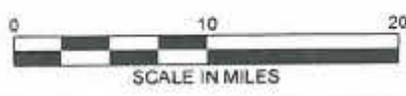


SOURCE:  
U.S.G.S. 1:250,000 Map Series, 1953



<b>CHUGACHMIUT WATERSHED ANALYSIS &amp; WATER QUALITY EVALUATION</b>		<b>URS</b>
<b>SITE LOCATION MAP</b>		
<b>CHENEGA BAY AND TATITLEK, ALASKA</b>		
JOB NO. 74-38396100.00	DRAWN: ECA	<b>FIGURE 1</b>
DATE: FEBRUARY 2002	FILE: SITE LOC 74-38396100.00.DWG	



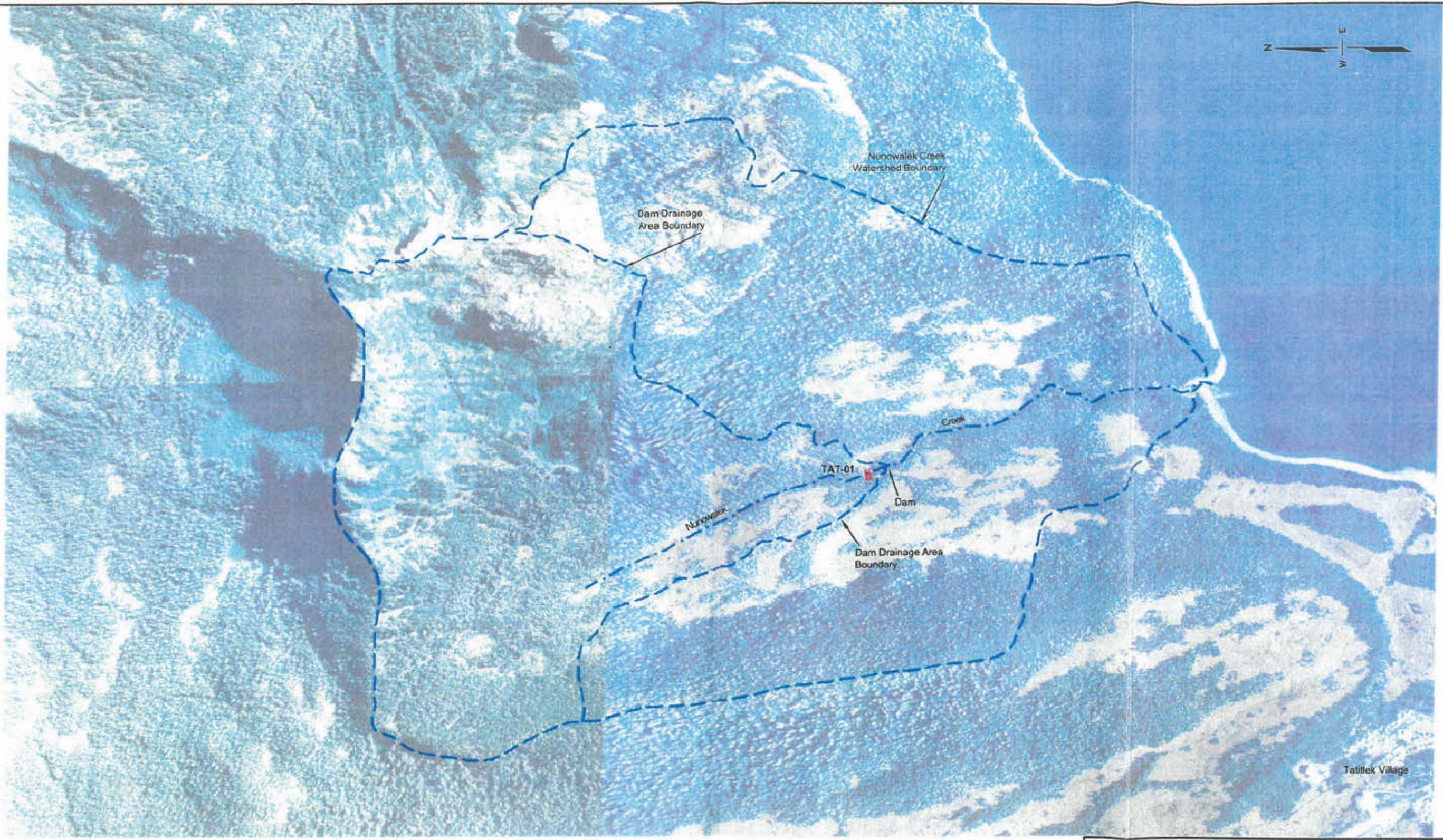
**LEGEND**

- CHB-01  Stream cross-section and sample location
-  Watershed boundary
-  Stream

SOURCE:  
 AeroMap U.S., Inc.  
 Date of Photography: June 23, 1996



<b>CHUGACHMIUT</b> <b>WATERSHED ANALYSIS &amp; WATER QUALITY EVALUATION</b>		
<b>AERIAL PHOTOGRAPH</b> <b>ANDERSON CREEK WATERSHED</b>  <b>CHENEGA BAY, ALASKA</b>		
JOB NO: 74-38396100.00 DATE: FEBRUARY 2002	DRAWN: ECA FILE: 74-38396100.00.AND.DWG	<b>FIGURE 2</b>



**LEGEND**

-  Watershed boundary
-  Stream
-  TAT-01 Stream cross-section and sample location

SOURCE:  
 AeroMap U.S., Inc.  
 Date of Photography: August 15, 1995  
 and October 3, 1995



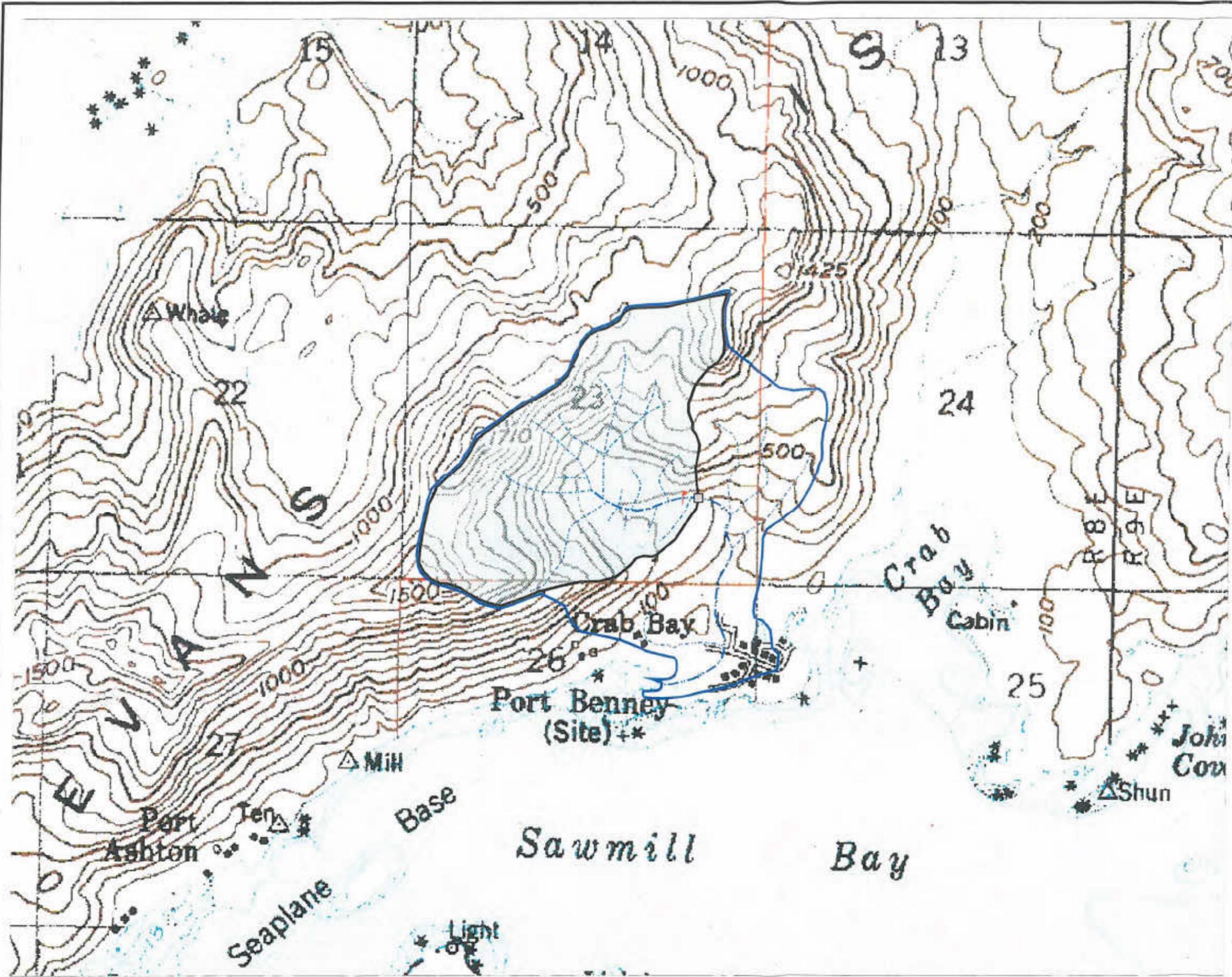
CHUGACHMIUT  
 WATERSHED ANALYSIS & WATER QUALITY EVALUATION

**AERIAL PHOTO MOSAIC  
 NUNOWALAK CREEK  
 WATERSHED  
 TATITLEK, ALASKA**



JOB NO. 74-05296-00.00	DRAWN: ECA
DATE: FEBRUARY 2002	FILE: TATITLEK WATERSHED.DWG

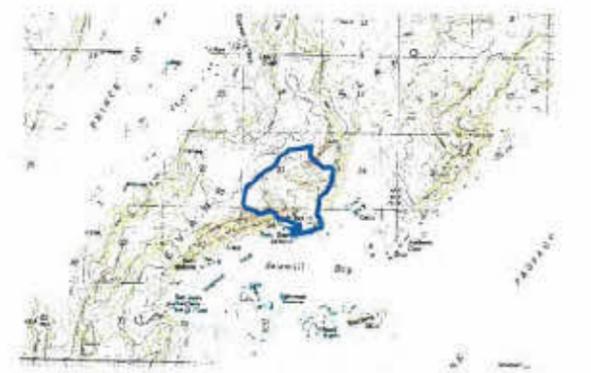
**FIGURE 3**



- Legend**
- Anderson Creek Watershed Boundary
  - Dam Drainage Area
  - ~ Anderson Creek
  - ~ Tributary Stream Channel
  - o Ponds
  - Public Water Supply Dam
  - + CHB-01 Stream cross-section and water sample location



Data Source:  
Base Map: USGS 1:25000 Quad Seward A-1 (1961, Water Revision 1980)  
Watershed boundaries, dam, dam drainage area, stream, stream reach location: URS Corporation  
URS Corporation does not guarantee the accuracy or validity of the data provided.  
Projection: NAD 83, Zone 18  
Datum: NAD 83



**Chugachmiut Watershed Analysis and Water Quality Evaluation**

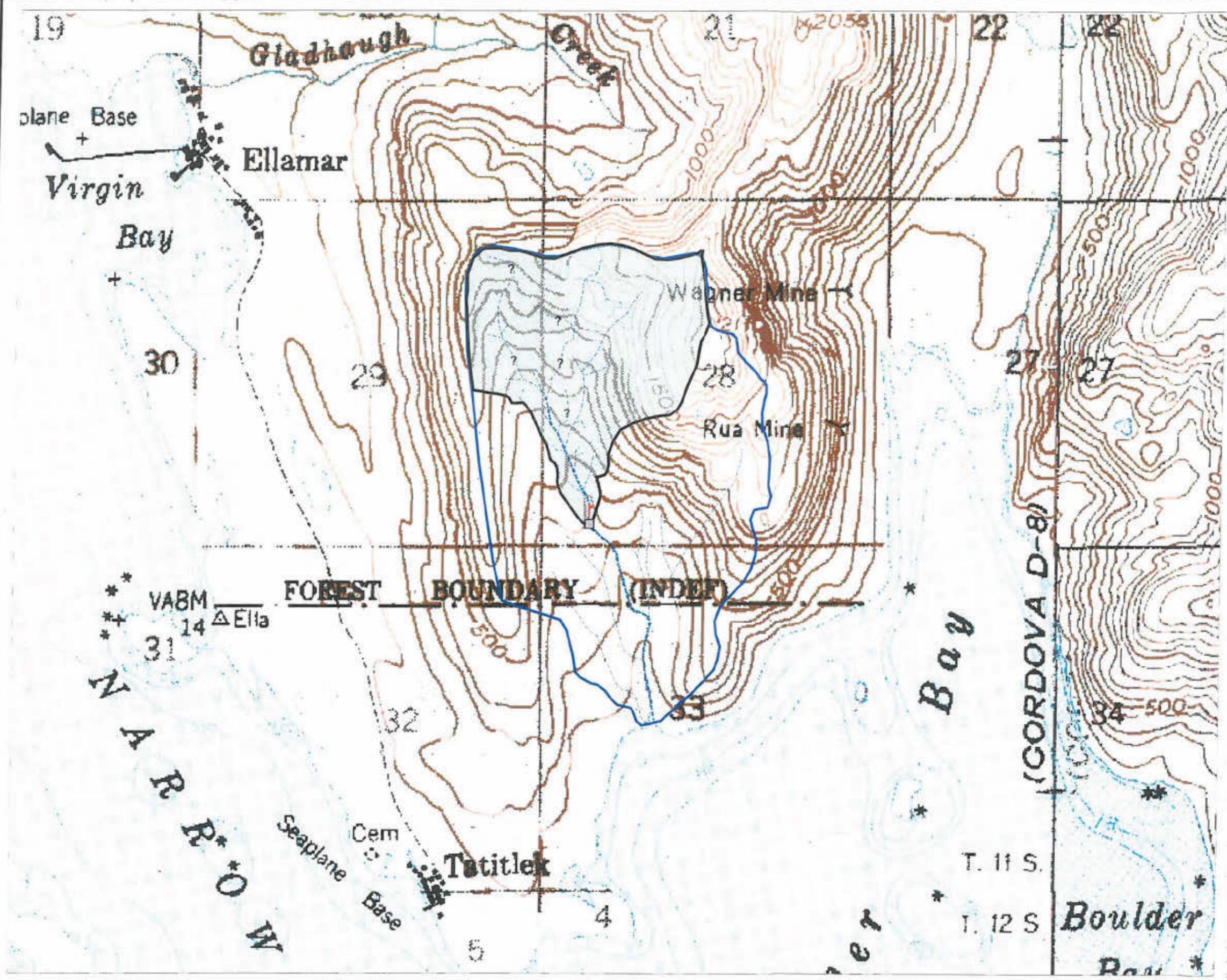
**Topography, Streams and Watershed Boundaries  
Chenega Bay, Alaska**



JOB NO: 74-58398100.n0  
DATE: February 27, 2001

DRAWN BY: TEK  
FILE:

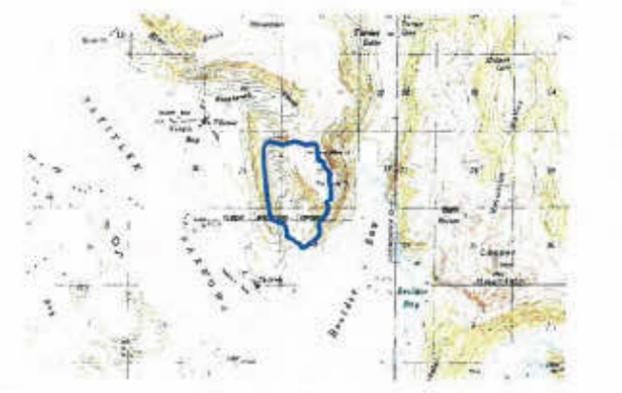
**FIGURE 4**



- Legend**
- Overall Watershed Boundary
  - Dam Drainage Area
  - Public Water Supply Creek (Unnamed)
  - Tributary Stream Channel
  - Ponds
  - Public Water Supply Dam
  - TAT-01 Stream cross-section and water sample location



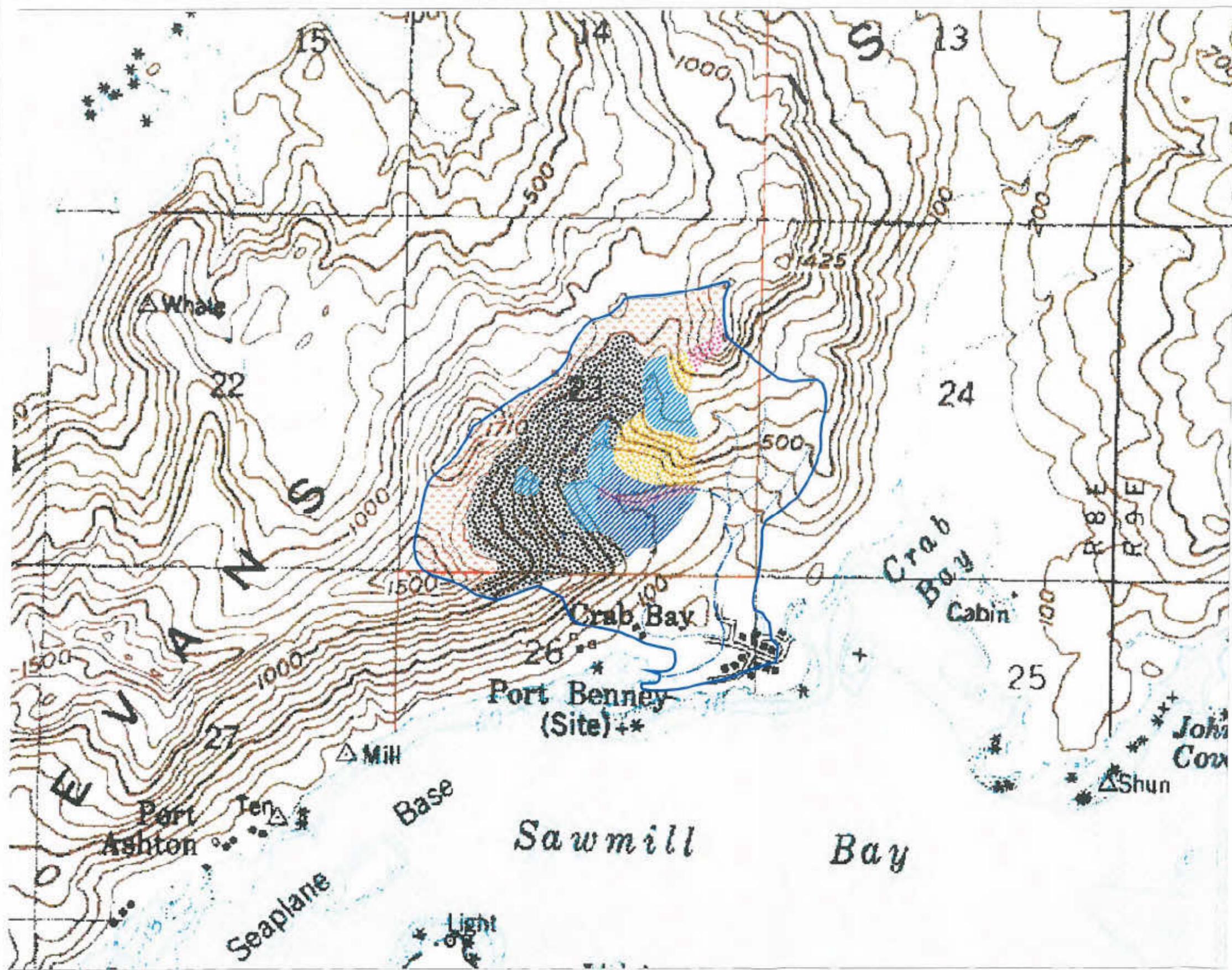
Data Source:  
 1:50,000 Scale USGS Quad Cordele (21-1 and 22-1)  
 (1962 & 1968, 1971, 1973)  
 Watershed Boundaries, Dam, Dam Drainage Area, Stream Channel, Ponds  
 Created by URS Corporation  
 URS Corporation does not guarantee the accuracy or validity of the data provided.  
 Prepared: LTM, Date: 8/01  
 Dated: 1/01



**Chugachmiut**  
 Watershed Analysis and Water Quality Evaluation

**Topography, Streams and Watershed Boundaries**  
 Tatitlek, Alaska





**Legend  
Soil Types<sup>1</sup>**

-  AH/RO+Cr  
Alpine highlands with rock outcrops and Cryombrepts
-  GS-32/Fr+Cr  
Nonforested upper glacial slopes with Fragiorthods and Cryothods
-  GS-33/KnF  
Forested lower glacial slopes with Kniklik gravelly silty loam
-  GS-36/Cr  
Broken glacial slopes, forested and nonforested/ disturbed, with muck or loam over weathered bedrock
-  ISL-101/Ub  
Nonforested ice-scoured lands with Unakwik peat
-  ISL-102/LuD  
Forested ice-scoured lands with LaTouche-Unakwik Complex soils
-  ISL-102/LaF  
Forested ice-scoured lands with LaTouche gravelly loam



Data Source:  
Base Map: 1:25000 USGS Quad Sheet A-1  
(1961, 1964 revision 1983)  
Soil polygons, legend, boundary  
created by URS Corporation  
URS Corporation does not guarantee the  
accuracy or validity of the data provided  
herein. (7/91, Zone 6,  
Datum: NAD83)

<sup>1</sup> Additional details provided in Table 3



**Chugachmiut  
Watershed Analysis and Water Quality Evaluation**

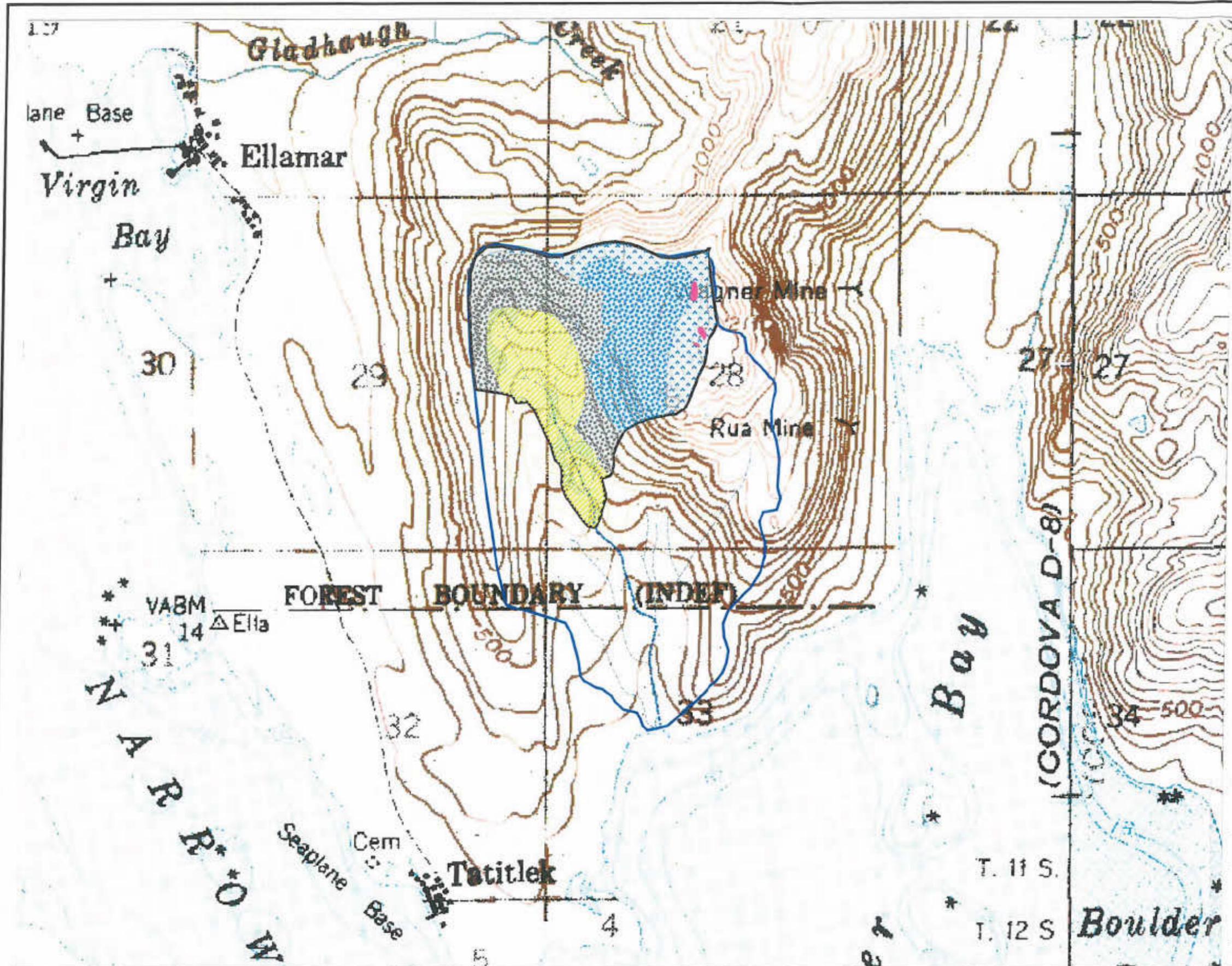
**Soils Map of Chenega Bay  
Dam Drainage Area**



JOB NO: T4-38396100.00  
DATE: February 27, 2001

DRAWN BY: TEK  
FILE:

**FIGURE 6**



**Legend**

**Soil Types<sup>1</sup>**

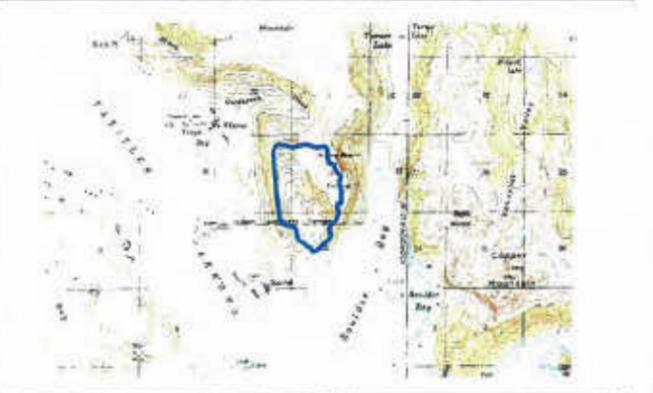
-  AH/R  
Alpine highlands with rock outcrops and shallow soils
-  AH/Tu  
Alpine talus deposits
-  GS/BF26  
Snowslide areas and forested upper glacial slopes with Shakan-McGilvery Complex soils
-  GS/F12  
Forested mid-lower glacial slopes with Kupreanof-McGilvery Complex soils
-  ISL/MF2  
Upper valley muskegs and low ridges
-  ISL/F45  
Forested lower sideslopes and ridges with gravelly silt loam and muck

<sup>1</sup> Additional details provided in Table 4.

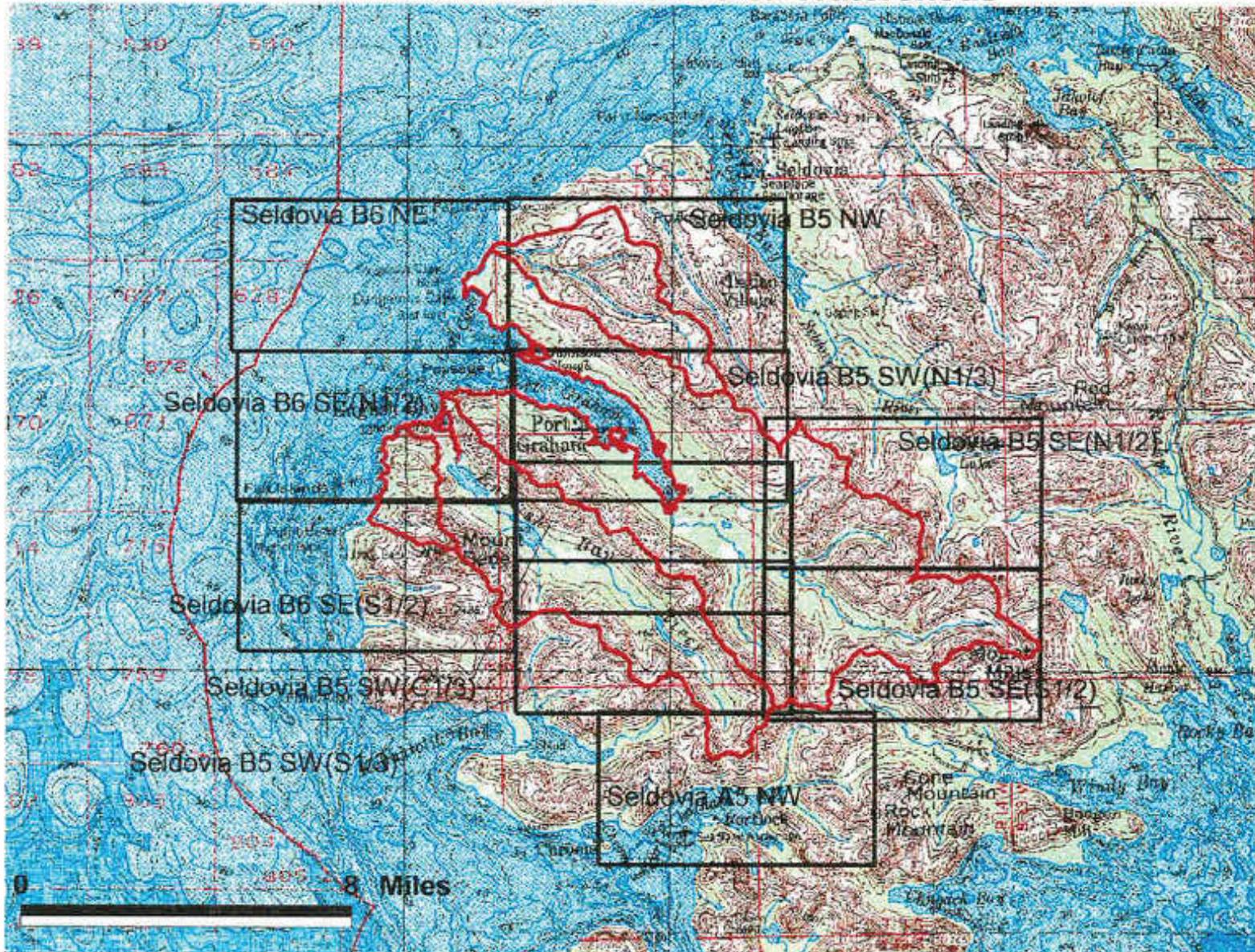
Scale: 0 100 200 300 Feet

North Arrow

This map was prepared by URS Corporation for the U.S. Army Corps of Engineers, Alaska District, Anchorage, Alaska. URS Corporation does not guarantee the accuracy or quality of the data provided herein.

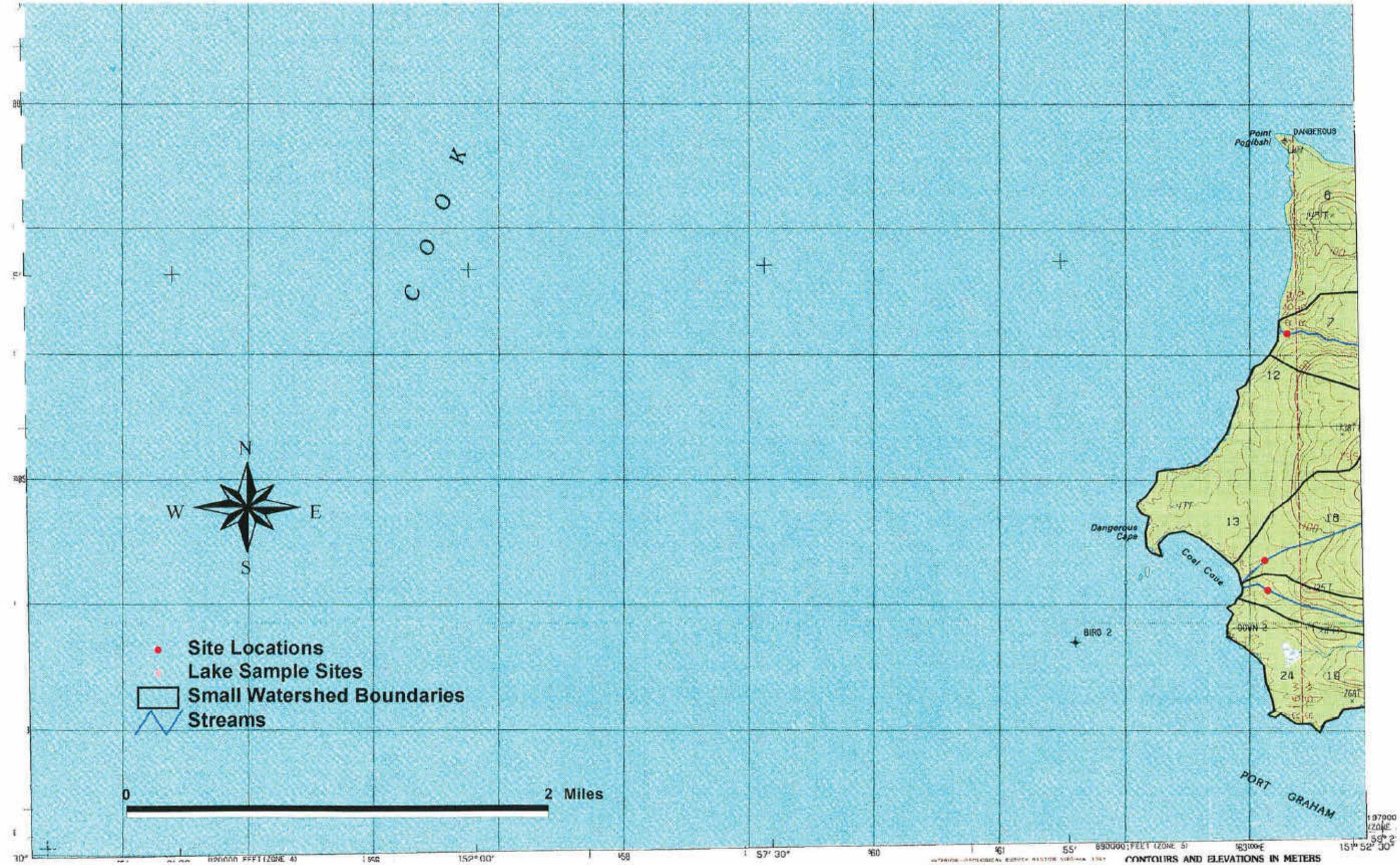


**Figure D-1**  
**Map Key Showing Subarea Boundaries**  
**Port Graham and Nanwalek Watersheds**



 Large Watershed  
 Subarea Boundaries

# Subarea Map Seldovia B6 NE : Watershed Boundaries and Streams





# Subarea Map Seldovia B6 SE (S1/2): Watershed Boundaries and Streams

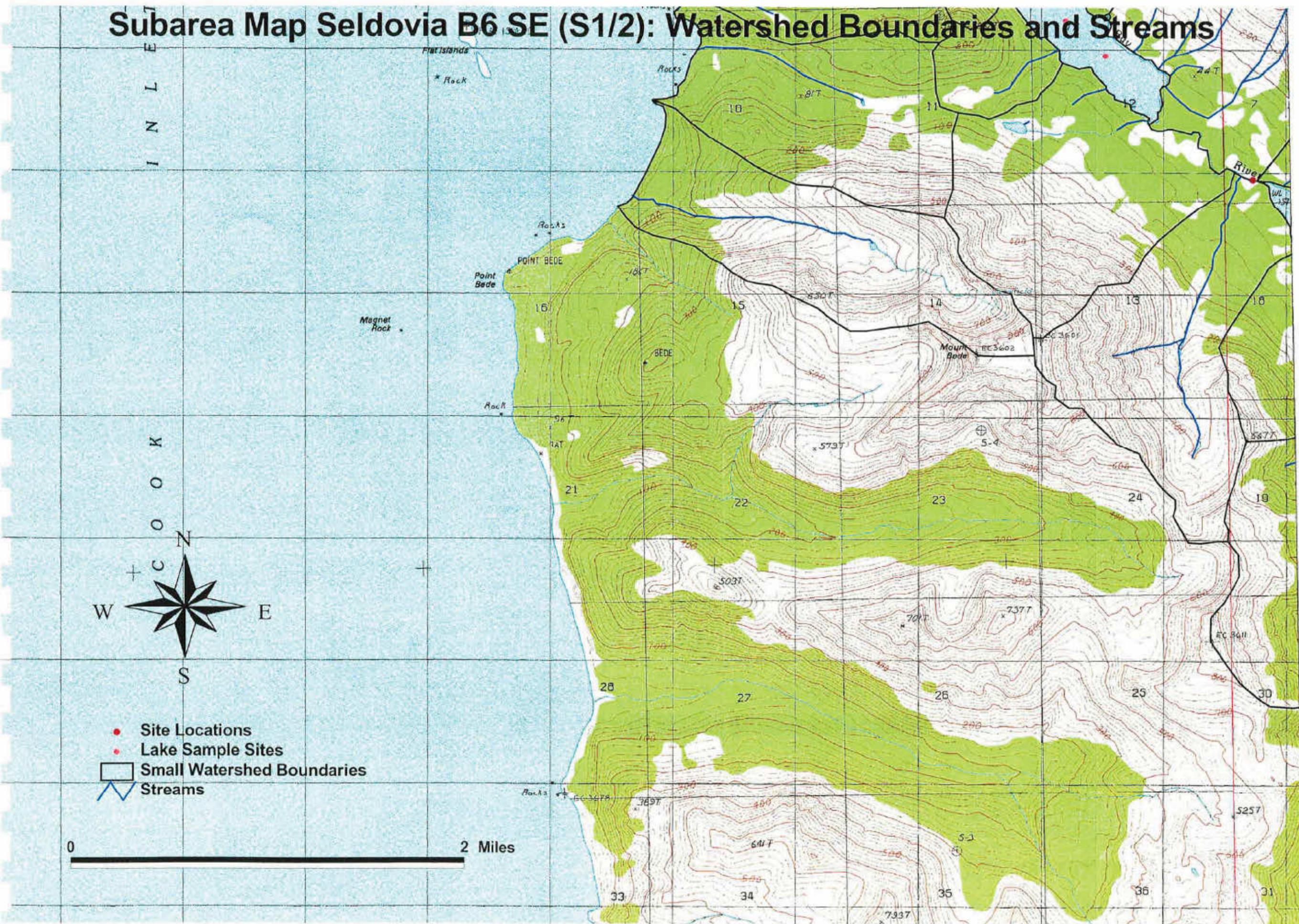


Figure D-4

# Subarea Map Seldovia B5 NW : Watershed Boundaries and Streams



Figure D-5

# Subarea Map Seldovia B5 SW (N1/3) : Watershed Boundaries and Streams

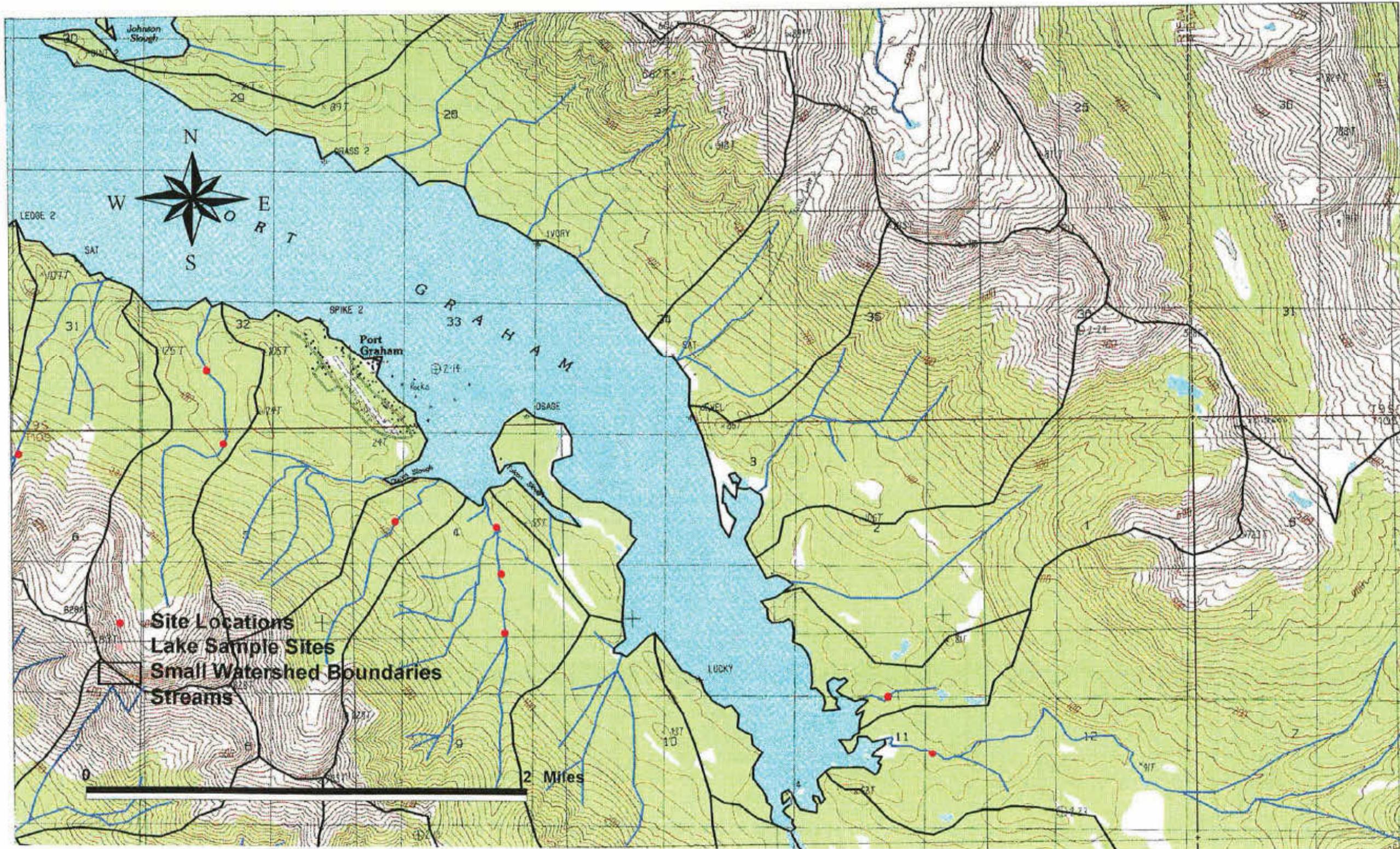


Figure D-6

# Subarea Map Seldovia B5 SW(C1/3) : Watershed Boundaries and Streams

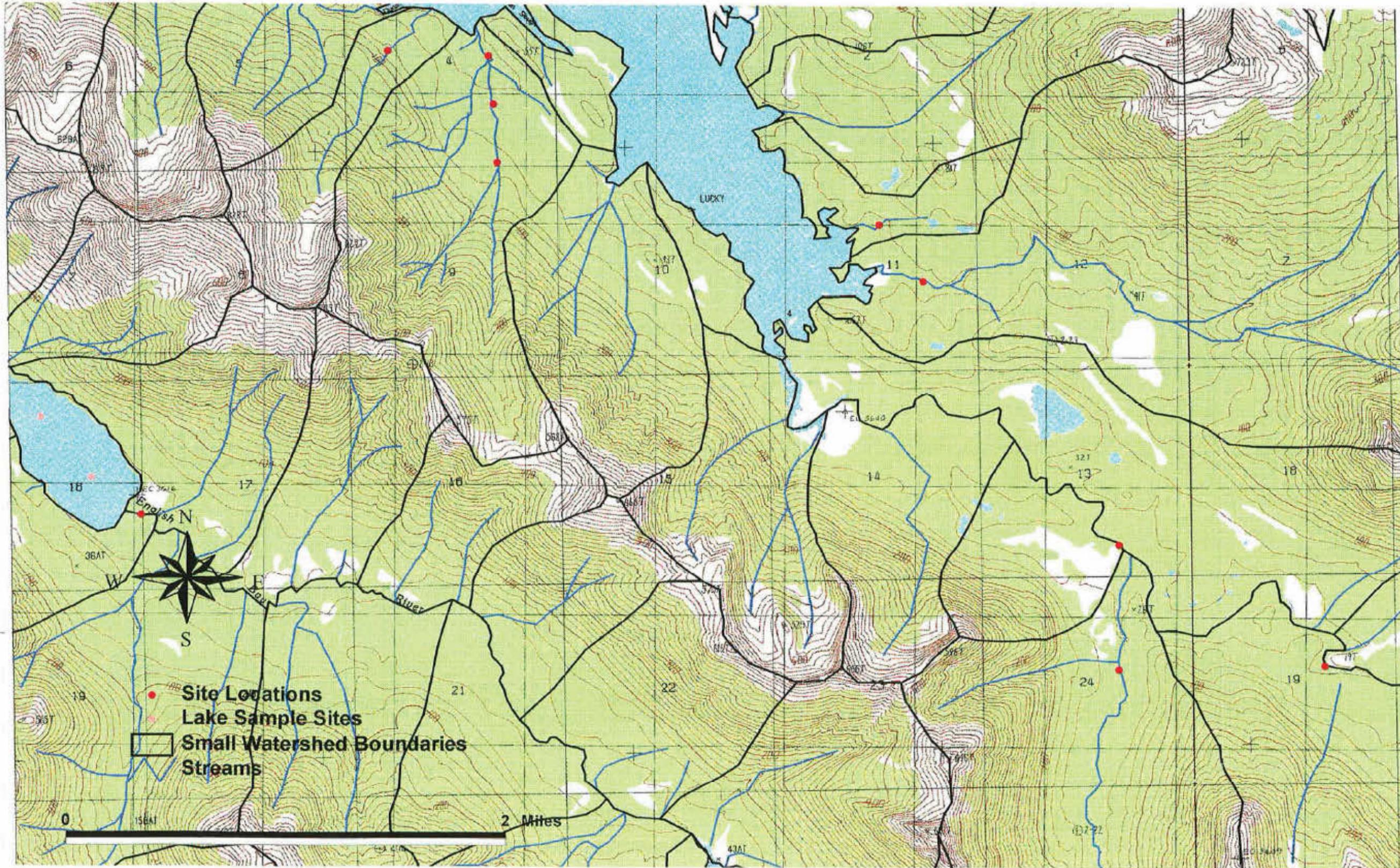


Figure D-7

# Subarea Map Seldovia B5 SW (S1/3) : Watershed Boundaries and Streams

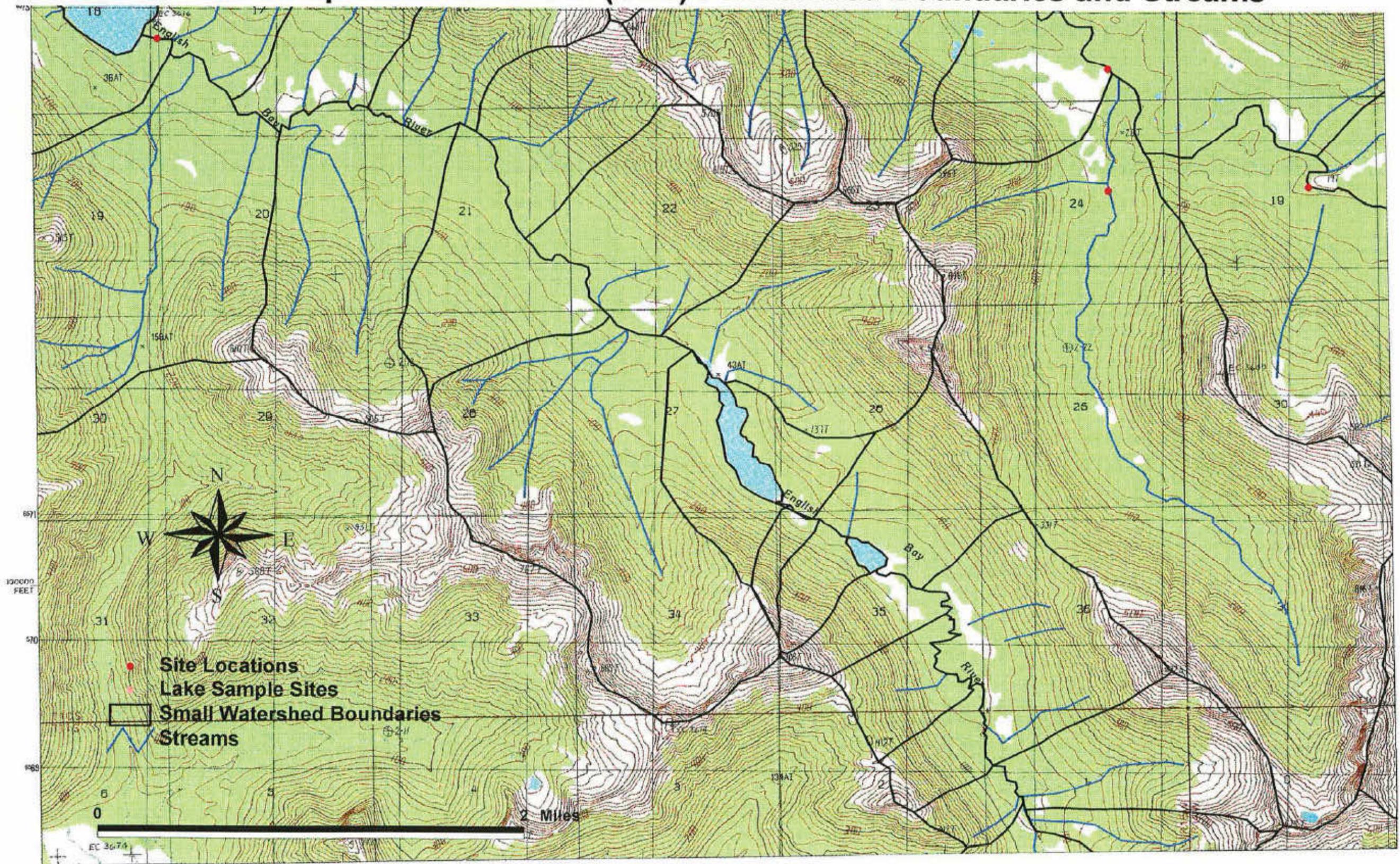


Figure D-8

# Subarea Map Seldovia A5 NW : Watershed Boundaries and Streams

INTERIOR  
EY

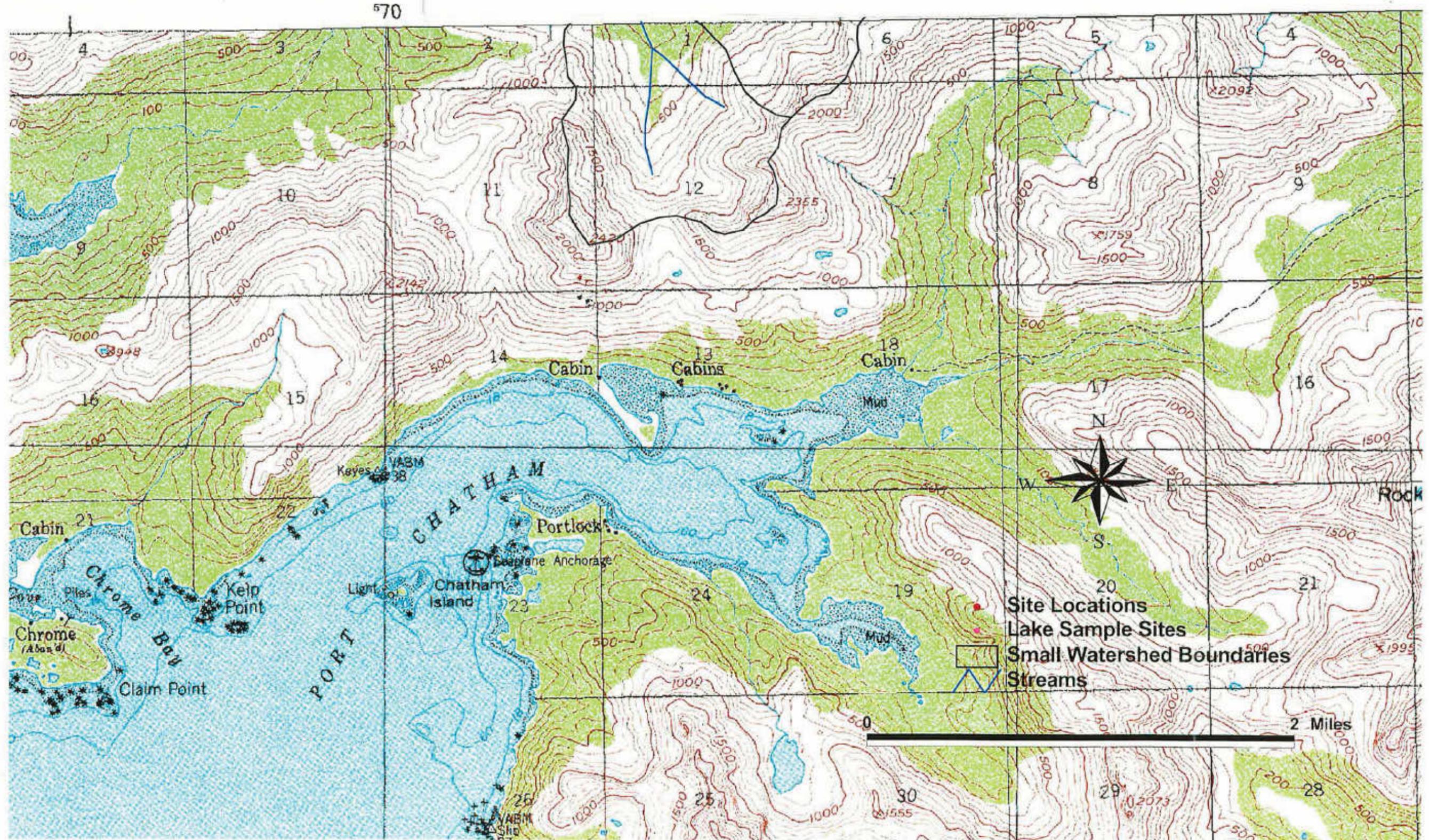


Figure D-9

# Subarea Map Seldovia B5 SE (N1/2): Watershed Boundaries and Streams

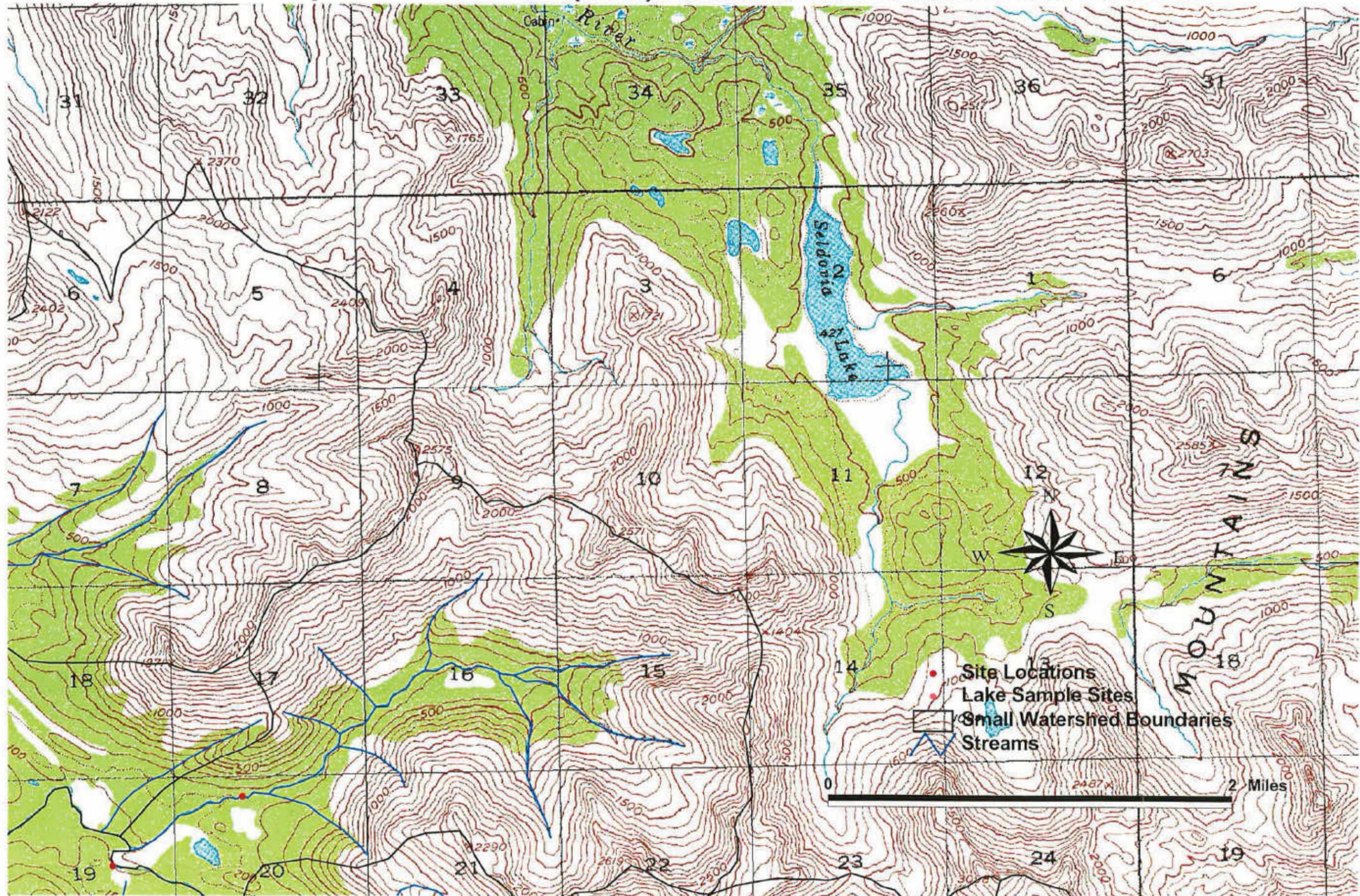


Figure D-10

# Subarea Map Seldovia B5 SE (S1/2): Watershed Boundaries and Streams

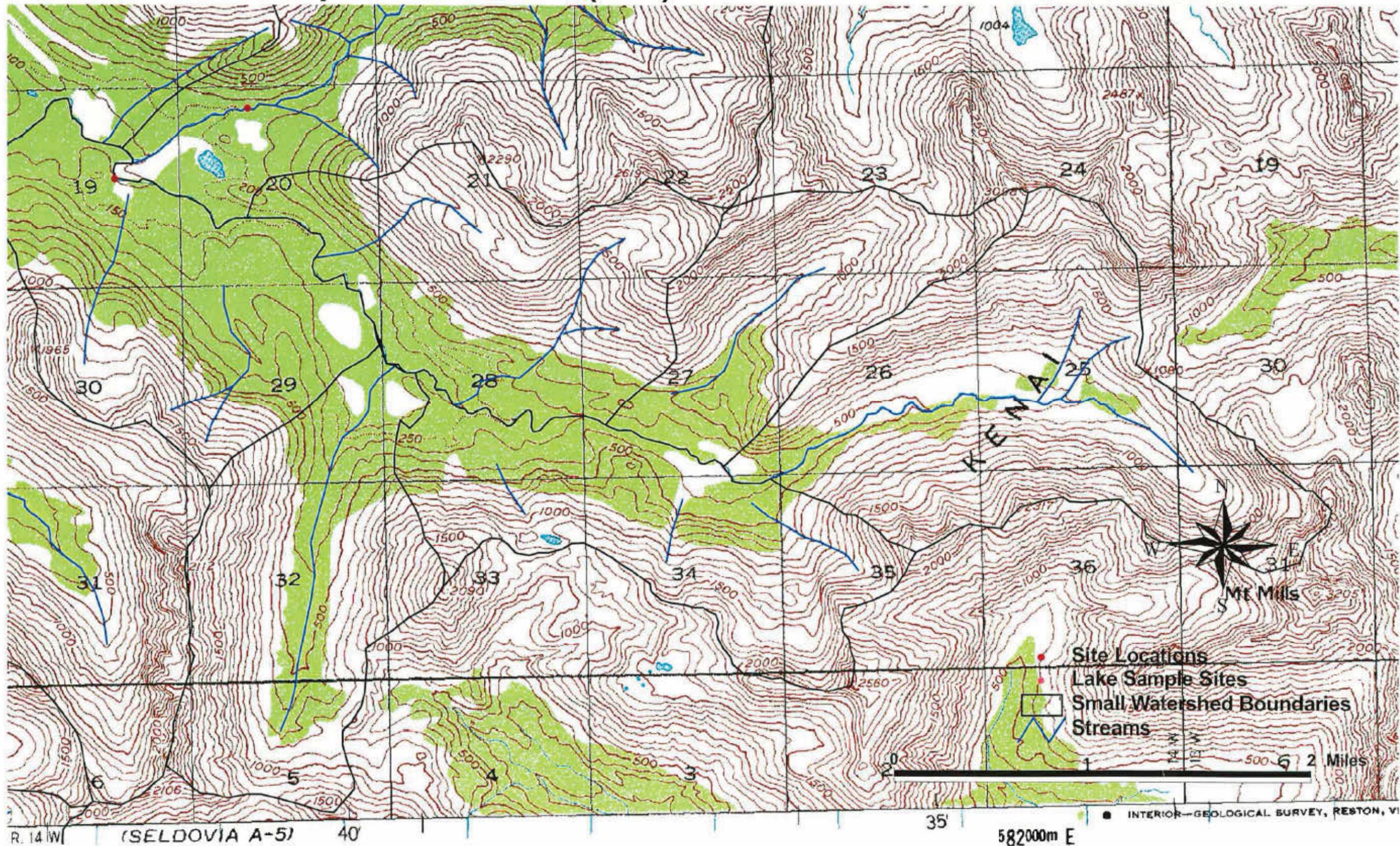


Figure D-11

SCALE 1:63 360

1 2 3 4 MILES

ROAD CLASSIFICATION

Light-duty ..... Unimproved

**APPENDIX E**

**SOIL MAPS,**  
**PORT GRAHAM AND NANWALEK WATERSHEDS**

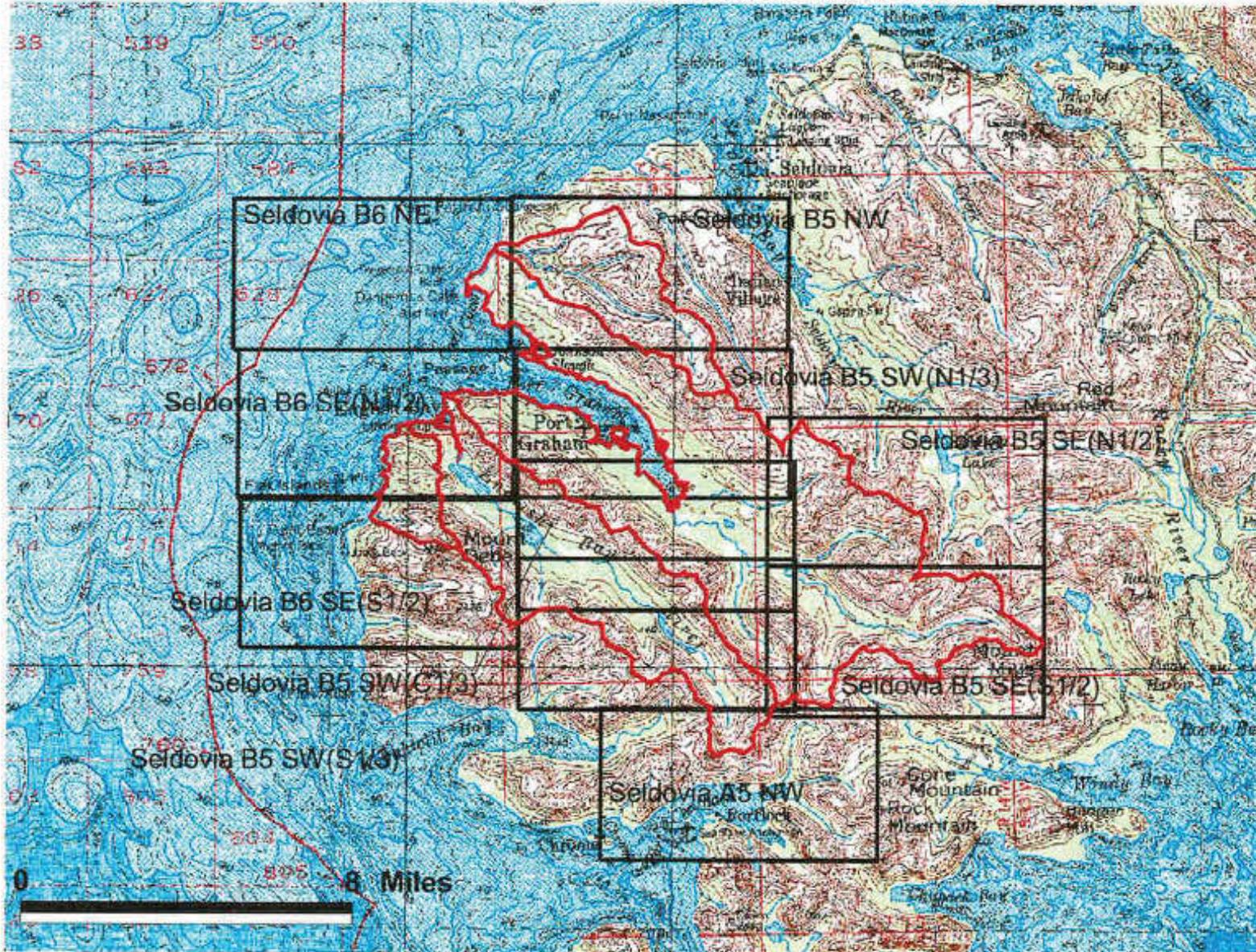
## APPENDIX E

The following figures are included in this appendix:

- Figure E-1 Map Key Showing Subarea Boundaries, Port Graham and Nanwalek Watersheds
- Figure E-2 Key to Soil Map Units
- Figure E-3 Subarea Map Seldovia B-6 NE: Watershed Boundaries and Streams
- Figure E-4 Subarea Map Seldovia B-6 SE (N1/2): Watershed Boundaries and Streams
- Figure E-5 Subarea Map Seldovia B-6 SE (S1/2): Watershed Boundaries and Streams
- Figure E-6 Subarea Map Seldovia B-5 NW: Watershed Boundaries and Streams
- Figure E-7 Subarea Map Seldovia B-5 SW (N1/3): Watershed Boundaries and Streams
- Figure E-8 Subarea Map Seldovia B-5 SW (C1/3): Watershed Boundaries and Streams

Note: Soils have not been mapped by NRCS (1997) for the following subareas: Seldovia B-5 SW (S1/3), Seldovia A-5 NW, Seldovia B-5 SE (N1/2), and Seldovia B-5 SE (S1/2).

**Figure E-1**  
**Map Key Showing Subarea Boundaries**  
**Port Graham and Nanwalek Watersheds**



-  Large Watershed
-  Subarea Boundaries

**KEY TO SOIL MAP UNITS**  
**Port Graham and Nanwalek Watersheds**

Field Symbol	NRCS Map No.	Soil Type
AFA	136	Taluwik Silt Loam, 0-3% slopes
AFB	137	Taluwik Silt Loam, 3-8% slopes
ChB	103	Chenega Silt Loam, 3-8% slopes
Cr	142	Typic Cryaquents-Andic Cryofluvents Complex, 0-3% slopes
KiB	124	Koyuktolik and Nuka Peats, 0-8% slopes
KpDD	112	Kasitsna Silt Loam, rolling to steep
KsE	117	Kasitsna-Seldovia Complex, 25-45% slopes
KsF	114	Kasitsna-KasitsnaCool-Seldovia Complex, 45-65% slopes
KtDD	122	Kasitsna-Tutka Complex, rolling to steep
KtEE	123	Kasitsna-Tutka Complex, hilly to very steep
KtF	120	Kasitsna-Tutka Complex, 45-65% slopes
KtG	121	Kasitsna-Tutka Complex, 65-120% slopes
KyDD	115	Kasitsna-Nuka Complex, nearly level to hilly
KyIDD	116	Kasitsna-Nuka-Tutka Complex, nearly level to hilly
NaF	129	Nanwalek Silt Loam, 25-65% slopes
NaG	128	Nanwalek-Rock Outcrop Complex, 65-120% slopes
NKEF	126	Nanwalek-Kasitsna Cool Complex, 25-65% slopes
NwEF	125	Nanwalek Silt Loam, 25-65% slopes, warm
RM	104	Cryods, Cryothents, and Rock Outcrop, 5-120% slopes
RO	132	Rock Outcrop-Cryothents, very steep
SdC	134	Seldovia Silt Loam, 0-15% slopes
SdDD	118	Kasitsna-Seldovia-Portgraham Complex, rolling to steep
SdE	135	Seldovia Silt Loam, 25-45% slopes
SdEE	119	Kasitsna-Seldovia-Portgraham Complex, hilly to very steep
Ss	106	Ismailof Sandy Loam, 0-3% slopes
TxA	107	Jakalof Silt Loam, 0-3% slopes
TxB	108	Jakalof Silt Loam, 3-8% slopes

Source: NRCS (1997)

**FIGURE E-2**

# Subarea Map Seldovia B6 NE : Soil Types

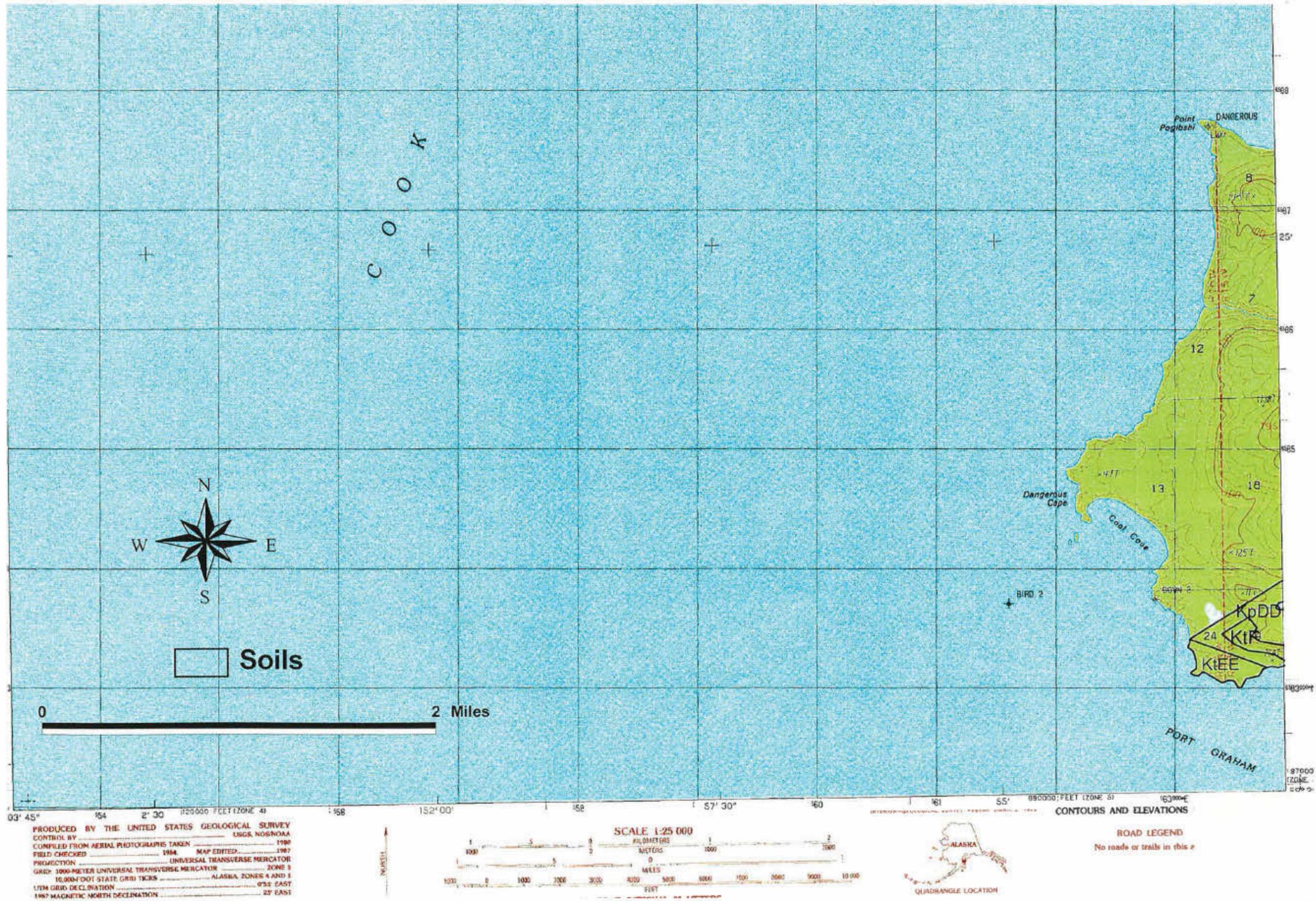


Figure E-3

# Subarea Map Seldovia B6 SE(N1/2) : Soil Types

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SELDOVIA (B-6) SE QUADRANGLE  
ALASKA-KENAI PENINSULA BOROUGH  
1:25 000-SCALE SERIES (TOPOGRAPHIC)

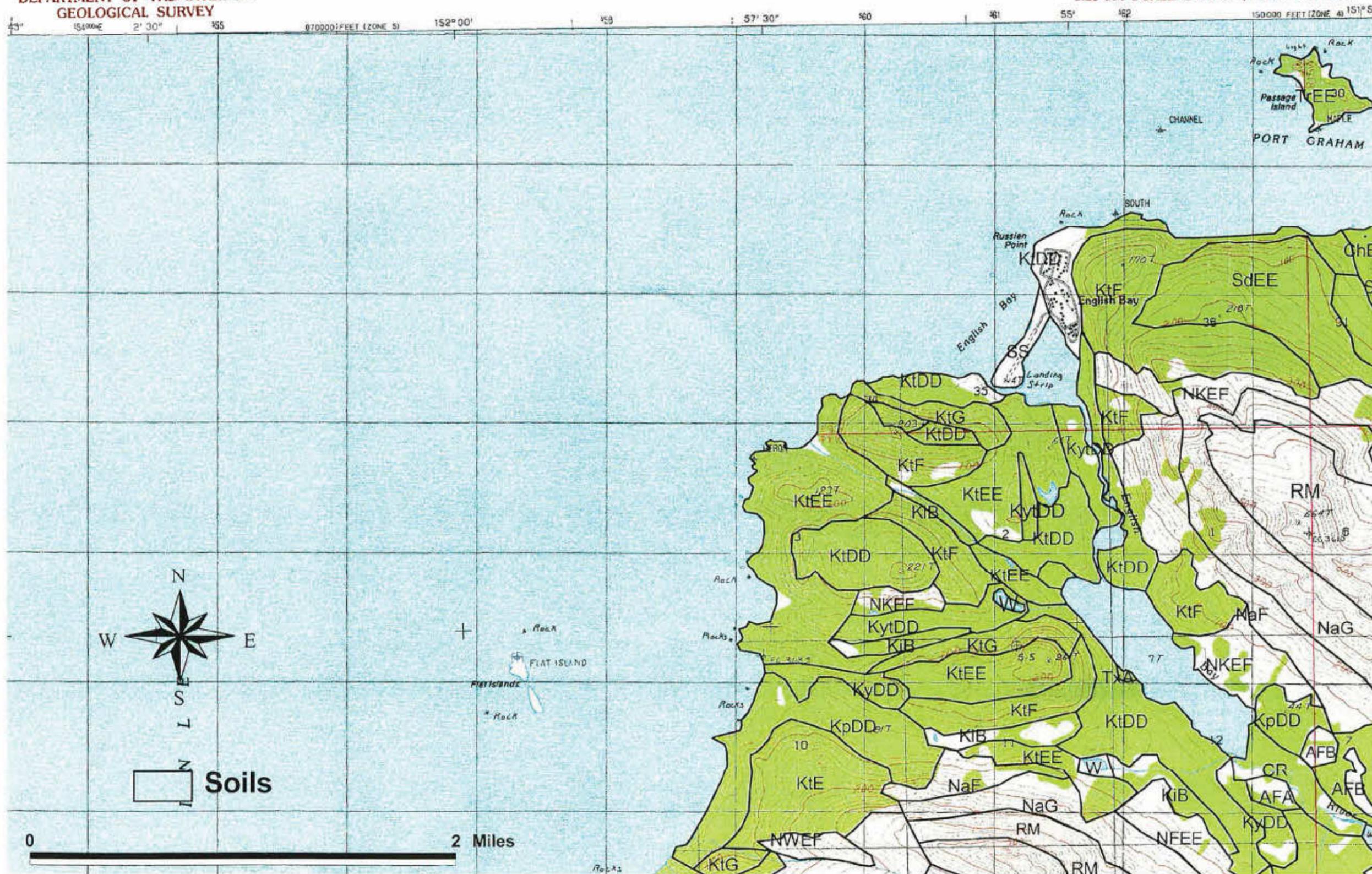


Figure E-4



# Subarea Map Seldovia B5 NW : Soil Types

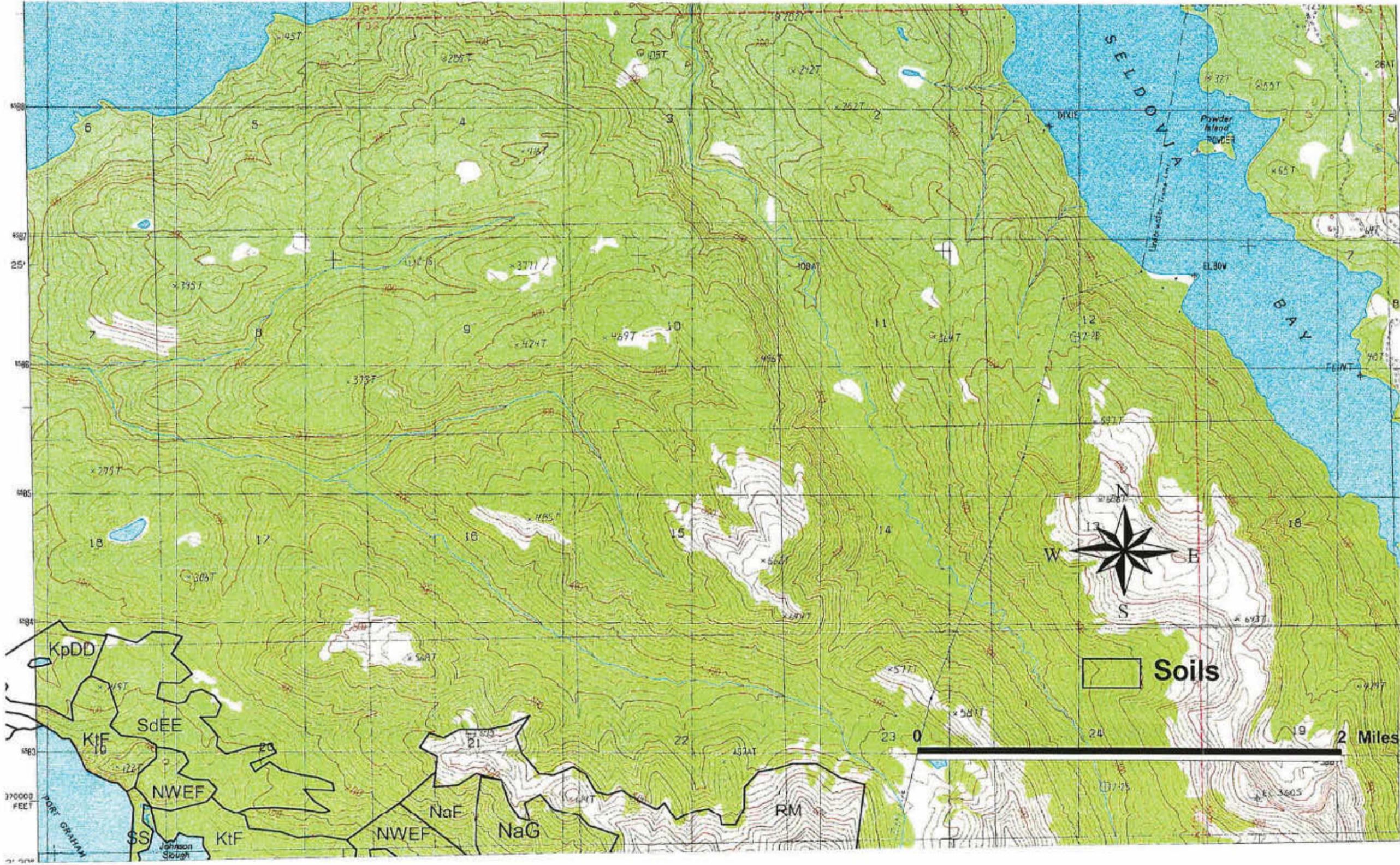


Figure E-6



# Subarea Map Seldovia B5 SW(C1/3) : Soil Types

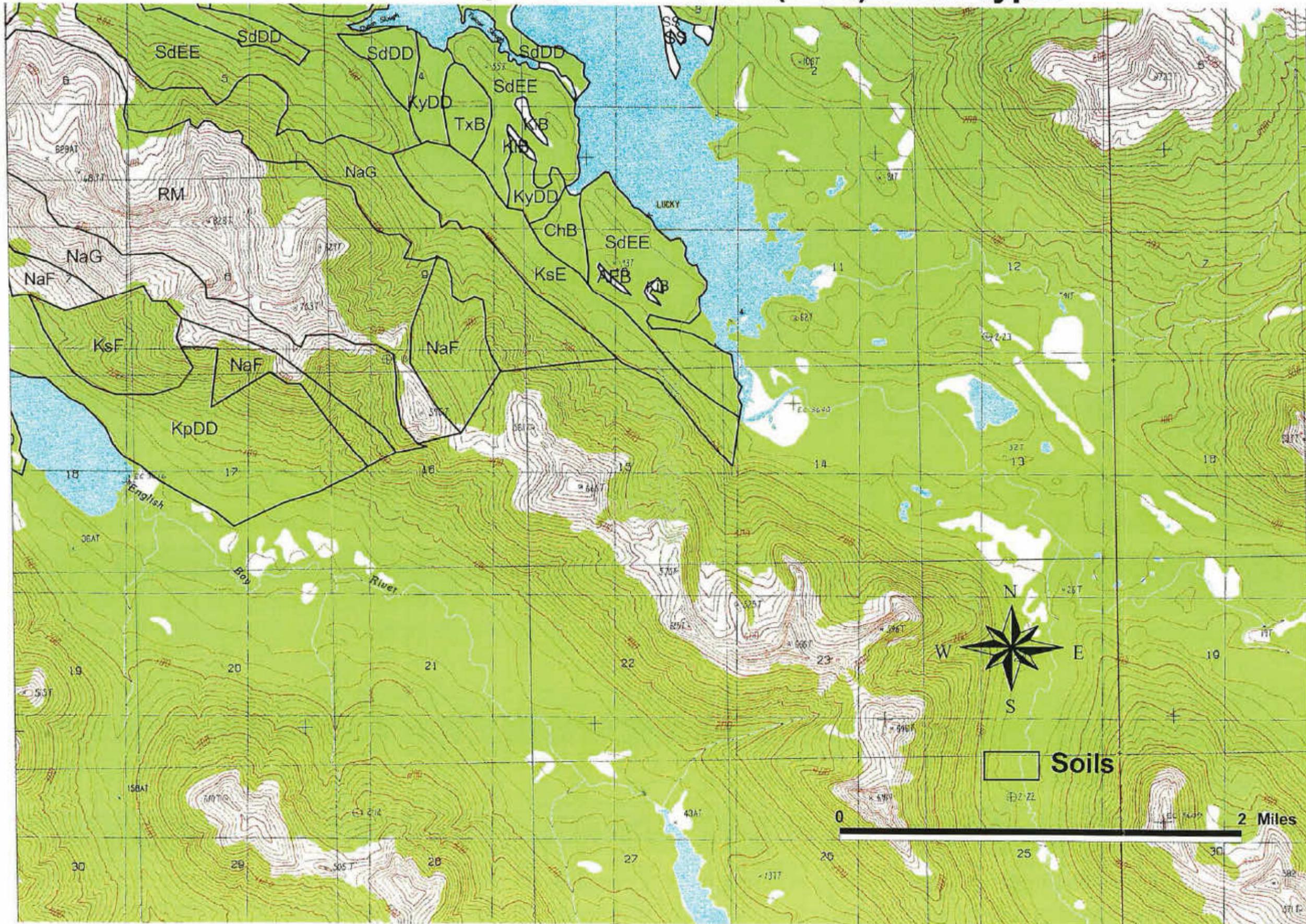
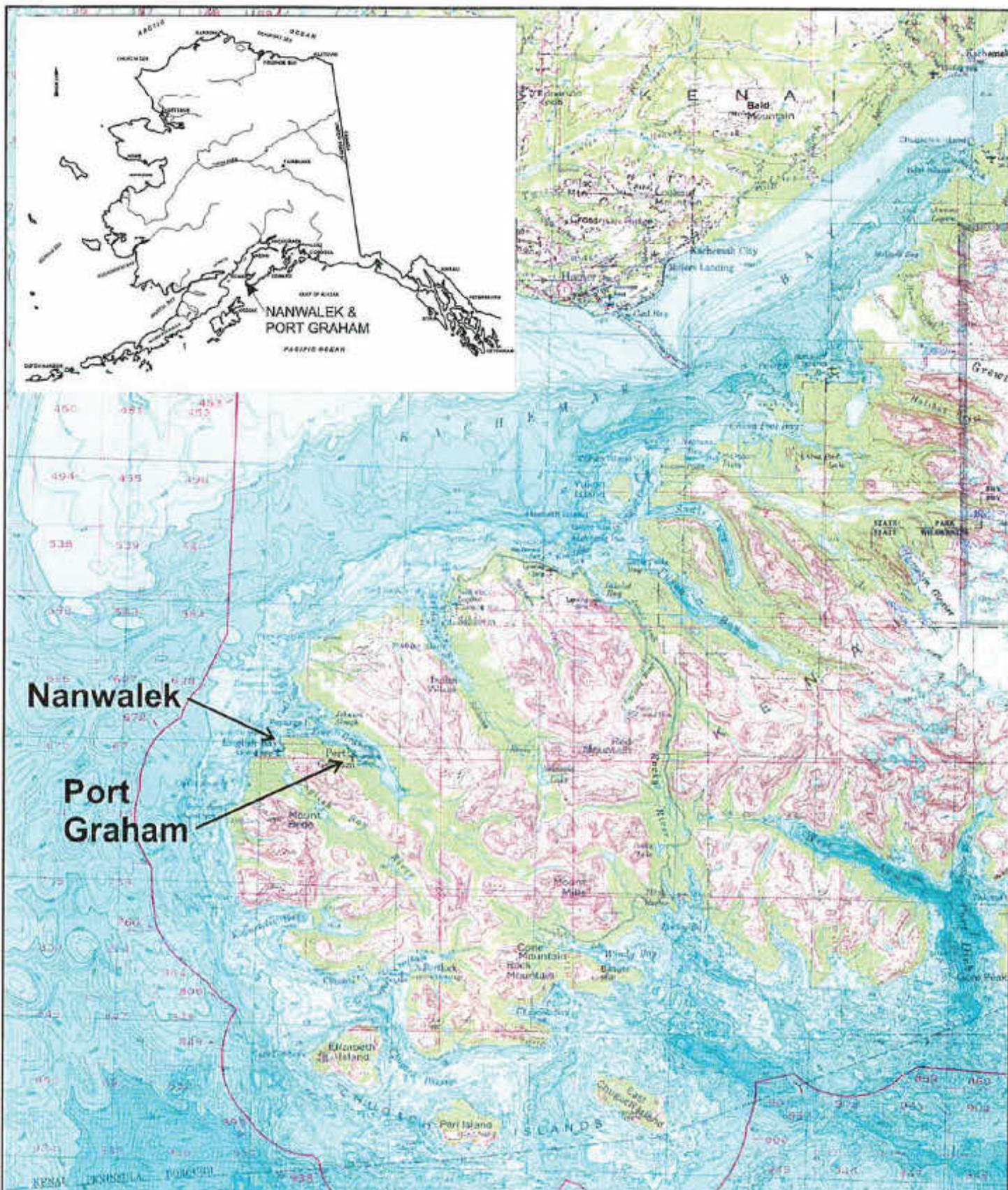


Figure E-8



Source: USGS 1:250,000 Topographic Map Series  
Seldovia, Alaska Quadrangle (1963, Rev. 1985)



**CHUGACHMIUT**  
WATERSHED ANALYSIS AND WATER QUALITY EVALUATION

**SITE LOCATION MAP**

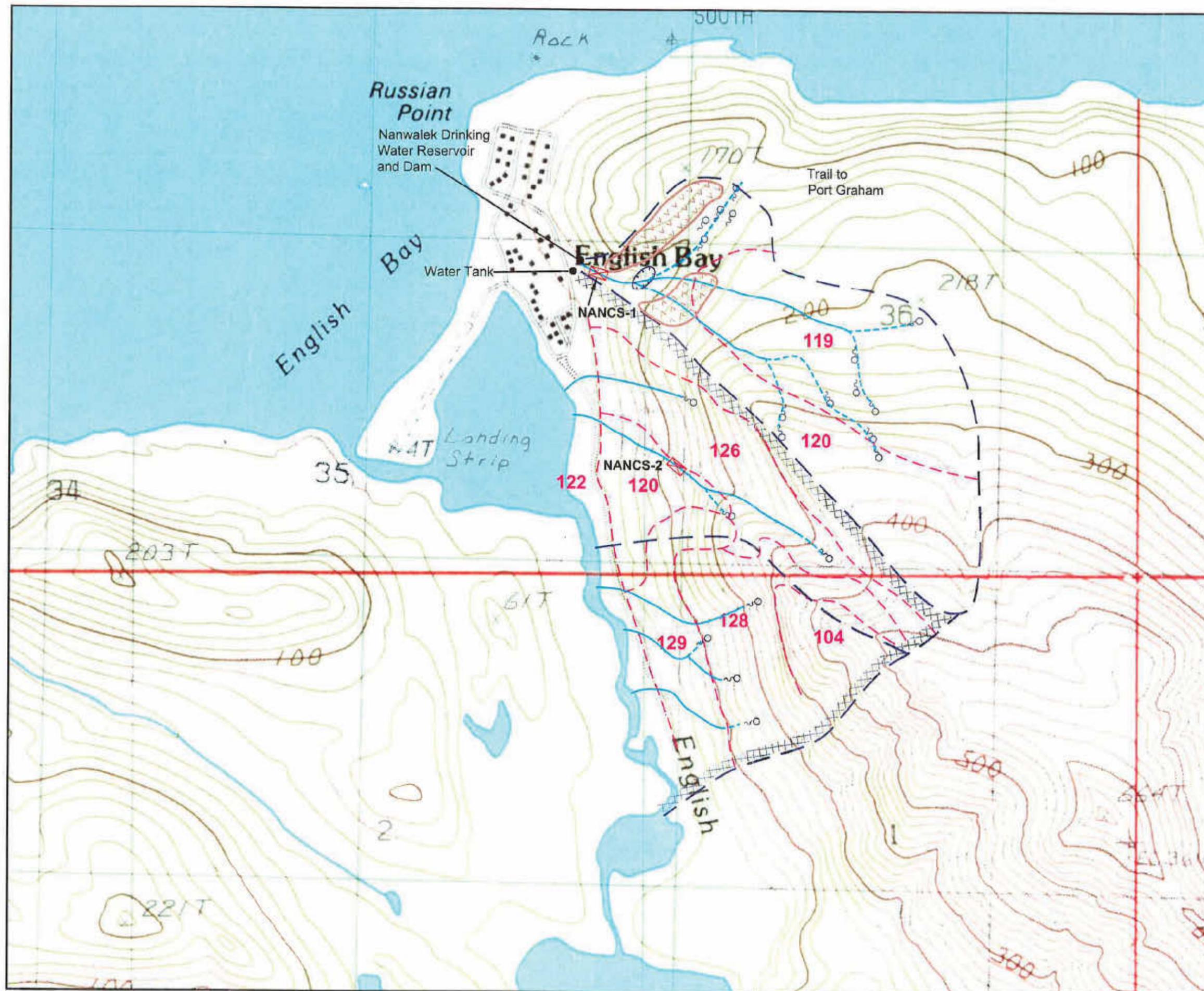
NANWALEK AND PORT GRAHAM, ALASKA

JOB NO: 38396-001-220 DRAWN: ELK  
DATE: 12 MARCH 1998 FILE: FIG01.CDR

DAMES & MOORE



**FIGURE 1**

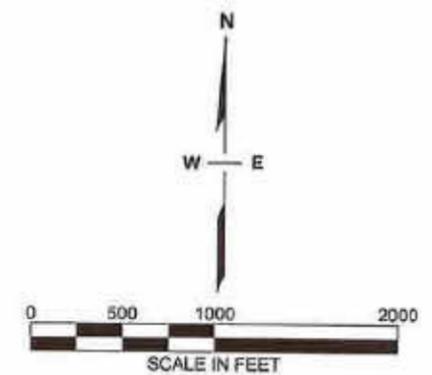


### LEGEND

	Watershed review area
	Watershed boundary
	Perennial stream
	Intermittent stream
	Spring or seep
	Stream cross-section and sample location
	Steep slopes (>35°) with sections of exposed rock
	Logging Road
	Trail
	Soil unit boundary
	Small Basin

### SOIL UNITS

104	Rock Outcrop
119	Kasitsna-Seldovia-Port Graham Complex Hilly to very steep
120	Kasitsna-Tutka Complex
122	Kasitsna-Tutka Complex rolling to steep
126	Nanwalek, Cook Complex
128	Nanwalek - Rock Outcrop Complex
129	Nanwalek Silt Loam



CHUGACHMIUT

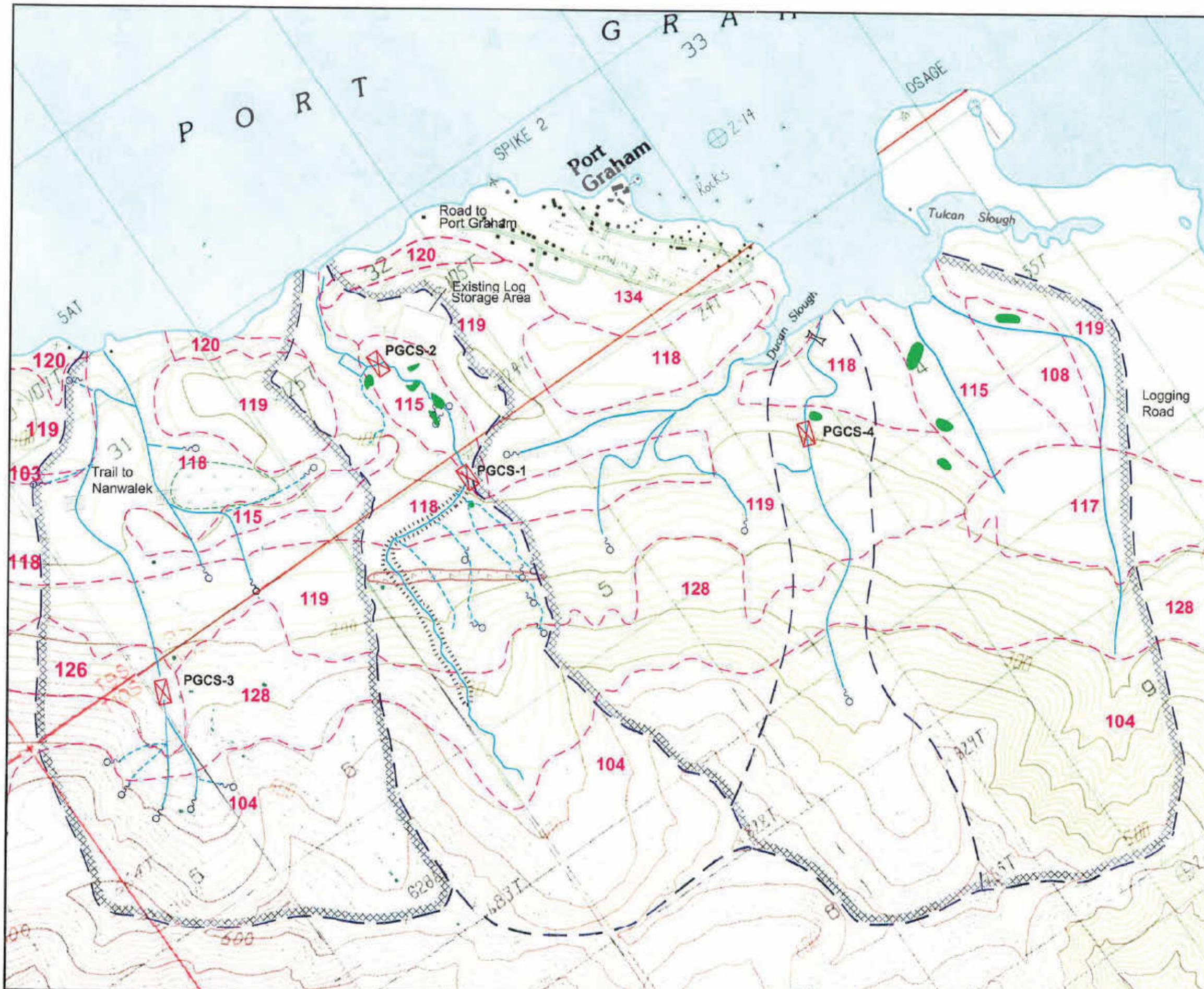
**NANWALEK  
SOIL UNITS & WATSHED**

NANWALEK, ALASKA



JOB NO: 38396-002-000 DRAWN: AR  
DATE: AUGUST 1999 FILE: PG-NAN.DWG

FIGURE 2

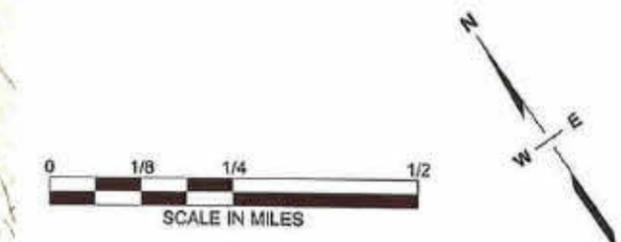


### LEGEND

	Watershed review area
	Watershed boundary
	Perennial stream
	Intermittent stream
	Spring or seep
	Stream cross-section and sample location
	Muskeg
	Steep slopes (>35°) with sections of exposed rock
	Steep-walled, narrow stream section
	Wetland Meadow
	Bridge
	Former Wood Dam
	Logging Road
	Trail
	Soil unit boundary

### SOIL UNITS

103	Chenega Silt Loam
104	Rock Outcrop
108	Jakalof Silt Loam
115	Kasitsna-Nuka Complex
117	Kasitsna-Seldovia Complex
118	Kasitsna-Seldovia-Port Graham Complex, rolling to steep
119	Kasitsna-Seldovia-Port Graham Complex, hilly to very steep
120	Kasitsna-Tutka Complex
126	Nanwalek, Cook Complex
128	Nanwalek - Rock Outcrop Complex
134	Seldovia Silt Loam



**CHUGACHMIUT**

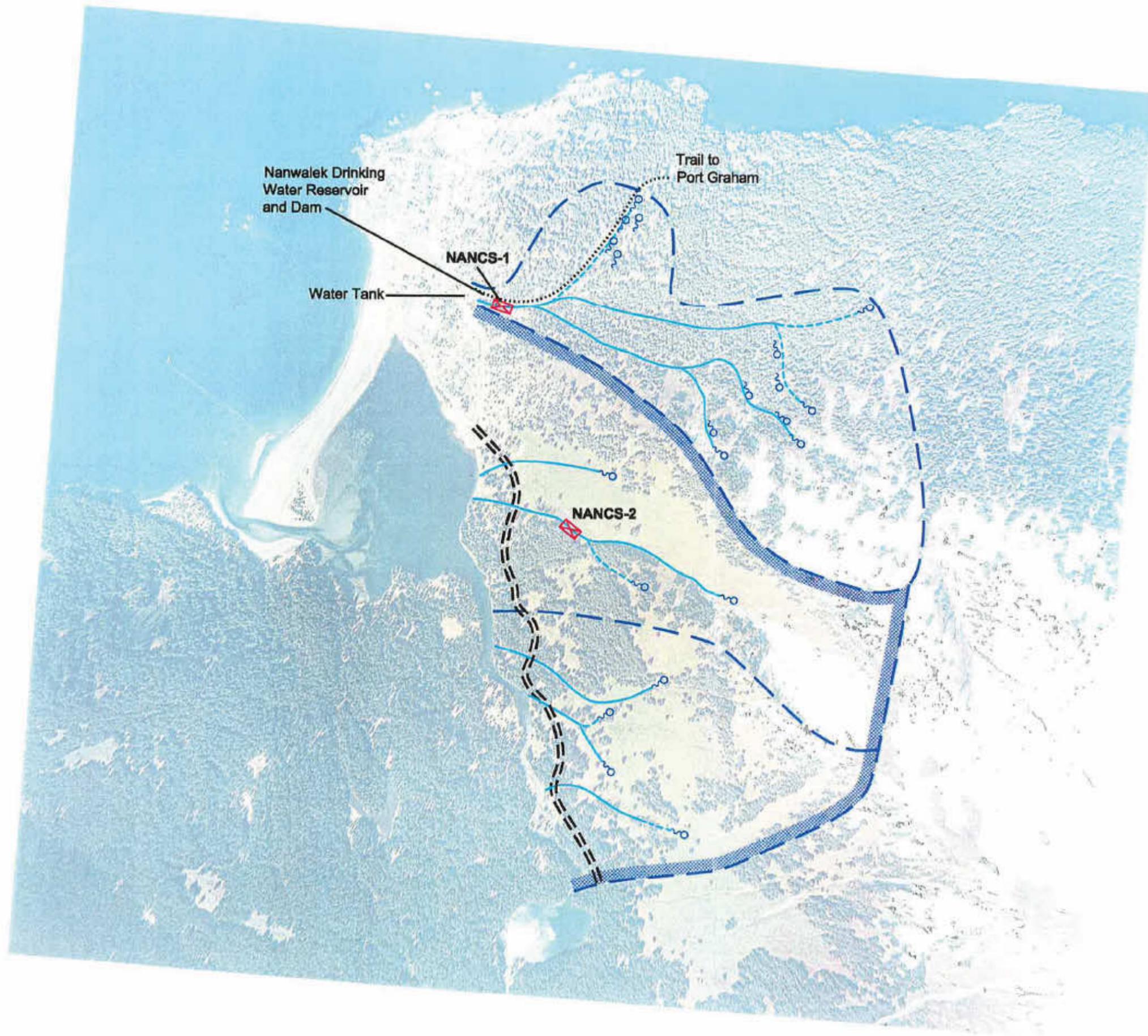
**PORT GRAHAM  
SOIL UNITS & WATERSHED**

PORT GRAHAM, ALASKA

JOB NO: 36390-002-090    DRAWN: AR    DATE: AUGUST 1998    FILE: PG-NAN.DWG

**DAMES & MOORE**  
GROUP

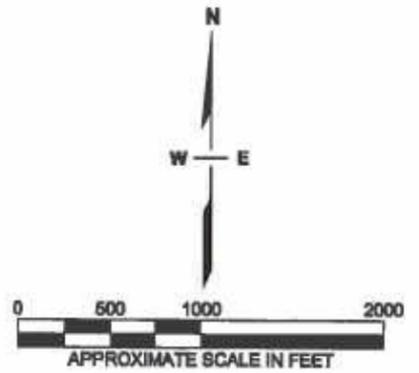
**FIGURE 3**



**LEGEND**

-  Watershed review area
-  Watershed boundary
-  Perennial stream
-  Intermittent stream
-  Spring or seep
-  Stream cross-section and sample location
-  Logging road
-  Trail

SOURCE:  
AeroMap U.S., Inc.  
Date of Photography: May 19, 1993



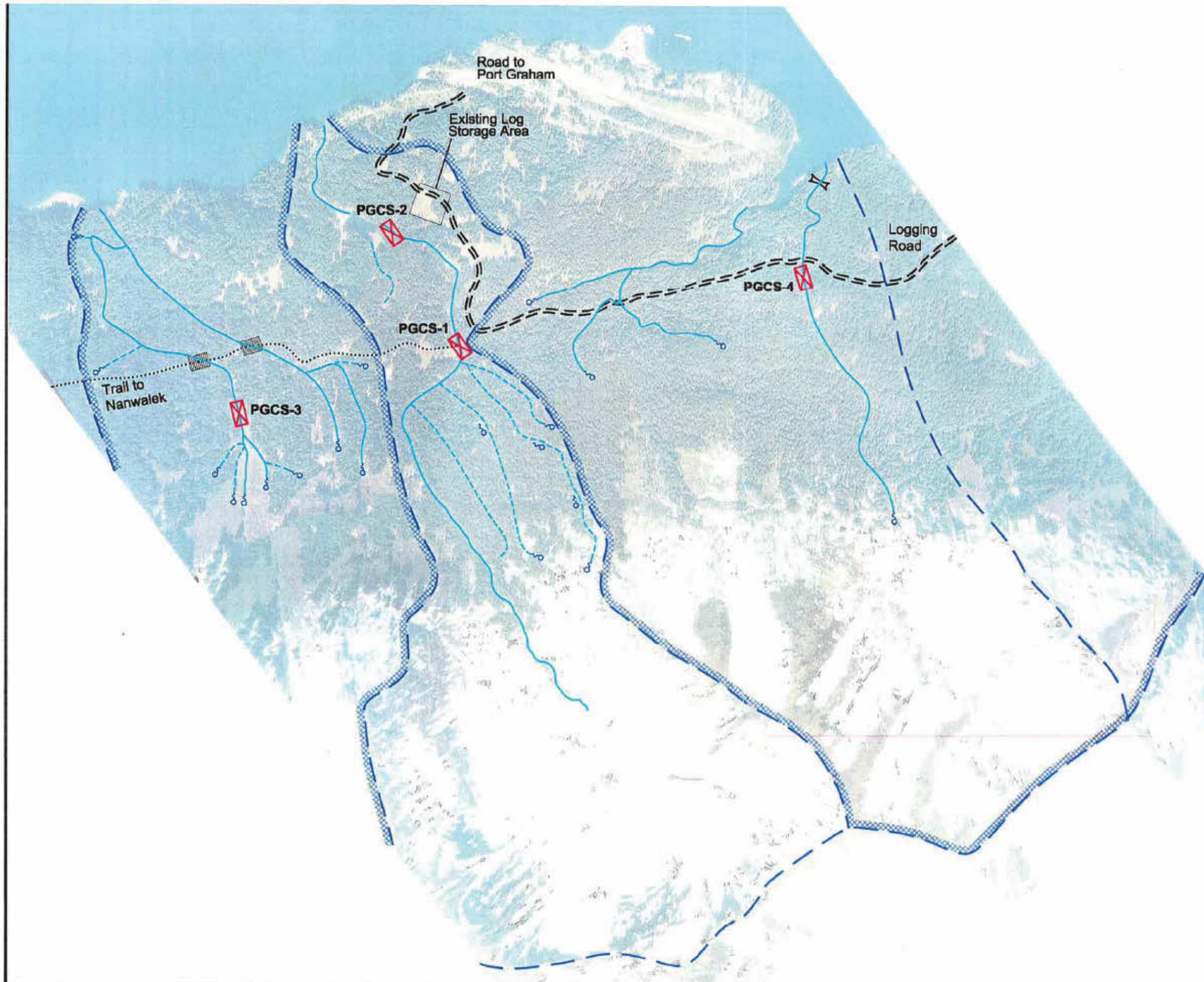
CHUGACHMIUT

**AERIAL PHOTOGRAPH  
NANWALEK WATERSHED  
NANWALEK, ALASKA**



JOB NO: 36396-002-090 DRAWN: AR  
DATE: AUGUST 1990 FILE: AERIAL.DWG

FIGURE 4

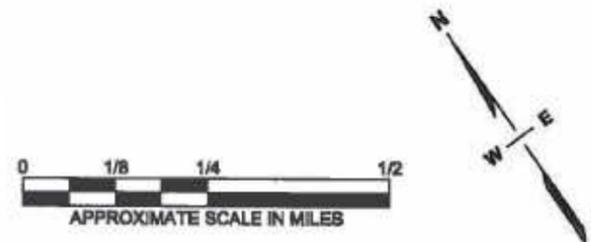


**LEGEND**

-  Watershed review area
-  Watershed boundary
-  Perennial stream
-  Intermittent stream
-  Spring or seep
-  Stream cross-section and sample location
-  Bridge
-  Former wood dam
-  Logging road
-  Trail

NOTE:  
Watershed boundary delineation limited to available aerial photography coverage

SOURCE:  
AeroMap U.S., Inc.  
Date of Photography: May 19, 1993



<b>CHUGACHMIUT</b>	
<b>AERIAL PHOTOGRAPH PORT GRAHAM WATERSHED</b>	
<b>PORT GRAHAM, ALASKA</b>	
JOB NO: 36306-002-090	DRAWN: AR
DATE: AUGUST 1996	FILE: AERIAL.DWG

DAMES & MOORE  
**DCM**  
GROUP

**FIGURE 5**