

MEETING OF BOARD OF DIRECTORS
TARRANT COUNTY WATER CONTROL and IMPROVEMENT DISTRICT NUMBER ONE

June 20, 1957

At a meeting of the Board of Directors of TARRANT COUNTY WATER CONTROL and IMPROVEMENT DISTRICT NUMBER ONE on June 20, 1957, all the Directors of the District were present, to-wit:

Mr. Joe B. Hogsett,
Mr. Houston Hill,
Mr. Lacy Boggess,
Mr. W. L. Pier, and
Mr. A. T. Seymour, Jr.

Mr. Hogsett, in his capacity as President, presided over the meeting.

Also present were Mr. Simon W. Freese, of Freese & Nichols, Engineers of the District, Mr. Ben F. Hickey, General Manager, Mr. S. L. Samuels, Attorney for the District, and, also, Mr. Sheppard T. Powell, Consulting Engineer, of Baltimore, Maryland.

The meeting was called principally for hearing the report submitted to the District by Mr. Powell, in his capacity as Consulting Engineer. The report was voluminous and explanatory, and was illustrated with many maps and drawings which illustrated the written text of the report and made it more comprehensible. The report was dated June 20, 1957, and was addressed to Mr. Joe B. Hogsett, as President, and also to the other members of the Board of Directors.

The report itself entered into many details concerning the situation of new areas for the supply of additional water to the District; and the explanatory text was prefaced by the following introductory observations prepared by Mr. Powell. In particular, we reproduce the salient features of the preface, which are as follows:

"In this report we have first outlined briefly the water-quality requirements for a metropolitan area in which domestic, commercial, and industrial water needs are all important

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considerations. These requirements are presented in section I following a discussion of the general importance of water quality, the quality of the present Fort Worth supply, the quality of waters used in other large communities of the United States, and the water-quality standards recommended by the United States Public Health Service. These considerations have lead to a list of suggested water-quality criteria to serve as a guide in selecting additional water supplies for Tarrant County.

"In section II are assembled data showing the probable quality of water that could be obtained within a reasonable distance of Fort Worth. The data for each source are accompanied by a discussion of pertinent features of the water quality to be expected.

"In the third section of the report, the quality aspects of the supplies studied are summarized and compared with respect to quality and treatment requirements. In addition, estimates of the costs of chemicals for treating water from each supply are presented for economic comparison. These costs cover not only the water conditioning required in a public water works for general municipal use, but also the additional treatment that would be necessary to render the waters acceptable for commercial and industrial purposes. It is assumed that such additional treatment for specific uses would be accomplished in privately owned industrial water works, as no public agency can or should assume responsibility for furnishing water meeting the quality requirements of all industrial users. Nevertheless, the cost of industrial water treatment is important to the economy of the entire community, and this fact should not be overlooked in selecting new water supplies for Tarrant County.

"In our cost estimates, we have considered only the cost of chemicals required for water treatment in either the public or industrial water plants. Other operation expenses and capital investment necessary for water treatment, though important, would not differ appreciably among the various sources considered, and have not been studied. Also omitted from this study are the cost of acquisition of water rights, and the cost of collection and delivery of water from the various sources. All of these items are necessary for over-all evaluation of the various water supplies. It is emphasized that quality and costs of chemicals for treatment are not the only criteria for judging water sources. Other phases of the engineering problem have been studied by others.

"Appended to the report are supplemental discussions pertinent to water quality. These include references to experiences with water quality problems in many cities. Also included are discussions of specific mineral constituents which are particularly important in the present study, and a summary of the effects on water quality from storage in reservoirs. The latter item is of significance in evaluating analytical data collected from the various streams which are not yet impounded."

Mr. Powell stated that in assembling the data and information required for the study of the various problems which were involved in his search he had received cooperative assistance from many groups and individuals, and had referred to published and unpublished records. He also stated the names of various engineers from whom he obtained basic data for the preparation of his lengthy report. He particularly mentioned, among others who had been helpful, the engineering firm of Freese and Nichols, of Fort Worth, and Mr. Uel Stephens, Director of the Water Department of the City of Fort Worth, and also the Texas Board of Water Engineers. In his summary of findings, he stated that 16 water sources in the Trinity, Brazos, and Red River Basins had been explored and carefully studied. These water sources included the existing water supply of the City of Fort Worth and 15 other sources potentially available for augmenting that supply.

Among other things, he explained that within the limitations of the available data the quality of water to be expected from the various sources can be graded and compared, and that the quality among these sources that have been mentioned varies widely, ranging, as he expressed it, from an excellent grade for four proposed reservoirs in southeastern Oklahoma to a very poor quality for the Brazos River sources and for Lake Texoma on the Red River. He added that the quality of water for the other sources studied varies from fair to rather poor.

In one paragraph of his report, which stands at the very threshold of his elaboration, he stated that with the exception of the Possum Kingdom Reservoir, on the ³¹²⁻¹²⁻⁰⁵ Trinity River, adjacent to Mineral Wells, in Palo Pinto County, and the proposed Hightower Reservoir on the Brazos, Lake Texoma on the Red River, and even Richland Creek, with its brine contamination from oil fields, which, as to Richland Creek, could be eliminated by plugging the waste from oil fields, - that with those exceptions above mentioned all of the potential sources studied would be suitable for

municipal and industrial use after conventional treatment.

In another paragraph of his report, Mr. Powell stated that those sources which supply water of poor quality could possibly be made to supply limited quantities of useable water by utilization of selective pumping methods, by blending those waters with better water from other sources, or both. However, he added this qualification, that, used alone, the Brazos River and Lake Texoma would provide hard, highly mineralized water requiring expensive treatment for softening in a central public water works and additional costly conditioning by industrial and commercial water users.

The report was richly and profusely illustrated with maps and diagrams to make the text susceptible of the meaning which would be apparent to the reader and the student. The report is voluminous, interesting, and one that should be read in its entirety, particularly by the Engineers of the District and students well versed in the chemistry of waters, to be used for domestic consumption by this area.

Mr. Powell read many of the notable features of his report, and filed bound copies of the same for the investigation of the Directors for the District, and, also, if they choose to exercise the privilege, to the authorities of the City of Fort Worth.

It was interesting to note that Mr. Powell gave it as his opinion that the infiltration of brine from oil wells in the neighborhood into sources of water supply could be freed of contamination by plugging such oil wells and taking steps to prevent the recurrence of such contamination.

It is proper to conclude the foregoing summary by stating that many questions were addressed to Mr. Powell during the progress of the meeting, and very many ideas exchanged between Mr. Freese and Mr. Powell and the members of the Board.

There being no further business before the Board, the meeting was then adjourned.



President



Secretary

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