

Appendix 19

Protocol for the determination of the acid sensitivity of Surface water in the context of Afforestation

Applications for grant aid for afforestation in areas outlined on maps of acid-sensitivity as being acid-sensitive and included in the list of County O.S. maps, scale 1: 10560 require an assessment of acid sensitivity for all areas which are the subject of grant-aid applications.

This sensitivity of the water to acidic inputs is determined by the measurement of alkalinity.

Sampling and analysis shall be carried out on a minimum of four occasions at intervals not greater than four weeks in the period February to May inclusive. The analysis will be carried out by a laboratory, independent of the applicant, and currently participating in relevant national or international intercomparison exercises. Samples and measurements should be taken from all watercourses shown on Ordnance Survey 6" Maps within the area of the proposed afforestation.

Samples should be taken as indicated in the procedure on page 137.

Alkalinity should be measured using the Gran Titration Method.

The minimum acid-sensitivity measured in the above manner will determine the overall sensitivity of the site.

There will be no afforestation approved in areas where the minimum alkalinity of the run-off water, measured in the above manner, is $<8 \text{ mg CaCO}_3 \text{ l}^{-1}$.

Where the minimum alkalinity of the run-off water, measured in the above manner, is in the range $8 - 15 \text{ mg CaCO}_3 \text{ l}^{-1}$, full, partial or no afforestation may be allowed following discussion and agreement between the Environmental Protection Agency, the Forest Service of the Department of the Marine and Natural Resources and the Regional Fisheries Board.

Afforestation will be allowed in areas where the minimum alkalinity of the run-off water, measured in the above manner, is $>15 \text{ mg CaCO}_3 \text{ l}^{-1}$.

Any attempt to change the chemical composition of the water taken, or to be taken, for analysis by the addition of material(s) will immediately render the application for Grant Aid void.

The results of the analysis of all samples carried out in the context of this protocol shall be available to the applicant, the Forest Service of the Department of the Marine and Natural Resources, relevant Fishery Board, Local Authority and the Environmental Protection Agency.