

PUBLIC HEALTH

Nation's Polluted Waters

The dangerous pollutants of the nation's waters include sewage, chemicals that kill microbes but may be toxic to humans, ionizing radiation, and lead from agricultural sprays.

► THE NATION'S polluted waters are "a disgrace," Surgeon General Leroy E. Burney told delegates at the first National Conference on Water Pollution in Washington, D. C.

Dangerous pollutants cited by Dr. Burney include sewage, chemicals that kill microbes but may be toxic to humans or fish, ionizing radiations, lead from agricultural sprays and auto exhausts.

The Federal Government has been concerned about dirty water since 1913, Dr. Burney said. Today its main research center, The Robert A. Taft Sanitary Engineering Center in Cincinnati, Ohio, has teams of experts working on freeing water supplies from viruses and bacteria, detergents, insecticides and radioactive contaminants.

They also have developed a pilot sewage treatment procedure suitable for housing subdivisions beyond reach of city sewer systems.

The Public Health Service, Dr. Burney said, has 75 stations where interstate waters are sampled. PHS also keeps tabs on how many facilities are dirtying the water, how many are cleaning it up and how much it is costing the taxpayer.

When pollution in one state endangers another, the Surgeon General and the Secretary of Health, Education and Welfare can take action to abate pollution. Thirteen enforcement actions have been taken, and only one case, in St. Joseph, Mo., has required Federal court action.

In calling for cooperation, Dr. Burney said, "the most fundamental responsibility of all rests at the source—with the municipalities and industries concerned. Clearly too, the states must continue to be key-

stones of our pollution control efforts. Historically, legislatively and logically the strength of the state agency is a major determinant of success in pollution abatement."

Among the questions which faced the Conference were those of what type research is most pressing; how much money it will take; and where the money will come from.

Also before the conference were such questions as what new tests will tell whether water in a stream is safe; what should be the national policy on the utilization of streams for waste disposal; how much should be spent on pollution control, as apart from research; what proportions should be paid by state, local and Federal governments; how these costs compare with the costs of neglect; and finally, who will pilot the program and who will enforce the agreements when responsibilities are not met.

• Science News Letter, 78:419 December 24, 1960

Natural Pollutants

► NATURAL POLLUTION, mainly from dirt and salts, contaminates the nation's streams, but is getting less attention than man-made pollutants.

Dr. Dwight F. Metzler, chief engineer of the Kansas State Board of Health, told the National Conference on Water Pollution, in Washington, D. C., that long before cultivation accelerated the siltation rate, early settlers said that the Missouri River was "too thick to navigate and too thin to cultivate."

Despite heavy organic pollution, the Potomac River's most serious pollution

problem is silt. Its annual silt load may be as much as 40,000,000 cubic feet.

The nation's longest stream, the "lazy" Mississippi, has a sediment yield of 500,000,000 tons per year. Perhaps 50% to 75% of this erosion can be stopped, but the cost would be about \$6 billion, and problems with aquatic plant life might make the cure, desilting, worse than the disease.

Another natural pollution problem is the leeching of natural salts. In the Arkansas and Red River valleys, dissolving of natural beds of sodium chloride and gypsum have made waters hard, disagreeable to taste and disruptive to the digestive system.

Dallas residents bought drinking water in milk cartons rather than use the city supply during its 1955-56 water shortage. Cooperative Public Health Service studies have shown that 1,600 tons per day of common salt are pouring into the Red River and even larger amounts enter the Arkansas River.

Adding to the problem is the irrigation water that seeps back into the streams, carrying with it soluble minerals dissolved from the land. Some local studies are being made but, so far, no country-wide evaluation has been made of this problem.

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PSYCHIATRY

Childhood Saying Called Important in Life

► "STICKS AND STONES may break my bones but names will never hurt me." So chants the small boy who has become the unfortunate object of ridicule by his playmates.

This distinction is important in life; it is essential to self-preservation, Dr. Peter A. Martin of Wayne State University Medical School of Detroit told the American Psychoanalytic Association in New York.

He described some of his mental patients who had failed to learn it. These patients were not able to admit fear even when they were in terrible peril because to recognize the danger would be to cause fear. And such fear would cause a loss of other people's love.

To them, names do break their bones. When threatened with criticism or loss of love, they experience the type of anxiety other people have when faced with danger to life and limb.

• Science News Letter, 78:419 December 24, 1960

OPTICS

New Vision to Near Blind From Telescopic Lenses

► AN INDIRECT BENEFIT from space research is a device by which the partially or near blind may increase their vision by up to 300 percent.

Dr. William Feinbloom of New York applied the principle of alternating panoramic fixation used in the satellite camera and lens system to a multi-directional "space lens." Three tiny telescopic lenses in each spectacle give a total directional field of 100 degrees.

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"SPACE LENSES" FOR THE PARTIALLY BLIND