dustry and academic institutions to conduct the necessary research, to construct or acquire, or both, real property including physical predictive models, laboratories, buildings, land and appurtenances, and to support the technological development of extra-ordinary systems related to power plants designed to minimize environmental impact. The Secretary of Natural Resources shall utilize available expertise in other State agencies in the development, execution and management of contracts and agreements on projects relating to their areas of prime responsibility.

## 764. Power Plant Environmental Research Program

- (a) The Secretary of Natural Resources in cooperation with the Secretary of Health and Mental Hygiene and the Secretary of Economic and Community Development and utility ELECTRIC COM-PANY representatives shall implement a continuing research program for electric power plant site evaluation and related environmental and land use considerations, hereinafter known as the "program." The Secretary of Natural Resources shall seek recommendations from additional sources including pertinent federal and State agencies, electric companies and academia for related research to be included in the "program." An initial program shall be documented on or about January 1, 1972. The Secretary of Natural Resources shall institute effective procedures for coordinating environmental research assignments, so as to prevent the dissipation of money, time and effort. To this end, the State's electric companies will be reimbursed from the "Fund" for environmental research specifically required to satisfy application and permit requirements for Federal, State and Local regulatory agencies provided the electric company has furnished an outline of the program and its estimated cost so that it can be budgeted in advance by the Secretary of Natural Resources.
  - (b) The "program" shall include:
- (1) general biological and ecological baseline studies, including but not limited to appropriate environmental studies of the biology, physics, and chemistry of the Chesapeake Bay and tributaries; sediment; biological surveys to determine and identify essential marine organism nursery areas of the State's waters, including the Chesapeake Bay and tributaries; epibenthos; bottom species; crab; fin fish and human use studies,
- (2) research to assist prediction, including but not limited to experimental research, field and laboratory, and the development and provision for physical, mathematical, and biological modeling tools to assist in and to evaluate the effects of variation of natural waters resulting from electric generating plant operations including changes in temperature, oxygen levels, salinity, biocides, radionuclides and "heavy" metals and to also include the collection and organization of relevant information and data necessary to the operation of physical, mathematical, and biological modeling tools,
- (3) provisions for monitoring the operations of existing and hereafter established electric power facilities located in the State and which shall include, but not be limited to determination of the actual distribution and effect of temperature, salinity, oxygen, radionuclides and heavy metals, biological effects; radiological, heavy metal and biocide effects; recreational and commercial fishing gains and losses; and human health and welfare effects.