

Steering Committee Presentation

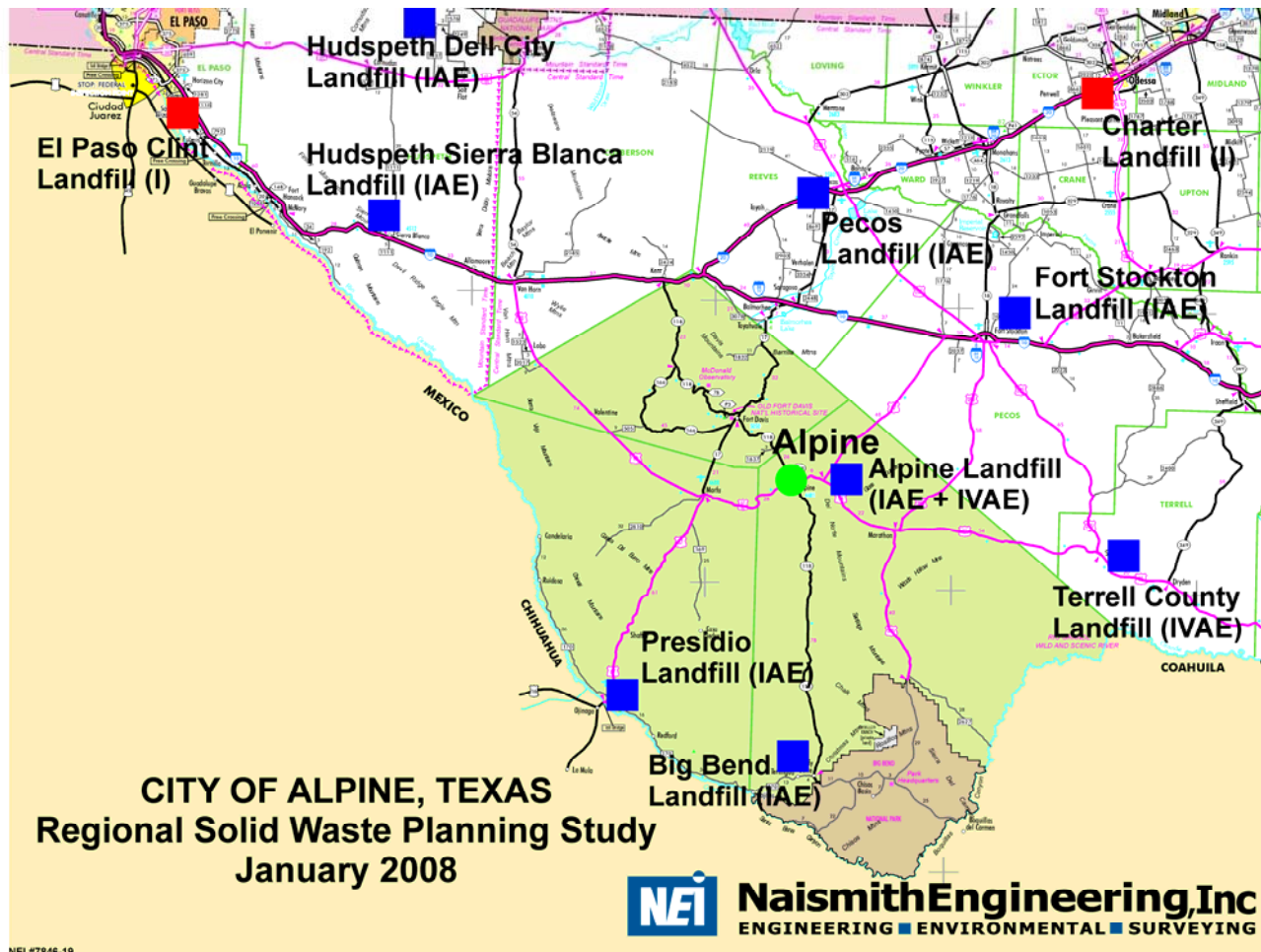
**Regional Solid Waste
Planning Study
The City of Alpine, Texas**

**Alpine City Hall
100 North 13th Street, Alpine, Texas
April 22, 2008**

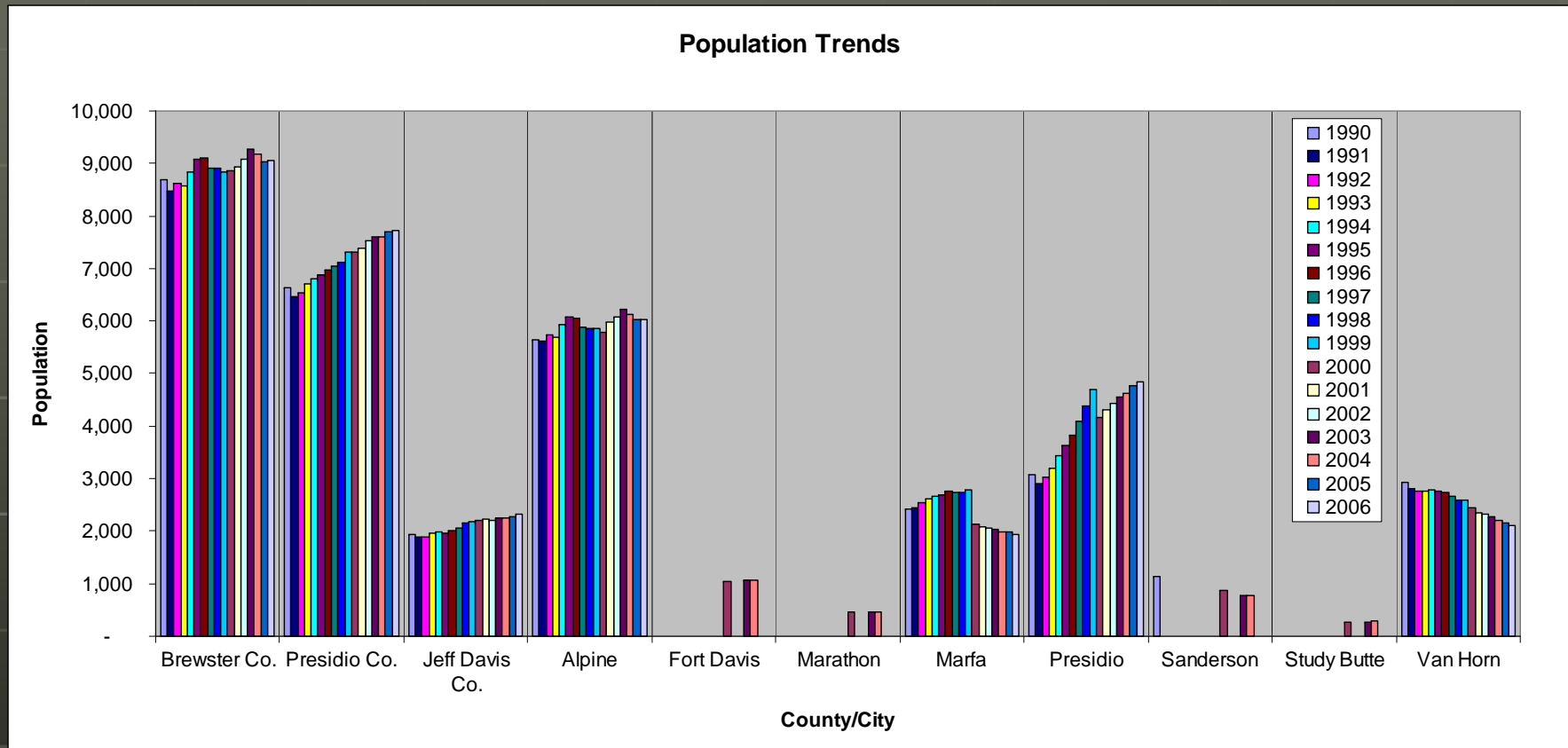
Administrative Items

- Project Contacts
 - City of Alpine – Mr. Chuy Garcia – City Manager
 - Naismith Engineering, Inc. – Mr. Grant A. Jackson, P.E., Project Engineer
- Review of Communication Procedures
- Project Website:
<http://www.neionline.com/Alpine-MSW.files/Alpine-MSW.htm>
- Future Meeting Possibilities
 - Fourth Tues. or Thurs.
 - Second Tues. or Thurs.

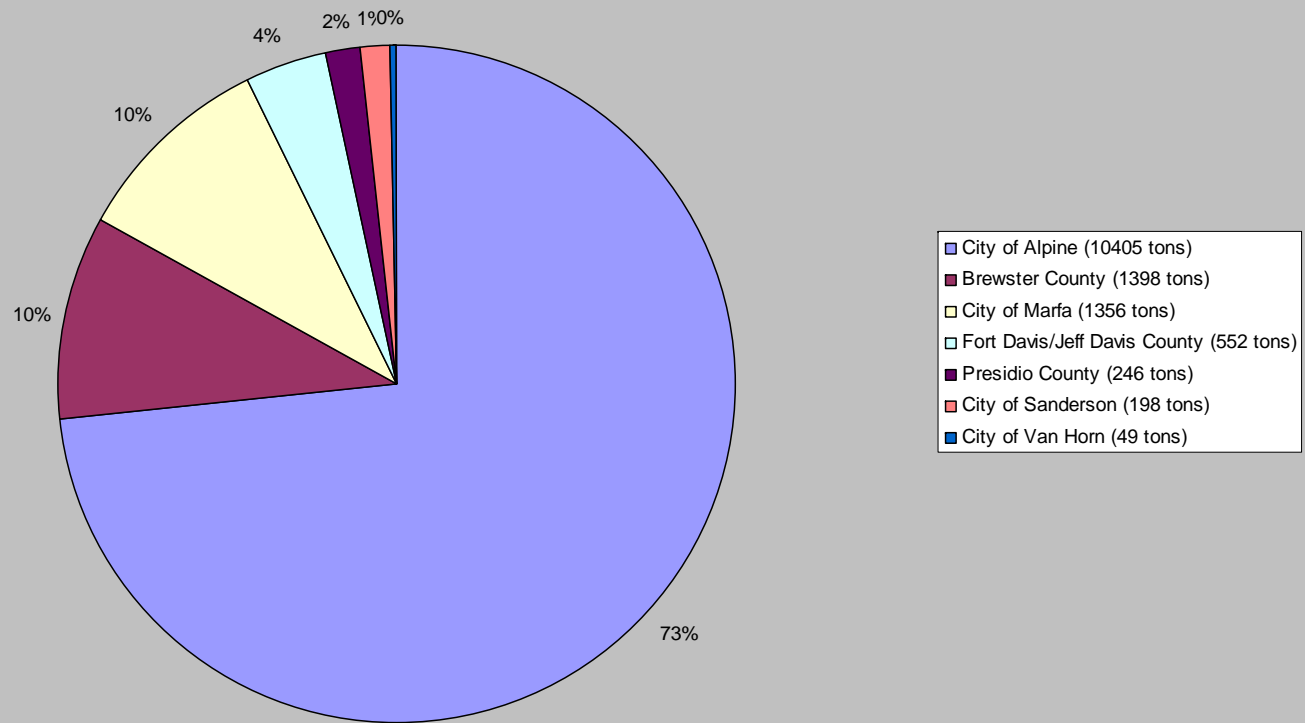
Project Area



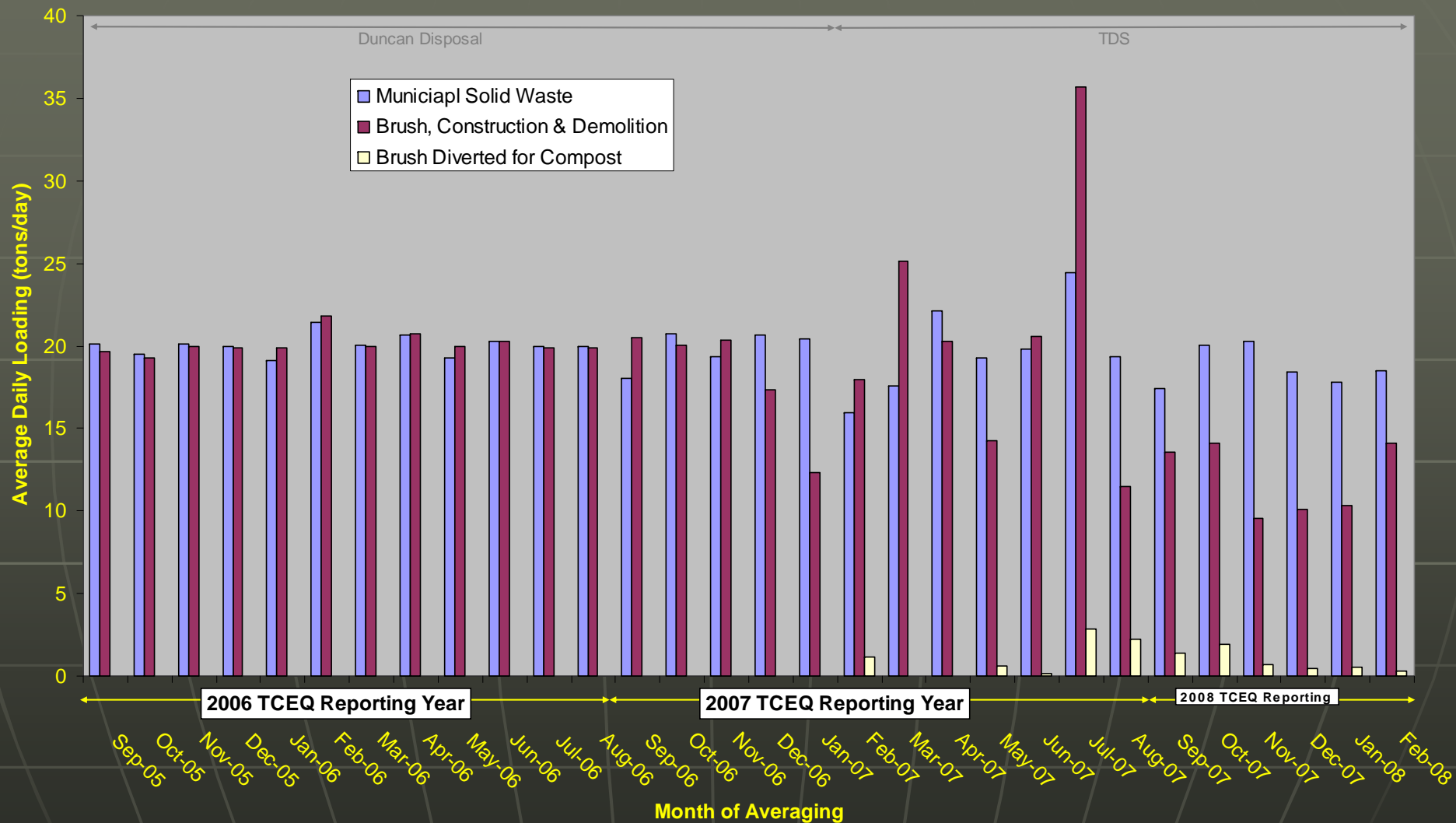
Population Trends in the Region



Waste Sources – Alpine Landfill February 2007 to January 2008

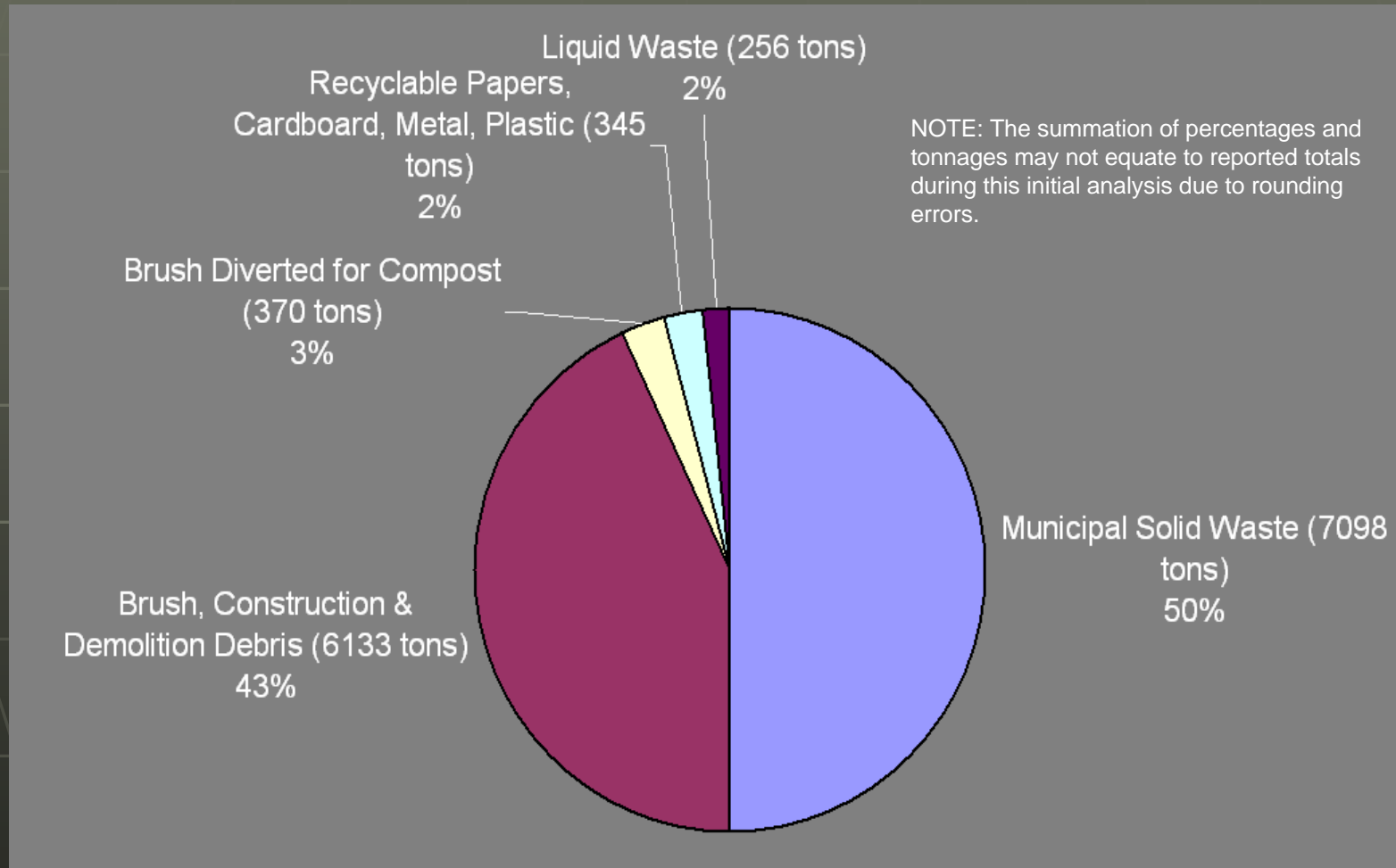


Alpine Landfill Average Daily Loading September 2005 through February 2008

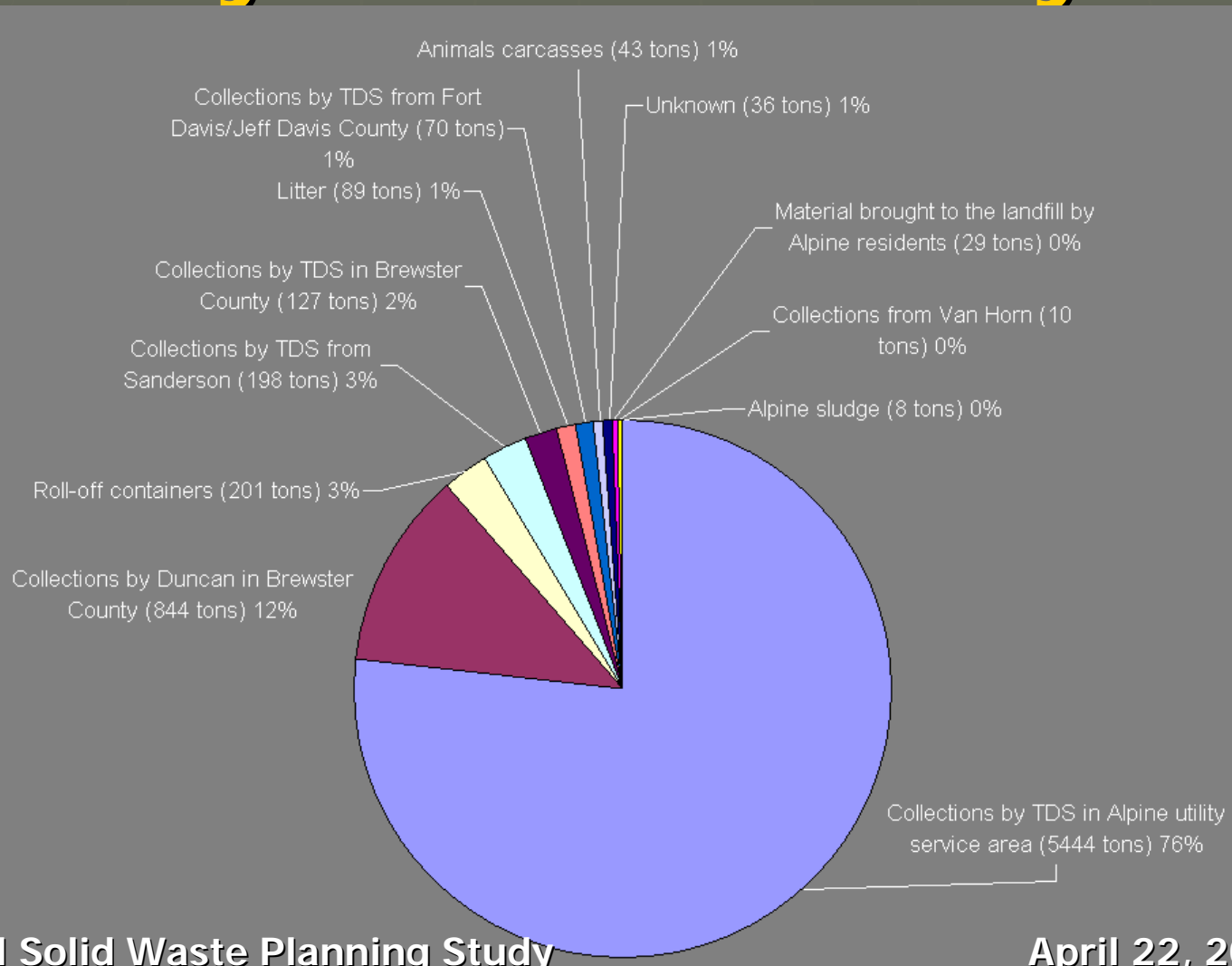


Waste Characterization

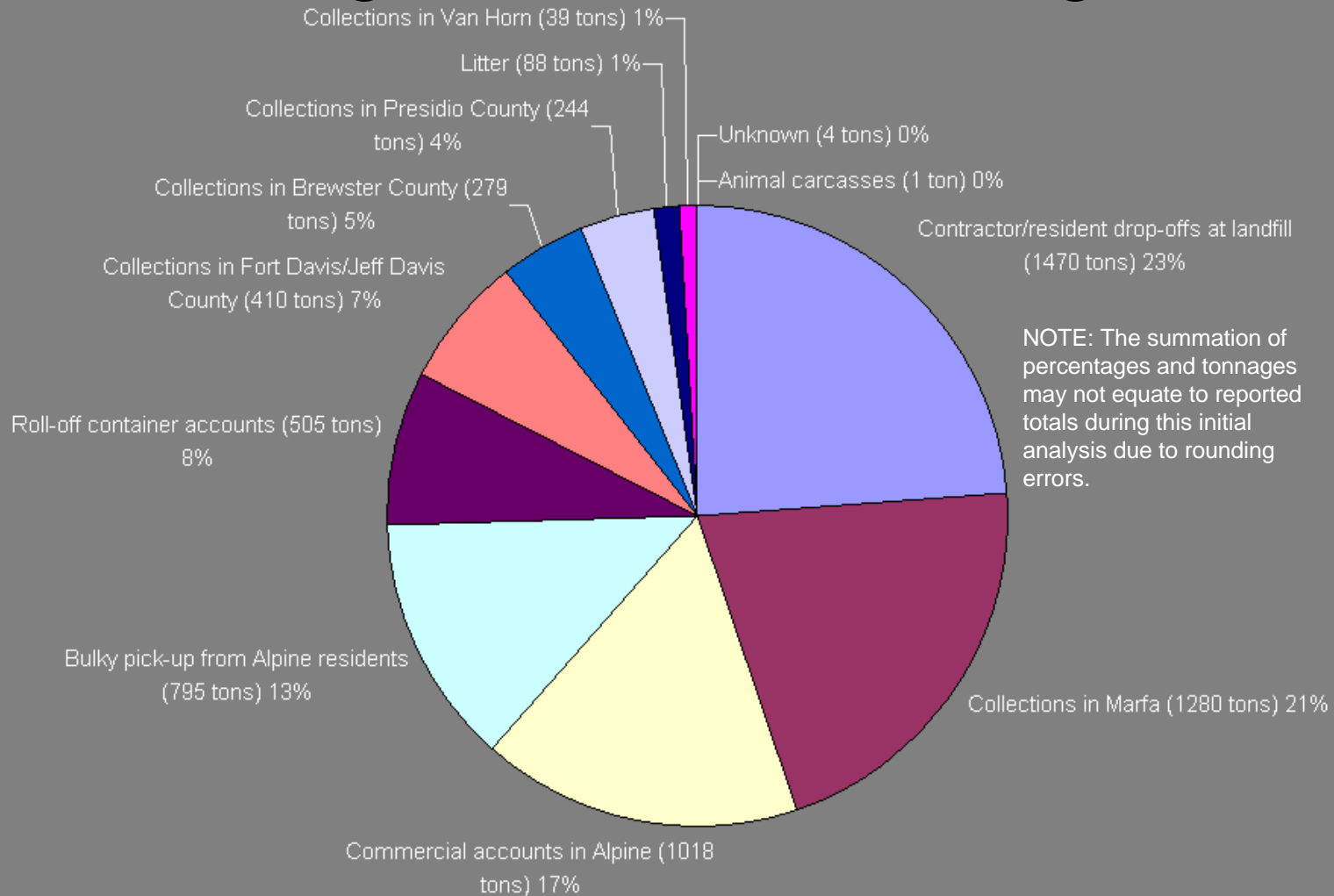
February 2007 to January 2008



MSW Collection Source February 2007 to January 2008



Brush, Constr./Demo. Debris February 2007 to January 2008



Basis for Comparison

- Rates:
 - Residential - \$26.63 per mo.
 - Commercial Rates - \$5/cy-pickup
- Cost of Collection + Disposal
 - FY 2007 – \$96.75/ton (Avg.)
 - At ~1% Pop. Growth + 3% Inflation:
 - FY 2008 - \$99.65/ton
 - 20 Year Avg. - \$132.12

Alternatives

- **Alternative 1:** Send excess waste to other facilities using collection trucks
- **Alternative 2:** Implement an aggressive recycling program
- **Alternative 3:** Build a transfer station at the Alpine landfill and transport all waste to another facility
- **Alternative 4:** Upgrade the existing landfill to Type I with No Waste Limit
- **Alternative 5:** Construct a New AE landfill to work in concert with existing landfill

Alternative 1: Excess Waste to Other Facilities Using Collection Trucks

- Once limits of 20 tpd MSW & 20 tpd B&CD exceeded, excess waste transported to other facilities in collection vehicles (Expected 2009)
- Transport Cost is significant factor:
 - Charter landfill – Odessa: 143 mi.
 - Clint landfill - El Paso: 198 mi.
- Estimated Costs
 - Extra Waste: \$134.2/t (20 Yr Avg.)
 - Adjusted Avg. - \$101.83/t (FY 2009)
 - 20 Yr. Adjusted Avg. - \$134.75/t (Addn. \$2.63)

Alternative 2: Implement an Aggressive Recycling Program

- Existing Recycling Program:
 - Primarily Commercial/Institutional
 - 2008: 936t – 8.74%
- Reduce disposal rates into existing landfills by reusing or recycling certain materials.
 - Cardboard, paper, plastics, metals.
- Public education, support, and participation is critical
- Estimates:
 - Recyclables (Coll/Sort/Transp) \$293.29/t
 - Adjusted Avg. - \$123.93/t (Addn. \$23.03 FY 2009)
 - Adjusted Avg. - \$110.50/t with LF Space Savings

Alternative 3: Transfer Station

- Construct a transfer station at the existing Alpine landfill facility.
- All waste transported to another facility
- Estimates
 - Adjusted Avg. - \$226.59/t (Addn. \$123.59 FY 2009)
 - 20 Yr. Adjusted Avg. - \$273.54/t (Addn. \$141.42)

Alternative 4: Upgrade Existing Landfill

- Eliminates restrictions to addn. landfill cells at existing facility
- Estimated Costs:
 - Adjusted Avg. - \$241.99/t (Addn. \$139.35 FY 2009)
 - 20 Yr. Adjusted Avg. - \$252.04/t (Addn. \$119.92)

Alternative 5: New AE Landfill

- Provides capacity for Addn. 20+20 tpd
- Estimated Costs:
 - Adjusted Avg. - \$170.91/t (Addn. \$68.27 FY 2009)
 - 20 Yr. Adjusted Avg. - \$194.63/t (Addn. \$62.51)

Preliminary Comparison

Alternative	Base Cost (20 Yr)	Incr. Cost. FY09 (20 Yr)	Total Cost. FY09 (20 Yr)
1 Off-site	\$132.12	\$6.93	\$139.05
2 Recycle	\$132.12	\$14.84 (\$5.90)	\$146.96 (\$126.22)
3 Transfer	\$132.12	\$141.42	\$273.54
4 Upgrade	\$132.12	\$119.92	\$252.04
5 New AE	\$132.12	\$62.51	\$194.63

Questions



- Naismith Engineering
- Grant A. Jackson, P.E.
(gjackson@naismith-engineering.com)