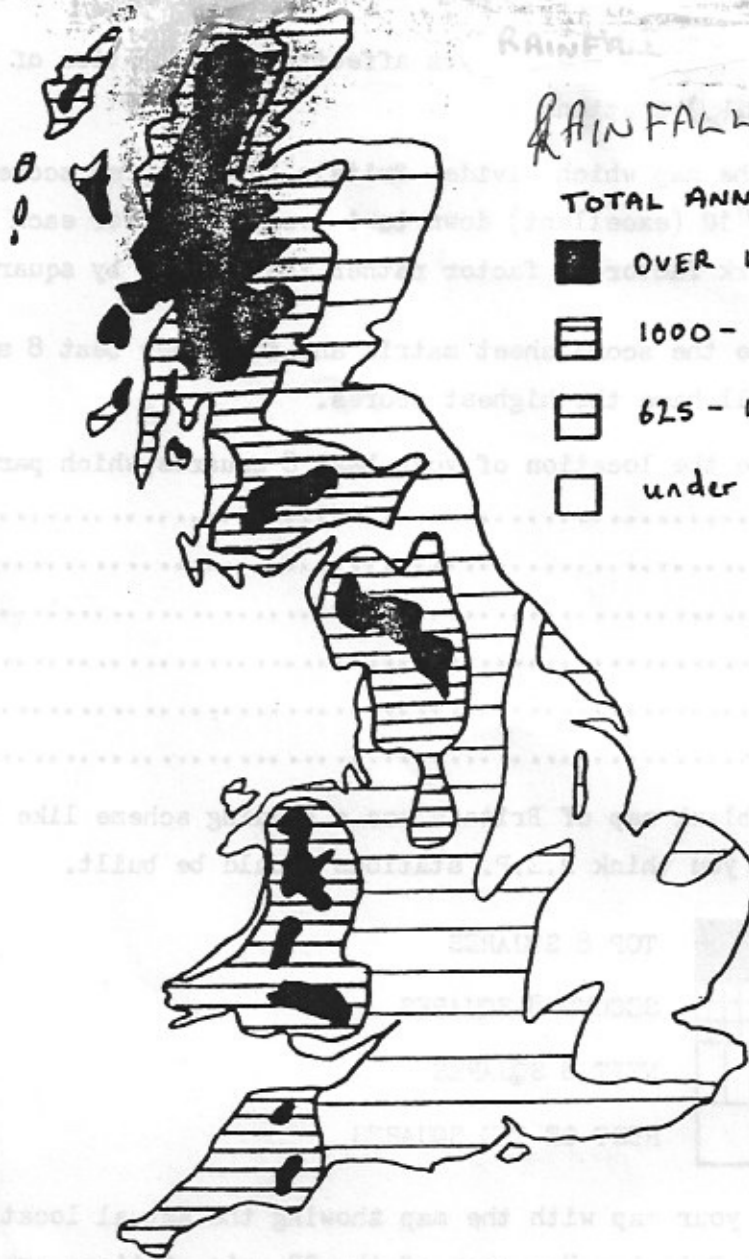


## RAINFALL IN BRITAIN

### TOTAL ANNUAL RAINFALL

- OVER 1500 mm
- ▨ 1000 - 1500 mm
- ▢ 625 - 1000 mm
- under 625 mm

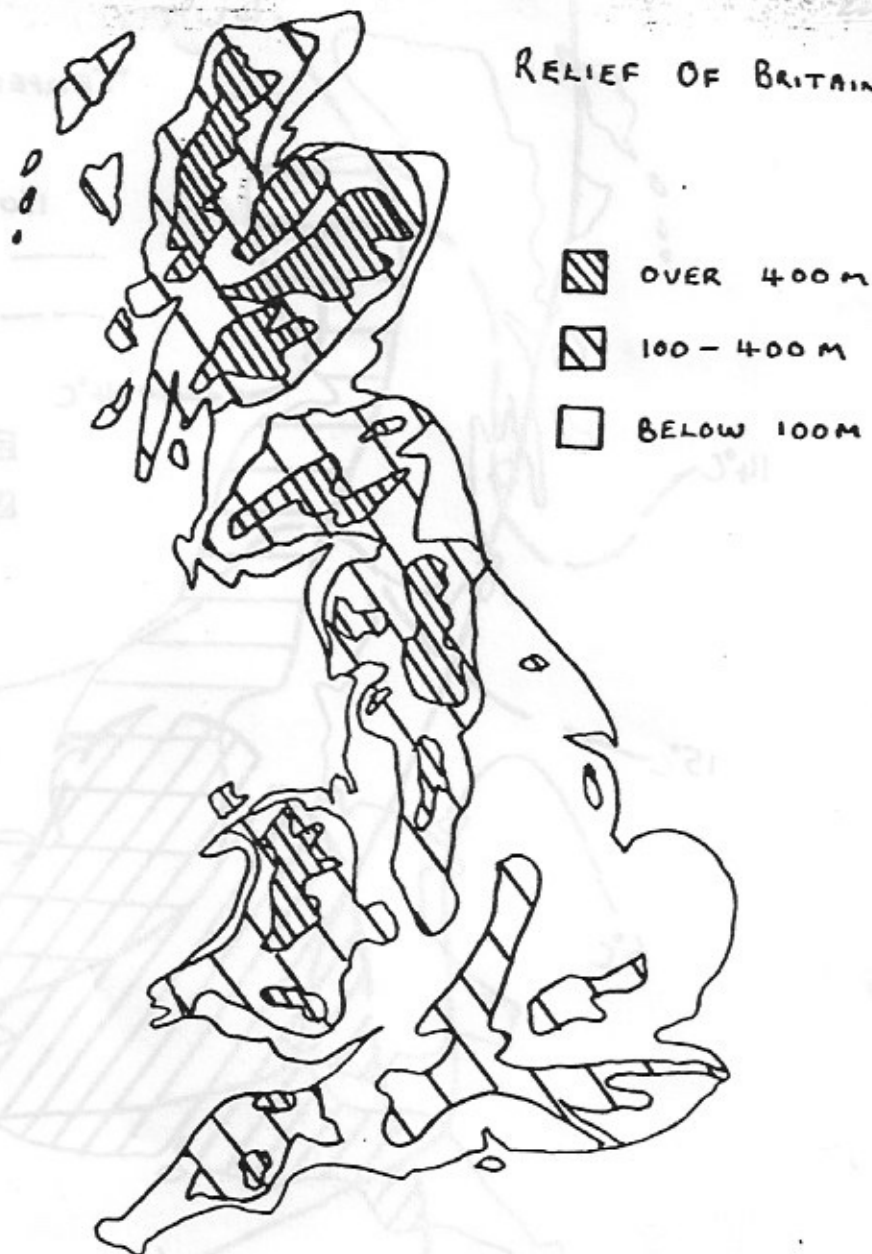


### RAINFALL

Areas with a high annual total of rainfall are needed since H.E.P. stations need large amounts of water to turn the turbines. The west and north of Britain have the heaviest rainfall, some areas receive over 1500 mm per year. This is relief rainfall formed as the moist, prevailing westerly winds rise over the mountains of the west. Regular, all year round rainfall is best, although reservoirs are usually built to regulate the flow of water during wet and dry seasons.



## RELIEF OF BRITAIN



### RELIEF

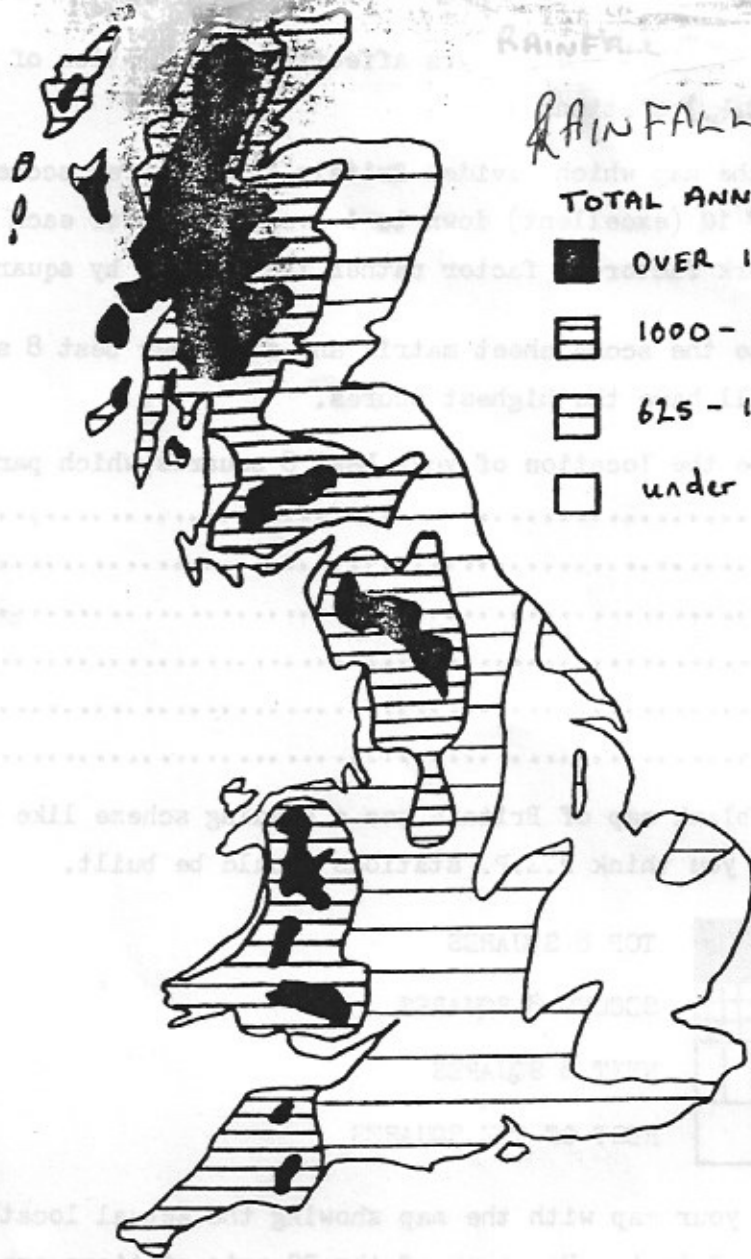
An upland area is needed for an H.E.P. scheme since a 'head' of water is required to give the water the force to turn the turbines. This water is stored in a reservoir above the power station to enable it to run down pipes, turn the turbines and so produce electricity. The uplands of Britain are found in the north and west, with many areas above 400 m in height. Many of these uplands have been glaciated, forming narrow, steep sided valleys ideal for dam and reservoir construction.



## RAINFALL IN BRITAIN

### TOTAL ANNUAL RAINFALL

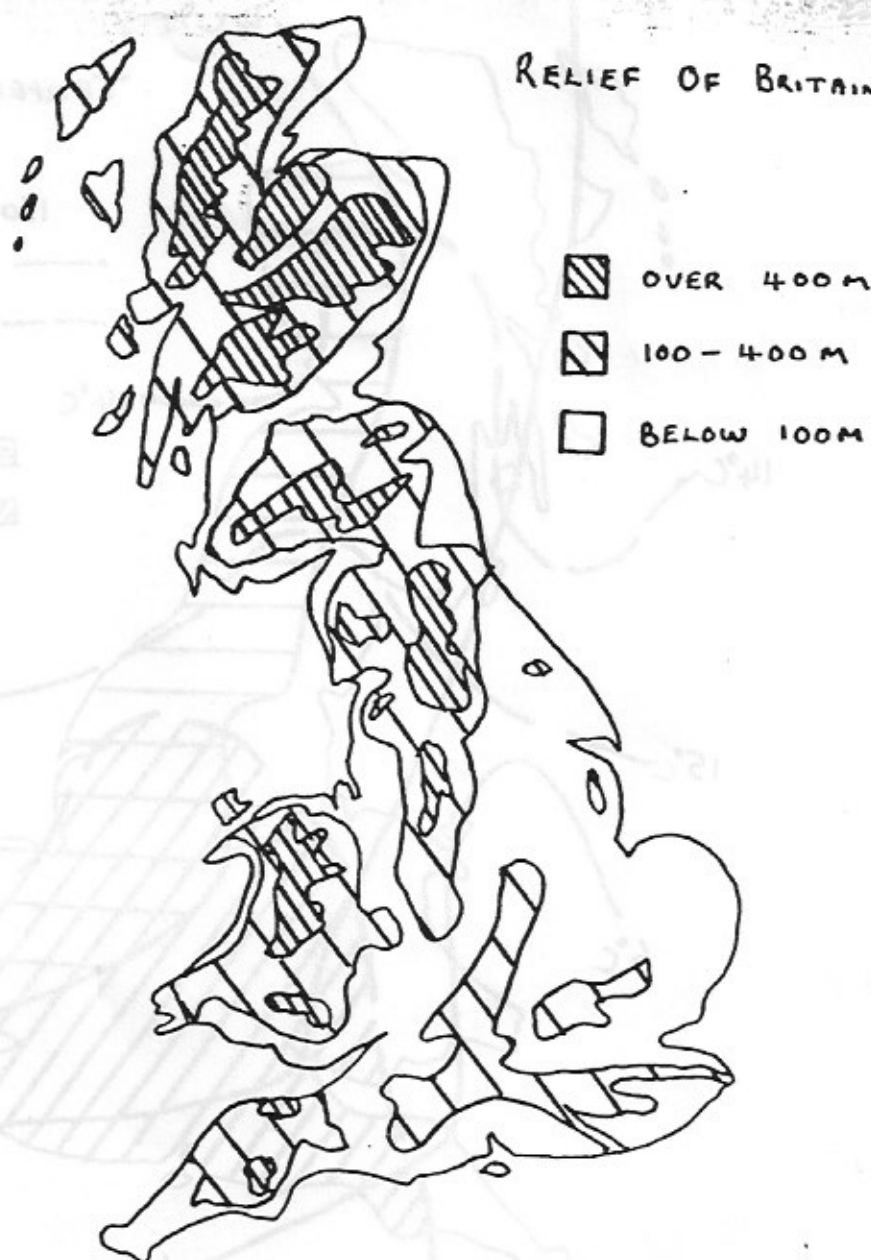
- OVER 1500 mm
- ▨ 1000 - 1500 mm
- ▩ 625 - 1000 mm
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### RAINFALL

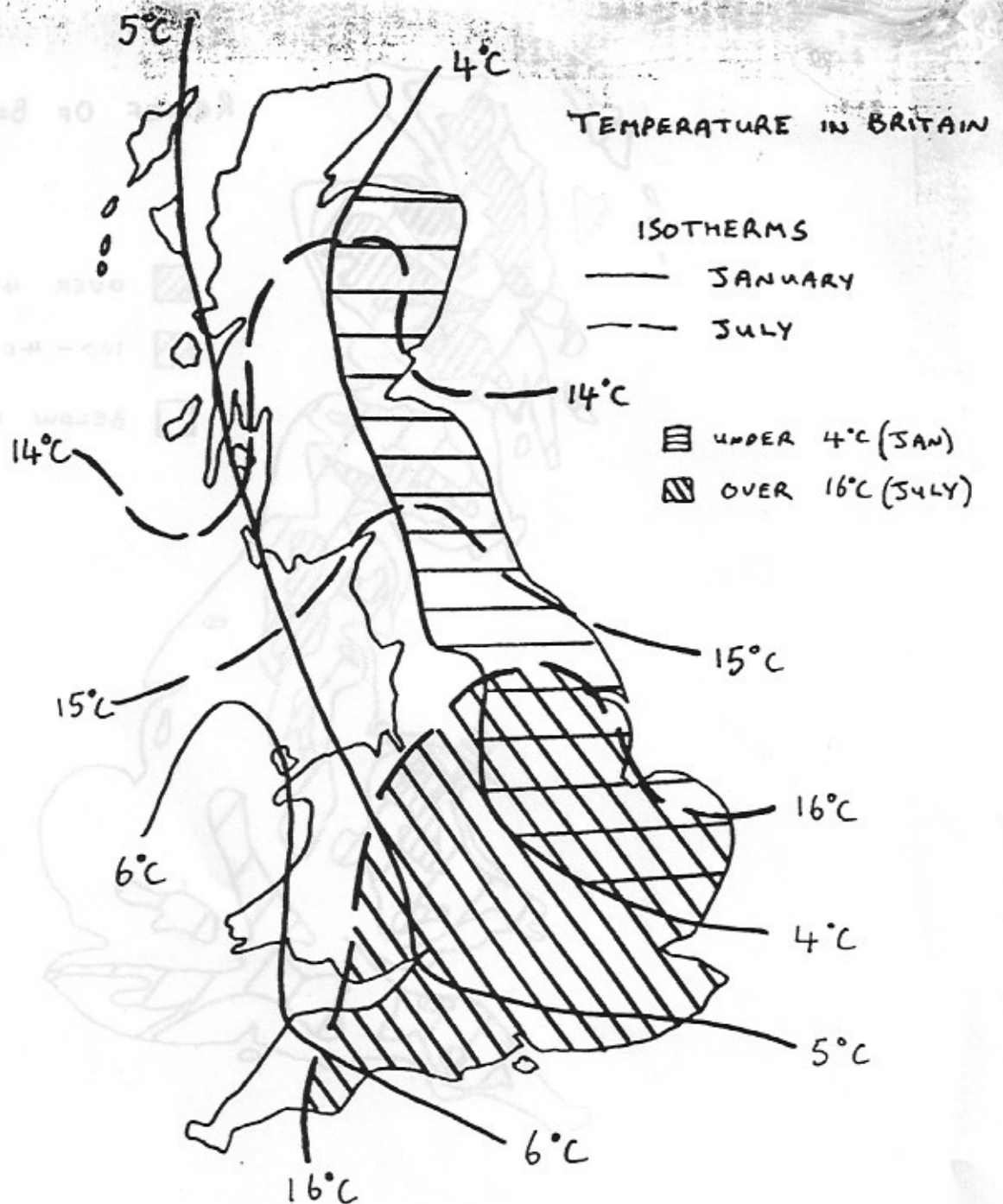
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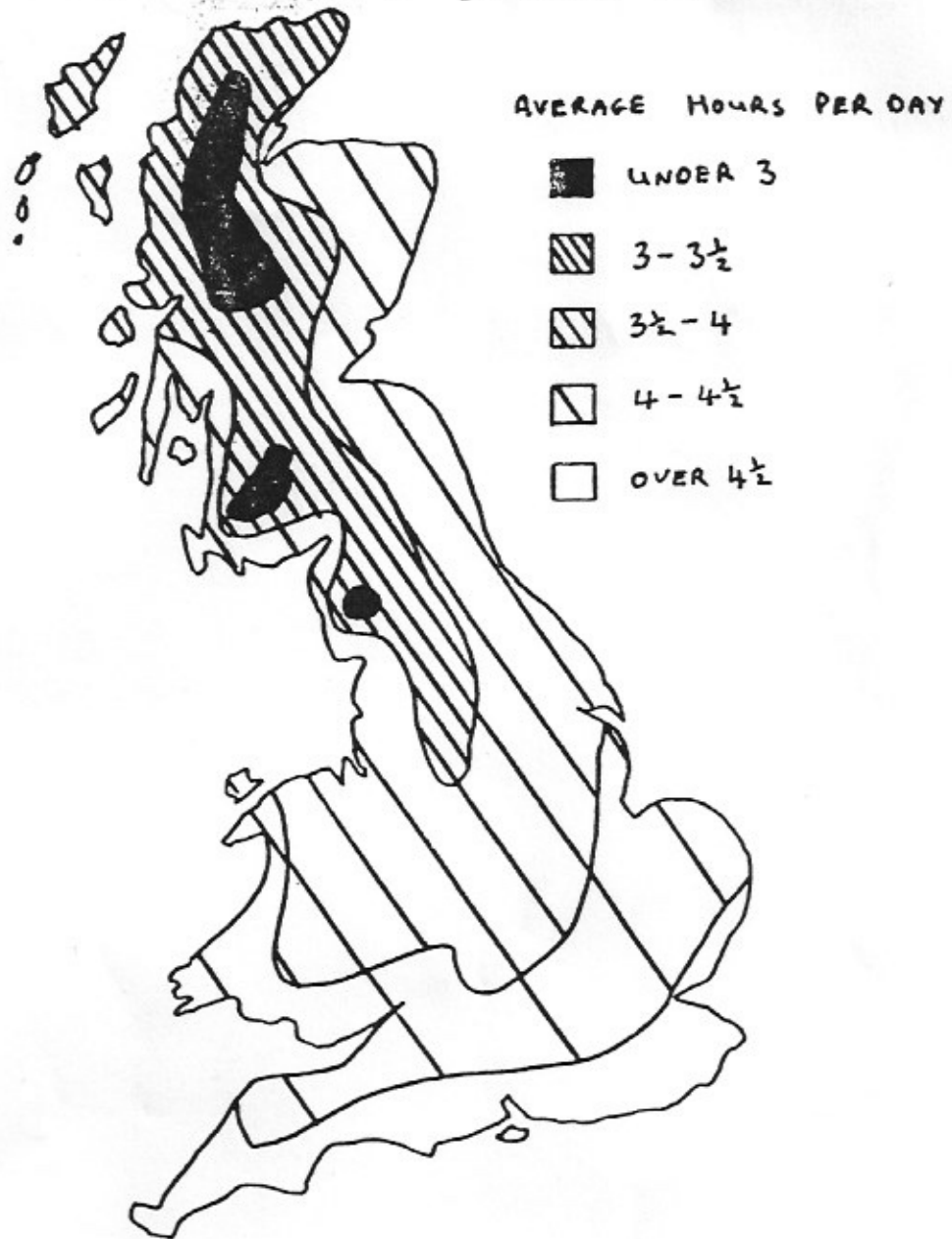
#### WINTER TEMPERATURES

Mild winter temperatures are needed to prevent the water freezing. The western side of Britain has warmer winter temperatures. On the west coast the average temperature for January is above 5°C. The west coast is influenced by the Atlantic ocean and a warm ocean current, the North Atlantic Drift. Westerly winds crossing the ocean bring milder conditions to the west coast in winter, whereas the eastern side of Britain is affected by colder air from the continent.

#### SUMMER TEMPERATURES

Cool summer temperatures are best to cut down on evaporation loss from reservoirs. In summer the most important factor affecting temperature is latitude, making the south of Britain warmer. Better conditions are found in the north of Britain where the average temperature for July is only around 14°C.

## SUNSHINE IN BRITAIN



### SUNSHINE

The map of average sunshine hours per day in Britain is similar to the maps showing relief and rainfall. The south and east of Britain are warmer and sunnier than the north and west. Warm moist air from the Atlantic ocean rises over the uplands in the west to cause relief rainfall and a higher incidence of cloud. Loss of water due to evapotranspiration will obviously be higher in the south of Britain.