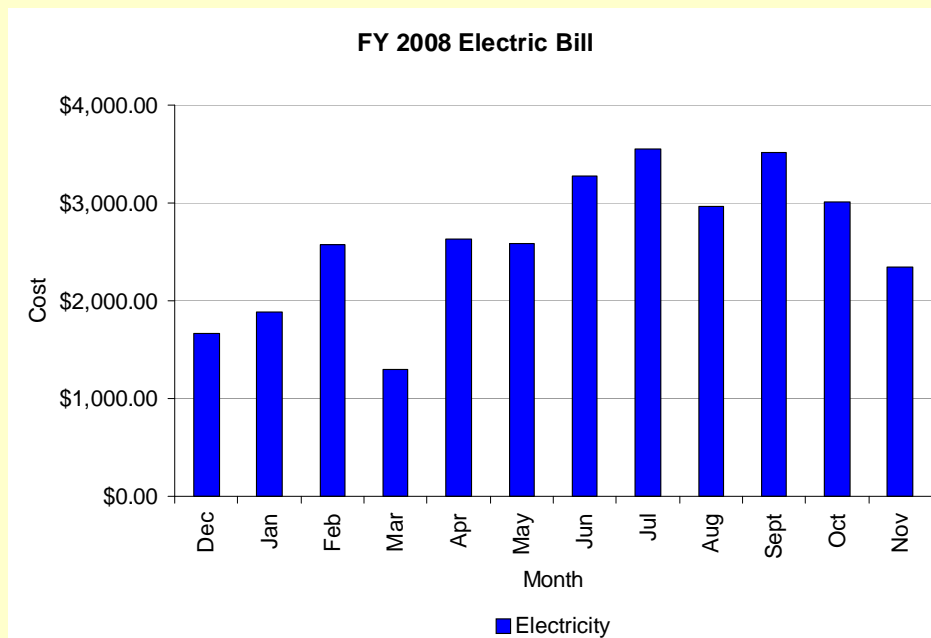
Spray irrigation occurs at efficient times of day

Chemical use is minimized to prevent exposure and runoff

Increase Energy Efficiency

Energy Profile

CCRPC consumes energy to power lights, computers, copiers and other office related appliances. Electricity usage is higher during summer months due to increased use of the air cooling systems. 89 two lamp ballasts, 73 four lamp ballasts, and 18 incandescent lamps light the office on a daily basis. Approximately 35 printers (2 Energy Star rated), 82 computers (0 Energy Star rated), and 2 copiers (2 Energy Star rated) are power everyday and the majority over nights and weekends as well. Two refrigerators (0 Energy Star Rated), 2 microwaves (0 Energy Star rated) and 1 coffee maker (0 Energy Star rated), are other appliances frequently used in the office.



Background:

The United States has less than 5% of the world's population, yet consumes about 25% of the world's energy resources. Energy is the foundation of nearly everything we do: transport, cook, heating and cooling, manufacturing, lighting, entertainment, and more. Households use about one-fifth of the total energy consumed in the United States every year. Heating and cooling, doors and windows, landscaping, appliances, lighting, and water heating all have an impact on our demand for electricity¹⁰. When we use less energy, the less demand we have for power plants, which will stabilize our greenhouse gas emissions and potentially improve the quality of our air. Energy efficiency helps the economy, too, by saving consumers and businesses across the United States millions of dollars in energy costs over multiple years. Energy efficient solutions can reduce the energy bill for many homeowners and businesses by 20 to 30 percent¹¹. An example of an Energy Cost Reduction Measure is replacing conventional exit signs with Energy Star qualified exit signs. Below is an example of the potential savings.

	9 ENERGY STAR Qualified Unit(s)	9 Conventional Unit(s)	Savings with ENERGY STAR
<u>Annual Operating Costs*</u>			
Energy cost	\$38	\$276	\$238
<i>Energy consumption (kWh)</i>	394	2,846	2,452
Maintenance cost	\$0	\$205	\$205
Total	\$38	\$481	\$443
<u>Life Cycle Costs*</u>			
Operating cost (energy and maintenance)	\$310	\$3,901	\$3,590
Energy costs (lifetime)	\$310	\$2,241	\$1,930
<i>Energy consumption (kWh)</i>	3,942	28,461	24,519
Maintenance costs (lifetime)	\$0	\$1,660	\$1,660
Purchase price for 9 unit(s)	\$513	\$0	-\$513
Total	\$823	\$3,901	\$3,077
Simple payback of initial additional cost (years) [†]	1.2		

* Annual costs exclude the initial purchase price. All costs, except initial cost, are discounted over the products' lifetime using a real discount rate of 4%. See "Assumptions" to change factors including the discount rate.

† A simple payback period of zero years means that the payback is immediate.

¹ This calculator determines the annual and life cycle savings resulting from replacing exit signs equipped with incandescent lamps to ENERGY STAR qualified LED or Photoluminescent exit signs

¹⁰ <http://www.eia.doe.gov>

¹¹ <http://www.energystar.gov>

Practice:

The portion of Champaign County Regional Planning Commission housed in Brookens Administrative Center is billed for energy by the County on a square footage basis¹². This method does not allow for energy efficiency measures to be realized by only the RPC. Technically, all of Brookens Administrative Center will benefit from lower energy bills for steps taken only by the Regional Planning Commission. While it is good to be efficient for social and environmental reasons, it is the economic benefits that can help fund larger efficiency projects and movement towards sustainability. CCRPC currently does not purchase energy efficient computers or printers, which are used throughout every working day of the year.

RPC Strategies

- Work with the County to install submeters for electric and gas utilities
- Implement Energy Cost Reduction Measures (see Appendix B)
- Use efficient and appropriate lighting
- Use green building design
- Use and maintain appropriate building operating systems
- Generate energy on site from renewable resources

<u>Sustainable Office Checklist – Utilities</u>	2008	2009
Utility bills are reviewed for accuracy		
Records are kept to follow costs and changes in bills		
An energy policy exists		
Minimal lighting is used		
Lighting is replaced with efficient and appropriate levels and options		
Bulbs are disposed lawfully		
Lighting cleaned to maintain luminosity		
Alternative light sources are used		
Lighting is calculated as part of heating and cooling		
Exit signs are energy efficient		
Thermostats are automatically controlled		
Temperature zones are balanced appropriately		
Heat gain is used to help temperature settings in office		
A policy is used for opening windows and using curtains		
A policy is used for monitoring water use		
Maintenance staff regularly inspects for leaking faucets, toilets, and other machines		
Water bills are reviewed for abnormalities		
HVAC controls are calibrated every few years		
Building systems are serviced and cleaned regularly		
Filters are cleaned and replaced properly		

¹² Champaign County Physical Plant

Sustainable Purchasing

Purchasing Profile

CCRPC purchases are governed by a purchasing policy. The purpose of the policy is to support the procurement requirements of the Commission in a professional ethical and timely manner. Materials for purchase include stationary, office supplies, books, copier supplies, and postage. CCRPC also purchases services from architects, attorney's and other professionals. All of these purchases can be evaluated for sustainability. Purchasing recycled paper is important as is purchasing services from an architect that will evaluate sustainable options as a part of their contract.

	Reams of Paper	Virgin	30-50% recycled	50-90% recycled	91-100% recycled
2006	1324	100%	0%	0%	0%
2007	1720	100%	0%	0%	0%
2008	1997	100%	0%	0%	0%
2009					
2010					

Background:

Purchasing sustainably procured materials or goods that are manufactured under sustainable guidelines are preferable compared to the continual consumption of unsustainable materials. This is specifically true for goods that are made from materials currently recycled at CCRPC. By doing this, we are supplying raw materials as well as creating a demand for a sustainable product; in essence, closing the market gap that exists when no one purchases recycled goods. These types of products also help achieve the goal of reducing environmental impact, because the energy and materials consumed in raw material extraction are not used. Examples of possible criteria are recyclability, biodegradability, recycled content, waste minimization, hazardous chemical free, energy conservation, resource conservation, locally manufactured, and organic.

Practice:

CCRPC's purchasing policy as of April 25, 2008 includes *"In order to help provide a stable market for recycled goods, the Regional Planning Commission will make a concerted effort to purchase and use recycled/recyclable/reclaimable goods quoted of comparable quality to specified requirements and are quoted at a price competitive for the quality specified."* as item J under the Policy Statement¹³. However, in realized purchases, the weight of this item is of relatively minimal effect. CCRPC purchases almost exclusively virgin paper products¹⁴, cleaning chemicals with high VOC content, and products that are over-packaged.

¹³ CCRPC Purchasing Policy as amended April 2008

¹⁴ CCRPC Paper Purchase Invoices

RPC Strategies

- Purchase eco-friendly products
- Purchase goods produced locally
- Use durable and sustainable products
- Track paper purchases and recycled content

<u>Sustainable Office Checklist – Purchasing</u>	2008	2009
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Recycled office supplies and other materials are purchased		
Recycled content materials are specifically requested when placing an order		
Employees are educated regarding advantages of closing the loop and recycled content preferencing		
Office paper products contain recycled content (copy paper, folders, post-it notes, envelopes)		
Durability and life span are considered as well as initial cost		
Number of sharable items is minimized (paper cutter, laminator, staplers)		

Reduce Toxins and Pollution

Toxin and Pollution Profile

Corporate greenhouse gas emissions can be attributed to a number of sources including energy, transportation, solid waste, and wastewater. Of these sources, only a few are applicable to CCRPC including electricity, natural gas and transportation. The extents to which we can measure source are radically different, but the estimate provides some insight into our contribution to greenhouse gases. A variety of tools and reporting methods are available. CCRPC used an online carbon footprint calculator developed by The Carbon Trust. This tool measures direct and indirect emission and includes the majority of emissions that can be attributed to CCRPC. The estimated annual carbon footprint for 2008 is 251.06 tons of CO₂. This is comparatively high for medium sized offices with small fleets and limited air travel. The estimate does not include data for employee commutes. To offset this estimated carbon emission, RPC would need to plant 1,255 trees in the tropics every year.

<http://www.greatestplanet.org/buy-offsets-for-businesses.html>

Greenhouse Gas Emissions

Background:

The toxins and pollution that CCRPC is concerned about can be split into two levels. At one level, there are Greenhouse Gas (GHG) emissions that can be attributed to many activities at different levels in a community. Primary greenhouse gases of concern are carbon dioxide, methane, and nitrous oxide. These emissions contribute to global warming which is the overall increase in the average temperature of the Earth's surface. These changes in temperature may result in changes to climate and weather patterns which are termed Climate Change. Measurement of GHG emissions specifically for the office environment is limited to electricity, natural gas, and transportation; especially if the office space is rented.

The second level includes toxins and pollution found in household chemicals and products that impact indoor environments. Impacts of primary concern at this level are the health of building occupants. Volatile Organic Compounds (VOC's) have been linked to numerous worker health issues and are common concerns for employers and building operators alike.

Practice:

CCRPC currently has no policy regarding Greenhouse Gas emissions. Emissions are attributed to consumption of nonrenewable energy in the form of heat, electricity and auto transportation. Measures that reduce dependence on these nonrenewable energy sources will contribute to our reduction of greenhouse gas emissions.

RPC Strategies:

- Establish a goal for GHG reduction
- Adopt measures to achieve reduction

Volatile Organic Compounds

Background:

Americans spend an average of ninety percent of their time indoors, and as a result, the quality of the indoor environment has a significant influence on well-being, productivity and quality of life¹⁵. National increases in building related illnesses and sick building syndrome has lead to heightened awareness of indoor air quality. The average expenditure for CCRPC staffing from 2006 to 2007 equals fifty percent of the total funds spent. With this investment in personnel, it is logical to take extra measures to keep them healthy and productive. The CCRPC can implement policies for construction that limit exposure to dust or harmful vapors. The use of automatic sensors can be integrated with building systems to adjust temperature humidity and the percentage of outside air introduced to occupied spaces is another common practice in office environments.

¹⁵ United States. Environmental Protection Agency. Healthy Buildings, Healthy People: A Vision for the 21st Century October 2001. 15 December 2007 <http://www.epa.gov/iaq/hbhp/hbhptoc.html>

Practice:

CCRPC currently has no policy regarding toxins and pollution. Cleaning products and construction materials use standard chemical evaporatives. These are chemicals that help products dry quickly through off-gassing and dispersing higher levels of chemical gas into the indoor environment.

RPC Strategies:

- Improve indoor air quality
- Properly dispose of all materials consumed in the office to reduce amount of toxins that end up in the natural environment
- Review chemical use during construction/renovation
- Inventory cleaning products and chemical components

Reduce Impact from Transportation**Transportation Profile**

Impacts from transportation include emissions from commuting and work related automobile trips. The majority of RPC employees use single occupancy auto commutes. Free parking is provided and no policy has been established to set up carpools or encourage alternative modes of transportation.

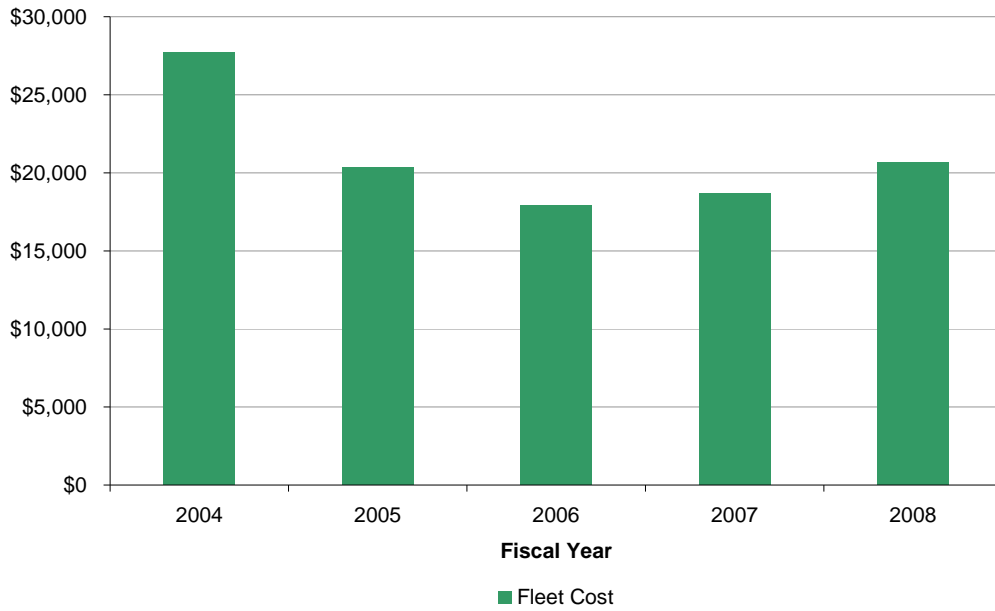
Background:

Transportation accounts for 27.4 percent of energy used in the United States, the majority of this coming from petroleum-based fuels. Our heavy reliance on personal automobiles contributes to a variety of environmental problems. Alternative forms of transportation are becoming increasingly popular and are reducing our negative environmental impact. Mass transit, biking, and walking reduce energy demands, reduce space needed for parking lots, reduce vehicle emissions, and provide many people with affordable transportation. Carpooling and telecommuting also have a similar set of benefits that can be realized.

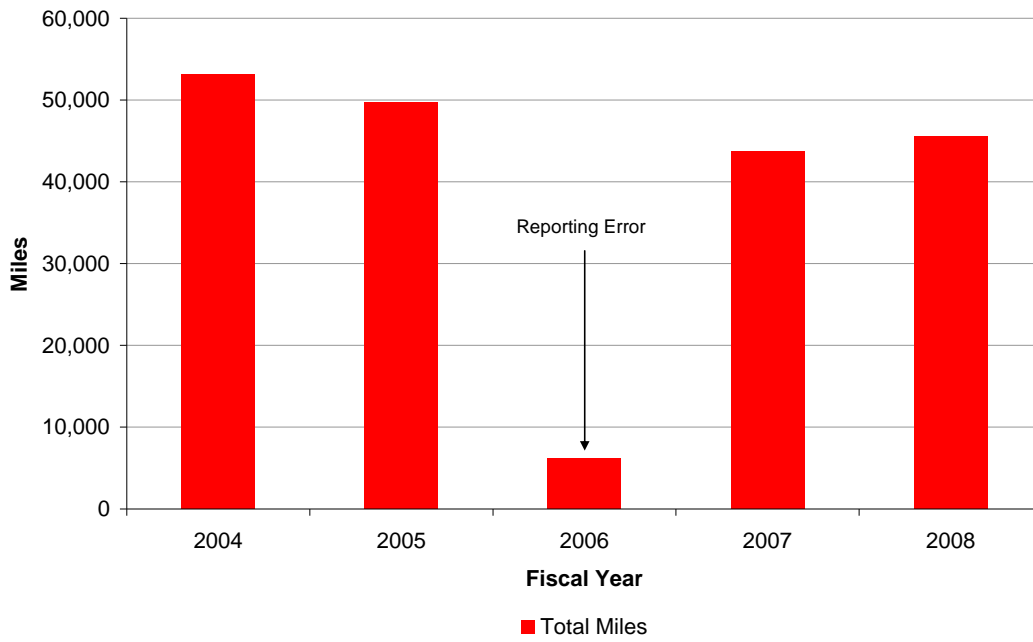
Practice:

CCRPC currently has no incentives for using alternative transportation. This will be difficult to implement since CCRPC incurs limited costs associated with personal vehicle trips. In some instances, personal vehicle trips are rewarded with federal mileage reimbursements. As of November 2008, CCRPC employees who drive over 100 miles a day are required to rent a car. This contract could specify use of hybrid vehicles.

Annual Cost for Fleet



Miles Driven in Fleet Vehicles



CCRPC Fleet:

	City Miles	Highway Miles	EPA Estimates		
			Cost to drive 25 miles	Annual Petroleum Consumption (barrels)	Tons of CO ₂
1998 Dodge Van	18	24	\$2.41	17.1	9.2
2001 Oldsmobile Alero	19	27	\$2.19	15.6	8.3
2004 Ford Expedition	14	18	\$3.22	22.8	12.2
2007 Dodge Dakota	15	20	\$2.84	20.1	10.8
High Efficiency Option					
2008 Honda Civic Hybrid	40	45	\$1.15	8.2	4.4

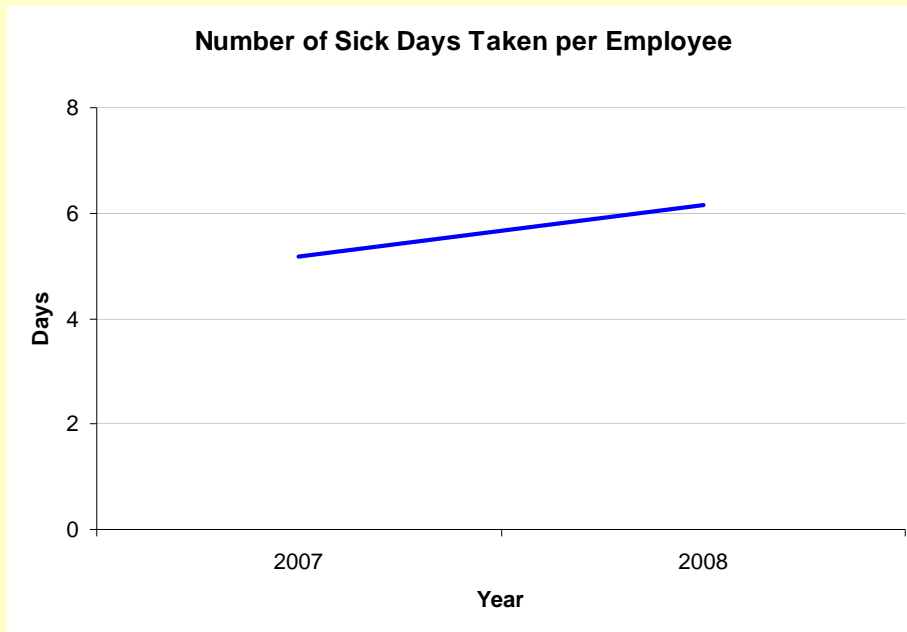
Based on EPA 19 standards comparable to 2008 tests

RPC Strategies:

- Reduce single occupancy vehicle trips
- Reduce CO₂ emissions
- Reduce dependency on oil
- Track rental car miles and personal vehicle miles
- Inventory alternative transportation incentives
- Encourage travel by bus and train and accommodate potential for increased travel time

Contribute to conviviality, health and well-being**Health Profile**

Better worker health can be a primary benefit of healthier indoor working environments. Improved building design and maintenance can minimize negative impacts on human health. Tracking the number of sick days per employee before during and after building renovation helps identify result of better office environments through fewer people getting sick and needing to take time off. This is especially the case when implementing changes to improve indoor air quality. Also of concern are good eating and exercise. A measure for the number of people that are exercising regularly may be possible through a new initiative by the health and safety committee that will reward employees who exercise with a day off of work.

**Background:**

Health and well-being in the workplace promotes productivity and employee health as important to maintaining operations at the office.

Practice:

CCRPC uses sporadic informational events or pamphlet distribution that inform about conviviality, or health and well-being. A number of programs are available through health insurance providers and some through Champaign County that are offered to us as leasers of a county building. Individual staff members at CCRPC have initiated programs and activities that have been very successful in the past.

RPC Strategies:

- Eat more fruit and vegetables
- Encourage walking/increased physical activity
- Use News from the Cubes to provide information

Glossary of Terms

Adaptation – Refers to the ability of a system to adjust to moderate potential damage, to take advantage of opportunities, or to cope with the consequences. (often used in reference to climate change)

Biodegradable – The capacity of a material to decompose over time as a result of biological activity, especially to be broken down by microorganisms

Climate Change – Refers to a potential consequence of global warming.

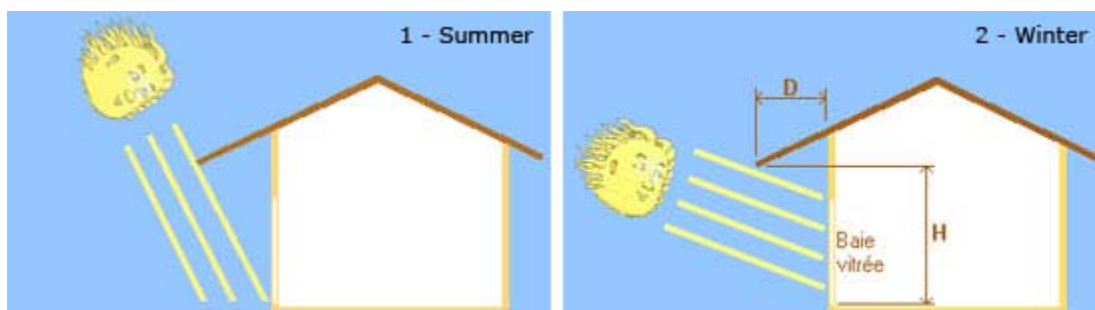
Corporate Social Responsibility – A business outlook that acknowledges responsibilities to stakeholders not traditionally accepted, including suppliers, customers, and employees as well as local and international communities in which it operates and the natural environment. There are few accepted standards and practices so far, but a growing concern that the actions organizations take have no unintended consequences outside the business, whether driven by concern, philanthropy, or a desire for an authentic brand and public relations.

Cradle to Cradle – a circular industrial model where resources are shaped into products, sold, and then reclaimed for new/different products without generating waste.

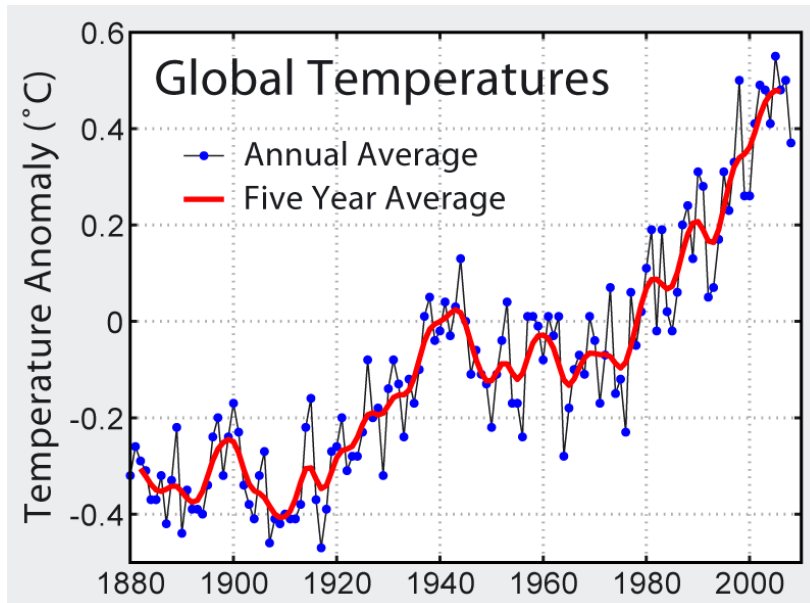
Cradle to Grave – linear industrial model where resources are shaped into products, sold, and eventually disposed of in type of 'grave' (landfill, incinerator).

Energy Efficiency – Measure of desired output as related to electrical input, often measured through certifications such as Energy Star.

Exterior Shading – A passive measure such as planting trees or using roof overhangs to prevent solar heat gain.

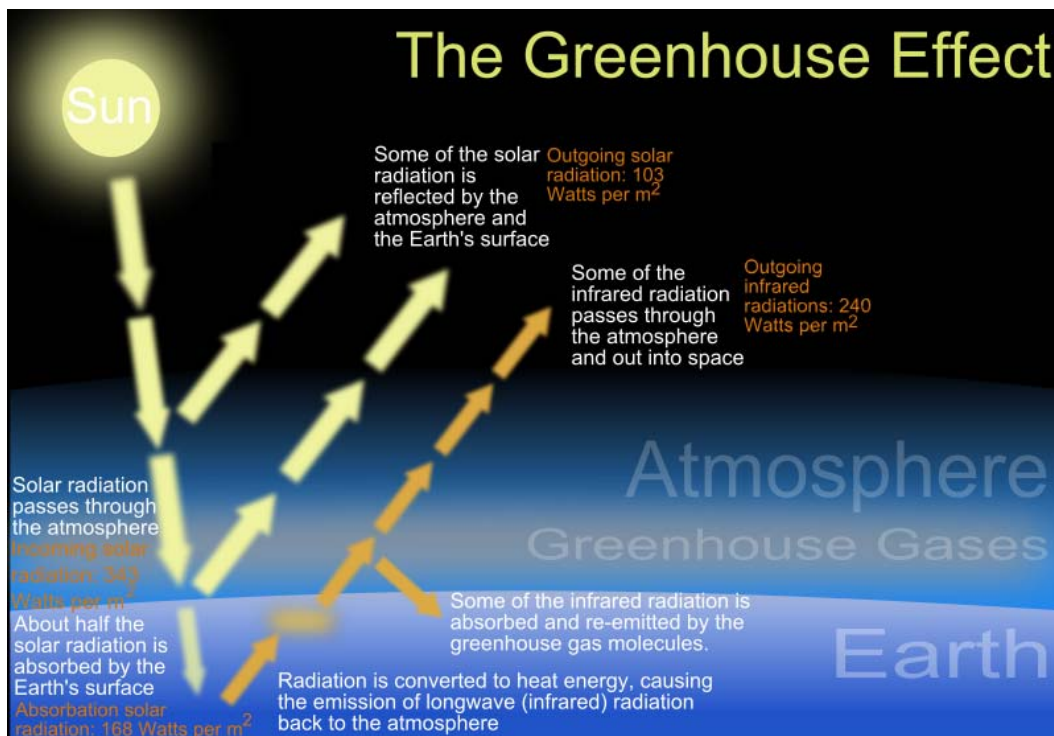


Global Warming – The gradual, average increase of temperature of the Earth's atmosphere and oceans.

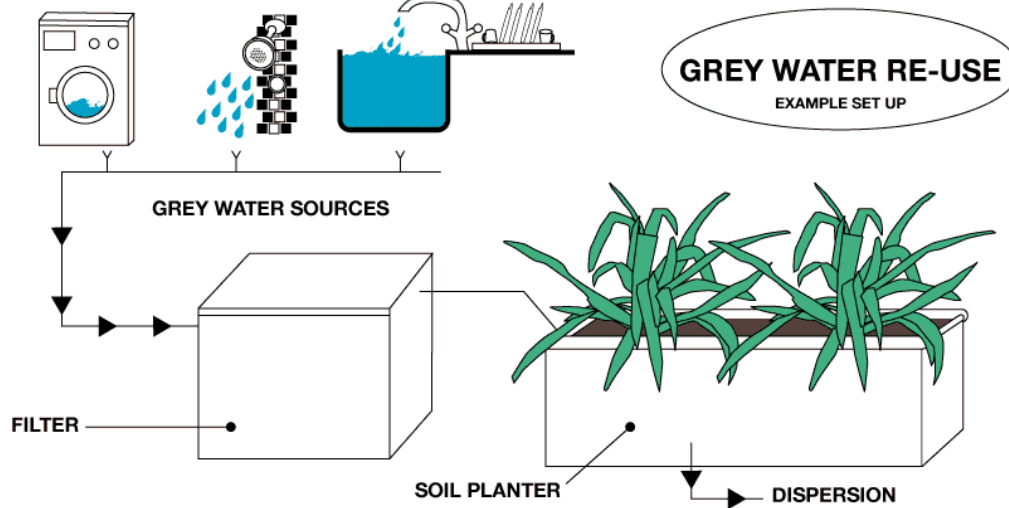


Greenhouse Gases – Gases that trap solar radiation and destroy the ozone layer. The most prominent gases include carbon dioxide, methane, and nitrous oxide.

The Greenhouse Effect –



Grey water System –

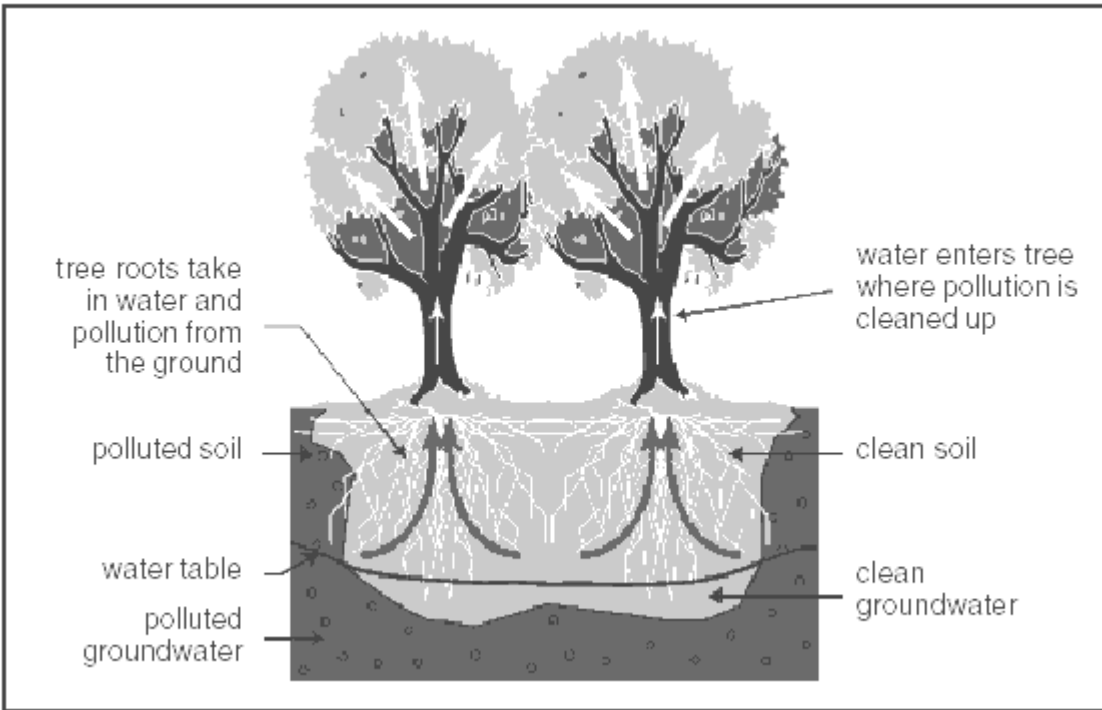


Life Cycle Costing – investigation and valuation of the environmental impacts of a given product or service

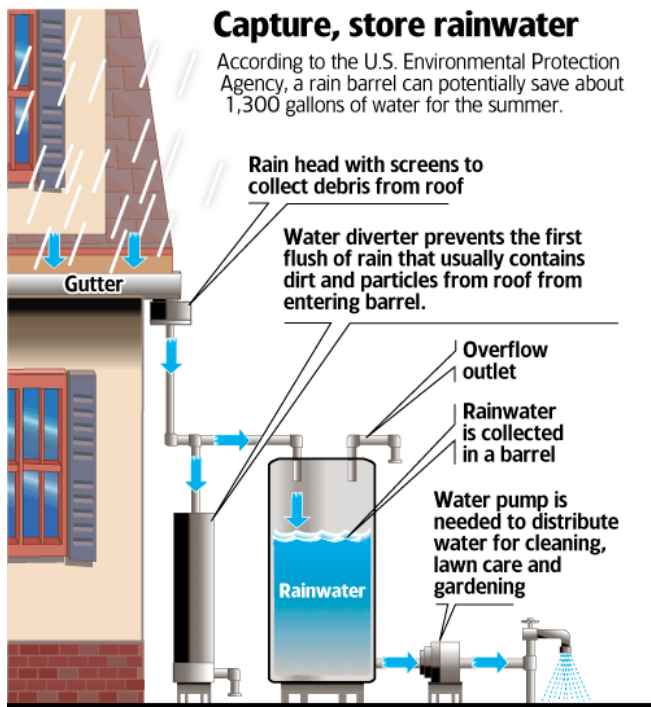
Low Volatile Organic Compounds (VOCs) – VOCs are organic chemical compounds that have high enough vapor pressure under normal conditions to significantly vaporize and enter the atmosphere. Low VOCs are chemicals (paint thinners, cleaning solvents, etc) that have low concentrations of these compounds.

Mitigation – An anthropogenic intervention to reduce the source or enhance the dissolution of negative environmental conditions.

Phytoremediation – use of plants to clean up pollution in the environment including metals, pesticides, explosives, and oil.



Rainwater Capture System –



Sources: HarvestH2O.com, Rain Harvesting Systems Nam Nguyen/nnguyen@sacbee.com

Return On Investment – measures profitability and ability to generate profits from investments. Often used for determining potential cost savings from energy efficient products.

Sustainability – meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Xeriscaping – a type of gardening or landscaping that does not require supplemental irrigation.

For more terms associated with sustainability see <http://www.sustainabilitydictionary.com/>

Champaign County Regional Planning Commission Sustainability Initiative

Sustainability Vision:

Today, unprecedented pressures on the natural world challenge us to limit our use of natural resources, if we are to ensure the ability of future generations to meet their needs. The environmental impact of the Champaign County Regional Planning Commission can be significantly lessened in a cost effective manner by paying closer attention to operating practices and programs.

The Champaign County Regional Planning Commission plays a leadership role in Champaign County and in the larger region and, by its own example, should promote sustainable policies and practices among the public and private organizations with which it works

Sustainability Commitment, Goals, and Means:

The Champaign County Regional Planning Commission takes responsibility for the economic, social, and environmental impact and integrity of its programs and operations. We are committed to the sustainability of our policies and operations, ensuring that while we pursue our mission to meet current needs, we do not compromise the ability of future generations to meet theirs.

Sustainability Plans:

The mission of the Champaign County Regional Planning Commission (CCRPC) is to promote, plan, facilitate, and accomplish the improved health, safety, welfare, education, economic conditions, environment, and regional development within Champaign County in particular, and also within the greater area of East Central Illinois. All such services will be done in the spirit of intergovernmental cooperation and with a regional vision for the maintenance and enhancement of quality of life. CCRPC wishes to further its mission using sustainability as a key factor for greater success and greater capacity.

Current Progress:

- News to the cubes digitally available
- Front desk calendar digitally available
- Recycle bins located at most desks
- Meeting materials are distributed electronically
- Some high efficiency fluorescent lamps
- Reduced number of incandescent lamps
- Increased service locations for community programs

Opportunities for Sustainability:

The following tables are constructed to help prioritize actions that have been identified by CCRPC staff as pursuing our sustainability goals. Goal themes are written in large text and specific features are detailed in each table. Items listed in the ‘to be determined’ column require more information to adequately track or to make an educated decision. Actions listed as immediate are prioritized because of their ease in implementation, or the significant financial benefit that is expected through its implementation.

Consume Less

Reduce amount of paper used

Less than 12 months	12 months to 3 years	To be Determined
Set fax machines and copiers to not print cover sheet. <i>Betty Murphy</i>		
Distribute human resources materials electronically only. <i>Mary Hodson</i>		
Set copier and printer default to print on both sides of paper. <i>Betty Murphy</i>		
Make available monthly budget reports, budget proposals and other documents electronically. <i>Betty Murphy</i> <i>Are there technical and/or security based barriers to producing electronic reports?</i>		
	Adopt a policy to reduce paper use. <i>Commissioners</i>	
	Convert paper documents to electronic format for storage. <i>Do benefits outweigh costs of converting to electronic document storage?</i>	
		Distribute pay stubs electronically. <i>Does the current system allow distributing pay stubs electronically?</i>

Consume Less - continued

Reduce amount of office supplies needed

Less than 12 months	12 months to 3 years	To be Determined
Provide more control over purchases under \$1000 to ensure that purchases are really needed. <i>Purchasing Staff</i>		
Standardize document and file formats to reduce the amount and variety of materials. <i>Senior Management Team</i>		
	Lease equipment from manufacturers that reclaim and recycle products and end of lease. <i>Purchasing Staff</i>	

Generate Less Waste

Send less material to landfills

Less than 12 months	12 months to 3 years	To be Determined
Provide drop off bins for battery, cell phone, and light bulb recycling. <i>Betty Murphy</i>		
Provide staff education about recycling. <i>Mary Hodson</i>		
Place recycling bins in common areas, meeting rooms, and hallways. <i>Betty Murphy</i>		
Replace desk side waste containers with smaller sizes to reinforce the importance of recycling.		
Educate staff on what information needs to be shredded. <i>Mary Hodson</i>	Reuse or recycle shredded paper. <i>What are the options for disposing of shredded paper?</i>	
Acquire state lists for green procurement. <i>Betty Murphy</i>	Use 'Return On Investment', 'Life Cycle Costing', or other comprehensive costing method for large purchases. <i>Develop a list of office products that are durable or reusable.</i>	
		Amend the purchasing policy to reduce amount of packaging on materials. <i>Commissioners</i>
	Purchase snacks that have biodegradable wrappers.	
	Set up office equipment sharing networks with other local governments.	
	Set up surplus equipment swaps.	

Energy Efficiency

Implement energy cost reduction measures

Immediate	1-3 years	To be Determined
Inform employees about productive use of window blinds. Cameron Moore	At RPC leased sites, work with building operator to install appropriate exterior shades.	
	Replace computers with energy efficient models according to equipment replacement plan.	
	Work with County to Install sub meters to determine true utility costs leased RPC space. <i>Work with county to determine benefits and feasibility of submetering</i>	
	At RPC leased sites, work with building operator to install energy efficient exit signs.	
	At RPC leased sites, implement energy cost reduction measures (ECRM's) after submeters are installed.	
	Increase efficiency of HVAC. <i>Acquire maintenance schedule for all HVAC systems for RPC.</i>	

Use Efficient and Appropriate Lighting

Immediate	1-3 years	To be Determined
	Provide private offices with efficient desk lamps rather than overhead ballasts. <i>Develop a room by room lighting plan to prioritize replacement of bulbs with energy efficient types.</i>	Maximize natural lighting throughout office interior.

Use green building design

Immediate	1-3 years	To be Determined
Adopt a policy requiring that all construction or remodeling incorporates (or at a minimum considers) environmental and efficiency design techniques and green materials. Commissioners		

Energy Efficiency - cont

Use and maintain appropriate building operating systems to maintain indoor conditions

Immediate	1-3 years	To be Determined
<i>Determine cold and hot temperature spots in buildings.</i>	Train CCRPC building operators in efficient building operations.	Work with leasor to maximize building efficiency.
Work with building owner to develop a regular maintenance schedule for all building systems. <i>Betty Murphy</i> <i>Inventory maintenance records for past years</i>		
	Develop a regular maintenance schedule for all systems in RPC owned buildings.	

Generate energy on site from renewable resources

Immediate	1-3 years	To be Determined
		Use on site wind energy to supply power to buildings.
		<i>Find grants or pilot projects that can help fund renewable onsite energy</i>
		<i>Find grants or pilot projects that can help fund renewable onsite energy</i>
		Use onsite solar energy to supply power to buildings.

Conserve Water

Reduce amount of water that goes into the drain

Immediate	1-3 years	To be Determined
	Work with land owners to plant hydro efficient and xeriscaping vegetation outside.	Install rainwater capture systems and rain gardens where possible.
	Work with building owners to install low flow faucets and toilets.	Work with building owners to install grey water systems where practical.

Support Sustainable Markets

Eco-friendly purchasing

Immediate	1-3 years	To be Determined
Purchase 100% post consumer content paper for all paper needs. <i>Purchasing Staff</i>	Adopt Green Purchasing Standards.	
All bid requests are required to provide specific information about how sustainability relates to the request. <i>Betty Murphy</i>		
		Purchase biodegradable products for single use items.

Support Sustainable Markets - cont

Purchase items produced locally

Immediate	1-3 years	To be Determined
		Amend the purchasing policy to provide for a 10% premium on items produced locally. <i>Commissioners</i> <i>Develop list of local manufacturers and producers.</i>

Use durable and sustainable products

Immediate	1-3 years	To be Determined
	Use durability and sustainability as factors for purchasing decisions	Implement a comprehensive costing approach for purchasing materials, services and equipment over \$5,000.

Report measures taken to move towards sustainability

Immediate	1-3 years	To be Determined
Maintain records for all items included in Sustainability Baseline Inventory.		
Annually update and report baseline inventory with budget.		

Reduce Toxins and Pollution

Improve indoor air quality

Immediate	1-3 years	To be Determined
Use real plants to help condition air.		
	Use chemicals and materials with low Volatile Organic Compounds (VOC's) especially during renovation and construction. <i>How to ensure appropriate air flow and moisture content?</i>	

Properly dispose of all materials consumed in the office to reduce amount of toxins that end up in the natural environment.

Immediate	1-3 years	To be Determined
Educate on proper disposal of chemicals. <i>Mary Hodson</i>		
	Use biodegradable printer ink.	

Reduce Toxins and Pollution - cont

Reduce single occupancy vehicle trips

Immediate	1-3 years	To be Determined
Provide incentives for staff that carpool, bikes, walks or uses mass transit for both commuting and work related trips. Cameron Moore		
Require that only one car goes to external functions. No reimbursement if staff take own car when they have the option of carpooling. Betty Murphy		
	Reducing meeting schedules Use virtual meeting/conferencing technologies	
		Provide convenient locations to meet and work with community for social service programs.

Reduce Impact from Transportation

Reduce CO2 emissions and dependency on oil

Immediate	1-3 years	To be Determined
Vehicle purchase/lease choice will have better gas mileage than 90 % of comparable models.. Betty Murphy		
Encourage employees to use alternative transportation by providing bus passes and bicycles. Betty Murphy <i>What are feasible forms of encouragement?</i>	Provide transportation that does not depend on oil. Bicycles, electric car.	

Contribute to conviviality, health and well-being

Encourage healthy living, walking, and increased physical activity

Immediate	1-3 years	To be Determined
Provide dried fruits and other healthy snacks in breakroom. Social Committee	Provide local foods at all RPC functions that include food.	
Use an anonymous suggestion box to garner input on programs and organizational changes. Mary Hodson		
Educate on sustainable living and eating. Mary Hodson		
Annual Moonwalk-like event with incentives. Mary Hodson	Provide incentives for walking and healthy lifestyles. RPC sponsors a community event based on health living for everyone. Preferably outdoors.	

Employee Communication Plan:

Purpose: Explain why taking this action is important, provide detailed background information. Possibly use baseline report as a reference. This is the chance to clarify intentions and persuade skeptics that this change is appropriate and well thought out.

Implementation Date: When do we start?

Action steps: What new actions would you like staff to take?

Evaluated: How will you track progress? Surveys, reports from staff, ...

Updates: How will you report to your staff about the progress of the change? Meeting updates, incorporate into reports, ...

Example Implementation Communication

Purpose:

Energy costs for the Regional Planning Commission are increasing. Greater amounts of funding are required to provide electricity to run our computers, printers, and lights.

RPC consumes on average 100 watts/hour every work day for each computer and printer. It ranges from 300 watts when at high use to 1 watt when in standby mode.

Current practice leaves all computers and printers on 24 hours/day. This calculates to approximately 105,120 kilowatts consumed.

$$[(100 \text{ watts} * 24 \text{ hours} * 365 \text{ days} * 120 \text{ units}) / 1000]$$

If all staff turns off computers and printers (or sets them to sleep or hibernate mode) at the end of every work day, RPC would consume 24,684 kilowatt hours per year just with computers and printers. This is a reduction of 76%.

$$[(100 \text{ watts} * 8.5 \text{ hours} * 242 \text{ days} * 120 \text{ units}) / 1000]$$

This does not mean that the RPC energy bill will decrease by 76% since the bill is made up of more than just computers or printers. However, this action does have a significant impact.

Implementation Date:

1/1/2009

Action Steps:

Option 1 – Turn off computer every night before leaving work

Option 2 – Set computer to sleep mode.

Start > Control Panel > Power Options

System Standby to 30 minutes or under,

Advanced Tab

If you have a sleep button on your keyboard, you can change these settings.

Evaluation:

Once a week, management will walk around after 4:30 to see if all computers are turned off or in sleep mode.

Updates:

We will keep all staff notified of our energy savings through meetings and financial reports.

Champaign County Regional Planning Commission Sustainability Plan

Head Start Division

The Charge

Sustainability in schools provides learning that links knowledge, inquiry, and action to help students build a healthy future for their communities and the planet. Teachers can learn about the community's vision and strategies for a sustainable future, and then bring a larger dialogue into their curriculum with a focus that's appropriate for the students and parents. Sustainability provides one more platform to discuss and integrate healthy living, healthy environments, and economic benefits derived from lifestyle changes.

Challenging Opportunities

Seek to "green" school sites (grounds, supplies, buildings, management)
Incorporate sustainability into curriculum
Add sustainability to reporting schedule

Division Description and Responsibility Overview

Programming incorporates family identified goals for child development, health and education and for family services including parent involvement and family wellness. The mission of Champaign County Head Start is to support the diverse children, parents, and families in our County in reaching their fullest potential.

Current Progress

- Printing on "dirty" paper
- Using emails instead of paper copies
- Buses are at full capacity when transporting
- Scrap paper from recycling bins used in classrooms

Senior Manager Approval

Date

Reduce amount of material consumed

Immediate	1-3 years	To be Determined
Inventory items in storage	Research products and methods to avoid use of polystyrene for meal service	

Implement energy cost reduction measures

Immediate	1-3 years	To be Determined
Encourage staff to turn off lights when not in classrooms		

Support sustainable markets

Immediate	1-3 years	To be Determined
Adopt an environmentally preferable purchasing policy	Encourage Head Start Families to shop at local markets	

Reduce Impact from Transportation

Immediate	1-3 years	To be Determined
Publicize appropriate walking and biking routes in school		
	Work with Illinois EPA Clean School Bus Program to replace buses with cleaner models to improve air quality.	

Contribute to conviviality, health and well-being

Immediate	1-3 years	To be Determined
Discuss sustainability at family meetings		
	Implement "I am moving, I am learning" movement curriculum in Head Start/Early Head Start classrooms	
	Inform, and involve everyone connected to the head start program including staff, parents and vendors.	
	Establish green team or eco-committee	

Employee Communication Plan Format:

Purpose: Explain why taking this action is important, provide detailed background information. Possibly use baseline report as a reference. This is the chance to clarify intentions and persuade skeptics that this change is appropriate and well thought out.

Implementation Date: When do we start?

Action steps: What new actions would you like staff to take?

Evaluated: How will you track progress? Surveys, reports from staff, ...

Updates: How will you report to your staff about the progress of the change? Meeting updates, incorporate into reports, ...

Example

Purpose:

Energy costs for the Regional Planning Commission are increasing. Greater amounts of funding are required to provide electricity to run our computers, printers, and lights.

On Average, RPC consumes 100 watts/hour every work day for each computer and printer. It ranges from 300 watts when at high use to 1 watt when in standby mode.

Our current practice leaves all computers and printers on 24 hours/day. This calculates to approximately 105,120 kilowatts consumed.

$$[(100 \text{ watts} * 24 \text{ hours} * 365 \text{ days} * 120 \text{ units}) / 1000]$$

If all staff turns off computers and printers (or sets them to sleep or hibernate mode) at the end of every work day, RPC would consume 24,684 kilowatt hours per year just with computers and printers. This is a reduction of 76%.

$$[(100 \text{ watts} * 8.5 \text{ hours} * 242 \text{ days} * 120 \text{ units}) / 1000]$$

This does not mean that the RPC energy bill will decrease by 76% since the bill is made up of more than just computers or printers. However, this action does have a significant impact.

Implementation Date:

1/1/2009

Action Steps:

Option 1 – Turn off computer every night before leaving work

Option 2 – Set computer to sleep mode.

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System Standby to 30 minutes or under,
Advanced Tab

If you have a sleep button on your keyboard, you can change these settings.

Evaluation:

Once a week, management will walk around after 4:30 pm. to see if all computers are turned off or in sleep mode.

Updates:

We will keep all staff notified of our energy savings through meetings and financial reports.

Champaign County Regional Planning Commission Sustainability Plan

Planning and Community Development

The Charge

Global climate change, energy resources, transportation costs are important issues facing our communities today. Planners — tasked with seeing the big picture and thinking about the long term — are integral to addressing both economic competitiveness and environmental issues in our cities, towns, and neighborhoods. Through education, plan and policy making, capital investment, development review, and other planning actions, planners have opportunities to help create green communities by reducing the impact of development on the natural environment and improving environmental quality for residents. The Planning and Community Development Division of RPC can take a lead in exploring these issues, emphasizing their importance and what they mean for the future.

Challenging Opportunities

Incorporate mitigation/adaptation measures in transportation to reduce greenhouse gasses.

Include sustainable transportation section in all relevant plans.

Explore scenarios for transportation without cheap oil.

Use electronic drafts for revisions

Set printer default to duplex

Purchase foods produced in Champaign County for meetings

Sustainability Practitioners Discussion

Local Government Official Sustainability Roundtable

Sustainable Indicators

Educate loan clients about sustainable business practices

Suggest environmental and social goals in business plans

Web-based mapping to further reduce the need for paper print outs

Senior Manager Approval

Date

Division Description and Responsibility Overview

CUUATS

Champaign Urbana Urbanized Area Transportation Study (CUUATS) is the transportation entity of the Champaign County Regional Planning Commission (CCRPC), which is the Metropolitan Planning Organization (MPO) responsible for administering the federally mandated transportation planning process for the Champaign-Urbana-Savoy-Bondville Urbanized Area.

Regional Planning

Regional programs are those programs that are intended to serve the entire County and surrounding communities. They are conducted with oversight by the CCRPC Technical Committee, which is made up of senior staff representatives from each member agency. Tasks include the collection and management of data, information requests, serving as the area Census coordinator, and completing special projects or technical service contracts.

Geographic Information Systems

With the construction of many geo-data layers complete, the focus of the CCGISC is shifting from data creation to data disbursement. CCGISC members can now access the map server directly over the internet. Other public entities are now utilizing the CCGISC system through a successful client program. Data sharing agreements are in place with local, state, and federal agencies. Additional revenue is generated through data and map sales to clients around the country. Internet applications provide simple on-line access to GIS information to the citizens of Champaign County. Accessing and analyzing GIS data increasingly becomes commonplace to the public agencies, businesses, and citizens of Champaign County.

Current Progress

- Goals and objectives implementation for the Long Range Transportation Plan 2025
- Urbana Bike Plan promotes alternative transportation infrastructure
- Safe walk to school program promotes alternative transportation
- Community vision that includes sustainability objectives
- Development of CCRPC Sustainability Initiative
- Creation of Champaign County Sustainability Practitioners
- Tax maps available digitally on CD
- FTP site used to fill map requests
- Greenways and Trails Plan promotes alternative transportation

CUUATS

Reduce amount of paper used

Immediate	1-3 years	To be Determined
Use electronic drafts for all internal revisions	Provide agendas and meeting materials electronically only	
Training on file sharing protocols to reduce number of email attachments		

CUUATS – cont.

Incorporate sustainability into reporting

Immediate	1-3 years	To be Determined
Include assessment of sustainability related data in reports.	Include sustainable alternatives in proposals and projects	

Regional Planning

Reduce amount of paper used

Immediate	1-3 years	To be Determined
Use electronic drafts for all internal revisions	Provide agendas and meeting materials electronically only	
Training on file sharing protocols to reduce number of email attachments		

Implement energy cost reduction measures

Immediate	1-3 years	To be Determined
Require that staff turn off surge protectors that supply computers and printers	Provide agendas and meeting materials electronically only	

Support sustainable markets

Immediate	1-3 years	To be Determined
	Educate loan clients about sustainable business practices	
Develop plan development guidelines explaining sustainability factors to include	Suggest environmental and social goals in business plans	
Include assessment of sustainability related data in reports.	Include sustainable alternatives in proposals and projects	

GIS

Reduce amount of paper used

Immediate	1-3 years	To be Determined
Use electronic drafts for all internal revisions	Provide agendas and meeting materials electronically only	
Data clients encouraged to obtain maps via FTP site	Web-based mapping application	
Training on file sharing protocols to reduce number of email attachments		

Use energy efficient products

Immediate	1-3 years	To be Determined
	Consortium purchased products will be energy star rated or have another reputable other energy efficiency rating	

Reduce toxins and pollution

Immediate	1-3 years	To be Determined
	Use soy based ink in plotter and printer	

Employee Communication Plan:

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Advanced Tab

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Evaluation:

Once a week, management will walk around after 4:30 to see if all computers are turned off or in sleep mode.

Updates:

We will keep all staff notified of our energy savings through meetings and financial reports.

Champaign County Regional Planning Commission Sustainability Plan

Social Services Division

The Charge

Staff members in the social services division can further their commitment to environmental stewardship and social responsibility. Their concern with community health provides the opportunity to expand existing duties to include practical applications of sustainability that increase self-sufficiency. Communicating techniques and strategies that help save money, promote healthier lifestyles, and improve the communities various living environments can all be incorporated into existing programs. Communicating sustainability to other agencies will create a uniform directive that immerses our community in sustainable options/alternatives.

Challenging Opportunities

Reach vital parts of the community by including sustainability into all social programs
Distribute list of energy cost reduction measures to clients
Use centralized locations with good mass transit access to distribute services when possible

Division Description and Responsibility Overview

The Social Services Division of CCRPC is a designated Community Action Agency supporting the wellbeing and quality of life for at-risk, low-income and underserved residents in our defined service areas. We provide effective and meaningful services to increase self-sufficiency of these populations and are committed to efficient services through regional leadership in interagency cooperation.

Current Progress

Reuse office materials
Provide services for families and individuals in need

Senior Manager Approval

Date

Consume Less

Immediate	1-3 years	To be Determined
Use digital forms rather than paper.		
	Require use of highest efficiency products in weatherization and home renovation projects.	
	Maintain digital records rather than paper records	

Generate less waste

Immediate	1-3 years	To be Determined
Supplies purchased for services like mediation, will be reusable.		
Purchase and use projector for meetings instead of distributing paper.		
Make meeting materials available online.		
	Require salvage of construction waste at job sites	

Energy Efficiency

Immediate	1-3 years	To be Determined
		Provide energy audits to low income households
Turn off computers at night		

Reduce Impact from Transportation

Immediate	1-3 years	To be Determined
Provide services at more centralized locations with better mass transit availability		
Share rides with other staff to/from meetings when possible		

Contribute to conviviality health and well-being

Immediate	1-3 years	To be Determined
Information and education program for all clients regarding the benefits of sustainability - specifically health and economic.		

Employee Communication Plan:

Purpose: Explain why taking this action is important, provide detailed background information. Possibly use baseline report as a reference. This is the chance to clarify intentions and persuade skeptics that this change is appropriate and well thought out.

Implementation Date: When do we start?

Action steps: What new actions would you like staff to take?

Evaluated: How will you track progress? Surveys, reports from staff, ...

Updates: How will you report to your staff about the progress of the change? Meeting updates, incorporate into reports, ...

Example Implementation Communication

Purpose:

Energy costs for the Regional Planning Commission are increasing. Greater amounts of funding are required to provide electricity to run our computers, printers, and lights.

RPC consumes on average 100 watts/hour every work day for each computer and printer. It ranges from 300 watts when at high use to 1 watt when in standby mode.

Current practice leaves all computers and printers on 24 hours/day. This calculates to approximately 105,120 kilowatts consumed.

$$[(100 \text{ watts} * 24 \text{ hours} * 365 \text{ days} * 120 \text{ units}) / 1000]$$

If all staff turns off computers and printers (or sets them to sleep or hibernate mode) at the end of every work day, RPC would consume 24,684 kilowatt hours per year just with computers and printers. This is a reduction of 76%.

$$[(100 \text{ watts} * 8.5 \text{ hours} * 242 \text{ days} * 120 \text{ units}) / 1000]$$

This does not mean that the RPC energy bill will decrease by 76% since the bill is made up of more than just computers or printers. However, this action does have a significant impact.

Implementation Date:

1/1/2009

Action Steps:

Option 1 – Turn off computer every night before leaving work

Option 2 – Set computer to sleep mode.

Start > Control Panel > Power Options

System Standby to 30 minutes or under,

Advanced Tab

If you have a sleep button on your keyboard, you can change these settings.

Evaluation:

Once a week, management will walk around after 4:30 to see if all computers are turned off or in sleep mode.

Updates:

We will keep all staff notified of our energy savings through meetings and financial reports.