

PUBLIC WORKS ADMINISTRATION

Herewith I submit the Department of Public Works report for the year ending December 31, 2006, covering the following: Public Works Administration, Street Maintenance, Sanitary Sewer Maintenance, Stormwater Maintenance, Central Fleet Maintenance, Deltas & Grounds Maintenance, Forestry Services, Solid Waste Collection & Disposal, Recycling, Capital and Personnel.

The new Department of Public Works consisting of the Cemetery Division, Highway Division, Parks and Facilities and the Water Division began to operate under the Board of Selectmen, Town Administrator and the newly created position of Director of Public Works on July 1, 2003.

This consolidated department enjoyed its third full year of operation in 2006. The continued focus is to reorganize according to the plan that was developed and continue to centralize the administrative functions of all divisions. Following the consolidation plan the new position of Business Manager created and filled by promoting Judi Carmody.

During 2006, Public Works Administration originated 12 contracts for vehicles, supplies and/or services under Chapter 30B, the Uniform Procurement Act. Significant administrative time was spent working with the Tree Warden, Tree Service Company, Executive Safety Committee, North East Solid Waste Committee (NESWC), Massachusetts Water Resources Advisory Board and Shade Tree Committee. Highway personnel assisted with the following community projects: Voting, Booster's Carnival, Belmont Center Town Day, Thanksgiving Day Football, Holiday Lighting Ceremony in Belmont Center, Easter Parade in Belmont Center, the Farmer's Market and the Emergency Flu Clinic.

HIGHWAY DIVISION

Street Maintenance

The Highway Division maintained, cleaned and signed Belmont's 77.76 miles of public roads. In addition, we cleaned, signed and performed minor maintenance work 8.10 miles of private ways.

During 2006, a total of 18 sidewalks were repaired. The Town's contractor repaired or replaced 1 concrete sidewalk at 1,932 square feet. Highway personnel repaired or replaced 17 concrete sidewalks amounting to 1,395 square feet.

The deterioration of the roads continues to be a major concern. With each passing year, additional manpower and funding are required to maintain the roadways. A program using Chapter 90 funding for the Pavement Management Program and the design for the reconstruction of Pleasant Street continued. These funds are used to leverage federal construction funds for road improvements on Pleasant Street construction began in 2005. Planning continues to address the reconstruction of the Belmont Street/Trapelo Road corridor. The Pavement Management Program scheduled for 2004 continued to address the serious condition of the roads. A coordinated approach working with the Town Administrator, Community Development Department and Water Division has developed a plan to address the road and sidewalk improvements and coordinate the replacement and repair of utilities.

Street signs, regulatory and traffic signs were purchased, prepared, erected and maintained by the Highway Division.

Crosswalks, center and parking lines were repainted by Highway personnel during the year. The Highway personnel painted blue and white handicap markings on 51 various designated parking spaces throughout Town. A total of 655 gallons of white, 370 gallons of yellow, and 10 gallons of blue traffic paint were used during 2006. Reimbursement for damaged signs and Town property totaled \$ 1,084.75.

During 2006, Highway personnel responded to 22 overtime snow or ice calls ranging from a trace to 19 inches. All snow and ice storms were cleared and sanded by Division personnel with assistance from other Town employees from the Water, Parks & Facilities, Cemetery Divisions and Electric Light Department. Contractors assisted with snow plowing during 2 storms in 2006. The total snowfall for calendar year 2006 was 36 inches. Belmont's 1995 By-Law covering a Snow Emergency Parking Ban was put into effect 1 time during 2006.

Sanitary Sewer Maintenance

Belmont has two sanitary sewer pumping stations, one located on Stony Brook Road and the other on Woodbine Road, which the Highway Division maintains and services on a weekly basis. Each week the division also maintains and cleans selected main lines throughout the Town as part of a regular maintenance program. The division is responsible for 76 miles of main lines, appurtenances and about 6,700 building services.

During 2006, 12 individual building connections were televised to determine the condition and priority for repair. As a part of our ongoing maintenance program, 3 sanitary sewer lines were repaired. The Highway Division responded to 259 building stoppages during the year.

The Board of Selectmen voted to not increase the metered sewer charge leaving it at \$7.92/CCF with a minimum service charge of \$5.52 per billing. The "lifeline" rate is at \$6.76/CCF.

The replacement of the Stony Brook Pumping Station has been placed on to the long term Capital needs request at an estimated cost of \$450,000.

Storm Drain Maintenance

The annual cleaning of approximately 1,900 catch basins was completed during the spring by a private contractor. An ongoing program of maintenance and cleaning of main lines was continued during 2006. Highway personnel connected 2 storm services to the Town's storm drain system. The division is responsible for maintenance of all catch basins, manholes and 54 miles of main lines. Maintenance and cleaning is also provided for storm drain connections to buildings.

Under the Sanitary Sewer and Storm Drain Capital Program the Highway Division was authorized to purchase one street sweeper at a cost of \$130,400 and one administrative vehicle at \$24,800.

Central Fleet Maintenance Facility

Since 1981 the Highway Division has managed a Central Fleet Maintenance facility at the Highway Yard on C Street. Most Town owned vehicles and equipment are serviced and fueled at this location. Gasoline, diesel fuel, tires, lubrication, preventive and general maintenance along with extensive motor repair is available to Town Departments. Waste oil continues to be accepted from residents in addition to waste oil generated from the Town's vehicle maintenance program. Equipment which supports all Highway Division programs is stored at this facility as well.

Deltas and Grounds Maintenance

The Highway Division is responsible for 52 separate deltas, islands and grounds including most of the land around Clay Pit Pond. During the spring all areas were cleaned and for the balance of the growing season the property was mowed, maintained for and cleaned.

No summer laborers were authorized to be employed during the growing season to assist with maintenance.

The Garden Club has, once again, provided labor and plantings to enhance several public areas throughout the Town. Their generosity and public spirit has helped enormously to beautify the town and is especially appreciated given recent budget limitations. This past summer we again enjoyed the appearance of these public spaces.

Forestry Service

Asplundh Tree Expert Company served the First year of a three-year contract for tree care during fiscal year 2006. Thomas D. Walsh also served the First year of a three-year term as Tree Warden and his report follows.

Report of the Tree Warden

For the Twentieth consecutive year, the Town of Belmont was recognized as a Tree City USA by the National Arbor Day Foundation.

Arbor Day was celebrated on April 28, 2006 with the planting of another London Plane tree at the Winn Brook Elementary School on Waterhouse Road. The ceremony took place with the Winn Book School's fourth grade participating.

During 2006, the Town purchased 130 trees and planted them in various locations. Trees were watered during the growing months. The Town removed 93 dead and dangerous trees during 2006.

The contractor maintained public shade trees predominantly in response to requests from citizens for service. In addition to maintenance work performed on these larger public shade trees, many small, young trees were pruned as part of our proactive program to assure good form, structure, health and vigor as they develop towards maturity. Storm damaged trees also were routinely repaired to insure the long-term health of the affected trees.

One Tree Hearing was held during the year.

As Tree Warden, I express my appreciation and thanks to the Board of Selectmen, Town Administrator, Director of Public Works, Department and Division Managers, Shade Tree Committee and employees of the Town for their support, cooperation and assistance during the past year.

Respectfully submitted,
Thomas D. Walsh, Tree Warden

Solid Waste Collection and Disposal

Residential solid waste continues to be collected once per week at each household, with recyclables collected every other week. Solid waste is transported to the Wheelabrator North Andover (WNA) Resource/Recovery Facility in North Andover. Since 1985 the Town has contracted to dispose of its solid waste at the Resource/Recovery Facility for a period of twenty years until September 25, 2005. In 2005 the Town signed a four year and nine month new contract with WNA for solid waste disposal service. This contract does not contain any of the onerous provisions of the original twenty-year agreement and the Town is expected to save approximately \$500,000 per year in solid waste disposal costs.

Russell Disposal served the first year of a five-year contract as our collection contractor during 2006.

During 2006, as a member of the North East Solid Waste Committee (NESWC) the Town continued to pursue every option to minimize solid waste disposal costs.

In addition to weekly residential trash and the weekly appliance collection for recycling, the program also collects and recycles on an every other week schedule clear, green and brown glass, #1 thru #7 plastics, steel/tin/metal containers, newspapers, magazines, catalogs, newsprint, junk mail, mixed paper and telephone books. Cathode ray tubes (televisions and computer monitors, also known as CRTs) are collected weekly as scheduled. On July 1, 2004 a \$15 per item fee was instituted for the recycling of Cathode Ray Tubes (computer monitors and televisions) and a \$20 per item fee for the recycling of household appliances. Yard waste is collected every other week from April to mid October and weekly during the fall leaf season.

During Calendar 2006, the Town recycled 4,382 tons or 31.4% from the residential solid waste stream. The Town realized \$910.00 from the sale of recycling bins, \$1,040.00 from the sale of compost bins along with \$34,780.00 from the sale of appliance and CRT recycle stickers.

Transfer Station Operation and Site

The Master Land Use Plan for the site surrounding the Transfer Station was followed during 2006. The site continues to be used for solid fill disposal from public works operations. Asphalt, concrete, wood chips, tree stumps and logs from public works operations continue to be stored at the site before being recycled.

For the fourteenth fall season, leaves were collected weekly in containers by our solid waste contractor to be composted commercially out of Town. The fee to local landscape contractors for depositing leaves in our compost pile at the transfer station site on 1130 Concord Avenue for the fall season (\$400 per vehicle) generated \$8,800.00 in revenue. Residents were allowed to bring leaves to the compost area at no charge. For the last sixteen years, the division has windrowed the leaves in an effort to facilitate decomposition. Active marketing enabled a large amount of leaf compost to be hauled out of Town and recycled at no cost. We continue to actively seek markets for leaf compost so that we will have space for storage of future years' leaves for composting.

Through the Office of Community Development the Town has retained Camp Dresser & McKee to provide an engineering assessment of the former Incinerator Site and ash landfill at 1130 Concord Avenue to comply with The Massachusetts Department of Environmental Protection's regulations.

Parks and Facilities

Parks and Facilities provides for the cleaning, maintenance, repair and improvement of the resources for recreational enjoyment. These include; the Skip Vigliolo Skating Rink, Underwood Pool and adjacent park, Concord Avenue Athletic Fields and facilities, Hittinger Street Field, Town Field, Pequossette Field, Chenery Middle School Field, Grove Street Field, Payson Park Playground and Winn Brook Field. In addition, this group maintains the tennis courts at the Grove Street Field, Pequossette Field, Chenery Middle School Field and Winn Brook Field.

Due to severe weather with heavy rain the synthetic turf field on Concord Avenue had to be repaired at a cost of \$32,000.

The athletic field and facilities had many improvements thanks to donations from various organizations. New infield mix was applied on two fields at the Chenery Middle school thanks to the Girls Softball Association, new infield mix was applied to the Hittinger Field thanks to the Belmont Boosters, new infield mix was applied to the Town Field Diamond thanks to the Babe Ruth Association, new mix at the Pequossette field thanks to the Belmont Little League, and new mix was applied to the Junior Varsity field thanks to the Brendan Grant Foundation. The Brendan grant Foundation also funded \$11,300 for the refurbishing of the Belmont Varsity Field, which consisted of replacing all of the sod, grading and new infield mix for the entire infield. Belmont now has a first class varsity baseball field.

Two new batting cages with netting were donated by the Boosters and the Brendan Grant Foundation at a cost of \$8,100. Belmont Little League donated new infield mix to the varsity field and the little league field.

A new pumping system and a new main line going to the football field at the Concord Avenue field at a cost of \$18,000 was donated by the Boosters, The Brendan Grant Foundation, Friends of Lacrosse, Soccer Association, Baseball Association,

Friends of Field Hockey along with the Town's Department of Public Works and Light Department. The Belmont Soccer Association funded \$25,000 to replace the sod in the goal mouths of the soccer field located at Concord Avenue, Pequossette Park, and Grove Street. This generosity makes our soccer fields some of the best around.

Clearly these generous contributions add value to the recreational facilities and are enjoyed by the staff, participants and spectators alike. Again we thank these organizations for their continued generous financial support at a time of great need and for donating their time to improve and maintain these important facilities. The Parks and Facilities maintenance staff works closely with all of the town sports organizations in the care and maintenance of all athletic facilities.

Personnel

At year's end, the Public Works Administration has 3 budgeted full time employees, the Highway Division had 25 budgeted full time employees, and a part time Tree Warden. The Parks and Facilities group had 5 budgeted full time employees.

Several employees successfully completed educational course related to their employment, which were funded by the Town during 2006. Several employee safety programs were held during 2006 in conjunction with the Executive Safety Committee. The DPW Highway Division, represented by two teams, Paul Mosca & Michael Eccles and Matthew Digiacomandrea & George Patsios participated in the City of Boston Snow Plow and Safety Training in September 2006 testing their skill and knowledge. We are pleased that the team of Matthew Digiacomandrea & George Patsios placed 3rd overall in this event. Our appreciation and congratulations to these two employees for representing themselves and the Town so well.

I wish to express my appreciation to the Board of Selectmen, Town Administrator, Department and Division Managers, Shade Tree Committee, all other committees and employees for their support, cooperation and assistance during 2006.

Respectfully submitted,
Peter J. Castanino, Director of Public Works

WATER DIVISION

Significant Information and Statistics

All water consumed in Belmont is supplied by the Massachusetts Water Resources Authority (MWRA) from reservoirs owned and operated by the Metropolitan District Commission (MDC). The Town is under contract with the MWRA and is required to pay for all water supplied to the Town.

Safe Drinking Water Act

During 2006, the water supplied to the Belmont Water Department by the MWRA was in compliance with all Maximum Contaminant Levels (MCL'S) as established by the Safe Drinking Water Act (SDWA). The SDWA defines water quality parameters which are considered safe for human consumption. The SDWA is administered by the U.S. Environmental Protection Agency (USEPA) and enforced by the Commonwealth of Massachusetts Department of Environmental Protection (DEP). Water samples are analyzed on a weekly basis for microbiological contamination and on a periodic basis for organic compounds, heavy metals and pesticides. All tests are performed by the MWRA laboratory or a certified laboratory under contract with the MWRA. Reports are on permanent file at the Water Department Office.

The Department has identified all water service pipes which are either all or partial lead. A program designed to replace these lead pipes was started in 1992 and will continue in 2007.

Water Distribution System

System Composition

Types of Pipe: Ductile Iron, Cast Iron, Galvanized Iron, Copper, Asbestos Cement
Size Range: 1.5 Inch to 16 Inch Diameter
Number of Hydrants: 679
Number of Services: 7,546
Types of Services: Copper, Brass, Cement Lined Iron, Galvanized Iron, Wrought Iron, Cast Iron
Percentage of Services Metered: 100%

Extent of Main Pipe System 2006

Pipe Diameter	Length in Feet	Percent of System
16 Inch	279	.58
12 Inch	32,272	6.71
10 Inch	62,286	12.94
8 Inch	194,921	40.50
6 Inch	285,961	59.94

2 Inch	4,945	1.02
1.5 Inch	58412
Total	481,248 Feet	100.00 %

Water Consumption Data

Average Water Consumption in Millions of Gallons per Day (MGD)**

Month	2005	2006
January	2.021	1.985
February	2.274	1.949
March	2.276	1.956
April	2.228	1.988
May	2.188	2.050
June	2.257	2.174
July	2.797	2.321
August	2.470	2.421
September	2.390	2.155
October	2.092	1.976
November	1.847	1.916
December	1.840	1.929
Average	2.224	2.069

*Average Consumption per person per day 80.56 Gallons 74.96 Gallons

Total Consumption from MWRA**

2004	873,500,000 Gallons
2005	811,600,000 Gallons
2006	755,400,000 Gallons

* Estimated Population of 27,600

** Data supplied by the MWRA

Water Main Replacement Program 2006

- **“Blanchard Road Area Project”**

The “Blanchard Road Area Project” replaced 6,140 of unlined water main on Blanchard Road from the Town Line to Concord Avenue, all of: Colby Road, Merrill Avenue, Hamilton Road, Baker Street and Trowbridge Street. This pipe was replaced with 8” ductile iron pipe. Also replaced were all the fire hydrants and water main gates within the project area.

- **Washington Area Project (FY 2007)**

The “Washington Street Project” will abandon problematic 1888 water main and transfer individual water services to a newer water main. Also included is a reconfiguration of the water main network at the intersection of Washington Street and School Street plus replacement of numerous broken water main gates.

Water Advisory Board Comments

The Water Advisory Board continues in its function to advise the Town on the financial matters of the Water Division and engage in discussions of the water utility business. We are challenged by the steadily increasing wholesale cost of water from the MWRA which comprises 45% of the Water Division budget while keeping rates under reasonable control and providing very good and reliable service to our customers.

The Water Main Replacement Program continues and is now in the 13th year with considerable progress made, there is still much work ahead as we replace an ageing water distribution system. The Meter Modernization program is now 98% complete and allows remote radio water meter reading. In 2006 the Water/Sewer function was transferred to the Belmont Municipal Light Department which now places all utility billing in one office.

In 2006, two valued employees retired, Gordon Joyce who had 35 years of service and Thomas Notartomaso who had 10 years service. We wish both a very happy and rewarding retirement. We also express our sincere appreciation to the highly skilled and dedicated craft employees for a job well done for their efforts this past year.

Respectfully submitted,
 Frank E. French, Chairman

Massachusetts Water Resource Authority Advisory Board

The Massachusetts Water Resource Authority (“MWRA”) was created by the Massachusetts Legislature in 1984 to succeed in the interests of the Metropolitan District Commission with regard to the delivery of safe drinking water to the member

communities and to treat and dispose of wastewater from the member communities, all in conformance with applicable law. The same legislation that created the MWRA also created the Massachusetts Water Resource Authority Advisory Board to represent the interest of the sixty-one member communities. Each municipality is represented by at least one person on the Advisory Board. In my capacity as Director of Public Works I have been appointed to the MWRA Advisory Board by the Board of Selectmen to represent the Town of Belmont. MWRA provides wholesale water and sewer services to 61 communities. Forty-seven communities purchase water supply services, and Forty-five communities purchase wastewater transport and treatment services. Thirty-one communities purchase both. Approximately 2.5 million people, or 43 percent of the population of Massachusetts live and work in the communities that purchase water and/or wastewater services from MWRA.

MWRA provides water and sewer services to communities on a wholesale basis. Each community then re-sells services on a retail basis. As a result, household water and sewer charges include each household's share of the community's MWRA water or sewer assessments, plus the community's own charges for the provision of local water or sewer charges.

MWRA funds its operations primarily through user assessments and charges. No funds supporting the current expense budget are subject to appropriation, except debt service assistance from the Commonwealth of Massachusetts and several minor reimbursements from the Commonwealth. Federal grants have ended.

MWRA finances its capital improvement program primarily from issuing long-term general revenue bonds. Savings in capital costs are particularly important since every dollar cut from the capital budget saves approximately three dollars in future debt financing costs. The MWRA has adopted a policy whereby the term of bonds is matched to the life of the facility/facilities. In order to control costs to its member communities the MWRA has placed a cap on capital expenditures. The debt service for the MWRA, currently 60% of the annual current expense budget, is expected to be at 65% by the year 2010.

The Boston Harbor Project is the second largest public works project ever undertaken in New England. Construction for the Boston Harbor Project is complete. According to the MWRA, the total cost of the project was \$3.5 billion, not including the \$150 million for the processing of residuals (pellets) in Quincy.

The Combined Sewer Overflow (CSO) program is proceeding. Approximately 65% of the next five-year capital will be dedicated to the CSO Program. It is anticipated that expenditures on the CSO program, which should be completed by 2010, will be a total of \$649 million.

The Water Works System Improvements Program ("WWSIP") consists of 55 projects. The MWRA will also construct 7 covered storage facilities to protect treated potable water (\$197 million). Total estimated expenditures for waterworks system projects for fiscal years 2004 through 2008 are \$441 million, with another \$328 million in spending forecast through fiscal year 2013.

Total spending for FY 2004-2013 has been reduced to the capital spending levels identified in the FY 2004 Capital improvement Program (CIP). MWRA staff eliminated, scaled down or delayed a net \$342 million in capital projects and phases. Spending levels in the capital budget have been reduced in order to address a necessary reality that the debt service costs associated with the CIP are a significant burden to MWRA's ratepayers. Approximately 80% of MWRA CIP spending has been mandated by court order or regulation.

MWRA staffing, which was at 1754 in June of 1997, dropped to 1385 in June of 2002 and was further reduced to 1271 filled positions by June of 2005 in the continuing effort to control costs.

The severe shortfall in state revenues compared to expenditures in FY 2003 has required the elimination of the entire State Debt Service Assistance of \$47.2 million in FY 2003. In FY 2004 State Debt Assistance returned at a \$4.1 million level; in FY 2005 increased to \$8.7 million and in FY 2006 to \$20 million. The MWRA Advisory Board and staff continue to work with the state legislature and Governor's office to increase State Debt Service Assistance to help control debt service costs for the member communities. It appears that in FY 2007 State Debt Service Assistance will be raised to \$25 million. As of June 2006, Belmont's combined sewer and water assessment by the MWRA for FY 2007 has increased \$586,440 over FY 2006, which translates to a combined increase in sewer and water assessments by the MWRA on Belmont of 11.3 % over FY 2006. Each community independently establishes retail sewer and water rates. When establishing local rates, community officials consider issues related to the pricing of services, level of cost recovery, and the local rate structure or methodology. By legislation, ratepayers and member communities have no choice except to pay to the MWRA the full amount assessed against the respective communities by the MWRA.

Detailed information on the Current Expense Budget and Capital Improvement Program is available online at www.mwra.com.

Respectfully submitted,
Peter J. Castanino, MWRA Advisory Board Member