

REIMBURSABLE WORK PERFORMANCE BY OTHER AGENCIES

	Fiscal year 1967	Fiscal year 1968 estimate	Expendi- tures as of Mar. 26, 1968	Fiscal year 1969 estimate	Purpose
U.S. Geological Survey—Acid mine drain- age (0840)	\$150,000	\$100,000	-----	\$20,000	Acid mine drainage studies.
U.S. Geological Survey—Estuarine (Corval- lis) (9841)	450	900	-----	1,000	Estuarine, flow gauge.
U.S. Geological Survey—(Newtown) (4884)	-----	19,000	-----	-----	Construct weirs.
U.S. Geological Survey—Eutrophication (Ely) (5883)	-----	10,000	\$4,000	8,000	Stream gauging.
Bureau of Mines (0840)	486,400	170,000	100,000	-----	Acid mine drainage studies.
Sports, fish and wildlife (0840)	50,000	75,000	17,700	-----	Do.
Alaskan Air Command, U.S. Air Force (9842)	-----	12,000	8,000	-----	Pilot treatment plant, co-op.
Total	686,850	386,900	129,700	29,000	

Mr. CARPENTER. The AEC reminds me of this one specific. In the large nuclear desalting plant that is now being considered, has there been a study of the effect on marine ecology of the salt and hot effluent?

Dr. WEINBERGER. John, I think you called on that one.

Mr. BARNHILL. Yes, I called Jack Hunter, Director of the Office of Saline Water, and he furnished me with this statement. You may have this.

He tells me that there have been extensive cooperative studies with the Bureau of Commercial Fisheries and the Bureau of Sport Fisheries and Wildlife in this Department on possible ecological effects of the thermal discharges from that plant. He is of the opinion that they have the problem well in hand.

Mr. CARPENTER. And that Fish and Wildlife agree with that opinion?

Dr. WEINBERGER. Yes.

(The document referred to is as follows:)

SUBJECT: DISCHARGE OF EFFLUENT FROM A LARGE NUCLEAR ELECTRIC POWER AND DESALTING PLANT

OSW has always been concerned about the possibility of degrading the marine environment through the discharge of the waste brine and cooling water from desalting plants. The Bureau of Commercial Fisheries and Fish and Wildlife Service of the Department of the Interior have been consulted within this matter and several studies have been made by the Office of Saline Water to investigate the hazard that might be presented to the marine ecology through the thermal effects, salinity concentration, and other contaminants that might be contained in the discharge. The most recent study made by the Dow Chemical Company for OSW in conjunction with the Texas A&M University was completed in September 1967. This study investigated the effects of a plant of the same size and type as the MWD plant on the marine environment utilizing the specialized talents of these two organizations and the available pertinent literature including reports by the Atomic Energy Commission, U.S. Public Health Service, California State Water Pollution Control Board, Department of the Interior, etc. Also meetings were held with cognizant Department of the Interior personnel including Commercial Fisheries and Fish and Wildlife to obtain additional information for the study, and they are in agreement with our approach and recommend bio-assay surveys during plant operation.

An important fact which should be brought out in connection with a study such as this is that the effluent from a large nuclear dual-purpose power-desalting plant comes from three sources—the concentrated brine blowdown, the cooling water from the desalting plant, and the cooling water from the power plant. In a plant the size of MWD with a concentration ratio of about 2, for every gallon of potable water produced, approximately one gallon of brine at twice