# Nevada's Known Geothermal Areas and Resources

Dixie Valley, NV



#### Nevada geothermal power plants, thermal springs and wells

#### (after Shevenell et al., 2000).

### Nevada Flash Power Plants

Plant	Year	Output	Temp
		(MW)	(C)
Beowawe	1985	16.7	199
Bradys	1992	21.1	186
Caithness	1988	14.4	236
Desert Peak	1985	9.9	205
Dixie Valley	1988	66	250



Dixie Valley S.W. Lamb No. 3 Well, summer 1980.



#### **Dixie Valley**



#### **Caithness Power Plant, Steamboat**



**Brady Power Partners** 



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## Nevada Binary Power Plants

Plant	Year	Output	Temp
Empire	1987	3.6	151
Soda Lake 1	1987	3.6	182
Soda Lake 2	1991	13	182
Steamboat (I,Ia)	1986	7.1	170
Steamboat (II,III)	1992	48	170
Stillwater	1989	13	158
Wabuska 1	1984	0.6	107
Wabuska 2	1987	0.6	107



#### Wabuska generating unit (0.6 MW)

Binary generation at Empire Farms (3.6 MW)





#### Steamboat II, III (48 MW)

# **Nevada Direct Use Facilities**

Ash Springs **Baileys HS Bowers Mansion Bradys** Caliente Carson City Darroughs HS spa

spa spa pool vegetable dehydration spa, pool, space heating pool

#### Nevada Direct Use Facilities, Cont'd Elko pool, space heating Moana space heating San Emidio Desert vegetable dehydration Steamboat spa, space heating Walleys HS spa Wells geothermal heat pump



#### Nevada direct use geothermal facilities.

#### Empire Farms Dehydration Plant

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HEHNS



**Bradys Dehydration Plant** 



#### Walleys Hot Spring Resort

#### **Other Known Areas - Current Work**

Fallon NAS Fish Lake Valley Salt Wells Navy California Energy Nevada Geothermal Specialists

Recent DOE GeoPowering the West:

Blue Mountain Animas Valley Rye Patch Steamboat Noramax Corp Ormat Presco Energy (formerly) ATS



Regional Map Showing Anomalies Identified by GPS Survey – Areas of extension thought to have greater potential for geothermal resources





**Predicted crustal** density of undiscovered geothermal resources. Dark areas have high predicted densities, medium-pink areas have moderately high predicted densities, light pink densities are relatively low. **Circles are known** economic and subeconomic geothermal systems.

#### Summary

Considerable resource potential for both:

Power production Direct use applications

Based on Known locations of thermal springs and wells Modeled and predicted locations of hidden resources