

ities, to appraise, by means of surveys and reports the conservation needs of each watershed and to submit to the Authority a detailed report outlining the conservation measures that should be followed.

These reports are in the form of a working plan, and are intended primarily for the Authority members. On large watersheds they run to 600 pages, 100 maps and charts, 150 illustrations, and contain as many as 75 recommendations. In addition to the full report, a summary of this in printed form is sometimes issued for general distribution.

The survey work which is written into the report is grouped under six general headings: History, Land Use, Forestry, Water, Wildlife and Recreation. The scope of the studies made in each of these subjects varies with the condition and needs of the area under investigation, with the result that in the completed report the findings recorded are directly related to the major problems to be solved.

History:

A certain amount of historical matter is used in each report as a starting point for the study. An attempt is made to get as true and localized a picture of past conditions as possible. Experience has shown that this historical approach is of great interest to the people of regions dealt with. It often serves to promote an interest in conservation among people who would otherwise remain indifferent.

Land Use:

The approach to this subject is on a watershed basis and the relations between soil, agriculture, forestry and water are carefully considered. All existing data, of which there is a considerable amount, are heavily drawn upon in preparing the report, most important of which are the excellent soil survey carried out over the last 24 years by the Soils Department of the Ontario Agricultural College in co-operation with the Experimental Farms Service, Canada, and the basis work in physiography by Chapman and Putman of the Ontario Research Foundation.

Forestry:

The forestry report provides information regarding the condition and extent of the original forest, the sequence of wood-using industries, forest products and their yields, and conservation measures in progress on the watershed at the time of the survey, together with recommendations for future conservation measures.

Water:

Water problems begin in the office with a careful examination of all available data. Hydrometric and meteorological records kept over the years are checked and tabulated, and all available flood records are investigated and related to the gauge records of the river in question, after which the number, size and location of reservoirs required to control floods and regulate summer flow are determined. All small lakes, community ponds and old mill dams are mapped and examined.

Wildlife:

Wildlife surveys include general inventories of all species of wildlife, both game and non-game, and special emphasis is laid on vanishing or threatened species. Streams are classified as to their condition and suitability for particular species of fish.