

One Half Century of Water Supply for West Boylston

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"The Board of Water Commissioners are pleased to present this narrative or history of the West Boylston Water District on its 50th anniversary of continuous public service. A compilation of records and biography has been brought up to date, which includes accounts of the thirty and forty years of operation previously published in the annual reports for 1969 and 1979.

Brief biographical accounts of individuals are given as each have contributed to the formation, management and general operation of the Water District over the past half century. This list could be increased with names of many others, not filling official positions but as members of the District that participated patiently and indicated genuine interest in Water District activities. A community effort motivated by improving the quality of life in West Boylston initiated the beginning that has continued for the past fifty years. Therefore proper acknowledgement must be directed for any of the achievements of the West Boylston Water District to the community itself from which initial approval and support was obtained.

One half century of continuous public service has been rendered in the finest traditions of American water supply practices. Therefore, we relate for our citizens and especially those of recent domicile in West Boylston, the historical background and chronological development of your public water supply service.

In reality, this story must begin at the time of the Town's inception in 1808, by Ezra Beaman and others, when West Boylston was initially incorporated. West Boylston, at that time, was an agricultural community, which prospered and grew through the remainder of the nineteenth century.

Abundant water resources flowing in the Stillwater and Quinapoxet Rivers, which formed a confluence at the south branch of the Nashua River, provided good opportunities for harnessing the power that was needed by the manufacturer. Coupled with fertile soil and abundant timber, this community was indeed "nature blessed".

Looking back to 1890, we can visualize the citizens of West Boylston, working diligently, building together a growing community in which we are certain they took great pride in their accomplishments. From a handful of people in 1808, the population numbered 3000 in 1890. Six manufacturing mills provided employment for many of its citizens, with others employed here from nearby communities.

The future certainly looked bright for the citizens of West Boylston at the beginning of the last decade of the nineteenth century. Yes, the records we read today clearly indicate their state of prosperity and promise for the future, - undoubtedly one of the more progressive communities in Central Massachusetts. This was the era of the "bel epoch" and definitely applicable to West Boylston because of its numerous amenities of living it provided for its citizens.

West Boylston was one of the first communities in Central Massachusetts to recognize the health advantages of a public water supply for its citizens. In 1892 they voted at town meeting to approve an article to organize a Water Works Investigating Committee. Its duties were to determine the feasibility and cost as might be necessary, to obtain a system of water works, that would service the entire town and provide adequate fire protection, as well.

This Investigating Committee of citizens consisted of W.A. Earle, H.E. Morton and J.C. Hastings. The committee engaged consulting engineers, Shedd and Sarle of Worcester, who submitted during February 1893, a most comprehensive report. It is interesting to note that the engineers also looked into sources of water supply located outside geographic limits of the town as possibilities.

Almost concurrent with this work, and unknown to many of its citizens, the Massachusetts State Board of Health was engaged in a preliminary investigation of the Nashua River valley as a potential source of water supply for Boston and several of its contiguous communities.

This enormous project was not clearly defined nor understood at its preliminary stages by many, nor could they envision the threat to their land and homes by the proposed Wachusett Reservoir.

An aura of sadness and disconsolation pervaded the area in 1895, when the legislature passed Chapter 488 of that year. The shadow of threat that had loomed over the community for the past two years had become a

reality. A feeling of doom penetrated this not too long ago happy and progressive community.

The law created the Metropolitan Water Board as an agency of the Commonwealth, whose duties were to construct a dam in Clinton, acquire lands in West Boylston and in abutting towns, for the building of a storage reservoir that would cover an area of six and one-half square miles.

Land acquired by eminent domain in West Boylston for this purpose was about 2100 acres. Reflecting today upon the significance of this project, we cannot begin to gauge or imagine the concern, inconvenience and disruption created at that time to the inhabitants, as well as to the manufacturers in West Boylston. Appeals, petitions and other manifestations of compromise and objections fell upon deaf ears. The great and general court had spoken.

Work started on the reservoir. Shortly thereafter, homes and factories were demolished. Many of the structures were moved from the river valley to higher ground. The result was that many of the West Boylston citizens left the community and settled elsewhere, which contributed to the decline in the number of people living here. From a population of 3,000 inhabitants in 1890, the count in 1910 had decreased to 1,270.

By 1915, a reestablishment and reforming of the physical characteristics of the town had taken place. The older generation still living here had not become reconciled to the disruption in their lives. However, the new generation taking part in the activities of the rejuvenated town would not dwell on the past and, therefore, pursued a creative course.

This is manifested by the Town's action in 1915 of appointing a committee to investigate the possibility of constructing a public water supply. Although no tangible progress was made from this, the committee did engage a qualified engineer to study and report as to the needs of a public water supply.

From what we can ascertain major portions of the ground-work for the study made in 1939 were based upon several proposals offered by Mr. William S. Johnson C.E. in 1917, which resulted by the town's action in 1915.

Once again, the population curve started upward and so continued for the new twenty years. The Metropolitan Water Board had long since completed its work. Large areas adjacent to the reservoir were planted with trees, a forerunner of the green belts, highly desired by many communities. Old wounds had been healed and memories were fading over the passage of years. The transition had changed the environmental characteristics of West Boylston. Many found it appealing as a residential community.

Great interest prevailed in 1933, which provided the impetus for the passage of Chapter 352 by the legislature. This law, contingent upon its acceptance by the townspeople of West Boylston, allowed its citizens the right to establish the West Boylston Water District. A time limit of four years was allowed for its acceptance. No action was taken by the town within this period of time.

At the annual town meeting February 6, 1939, the voters authorized the Board of Selectmen and Moderator to appoint 25 voters of the Town of West Boylston to assemble and elect a committee to make a survey for a Town Water System for household purposed and fire protection.

On February 18th, 1939 the following voters assembled in the Selectmen's office for this purpose -

Ernest Anderton	Chester D. Denton
Freeland M. Bancroft	Charles T. Fawcett
Robert P. Barnes	William T. Holmes
Oscar M. Bellis	Raymond S. Huntington
Alfred H. Blake	George R. Keith
Emmons M. Burdett	Julius F. Lovell
Elbert H. Carroll	Francis N. Luce
John A. Cavanaugh	Charles H. Parker
Elmer I. Christenson	William M. Severance
Walter E. Clark	Water H. Sharpe
John Clayton	Raymond L. Soule

John Clayton
William N. Cole
James A. Cooke

Raymond L. Soule
Edgar A. Whitcomb

From this group Messrs. William N. Cole, Raymond L. Soule, Chester D. Denton, Freeland M. Bancroft, Raymond S. Huntington, George R. Keith and Oscar M. Bellis were elected by ballot to execute the provisions as stated in article 18 of the warrant at the annual town meeting of February 6, 1939. Several groups of engineers were interviewed and the firm of Whitman & Howard, Consulting Engineers, Boston Mass. was selected.

It was decided at the first meeting that the 25 men appointed by the Selectmen and Moderator be retained as an advisory committee. The advisory committee has been called together on tow occasions to hear reports of progress of the Executive Committee and to give advice on various matters. Later Chapter 55 of the Acts of 1939 was passed by the Legislature which, in effect, contained the original provisions of the legislation of 1933 with updating and minor changes.

Another town meeting held later that year accepted the legislative act, which officially formed the West Boylston Water District. Elected at this meeting was the first Board of Water Commissioners, consisting of Louis C. Campbell, William N. Cole and Walter H. Sharpe.

A report of Whitman and Howard, Inc., consulting Engineers was accepted. This report gave direction and estimate of costs of construction for the system planned. Among the many items contained in the report was the recommendation that the source of water supply be provided from an elevated section of town off Lee Street from which an adequate yield and good quality water was available. This location, because of its elevation, could furnish water more economically because of the shorter pumping heights.

Invariably questions are asked, which are valid. Why did we not take water directly from the Wachusett Reservoir? In answer to this question the report of 1917 and 1939 are referred to which read as follows:

"Perhaps the most natural place in which to look for a supply is the Wachusett Reservoir of the Metropolitan Water Works, the upper end of which is almost the centre of the portion of the town to be supplied with water. The Legislature has provided that the town should have the right to take water from this source for water supply purposes."

"There are, however, several serious objections to the use of this water. The water at this end of the reservoir, just below the entrance of the Stillwater and Quinepoxet (sic) Rivers, the principal feeders, is highly colored, at times of high flow of the rivers is turbid and otherwise of objectionable quality."

"A supply from the Wachusett Reservoir would not be perfectly satisfactory and the cost of obtaining the supply, taking into consideration the difficulty in pumping from different depths is likely to be as great or greater than the cost of a supply from wells."

In 1939, the report contained the following:

"You have a reservoir in your town, viz, the Wachusett Reservoir, which has served as a principal water supply for the Boston Metropolitan District for many years, from which you may obtain water to be extent of two million gallons per day. However, since West Boylston is located at the upper end of the Wachusett Reservoir the water would be highly colored at times and might contain objectionable bacteria as the water would not receive the benefits from a long period of storage but a water supply might well be taken from this reservoir at this location, if filtered. Since there is no other reservoir or suitable location to form a reservoir and since West Boylston is located at the upper end of the Wachusett Reservoir, we do not recommend obtaining a water supply in this manner if a good ground water supply can readily be obtained."

Construction was started in 1941, after considerable preparatory work was accomplished, involving original financing, application and approval for financial assistance from the Federal Government. Plans and specifications were prepared and construction contracts were advertised and awarded. Force account labor was used in conjunction with the Works Progress Administrative program of the Federal Government.

Wells No. 1 and No. 2 of the original supply off Lee Street were driven. Pumping stations were built and

equipment installed. Pipe lines were laid along the main streets. The reservoir was constructed at Lawrence Street, which was not at that time a public way. Land was acquired where needed.

A great deal was accomplished by the end of the year. Records indicate that thirteen miles of distribution pipe was laid, ninety hydrants were installed and sixty-eight house services were connected. In spite of handicaps due to the prevailing war conditions many phases of the work progressed satisfactorily.

The immediate post war years, 1945 to 1949, indicate a marked growth. The number of services grew in this period to 414 from 205.

Further, this increase reflects a 50% rise in the amount of water pumped for consumption within the corresponding period.

With industrious planning in 1950, the Board of Water Commissioners sought additional funding in order to finance the cost of supplementing the source of supply, and also to reinforce the distribution system. At the original site at Lee Street, Well No. 3 was driven, the first well of the gravel-pack type classification. Needed improvements were installed in the system, which included recording devices, surge relief valves and other items that assisted in the efficient operation of the system.

The decade of the fifties brought more people to West Boylston, subsequently more housing, therefore greater demand for water supply.

In 1956 additional funding was necessary. The sum of \$125,000 was raised to again improve the system. A large gravel-pack well was driven, equipment installed and a pumping station constructed at Oakdale. A storage tank of pre-stressed reinforced concrete with a capacity of one-half million gallons was erected at a high point adjacent to the Training School of the Youth Service Board off Beaman Street. Appurtenant pipe lines connecting the installations were laid. These facilities provided a significant improvement to the system. The system now had an alternate source of supply as well as additional reservoir capacity capable of relieving the high demand upon the original works. It further provided a desirable dual system to which future improvements readily integrated with the original system with the more recent work. Each year and also concurrently with major improvements the Board installed pipeline extensions in order to provide with water many of the citizens in the District who heretofore were not connected.

The work was planned and implemented each year in a schedule that would not cause extreme variations in the tax rate. Much of the work was financed on a pay as you go basis.

Growth in West Boylston continued into the sixties. In addition to new housing, the decade of the sixties brought with it new industries for West Boylston. A creative Planning Board and competent town officials effectively coupled their efforts in encouraging desirable industries to build here. This again presented a challenge to the Water District.

Predicting once again a limited water supply and distribution for the needs of the District, the Water Board proposed in 1963 further supplementing and improving the system. Following is an excerpt from the report of the Water Commissioners for that year.

"We experienced record making water consumption this year. This severely taxed our water supply source at the Lee Street wells.

Because of the prevailing dry conditions experienced this summer and fall, the water table elevation fell to its lowest grade in the records kept for this location. This condition caused considerable concern as to the adequacy of the supply. It was therefore necessary to restrict water use for the first time since the 1956 additional water supply facilities were completed."

On the basis of a study by the District's engineers, the Board presented to the District the following recommendations to improve the water system.

1. That a one million gallon capacity storage tank be constructed off Stockwell Road.
2. That a booster pumping station be built off Worcester Street.

The District at its meeting in 1964 accepted the recommendations of the Board. A sum of \$200,000 was appropriated to finance this work.

At this time no one could foresee the lengthy period of drought later experienced in central Massachusetts. Water bans were the mandatory expedient for many communities. With the new storage tank and booster pumping station in operation the District was one of the very few capable of providing adequate water to its consumers. The voluntary water ban imposed in 1963 was not repeated.

At the end of the year 1964 the records indicate that 1,400 services were supplied with water. The daily pumping rate had increased considerably and on July 27, 1963 the highest daily pumping rate of almost one million gallons was reached. Worthy of review is the financial data that is also summarized in the referenced tables.

Shortly thereafter, and because of the great demand imposed on the wells at Lee Street, it became evident that all three wells were not yielding quantities of water as expected. It was therefore necessary to surge and clean the well screens, change pump impellers and generally overhaul the pumping equipment at this location. However, in 1966 it became evident that the existing wells could not be depended upon to provide sufficient water for the District's needs in this area. Tests were conducted and in 1967 well No. 4 was constructed and pumping equipment was installed at Lee Street which provided an additional source of water supply.

Concurrent with the above the District was engaged in testing for additional sources. An excellent source of water was found at a site on land of the M.D.C. off Temple Street. In 1968, funding for the well was approved.

This proposed source will provide for future water demands. The water will be pumped to an elevation established by the overflow at the Oakdale and Stockwell Road tanks. It provides a supplementary source to the Oakdale well which can be pumped by the booster station, thereby augmenting the high level supply at the Lawrence Street Reservoir.

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Major improvements and growth implemented for water service facilities over the years 1969-1979 involved completion of an additional source of water supply. Well and Pumping station facilities located on MDC land off Temple Street were added to the system. Considerable amount of water pipe was installed, closing loops and extending water service throughout the District. A second storage reservoir was constructed at Lawrence Street, consisting of a 1,250,000 gallon capacity pre-stressed concrete tank, that will meet the water requirements of a growing industrial area. All existing facilities have been operated in an acceptable manner. The District operation and office headquarters during this period have been moved from its former site at the abandoned railroad station to the new Town facility on Worcester Street which has enhanced and greatly improved the effectiveness of the Water District staff.

The decade of the 80's was ushered in with numerous significant events for the West Boylston Water District. ... Of importance was the elimination of the real estate tax for water use. With diligent and prudent fiscal planning the long term capital debt was totally retired after over forty years of application. Continued vigilance with fiscal matters had precluded resorting to the reintroduction of this tax in spite of major capital cost expenditures.

Original inquiry as to the feasibility to join with the Pinecroft Water District was made in 1980. A great deal of time has been spent in preliminary discussion with no progress accomplished to date. In the meantime Pinecroft has been added to the West Boylston Water District service system. They now receive their water from the West Boylston Water District. Discussion continues and possibilities now seem favorable for a satisfactory merger.

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Major state highway 190 was completed, requiring several location changes for distribution pipelines. Considerable work was accomplished for this purpose.

Several new sub-divisions for housing were constructed adding numerous water takers to the system. Considerable concern resulted as to the safety of the Lee Street aquifer due to the encroachment of a new sub-division. Because of this a hydro geologic study was made of the aquifer in order to assess the impact of the sub-division. This matter culminated with the recent acquisition of adjacent land area that added protection to the wells at this site.

Assisted by the Planning Board and Conservation Commission the Water Board spearheaded the proposal for an Aquifer Protection Zoning By-Law that was accepted by the voters at a Town Meeting. This changed existing zoning parameters that will give added protection to the quality and quantity of ground water throughout the community.

Reached was another significant milestone, by the purchase by the District, of property at 183 Worcester Street for use as a headquarter facility. This ended the former period for the District in being moved from pillar to post in regard to a permanent base of operation.

To date this has proven to be a prudent decision, providing the Water District with adequate office and headquarter area in addition to satisfactory garage and maintenance facilities, centrally located that will serve the community for many years at a minimum cost.

Major changes in the operating staff was the retirement on June 30, 1986 of E. Arthur Bonci, Superintendent. He served in his capacity for 22 years with dedication and distinction. He brought to the Water district a new element of leadership and a high standard of performance that has established the high regard given the West Boylston Water District by its peers. He was succeeded as Superintendent by Donald S. Smith who had served as an assistant to Arthur Bonci. Arthur Bonci was elected by the District as a Commissioner and was shortly thereafter appointed Treasurer for the District.

Moderate increase in water rates were made in order to meet a period of rising cost of operation. Recently started has been a comprehensive review of existing rates and fees in order to bring revenues closer to actual expenditures that have substantially increased over the past few years. All are aware of large increase of cost for electricity, materials and annual cost of living increments for employees, coupled with new expenditures for EPA and State programs involving water quality parameters. Added restrictions and regulations are further anticipated that undoubtedly will continue the trend of higher cost of operation.

Enlargement of the distribution system continued throughout this period, increasing the number of services. The elevated storage tank at Oakdale was inspected and repairs were made. Equipment was installed and corrosion control chemicals were added to reduce the corrosive quality of the raw water.

A worthy conclusion to this narrative may be a brief mention of individuals who have made significant contributions in the development of the water system over the past fifty years.

Of meaning and importance has been the Moderator of the District. Men of high caliber have filled this position, Julius Lovell, James Moorefield and the current moderator John H. Berg, have and are contributing to the finest traditions of democratic town meetings. Another position of importance is that of the District Clerk, Louis Campbell, Nathaniel Nash and others have served with distinction.

Administratively the Board of Water Commissioners are the executive heads that direct and manage the Water District. The list is long and is contained as part of the Annual Report. All deserve gratitude of their neighbors and citizens of West Boylston for their time interest and dedication in this endeavor.

Together we have journeyed through the past 50 years - a half of century of challenge. We have endured and as the period ended - thrived by the virtue of the character and strength those challenges instilled in us.

What we face as the 90's dawn is a decade of opportunity, borne by change. We face the rigors of a competitive ambience, one that values innovation and efficiency, while punishing indecision and inaction. There are trends in this changing water resource endeavor that must be anticipated. We must remain confident enough to trust our ideas, and aggressive enough to see them through.

"Our goal therefore is to have sufficient water, sufficiently clean, in the right place at the right time to serve the range of human and industrial needs." John F. Kennedy