# B.C. HYDRO ROAD EROSION CONTROL AND RIGHT OF WAY REVEGETATION PROGRAMS

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ABSTRACT

Access road erosion control and right of way revegetation became an integral part of the construction phase for new 500 kV, 230 kV and 138 kV transmission lines in 1981. All activities related to road erosion control, right of way revegetation and site specific revegetation and stabilization is collectively called restoration.

The purpose of the road erosion control program developed during the construction phase was to provide a stable road system usable for regular patrol, maintenance and emergency use.

The road erosion control program included a number of treatments such as ditching, ditching and crowning, and gravelling, to establish a stable road grade. The most widely used method to control road erosion is water bar installation.

Three types of water bar installations are used:

(1) Standard waterbars: Built of local soil materials;

(2) Gravelled waterbars: A gravel of rock lined water bar installed in highly erodible soils such as silts and sand;

(3) Cross drain: Installed on those roads no longer required or to prevent vehicular traffic.

General quantities and costs for the above installations for the Peace River region and the lower British Columbia coast are:

(1) Peace River region:

| | |
|---|---|
| Water bar installation cost | $ 169/wb |
| Water bar quantities | |
| - silty soils | 7 wb/km |
| - gravelly clay soils | 3 wb/km |

(2) Lower Coast:

| | |
|---|---|
| Water bar and cross drain installation cost | $ 178/wb |
| Water bar quantities | |
| - glacial tills | 6 wb/km |

Right of way revegetation is an established practice following right of way clearing. Rights of way are seeded as soon as possible following clearing. Seeding is also undertaken:

- to meet commitments of outside agencies or other resource users;
- good corporate citizen;
- as a vegetation management tool to inhibit brush invasion.

All broad right of way seeding undertaken in the period of 1981 - 1985 was by helicopter. Helicopter seeding provided better seed

mix application control and contractor supervision than fixed wing aircraft. Helicopter seeding costs ranged from $30 - $40 per hectare for applications of 25 kg/ha.

Seed mixes were compiled using a variety of sources. Typically, biophysical information from government ministries and B.C. Hydro route location studies identified sensitive areas and predominant vegetation associations, native and agronomic grass and legume species summaries and local expertise such as range specialists were also consulted to compile seed mixes that would provide fast establishing and vigorous coverage as quickly as possible consistent with right of way management objectives.

Site specific treatments and costs undertaken and incurred from 1981 - 1985 are:

(1) Hydroseeding: $1700 - $2000/hectare;

(2) Harrow and broadcast seeding: $500/hectare;

(3) Native shrub planting: $2.50/shrub (An all found cost including cost of stock, design time, reports, labour and supervision);

(4) Helicopter hydroseeding: $1700 - $2000/hectare.

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FOREWORD

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I wish to thank all speakers and attendees for making this first formal function of the B.C. Chapter a success. The enthusiastic support of chapter members in the planning and administration of the conference demonstrated a strong desire for a quality meeting. This drive bodes well for the future of our chapter.

A great deal of effort went into the publication of the proceedings of the 1986 Annual Meeting. Care was taken to accurately reproducce all papers, however minor errors may have escaped the review process. We hope that this will not detract from the information presented by the authors.

May the CLRA and all local chapters continue to grow and function as a focal point for land rehabilitation.

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CANADIAN LAND RECLAMATION ASSOCIATION

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ELEVENTH ANNUAL MEETING

# LAND REHABILITATION: Policy, Planning Systems and Operational Programs

June 3 - 6, 1986

University of British Columbia
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