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DEPARTMENT OF PUBLIC WORKS



I have spent the majority of my career in management and as part of that have had the opportunity to receive some extensive management training. The training I received was from many different sources including an extremely successful American corporation and my father, Dennis Daley (union brother / steward, 40 years). The point of this is that I have had the opportunity to utilize that training in the great human experiment. As any knowledgeable manager knows, to be successful I would need the assistance of my fellow managers in the Dept. of Public Works. A person can not do it alone. But that one person with the right positive attitude can motivate those managers who will help him and motivate the people under his direction, resulting in a positive, hard working, team. As said by many "It comes from the top."

I continue to see this Lite Brigade become more of a cohesive group. It is a true pleasure and gives me great pride to be associated with this Dept. of Public Works.

This past year brought many new challenges. With the final paving, landscaping and guardrail installation, the Keene St. ball field and drainage project has finally been completed. It was a solid team effort by the Highway and Lands & Natural Resource Divisions of the DPW.

Bruce O'Neil, our Highway Foreman has been instrumental with the implementation of a whole new fuel tracking software at the town Fuel Depot. Each Town vehicle now has a key and each Town employee, that is authorized to dispense fuel, has their own personal identification number. This along with the information that is required to be input at the pumps now allows us to track who pumps, when, how much in what vehicle, miles per gallon, usage by person, usage by vehicle, Department consumption and mileage on the vehicles. This tracking method plus an overall greater emphasis on fuel usage and consumption has resulted in a town wide 15% reduction in fuel consumption when comparing July of 2005 to July of 2006.

This year I was proud to work with Tyler D. Adams a member of Troop 82, who as part of his Eagle Scout project installed 500 vinyl medallions that stated "No Dumping Drains to Waterways" adjacent to catch basins. This project not only helped Tyler get his Eagle Scout badge but greatly helped the Town with the Public Participation / Public Education components of our Federal NPDES (National Pollution Discharge Elimination System) permit. Thank you, Tyler.

Although I was dreading this particular project, the Highway Division with Ed Vickers our Operations Manager at the helm of a rented excavator made our replacement of the Town Hall septic system go so smoothly and quickly that it was a true pleasure. I was extremely impressed with the hard work, positive attitudes and attention to detail by the Highway Division. Even though the project was large in nature, had very tight tolerances, was difficult to coordinate with the Town Hall operations and many underground utilities the project was completed right by the plan. At the time of this writing the parking lots and sidewalks have been paved, the Division of Lands & Natural Resources has completed some very attractive plantings and Town Hall has never looked better. Thank you all for making such a potentially difficult project go so well.

We began working on the new addition to the Council on Aging parking lot in the fall of 2005. We surveyed and designed it in the fall and during a break in the weather we removed the trees and performed some rough grading in January of 2006. We have completed our permitting process through the Planning Board and are now currently in the middle of installing the drainage systems.

A project that has taken up a great deal of my personal time is the historical and complete renovation of the Wright Building. The project was funded and designed under the direction of the Community Preservation Committee with the assistance of Finegold, Alexander and Associates out of Boston and Joe Grady our ever capable Conservation Agent. This project was given to the DPW in the fall of 2005 to manage the construction. Work began in November of 2005 and is on-going. Although this is probably one of the most difficult projects I

have ever had to take on, I am pleased with the progress and quality of the work. We are anticipating opening the facility in January of 2007.

As usual the names and faces within the Department have changed a bit. We have added Chip Locketti and Russ Keirstead to the Cemetery and Transfer Station Divisions respectively. Chip is a great addition to the Cemetery and Russ is driving our trash to SEMASS, a program that is working out very well. One of the biggest changes in people is within the Water Division. Mike Tassinari our supervising foreman (16 year employee) left to become the Water Supt. in Arlington, MA. We wish Mike the best of luck. We promoted Doug Ficks from within to fill Mike's shoes and as anticipated Doug is doing a great job. We have also added Mike Braun, Darren DeSilva and Peter Mackin to the ranks of the Water Division. They are all a pleasure to work with and bring great diversity and qualifications to the Division. I sincerely look forward to see how this Division develops under the capable direction of Paul Anderson our Water / Sewer Supt. An item to note; the Water / Sewer Division is beginning to take over the operations of the High School Treatment Plant and shared septic systems. Our goal is to totally operate these facilities in-house with no contractual assistance. This will save the Town tens of thousands of dollars per year.

After 36 years of service to the Town, Mr. Glen Ghidoni who worked at our Transfer Station retired in June of 2006. Glen was always a sincere pleasure to work with. He always had a smile on his face and a good word for everyone. Long term employees like Glen are becoming ever harder to find. He will be truly missed and we all wish him our sincerest best. I'm sure our patrons at the Transfer Station will miss Glen's "Elvis air guitar". Take care my friend.

Last but not least, I want to give a special thanks to Mr. Bruce O'Neil our Highway Foreman. He not only is the first respondent to snow and ice issues in the winter, but this past year when Mr. Ed Vickers went out for a five month illness, Bruce stepped up to the plate. We temporarily promoted him to Acting Operations Manager and he did an outstanding job keeping the Highway, Vehicle Maintenance and Transfer Station Divisions running smoothly and efficiently. No matter how much I told him to take a day off here and there, his dedication wouldn't let him and he saw it through until Ed returned. Thank you, Bruce for your caring and great effort. We couldn't have done it without you.

And thank you to all of the DPW staff as always for another pleasurable, productive year.

Good management is your worthiness to have and hold the confidence of others.
– James E. Casey - 1949

RESPECTFULLY SUBMITTED,

Thomas E. Daley, P.E.
Director of Public Works

DEPARTMENT OF LANDS AND NATURAL RESOURCES



The Town of Duxbury was awarded the Tree City USA Award for the fifteenth consecutive year. The National Arbor Day Foundation along with the United States Department of Agriculture and the National Forest Service give the award each year to communities that prove a dedication to beautifying and preserving their lands.

Towns on the South Shore and Cape Cod have lost alarming numbers of oak and maple trees due to several years of defoliation by Gypsy Moth, Canker Worm and Winter Moth caterpillars and sporadic years of drought. Because of these losses the Department of Lands and Natural Resources has had to drastically increase its hazardous tree removal program. Residents would be wise to monitor the trees on their property carefully.

In conjunction with the Duxbury Garden Club and Town Manager, Richard MacDonald, the department will be creating scenic plantings near "Entering Duxbury" signs around town. The groundwork for this project has been started and the majority of the plantings will be finished in the spring.

The responsibilities and accomplishments our Building Maintenance operations have increased as well with a number of new features added to various town buildings. The Town Fire Alarm Project was completed linking most Town Buildings with an alarm station manned 24 hours a day, 365 days a year. This has greatly enhanced our fire protection capabilities. A security pass card entry system was installed in Town Hall, Old Town Hall and the Senior Center. This assures greater security for those buildings and for people working in those buildings during off business hours. A voice mail system was installed in Town Hall and Old Town Hall. This affords the public greater and easier access to departments during business and non-business hours.

The department continues its efforts to serve the people of Duxbury by working with various departments and citizen organizations to ensure our public lands, building, trees, open spaces and athletic facilities remain beautiful and a source of pride for the entire community.

I thank all the hard working employees of the Department of Lands & Natural Resources as well as the other DPW employees and the employees of all the Town departments for a solid and productive year.

Respectfully submitted,

Peter Buttkus
Manager of Buildings and Grounds
Tree Warden

DPW OPERATIONS

HIGHWAY, VEHICLE MAINTENANCE AND FUEL DEPOT



Winter for the DPW department was a bit easier to handle this year than last. We had a total of seven storms and a snowfall of 19.5 inches that the whole DPW was involved in. The departments also handled 28 sanding operations.

The Highway Department had numerous accomplishments this past year along with taking on several new projects. There were drainage improvements made on Washington Street and Pettibush Road. We began an expansion of the parking lot at the Senior Center. Last spring, the department installed a new septic system at town hall, taking only two weeks to complete, along with paving the parking lot and sidewalks and relining all parking spaces. The employees in the department did an

excellent job with substantial savings to the town.

The department tightened the planks on the Powder Point Bridge by using pins that were predrilled on an angle. Over the years the pins had loosened up. The sidewalks on the bridge will be done next.

A new float for Landing Rd. was built and paid for by the DPW. One of the crew completed this task in only five days.

The Highway department repairs an average of 25 basins and manholes a year. Along with repairs we clean basins, paint lines, paint curbing, road islands, crosswalks, stop signs, street sweeping, daily calls, repairing signs and signposts and constantly trying to keep up with roadside litter. The roadside litter has almost become a full time job!

One of the biggest jobs for the department is paving. We used a total of 9,229.86 tons of paving material. Bravender Road, Pettibush Lane and Captain's Hill Road were paved because of water main replacements. We also paved the overflow parking lot at the Police Station, Keene St. Parking area, Washington Street, Boxwood Ln., Standish St., a portion of Temple St., Elm St., Oak and School St., North St., Union St. and a portion of Lincoln St.

Our two vehicle maintenance department employees have done an excellent job of keeping our vehicles in good running order, especially during the harsh winter months. Along with the responsibility of all DPW vehicles the department has taken on a new responsibility of maintaining all Fire Department vehicles.

A new computer was purchased for our gasoline system located behind fire central. The new system allows us to better track gasoline consumption.

I would like to thank the Highway department, Vehicle Maintenance Department the Transfer Station and all our department crews for all their hard work and dedication. I am proud to be part of this team.

Respectfully submitted,

Edward C. Vickers
Manager of Operations
Department of Public Works

TRANSFER STATION



The Department of Public Works continues to work hard to increase our recycling efforts. The Town is being paid for all the paper and cardboard that is recycled. Those payments combined with not paying to haul away the paper and cardboard has been a financial benefit for the town. We also recycle toner cartridges, cell phones, batteries, televisions, computer monitors, steel and appliances. We have an agreement with the company that removes our steel to take all our televisions, computer monitors and white goods for no charge or transportation costs. This is a large savings for the Town. We have once again enlarged our construction ramp-making disposal of these materials safer and more efficient. Our operation continues to improve every year.

I would like to thank the gentlemen that work our transfer station, George, Dave, Russ and Glen, for their tremendous efforts and hard work. I again, would like to thank all the town's residents for recycling,

following the rules and helping to keep order at this very busy and important area of our Town.

The DPW Director, Tom Daley and I continue to work on improvements for the Transfer Station.

Respectfully submitted,
Edward C. Vickers
Manager of Operations
Department of Public Works

CEMETERY



The main focus of our efforts this past year was to improve the general appearance of our cemeteries. Part of our efforts was concentrating on doing major clearing of growth and fence painting that had been neglected for many years within the bounds of the cemeteries themselves. We were able to tap into the Mayflower Care & Improvement Fund for the paving of some of our avenues that had decayed through time.

The Cemetery Department has begun to enforce our rules & regulations on "No Dog Walking" in and on the cemetery grounds, even though a sign had been posted for many years at the entrance of the cemetery some sadly had chosen to ignore. Chief Mark Deluca and the Duxbury

Police Dept. were very helpful in enforcing this rule. We have to remember what the purpose of a cemetery is and that purpose is to memorialize those who had once lived. It is an ongoing historical record of the past and should be a place of sanctuary and reflection for loved ones to gather.

The crematory staff was able to attend the Cremation Association of North Americas' certification program held this year in Dedham, MA. This program was a day long seminar and is usually held in the state of Florida, because of the mishaps in Seabrook, NH with Bayview Crematory, CANA decided to hold a seminar closest to our area so that other local crematories could attend. We passed our test and are now certified and have also become proud members of CANA. We were very excited to have this opportunity to attend and to learn.

I would like to extend my heartfelt appreciation and thanks to the Cemetery Dept. Grounds Crew. This year saw the departure of Steve Burns who is now Building Maintenance at the Town Hall, replacing Steve is Chip Lockett as Equipment Operator. Chip along with Gail Cannon and Charlie Yeaton worked diligently with the maintenance of the cemeteries. We had an opportunity to work with the Woods brothers Dan and Greg our summer help, thanks to them also for their hard work in helping to make Mayflower, Ashdod, Dingley and Myles Standish Cemetery a beautiful sanctuary for our residents to visit. Also to Tony Chaves and Paul Bruce our Crematory Technicians for their integrity in serving the area funeral homes and the families that they serve. This year saw record cremations. Thanks to Tonya who keeps us on our toes and brings the whole operation together. Thank you to the Cemetery Trustees for your dedication throughout the year, Tom Daley and the staff of the DPW Dept. for being so supportive and Lands and Natural for their assistance. It's all of these people who collectively help to make the Cemetery Department one of the best-kept and most beautiful municipal cemeteries around.

"Lives are commemorated, deaths are recorded, families are reunited, memories are made tangible, and love is undisguised. This is a cemetery".

Respectfully Submitted,

Patricia J. Pappas
Superintendent of Cemeteries / Crematory

WATER & SEWER DIVISION



Why is the management and operations of the Duxbury Water Department important? On a global level which is just as relevant locally consider this. Only 2.5% of the world's water is not salty, and of that, two thirds is trapped in icecaps and glaciers. Of the remaining water approximately 20% is either located in remote areas inconvenient to access or is received in the wrong place at the wrong time (monsoons and floods).

This leaves less than 0.08% of all the water on the planet available for human use. It is estimated that 70% of this minute percentage is used for agriculture and an additional unknown percentage is used in industry (growing rapidly). Now for the shocker. In 2000 the World Water Council reported that over the next two decades the use of water by humans will increase by approximately 40%, and that 17% more water will be needed to grow food than is available. The Council concluded that "only rapid and imaginative institutional and technological innovation can avoid the crisis. The management and operations of the water and sewer in Duxbury may be more important than any of us realize and it is only with the tireless efforts of the field and office staff that I submit the following.

Distribution Foreman Mike Tassinari accepted a management position in Arlington after 16 years of service in Duxbury. Mike was knowledgeable, productive and will be missed. Doug Ficks was promoted to the foreman position and continues to do an excellent job. Doug has focused on organizing the water shop and training new employees. Radio read meters are now being installed as part of our meter replacement program. This technology will expedite the reading process and allow staff to focus on other high priority projects. Four major main breaks and seven service leaks were repaired. Seven new water services were added to the existing infrastructure. Four hydrants were replaced, two relocated and numerous others were repaired. A new fire and domestic service line was installed at the Wright Building as part of the renovation project. Mark outs of water main and services were too numerous to count due to gas main replacement and paving. All cross connection devices were tested (137 tests) in accordance with DEP regulations. In addition to the above, distribution operators performed routine maintenance of the system on a daily basis and responded to countless customer concerns.

On the water treatment end of the department, the focus has been on improving the efficiency and overall operations of the wells and greensand treatment plant. New software and a hand held computer are being utilized to record and track chemical dosages and flow data. The wells have been evaluated to optimize the current maintenance schedule. Six fatigued chemical pumps were replaced and four were refurbished making chemical injection more consistent. A sanitary survey was completed by the DEP and no deficiencies were found at any of the ten well sites. Extensive upgrades were made to the Evergreen Greensand Plant improving the iron and manganese removal from the finished water. A generator was installed at the Captains Hill Tank to ensure no water interruption during power outages. The treatment staff has recently taken over the operations of the High School Wastewater Treatment Plant. The operations have been vastly modified ensuring cost savings. The plant is more efficient and operating well within DEP parameters.

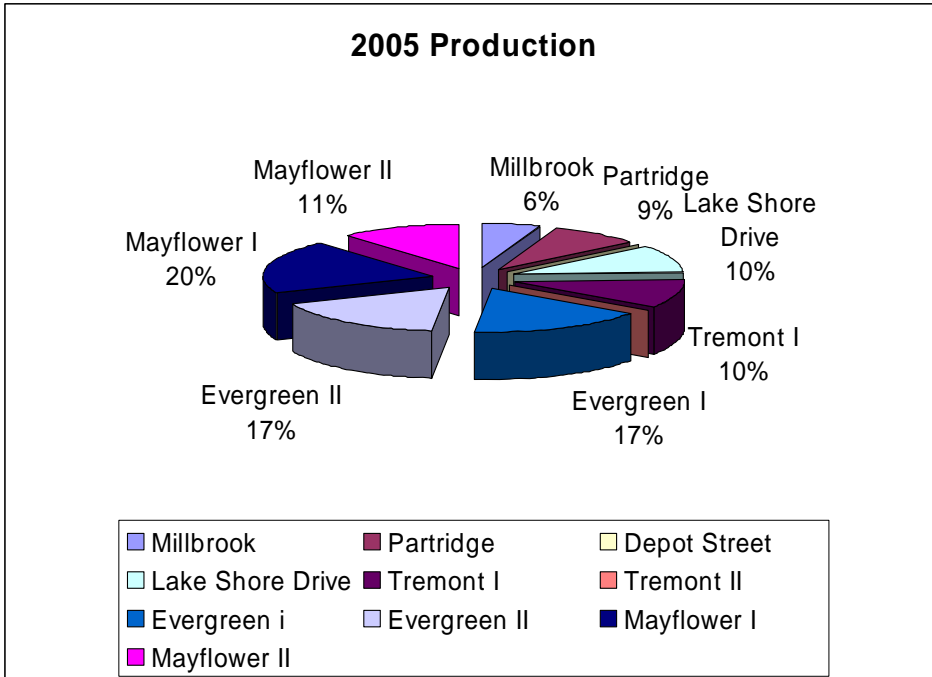
The Water Department is currently working with a consultant to update the existing system map. The new map will be utilized to create a hydrant flushing program which is an imperative component in ensuring high quality drinking water. It will also be utilized as an asset management tool, prioritizing infrastructure replacement. Engineering for a new elevated storage tank, which will replace the existing Birch St Tank is nearing completion. The new tank will increase domestic water pressure as well as fire flow availability in the north and west parts of town. Engineering for the replacement of mains on Buckboard Road and Harvest Drive as part of the PCE replacement program has been completed and construction is expected to start in the spring of 07. I would like to thank the Water Department staff for their hard work over the past year. The field staff are some of the finest operators I have had the opportunity to work with and I look forward to the years to come. Louise Hatfield and Ginny Golden run the day to day office operations and handle countless calls, customer needs, billing and organization. I am grateful for their patience and strong work ethics. I would also like to thank the DPW Director, Town Manager, and the Board of Selectmen for their continued support.

Respectfully Submitted,
Paul Anderson
Water & Sewer Superintendent

WATER ADVISORY BOARD

For the year ending June 30, 2006, Paul Anderson continued to work on various projects and keep his production facilities on line thereby avoiding even voluntary water restrictions. He chose not to utilize the Depot station largely because of high iron levels. Below is a pie chart showing the water production from each well site. Some of these wells are more productive than others, and therefore produce more water but may not have more run time. Tremont II and Depot Street had no production during calendar year 2005. Total production for this year was 583,673,000 gallons compared to 532,769,000 in calendar year 2004. For those who watch this, the rates

went up and the production went up. As of this time, we are expecting that the production will be going down for calendar year 2006. As we note from time to time, rate design and rate levels do not seem to affect production, but rainfall and temperature does seem to correlate with water demand. When we first looked at the rainfall for the respective years, we saw 66" in 2005 and 46.1" in 2004, and when we looked at rainfall during the growing season of May thru September for those two years we saw 23.3" in 2005 and 20.3" in 2004. Generally temperature and rainfall affect sales of water, but our current data set does not yet show a correlation between the two in Duxbury for these two years but we will continue to examine the data. As we move into 2006, we see significantly higher rainfall levels in the first six months of 2006 then for 2005, 36.9" during that period in 2006 as compared to 27.0" in 2005. New service lines have a relatively minor impact at this time because they represent something close to one tenth of a percent growth.



The Delano property was purchased during the summer of 2002 with monies from the Community Preservation Act funds, and surveys completed to allow for the transfer of a portion of this property to the Water Department. As noted last year, the Town Meeting did authorize the purchase of a piece of the Delano property from the Community Preservation Committee. The subdivision of the land was approved by the Planning Board, and is currently being processed by the Town Counsel.

The largest project for the year was the submission of an article for plans and specifications for a new and higher standpipe on Birch Street in order to raise the water pressure in the area west of Route 3 by about 19 pounds. Despite some concerns expressed by the Water Advisory Board, the Town boards and the Town Meeting approved the project which will result in the Town having two pressure zones, one east of Route 3 and a second zone west of Route 3 with water pressure approximately 19 pounds higher than the current pressure levels. This year the Water Department will be seeking construction monies for the project. The interconnection of two significant dead ends in northwest Duxbury will also improve the safety and functionality of the utility.

We also must note that vinyl lined AC water mains have been replaced for a total to date of 57 streets representing 68,553 feet. No vinyl lined AC water mains were replaced during the fiscal year of 2006. Two more streets currently are planned for replacement in the upcoming year, and PCE is no longer being detected anywhere, and has never been detected in any other parts of the distribution system since testing began in 1986. As of this date, the program to replace all vinyl lined AC water mains which show any levels of PCE has been completed except for the two water lines noted above; however PCE testing will continue in order to identify any new potential problem sites.

Respectively Submitted

George D. Wadsworth, Chairman, Freeman Boynton, Jr., Clerk, Paul Keohan