





Photography courtesy of Jennifer Ward

# Solid Waste and Recycling Programs

EXHIBIT C – RECYCLED PRODUCTS Document consists of 16 slides. Entire Exhibit provided. Meeting Date: 06-26-12

## Solid Waste Services for Douglas County

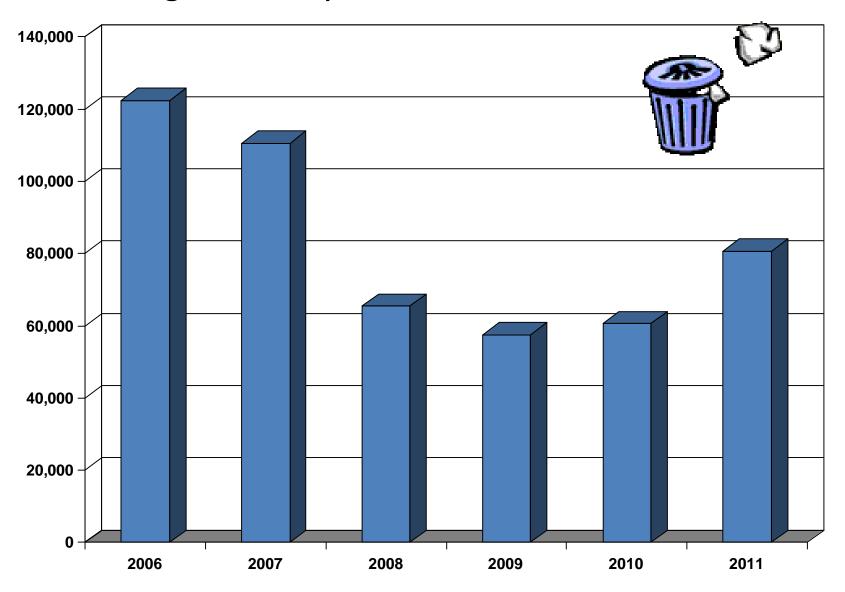
#### **Carson Valley**

- Douglas Disposal and Recycling Services – since 1978
  - **Carson Valley** 8,900 customers including Alpine County, California Solid waste, drop-off recycling and transfer station recycling
- Town of Minden
   1,300 homes and businesses
   Solid waste and green waste recycling
- Town of Gardnerville
   1,500 homes and businesses
   Solid waste and green waste recycling

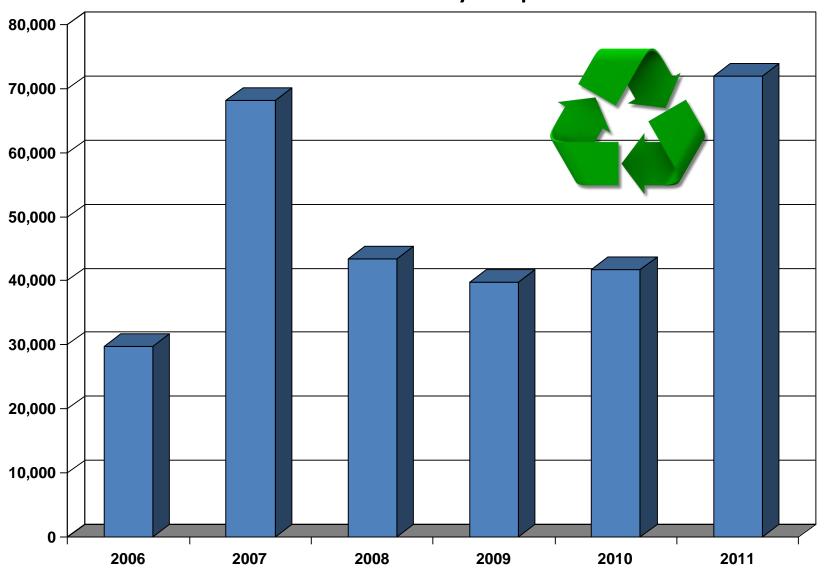
#### **Lake Tahoe**

- South Tahoe Refuse and Recycling Services – since 1962
- Tahoe-Douglas Township
   2,200 customers
- City of South Lake Tahoe, CA
   9,800 customers
- El Dorado County east slope, CA
   5,800 customers
   Solid waste, blue bag recycling, green waste recycling, CA buy-back recycling, LEED project recycling

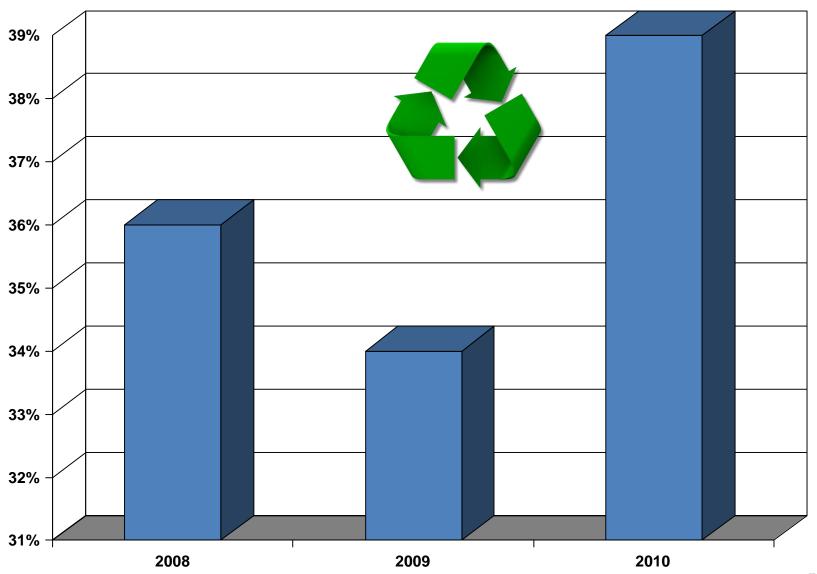
### Douglas County MSW Waste Generation in Tons



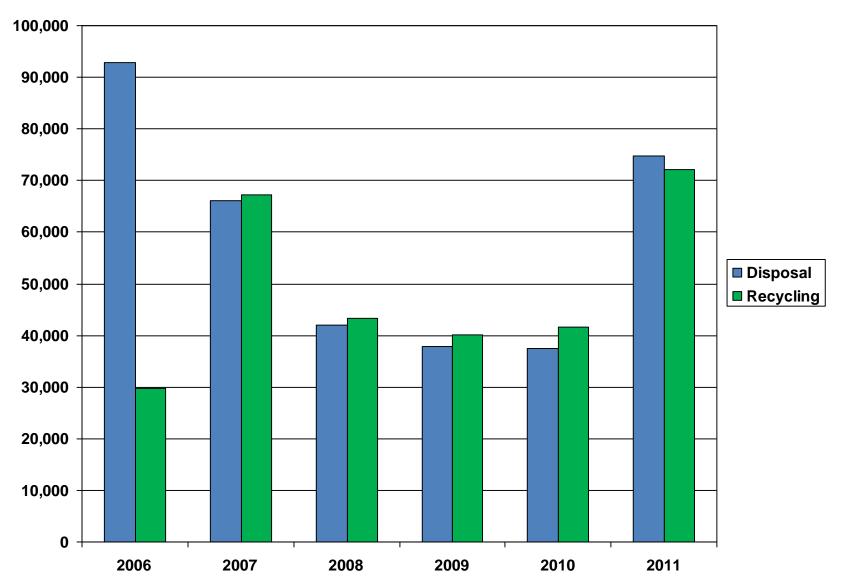
## Douglas County Recycling in Tons From County Reports



# Douglas County Recycling per NDEP



# Douglas County Recycling versus Disposal





#### Recycling "Carson Valley Style"

#### **Douglas County Transfer Station**

County owned 20,000 sq. ft. facility located on 25.5 acres at the end of Pinenut Road, Gardnerville

- Public drop-off recycling
- Green waste recycling
- Metal recycling
- Used oil recycling
- Hazardous, universal and e-waste recycling







#### **Community Recycling Drop-Off**

- Pa Wau Lu Middle School
- Jacks Valley Elementary
- Gardnerville Elementary
- Topaz Community Center
- Animal Shelter
- Boy Scouts
- Bently Biofuels
- Alpine County, California



#### **Special Routes**

- Food Waste Recycling
- Christmas Tree Recycling
- Office Paper Recycling
- Cardboard Recycling
- Construction Recycling



- Special Events
- Compost Your Combustables
- Green Living Festival
- Washoe Tribe Earth Day
- School Earth Day Events
- Parade of Lights





#### Recycling "Lake Tahoe Style"

#### **Materials Recovery Facility**

A conveyor system employs 12 sorters:

- Aluminum Cans
- Glass Beverage & Food Containers
- Plastic #1, #2, and #3-#7
- Tin Cans
- Newspaper
- Cardboard
- Mixed Paper

#### Floor operations employs 10 sorters:

- Metals and Appliances
- Asphalt and Concrete
- Tires
- Electronic Waste
- Used Motor Oil and Antifreeze
- Automobile & Household Batteries

#### **California Redemption Recycling Centers**

- Beverage container "bottle bill"
- Employs 10 processors



Organic Materials Facility
Employs 5 sorters and processors

Curbside Green Waste Collection
Landscapers, Tree Service
Contractors



Fuels Reduction Projects
Cal-Green and LEED Projects
Alternative Daily Cover (ADC)





#### **Special Routes**

- Food Waste Recycling
  - Embassy Suites
  - Marriott
  - Zephyr Cove



- School Recycling
  - All schools in service area
- Christmas Tree Recycling
  - Curbside, no charge
- Office Paper Recycling
- Cardboard Recycling

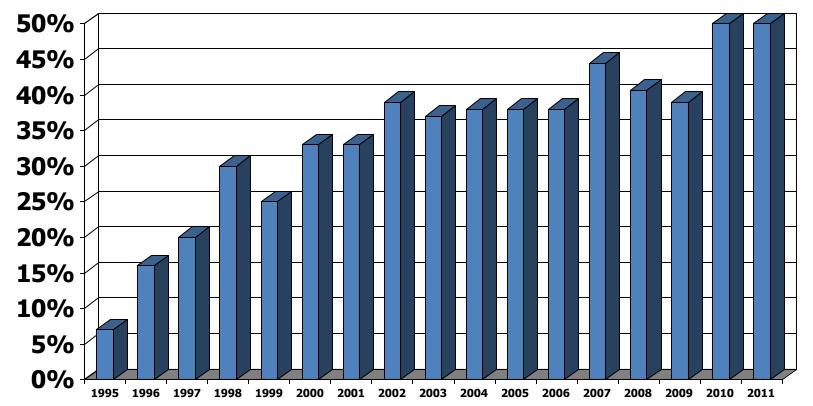
#### **Special Events**

- Special Event and Zero Waste Recycling
- Compost Your Combustibles
- SLT Earth Day Sponsor
- FireFest Sponsor
  - School MRF Tours
- South Tahoe Environmental Education Coalition
- Tire and E-Waste Events



# Recycling Data







# Curbside Blue Bag Recycling for South Lake Tahoe residents since 2009

- Weekly pickup, bag provided
- 50% participation by Tahoe-Douglas Township customers
- Apartments to be added 2012
- Collected with garbage, sorted separately
- No additional emissions or truck trips
- Incremental increase in recycling

# Don't Trash It... BLUE BAG IT!

# Carson Valley Recycles Pilot Program

- Voluntary Subscription
- Curbside Mixed Recycling
- Pickup every other week

#### From 2008 to 2010

- •Insufficient subscribers
- Poor scrap markets
- Distance from markets
- Fuel costs
- Economic downturn

# Comments on Options for Collecting and Processing Recyclables

#### **Mixed Waste Processing**

- Guaranteed participation
- Effective for both residential and commercial waste streams
- Single truck pickup, reduced emissions and costs
- Compatible with existing equipment
- Handles weather and wildlife issues
- Disconnect with customers

#### **Single Stream Processing**

- Customer friendly
- Positive perception

- Cleaner sort
- Reduced risk exposure
- Efficient use of labor
- Cart system compatible
- Additional trucks, drivers and carts
- Increased customer rates

## Increasing Recycling Services In Carson Valley

#### **Potential Solutions**

- Countywide, including towns and GIDs
- Integrate into service and rates, not an optional service
- Significant capital investment
- Consider regional collaborations for facilities
- Scrap value of recyclables not sufficient to cover program costs
- Survey residents and/or elected officials

# Support for Recycling Programs



"Bottle Bill": financial support for sustainable programs

- Develop regional markets and reprocessors, creating jobs and reducing transportation impacts
- Support local composting facilities
- Special Event Recycling & Zero Waste Events
- E-Waste Recycling Programs & Events
- Fuels Reduction Projects with Fire Safe Councils
- Waste Tire Management Programs
- Community Cleanup Events and Projects
- Restrict funding for recycling programs and services
- Keep it simple; the less bureaucracy, the better





## Sustainability Programs

- Reduced emissions
  - Bio-diesel for on-site equipment
  - Idling policy on-site and off-site
  - Redesigned collection routes
  - Governors on trucks
  - CARB fleet compliance
  - Bike to Work Week Employee Incentives
- Recycling at all company facilities