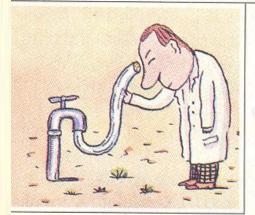


## **Developments to Watch**

## AN EARLY WARNING SYSTEM FOR WATER POLLUTION



oxic chemicals seeping into the water supply cause cries of alarm when they are discovered. But what if the bells went off before the chemicals got to the faucet? Two researchers at the University of Alabama in Huntsville are developing a monitoring system that relies on a buried network of tiny optical fibers

and sensors to keep tabs on the purity of groundwater.

Alabama chemical engineer James E. Smith Jr. envisions an array of fibers ending in a sensor that registers the presence of contaminants when a beam of light is transmitted through the fiber. A spectrometer and a computer above ground would identify the culprit chemicals. Meanwhile, Smith is working with civil engineer John Gilbert to develop sensors to detect various groups of pollutants. So far the researchers have tested the idea in the laboratory.