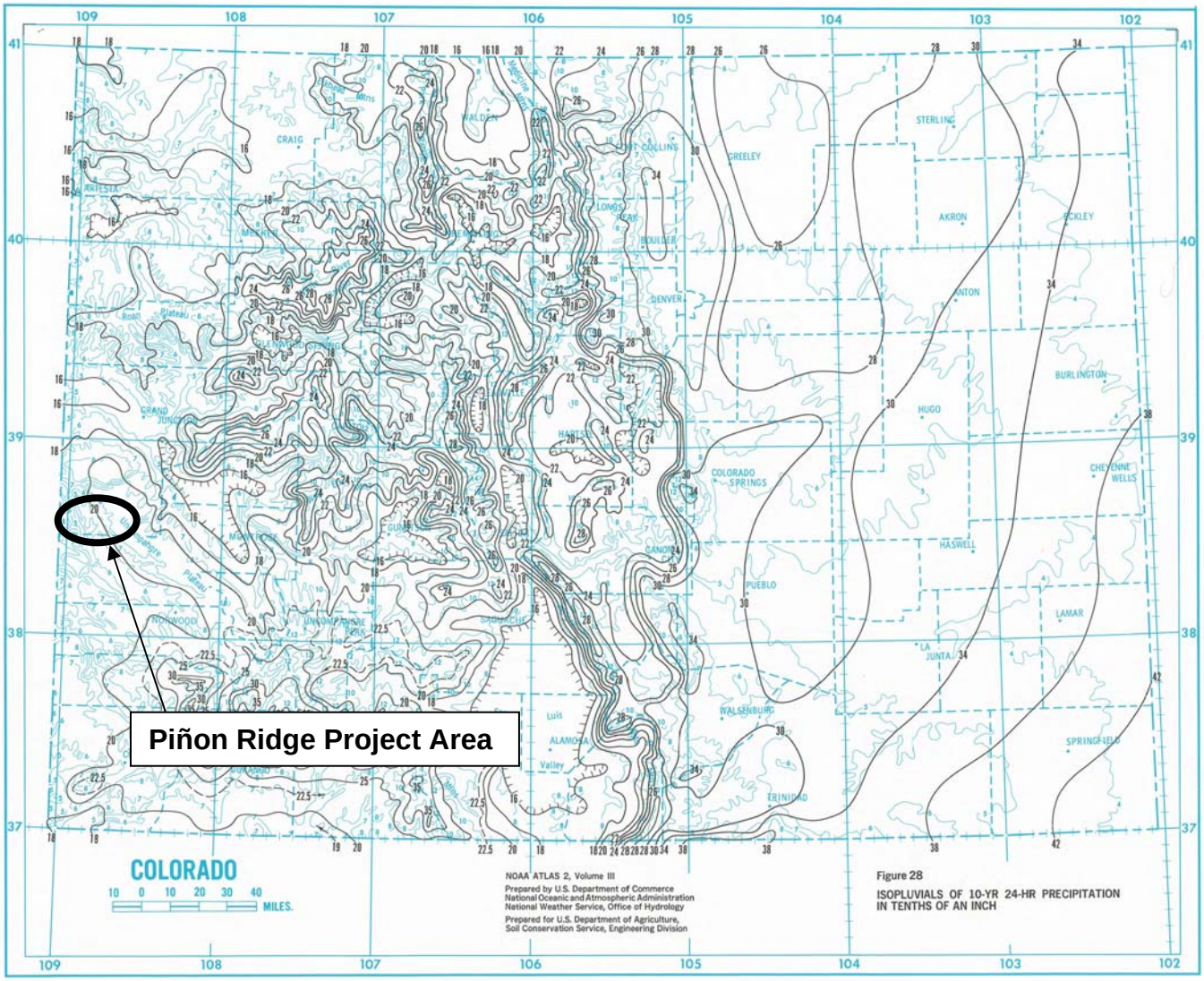
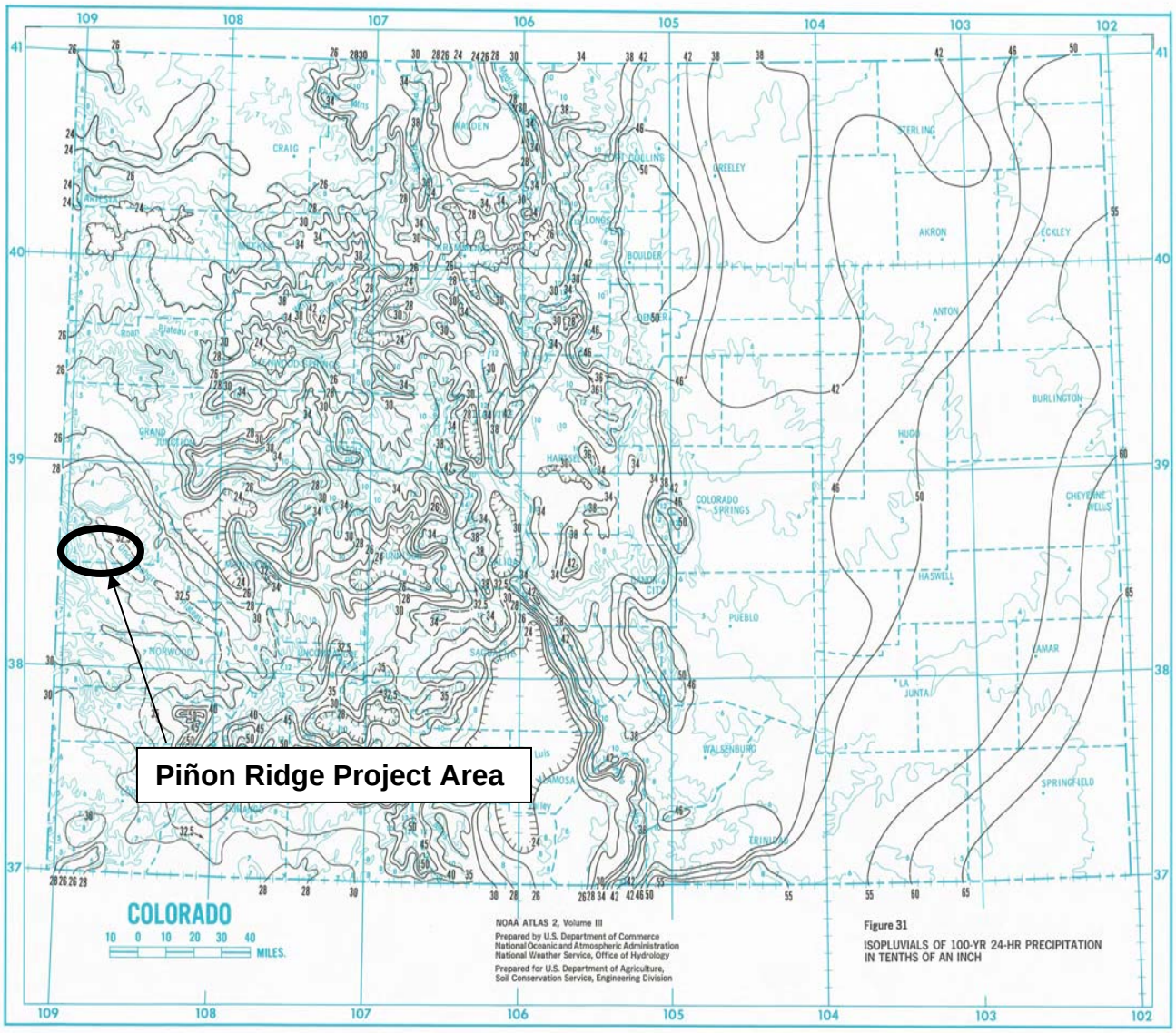
Appendix C

NOAA Precipitation Data

- **Isopluvials of 10-yr, 24-hr Precipitation (Atlas 2, Fig. 28)**
- **Isopluvials of 100-yr, 24-hr Precipitation (Atlas 2, Fig. 31)**
- **NOAA Atlas 14 Point Precipitation Frequency Estimates**


Piñon Ridge Project Area
COLORADO
10 0 10 20 30 40
MILES.
NOAA ATLAS 2, Volume III
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division
Figure 28
ISOPLUVIALS OF 10-YR 24-HR PRECIPITATION
IN TENTHS OF AN INCH
CRAIG
WALDEN
FORT COLLINS
GREELEY
STERLING
AKRON
ECKLEY
LONGS PEAK
BOULDER
DENVER
ANTON
BURLINGTON
HUGO
GRAND JUNCTION
HARTSEL
COLORADO SPRINGS
CHEYENNE WELLS
HASWELL
CANON
PUEBLO
LAMAR
LA JUNTA
NORWOOD
UNCOMPAHGRE PEAK
SAGUACHE
WALSENBURG
ALAMOSA
SPRINGFIELD
TRINIDAD
Luis Valley


Piñon Ridge Project Area
COLORADO
10 0 10 20 30 40
MILES.
NOAA ATLAS 2, Volume III
Prepared by U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service, Office of Hydrology
Prepared for U.S. Department of Agriculture,
Soil Conservation Service, Engineering Division
Figure 31
ISOPLUVIALS OF 100-YR 24-HR PRECIPITATION
IN TENTHS OF AN INCH

POINT PRECIPITATION FREQUENCY ESTIMATES FROM NOAA ATLAS 14

Colorado 38.245 N 109.06 W 6414 feet

from "Precipitation-Frequency Atlas of the United States" NOAA Atlas 14, Volume 1, Version 4
G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M.Yekta, and D. Riley
NOAA, National Weather Service, Silver Spring, Maryland, 2006

Extracted: Tue Mar 10 2009

Confidence Limits | Seasonality | Location Maps | Other Info. | GIS data | Maps | Docs | Return to State Map

Precipitation Frequency Estimates (inches)

ARI* (years)	5 min	10 min	15 min	30 min	60 min	120 min	3 hr	6 hr	12 hr	24 hr	48 hr	4 day	7 day	10 day	20 day	30 day	45 day	60 day
1	0.13	0.20	0.25	0.34	0.41	0.50	0.56	0.70	0.89	1.11	1.28	1.51	1.78	2.00	2.62	3.23	3.93	4.68
2	0.17	0.26	0.32	0.43	0.53	0.63	0.70	0.87	1.10	1.38	1.59	1.88	2.23	2.50	3.27	4.01	4.88	5.80
5	0.23	0.35	0.43	0.58	0.72	0.84	0.91	1.09	1.36	1.73	1.98	2.35	2.78	3.11	4.02	4.90	5.95	7.00
10	0.28	0.43	0.53	0.71	0.88	1.03	1.09	1.29	1.57	2.02	2.30	2.74	3.23	3.62	4.62	5.60	6.79	7.92
25	0.36	0.55	0.68	0.91	1.13	1.32	1.37	1.58	1.88	2.42	2.75	3.29	3.87	4.32	5.40	6.53	7.87	9.09
50	0.43	0.65	0.81	1.08	1.34	1.58	1.63	1.82	2.12	2.75	3.11	3.73	4.36	4.87	6.00	7.23	8.68	9.95
100	0.50	0.77	0.95	1.28	1.58	1.88	1.93	2.10	2.39	3.10	3.50	4.20	4.88	5.46	6.62	7.94	9.49	10.80
200	0.59	0.90	1.12	1.50	1.86	2.23	2.28	2.46	2.69	3.48	3.90	4.69	5.43	6.07	7.23	8.64	10.29	11.62
500	0.73	1.11	1.37	1.85	2.29	2.78	2.83	3.02	3.23	4.00	4.46	5.39	6.18	6.92	8.04	9.56	11.32	12.66
1000	0.85	1.29	1.60	2.15	2.67	3.29	3.33	3.53	3.7[illegible]	4.43	[illegible].92	5.95	6.79	7.61	8.65	10.26	12.09	13.43

* These precipitation frequency estimates are based on a partial duration series. ARI is the Average Recurrence Interval.
Please refer to NOAA Atlas 14 Document for more information. NOTE: Formatting forces estimates near zero to appear as zero.

*** Upper bound of the 90% confidence interval**
Precipitation Frequency Estimates (inches)

ARI** (years)	5 min	10 min	15 min	30 min	60 min	120 min	3 hr	6 hr	12 hr	24 hr	48 hr	4 day	7 day	10 day	20 day	30 day	45 day	60 day
1	0.15	0.23	0.29	0.39	0.48	0.57	0.63	0.78	0.97	1.23	1.41	1.67	1.97	2.21	2.89	3.53	4.31	5.12
2	0.20	0.30	0.37	0.50	0.62	0.72	0.79	0.97	1.21	1.53	1.76	2.09	2.46	2.77	3.60	4.38	5.36	6.36
5	0.27	0.40	0.50	0.68	0.83	0.96	1.02	1.21	1.49	1.91	2.18	2.61	3.07	3.44	4.44	5.36	6.53	7.68
10	0.33	0.50	0.62	0.83	1.03	1.17	1.23	1.43	1.73	2.23	2.54	3.04	3.58	4.01	5.10	6.13	7.45	8.69
25	0.42	0.65	0.80	1.08	1.33	1.50	1.55	1.75	2.07	2.68	3.05	3.66	4.28	4.80	5.99	7.17	8.67	10.01
50	0.51	0.77	0.96	1.29	1.60	1.81	1.84	2.03	2.35	3.06	3.46	4.17	4.85	5.44	6.69	7.97	9.60	11.00
100	0.61	0.93	1.16	1.56	1.93	2.17	2.19	2.36	2.65	3.47	3.92	4.73	5.47	6.12	7.40	8.80	10.54	11.99
200	0.74	1.12	1.39	1.87	2.32	2.60	2.62	2.78	3.01	3.92	4.41	5.33	6.14	6.87	8.14	9.64	11.48	12.97
500	0.94	1.43	1.77	2.38	2.95	3.31	3.34	3.47	3.66	4.59	5.15	6.23	7.12	7.97	9.16	10.80	12.78	14.27
1000	1.13	1.72	2.13	2.87	3.56	3.98	4.02	4.10	4.26	5.16	5.77	6.99	7.93	8.88	9.95	11.69	13.79	15.26

* The upper bound of the confidence interval at 90% confidence level is the value which 5% of the simulated quantile values for a given frequency are greater than.
** These precipitation frequency estimates are based on a partial duration series. ARI is the Average Recurrence Interval.

Please refer to NOAA Atlas 14 Document for more information. NOTE: Formatting prevents estimates near zero to appear as zero.

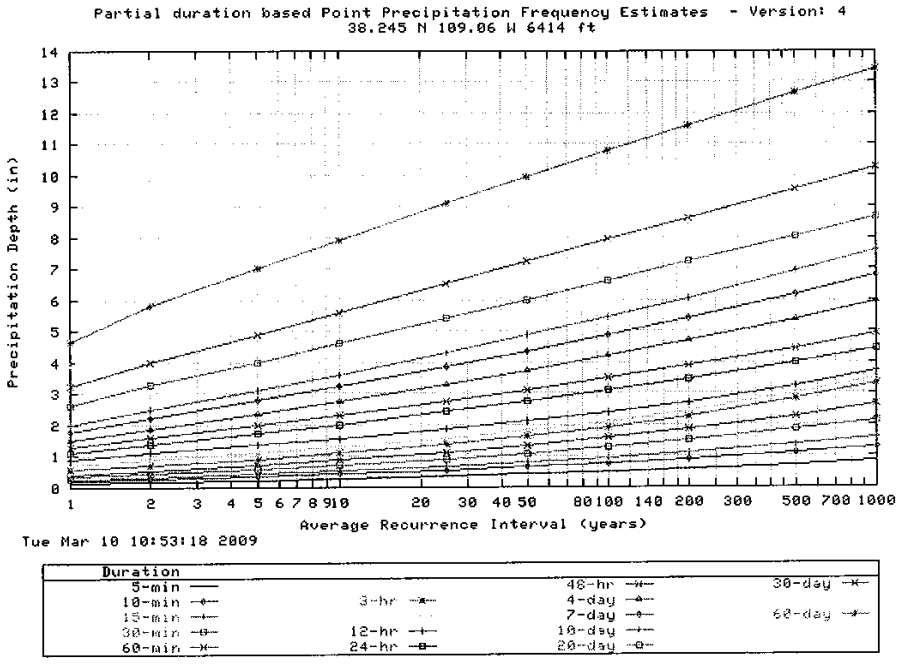
*** Lower bound of the 90% confidence interval**
Precipitation Frequency Estimates (inches)

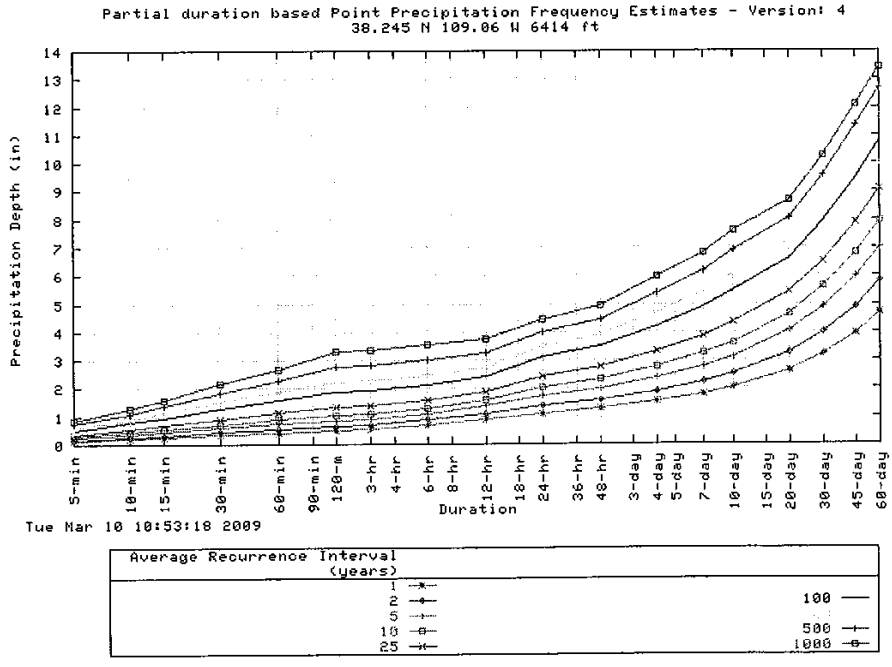
ARI** (years)	5 min	10 min	15 min	30 min	60 min	120 min	3 hr	6 hr	12 hr	24 hr	48 hr	4 day	7 day	10 day	20 day	30 day	45 day	60 day
1	0.12	0.18	0.22	0.29	0.36	0.45	0.50	0.64	0.81	1.01	1.17	1.37	1.60	1.81	2.37	2.94	3.59	4.27
2	0.15	0.23	0.28	0.38	0.47	0.56	0.63	0.80	1.00	1.25	1.45	1.71	2.01	2.26	2.96	3.66	4.46	5.29
5	0.20	0.31	0.38	0.51	0.63	0.74	0.81	0.99	1.24	1.57	1.80	2.12	2.50	2.82	3.64	4.47	5.43	6.38
10	0.25	0.38	0.47	0.63	0.78	0.90	0.97	1.16	1.43	1.82	2.08	2.47	2.91	3.26	4.16	5.09	6.18	7.20
25	0.31	0.48	0.59	0.80	0.99	1.14	1.21	1.41	1.69	2.18	2.47	2.94	3.45	3.87	4.85	5.92	7.13	8.24
50	0.37	0.56	0.69	0.94	1.16	1.34	1.41	1.61	1.90	2.45	2.77	3.30	3.87	4.33	5.36	6.51	7.82	8.98
100	0.43	0.66	0.81	1.09	1.35	1.56	1.64	1.83	2.11	2.74	3.09	3.68	4.29	4.81	5.86	7.10	8.49	9.70
200	0.50	0.76	0.94	1.27	1.57	1.80	1.89	2.10	2.35	3.04	3.40	4.06	4.72	5.29	6.35	7.67	9.14	10.37
500	0.60	0.91	1.13	1.52	1.88	2.16	2.28	2.52	2.77	3.44	3.82	4.58	5.29	5.93	6.97	8.39	9.95	11.20
1000	0.68	1.04	1.29	1.73	2.15	2.47	2.61	2.88	3.16	3.75	4.15	4.99	5.71	6.42	7.43	8.92	10.54	11.79

* The lower bound of the confidence interval at 90% confidence level is the value which 5% of the simulated quantile values for a given frequency are less than.

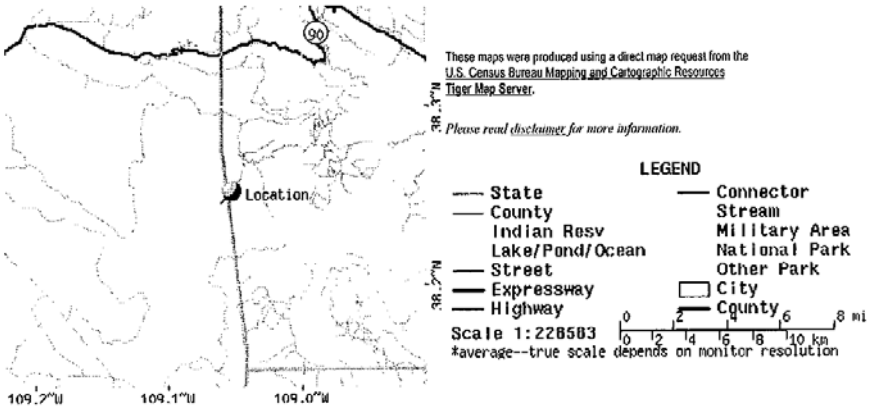
** These precipitation frequency estimates are based on a partial duration maxima series. ARI is the Average Recurrence Interval.
Please refer to NOAA Atlas 14 Document for more information. NOTE: Formatting prevents estimates near zero to appear as zero.

Text version of tables





Maps -



Other Maps/Photographs -

View USGS digital orthophoto quadrangle (DOQ) covering this location from TerraServer; USGS Aerial Photograph may also be available from this site. A DOQ is a computer-generated image of an aerial photograph in which image displacement caused by terrain relief and camera tilts has been removed. It combines the image characteristics of a photograph with the geometric qualities of a map. Visit the USGS for more information.

Watershed/Stream Flow Information -

Find the Watershed for this location using the U.S. Environmental Protection Agency's site.

Climate Data Sources -

Precipitation frequency results are based on data from a variety of sources, but largely NCDC. The following links provide general information about observing sites in the area, regardless of if their data was used in this study. For detailed information about the stations used in this study, please refer to NOAA Atlas 14 Document.

Using the National Climatic Data Center's (NCDC) station search engine, locate other climate stations within:

+/-30 minutes ...OR... +/-1 degree of this location (38.245/-109.06). Digital ASCII data can be obtained directly from NCDC.

Find Natural Resources Conservation Service (NRCS) SNOTEL (SNOwpack TELemetry) stations by visiting the **Western Regional Climate Center's state-specific SNOTEL station maps**.

Hydrometeorological Design Studies Center
DOC/NOAA/National Weather Service
1325 East-West Highway
Silver Spring, MD 20910

(301) 713-1669
Questions?: HDSC.Questions@noaa.gov

Disclaimer