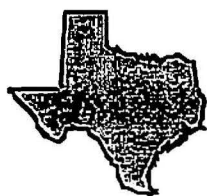




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The Edwards Aquifer Authority  
and U.S. Geological Survey  
Water Resources Program  
Quarterly Report – 10/01/1999 to 12/31/1999



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San Antonio Office  
435 Isom Road Suite 234  
San Antonio, Texas 78216  
Telephone: 210-321-5200  
Fax: 210-530-6008

## TASK 1 - SURFACE WATER GAGING

**Contacts:** EAA - Bob Hall; USGS - Buddy Miller

**Background:** This is a long-term continuous monitoring program that collects baseline data. These data are needed to estimate the recharge to and, in part, discharge from the Edwards aquifer on an annual basis.

### Objectives:

- (1) To collect surface-water data sufficient to satisfy needs for estimating the recharge to the Edwards aquifer.
- (2) To collect surface-water data necessary to determine discharge from the major springs in the Edwards aquifer.

### Tasks and Timeline:

Tasks	FY2000											
Operate and maintain nine full-range streamflow stations	■	■	■	■	■	■	■	■	■	■	■	■
Periodic measurements at two sites	■	■	■	■	■	■	■	■	■	■	■	■
Table preparation	■	■	■	■	■	■	■	■	■	■	■	■

### Deliverables for FY2K:

Daily data on the Internet; quarterly reports; data tables by January 31, 2000; published in USGS annual report April 1, 2000.

### Progress in Past Quarter:

During the quarter, nine full-range streamflow stations were operated and maintained. Periodic measurements were made at two stations. Daily data were provided on the Internet. Data tables for the annual report have been provided, along with preliminary data for the quarter.

### Plans for Next Quarter:

Continue to operate and maintain nine full-range streamflow stations. Periodic measurements will be made at two stations. Daily data will be provided on the Internet.

## UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - TEXAS DISTRICT

01/26/2000

STATION NUMBER 08169000 COMAL RIVER AT NEW BRAUNFELS, TX STREAM SOURCE AGENCY USGS  
 LATITUDE 294221 LONGITUDE 0980720 DRAINAGE AREA 130.00 DATUM 582.80 STATE 48 COUNTY 091  
 FROM THE DCP  
 DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	260	e432	429	421	411	389	384	365	346	344	339	311
2	259	e433	429	420	407	389	383	368	342	343	336	308
3	259	e433	429	415	409	389	379	369	338	348	331	304
4	259	e430	429	417	407	389	380	367	337	347	330	308
5	257	e429	429	416	407	389	382	363	337	351	331	312
6	e280	e429	429	417	406	387	380	361	333	345	330	308
7	e270	e429	428	419	406	388	383	360	329	346	333	303
8	268	e429	425	415	405	389	380	357	324	350	329	303
9	269	e429	425	414	404	387	380	359	324	343	326	303
10	270	430	428	417	404	386	377	377	318	407	323	303
11	270	430	433	418	401	385	375	364	317	446	323	302
12	270	441	428	416	399	388	372	362	338	356	319	303
13	269	438	425	415	399	391	375	361	329	352	319	301
14	271	541	424	413	400	383	378	361	324	353	319	298
15	274	459	424	414	399	384	371	360	322	349	317	297
16	273	431	427	416	399	384	372	362	320	351	314	295
17	e22000	424	425	417	398	382	371	363	322	356	308	296
18	e13000	424	426	415	396	384	370	382	322	355	310	292
19	e4200	426	426	415	395	386	367	361	326	351	309	294
20	1400	426	428	415	394	383	368	361	366	349	307	293
21	888	426	425	415	391	383	368	359	540	350	303	291
22	847	424	418	415	395	386	368	357	362	350	305	290
23	783	424	419	414	390	383	367	358	342	348	306	291
24	725	427	419	413	390	385	365	357	342	352	307	289
25	609	429	420	413	390	384	370	355	342	351	309	289
26	554	429	420	413	391	380	372	358	346	345	310	288
27	487	429	420	413	390	395	364	353	346	344	310	287
28	e442	429	419	411	389	406	367	350	345	344	307	286
29	e438	429	418	412	---	388	367	356	345	342	312	286
30	e438	429	419	411	---	385	365	353	344	340	313	286
31	e433	---	419	410	---	385	---	350	---	342	308	---
TOTAL	51522	13018	13162	12865	11172	11992	11200	11189	10268	10950	9843	8917
MEAN	1662	434	425	415	399	387	373	361	342	353	318	297
MAX	22000	541	433	421	411	406	384	382	540	446	339	312
MIN	257	424	418	410	389	380	364	350	317	340	303	286
AC-FT	102200	25820	26110	25520	22160	23790	22220	22190	20370	21720	19520	17690

e Estimated

**PROVISIONAL DATA**  
**SUBJECT TO REVISION**

## UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - TEXAS DISTRICT

01/26/2000

STATION NUMBER 08170500 SAN MARCOS RIVER AT SAN MARCOS, TX STREAM SOURCE AGENCY USGS  
 LATITUDE 295320 LONGITUDE 0975602 DRAINAGE AREA 93 DATUM 557.67 STATE 48 COUNTY 209  
 PROVISIONAL DATA FROM DCP SUBJECT TO REVISION  
 DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	396	366	335	294	254	211	182	177	188	163	133
2	209	381	368	329	292	250	210	181	178	187	161	133
3	209	378	369	326	292	249	210	182	178	186	158	134
4	210	375	369	325	293	247	208	184	178	182	158	134
5	210	376	369	325	288	246	207	183	179	183	158	132
6	236	371	369	324	288	242	205	181	178	185	156	131
7	213	374	366	323	288	239	204	179	177	183	156	129
8	213	371	367	322	286	239	204	178	176	182	153	131
9	213	372	364	320	285	239	202	176	176	182	152	133
10	213	369	367	e319	285	236	200	180	178	191	152	133
11	213	367	371	e317	281	234	198	175	177	182	151	132
12	213	369	365	e315	278	233	195	177	177	182	150	132
13	215	368	364	314	277	231	194	178	174	182	148	130
14	215	385	361	312	276	230	195	177	174	181	148	130
15	215	376	360	313	275	229	193	179	176	181	147	130
16	216	375	359	312	272	228	190	178	176	179	146	126
17	e6200	373	356	311	271	226	188	180	175	179	147	126
18	e4700	371	357	308	270	227	189	180	176	178	146	127
19	e1650	372	353	307	269	224	188	179	175	176	144	127
20	e1040	373	351	307	267	222	188	181	186	175	142	125
21	e820	374	351	306	262	220	186	181	211	177	143	125
22	713	372	345	305	262	218	186	182	186	176	143	125
23	659	368	345	301	262	216	186	182	188	176	141	127
24	595	370	342	299	260	213	186	180	190	174	139	126
25	424	369	342	297	259	212	190	180	206	173	139	126
26	403	368	340	296	258	212	191	180	194	170	138	126
27	401	369	339	301	258	217	185	181	191	168	137	125
28	405	370	337	301	256	216	185	188	190	167	138	127
29	397	370	334	300	---	211	183	180	190	169	137	127
30	388	366	334	299	---	210	183	180	189	168	134	125
31	384	---	331	296	---	211	---	179	---	167	133	---
TOTAL	22600	11188	11011	9665	7704	7081	5840	5583	5476	5529	4558	3867
MEAN	729	373	355	312	275	228	195	180	183	178	147	129
MAX	6200	396	371	335	294	254	211	188	211	191	163	134
MIN	208	366	331	296	256	210	183	175	174	167	133	125
AC-FT	44830	22190	21840	19170	15280	14050	11580	11070	10860	10970	9040	7670

e Estimated

**PROVISIONAL DATA**  
**SUBJECT TO REVISION**

## UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - TEXAS DISTRICT

01/26/2000

STATION NUMBER 08178880 MEDINA RIVER AT BANDERA, TX STREAM SOURCE AGENCY USGS  
 LATITUDE 294325 LONGITUDE 0990411 DRAINAGE AREA 427.00 DATUM 1189.46 STATE 48 COUNTY 019

FROM DCP

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	415	197	123	97	75	86	72	82	111	60	42
2	2660	469	191	122	94	75	85	77	77	108	60	41
3	547	348	184	121	95	73	84	78	73	107	59	41
4	306	305	179	119	95	72	83	78	70	109	60	40
5	237	419	174	119	94	72	82	75	67	109	62	39
6	482	375	168	119	94	70	80	70	63	109	61	38
7	366	362	157	117	95	69	79	67	61	107	60	39
8	280	342	146	117	93	70	80	64	60	106	59	40
9	231	324	142	115	93	69	80	64	61	104	58	40
10	200	304	219	113	93	69	79	85	61	112	57	42
11	179	278	249	112	90	68	77	92	59	1050	54	40
12	167	269	201	112	88	68	75	98	58	368	53	39
13	158	280	177	110	89	74	75	94	258	171	52	37
14	152	369	165	109	88	77	75	91	72	123	51	37
15	146	416	157	108	88	74	73	88	66	103	50	37
16	138	386	149	107	87	72	74	86	72	90	48	35
17	150	365	148	107	86	71	72	85	66	83	47	34
18	316	349	147	106	86	75	72	87	65	79	47	34
19	335	337	144	105	85	83	70	89	65	78	46	34
20	287	322	141	105	84	80	69	89	72	77	44	33
21	253	306	139	104	83	78	67	87	1020	75	43	32
22	224	291	133	104	81	77	66	85	588	73	42	31
23	203	280	127	102	81	75	66	81	342	70	42	31
24	189	269	127	100	80	75	68	78	248	69	45	31
25	181	260	126	100	79	74	73	75	193	67	49	31
26	174	249	124	101	79	75	83	72	166	64	49	31
27	169	239	124	100	79	77	84	70	153	64	46	30
28	165	230	124	99	77	89	82	156	138	63	43	28
29	160	222	123	100	---	93	78	112	128	63	42	29
30	156	210	122	98	---	89	74	92	119	62	43	26
31	152	---	122	97	---	87	---	87	---	62	42	---
TOTAL	9416	9590	4826	3371	2453	2345	2291	2624	4623	4036	1574	1062
MEAN	304	320	156	109	87.6	75.6	76.4	84.6	154	130	50.8	35.4
MAX	2660	469	249	123	97	93	86	156	1020	1050	62	42
MIN	53	210	122	97	77	68	66	64	58	62	42	26
AC-FT	18680	19020	9570	6690	4870	4650	4540	5200	9170	8010	3120	2110

**PROVISIONAL DATA**  
**SUBJECT TO REVISION**

STATION NUMBER 08183850 CIBOLO CREEK AT IIR-10 ABOVE BOERNKE, TX STREAM SOURCE AGENCY USGS  
 LATITUDE 294852 LONGITUDE 0984512 DRAINAGE AREA 29.0 DATUM 1428.5 STATE 48 COUNTY 259  
 PROVISIONAL DATA FROM DCP SUBJECT TO REVISION  
 DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	95	27	12	12	7.9	7.1	2.4	3.0	3.3	3.8	.68
2	1.9	73	27	12	11	7.9	7.1	2.9	2.6	2.6	3.7	.77
3	1.7	51	26	10	10	6.3	6.9	3.6	2.5	2.0	2.8	.66
4	1.7	43	24	9.5	9.9	5.1	6.5	3.8	2.6	1.9	5.7	.67
5	1.6	56	24	9.3	11	4.9	6.5	3.1	2.6	3.2	10	.65
6	27	47	23	10	11	4.3	4.4	2.0	2.4	3.5	8.6	.66
7	12	51	21	10	10	4.5	4.1	1.5	2.4	4.0	6.5	.74
8	9.2	48	18	11	9.6	5.5	4.2	1.5	2.3	3.1	5.1	.70
9	7.3	46	16	10	9.7	5.1	4.2	1.9	2.2	2.6	3.1	.60
10	5.8	43	24	9.4	9.3	4.3	4.1	13	2.1	2.3	2.1	.51
11	5.0	38	25	10	9.9	4.1	2.8	7.8	2.0	168	1.7	.48
12	4.6	39	20	11	7.4	4.9	2.4	7.4	2.2	119	1.6	.47
13	4.2	44	18	10	6.5	6.9	2.7	6.7	2.0	55	1.5	.44
14	3.8	76	16	10	6.9	4.5	3.5	6.5	1.0	35	1.3	.36
15	3.2	76	15	9.5	6.9	3.3	3.7	6.2	1.3	24	1.2	.39
16	3.1	65	15	8.7	6.7	3.3	1.6	6.1	1.6	18	.87	.37
17	21	59	14	9.0	7.2	3.1	1.5	5.9	1.6	15	.74	.34
18	97	55	14	8.4	6.9	7.7	1.5	7.8	1.6	13	.80	.39
19	83	52	14	8.7	6.6	12	1.5	6.7	1.7	11	.71	.43
20	57	49	14	9.1	7.2	8.6	1.7	6.4	17	11	.64	.45
21	43	44	15	10	7.3	6.4	1.6	5.5	40	10	.70	.44
22	35	41	13	11	6.2	5.7	1.7	5.1	33	10	.78	.45
23	31	40	11	9.3	7.0	5.0	1.7	4.6	23	8.3	.79	.52
24	28	38	11	8.9	7.6	4.8	1.4	4.4	14	8.1	1.2	.60
25	24	37	10	8.8	8.5	4.9	2.4	4.0	10	7.5	.75	.66
26	23	35	11	9.8	9.2	4.6	7.0	3.0	8.3	6.3	.70	.60
27	22	34	11	10	9.8	7.0	5.8	2.5	7.4	6.2	e.80	.46
28	20	33	11	12	8.3	16	4.5	2.4	5.2	6.4	e.90	.41
29	18	32	11	12	---	11	3.4	2.7	4.5	5.9	e1.0	.36
30	17	30	11	12	---	8.5	3.3	2.7	4.4	4.7	e.90	.35
31	16	---	11	11	---	7.4	---	2.9	---	4.0	.68	---
TOTAL	629.0	1470	521	312.4	239.6	195.5	110.8	143.0	206.5	574.9	71.66	15.61
MEAN	20.3	49.0	16.8	10.1	8.56	6.31	3.69	4.61	6.88	18.5	2.31	.52
MAX	97	95	27	12	12	16	7.1	13	40	168	10	.77
MIN	1.6	30	10	8.4	6.2	3.1	1.4	1.5	1.0	1.9	.64	.34
AC-FT	1250	2920	1030	620	475	388	220	284	410	1140	142	31

e Estimated

**PROVISIONAL DATA**  
**SUBJECT TO REVISION**

## UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - TEXAS DISTRICT

01/26/2000

STATION NUMBER 08185000 CIBOLO CREEK AT SELMA, TX STREAM SOURCE AGENCY USGS

LATITUDE 293538 LONGITUDE 0981839 DRAINAGE AREA 274.00 DATUM 728.34 STATE 48 COUNTY 029

PROVISIONAL DATA

SUBJECT TO REVISION

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	3.1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.66	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	---	4.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	---	37	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	---	26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	806	15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	445	6.2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	280	.94	.00	.00	.00	.00	.00	e.00	.00	.00	.00	.00
23	190	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00	.00
24	132	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	91	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	61	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	40	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	15	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	6.7	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	1.6	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	---	92.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	---	3.10	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
MAX	---	37	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	---	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	---	184	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

e Estimated

**PROVISIONAL DATA**  
**SUBJECT TO REVISION**

## UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - TEXAS DISTRICT

01/26/2000

STATION NUMBER 08190500 WEST NUECES RIVER NR BRACKETTVILLE, TX STREAM SOURCE AGENCY USGS  
 LATITUDE 292821 LONGITUDE 1001410 DRAINAGE AREA 694.00 DATUM 1326.79 STATE 48 COUNTY 271  
 FROM DCP

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	13	7.1	3.9	3.8	1.9	3.5	9.9	1.1	4.2	2.3	.84
2	49	13	7.0	3.6	3.8	1.9	2.7	8.5	1.1	3.8	2.1	.84
3	46	13	6.7	3.7	3.8	1.9	2.1	7.3	1.0	3.5	2.0	.85
4	44	12	6.6	3.6	3.8	2.0	1.7	6.3	1.0	3.4	1.9	.84
5	43	11	6.7	3.6	3.9	1.9	1.3	5.4	1.0	3.0	1.8	.84
6	55	11	6.5	3.5	3.8	1.9	1.2	4.9	1.0	2.6	1.7	.84
7	60	11	6.1	3.4	3.5	2.1	1.2	4.2	.96	2.8	1.7	.84
8	59	11	6.0	3.4	3.2	2.0	1.2	3.6	.92	2.9	1.5	.84
9	53	11	6.0	3.2	3.2	1.8	1.2	3.1	.93	2.7	1.4	.95
10	47	9.8	6.1	3.2	3.5	1.7	1.0	2.7	1.0	2.5	1.4	.94
11	42	10	5.9	3.1	3.2	1.7	.96	2.5	.98	3.6	1.3	.81
12	38	10	5.8	3.0	3.0	1.8	1.0	2.6	.98	5.9	1.3	.77
13	34	10	5.7	3.1	3.0	1.4	1.0	2.2	1.3	8.0	1.2	1.4
14	31	9.8	5.5	3.1	2.9	1.4	1.1	2.2	1.4	8.8	1.2	1.4
15	29	9.4	5.5	3.0	2.9	1.5	.95	2.1	1.4	8.4	1.2	.98
16	26	9.4	5.5	3.0	2.8	1.5	1.0	1.9	1.3	8.1	1.1	.82
17	25	9.4	5.5	3.0	2.8	1.7	1.0	1.8	1.2	7.5	1.1	.68
18	24	9.4	5.4	3.0	2.7	1.8	1.0	1.7	1.1	7.0	1.1	.67
19	22	8.7	5.3	2.9	2.7	1.6	.99	1.5	1.0	6.4	1.1	.68
20	21	8.9	5.3	2.9	2.4	1.5	.98	1.4	1.6	5.9	1.0	.67
21	19	8.7	5.2	2.9	2.4	1.3	1.0	1.4	2.9	5.5	1.0	.64
22	18	8.7	4.8	2.8	2.4	1.2	.99	1.4	5.7	5.2	1.0	.63
23	17	8.7	4.8	4.0	2.3	1.2	.93	1.3	8.5	4.8	1.0	.66
24	16	8.4	4.8	4.3	2.4	1.2	.93	1.2	9.4	4.2	1.2	.63
25	15	8.1	4.8	4.4	2.3	1.2	3.0	1.2	8.9	4.0	1.1	.67
26	14	7.9	4.6	4.5	2.3	1.2	5.3	1.2	7.8	3.6	1.0	.67
27	14	7.7	4.5	4.3	2.2	2.1	9.7	1.3	6.6	3.3	.93	.67
28	13	7.7	4.3	4.1	2.1	2.0	12	1.2	5.6	3.0	.93	.67
29	13	7.3	4.2	3.9	---	5.6	12	1.2	5.1	2.8	.91	.61
30	12	6.9	4.1	3.6	---	6.3	11	1.1	4.6	2.6	.84	.64
31	12	---	4.1	3.8	---	4.9	---	1.1	---	2.4	.84	---
TOTAL	960	290.9	170.4	107.8	83.1	63.2	83.93	89.4	87.37	142.4	40.15	23.99
MEAN	31.0	9.70	5.50	3.48	2.97	2.04	2.80	2.88	2.91	4.59	1.30	.80
MAX	60	13	7.1	4.5	3.9	6.3	12	9.9	9.4	8.8	2.3	1.4
MIN	12	6.9	4.1	2.8	2.1	1.2	.93	1.1	.92	2.4	.84	.61
AC-FT	1900	577	338	214	165	125	166	177	173	282	80	48

**PROVISIONAL DATA  
 SUBJECT TO REVISION**



## UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - TEXAS DISTRICT

01/26/2000

STATION NUMBER 08192000 NUECES RIVER BELOW UVALDE, TX STREAM SOURCE AGENCY USGS  
 LATITUDE 290725 LONGITUDE 0995340 DRAINAGE AREA 1861 DATUM 796.12 STATE 48 COUNTY 463

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	386	361	307	221	159	120	163	361	117	295	136	67
2	388	436	305	216	160	117	163	324	113	281	130	67
3	373	477	304	212	160	116	159	303	109	271	126	66
4	361	455	296	209	157	115	156	285	103	268	122	64
5	349	445	298	208	157	115	150	263	99	258	117	62
6	451	423	295	207	156	114	146	241	94	244	114	62
7	464	428	289	204	153	114	141	222	89	242	110	62
8	456	420	282	204	152	114	137	206	85	238	105	61
9	425	412	280	198	150	114	136	195	82	232	101	59
10	400	400	291	196	149	113	133	186	79	226	98	59
11	381	388	287	196	145	113	128	192	76	304	94	58
12	365	384	277	196	141	117	123	423	73	348	92	56
13	354	384	272	195	140	119	123	378	76	274	89	55
14	343	419	268	190	139	127	121	329	78	253	85	55
15	331	403	265	190	141	120	116	291	103	239	81	54
16	322	399	260	188	139	117	111	267	100	228	80	53
17	320	388	259	187	136	114	110	248	92	219	80	53
18	3630	376	259	184	134	112	107	233	87	212	79	53
19	1410	367	257	183	131	111	105	226	82	208	77	51
20	743	358	255	180	129	111	104	209	91	206	75	51
21	603	356	255	179	127	111	101	196	594	197	74	51
22	529	356	246	171	125	115	98	186	1360	189	73	51
23	476	348	242	170	125	119	95	177	735	182	74	51
24	447	344	239	170	125	122	91	171	548	175	81	51
25	421	339	237	170	125	136	100	161	439	171	74	51
26	404	332	234	169	125	131	328	151	393	165	73	50
27	392	328	233	166	124	146	825	145	370	160	73	50
28	379	324	230	165	122	177	608	140	350	155	73	50
29	369	321	228	161	---	167	457	133	329	149	72	50
30	358	314	224	157	---	162	404	127	314	144	70	50
31	348	---	221	157	---	161	---	123	---	139	69	---
TOTAL	16978	11485	8195	5799	3926	3860	5739	7092	7260	6872	2797	1673
MEAN	548	383	264	187	140	125	191	229	242	222	90.2	55.8
MAX	3630	477	307	221	160	177	825	423	1360	348	136	67
MIN	320	314	221	157	122	111	91	123	73	139	69	50
AC-FT	33680	22780	16250	11500	7790	7660	11380	14070	14400	13630	5550	3320

**PROVISIONAL DATA  
 SUBJECT TO REVISION**

## UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - TEXAS DISTRICT

01/26/2000

STATION NUMBER 08195000 FRIO RIVER AT CONCAN, TX STREAM SOURCE AGENCY USGS  
 LATITUDE 292918 LONGITUDE 0994216 DRAINAGE AREA 389.00 DATUM 1203.71 STATE 48 COUNTY 463  
 FROM DCP

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	283	180	129	102	86	105	158	89	190	105	66
2	158	317	180	126	102	84	105	151	88	181	103	65
3	158	289	177	122	100	83	102	148	85	174	100	65
4	158	266	176	122	98	83	101	150	81	170	98	64
5	158	267	175	122	98	84	97	143	80	166	95	63
6	166	276	171	122	98	83	93	131	80	160	94	67
7	168	272	167	122	98	84	92	123	77	154	91	66
8	166	257	163	120	95	86	92	121	77	155	91	63
9	160	249	162	117	95	84	92	117	75	150	91	67
10	153	235	177	115	95	83	92	115	72	144	89	67
11	148	228	175	115	96	87	89	119	72	212	86	64
12	145	222	165	115	92	89	89	150	70	202	85	62
13	143	222	163	115	92	91	86	151	101	191	83	60
14	140	247	159	113	92	86	86	141	79	175	80	60
15	137	247	155	111	92	83	84	135	108	164	78	58
16	137	242	154	111	92	83	83	131	106	156	77	58
17	137	235	150	109	92	83	83	126	86	150	75	56
18	957	230	150	108	92	89	83	132	81	149	75	56
19	276	228	147	111	90	90	83	127	80	144	72	56
20	241	224	145	111	89	86	80	131	88	140	72	54
21	227	219	145	111	89	86	80	123	464	135	71	53
22	e213	213	142	108	89	83	80	118	637	133	70	52
23	e203	206	141	105	86	83	79	114	349	132	70	52
24	e196	202	137	105	86	83	77	109	280	128	72	52
25	e188	199	137	105	87	85	197	105	244	122	75	52
26	e181	196	137	105	89	88	500	102	244	121	75	52
27	e176	194	133	105	89	89	288	99	236	116	72	52
28	e171	194	133	105	87	115	215	98	220	115	70	52
29	e167	190	130	103	---	108	182	95	204	111	70	50
30	163	186	129	102	---	102	167	92	200	108	67	48
31	158	---	129	102	---	102	---	92	---	107	67	---
TOTAL	6110	7035	4784	3492	2602	2731	3682	3847	4753	4655	2519	1752
MEAN	197	234	154	113	92.9	88.1	123	124	158	150	81.3	58.4
MAX	957	317	180	129	102	115	500	158	637	212	105	67
MIN	137	186	129	102	86	83	77	92	70	107	67	48
AC-FT	12120	13950	9490	6930	5160	5420	7300	7630	9430	9230	5000	3480
CFSM	.51	.60	.40	.29	.24	.23	.32	.32	.41	.39	.21	.15
IN.	.58	.67	.46	.33	.25	.26	.35	.37	.45	.45	.24	.17

e Estimated

**PROVISIONAL DATA  
 SUBJECT TO REVISION**

STATION NUMBER 08198500 SABINAL RIVER AT SABINAL, TX STREAM SOURCE AGENCY USGS  
 LATITUDE 291805 LONGITUDE 0992846 DRAINAGE AREA 241.00 DATUM 882.17 STATE 48 COUNTY 463

FROM THE DCP

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	92	34	6.8	3.6	2.4	2.4	e2.1	1.8	1.8	e2.4	2.0
2	24	225	32	6.6	3.5	2.4	2.4	e2.1	1.7	1.7	e2.4	2.0
3	37	126	30	6.5	3.4	2.4	2.3	e2.1	1.7	1.7	e2.4	1.9
4	12	99	28	6.3	3.4	2.3	2.2	e2.0	1.8	1.7	e2.4	1.9
5	8.4	101	25	6.1	3.4	2.3	2.2	e2.0	1.8	1.7	e2.4	1.8
6	10	112	22	5.9	3.3	2.2	2.3	2.0	1.8	1.7	e2.3	1.9
7	8.1	106	20	5.8	3.2	2.2	2.3	1.9	1.7	1.6	e2.3	2.2
8	7.3	99	18	5.7	3.1	2.2	2.2	1.9	1.7	1.6	2.3	2.0
9	7.0	88	16	5.4	3.0	2.1	2.3	1.9	1.7	1.6	2.3	2.0
10	6.8	80	16	5.3	3.0	2.1	2.2	1.9	1.8	1.5	2.3	2.0
11	6.6	69	27	5.3	2.9	2.1	2.2	1.9	1.7	55	2.3	2.0
12	6.3	66	28	5.1	2.9	2.3	2.2	2.0	1.8	14	2.3	1.9
13	6.1	69	23	5.0	2.9	2.4	2.1	1.9	2.1	4.4	2.3	1.9
14	5.9	98	19	4.8	2.8	2.3	2.1	2.0	2.3	4.1	2.4	1.9
15	5.8	101	16	4.6	2.7	2.4	2.1	1.9	2.2	3.9	2.4	2.0
16	5.6	89	14	4.6	2.7	2.4	2.1	1.9	2.1	3.7	2.3	1.7
17	5.6	84	13	4.4	2.7	2.3	2.1	1.9	2.1	3.8	2.4	1.7
18	1470	80	12	4.3	2.6	2.3	2.1	1.9	2.2	3.7	2.5	1.7
19	283	77	11	4.3	2.6	2.3	2.0	1.8	2.1	3.4	2.5	1.6
20	185	73	11	4.1	2.6	2.2	2.0	1.8	2.8	3.3	2.4	1.5
21	152	69	9.9	4.0	2.6	2.2	2.1	1.8	3.1	3.1	2.6	1.5
22	129	66	9.7	3.9	2.6	2.2	2.1	1.8	2.2	3.1	2.5	1.4
23	111	63	9.5	4.1	2.7	2.1	2.0	1.7	2.1	3.0	2.6	1.4
24	98	59	9.0	4.3	2.7	2.1	1.9	1.7	2.1	3.0	3.1	1.3
25	87	56	8.6	4.1	2.7	2.1	2.4	1.7	2.1	2.9	2.7	1.3
26	79	52	8.4	4.0	2.6	2.2	2.3	1.6	2.1	2.9	2.4	1.3
27	69	48	8.1	4.0	2.5	2.6	2.1	1.7	2.1	2.7	2.2	1.3
28	60	46	7.8	3.9	2.5	2.7	e2.1	1.6	2.0	2.5	2.1	1.3
29	53	43	7.5	3.8	---	2.4	e2.1	1.7	2.0	e2.5	2.0	1.3
30	46	39	7.2	3.7	---	2.4	e2.1	1.8	1.9	e2.5	2.0	1.6
31	40	---	7.0	3.7	---	2.4	---	1.8	---	e2.5	2.0	---
TOTAL	3032.7	2475	507.7	150.4	81.2	71.0	65.0	57.8	60.6	146.6	73.5	51.3
MEAN	97.8	82.5	16.4	4.85	2.90	2.29	2.17	1.86	2.02	4.73	2.37	1.71
MAX	1470	225	34	6.8	3.6	2.7	2.4	2.1	3.1	55	3.1	2.2
MIN	5.6	39	7.0	3.7	2.5	2.1	1.9	1.6	1.7	1.5	2.0	1.3
AC-FT	6020	4910	1010	298	161	141	129	115	120	291	146	102

e Estimated

**PROVISIONAL DATA**  
**SUBJECT TO REVISION**

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION  
SUMMARY OF DISCHARGE MEASUREMENT DATA

08168000  
HUECO SPRINGS NEAR NEW BRAUNFELS, TX (PR)

1999 WATER YEAR

DATE PROCESSED: 26-Jan-2000 14:36

NO.	DATE TIME	MADE BY	WIDTH	AREA	MEAN VEL.	GAGE HEIGHT	DISCHARGE CFS	SHIFT ADJ.	PCT. DIFF.	NO. SECT.	GHT. CHG.	TIME	RATED	CONTROL
381	1998/10/02 0945	JOP	42.5	29.0	1.28		37.0			49		0.0	F	ALGAE
		REMARKS: SPRING "A" = 29.8 CFS; SPRING "B" = 7.25 CFS.												
382	1998/12/12 1400	JOP	53.5	70.5	1.20		84.7			60		0.0	G	HVY DEBRIS
		REMARKS: SPRING "A" = 52.2 CFS; SPRING "B" = 32.5 CFS.												
383	1999/02/08 1249	JOP	50.0	61.2	1.22		74.4			50		0.0	G	HVY DEBRIS
		REMARKS: SPRING "A" = 46.9 CFS; SPRING "B" = 27.5 CFS.												
384	1999/04/08 1438	JOP	48.5	47.9	1.13		54.2			51		0.0	G	CLEAR
		REMARKS: SPRING "A" = 32.3 CFS; SPRING "B" = 21.9 CFS. TOOK STATION PHOTOS.												
385	1999/06/11 1345	JOP	40.0	23.5	1.48		34.9			43		0.0	F	CLEAR
		REMARKS: SPRING "A" = 31.3 CFS; SPRING "B" = 3.66 CFS.												
386	1999/08/16 1406	JOP	18.5	14.3	1.79		25.6			19		0.0	F	ALGAE
		REMARKS: SPRING "A" = 25.6 CFS; SPRING "B" NO FLOW.												

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION  
SUMMARY OF DISCHARGE MEASUREMENT DATA

08204000  
LEONA RIVER SPRING FLOW NR UVALDE, TX

1999 WATER YEAR

DATE PROCESSED: 26-Jan-2000 14:36

NO.	DATE TIME	MADE BY	WIDTH	AREA	MEAN VEL.	GAGE HEIGHT	DISCHARGE CFS	SHIFT ADJ.	PCT. DIFF.	NO. SECT.	GHT. CHG.	TIME	RATED	CONTROL
528	1998/10/08 1652	JFW	26.7	21.0	1.70	1.94	31.9			31	0.00	1.0	G	CLEAR
		REMARKS: Flow at Cook's Slough (3.94 cfs) was subtracted from total flow measured (35.8 cfs).												
529	1998/12/03 1659	JFW	26.7	22.6	1.96	2.07	42.5			28	0.00	1.0	G	CLEAR
		REMARKS: Flow at Cook's Slough (1.71 cfs) was subtracted from total flow measured (44.2 cfs).												
530	1999/01/26 1602	JFW	27.0	22.4	1.83	2.02	39.5			27	0.00	1.0	G	CLEAR
		REMARKS: Flow at Cook's Slough (1.50 cfs) was subtracted from total flow measured (41.0 cfs).												
531	1999/03/22 1518	JFW	25.7	21.2	1.77	1.99	37.2			27	0.00	1.0	G	CLEAR
		REMARKS: Flow at Cook's Slough (0.31 cfs) was subtracted from total flow measured (37.5 cfs).												
532	1999/05/17 1725	JFW	27.6	22.4	1.92	2.03	39.8			28	0.00	1.0	G	CLEAR
		REMARKS: Flow at Cook's Slough (3.17 cfs) was subtracted from total flow measured (43.0 cfs).												
533	1999/07/14 1534	JFW	26.0	22.4	1.88	2.02	38.9			27	0.00	1.0	G	CLEAR
		REMARKS: Flow at Cook's Slough (3.37 cfs) was subtracted from total flow measured (42.2 cfs).												
534	1999/08/30 1518	JFW	27.1	22.4	1.84	2.02	37.9			31	0.00	1.0	G	CLEAR
		REMARKS: Flow at Cook's Slough (3.29 cfs) was subtracted from total flow measured (41.2 cfs).												

**PROVISIONAL DATA  
SUBJECT TO REVISION**

STATION NUMBER 08169000 COMAL RIVER AT NEW BRAUNFELS, TX STREAM SOURCE AGENCY USGS

LATITUDE 294221 LONGITUDE 0980720 DRAINAGE AREA 130.00 DATUM 582.80 STATE 48 COUNTY 091  
 PROVISIONAL DATA FROM THE DCP SUBJECT TO REVISION  
 DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	286	---	299	---	---	---	---	---	---	---	---	---
2	286	295	300	---	---	---	---	---	---	---	---	---
3	286	295	300	---	---	---	---	---	---	---	---	---
4	284	296	304	---	---	---	---	---	---	---	---	---
5	285	296	303	---	---	---	---	---	---	---	---	---
6	283	296	303	---	---	---	---	---	---	---	---	---
7	280	297	302	---	---	---	---	---	---	---	---	---
8	281	300	304	---	---	---	---	---	---	---	---	---
9	281	296	303	---	---	---	---	---	---	---	---	---
10	280	297	303	---	---	---	---	---	---	---	---	---
11	278	297	303	---	---	---	---	---	---	---	---	---
12	278	295	303	---	---	---	---	---	---	---	---	---
13	278	297	301	---	---	---	---	---	---	---	---	---
14	277	297	296	---	---	---	---	---	---	---	---	---
15	276	298	294	---	---	---	---	---	---	---	---	---
16	278	296	294	---	---	---	---	---	---	---	---	---
17	281	295	294	---	---	---	---	---	---	---	---	---
18	287	296	295	---	---	---	---	---	---	---	---	---
19	286	296	297	---	---	---	---	---	---	---	---	---
20	286	296	297	---	---	---	---	---	---	---	---	---
21	286	299	295	---	---	---	---	---	---	---	---	---
22	288	300	295	---	---	---	---	---	---	---	---	---
23	289	298	295	---	---	---	---	---	---	---	---	---
24	292	298	297	---	---	---	---	---	---	---	---	---
25	292	300	301	---	---	---	---	---	---	---	---	---
26	290	303	---	---	---	---	---	---	---	---	---	---
27	290	303	---	---	---	---	---	---	---	---	---	---
28	292	303	---	---	---	---	---	---	---	---	---	---
29	293	302	---	---	---	---	---	---	---	---	---	---
30	293	301	286	---	---	---	---	---	---	---	---	---
31	---	---	289	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
AC-FT	---	---	---	---	---	---	---	---	---	---	---	---

**PROVISIONAL DATA**  
**SUBJECT TO REVISION**

STATION NUMBER 08170500 SAN MARCOS RIVER AT SAN MARCOS, TX STREAM SOURCE AGENCY USGS  
 LATITUDE 295320 LONGITUDE 0975602 DRAINAGE AREA 93 DATUM 557.67 STATE 48 COUNTY 209  
 PROVISIONAL DATA FROM DCP SUBJECT TO REVISION  
 DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	107	120	---	---	---	---	---	---	---	---	---
2	125	106	120	---	---	---	---	---	---	---	---	---
3	124	107	120	---	---	---	---	---	---	---	---	---
4	120	108	120	---	---	---	---	---	---	---	---	---
5	119	108	120	---	---	---	---	---	---	---	---	---
6	119	109	120	---	---	---	---	---	---	---	---	---
7	118	110	120	---	---	---	---	---	---	---	---	---
8	117	109	120	---	---	---	---	---	---	---	---	---
9	116	109	---	---	---	---	---	---	---	---	---	---
10	116	109	119	---	---	---	---	---	---	---	---	---
11	114	110	120	---	---	---	---	---	---	---	---	---
12	116	110	119	---	---	---	---	---	---	---	---	---
13	115	110	118	---	---	---	---	---	---	---	---	---
14	113	110	117	---	---	---	---	---	---	---	---	---
15	113	110	119	---	---	---	---	---	---	---	---	---
16	114	110	119	---	---	---	---	---	---	---	---	---
17	111	110	119	---	---	---	---	---	---	---	---	---
18	114	113	118	---	---	---	---	---	---	---	---	---
19	111	113	119	---	---	---	---	---	---	---	---	---
20	111	113	118	---	---	---	---	---	---	---	---	---
21	113	114	118	---	---	---	---	---	---	---	---	---
22	114	114	118	---	---	---	---	---	---	---	---	---
23	112	113	117	---	---	---	---	---	---	---	---	---
24	112	113	117	---	---	---	---	---	---	---	---	---
25	111	114	117	---	---	---	---	---	---	---	---	---
26	108	114	117	---	---	---	---	---	---	---	---	---
27	107	114	117	---	---	---	---	---	---	---	---	---
28	107	114	117	---	---	---	---	---	---	---	---	---
29	108	119	117	---	---	---	---	---	---	---	---	---
30	110	120	117	---	---	---	---	---	---	---	---	---
31	109	---	117	---	---	---	---	---	---	---	---	---
TOTAL	3542	3340	---	---	---	---	---	---	---	---	---	---
MEAN	114	111	---	---	---	---	---	---	---	---	---	---
MAX	125	120	---	---	---	---	---	---	---	---	---	---
MIN	107	106	---	---	---	---	---	---	---	---	---	---
AC-FT	7030	6620	---	---	---	---	---	---	---	---	---	---

**PROVISIONAL DATA**  
**SUBJECT TO REVISION**

STATION NUMBER 08178880 MEDINA RIVER AT BANDERA, TX STREAM SOURCE AGENCY USGS

LATITUDE 294325 LONGITUDE 0990411 DRAINAGE AREA 427.00 DATUM 1189.46 STATE 48 COUNTY 019

PROVISIONAL DATA

FROM DCP

SUBJECT TO REVISION

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	27	38	---	---	---	---	---	---	---	---	---
2	25	27	39	---	---	---	---	---	---	---	---	---
3	24	25	40	---	---	---	---	---	---	---	---	---
4	24	25	40	---	---	---	---	---	---	---	---	---
5	23	26	39	---	---	---	---	---	---	---	---	---
6	23	27	39	---	---	---	---	---	---	---	---	---
7	23	26	41	---	---	---	---	---	---	---	---	---
8	22	25	43	---	---	---	---	---	---	---	---	---
9	21	26	44	---	---	---	---	---	---	---	---	---
10	21	26	43	---	---	---	---	---	---	---	---	---
11	21	26	45	---	---	---	---	---	---	---	---	---
12	22	26	57	---	---	---	---	---	---	---	---	---
13	20	26	50	---	---	---	---	---	---	---	---	---
14	21	27	52	---	---	---	---	---	---	---	---	---
15	25	26	55	---	---	---	---	---	---	---	---	---
16	25	26	54	---	---	---	---	---	---	---	---	---
17	43	26	53	---	---	---	---	---	---	---	---	---
18	37	27	54	---	---	---	---	---	---	---	---	---
19	37	27	54	---	---	---	---	---	---	---	---	---
20	38	28	56	---	---	---	---	---	---	---	---	---
21	36	29	56	---	---	---	---	---	---	---	---	---
22	34	30	56	---	---	---	---	---	---	---	---	---
23	33	31	57	---	---	---	---	---	---	---	---	---
24	32	31	58	---	---	---	---	---	---	---	---	---
25	31	32	59	---	---	---	---	---	---	---	---	---
26	28	33	60	---	---	---	---	---	---	---	---	---
27	29	34	60	---	---	---	---	---	---	---	---	---
28	28	37	59	---	---	---	---	---	---	---	---	---
29	28	38	59	---	---	---	---	---	---	---	---	---
30	33	36	60	---	---	---	---	---	---	---	---	---
31	31	---	62	---	---	---	---	---	---	---	---	---
TOTAL	863	856	1582	---	---	---	---	---	---	---	---	---
MEAN	27.8	28.5	51.0	---	---	---	---	---	---	---	---	---
MAX	43	38	62	---	---	---	---	---	---	---	---	---
MIN	20	25	38	---	---	---	---	---	---	---	---	---
AC-FT	1710	1700	3140	---	---	---	---	---	---	---	---	---

**PROVISIONAL DATA**  
**SUBJECT TO REVISION**

STATION NUMBER 08183850 CIBOLO CREEK AT IH-10 ABOVE BOERNE, TX STREAM SOURCE AGENCY USGS  
 LATITUDE 294852 LONGITUDE 0984512 DRAINAGE AREA 29.0 DATUM 1428.5 STATE 48 COUNTY 259  
 PROVISIONAL DATA FROM DCP SUBJECT TO REVISION  
 DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	.31	.20	---	---	---	---	---	---	---	---	---
2	.27	.27	.19	---	---	---	---	---	---	---	---	---
3	.49	.27	.17	---	---	---	---	---	---	---	---	---
4	.47	.33	.11	---	---	---	---	---	---	---	---	---
5	.45	.38	.10	---	---	---	---	---	---	---	---	---
6	.35	.34	.06	---	---	---	---	---	---	---	---	---
7	.24	.35	.11	---	---	---	---	---	---	---	---	---
8	.23	.36	.13	---	---	---	---	---	---	---	---	---
9	.21	.37	.09	---	---	---	---	---	---	---	---	---
10	.25	.44	.10	---	---	---	---	---	---	---	---	---
11	.32	.46	.13	---	---	---	---	---	---	---	---	---
12	.46	.40	.14	---	---	---	---	---	---	---	---	---
13	.43	.38	.10	---	---	---	---	---	---	---	---	---
14	.43	.38	.12	---	---	---	---	---	---	---	---	---
15	.44	.25	.11	---	---	---	---	---	---	---	---	---
16	.40	.17	.10	---	---	---	---	---	---	---	---	---
17	.56	.19	.11	---	---	---	---	---	---	---	---	---
18	.49	.24	.10	---	---	---	---	---	---	---	---	---
19	.42	.23	.12	---	---	---	---	---	---	---	---	---
20	.46	.26	.11	---	---	---	---	---	---	---	---	---
21	.45	.27	.09	---	---	---	---	---	---	---	---	---
22	.47	.34	.10	---	---	---	---	---	---	---	---	---
23	.43	.30	.10	---	---	---	---	---	---	---	---	---
24	.48	.31	.10	---	---	---	---	---	---	---	---	---
25	.48	.30	.12	---	---	---	---	---	---	---	---	---
26	.49	.29	.11	---	---	---	---	---	---	---	---	---
27	.35	.28	.17	---	---	---	---	---	---	---	---	---
28	.36	.31	.22	---	---	---	---	---	---	---	---	---
29	.37	.26	.26	---	---	---	---	---	---	---	---	---
30	.46	.21	.37	---	---	---	---	---	---	---	---	---
31	.30	---	.36	---	---	---	---	---	---	---	---	---
TOTAL	12.29	9.25	4.40	---	---	---	---	---	---	---	---	---
MEAN	.40	.31	.14	---	---	---	---	---	---	---	---	---
MAX	.56	.46	.37	---	---	---	---	---	---	---	---	---
MIN	.21	.17	.06	---	---	---	---	---	---	---	---	---
AC-FT	24	18	8.7	---	---	---	---	---	---	---	---	---

**PROVISIONAL DATA**  
**SUBJECT TO REVISION**



## UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - TEXAS DISTRICT

01/25/2000

STATION NUMBER 08185000 CIBOLO CREEK AT SELMA, TX STREAM SOURCE AGENCY USGS

LATITUDE 293538 LONGITUDE 0981839 DRAINAGE AREA 274.00 DATUM 728.34 STATE 48 COUNTY 029  
PROVISIONAL DATA SUBJECT TO REVISION

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	---	---	---	---	---	---	---	---	---
2	.00	.00	.00	---	---	---	---	---	---	---	---	---
3	.00	.00	.00	---	---	---	---	---	---	---	---	---
4	.00	.00	.00	---	---	---	---	---	---	---	---	---
5	.00	.00	.00	---	---	---	---	---	---	---	---	---
6	.00	.00	.00	---	---	---	---	---	---	---	---	---
7	.00	.00	.00	---	---	---	---	---	---	---	---	---
8	.00	.00	.00	---	---	---	---	---	---	---	---	---
9	.00	.00	.00	---	---	---	---	---	---	---	---	---
10	.00	.00	.00	---	---	---	---	---	---	---	---	---
11	.00	.00	.00	---	---	---	---	---	---	---	---	---
12	.00	.00	.00	---	---	---	---	---	---	---	---	---
13	.00	.00	.00	---	---	---	---	---	---	---	---	---
14	.00	.00	.00	---	---	---	---	---	---	---	---	---
15	.00	.00	.00	---	---	---	---	---	---	---	---	---
16	.00	.00	.00	---	---	---	---	---	---	---	---	---
17	.00	.00	.00	---	---	---	---	---	---	---	---	---
18	.00	.00	.00	---	---	---	---	---	---	---	---	---
19	.00	.00	.00	---	---	---	---	---	---	---	---	---
20	.00	.00	.00	---	---	---	---	---	---	---	---	---
21	.00	.00	.00	---	---	---	---	---	---	---	---	---
22	.00	.00	.00	---	---	---	---	---	---	---	---	---
23	.00	.00	.00	---	---	---	---	---	---	---	---	---
24	.00	.00	.00	---	---	---	---	---	---	---	---	---
25	.00	.00	.00	---	---	---	---	---	---	---	---	---
26	.00	.00	.00	---	---	---	---	---	---	---	---	---
27	.00	.00	.00	---	---	---	---	---	---	---	---	---
28	.00	.00	.00	---	---	---	---	---	---	---	---	---
29	.00	.00	.00	---	---	---	---	---	---	---	---	---
30	.00	.00	.00	---	---	---	---	---	---	---	---	---
31	.00	---	.00	---	---	---	---	---	---	---	---	---
TOTAL	0.00	0.00	0.00	---	---	---	---	---	---	---	---	---
MEAN	.000	.000	.000	---	---	---	---	---	---	---	---	---
MAX	.00	.00	.00	---	---	---	---	---	---	---	---	---
MIN	.00	.00	.00	---	---	---	---	---	---	---	---	---
AC-FT	.00	.00	.00	---	---	---	---	---	---	---	---	---

**PROVISIONAL DATA**  
**SUBJECT TO REVISION**

STATION NUMBER 08190500 WEST NUECES RIVER NR BRACKETTVILLE, TX STREAM SOURCE AGENCY USGS  
 LATITUDE 292821 LONGITUDE 1001410 DRAINAGE AREA 694.00 DATUM 1326.79 STATE 48 COUNTY 271  
 PROVISIONAL DATA FROM DCP SUBJECT TO REVISION  
 DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.66	.58	.72	---	---	---	---	---	---	---	---	---
2	.65	.56	.74	---	---	---	---	---	---	---	---	---
3	.59	.59	.68	---	---	---	---	---	---	---	---	---
4	.59	.84	.61	---	---	---	---	---	---	---	---	---
5	.59	.84	.82	---	---	---	---	---	---	---	---	---
6	.57	.84	1.0	---	---	---	---	---	---	---	---	---
7	.55	.84	1.0	---	---	---	---	---	---	---	---	---
8	.55	.84	1.2	---	---	---	---	---	---	---	---	---
9	.52	.84	1.0	---	---	---	---	---	---	---	---	---
10	.52	.84	1.2	---	---	---	---	---	---	---	---	---
11	.52	.84	1.3	---	---	---	---	---	---	---	---	---
12	.55	.84	1.3	---	---	---	---	---	---	---	---	---
13	.57	.84	1.3	---	---	---	---	---	---	---	---	---
14	.53	.84	1.3	---	---	---	---	---	---	---	---	---
15	.53	.55	1.3	---	---	---	---	---	---	---	---	---
16	.55	.52	1.4	---	---	---	---	---	---	---	---	---
17	.98	.52	1.4	---	---	---	---	---	---	---	---	---
18	.76	.52	1.3	---	---	---	---	---	---	---	---	---
19	.59	.52	1.4	---	---	---	---	---	---	---	---	---
20	.59	.52	1.4	---	---	---	---	---	---	---	---	---
21	.59	.54	1.4	---	---	---	---	---	---	---	---	---
22	.59	.58	1.4	---	---	---	---	---	---	---	---	---
23	.59	.56	1.4	---	---	---	---	---	---	---	---	---
24	.57	.58	1.4	---	---	---	---	---	---	---	---	---
25	.53	.59	1.4	---	---	---	---	---	---	---	---	---
26	.56	.59	1.4	---	---	---	---	---	---	---	---	---
27	.54	.59	1.4	---	---	---	---	---	---	---	---	---
28	.57	.59	1.7	---	---	---	---	---	---	---	---	---
29	.57	.59	1.7	---	---	---	---	---	---	---	---	---
30	.54	.69	1.7	---	---	---	---	---	---	---	---	---
31	.50	---	1.7	---	---	---	---	---	---	---	---	---
TOTAL	18.11	20.02	38.97	---	---	---	---	---	---	---	---	---
MEAN	.58	.67	1.26	---	---	---	---	---	---	---	---	---
MAX	.98	.84	1.7	---	---	---	---	---	---	---	---	---
MIN	.50	.52	.61	---	---	---	---	---	---	---	---	---
AC-FT	36	40	77	---	---	---	---	---	---	---	---	---

**PROVISIONAL DATA**  
**SUBJECT TO REVISION**

STATION NUMBER 08192000 NUECES RIVER BELOW UVALDE, TX STREAM SOURCE AGENCY USGS

LATITUDE 290725 LONGITUDE 0995340 DRAINAGE AREA 1861 DATUM 796.12 STATE 48 COUNTY 463

PROVISIONAL DATA

SUBJECT TO REVISION

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	41	40	---	---	---	---	---	---	---	---	---
2	50	40	40	---	---	---	---	---	---	---	---	---
3	48	40	40	---	---	---	---	---	---	---	---	---
4	46	40	40	---	---	---	---	---	---	---	---	---
5	46	40	39	---	---	---	---	---	---	---	---	---
6	46	55	39	---	---	---	---	---	---	---	---	---
7	46	55	39	---	---	---	---	---	---	---	---	---
8	46	55	40	---	---	---	---	---	---	---	---	---
9	46	40	40	---	---	---	---	---	---	---	---	---
10	46	40	39	---	---	---	---	---	---	---	---	---
11	45	40	40	---	---	---	---	---	---	---	---	---
12	45	40	40	---	---	---	---	---	---	---	---	---
13	45	40	39	---	---	---	---	---	---	---	---	---
14	45	40	39	---	---	---	---	---	---	---	---	---
15	45	40	39	---	---	---	---	---	---	---	---	---
16	44	40	39	---	---	---	---	---	---	---	---	---
17	48	40	39	---	---	---	---	---	---	---	---	---
18	43	40	39	---	---	---	---	---	---	---	---	---
19	42	40	39	---	---	---	---	---	---	---	---	---
20	42	40	39	---	---	---	---	---	---	---	---	---
21	42	40	39	---	---	---	---	---	---	---	---	---
22	42	40	39	---	---	---	---	---	---	---	---	---
23	42	40	39	---	---	---	---	---	---	---	---	---
24	42	40	39	---	---	---	---	---	---	---	---	---
25	42	40	39	---	---	---	---	---	---	---	---	---
26	41	39	39	---	---	---	---	---	---	---	---	---
27	41	39	39	---	---	---	---	---	---	---	---	---
28	41	40	39	---	---	---	---	---	---	---	---	---
29	41	40	39	---	---	---	---	---	---	---	---	---
30	41	40	39	---	---	---	---	---	---	---	---	---
31	41	---	39	---	---	---	---	---	---	---	---	---
TOTAL	1370	1244	1217	---	---	---	---	---	---	---	---	---
MEAN	44.2	41.5	39.3	---	---	---	---	---	---	---	---	---
MAX	50	55	40	---	---	---	---	---	---	---	---	---
MIN	41	39	39	---	---	---	---	---	---	---	---	---
AC-FT	2720	2470	2410	---	---	---	---	---	---	---	---	---

**PROVISIONAL DATA**  
**SUBJECT TO REVISION**

STATION NUMBER 08195000 FRIO RIVER AT CONCAN, TX STREAM SOURCE AGENCY USGS

LATITUDE 292918 LONGITUDE 0994216 DRAINAGE AREA 389.00 DATUM 1203.71 STATE 48 COUNTY 463  
 PROVISIONAL DATA FROM DCP  
 DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	53	54	---	---	---	---	---	---	---	---	---
2	48	53	54	---	---	---	---	---	---	---	---	---
3	48	53	54	---	---	---	---	---	---	---	---	---
4	50	53	54	---	---	---	---	---	---	---	---	---
5	50	52	53	---	---	---	---	---	---	---	---	---
6	50	52	52	---	---	---	---	---	---	---	---	---
7	48	52	54	---	---	---	---	---	---	---	---	---
8	48	52	54	---	---	---	---	---	---	---	---	---
9	48	52	52	---	---	---	---	---	---	---	---	---
10	46	54	55	---	---	---	---	---	---	---	---	---
11	47	54	58	---	---	---	---	---	---	---	---	---
12	46	54	57	---	---	---	---	---	---	---	---	---
13	46	54	56	---	---	---	---	---	---	---	---	---
14	46	54	54	---	---	---	---	---	---	---	---	---
15	48	54	54	---	---	---	---	---	---	---	---	---
16	48	54	54	---	---	---	---	---	---	---	---	---
17	72	54	54	---	---	---	---	---	---	---	---	---
18	69	54	52	---	---	---	---	---	---	---	---	---
19	61	54	52	---	---	---	---	---	---	---	---	---
20	57	54	53	---	---	---	---	---	---	---	---	---
21	56	54	52	---	---	---	---	---	---	---	---	---
22	54	54	54	---	---	---	---	---	---	---	---	---
23	52	53	54	---	---	---	---	---	---	---	---	---
24	52	52	54	---	---	---	---	---	---	---	---	---
25	52	52	54	---	---	---	---	---	---	---	---	---
26	52	52	52	---	---	---	---	---	---	---	---	---
27	52	52	52	---	---	---	---	---	---	---	---	---
28	53	52	52	---	---	---	---	---	---	---	---	---
29	53	52	51	---	---	---	---	---	---	---	---	---
30	53	53	50	---	---	---	---	---	---	---	---	---
31	53	---	50	---	---	---	---	---	---	---	---	---
TOTAL	1606	1592	1655	---	---	---	---	---	---	---	---	---
MEAN	51.8	53.1	53.4	---	---	---	---	---	---	---	---	---
MAX	72	54	58	---	---	---	---	---	---	---	---	---
MIN	46	52	50	---	---	---	---	---	---	---	---	---
AC-FT	3190	3160	3280	---	---	---	---	---	---	---	---	---
CFSM	.13	.14	.14	---	---	---	---	---	---	---	---	---
IN.	.15	.15	.16	---	---	---	---	---	---	---	---	---

**PROVISIONAL DATA**  
**SUBJECT TO REVISION**

STATION NUMBER 08198500 SABINAL RIVER AT SABINAL, TX STREAM SOURCE AGENCY USGS

LATITUDE 291805 LONGITUDE 0992846 DRAINAGE AREA 241.00 DATUM 882.17 STATE 48 COUNTY 463  
 PROVISIONAL DATA FROM THE DCP SUBJECT TO REVISION  
 DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.3	1.6	---	---	---	---	---	---	---	---	---
2	1.8	1.3	1.6	---	---	---	---	---	---	---	---	---
3	1.6	1.8	1.8	---	---	---	---	---	---	---	---	---
4	1.4	1.8	1.9	---	---	---	---	---	---	---	---	---
5	1.3	1.8	2.0	---	---	---	---	---	---	---	---	---
6	1.2	1.9	2.2	---	---	---	---	---	---	---	---	---
7	1.3	2.0	2.4	---	---	---	---	---	---	---	---	---
8	1.3	1.9	2.2	---	---	---	---	---	---	---	---	---
9	1.4	1.8	---	---	---	---	---	---	---	---	---	---
10	1.3	1.7	3.1	---	---	---	---	---	---	---	---	---
11	1.3	1.7	3.6	---	---	---	---	---	---	---	---	---
12	1.4	1.7	3.9	---	---	---	---	---	---	---	---	---
13	1.3	1.8	4.1	---	---	---	---	---	---	---	---	---
14	1.4	1.8	4.2	---	---	---	---	---	---	---	---	---
15	1.3	1.8	4.2	---	---	---	---	---	---	---	---	---
16	1.2	1.8	4.2	---	---	---	---	---	---	---	---	---
17	7.0	1.8	4.3	---	---	---	---	---	---	---	---	---
18	1.3	1.3	4.0	---	---	---	---	---	---	---	---	---
19	1.2	1.4	4.2	---	---	---	---	---	---	---	---	---
20	1.2	1.6	4.2	---	---	---	---	---	---	---	---	---
21	1.3	1.7	4.2	---	---	---	---	---	---	---	---	---
22	1.2	1.7	4.3	---	---	---	---	---	---	---	---	---
23	1.2	1.8	4.1	---	---	---	---	---	---	---	---	---
24	1.2	1.8	3.4	---	---	---	---	---	---	---	---	---
25	1.1	1.8	2.9	---	---	---	---	---	---	---	---	---
26	1.0	1.7	2.9	---	---	---	---	---	---	---	---	---
27	1.1	1.7	2.9	---	---	---	---	---	---	---	---	---
28	1.1	1.6	2.9	---	---	---	---	---	---	---	---	---
29	1.2	1.6	2.9	---	---	---	---	---	---	---	---	---
30	1.2	1.6	2.9	---	---	---	---	---	---	---	---	---
31	1.2	---	2.8	---	---	---	---	---	---	---	---	---
TOTAL	45.7	51.0	---	---	---	---	---	---	---	---	---	---
MEAN	1.47	1.70	---	---	---	---	---	---	---	---	---	---
MAX	7.0	2.0	---	---	---	---	---	---	---	---	---	---
MIN	1.0	1.3	---	---	---	---	---	---	---	---	---	---
AC-FT	91	101	---	---	---	---	---	---	---	---	---	---

**PROVISIONAL DATA**  
**SUBJECT TO REVISION**

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION  
SUMMARY OF DISCHARGE MEASUREMENT DATA

08168000  
HUECO SPRINGS NEAR NEW BRAUNFELS, TX (PR)

2000 WATER YEAR

DATE PROCESSED: 25-Jan-2000 13:41

```
*****
NO.   * DATE * MADE BY * WIDTH * AREA * MEAN * GAGE * DISCHARGE * SHIFT * PCT. * NO. * GHT. * TIME * RATED * CONTROL
      * TIME *          *          *          *          *          *          *          *          *          *
*****
387 1999/10/01 CSL/JOP 13.5 10.1 1.69 17.1 22 0.0 F ALGAE
    1253      REMARKS: SPRING "A" = 17.1 CFS; SPRING "B" DRY.
```

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION  
SUMMARY OF DISCHARGE MEASUREMENT DATA

08204000  
LEONA RIVER SPRING FLOW NR UVALDE, TX

2000 WATER YEAR

DATE PROCESSED: 25-Jan-2000 13:40

```
*****
NO.   * DATE * MADE BY * WIDTH * AREA * MEAN * GAGE * DISCHARGE * SHIFT * PCT. * NO. * GHT. * TIME * RATED * CONTROL
      * TIME *          *          *          *          *          *          *          *          *          *
*****
535 1999/11/01 JFW 35.0 26.5 1.44 2.01 38.2 37 0.00 1.0 G
    1651      REMARKS: Discharge reflects Leona-Cooks Slough; SC=692
```

**PROVISIONAL DATA  
SUBJECT TO REVISION**

## TASK 2 - COMPUTE RECHARGE AND SPRING DISCHARGE

**Contacts:** EAA - Bob Hall; USGS - David Brown

**Background:** Basic information on recharge to and discharge from the Edwards aquifer is needed by water planners and managers in order to make informed decisions concerning management of the aquifer. The annual compilation of estimates of ground-water recharge to and spring discharge from the Edwards aquifer is part of a continuing program of the USGS in cooperation with the EAA. The USGS, in cooperation with the EAA (previously the Edwards Underground Water District), has been estimating annual recharge and discharge for more than 40 years.

### Objectives:

- (1) Estimate recharge to the Edwards aquifer from nine basins in the drainage basins.
- (2) Estimate the discharge from the Edwards aquifer (springs).

### Tasks and Timeline:

Tasks	FY2000											
Compile surface water, springflow, and rainfall												
Review and verify data sets												
Develop discharge data summary												
Data entry and recharge model run												

### Deliverables for FY2K:

Table of recharge to and spring discharge from the Edwards aquifer by April 1, 2000.

### Progress in Past Quarter:

Complete data collection at all surface-water streamflow sites and springflow sites for the calendar year.

### Plans for Next Quarter:

Compile surface water, springflow, and rainfall data in the Edwards aquifer region. Review and verify data sets that were compiled. Develop discharge data summary for Comal, San Marcos, San Antonio, San Pedro, Hueco, and Leona Springs. Finally, data entry into the recharge model program and model runs will be conducted to estimate total recharge to the Edwards aquifer.

## TASK 3 - UVALDE COUNTY HYDROSTRATIGRAPHIC MAPPING

**Contacts:** EAA - Rob Esquilin; USGS - Ted Small

**Background:** Most recharge to the Edwards aquifer is west of Bexar County. Rivers and rainfall runoff in normally dry streambeds cross Edwards aquifer outcrops (the recharge zone) in the Balcones fault zone and lose much, if not all, of their flow to faults, fractures, sinkholes, and caves in the outcrop. After entering the aquifer, the water moves east to points of discharge in Bexar County. The lack of existing spatially distributed data on the hydrostratigraphic units of the Edwards aquifer diminishes the ability to effectively manage the resources of the Edwards aquifer recharge zone.

### Objective:

The objective of this study is to identify and map the hydrostratigraphic units of the Edwards aquifer, their equivalent facies, and associated structural and karst features of the Edwards aquifer cropping out in the recharge zone in Uvalde County.

### Tasks and Timeline:

[illegible]

### Deliverables for FY2K:

**Quarterly reports and progress report by October 1, 2000.**

### Progress in Past Quarter:

Fieldwork was conducted on the west side of Nueces River at Highway 55 crossing to look at landslide near Chalk Bluff. Salmon Peak and McKnight slid in March/April 1997 and exposed fresh Salmon Peak and McKnight faces in cliff west of river. Access to land (other than in Park Chalk Bluff) unavailable at time. Exposures along Highway 55 in this area appeared (to me) to be flaggy limestone, which has interpreted to be McKnight. Discussion with Dr. Ike Smith indicates that this probably should be West Nueces. Fieldwork was conducted in parts of the Chalk Bluff, Mustang Waterhole, Laguna Mountain, and Sycamore Hill Quadrangles. Further progress has been limited because of access to ranches because of deer, dove, and quail seasons.

### Plans for Next Quarter:

Fieldwork is set to resume about February 1, 2000. Work is planned to continue efforts in the Chalk Bluff, Mustang Waterhole, Laguna Mountain, and Sycamore Hill Quadrangles.



#### **TASK 4 - MONITOR SURFACE WATER RUNOFF IN COMAL AND HAYS COUNTIES**




**Contacts:** EAA - Bob Hall; USGS - Buddy Miller

**Background:** This is a continuous monitoring program to collect baseline water-quality data. The Edwards aquifer recharge zone (EARZ) is experiencing rapid residential and commercial development. The quality of water of the aquifer might be affected by stormwater runoff from the developing areas infiltrating within the EARZ. Baseline data on the quality of stormwater runoff recharging the aquifer in the EARZ are unavailable. Without this information, the ability of land and water management and environmental regulatory agencies to effectively manage activities overlying the EARZ with the goal of adequately protecting aquifer water quality is diminished.

**Objective:**

The objective of this effort is to characterize the urban storm-water quality from selected residential land use areas in Comal and Hays Counties.

**Tasks and Timeline:**

Tasks	FY2000
Operate and maintain two stormflow stations	
Collect two samples at the two sites	
Table preparation	

**Deliverables for FY2K:**

Quarterly reports; data tables by January 31, 2000; published in USGS annual report.

**Progress in Past Quarter:**

Limited progress has been made in the installation of the two sites in Comal and Hays County. Iris Nefendorf, New Braunfels Parks Director, has been contacted about the installation of the site at Landa Park near Comal Springs. Lori Henderson, City Engineer for San Marcos, has been contacted about the site in Hays County for permission and access.

**Plans for Next Quarter:**

If permissions are granted by political entities in Comal and Hays Counties, plans are to have both sites installed and operational by April 1, 2000.