WATER IN BRITAIN

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a study in applied hydrology
and resource geography

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Preface

Geographers have always been concerned with the changing relationships between the physical world and human activity, but it is only relatively recently that a really critical awareness of the earth's environment as a natural resource has emerged. Within the last ten years, however, there has been a rapidly growing interest in water resources which has been stimulated by events such as the inauguration of the International Hydrological Decade in 1965 and the passing of the 1963 Water Resources Act for England and Wales. Most university degree courses in geography now include some study of hydrology and its applications in terms of water supplies, and geographers have joined other specialists in researching into these fields. But, despite the abundant opportunities for co-operative efforts, there has been too little linkage between the physical and human spheres of the discipline.

The purpose of this book, therefore, is to present for the first time an integrated water resource geography of the British Isles. Throughout, an attempt is made to bring together the results of recent research in a number of fields in order to relate the physical occurrence and natural variability of water to the social environment and the increasing demands being made upon this most fundamental resource. Following a brief discussion of basic principles, the origins and growth of the current water situation are traced through time. Methods of measuring the resources are outlined next, and this leads on to a systematic analysis of the factors influencing water availability, including floods and droughts. The maldistribution, and often conflicting nature, of water need is then described for each of the major supply sectors, and attention is drawn to the significance of water quality in relation to utilisation. Finally, regional water problems are considered together with some possible solutions.

Other authors may well have adopted a different balance between the hydrological and the water development aspects, but I have tried

to maintain what is, I hope, an acceptable emphasis. Similarly, whilst I have attempted to avoid the dangers of over-compression which inevitably arise in any comparatively short book, a number of systematic texts, not specifically referred to in the book itself, are listed as a guide to further reading in an appendix. It was originally intended to use SI units only, but English equivalents have been added both in the text and on illustrations as an aid to clarity. In all cases precedence has been given to the metric values.

It is hoped that this volume will provide a sound introduction to geographers who are seeking, either through systematic courses based on hydrology or regional studies of Britain, some information on the current water situation in this country. This book should also have relevance for students at various levels in associated fields such as civil engineering, economics, biology or regional planning. Hydrologists and other professional personnel in the water industry may find this a convenient background in which to place the realities of every-day practice, whilst the interested layman – should he exist – may discover some of the facts and implications which lie behind the newspaper headlines proclaiming a semi-permanent water crisis.

To Fiona and Matthew

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