

**2012  
NDEQ ENVIRONMENTAL  
UPDATE:**

**WHAT GREENING YOUR  
OPERATIONS CAN DO FOR YOU**



# Overview

- Who is WasteCap?
- What is Green?
- What is a Green Business
- Low Hanging Fruit
- Business Successes
- What services are available?
- What resources are available?
- Beyond Recycling and Energy: Sustainability
- Green Team Guide

# WasteCap Nebraska's Mission

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To partner with business leaders to implement resource conservation strategies that increase profitability, community goodwill and employee pride.



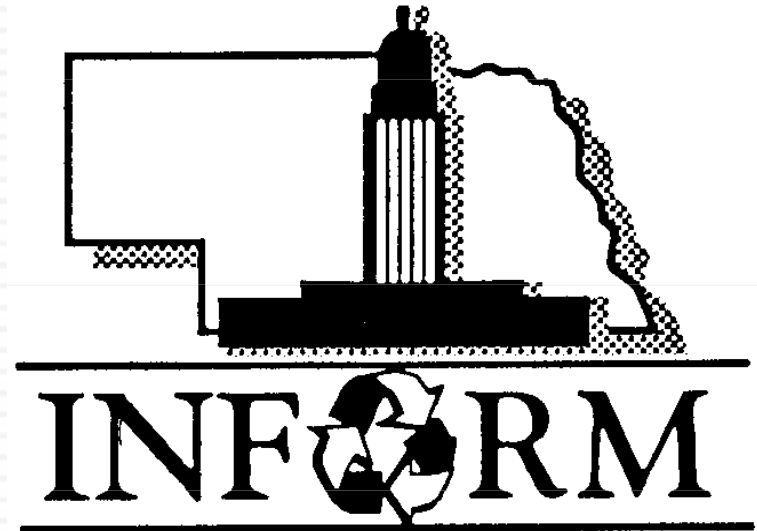
# WasteCap Nebraska's Vision



“WasteCap Nebraska’s leadership creates a positive, measurable impact on Nebraska’s environmental footprint through the facilitation of sustainable business practices that benefit our environment, our community, our world.”

# WasteCap Nebraska History

- INFORM created by local business community in 1992
- WasteCap of Lincoln created as partnership of City of Lincoln and Lincoln Chamber of Commerce in 1994



# WasteCap Nebraska

- ❑ Created in March 2005 as a spin-off of the Lincoln Chamber of Commerce
  - ❑ Formed as a non-profit organization (501c6 trade association)
  - ❑ Expanded services to several communities in Nebraska
  - ❑ Earned 501c3 charitable organization status in 2011



# WasteCap Nebraska Programs

## Technical Assistance

Waste Assessments

Sustainability Planning

## Outreach and Education

Green Team Roundtables

Lunch and Learns

## Recycling

C&D Waste Management

Eco-Fitness Challenge

## Community Programs

Another Bright Idea

Escrap Nebraska

# Business Success Examples – Low Hanging Fruits

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- ❑ Paper Reduction
- ❑ Styrofoam cups
- ❑ Bank going paperless
- ❑ Lighting retrofits
- ❑ Landscape irrigation
- ❑ Compressed Air leaks
- ❑ Hospital Recycling
- ❑ Green Team Savings
- ❑ WasteCap member successes



# Hypothetical Example: Reduce Paper Waste at Source

- 100 Employee Company Office Operations
- Rules of Thumb\*:
  - 1.5-2.0 lbs. paper/employee/day
  - 0.5-0.75 lbs. valuable high grade office paper
- Implement Double-Sided Print/Copy Policy
  - Office Depot - \$32/10 reams (50 lbs) (\$0.64/lb.)
  - Save 0.35 lb./person/day (70% reduction)
  - **Potential Savings = 8,750 lb./yr. or \$5,600/yr.**

\*Source: [http://www.filebankinc.com/reports/reduction\\_tips.html](http://www.filebankinc.com/reports/reduction_tips.html)





# Example: Styrofoam Cups

- ❑ Not Recyclable, not biodegradable
- ❑ Take up a lot of space
- ❑ Switch to employee-owned or employer purchased mugs!
- ❑ Savings – 100 person employee firm
  - Office Depot 1,000 8oz. Cups for \$29 (\$.03/cup)
  - Assume .75 cups/person/day: 18,000 cups/yr.
  - **Potential savings - \$560/yr.**
- ❑ **Employee Pride: Priceless**



# Lighting Retrofits -

<http://www.retrofitcompanies.com/casestudy-snp.php>

## THE RETROFIT COMPANIES



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### Lighting Retrofit Case Study - Security National Properties

The Lighting Efficiency and Energy Reduction Project at this property located downtown St. Paul, Minnesota included a complete interior and exterior retrofit.

#### FACILITY STATISTICS

The primary goals for this project were to retrofit the existing T12 lamps from the 1990's with newer T8 technologies. Including replacing T8 electronic ballasts and 32 watt lamps with new electronic ballasts and 25 watt T8 lamps in order to reduce maintenance costs. Additional benefits include improved light quality throughout.

### Before & After



#### Energy Savings

**58% reduction in Kwh usage**

BEFORE: 2,107,472 Kwh

AFTER: 912,204 Kwh

#### Cost Savings

**\$98,274 lighting cost savings**

Xcel Energy Project Rebate \$113,000

#### Other Case Studies

[Industrial Facility: Industrial Door](#)

[Office Building: Security National Properties](#)

[Aircraft Hangar: Indy Aviation](#)

[Warehouse: Maplehurst Bakery](#)

[Parking Ramp: University of Minnesota](#)

[Swimming Pool Retrofit](#)

[Industrial Facility: Valley Craft](#)

[Warehouse: Wausau Lakeville](#)

[Warehouse: North Marq](#)

[Gymnasium Redesign: ISD #719](#)

# Landscape Irrigation Studies

- UNL Partners in Pollution Prevention (P3)
  - Average Savings
    - Between 200,000 and 750,000 gallons of water per year
    - \$1,000 in water expense savings per year
- Lincoln-Lancaster County Gov't Office Complex
  - 654,000 gallons/ year water conserved
  - \$1,390/ year saved in water expense

# Compressed Air Leaks

- UNL P3 Success Stories
- General Dynamics
  - \$10,000/ year energy cost saved
  - 280,000 kwh/year electricity reduced
- Hughes Brothers, Inc.
  - \$17,500 / year energy cost saved
  - 250,000 kwh/ year electricity reduced
- Molex, Inc.
  - \$30,662/year energy cost saved
  - 731,793 kwh/ year reduced



# Bryan LGH

HEALTH SYSTEM



## Cardboard Recycling 4<sup>th</sup> Quarter 2006- 4<sup>th</sup> Quarter 2010

632.01	Tons of Cardboard Recycled
\$38,050.00	Revenue Generated by sales of Cardboard
18,002.00	Battery Recycling (plus shipping cost)
\$13,272.00	Money Saved from Reduced Landfill Fees
<b>\$69,324.00 +</b>	<b>Financial Benefit of Recycling</b>

Bryan LGH to expand their program to include paper, plastics, and scrap metals. As a result, additional cost savings were realized by being able to reduce the size of their waste compactors thereby **reducing landfill tipping fees \$3000.00 annually.**

**2005-2010 Bryan LGH diverted 2,027 tons of materials from the landfill.**

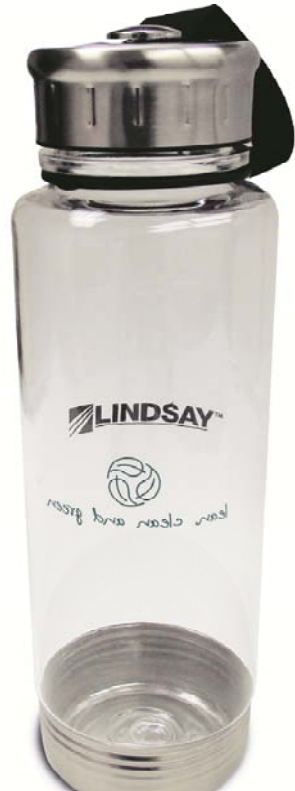




## Recycling

## Paper Reduction

## Energy Savings



### Results

- Substantial energy savings at Corporate office building (newly constructed so no baseline)
- \$25,000 annual paper savings
- 14,000 pounds recycled during storage clean-up
- \$6,000 annual package savings (air bags instead of packing peanuts)
- \$10,000 annual banding savings (green poly instead of metal banding)
- \$10,000 annual heating and air savings at manufacturing plant
- \$34,356 annual energy savings from rapid door closing, big fans and insulated boiler pipe
- \$98,000 annual energy savings using kettle covers
- 170,000 paper towels saved per year (hand dryers now used)
- 610,000+ gallons of water saved annually (acid/flux baths, acid recovery)



**Lean, Clean and Green.** Lindsay Corporation is committed to developing environmental awareness and implementing sustainable practices to reduce the use of and protect energy, water, and all other resources.



# Square D – 2007 Award recipient

- A quick door was installed outside of plating to prevent conditioned air from the rest of the plant to be exhausted out. The savings was calculated at **30,000 cfm or \$30,000 per year.**



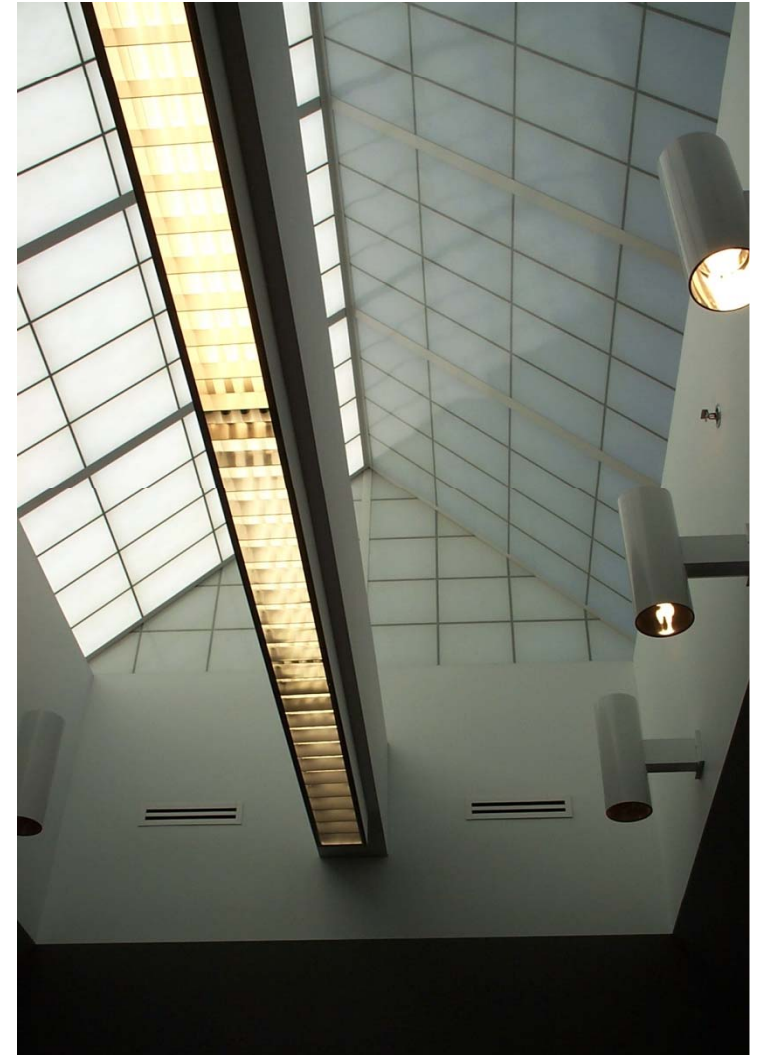
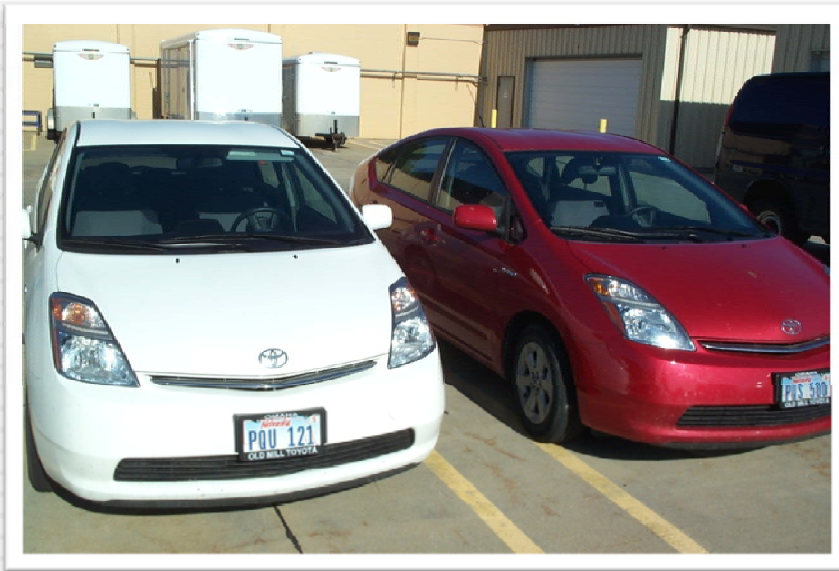




# State Farm – Award Winner 2009

State Farm Insurance has made steps to improve its company car fleet, which now includes 182 Flex Fuel and Hybrid automobiles.

They have also installed automatic lighting and high efficiency ballasts and T5 lighting.



# Cornhusker Bank – 2007 Award recipient

Use of electronic processing and storage of documents ...has led to reductions in overall paper usage.



This change has reduced overall paper usage and purchasing by 15% and cut paper generation from 120,000 pounds in 2005 to 70,000 pounds in 2006, a 42% reduction.



# UNIVERSITY OF Nebraska Medical Center

## 2008 Award Recipient



The Red, White and Blue patriotic themed educational campaign reduced red bag waste and helped to increase recycling and proper waste management.



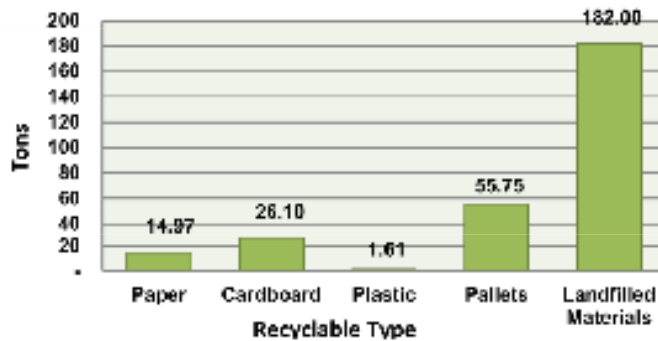
# What Services Are Available?

- **Waste Assessment/ Sustainability Planning – WasteCap staff**
  - Short visit to evaluate waste and offer recommendations
  - Facilitation of Green Team to evaluate impacts and set goals for implementation
- **WasteFinder Green App**
  - Mobile app to assist with Waste Assessments
  - Measures, records, tracks and reports
- **Green Team Round Table – Peers**
  - Talk and Tour of a local successful business

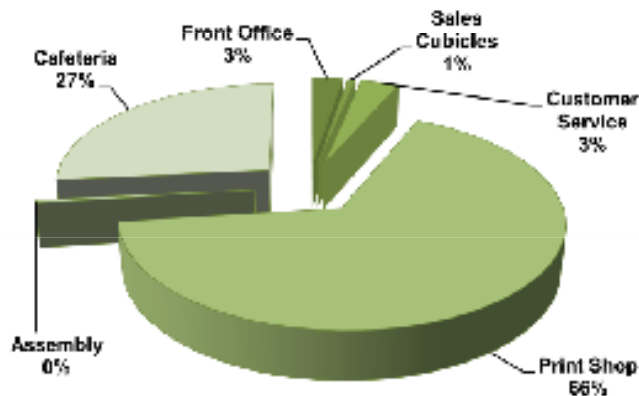
**Recommendations**

- ◆ Train employees on proper practices of waste separation
- ◆ Eliminate one trash pickup per week through proper positioning of trash containers and recycle bins
- ◆ **Always** have a trash container immediately next to a recycling container
- ◆ Share successes with staff and volunteers
- ◆ Do a cost-benefit analysis of acquiring a baler to generate revenue by recycling cardboard
- ◆ Identify ways to reduce incoming plastic film

**Annual Recyclables**



**Annual Recyclables by Area**



**Triple Bottom Line Impact**

**Planet Impact:** Based on your Current Annual Consumption, Improved Recycling can help you Save

- ◆ 927 Trees
- ◆ 343,872 Kilowatt Hours of Energy
- ◆ 982,490 Gallons of Water
- ◆ 2,456 Pounds of Air Pollution
- ◆ 135.1 Cubic Yards of Landfill Space

**Profit Impact:**  
Annual Potential Savings and Revenue Generation

- ◆ \$11,362

**People Impact:**  
Based on studies of companies who employ sustainable practices

- ◆ Improved employee morale
- ◆ Improved employee retention
- ◆ Increased employee recycling at home

# Sustainability

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- “Sustainable practices are those that meet the needs of the present generation without compromising the ability of future generations to meet their needs.”

□ -United Nations

# Beyond Recycling and Energy to Sustainability

## □ Sustainability Planning Process

Understand Sustainability Concepts and Metrics

Refine the strategic business case for sustainability

Choose credible frameworks to define sustainability

Conduct an impact assessment

Develop metrics, targets



# Beyond Recycling and Energy to Sustainability

## □ Sustainability Planning Process Continued

Mock up a sustainability report

Gather baseline data

Create a long-term project plan

Put in place systems to manage the program

Conduct formal reviews and push the envelope



# Why be Sustainable?



- To stay competitive;
  - Many businesses have found reducing the amount of solid waste they dispose of and conserving natural resources (water & energy) can **result in significant cost savings**
  - Improves the work environment, **increasing employee morale and retention**, and in some cases improves employee health.
  - Insures that the earth's natural resources will be there for generations to come.

# How does a Business become Sustainable ?

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- The environmental program must be a part of the company's core operating principles and value.
- They must be carried out systematically
  - simply posting recycling signs above a new container is not going to effect a change in behavior.

# Steps to Success

A decorative graphic consisting of two horizontal bars. The top bar is a light green color and is shorter, starting from the left edge. The bottom bar is a darker green color and is longer, extending further to the right.

*Step One:* Gather Information

*Step Two:* Secure Support

*Step Three:* Forming the Green Team

*Step Four:* Selecting and Planning a Program

*Step Five:* Launching the Program

*Step Six:* Encouraging Participation

*Step Seven:* Monitoring the Program

# Contact Information



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