


Your Career and Clean Water for America



Environmental Protection Agency
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CWA-9

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ON May 10, 1966, the Federal Water Pollution Control Administration was established in the Department of the Interior, Washington, D.C. The establishment of this new front-line Federal Agency represents the increasing determination of the people of the United States that the growth of population, cities, industry, agriculture, and recreation in this country shall never be inhibited by a shortage of clean water.

To accomplish this formidable task will require the services of a great number of talented professionals in many fields. The professionals employed by the Administration include:

engineers
chemists
biologists
bacteriologists
hydrologists
geologists
algologists
mathematicians
oceanographers
limnologists
soil scientists
epidemiologists
physicists
economists
planning specialists
electronics experts
computer and machine-
tabulating experts
technical writers
information specialists
statistical clerks

If you are skilled in any of these fields you will have the opportunity to play a part in combating one of the most pressing social and economic evils of our time — the spread of water pollution throughout the country.

You will be entering a relatively new field which is expanding at an astonishing rate.

You will be entering an area which will afford you the opportunity to work in your specialized discipline as part of a team seeking to solve this many-faceted national problem.

The diversity of talents needed illustrates the realization that no single group of people and no single method of abating water pollution will suffice.

These are new realizations, based on new conditions. Until recently, there seemed to be plenty of clean water throughout most of the country for all purposes, but many things have occurred to destroy this happy condition.

Since 1900 our population has tripled. Our cities and metropolitan areas have so spread out that the boundary of one metropolitan area impinges on the outskirts of another; waste outfalls and water intakes have become uncomfortably close.

Total water use has increased eightfold, from 40 billion to 325 billion gallons a day. In our homes are multiple baths, garbage grinders, home laundry units, dishwashers, and more people using more water in more ways than ever before.

A fantastic growth in industry has increased the amount and complexity of the wastes going into our streams. In some instances, treated effluents today have polluting effects greater than the raw sewage discharges of 30 years ago.

By using synthetic fertilizers and pesticides, the farmer contributes greatly to the complexity of our water pollution problem.

The net result is that nearly six times as much wastes are contributed to our rivers, streams, lakes, and bays as there was 60 years ago.

Even if, by some miracle, all communities and industries installed tomorrow the best treatment we have — so-called secondary treatment — we would still need to develop revolutionary processes to cope with the amounts and kinds of wastes that are spoiling our rivers.

Recreation-minded Americans, with more leisure time and increased income, use the Nation's shorelines, streams, lakes, and rivers for swimming, fishing, water-skiing, and pleasure boating. Because of pollution, the number of areas in which to pursue these sports is decreasing, and at least one aquatic sport — boating — is contributing measurably to pollution.

The Federal program that has been developed to control water pollution consists of six main elements.

AID TO COMMUNITIES. United States cities are spending an average of \$700 million annually on new, enlarged, or

modernized treatment plants. To help, the Federal Government can make grants to communities of at least 30 percent of the construction cost of a project. And under certain conditions, the Federal share may be as much as 55 percent.

Legislation passed in 1965 also provides \$80 million to be spent over a four-year period to find ways of combating pollution from stormwater that overflows, carrying with it the wastes from streets and sanitary sewers.

These programs offer sanitary, civil, and construction engineers the opportunity to review requests for Federal grants that will help to construct, enlarge, or modernize the waste treatment plants so desperately needed throughout the Nation.

ENFORCEMENT. Because water respects no political boundaries, Federal law enforcement is necessary. A poor neighbor upstream can pollute and contaminate a river miles below. If pollution from one State endangers the health or welfare of people in another State, the Federal Government must initiate enforcement action either upon State request or, in the absence of it, on its own responsibility. Any Governor can request Federal enforcement assistance to deal with pollution problems which are completely within one State. Federal enforcement actions have now involved more than 7,500 miles of rivers, 1,200 municipalities and a like number of industries.

This Federal enforcement program requires bacteriologists, biologists, chemists, hydrologists, sanitary engineers, limnologists, and numerous other experts who can document the evidences of pollution, identify the types and locate the sources. It also requires specialists with legal background to prepare and present the evidence necessary to enforce the laws against pollution and against infractions of water standards criteria.

RESEARCH. To find out what pollutants are dangerous, how they can be kept out of our waterways, and how to remove them once they are in, much more research is needed. Federal scientists are even studying ways of renovating waste water, of transforming it into pure clean water again.

The program offers scientists the opportunity to do vital research in other challenging areas:

- Abating pollution caused by acid mine drainage.
- Controlling pollution caused by irrigation return flows.
- Controlling pollution from storm and combined sewer discharges.
- Retarding or reversing the premature aging of our lakes, arising from over-fertilization by man-made wastes.
- Preventing ground water pollution caused by the intrusion of salt water.

Skilled sanitary engineers, chemists, biologists, bacteriologists, hydrologists,

geologists, algologists, oceanographers, limnologists, soil scientists, epidemiologists and toxicologists are particularly needed in these research areas.

CONDUCTING RIVER BASIN PROGRAMS. Water uses and water pollution problems vary among different river basins. This factor makes it necessary to develop comprehensive programs for each river basin. In nine major river basins the Administration has established projects that are seeking to preserve water quality there not only for the present but for years to come.

To the administrator, the planner, the economist, and the computer expert, this river basin program offers work in the complex science of water management, in the construction of mathematical models that can determine the best approaches for curbing water pollution over entire river basins, and in the use of the latest methods of data collection and retrieval.

ESTABLISHING WATER QUALITY STANDARDS. This action makes it possible for municipalities, industries, and other users of water to know what their responsibilities are for keeping clean waters clean, and for restoring polluted waters to a reasonable degree of purity. Standards are set by the Federal Government only after the affected State or States have failed to establish them, and after they and all other affected interests have had full opportunity to be heard. When municipal, industrial, or other wastes reduce the quality of water below the adopted

standards, the Federal Government can enforce the abatement of such waste discharges.

This is a new program for the Federal Water Pollution Control Administration. To conduct it properly, the Administration will need scientific and legal personnel, preferably expert in water matters.

TECHNICAL ASSISTANCE. Each year hundreds of communities, industries, State, and interstate agencies call upon Federal scientists to provide them with technical assistance to prevent or abate pollution. To meet these demands, the scientists engage in a wide variety of activities, ranging from solving complicated problems required for cleaning up tide-water estuaries to determining the cause of widespread fish kills.

The growing number of requests must be matched by a growing number of sanitary engineers and others skilled in pure and applied science.

In sum, the number and variety of Federal activities for abating water pollution hold great promise for the skilled man or woman who is seeking room to grow professionally, to expand his vision, and to serve the public.

To each qualified individual, the programs offer, in addition, the opportunity of being stationed in almost any area he desires: In laboratories located on or near college campuses in Massachusetts, Alaska, Georgia, Michigan, Maryland,

Oklahoma, Oregon, Minnesota, Rhode Island, Ohio, Missouri, Mississippi, and Wisconsin; in research offices and headquarters of planning projects in 25 States; and in the Administration's national headquarters, Washington, D.C.

The original surge in the Federal program for abating water pollution took place from 1955 to 1965. During that period, the operating budget increased from less than \$1 million to \$140 million; staff increased from 100 to 1,600. With the establishment of the new Administration, future increases are likely to be of the same magnitude. The opportunities for promotion and worthwhile careers are obvious.

HOW TO APPLY. Initially, you will need to submit a completely filled out Application for Federal Employment, Standard Form 170. If immediate openings exist for which your specific experience and training are appropriate, you will be requested to complete a Personal Qualifications Statement, Standard Form 171. In addition, if you have not already obtained an eligible rating from an appropriate Interagency Board of U.S. Civil Service Examiners you will be requested to complete Form CSC 226 (or submit complete college transcripts) and card form CSC 5001.

The majority of career positions in the FWCPA and other Federal agencies are filled by applicants successfully rated and certified by the U.S. Civil Service Commission through its competitive merit examination procedure. This rating of

eligibility is based on an evaluation of your total experience and education and does not, in most cases, require a written examination.

There are several ways for you to apply to FWPCA and have your application papers rated by the correct board of examiners. If you already have a Civil Service announcement describing the type of position for which you intend to apply, you will find in it directions for sending your application to the board of examiners.

You may obtain announcements and forms from any Civil Service office or first- or second-class post office. If you wish, you may write, enclosing your application papers, to any one of our FWPCA regional offices, field laboratories or installations, or to our Washington, D.C. headquarters at the address below. You may also write to that address for forms, a directory of FWPCA regional offices and field installations, and further details regarding our career opportunities. If you ask an FWPCA office to forward your application to a board of examiners, it will be helpful to enclose an extra application for us to review while this is being done. However you decide to apply, you should notify the FWPCA immediately upon receiving an eligible rating.

**Department of the Interior, FWPCA,
Division of Personnel Management,
Washington, D.C., 20242.**

FWPCA BENEFITS. Equal employment, promotion, and training opportunity without regard to race, creed, color, sex, or national origin.

Challenging work of national importance.

Paid travel and transportation of household effects for appointee and dependents to first duty station for most technical positions.

From 2½- to 5-weeks annual vacation.

Thirteen days paid sick leave annually with unlimited accumulation of unused sick leave.

Eight paid holidays each year.

Outstanding Federal retirement plan.

Low-cost group life insurance and health insurance plans, with the Government sharing costs.

Cash awards for adopted suggestions or superior work performances; extra salary increases for outstanding performance.

Compensation for job-connected injuries.

Positive job protection if you are called into military service.

Job stability.

Opportunity for college study with full or part-time educational assistance (FWPCA installations are located at or very near 64 colleges and universities throughout the U.S.).

Periodic salary increases within each grade level.

Planned training program includes 6 months or more on-the-job training, lectures, seminars, and field training assignments.

As the Nation's principal conservation agency, the Department of the Interior has basic responsibilities for water, fish, wildlife, mineral, land, park, and recreational resources. Indian and Territorial affairs are other major concerns of America's "Department of Natural Resources."

The Department works to assure the wisest choice in managing all our resources so each will make its full contribution to a better United States — now and in the future.

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