

non-mechanical compressor, it is hoped that more efficient operations can be obtained leading to lower cost water.

#### *Membrane Program*

The membrane program is proceeding at an accelerated level. The 250,000 gpd RO test bed plant will soon be under construction. This plant is designed to recover 80% of the feed as product. Considerable information has been gained over the past year that will be incorporated into the construction of this test bed. We have not as yet selected a location for this plant. Under the RO field test program that we reported to you last year, we completed testing at Las Animas, Colorado and on the Potomac estuary in FY 71. Field tests employing the Mobile Test Facility are continuing in the Yuma, Arizona area. Results of this field test program have provided us with valuable information on desalting of various brackish waters in the Pacific Southwest.

#### *Webster Test Bed*

We have decided to discontinue the operation of the electrodialysis *test bed* at Webster since our engineers and scientists insist this plant has served its usefulness to the program. This San Diego test bed has been in operation since 1961 and has provided much valuable data. Operation of Test Facility at Webster for pretreatment and pilot plant testing will continue during FY 1972.

#### *Cooperative Work*

In addition to the cooperative efforts being planned for Orange County, we have been studying, in cooperation with the State of California, the possibility of constructing a 30 to 50 mgd prototype plant within the next several years. Cooperative studies have been conducted with other states as well as California. Study areas include Texas, New York, New Jersey, Utah, New Mexico, Colorado, and Montana. Other states have expressed interest in this activity, including Nevada, North Dakota, Florida, Wyoming, Oklahoma, Kansas, Iowa and Nebraska. OSW's effort in this activity is limited to cooperative feasibility studies with OSW funding a portion of the cost and the state supplying direct funds or personnel to the programs.

#### *Jidda*

Plant construction is complete and the plant is now being put in operation. Barring unforeseen difficulties, we expect to have the plant in full commercial operation in approximately three months. If the plant operates satisfactorily, it may be possible to complete performance tests and take final acceptance of the plant approximately one to two months after plant reaches commercial operation.

#### *Geothermal*

I am pleased to report to the members of the committee that the Department of the Interior has formed a task force which will utilize the best expertise of the bureaus and agencies of the Department for an in-depth coordinated study of the potential development, for both power and water, of the geothermal resources of the Imperial Valley region. An important part of this task force effort will be an evaluation of the potential of existing processes to desalt mineral laden geothermal brines and to develop new processes or combination of processes, as required, to recover economically fresh water from this presently untapped source of supply. Desalting geothermal brines will present several unique and difficult problems, but solving these problems may well mean the creation of as much as 1 billion gallons of fresh water per day in the very heart of a critically water short area of the Nation.

This study of geothermal resources along with other desalting alternatives are important facets of the Department's Westwide Water Study. Even from preliminary studies, we can foresee that desalting may have major application to meet the long-range water needs in this region, both as to quantity and quality. We have assigned one of the Office of Saline Water's best process engineers as a full time member of the Westwide Study team to assure that the full potential of desalination is properly considered.

#### *Large Scale Desalting*

There is universal agreement that the water supply of the Colorado River is inadequate to meet future demands. There is further widespread agreement that augmentation of the natural flows of the river will be necessary, as a solution to rising water demands. Augmentation by desalting may well provide opportunities to improve the quality and quantity of Colorado River basin's water supply.