Valley, Raget Valley Study Planson

Group, UBC 1971. (Submission

a. The Meadows

ECOLOGICAL RESERVES COLLECTION GOVERNMENT OF BRITISH COLUMBIA VICTORIA, B.C. V8V 1X4

Skagit River Forests

Ref. No.:

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These are areas of open and semi-open land bearing herbaceous and shrubby vegetation, and are situated at Lots 221 and 222. These meadows are quite unique. There are no other open areas of significant size in the whole Skagit drainage basin. To the authors' knowledge, the vegetation of the meadows has not been studied in detail, but a casual observation shows it to be quite unusual. There are a number of "prairie" type species present - examples being lupines (Lupinus spp.) alum root (Heuchera spp.) eriogonum (Eriogonum heracleoides) and pine grass (Calamagrostis rubescens) - these species appear to be in an isolated pocket of their distribution.

It is interesting to speculate on the origins of these plants, and it is quite possible that they are remnants of a formerly much more extensive distribution. They are of great scientific interest because of their "non-conformity".

On a more popular note, the meadows contain a diversity of plants which provide colourful blossoms all through the relatively long growing season.

The proposed reservoir would eliminate all the meadows in the valley.

## b. The Rhododendrons

The lower Skagit Valley is noted for its population of the California rhododendron (Rhododendron macrophyllum) which is a mass of pink flowers in early summer. Figure 24 shows the approximate

distribution of these plants in the valley.\* This rhododendron is quite rare in this part of the province, occuring only in a few locations in the Skagit Valley/Manning Park area.

The rhododendrons are sited largely on flat areas of coarse gravelly soil on the valley floor. They are scattered throughout Douglas fir/bearberry associations, but western red cedar and lodgepole pine are also usually present. Most of the rhododendrons appear to be many years old and regeneration is noticeably lacking\*\*

The scientific importance of the rhododendrons was sufficient to entail the proposal of an ecological reserve, covering one of the poorer examples of the association, but above the proposed flood level (Figure 24). This 250 acre reserve was established in 1970 with the object "...to enclose a further population of Rhododendron macrophyllum in an area where it will not be committed to the effects of any future park development and may be kept, hopefully, undisturbed from now on for the research into the ecology of this rhododendron". (1)

This objective may not be fulfilled for three reasons: (i) The reserve stands between the recently
created Skagit Valley Provincial Park, and the proposed reservoir and is one of the few places capable
of becoming a beach at the proposed reservoir; (ii)
Relocation of the new road after flooding has been

<sup>\*</sup>The marks on the map represent locations and not necessarily individual trees and are largely based on a proposal for an ecological reserve. The map is not exhaustive since some of the areas, particularly to the east of the river remains unexamined.

<sup>\*\*</sup>It may be that the plants reproduce by layering since seeding is rare at this part of the distribution.

proposed through the reserve. A plan for the "Recreational Development - High Ross Reservoir" (2) shows 1.2 miles of road passing through the site. The alternative to this appears to be to bring the road at least a mile further east and thus away from the reservoir site; (iii) The reserve is approximately the same height as the proposed reservoir and, as discussed in Section III B, it may be subjected to periodic flooding at full pool. Disturbance would appear to be inevitable and the elimination of the plants may result.

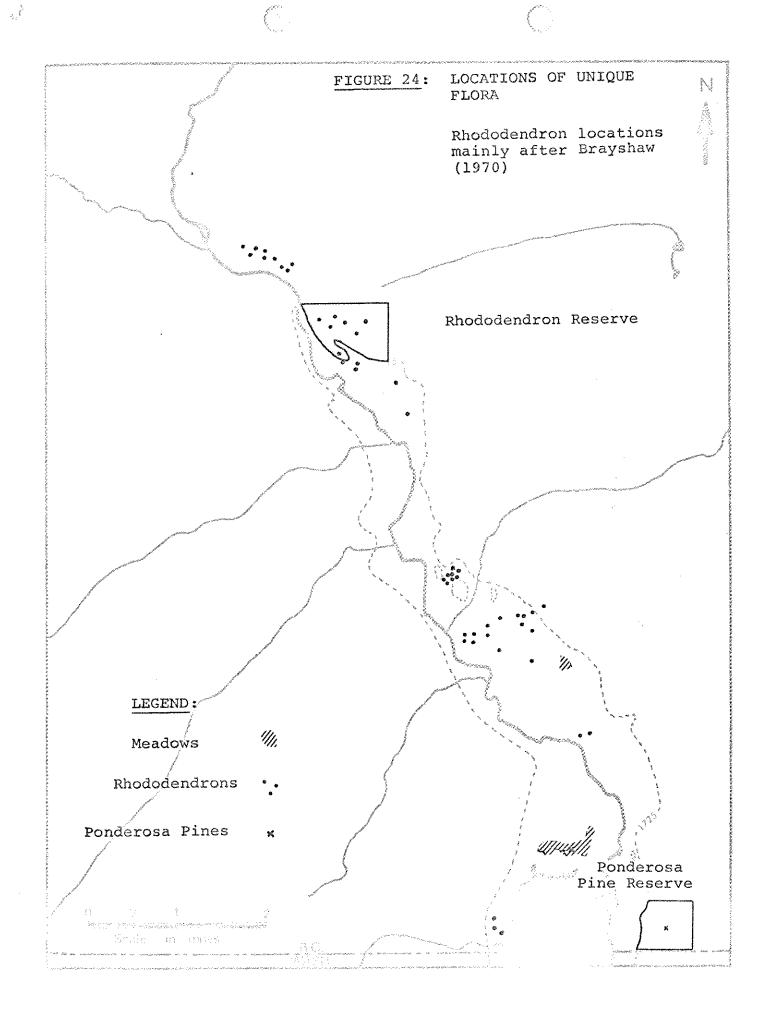
In order to preserve the rhododendrons growing above the floodline, a proposal has been made to "move most of the better specimens to stratigic locations" (2) This suggestion appears to be "ridiculous and impractical" (4) in view of the extensive nature of the rooting system, and the extremely high costs which would be involved in this transplanting.

Flooding of the valley will eliminate a significant proportion of the rhododendron population and may result in damage of many of the remaining plants.

## c. The Ponderosa Pines

This species is normally confined in British Columbia to the ponderosa pine/bunch grass zone of the interior usually as a climax species on glacial till soils. The occurrence of two stands in the Skagit Valley appears to be absolutely unique in the coastal Douglas fir zone. (The nearest other location of  $\underline{P}$ ,  $\underline{ponderosa}$  is near Boston Bar in the Fraser Canyon, which otherwise represents the most southern limit of the distribution in this part of British Columbia).

As with the rhododendrons, the stands are probably



relics of an old, more widespread distribution of the species. The source of the plants is not known but it is possible that they came from Washington - the nearest remaining population appears to be near Fort Lewis. The north-south orientation of the Skagit would enable this movement.

Because the pine is adapted to a dry continental climate it is probable that it became established in the valley in a drier era. The scientific value of the population thus becomes evident, and a great deal of research on the ecology of this species could be carried out at this site.

The accompanying map (Figure 24) shows the location of the two stands of Pinus ponderosa. Both stands are small and open, and bunch grass (Agropyron spicatum) is present. The stand in Lot 222 occurs in the meadows previously mentioned and would be flooded by the proposed reservoir. An ecological reserve of 180 acres has been designated around the stand which occurs above the proposed shoreline.

The authors have some misgivings about the future of the reserve. The position, between the 1,725 feet shoreline and 2,100 feet level means that in order to reach the Ross Lake National Recreational Area from Canada (and it appears that many visitors at the moment do this) the reserve would have to be traversed, and this might result in damage to the site.

## DIVERSITY OF VEGETATION IN THE SKAGIT VALLEY

The valley contains a great number of types of forest stands and it is this diversity which produces an interesting treescape. According to the report by F.F. Slaney & Company Limited (1971), (3)