cessive years. The economic studies will call for experts largely, and the four projects contemplated would employ only about 45, 10, 4 and 4 in the successive years. The reforestation (planting) project would employ about 120 men in each of the four years and 50 men employed throughout the four year period would meet the requirement of the brush burning project.

REFORESTATION

Reforestation work in the privately owned forest areas of agricultural Southern Ontario could include planting, seed collecting, nursery practice and silviculture. Unfortunately, planting, which would employ the bulk of the men needed, is of short, seasonal character in the spring and autumn. As continuous employment is desired throughout all of the months of the year, the difficult problem is presented of devising a balanced program. For example, a program which would undertake to employ say 1,000 men in the planting periods would furnish employment for only about 300 men in the eight-month balance of the year. The availability of a sufficient stock of seedlings, which take a minimum of two years to produce, further complicates the problem. It must be remembered that the normal requirement of seedlings for planting by farmers and other classes of private owners will continue. Any planting projects to be undertaken in Northern Ontario would depend for seedling supply on the same nurseries as the southern projects. It may prove feasible to take the 700 additional men (in the 1,000 figure example) from other types of forest projects in Northern Ontario for the short-term planting projects in Southern Ontario. This plan of organization would presume that the men employed in the northern projects would be agreeable to the shift to southern planting projects.

In conclusion, it may be stressed that the above mentioned Forest Protection, Forest Management and Reforestation work will simply complete a previously projected improvement program, interrupted by the depression and the war. The lack of these normal requirements has adversely affected the efficient administration of the Department.

POST-WAR FORESTRY PLANS IN MANITOBA

By C. B. GILL¹

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WORK HERE started in May, 1942, with a request from Dr. R. C. Wallace, Chairman of the Sub-Committee on Natural Resources. Plans were started with a double objective,—of employing men and also doing work of national value. Forestry was obviously very suitable for large scale employment which would give future benefits.

1. Presented by J. Somers, Acting Director of Forestry, Winnipeg, Manitoba.

Employment was considered from two aspects:

1. Post-War employment of demobilized military and young civilians previously underage;
2. Periodic employment to take up the slack in the case of recurrence of cyclic business depressions.

In preparing a Plan, the Forest Service was faced with two alternatives:

1. The forest plan to be an integral part of a larger plan covering such phases as housing, hydro-electric development, agricultural development, highways, etc.;
2. Forestry to fill the whole gap in employment.

In making plans it was decided to adopt the later alternative, but in such a form that adjustments could be made in case the former were used. In other words, the plan has been made extensive but capable of reduction to more modest limits, in case, as is likely, there will be many other ways besides Forestry of usefully spending money after the War.

The Plan covers the development of thirteen project areas. These areas cover all forest lands within forty miles of lake or rail transportation. For each of these thirteen projects five maps are prepared, covering the following:

1. Surveys Required—This map will show position of land survey lines required and areas to be covered by soil survey.
It is understood that no new settlement will be allowed until soil surveys have been made.
2. Location of proposed Ranger Stations, Towers, Cabins, Telephone Lines, and Roads.
3. Location of fire-guards.
4. Dams and drainage areas.
5. Proposed boundary of new Forest Reserves, showing in detail land ownership at present time.

Work has been outlined for about 11,500 men for one year, or perhaps it would be better to say 2,750 men for five years. About 75 per cent of the work is to be done on the five most important areas as follows:

1. Duck Mountain. This is an important area of Forest Reserve which needs internal development, but only slight alteration of boundaries.
2. South-Eastern. This is an important Forest Area in the South-Eastern part of the Province, which has been very much neglected in the past due to lack of land classification and improper methods of settlement. A Soil Survey has already been partly completed and plans are well underway to establish a new Forest Reserve involving the gradual shifting of a considerable population.

3. Whiteshell. This area is to be developed both as a Park area and a Forest Reserve. It lies in the Pre-Cambrian country, and has great value as a tourist resort.
4. Winnipeg River. This covers a large area North of the Winnipeg River, much of which lies within a pulpwood berth supplying our only pulp and paper mill.
5. Athapapuskow. This would be a Park and Forest Area, lying North of The Pas and being adjacent to very important mineral area. A large program of highway construction would be necessary to bring in tourists from the South.

The total cost would be divided as to classes of work, approximately as follows:

	Per cent
1. Surveys of various kinds	4.2
2. Protection, including Buildings, Towers and Fireguards	6.1
3. Roads of three classes	72.3
4. Recreational Development	7.2
5. Silvicultural Treatment	6.9
6. Reclamation, including Dams, Nurseries, Planting, Drainage, etc.	3.3
Total	100

The Committee may be interested in the methods used for arriving at total cost and man-days employment. This may be clarified by showing part of the table as follows:

Key for Calculating Labour required in
Proposed Development, Construction and
Silviculture.

Class of Work	Percentage of Total Cost Charged to Labour	Average Daily Wage	Number of Man Days per \$1000.00 Cost.
Buildings	50	\$5.00	100
Steel Towers	20	4.00	50
Telephone Lines	60	5.00	120
Fire-guards	75	3.75	200
Clearing Grounds, etc.	90	3.50	260
Add Engineering	77	7.00	110

Costs of all Projects are worked out on a unit basis, that is, so much per lineal mile for Land Survey lines, square mile of Forest Surveys, miles of Roads of various classes, complete Administrative sites, miles of metallic telephone line, acres of thinning in various age classes and species, etc.

The above will give you an idea of our Forestry Plan to date. We are, of course, continually making adjustments, particularly as to specifications and costs.

I should point out that while the Manitoba Government is very much interested in Post-War planning, no commitments have been made as yet as to how money will be spent.

OUTLINE OF POST-WAR FORESTRY PROGRAM IN SASKATCHEWAN

By E. H. ROBERTS

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THE SASKATCHEWAN Reconstruction Council Act of 1943 was passed early in that year followed by the appointment by Order in Council of a chairman, six members and a secretary to study and investigate conditions and problems that are likely to arise during and after the conclusion of the war, to consider, develop and recommend plans, policies and activities for the purpose of meeting such conditions and problems and to submit reports and recommendations to the Lieutenant Governor in Council.

The Council was authorized to confer with federal, provincial and municipal authorities, operators of industries, agriculturists, organizations of employers and of employees and any other bodies and have the powers of investigation conferred by the Public Inquiries Act and make regulations for the carrying out of the provisions of the Act.

Members of the Council consist of representatives of industry, labour, merchants, agriculture, the Canadian Legion and women's organizations. The Council held meetings and hearings at numerous points in the province and has received numerous reports, plans and recommendations from government departments, organizations and individuals.

A Forestry Reconstruction Works Program under the heading of Forest Fire Prevention and Protection, Silvicultural Development and Resorts and Recreation was prepared in detail by the Department of Natural Resources of the Provincial Government aimed at employing 1,000 men or more annually for a period of five years with approximately one and one half million man days, subject to expansion or contraction as circumstances may warrant.

The objects in view are an enlarged forest fire protection organization, extension of fireguards, forest roads and trails to make the timbered areas more accessible for extraction of forest products and for fire suppression purposes. The construction of small dams for water conservation and the development of muskrat lease areas are proposed together with the removal of fire hazards.