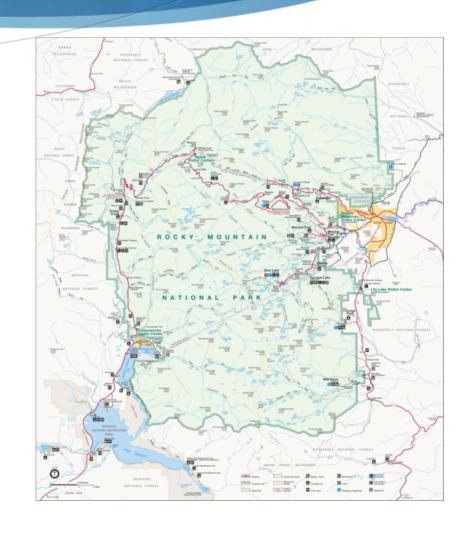
## Rocky Mountain National Park CBSM Recycling Initiative

Elliot Dale, M.Sc Construction Management, Colorado State University BECC Conference 2012

## Rocky Mountain National Park (RMNP)

#### **RMNP Stats**

- ~3 million annualvisitors/250 employees
- Mostly transient population
- > 2011: 400,000 lbs. of waste generated



#### Increasing Landfill Diversion

- > Master's thesis research
- > Implemented CBSM process successfully
- Used <u>commitments</u>, <u>convenience</u> and <u>prompts</u>

#### 2011 Waste Audit



- > 6 waste categories
  - Recyclables, compost and trash
- > 8 location types
  - Visitor and employee use areas
  - Recycling and campgrounds

#### Moraine Park Campground Observations

#### Campground/Campsite Observations



#### Waste Disposal Observations (n=91)

- > Recycling receptacles hidden
- Campsites lack waste storage areas
- ▶ Low recycling participation− 31%
- ➤ Half transported recyclables loosely in hands 1-3 items

#### Campground Intercept Surveys

- Asked two questions (n=63)
- ➤ Main Barriers:
  - Commitment,Convenience, Awareness
- Main Benefits:
  - Environmental reasons, human reasons
- Attitude/Behavior gap identified



### Strategy Development/ Implementation

- > Strategies based on observations and intercept survey findings
- Developed with RMNP employees
- Strategies included entrance gate commitments, signage prompts, and Ranger programs

### Strategy Development/ Implementation (cont.)

**Recycling Bag Logo** 

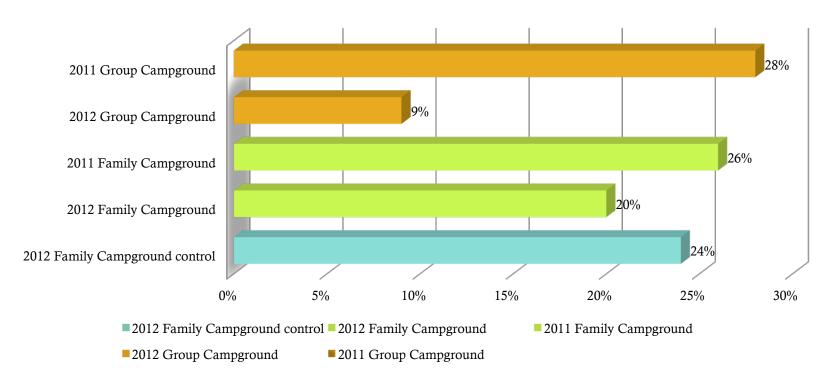


Water Bottle Sticker



# 2012 Waste Audit Results Comparison

#### Comparison of Comingled Recyclables in the Landfill Wastestream



#### Findings

- CBSM recycling initiative a success!
  - Family Campground recycling contamination decreased by 23%
  - Group Campground recycling contamination decreased by 68%
- Most effective strategies:
  - Entrance gate commitment with recycling bag handout
  - > The use of prompts as recycling reminders

#### Implications/Future Research

- > Results applicable to other areas:
  - > Other national, state, county or private campgrounds, Recreational areas
  - Amusement parks, movie theatres, dorms, temporary/emergency housing
- > Organizational, long-term behaviors (within the National Park Service)

#### Questions? Thank You!

Contact Information:
Elliot Dale
ebdale@gmail.com
720-448-1485