

The Commonwealth of Massachusetts

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SPECIAL REPORT OF THE STATE PLANNING BOARD RELATIVE TO PROVIDING FOR THE IMPROVEMENT OF THE NEPONSET RIVER VALLEY BETWEEN HANCOCK STREET IN QUINCY (ROUTE 128) IN CANTON FOR RECREATIONAL AND OTHER PURPOSES.

[Metropolitan Affairs.]

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STATE PLANNING BOARD,  
11 BEACON STREET, BOSTON, November 20, 1946.

*To the General Court of Massachusetts.*

The State Planning Board submits herewith a report relative to an investigation made by it, as authorized and directed under the following provisions of chapter 48 of the Resolves of 1946 as adopted by your honorable body, relative to the improvement of the Neponset River Valley:

*Resolved,* That the state planning board is hereby authorized and directed to investigate the subject matter of current house document numbered nine hundred and sixty-two relative to providing for the improvement of the Neponset river valley between Hancock street in Quincy and Green Lodge street (Route 128) in Canton for recreational and other purposes. Said board shall report to the general court the results of its investigation, and its recommendations, if any, together with estimates of cost and drafts of legislation necessary to carry its recommendations into effect, by filing the same with the clerk of the house of representatives on or before the first Wednesday of December in the current year.

*Approved June 5, 1946.*

House document No. 962 referred to in the resolve called for authorization for the Metropolitan District Commission to lay out and construct for the purpose of

establishing reservations and parkways under chapter 92 of the General Laws, a parkway or boulevard including adjacent park and recreational developments in the valley of the Neponset river between Hancock Street in Quincy and Green Lodge Street (Route 128) in the town of Canton. For the purpose of carrying out this improvement, including the cost of acquiring such land as is not now owned by the Commonwealth, the Commission was authorized under the terms of the bill to expend a sum not exceeding \$5,500,000.

The improvement of the Neponset River Valley has been the subject of legislation and of investigations from time to time for many years. Chapter 541 of the Acts of 1902 gave the Department of Public Health certain authority in preventing the further pollution of the Neponset River. This act was made mandatory by chapter 360 of the Acts of 1906, and was later amended by chapter 180 of the Acts of 1916. The Department of Public Health is now authorized to prohibit the discharge of sewage into the Neponset River and its tributaries and the discharge of industrial wastes which may be injurious to the public health or may tend to create a nuisance. The original act, as amended, directs the Department of Public Health to consult and advise the owner of any industrial plant as to the best practicable and reasonably available means of treating its wastes and it gives the courts authority to enforce the provisions of the act. The Department of Public Health continues to advise and consult with manufacturers in regard to discharge of industrial wastes into the river. The manufacturers have been co-operative and the discharge of harmful or noxious wastes has been lessened. More detailed data on pollution of the Neponset River are contained in House Document No. 1735 of 1938, "Report of the Department of Public Health on the Sanitary Condition of Certain Rivers of the Commonwealth."

In the meantime, as a result of previous investigations and legislation, sewage and certain industrial wastes originating in Norwood, Walpole, Canton, Stoughton and

Sharon have largely been eliminated by the South Metropolitan Sewerage System.

Chapter 40 of the Resolves of 1943 provided for a study and survey by the Metropolitan District Commission and the Department of Public Health on the Improvement and Beautification of the Neponset River. Their findings which were predicated upon the belief that the beautification and improvement of the river banks were in no small measure dependent on the diminution of the existing pollution, were published as House Document No. 1925 of 1945. This report of the Joint Board fell into two main categories, as follows:

1. Preparation of plans, specifications and costs for the beautification and improvement of both banks of the Neponset River with the end in view of creating better recreational opportunities, and the establishment of a parkway system along said river banks.

2. Improvement of the present sanitary condition of the Neponset River with the end in view of eliminating and preventing, so far as practicable, the pollution of said river.

In carrying out the first phase of this investigation, the Metropolitan District Commission engaged the services of Olmsted Bros., Landscape Architects of Brookline, to make a complete survey of the proposed development. Their report, which was submitted after months of study, recognized at the outset that there could be little enjoyment of the river and its border reservations until such time as the water should be kept free from serious pollution and from other influences tending to make its condition offensive and unpleasant. This report, which is reproduced as Part I of the aforesaid House Document No. 1925 (1945) is accompanied by a sketch plan for the development of the river valley, and a preliminary estimate of cost, including roads, grade separations, lighting, planting, land taking, drainage and park development with a total of \$5,378,000.

The second part of House No. 1925 is a report by the Department of Public Health, through its Division of

Sanitary Engineering under Chief Sanitary Engineer Arthur D. Weston, on the sanitary condition of the Neponset River. It outlines the steps already taken to lessen the pollution due to industrial wastes. It, however, predicts that in the future, as in the past, the river will be used extensively as a source of industrial water supply by plants situated on the river, with the conclusion that if these plants continue to operate it may safely be assumed that even larger amounts of water from the river will be used for industrial purposes . . . and accordingly larger amounts of industrial wastes will be discharged into the river. The report continues as follows:

Under the circumstances, it is obvious that if the Neponset River is to be "beautified" with a view toward making this stream attractive to the extent that discoloration or turbidity of the water will not be permitted, especially in that part of its course passing through Metropolitan park lands, then provisions must be made at certain industrial plants to further treat the industrial wastes before they are discharged into the river, or that additional quantities of these wastes be diverted to the South Metropolitan Sewerage System, but further diversion to the sewers of industrial waste from the river should be discouraged if depletion of the flow in summer months is to be prevented, unless facilities are provided for introducing water into this valley from outside sources for industrial use or for storing the flood flows in the upper reaches of this stream for release during the summer months. . . .

The conclusion and findings of the Joint Board are to the effect that the plan of the beautification of the Neponset River, as recommended by Olmsted Bros., Landscape Architects, would be a decided improvement to the Neponset River Valley, provided that pollution of the stream can be controlled sufficiently to prevent discoloration of the water in the river and objectionable appearances in addition to protection of the public health.

It points out in respect to the matter of pollution by sewage and industrial wastes and their diversion from the Neponset River that there are no direct sources of domestic sewage pollution known to the Department of Public Health, also that there seems to be considerable law on the statute books at present to enforce the elimina-

tion of the sewage pollution, but to enforce this law to such an extent as would eliminate all evidence of pollution under existing industrial development in this valley, thus making the stream attractive in appearance and suitable for recreational activities, such as boating and bathing, will necessitate curtailment of certain industrial activities or —

1. The construction of additions to the South Metropolitan Sewerage District.

2. The construction of reservoirs for use in compensating the stream for losses of natural flow due to diversions to the sewerage system or other means of compensation, such as supplying the mills in this valley with water from the works of the Metropolitan Water District in the so-called Southern Sudbury System.

Such development, the Joint Board declared, would be costly and such costs are not included in the estimates contained in the report. It, therefore, suggests that further studies be made to increase the flow of the stream during the summer months.

This suggestion was made the subject of a special study under chapter 59 of the Resolves of 1945 which authorized an investigation of the conditions of flow of water in the Neponset River by a Joint Board consisting of the Metropolitan District Commission, the Department of Public Health and the Metropolitan District Water Supply Commission. The Joint Board's report was published as House Document No. 1440 of 1946. Studies were based on the use of surplus water now available to the Metropolitan Water District following the completion of its development of new sources of supply. Three methods of furnishing additional water to the Neponset River were outlined:

- A. Discharge from the Sudbury System into the Neponset River.

- B. Direct pipe line from Sudbury System to mills on the Neponset River.

- C. Pipe line direct from the Metropolitan Distribution System.

Plan A was the choice of the Joint Board as the most practicable and economical although the initial cost of the project was estimated to be \$300,000 and the resulting capital charges, cost of maintenance and pumping involved amounted to an estimated \$30,000 per year for the first ten years. This would amount to approximately \$20 per million gallons, but obviously there would be no way under this project by which the water could be sold upon delivery to individual industries or other customers. In the belief that it was incumbent upon Massachusetts not only to retain the present industries along the stream but also to attract other industries so far as practicable, the Joint Board recommended the adoption of legislation which would provide for surplus water of the Metropolitan Water District being made available to streams in the Metropolitan Parks District and for an increased release into the Sudbury River, together with authority to construct, finance and maintain the necessary diversion works. This recommendation was referred to the next annual session by the Committee on Metropolitan Affairs.

There is at the present time a special commission functioning under the provisions of chapter 79 of the Resolves of the year 1946. This commission is established among other things for the purpose of making an investigation relative to providing for the discharge by the Metropolitan District Commission of surplus water into the Sudbury River. This Resolve is based upon House, No. 1847 of 1946 which offered a solution in the case of the Sudbury River under conditions similar to those obtaining in the Neponset River. This solution was to the effect that whenever available surplus water might be discharged by the Metropolitan District Commission into the Sudbury River for such period of time and at such points as the Department of Public Health may specify, the water so discharged to be paid for at the rate of \$10 per million gallons by the towns of Framingham and Natick and any other towns discharging sewage effluent into the Sudbury River.

It is the understanding of the State Planning Board that this recommendation, modified to some extent, is being submitted by the present special commission. The Board suggests, therefore, that consideration be given to amending the bill of the special commission so as to permit the Metropolitan District Commission, subject to the approval of the municipality in each instance, to make available to the manufacturers in the Neponset River Valley surplus water in order to thus more adequately conserve the flow of the river, to permit industrial wastes to be discharged into the sewers, and to provide adequate process water for the various industries.

The Board further suggests that consideration be given to selling this surplus water at the rate of \$10 per million gallons, plus the cost of distribution. This arrangement, the Board believes, would go far toward eliminating the pollution now existing in the Neponset River without working any hardship on the industrialists in the area; that it would at the same time encourage the location of new industries and would make possible and feasible the development of the river and its border reservations for recreational purposes.

Respectfully submitted,

STATE PLANNING BOARD.

ELISABETH M. HERLIHY,

*Chairman.*

