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THIRD ANNUAL REPORT OF
THE METROPOLITAN WATER
BOARD, JANUARY 1, 1898**

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MASSACHUSETTS METROPOLITAN WATER BOARD

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WACHUSETT AQUEDUCT — ASSABET BRIDGE.

THIRD ANNUAL REPORT

OF THE

Massachusetts

METROPOLITAN WATER BOARD.

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JANUARY 1, 1898.

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METROPOLITAN WATER BOARD.

To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled :

The Metropolitan Water Board, established under the provisions of chapter 488 of the Acts of the year 1895, respectfully submits its

THIRD ANNUAL REPORT,

being a report of the work and operations of the Board for the year 1897.

I. ORGANIZATION.

(1) *Administration.*

There has been no change in the constitution of the Board during the year. William N. Davenport has remained the secretary and executive officer of the Board, and Alfred F. Bridgman as auditor and accountant.

The increasing work of the Board has required some extension of the office force, and there are now employed in the administration department a book-keeper, an assistant book-keeper, an assistant in auditing, a paymaster, three stenographers, a messenger and a janitor.

(2) *Engineering Department.*

The following principal engineers have continued in service :—

Chief Engineer, FREDERIC P. STEARNS.

Consulting Engineers, JOSEPH P. DAVIS, ALPHONSE PTELEY.

Engineer of Distribution Department, DEXTER BRACKETT.

Engineer of Sudbury Department, DESMOND FITZGERALD.

Engineer of Dam and Aqueduct Department, THOMAS F. RICHARDSON.

Engineer of Reservoir Department, HIRAM A. MILLER.

Principal Office Assistant, REUBEN SHIRREFFS.

Subordinates in the engineering force have numbered 199, and, in addition, inspectors of pipe making, pipe laying, machinery, masonry and earth work, other than engineers, to the number of 40, have been employed.

Parties of laborers, under the direct charge of the engineers, have been employed in the clearing and burning of brush on the site of the Wachusett Reservoir, in the making of borings at the Wachusett Dam and dikes, in the construction of the temporary dam at Clinton, in making connection between the Nashua River and the Wachusett Aqueduct, in tearing down the dam of the Lancaster Mills and the laying of pipes for a temporary supply of water to the mills, in the handling of pipes at the various pipe yards, in testing the water mains, and in various minor operations, at different times in different numbers, the largest number employed at one time being 263 men.

The contractors for the building of the tunnel, the covered conduit and the open channel of the Wachusett Aqueduct, for the removal of the soil from the bed of the Lancaster Mill Pond, the construction of the Sudbury Reservoir and Dam, the laying of the main distributing pipes and the building of the addition to the Chestnut Hill pumping station, have called into requisition large gangs of men, numbering at the busiest season 3,297 men, and have employed as many as 735 horses.

A detailed report of the doings of this department is contained in the report of the Chief Engineer.

(3) *Conveyancing Department.*

The conveyancing department has been continued under the supervision of Alfred C. Vinton, with whom has been associated George D. Bigelow, and they have had the assistance of Charles T. Davis as chief examiner at the Worcester Registry.

A large amount of work has been accomplished in the examination of titles of lands to be taken for the reservoir in Clinton, Boylston, West Boylston and Sterling. Examination has also been continued of titles along the aqueduct line in Berlin, Northborough and Southborough, and considerable work has been done in settlement of estates originally taken by the city of Boston for the Sudbury Reservoir and Dam in Southborough and Marlborough.

The taking of the lands, reservoirs, aqueducts, pipe lines and other water works of the city of Boston, westward of the Chestnut Hill Reservoir, and other minor takings, has involved a great deal of additional labor.

Papers have been prepared for the settlement of 121 cases during the year. Many of these settlements involved the titles of two or more parcels, one of them as many as eleven separate parcels of land. Many of the titles were found defective, and required the obtaining of releases, and, in some cases, the conduct of proceedings in the probate and other courts for the necessary authority to perfect the title.

There were twelve takings of lands and easements under the right of eminent domain given to the Board under the statutes of 1895, in addition to the takings, on Jan. 1, 1898, of the water works of the city of Boston and of Spot Pond and the lands immediately surrounding the pond.

In order to prepare for the takings to be made from the city of Boston, it was necessary to examine all the takings which had been made by the cities of Boston and Charlestown for the purposes of water supply from the year 1846 to the present time, and also all the deeds to and from the cities of Boston and Charlestown in the counties of Middlesex, Norfolk and Worcester. These deeds have been copied for preservation, necessary plans have been made and compiled, and the various parcels have been properly plotted upon the plans.

The work required for the taking of the Spot Pond lands was similar, but much less in amount.

The preliminary examination of titles of the land to be taken for the Wachusett Reservoir and Aqueduct have now been substantially completed in the registries, but considerable additional work is required in most cases when a settlement is reached and the title is perfected for the purpose of a release by the owners.

Beside the foregoing examinations, considerable work has to be done from time to time in other portions of the Metropolitan District, as rights and easements are required in connection with the laying of pipe lines and other local work.

The examination of titles, the various investigations, the copying required and the preparation of the various papers have called for the additional employment, for more or less time, of the following-named