

SOUTH-CENTRAL ALASKA

15237730 GROUSE CREEK AT GROUSE LAKE OUTLET NEAR SEWARD

LOCATION.--Lat 60°11'54", long 149°22'24", in NE¹/₄ NE¹/₄ NW¹/₄ sec. 12, T. 1 N., R. 1 W. (Seward A-7 NE quad), Kenai Peninsula Borough, Hydrologic Unit 19020202, on right bank, 200 ft downstream from Grouse Lake outlet, 0.2 mi upstream from Seward Highway, 7 mi north of Seward.

DRAINAGE AREA.--6.22 mi².

PERIOD OF RECORD.--June 1997 to current year.

GAGE.--Water stage recorder and crest-stage gage. Elevation of gage is 250 ft above sea level from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Rain gage recorder at station. GOES satellite telemetry and phone modem at station.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 100 ft³/s and water year maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage Height(ft) | Date | Time | Discharge (ft ³ /s) | Gage Height(ft) |
|---------|------|-----------------------------------|--------------------|---------|------|-----------------------------------|--------------------|
| Nov. 28 | 0945 | 103 | 6.16 | Apr. 22 | 1030 | *174 | *6.68 |

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 | 14 | 8.9 | 44 | 13 | 7.3 | e5.8 | 11 | 59 | 17 | 6.4 | 5.9 | 3.6 |
| 2 | 21 | 8.4 | 41 | 12 | 7.2 | e5.7 | 10 | 53 | 16 | 6.4 | 6.9 | 3.4 |
| 3 | 62 | 9.6 | 35 | 18 | 7.2 | e5.5 | 10 | 48 | 15 | 6.3 | 6.3 | 3.3 |
| 4 | 67 | 8.9 | 30 | 37 | 6.9 | e5.4 | 10 | 46 | 15 | 6.2 | 6.0 | 3.6 |
| 5 | 46 | 7.8 | 23 | 31 | 6.5 | e5.5 | 10 | 44 | 15 | 6.0 | 5.6 | 4.1 |
| 6 | 35 | 7.3 | 22 | 23 | e6.4 | e6.5 | 14 | 44 | 16 | 5.7 | 5.3 | 4.8 |
| 7 | 25 | 8.4 | 20 | 19 | e6.3 | 7.4 | 15 | 43 | 14 | 5.8 | 5.3 | 4.7 |
| 8 | 18 | 8.4 | 18 | 18 | e6.2 | 8.8 | 14 | 41 | 14 | 5.8 | 5.1 | 4.7 |
| 9 | 16 | 8.4 | 16 | 16 | e6.2 | 12 | 14 | 42 | 14 | 5.5 | 4.6 | 4.5 |
| 10 | 15 | 49 | 15 | 14 | e6.2 | 21 | 14 | 42 | 14 | 5.6 | 4.5 | 6.1 |
| 11 | 13 | 61 | 15 | 12 | e6.0 | 39 | 14 | 41 | 12 | 5.8 | 4.3 | 5.3 |
| 12 | 18 | 40 | 14 | 11 | e5.9 | 38 | 14 | 45 | 12 | 5.4 | 4.2 | 5.2 |
| 13 | 21 | 32 | 15 | 13 | e5.9 | 49 | 14 | 46 | 11 | 5.4 | 4.0 | 5.0 |
| 14 | 27 | 25 | 14 | 13 | e7.5 | 46 | 14 | 48 | 11 | 5.2 | 4.0 | 4.7 |
| 15 | 20 | 20 | 13 | 13 | 9.4 | 37 | 14 | 41 | 9.8 | 5.0 | 3.9 | 4.5 |
| 16 | 18 | 17 | 15 | 12 | 8.3 | 32 | 14 | 37 | 9.2 | 5.3 | 3.6 | 5.5 |
| 17 | 16 | 16 | 15 | 11 | e7.5 | 26 | 14 | 34 | 8.8 | 5.4 | 3.6 | 10 |
| 18 | 15 | 15 | 19 | 9.6 | e7.0 | 20 | 15 | 33 | 9.3 | 5.2 | 3.6 | 8.6 |
| 19 | 14 | 18 | 19 | 9.9 | e6.5 | 18 | 16 | 32 | 9.5 | 5.6 | 3.5 | 7.3 |
| 20 | 13 | 19 | 18 | 11 | e6.5 | 17 | 38 | 32 | 8.6 | 5.4 | 3.5 | 6.7 |
| 21 | 12 | 17 | 16 | 11 | e6.5 | 16 | 46 | 32 | 8.3 | 5.7 | 3.8 | 6.0 |
| 22 | 11 | 16 | 21 | 12 | e6.5 | 15 | 138 | 30 | 8.0 | 5.5 | 3.8 | 6.0 |
| 23 | 11 | 16 | 25 | 13 | e6.5 | 14 | 117 | 27 | 8.5 | 5.2 | 4.4 | 7.1 |
| 24 | 11 | 17 | 20 | 11 | e6.5 | 13 | 69 | 28 | 7.7 | 5.1 | 4.6 | 13 |
| 25 | 11 | 17 | 17 | 11 | e6.5 | 13 | 57 | 27 | 6.7 | 6.2 | 4.4 | 11 |
| 26 | 11 | 16 | 17 | 10 | e6.4 | 13 | 54 | 22 | 7.5 | 6.6 | 4.1 | 9.3 |
| 27 | 11 | 20 | 18 | 9.1 | e6.2 | 12 | 56 | 28 | 6.5 | 6.3 | 3.9 | 12 |
| 28 | 11 | 82 | 16 | 8.4 | e6.0 | 12 | 62 | 26 | 6.7 | 6.1 | 3.8 | 15 |
| 29 | 11 | 53 | 13 | 9.3 | --- | 11 | 68 | 23 | 6.5 | 5.4 | 3.6 | 12 |
| 30 | 10 | 41 | 12 | 9.8 | --- | 11 | 66 | 20 | 6.4 | 5.2 | 3.5 | 11 |
| 31 | 9.4 | --- | 14 | 8.8 | --- | 11 | --- | 18 | --- | 5.6 | 3.3 | --- |
| TOTAL | 613.4 | 683.1 | 610 | 429.9 | 188.0 | 546.6 | 1022 | 1132 | 324.0 | 176.3 | 136.9 | 208.0 |
| MEAN | 19.8 | 22.8 | 19.7 | 13.9 | 6.71 | 17.6 | 34.1 | 36.5 | 10.8 | 5.69 | 4.42 | 6.93 |
| MAX | 67 | 82 | 44 | 37 | 9.4 | 49 | 138 | 59 | 17 | 6.6 | 6.9 | 15 |
| MIN | 9.4 | 7.3 | 12 | 8.4 | 5.9 | 5.4 | 10 | 18 | 6.4 | 5.0 | 3.3 | 3.3 |
| AC-FT | 1220 | 1350 | 1210 | 853 | 373 | 1080 | 2030 | 2250 | 643 | 350 | 272 | 413 |
| CFSM | 3.18 | 3.66 | 3.16 | 2.23 | 1.08 | 2.83 | 5.48 | 5.87 | 1.74 | 0.91 | 0.71 | 1.11 |
| IN. | 3.67 | 4.09 | 3.65 | 2.57 | 1.12 | 3.27 | 6.11 | 6.77 | 1.94 | 1.05 | 0.82 | 1.24 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)#

| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|------|------|------|------|------|------|------|------|------|------|
| MEAN | 26.7 | 27.8 | 18.8 | 16.7 | 12.8 | 9.92 | 20.4 | 51.5 | 34.7 |
| MAX | 60.8 | 83.3 | 39.7 | 58.0 | 45.0 | 17.6 | 38.6 | 81.3 | 70.7 |
| (WY) | 2003 | 2003 | 2003 | 2001 | 2003 | 2005 | 1998 | 2004 | 1998 |
| MIN | 11.8 | 7.41 | 8.83 | 5.23 | 3.34 | 2.69 | 5.81 | 29.9 | 9.55 |
| (WY) | 1998 | 2002 | 2004 | 1998 | 1999 | 1999 | 2002 | 2003 | 2003 |

See Period of Record, partial year used in monthly statistics
e Estimated

SOUTH-CENTRAL ALASKA

15237730 GROUSE CREEK AT GROUSE LAKE OUTLET NEAR SEWARD—Continued

| SUMMARY STATISTICS | FOR 2004 CALENDAR YEAR | | FOR 2005 WATER YEAR | | WATER YEARS 1997 - 2005# | |
|--------------------------|------------------------|--------|---------------------|--------|--------------------------|-------------|
| ANNUAL TOTAL | 7664.9 | | 6070.2 | | | |
| ANNUAL MEAN | 20.9 | | 16.6 | | 21.1 | |
| HIGHEST ANNUAL MEAN | | | | | 27.3 | |
| LOWEST ANNUAL MEAN | | | | | 15.4 | |
| HIGHEST DAILY MEAN | | | | | 326 | |
| LOWEST DAILY MEAN | 114 | May 6 | 138 | Apr 22 | b2.1 | Nov 23 2002 |
| ANNUAL SEVEN-DAY MINIMUM | 5.4 | Jan 30 | a3.3 | Aug 31 | b2.1 | Mar 9 1999 |
| MAXIMUM PEAK FLOW | 5.6 | Feb 1 | 3.5 | Aug 29 | 2.2 | Mar 4 1999 |
| MAXIMUM PEAK STAGE | | | 174 | Apr 22 | 478 | Feb 5 2003 |
| INSTANTANEOUS LOW FLOW | | | 6.68 | Apr 22 | c8.14 | Feb 5 2003 |
| ANNUAL RUNOFF (AC-FT) | 15200 | | 12040 | | 15320 | |
| ANNUAL RUNOFF (CFSM) | 3.37 | | 2.67 | | 3.40 | |
| ANNUAL RUNOFF (INCHES) | 45.84 | | 36.30 | | 46.20 | |
| 10 PERCENT EXCEEDS | 52 | | 41 | | 52 | |
| 50 PERCENT EXCEEDS | 11 | | 11 | | 11 | |
| 90 PERCENT EXCEEDS | 6.4 | | 5.1 | | 5.5 | |

- # See Period of Record, partial year used in monthly statistics
a Aug. 31 and Sep. 3
b Mar. 9 and 10, 1999
c From crest-stage gage
d From temporary blockage of channel upstream from gage