

A HISTORICAL SURVEY OF WATER UTILIZATION  
IN THE COOK INLET – SUSITNA BASIN, ALASKA

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COMPLETION REPORT  
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## INTRODUCTION

This is the final completion report for a year-long project scheduled for completion June 30, 1976, but extended with OWRT approval until December 30, 1976. The project was designed to increase public awareness of the importance of the utilization of water throughout the period of recorded history for the region under study.

## BACKGROUND

It is interesting to note that the first recorded attempts to assess the nature of the waters of Cook Inlet were made in 1778 by the intrepid navigator James Cook. His scientific means were limited and the purpose of his investigations was a geographic one, yet he did make careful samplings of the inlet water, hoping to determine by its salt content whether the inlet was an arm of the Pacific Ocean or a great river. The history of Alaskan hydrology got off to a faltering start--Cook decided that his tests indicated that the inlet was indeed a river.

For many years after Russian fur traders first established a station on Kodiak and at various sites on Cook Inlet, the region was a frontier of a very specialized kind of water-borne commerce. As time passed, the fur trade became less important, but there were other rich resources to be developed. Nature had been bountiful in providing wealth to the area in balancing the great beauty of its valleys, waters, and mountains with minerals, fishes, and animals. Thus there were successive tides of economic development. When the marine animals and land animals became less important, their hunting and trapping gave way to the establishment of salmon and other fisheries, and industry that is still vital. Still later, Cook Inlet became a part of the gold mining frontier, a development of lesser proportions than those in the interior and on Seward Peninsula but which was, nevertheless, of significance.

The decision to build the Alaska Railroad into the interior from Seward assured the development of the region and an increasing population. The settlement of the Matanuska Valley, the military build-up of World War II, and the discovery of petroleum in the inlet were other heavy inducements to growth. Water utilization had to keep pace with

population increases and a determined effort had to be made to inquire into the water resources. Power needs resulted in dam construction and the choice of sites also demanded scientific judgment.

Economic development depended upon the extraction of certain resources; initially, marine and land mammals; later gold, petroleum, and other minerals; and salmon. Whether these resources were taken directly from the ocean and streams, or from the adjacent land, the uses of water resources were manifest. In the popular view it is obvious that fishing and sea otter hunting require exploitation of a water resource. It is less apparent to the general public that placer gold extraction, which was for long the principal industry of the region, depends closely upon the existence of adequate water sources for primary processing. In some parts of Alaska, huge construction projects were undertaken to convey distant water supplies to mining sites, and the efforts to charm rainfall from reluctant skies through spiritual and other means give us a lively appreciation of the bizarre expedients resorted to in cases of desperate need.

#### OBJECTIVES

The objectives of the study encompassed a scholarly investigation of the appropriate archival and published literature on the Cook-Inlet-Susitna Basin, and the publication of the articles and a book-length history of the utilization of water resources.

There are many aspects of Alaskan history to which historians have not given serious attention. Certainly there has been no historical consideration of the importance of water resources in Alaska. Issues that have involved water use have either been treated journalistically or have been the subject of scientific monographs. The understanding of the public can sometimes be confused by the journalistic treatment of events while scientific reports are seldom read. There is a definite need for a well-researched, lively survey of an important spect of Alaska's history.

Many years passed before systematic scientific work was carried out in the Cook Inlet-Susitna region but the uses of its water resources for sanitation, transport, food, and power were intensified as time passed.

The region has had significance for well over 200 years to the western peoples who settled there and, of course, for much longer to its aboriginal inhabitants. There has never been a substantial history written of the region, although some aspects of its past have been surveyed in a few published works, and there has never been a historical survey of water utilization for any region of Alaska.

Increasingly, the development of the region will involve political decision. The public scrutiny of the environmental impact of new dam and other construction is not likely to decline. Further petroleum leasing in the outer continental shelf areas will raise questions of the best uses which can be made of the water and other resources. The wisdom of these decisions depends upon our knowledge of all of the factors involved. An understanding of what has happened in the past as people have made use of the water resources could contribute to the effectiveness of judgments made in the future.

#### RESEARCH RESULTS

Study of the appropriate archival published literature bearing upon historic water utilization in the Cook Inlet-Susitna Basin has revealed a considerable amount of information. The development of the region's diverse and changing economy depended very closely upon the water related physical characteristics found there, and, to a great extent, this water relationship determined the course of its economic history.

Data gathered on water utilization for needs just as vital as those of resource extraction, although less dramatic--sanitation and household water supplies--has not been difficult to document. Obviously the correlation between the population growth in the area from the time of World War II due to the expansion of the national military establishment, and, even earlier, the very significant construction and expansion of the Alaska Railroad, is very close. The city of Anchorage has been the center of much of this population growth, and the rapid expansion of its sanitary and water systems have kept pace with this growth.

In summary, then, the research results of this project have met the expectations formulated in the design of the project.

## DISSEMINATION OF RESEARCH

The wide public dissemination of the results and implications of the research involved is an integral part of the project. Dissemination of the results, however, does not follow spontaneously upon the completion of research. Indeed, the processes of wide public dissemination, as distinguished from technical or professional information dissemination, cannot be controlled by the would-be disseminator. One must lure the media with the timeliness and interest of the topic, and present the topic in a form that is appropriate to their own standards of expectation. For this reason the extent of dissemination efforts are on-going and the placement of a study of historic water utilization with a trade publisher remains the ultimate dissemination. Within the contract period other forms of dissemination have been achieved. The investigator published an article in the Fairbanks Daily News-Miner on March 30, 1976, the anniversary of the Great Alaska Earthquake, which reviewed the events of the catastrophe, including the effects on waters natural and sanitation and supply water systems, and established the relationship between such research as is carried out by the Institute of Water Resources and the recovery from such natural calamities. In a book published as part of a Bicentennial series (Alaska: A Bicentennial History, New York: Norton, 1976) the investigator, as part of a general exposition of Alaska's past and its needs for the future, discussed the importance of federal research commitments in the determination of priorities for the guidance of public policy for the state.

Another form of dissemination of water utilization information, one through professional rather than popular channels, was incidental to the related study of Hydroelectric Power in Alaska (OWRT Project No. A-060-ALAS). That study focused on the politics of the Eklutna, Rampart, and Susitna power projects over the last several years, but is pertinent to the overall consideration of this project. Extracts from the hydroelectric study, now in press, will be extracted for publication in Alaskan newspapers.