Europe launches joint effort

Water pollution has no respect for national boundaries. The Rhine, for example, flows indifferently from Switzerland through Germany and into Holland, while the Danube has banks in eight countries.

With so much international traffic in polluted water, Europeans have decided to get together and attack it jointly. Recently, at the United Nations European headquarters in Geneva, the 18-member nations of the Council of Europe drew up the first European water charter, primarily to save such international rivers as the Rhine and the Danube from further pollution. Next step is for each of the member nations to convince its people of the necessity of paying the cost of keeping the waters clean.

Scientists warn that it's already very late. Many European rivers and lakes have suffered biochemical poisoning. Lake Zurich, for example, has reportedly reached the final link in the transformation by pollutants: the irreversible biological vacuum.

The once majestic Rhine is rapidly becoming a sewer; and it is already a health hazard. Studies reveal that in some places dangerous bacteria attain a concentration of more than 200,000 per cubic centimeter. At the lower Rhine in Holland, fishermen in the 1900's caught 100,000 salmon a year. Today the few surviving are inedible.

In addition to the work being done by the Council of Europe, the United Nations and other international agencies are stimulating cooperation not only to clean rivers and lakes but also to assure an adequate water supply to meet the ever-growing demands of households and industry. The Office of Economic Cooperation and Development in Paris and the UN's Economic Commission for Europe have begun to work in the areas of legislation, administration and technology.

One country that has accomplished considerable water pollution control on its own is England, which has 29 strong river authorities and excellent technology. British engineers are now experimenting with fully automatic monitoring stations which collect crucial data on water quality and evaporation. If trials of 15 such monitoring stations pan out, sale of the system will make it easier for all European countries to control pollution.

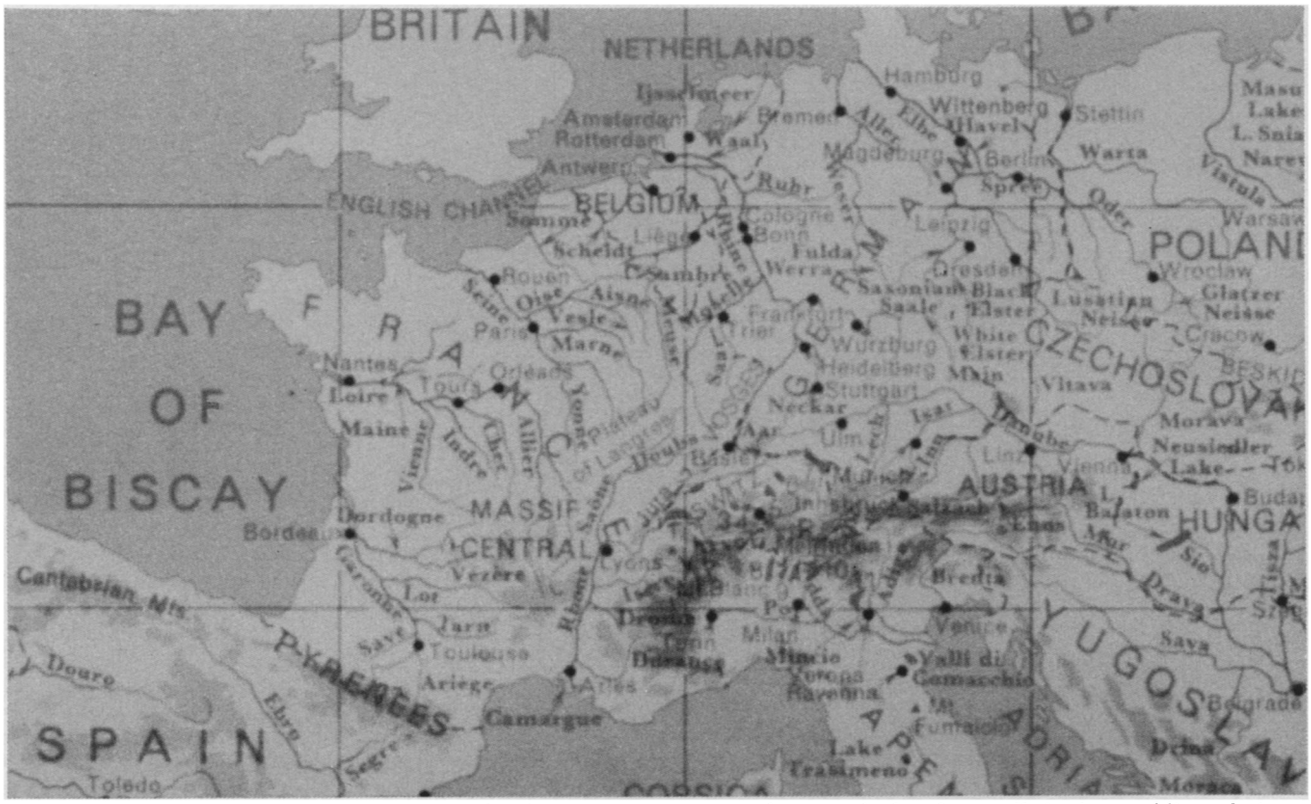
In another approach, the British are planning to top up the Thames in summer, when decreased natural flow is unable to cope with pollution and the downstream cities get mostly effluent.

Some 250 boreholes will be drilled deep into the chalky rock which underlies the headwaters. The chalk, which holds water like a sponge, will be pumped out in summer, adding an estimated 270 million gallons a day to the streams that feed Father Thames. In winter, the heavy rains will recharge the aquifer.

A computer analogue, by substituting the flow of electricity in a resistance circuit for the flow of water through chalk, and the storage of electricity in capacitors for the storage of water in the boreholes, will determine the placement of the holes and the pumping rates. The machine should indicate, within seconds, the rate of flow to be expected at any position deep in the chalk. Feedback from field measurements will refine its predictions.

Engineers expect the scheme to cost $19 million; an equally effective surface reservoir would cost $190 million, and take valuable land out of use.

The one thing that Europe as a whole needs now in rather large doses, if it hopes to achieve water pollution control, is public sympathy. To achieve this end, the Council of Europe and the UN office in Geneva are mounting a public relations effort which they hope will arouse the public to the extent that the U.S. Department of Health, Education and Welfare and conservation groups have stirred up the American public.



The rivers of Europe: The patient is sick, the treatment comes late, and the first call is for public relations.