

ECOLOGICAL RESERVE PROPOSAL BIG CREEK

Application Number 333

proposed by H. Roemer, Ecological Reserves Unit
Ministry of Lands, Parks and Housing

I. Description of Land

Located at the confluence of Big Creek and Chilcotin River, ca 30 km ESE of Hanceville, Map reference 92/O 15, air photos B.C. 7616:124-126. 261 ha, mainly steep and very steep slopes and minor low-lying river terraces; elevation 1650-3000 feet (500-900 m). Approximately $\frac{1}{2}$ of the area covered with open Douglas fir forest, all ages from 40 years up; remainder grassland, eroded ground and rock.

II. Objectives of the Proposal

- a) General objectives of Ecological Reserve (IBP) areas which are applicable:
 - 1) To serve as unaltered, permanent benchmark area of natural ecosystems, available for future scientific research.
 - 2) To serve as outdoor laboratory and teaching area of natural sciences for all levels and institutions of education.
 - 3) To protect genetic resources and diversity contained in present species, varieties, etc., of both plants and animals. Genetic strains may be needed in the future to safeguard survival of taxa, in stock improvements in forestry, agriculture, horticulture, or for ecosystem rehabilitation.
- b) Specific objectives for this proposal
 - 1) Permanent protection of exceptionally well-preserved natural grassland ecosystems representative for the lower elevation bunchgrass prairie of the Chilcotin.
 - 2) Partial protection of the resident mule deer herd and its predators (area may be too small for total protection).

b) Specific objectives (continued)

- 3) To provide research opportunities in plant ecology, vegetation-wildlife interactions, range research. A major function would be as a permanent reference area ("type specimen") for the ecosystem classification programs in both forest and grassland of the B. C. Forest Service, and for similar inventory programs of the Terrestrial Studies Branch. Reference ecosystems could be Agropyron spicatum on till-derived soils, Stipa comata - Poa sandbergii on fluvial-origin soils, Pseudotsuga m. - Calamagrostis r. on till-derived soils and Pseudotsuga m. on fluvial gravels.

III. Further Considerations

Specific Location: Chosen because it has a high degree of natural protection and is in a very undisturbed condition. Due to poor access the area has not been utilized for cattle grazing for several years. Parts upstream from the confluence area which are mainly on rugged terrain have never received significant cattle use as indicated by their pristine grass conditions.

Size and Boundary Location: The size of 261 hectares is a minimum if not only samples of plant communities, but also the natural grazers should be protected. On the basis of topography, the present proposal is a self-contained landscape unit. Subdivision of this unit would only be practicable in the northern 1/3 of the area. However, the resulting division would separate two ecologically different portions, with the low elevations and the fluvial parent materials entirely restricted to the north part. Furthermore, any grazing use in the remaining portion would necessitate extensive fencing, a measure which would not be necessary otherwise.

The proposed boundaries take advantage of the natural barriers to access given by the rivers, a rock slide area on the southern end and the steep edge of the lava plateau along much of the western boundary.

Permanence and Stability of Present Ecosystems: Some of the Douglas fir stands may be considered very near climax state, especially those close to the valley bottom. Those on the slopes are mostly seral and minor changes in species combinations are anticipated. Grasslands are in a climax stage. Both forest and grasslands were and probably will be subject to periodic wildfires which maintain seral stages in part of the area.

Management: Management should aim to maintain the present status. Fire protection will be hampered by access, but would not be considered crucial for the maintenance of desired features although it would be allowed if adjacent forest resources are threatened. Light burning might even have to be prescribed if natural fires did not occur over long periods (i.e. 50 years +). Re-introduction of bighorn sheep should be considered jointly with the Fish and Wildlife Branch.

Failure to Establish Proposed Reserve: It appears unlikely that a comparable replacement for this proposal could be found in the lower elevation bunchgrass zone of the Chilcotin. This area must therefore be considered as a last opportunity. The grasslands communities (which are the main objective) are not duplicated in any existing Ecological Reserve. The most common forest community of this proposal (Pseudotsuga - Calamagrostis - Arctostaphylos) is represented in two other reserves, #3 and #88, although in somewhat different form.

IV. Anticipated Conflicts

Possible conflicts in establishing an Ecological Reserve in this location are with old grazing tenures and with public hunting. Judging from the condition of the ecosystems at present, neither uses appear to have been frequent. Therefore these conflicts should not be weighed too heavily, especially since any Ecological Reserve in a similar area would have to be paid for (by society) with losses in grazing and public hunting.

BIG CREEK/CHILCOTIN

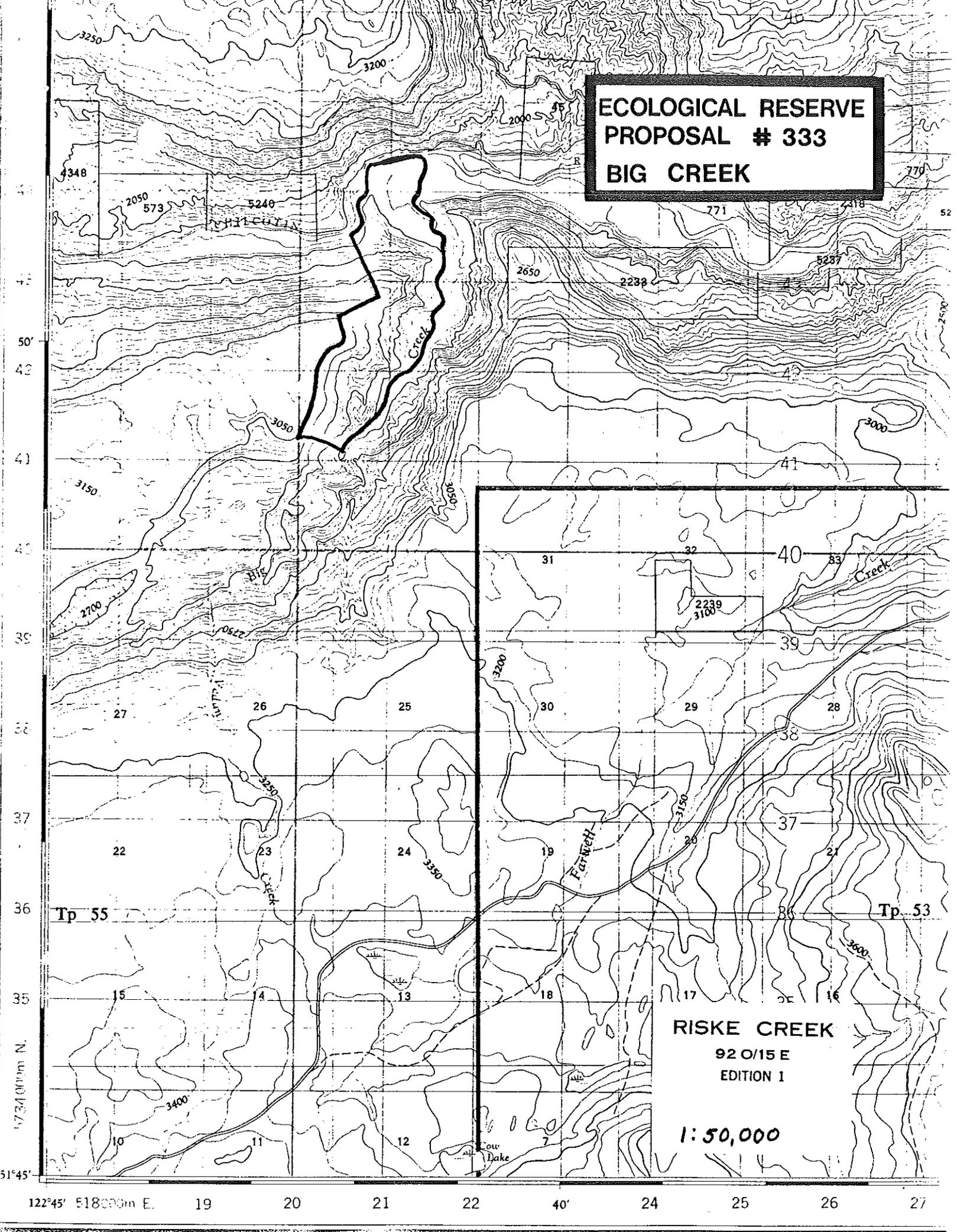
Boundary description:

From the northernmost point of the proposed area at the junction of Big Creek and Chilcotin River following Big Creek up to a point located about 3.5 km south of the junction and identified by near-vertical cliffs on the east bank of the creek. From this point west along the deep northern edge of a large rockslide up to the edge of the lava plain at the 3000' contour, then following the edge to its northeastern promontory in northerly direction, from here following the rounded ridge down to the northeast to a flat area at 2450' elevation. From this point approximately northwest down to a sharp bend in the Chilcotin River and along its banks to the junction.

122° 42.3' - 122° 43.6'

51° 49.3' - 51° 51.2'

**ECOLOGICAL RESERVE
PROPOSAL # 333
BIG CREEK**



RISKE CREEK
92 O/15 E
EDITION 1

1:50,000

333

ERP #333 BIG CREEK
TOPO Map 92015

| Forest Cover | Approximate % | Area (ha) |
|-----------------|------------------|--------------|
| OR | 56.89 | 146.22 |
| F620-P | 13.0 | 33.43 |
| Rock | 8.35 | 21.46 |
| F832-P | 7.57 | 19.47 |
| F(Cot)831-P | 5.24 | 13.47 |
| F821-P | 4.08 | 10.48 |
| F420-P | 3.49 | 8.98 |
| F420-P + F Vets | 1.36 | <u>3.49</u> |
| | | 257. |

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Mar '85

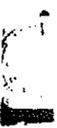
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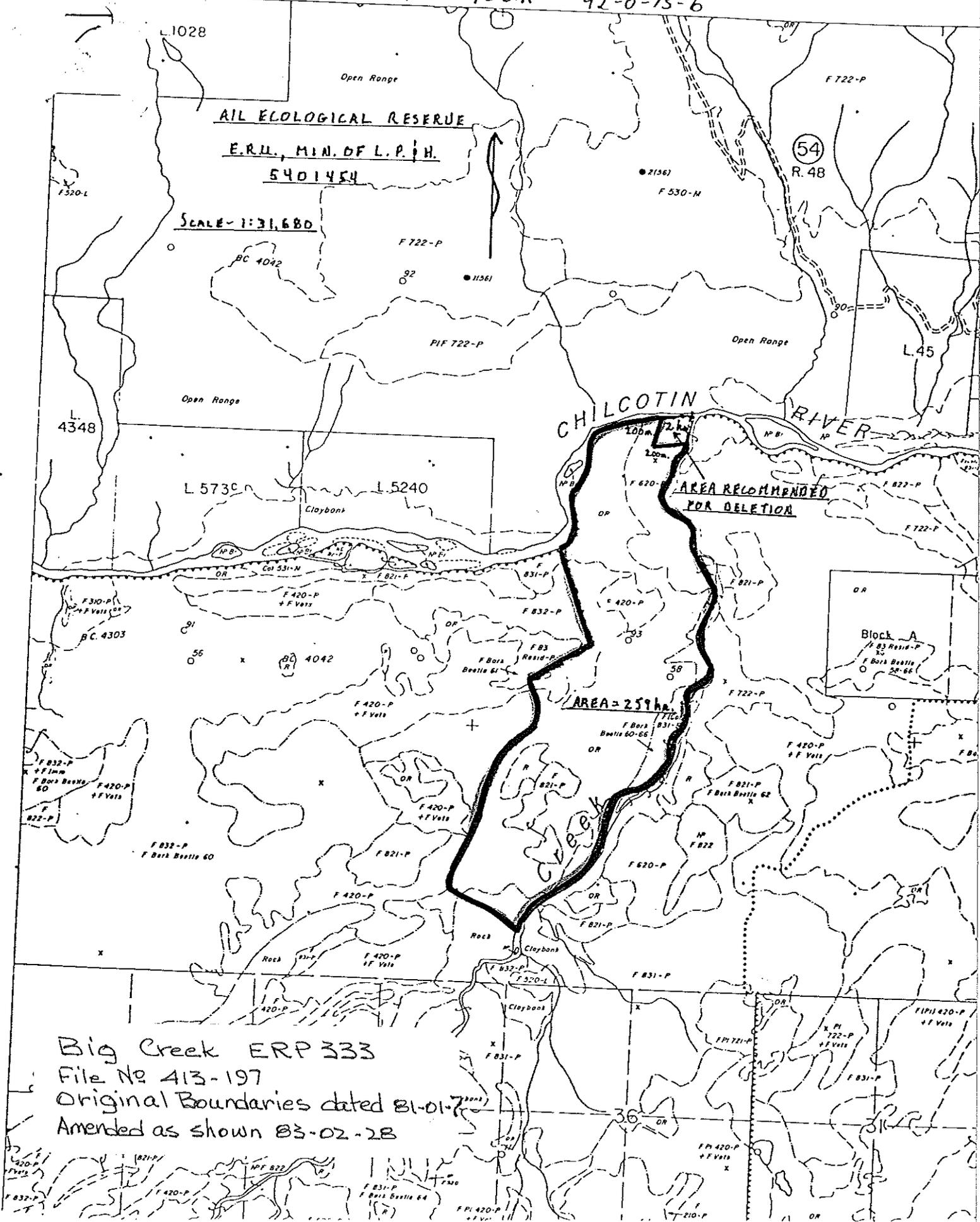
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P. 333

1" → 40 ch.

92-0-15-6



ALL ECOLOGICAL RESERVE

E.R.U., MIN. OF L.P. & H.

5401454

SCALE - 1:31,680

54 R. 48

CHILCOTIN RIVER

AREA RECOMMENDED FOR DELETION

AREA = 259 ha.

Block A

Big Creek ERP 333

File No 413-197

Original Boundaries dated 81-01-7

Amended as shown 83-02-28