DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

Prepared in cooperation with the
ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES; ALASKA DIVISION OF EMERGENCY SERVICES;
FEDERAL HIGHWAY ADMINISTRATION; FEDERAL EMERGENCY MANAGEMENT AGENCY; AND KENAI PENINSULA BOROUGH

WATER RESOURCES INVESTIGATIONS REPORT 87-4278
PLATE II

MAP SHOWING GENERALIZED GEOLOGY AND FLOOD-RELATED HAZARDS—SEWARD, ALASKA

Base from U.S. Geological Survey
Seward (A-7) NE, NW, SW, SE, 1:25 000
Provisional Edition 1983

Geology from Lemke (1967), and fieldwork by author S.H. Jones 1986 and 1987

SCALE 1:25 000

1 0 1 2 KILOMETERS
1000 0 1000 2000 METERS
1 0 1 MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10 000 FEET

CONTOUR INTERVAL 20 METERS
DASHED LINES REPRESENT 10-METER CONTOURS
CONTROL ELEVATIONS SHOWN TO THE NEAREST 0.1 METER
OTHER ELEVATIONS SHOWN TO THE NEAREST METER

DESCRIPTION OF MAP UNITS

- Ql — LANDSLIDE DEPOSITS—Mostly rockslide debris—avalanche and debris flow fragments and talus deposits that have moved by earthquake or flood
- Qal — VALLEY ALLUVIUM—Chiefly sand, fine to medium gravel; minor silt and cobbles; underlies valley floor of Resurrection River and larger tributaries
- Qf — ALLUVIAL-FAN and FAN-DELTA DEPOSITS—Chiefly loose sand, gravel, and silt, lesser amounts of cobbles and boulders; deposited as broad fans at the mouths of larger tributary valleys. Probably include debris flows and landslide deposits in some small poorly exposed fan-like features near mouths of smaller tributaries
- Qg — GLACIAL DEPOSITS — Mostly till constituting morainal deposits and consisting predominantly of silt and sand with lesser amounts of gravel, cobbles, and boulders. Include some stratified ice-contact deposits, minor glacial outwash deposits, and small outcrops of bedrock
- Qgi — ICE-CORED MORAINE
- Gl — GLACIER and PERENNIAL SNOWFIELDS
- Kb — BEDROCK—Chiefly graywacke and phyllite; a few conglomerate beds; includes small or thin deposits of drift
- Geologic contact
- Limit of study area

FLOOD RELATED HAZARDS

- Landslides, debris flows, and debris avalanches
- Debris-laden floods
- SR — Surge-release type flooding
- A — HIGH POTENTIAL—Evidence of repeated and/or recent (1986) occurrence and conditions that make stream/basin highly susceptible to mass-movement or flood phenomena—steep slopes or stream gradients, unconsolidated material on steep slopes and fans, glaciers and ice-cored moraine in basin
- B — MODERATE POTENTIAL—Evidence of at least one past occurrence, and necessary conditions (slope etc.) less critical
- C — LOW POTENTIAL—No evidence of past occurrence, but potential exists given coincidence of "right" conditions

Stream names in parentheses either do not appear on U.S. Geological Survey maps or indicate local usage.