industry to cooperate in developing viable plans for meeting the Nation's water requirements.

The legislation under which the OSW conducts its program, the Act of July 3, 1952, as amended (42 U.S.C. 1951 *et seq.*), authorizes "to be appropriated such sums, to remain available until expended, as may be specified in annual appropriation authorization acts." In order to meet fiscal year 1972 program requirements, we propose an appropriation of $27,025,000 to enable the OSW to conduct its research and development program as follows:

I. Research and development operating expenses, $15,675,000;

II. Design, construction, acquisition, modification, operation, and maintenance of saline water conversion test beds and test facilities, $7,385,000;

III. Design, construction, acquisition, modification, operation, and maintenance of saline water conversion modules, $1,425,000; and

IV. Administration and coordination, $2,540,000.

Major changes from the fiscal year 1971 program of $28,677,934, are described as follows.

Research and development operating expenses activity contains a net increase of $495,066. Sizable cutbacks or elimination of effort for 1972 have been made in the materials, crystallization, and electrodialysis research and development programs. Additional emphasis is planned for environmental research and development to assure that measures for protection of the ecology are incorporated in the process developmental program. Also, funds are required for additional equipment involved in further development of distillation processes.

Design, construction, acquisition, modification, operation, and maintenance of saline water conversion test beds and test facilities activity reflects an increase of $1,985,000 and includes a request for three additional positions. Two of the three positions are for managerial support at the Roswell, New Mexico and Freeport, Texas facilities. The manager at each of these facilities is the only OSW representative on site. The expanded activities require that the managers be provided assistance in technically coordinating the programs. The third position is for the Wrightsville Beach, North Carolina, Test Facility to assist the physical science technician in responding to the increasing analytical requirements associated with evaluation of new and improved sea water desalting development plants.

Included in the program for this activity in FY 1972 is $2,100,000 for acquisition of two reverse osmosis test beds. Acquisition of a reverse osmosis sea water plant is an essential intermediate step toward the advancement of economical desalting of sea water by this process. Past engineering and economic studies have shown that reverse osmosis is more economical than distillation for desalting sea water in plant sizes up to 5 million gallons per day. The plight of small communities where the population depends upon bottled water for cooking and drinking indicates a need for production plants of this type.

A 500,000 to 750,000 gpd High Product Recovery test bed plant is needed primarily to reduce the volume of brine effluent that must be disposed of without adverse effect on the environment, particularly in inland areas. Recognizing the need for development of high product recovery and high flux membrance plant technology OSW, over the past 3 years, has devoted significant efforts to develop suitable hardware and system components required for these plants. Evaluation of the technology on a test bed scale is now necessary to confirm pilot plant data prior to scale up to prototype and commercial plants of multimillion gallons per day capacity.

Design, construction, acquisition, modification, operation, and maintenance of saline water conversion modules activity is decreased by $4,170,000. This decrease is attributable to the acquisition cost of the Vertical Tube Evaporator/Multistage Flash Module that was authorized for fiscal year 1971.

Administration and coordination activity shows an increase of $37,000 and includes a request for two additional positions in the OSW Washington headquarters. These positions are: (1) a project management engineer to assist in planning cooperative programs with other water planning agencies and other field test programs; and (2) a budget clerk to assist the budget officer in preparing and managing the OSW budget.

The appropriation authorization requested for FY 1972 reflects two other changes from the FY 1971 authorizations. It omits the dollar limitation on foreign expenditures and it provides for a 2 percent overrun in administration and coordination activity.

Deletion of limitation on foreign expenditures. The FY 1971 authorization limited foreign expenditures to $100,000. Restoration of foreign authority is re-