



2005 Water Year  
OIL CREEK BASIN  
03020500 Oil Creek at Rouseville, PA

Latitude: 41° 28 ' 54"

Longitude: 079° 41 ' 44"

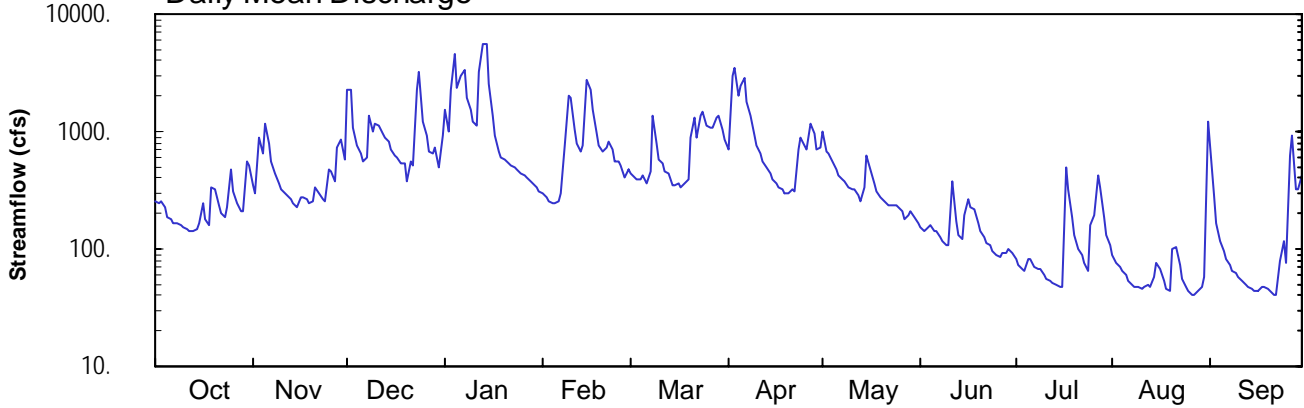
Hydrologic Unit Code: 05010003

Venango County

Datum: 1028.32 feet

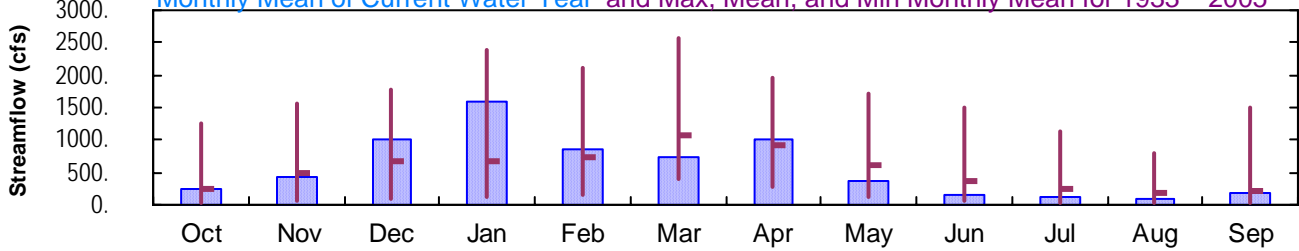
Drainage Area: 300. mi<sup>2</sup>

### Daily Mean Discharge

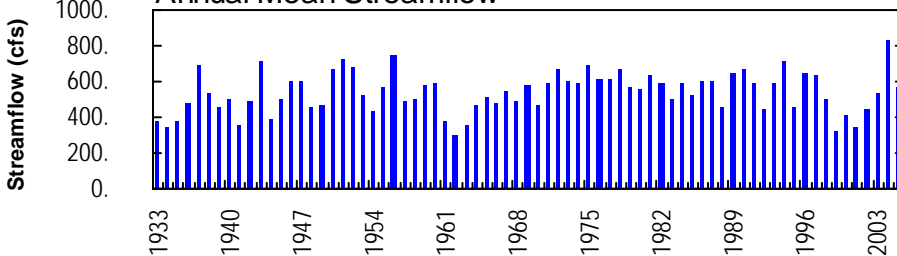


### Monthly Statistics

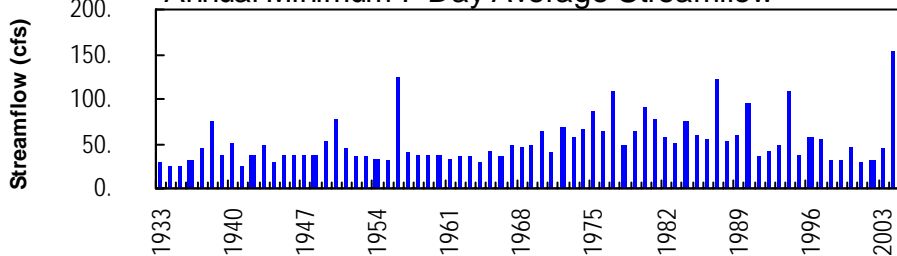
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1933 – 2005



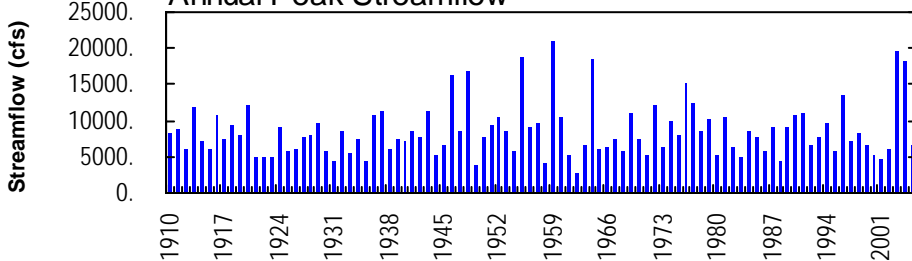
### Annual Mean Streamflow



### Annual Minimum 7-Day Average Streamflow



### Annual Peak Streamflow



## OIL CREEK BASIN

03020500 OIL CREEK AT ROUSEVILLE, PA  
(Pennsylvania Water-Quality Network Station)

**LOCATION.**--Lat 41°28'54", long 79°41'44", Venango County, Hydrologic Unit 05010003, on right bank 100 ft downstream from bridge on State Highway 8, about 300 ft upstream from Cherrytree Run, and 1 mi north of Rouseville. Records include flow of Cherrytree Run.

**DRAINAGE AREA.**--300 mi<sup>2</sup>, including that of Cherrytree Run.

## WATER-DISCHARGE RECORDS

**PERIOD OF RECORD.**--June 1932 to current year.

**REVISED RECORDS.**--WSP 743: Drainage area. WSP 1053: 1936-37(M), 1943(M).

**GAGE.**--Water-stage recorder. Datum of gage is 1,028.32 ft above National Geodetic Vertical Datum of 1929. Prior to June 9, 1941, nonrecording gage at same site and datum.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 5,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)	Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)
Jan. 4	0500	5,160	7.21	Jan. 14	0500	*6,560	*7.98

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	253	349	2240	1520	e298	449	713	986	154	84	88	756
2	242	295	2270	988	e278	414	3020	687	144	74	76	282
3	251	891	1080	2290	e258	386	3500	652	147	67	70	163
4	230	648	774	4550	e248	393	1980	551	157	64	64	117
5	189	1180	639	2330	e244	420	2410	480	144	83	59	95
6	180	800	548	2960	e253	363	2850	432	141	83	53	82
7	169	548	605	3350	e294	462	1800	398	128	71	50	73
8	163	438	1360	1920	e763	1350	1350	370	116	67	47	66
9	157	364	990	1530	2040	798	936	339	109	67	48	64
10	152	324	1190	1210	1920	589	764	319	106	60	46	58
11	148	299	1120	1110	1050	542	639	319	380	57	48	53
12	144	282	956	3250	802	450	552	291	173	54	50	50
13	143	266	895	5600	671	437	501	259	133	51	48	48
14	147	242	821	5500	747	348	445	329	123	50	58	46
15	167	224	691	2560	2780	346	397	618	195	48	76	44
16	244	279	626	1350	2300	360	358	482	261	48	67	44
17	183	274	598	e916	1520	329	332	356	224	491	53	48
18	160	263	542	e682	963	362	318	311	215	328	46	48
19	330	247	537	e609	764	385	302	279	168	187	44	45
20	319	252	380	e577	686	885	297	264	142	132	99	45
21	236	336	555	e536	741	1340	325	248	125	100	102	41
22	205	303	522	e512	837	906	306	234	114	90	74	40
23	185	262	2240	e488	708	1390	714	232	106	77	56	80
24	229	260	3200	e472	563	1450	890	239	97	66	48	118
25	468	467	1210	e447	559	1110	751	225	90	160	44	75
26	306	466	912	e423	516	1070	717	206	86	194	42	631
27	247	382	669	e407	408	1080	1150	182	92	428	41	935
28	209	727	644	e375	476	1300	974	198	94	341	45	316
29	207	870	718	e363	---	1370	696	207	100	186	48	329
30	553	577	493	e338	---	1050	733	186	94	131	59	425
31	517	---	910	e313	---	846	---	167	---	108	1200	---
TOTAL	7333	13115	30935	49476	23687	22980	30720	11046	4358	4047	2949	5217
MEAN	237	437	998	1596	846	741	1024	356	145	131	95.1	174
MAX	553	1180	3200	5600	2780	1450	3500	986	380	491	1200	935
MIN	143	224	380	313	244	329	297	167	86	48	41	40
CFSM	0.79	1.46	3.33	5.32	2.82	2.47	3.41	1.19	0.48	0.44	0.32	0.58
IN.	0.91	1.63	3.84	6.14	2.94	2.85	3.81	1.37	0.54	0.50	0.37	0.65

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2005, BY WATER YEAR (WY)

MEAN	254	504	687	689	730	1084	929	597	382	236	174	216
MAX	1260	1560	1784	2385	2124	2574	1958	1706	1491	1118	786	1491
(WY)	1991	1986	1978	1937	1976	1936	1940	1953	1989	2003	1980	2004
MIN	34.5	65.0	80.9	108	158	400	266	129	75.2	38.3	38.8	34.5
(WY)	1964	1992	1961	1984	1987	2000	1935	1934	1934	1934	1934	1934

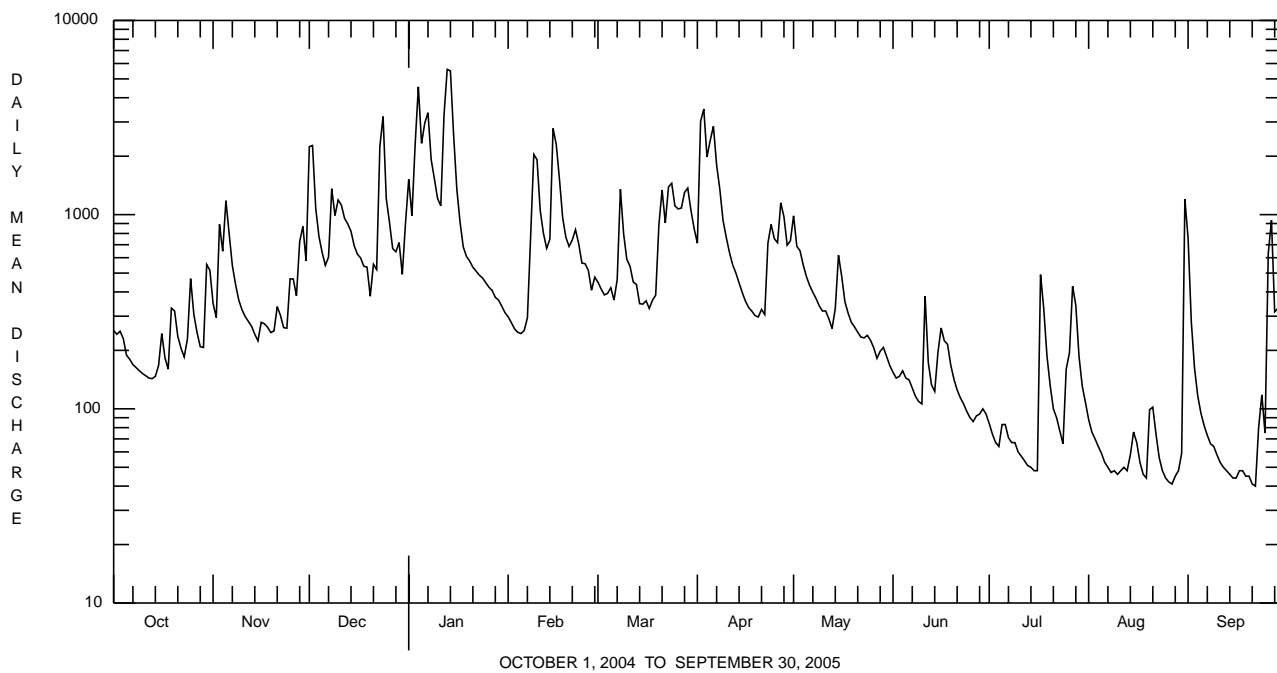
e Estimated.

OIL CREEK BASIN

03020500 OIL CREEK AT ROUSEVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1933 - 2005	
ANNUAL TOTAL	283168		205863			
ANNUAL MEAN	774		564		539	
HIGHEST ANNUAL MEAN					836	2004
LOWEST ANNUAL MEAN					303	1962
HIGHEST DAILY MEAN	12100	Sep 9	5600	Jan 13	16300	Jan 22 1959
LOWEST DAILY MEAN	117	Jul 11	40	Sep 22	23	Jul 26 1934
ANNUAL SEVEN-DAY MINIMUM	151	Oct 8	44	Sep 16	24	Sep 2 1934
MAXIMUM PEAK FLOW			6560	Jan 14	<b>a</b> 21000	Jan 22 1959
MAXIMUM PEAK STAGE			7.98	Jan 14	11.97	Jan 22 1959
INSTANTANEOUS LOW FLOW			39	Sep 21-23	<b>b</b> 16	Oct 12 1993
ANNUAL RUNOFF (CFSM)	2.58		1.88		1.80	
ANNUAL RUNOFF (INCHES)	35.11		25.53		24.42	
10 PERCENT EXCEEDS	1480		1250		1220	
50 PERCENT EXCEEDS	468		324		296	
90 PERCENT EXCEEDS	191		58		62	

**a** From rating curve extended above 15,000 ft<sup>3</sup>/s.  
**b** Result of abnormal diversion.



## OIL CREEK BASIN

03020500 OIL CREEK AT ROUSEVILLE, PA--Continued  
(Pennsylvania Water-Quality Network Station)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unfltrd lab, µS/cm 25 degC (90095)	Specif. conductance, wat unfltrd lab, µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, unfltrd recover-able, mg/L (00916)	Magnesium, unfltrd recover-able, mg/L (00927)
NOV 2004 22...	1330	1028	9813	297	12.9	8.0	8.5	167	166	8.0	63	18.7	3.9
MAR 2005 17...	1015	1028	9813	306	14.2	7.2	7.8	168	174	1.4	60	18.1	3.6
MAY 18...	1100	1028	9813	314	11.9	8.8	8.6	157	160	12.6	57	16.8	3.7
JUL 20...	1050	1028	9813	135	8.8	7.8	8.2	196	204	25.0	71	21.5	4.2
SEP 21...	1035	1028	9813	41	9.6	8.0	8.0	287	289	18.0	110	31.8	7.3

Date	ANC, wat unfltrd fixed end pt, lab, mg/L as CaCO3 (00417)	Fluoride, water, unfltrd mg/L (00951)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 105degC, wat fltrd mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia, water, unfltrd mg/L as N (00610)	Nitrate, water, unfltrd mg/L as N (00620)	Nitrite, water, unfltrd mg/L as N (00615)	Ortho-phosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recover-able, µg/L (01105)
NOV 2004 22...	55	<.2	10.1	88	2	<.020	.25	<.040	<.01	<.010	.54	2.7	<200
MAR 2005 17...	47	<.2	11.6	114	12	.030	.61	<.040	<.01	.019	.65	1.6	<200
MAY 18...	50	<.2	10.8	132	4	<.020	.22	<.040	.01	.015	.39	--	<200
JUL 20...	60	<.2	15.9	146	8	.030	.08	<.040	.03	.036	.27	--	<200
SEP 21...	98	<.2	12.4	194	<2	<.020	<.04	<.040	.02	.036	.10	--	<200

Date	Copper, water, unfltrd recover-able, µg/L (01042)	Cyanide, amenable to chlorination, wat unfltrd mg/L (00722)	Iron, water, unfltrd recover-able, µg/L (01045)	Lead, water, unfltrd recover-able, µg/L (01051)	Manganese, water, unfltrd recover-able, µg/L (01055)	Nickel, water, unfltrd recover-able, µg/L (01067)	Zinc, water, unfltrd recover-able, µg/L (01092)	Phenolic compounds, water, unfltrd µg/L (32730)
NOV 2004 22...	<10	<1.00	240	<1.0	<10	<50	<10	<5
MAR 2005 17...	<10	<1.00	230	<1.0	20	<50	<10	<5
MAY 18...	<10	<1.00	330	<1.0	20	<50	<10	<5
JUL 20...	<10	<1.00	460	<1.0	50	<50	10	<5
SEP 21...	<10	<1.00	150	<1.0	30	<50	<10	<5

## OIL CREEK BASIN

## 03020500 OIL CREEK AT ROUSEVILLE, PA--Continued

BIOLOGICAL DATA  
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	10/12/04
Benthic macroinvertebrate	Count
Nematoda (NEMATODES)	1
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Acentrella</i>	6
<i>Baetis</i>	3
<i>Plauditus</i>	4
Caenidae	
<i>Caenis</i>	1
Ephemerellidae	
<i>Ephemerella</i>	8
<i>Serratella</i>	6
Heptageniidae	
<i>Stenacron</i>	3
<i>Stenonema</i>	4
Isonychiidae	
<i>Isonychia</i>	8
Plecoptera (STONEFLIES)	
Perlidae	
<i>Acroneuria</i>	2
Taeniopterygidae	
<i>Taeniopteryx</i>	3
Trichoptera (CADDISFLIES)	
Brachycentridae	
<i>Brachycentrus</i>	6
Helicopsychidae	
<i>Helicopsyche</i>	1
Hydropsychidae	
<i>Cheumatopsyche</i>	12
<i>Hydropsyche</i>	7
Leptoceridae	
<i>Ceraclea</i>	1
<i>Oecetis</i>	1
Uenoidae	
<i>Neophylax</i>	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Optioservus</i>	4
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	60
Simuliidae (BLACK FLIES)	
<i>Simulium</i>	1
Tipulidae (CRANE FLIES)	
<i>Antocha</i>	5
Total Organisms	149
Total Taxa	24