

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

## HAT CREEK PROJECT

Canadian Bio-Resources Consultants Ltd. - Hat Creek Project -  
Detailed Environmental Studies - Agriculture - (c) Inventory Report -  
Map Envelope.




ENVIRONMENTAL IMPACT STATEMENT REFERENCE NUMBER: 52c

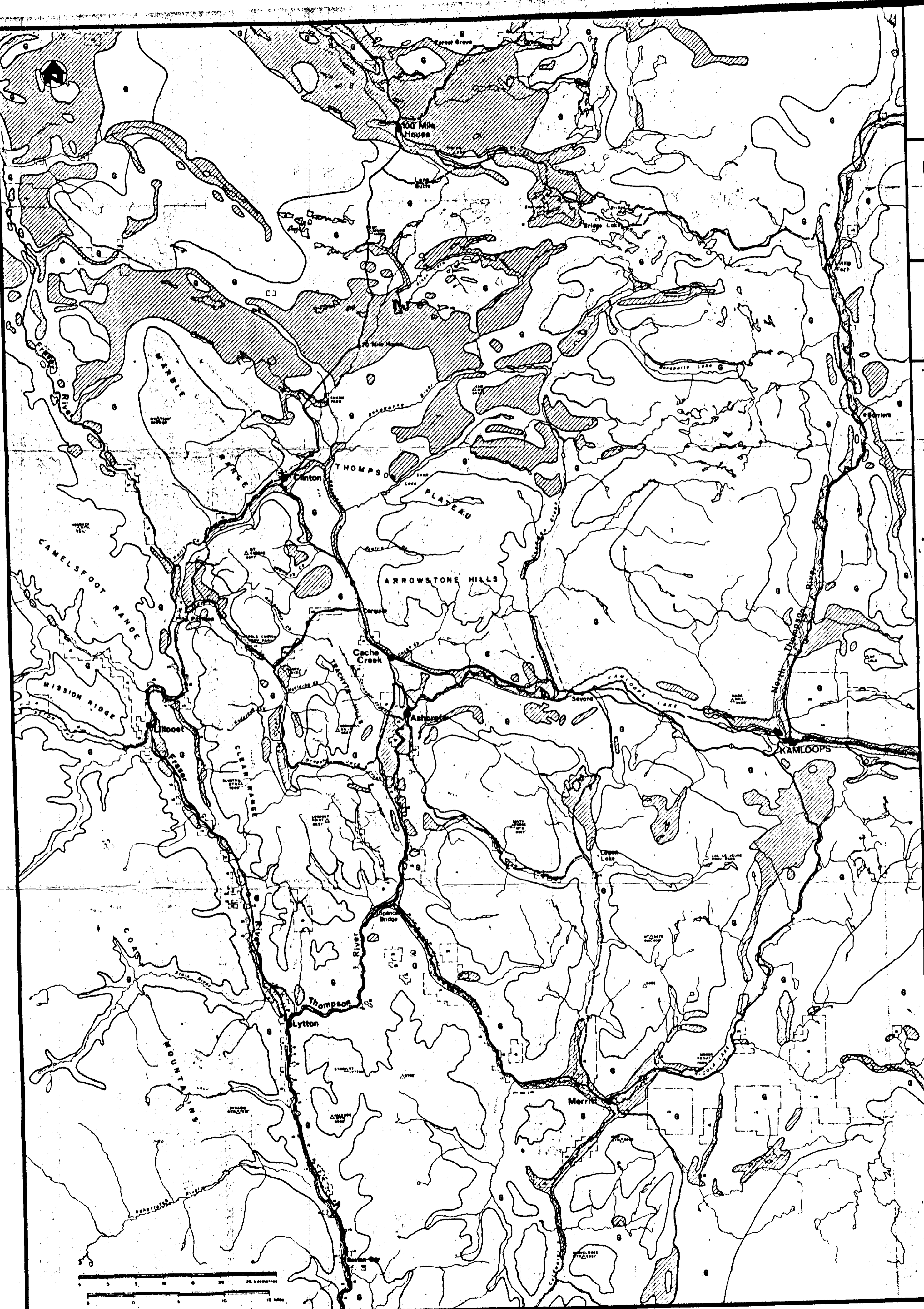
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052c  
FIGURE 4-2

**LAND CAPABILITY  
FOR AGRICULTURE  
REGIONAL STUDY AREA**



-  Land of Limited or No Agricultural Capability
-  Land of Grazing Capability
-  Land of High Agricultural Capability

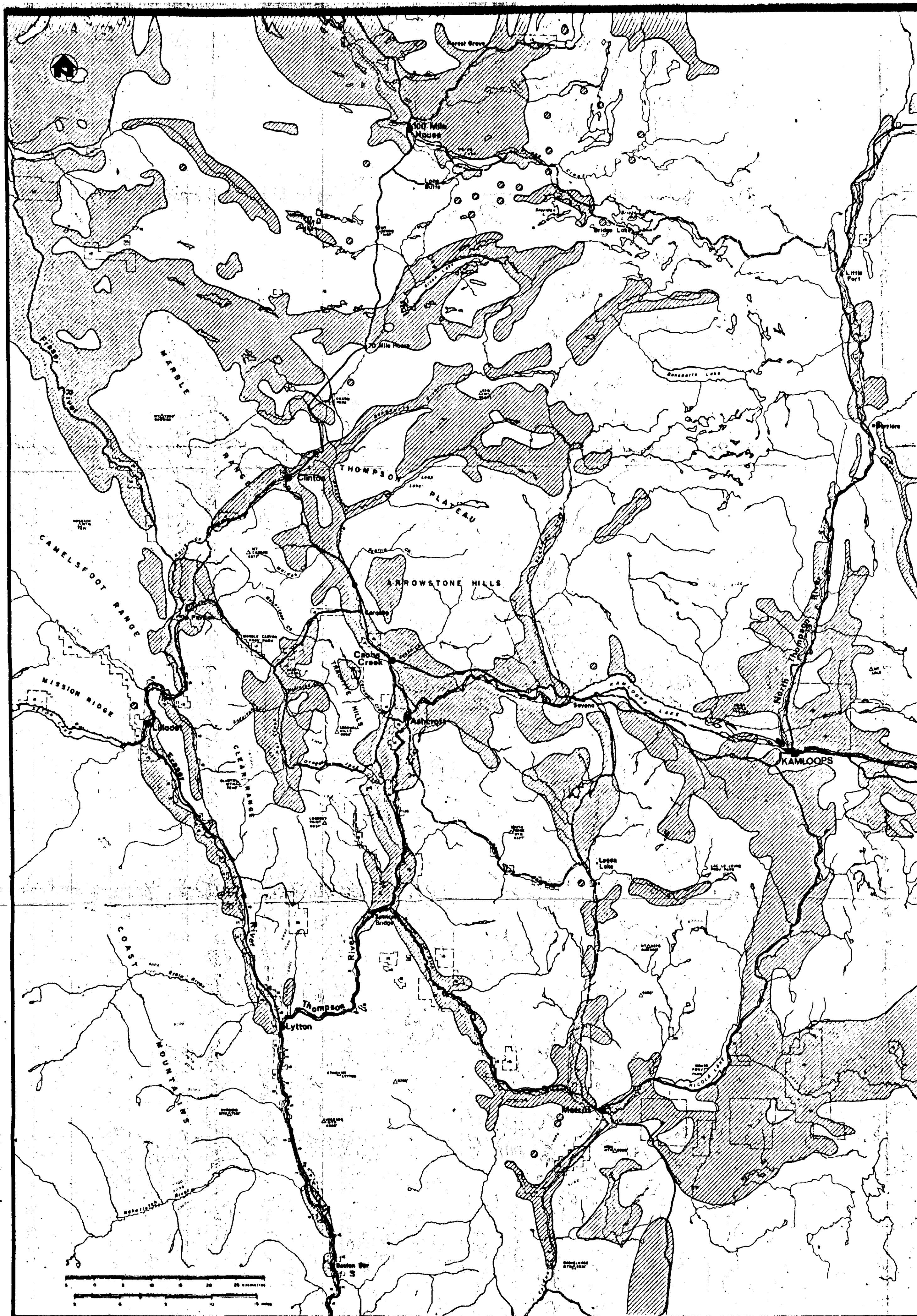


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FIGURE 4-4  
**AGRICULTURAL  
LAND RESERVES  
REGIONAL STUDY AREA**








-  Agricultural Land Reserve
-  Isolated Agricultural Land Reserve Pocket

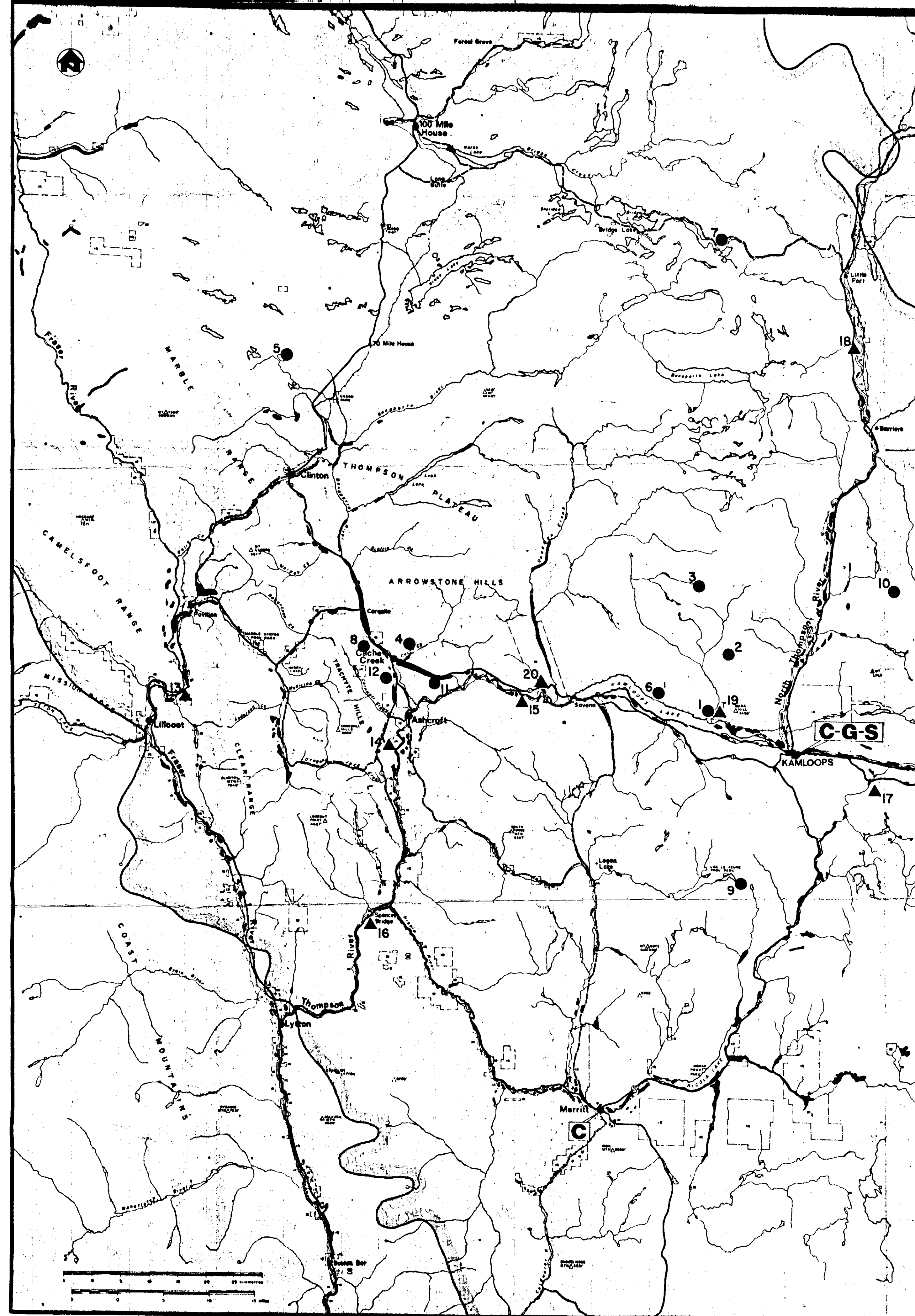


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FIGURE 4-5  
**PRESENT  
AGRICULTURAL USE  
REGIONAL STUDY AREA**

-  Cattle Use Area
-  Irrigated Land
-  Experimental Grazing Plots
-  Integrated Use Reserve
-  Experimental Crop Plots
-  Tranquille Reserve
-  Cattle Saleyard
- C** Government Services:  
B.C. Ministry of Agriculture  
Agriculture Canada  
B.C. Forest Service  
B.C. Water Rights Branch
- G** Supplies & Services For  
Agriculture:  
Feed & Fertilizer Supplies  
Veterinary Services  
Farm Equipment
- S**

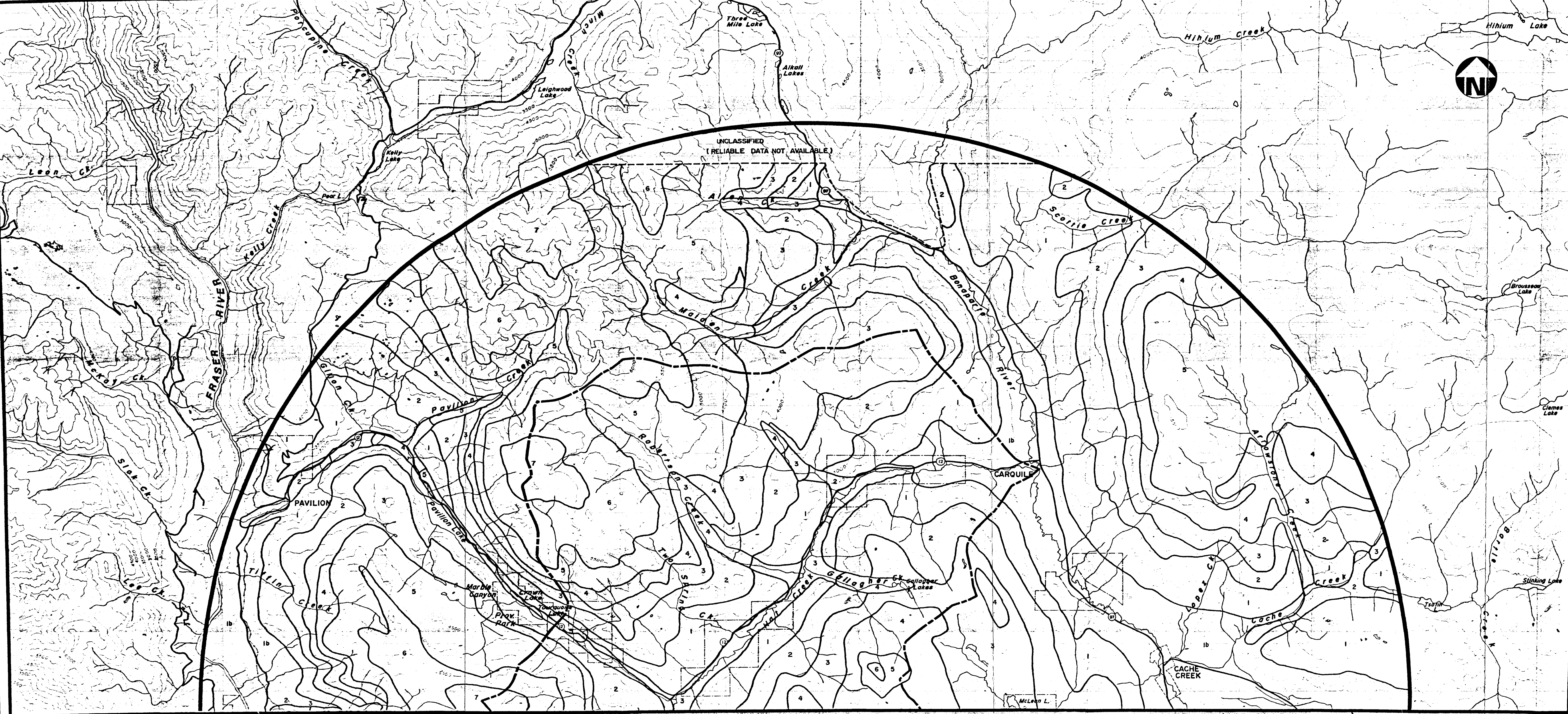
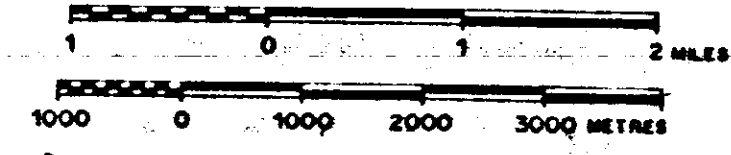


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FIGURE 4-6a  
**CLIMATE CAPABILITY  
FOR AGRICULTURE  
LOCAL STUDY AREA**

Local Study Area Boundary  
Hat Creek Basin Boundary

EXAMPLE:  
climate capability for agriculture class (improved rating)

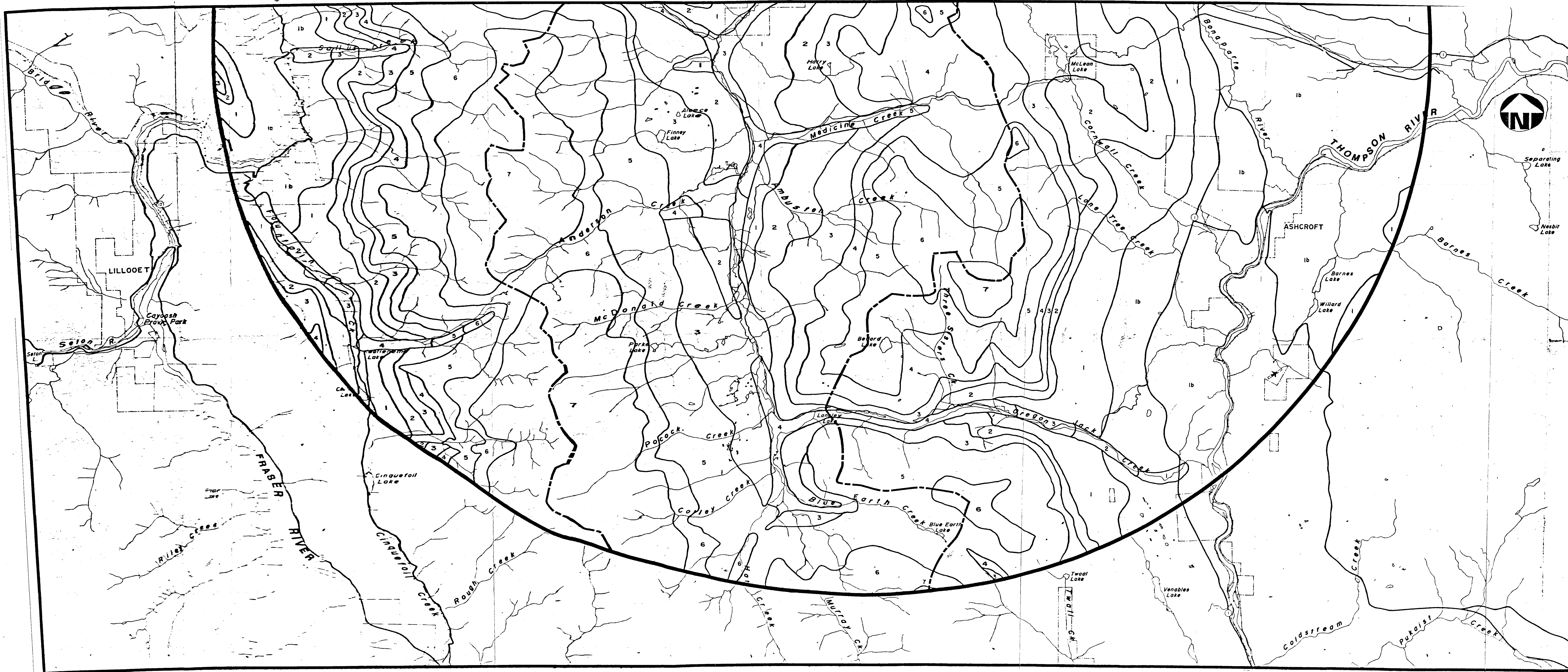
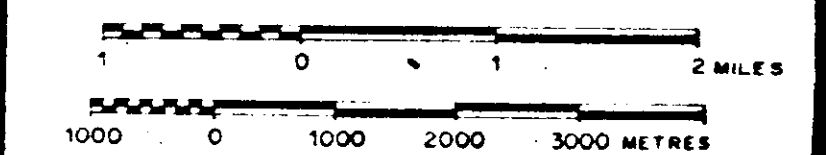


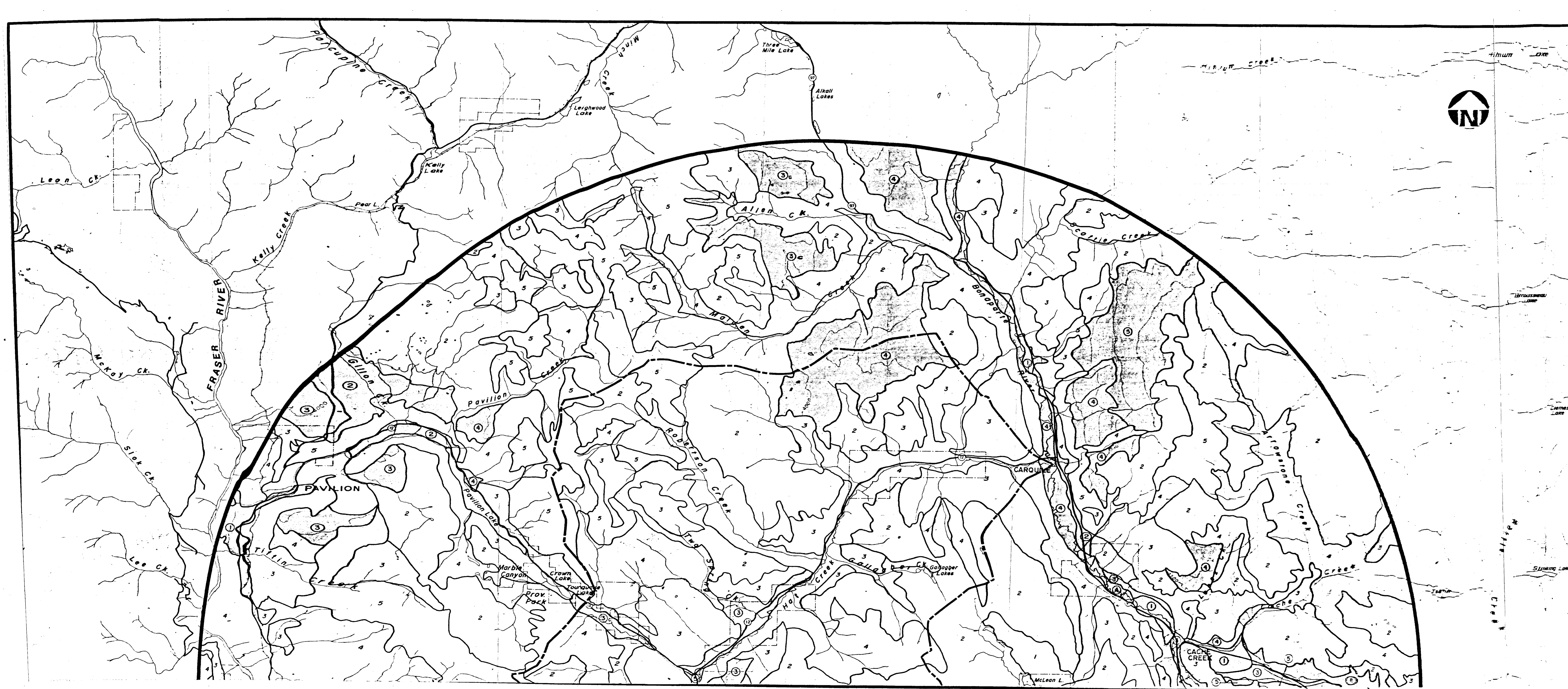
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FIGURE 4-6b  
**CLIMATE CAPABILITY  
FOR AGRICULTURE  
LOCAL STUDY AREA**

— Local Study Area Boundary  
- - - Hat Creek Basin Boundary

EXAMPLE:  
3  
climate capability for agriculture class (improved rating)





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FIGURE 4-7a  
**LAND CAPABILITY  
FOR AGRICULTURE  
LOCAL STUDY AREA**

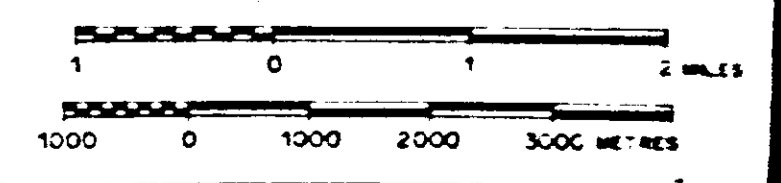
— Local Study Area Boundary  
- - - Hat Creek Basin Boundary

EXAMPLE:  
Land Capability for Irrigable Agriculture

③  
Q1 agricultural capability class (improvement rating) probably less suitable than class indicated, unless for recent information on (c) climate, (s) soils.

Land Capability for Grazing

3  
— grazing capability class



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FIGURE 4-7b  
**LAND CAPABILITY  
FOR AGRICULTURE  
LOCAL STUDY AREA**

— Local Study Area Boundary  
- - - Hat Creek Basin Boundary

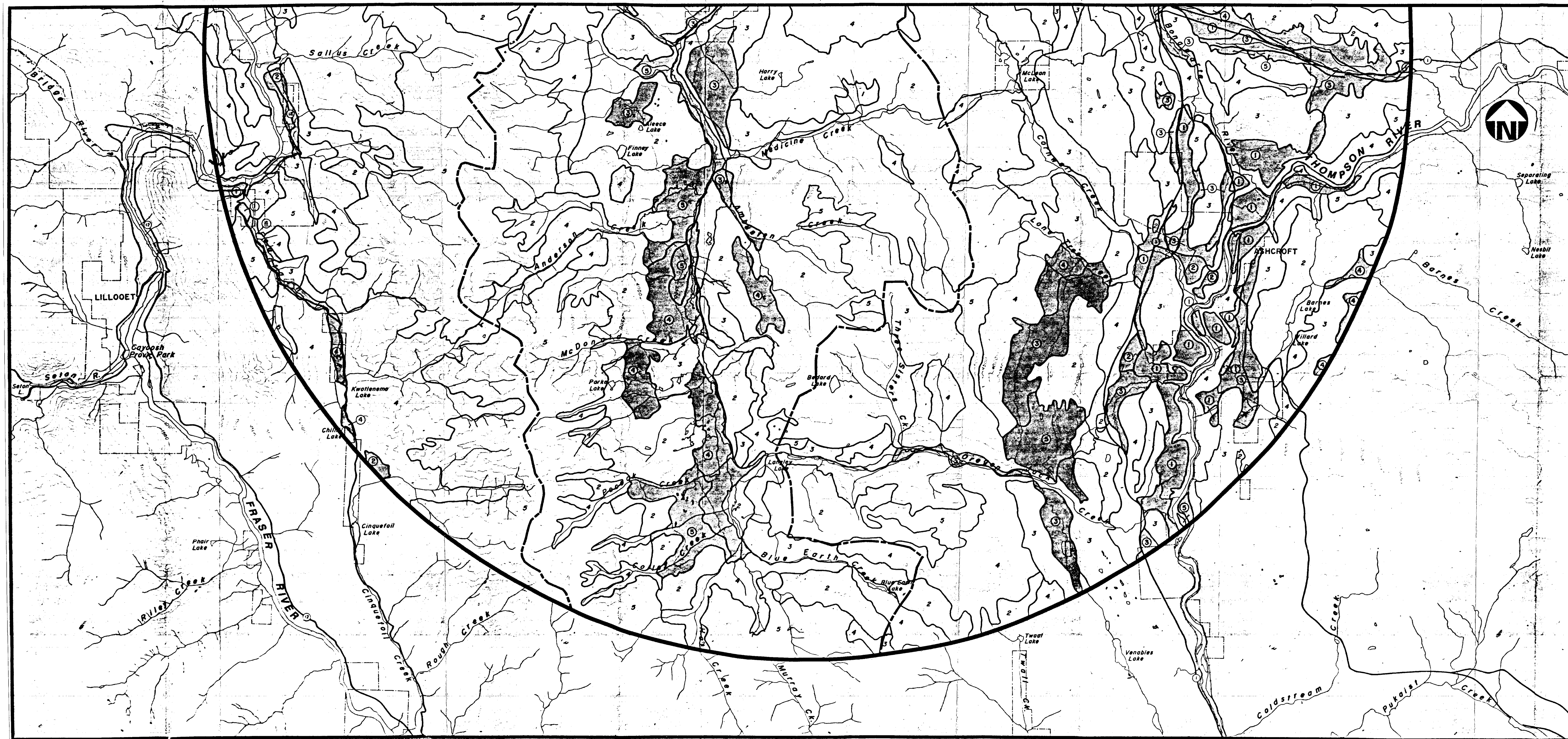
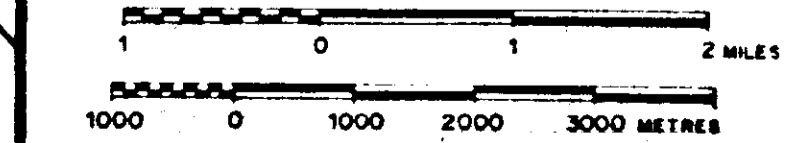
EXAMPLE:

Land Capability for Irrigable Agriculture

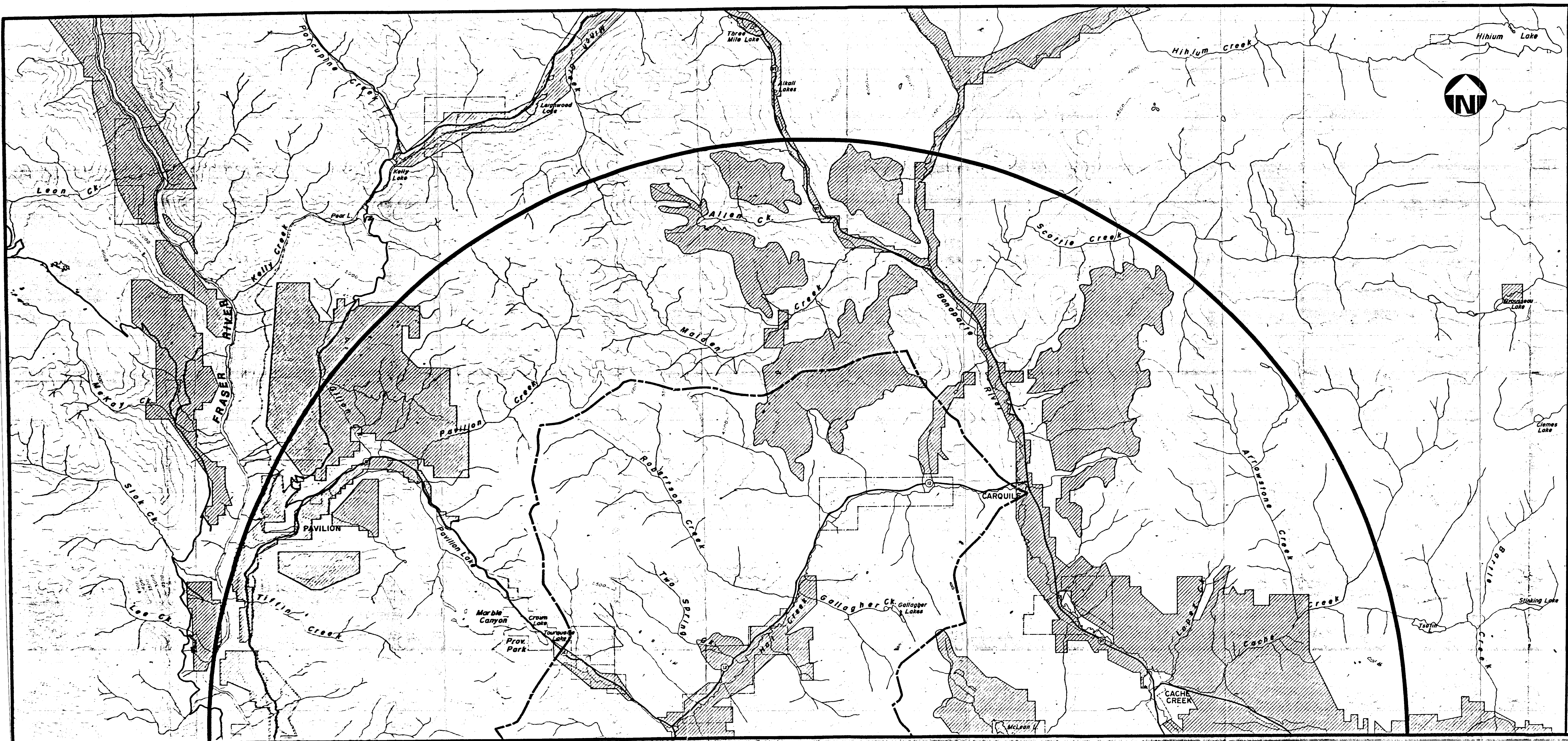
③  
— CLI agricultural capability class (improved rating)  
— probably less suitable than class indicated, based on recent information, (c) climate, (s) soils.

Land Capability for Grazing

3  
— grazing capability class





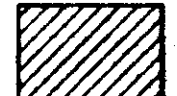




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FIGURE 4-8a  
**AGRICULTURAL  
LAND RESERVES  
LOCAL STUDY AREA**




-  Local Study Area Boundary
-  Hat Cree Basin Boundary
-  Agricultural Land Reserve

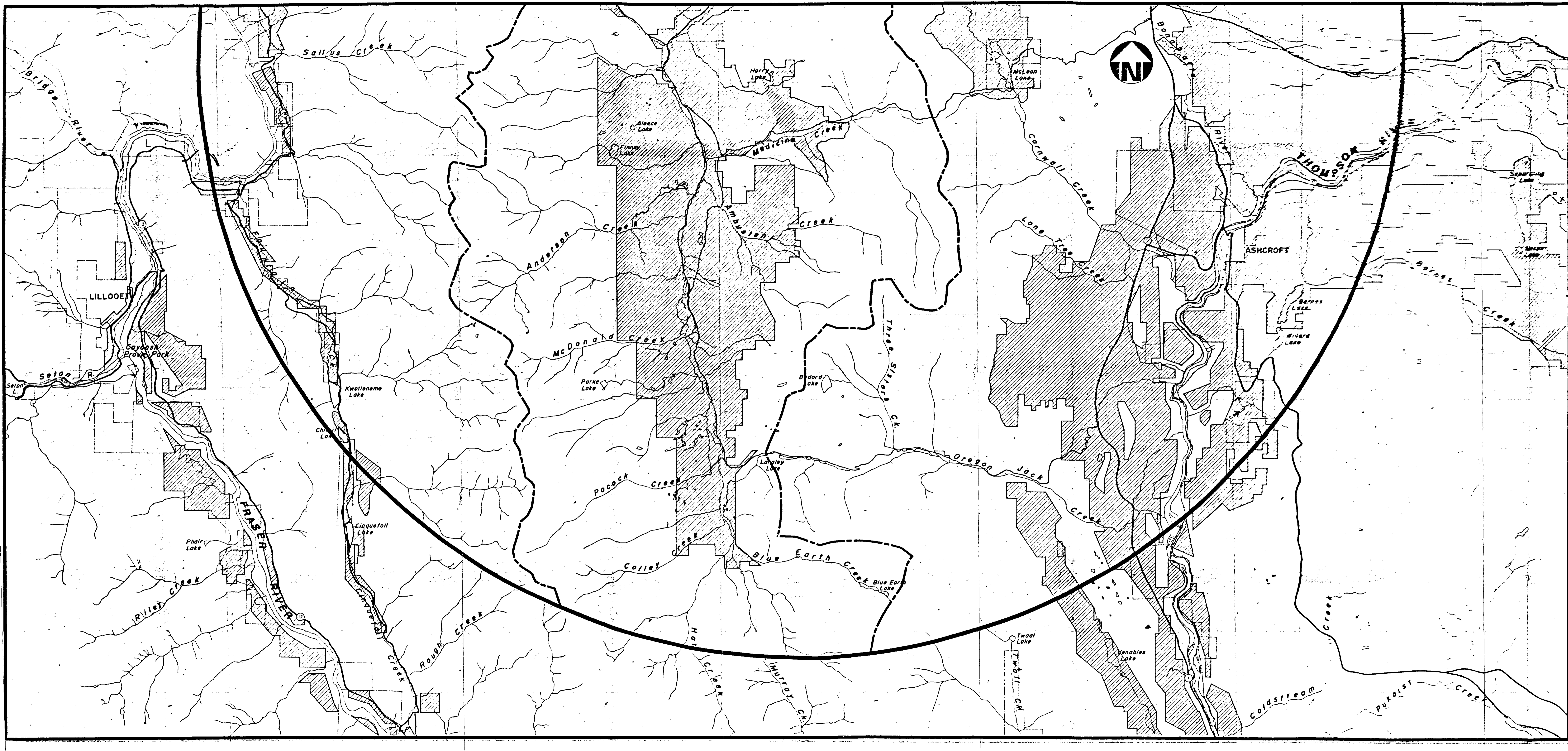
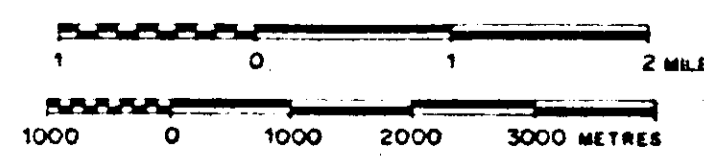


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FIGURE 4-85  
**AGRICULTURAL  
LAND RESERVES  
LOCAL STUDY AREA**

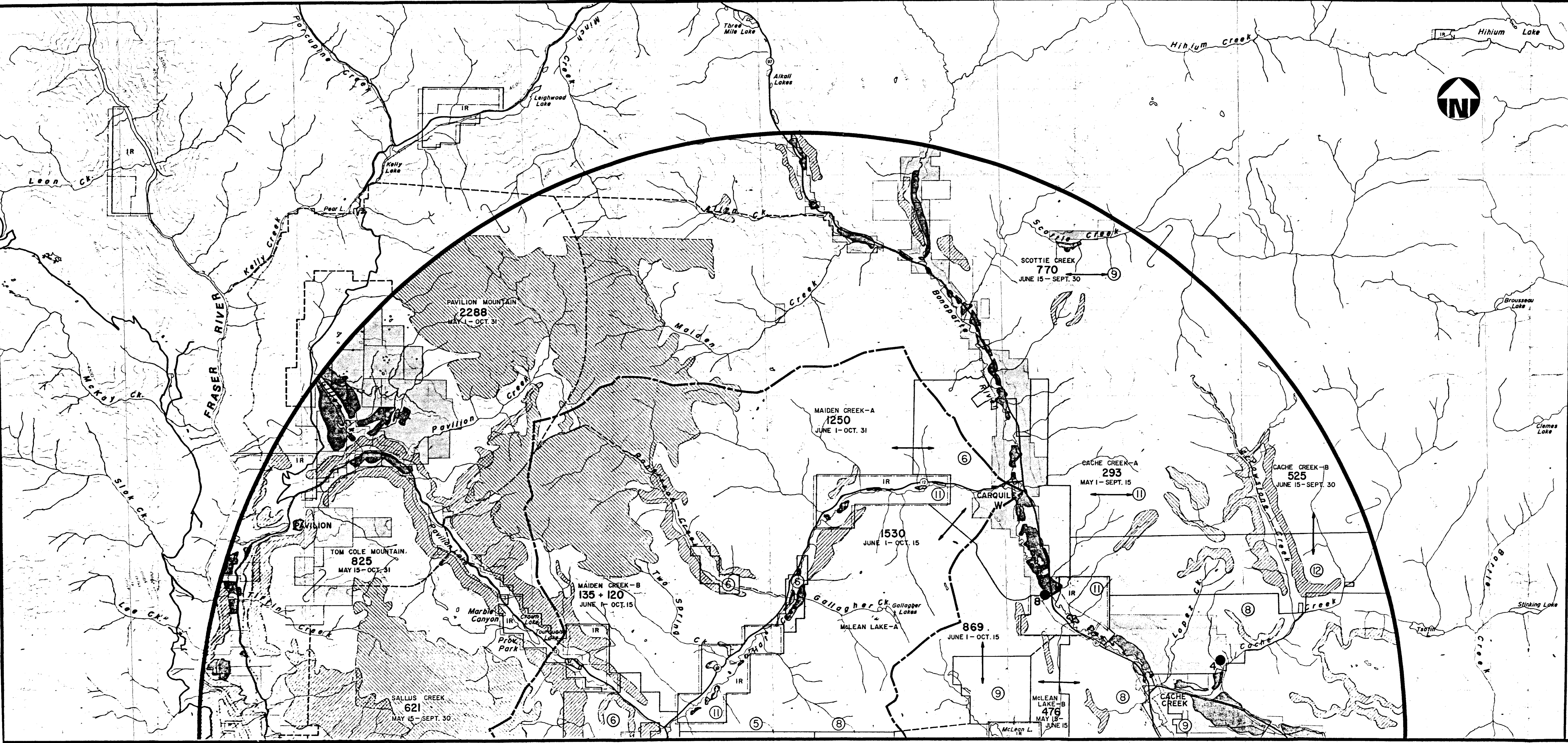
-  Local Study Area Boundary
-  Hat Creek Basin Boundary
-  Agricultural Land Reserve



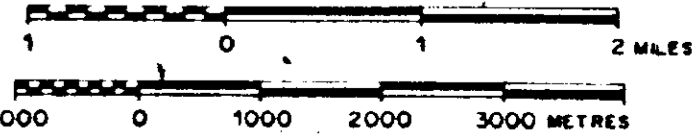
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FIGURE 4-9a  
**PRESENT  
AGRICULTURAL USE  
LOCAL STUDY AREA**



- Local Study Area Boundary
- Hat Creek Basin Boundary
- Indian Reserve
- Code Number
- Leased Land
- Farm Unit
- Deeded Land
- Grazing Permit Boundary
- YET CREEK** Permit Area Name
- 621** Animal Unit Months Permitted
- AUG. 1-OCT. 15** Permit Period
- Irrigated Land
- W** Cattle Wintering Area
- Seasonal Cattle Movement
- Cattle Trail
- Low Grazing Use Vegetation Restricting
- Low Grazing Use Topography Restricting
- 4** Experimental Grazing Plot
- 8** Experimental Crop Plot

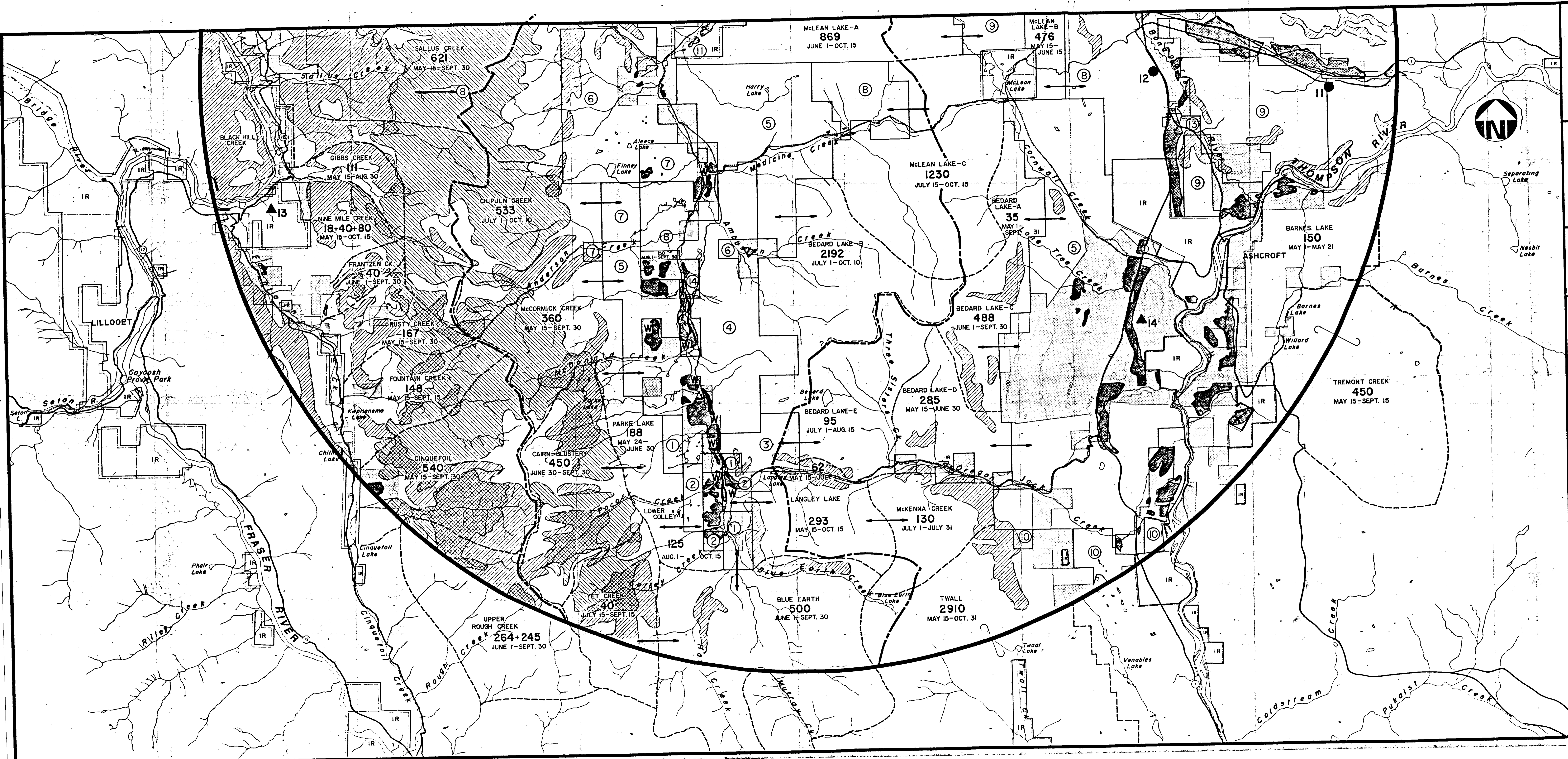
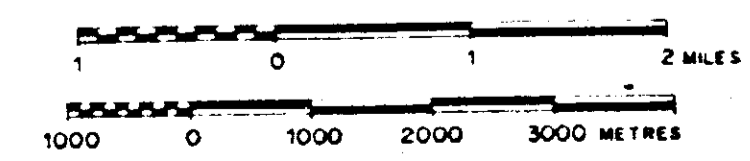


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**HAT CREEK PROJECT DETAILED ENVIRONMENTAL STUDIES**

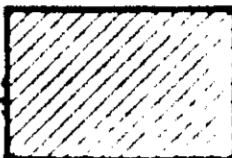
FIGURE 4-9b  
**PRESENT AGRICULTURAL USE LOCAL STUDY AREA**

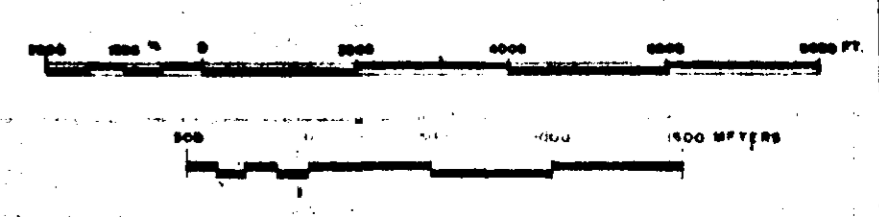
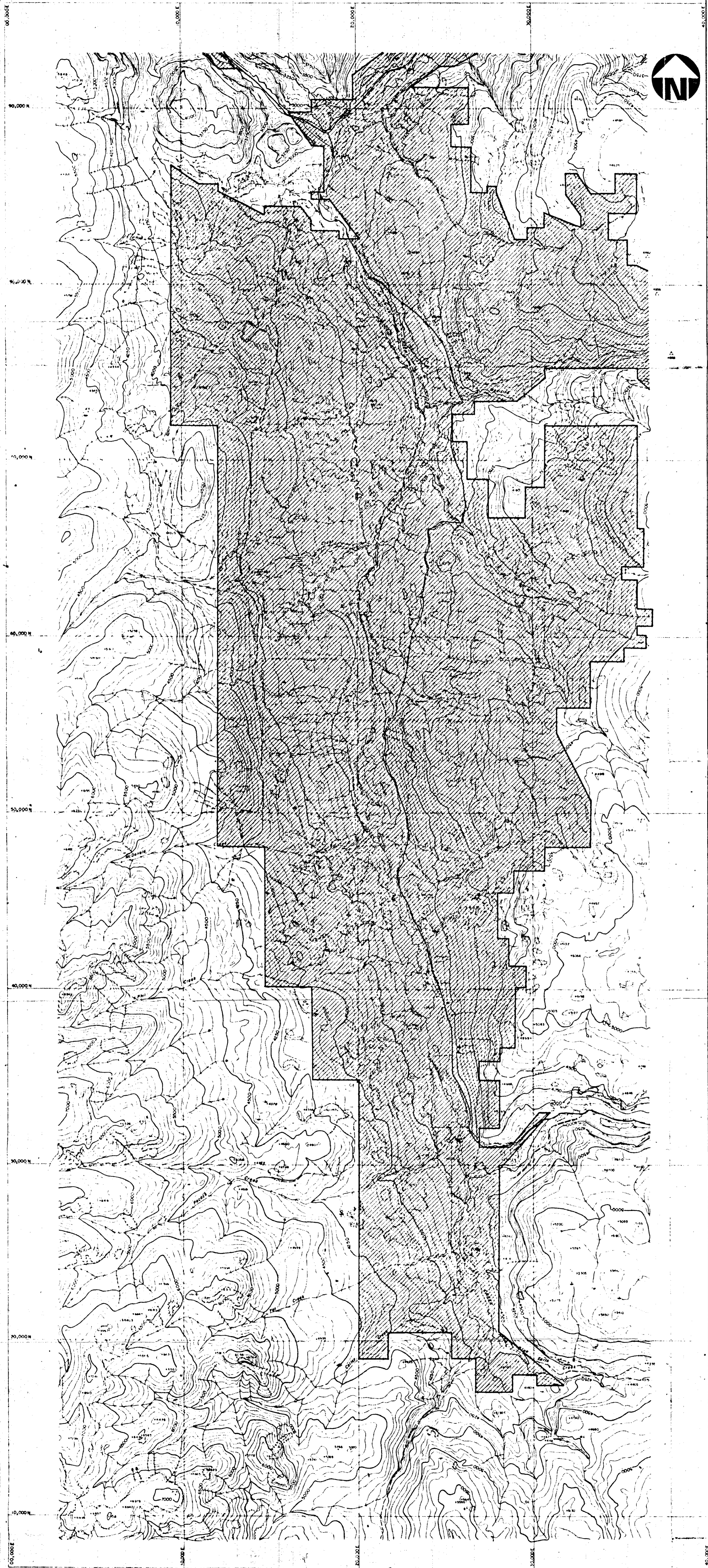
- Local Study Area Boundary
- Hat Creek Basin Boundary
- Indian Reserve
- Code Number
- Leased Land Farm Unit
- Deeded Land
- Grazing Permit Boundary
- YET CREEK** Permit Area Name
- 621** Animal Unit Months Permitted
- AUG. 1 - OCT. 15** Permit Period
- Irrigated Land
- W** Cattle Wintering Area
- Seasonal Cattle Movement
- Cattle Trail
- Low Grazing Use Vegetation Restricting
- Low Grazing Use Topography Restricting
- Experimental Grazing Plot
- Experimental Crop Plot

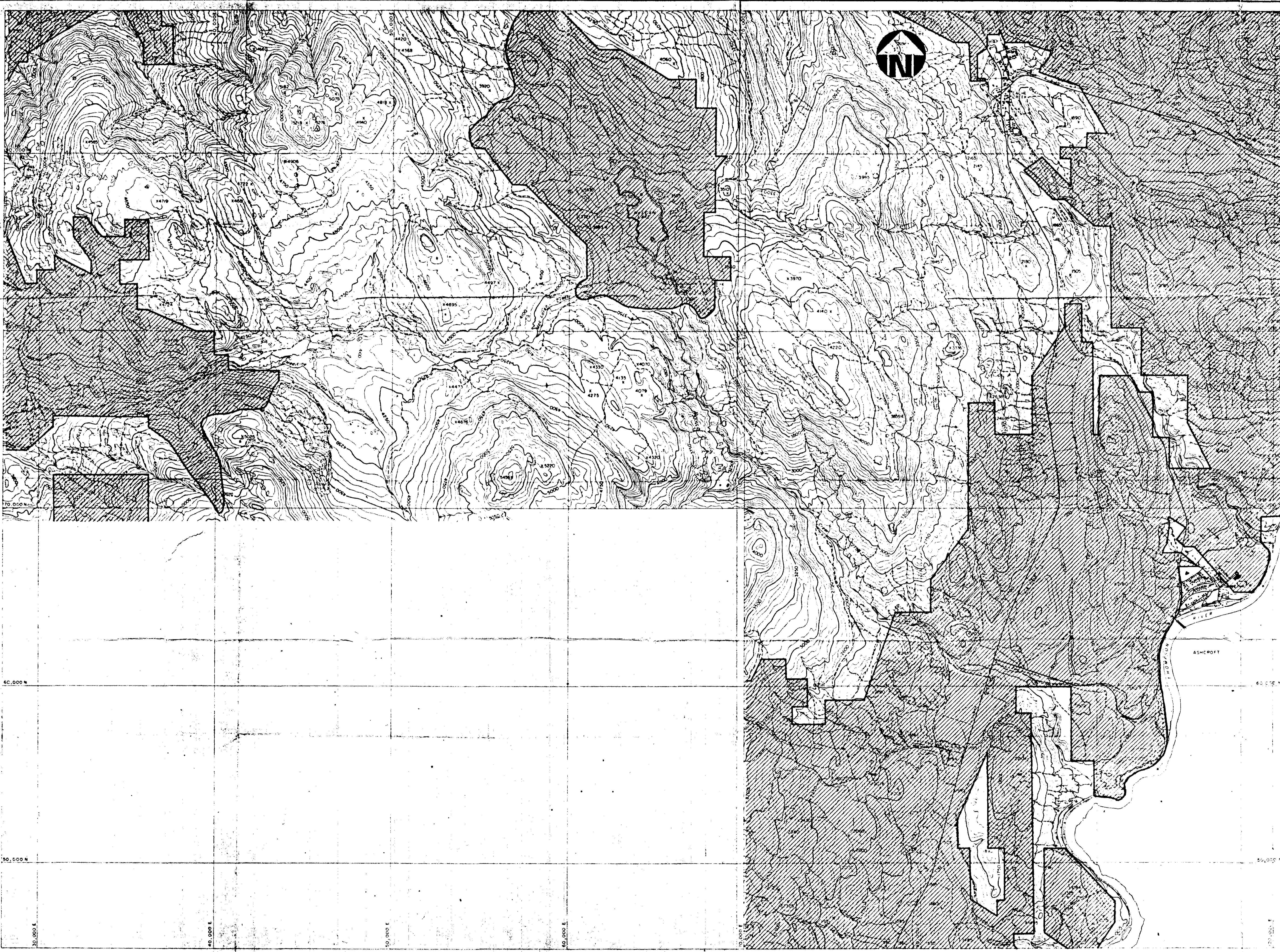


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FIGURE 4-10a  
**AGRICULTURAL  
LAND RESERVES  
SITE SPECIFIC  
STUDY AREA**

 Agricultural Land Reserve



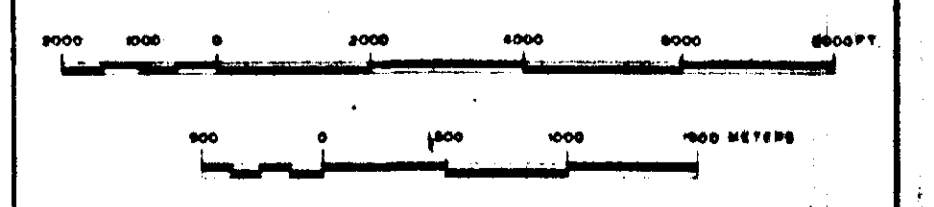


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FIGURE 4-10b  
**AGRICULTURAL  
LAND RESERVES  
SITE SPECIFIC  
STUDY AREA**

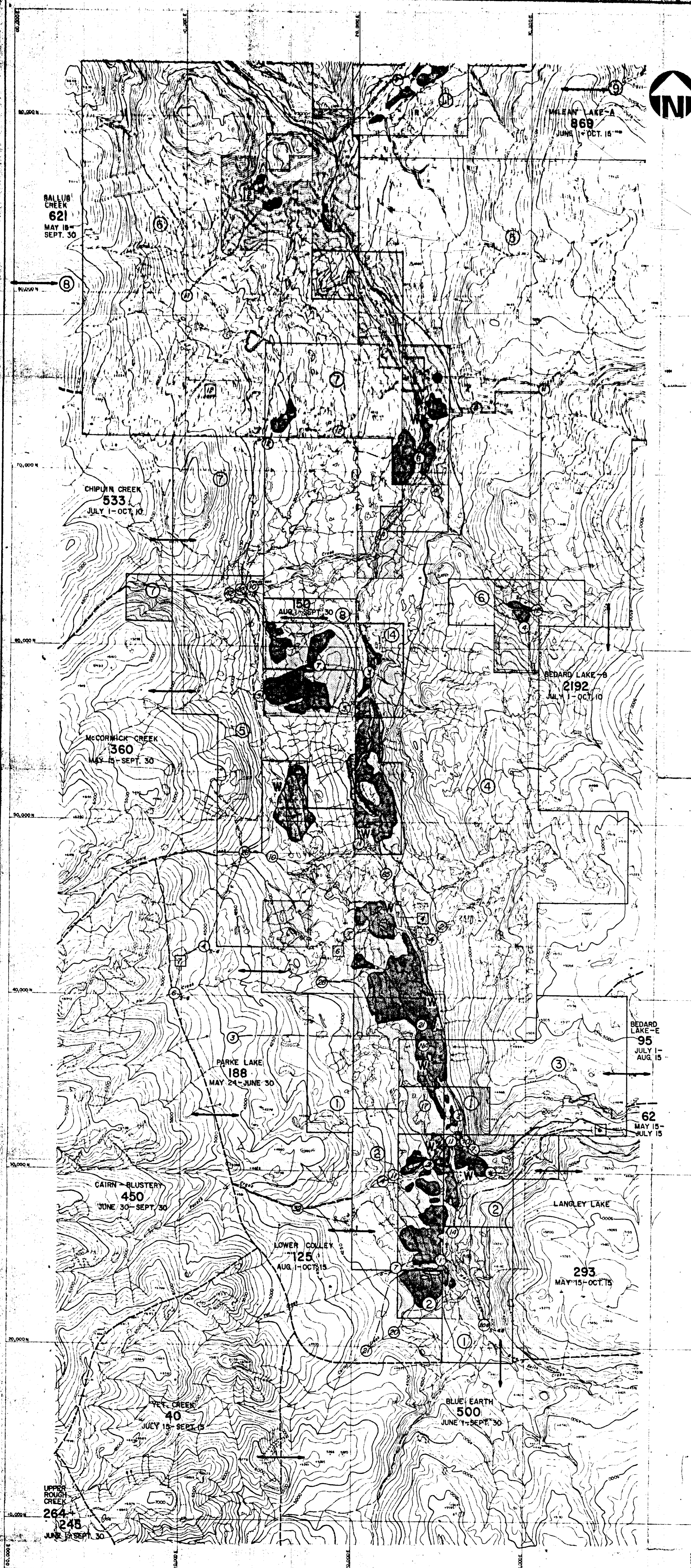
 Agricultural Land Reserve



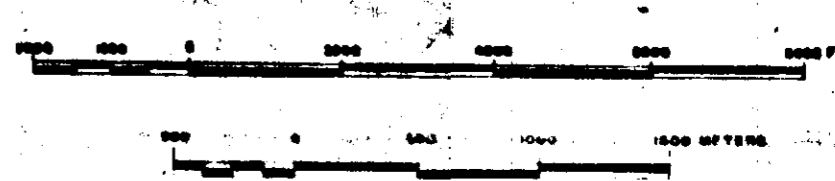


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FIGURE 4-11a  
**PRESENT  
AGRICULTURAL USE  
SITE SPECIFIC  
STUDY AREA**



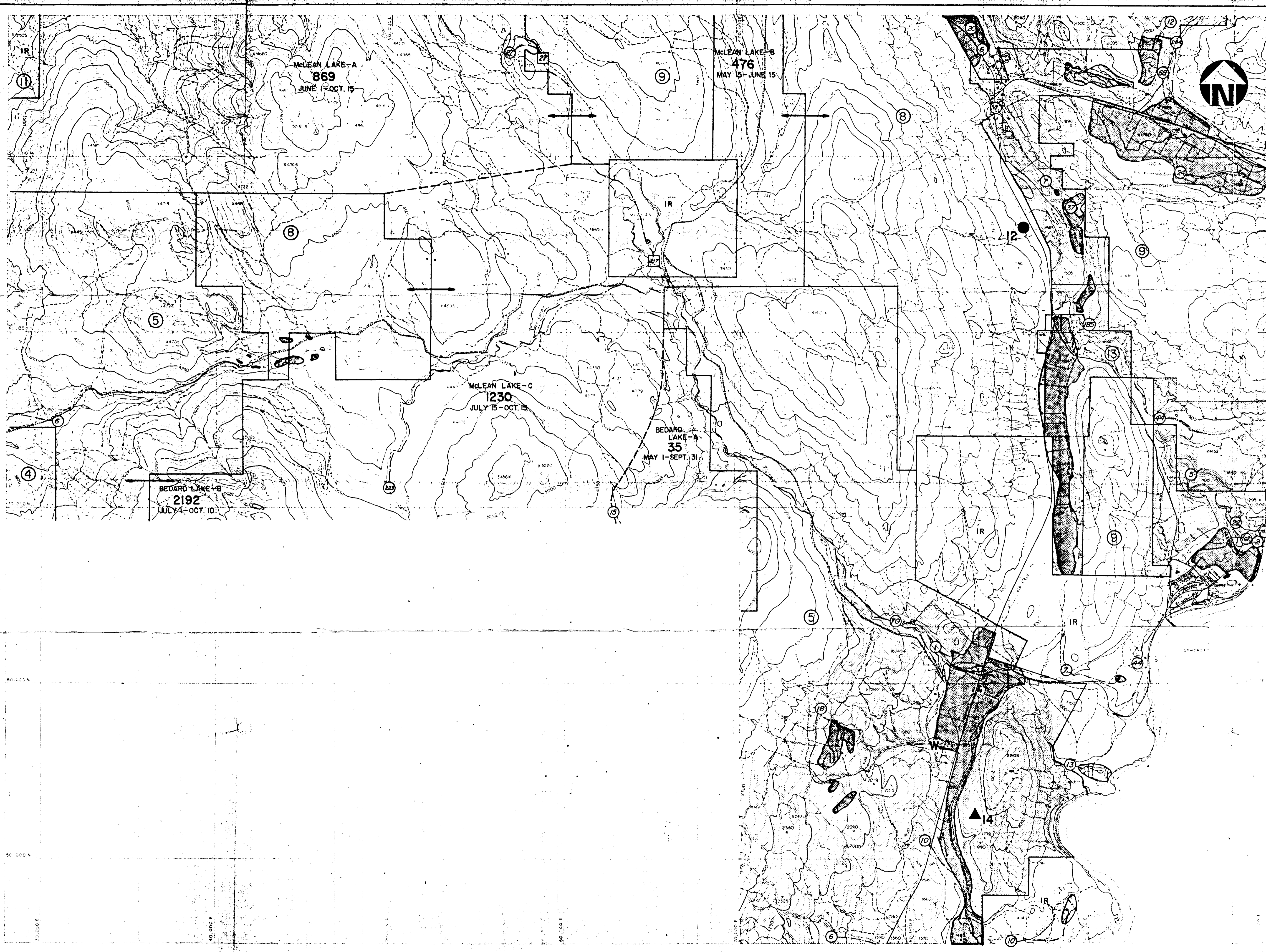
- IR Indian Reserve
- 3 Gate Number
- L Leased Land
- F Farm Unit
- D Deeded Land
- Grazing Permit Boundary
- YET CREEK** Permit Area Name
- 621** Animal Unit Month Permitted
- AUG. 1-OCT. 15** Permit Period
- Irrigated Land
- W** Cattle Wintering Area
- Seasonal Cattle Movement
- Cattle Trail
- 2 Licenced Irrigation Water (ha-m) at Location of Diversion
- 3-7 Portion (ha-m) of Licenced Irrigation Water Held Under Supplemental Licence
- 3 Licence for Whole Flow
- NA Licenced Irrigation Water Quantity Not Available
- Approximate Conveyance Route of Irrigation Water
- 12 Licenced Storage (ha-m) at Location of Storage
- 4 Experimental Grazing Plot
- 8 Experimental Crop Plot



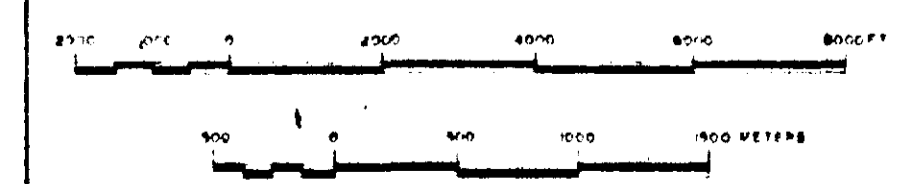
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FIGURE 4-11b  
**PRESENT  
AGRICULTURAL USE  
SITE SPECIFIC  
STUDY AREA**



- IR Indian Reserve
- 3 Code Number  
Leased Land Farm Unit  
Deeded Land
- Grazing Permit Boundary
- YET CREEK** Permit Area Name
- 621** Animal Unit Month Permitted
- AUG. 1 - OCT. 15** Permit Period
- Irrigated Land
- W** Cattle Wintering Area
- Seasonal Cattle Movement
- Cattle Trail
- 4 Licenced Irrigation Water (ha-m) at Location of Diversion
- 5-7 Portion (ha-m) of Licenced Irrigation Water Held Under Supplemental Licence
- \* Licence for Whole Flow
- NA Licenced Irrigation Water Quantity not Available
- Approximate Conveyance Route of Irrigation Water
- 12 Licenced Storage (ha-m) at Location of Storage
- 4 ● Experimental Grazing Plot
- 8 ▲ Experimental Crop Plot





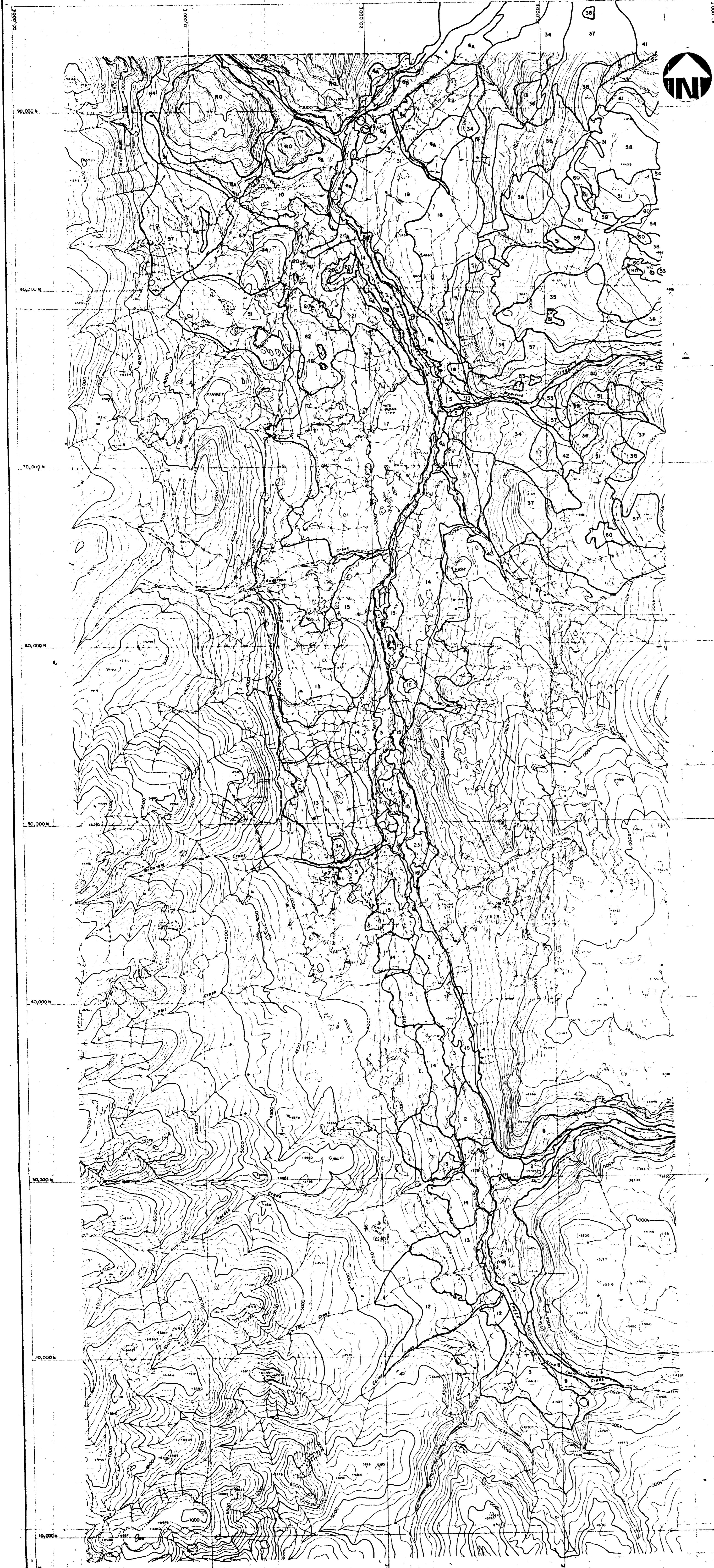
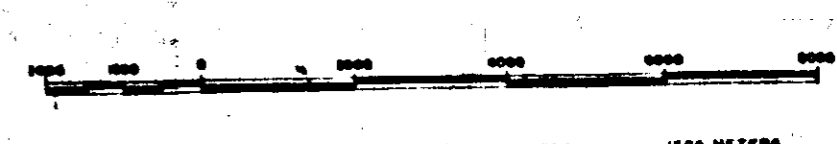
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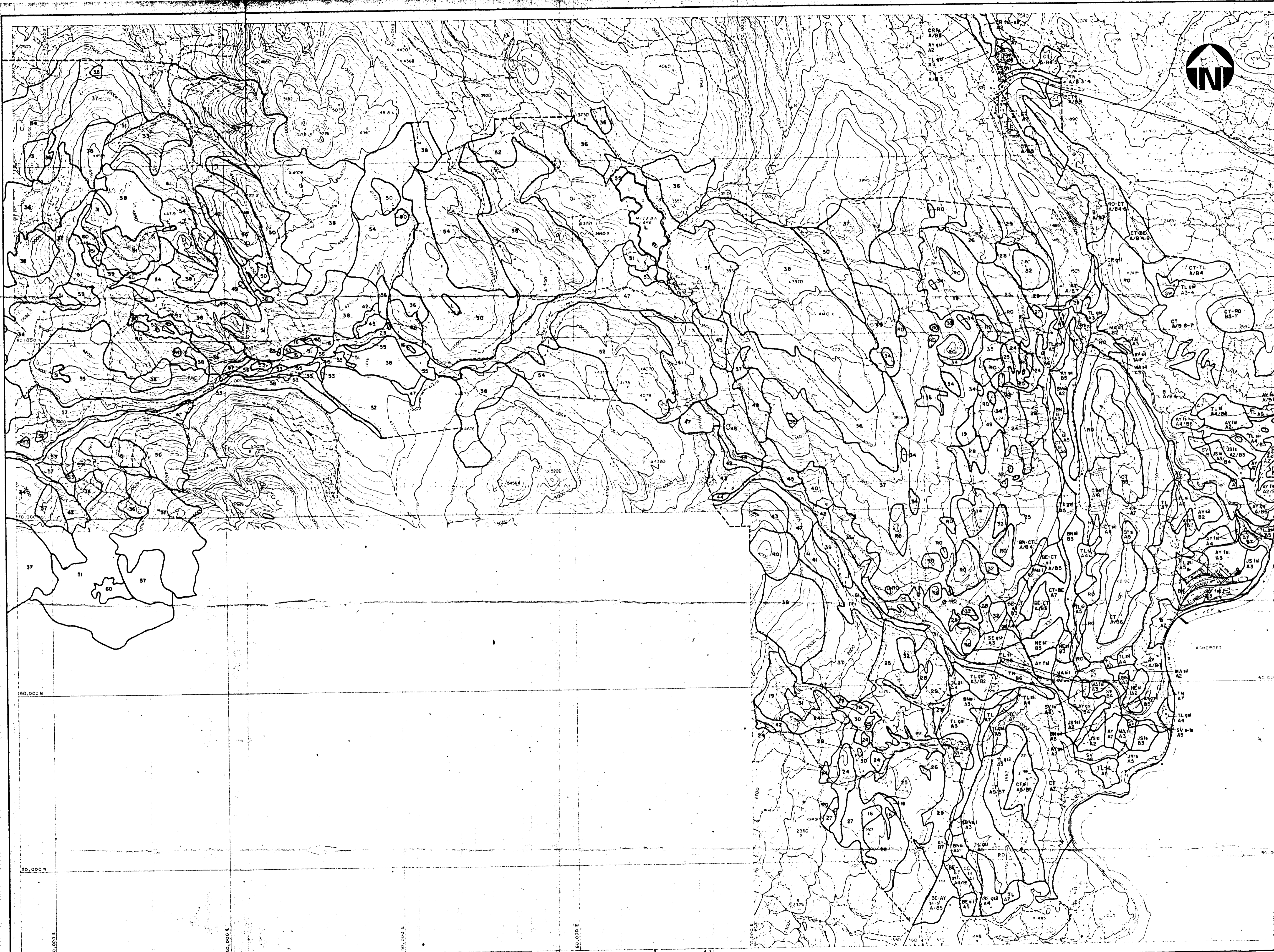
FIGURE B-1a  
**SOILS  
SITE SPECIFIC  
STUDY AREA**

**HAT CREEK SOILS**

MAP CODE	SOIL DEVELOPMENT	PARENT MATERIAL
1	CARBONATED CUMULIC REGOSOL	ALLUVIAL STREAM AND FAN DEPOSITS
2	CARBONATED HUMIC GLEY SOL	ALLUVIAL STREAM AND FAN DEPOSITS
3	CARBONATED GLEY SOL	ALLUVIAL STREAM AND FAN DEPOSITS
4	ORTHIC REGOSOL	ALLUVIAL STREAM AND FAN DEPOSITS
5	DEGRADED EUTRIC BRUNISOL	GLACIAL OUTWASH DEPOSITS
5A	DEGRADED EUTRIC BRUNISOL / ORTHIC DARK BROWN CHERNOZEM	GLACIAL OUTWASH DEPOSITS
5B	DEGRADED EUTRIC BRUNISOL / ORTHIC DARK BROWN CHERNOZEM	GLACIAL OUTWASH DEPOSITS
7	ORTHIC DARK BROWN CHERNOZEM	GLACIAL OUTWASH DEPOSITS
8	CALCAREOUS DARK GREY CHERNOZEM	GLACIAL TILL WITH LITHIC COMPONENT
9	CALCAREOUS DARK GREY CHERNOZEM	GLACIAL TILL DEPOSITS
10	DEGRADED EUTRIC BRUNISOL	GLACIAL TILL DEPOSITS
11	LITHIC BLACK CHERNOZEM	LITHIC COMPONENT
12	DEGRADED EUTRIC BRUNISOL	GLACIAL TILL DEPOSITS
13	CALCAREOUS BLACK CHERNOZEM	GLACIAL TILL DEPOSITS
14	ORTHIC DARK BROWN CHERNOZEM	GLACIAL TILL DEPOSITS
15	ORTHIC DARK BROWN CHERNOZEM	GLACIAL TILL DEPOSITS
16	CARBONATED BLACK CHERNOZEM	GLACIAL TILL DEPOSITS
17	ORTHIC DARK BROWN CHERNOZEM	GLACIAL TILL DEPOSITS
18	DEGRADED EUTRIC BRUNISOL	GLACIAL TILL DEPOSITS
19	DEGRADED EUTRIC BRUNISOL / ORTHIC DARK BROWN CHERNOZEM	GLACIAL TILL DEPOSITS
20A	REGOSOL	LACUSTRINE TILL DEPOSITS
20B	REGOSOL	LACUSTRINE TILL DEPOSITS
20C	ORTHIC EUTRIC BRUNISOL	LACUSTRINE TILL DEPOSITS
20D	ORTHIC EUTRIC BRUNISOL	LACUSTRINE TILL DEPOSITS
20E	REGOSOLIC ORTHIC EUTRIC BRUNISOL	LACUSTRINE TILL DEPOSITS
21	ORTHIC DARK BROWN CHERNOZEM	GLACIAL TILL DEPOSITS
22	DEGRADED EUTRIC BRUNISOL	GLACIAL TILL DEPOSITS
23	ORTHIC DARK BROWN CHERNOZEM	GLACIAL TILL DEPOSITS
24	REGO BROWN CHERNOZEM	GLACIAL TILL DEPOSITS
25	ORTHIC BROWN CHERNOZEM / REGO BROWN CHERNOZEM	GLACIAL TILL DEPOSITS
26	ORTHIC BROWN CHERNOZEM	GLACIAL TILL DEPOSITS
27	CARBONATED BLACK CHERNOZEM	GLACIAL TILL DEPOSITS
28	REGO BROWN CHERNOZEM	ALLUVIAL STREAM AND FAN DEPOSITS
29	REGO BROWN CHERNOZEM	GLACIAL TILL DEPOSITS
30	SALINE GLEY SOL	ALLUVIAL STREAM AND FAN DEPOSITS
31	DEGRADED EUTRIC BRUNISOL / REGO BROWN CHERNOZEM	GLACIAL TILL DEPOSITS
32	LITHIC BROWN CHERNOZEM	LITHIC COMPONENT
33	ORTHIC GREY LUVISOL	COLLUVIAL FAN AND GLACIAL TILL
34	LITHIC EUTRIC BRUNISOL	COLLUVIAL FAN AND GLACIAL TILL
35	DEGRADED EUTRIC BRUNISOL	GLACIAL TILL DEPOSITS
36	REGO DARK GREY CHERNOZEM	GLACIAL TILL DEPOSITS
37	ORTHIC GREY LUVISOL / DEGRADED EUTRIC BRUNISOL	GLACIAL TILL DEPOSITS
38	ORTHIC GREY LUVISOL	GLACIAL TILL DEPOSITS
39	DEGRADED EUTRIC BRUNISOL	GLACIAL OUTWASH DEPOSITS
40	ORTHIC GREY LUVISOL	GLACIAL TILL DEPOSITS
41	ORTHIC GREY LUVISOL	GLACIAL TILL DEPOSITS
42	ORTHIC GREY LUVISOL / ORTHIC REGOSOL	GLACIAL TILL DEPOSITS
43	DEGRADED EUTRIC BRUNISOL	GLACIAL TILL DEPOSITS
44	DEGRADED EUTRIC BRUNISOL / REGO BROWN CHERNOZEM	GLACIAL TILL DEPOSITS
45	DEGRADED EUTRIC BRUNISOL	GLACIAL FLUVIAL DEPOSITS
46	DEGRADED EUTRIC BRUNISOL	GLACIAL FLUVIAL DEPOSITS
47	GLEYED ORTHIC GREY LUVISOL	GLACIAL TILL DEPOSITS
48	ORTHIC GREY LUVISOL / DEGRADED EUTRIC BRUNISOL	GLACIAL TILL DEPOSITS
49	ORTHIC DARK GREY CHERNOZEM / ORTHIC GREY LUVISOL	GLACIAL TILL DEPOSITS
50	LITHIC GREY LUVISOL	GLACIAL TILL WITH LITHIC COMPONENT
51	CALCAREOUS BLACK CHERNOZEM	GLACIAL TILL AND OUTWASH DEPOSITS
52	ORTHIC GREY LUVISOL / GLEYED GREY LUVISOL	GLACIAL TILL DEPOSITS
53	CALCAREOUS BLACK CHERNOZEM	ALLUVIAL STREAM AND FAN DEPOSITS
54	ORTHIC GREY LUVISOL / LITHIC GREY LUVISOL	GLACIAL TILL WITH LITHIC COMPONENT
55	GLEYED CARBONATED BLACK CHERNOZEM	ALLUVIAL STREAM AND FAN DEPOSITS
56	ORTHIC DARK BROWN CHERNOZEM / CALCAREOUS BLACK CHERNOZEM	GLACIAL FLUVIAL DEPOSITS
57	ORTHIC DARK BROWN BRUNISOL / DEGRADED EUTRIC BRUNISOL	COLLUVIAL FAN DEPOSITS
58	LITHIC DARK GREY CHERNOZEM	GLACIAL TILL WITH LITHIC COMPONENT
59	CALCAREOUS BLACK CHERNOZEM	GLACIAL TILL AND FLUVIAL DEPOSITS
60	GLEYED ORTHIC LUVISOL	GLACIAL TILL DEPOSITS
61	ORTHIC DARK BROWN CHERNOZEM / DEGRADED EUTRIC BRUNISOL	GLACIAL FLUVIAL DEPOSITS
62	ORTHIC GREY LUVISOL / DEGRADED EUTRIC BRUNISOL	GLACIAL TILL DEPOSITS
63	ORTHIC DARK BROWN CHERNOZEM / DEGRADED EUTRIC BRUNISOL	GLACIAL TILL DEPOSITS
64	DEGRADED EUTRIC BRUNISOL / LITHIC CALCAREOUS EUTRIC BRUNISOL	COLLUVIAL FAN AND GLACIAL TILL
B	BLUFF	
RO	ROCK OUTCROP	
SW	SWAMP	

CONTINUED ON FIGURE B-1B





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FIGURE B-1b  
**SOILS  
SITE SPECIFIC  
STUDY AREA**

...CONTINUED FROM FIGURE B-1a

**ASHCROFT SOILS\***

MAP CODE	SOIL SERIES NAME	SOIL DEVELOPMENT	PARENT MATERIAL
AY	ANGLESEY	REGO BROWN CHERNOZEM	GLACIAL OUTWASH DEPOSITS
BS	BARNES	MULL REGOSOL	ALLUVIAL-COLLUVIAL FAN DEPOSITS
BE	BASQUE	ORTHIC BROWN CHERNOZEM	GLACIAL TILL DEPOSITS
BN	BONAPARTE	REGO BROWN CHERNOZEM	ALLUVIAL STREAM AND FAN DEPOSITS
CC	CACHE CREEK	SALINE REGO BROWN CHERNOZEM	ALLUVIAL-COLLUVIAL FAN DEPOSITS
CR	CAROUILLE	GLEYED MULL REGOSOL	ALLUVIAL RIVER DEPOSITS
CT	CHEETSUM	REGO BROWN CHERNOZEM	GLACIAL TILL DEPOSITS
JS	JOERROSS	REGO BROWN CHERNOZEM	AEOLIAN DEPOSITS
MA	MCABEE	ORTHIC BROWN CHERNOZEM	LACUSTRINE TILL DEPOSITS
NE	NEPA	ORTHIC BROWN CHERNOZEM	ALLUVIAL RIVER DEPOSITS
SV	SAVONA	MULL REGOSOL	AEOLIAN DEPOSITS
SE	SEMILIN	ORTHIC BROWN CHERNOZEM	ALLUVIAL-COLLUVIAL FAN DEPOSITS
TL	TAWHEEL	REGO BROWN CHERNOZEM	ALLUVIAL-COLLUVIAL FAN DEPOSITS
TN	THOMPSON	ORTHIC REGOSOL	ALLUVIAL RIVER DEPOSITS
WA	WALHACHIN	ORTHIC BROWN CHERNOZEM	GLACIAL OUTWASH DEPOSITS

**TEXTURE\*\***

Code	Description	Code	Description
s	SAND	l	LOAM
sl	LOAMY SAND	sl	SILT LOAM
sl	SANDY LOAM	cl	CLAY LOAM
fl	FINE SANDY LOAM	sil	SILTY CLAY LOAM
g	GRAVELLY (ESTIMATED CONTENT 15%+)		
st	STONY (ESTIMATED CONTENT 15%+)		

**TOPOGRAPHIC CLASS\*\***

Code	Description	% SLOPE
AD	SMOOTH UNDRAINED BASIN	0
A1	SMOOTH LEVEL	0-0.5
A2	SMOOTH VERY GENTLY SLOPING	0.5-2
A3	SMOOTH GENTLY SLOPING	2-5
A4	SMOOTH MODERATELY SLOPING	5-9
A5	SMOOTH STEEPLY SLOPING	10-15
A6	SMOOTH VERY STEEPLY SLOPING	16-30
A7	SMOOTH HILL	OVER 30
BO	IRREGULAR (HUMMOCKY) BASIN	0
B1	IRREGULAR LEVEL	0-0.5
B2	IRREGULAR VERY GENTLY SLOPING	0.5-2
B3	IRREGULAR GENTLY SLOPING	2-5
B4	IRREGULAR MODERATELY SLOPING	5-9
B5	IRREGULAR STEEPLY SLOPING	10-15
B6	IRREGULAR VERY STEEPLY SLOPING	16-30
B7	IRREGULAR HILL	OVER 30

\* EXTRACTED FROM BCDA REPORT, SOIL SURVEY OF THE ASHCROFT-SAVONA AREA, THOMPSON RIVER VALLEY, B.C. 1963.

\*\* APPLIES TO ASHCROFT SOILS ONLY.

EXAMPLE:  
BNh1A3 TOPOGRAPHIC CLASS  
--- TEXTURE  
--- SOIL SERIES

source: Physical Habitat and Range Vegetation Report, Detailed Environmental Studies, Hat Creek Project (Map 4-4).

