

Ski Area Footprints What Size Are Those Boots?

The challenge: area-wide performance indicators

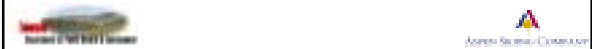
- ▶ What media and what operations?
- ▶ Data sources and collection are problematic
- ▶ Lack of system and procedures for tracking
- ▶ Common denominators: eCO₂, others?



Baseline Data at ASC

Summary of Cost, Amount, and eCO₂ for the 1999 Baseline

Media	Cost	Unit Number	Unit Type	eCO ₂ (tons)	Ave cost/unit
Electricity	\$1,869,253	26,231,512 kWh		26,100	0.071
Fuel	\$325,748	368,480 gallons		4,009	0.884
Natural Gas	\$472,790	984,979 therms		5,811	0.480
Propane	\$3,457	3,842 gallons		24	0.900
Water	\$281,295	227,240,405 gallons		78	0.001
Solid Waste	\$265,763	4,367 tons		9,502	60.857
TOTAL	\$3,218,306			45,526	

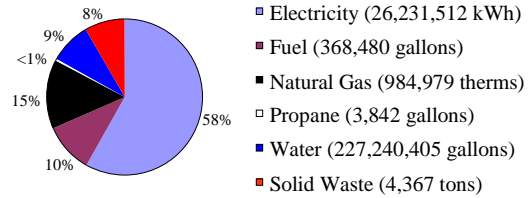


Baseline Data at ASC

Category	Media	Cost	Cost per Category	Units	Units per Category	Unit Type	Conversion	eCO ₂ (tons)
Vehicles	Fuel-DM	128,317		148,032	111,052 gal diesel	2113 tons CO ₂ /gal		1,265
	Fuel-AM	41,165		45,003	38,136 gal gas	5088 tons CO ₂ /gal		377
	Fuel-PM	75,684		88,881	27,488 gal diesel	2113 tons CO ₂ /gal		424
	Fuel-EM	83,577		84,361	8117 gal gas	5088 tons CO ₂ /gal		83
Sub-Total		\$328,743		366,281	96,483 gallons			1,699
Recreation	Electric-ASC	559,683	559,683	6,900,663	6,900,663 kWh	139 lbs CO ₂ /kWh		6,875
	Water-AM	96,201	48,945,004	15,000,000	28,281,500	0.00000038 tons CO ₂ /gal		33
	Water-AM	7,500	28,281,500	59,480,000	153,315,500	gallons		1
	Water-DM	29,745	\$133,446	59,480,000				1
Sub-Total		\$691,129		115,965,500	8,990,541 kWh	1.99 lbs CO₂/kWh		6,909
Snowmaking	Electric-ASC	197,188	2,816,324	2,816,324				
	Electric-AM&M	72,283	1,204,724	2,150,170				
	Electric-TLN	190,508	2,827,522					
	Water-ASC	42,432	21,214,786	8,990,541	1.99 lbs CO ₂ /kWh		8,955	
	Water-TLN	41,309	20,679,552					
	Water-SMC	47,203	23,611,893					
	Water-AM&M	17,038	\$147,850	8,519,188	73,324,905 gallons	0.00000038 tons CO ₂ /gal	47	
	Nat. Gas-ASC	3,064	6383.25					
	Nat. Gas-ASC	136,680	8,519,188					
	Nat. Gas-TLN	81,868	128,034					
Nat. Gas-Chief	271,158	\$472,790	984,979	984,979 Therms	1 lbs CO ₂ /therm	5,811		
Propane	3,457	\$3,457	3,842	3,842 gallons	2.907 tons CO ₂ /gal	24		
Solid Waste	265,763	\$265,763	4,367	4,367 tons	2.195 tons CO ₂ /ton waste	9,502		
Sub-Total		\$1,709,761		10,304,038	10,304,038 kWh	1.99 lbs CO₂/kWh	19,253	
Total		\$3,218,306		116,270,538	18,974,686	1.99 lbs CO₂/kWh	45,526	
# of Skiers								6,838



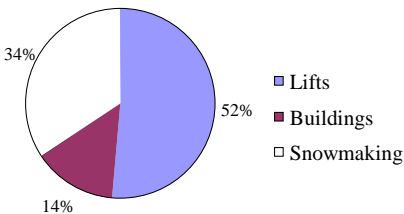
Baseline Data at ASC



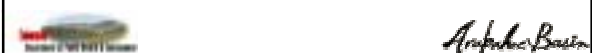
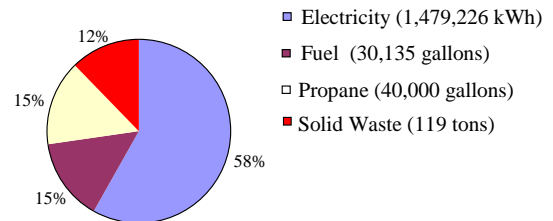
Total annual cost = \$3,218,306

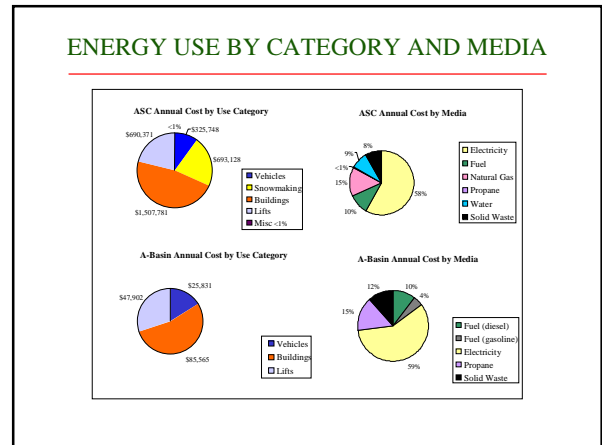
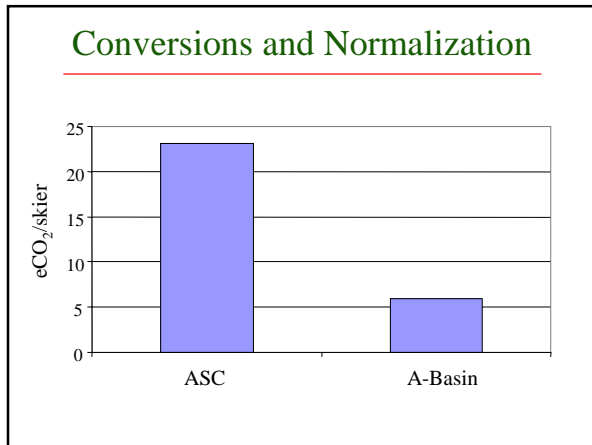
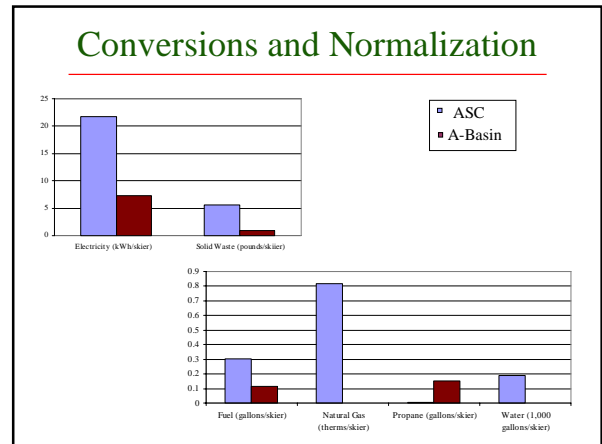
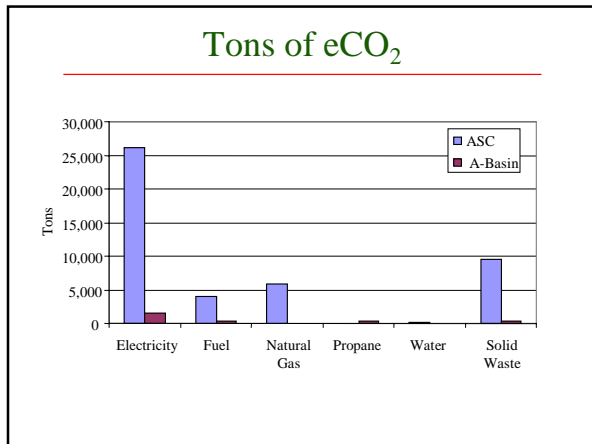


Electricity Use at ASC



Baseline Data at A-Basin





1999 Solid Waste Baseline Data at ASC

Solid Waste Destination	Tons	Cost	Average Cost Per Ton
Landfill	1,405	\$110,400	\$94.50
Recycled	300	\$ 17,600	\$58.77

Estimated diversion rate = 17.61%
 Cost savings per ton from recycling \$35.74
 Total diversion savings in 1999 = \$10,730

