CATALOG DOCUMENTATION

National Stream Survey (NSS) Database:NSSISD4 (includes revisits)
Stream Chemistry Survey

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1. DATA SET IDENTIFICATION

1.1 Title of Catalog Document

NSS-I Data Set 4 (Enhanced) NSSIDS4 1986
Includes revised Pilot survey data

1.2 Authors of the Catalog Entry

U.S. EPA NHEERL Western Ecology Division
Corvallis, OR

1.3 Catalog Revision Date

March 1998

1.4 Data Set Name

NSSIDS4

1.5 Task Group

Aquatic Effect Research Program (AERP)- National Surface Water Survey

1.6 Data Set Identification Code

158

1.7 Version

001

1.8 Requested Acknowledgment

This research was funded as apart of the National Surface Water Survey by the U.S. Environmental Protection Agency (EPA). If you publish these data or use them for analyses in publications, EPA requires a standard statement for work it has supported:

"Although the data described in this article have been funded wholly or in part by the U.S. Environmental Protection Agency, it has not been subjected to Agency review, and therefore does not necessarily reflect the views of the Agency and no official endorsement of the conclusions should be inferred."

2. INVESTIGATOR INFORMATION

2.1 Principal Investigator

Dixon Landers
U.S. Environmental Protection Agency
NHEERL Western Ecology Division
200 S.W. 35th Street
Corvallis, OR 97333

2.2 Investigation Participant - Sample Collection
John Baker, Coordinator

3. DATA SET ABSTRACT

3.1 Abstract of the Data Set
The primary function of the stream water chemistry samples characterizes or indexes the chemical and physical properties of a sample reach. The NSS-I relied on sample taken during an appropriate season from a representative sample of water bodies to provide an index of the chemical characteristics of a target population of surface waters. In the NSS this index value depicts stream chemistry during spring baseflow between snowmelt and leafout (approximately March 15 to May 15), when sensitive life stages of important fish species are present and chemical conditions potentially limiting to aquatic organisms are likely to exist. On each sample visit, field crews collected a 3.8-L water sample and four 60-mL syringe samples, in addition to recording watershed and hydrologic descriptive characteristics and making in situ chemical measurements. Water samples were then transported to a centralized processing laboratory where they were stabilized. Chemical measurements were made within 36 hours of sample collections. The processed samples, aliquoted and preserved, were then shipped to contract analytical laboratories for chemical analyses.

3.2 Keywords for the Data Set
Aluminum, alkalinity, acid neutralizing capacity, calcium, carbonate, color, specific conductance, dissolved inorganic carbon, dissolved organic carbon, bicarbonate, potassium, magnesium, ammonium, sodium, nitrate, total nitrogen, pH, total phosphorus, silica, total suspended solids, turbidity, absorbence, chlorophyll a, water chemistry

4. OBJECTIVES AND INTRODUCTION

4.1 Program Objective

The specific primary goals of the National Stream Survey (NSS-I) are (1) to determine the percentage, extent (number, length, and drainage area), location, and chemical characteristics of streams in the United States that are presently acidic, or that have low acid neutralizing capacity (ANC) and thus might become acidic in the future, and (2) to identify streams representative of important classes in each region that might be selected for more intensive study or long-term monitoring.

4.2 Data Set Objective
Data set NSSIDS4 is considered the final data set and is the end product of intensive quality review. This data set is used to generate population estimates. Based on chemical relationships within the data, erroneous and missing values have been replaced with estimated values. Chemical values from field duplicate water samples have been averaged with corresponding routine samples. After the original Pilot Stream Survey Report was published, a small portion of the data was revised. The Pilot Survey data, with all revisions, are included in NSSIDS4. The resulting data set contains observations for 450 NSS-I probability sample reaches, 54 Pilot Survey reaches, and 44 special interest streams. Data are not averaged between sample visits. Note that the reaches sampled during the Pilot Survey have 8-character stream identification codes, whereas reaches sampled during the NSS-I have 9-character codes. Sites considered noninterest in generating estimates of the NSS-I target population of streams are identified by variable (DRPCDE) that contains a sample exclusion "drop" code:0-5 (see Data Dictionary Section 4.4)

4.3 Data Set Background Discussion
The NSS-I was designed to achieve these objectives within known confidence limits. It was designed to allow these objectives to be met for any chemical or physical variable measured. For example, the NSS-I design allows an estimation of the

percentage of the stream population within a given region having sulfate, nitrate, aluminum, or calcium concentrations above or below any criterion value of interest. Should some other characteristic of target streams, such as frequency or duration of biologically deleterious episodes, or sensitivity to chronic acidification, be acceptable defined in the future, base on one or more of the variables measured on sample streams, the NSS-I design will also permit the regional extrapolation of such information. The sampling design lends itself to many comparative evaluations.

4.4 Summary of Data Set Parameters

Water chemistry parameters are reported for one sample taken at the midpoint of the selection stream reach. These include: aluminum, alkalinity, acid neutralizing capacity, calcium, carbonate, color, specific conductance, dissolved inorganic carbon, dissolved organic carbon, bicarbonate, potassium, magnesium, ammonium, sodium, nitrate, total nitrogen, pH, total phosphorus, silica, total suspended solids, and turbidity.

5. DATA ACQUISITION AND PROCESSING METHODS

5.1 Data Acquisition

5.1.1 Sampling Objective

To obtain a single grab sample of stream water for the purposes of chemical analysis during a two month sampling window from mid-March through mid-May.

5.1.2 Sample Collection Methods Summary

A 3.8 L sample and four 60-mL syringe samples were collected.

A sample was taken from mid-depth of the stream using a battery driven peristaltic pump and pumped into a 4-liter Cubitainer and four gas-tight 60 ml syringe samples.

5.1.3 Sampling Start Date

March 1986

5.1.4 Sampling End Date

May 1986

5.1.5 Platform

NA

5.1.6 Sampling Gear

Routine samples were collected from each stream by pumping water through 1/4 inch Tygon tubing held in the center of the stream at mid-depth with a 6-foot sampling boom. Water samples were pumped into a 4-liter polyethylene Cubitainer using portable, battery-driven peristaltic pumps. In addition, four gas-tight 60mL polypropylene syringe samples were collected without exposing the samples to the atmosphere in order to minimize changes in the water sample prior to analysis. These syringes were used for analysis of pH, dissolved inorganic carbon (DIC), and total monomeric and nonexchangeable aluminum performed in the laboratory. (Knapp et al., 1987, Hagley et al., 1988)

5.1.7 Manufacturer of Instruments

NA

5.1.8 Key Variables

NA

5.1.9 Sampling Method Calibration

NA

5.1.10 Sample Collection Quality Control
Kaufmann, P.R., A.T. Herlihy, J.W. Elwood, M.E. Mitch, W.S. Overton, M.J. Sale, J.J. Messer, K.A. Cougan, D.V. Peck, K.H. Reckhow, A.J. Kinnery, S.J. Christie, D.D. Brown, C.A. Hagley, and H.I. Jager. Chemical Characteristics of Streams in the Mid-Atlantic and Southeastern United States. Volume I: Population descriptions and Physico-Chemical Relationships. EPA/600/3-88/021a. U.S. Environmental Protection Agency, Washington, D.C.

5.1.11 Sample Collection Method Reference
See Kaufmann et al., 1988.

5.1.12 Sample Collection Method Deviations
NA

5.2 Data Preparation and Sample Processing
5.2.1 Sample Processing Objective
See Kaufmann et al., 1988.

5.2.2 Sample Processing Methods Summary
See Kaufmann et al., 1988.

5.2.3 Sample Processing Method Calibration
See Kaufmann et al., 1988.

5.2.4 Sample Processing Quality Control
See Kaufmann et al., 1988.

5.2.5 Sample Processing Method Reference
See Kaufmann et al., 1988.

6. DATA MANIPULATIONS

6.1 Name of New or Modified Values
None.

6.2 Data Manipulation Description
See Kaufmann et al., 1988.

7. DATA DESCRIPTION

7.1 Description of Parameters

#	Parameter SAS Name	Data Type	Len	Format	Parameter Label
57	A1	Num	8		DIRECT WATERSHED AREA (SQ MI)
94	A1PRIME	Num	8		UPDATED (1989) A1 (SQ MI)
92	A2	Num	8		WS AREA TO MAPPED UPPER NODE (SQ MI)
93	A3	Num	8		WS AREA TO MAPPED HEADWATER (SQ MI)
64	A4	Num	8		WS AREA BETWEEN U/L SAMPLE SITE (SQ KM)
65	A5	Num	8		WS AREA TO UPPER SAMPLE SITE (SQ KM)
21	ACC011	Num	8		BASE NEUTRALIZING CAPACITY (UEQ/L)
48	ALDS16	Num	8		MONOMERIC (PCV) ALUMINUM (UMOL/L): ALDS16 = ALDSVL * 1000/26.982
47	ALEX16	Num	8		EXTRACTABLE (MIBK) ALUMINUM (UMOL/L): ALEX16 = ALEX11 * 1000/26.982
95	ALINOR	Num	8		INORG. MONOMERIC ALUMINUM (UMOL/L)
22	ALKA11	Num	8		ACID NEUTRALIZING CAPACITY (UEQ/L)
49	ALOR16	Num	8		ORG. MONOMERIC (PCV) ALUMINUM (UMOL/L)
46	ALTL16	Num	8		TOTAL ALUMINUM (UMOL/L)
44	ANDEF	Num	8		ANION DEFICIT, CATSUM-ANSUM (UEQ/L)
40	ANSUM	Num	8		SUM OF ANIONS (UEQ/L): ANSUM = HCO316+CO316+CL16+NO316+SO416+FTL16+OH16.

7.1 Description of Parameters, continued

#	Parameter SAS Name	Data Type	Len	Format	Parameter Label
72	A_WS	Num	8		WS AREA TO MAPPED NODE (SQ KM)
28	CA16	Num	8		CALCIUM (UEQ/L) :CA16=CA11*28.21
41	CATSUM	Num	8		SUM OF CATIONS (UEQ/L): CATSUM = CA16+MG16+K16+NA16+NH416+H16.
30	CL16	Num	8		CHLORIDE (UEQ/L)
29	CO316	Num	8		CARBONATE (UEQ/L)
8	COLVAL	Num	8		COLOR VALUE (PCU)
23	COND11	Num	8		SPECIFIC CONDUCTANCE(US/CM)
13	CONIS	Num	8		SPECIFIC CONDUCTANCE (US/CM)
9	CONVAL	Num	8		SPECIFIC CONDUCTANCE (US/CM)
80	COUNTY1	Char	15		COUNTY NAME
81	COUNTY2	Char	15		COUNTY NAME:Name of second county, if necessary.
82	COUNTY3	Char	15		COUNTY NAME:Name of third county, if necessary.
83	COUNTY4	Char	15		COUNTY NAME:Name of fourth county, if necessary.
10	DATSMP	Num	8	DATE	DATE SAMPLED
24	DICE11	Num	8		AIR EQUIL. DIS. INORG. CARBON (MG/L)
25	DICI11	Num	8		INITIAL DIS. INORGANIC CARBON (MG/L)
5	DICVAL	Num	8		DIS. INORG. CARBON -PROCESS.LAB- (MG/L)
17	DOC11	Num	8		DIS. ORGANIC CARBON (MG/L)
15	DO_IS	Num	8		IN-SITU DISSOLVED OXYGEN (MG/L)
26	DRPCDE	Num	8		SITE EXCLUSION CODE (0,1,2,3,4,5,13)
62	ELEV	Num	8		SAMPLE SITE ELEVATION (M)
52	FE16	Num	8		IRON (UMOL/L)
36	FTL16	Num	8		TOTAL FLUORIDE (UEQ/L)
68	GRADE	Num	8		STREAM REACH GRADIENT (%)
38	H16	Num	8		HYDROGEN ION ACTIVITY (UEQ/L)
27	HCO316	Num	8		BICARBONATE (UEQ/L)
33	K16	Num	8		POTASSIUM (UEQ/L)
63	L2	Num	8		LENGTH BETWEEN U/L SAMPLE SITES (KM)
2	LABNAM	Char	30		CHEMICAL ANALYSIS LABORATORY NAME
70	LAT_STD	Num	8		SAMPLE SITE LATITUDE (DECIMAL FORM)
71	LON_STD	Num	8		SAMPLE SITE LONGITUDE (DECIMAL FORM)
84	MAP1	Char	35		1:24,000 SCALE MAP NAME
85	MAP2	Char	35		1:24,000 SCALE MAP NAME
86	MAP3	Char	35		1:24,000 SCALE MAP NAME
87	MAP4	Char	35		1:24,000 SCALE MAP NAME
88	MAP5	Char	35		1:24,000 SCALE MAP NAME
89	MAP6	Char	35		1:24,000 SCALE MAP NAME
31	MG16	Num	8		MAGNESIUM (UEQ/L)
51	MN16	Num	8		MANGANESE (UMOL/L)
34	NA16	Num	8		SODIUM (UEQ/L)
37	NH416	Num	8		AMMONIUM (UEQ/L)
32	NO316	Num	8		NITRATE (UEQ/L)
75	NODE	Char	9		REACH SAMPLE POSITION (U=UPPER,L=LOWER)
16	NOTSAM	Char	20		REASON NOT SAMPLED
39	OH16	Num	8		HYDROXIDE (UEQ/L)
43	ORGION	Num	8		CALCULATED ORGANIC ANIONS (UEQ/L)
20	PHAC11	Num	8		INITIAL PH, ACIDITY TITRATION
19	PHAL11	Num	8		INITIAL PH, ALKALINITY TITRATION
18	PHEQ11	Num	8		AIR EQUILIBRATED LAB PH
6	PHSTVL	Num	8		CLOSED SYSTEM PH -PROCESS. LAB-
77	PH_CLO	Num	8		FIELD PH, CLOSED CONTAINER -PILOT ONLY
12	PH_R	Num	8		FIELD PH, OPEN SYSTEM
45	PTD16	Num	8		TOTAL DISSOLVED PHOSPHOROUS (UMOL/L)
78	PTL16	Num	8		TOTAL PHOSPHOROUS (UMOL/L)
90	QUAD	Char	42		1:250,000 SCALE MAP NAME
58	RCH_HW	Num	8		SHREVE ORDER -1:250,000 SCALE MAP
1	RCH_ID	Char	9		REACH IDENTIFICATION CODE
56	RCH_LN	Num	8		LENGTH OF MAPPED BLUE LINE REACH (KM)

7.1 Description of Parameters, continued

#	Parameter SAS Name	Data Type	Len	Format	Parameter Label
3	SAMCOD	Char	8		SAMPLE TYPE (D,DA,E,EDA,ER,NS,SY,R)
11	SAMRN	Num	8		SAMPLE VISIT NUMBER (0,1,2,3,4)
67	SHRE75	Num	8		SHREVE ORDER -1:24,000 SCALE MAP
50	SIO216	Num	8		DISSOLVED SILICA (UMOL/L)
73	SIT_CLS	Char	6		SITE CHARACTERISTIC CODE
35	SO416	Num	8		SULFATE (UEQ/L)
42	SOBC	Num	8		SUM OF BASE CATIONS (UEQ/L)
59	STATE1	Char	2		STATE (TWO CHARACTER CODE)
60	STATE2	Char	2		STATE (TWO CHARACTER CODE)
91	STRA250	Num	8		STRAHLER ORDER -1:250,000 SCALE MAP
66	STRA75	Num	8		STRAHLER ORDER -1:24,000 SCALE MAP
55	STRATUM	Num	8		STRATUM (1=REG.,2=LOW ANC,3=SMALL A1)
54	STRMDP	Num	8		STREAM DEPTH (M)
61	STRMNAM	Char	30		STREAM NAME
53	STRMWD	Num	8		STREAM WIDTH (M)
4	STRM_ID	Char	9		STREAM/SITE IDENTIFICATION CODE
69	SUB_ID	Char	3		SUBREGION IDENTIFICATION CODE
74	TIMSMP	Num	8	TIME	TIME SAMPLED (HH:MM)
14	TMPSTR	Num	8		STREAM TEMPERATURE (DEG C)
7	TURVAL	Num	8		TURBIDITY (NTU)
79	W	Num	8		REACH WEIGHTING FACTOR
76	WC	Num	8		STAGE II CONDTIONAL WEIGHT

7.1.6 Precision to which values are reported

NA

7.1.7 Minimum Value in Data Set

Name	Min
A1	0.02
A1PRIME	0.02
A2	0
A3	0
A4	0.0518
A5	0
ACC011	-85.4
ALDS16	0.0370617449
ALEX16	0
ALINOR	0
ALKA11	-1750.6
ALOR16	0
ALTL16	0
ANDEF	-1964.397878
ANSUM	50.284969703
A_WS	0
CA16	3.1437
CATSUM	68.533750895
CL16	3.3852
CO316	1.0670655E-8
COLVAL	0
COND11	7.58
CONIS	1
CONVAL	10.5
DATSMP	9207
DICE11	0
DICI11	0.059
DICVAL	0.137
DOC11	0

7.1.7 Minimum Value in Data Set, continued

Name	Min
DO_IS	0.7
DRPCDE	0
ELEV	0.3048
FE16	0
FTL16	0
GRADE	0.0122189638
H16	0.0004365158
HCO316	0.035169996
K16	0.02557
L2	0.177
LAT_STD	28.308611111
LON_STD	-73.539166667
MG16	8.06148
MN16	0
NA16	5.6115
NH416	0
NO316	0
OH16	0.0000186209
ORGION	0
PHAC11	3
PHAL11	3
PHEQ11	3.05
PHSTVL	3.27
PH_CLO	6.14
PH_R	3.39
PTD16	0
PTL16	0.0613417705
RCH_HW	1
RCH_LN	0.2253
SAMRN	0
SHRE75	1
SIO216	-0.104853206
SO416	0.966048
SOBC	45.1883
STRA250	1
STRA75	1
STRATUM	1
STRMDP	0
STRMWD	0
TIMSMP	4200
TMPSTR	2.1
TURVAL	0.03
W	0
WC	0

7.1.8 Maximum Value in Data Set

Name	Max
A1	39.51
A1PRIME	38.28
A2	50.86
A3	23.847683398
A4	109.9089
A5	142.9541
ACC011	2421.4
ALDS16	453.00200133
ALEX16	374.32362316
ALINOR	442.0539619
ALKA11	7602.8

7.1.8 Maximum Value in Data Set, continued

Name	Min
ALOR16	13.890741976
ALTL16	2742.5691202
ANDEF	2101.5448465
ANSUM	12132.196307
A_WS	193.5248
CA16	4821.4877
CATSUM	10926.620325
CL16	10719.8
CO316	170.52721703
COLVAL	900
COND11	1294
CONIS	1410
CONVAL	1376.3
DATSMP	9631
DICE11	71.2
DICI11	92.706
DICVAL	92.44
DOC11	171
DO_IS	17.1
DRPCDE	13
ELEV	1359.3417
FE16	587.39255014
FTL16	27.351744
GRADE	19.76284585
H16	537.03179637
HCO316	7254.7137944
K16	226.08994
L2	24.2678
LAT_STD	42.253611111
LON_STD	-95.899722222
MG16	3071.9997
MN16	220.24827988
NA16	8047.5
NH416	168.271488
NO316	1129.1
OH16	22.908676528
ORGION	704.51094789
PHAC11	8.92
PHAL11	8.89
PHEQ11	8.86
PHSTVL	9.36
PH_CLO	8.83
PH_R	9.43
PTD16	47.459159295
PTL16	47.459159295
RCH_HW	26
RCH_LN	32.1532
SAMRN	4
SHRE75	243
SIO216	567.95486319
SO416	7078.8
SOBC	10884.7032
STRA250	4
STRA75	6
STRATUM	3
STRMDP	7
STRMWD	900
TIMSMP	69600

7.1.8 Maximum Value in Data Set, continued

Name	Min
TMPSTR	28.8
TURVAL	1800
W	332.30769231
WC	63.097068232

7.2 Data Record Example

7.2.1 Column Names for Example Records

A1 A1PRIME A2 A3 A4 A5 ACC011 ALDS16 ALEX16 ALINOR ALKA11 ALOR16 ALTL16 ANDEF ANSUM A_WS CA16 CATSUM CL16 CO316 COLVAL COND11 CONIS CONVAL COUNTY1 COUNTY2 COUNTY3 COUNTY4 DATSMP DICE11 DICI11 DICVAL DOC11 DO_IS DRPCDE ELEV FE16 FTL16 GRADE H16 HCO316 K16 L2 LABNAM LAT_STD LON_STD MAP1 MAP2 MAP3 MAP4 MAP5 MAP6 MG16 MN16 NA16 NH416 NO316 NODE NOTSAM OH16 ORGION PHAC11 PHAL11 PHEQ11 PHSTVL PH_CLO PH_R PTD16 PTL16 QUAD RCH_HW RCH_ID RCH_LN SAMCOD SAMRN SHRE75 SIO216 SIT_CLS SO416 SOBC STATE1 STATE2 STRA250 STRA75 STRATUM STRMDP STRMNAM STRMWD STRM_ID SUB_ID TIMSMP TMPSTR TURVAL W WC

7.2.2 Example Data Records

0.98,0.98,21.25,0,2.5639,54.9027,43.9,0.618931139,0.185308724,0.011118524,
740.4,0.607812616,1.593655029,13.67916566,1176.559126,57.5757,848.3,1190.238291,
166.1569,5.373496761,5,125,87,125.2,CHAUTAUQUA, , , ,23-Apr-86,9.22,9.37,8.943,
1.87,11.2,0,410.5456,0.179083095,2.31616,0.60721721,0.012589254,721.5031406,
18.48711,2.1081,NYSDOH,42.215,79.09916667,"KENNEDY, NY 1979","CHERRY CREEK,
NY 1954","HAMLET, NY 1954","GERRY, NY 1979", , ,205.65,0.054607012,116.58,
1.208592,43.0671,L, ,0.794328235,18.53053177,7.58,7.56,7.75,7.9,.,8.24,
0.08394137,.,BUFFALO 1962,4,1D022009,2.1725,R,1,19,56.08814327, ,237.348,
1189.01711,NY, ,2,4,3,0.25,CLEAR CREEK,7,1D022009L,1D,12:25,10.5,1.2,65.30612245,1

0.98,0.98,21.25,0,2.5639,54.9027,36.2,0.333555704,0.088948188,0,1324.2,0.552219999,
0.518864428,8.473526646,1789.925089,57.5701,1312.37,1798.398616,237.5282,
8.315579285,10,186,118,187.6,CHAUTAUQUA, , , ,8-May-86,14.4,14.9,15.21,0.843,
10.6,0,410.5456,0.125358166,2.42144,0.60721721,0.013803843,1224.260234,22.96186,
2.1081,NYSDOH,42.215,79.09916667,"KENNEDY, NY 1979","CHERRY CREEK, NY 1954",
"HAMLET, NY 1954","GERRY, NY 1979", , ,315.8784,0.054607012,146.16,1.014552,
52.2612,L, ,0.72443596,8.369833642,7.73,7.73,8.29,7.86,.,7.98,0.132369084,.,
BUFFALO 1962,4,1D022009,2.1725,R,2,19,27.79442114, ,264.414,1797.37026,NY, ,2,
4,3,0.25,CLEAR CREEK,7,1D022009L,1D,7:05,8.7,0.37,65.30612245,1

0.98,0.98,21.25,0,2.5639,54.9027,42,0.678229931,0.222370469,0,763.1,0.778296642,
1.37128456,38.3759689,1183.386392,55.0321,878.24,1221.762361,162.7717,3.705548335,
10,126.4,89,121.4,CHAUTAUQUA, , , ,23-Apr-86,9.1,9.05,9.231,1.61,10.9,0,423.3465,
0.214899714,2.42144,0.60721721,0.018620871,735.9252718,18.76838,2.1081,NYSDOH,
42.22638889,79.11555556,"KENNEDY, NY 1979","CHERRY CREEK, NY 1954","HAMLET,
NY 1954","GERRY, NY 1979", , ,213.0534,0.091011686,110.49,1.19196,44.8414,U, ,
0.537031796,15.96519219,7.63,7.65,7.84,7.73,.,7.92,0.10654097,.,BUFFALO 1962,4,
1D022009,2.1725,R,1,19,51.26156714, ,233.184,1220.55178,NY, ,2,4,3,0.2,CLEAR CREEK,
6,1D022009U,1D,13:25,10.5,0.8,65.30612245,1

8. GEOGRAPHIC AND SPATIAL INFORMATION

8.1 Minimum Longitude
-83 Degrees 14 Minutes 39.98 Seconds West (-83.244438889 Decimal Degrees)

8.2 Maximum Longitude
-75 Degrees 7 Minutes 17.00 Seconds West (-75.12139 Decimal Degrees)

8.3 Minimum Latitude
36 Degrees 33 Minutes 12.60 Seconds North (36.5535 Decimal Degrees)

8.4 Maximum Latitude
41 Degrees 57 Minutes 21.65 Seconds North (41.956013889 Decimal Degrees)

8.5 Name of Area or Region
Alabama, Arkansas, Florida, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Oklahoma, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia.

9. QUALITY CONTROL / QUALITY ASSURANCE

9.1 Data Quality Objectives
See Kaufmann et al., 1988.

9.2 Quality Assurance Procedures
See Kaufmann et al., 1988.

9.3 Unassessed Errors
NA

10. DATA ACCESS

10.1 Data Access Procedures

10.2 Data Access Restrictions

10.3 Data Access Contact Persons

10.4 Data Set Format

10.5 Information Concerning Anonymous FTP

10.6 Information Concerning WWW

10.7 EMAP CD-ROM Containing the Data

11. REFERENCES

Drouse, S.K. 1987. Evaluation of Quality Assurance and Quality Control Sample Data for the National Stream Survey (Phase I- Pilot Survey). EPA/600/8-87/057. Lockheed Engineering and Management Services Company, Inc., Las Vegas, Nevada, 89109.

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12. TABLE OF ACRONYMS

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