

Reluctance and parsimony

President Nixon earlier this year proposed a broad array of pollution measures, including a four-year, \$10 billion program (of which \$4 billion would come from the Federal Government, the balance from the states) for construction of sewage treatment plants (SN: 2/14, p. 168).

But there are a number of existing pollution control programs on the law books, many of which have never been funded at their authorized levels. One is the 1966 Clean Water Act, which authorizes more money for sewage treatment plants in fiscal year 1971 than the President asked for under his new proposal.

As Congressional hearings for funds get into full swing, Congressional criticism of the President's downgrading of existing programs, in anticipation of the new, less costly one, is growing.

For example, in a report issued last week, the House appropriations subcommittee for the Department of Interior and related agencies expressed disappointment at "the paucity of funding proposed for (pollution control), the very activity our nation's leaders are currently endorsing as one of the highest priorities. . . ." The subcommittee contends that not only have Administration 1971 budget requests fallen far short of what is needed, but also that funds appropriated for 1970 pollution abatement activities have been placed in reserve and not spent.

The subcommittee, chaired by Rep. Julia Butler Hansen (D-Wash.), approved major increases over the President's budget. These include \$2 million more for the Geological Survey for inspection of offshore oil wells, a source of major oil spills (SN: 3/14, p. 263); \$1 million to the Bureau of Mines to combat air-polluting fires in Pennsylvania anthracite mine slag heaps, and \$1,605,000 to the Forest Service for forestry research.

But the subcommittees considering budgets for the two largest pollution control agencies—Interior's Federal Water Quality Administration and Health, Education and Welfare's National Air Pollution Control Administration—have not reported yet, and the greatest increases will likely occur when they do. Last year, for example, the Administration asked for \$214 million of an authorized \$1 billion for grants to municipalities to construct sewage treatment plants; Congress appropriated \$800 million. This year, the Administration, relying on passage of its proposed \$1-billion-a-year sewage treatment program, asked for nothing under the 1966 law. That law author-

izes \$1.25 billion for fiscal 1971. The justification is that under the Administration proposal, the \$1 billion in Federal funds would stimulate an additional \$1.5 billion in state and local construction money.

"I am concerned that you are passing up utilizing the appropriation authorization under existing law of \$1.25 billion for fiscal 1971 and proposing instead new legislation which might encounter extensive delay and revision before it is ultimately passed," Rep. Jamie L. Whitten (D-Miss.) told an Interior official at a House public works appropriations subcommittee hearing. And the fact is that the President's proposal is indeed encountering extensive delay in Sen. Edmund S. Muskie's (D-Me.) air and water pollution subcommittee.

Similar problems exist with regard to air pollution programs. The final fiscal 1970 HEW budget was not passed until March 6 this year; Congress gave NAPCA \$109 million, about \$13 million more than the Administration had asked for. But in the Administration's fiscal 1971 budget, the request was back down to \$104 million, and the House and Senate HEW-Labor appropriations subcommittees are virtually certain to grant more than is asked.

In addition, there is the concern that even if Congress appropriates the additional funds, the Administration might not be willing or able to spend it. □

SCIENCE FAIR

International competition

Each year the International Science Fair brings together hundreds of high-school students to exhibit their projects in pure and applied science. This year's exhibits, shown last week in Baltimore, were the best and most sophisticated so far, says E. G. Sherburne Jr., director of Science Service, which sponsors the fair.

The 399 finalists at Baltimore were winners of preliminary science exhibits held abroad and at 218 regional Science Fairs in the United States during 1970. Each exhibit is the work of a 10th, 11th or 12th grader. The students represented 45 states, the District of Columbia, Puerto Rico and six foreign nations.

International judges agreed with Sherburne that the exhibits continue to increase in quality and that as yet no leveling off is apparent. And Dr. Glenn T. Seaborg, Chairman of the Atomic Energy Commission and president of Science Service, commented on the sophistication and wide range of the exhibits. It is not unusual, he said, to

COORDINATION PLAN

Pooling ocean studies

In oceanography, as in most other fields of science, the trend is toward both increased specialization and greater emphasis on complex problems. There is a growing need for large-scale coordinated research involving many people and extensive resources.

The Deep Sea Drilling Project is a case in point. The project, now in a second, three-year, \$22.2 million phase (SN: 11/1, p. 394), is funded by the National Science Foundation, operated by the Scripps Institution of Oceanography and supervised by a consortium of Scripps and three other oceanographic laboratories. Hundreds of scientists from all over the United States and the world take part.

Last week, to encourage more cooperative efforts, representatives from 18 major academic oceanographic institutions in the United States met at NSF in Washington to propose a comprehensive plan for better coordination of academic oceanography. The plan, still tentative, envisions a linking of the institutions to form a National Oceanographic Laboratory System (NOLS). An important objective is to encourage the pooling of resources. Regional pooling of ship operations was chosen as the place to start. This could ultimately be extended to joint use of other facilities. Seven regional groupings of institutions were suggested. □

have complaints from scientist judges who feel they do not have sufficient background to evaluate all the exhibits assigned to them. And while the quality increases, the average age of students is going down: this year's finalist students are the youngest yet, with 35 who were 15-year-olds.

Students, too, generally agreed that the exhibits still continue to improve. David S. Adams of Miami, Okla., who exhibited an electrostatic particle separator from which he calculated the speed, mass and energy of injected particles, believed there was more variety this year than before. Others felt the fair itself was more planned out and organized, giving the students more opportunity to communicate with each other.

Howard Weisbrod, coordinator of ISF, says that plans are being made to include three new categories—engineering, microbiology and behavioral sciences—next year, in addition to the present nine.

In this year's categories, girls and

boys competed on an equal basis. At least one first, second, third and fourth awards were made in each section. At least 25 percent of the finalists received fourth awards.

First awards winners of \$100 each were:

- **Applied Physics and Engineering:** William A. Henrickson of Holden, Mass., for environmental air-flow studies; Jeffrey S. Braden of Biloxi, Miss., for a proton cyclotron; and Jonathan E. Kern of New Orleans, La., for a spectrohelioscope for solar research.

- **Biochemistry:** Robert C. Benjamin of Melbourne, Fla., for studies of mechanisms of genetic repression.

- **Botany:** Oscar Arroyo-Nieves of Corozal, Puerto Rico, for investigating the atmospheric fungi of Los Quinteros Cave, Corozal, Puerto Rico.

- **Chemistry:** Hal Miller of Millersburg, Ohio, for studying the Raman effect in certain carbon compounds; John J. Schier of St. Louis, Mo., for the mechanism of the catalytic decomposition of hypochlorite.

- **Earth and Space Sciences:** Philip D. Dicks of Albia, Iowa, for a photosynthesis gas exchange system for a permanent moon base.

- **Mathematics and Computers:** Paul J. Steinhardt of Coral Gables, Fla., for fourth dimensional tetraquadric surfaces and their applications; Roy N. Ferguson of Dallas, Tex., for discovery of a twenty-first perfect number.

- **Medicine and Health:** Andre F. Fountain of Oklahoma City, Okla., for studying the effects of color blindness on man; Cheryl M. Engleman of Hazelton, N.D., for studies on the artificial and natural antibodies against IBR virus; Louis A. Vazquez Camacho of Aguas Buenas, Puerto Rico, for work on *Bufo marinus* as a vector of *Schistosoma mansoni*.

- **Pure Physics:** George A. Zdasiuk of Toronto, Ontario, Canada, for studies of plasma physics.

- **Zoology:** Virginia A. Mann of Jacksonville, Fla., for comparing the photoreceptive functions of the parietal and lateral types of *Anolis carolinensis*; James S. Moran of St. Louis, Mo., for studying visual perception in the pigeon.

Second place awards of \$75 were presented to 17 students. Third awards of \$50 went to 28 students, and 44 received fourth place awards of \$25.

More than 30 scientific associations, corporations and government agencies also made special awards to the competitors. Some special awards included expense-paid trips to scientific meetings, summer jobs, field trips and cruises.

All the finalists received International Science Fair medals and certificates. □

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