

Appendix D

INFORM Project Hydrometeorological Database

The types of data that form the INFORM project database are described in the following categorized by the source of the datasets. This is followed by several Tables with an exhaustive listing of the station data information.

APD.1: Data Collected From CNRFC

- a. Historical 6-hour MAP and MAT (Table APD-1) for all the study subbasins
- b. Daily resolution of Full Natural Flow in the regulated basins (Table APD-2)
- c. Historical FMAP – Forecast MAP for same subbasins as historical MAP
 - 02/1997 – 10/2002
- d. Operational Archive – SS-SAC output including MAP, FMAP, Q_{OBS} , and $Q_{FORECAST(SS-SAC)}$ for forecasts made during historical period covering:
 - 04/1998 – 12/10/1998
 - 01/1999 – 07/14/2000
 - 11/2000 – 08/31/2001
 - 01/2002 – 12/16/2002

APD.2: Data Collected From the BUREAU OF RECLAMATION

- a. Folsom Inflows – hardcopy (paper) of generally bi-hourly reservoir inflows (computed based on change in storage & outflow) for selected events from 1955-1996.
 - currently digitizing significant events as previous identified

APD.3: Data Collected From the CORPS OF ENGINEERS

- a. Folsom Water Control Manual
 - design and operational information on Folsom Dam
 - contains graphics of hourly operations during flood events of 1955, 1963, 1964, 1980, 1982, 1986 (no data)
 - contains historical *monthly* reservoir inflow data (1955-1986) and *monthly* unimpaired flow data for Fair Oaks (1905-1986)

APD.4: ADDITIONAL STREAMFLOW DATA

- a. Hourly
 - North Fork (USGS #11427000) – digital data from USGS
 - 10/1987 – 11/2002
 - Middle Fork (USGS #11433300) – hardcopy hourly stage records + several rating tables (Placer County Water Agency)
 - 10/1986 – 09/1998
 - Digitized data for selected events

- b. Daily (USGS) –
- NF American Dam, USGS #11427000 10/1941 – 9/2001
 - MF American Foresthill, USGS #11433300 10/1958 – 9/2001
 - SF American Placerville, USGS #11444500 10/1911 – 9/2001
 - NF Feather nr. Pulga USGS #11404500 10/80 - 9/92
 - MF Feather nr. Merrimac USGS #11394500 10/60 - 9/79
 - NF Feather Indian Creek USGS #11401500 10/77 - 9/92
 - MF Feather nr. Clio USGS #11392500 10/60 - 9/79
 - NF Feather Lake Almenor USGS #11399000 10/81 - 9/97
 - Oroville Local USGS #1140680010/69 - 9/87

APD.5: ADDITIONAL PRECIPITATION DATA

- a. Snow Sensor Data
– California Data Exchange Center (CDEC), (Table APD-3)
- b. NCDC Hourly Precipitation
– EarthInfo Inc. data CD's
– generally, period record is 7/1948 – 12/2000 (Table APD-4)
- c. NCDC Daily Precipitation
– EarthInfo Inc. data CD's
– generally, period record is 7/1948 – 12/2000 (Table APD-5)
- d. High Density Raingauge Study
– event data from Sierra Cooperative Pilot Project
(see HRC Limited Distribution Report No. 9)
– period of record is 1/1980 – 3/1986

APD.6: ADDITIONAL TEMPERATURE DATA

- a. NCDC Min Max daily surface temperature
– EarthInfo Inc. data CD's for gauges in the region
– generally period record is 07/1948 – 12/2000 (Table APD -6)

APD.7: ADDITIONAL EVAPORATION DATA

- a. NCDC daily evaporation data
– EarthInfo Inc. data CD's for gauges in the region (Table APD-7)

Table APD-1. Six-hour Mean Areal Precipitation and Mean Areal Temperature (MAT) Data Obtained from CNRFC

<i>Location</i>	<i>MAP file name</i>	<i>Extent</i>	<i>MAT file name</i>	<i>Extent</i>
<u>Folsom:</u>				
North Fork up	nfdc1_upr.MAP06	10/58 –9/90	nfdc1_upr.MAT	10/58 –9/90
North Fork low	nfdc1_lwr.MAP06	10/58 –9/90	nfdc1_lwr.MAT	10/58 –9/90
Middle Fork up	mfac1_upr.MAP06	10/58 –9/90	mfac1_upr.MAT	10/58 –9/90
Middle Fork low	mfac1_lwr.MAP06	10/58 –9/90	mfac1_lwr.MAT	10/58 –9/90
South Fork up	cbdc1_upr.MAP06	10/58 –9/93	cnbc1_upr.MAT	10/58 –9/93
South Fork low	cbdc1_lwr.MAP06	10/58 –9/93	cnbc1_lwr.MAT	10/58 –9/93
Folsom Local	folsc1_lcl.MAP06	10/58 –9/99	folsc1_lcl.MAT	10/58 –9/99
<u>Yuba:</u>				
Nbbc1_upr	nbbc1_upr.MAP06	10/60 – 9/99	nbbc1_upr.MAT	10/60 – 9/99
Nbbc1_lwr	nbbc1_lwr.MAP06	10/60 – 9/99	nbbc1_lwr.MAT	10/60 – 9/99
hlecl_upr	hlecl_upr.MAP06	10/60 – 9/99	nbbc1_upr.MAT	10/60 – 9/99
hlecl_lwr	hlecl_lwr.MAP06	10/60 – 9/99	nbbc1_lwr.MAT	10/60 – 9/99
<u>Feather:</u>				
NF Indian Creek low	iifc1_lwr.MAP06	10/60 – 9/99	iifc1_lwr.MAT	10/60 – 9/99
NF Indian Creek up	iifc1_upr.MAP06	10/60 – 9/99	iifc1_upr.MAT	10/60 – 9/99
MF Clio low	ftcc1_lwr.MAP06	10/60 – 9/99	ftcc1_lwr.MAT	10/60 – 9/99
MF Clio up	ftcc1_upr.MAP06	10/60 – 9/99	ftcc1_upr.MAT	10/60 – 9/99
NF Pulga low	plgc1_lwr.MAP06	10/60 – 9/99	ordc1_lwr.MAT	10/60 – 9/99
NF Pulga up	plgc1_upr.MAP06	10/60 – 9/99	ordc1_upr.MAT	10/60 – 9/99
MF Merimmac low	mrmc1_lwr.MAP06	10/60 – 9/99	ordc1_lwr.MAT	10/60 – 9/99
MF Merimmac up	mrmc1_upr.MAP06	10/60 – 9/99	ordc1_upr.MAT	10/60 – 9/99
Lake Almanor low	pllc1_lwr.MAP06	10/60 – 9/99	iifc1_lwr.MAT	10/60 – 9/99
Lake Almanor up	pllc1_upr.MAP06	10/60 – 9/99	iifc1_upr.MAT	10/60 – 9/99
Oroville Lake Local low	ordc1_lwr.MAP06	10/60 – 9/99	ordc1_lwr.MAT	10/60 – 9/99
Oroville Lake Local up	ordc1_upr.MAP06	10/60 – 9/99	ordc1_upr.MAT	10/60 – 9/99
<u>Trinity:</u>				
Cegc1_lwr	cegc1_lwr.MAP06	1/50-12/99	cegc1_lwr.MAT	1/50-12/99
Cegc1_upr	cegc1_upr.MAP06	1/50-12/99	cegc1_upr.MAT	1/50-12/99
<u>Shasta:</u>				
Pit River low	pitc1_lwr.MAP06	10/50-9/99	pitc1_lwr.MAT	10/50-9/99
Pit River up	pitc1_upr.MAP06	10/50-9/99	pitc1_upr.MAT	10/50-9/99
Delta low	dltc1_lwr.MAP06	10/60-9/99	dltc1_lwr.MAT	10/60-9/99
Delta up	dltc1_upr.MAP06	10/60-9/99	dltc1_upr.MAT	10/60-9/99
McCloud River low	mssc1_lwr.MAP06	1/60-12/99	mssc1_lwr.MAT	1/60-12/99
McCloud River up	mssc1_upr.MAP06	1/60-12/99	mssc1_upr.MAT	1/60-12/99
Cnbc1_lwr	cnbc1_lwr.MAP06	10/50-9/99	cnbc1_lwr.MAT	10/50-9/99

Table APD-2. Full Natural Flow at watersheds outlets obtained from CNRFC

<i>Locations</i>	<i>Filename</i>	<i>Extent</i>
Folsom Lake Inflow	Flsm_inflow_cfs.dat	8/64-9/96
MF American	Mfac1_fnf.qme	10/58-9/90
SF American	Cbdc1_fnf.qme	10/58-9/93
New Bullards Bar	nbbc1_fnf.qme	10/69-9/00
Engle Bright	Hlec1_fnf.qme	10/69-9/00
Oroville Lake inflow	Ordc1_comp_fnf_adj.qme	10/60-9/97
Almanor Lake inflow	Pllc1.qme	10/69- 9/97
Trinity Lake Inflow	Cegc1_fnf.qme	5/63-9/99
Shasta lake Inflow	Shdc1_fnf.qme	10/60- 9/00
Delta	Dlrc1.qme	10/60 – 9/00
McCloud River	Mccloud_fnf.qme	10/58- 9/89
Pit River	Pit_fnf.qme	10/50-9/92

Table APD-3. Active Snow Sensors

	<i>Elev(m)</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Basin</i>	<i>Name</i>
PET	2179.9	41.297	-122.522	TRINITY	PETERSON FLAT
RRM	2042.7	41.023	-122.885	TRINITY	RED ROCK
BNK	1966.5	41.083	-122.628	TRINITY	BONANZA KING
SHM	1951.2	41.008	-122.8	TRINITY	SHIMMY LAKE
HIG	1838.4	41.093	-122.483	TRINITY	HIGHLAND LAKES
MUM	1722.6	41.197	-122.523	TRINITY	MUMBO BASIN
BFL	1554.9	41.08	-122.942	TRINITY	BIG FLAT
SDF	2058.0	41.35	-122.246	Delta	SAND FLAT
SLT	1738.0	41.045	-122.478	Delta	SLATE CREEK
STM	1646.3	41.17	-121.938	McCloud	STOUTS
CDP	2164.6	41.583	-120.303	PIT	CEDAR PASS
BLA	2149.4	40.77	-121.198	PIT	BLACKS MOUNTAIN
MED	2042.7	41.592	-121.61	PIT	MEDICINE LAKE
ADM	1890.2	41.237	-120.792	PIT	ADIN MOUNTAIN
SNM	1814	40.778	-121.782	PIT	SNOW MOUNTAIN
KTL	2225.6	40.14	-120.715	FEATHER	KETTLE ROCK
GRZ	2103.7	39.917	-120.645	FEATHER	GRIZZLY RIDGE
PLP	2073.2	39.786	-120.875	FEATHER	PILOT PEAK
GOL	2057.9	39.675	-120.615	FEATHER	GOLD LAKE
HMB	1981.7	40.115	-121.368	FEATHER	HUMBUG
RTL	1859.8	40.125	-121.043	FEATHER	RATTLE SNAKE
BKL	1753	39.85	-121.242	FEATHER	BUCKS LAKE
FOR	1570.1	39.813	-121.321	FEATHER	FOUR TREES
MDW	2195.1	39.417	-120.508	YUBA	MEADOW LAKE
CSL	2103.7	39.325	-120.367	YUBA	CENT SIERRA
SCN	2667.7	38.747	-120.068	AMERICAN	SCHNEIDERS
LOS	2622	38.925	-120.197	AMERICAN	LAKE LOIS
CAP	2439	38.71	-120.042	AMERICAN	CAPLES LAKE
ALP	2317.1	38.805	-120.215	AMERICAN	ALPHA (SMUD)
FRN	2317.1	38.805	-120.213	AMERICAN	FORNI RIDGE
SIL	2164.6	38.678	-120.118	AMERICAN	SILVER LAKE
VVL	2042.7	38.945	-120.305	AMERICAN	VAN VLECK
HYS	2012.2	39.282	-120.527	AMERICAN	HUYSINK
RBB	1798.8	38.912	-120.378	AMERICAN	ROBBS SADDLE
GKS	1707.3	39.075	-120.558	AMERICAN	GREEK STORE
BLC	1609.8	39.276	-120.708	AMERICAN	BLUE CANYON
RBP	1570.1	38.903	-120.375	AMERICAN	ROBBS

Table APD-4. NCDC Hourly Precipitation Stations

<i>Station Name</i>	<i>Sta ID</i>	<i>Begin</i>	<i>End</i>	<i>Yr</i>	<i>Cov</i>	<i>Dec Lat</i>	<i>Dec Lon</i>	<i>Elevation</i>
Alturas	161	7/1/1948	12/13/2000	53	97	41.4931	-120.5528	4400
Angwin Pac Union Col	212	11/1/1967	12/24/2000	34	88	38.5731	-122.4406	1715
Battle Creek Adr	546	7/1/1971	12/24/2000	30	86	40.3983	-122.1453	420
Bieber	731	7/1/1948	12/31/2000	53	87	41.1208	-121.1347	4125
Blodgett Exp Forest	883	10/1/1969	12/21/2000	32	88	38.9092	-120.6678	4414
Blue Canyon	897	7/1/1948	12/31/2000	52	93	39.2775	-120.7103	5280
Bowman Dam	1018	7/1/1948	12/22/2000	53	89	39.4539	-120.6556	5385
Brooks Farnham Ranch	1112	2/22/1949	3/18/1976	28	95	38.7667	-122.1500	294
Brush Creek R S	1130	7/1/1948	12/31/2000	53	77	39.6950	-121.3453	3560
Camptonville 1 Sw	1460	11/1/1994	12/31/2000	7	81	39.4397	-121.0711	2503
Camptonville R S	1462	7/1/1948	6/30/1994	47	82	39.4500	-121.0500	2755
Canyon Dam	1497	10/1/1975	12/21/2000	26	91	40.1706	-121.0886	4560
Capay 5 Wnw	1507	4/1/1976	4/30/1994	19	65	38.7333	-122.1333	360
Chico University Farm	1715	7/1/1948	12/13/2000	53	91	39.6911	-121.8211	185
Clearlake 4 Se	1806	10/1/1954	10/31/1985	32	88	38.9239	-122.5672	1349
Coffee Creek R S	1886	11/1/1960	12/22/2000	41	90	41.0906	-122.7094	2500
Davis 2 Wsw Exp Farm	2294	7/1/1948	12/11/2000	53	95	38.5350	-121.7761	60
Day	2306	7/1/1948	12/23/2000	53	93	41.2122	-121.3742	3650
Downieville	2500	7/1/1948	12/22/2000	53	95	39.5633	-120.8239	2915
Etna	2899	7/1/1948	12/23/2000	53	96	41.4556	-122.8983	2950
Ferguson Ranch	3020	7/1/1967	1/31/1987	21	74	40.3500	-122.4500	801
Fiddletown Dexter Ranch	3038	7/1/1948	12/24/2000	53	98	38.5236	-120.7061	2160
Georgetown	3381	7/1/1948	12/31/1967	20	99	38.9167	-120.8333	2723
Georgetown R S	3384	11/1/1967	12/21/2000	34	81	38.9331	-120.8008	3001
Grass Valley	3571	7/1/1962	9/30/1966	5	90	39.2167	-121.0667	2641
Grass Valley No 2	3573	9/1/1966	12/22/2000	35	94	39.2042	-121.0681	2400
Hamilton Branch Fire De	3725	4/1/1953	10/31/1985	33	83	40.2667	-121.0833	4560
Harrison Gulch R S	3791	11/1/1948	12/23/2000	53	89	40.3667	-122.9667	2749
Hat Creek Experiment St	3821	7/1/1948	10/31/1978	31	81	40.8000	-121.5000	3353
Hell Hole	3891	1/22/1954	12/23/2000	36	86	39.0583	-120.4150	4850
Hopland 8 Ne	4097	7/1/1948	9/30/1976	29	88	39.0167	-123.0000	2513
Hyampom	4191	7/1/1948	12/31/2000	53	96	40.6167	-123.4567	1275
Kyburz Strawberry	4616	7/1/1948	4/30/1980	33	91	38.8000	-120.1500	5705
Lake Mendocino Dam	4689	6/1/1972	12/31/2000	29	89	39.1981	-123.1856	670
La Porte	4773	11/1/1958	9/30/1977	20	84	39.6833	-120.9833	4984
Lake Solano	4712	10/1/1962	12/16/2000	39	92	38.4833	-122.0000	190
Mahnke	5258	1/1/1956	12/22/2000	45	94	38.8500	-122.7833	2390
Markleeville	5356	7/1/1948	12/14/2000	42	94	38.6919	-119.7803	5530
Mc Cloud	5449	7/1/1948	8/31/1975	28	84	41.2514	-122.1383	3280
Mc Cloud Ranger Stn	5452	8/1/1975	9/30/1980	6	70	41.2500	-122.1167	3281
Michigan Bluff	5586	7/1/1948	10/31/1985	38	90	39.0500	-120.7333	3481
Milford Laufman Rs	5623	7/1/1948	12/14/2000	53	96	40.1414	-120.3533	4860
Mineral	5679	7/1/1948	12/31/2000	53	84	40.3458	-121.6092	4874
Mount Danaher	5909	7/1/1948	4/30/1975	28	95	38.7500	-120.6667	3412
Mount Shasta	5983	8/1/1948	12/23/2000	52	95	41.3206	-122.3081	3590
North Bloomfield	6232	10/1/1969	12/22/2000	32	89	39.3675	-120.8992	3280

Oroville	6521	11/1/1982	12/14/2000	19	76	39.5178	-121.5531	171
Oroville Dam	6527	11/1/1979	2/28/1983	5	12	39.5333	-121.4833	845
Oroville Ranger Stn	6528	7/1/1948	4/30/1979	32	96	39.5333	-121.5667	302
Paskenta Ranger Stn	6726	12/1/1949	12/14/2000	52	85	39.8856	-122.5433	755
Placerville 2 W	6963	7/1/1948	6/30/1963	16	95	38.7333	-120.8167	1791
Placerville Disp Plant	6964	6/1/1963	12/15/2000	38	94	38.7311	-120.8461	1560
Plumas Eureka St Park	6998	5/1/1964	12/31/2000	37	93	39.7578	-120.6964	5165
Portola	7085	10/1/1954	12/31/2000	47	88	39.8053	-120.4719	4850
Red Bluff Ap	7292	7/1/1948	12/23/2000	46	94	40.1556	-122.2506	349
Red Bluff Treatment Pla	7293	2/1/1992	12/14/2000	9	79	40.1622	-122.2203	265
Redding 5 Sse	7295	1/1/1958	1/31/1992	35	86	40.5000	-122.3667	425
Redding Fire Stn 2	7296	7/1/1948	1/31/1958	11	96	40.5833	-122.4000	581
Redding Municipal Ap	7304	11/1/1986	12/24/2000	15	48	40.5150	-122.2967	497
Robbs Peak P H	7489	2/1/1967	12/21/2000	34	97	38.9028	-120.3767	5120
Round Mountain	7580	7/1/1961	6/30/1970	10	82	40.8167	-121.9333	2103
Round Mountain Pg & E	7581	6/1/1970	10/31/2000	31	80	40.8075	-121.9361	2100
Sacramento 5 Ese	7633	1/1/1936	12/14/2000	65	94	38.5556	-121.4169	38
Sacramento Ap	7630	7/1/1948	12/21/2000	53	91	38.5069	-121.4950	15
Sawyers Bar Rs	8025	6/1/1971	12/23/2000	30	71	41.3022	-123.1325	2169
Shasta Dam	8135	7/1/1948	12/21/2000	53	93	40.7142	-122.4161	1075
Sierraville R S	8218	7/1/1948	12/30/2000	53	87	39.5833	-120.3706	4975
Soda Springs	8331	7/1/1948	12/28/1958	11	93	39.3167	-120.3833	6755
Soda Springs 1 E	8332	7/1/1961	12/15/2000	40	77	39.3256	-120.3672	6885
Stirling City R S	8544	10/1/1957	6/30/2000	44	78	39.9047	-121.5283	3520
Stony Gorge Reservoir	8587	7/1/1948	12/22/2000	53	94	39.5861	-122.5342	800
Susanville 1 Wnw	8703	9/1/1952	12/31/2000	49	92	40.4239	-120.6747	4555
Termo 1 E	8873	7/1/1948	2/29/2000	53	94	40.8667	-120.4333	5300
The Geysers	8885	7/1/1948	12/31/2000	53	90	38.8011	-122.8283	1668
Trinity Center Ranger S	9023	7/1/1948	11/30/1960	13	97	41.0000	-122.6833	2303
Truckee Rs	9043	7/1/1948	12/21/2000	53	90	39.3311	-120.1892	6020
Tulelake	9053	7/1/1948	12/14/2000	53	95	41.9600	-121.4744	4035
Vollmers	9386	7/1/1948	10/31/1975	28	98	40.9500	-122.4500	1342
Volta Power House	9390	7/1/1948	12/24/2000	53	96	40.4569	-121.8656	2220
Weaverville	9490	7/1/1948	12/31/2000	53	91	40.7350	-122.9392	2040
Wheatland 2 Ne	9605	7/1/1948	12/26/2000	53	96	39.0278	-121.3908	105
Williams	9677	9/1/1952	10/1/1988	37	92	39.1500	-122.1500	85
Woodfords	9775	2/1/1979	8/19/1990	12	84	38.7833	-119.8000	5650

Table APD-5. NCDC Daily Precipitation Stations

<i>Sta Name</i>	<i>Sta ID</i>	<i>Begin</i>	<i>End</i>	<i>Yrs</i>	<i>% Cov</i>	<i>Dec Lat</i>	<i>Dec Lon</i>	<i>Elevation</i>
Adin RS	29	7/1/1948	12/31/2000	53	98	41.1939	-120.9447	4195
Alturas	161	5/11/1931	12/31/2000	70	99	41.4931	-120.5528	4400
Angwin Pac Union Col	212	7/1/1948	12/31/2000	53	97	38.5731	-122.4406	1715
Auburn	383	7/1/1948	12/31/2000	53	100	38.9072	-121.0839	1292
Big Bar 4 E	738	7/1/1948	12/31/2000	53	96	40.7403	-123.2075	1250
Blue Canyon	897	7/1/1948	12/31/2000	45	82	39.2775	-120.7103	5280
Bowman Dam	1018	7/1/1948	12/31/2000	53	97	39.4539	-120.6556	5385
Brooks Farnham Ranch	1112	7/1/1948	11/30/1985	38	97	38.7667	-122.1500	294
Brush Creek RS	1130	7/1/1948	5/31/1983	36	98	39.6950	-121.3453	3560
Buckhorn	1149	7/1/1948	12/31/2000	50	88	40.8669	-121.8464	3800
Bucks Creek PH	1159	7/2/1959	9/30/1999	41	99	39.9178	-121.3511	1850
Bullards Bar PH	1180	7/1/1948	7/31/1968	21	100	39.4167	-121.1500	1781
Burney	1214	7/1/1948	2/29/2000	49	89	40.8800	-121.6728	3198
Calistoga	1312	7/1/1948	11/30/2000	53	99	38.5772	-122.5722	370
Callahan	1316	7/1/1948	12/31/2000	53	99	41.3111	-122.8044	3185
Camptonville RS	1462	7/1/1948	3/31/1973	26	98	39.4500	-121.0500	2755
Canby 3 SW	1476	7/1/1948	12/31/2000	51	90	41.4219	-120.9017	4310
Canyon Dam	1497	7/1/1948	12/31/2000	53	99	40.1706	-121.0886	4560
Caribou PH	1522	6/1/1959	6/30/1977	19	99	40.0833	-121.1500	2992
Cecilville	1606	11/1/1954	12/31/2000	47	91	41.1403	-123.1292	2330
Cedarville	1614	7/1/1948	12/31/2000	53	98	41.5336	-120.1736	4670
Challenge RS	1653	7/2/1948	4/30/1994	47	97	39.4833	-121.2167	2570
Chester	1700	7/1/1948	12/31/2000	53	100	40.3000	-121.2356	4525
Chico University Farm	1715	1/8/1906	12/31/2000	95	99	39.6911	-121.8211	185
Clearlake 4 SE	1806	10/26/1954	12/31/2000	47	97	38.9239	-122.5672	1349
Cloverdale	1838	7/22/1950	12/31/2000	47	84	38.8067	-123.0169	333
Coffee Creek RS	1886	1/1/1998	12/31/2000	3	94	41.0906	-122.7094	2500
Coleman Fisheries	1907	7/1/1948	12/31/2000	53	99	40.4000	-122.1433	420
Colfax	1912	7/1/1948	12/31/2000	53	97	39.0997	-120.9544	2400
Colgate PH	1916	7/1/1948	12/31/2000	53	99	39.3308	-121.1922	595
Colusa 2 SSW	1948	10/1/1948	12/31/2000	53	98	39.1806	-122.0294	50
Corning Houghton Ranch	2027	7/1/1948	5/31/1984	37	95	39.9000	-122.3500	487
Dana 2 SE	2269	5/1/1959	5/31/1976	18	94	41.1000	-121.5167	3323
Davis 2 WSW Exp Farm	2294	1/4/1917	12/31/2000	84	100	38.5350	-121.7761	60
Deer Creek PH	2334	7/1/1948	4/30/1970	23	99	39.3000	-120.8500	3704
Deer Creek Forebay	2338	11/1/1969	4/30/1994	26	94	39.3000	-120.8333	4455
De Sabla	2402	7/1/1948	12/31/2000	53	98	39.8739	-121.6172	2710
Dobbins 1S	2456	6/1/1970	12/31/2000	31	82	39.3583	-121.2022	1640
Dobbins Colgate Forebay	2458	7/1/1948	5/31/1970	23	99	39.3333	-121.2000	1552
Donner Memorial Park	2467	10/1/1953	12/31/2000	48	99	39.3239	-120.2331	5937
Downieville	2500	7/1/1948	12/31/2000	52	95	39.5633	-120.8239	2915
Doyle	2504	7/2/1948	12/31/2000	51	94	40.0242	-120.1044	4240
Doyle 4 SSE	2506	7/1/1956	12/31/2000	45	100	39.9717	-120.0828	4390
Dunnigan	2568	7/1/1948	12/31/1978	31	93	38.8833	-121.9667	49
Dunsmuir	2572	7/1/1948	6/30/1978	31	99	41.2167	-122.2667	2421
Dunsmuir Treatment Plt	2574	7/1/1978	12/31/2000	23	100	41.1833	-122.2736	2170

East Park Reservoir	2640	7/1/1948	12/31/2000	53	100	39.3592	-122.5178	1205
Echo Sumt Sierra	2671	7/1/1948	3/31/1994	17	33	38.7833	-120.0333	7350
Fall River Mills CSD	2964	7/1/1948	12/31/2000	25	43	41.0161	-121.4425	3310
Fiddletown Dexter Ranch	3038	7/1/1948	12/31/2000	53	99	38.5236	-120.7061	2160
Folsom Dam	3113	10/26/1955	4/30/1993	39	99	38.7000	-121.1667	350
Foresthill R S	3134	7/1/1948	12/31/2000	53	98	39.0097	-120.8450	3015
French Gulch	3242	1/1/1952	11/30/1982	31	96	40.7000	-122.6333	1102
Carden Valley 2 S	3338	7/1/1948	7/31/1972	25	98	38.8333	-120.8500	1942
Georgetown RS	3384	7/1/1948	12/31/2000	53	96	38.9331	-120.8008	3001
Gold Run 2 SW	3491	10/29/1948	12/31/2000	53	96	39.1650	-120.8567	3320
Grass Valley	3571	7/1/1948	9/30/1966	19	100	39.2167	-121.0667	2641
Grass Valley No 2	3573	10/1/1966	12/31/2000	35	100	39.2042	-121.0681	2400
Greenville RS	3621	7/1/1948	12/31/2000	53	94	40.1406	-120.9428	3560
Harrison Gulch RS	3791	7/1/1948	12/31/2000	53	92	40.3667	-122.9667	2749
Harry Englebright Dam	3800	7/1/1955	12/31/2000	46	98	39.2372	-121.2667	800
Hat Creek	3824	7/1/1948	12/31/2000	52	96	40.9317	-121.5433	3015
Hidden Valley Ranch	3946	6/1/1961	5/31/1977	17	100	39.0333	-121.1000	1480
Hobergs	4010	7/1/1948	6/30/1974	27	94	38.8500	-122.7167	2963
Iowa Hill	4288	7/1/1948	12/31/2000	52	92	39.1181	-120.8350	3100
Jess Valley	4374	8/1/1948	12/31/2000	53	99	41.2683	-120.2947	5400
Kelsey 1 N	4484	8/1/1972	12/31/2000	22	69	38.8089	-120.8208	2000
Kilarc PH	4544	5/1/1959	6/30/1977	19	100	40.6833	-121.8667	2651
Lakeport	4701	1/11/1941	12/31/2000	60	94	39.0333	-122.9167	1315
Lakeshore 2	4709	7/1/1948	7/31/1972	25	99	40.8667	-122.3833	1079
Lake Solano	4712	8/1/1975	12/31/2000	26	99	38.4833	-122.0000	190
Lake Spaulding	4713	7/1/1948	12/31/2000	53	98	39.3183	-120.6392	5155
Lava Beds Nat. Monument	4838	10/7/1959	12/31/2000	42	94	41.7400	-121.5067	4770
Leesville Keegan Ranch	4880	5/1/1959	5/31/1977	19	91	39.1500	-122.4333	1332
Lehman Ranch	4886	6/1/1961	6/30/1977	17	100	38.6000	-121.0167	600
Little Valley	4988	10/1/1960	1/31/1974	15	91	40.8833	-121.1833	4173
Lookout 3 WSW	5093	5/1/1963	5/31/1977	15	96	41.2000	-121.2000	4183
Loyalton	5171	7/1/1948	11/30/1972	16	57	39.6833	-120.2500	4944
Manzanita Lake	5311	1/1/1949	12/31/2000	52	99	40.5419	-121.5764	5750
Markley Cove	5360	3/1/1970	12/31/2000	31	99	38.4939	-122.1261	480
Marsville	5385	7/1/1948	12/31/2000	53	98	39.1458	-121.5853	57
Mc Cloud	5449	7/1/1948	12/31/2000	53	99	41.2514	-122.1383	3280
Middletown	5598	7/1/1948	10/31/1999	52	93	38.7547	-122.6225	1130
Mineral	5679	7/1/1948	12/31/2000	53	99	40.3458	-121.6092	4874
Monticello Dam	5818	11/19/1957	1/31/1970	14	100	38.5000	-122.1167	512
Mount Danaher	5909	7/1/1948	5/31/1973	26	95	38.7500	-120.6667	3412
Mount Shasta	5983	7/1/1948	12/31/2000	52	96	41.3206	-122.3081	3590
Nevada City	6136	1/1/1931	12/31/2000	70	100	39.2467	-121.0006	2781
Nicolaus	6193	7/1/1948	11/30/1962	15	95	38.9000	-121.5833	49
Nicolaus 2	6194	12/1/1962	12/31/2000	39	98	38.9261	-121.5447	43
Ono	6455	1/3/1952	3/31/1984	33	88	40.4833	-122.6167	978
Orland	6506	7/1/1948	12/31/2000	53	99	39.7458	-122.1997	254
Oroville	6521	4/22/1953	12/31/2000	42	83	39.5178	-121.5531	171
Oroville Bridge	6525	7/1/1948	8/31/1975	28	99	39.5167	-121.5667	171
Oroville Dam	6527	11/1/1979	11/30/1982	4	92	39.5333	-121.4833	845
Oroville Ranger Stn	6528	7/1/1948	12/31/1978	8	20	39.5333	-121.5667	302

Pacific House	6597	7/1/1948	12/31/2000	53	98	38.7581	-120.5033	3440
Paradise	6685	5/1/1957	12/31/2000	44	99	39.7539	-121.6242	1750
Paskenta Ranger Stn	6726	7/3/1948	12/31/2000	53	97	39.8856	-122.5433	755
Paynes Creek	6761	1/1/1952	3/31/1984	32	75	40.3333	-121.9000	1841
Pit River PH 1	6944	9/1/1972	8/31/1996	25	94	41.0000	-121.5000	2880
Pit River PH 5	6946	7/1/1948	12/31/2000	53	99	40.9869	-121.9772	1458
Placerville	6960	7/1/1948	12/31/2000	53	97	38.6956	-120.8244	1850
Placerville IFG	6962	2/1/1955	12/31/1991	53	97	38.7333	-120.7333	2755
Portola	7085	7/1/1948	12/31/2000	53	95	39.8053	-120.4719	4850
Quincy	7195	7/1/1948	12/31/2000	52	89	39.9367	-120.9475	3420
Red Bluff AP	7292	11/1/1933	12/31/2000	65	93	40.1556	-122.2506	349
Redding Fire Stn 2	7296	1/11/1931	4/30/1979	49	99	40.5833	-122.4000	581
Redding Fire Stn 4	7300	5/1/1979	4/30/1987	9	96	40.5500	-122.3833	470
Redding Municipal AP	7304	11/1/1986	12/31/2000	15	100	40.5150	-122.2967	497
Represa	7370	7/1/1948	12/31/2000	53	99	38.6944	-121.1611	295
Round Mountain	7580	1/1/1952	6/30/1970	19	86	40.8167	-121.9333	2103
Round Mountain PG&E	7581	7/1/1970	8/31/2000	31	97	40.8075	-121.9361	2100
Sacramento AP	7630	11/10/1941	12/31/2000	60	93	38.5069	-121.4950	15
Sacramento 5 ESE	7633	07/11/1877	12/31/2000	124	99	38.5556	-121.4169	38
Sagehen Creek	7641	6/1/1953	10/31/2000	48	97	39.4317	-120.2406	6337
Salt Springs PH	7689	7/1/1948	11/30/1998	51	95	38.5006	-120.2189	3700
Shasta Dam	8135	7/1/1948	12/31/2000	53	99	40.7142	-122.4161	1075
Sierra City	8207	7/1/1948	5/31/2000	51	82	39.5678	-120.6228	4240
Sierraville RS	8218	7/1/1948	12/31/2000	53	96	39.5833	-120.3706	4975
Stonyford	8580	7/1/1948	12/31/2000	53	95	39.3753	-122.5461	1170
Stony Gorge Reservoir	8587	7/1/1948	12/31/2000	53	98	39.5861	-122.5342	800
Strawberry Valley	8606	11/1/1948	12/31/2000	53	100	39.5631	-121.1078	3808
Susanville 2 SW	8702	1/10/1931	12/31/2000	69	92	40.4167	-120.6631	4184
Tahoe City	8758	1/1/1931	12/31/2000	70	100	39.1678	-120.1428	6230
Termo 1 E	8873	8/1/1948	3/31/1999	42	78	40.8667	-120.4333	5300
Trinity Dam Vista Point	9024	7/1/1959	12/31/1973	15	99	40.8000	-122.7667	2503
Trinity River Hatchery	9026	8/1/1974	12/31/2000	27	99	40.7261	-122.7933	1860
Truckee RS	9043	7/1/1948	12/31/2000	53	98	39.3311	-120.1892	6020
Ukiah	9122	3/9/1906	12/31/2000	95	99	39.1478	-123.2103	633
Upper Lake 7 W	9167	7/1/1948	7/31/1988	40	93	39.1833	-123.0333	1564
Vacaville	9200	7/1/1948	12/31/2000	53	97	38.3956	-121.9608	110
Vinton	9351	3/1/1950	12/31/2000	51	100	39.8056	-120.1858	4950
Vollmer	9386	7/1/1948	10/31/1975	28	99	40.9500	-122.4500	1342
Volta Power House	9390	7/1/1948	12/31/2000	53	100	40.4569	-121.8656	2220
Weaverville	9490	7/1/1948	12/31/2000	53	93	40.7350	-122.9392	2040
Whiskeytown Reservoir	9621	4/16/1960	12/31/2000	41	99	40.6117	-122.5281	1295
Willows 6 W	9699	7/1/1948	12/31/2000	53	99	39.5231	-122.3058	233
Winters	9742	7/1/1948	12/31/2000	53	100	38.5228	-121.9683	135
Woodland 1 WNW	9781	7/1/1948	12/31/2000	53	95	38.6833	-121.8000	69

Table APD-6. NCDC Minimum and Maximum Daily Temperature Stations

<i>Sta Name</i>	<i>Sta ID</i>	<i>Begin</i>	<i>End</i>	<i>Yrs</i>	<i>% Cov</i>	<i>Dec Lat</i>	<i>Dec Lon</i>	<i>Elev</i>
Adin RS	29	2/19/1955	12/31/2000	46	89	41.1939	-120.9447	4195
Alturas	161	5/11/1931	12/31/2000	70	98	41.4931	-120.5528	4400
Angwin Pac Union Col	212	4/1/1952	12/31/2000	49	97	38.5731	-122.4406	1715
Auburn	383	7/1/1948	12/31/2000	53	100	38.9072	-121.0839	1292
Big Bar 4 E	738	3/1/1952	12/31/2000	49	86	40.7403	-123.2075	1250
Blue Canyon	897	7/1/1948	12/31/2000	45	82	39.2775	-120.7103	5280
Bowman Dam	1018	7/1/1948	12/31/2000	53	93	39.4539	-120.6556	5385
Brooks Farnham Ranch	1112	7/1/1948	11/30/1985	38	87	38.7667	-122.1500	294
Burney	1214	7/1/1948	2/29/2000	49	89	40.8800	-121.6728	3198
Calistoga	1312	9/19/1963	11/29/2000	24	51	38.5772	-122.5722	370
Callahan	1316	4/1/1953	12/31/2000	48	98	41.3111	-122.8044	3185
Canby 3 Sw	1476	10/1/1970	12/31/2000	28	72	41.4219	-120.9017	4310
Canyon Dam	1497	7/1/1948	12/31/2000	53	97	40.1706	-121.0886	4560
Cecilville	1606	11/1/1954	12/31/2000	47	89	41.1403	-123.1292	2330
Cedarville	1614	7/1/1948	12/31/2000	53	97	41.5336	-120.1736	4670
Challenge R S	1653	4/12/1970	9/30/1981	4	4	39.4833	-121.2167	2570
Chester	1700	8/22/1957	12/31/2000	44	98	40.3000	-121.2356	4525
Chico University Farm	1715	1/8/1906	12/31/2000	95	98	39.6911	-121.8211	185
Clearlake 4 Se	1806	10/26/1954	12/31/2000	47	96	38.9239	-122.5672	1349
Cloverdale	1838	7/22/1950	12/31/2000	47	84	38.8067	-123.0169	333
Colfax	1912	7/1/1948	12/31/2000	53	95	39.0997	-120.9544	2400
Colusa 2 Ssw	1948	10/1/1948	12/31/2000	53	98	39.1806	-122.0294	50
Davis 2 Wsw Exp Farm	2294	1/4/1917	12/31/2000	84	100	38.5350	-121.7761	60
Davis Creek	2296	11/19/1967	11/30/1967	1	100	41.7333	-120.3667	4754
Deer Creek Ph	2334	7/1/1948	4/30/1970	23	97	39.3000	-120.8500	3704
Deer Creek Forebay	2338	11/1/1969	5/31/1994	26	92	39.3000	-120.8333	4455
De Sabla	2402	7/1/1948	12/31/2000	53	95	39.8739	-121.6172	2710
Dobbins 1 S	2456	6/1/1970	12/31/2000	31	79	39.3583	-121.2022	1640
Dobbins Colgate Foreba	2458	7/1/1948	5/3/1970	23	78	39.3333	-121.2000	1552
Donner Memorial St Pk	2467	10/1/1953	12/31/2000	48	98	39.3239	-120.2331	5937
Downieville	2500	7/1/1948	12/31/2000	52	89	39.5633	-120.8239	2915
Doyle	2504	7/2/1948	2/28/1981	12	25	40.0242	-120.1044	4240
Doyle 4 Sse	2506	7/5/1956	12/31/2000	45	98	39.9717	-120.0828	4390
Dunsmuir Treatment Plan	2574	7/1/1978	12/31/2000	23	100	41.1833	-122.2736	2170
East Park Reservoir	2640	7/1/1948	12/31/2000	53	100	39.3592	-122.5178	1205
Echo Sumt Sierra At Tah	2671	7/1/1948	3/31/1994	17	33	38.7833	-120.0333	7350
Folsom Dam	3113	10/26/1955	4/30/1993	39	99	38.7000	-121.1667	350
Georgetown R S	3384	1/30/1954	12/29/2000	40	71	38.9331	-120.8008	3001
Grass Valley	3571	7/1/1948	9/30/1966	19	99	39.2167	-121.0667	2641
Grass Valley No 2	3573	10/1/1966	12/31/2000	35	100	39.2042	-121.0681	2400
Harrison Gulch R S	3791	11/1/1964	12/28/2000	30	56	40.3667	-122.9667	2749
Hat Creek	3824	7/1/1948	12/31/2000	52	93	40.9317	-121.5433	3015
Jess Valley	4374	8/1/1948	12/31/2000	53	96	41.2683	-120.2947	5400
Lakeport	4701	1/11/1941	12/28/2000	60	90	39.0333	-122.9167	1315
Lakeshore 2	4709	7/1/1948	7/10/1972	25	99	40.8667	-122.3833	1079
Lake Solano	4712	8/5/1975	12/31/2000	26	97	38.4833	-122.0000	190
Lake Spaulding	4713	7/1/1948	12/31/2000	53	97	39.3183	-120.6392	5155

Lava Beds Nat Monument	4838	10/7/1959	12/31/2000	42	93	41.7400	-121.5067	4770
Manzanita Lake	5311	1/1/1949	12/31/2000	52	100	40.5419	-121.5764	5750
Markley Cove	5360	3/1/1970	12/30/2000	31	99	38.4939	-122.1261	480
Marysville	5385	7/1/1948	12/31/2000	53	98	39.1458	-121.5853	57
Mc Cloud	5449	7/1/1948	12/31/2000	53	99	41.2514	-122.1383	3280
Mineral	5679	7/1/1948	12/31/2000	53	99	40.3458	-121.6092	4874
Monticello Dam	5818	11/20/1957	1/26/1970	14	100	38.5000	-122.1167	512
Mount Shasta	5983	7/1/1948	12/31/2000	52	96	41.3206	-122.3081	3590
Nevada City	6136	1/1/1931	12/31/2000	70	99	39.2467	-121.0006	2781
Orland	6506	7/1/1948	12/31/2000	53	99	39.7458	-122.1997	254
Oroville	6521	4/22/1953	12/31/2000	42	81	39.5178	-121.5531	171
Paradise	6685	5/2/1957	12/31/2000	44	99	39.7539	-121.6242	1750
Pit River P H 1	6944	10/1/1972	11/30/1981	4	5	41.0000	-121.5000	2880
Placerville	6960	7/1/1948	12/30/2000	53	96	38.6956	-120.8244	1850
Placerville Ifg	6962	2/1/1955	12/31/1991	37	98	38.7333	-120.7333	2755
Portola	7085	7/1/1948	12/31/2000	53	93	39.8053	-120.4719	4850
Quincy	7195	7/1/1948	12/31/2000	52	81	39.9367	-120.9475	3420
Red Bluff Ap	7292	11/1/1933	12/31/2000	65	93	40.1556	-122.2506	349
Redding Fire Stn 2	7296	1/11/1931	4/30/1979	49	98	40.5833	-122.4000	581
Redding Fire Stn 4	7300	5/1/1979	4/30/1987	9	96	40.5500	-122.3833	470
Redding Municipal Ap	7304	11/1/1986	12/31/2000	15	100	40.5150	-122.2967	497
Sacramento Ap	7630	11/10/1941	12/31/2000	60	93	38.5069	-121.4950	15
Sacramento 5 Ese	7633	07/11/1877	12/31/2000	124	99	38.5556	-121.4169	38
Sagehen Creek	7641	5/1/1966	12/31/2000	28	62	39.4317	-120.2406	6337
Salt Springs Pwr House	7689	7/1/1948	11/29/1998	51	93	38.5006	-120.2189	3700
Shasta Dam	8135	7/1/1948	12/31/2000	53	99	40.7142	-122.4161	1075
Sierra City	8207	7/1/1948	5/31/2000	51	81	39.5678	-120.6228	4240
Sierraville R S	8218	7/1/1948	12/29/2000	53	90	39.5833	-120.3706	4975
Stony Gorge Reservoir	8587	7/1/1948	12/31/2000	53	98	39.5861	-122.5342	800
Strawberry Valley	8606	11/1/1948	12/29/2000	53	99	39.5631	-121.1078	3808
Susanville 2 Sw	8702	1/10/1931	12/31/2000	69	91	40.4167	-120.6631	4184
Tahoe City	8758	1/1/1931	12/31/2000	70	99	39.1678	-120.1428	6230
Termo 1 E	8873	6/12/1962	3/31/1999	38	100	40.8667	-120.4333	5300
Trinity Dam Vista Point	9024	7/1/1959	12/31/1973	15	88	40.8000	-122.7667	2503
Trinity River Hatchery	9026	8/1/1974	12/31/2000	27	99	40.7261	-122.7933	1860
Truckee Rs	9043	7/1/1948	12/31/2000	53	96	39.3311	-120.1892	6020
Ukiah	9122	3/9/1906	12/31/2000	95	99	39.1478	-123.2103	633
Vacaville	9200	7/1/1948	12/31/2000	53	97	38.3956	-121.9608	110
Volta Power House	9390	7/1/1948	11/30/1974	27	99	40.4569	-121.8656	2220
Weaverville	9490	7/1/1948	12/31/2000	53	90	40.7350	-122.9392	2040
Whiskeytown Reservoir	9621	4/18/1960	12/31/2000	41	96	40.6117	-122.5281	1295
Willows 6 W	9699	7/1/1948	12/31/2000	53	99	39.5231	-122.3058	233
Winters	9742	7/1/1948	12/31/2000	53	100	38.5228	-121.9683	135
Woodland 1 Wnw	9781	7/2/1948	12/31/2000	53	95	38.6833	-121.8000	69

Table APD-7. NCDC Pan Evaporation Stations

<i>Sta Name</i>	<i>Sta ID</i>	<i>Begin</i>	<i>End</i>	<i>Yrs</i>	<i>% Cov</i>	<i>Dec Lat</i>	<i>Dec Lon</i>	<i>Elevation</i>
Auburn Dam Project	385	7/1/1972	9/30/1984	13	92	38.8833	-121.0667	1270
Berryessa Lake	705	11/18/1957	6/30/1970	14	99	38.5500	-122.2333	459
Chico University Farm	1715	5/2/1951	12/31/2000	50	87	39.6911	-121.8211	185
Davis 2 Wsw Exp Farm	2294	7/1/1948	12/31/2000	53	97	38.5350	-121.7761	60
Folsom Dam	3113	10/27/1955	4/30/1993	39	96	38.7000	-121.1667	350
Lake Pillsbury 2	4698	3/1/1964	4/30/1970	7	90	39.4167	-122.9833	1752
Lakeshore 2	4709	7/1/1948	7/10/1972	25	87	40.8667	-122.3833	1079
Lake Solano	4712	8/5/1975	12/31/2000	26	97	38.4833	-122.0000	190
Lake Spaulding	4713	5/6/1972	6/30/1978	7	41	39.3183	-120.6392	5155
Lake Spaulding Dam	4714	7/23/1955	9/28/1971	17	45	39.3333	-120.6333	5125
Markley Cove	5360	3/1/1970	12/30/2000	31	98	38.4939	-122.1261	480
Monticello Dam	5818	11/19/1957	1/26/1970	14	98	38.5000	-122.1167	512
Placerville Ifg	6962	2/1/1955	7/31/1978	24	92	38.7333	-120.7333	2755
Salt Springs Pwr House	7689	7/1/1948	7/31/1978	31	91	38.5006	-120.2189	3700
Shasta Dam	8135	7/1/1948	12/31/2000	53	93	40.7142	-122.4161	1075
Tahoe City	8758	7/1/1948	10/11/2000	53	40	39.1678	-120.1428	6230
Trinity Dam Vista Point	9024	7/1/1959	12/31/1973	15	67	40.8000	-122.7667	2503
Trinity River Hatchery	9026	8/1/1974	12/31/2000	27	90	40.7261	-122.7933	1860
Tulelake	9053	8/1/1955	10/6/1981	27	50	41.9600	-121.4744	4035
Whiskeytown Reservoir	9621	4/16/1960	12/29/2000	41	91	40.6117	-122.5281	1295
