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United States
Department of
Agriculture

Forest Service

Tongass
National
Forest

R10-MB-116



Shelter Cove

Draft Environmental Impact Statement

Alaska Region
Ketchikan Area

Volume II: Maps

11000
SU
1-1-78



Draft Environmental Impact Statement

Shelter Cove

U.S.D.A. - Forest Service
Alaska Region
Alaska

Lead Agency: U.S.D.A. Forest Service
Tongass National Forest
Ketchikan Area
Federal Building
Ketchikan, Alaska 99901

Responsible Official: Forest Supervisor
Ketchikan Area
Tongass National Forest
Federal Building
Ketchikan, Alaska 99901

For Further Information
Contact: Steven T. Segovia
Ketchikan District Ranger
3031 Tongass
Ketchikan, Alaska 99901

Comments Must Be
Received: Within 45 days of when Notice of Availability of the
Draft Environmental Impact Statement is published in
the Federal Register.

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NOTE: This document is to be used in conjunction with Volume 1 as a reference aid for referring to figures mentioned in the text.

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Chapter 1 Maps



Figure 1-1

Chapter 2 Maps

ALTERNATIVE 2

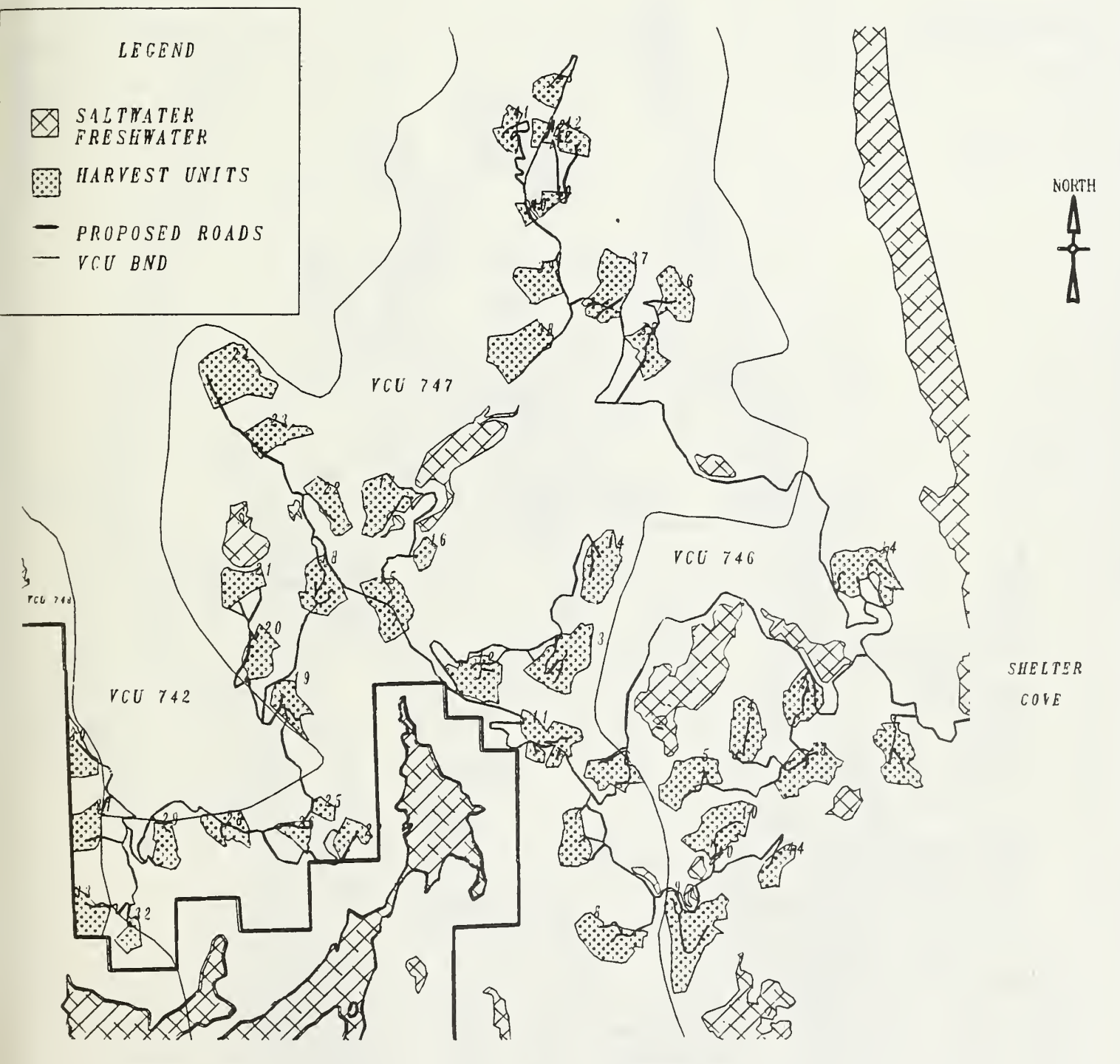






Figure 2-1

ALTERNATIVE 3

LEGEND

-  SALTWATER FRESHWATER
-  HARVEST UNITS
-  PROPOSED ROADS
-  VCU BND

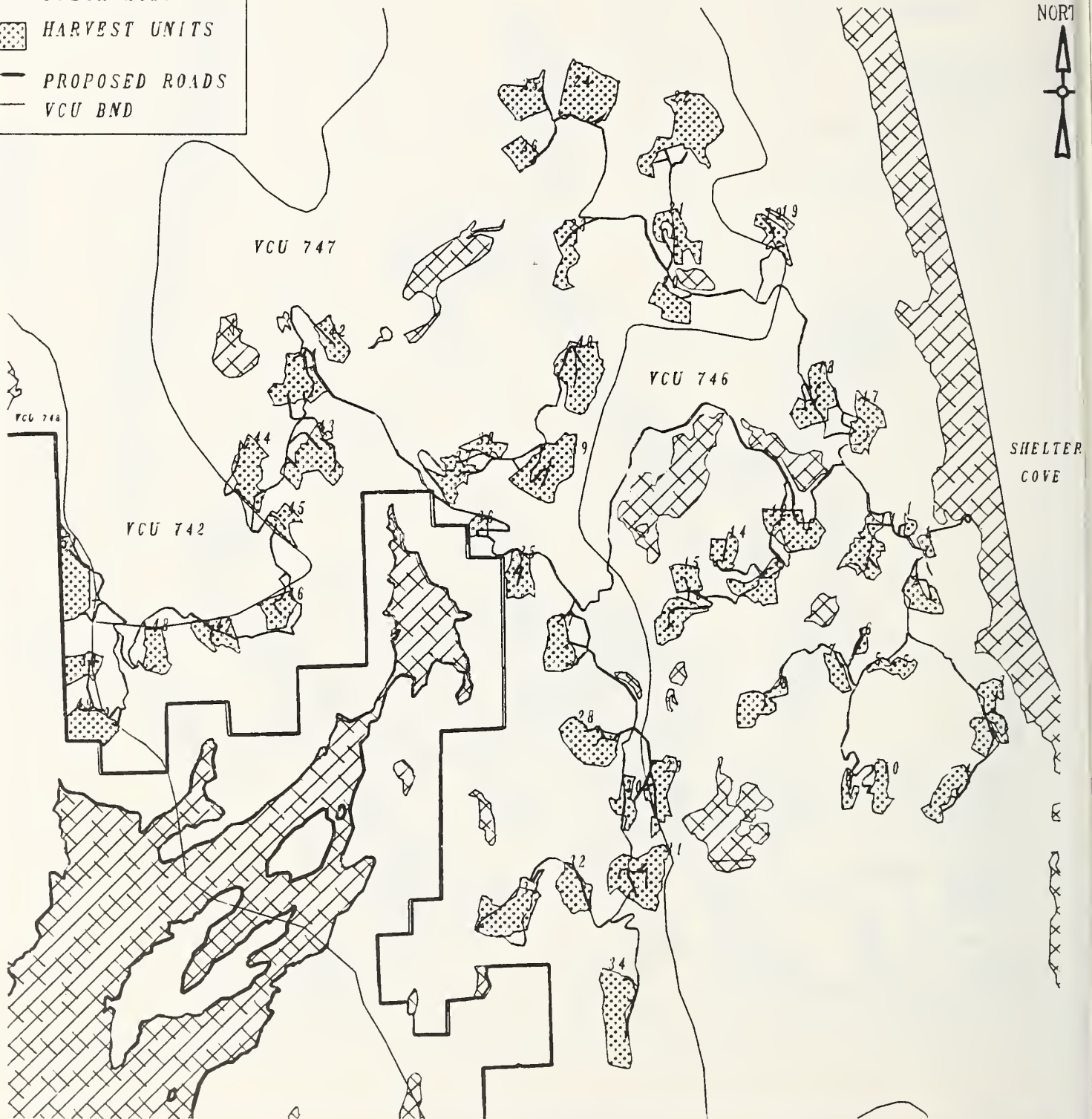







Figure 2-2

ALTERNATIVE 4

LEGEND

-  SALTWATER
-  FRESHWATER
-  HARVEST UNITS
-  PROPOSED ROADS
-  VCU BND

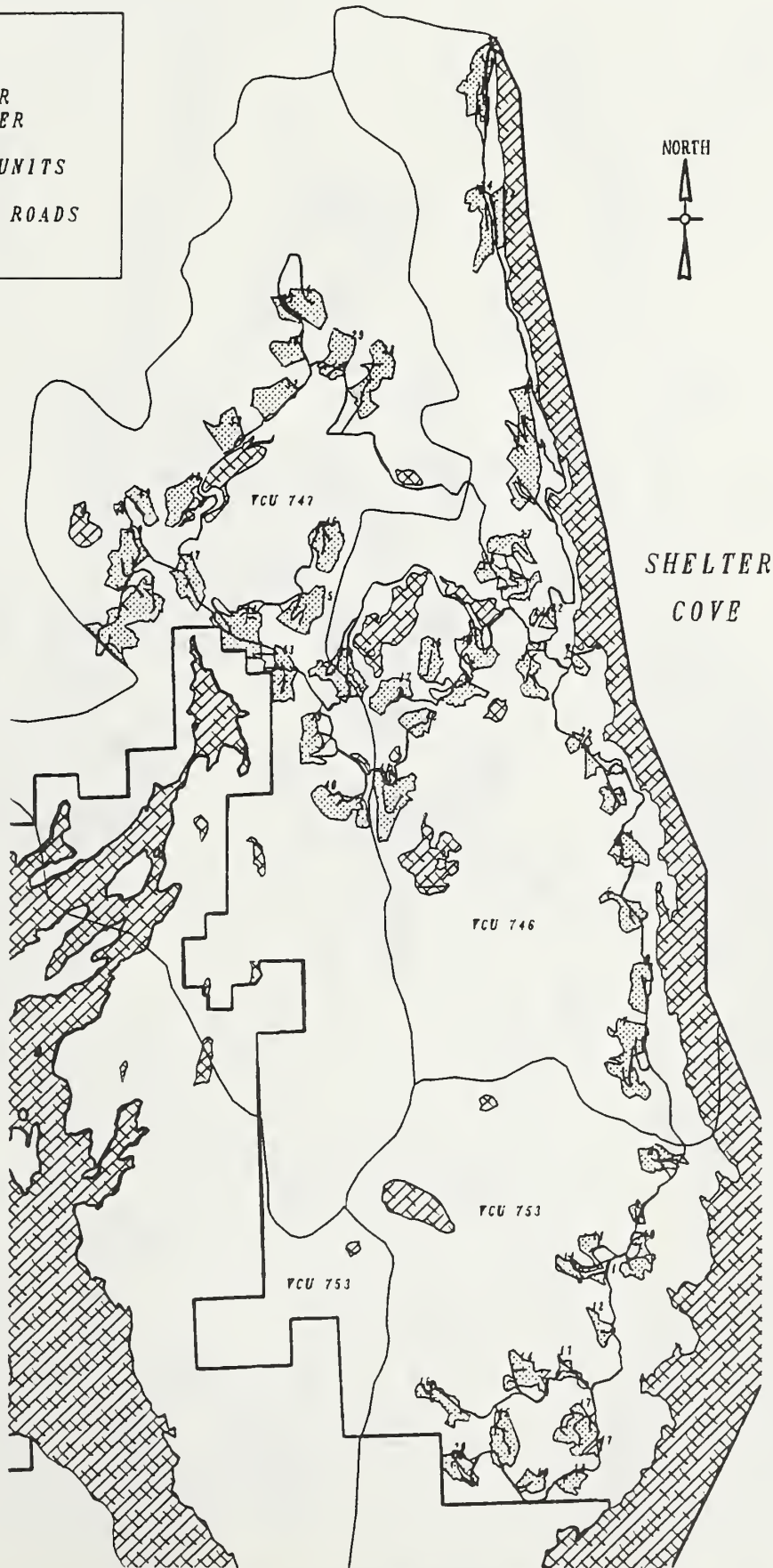







Figure 2-3

ALTERNATIVE 5

LEGEND

-  SALTWATER
-  FRESHWATER
-  HARVEST UNITS
-  PROPOSED ROADS
-  VCU BND

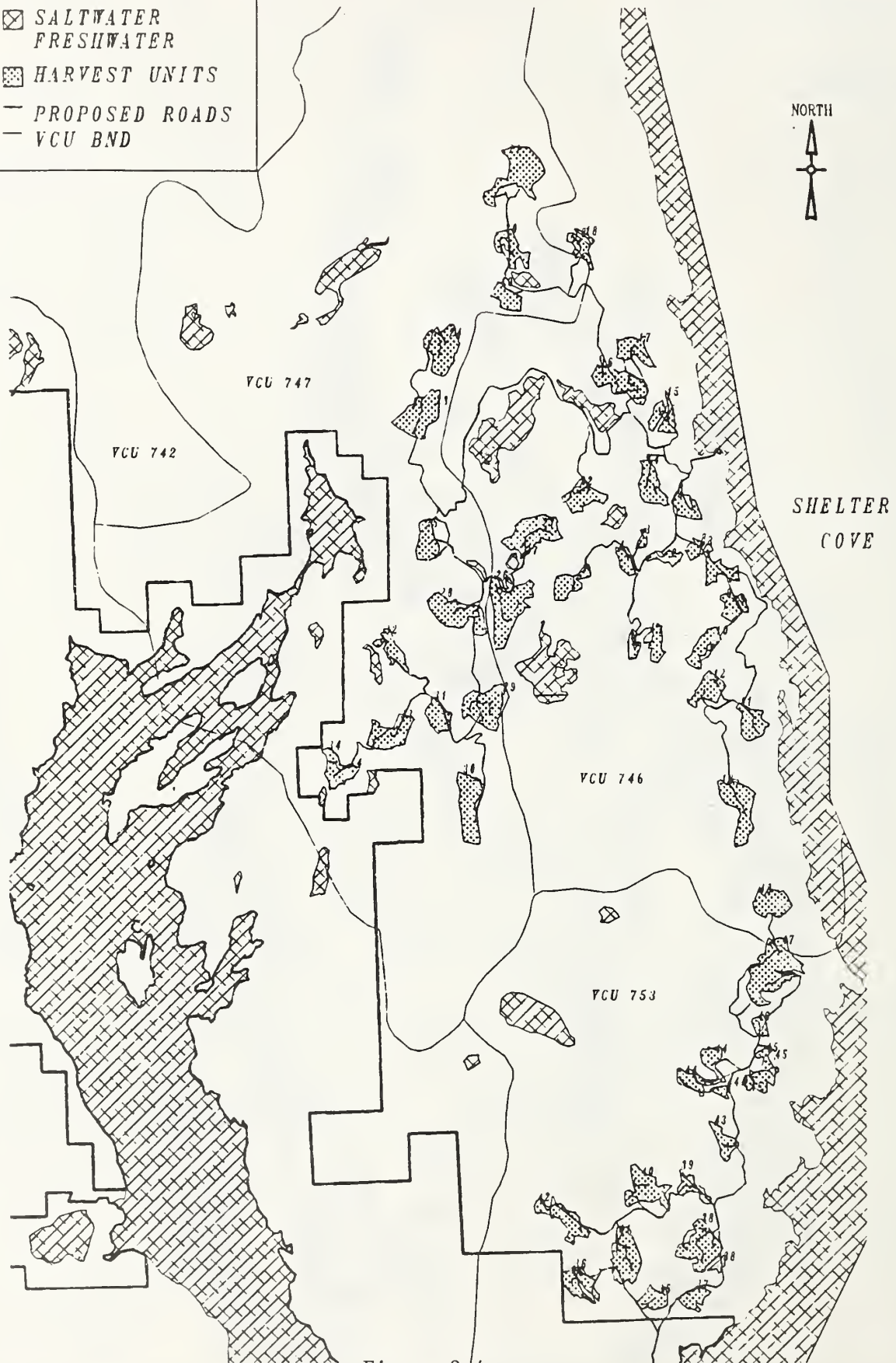







Figure 2-4

ALTERNATIVE 6

LEGEND

-  SALTWATER
-  FRESHWATER
-  HARVEST UNITS
-  PROPOSED ROADS
-  VCU BND

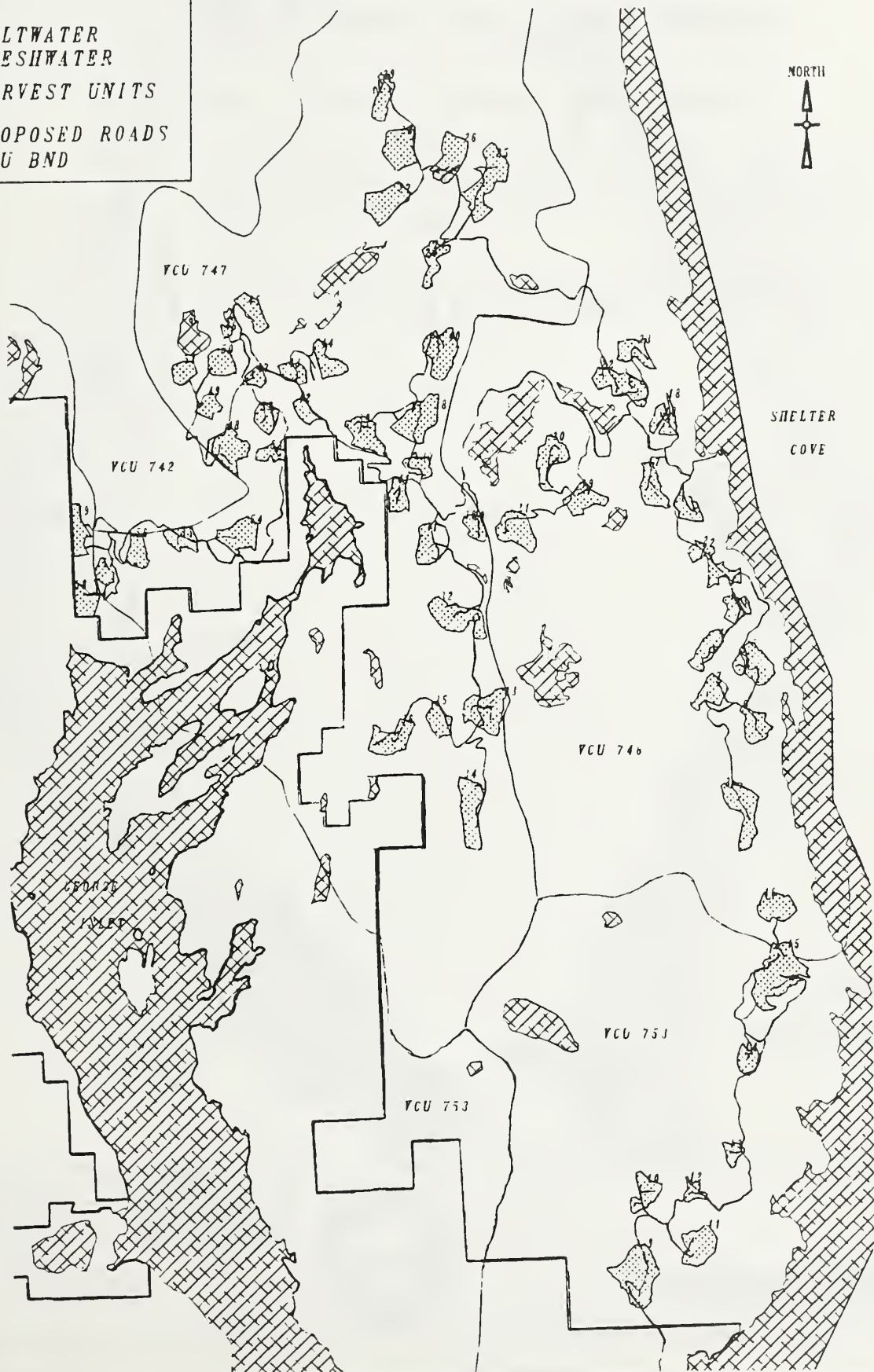


Figure 2-5

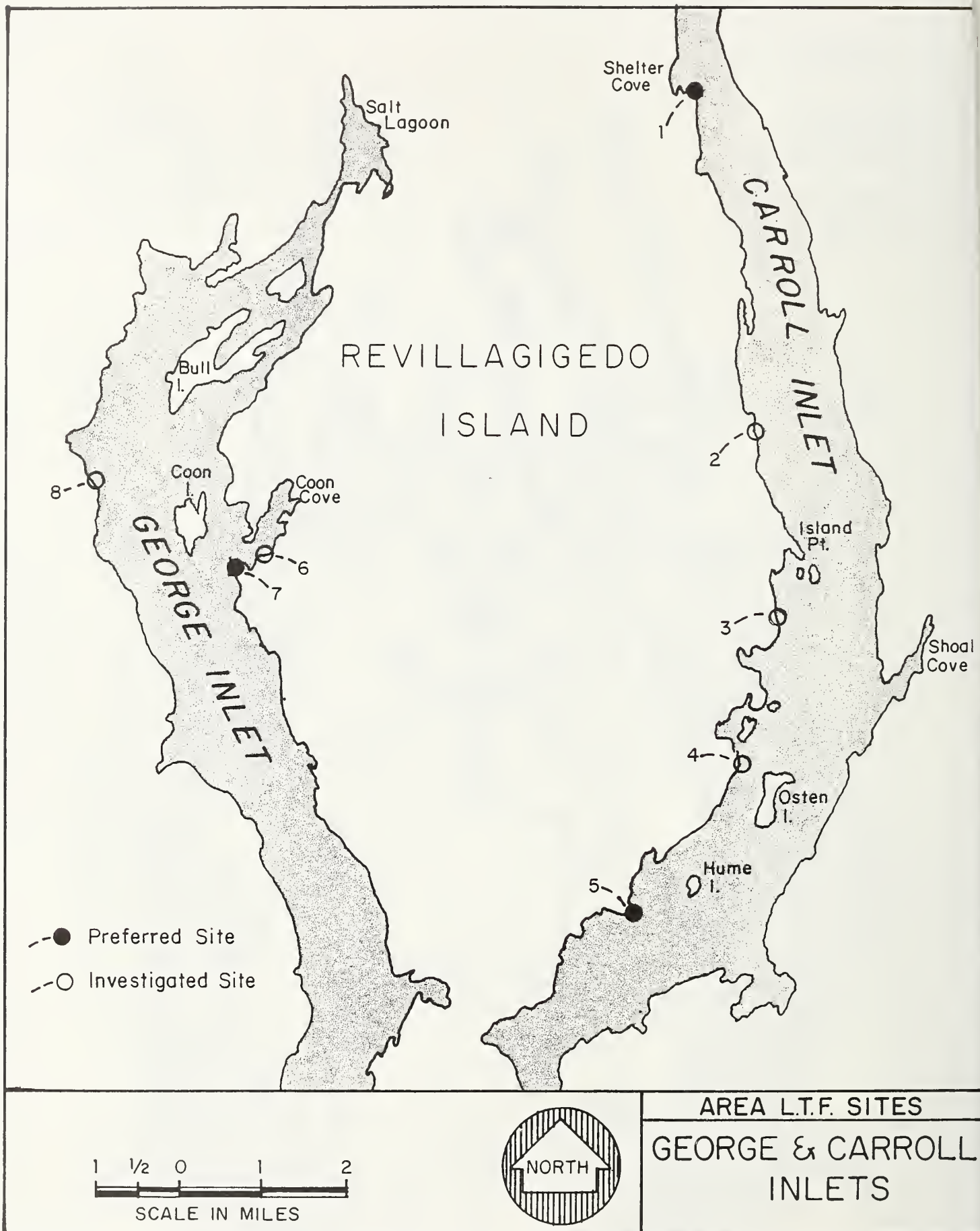


Figure 2-6

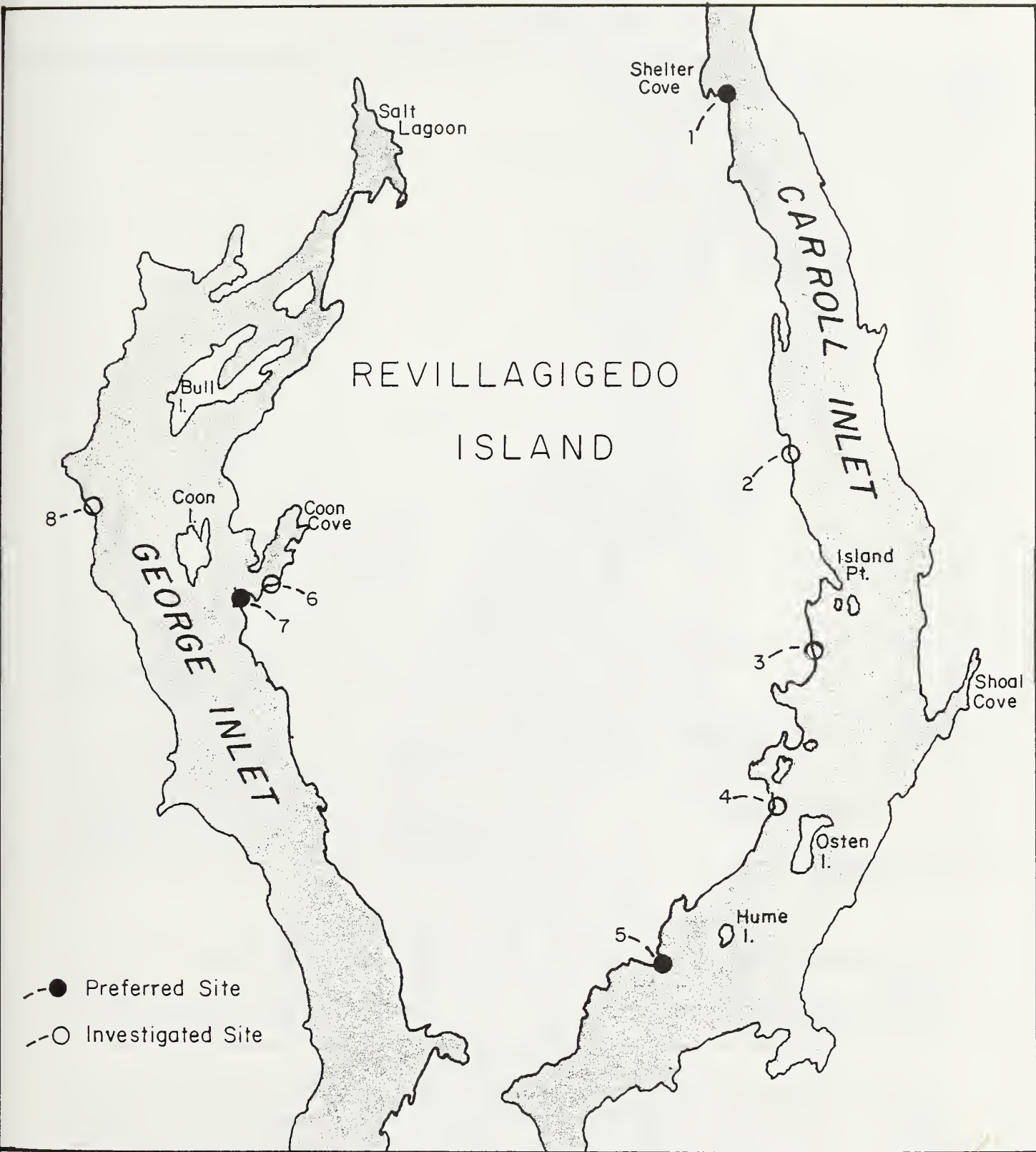
Log Transfer Facilities and Site Location Maps

Log Transfer Sites Investigated

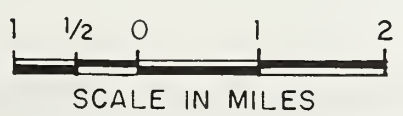
The first map indicates all new sites that were considered. Those that were eliminated did not meet pertinent siting guidelines and are indicated on the maps as investigated sites. The preferred sites were investigated and are proposed for use in the various alternatives considered in this document.

The next two maps refer to the individual existing and proposed (non-existing) log transfer sites that are planned for use in the alternatives in this document.



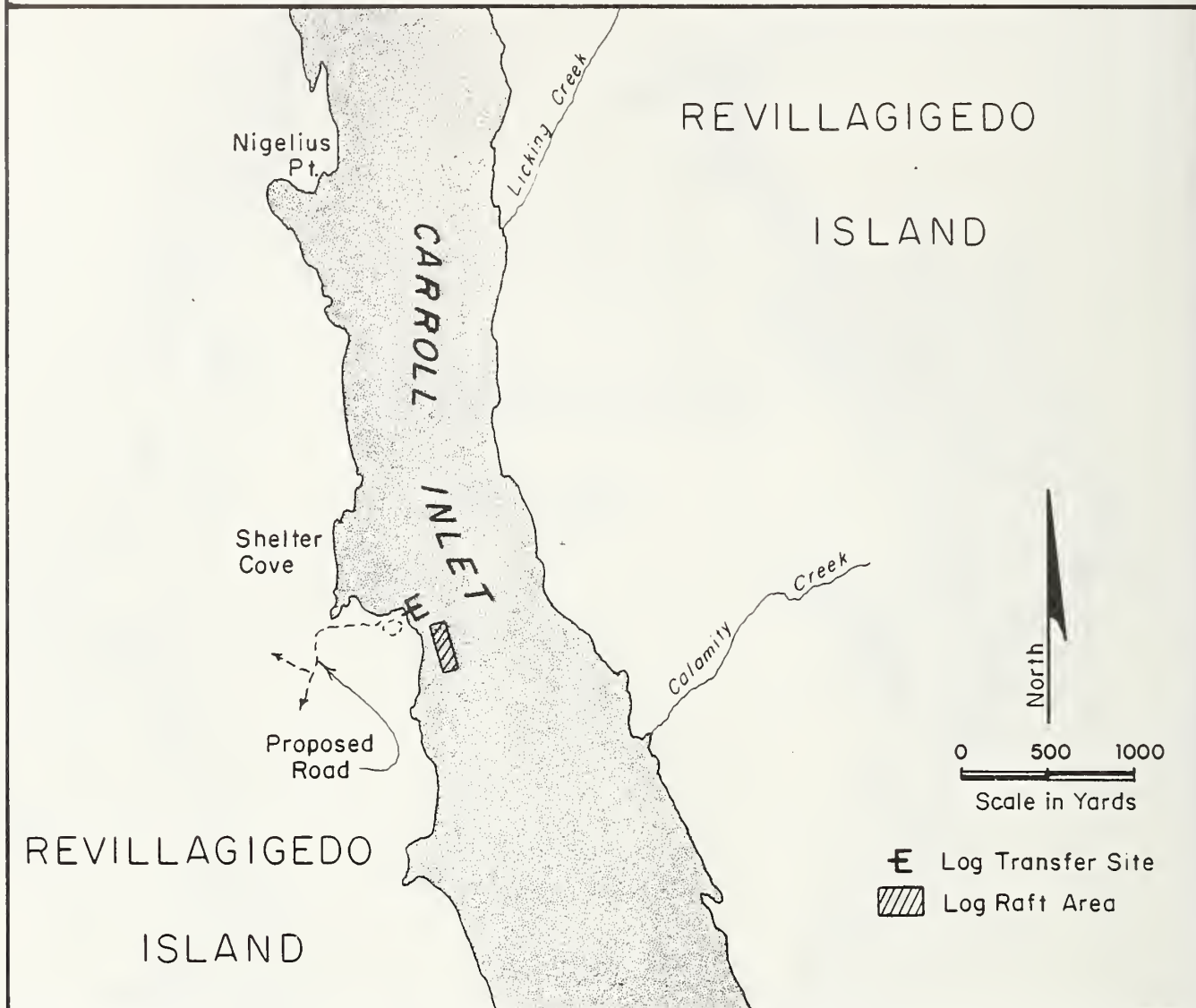


● Preferred Site
 ○ Investigated Site



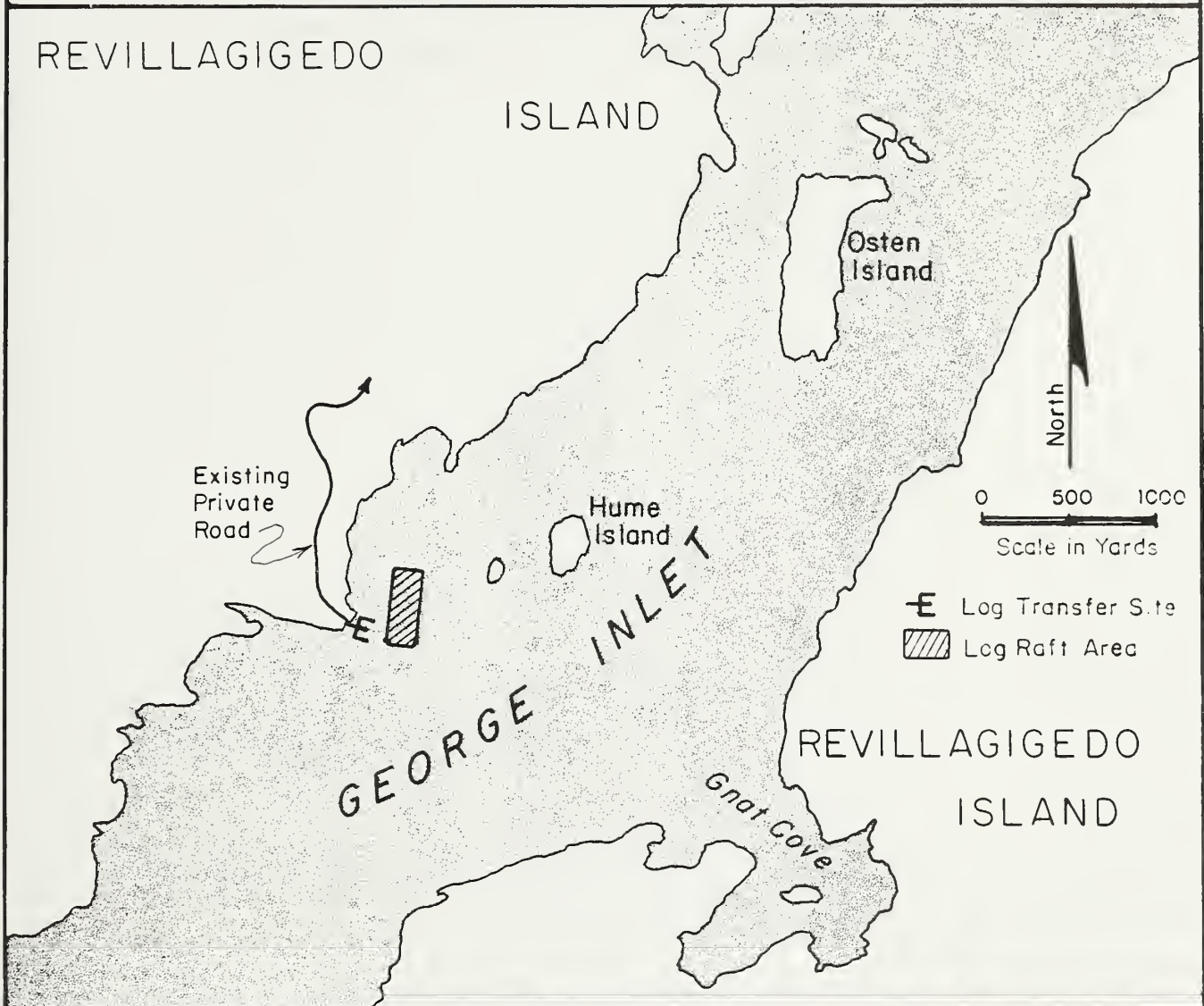
AREA L.T.F. SITES
 GEORGE & CARROLL
 INLETS

SHELTER COVE PROPOSED L.T.F.



	ALTERNATIVE					
	1	2	3	4	5	6
Used		X	X	X	X	X
Reconstruction						
SYSTEM TYPE						
Double A-Frame		X	X	X	X	X
Slide						
Float-Off						

HUME ISLAND EXISTING L.T.F.



	ALTERNATIVE					
	1	2	3	4	5	6
Used					X	X
Reconstruction						
SYSTEM TYPE						
Double A-Frame					X	X
Slide						
Float - Off						



Preliminary Reconnaissance Reports

These site diagrams relate to the Area L.T.F. Sites Map.

Site 1 — Shelter Cove

Operations

- The site appears to have adequate upland area.
- Favorable for A-frame system.
- Dry sort and storage is not available at the site. Dry sort and storage may possibly be located $\frac{1}{4}$ to $\frac{1}{2}$ mile from site.

Development

- Rock borrow is adjacent to the site.
- Good beachhead adjacent to site for equipment mobilization.
- Site requires moderate fill and rock excavation.

Access

- Access road would be about $\frac{1}{2}$ to $\frac{3}{4}$ mile long.
- Road will contain some minor segments with very steep grades.
- Site is adequate for a drive-through loop road.
- Approach to dump position is suitable.
- Access road will have a very heavy through-cut adjacent to the site. The cut will be about 100' long and 20-30' deep. This can serve as a rock source if it proves adequate.

Water Beach Conditions

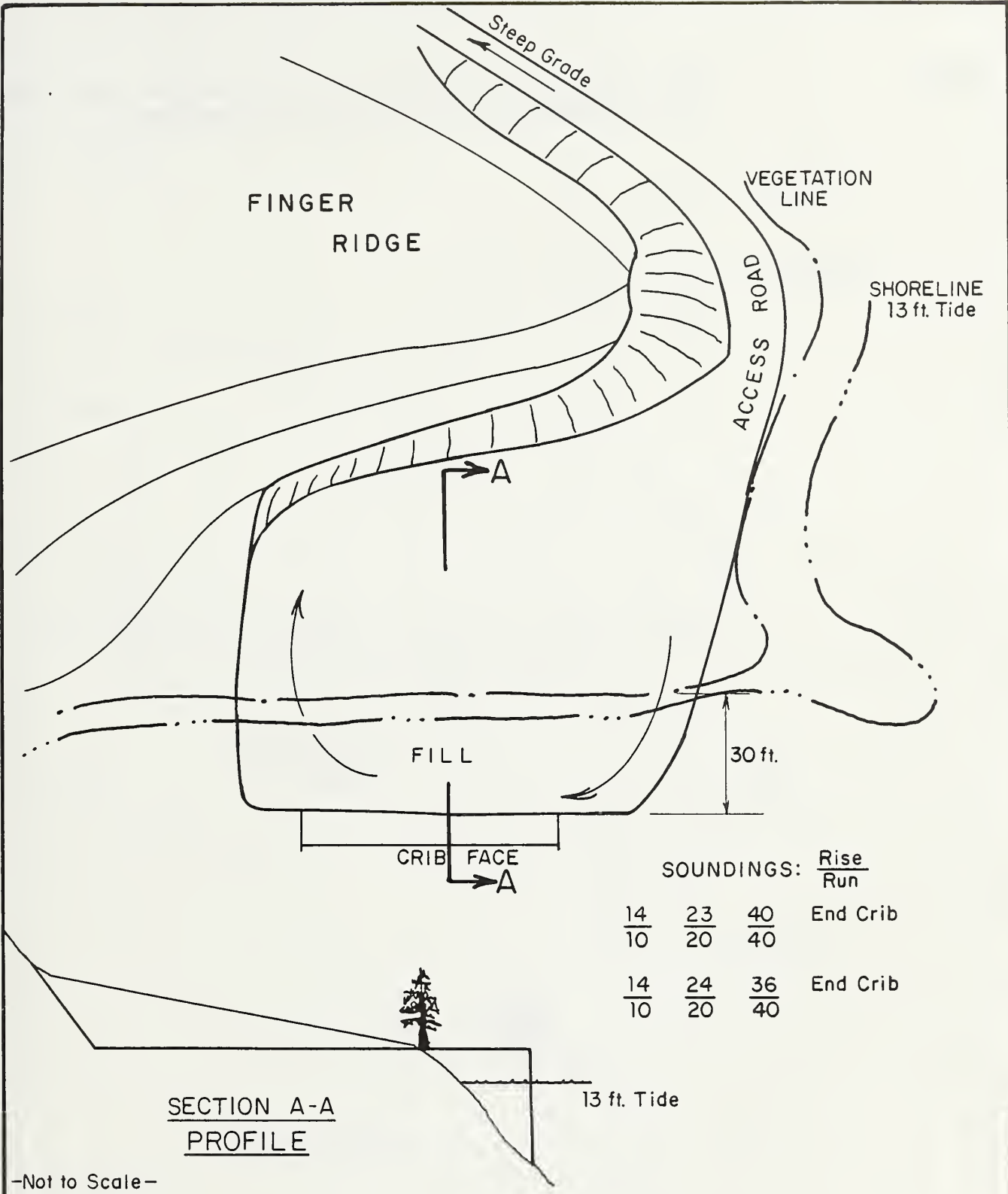
- The site has adequate water depth.
- According to the navigational charts, Carroll Inlet has very good depth.
- Ample raft and booming area is available at the site.

Environmental

- The site appears to lie in a favorable area.
- Water depth indicates suitable flushing.
- Eagle Tree Atlas does not indicate the presence of any eagle trees.
- Site is protected from weather.

Recommendations

- The site appears to be adequate and should be considered further. Marine, archaeological, and economic impacts should be evaluated in more detail. Additionally, the area should be surveyed for eagle trees.

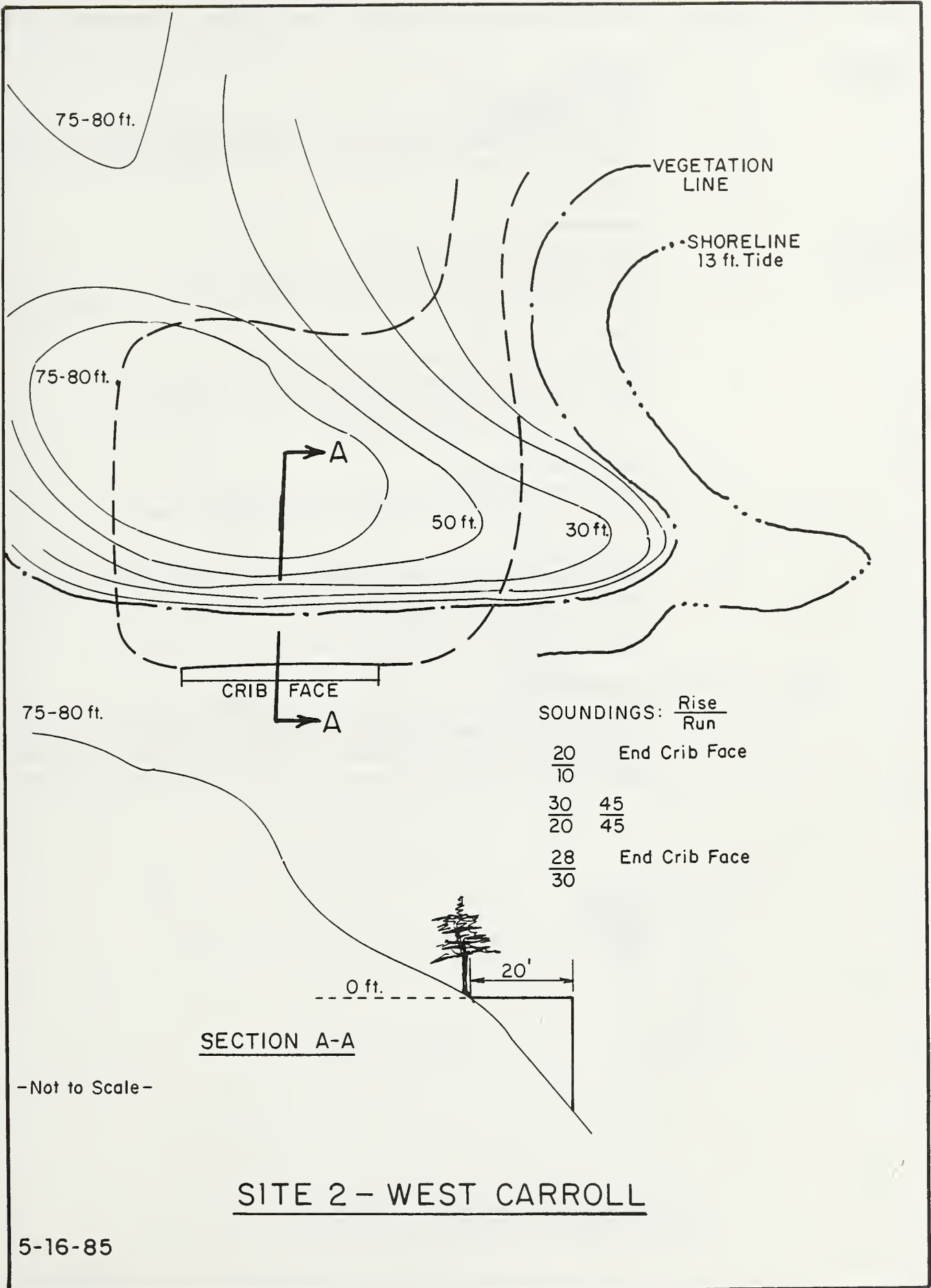


SITE 1 - SHELTER COVE - WEST CARROLL

5-16-85

Site 2

Site 2 contained a 70-80' high ridge within the site. Development would be very difficult and expensive. This site was not given further consideration.



Site 3

Operations

- Site is of adequate size.
- Favorable for A-frame.
- Dry sort and storage would have to be accomplished within $\frac{1}{4}$ mile of the site. If done at the TTF, much rock excavation would be necessary to develop dry storage and sort.

Development

- Rock source is adjacent to the site.
- Good beachhead near the site for equipment mobilization.
- Site requires moderate fill and much rock excavation.

Access

- Access road would be about $\frac{3}{4}$ to 1 mile long.
- Site access road would have moderate grades and alignment.
- Site is excellent for a loop drive-through system.
- Approach to dump position is excellent.

Water Beach Conditions

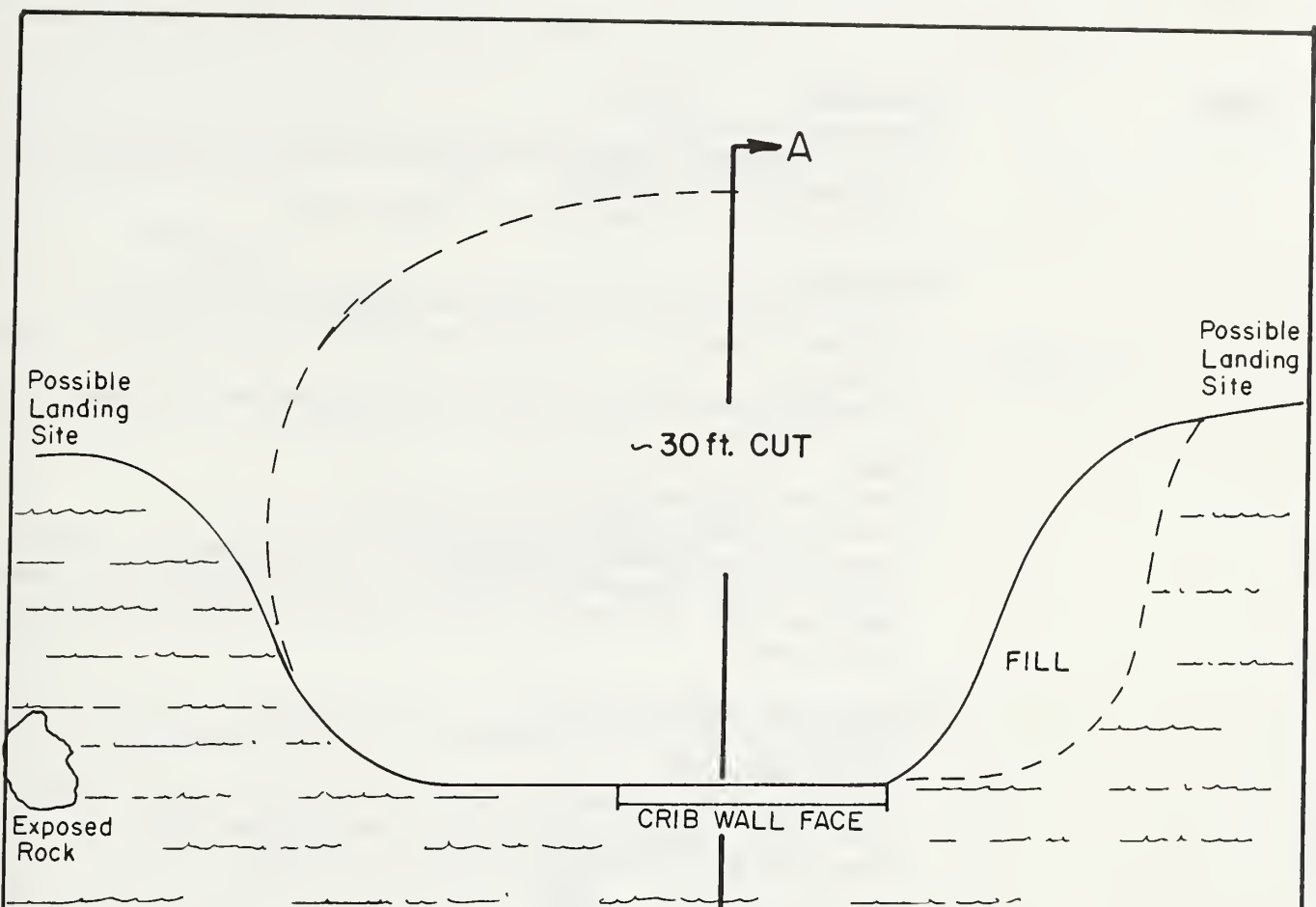
- Site has adequate water depths for A-frame operations.
- Ample water maneuvering room for raft and booming operations.

Environmental

- Site is $\frac{1}{4}$ to $\frac{1}{2}$ mile from tideflat areas and about $\frac{1}{2}$ mile from any significant streams.
- Site is protected from weather.
- Eagle tree atlas does not indicate any eagle trees present on site.

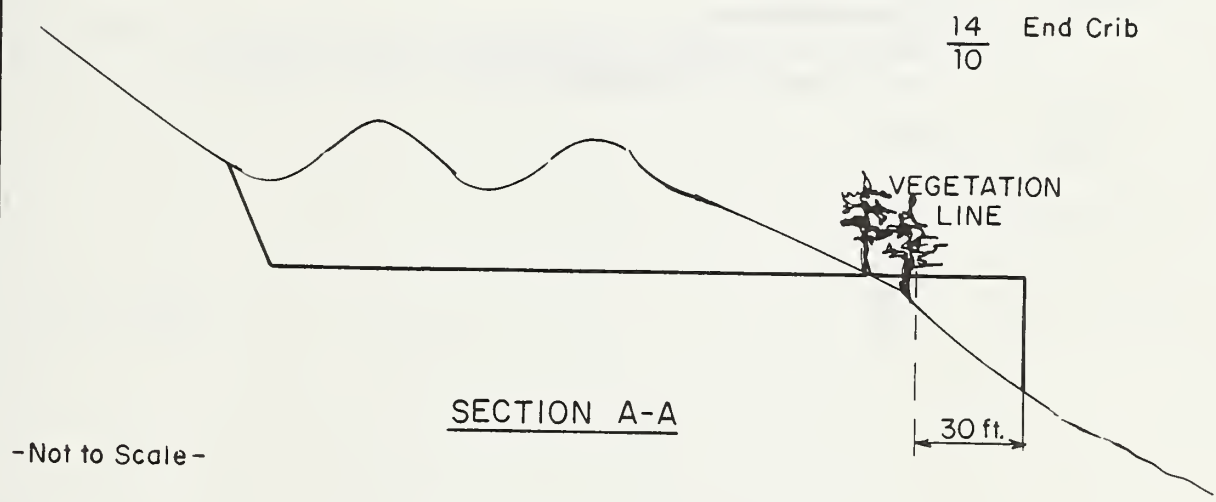
Recommendations

- From an operational and development standpoint, this site appears to be superior to all other sites considered. If marine, archaeological, and economic impacts are favorable, this site should be considered further. The site should be investigated for eagle trees as the West Carroll shoreline appears to contain a number of them.



SOUNDINGS: $\frac{\text{Rise}}{\text{Run}}$

$\frac{17}{10}$	End Crib
$\frac{14}{10}$	End Crib



-Not to Scale-

SITE 3 - WEST CARROLL

5-16-85

Site 4

Operations

- Site is of adequate size.
- Dry sort and storage cannot be accommodated at the site. This would have to be developed about ¼ mile inland.
- A-frame or chain slide would be best suited to this site.

Development

- Site will require a fill 70-75' out from the vegetation line on the beach.
- Rock source is unknown. The fill adjacent to the site had no exposed rock to verify a source.
- Site has good beachhead at north edge of site for equipment mobilization.

Access

- Site access would have moderate grades near the site.
- Access road would be about 1 to 1¼ mile long.
- Large fill will accommodate drive-through loop. Excavated area can also provide part of the loop. Chain slide system would require heavy excavation for ingress and egress because the slide would not require a large fill, thus moving operations back into the uplands.

Water Beach Conditions

- The site would require the TTF face to be 70-75' from the vegetative line to reach sufficient water depth.
- Tidal action at the site appears to create a fast current. Log rafting would be located directly south of the site at an area with 40' of water depth.
- Ample water area to handle logs for rafting and booming.

Environmental

- The site is about ¼ mile from a tideflat area lying to the north. The navigational charts show that the channel has a deep pocket between Osten Island and the site. This may trap bark and prevent it from dispersing further out into Carroll Inlet.

Recommendations

- This site is an adequate site; however, the fill will be large. The site will require review from marine, archaeological, and economic standpoints.

VEGETATION
LINE

A

SHORELINE
13 ft. Tide

CRIB FACE

A

~ 150 ft

70 ft.

30 ft.

13 ft. Tide

SECTION A-A

SOUNDINGS: $\frac{\text{Rise}}{\text{Run}}$

$\frac{13}{20}$ End Crib Face

$\frac{15}{20}$ End Crib Face

- Not to Scale -

SITE 4 - WEST CARROLL

5-16-85

**Site 5 —
Salmonberry Site
Cape Fox, Inc.**

Operations

- The site is suitable for A-frame, chain slide, crane or derrick systems.
- Dry sort and storage area appears to be developable adjacent to the site.

Development

- Rock source availability is unknown.
- Site requires a large fill to reach water depth for all tidal operations.

Access

- Terrain appears to be flat to moderate, providing minimal roading problems.
- Good beachhead landing at the site for equipment mobilization.
- This site is on private land requiring rental, share cost, or other agreement.

Water Beach Conditions

- Full depth water is about 70-80' seaward from the vegetation line.
- Ample maneuvering room for rafting and booming.
- Area is protected from weather.

Environmental

- According to the Forest Service Eagle Atlas, two or three eagle trees are present at or adjacent to the site.
- The site is within $\frac{1}{4}$ mile of shallow tideflat beaches to the north and west of the site.

Recommendations

- An economic analysis should be conducted to determine share cost, lease, rental haul, and construction costs that would be applied to government use of the site. Additionally, the site should be investigated for archaeological and marine impact.

Impacts must be evaluated to determine if it will be necessary to dispose of any eagle trees. Eagle trees are protected under Federal law.

Chapter 3 Maps



INVENTORIED VISUAL QUALITY OBJECTIVES

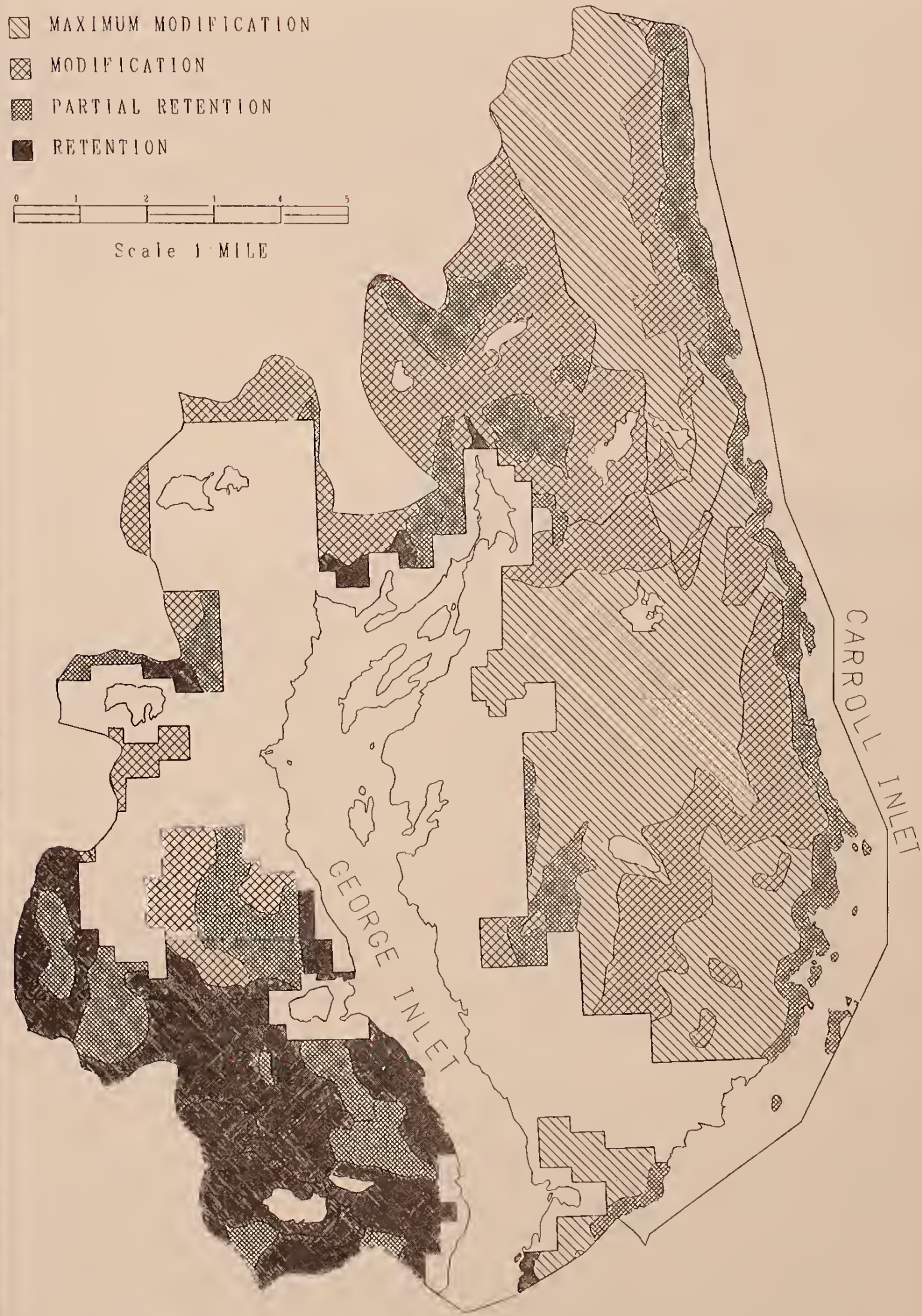


Figure 3-1



INVENTORIED
VISUAL QUALITY OBJECTIVES
INCLUDING POTENTIAL VIEWSHEDS

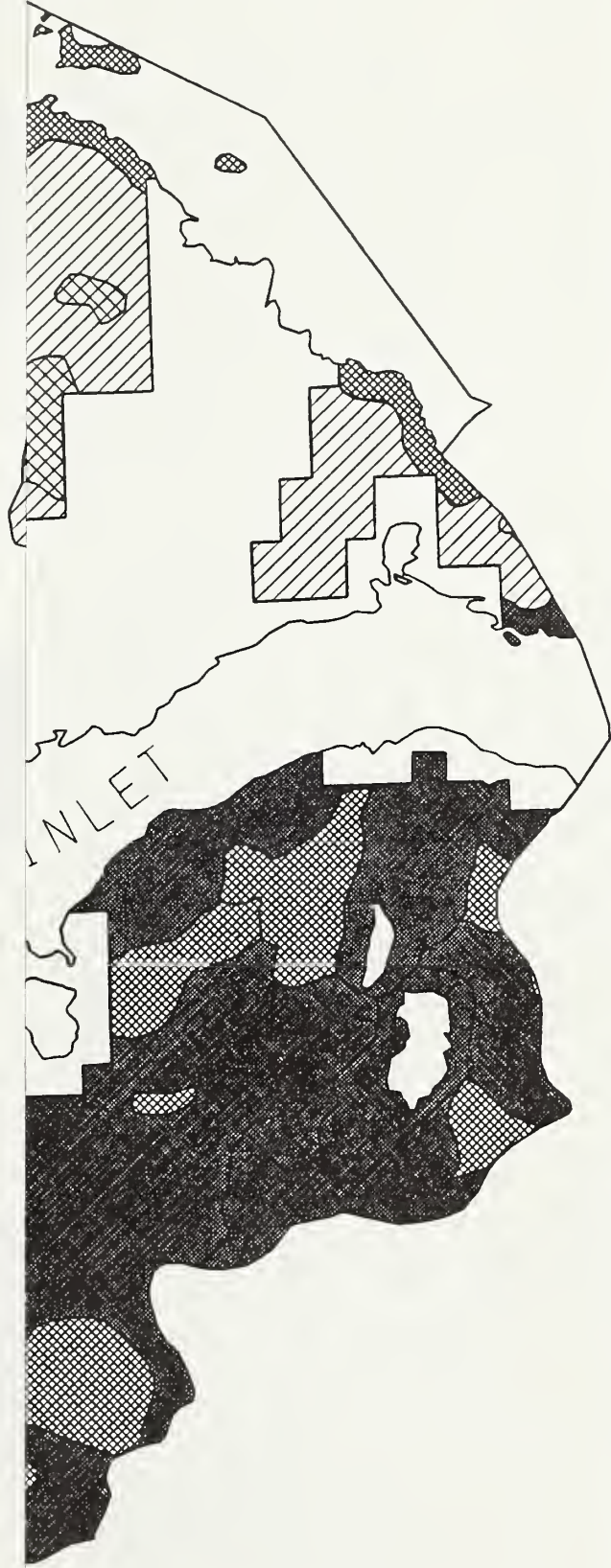






Figure 3-2

INVENTORIED VISUAL QUALITY OBJECTIVES INCLUDING POTENTIAL VIEWSHEDS

-  MAXIMUM MODIFICATION
-  MODIFICATION
-  PARTIAL RETENTION
-  RETENTION



Scale 1:MILE

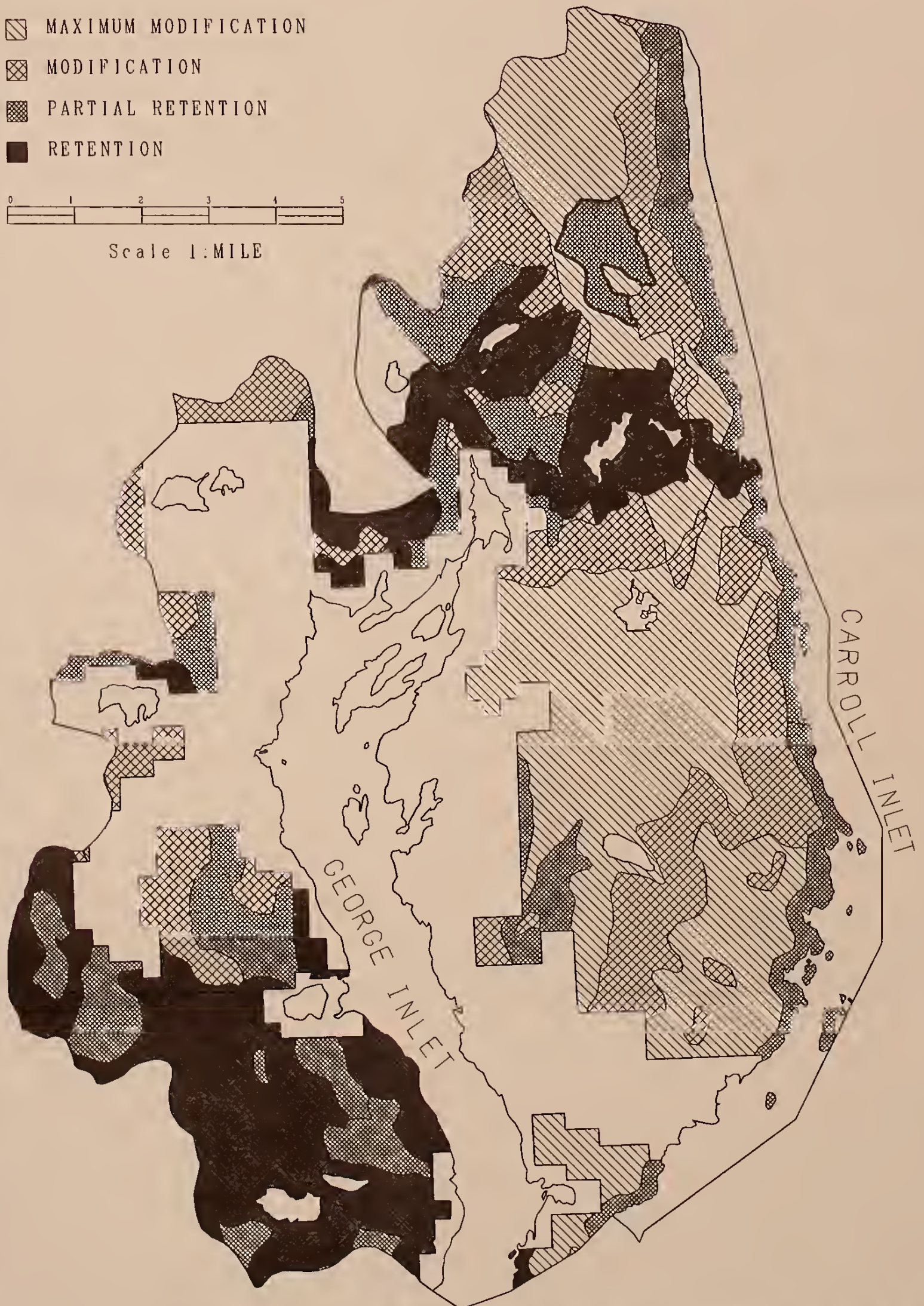
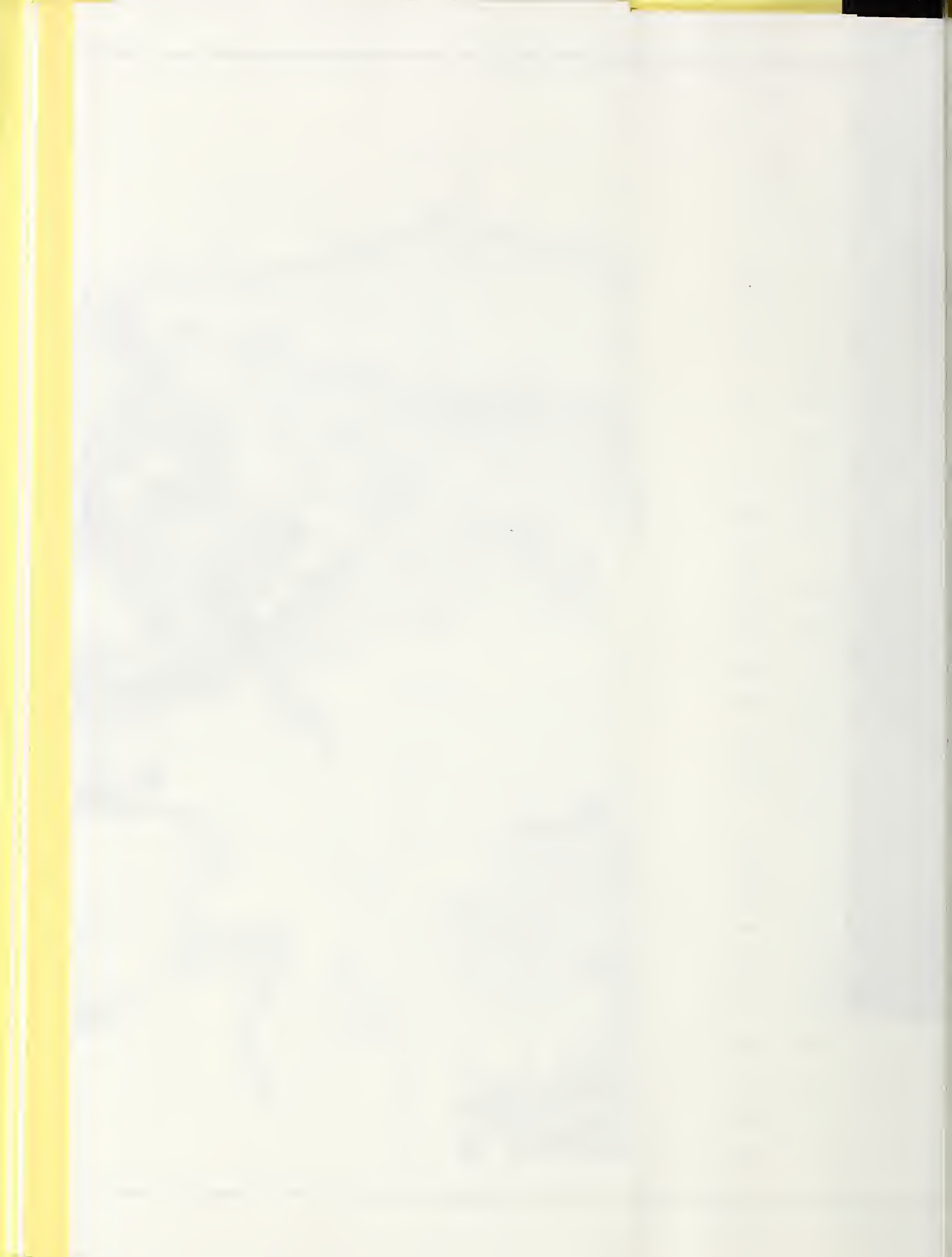


Figure 3-2

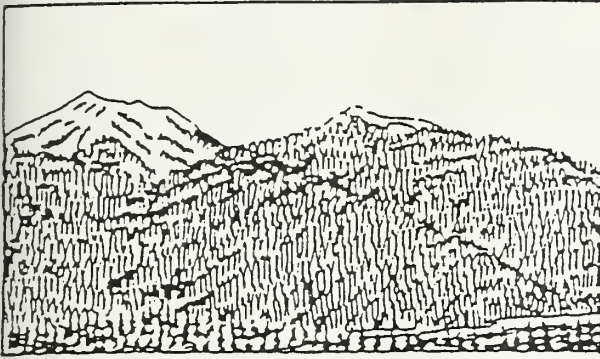


Relationship Between Visual Quality Objectives and Visual Condition

VQO Preservation

VC I Natural Condition

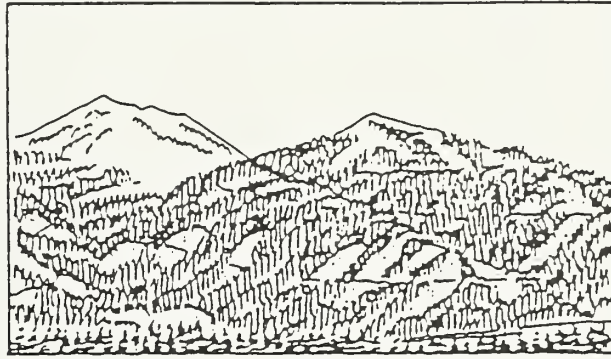
Predominately ecological changes.



VQO Modification

VC IV Moderately Altered

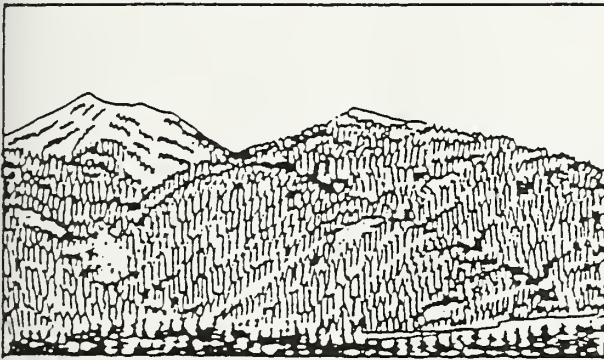
Changes are easily noticed and attract attention.



VQO Retention

VC II Natural Appearing

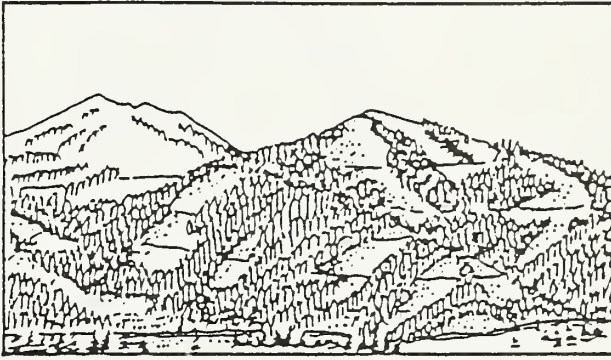
Changes are not evident.



VQO Maximum Modification

VC V Heavily Altered

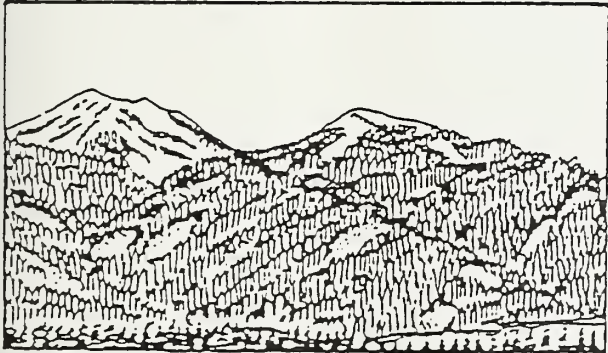
Changes are very strong and attract attention.



VQO Partial Retention

VC II Slightly Altered

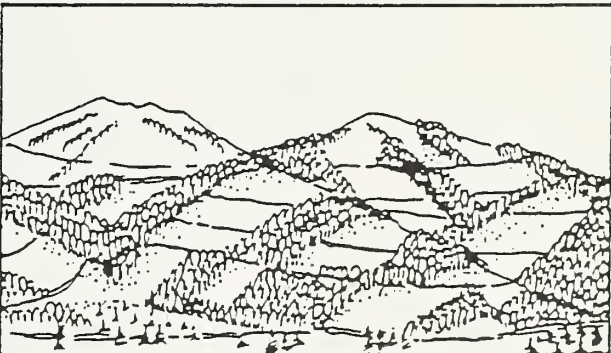
Changes are noticed, but do not attract attention.



VQO Unacceptable Modification

VC VI Drastically Altered

Changes are in glaring contrast and disharmony with natural patterns.



NATURAL CHARACTER DOMINATES

ALTERED CHARACTER DOMINATES

Figure 3-3



EXISTING VISUAL CONDITION

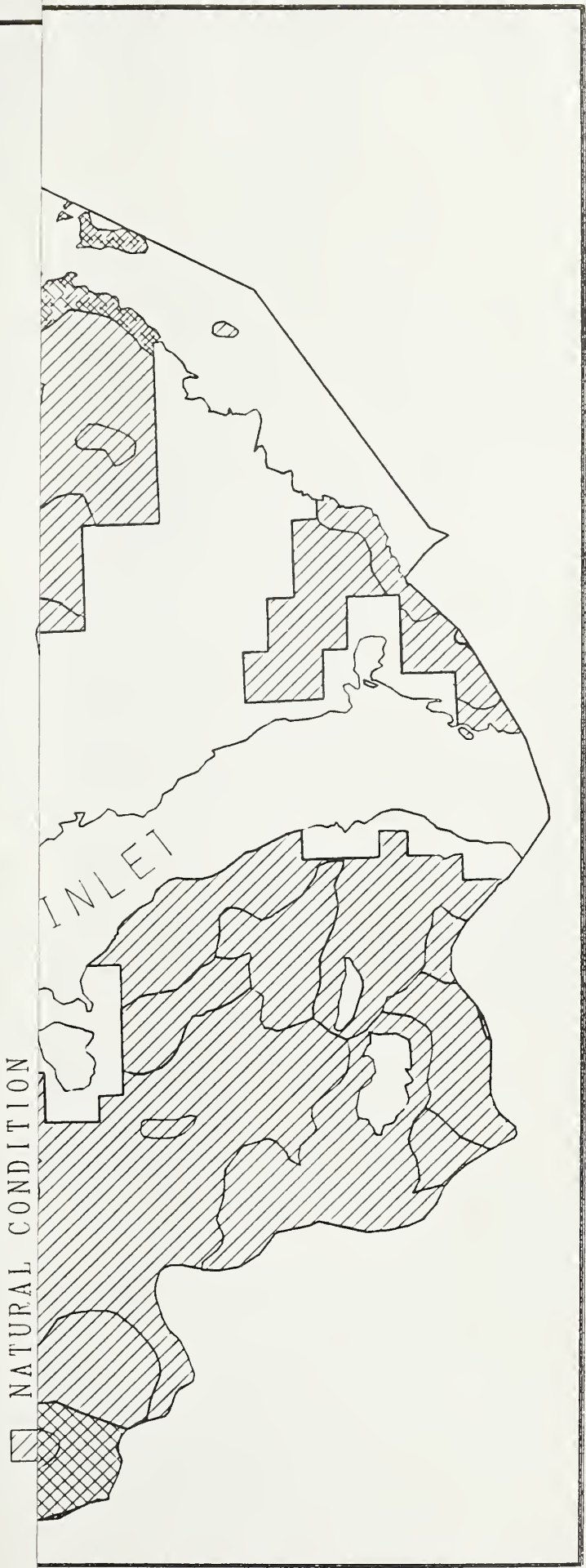


Figure 3-4

EXISTING VISUAL CONDITION

- ▨ NATURAL CONDITION
- ▩ NATURAL APPEARING
- ▧ SLIGHTLY ALTERED
- ▦ MODERATELY ALTERED
- HEAVILY ALTERED



Scale 1 MILE

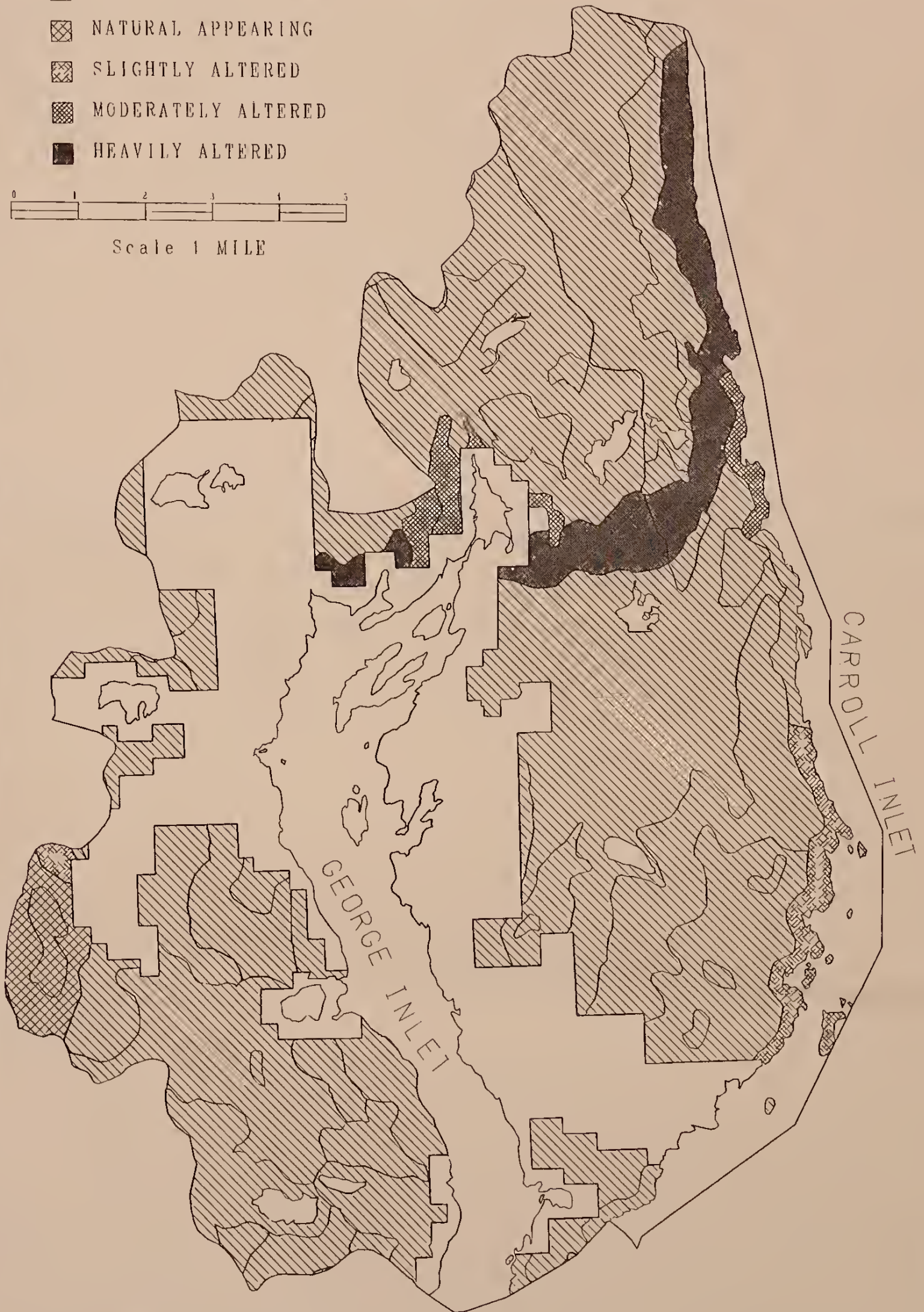
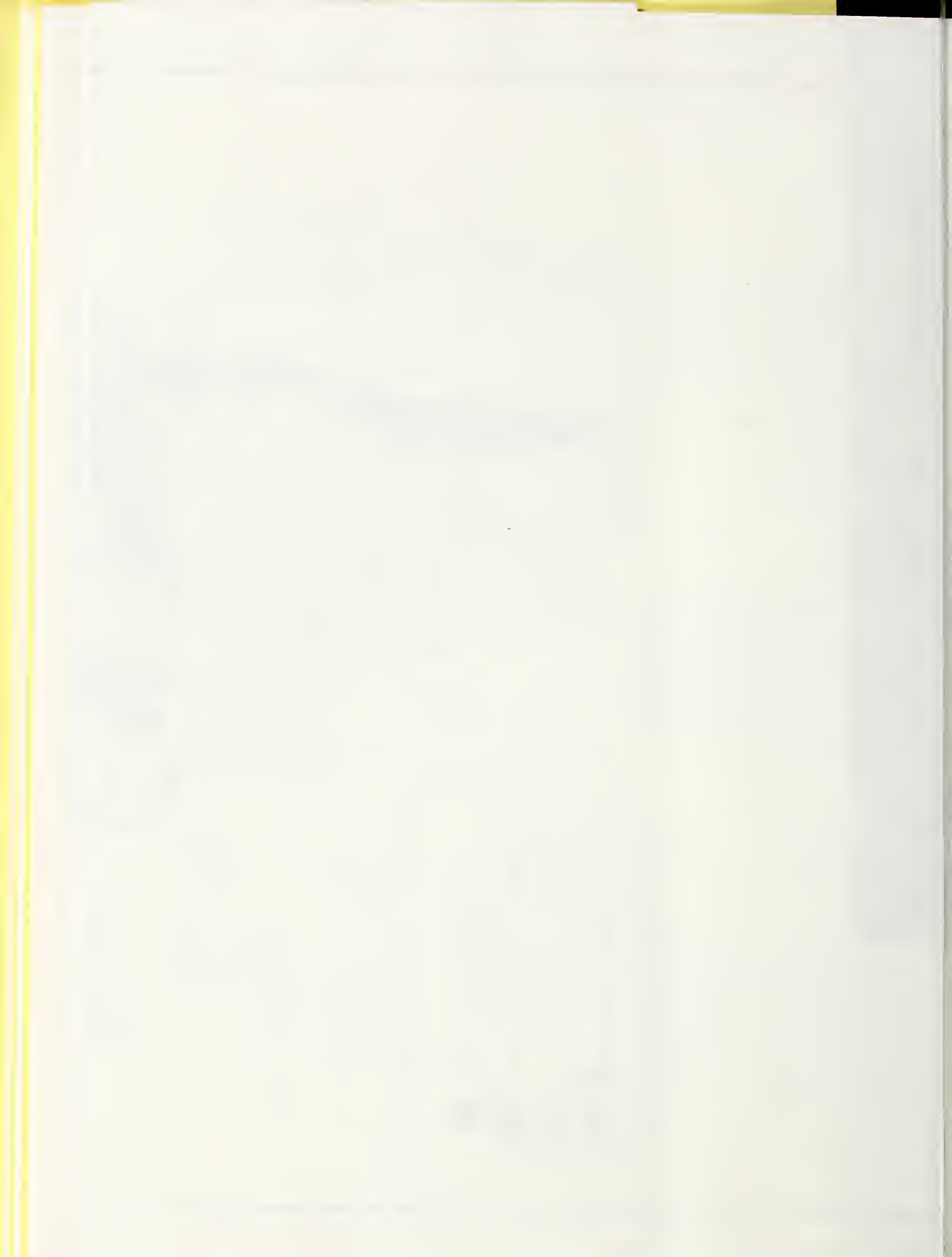


Figure 3-4



IDENTIFIED VIEWSHEDS ANALYZED IN EIS

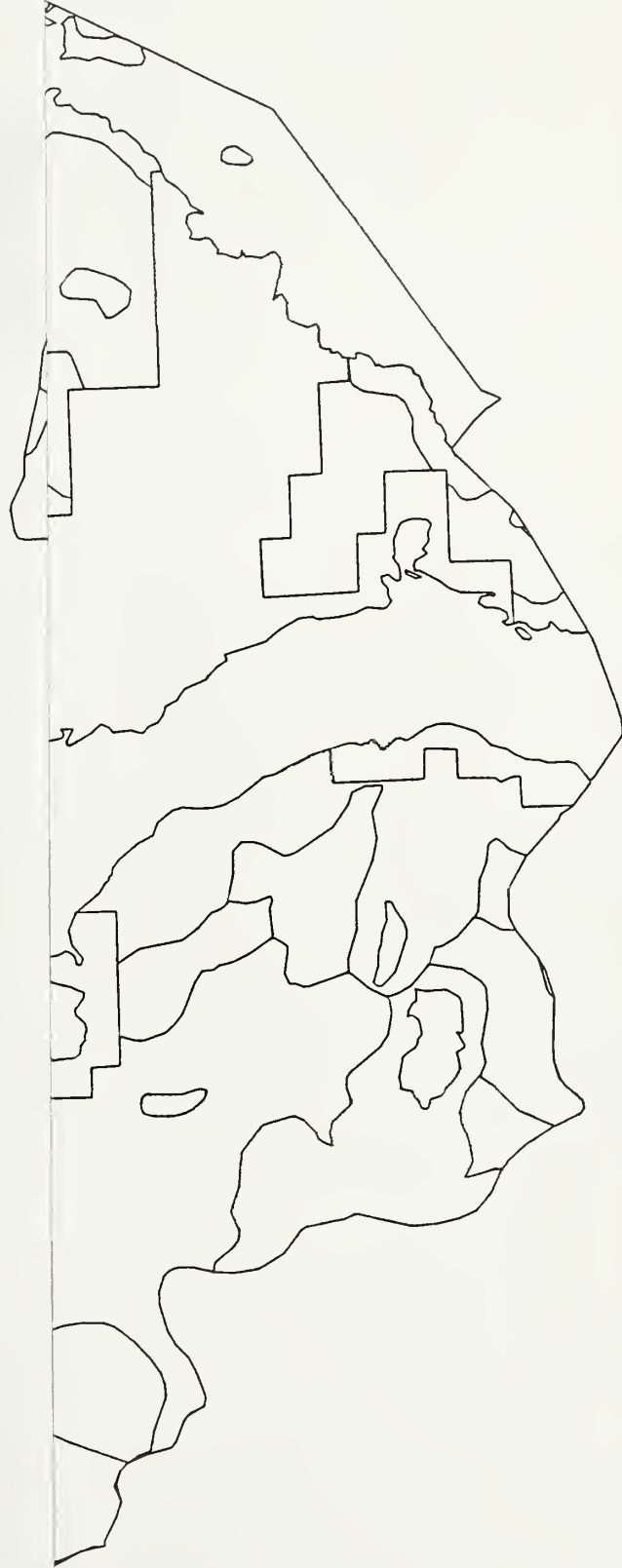
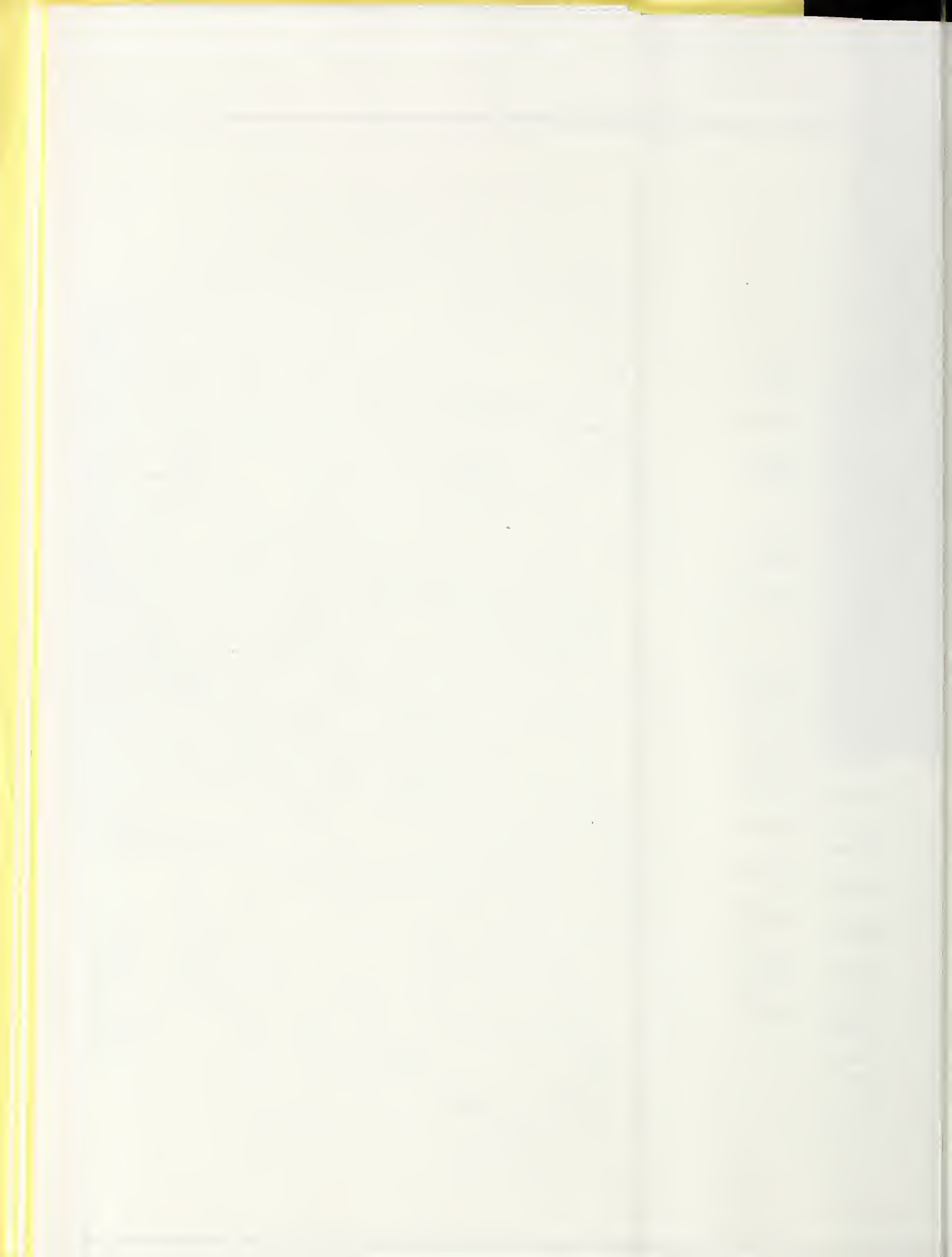


Figure 3 -5

IDENTIFIED VIEWSHEDS ANALYZED IN EIS



Figure 3-5



ROS INVENTORY

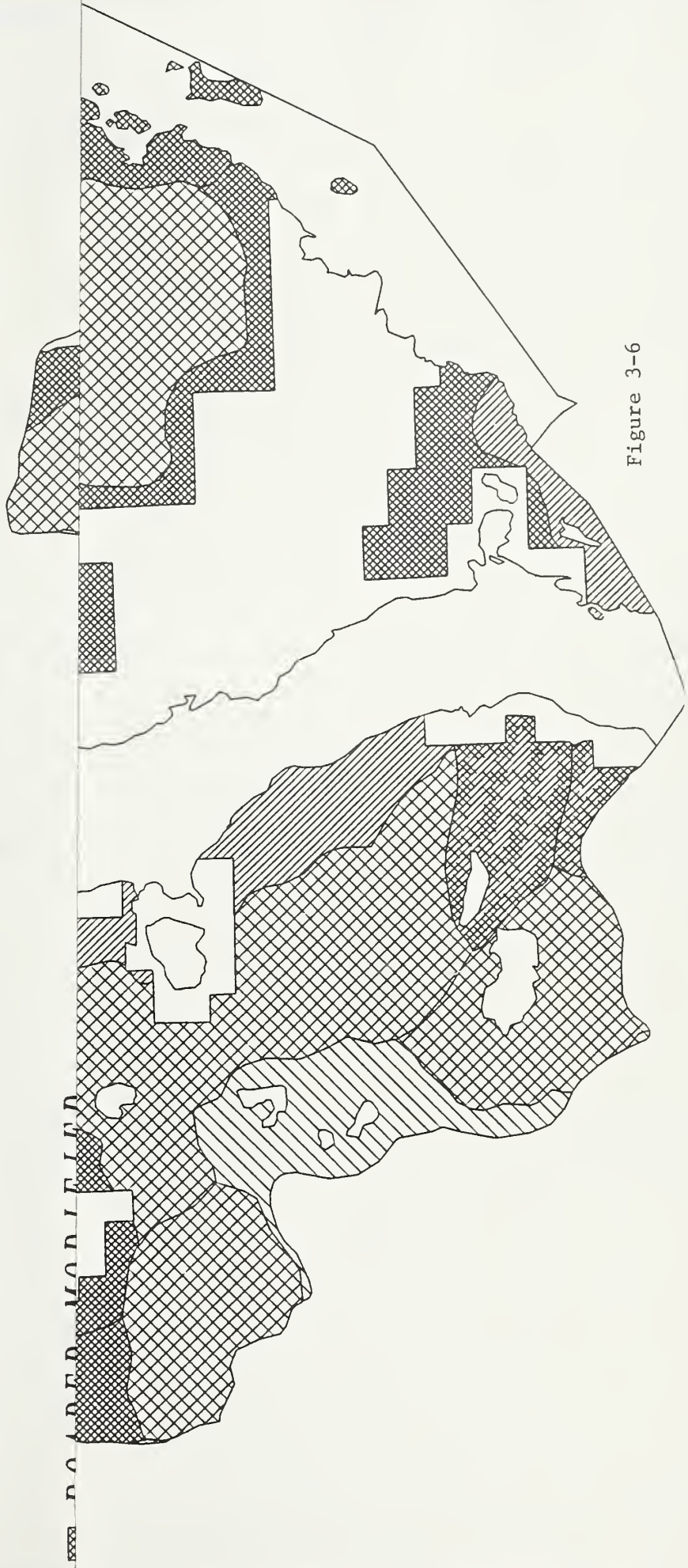
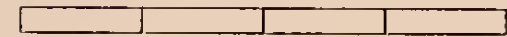


Figure 3-6

ROS INVENTORY

- ROADED MODIFIED
- ROADED NATURAL
- SEMI-PRIMITIVE MOTORIZED
- SEMI-PRIMITIVE NON-MOTORIZED
- PRIMITIVE 1 OR 2

0 1 2 3 4 MI



SCALE IN MILES



Figure 3-6



RECREATION AREAS



Figure 3-7

RECREATION AREAS

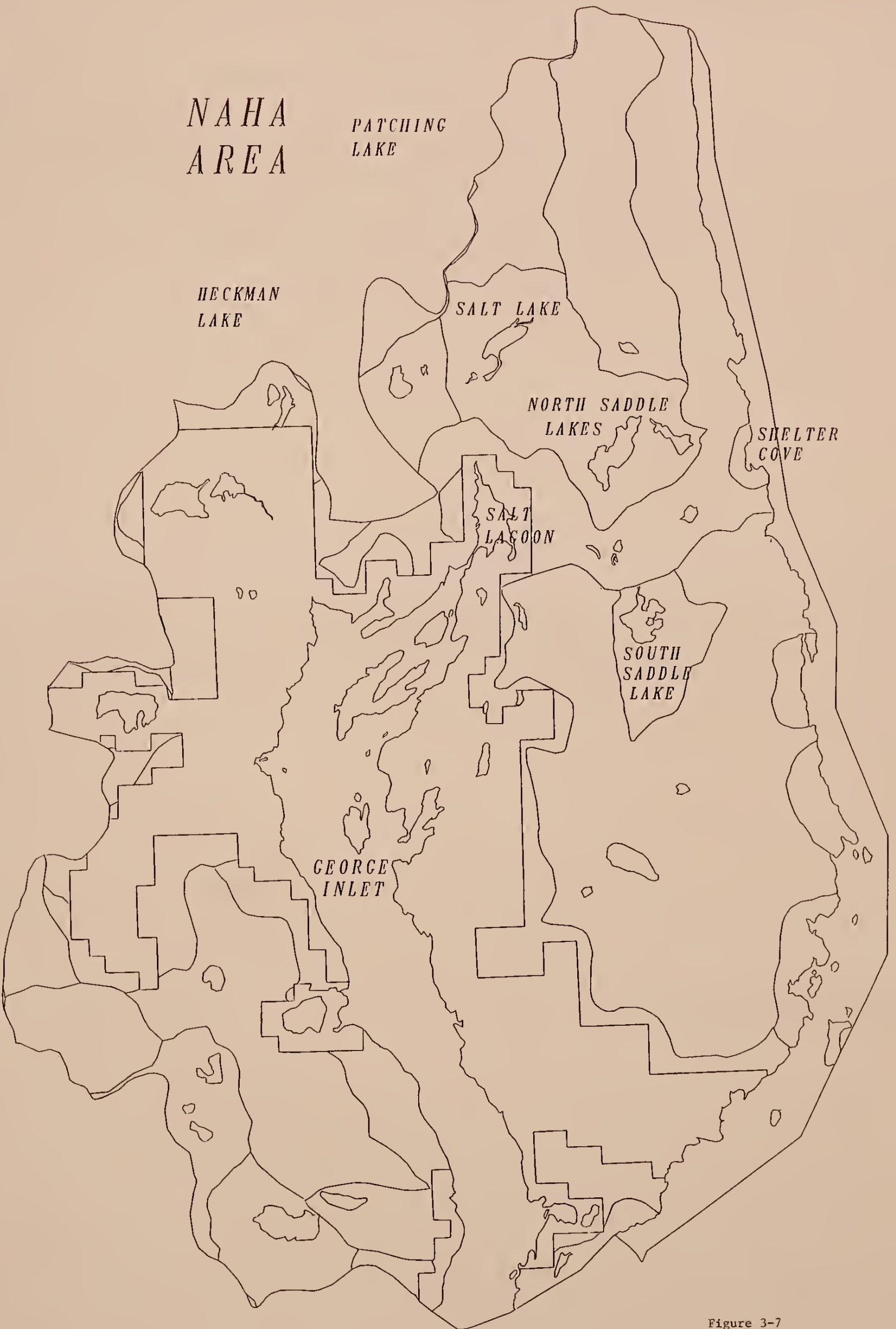


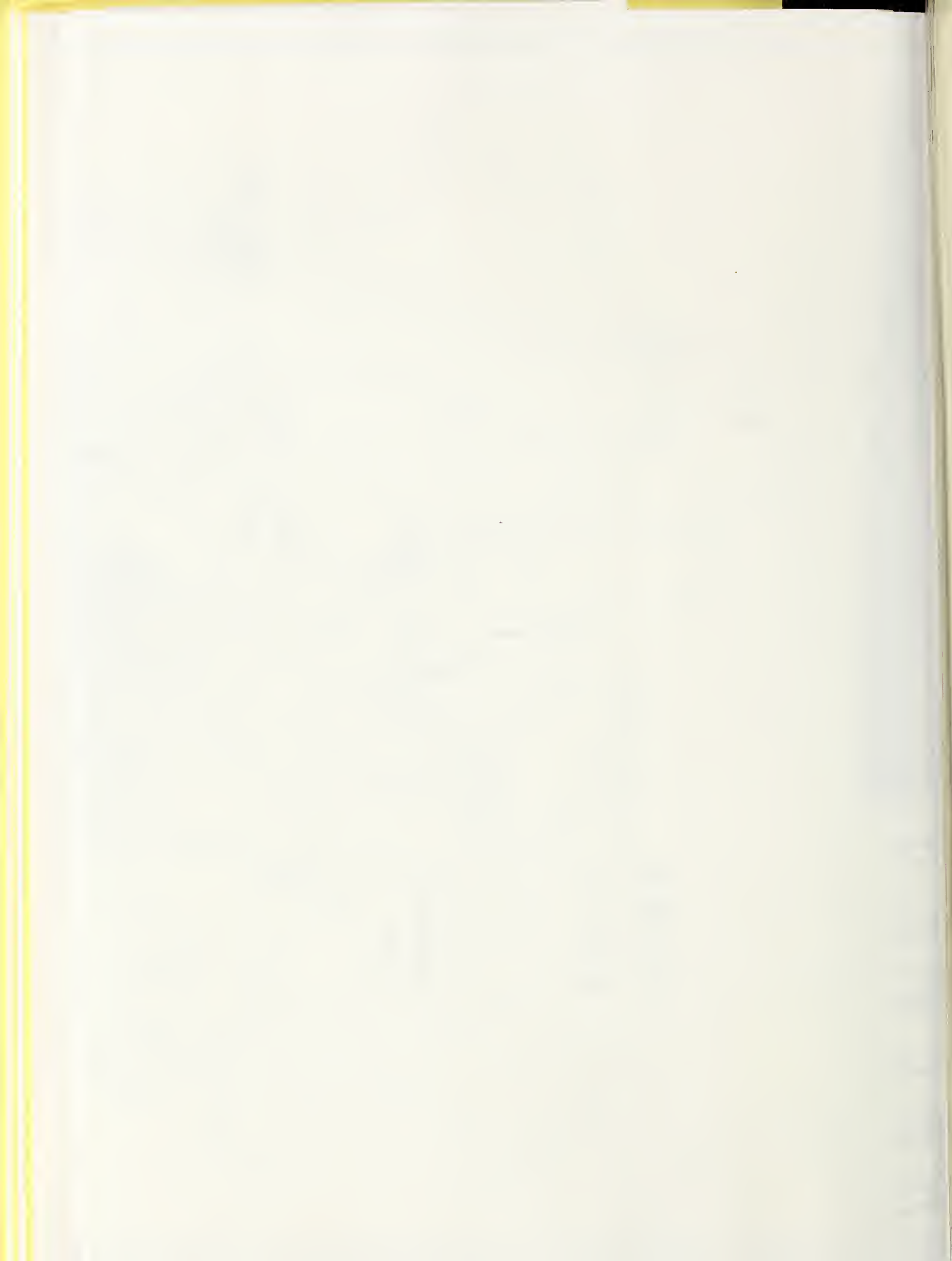
Figure 3-7

EXISTING ROADS

Revillagigedo Island Project Area



Figure 3-8



MAJOR WATERSHEDS

NORTH

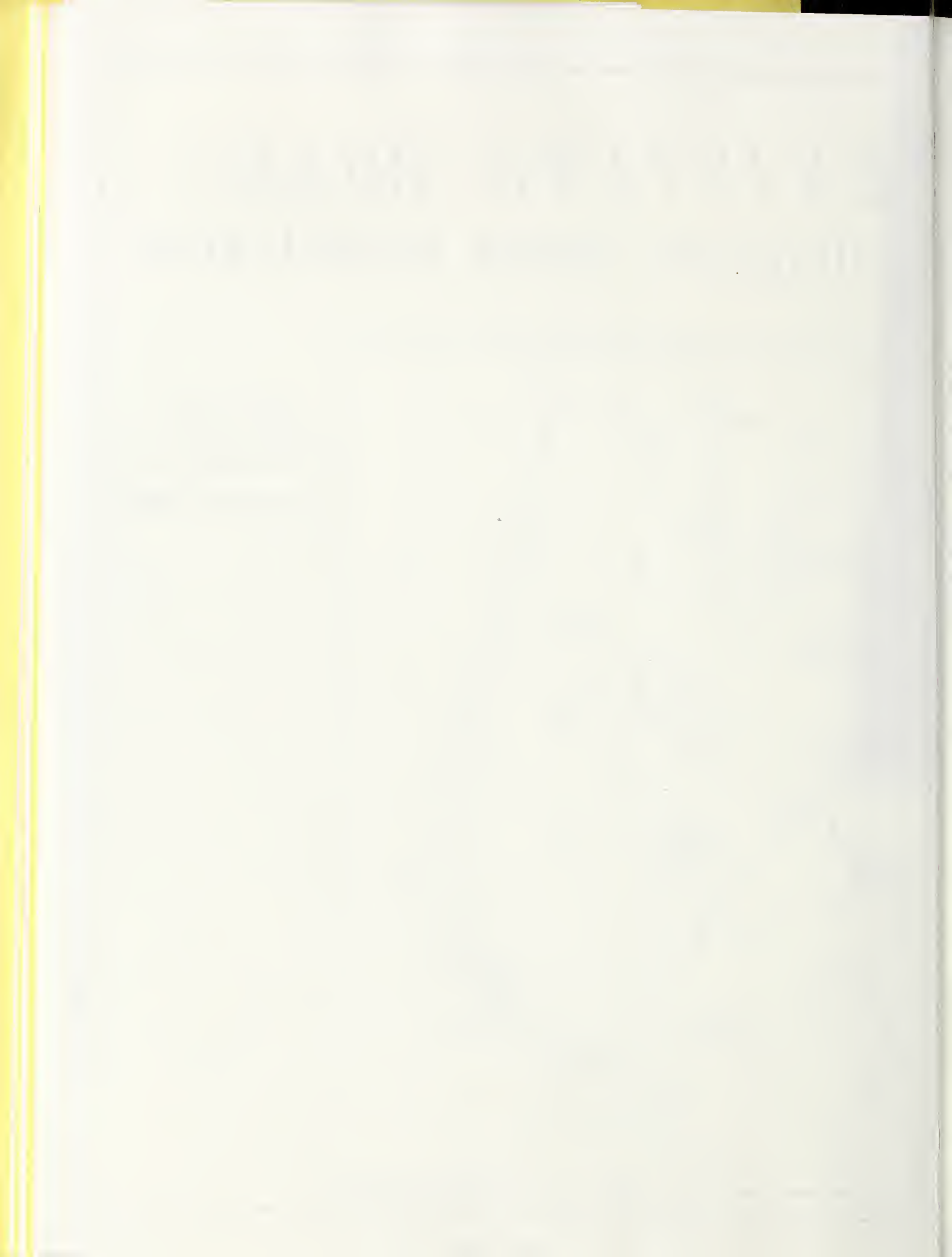


LEGEND

- WATERSHED BND
- ~ AHMU-CLASS 1
- AHMU-CLASS 2
- AHMU-CLASS 3



Figure 3-10



LOG TRANSFER FACILITIES

Revillagigedo Island Project Area

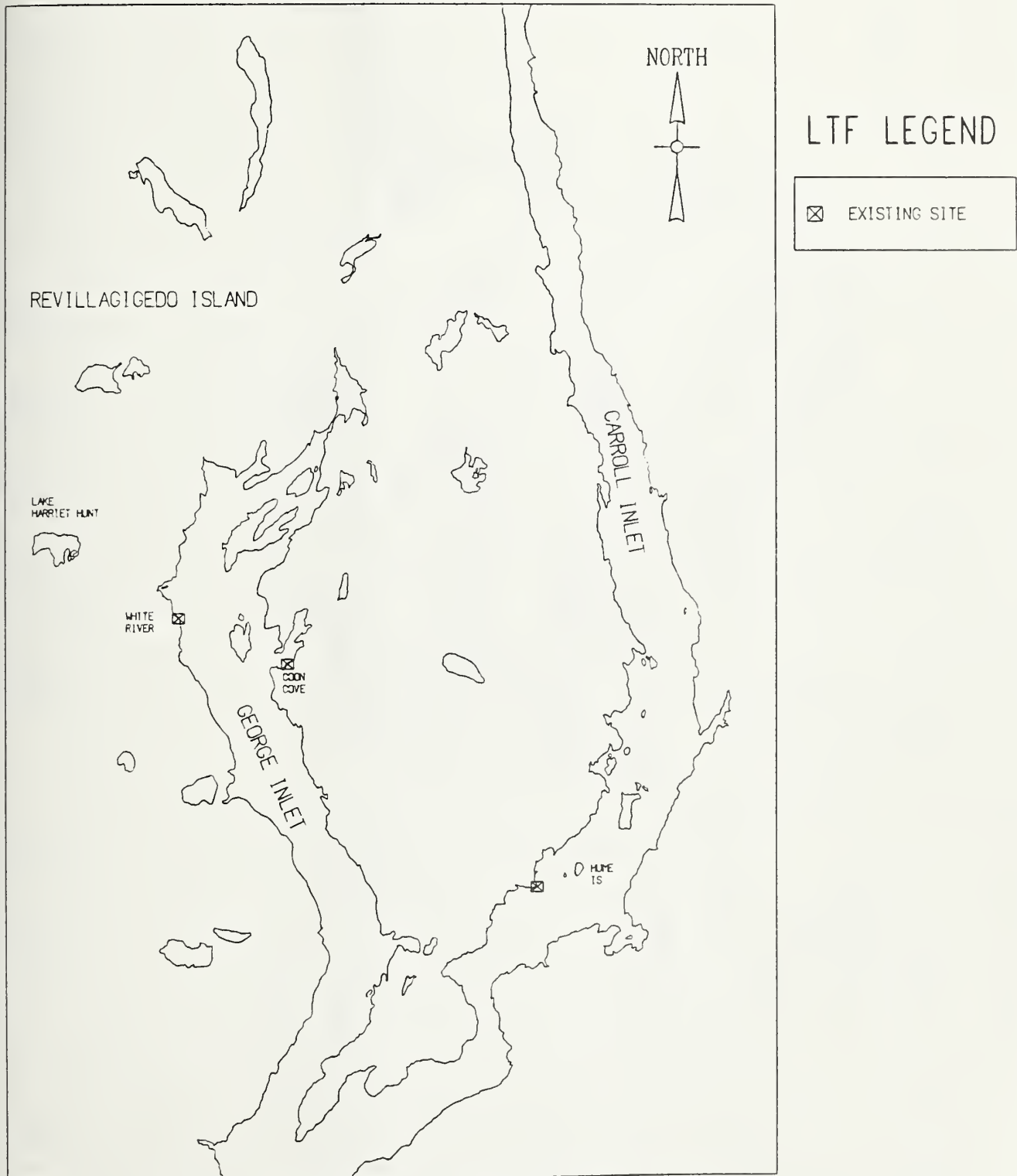


Figure 3-9



MAJOR WATERSHEDS

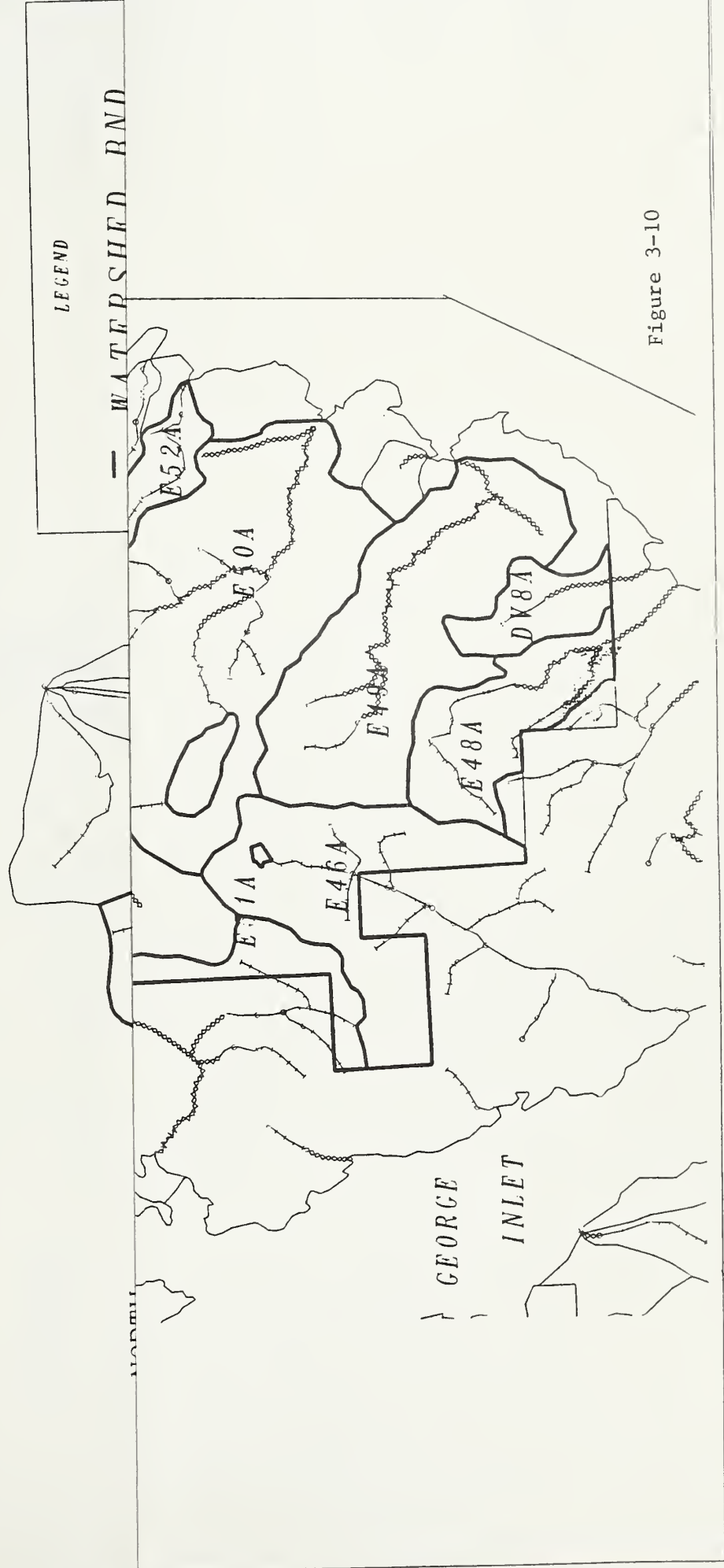


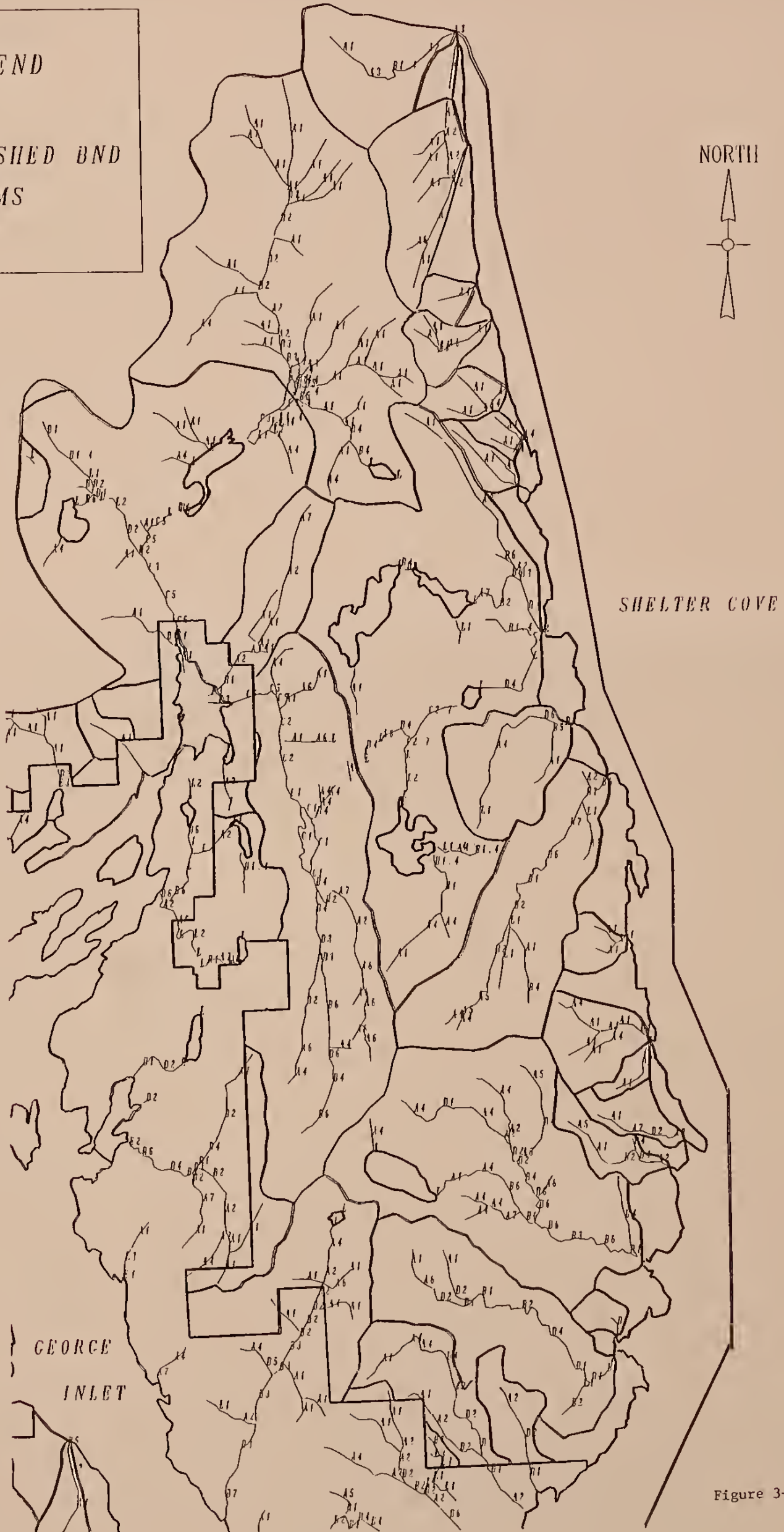
Figure 3-10

MAJOR CHANNEL TYPES

LEGEND

- WATERSHED BND
- STREAMS

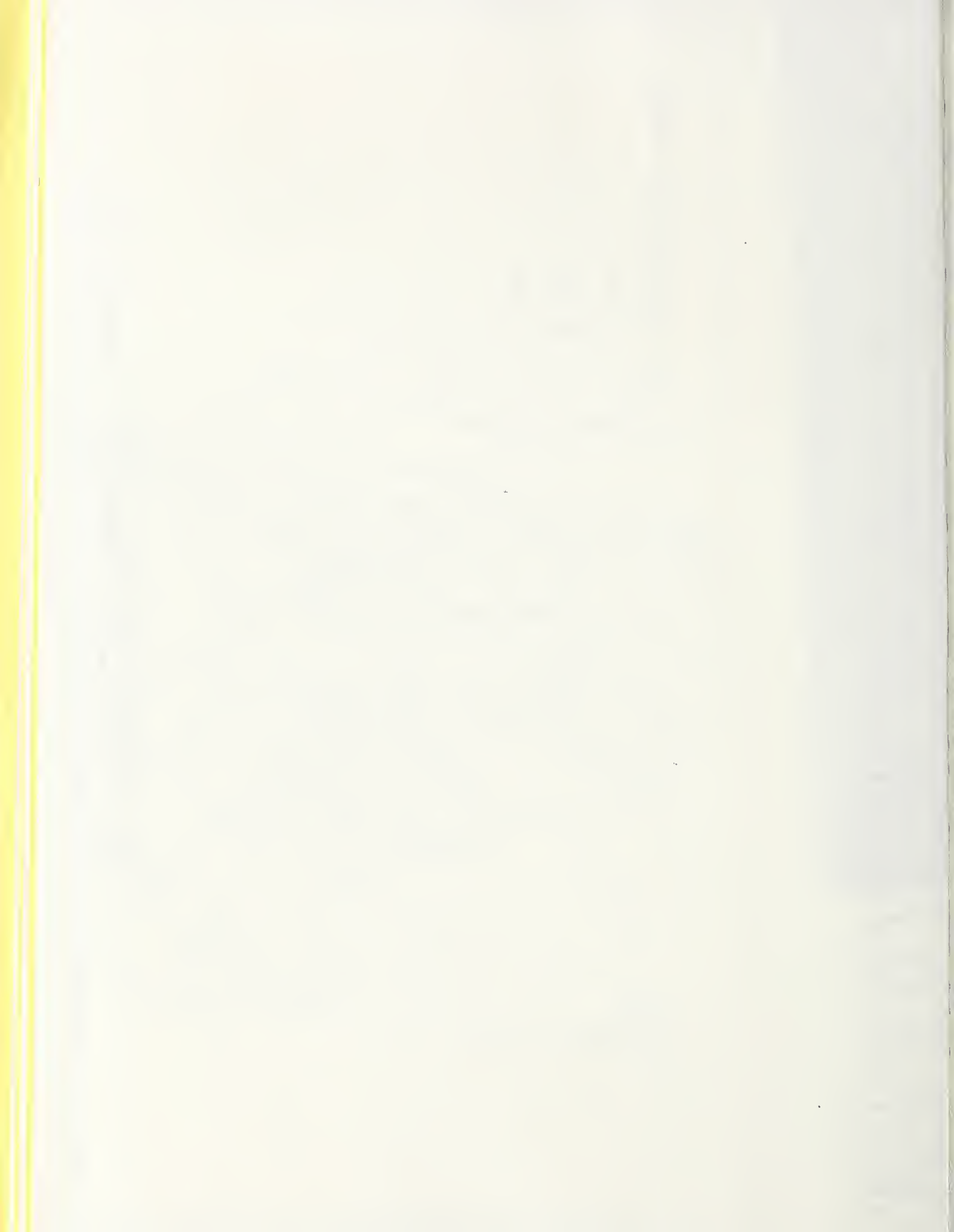
NORTH



SHELTER COVE

GEORGE
INLET

Figure 3-11



MAJOR CHANNELS

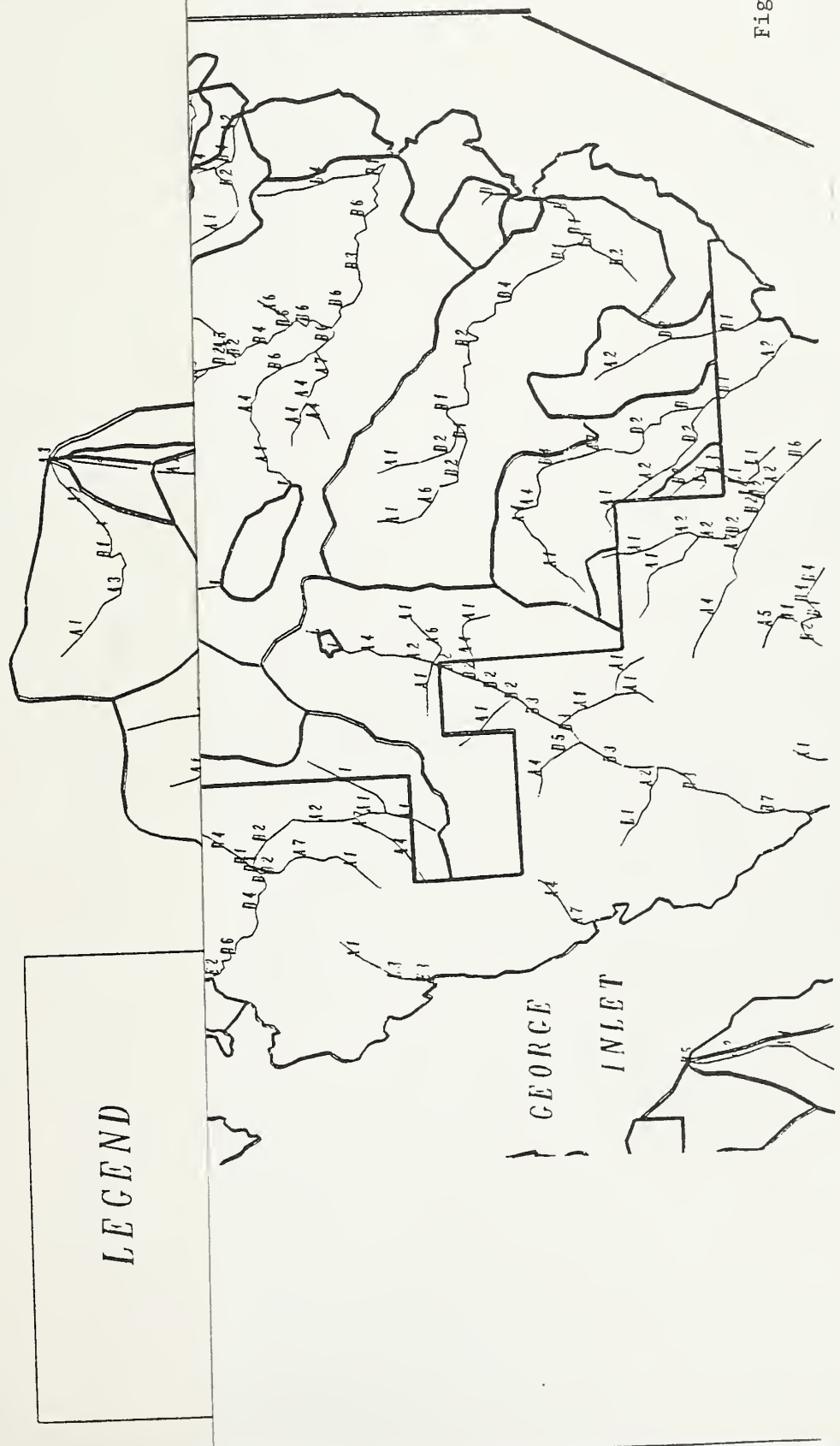


Figure 3-11

ALTERNATIVE 2

LEGEND

- ▣ HARVEST UNITS
- ▨ OLD-GROWTH RETENTION
- ▧ FRESH WATER
SALT WATER
- PROPOSED ROADS
- PRIVATE BND
- VCU BND
- ⊖ STREAM BUFFER



SCALE 1 : 86,740

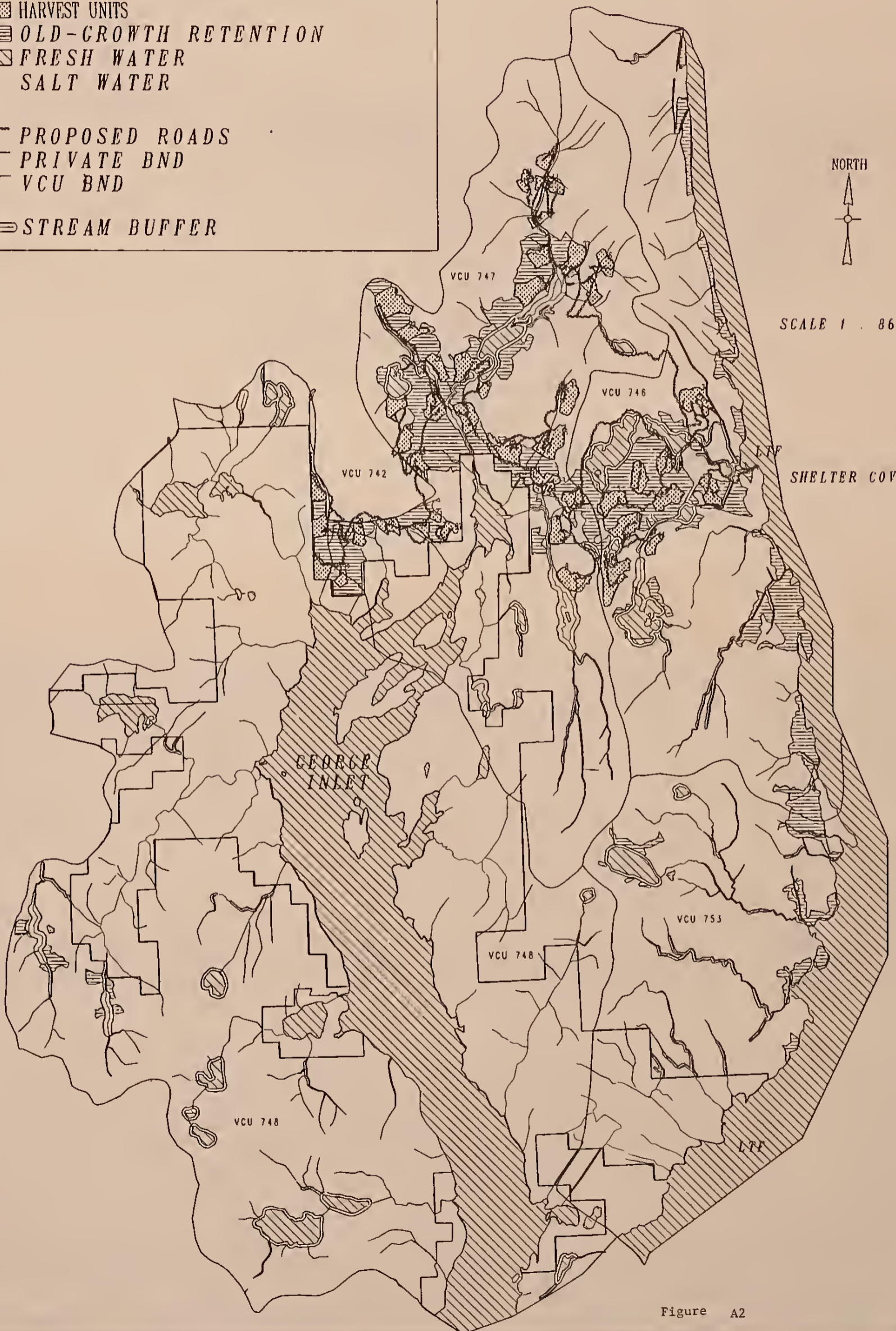
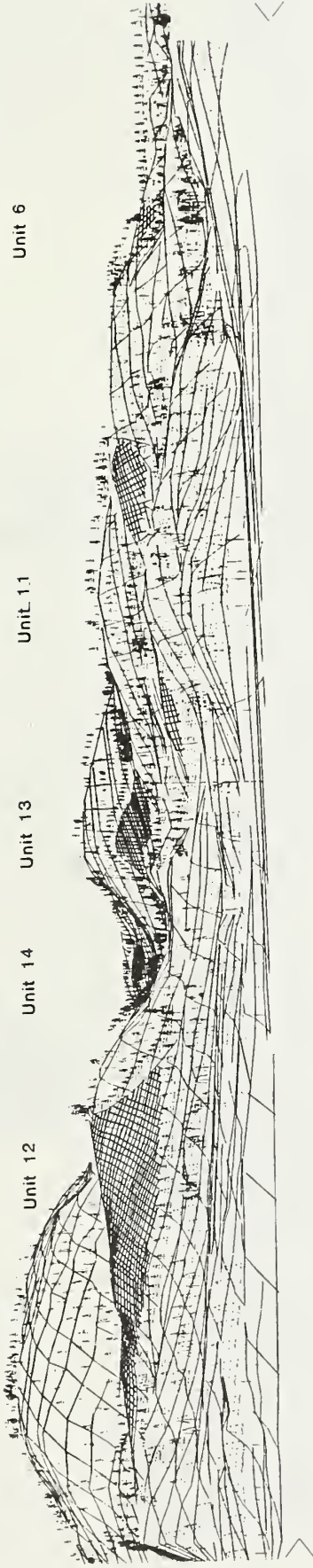


Figure A2

Chapter 4 Maps

ALT. 2
Fig. 4-1

OUTLET OF SALT LAGOON LOOKING NE



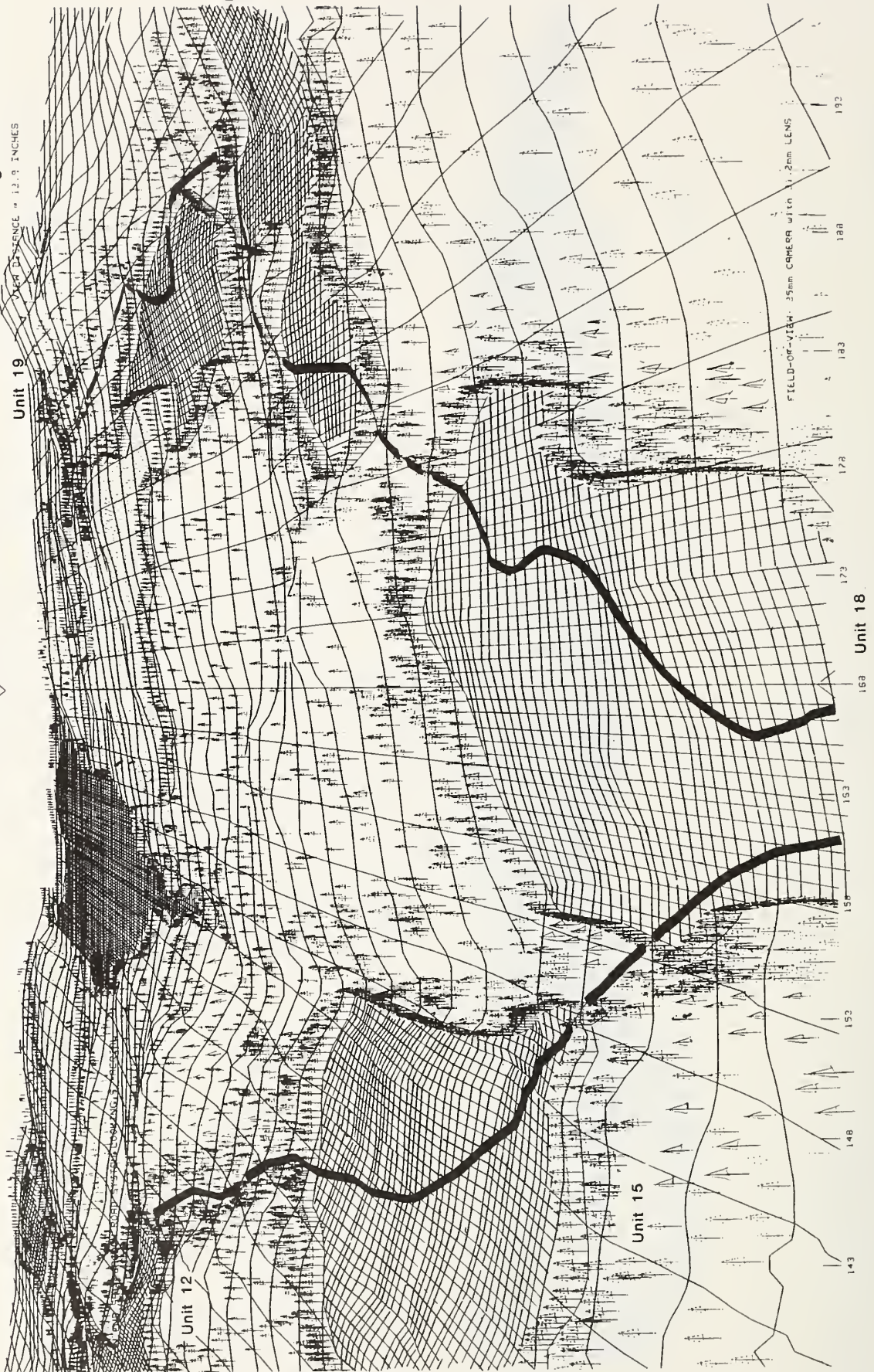
FIELD-OF-VIEW 35mm CAMERA with 28 mm LENS



ALT. 2

Fig. 4-2

VERT. DISTANCE = 12.9 INCHES



Unit 19

Unit 12

Unit 20

Unit 15

Unit 18

FIELD-OF-VIEW: 35mm CAMERA with 1.2mm LENS

-9

-14

-19

-24

-29

-34

-38

136

143

148

152

158

153

173

178

183

188

192

VIEW DISTANCE - 9.5 INCHES

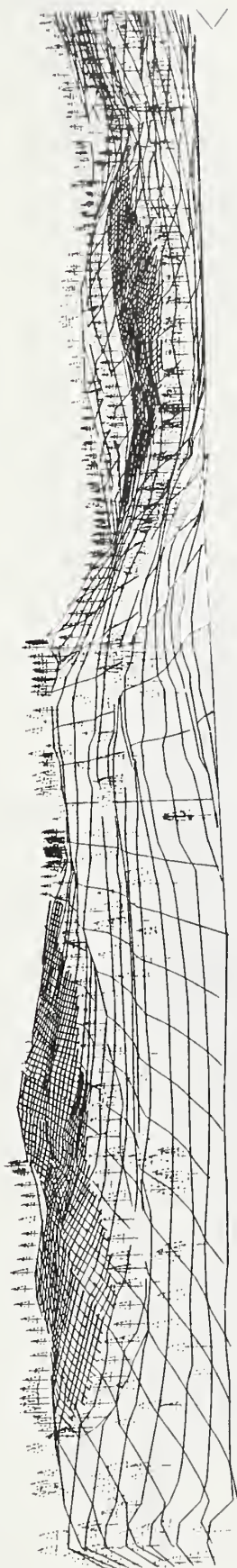
ALT. 2

Fig. 4-3

NORTH SADDLE LAKES - LARGE LAKE LOOKING SOUTH

Unit 5

Unit 4



FIELD-OF-VIEW - 35mm CAMERA (1:10) 5mm LENS



27 —
22 —
17 —
12 —
7 —
2 —
-3 —
-8 —
-13 —
-18 —
-23 —

1.25
1.30
1.35
1.40
1.45
1.50
1.55
1.60
1.65
1.70
1.75

VIEW DISTANCE = 12.8 INCHES

ALT. 2

Fig. 4-4

N. SADDLE LAKES - N. END LARGE LAKE LOOKING S.

Unit 4

Unit 5

23 —

18 —

13 —

8 —

3 —

-2 —

-7 —

-12 —

-17 —

140

145

150

155

160

165

170

175

180

185

190

195

200

FIELD-OF-VIEW - 35mm CAMERA with 28mm LENS



VIEW DISTANCE = 12.8 INCHES

ALT. 3

Fig. 4-5

OUTLET OF SALT LAGOON LOOKING NE

23

19

13

8

3

-2

-7

-12

-17

12

17

22

27

32

37

42

47

52

57

62

67

72

Unit 37 Unit 36 Unit 40 Unit 39



FIELD-OF-VIEW: 35mm CAMERA with 28mm LENS

ALT. 3

Fig. 4-6

VIEW DISTANCE = 13.9 INCHES

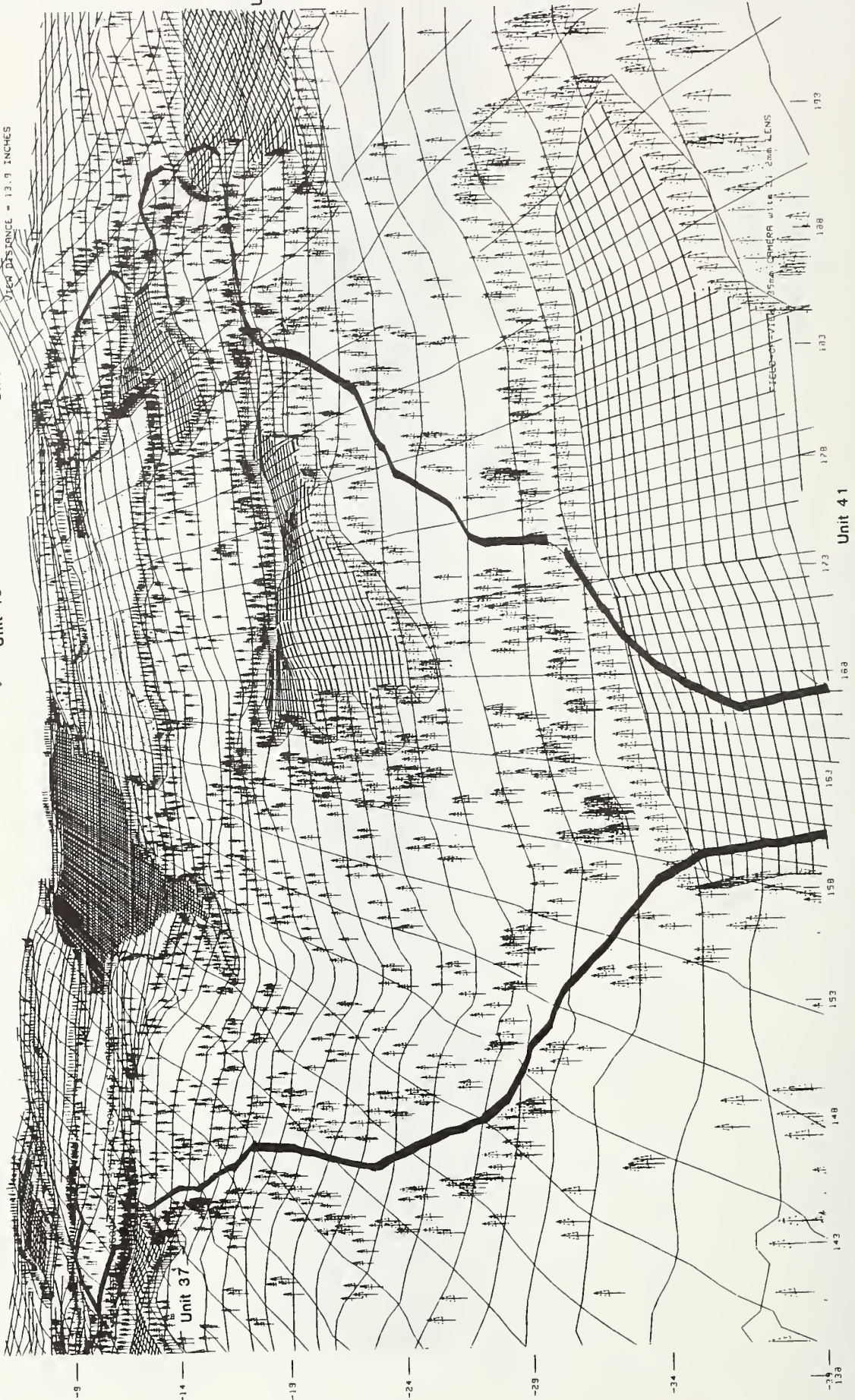
Unit 45

Unit 43

Unit 37

Unit

Unit 41



VIEW DISTANCE = 12.8 INCHES

ALT. 3

Fig. 4-7

N. SADDLE LAKES - N. END LARGE LAKE LOOKING S.



FIELD-OF-VIEW - 35mm CAMERA with 28mm LENS



23 —

18 —

13 —

8 —

3 —

-2 —

-7 —

-12 —

-17 —

VIEW DISTANCE = 3.7 INCHES

ALT. 3

Fig. 4-8

NORTH SHELLE LFRES -UPRGE LFNE LGUING SOUTH

27 —

22 —

17 —

12 —

7 —

2 —

-3 —

-5 —

-13 —

-18 —

-18a —

Unit 14

Unit 15

Unit 16



FIELD-OF-VIEW - 35mm CAMERA L. 1/100 S. 5mm LENS



VIEW DISTANCE = 11.9 INCHES

ALT. 4

Fig. 4-9

ERST OF SHELTER COVE- LOOKING NW

20 —

15 —

10 —

5 —

0 —

-5 —

-10 —

-15 —

-20 —

Unit 23

Unit 27

Unit 26

Unit 34



FIELD-OF-VIEW: 35mm CAMERA WITH 26.7mm LENS

322

317

312

307

302

297

292

287

282

277

272

267

262

VIEW DISTANCE - 11.9 INCHES

ALT. 4

Fig. 4-10

2.5 MI. N. OF ISLAND PT. LOOKING SW

22

17

12

7

2

-3

-8

-13

-18

Unit 7

Unit 6

Unit 5



FIELD-OF-VIEW: 35mm CAMERA with 26.7mm LENS



VIEW DISTANCE = 12.8 INCHES

ALT. 4

Fig. 4-11

OUTLET OF SALT LAGOON LOOKING NE

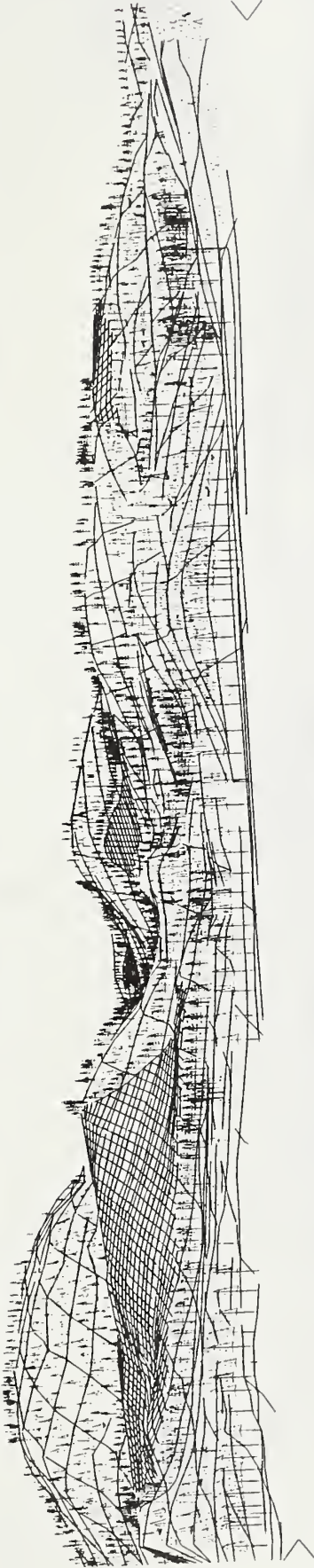
Unit 38

Unit 43

Unit 45

Unit 46

Unit 44



FIELD-OF-VIEW: 35mm CAMERA with 28.5mm LENS



23 —

1a —

13 —

8 —

3 —

-2 —

-7 —

-12 —

-17 —

12

17

22

27

32

37

42

47

52

57

62

67

72

VIEW DISTANCE = 10.0 INCHES

ALT. 5
Fig. 4-12

OUTLET OF SALT LAGOON LOOKING NE

23 —

18 —

13 —

8 —

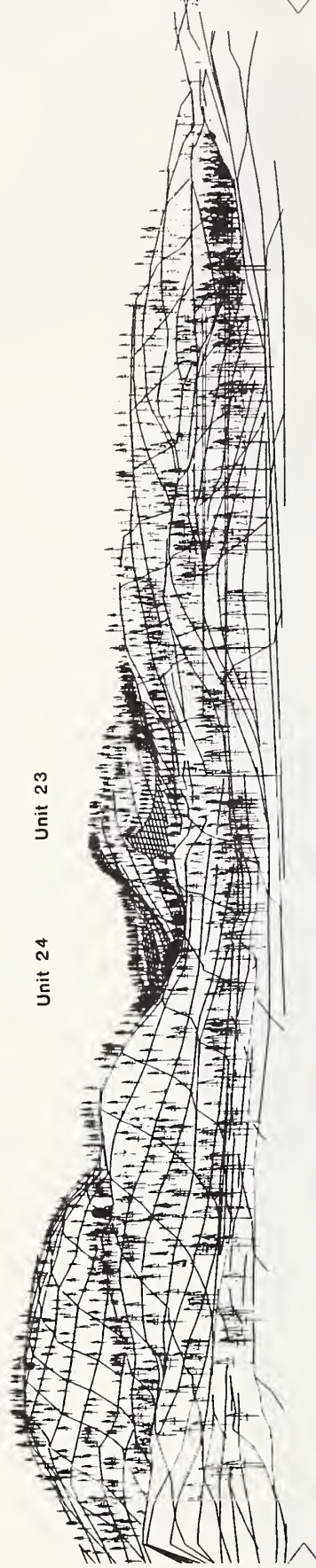
3 —

-2 —

-7 —

-12 —

-17 —



FIELD-OF-VIEW: 35mm CAMERA with 28.0mm LENS

12

17

22

27

32

37

42

47

52

57

62

67

72

VIEW DISTANCE = 11.9 INCHES

ALT. 6

Fig. 4-13

EAST OF SHELTER COVE- LOOKING NW

20 —

15 —

10 —

5 —

0 —

-5 —

-10 —

-15 —

-20 —

Unit 23

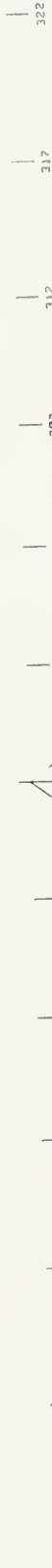
Unit 22

Unit 20

Unit 19



FIELD-OF-VIEW- 35mm CAMERA with 25.7mm LENS



VIEW DISTANCE = 11.9 INCHES

ALT. 6

Fig. 4-14

22 — 2.5 MI. N. OF ISLAND PT. LOOKING SW

17 —

12 —

7 —

2 —

-3 —

-8 —

-13 —

-18 —

Unit 16

Unit 8

Unit 6



FIELD-OF-VIEW: 35mm CAMERA with 28.7mm LENS



VIEW DISTANCE = 10.0 INCHES

ALT. 6

Fig. 4-15

OUTLET OF SALT LAKE LOOKING NE



FIELD-OF-VIEW = 5mm. CIPHER WITH 28 mm. LENS.

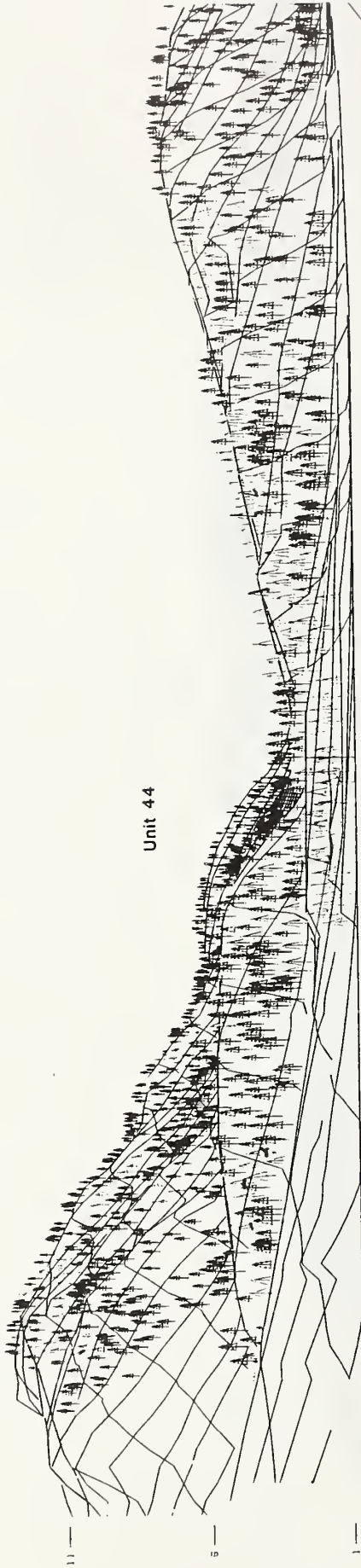


VIEW DISTANCE = 17.3 INCHES

ALT. 6

Fig. 4-16

NAHA- HECKMAN LAKE-LOOKING TO HEAD OF LAKE



16 —

11 —

1 —

-4 —

-9 —

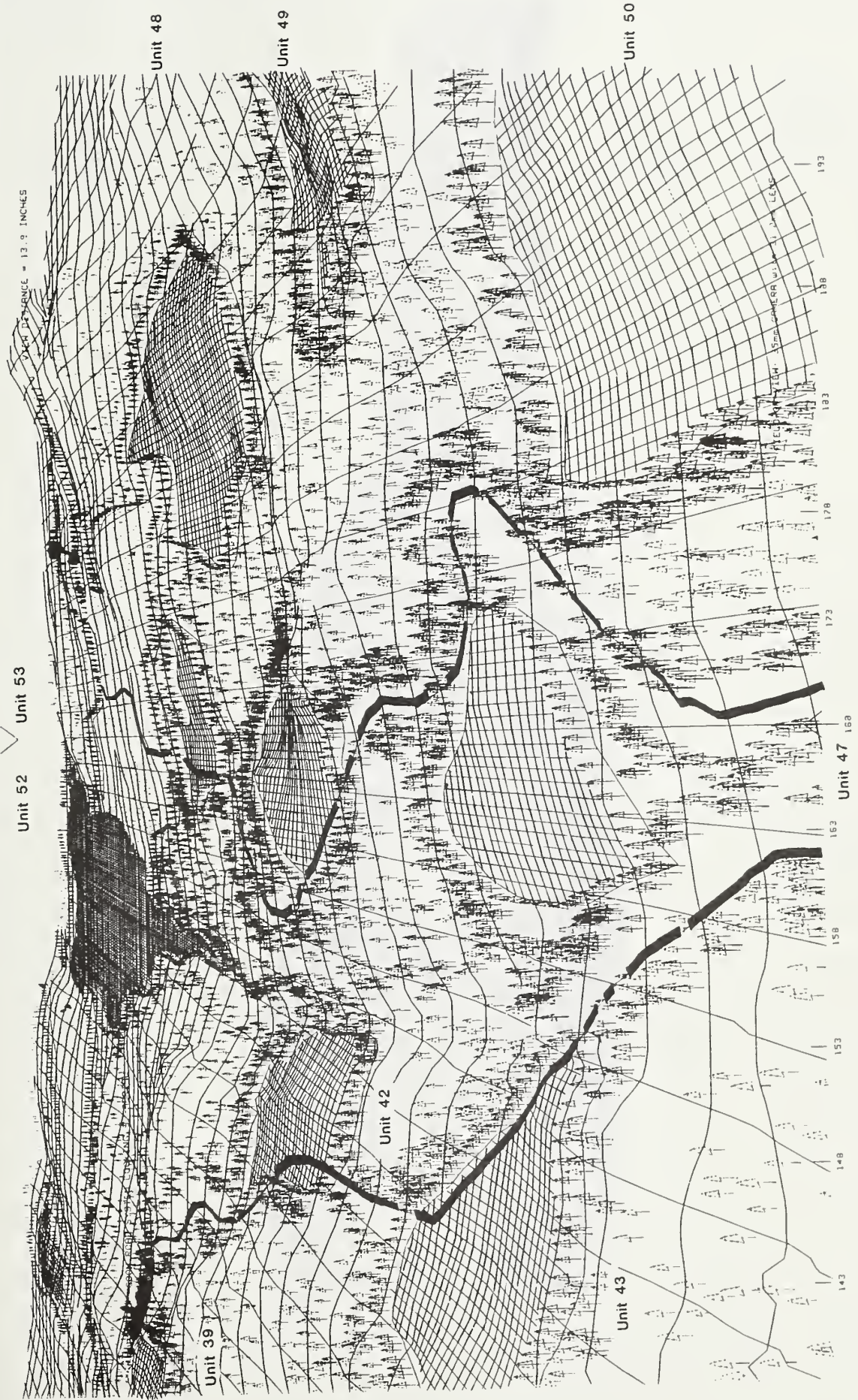
-11 —

93

FIELD-OF-VIEW: 35mm CAMERA with 38.5mm LENS



Fig. 4-17





VIEW DISTANCE - 9.7 INCHES

ALT. 6

Fig. 4-18

NORTH SADDLE LAKES - LARGE LAKE LOCKING SOLUTION

27 ---

22 ---

17 ---

12 ---

7 ---

2 ---

-3 ---

-8 ---

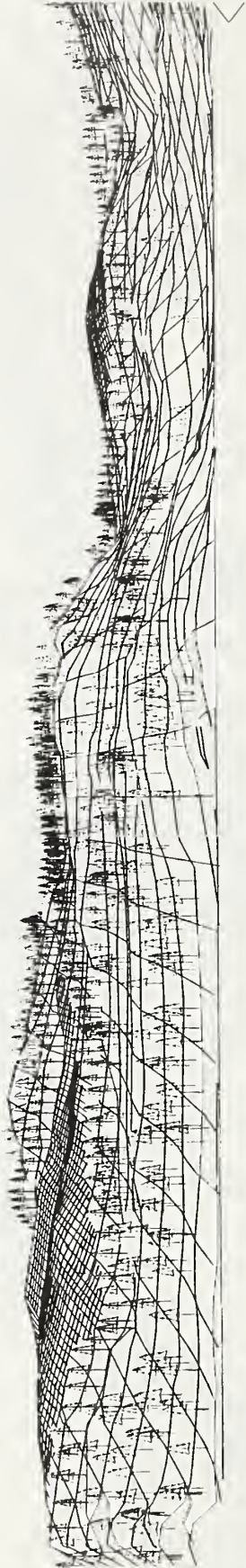
-13 ---

-18 ---

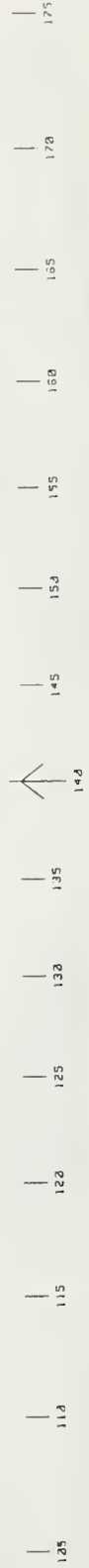
-23 ---

Unit 20

Unit 21



FIELD-OF-VIEW - 35mm CAMERA with 21 5mm LENS



VIEW DISTANCE = 12.8 INCHES

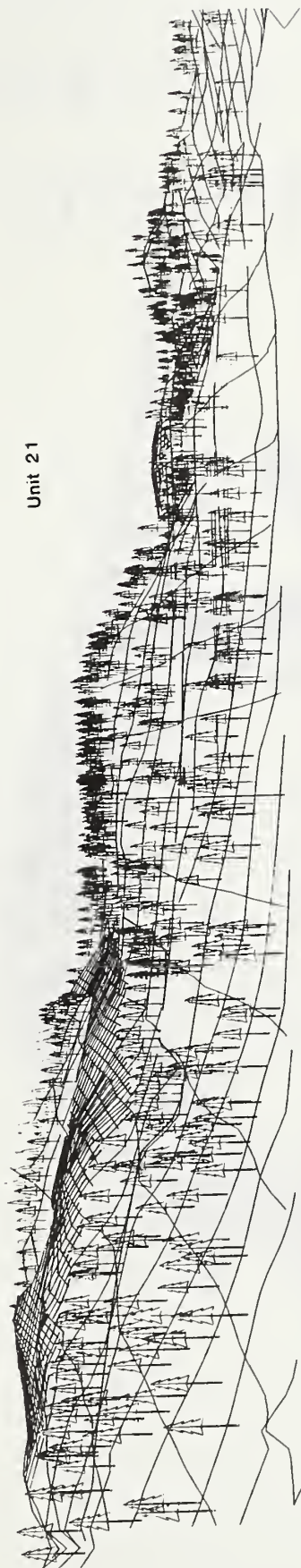
ALT. 6

Fig. 4-19

N. SADDLE LAKES- N. END LARGE LAKE. LOOKING S.

Unit 20

Unit 21



FIELD-OF-VIEW- 35mm CAMERA WITH 38.0mm LENS



23 —

18 —

13 —

8 —

3 —

-2 —

-7 —

-12 —

-17 —

*PROPOSED
OLD GROWTH AREAS*

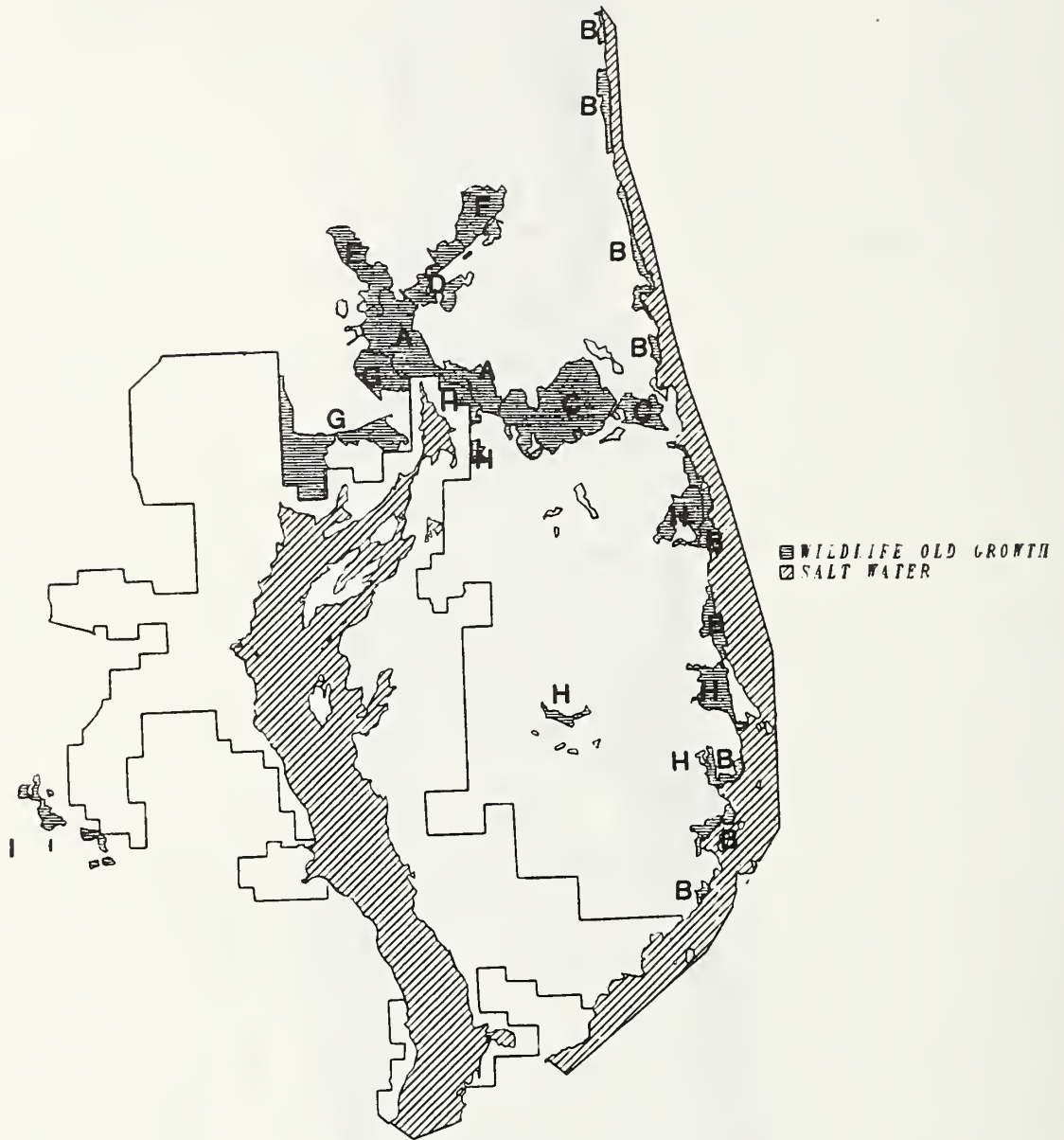


Fig. 4-20

ALTERNATIVE 2

WILDLIFE OLD GROWTH



Fig. 4-21

ALTERNATIVE 3
WILDLIFE OLD GROWTH

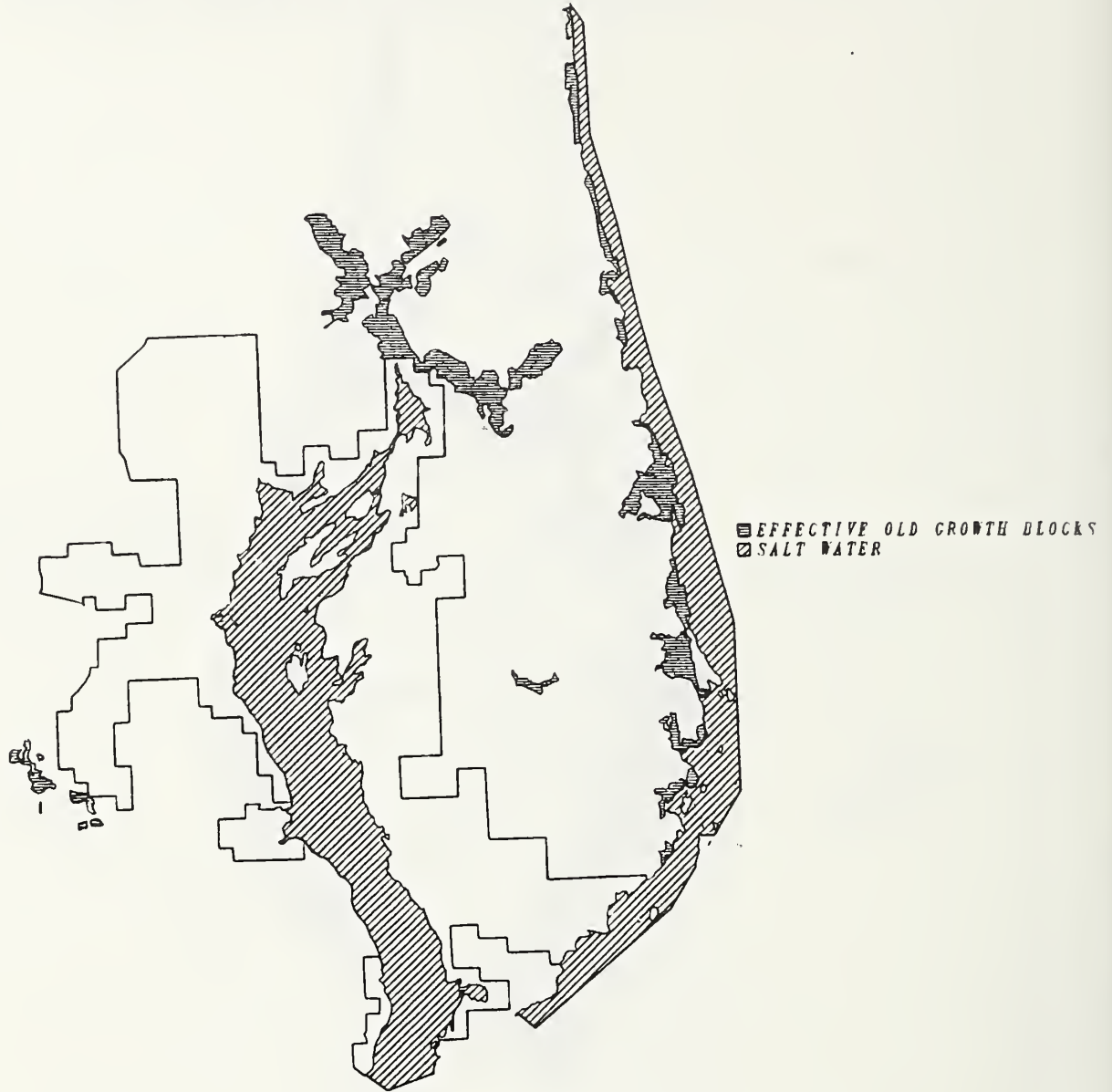


Fig. 4-22

ALTERNATIVE 4 WILDLIFE OLD GROWTH

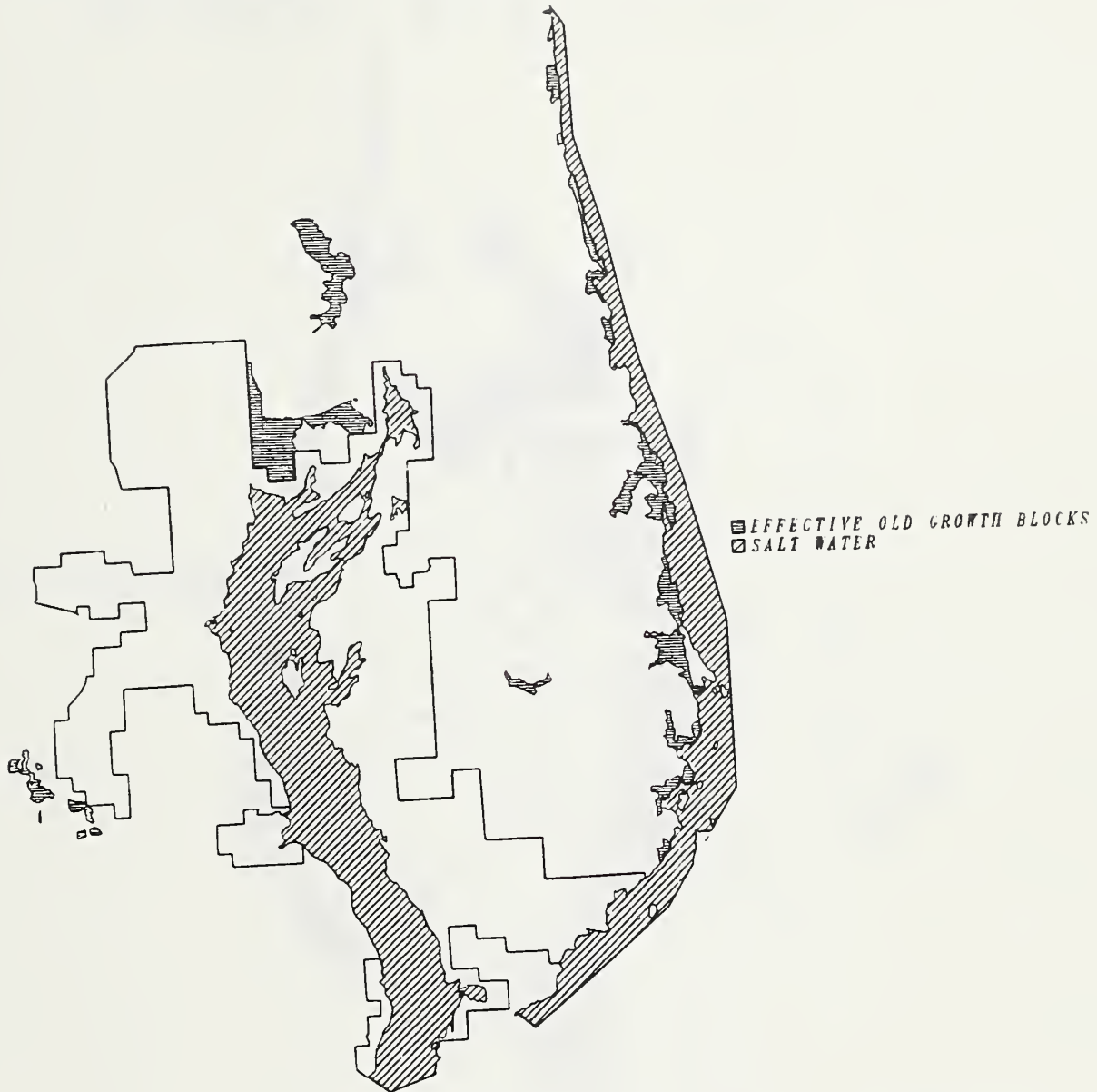


Fig. 4-23

ALTERNATIVE 5
WILDLIFE OLD GROWTH

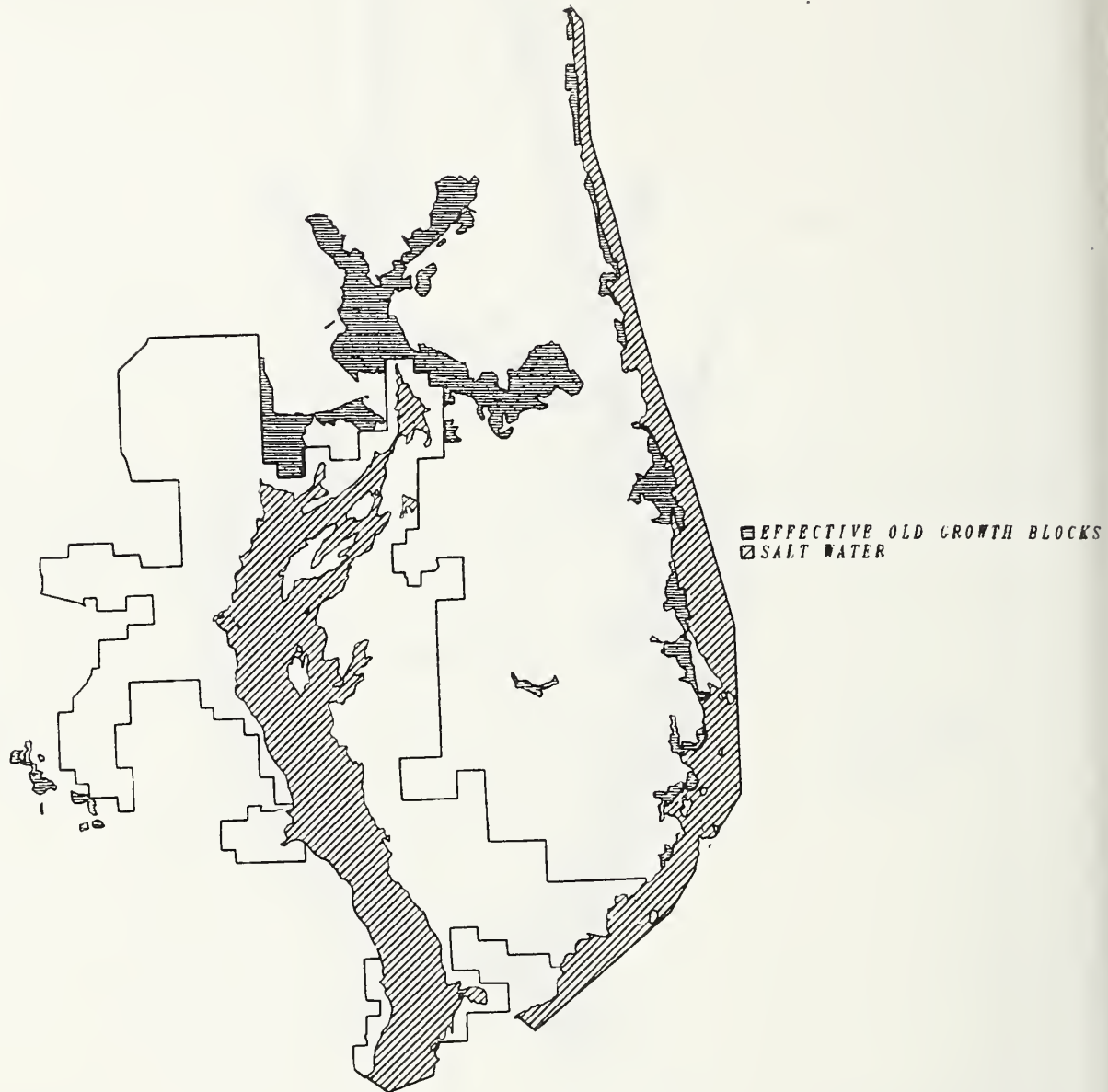


Fig. 4-24

ALTERNATIVE 6 WILDLIFE OLD GROWTH

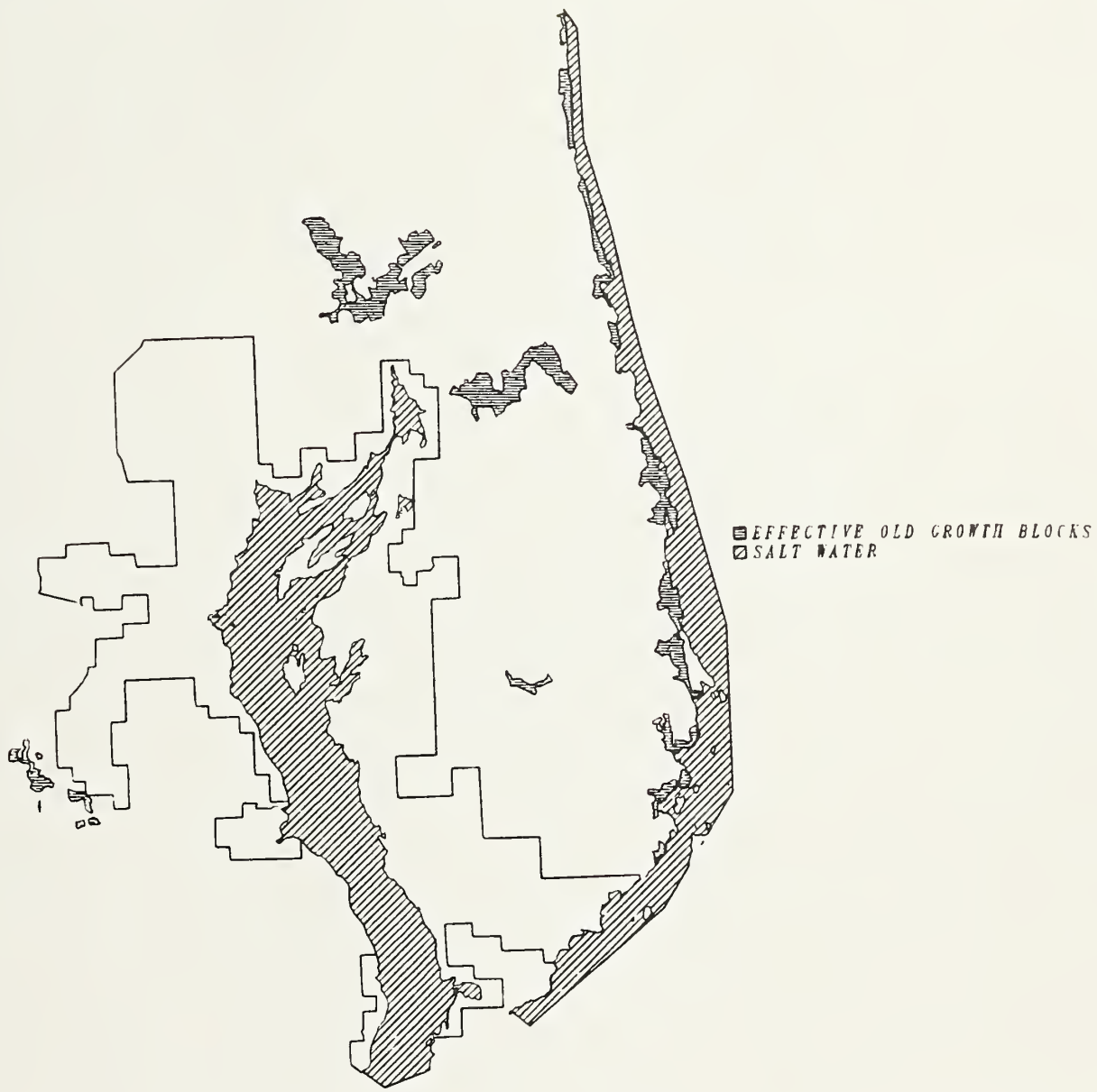
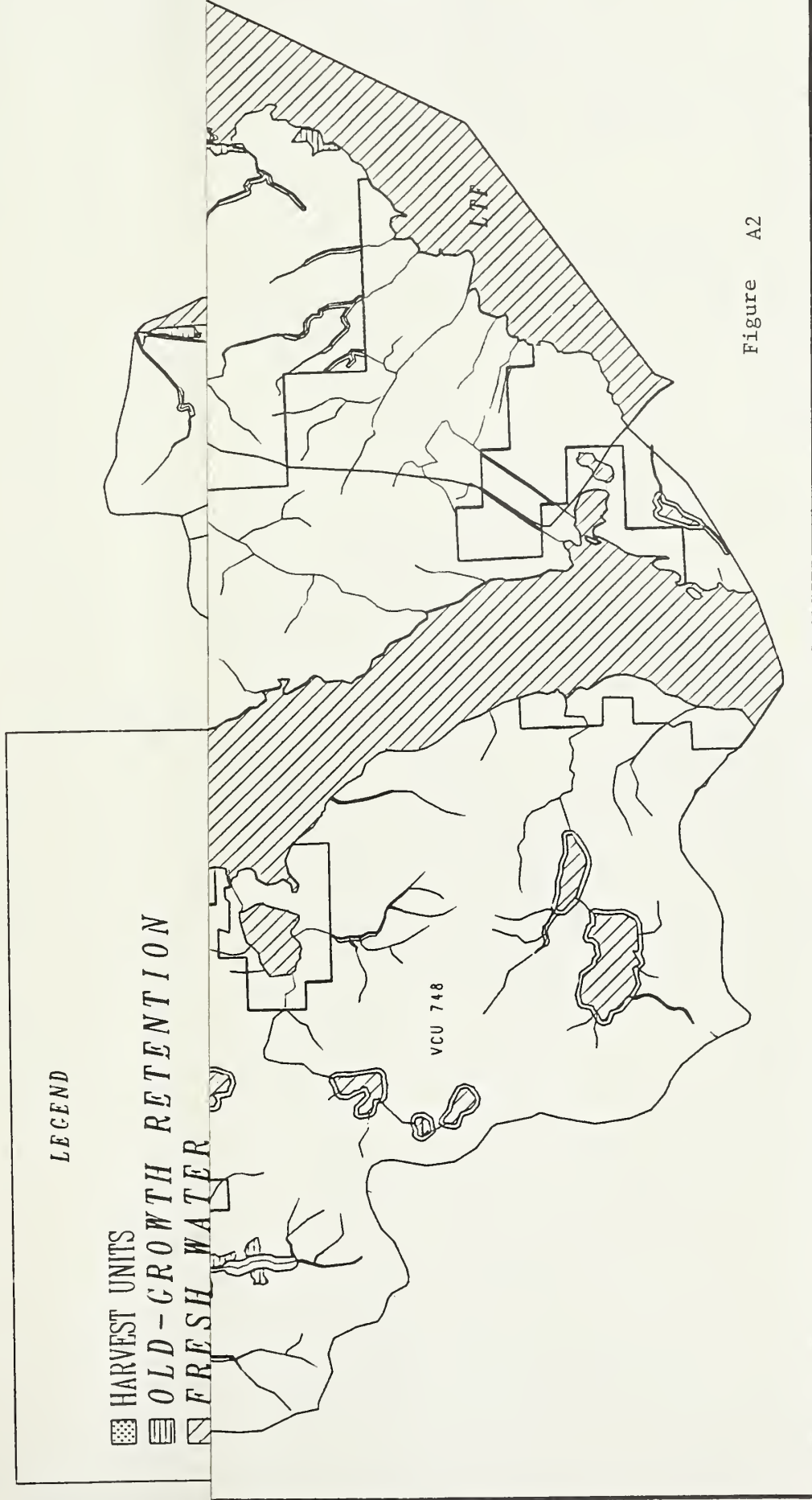


Fig. 4-25

Alternative Maps

ALTERNATIVE 2



ALTERNATIVE 3

LEGEND

- ▣ HARVEST UNITS
- ▨ OLD-GROWTH RETENTION
- ▧ FRESH WATER
SALT WATER
- PROPOSED ROADS
- PRIVATE BND
- VCU BND
- ⊃ STREAM BUFFER



SCALE 1 86,740

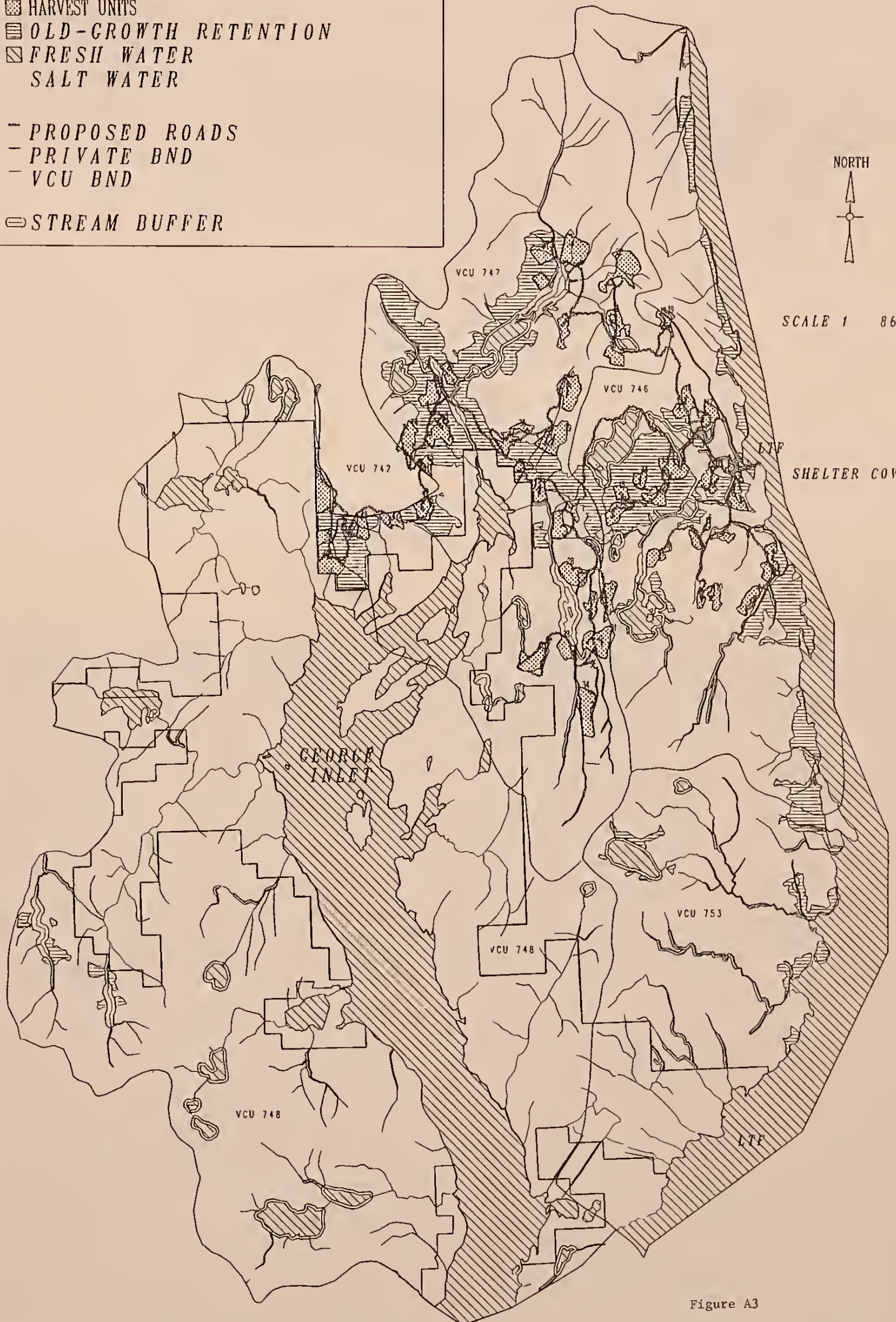


Figure A3

ALTERNATIVE 3

LEGEND

- HARVEST UNITS
- OLD-GROWTH RETENTION
- FRESH WATER

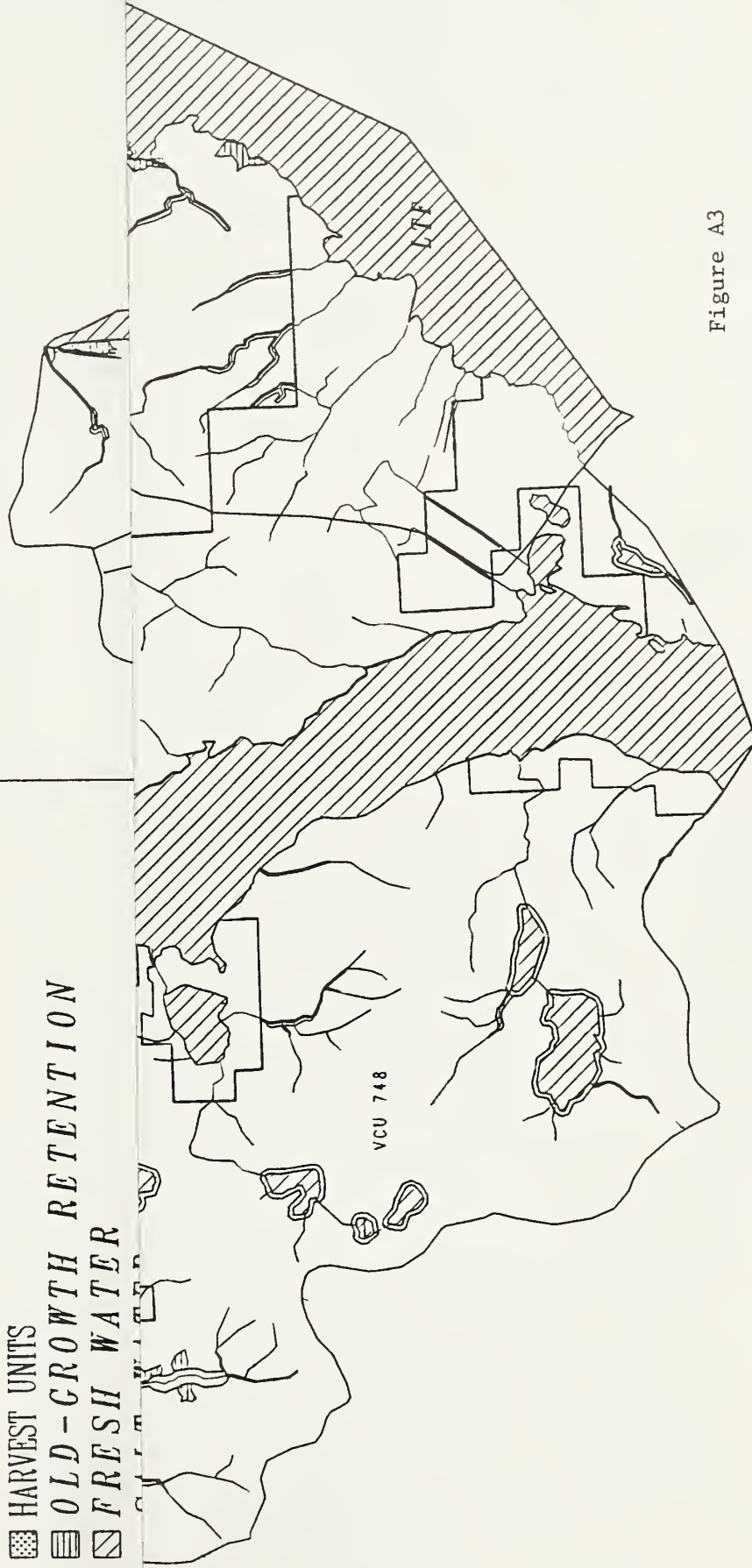


Figure A3

ALTERNATIVE 4

LEGEND

- ▣ HARVEST UNITS
- ▨ OLD-GROWTH RETENTION
- ▧ FRESH WATER
SALT WATER
- PROPOSED ROADS
- PRIVATE BND
- VCU BND
- ⇨ STREAM BUFFER



SCALE 1 : 86,740

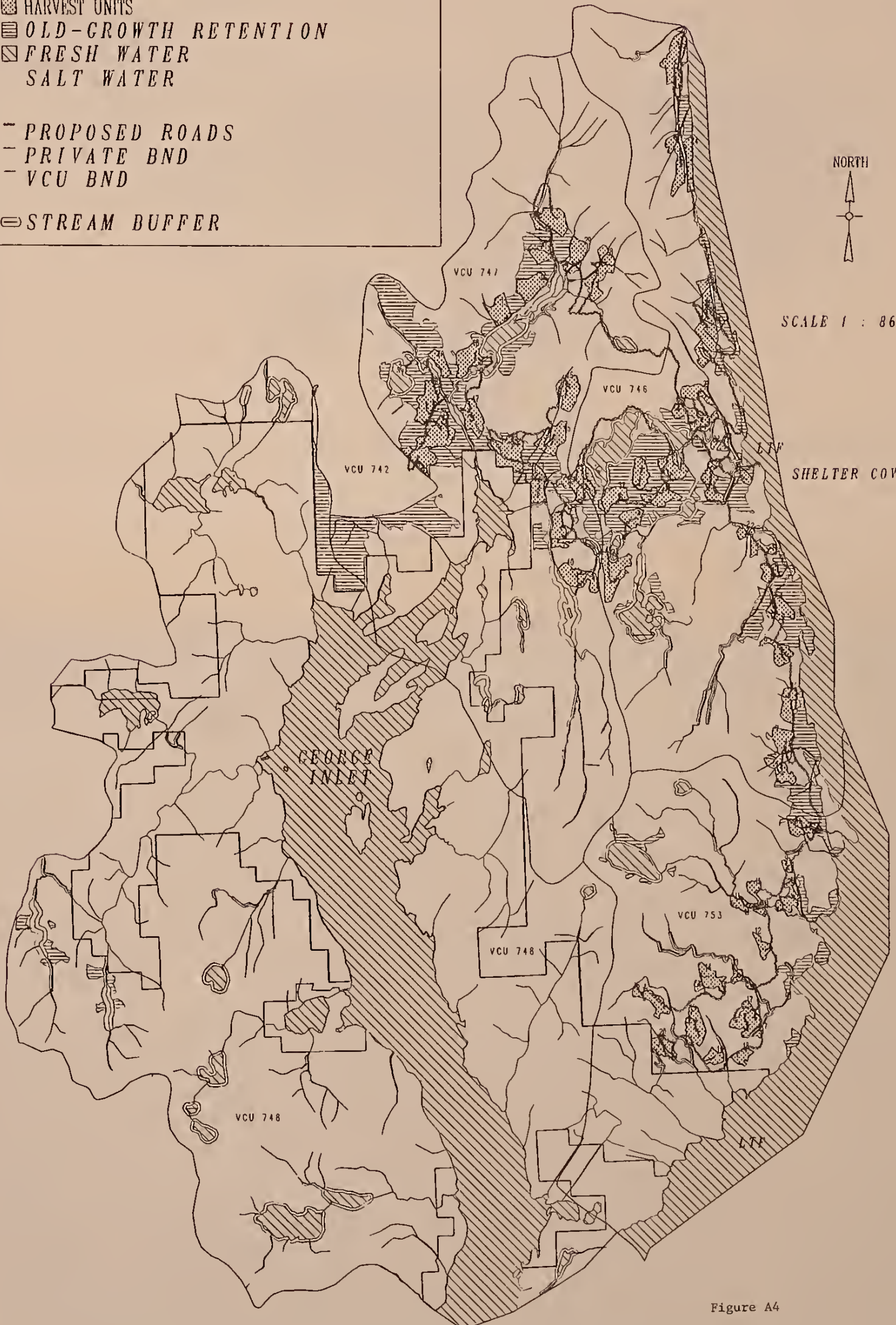


Figure A4

ALTERNATIVE 4

LEGEND

- HARVEST UNITS
- OLD-GROWTH RETENTION
- FRESH WATER

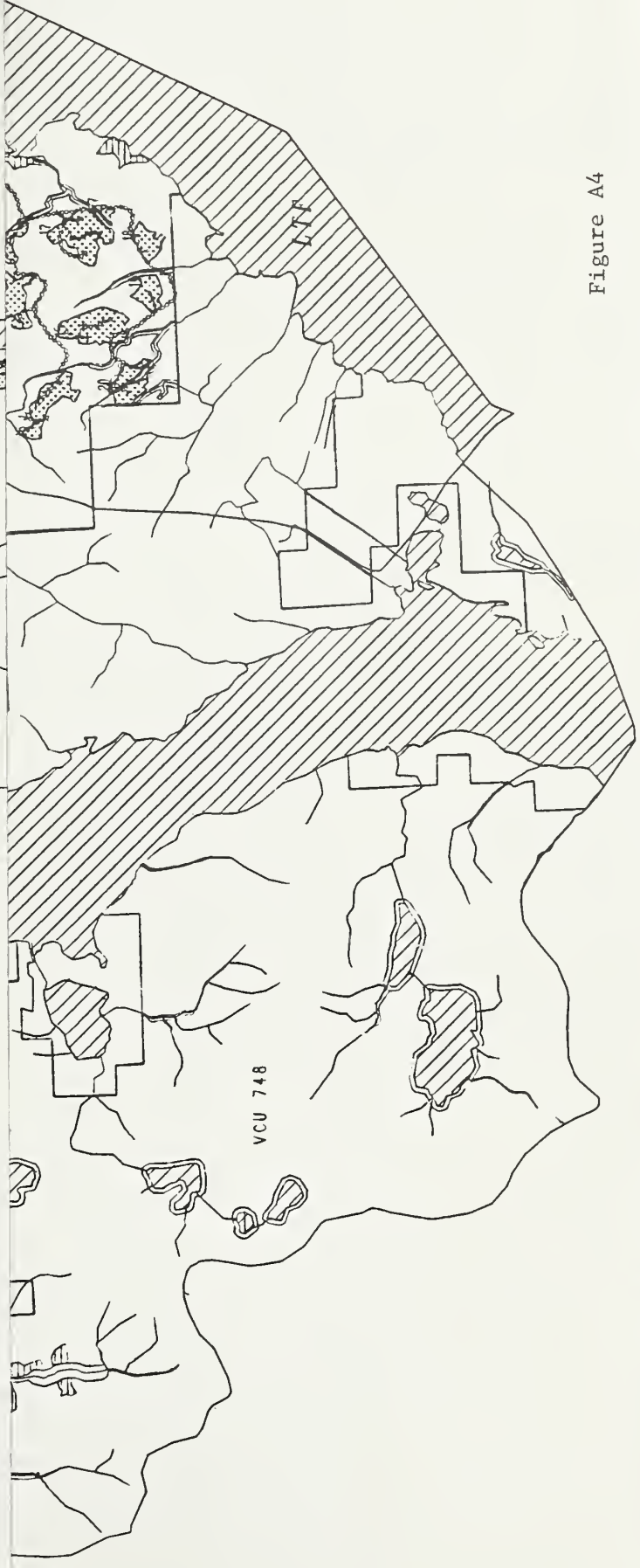


Figure A4

ALTERNATIVE 5

LEGEND

- ▣ HARVEST UNITS
- ▨ OLD-GROWTH RETENTION
- ▧ FRESH WATER
SALT WATER
- PROPOSED ROADS
- PRIVATE BND
- VCU BND
- ⊖ STREAM BUFFER



SCALE 1 : 86,740

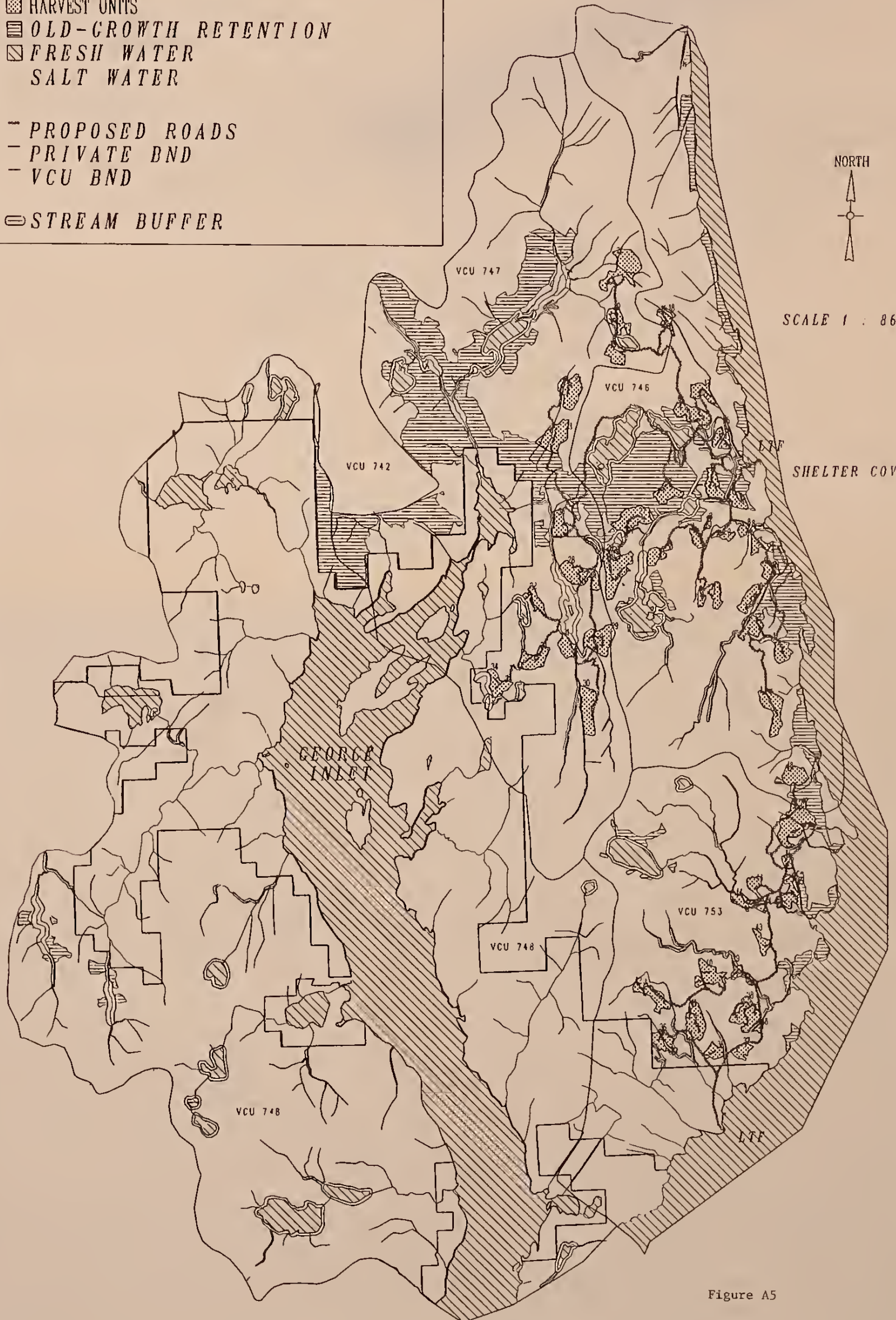


Figure A5

ALTERNATIVE 5

LEGEND

- HARVEST UNITS
- OLD-GROWTH RETENTION
- FRESH WATER

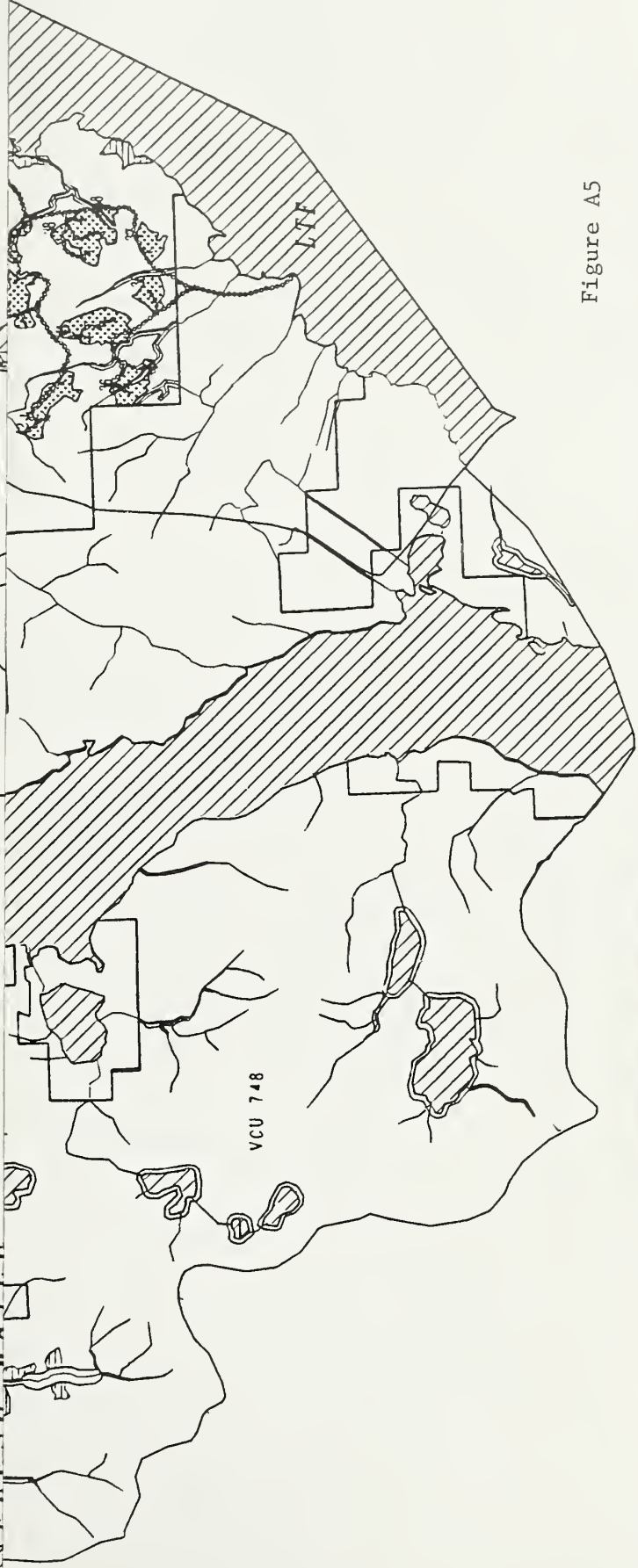


Figure A5

ALTERNATIVE 6

LEGEND

- ▣ HARVEST UNITS
- ▨ OLD-GROWTH RETENTION
- ▧ FRESH WATER
SALT WATER
- PROPOSED ROADS
- PRIVATE BND
- VCU BND
- ⇄ STREAM BUFFER

NORTH



SCALE 1 : 86,740



Figure A6

ALTERNATIVE 6

LEGEND

- HARVEST UNITS
- OLD-GROWTH RETENTION
- FRESH WATER

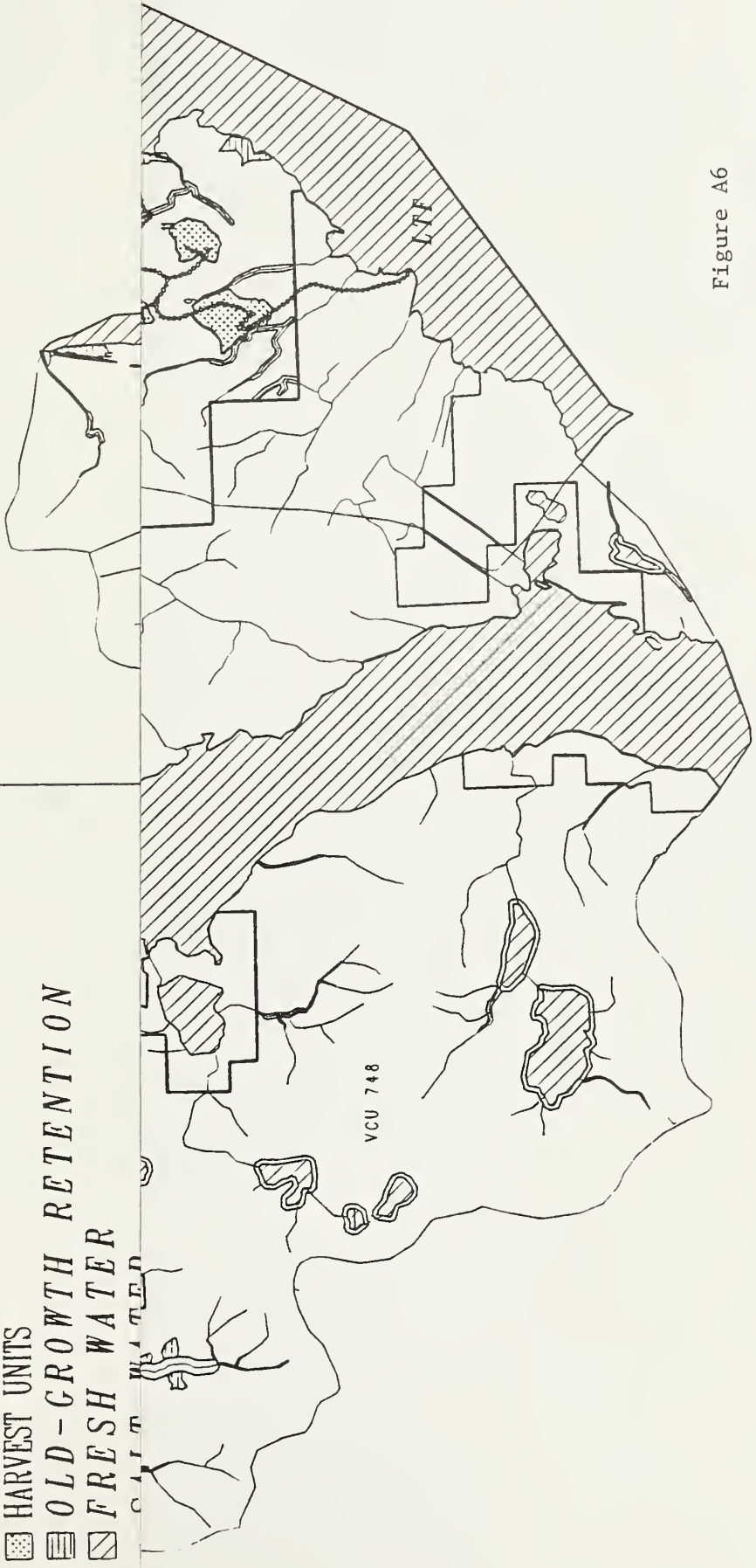


Figure A6



