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EDITORIAL NOTES.

Forest Fire Protection.—In nothing else in forestry is there greater recent change than in fire prevention and fire fighting. It would appear that the Dominion has clearly entered a new era, and the problem for all foresters is to decide whether it is one of increased or of lessened fire hazard. Superficially, the judgment of most would be that the methods of modern control, if properly organised and applied, cannot but lessen the fire hazard and the fire losses of the past. Aerial reconnaissance, meteorological forecasts, wireless reports and if necessary wireless orders and operational control, mobile water supply and pumps, are modern efficiency factors which give the modern forest firefighter advantages that were undreamt of even ten years ago. Perhaps even more significant is the fact that forest fires are news; and the losses they cause are a matter for journalistic statistical conjectures which are given wide publicity. This is far different from the position a few years ago, when bush fires were a commonplace, and seldom secured even a paragraph in the daily press unless they endangered human life or destroyed insured property. The chief public reaction to any account of widespread bush conflagration in the past was that the land should be speedily opened for settlement; and that pending this, Government supplies of grass seed should be sown on the fresh burns and made available cheaply or gratis to settlers for this purpose. Fundamentally, it is this era of fresh land for settlement that is past; and it is stability of the boundary line between forest land and agricultural land that is sought. The modernised and mechanised aids to firefighting of which a few have been cited above, are to be welcomed primarily because they aid in securing and in maintaining this stability; and they are being welcomed by the farmer as well as by the forester.

But in addition to these two principal primary users of the land, there is an ever-increasing number of the general public who claim a right to use the public land for recreational purposes. It is to be feared that in many cases the claim is for a right to use any land for these purposes. The danger that accompanies this exercise of these claims goes far to offset the advantages secured in fire control by modern equipment and organisation. The new era is potentially as dangerous for forests as the era of the uncontrolled primary pastoral

and agricultural burns. The new mechanised equipment, the aerial smoke-chasing, should and would with good and intensive organisation decrease the cost of actual firefighting and the losses of national assets caused by forest fires. The new demand for freer and fuller access to forests, both public and private, will necessarily increase costs of fire prevention. It can only be hoped that even so it does not increase forest losses by fire.

Recently the Government has announced that fuller and freer rights of access to all fresh water lakes and streams will be granted in the near future. If the forests are to be as safe from fire under this regime as they should be with the up-to-date resources that are being used, then these greater public rights must be accompanied by increased supervisory expenditure, by more restrictive provisions, by severer penalties for infringement of these provisions, and by a vigorous enforcement campaign. It is to be hoped that the Government will not grant the greater freedom without simultaneously granting greater powers for repressing abuses of that freedom.

Waipoua Kauri Forest.—Controversy over the control and future management of Waipoua State Forest, a major remnant of the once extensive kauri forests of the Auckland Province, has featured prominently in the local press during recent months. Much of the comment has been marked by extreme emotional outbursts and bitter accusations against the present system of control.

Reduced to its fundamentals the conflict is between the retention of Waipoua as a State Forest subject to management as a productive unit, its proclamation as a National Park with the full development of its scenic and recreational possibilities, and its reservation as a Botanical Sanctuary for scientific purposes.

The extent of public interest in the welfare of the forest is reflected in the diversity of organizations which are taking an active part in the present controversy, and it is felt that the New Zealand Institute of Foresters can perform a service in examining the merits of the largely conflicting claims put forward and assisting the forestry profession in formulating an opinion on the matter.

Controversies such as this are not new, nor are they confined to New Zealand. Foresters will recall cases of keen factional strife over the use to which so-called primitive areas shall be put. There is a school of thought born of the sentimental reaction to the pioneering phase of forest destruction which in its extreme form regards the preservation of all indigenous forest in its existing condition, be this truly primitive or already modified, as a desirable objective in all circumstances. These zealots of "preservation by non-use" who in the United States have been so truly depicted by a distinguished Honorary Member of this Institute, hold their beliefs with irrational and unyielding depth of conviction. But such forces cannot be ignored simply because they are irrational or, in this case, because some of the press statements have been ill informed, if not intention-

ally misleading. The urge for spiritual as well as physical recreation is a demand as real as that for the more tangible benefits of a managed forest. But the claims of park and wilderness advocates must be kept in proportion if all attempts at silvicultural management of our indigenous forests are not to be frustrated.

In the case of Waipoua the controversy originated in 1926 when the construction of the present main highway through the forest was first proposed, the opinion being voiced at the time that this was but a preliminary to its wholesale destruction. Interest in the preservation of the area was revived following published criticism of the State Forest Service's action in felling and removing a quantity of green kauri during World War II and the continuing removal of standing dead trees.

As early as 1930 the State Forest Service was concerned with the future of its kauri forests and, following preliminary investigations, began in 1935 scaling down the production of kauri from State-owned forests. In 1942 a formal working plan was prepared and approved by the Commissioner of State Forests covering the management of all State kauri forests on a sustained yield basis, limiting the felling to approximately one million board feet annually, and setting the rotation provisionally at between 150 and 200 years. The working plan embraces the major virgin and semi-virgin formations (including Waipoua) in North Auckland, certain residual areas, and numerous areas containing young kauri growing stock, the scene of early workings, in both North and South Auckland. Of the total kauri growing stock in the kauri working circle, approximately 70 per cent. is in Waipoua. The exclusion of this forest from the plan would prejudice its successful operation, necessitating either a sustained yield output well below the annual requirements of kauri essential to industry or a break in the annual yield in the future.

The working plan also makes provision for the reservation in Waipoua, as well as in other forests, of scenic areas, mainly along the public highways, and of individual trees of unusual size.

The silvicultural system prescribed is a modified shelterwood system, envisaging a regeneration period of upwards of 30 years. During World War II emergency fellings were confined to Omahuta Forest and to a residual area at the southern end of Waipoua Forest so that the impact of these fellings might have as limited an effect as possible on the working circle as a whole. Shortage of staff, labour and equipment during the emergency period necessitated a departure from the prescribed system, fellings being concentrated over a period of five years instead of following the normal sequence of preparatory, seeding and final fellings extending over some thirty years.

At Waipoua during the five years ended March 31st, 1946, approximately 1,600,000 board feet of kauri were felled for war purposes, of which 58 per cent. was from standing dead trees. The Forest Service anticipates that for the next thirty to forty years the

felling of living trees will be restricted to preparatory and seedling fellings and to obviously dying trees, and that most of the preparatory felling will be of secondary species. Coincident with these operations, release cuttings and cleanings in the kauri-manuka association and other measures to build up the growing stock will be undertaken.

The scarcity of primitive areas in North Auckland and the region's remoteness from other national parks have produced strong local support for its transfer from forest to park status. As such it would certainly fill many needs: it is extensive, contains much forest of unusual scenic and botanical interest, and is reasonably accessible. While the dense undergrowth typical of a kauri forest discourages the majority from venturing beyond the roadside, it is presumed that as a national park a network of roads and tracks would be laid out with hut accommodation at suitable points.

The somewhat conflicting functions of such an area as a scenic or recreational resort and as a primitive area or plant museum are not clearly reconciled by most of those advocating removal from Forest Service control. The sanctuary advocates would appear to aim at confining the general public to the scenic attractions of the main highway, the bulk of the forest being preserved untouched and entry permitted to properly sponsored scientific workers only for the purpose of research and study.

The scientific interest as well as the scenic value of the kauri forest has been commented on by Cockayne and others and is hardly open to question. But whether the advocates of Waipoua as a botanical sanctuary would receive either sufficient public support to accomplish a change of ownership or sufficient financial backing to protect the area once acquired is doubtful. Moreover, an ideal sanctuary, typical of the kauri formation, now exists in Little Barrier Island, already a bird sanctuary ideally protected by physiographic features from the general public and from fire.

We feel that the conflicting demands on Waipoua Forest could best be met by facilitating its use for recreation, with the necessary fire protection safeguards, at the same time utilizing it as a productive forest under Forest Service control. Trees of outstanding size and substantial forest margins along the travelled highway should be preserved inviolate. In addition a representative kauri stand should be set aside as a wilderness area. Further it is felt that the public are entitled to demand that fellings be restricted to the removal of dead standing trees, dying trees, preparatory and first seeding felling until such time as the Forest Service has demonstrated that adequate regeneration has become well established; and has demonstrated on other State-owned kauri forests that final fellings are followed by accelerated and healthy development of established kauri regeneration.

The existing state of public misinformation and distrust of Forest Service activities could be largely avoided if it kept the public better informed of its aims and methods.

Soil Conservation and Rivers Control Council.—The Soil Conservation and Rivers Control Amendment Act, 1946, makes provision, *inter alia*, for the broadening of the Council by the inclusion of the Director-General of Agriculture and the Director of Forestry. While the State Forest Service has always been represented on the Standing Committee of the Council and the several Catchment Boards, its absence from the controlling body has been widely recognized as a serious fault in the original legislation. Foresters will welcome this recognition of forestry's rightful place in the field of soil conservation and will look forward to a more closely integrated approach to the complex problem of readjusting our land use practices. A forester has already joined the technical staff of the Council in a junior capacity.

Abstracting of Articles in New Zealand Periodicals.—The field of periodical forestry literature is so wide that few practising foresters can hope to keep in touch with it at first hand, but must rely largely on reviewing and abstracting organs. *Forestry Abstracts*, prepared by the Imperial Forestry Bureau, provide an abstracting service covering the world field of major periodicals devoted to forestry and cognate sciences, while several of the chief overseas forestry journals include useful reviews. However, many articles of local importance to foresters appear in New Zealand periodicals which either do not come under the notice of such overseas organs or are of such local interest as to warrant but brief mention. It is felt that a useful service can be performed by briefly covering such local articles of forestry interest in this Journal, and a section "In New Zealand Contemporaries" has been introduced in this number. Normally articles which have appeared since the last issue of the Journal will be covered, but in this initial year an attempt has been made to cover the period since January, 1945.

Institute Library.—So far the Institute has, on the grounds of expense and lack of clerical assistance, made little progress in building up a library of its own. Periodicals, bulletins and a few books have been accumulated with the Editor mainly as exchanges for the Journal. These have been listed in each issue of the Journal and been available to members on application.

To improve the facilities available to members, both local and overseas exchanges have been increased and, on the decision of the last Annual Meeting, the library has been transferred to the Rotorua Section as the most active component of the Institute. At present it is housed at the State Forest Service Training Centre under the supervision of Mr. A. P. Thomson.

In the past very few members have made use of the available facilities and it is felt that this library, limited though it is, might be made of greater service, particularly to those isolated foresters who otherwise have little opportunity of perusing current publications.