Database Code: HT004

Title: Stream and air temperature data from stream gages and stream confluences in the Andrews Experimental Forest, 1950 to present

Abstract:

Stream temperature at stream gages and air temperature above the stream are measured at all stream gaging sites and at selected major stream confluences. Current temperature data are collected as hourly averages of instantaneous measurements. these data began ~1996. Historic data, starting in 1950 at Lookout Creek gage, are included at daily mean or maximum and minimum. Other Andrews Forest related databases: Long term air temperature data from the reference and benchmark climate stations are also available in MS001. Previous high resolution stream temperature data at some of the small watershed stream gages are available in HT001 and stream temperature data throughout the Andrews Forest stream networks during several years are available in HT002.

Keywords: Air temperature;Climate data;Ecosystem monitoring;Microclimate;Stream gradient;Water temperature;Disturbance;climatology;microclimate;stream order;air temperature;water temperature;disturbance;monitoring;ecosystems;

Date data commenced:1976-08-11

Date data terminated:2016-04-13

Principal Investigator: Sherri L. Johnson

List of Entities:

1. Air temperature (daily)

11. Air temperature (fine temporal resolution)

41. Stream temperature (daily)

51. Stream temperature (fine temporal resolution)

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1. Air temperature (daily)

Attribute List:

DBCODE	N	N	char(5)	enum			
ENTITY	N	N	numeric(2,0)	range	1.0000	1.0000	number
SITECODE	N	N	char(6)	place			
AIRTEMP_METHOD	N	N	char(6)	enum			
HEIGHT	N	N	numeric(4,0)	range	100.0000	450.0000	cm
QC_LEVEL	N	N	char(2)	enum			
PROBE_CODE	Y	N	char(8)	enum			
DATE	Y	N	datetime	range	8/11/1976 12:00:00 AM	4/3/2016 12:00:00 AM	YYYY-MM-DD
AIRTEMP_MEAN_DAY	Y	Y	numeric(5,1)	range	-16.8000	26.3000	deg c
AIRTEMP_MEAN_FLAG	N	N	char(1)	enum			
AIRTEMP_MAX_DAY	Y	Y	numeric(5,1)	range	-14.2000	41.2000	deg c
AIRTEMP_MAX_FLAG	N	N	char(1)	enum			
AIRTEMP_MAXTIME	N	Y	char(4)	freetext			
AIRTEMP_MIN_DAY	Y	Y	numeric(5,1)	range	-20.2000	21.7000	deg c
AIRTEMP_MIN_FLAG	N	N	char(1)	enum			
AIRTEMP_MINTIME	N	Y	char(4)	freetext			

EVENT_CODE	N	N	char(6)	enum			

11. Air temperature (fine temporal resolution)

Data is provided through an interactive application (GLITCH)

Attribute List:

DBCODE	N	N	char(5)	enum			
ENTITY	N	N	numeric(2,0)	range	11.0000	11.0000	number
SITECODE	N	N	char(6)	place			
AIRTEMP_METHOD	N	N	char(6)	enum			
HEIGHT	N	N	numeric(4,0)	range	200.0000	450.0000	cm
QC_LEVEL	N	N	char(2)	enum			
PROBE_CODE	Y	N	char(8)	enum			
DATE_TIME	Y	N	datetime	range	12/6/1994 4:00:00 PM	4/4/2016 11:20:00 PM	YYYY-MM-DD hh:mm:ss
AIRTEMP_MEAN	N	Y	numeric(5,1)	range	-19.7000	38.6000	deg c
AIRTEMP_MEAN_FLAG	N	N	char(1)	enum			
EVENT_CODE	N	N	char(6)	enum			

41. Stream temperature (daily)

Includes legacy Lookout Creek USGS data 1950-1981 (1955-1963 missing)

Attribute List:

DBCODE	N	N	char(5)	enum			
ENTITY	N	N	numeric(2,0)	range	41.0000	41.0000	number
SITECODE	N	N	char(6)	place			
WATERTEMP_METHOD	N	N	char(6)	enum			
QC_LEVEL	N	N	char(2)	enum			
PROBE_CODE	Y	N	char(8)	enum			
DATE	Y	N	datetime	range	10/1/1949 12:00:00 AM	4/12/2016 12:00:00 AM	YYYY-MM-DD
WATERTEMP_MEAN_DAY	Y	N	numeric(5,1)	range	-1.0000	19.4000	deg c
WATERTEMP_MEAN_FLAG	N	N	char(1)	enum			
WATERTEMP_MAX_DAY	Y	N	numeric(5,1)	range	-1.0000	23.7000	deg c
WATERTEMP_MAX_FLAG	N	N	char(1)	enum			
WATERTEMP_MAX_TIME	Y	N	char(4)	freetext			
WATERTEMP_MIN_DAY	Y	N	numeric(5,1)	range	-1.0000	19.0000	deg c
WATERTEMP_MIN_FLAG	N	N	char(1)	enum			
WATERTEMP_MIN_TIME	Y	N	char(4)	freetext			
EVENT_CODE	N	N	char(6)	enum			

51. Stream temperature (fine temporal resolution)

Data is provided through an interactive application (GLITCH)

Attribute List:

DBCODE	N	N	char(5)	enum			
ENTITY	N	N	numeric(2,0)	range	51.0000	51.0000	number
SITECODE	N	N	char(6)	place			
WATERTEMP_METHOD	N	N	char(6)	enum			
QC_LEVEL	N	N	char(2)	enum			
PROBE_CODE	Y	N	char(8)	enum			
DATE_TIME	Y	N	datetime	range	12/6/1994 4:00:00 PM	4/13/2016 11:00:00 PM	YYYY-MM-DD hh:mm:ss
WATERTEMP_MEAN	N	Y	numeric(5,1)	range	-1.0000	21.6000	deg c
WATERTEMP_MEAN_FLAG	N	N	char(1)	enum			
EVENT_CODE	N	N	char(6)	enum			

Attributes Definitions:

AIRTEMP_MAX_DAY

Maximum air temperature for the day

AIRTEMP_MAX_FLAG

Maximum air temperature flag

AIRTEMP_MAXTIME

Time of day (HHMM) in Pacific Standard Time (PST) of maximum air temperature

AIRTEMP_MEAN

Mean air temperature over the last interval (e.g., 5 minutes)

AIRTEMP_MEAN_DAY

Mean air temperature for the day

AIRTEMP_MEAN_FLAG

Mean air temperature flag

AIRTEMP_METHOD

An indication of the the general methodology and instrumentation used to collect this air temperature data

AIRTEMP_MIN_DAY

Minimum air temperature for the day

AIRTEMP_MIN_FLAG

Minimum air temperature flag

AIRTEMP_MINTIME

Time of day (HHMM) in Pacific Standard Time (PST) of minimum air temperature

DATE

Date

DATE_TIME

Date and time (PST) of probe reading

DBCODE

FSDB database code

ENTITY

Entity number

EVENT_CODE

Type of comment that exists independently for any event, disruption in protocol, or unusual conditions that occur at the given date or time and may have an effect on the data values

HEIGHT

Height of sensor from ground surface

PROBE_CODE

Probe number code indicates the measurement type, site, and sensor number (e.g., AIRGS101)

QC_LEVEL

Quality control flag indicates level of quality checking performed including an indication of "provisional" data.

SITECODE

Site code for the meteorological measurement station

WATERTEMP_MAX_DAY

Maximum water temperature for the day

WATERTEMP_MAX_FLAG

Maximum water temperature flag

WATERTEMP_MAXTIME

Time of day (HHMM) in Pacific Standard Time (PST) of maximum water temperature

WATERTEMP_MEAN

Mean water temperature over the last interval (e.g., 5 minutes)

WATERTEMP_MEAN_DAY

Mean water temperature for the day

WATERTEMP_MEAN_FLAG

Mean water temperature flag

WATERTEMP_METHOD

An indication of the the general methodology and instrumentation used to collect this water temperature data

WATERTEMP_MIN_DAY

Minimum water temperature for the day

WATERTEMP_MIN_FLAG

Minimum water temperature flag

WATERTEMP_MINTIME

Time of day (HHMM) in Pacific Standard Time (PST) of minimum water temperature

Enumerated Domains:

Enumerated Domain for Attribute: AIRTEMP_MEAN_FLAG

A	Accepted value has passed all QC tests applied as represented by the quality level
B	Sensor buried in snow; value is the snow temperature
E	Estimated value
M	Missing value
Q	Questionable value
S	Daily value based on 24 hour period defined from sunrise to sunrise

Enumerated Domain for Attribute: AIRTEMP_MAX_FLAG

A	Accepted value has passed all QC tests applied as represented by the quality level
B	Sensor buried in snow; value is the snow temperature
E	Estimated value
M	Missing value
Q	Questionable value
S	Daily value based on 24 hour period defined from sunrise to sunrise

Enumerated Domain for Attribute: AIRTEMP_MIN_FLAG

A	Accepted value has passed all QC tests applied as represented by the quality level
B	Sensor buried in snow; value is the snow temperature
E	Estimated value
M	Missing value
Q	Questionable value
S	Daily value based on 24 hour period defined from sunrise to sunrise

Enumerated Domain for Attribute: PROBE_CODE

WATGSL01	Stream temperature at GSLOOK, probe no. 01
WATGSL02	Stream temperature at GSLOOK, probe no. 02, maintained by USGS, legacy data 1950-1981 (missing 1955-1963)
WATGSM01	Stream temperature at GSMACK, probe no. 01, downstream of flume in sampling pool
WATGS001	Stream temperature at GSWS10, probe no. 01, upstream of flume
WATGS101	Stream temperature at GSWS01, probe no. 01, downstream of flume
WATGS201	Stream temperature at GSWS02, probe no. 01, downstream of flume in sampling pool
WATGS301	Stream temperature at GSWS03, probe no. 01, downstream of flume
WATGS601	Stream temperature at GSWS06, probe no. 01, upstream of flume
WATGS701	Stream temperature at GSWS07, probe no. 01, downstream of flume
WATGS801	Stream temperature at GSWS08, probe no. 01, open canopy, discontinued 2001
WATGS802	Stream temperature at GSWS08, probe no. 02, upstream of flume
WATLMA01	Stream temperature at TSLOMA, probe no. 01 located in Lookout Cr. above the confluence with Mack Cr.

WATLMA02	Stream temperature at TSLOMA, probe no. 02 located in Mack Cr. above the confluence with Lookout Cr.
WATLMC01	Stream temperature at TSLOMC, probe no. 01 located in Lookout Cr. above the confluence with McRae cr., discontinued 1996
WATLMC02	Stream temperature at TSLOMC, probe no. 02 located in McRae Cr. above the confluence with Lookout Cr., discontinued 1996
WATTGR01	Stream temperature at TSGRAS, probe no. 01, discontinued 1987
WATTLO01	Stream temperature at TSLOOK, probe no. 01
WATTMA01	Stream temperature at TSMACK, probe no. 01, discontinued 1994
WATTMC01	Stream temperature at TSMCRA, probe no. 01
WATTQZ01	Stream temperature at TSQRTZ, probe no. 01, discontinued 1994
AIRGS001	Air temperature at GSWS10, probe no. 01 at height 400 cm
AIRGS101	Air temperature at GSWS01, probe no. 01 at height 305 cm
AIRGS201	Air temperature at GSWS02, probe no. 01 at height 450 cm
AIRGS301	Air temperature at GSWS03, probe no. 01 at height 295 cm
AIRGS601	Air temperature at GSWS06, probe no. 01 at height 240 cm
AIRGS701	Air temperature at GSWS07, probe no. 01 at height 255 cm
AIRGS801	Air temperature at GSWS08, probe no. 01 at height 370 cm
AIRGSL01	Air temperature at GSLOOK, probe no. 01 at height 395 cm
AIRGSM01	Air temperature at GSMACK, probe no. 01 at height 350 cm
AIRLMA01	Air temperature at TSLOMA, probe no. 01 at height 350 cm
AIRLMC01	Air temperature at TSLOMC, probe no. 01 at height 365 cm, discontinued 1996
AIRTGR01	Air temperature at TSGRAS, probe no. 01 at height 100 cm, discontinued 1987
AIRTLO01	Air temperature at TSLOOK, probe no. 01 at height 240 cm
AIRTMA01	Air temperature at TSMACK, probe no. 01 at height 200 cm, discontinued 1995
AIRTMC01	Air temperature at TSMCRA, probe no. 01 at height 200 cm
AIRTQZ01	Air temperature at TSQRTZ, probe no. 01 at height 100 cm, discontinued 1994

Enumerated Domain for Attribute: DBCODE

HT004	Study code HT004

Enumerated Domain for Attribute: AIRTEMP_METHOD

AIR818	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 395 cm height (See method AIR618)
AIR807	Mean daily, max and min air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Instrument is type T thermocouple wire housed in a locally designed PVC radiation shield at 395 cm height (Daily output only)
AIR814	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 305 cm height (See method AIR614)
AIR815	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10

	second readings. CS Model 107; PVC radiation shield; 350 cm height (See method AIR615)
AIR838	Mean daily air temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS Model 107; PVC radiation shield; 450 cm height (See method AIR638)
AIR813	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 295 cm height (See method AIR613)
AIR810	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 240 cm height (See method AIR610)
AIR812	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 255 cm height (See method AIR612)
AIR817	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 370 cm height (See method AIR617)
AIR811	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 250 cm height (See method AIR611)
AIR801	Mean, max and min daily (sunrise to sunrise) air temperature is determined from digitizing circular Partlow charts. Temperature is recorded by a Dual Recording Thermometer Model RFHTT with mercury bulb at 100 cm height in small shelter and corrected.
AIR816	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 365 cm height (See method AIR616)
AIR806	Mean, max and min daily air temperature is determined from digitizing circular Partlow charts. Temperature is recorded by a Dual Recording Thermometer Model RFHTT with mercury bulb at 300 cm height in small shelter on tree and corrected to standard rdg.
AIR826	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 395 cm height (See method AIR626)
AIR824	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 305 cm height (See method AIR624)
AIR834	Mean daily air temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS Model 107; PVC radiation shield; 305 cm height (See method AIR634)
AIR820	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 450 cm height (See method AIR620)
AIR823	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 295 cm height (See method AIR623)
AIR821	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 240 cm height (See method AIR621)
AIR822	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 255 cm height (See method AIR622)
AIR825	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 370 cm height (See

	method AIR625)
AIR819	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 400 cm height (See method AIR619)
AIR827	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 400 cm height (See method AIR627)
AIR802	Mean, max and min daily air temperature is determined from digitizing circular Partlow charts. Temperature is recorded by a Dual Recording Thermometer Model RFHTT with mercury bulb at 100 cm height in small shelter on tree and corrected to standard rdg.
AIR809	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 200 cm height (See method AIR609)
AIR808	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings.Thermocouple wire; PVC radiation shield; 395 cm height (See method AIR608)
AIR836	Mean daily air temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS Model 107; PVC radiation shield; 395 cm height (See method AIR636)
AIR828	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 450 cm height (See method AIR628)
AIR833	Mean daily air temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS Model 107; PVC radiation shield; 295 cm height (See method AIR633)
AIR831	Mean daily air temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS Model 107; PVC radiation shield; 240 cm height (See method AIR631)
AIR832	Mean daily air temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS Model 107; PVC radiation shield; 255 cm height (See method AIR632)
AIR835	Mean daily air temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS Model 107; PVC radiation shield; 370 cm height (See method AIR635)
AIR837	Mean daily air temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS Model 107; PVC radiation shield; 400 cm height (See method AIR637)
AIR805	Mean, max and min daily air temperature is determined from digitizing circular Partlow charts. Temperature is recorded by a Dual Recording Thermometer Model RFHTT with mercury bulb at 240 cm height in small shelter on tree and corrected to standard rdg.
AIR804	Mean, max and min daily air temperature is determined from digitizing circular Partlow charts. Temperature is recorded by a Dual Recording Thermometer Model RFHTT with mercury bulb at 200 cm height in small shelter on tree and corrected to standard rdg.
AIR803	Mean, max and min daily air temperature is determined from digitizing circular Partlow charts. Temperature is recorded by a Dual Recording Thermometer Model RFHTT with mercury bulb at 160 cm height in small shelter on tree and corrected to standard rdg.
AIR708	Air temperature is sampled by type T thermocouple soldered from thermocouple wire housed in a locally designed PVC radiation shield at 395 cm height with a Campbell Scientific data logger; mean temperature is output every 60 minutes
AIR709	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 200 cm height; mean temperature is output every 60 minutes
AIR710	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 240 cm height; mean temperature is output every 60 minutes
AIR711	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 250 cm height; mean

	temperature is output every 60 minutes
AIR712	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 255 cm height; mean temperature is output every 60 minutes
AIR713	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 295 cm height; mean temperature is output every 60 minutes
AIR714	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 305 cm height; mean temperature is output every 60 minutes
AIR715	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 350 cm height; mean temperature is output every 60 minutes
AIR716	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 365 cm height; mean temperature is output every 60 minutes
AIR717	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 370 cm height; mean temperature is output every 60 minutes
AIR718	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 395 cm height; mean temperature is output every 60 minutes
AIR719	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 400 cm height; mean temperature is output every 60 minutes
AIR720	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 450 cm height; mean temperature is output every 60 minutes
AIR721	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 240 cm height; mean temperature is output every 15 minutes
AIR722	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 255 cm height; mean temperature is output every 15 minutes
AIR723	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 295 cm height; mean temperature is output every 15 minutes
AIR724	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 305 cm height; mean temperature is output every 15 minutes
AIR725	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 370 cm height; mean temperature is output every 15 minutes
AIR726	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 395 cm height; mean temperature is output every 15 minutes
AIR727	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 400 cm height; mean temperature is output every 15 minutes
AIR728	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 450 cm height; mean temperature is output every 15 minutes
AIR731	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 240 cm height; mean, min, max temperature is output every 5 minutes
AIR732	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 255 cm height; mean, min, max temperature is output every 5 minutes
AIR733	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 295 cm height; mean, min, max temperature is output every 5 minutes
AIR734	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 305 cm height; mean, min, max temperature is output every 5 minutes
AIR735	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 370 cm height; mean, min,

	max temperature is output every 5 minutes
AIR736	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 395 cm height; mean, min, max temperature is output every 5 minutes
AIR737	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 400 cm height; mean, min, max temperature is output every 5 minutes
AIR738	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 450 cm height; mean, min, max temperature is output every 5 minutes

Enumerated Domain for Attribute: QC_LEVEL

1A	Data is published and unlikely to change - automated range checking and manual review has been conducted. Quality is indicated in data value qualifier flags.
1D	Data is published and unlikely to change - data is derived or aggregated from published data of level 1A
1P	Data is provisional and subject to revision - preliminary quality checks have been performed
2A	Data is published and unlikely to change - Level 1A data has been modified such that data gaps may be filled or problem data may be removed
2D	Data is published and unlikely to change - data is derived or aggregated from published data of level 2A

Enumerated Domain for Attribute: EVENT_CODE

CALIBR	Associated with the inspection or replacement of sensors for calibration
INSREM	Sensor is installed or removed
LOGGER	Change in data logger, data logger program, or wiring
MAINTE	A maintenance event has occurred
METHOD	Change in data collection method
NA	No event is reported (not applicable)
QUALTY	Event may directly affect data quality
WEATHR	A weather event has occurred that may affect reading

Enumerated Domain for Attribute: AIRTEMP_MEAN_FLAG

A	Accepted value has passed all QC tests applied as represented by the quality level
B	Sensor buried in snow; value is the snow temperature
E	Estimated value
M	Missing value
Q	Questionable value
S	Daily value based on 24 hour period defined from sunrise to sunrise

Enumerated Domain for Attribute: PROBE_CODE

WATGSL01	Stream temperature at GSLOOK, probe no. 01
WATGSL02	Stream temperature at GSLOOK, probe no. 02, maintained by USGS, legacy data 1950-1981 (missing 1955-1963)
WATGSM01	Stream temperature at GSMACK, probe no. 01, downstream of flume in sampling pool
WATGS001	Stream temperature at GSWS10, probe no. 01, upstream of flume
WATGS101	Stream temperature at GSWS01, probe no. 01, downstream of flume

WATGS201	Stream temperature at GSWS02, probe no. 01, downstream of flume in sampling pool
WATGS301	Stream temperature at GSWS03, probe no. 01, downstream of flume
WATGS601	Stream temperature at GSWS06, probe no. 01, upstream of flume
WATGS701	Stream temperature at GSWS07, probe no. 01, downstream of flume
WATGS801	Stream temperature at GSWS08, probe no. 01, open canopy, discontinued 2001
WATGS802	Stream temperature at GSWS08, probe no. 02, upstream of flume
WATLMA01	Stream temperature at TSLOMA, probe no. 01 located in Lookout Cr. above the confluence with Mack Cr.
WATLMA02	Stream temperature at TSLOMA, probe no. 02 located in Mack Cr. above the confluence with Lookout Cr.
WATLMC01	Stream temperature at TSLOMC, probe no. 01 located in Lookout Cr. above the confluence with McRae cr., discontinued 1996
WATLMC02	Stream temperature at TSLOMC, probe no. 02 located in McRae Cr. above the confluence with Lookout Cr., discontinued 1996
WATTGR01	Stream temperature at TSGRAS, probe no. 01, discontinued 1987
WATTLO01	Stream temperature at TSLOOK, probe no. 01
WATTMA01	Stream temperature at TSMACK, probe no. 01, discontinued 1994
WATTMC01	Stream temperature at TSMCRA, probe no. 01
WATTQZ01	Stream temperature at TSQRTZ, probe no. 01, discontinued 1994
AIRGS001	Air temperature at GSWS10, probe no. 01 at height 400 cm
AIRGS101	Air temperature at GSWS01, probe no. 01 at height 305 cm
AIRGS201	Air temperature at GSWS02, probe no. 01 at height 450 cm
AIRGS301	Air temperature at GSWS03, probe no. 01 at height 295 cm
AIRGS601	Air temperature at GSWS06, probe no. 01 at height 240 cm
AIRGS701	Air temperature at GSWS07, probe no. 01 at height 255 cm
AIRGS801	Air temperature at GSWS08, probe no. 01 at height 370 cm
AIRGSL01	Air temperature at GSLOOK, probe no. 01 at height 395 cm
AIRGSM01	Air temperature at GSMACK, probe no. 01 at height 350 cm
AIRLMA01	Air temperature at TSLOMA, probe no. 01 at height 350 cm
AIRLMC01	Air temperature at TSLOMC, probe no. 01 at height 365 cm, discontinued 1996
AIRTGR01	Air temperature at TSGRAS, probe no. 01 at height 100 cm, discontinued 1987
AIRTLO01	Air temperature at TSLOOK, probe no. 01 at height 240 cm
AIRTMA01	Air temperature at TSMACK, probe no. 01 at height 200 cm, discontinued 1995
AIRTMC01	Air temperature at TSMCRA, probe no. 01 at height 200 cm
AIRTQZ01	Air temperature at TSQRTZ, probe no. 01 at height 100 cm, discontinued 1994

Enumerated Domain for Attribute: DBCODE

HT004	Study code HT004

Enumerated Domain for Attribute: AIRTEMP_METHOD

AIR818	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 395 cm height (See method AIR618)
AIR807	Mean daily, max and min air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Instrument is type T thermocouple wire housed in a locally designed PVC radiation shield at 395 cm height (Daily output only)
AIR814	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 305 cm height (See method AIR614)
AIR815	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 350 cm height (See method AIR615)
AIR838	Mean daily air temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS Model 107; PVC radiation shield; 450 cm height (See method AIR638)
AIR813	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 295 cm height (See method AIR613)
AIR810	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 240 cm height (See method AIR610)
AIR812	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 255 cm height (See method AIR612)
AIR817	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 370 cm height (See method AIR617)
AIR811	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 250 cm height (See method AIR611)
AIR801	Mean, max and min daily (sunrise to sunrise) air temperature is determined from digitizing circular Partlow charts. Temperature is recorded by a Dual Recording Thermometer Model RFHTT with mercury bulb at 100 cm height in small shelter and corrected.
AIR816	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 365 cm height (See method AIR616)
AIR806	Mean, max and min daily air temperature is determined from digitizing circular Partlow charts. Temperature is recorded by a Dual Recording Thermometer Model RFHTT with mercury bulb at 300 cm height in small shelter on tree and corrected to standard rdg.
AIR826	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 395 cm height (See method AIR626)
AIR824	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 305 cm height (See method AIR624)
AIR834	Mean daily air temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS Model 107; PVC radiation shield; 305 cm height (See method AIR634)
AIR820	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 450 cm height (See method AIR620)
AIR823	Mean daily air temperature is calculated by the Campbell Scientific datalogger

	based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 295 cm height (See method AIR623)
AIR821	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 240 cm height (See method AIR621)
AIR822	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 255 cm height (See method AIR622)
AIR825	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 370 cm height (See method AIR625)
AIR819	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 400 cm height (See method AIR619)
AIR827	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 400 cm height (See method AIR627)
AIR802	Mean, max and min daily air temperature is determined from digitizing circular Partlow charts. Temperature is recorded by a Dual Recording Thermometer Model RFHTT with mercury bulb at 100 cm height in small shelter on tree and corrected to standard rdg.
AIR809	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 200 cm height (See method AIR609)
AIR808	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings.Thermocouple wire; PVC radiation shield; 395 cm height (See method AIR608)
AIR836	Mean daily air temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS Model 107; PVC radiation shield; 395 cm height (See method AIR636)
AIR828	Mean daily air temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings. CS Model 107; PVC radiation shield; 450 cm height (See method AIR628)
AIR833	Mean daily air temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS Model 107; PVC radiation shield; 295 cm height (See method AIR633)
AIR831	Mean daily air temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS Model 107; PVC radiation shield; 240 cm height (See method AIR631)
AIR832	Mean daily air temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS Model 107; PVC radiation shield; 255 cm height (See method AIR632)
AIR835	Mean daily air temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS Model 107; PVC radiation shield; 370 cm height (See method AIR635)
AIR837	Mean daily air temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS Model 107; PVC radiation shield; 400 cm height (See method AIR637)
AIR805	Mean, max and min daily air temperature is determined from digitizing circular Partlow charts. Temperature is recorded by a Dual Recording Thermometer Model RFHTT with mercury bulb at 240 cm height in small shelter on tree and corrected to standard rdg.
AIR804	Mean, max and min daily air temperature is determined from digitizing circular Partlow charts. Temperature is recorded by a Dual Recording Thermometer Model RFHTT with mercury bulb at 200 cm height in small shelter on tree and corrected to standard rdg.
AIR803	Mean, max and min daily air temperature is determined from digitizing circular Partlow charts. Temperature is recorded by a Dual Recording Thermometer

	Model RFHTT with mercury bulb at 160 cm height in small shelter on tree and corrected to standard rdg.
AIR708	Air temperature is sampled by type T thermocouple soldered from thermocouple wire housed in a locally designed PVC radiation shield at 395 cm height with a Campbell Scientific data logger; mean temperature is output every 60 minutes
AIR709	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 200 cm height; mean temperature is output every 60 minutes
AIR710	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 240 cm height; mean temperature is output every 60 minutes
AIR711	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 250 cm height; mean temperature is output every 60 minutes
AIR712	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 255 cm height; mean temperature is output every 60 minutes
AIR713	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 295 cm height; mean temperature is output every 60 minutes
AIR714	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 305 cm height; mean temperature is output every 60 minutes
AIR715	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 350 cm height; mean temperature is output every 60 minutes
AIR716	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 365 cm height; mean temperature is output every 60 minutes
AIR717	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 370 cm height; mean temperature is output every 60 minutes
AIR718	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 395 cm height; mean temperature is output every 60 minutes
AIR719	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 400 cm height; mean temperature is output every 60 minutes
AIR720	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 450 cm height; mean temperature is output every 60 minutes
AIR721	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 240 cm height; mean temperature is output every 15 minutes
AIR722	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 255 cm height; mean temperature is output every 15 minutes
AIR723	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 295 cm height; mean temperature is output every 15 minutes
AIR724	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 305 cm height; mean temperature is output every 15 minutes
AIR725	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 370 cm height; mean temperature is output every 15 minutes
AIR726	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 395 cm height; mean temperature is output every 15 minutes
AIR727	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 400 cm height; mean temperature is output every 15 minutes
AIR728	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 450 cm height; mean temperature is output every 15 minutes
AIR731	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 240 cm height; mean, min,

	max temperature is output every 5 minutes
AIR732	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 255 cm height; mean, min, max temperature is output every 5 minutes
AIR733	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 295 cm height; mean, min, max temperature is output every 5 minutes
AIR734	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 305 cm height; mean, min, max temperature is output every 5 minutes
AIR735	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 370 cm height; mean, min, max temperature is output every 5 minutes
AIR736	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 395 cm height; mean, min, max temperature is output every 5 minutes
AIR737	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 400 cm height; mean, min, max temperature is output every 5 minutes
AIR738	Air temperature is sampled by a Campbell Scientific model 107 thermistor housed in a locally designed PVC radiation shield at 450 cm height; mean, min, max temperature is output every 5 minutes

Enumerated Domain for Attribute: QC_LEVEL

1A	Data is published and unlikely to change - automated range checking and manual review has been conducted. Quality is indicated in data value qualifier flags.
1D	Data is published and unlikely to change - data is derived or aggregated from published data of level 1A
1P	Data is provisional and subject to revision - preliminary quality checks have been performed
2A	Data is published and unlikely to change - Level 1A data has been modified such that data gaps may be filled or problem data may be removed
2D	Data is published and unlikely to change - data is derived or aggregated from published data of level 2A

Enumerated Domain for Attribute: EVENT_CODE

CALIBR	Associated with the inspection or replacement of sensors for calibration
INSREM	Sensor is installed or removed
LOGGER	Change in data logger, data logger program, or wiring
MAINTE	A maintenance event has occurred
METHOD	Change in data collection method
NA	No event is reported (not applicable)
QUALTY	Event may directly affect data quality
WEATHR	A weather event has occurred that may affect reading

Enumerated Domain for Attribute: WATERTEMP_MEAN_FLAG

A	Accepted value has passed all QC tests applied as represented by the quality level
B	Sensor buried in sediment
E	Estimated value
M	Missing value
S	Daily value based on sunrise to sunrise (not midnight to midnight)
Q	Questionable value

Enumerated Domain for Attribute: WATERTEMP_MAX_FLAG

A	Accepted value has passed all QC tests applied as represented by the quality level
B	Sensor buried in sediment
E	Estimated value
M	Missing value
S	Daily value based on sunrise to sunrise (not midnight to midnight)
Q	Questionable value

Enumerated Domain for Attribute: WATERTEMP_MIN_FLAG

A	Accepted value has passed all QC tests applied as represented by the quality level
B	Sensor buried in sediment
E	Estimated value
M	Missing value
S	Daily value based on sunrise to sunrise (not midnight to midnight)
Q	Questionable value

Enumerated Domain for Attribute: PROBE_CODE

WATGSL01	Stream temperature at GSLOOK, probe no. 01
WATGSL02	Stream temperature at GSLOOK, probe no. 02, maintained by USGS, legacy data 1950-1981 (missing 1955-1963)
WATGSM01	Stream temperature at GSMACK, probe no. 01, downstream of flume in sampling pool
WATGS001	Stream temperature at GSWS10, probe no. 01, upstream of flume
WATGS101	Stream temperature at GSWS01, probe no. 01, downstream of flume
WATGS201	Stream temperature at GSWS02, probe no. 01, downstream of flume in sampling pool
WATGS301	Stream temperature at GSWS03, probe no. 01, downstream of flume
WATGS601	Stream temperature at GSWS06, probe no. 01, upstream of flume
WATGS701	Stream temperature at GSWS07, probe no. 01, downstream of flume
WATGS801	Stream temperature at GSWS08, probe no. 01, open canopy, discontinued 2001
WATGS802	Stream temperature at GSWS08, probe no. 02, upstream of flume
WATLMA01	Stream temperature at TSLOMA, probe no. 01 located in Lookout Cr. above the confluence with Mack Cr.
WATLMA02	Stream temperature at TSLOMA, probe no. 02 located in Mack Cr. above the confluence with Lookout Cr.
WATLMC01	Stream temperature at TSLOMC, probe no. 01 located in Lookout Cr. above the confluence with McRae cr., discontinued 1996
WATLMC02	Stream temperature at TSLOMC, probe no. 02 located in McRae Cr. above the confluence with Lookout Cr., discontinued 1996
WATTGR01	Stream temperature at TSGRAS, probe no. 01, discontinued 1987
WATTLO01	Stream temperature at TSLOOK, probe no. 01
WATTMA01	Stream temperature at TSMACK, probe no. 01, discontinued 1994
WATTMC01	Stream temperature at TSMCRA, probe no. 01

WATTQZ01	Stream temperature at TSQRTZ, probe no. 01, discontinued 1994
AIRGS001	Air temperature at GSWS10, probe no. 01 at height 400 cm
AIRGS101	Air temperature at GSWS01, probe no. 01 at height 305 cm
AIRGS201	Air temperature at GSWS02, probe no. 01 at height 450 cm
AIRGS301	Air temperature at GSWS03, probe no. 01 at height 295 cm
AIRGS601	Air temperature at GSWS06, probe no. 01 at height 240 cm
AIRGS701	Air temperature at GSWS07, probe no. 01 at height 255 cm
AIRGS801	Air temperature at GSWS08, probe no. 01 at height 370 cm
AIRGSL01	Air temperature at GSLOOK, probe no. 01 at height 395 cm
AIRGSM01	Air temperature at GSMACK, probe no. 01 at height 350 cm
AIRLMA01	Air temperature at TSLOMA, probe no. 01 at height 350 cm
AIRLMC01	Air temperature at TSLOMC, probe no. 01 at height 365 cm, discontinued 1996
AIRTGR01	Air temperature at TSGRAS, probe no. 01 at height 100 cm, discontinued 1987
AIRTLO01	Air temperature at TSLOOK, probe no. 01 at height 240 cm
AIRTMA01	Air temperature at TSMACK, probe no. 01 at height 200 cm, discontinued 1995
AIRTMC01	Air temperature at TSMCRA, probe no. 01 at height 200 cm
AIRTQZ01	Air temperature at TSQRTZ, probe no. 01 at height 100 cm, discontinued 1994

Enumerated Domain for Attribute: DBCODE

HT004	Study code HT004

Enumerated Domain for Attribute: QC_LEVEL

1A	Data is published and unlikely to change - automated range checking and manual review has been conducted. Quality is indicated in data value qualifier flags.
1D	Data is published and unlikely to change - data is derived or aggregated from published data of level 1A
1P	Data is provisional and subject to revision - preliminary quality checks have been performed
2A	Data is published and unlikely to change - Level 1A data has been modified such that data gaps may be filled or problem data may be removed
2D	Data is published and unlikely to change - data is derived or aggregated from published data of level 2A

Enumerated Domain for Attribute: EVENT_CODE

CALIBR	Associated with the inspection or replacement of sensors for calibration
INSREM	Sensor is installed or removed
LOGGER	Change in data logger, data logger program, or wiring
MAINTE	A maintenance event has occurred
METHOD	Change in data collection method
NA	No event is reported (not applicable)
QUALTY	Event may directly affect data quality
WEATHR	A weather event has occurred that may affect reading

Enumerated Domain for Attribute: WATERTEMP_METHOD

WAT007	Stream temperature is sampled by a Campbell Scientific model 107 thermistor secured in the stream inside a colander-like metal pipe shade shelter; mean temperature is output every 60 minutes
WAT006	Stream temperature is sampled by a Campbell Scientific data logger using type T thermocouple soldered from thermocouple wire placed in the stream inside a colander-like metal pipe shade shelter; mean temperature is output every 60 minutes
WAT009	Stream temperature is sampled by a Campbell Scientific CS547A conductivity and temperature probe secured in the stream inside a colander-like metal pipe shade shelter; mean, min, max temperature is output every 5 minutes
WAT008	Stream temperature is sampled by a Campbell Scientific CS547A conductivity and temperature probe secured in the stream inside a colander-like metal pipe shade shelter; mean temperature is output every 15 minutes
WAT101	Max and min daily stream temperature is provided by the USGS National Water Information System
WAT102	Daily stream temperature is not collected during this period
WAT103	Mean, max and min daily (sunrise to sunrise) air temperature is determined from digitizing circular Partlow charts. Temperature is recorded by a Dual Recording Thermometer Model RFHTT with mercury bulb placed in the stream with shade shelter
WAT104	Mean, max and min daily air temperature is determined from digitizing circular Partlow charts. Temperature is recorded by a Dual Recording Thermometer Model RFHTT with mercury bulb placed in the stream with shade shelter
WAT105	Mean, max and min daily stream temperature is calculated by a Campbell Scientific datalogger based on 10 second samples. Instrument is type T thermocouple soldered from thermocouple wire and placed in stream with shade shelter (Daily output only)
WAT106	Mean daily stream temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings.Thermocouple wire; metal pipe shade shelter (See method WAT006)
WAT107	Mean daily stream temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings.CS Model 107 thermistor; metal pipe shade shelter (See method WAT007)
WAT108	Mean daily stream temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings.CS547A; metal pipe shade shelter (See method WAT008)
WAT109	Mean daily stream temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS547A; metal pipe shade shelter (See method WAT009)

Enumerated Domain for Attribute: WATERTEMP_MEAN_FLAG

A	Accepted value has passed all QC tests applied as represented by the quality level
B	Sensor buried in sediment
E	Estimated value
M	Missing value
S	Daily value based on sunrise to sunrise (not midnight to midnight)
Q	Questionable value

Enumerated Domain for Attribute: PROBE_CODE

WATGSL01	Stream temperature at GSLOOK, probe no. 01
WATGSL02	Stream temperature at GSLOOK, probe no. 02, maintained by USGS, legacy data 1950-1981 (missing 1955-1963)
WATGSM01	Stream temperature at GSMACK, probe no. 01, downstream of flume in sampling pool
WATGS001	Stream temperature at GSWS10, probe no. 01, upstream of flume

WATGS101	Stream temperature at GSWS01, probe no. 01, downstream of flume
WATGS201	Stream temperature at GSWS02, probe no. 01, downstream of flume in sampling pool
WATGS301	Stream temperature at GSWS03, probe no. 01, downstream of flume
WATGS601	Stream temperature at GSWS06, probe no. 01, upstream of flume
WATGS701	Stream temperature at GSWS07, probe no. 01, downstream of flume
WATGS801	Stream temperature at GSWS08, probe no. 01, open canopy, discontinued 2001
WATGS802	Stream temperature at GSWS08, probe no. 02, upstream of flume
WATLMA01	Stream temperature at TSLOMA, probe no. 01 located in Lookout Cr. above the confluence with Mack Cr.
WATLMA02	Stream temperature at TSLOMA, probe no. 02 located in Mack Cr. above the confluence with Lookout Cr.
WATLMC01	Stream temperature at TSLOMC, probe no. 01 located in Lookout Cr. above the confluence with McRae cr., discontinued 1996
WATLMC02	Stream temperature at TSLOMC, probe no. 02 located in McRae Cr. above the confluence with Lookout Cr., discontinued 1996
WATTGR01	Stream temperature at TSGRAS, probe no. 01, discontinued 1987
WATTLO01	Stream temperature at TSLOOK, probe no. 01
WATTMA01	Stream temperature at TSMACK, probe no. 01, discontinued 1994
WATTMC01	Stream temperature at TSMCRA, probe no. 01
WATTQZ01	Stream temperature at TSQRTZ, probe no. 01, discontinued 1994
AIRGS001	Air temperature at GSWS10, probe no. 01 at height 400 cm
AIRGS101	Air temperature at GSWS01, probe no. 01 at height 305 cm
AIRGS201	Air temperature at GSWS02, probe no. 01 at height 450 cm
AIRGS301	Air temperature at GSWS03, probe no. 01 at height 295 cm
AIRGS601	Air temperature at GSWS06, probe no. 01 at height 240 cm
AIRGS701	Air temperature at GSWS07, probe no. 01 at height 255 cm
AIRGS801	Air temperature at GSWS08, probe no. 01 at height 370 cm
AIRGSL01	Air temperature at GSLOOK, probe no. 01 at height 395 cm
AIRGSM01	Air temperature at GSMACK, probe no. 01 at height 350 cm
AIRLMA01	Air temperature at TSLOMA, probe no. 01 at height 350 cm
AIRLMC01	Air temperature at TSLOMC, probe no. 01 at height 365 cm, discontinued 1996
AIRTGR01	Air temperature at TSGRAS, probe no. 01 at height 100 cm, discontinued 1987
AIRTLO01	Air temperature at TSLOOK, probe no. 01 at height 240 cm
AIRTMA01	Air temperature at TSMACK, probe no. 01 at height 200 cm, discontinued 1995
AIRTMC01	Air temperature at TSMCRA, probe no. 01 at height 200 cm
AIRTQZ01	Air temperature at TSQRTZ, probe no. 01 at height 100 cm, discontinued 1994

Enumerated Domain for Attribute: DBCODE

HT004	Study code HT004

Enumerated Domain for Attribute: QC_LEVEL

1A	Data is published and unlikely to change - automated range checking and manual review has been conducted. Quality is indicated in data value qualifier flags.
1D	Data is published and unlikely to change - data is derived or aggregated from published data of level 1A
1P	Data is provisional and subject to revision - preliminary quality checks have been performed
2A	Data is published and unlikely to change - Level 1A data has been modified such that data gaps may be filled or problem data may be removed
2D	Data is published and unlikely to change - data is derived or aggregated from published data of level 2A

Enumerated Domain for Attribute: EVENT_CODE

CALIBR	Associated with the inspection or replacement of sensors for calibration
INSREM	Sensor is installed or removed
LOGGER	Change in data logger, data logger program, or wiring
MAINTE	A maintenance event has occurred
METHOD	Change in data collection method
NA	No event is reported (not applicable)
QUALTY	Event may directly affect data quality
WEATHR	A weather event has occurred that may affect reading

Enumerated Domain for Attribute: WATERTEMP_METHOD

WAT007	Stream temperature is sampled by a Campbell Scientific model 107 thermistor secured in the stream inside a colander-like metal pipe shade shelter; mean temperature is output every 60 minutes
WAT006	Stream temperature is sampled by a Campbell Scientific data logger using type T thermocouple soldered from thermocouple wire placed in the stream inside a colander-like metal pipe shade shelter; mean temperature is output every 60 minutes
WAT009	Stream temperature is sampled by a Campbell Scientific CS547A conductivity and temperature probe secured in the stream inside a colander-like metal pipe shade shelter; mean, min, max temperature is output every 5 minutes
WAT008	Stream temperature is sampled by a Campbell Scientific CS547A conductivity and temperature probe secured in the stream inside a colander-like metal pipe shade shelter; mean temperature is output every 15 minutes
WAT101	Max and min daily stream temperature is provided by the USGS National Water Information System
WAT102	Daily stream temperature is not collected during this period
WAT103	Mean, max and min daily (sunrise to sunrise) air temperature is determined from digitizing circular Partlow charts. Temperature is recorded by a Dual Recording Thermometer Model RFHTT with mercury bulb placed in the stream with shade shelter
WAT104	Mean, max and min daily air temperature is determined from digitizing circular Partlow charts. Temperature is recorded by a Dual Recording Thermometer Model RFHTT with mercury bulb placed in the stream with shade shelter
WAT105	Mean, max and min daily stream temperature is calculated by a Campbell Scientific datalogger based on 10 second samples. Instrument is type T thermocouple soldered from thermocouple wire and placed in stream with shade shelter (Daily output only)
WAT106	Mean daily stream temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings.Thermocouple wire; metal pipe shade shelter (See method WAT006)
WAT107	Mean daily stream temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings.CS Model 107 thermistor; metal pipe shade

	shelter (See method WAT007)
WAT108	Mean daily stream temperature is calculated by the Campbell Scientific datalogger based on 10 second samples. Max-min values are based on instantaneous 10 second readings.CS547A; metal pipe shade shelter (See method WAT008)
WAT109	Mean daily stream temperature is post-calculated from all 5 minute values, and max-min values are determined based on all instantaneous 10 second readings. CS547A; metal pipe shade shelter (See method WAT009)