

ADRIAN DINGLE

WITH THE COMPLIMENTS OF THE MOIRA RIVER CONSERVATION AUTHORITY

# **OUR VALLEY**

ORA RIVER CONSERVATION AUTHORITY

ONTARIO

PLANNING DEVELOPMENT DEPARTMENT 0 F AND



## OTTER CREEK

CONSERVATION AUTHORITY

The development of the Authority's Conservation Area near Port Burwell was commenced in the summer of 1956. The roadway was widened, graded and stoned to the foot of the slope, and a boat landing slip has been constructed. With these simple improvements the property has been well patronized and has served a much needed public use. The hillside on this area was furrowed last fall in preparation for tree planting this spring.

The Public Relations Advisory Board has provided ten thousand school book covers for distribution in the watershed. A coloured 16 mm. silent film is currently in production by Mr. Arthur Goodwin of station CFPL, and is scheduled for delivery early in the year. An Authority exhibit was placed at the Aylmer, Tillsonburg and Burford fairs.

A fifty-acre tract of land lying largely within the limits of Tillsonburg was optioned by the Authority in order to provide a recreational area in connection with the proposed restoration of the Imperial Dam. The option has been turned over to a third party, the Authority retaining an area of about six acres of land adjoining the former Lake Joseph and admirably suited for conservation purposes. The Authority was thus able to acquire at no cost an attractive piece of property which will be of great value when the Imperial Dam is restored at a future date. A twenty-five-acre tract of hardwood swamp in the headwaters of the Otter was purchased. This property adjoins a similar piece purchased last spring in North Norwich Township.

The problem of gully erosion, particularly severe along the deep cut valley of the Otter in Bayham Township was brought before the Authority at a meeting in October. A gully on the farm of Wilfred Burwell is approximately ninety feet deep and over a quarter of a mile long and has cut back almost sixteen rods in 1956. At the present rate of recession this farm will be severed in two within a few years.

This gully commenced in 1937 as a result of a four-inch rainfall. Professor Frank Morwick of the Soils Department at the Ontario Agricultural College describes the soil formation occurring in this area as being exceedingly erodible. There is a thin mantle of clay till varying from one to five feet in depth overlying a deep deposit of fine stone-free sand. When a gully cuts into this clay till and exposes the fine sandy subsoil, the sand is carried away very quickly leaving a gully with almost vertical slopes.



The Lamp
IN THE
MINISTER'S OFFICE

Those who have attended our Minister in his office at 454 University Avenue will have admired the beautiful lamp which is on the table close to his desk. Those who attend there frequently will have noticed also that when Mr. Nickle is in his office, whether it be morning, afternoon or early evening, the lamp is always lighted.

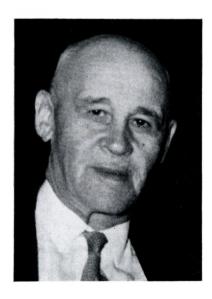
The base of the lamp is cast white metal. The ring at the bottom is brass, and lacquered as well. The cylinder is a thin sheet of Britannia metal, which is a form of pewter, roll-pressed with a repeating design of conventional clouds and a floral pattern. The top ring to which the oil container is attached is also brass.

This lamp belonged to our Minister's grandmother, Mrs. William Nickle, with whom he lived as a boy after his own mother had passed away. It is a constant reminder of her wonderful influence over the years.

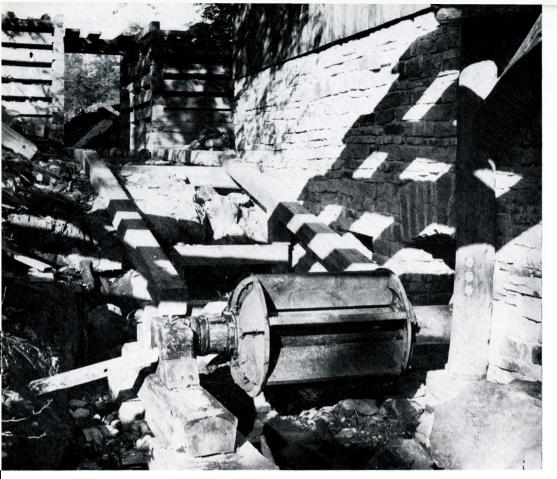
lands of this type which have some tree growth that could now be used as pulp. Thus clear-cutting for pulpwood is contrary to one of the main objectives of the Authority. If it is allowed to continue unchecked and is permitted to increase as additional markets develop, the Authority will face even greater problems in the future than it does now. The Belleville flooding problem will be aggravated, stream flow will decrease and new water supply problems will appear.

The situation has a remedy in The Trees Act which permits a County Council to pass by-laws restricting the cutting of trees for sale. By-laws under this Act have already been passed by twenty-five counties in Ontario but the counties in which the Moira Watershed lies have no such protection. The Authority has discussed the problem at several of its meetings and is distributing information on suggested solutions in the hope that effective by-laws will be passed in the near future.

The premiere of "The Moira River Valley", a 16 mm. 30-minute sound and colour film of the Moira River Watershed, was shown to an audience of five hundred people at the Belleville and District High School on November 28th. The film was produced by the Conservation Branch, Department of Planning and Development, for the Authority and was introduced at the Premiere by the Chief Officer, A. H. Richardson. Mayor Forrester of Belleville, Warden Elmer Wood of Hastings County and Chairman Bruce Smith of the Moira Authority were the other principal speakers. The Ontario Department of Lands and Forests assisted in a display at this meeting. The film will make a valuable contribution to the Authority's educational program, and already it has been featured at many meetings throughout the watershed.



It is with sincere regret that we report the death of Colonel Roscoe Vanderwater, D.S.O., who passed away in his sleep on January 14. For many years Colonel Vanderwater had been an ardent conservationist, having planted one of the first reforestation areas in Ontario on his own farm near Stirling in 1921. He was largely responsible for the formation of the Moira Authority and served as Chairman for the first two years and later, until his death, as Secretary-Treasurer. He was well known at all Conservation Authority gatherings, both in Ontario and on trips to the United States, and on several occasions served very acceptably as chairman. His passing means a great loss to conservation in Ontario. Our sincere sympathy is extended to Mrs. Vanderwater and her family.



Reconstruction of the O'Hara Mill and dam has been a major project of the Authority in 1956. Seen here is the water wheel and the downstream face of the timber crib, rock filled dam. The flume and dam have now been completed and after almost fifty years of idleness the only muley saw mill in Ontario can be operated by water power.

The conversion of paper mills from the utilization of straw and waste paper to the use of hardwoods is causing concern to the Authority and other conservationists in the district. As the change-over provides a market for low grade hardwood that was previously only saleable as fuelwood, it could be a valuable aid to woodlot management because some revenue can now be obtained from improvement cutting and thinning operations. However, as the majority of landowners who are presently cutting to fulfil contracts are only interested in quick returns, the trend is towards clear-cutting rather than scientific management. The effect will, therefore, be detrimental instead of beneficial.

The Moira Conservation Report of 1950 states that the maintenance of forest cover on the watershed is the most important single conservation measure required to maintain stream flow and water supply, reduce flooding and safeguard wood-using industries. The Report recommends as a substantial contribution to this measure, the acquisition of 95,578 acres of marginal and sub-marginal agricultural lands for an Authority Forest. So far, only approximately three per cent of this acreage has been purchased. Prices are rising for

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## MOIRA

CONSERVATION AUTHORITY

The Authority office is now located in the recently completed extension to the Municipal Building in Cannifton, two miles north of the City of Belleville. With ample parking space and ready access from Highways 37 and 14, it is anticipated that Authority members and interested persons will find it easier to keep in touch with Authority activities. Added advantages of the new location are the storage space made available by the Township and the fact that the telephone is connected through the Township switchboard so it is attended even when the Field Officer is away.

Under the direction of Mr. J. P. Bruce, Conservation Branch hydrometeorologist, a Friez-type recording rain gauge was installed at the Department of Lands and Forests radio station at Tweed. This gauge marks the amount of precipitation on a graph which is calibrated in hours and days and runs for a week without attention. In this way, the intensity of rainfall is known for any period and can be correlated with other meteorological data to give run-off figures for particular conditions of rainfall, temperature and ground conditions. Additional meteorological stations will be established in the watershed to add to the data gathered so that eventually, it will be possible to accurately forecast flow conditions in streams and rivers within the watershed. With such information at its disposal, the Authority will be able to forecast flooding and also have data on which to base discharge rates from its storage dams during the period of low flow in the summer.

Work at the O'Hara Mill Conservation Area has been an important activity of the Authority in the past months. Finishing touches have been given to the Mill, and construction of the dam was commenced last summer. Using cedar timbers and sheeting throughout, the rock-filled crib structure and flumes are now completed. Once again, after 49 years of inactivity the only muley saw mill in Ontario can be operated by water power. This Mill was built in 1846 or 1847 by James O'Hara and was operated continuously until 1908. Wet weather conditions of last summer prevented cleaning out of the pond. This will be done next summer after which it is planned to hold the official opening of the Mill.

The first purchase of reforestation land by the Authority in the Township of Tyendinaga has now been completed. The one hundred and fifty acres so obtained plus the two hundred and thirty acres recently acquired in Sidney Township bring the total area of reforestation land owned by the Authority to 3,747 acres.

Province now and in the future. It remains for the municipalities and all concerned to join in this program and ensure its success.

Following the morning session, delegates were transported by bus to the Fanshawe Dam where they were guests of the Upper Thames Authority at a sumptuous turkey barbecue. The day turned out to be one of glorious, warm, autumn sunshine, the Watson H. Porter pavilion was filled to capacity, and this event was one of the outstanding features of the Conference. G. W. Pittock, Chairman of the Authority, was Chairman of the luncheon and outlined the accomplishments of the Authority over the past ten years. In the afternoon delegates toured the Fanshawe Dam and the J. Cameron Wilson Park. Great interest was evinced in the water-spreading project by which the City of London is supplied with water from Fanshawe Lake, in the golf links which is being laid out in the park, and in the mechanical stone-picker which was demonstrated. The balance of the afternoon program included a tour of the upper part of the Thames Watershed and concluded with an inspection of the Conservation Area and Community Pond at Harrington West.

One of the most interesting sessions was that on the morning of the closing day, when nine of the Authorities presented Conservation Cameos dealing with such topics as the restoration of the muley sawmill on the Moira, water-spreading on Catfish Creek, the purchase of land in advance of the actual carrying out of a scheme and other subjects of moment to the Authorities at the present time.

# **Conservation Cameos**

1. O'HARA MILL

B. H. SMITH, Chairman
Moira River Conservation Authority

 $T_{\rm HE}$  O'Hara Mill is the sole surviving upright or muley sawmill in Ontario and possibly the only one in Canada. This type of mill was a straight development from the primitive method of whipsawing by hand. The difference being that the saw was mounted in a frame and driven up and down by power from a waterwheel. This mill was built in 1847 and found recently in a good state of preservation.

The Authority decided to undertake its restoration and make the surrounding land, which includes a small dam and mill pond, a Conservation Area. Plantations of trees have been set out and stream improvement works have been undertaken by Boy Scouts, a Conservation Trail is to be laid out, stone barbecues and tables will be provided, a swimming beach will be constructed and a rustic pavilion erected.

A program which first arouses the inherent interest of people in their history, in the ways of their forefathers and in natural history, is one of the best methods of introducing to them the concepts of Conservation. This is what the Moira Authority is planning to do in the O'Hara Mill Conservation Area.

#### 2. LAND JUDGING

R. G. HENDERSON, Chairman Humber Valley Conservation Authority

 $\Gamma$  or many years cattle judging competitions have been considered to be an essential feature in the training of prospective farmers, but it is only recently that it has been realized that it is even more important for farmers to be able to evaluate soils which are the basic element of all the farmers' operations, including the raising of cattle.

On May 25, 1955, the Humber Authority, with the co-operation of the Department of Agriculture, sponsored the Peel County Land Judging Competition, which was the first to be held in Ontario and possibly the first in Canada.

Four soil pits were prepared and four representative fields selected on the farm of a local farmer. The physical features of the land were assessed and the land-use capability classes of the fields were determined. Each contestant was provided with a score card and required to rate the four fields for the growing of alfalfa, fall wheat, potatoes and corn. The score cards were compared with those prepared by the experts and each contestant was interviewed by one of the judges to determine his reasons for the choices he had made on the score card.

Prizes were awarded and the contest was a great success. Because soil is basic to conservation work and the ability to judge land is essential, land judging competitions are one of the most practical ways in which Authorities can promote conservation in rural communities.

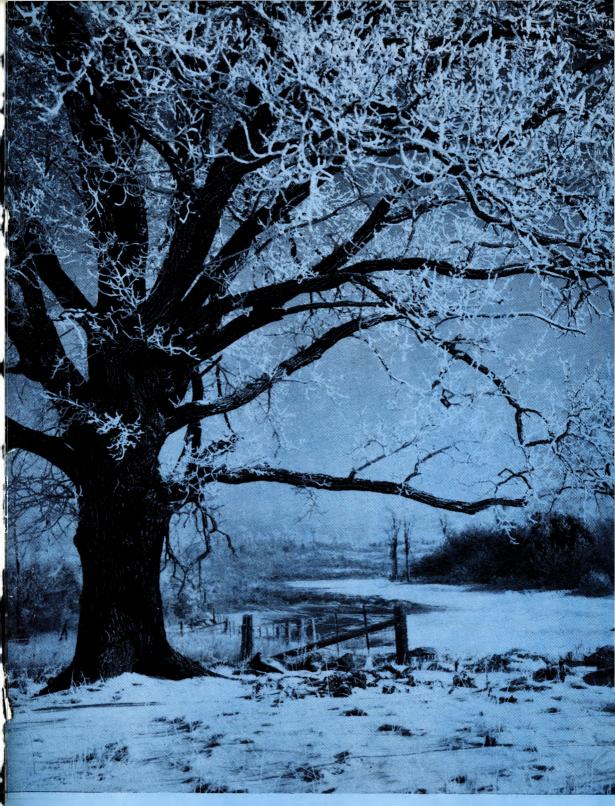
#### 3. LAND ACQUISITION FOR FUTURE RESERVOIRS

A. M. GREENAWAY, Chairman, Credit Valley Conservation Authority

In view of rising land values throughout the Province, it would seem to be advisable for an Authority to acquire, as soon as possible, the land which will be required for the carrying out of any scheme which it is proposing to undertake in the near future.

The Credit Authority is the first to anticipate its requirements in this way and in the case of the Orangeville Reservoir has divided its scheme into two phases, namely (1) land acquisition and (2) construction.

The scheme involves 17 landowners, options have been obtained from 14 of these and verbal agreements have been made with the other three, which



When I was come to the open country, far beyond the sheltered homestead, and in the full brunt of the wind, the keen blast of the cold broke on me, and the mighty breadth of snow. Moor and highland, field and common, cliff and vale, and watercourse; over all the rolling folds of misty white were flung. There was nothing square or jagged left, there was nothing perpendicular; all the rugged lines were eased, and all the breaches smoothly filled. Curves, and mounds, and rounded heavings took the place of rock and stump; and all the country looked as if a woman's hand had been on it.

-R. D. BLACKMORE in "Lorna Doone".

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