

Mount Laurel Township Municipal Utilities Authority

Quarterly Report



3rd Quarter 2012 (July to September)

Mission Statement:

“Provide safe, dependable and affordable water and wastewater services to our customers in an environmentally conscious manner while remaining committed to our community’s needs”

Authority Members

Chairman	Irwin Edelson
Vice-Chairman	James Misselwitz
Secretary	Fred Braun
Member	Elwood Knight
Member	Geraldine Nardello
Executive Director	Pamela J. Carolan, P.E.

Total Number of Customer Accounts: 17,921

Sewer Department***Sanitary Sewer System Summary:***

The Mount Laurel MUA wastewater service area runs congruent with the Township boundary. Approximately 95% of residential properties and 98% of commercial properties are currently connected to our sanitary sewer system. We treat all sewage generated within the Township at the Hartford Road Water Pollution Control Facility with the exception of the southwestern area (Laurelwood, Countryside, and Roland/Fellowship industrial area); in these areas, we collect the sewage and pump it to the Camden County MUA for treatment. Some premises (primary residential) continue to be serviced by privately owned and operated septic systems, which fall under the jurisdiction of the Burlington County Health Department.

Our Sanitary Sewer Facilities:**Wastewater Treatment Plant (Hartford Road Water Pollution Control Facility):**

Hydraulic Capacity of 6 Million Gallons per Day (MGD)

Advanced secondary treatment using extended aeration and UV disinfection with discharge to the mainstem Rancocas Creek

Sludge dewatered on-site with bio-solids disposal at the Burlington County Composting Facility

Collection System:

39 sanitary sewer pump stations

32 miles of pressure mains (8"-24" diameter)

150 miles of gravity mains (8"-12" diameter)

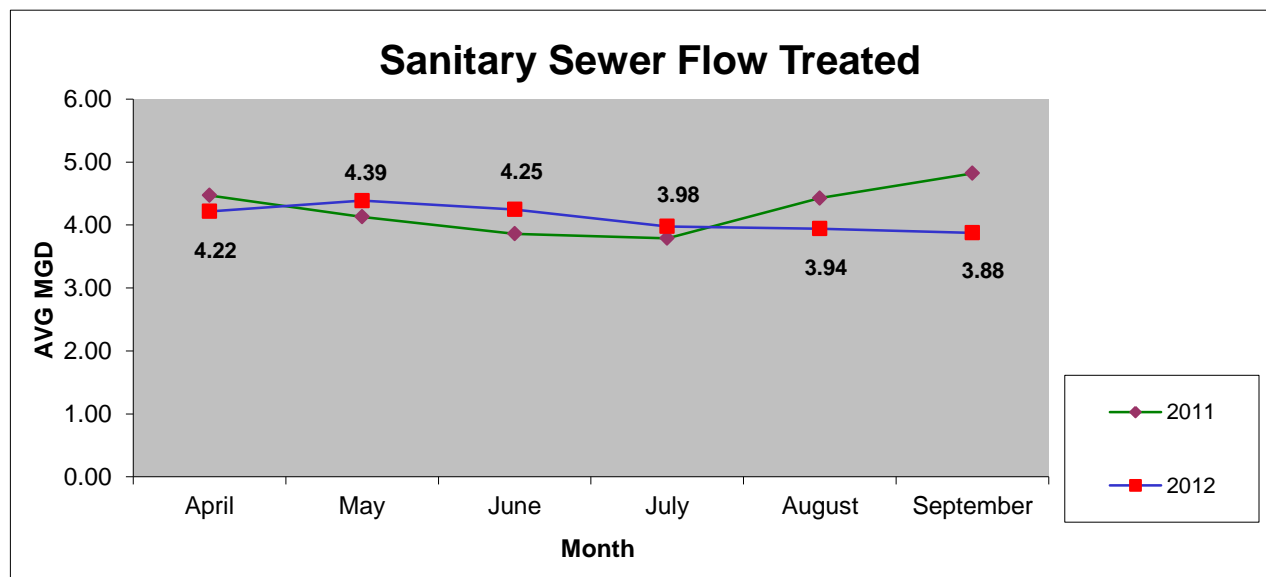
3891 manholes

Our Sanitary Sewer Operation:

Treatment System

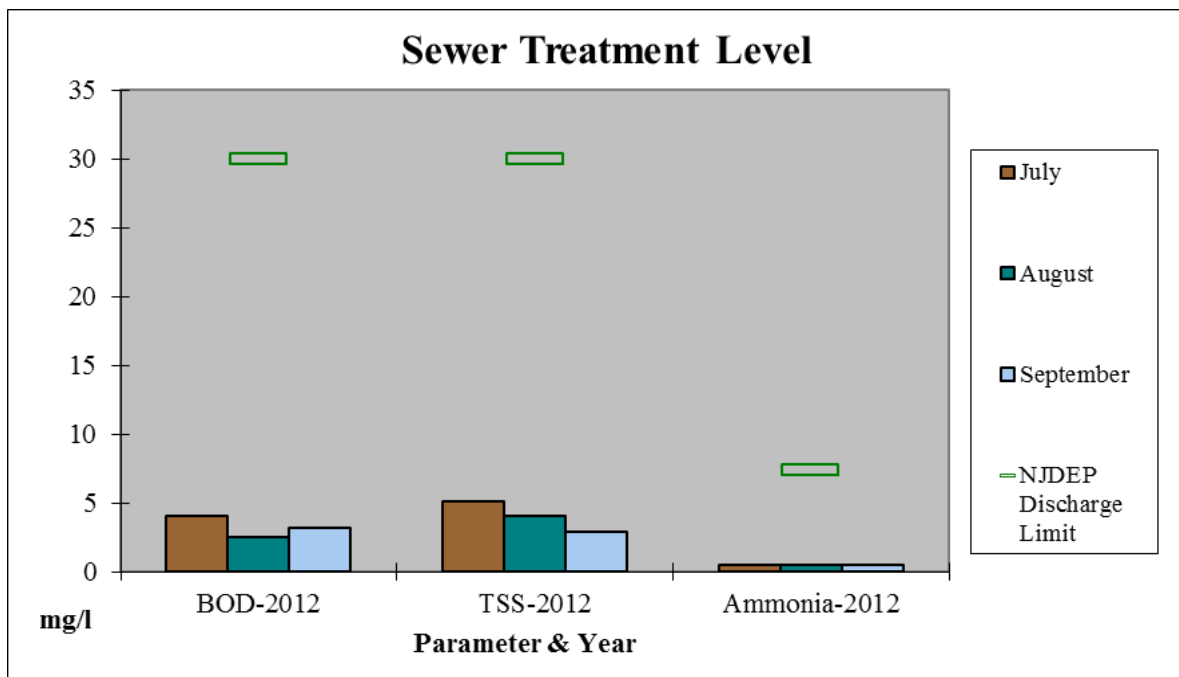
Throughout the years, the MUA has owned and operated three wastewater treatment plants. The Ramblewood facility was demolished in 1989 and the Rancocas Woods plant in 1993. Sanitary sewage from both of these plants were redirected to our only remaining wastewater treatment facility (Hartford Road Water Pollution Control Facility). This facility was originally constructed in 1970. Over the years, the facility has undergone a major transformation with over five capacity expansions and level of treatment upgrades during its lifetime. The present treatment process began operation in 1996 at a cost of over \$17 million. A \$2 million new headworks treatment train was constructed in 2007. Numerous renewal and replacement projects have occurred in recent years. The ultraviolet disinfection system is scheduled for complete replacement within 2 years as the existing system approaches the end of its useful life.

The charts that follow are for the current Hartford Road facility.



Total Treated in Quarter = 361.92 Million Gallons (MG)
= 3.93 Million Gallons per Day (MGD)

The MUA applied for the renewal NJ Pollution Discharge Elimination System (NJPDES) permit in early 2011 and continues to operate on the previously issued expired permit (from 2006). On September 26, 2012, NJDEP issued a draft NJPDES permit for the Hartford Road facility. The revised permit includes increased sampling frequencies for numerous parameters and sampling requirements for over a dozen additional parameters. The MUA's additional annual laboratory expense is currently being calculated. The revised NJPDES permit has not yet been issued.



Our wastewater treatment facility consistently produces an effluent discharge, which is substantially better than required NJDEP limitations. Although we routinely sample for dozens of parameters (hundreds at certain times of year) the three chosen parameters of BOD₅, TSS, Ammonia Nitrogen are standards for the industry deemed representative of general treatment plant operations.

Reclaimed Water for Beneficial Reuse

Due to the high quality effluent from our wastewater treatment plant operations, in 2003 the MUA obtained a permit from the NJDEP for reuse of wastewater effluent for various applications within Mount Laurel. The MUA currently uses the renewed water (treated wastewater treatment plant effluent) for the wastewater treatment plant site utility water system, pumping equipment seal water, process equipment wash down, sewer main cleaning, street sweeping, wastewater treatment plant irrigation, fire protection for the wastewater treatment plant, fire protection for the Mount Laurel Township leaf composting area, and vehicle washing. Use of renewed water reduces the quantity of potable (drinking) water required at the wastewater treatment plant and other MUA operations.

Sanitary Sewer Collection System

Pumping Stations:

- 2050 operation and maintenance checks were performed
- 167 in-house repairs performed
- 451 preventative maintenance repairs
- 193 sewer complaints/alarms checked
- 26 of 39 wetwells cleaned
- 1 manhole rehabilitated

Televising & Cleaning of Sewer Mains:

The MUA owns and operates a sewer camera truck for internally televising sewer mains. This equipment enables us to detect and monitor corrosion, leaks, roots, and grease buildup, so that corrective action can occur before emergencies arise. The MUA can then use its sewer jetting equipment to clean sewer mains of grease buildup and silt. All video documentation is cataloged and is used in evaluating the timing for repairs and capital replacement projects of mains. For fiscal year 2012, we contracted to have 91,150 linear feet of sewer main televised and 71,669 linear feet of sewer main cleaned. Our plan is to continue scheduling of additional areas each year, keeping to a 6-8 year cycle for the entire Township.

Other Sewer Related Items:

Responded to and resolved sewer service calls from 26 customers during the quarter

8 Vent Overflowing/broken lateral

- MUA personnel plunged the customer owned vents and broke blockages

6 Sewer Line Back Up/"Leaking"

- MUA personnel checked our facilities to confirm proper operation of our system. In all cases, backups were determined to be within the property owner's lateral. We performed courtesy plunging of vents where applicable. The most common causes of clogged laterals are root formation and grease buildup. Owners advised to contact plumbers to ameliorate.

3 Vent Cap Broken/Locate/Missing

2 Loose Manhole

2 Locate Sewer Vent

1 Manhole Overflowing

1 Sink Hole

1 Sump Pump Misc.

2 Miscellaneous Field Service

- 606 Norwood Road
 - Received call from homeowner who said they have sewer flies and were told by a plumber they could have a break in their sewer line. Requested we have an employee come to the property to check the sewer line. A sewer employee went to the property and confirmed a break in the private sewer lateral.
- 107 Willow Turn
 - Received call from contractor to report property has a sewer backup and the problem is a 2" pipe going thru the sewer line. The Contractor wanted to know what type of pipe it was. An MUA supervisor met with the contractor and put him in contact with PSE&G. PSEG's electrical lines were installed going thru the customer's sanitary sewer lateral.

Other Operational Issues:

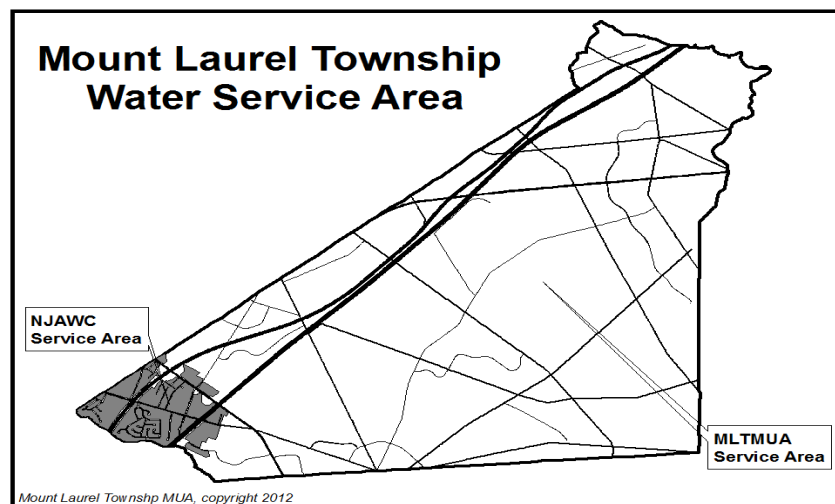
Orchard Pump Station (PS) continues to have operational issues, which cause approximately 4 hours per week additional manpower to manage. Design for rehabilitation of the pump controls and site work began in July 2012, with contract bidding scheduled for June 2013. Total cost including engineering and permits is estimated at \$300,000.

The pumps at Atrium PS continue to clog and must be pulled each week. This results in approximately 5 hours additional weekly manpower for operation of this station in addition to the emergency work due to high-level alarms. Emergency engineering commenced this month. A better interim operational setup is under evaluation and will continue until permanent improvements to this station can be accommodated in the budget, anticipated in FY15.

Water Department

System Summary:

The Mount Laurel Township MUA services the majority of Mount Laurel for water service with the exception of the southwest corner, NJ American Water Company (NJAWC) franchise area. Water supply within the Mount Laurel service area comes from several sources: The Potomac-Raritan-Magothy aquifer system, the Kirkwood-Cohansey aquifer, and the Delaware River. Previous annual water demand ranged between 1400 millions gallons per year (MGY) and 1900 MGY. Our actual customer water usage for 2011 was 1479 MG; 2012 water usage is estimated in the same use range as 2011. The MUA supplied this water from its own wells (allocation limited to 717 MGY by Critical Water Supply Area # 2 regulations) and via water purchase agreements with the NJAWC and Willingboro MUA (WMUA). The MUA withdrew 713 MG its ground water allocation, to satisfy 45% of total customer demand. The remaining 55%, $\frac{3}{4}$ of a billion gallons of water, was purchased from NJAWC & WMUA to make up the allocation shortfall. The MUA continues to investigate alternative supplies of water in order to meet the current and increasing needs of the community.



Water Treatment Plants

Elbo Lane Groundwater Treatment Plant (Wells 3, 4 & 6, with capability of well 7 ASR)

- This facility treats our native groundwater (from the lower Potomac-Raritan-Magothy aquifer) by removing naturally occurring minerals such as iron and manganese. In addition, we adjust pH, water hardness, disinfect and add fluoride. Many area water providers do not provide treatment other than required disinfection, which affects operating expenses and water rates. The facility began operation in 2007.
- Peak treatment capacity of 5.3 Million Gallons per Day (MGD) for summer months. Due to NJDEP allocation withdrawal limitations, actual operational level of 0 – 1.2 MGD during remainder of year.
- The MUA applied and waited for NJDEP to issue an amended water allocation permit five (5) years. The process was stalled because NJAWC opposed issuance of the permit. However, in December 2011, NJDEP issued the amended permit so that the Elbo plant could finally operate as designed in the summer months. The monthly maximum withdrawal from the MUA's wells was increased from 120 MG to 165.2 MG. This amended permit allows some increased pumping during the high use summer months, thereby reducing summer purchases at NJAWC peak billing rates.

Aquifer Storage and Recovery Well (Well # 7)

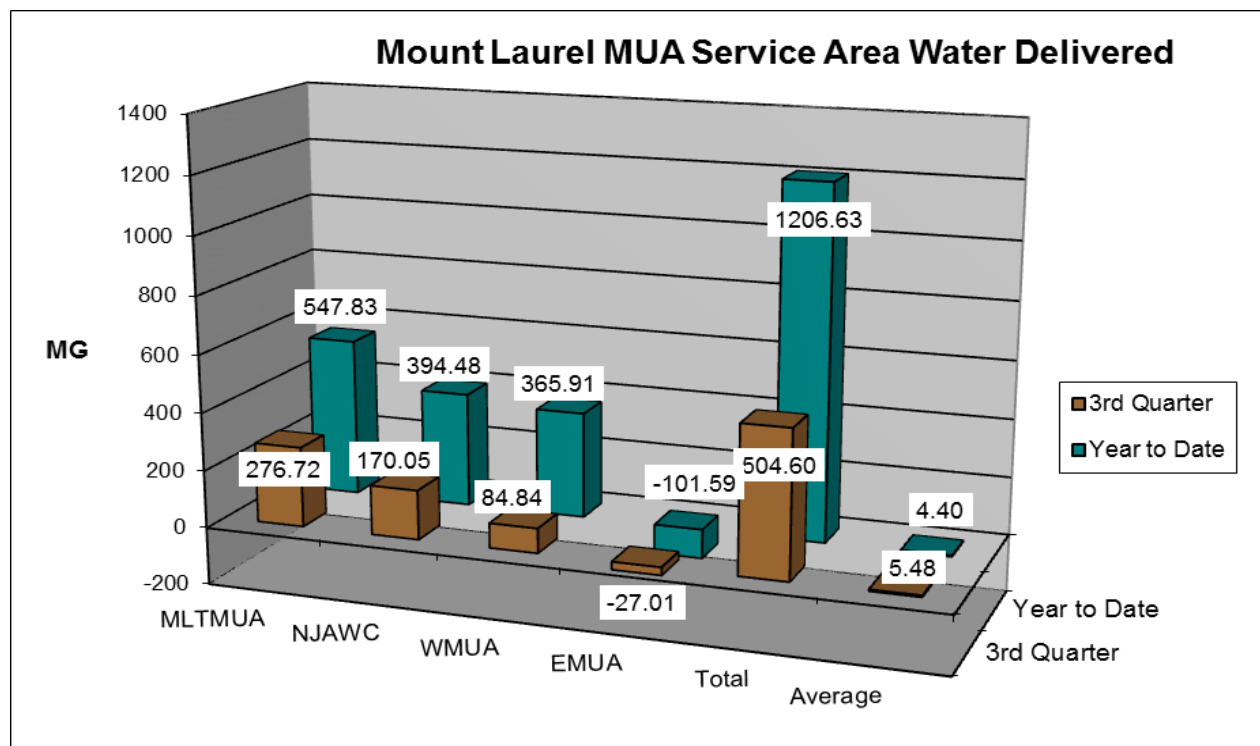
- This facility augments water supply sources in the high summer months. Water is pumped into the well in the winter when demand is low and supply is plentiful, and then withdrawn during times of peak demand. The facility began full-scale operation in 2004.
- Approximately 200 MGY total storage capacity, 1.3 MGD recharge, 3 MGD recovery capacity.

Water Distribution System

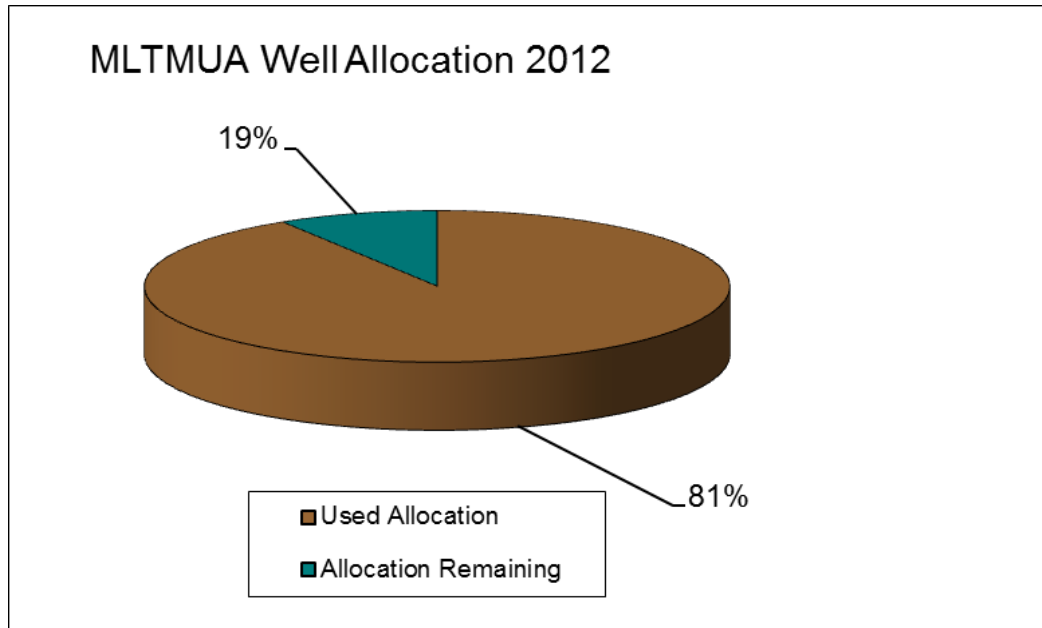
- 2 elevated water storage tanks; capacity of 500,000 gallons and 1 million gallons
- 2 ground level water storage tanks; each with a capacity of 1 million gallons
- 200 miles of water main
- 1526 fire hydrants
- 2917 water valves
- 5 bulk interconnections; Willingboro MUA, Evesham MUA, NJ American Water (3)
- 8 stand-by interconnections; Evesham MUA (4), Moorestown Township (2), Maple Shade Township (1), NJ American Water (1)

Customers are reminded that ownership and maintenance of the service lateral from the main to the premise is the responsibility of the property owner.

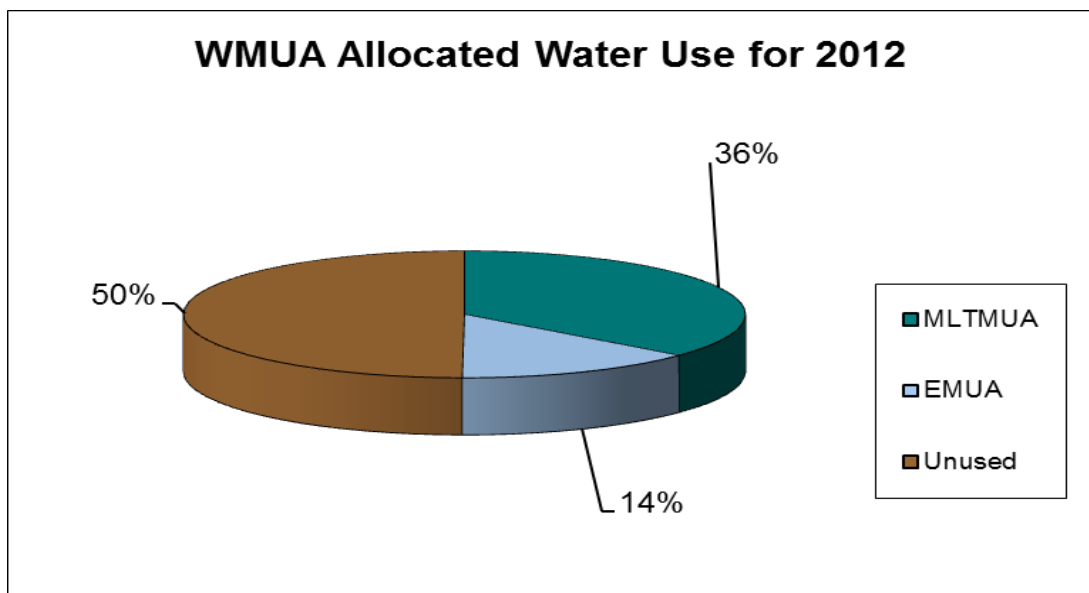
Water Operations



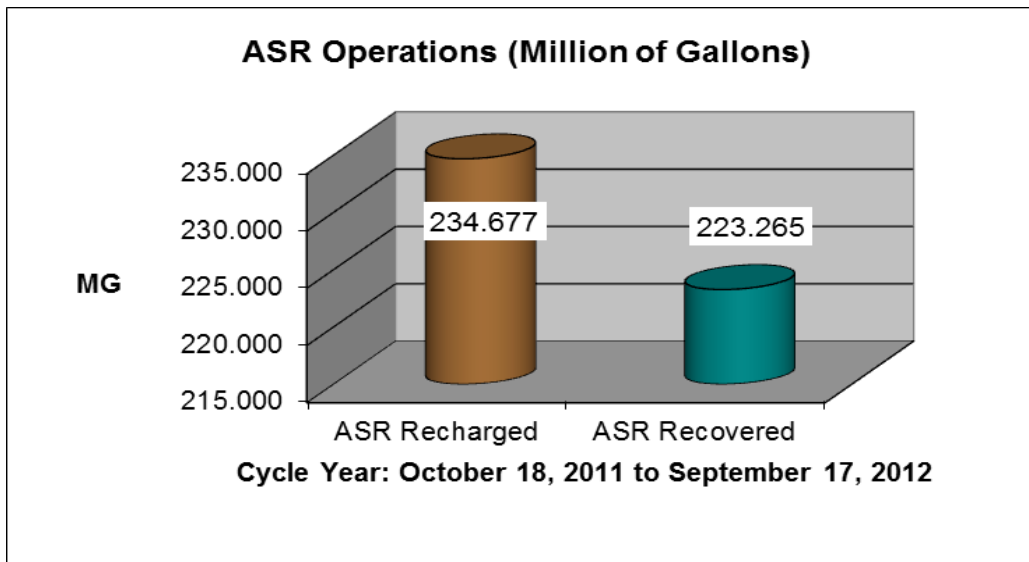
The total amount of water supplied to MLTMUA customers during the quarter was 504.60 MG. The average daily use for the quarter was 5.48 MGD. Historical Daily Peak water usage by Mount Laurel MUA customers occurred on July 23, 2001 when a total of 9.380 MGD was utilized. The peak monthly use for Mount Laurel customers was 216.40 MGM, which occurred July 2011. Mount Laurel MUA demand (which includes water passed to EMUA) was 10.07 MGD and occurred on both July 17, 1999 and July 23, 2001.



The MUA reserves its own well allocation for peak months and utilizes NJAWC during non-peak months when the purchase expense is least costly. This must be done to meet operational demands as well as for cost considerations.



- Assumed Total Available from WMUA = 730 MG



ASR Operations

In 2004, production Well # 7 was converted to an Aquifer Storage and Recovery Well (ASR). Approximately 200 Million Gallons (MG) of system potable water can be pumped into the well during the winter season (October-April), when the purchase of water from New Jersey American Water Company (NJAWC) is the least expensive. Between May and September, the entire recharge quantity is withdrawn, conditioned and supplied to the water distribution system to supplement supplies during peak use time.

The plan for the 2011-2012 cycle was to recharge 234 MG. We began to process of recovery on June 5, 2012 and successfully recovered 223.265 MG from the ASR Well. We have applied to NJDEP to carry the 11 MG of unrecovered water into our 2012-2013 cycle year as the value of this water is over \$30,000.

Distribution System:

Water Distribution System:

- 6 System breaks / Service leaks repaired / Valve repairs
- 266 Curb boxes located / repaired (part of our FY2013 Meter Change Out Program)
- 107 Meter change outs (FY2013 Meter Change Out Program)
- 72 Meters/ Touch Pads repaired / replaced
- 1 Street box repaired
- 38 Hydrants painted, replaced, or repaired
- 104 Shut-offs (for non-payment)
- 306 Door hangers delivered (part of our FY2013 Meter Change Out Program)
- 8 New meter connections

Water System Breaks / Repairs Occurred:

Repaired by MUA Crew

Pipe (Hole)

(2) Millstream Drive & Windsor Lane
South Lake Drive & Tulip Court

Valve Box Repair

Union Mill Road & Laurel Lane



Watermain Millstream Drive & Windsor Lane
Found hole in watermain from corrosion

Hydrants & Blow Offs Repaired & Replaced: (non-emergency)

- Repaired Hydrant No. F19-02 144-146 Willow Turn
- Replaced Hydrant No. I6-18 Academy Drive & Church Road (Hit by Car)
- Repaired Hydrant No. F20-22 Hovtech Park (Private Hydrant Hit by Truck)
- Repaired Hydrant No. K14-01 Winding Way & Sorrel Run (Hit by a Car)

The MUA saved approximately **\$5,600.36** on repairs for the 3rd Quarter 2012 by performing work previously contracted.

Dug Up & Repaired/Replaced Curb Stop Boxes (for private property owners)

133 Chaucer Court	10 Boothby Drive	128 Camber Lane
27 Kettlebrook Drive	206 Laurel Lane	2 Segal Court
105 Oliphant Lane	8 Boothby Drive	202 Meadow Drive
221 Burnamwood Road		

Miscellaneous Repairs

- 206 Laurel Lane - dug up curb box so new water main could be installed, charged the new main, blowoff the new main and put in service, and cleaned up work site.
- Willingboro Interconnection – dug up isolation valve so repairs could be performed.
- 2 Segal Court restoration & concrete work after Curb Box was repaired
- Ark Road Booster Station – repaired sink hole
- Mount Laurel Road & Walt Whitman Drive – repaired the bollards that were protecting the fire hydrant after they were hit by a truck.
- Indigo Drive – blew off new watermain, pulled bacteria samples, and sent to MUA lab for testing.
- Indigo Drive – new watermain placed in service 09/28/12
- 4434 Church Road – dug up a repaired water service. Replaced & removed 1 ¼” thread X hose barb PVC fitting.
- 17000 Commerce Parkway – Installed Meter with hose spigot to hydrant for boiler demonstration
- 119 Oakmont Road - restoration to grass area after curb box had been repaired.

Repaired by Outside Contractor:**Gate Valve Leak**

Danebridge Drive & Limestone Way

Hydrant Repair

Hydrant No. B7-02 279 Fellowship Road

Service Leaks on Private Lines:

All of the following repairs were initiated by the MUA either as potential main breaks or in the name of public safety. All costs were borne by the owners of these facilities:

- Shop Rite Elbo Lane & Union Mill Road (Service Leak)
- 77 Elbo Lane (Fire Service Leak)
- 438 Kelahan Court (2" Irrigation Line)
- 15A Pine Cove (Gate Valve Leak in Meter Pit)

Other Water Related Items:

The MUA responded to 147 water service calls of the following types:

68 turned on water (off for non-payment)

20 emergency shut off / on

1 meter leaking

7 irrigation leaking

5 ground water

1 lid missing/broken

11 service leak

3 possible main breaks

2 water quality

2 hydrant broken

3 particles in water

9 low pressure

4 rusty water

1 hydrant leaking

1 sink hole

7 water field service

2 located CSB

Upgrading Our Water Meters:

The Mount Laurel MUA continues the process of upgrading water meters in homes (over a 10-year period) to a metering unit that offers many benefits to the customers and the MUA. The new units are read by our personnel utilizing radio communication. This allows our reader to gather the meter reading without entering the property as most reads can be obtained from the sidewalk area. The upgraded meters provide all of the capabilities of the current meter with the addition of advanced leak detection capabilities. These meters continuously record usage, however in order to conserve electronic life, the visible readout goes into "rest" mode when not needed. To view the meter reading at any time, the customer must wake up the readout by simply shining a flashlight on the meter face.

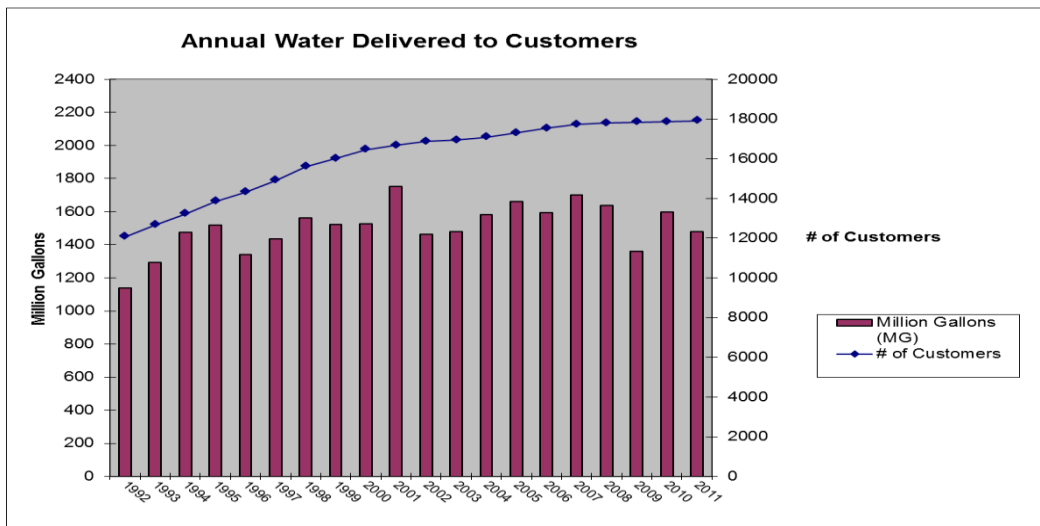
Water Quality in the Mount Laurel MUA Water System:

The three distinct categories of water quality that our customers bring to our attention are taste and odor, discoloration, staining, and particles in the water. We find most problems occur locally and the causes accredited to a handful of factors, which include water main breaks, hydrant use (legal and illegal), system maintenance work, and occasionally changes in water use. The remainder of the calls are further identified within the customer's premise such as: hot water tanks (need flushing or have disintegrating dip tubes-a manufacturing defect from 1993-1996), and undersized/mis-installed point of use filtration systems.

We test the water in Mount Laurel year round, which includes daily operational sampling through compliance monitoring dictated by both state and federal regulations. In all cases, the water is consistently within or exceeds regulated parameters. This confirms that the water delivered to our customers is safe for use as potable water. We will continue to be sensitive to changes in water quality and regulatory compliance in order to protect all who use our water.

Water Supply Availability Summary:

The MUA continually monitors available water supply for the community by way of MUA customer historical use records and by using New Jersey Department of Environmental Protection (NJDEP) Bureau of Safe Drinking Water (BSDW) standards. Over time, actual water used by our customers is increasing proportionally to the increase in total number of customers. Large annual variations are primarily due to changes in weather (temperature/rainfall) as indicated with 2001 and 2011 use.



The NJDEP BSDW also tracks and calculates available water supply and demand by each water supplier. Although the BSDW calculations relate to actual use and supply availability, the customer demand figures used by BSDW are not the same as the actual historical use records. In addition, in August 2007, the BSDW unilaterally reduced our estimated available supply capacity by 280 million gallons per year (MGY) because of conversations with NJAWC regarding our off-peak purchase contract. However due to the economic downturn, water required by our customers has waned. Coupled with NJDEP approval of a contract modification for the NJAWC water purchase, on paper the MUA has minimal excess available water capacity to service new connections. Through our combination of water supply sources: our Elbo plant and purchased water contracts, the MUA continues to have adequate capacity to supply our customers.

Water Allocation Program Interest ID #5193X:

Term – 2/1/2007 to 1/31/2017

Diversions –

Permit No. 5193 for Ground Water = 5800 gpm, 165.2 MGM, 717.452 MGY via wells 3, 4, 6 and ASR 7

Permit No. 5400 for Surface Water = 4200 gpm, 186 MGM, 1237.548 MGY via proposed Rancocas intake. The overall annual allocation will be subject to adjustment based upon safe yield.

The MUA is continuously compliant with allocation limitations.

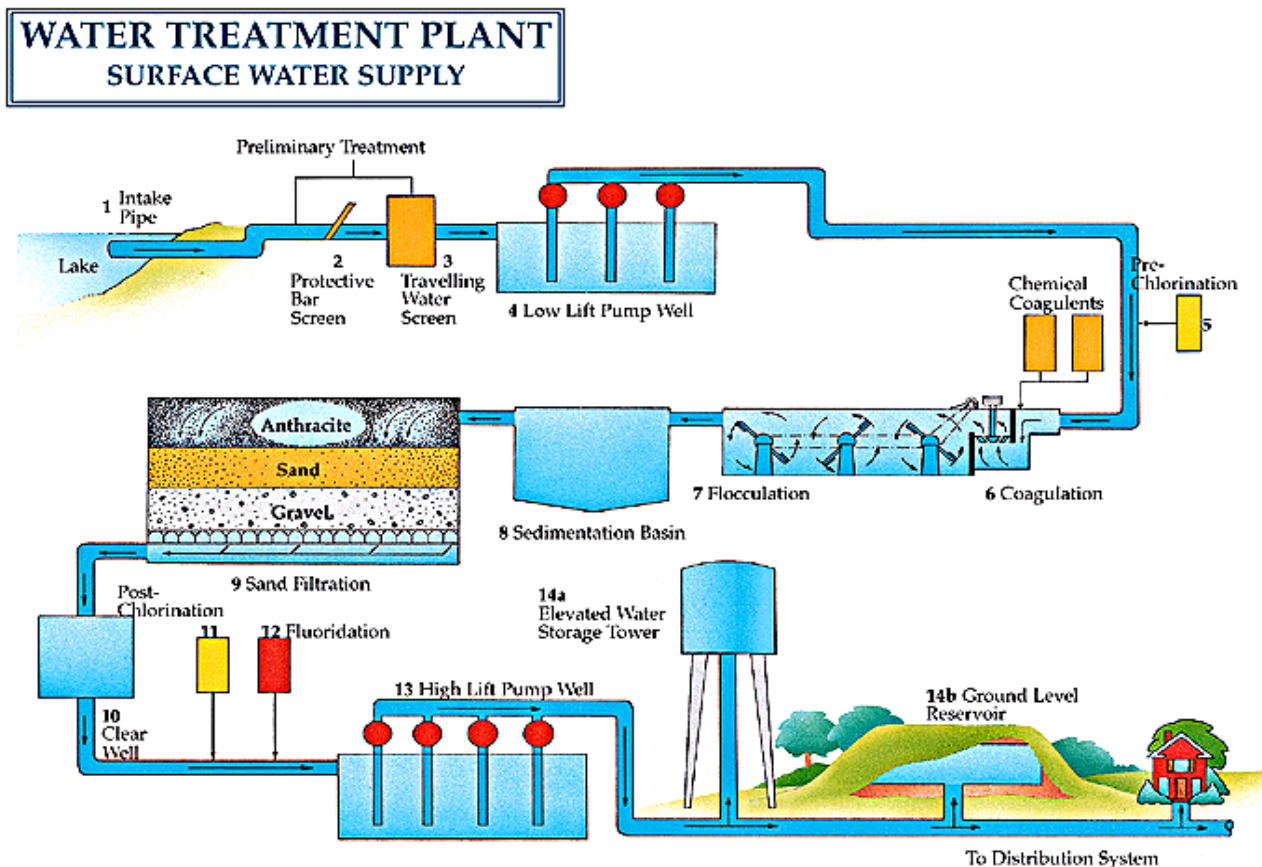
The second step in our three-part plan for the water supply system was completed in July 2007 and December 2011 and is functioning as expected.

Water Supply Plan:

1. Implement ASR to augment summer requirement while reducing summer dependency on purchased water – complete
2. Replace out of date water treatment plants with one facility and controls for source management – increase monthly allocation for summer use - complete
3. Construct a new alternative water supply source within Mount Laurel to reduce water purchases from other suppliers – NJDEP allocation was obtained. Timing of design/construction of this project must be coordinated with existing water purchase agreements.

Looking Forward:

The Authority has been actively pursuing alternative sources of water to meet user demand. Currently, the Authority must purchase from outside water purveyors the excess water gallonage between its system demand and its permitted withdrawal from the Potomac-Raritan-Magothy aquifer. The Authority believes the development of less expensive alternatives is possible. Several have been identified. If the Authority receives approval from the appropriate regulatory agencies and develops these alternatives, particularly the building of a surface water treatment plant, the operating expense for the purchase of water from outside purveyors can be significantly reduced. Capital expenditures for a new plant would be significant. Below is a diagram of a typical surface water treatment system; however if the surface water alternative is employed in Mount Laurel the treatment facility will be more advanced as it will also include pre-oxidation using ozone, micro-filtration using membrane filters and ultraviolet disinfection prior to post chlorination.



Water & Sewer Mark Outs

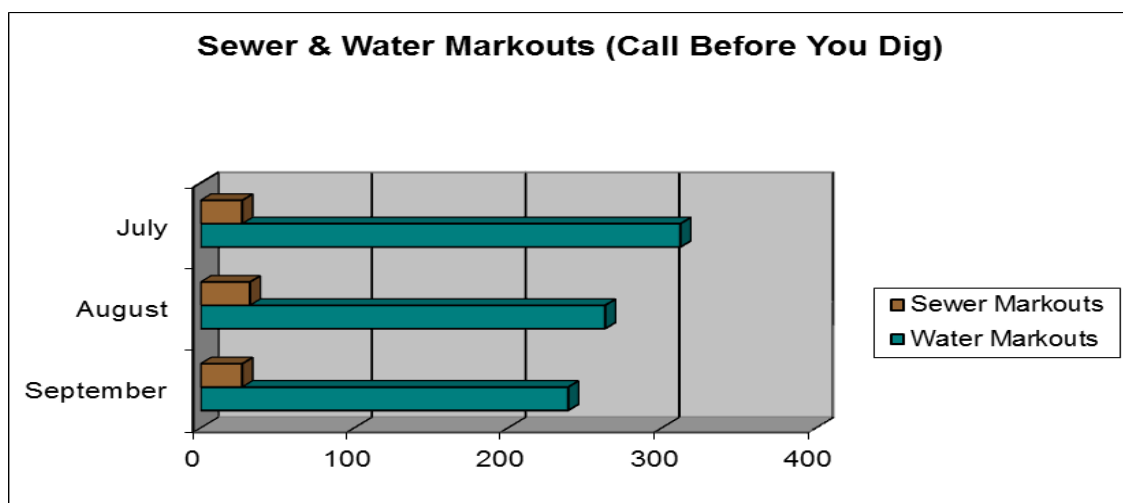
The MUA receives all requests for Mark Outs when digging is involved anywhere in Mount Laurel Township. The MUA pays for participation with the 1-800-272-1000 call before you dig service for verification management for water and sanitary sewer appurtenances. Each request is reviewed by MUA field personnel to determine if a mark out is required. When a mark out is required, MUA field personnel are dispatched to each request location to identify MUA underground facilities. Even though the number of mark outs required has reduced in the past several years due to a decrease amount of new construction within Mount Laurel, mark outs continue to require a noticeable amount of manpower.

1050 Mark Out Requests Received for the Quarter

814 Mark Outs Performed by the Water Department

86 Mark Outs Performed by the Sewer Department

900 Total Mark Outs Performed by the Water & Sewer Departments



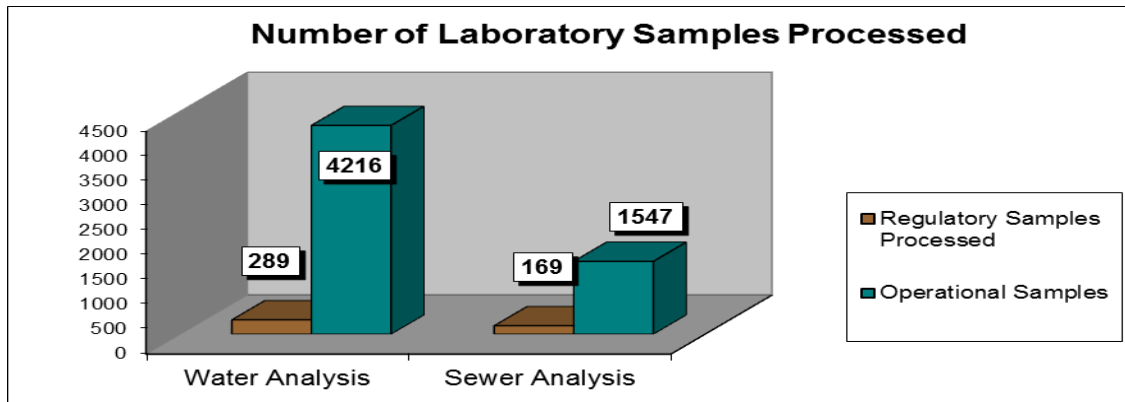
Other MUA Departments

Vehicle Maintenance & Power Equipment:

The MUA maintains 39 Vehicles in its fleet, 17 pieces of equipment and 57 generators for emergency standby power. The MUA facilities are supplied with 100% backup emergency power via diesel powered standby generators. This enables the MUA to operate all facilities at full capacity during power failures or during periods of low voltage (brown outs). This is particularly important during storm events, when wastewater-pumping volume increases due to infiltration and inflow into the sanitary system.

Each generator operates under load once per week. During Philadelphia area poor air quality days, exercising of generators must be postponed until air quality is within normal range. In addition, all standby generators are load-banked once per year.

Certified Laboratory:



The number of regulatory samples processed conforms to the requirements set forth by regulation or permit requirement. Additional operational samples (not required) are performed in order to refine treatment capability and to detect and react to changes in quality.

- Performed Soil Analysis from Water & Sewer Main Breaks this quarter
 - Millstream Drive and Windsor Lane
 - South Lake Drive & Tulip Court

Finance:

User Fees billed: \$ 6,008,153.11

User Fees budgeted: \$ 5,496,617.00

User Fees collected: \$ 5,644,343.19

Expenditures for the quarter:

Accounts Payable \$ 1,984,499.88

Payroll (including
tax liabilities) \$ 963,422.04

Debt Service \$ 2,310,841.99

Capital Projects \$ 568,518.65

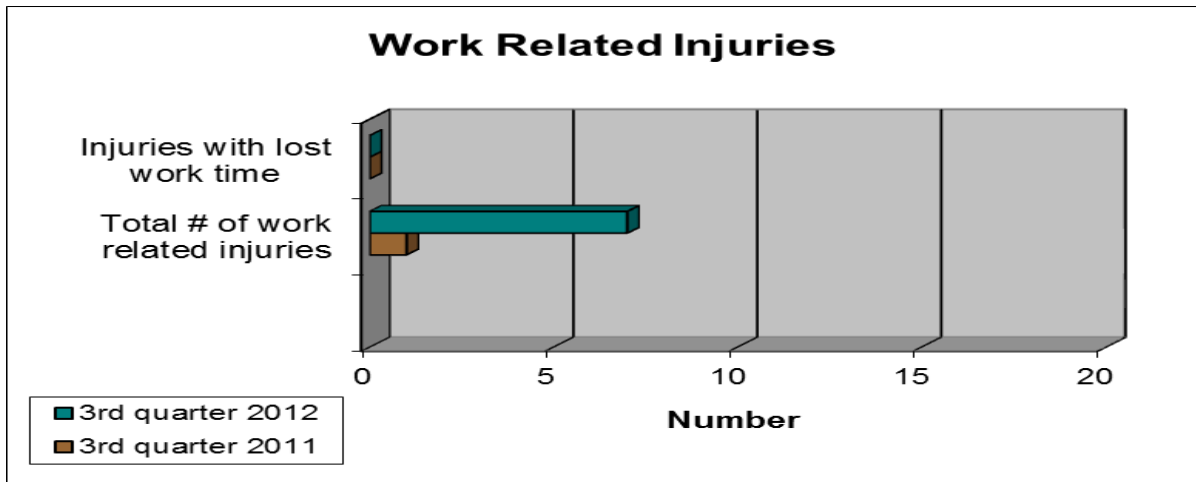
Total Expenditures: \$ 5,827,282.56

- ✚ Audit Field Work began for our Fiscal Year 2012, which ended June 30, 2012.
- ✚ Received reimbursement from FEMA for \$48,764.00 for damage to our facilities and salaries incurred during hurricane Irene.
- ✚ Quotes were received for annual business insurance. Annual premium increase of approximately 4.8%, or \$8,900

Safety:

Safety Training/Inspections:

- ADT and Mount Laurel Fire Department performed annual alarm system testing on all fire alarm systems.
- Confined Space Training occurred for MUA field employees
- Bloodborne Safety/ Respiratory Protection training and fit testing performed for MUA field personnel
- Lock Out/Tag Out Training held for MUA field personnel



There were seven minor injuries: zero resulted in lost time this quarter:

- An employee experienced respiratory irritation while repairing the hypochlorite disinfection system at a water facility.
- An employee injured his lower back when he slipped while walking across a wet lawn.
- An employee strained his left elbow while working on a ladder repairing a lighting fixture.
- An employee got poison ivy over most of his body while removing weeds at our Solar Facility.
- An employee had difficulty hearing after working with the jetter truck resulting in a trauma to his left ear.
- An employee received a contusion to his left knee when he hit his knee on a receptacle at one of our pumping stations.
- An employee strained his right knee while he walking across a lawn and stepped into a soft spot which caused him to fall.

Human Resources:

Our employees are licensed Water & Wastewater professionals. We have 29 MUA employees holding a total of 65 NJDEP licenses for operation of water and/or wastewater systems. The MUA must employ and designate a licensed operator for each of our four areas of service: Water Distribution (level W-3), Water Treatment (level T-4), Wastewater Collection (C-3), Wastewater Treatment (S-3). Employment of additional licensed operators in all operational areas adds value to the service we provide to the community.

16 operators with level 1 licenses, for operating systems with 101 to 1,500 people

29 operators with level 2 licenses, for operating systems with 1,501 to 15,000 people

12 operators with level 3 licenses, for operating systems with 15,001 to 50,000 people

8 operators with level 4 licenses, for operating systems with 50,001 or more people

In addition, we have (2) two ASE Certified (Automotive Services Education) Mechanics

➤ Members of our staff have formal post secondary education in the following disciplines:

Finance/Accounting

Chemistry

Biology

Computer Science

Business

Management

Safety

Civil & Environmental Engineering

Public Relations & Education:

- The MUA's website continues to be updated. Some of the information available on-line:

- ✚ MUA Board Meetings Time, Location and Minutes
- ✚ Senior Discount Application
- ✚ Direct Debit Application
- ✚ Land Lord Tenant Application
- ✚ Water & Sewer Connection Forms
- ✚ New Vendors Package with MUA Claimants Certification Forms
- ✚ Past & Present MUA Quarterly Reports, Audit Reports, & Budgets
- ✚ Past & Present Consumer Confidence Reports
- ✚ MUA's Schedule of Rates
- ✚ Conservation Tips for indoors & outdoors
- ✚ Know your water meter and learn how to manually read it
- ✚ Web links for various local and County Governments
- ✚ Directions to MUA Facilities

- Participated in the Annual Mount Laurel Township Fall Festival. The theme this year was 'The Wild West'. Our display was modest but kept with the theme. Many people stopped by our display. Water and sewer informational handouts were available for adults and children. Guests were treated to a cup of Mount Laurel MUA's tap water.



MUA Display 2012 Fall Festival



Coloring Books and Crayons Anyone?

Shared Services:

Mount Laurel Township:

The MUA responded to 1 public works service call:

1 Ducklings in Storm drain

- North Larkspur Place
 - MUA personnel assisted the Mount Laurel Fire Department with the removal of the ducklings from the storm drain.

Underdrains:

The MUA and Mount Laurel Township have a maintenance and operational agreement for the lower level underdrain systems located in the Ramblewood developments. The agreement stipulates that the MUA will check operation of the Township's six underdrain pump stations and respond to all service calls from residents. In addition, the MUA checks the discharge inverts and outfalls from the Ramblewood underdrain system. Improvements to the underdrain system remain the responsibility of the Township. Underdrain related service calls are handled by the MUA. Service calls from areas not covered by the agreement have increased recently; the MUA continues to respond to these calls. The shared service agreement requires the Township to reimburse the MUA for these services.

The MUA is working with Mount Laurel Township to improve the underdrain plans. This project will continue until the MUA is confident that all known upper level and lower level underdrains are adequately mapped.

Underdrain stations and system:

This quarter our Pumping Station crews checked the 6 Underdrain Pump Stations twice per week and responded to 4 underdrain complaints.

July 16, 2012 Sarah Court (non-Ramblewood) – Received call from homeowner, water coming up between sidewalk and curb. MUA personnel found problem with the upper level underdrain. The Township indicated that they would send a crew out the following day.

July 16, 2012 Saint David Drive (Ramblewood neighborhood) – Received call from homeowner, water in the basement. MUA personnel responded. We did not find any leaking pipes, seems to be ground water. Told homeowner to let the water dry for a few days to make sure. Advised homeowner to call us back if water is still coming in. Checked underdrain station it was operating properly.

August 22, 2012 Kyle Court (non-Ramblewood) – Received a call of water coming up from the sidewalk. MUA personnel responded and found the sump pump backing up onto the lawn. Checked and found the upper level underdrain system was backing up. MUA personnel contacted the Mount Laurel Township and informed them of the situation.

August 23, 2012 Knotty Oak Drive (non-Ramblewood) – Received a call from the homeowner, underdrain system needed to be jetted. MUA personnel jetted the underdrain at Knotty Oak. Went in from culvert at end of street ran in 600' – opened up two sweeps up the street. First sweep let hose in 240' – second sweep 61'. Pulled back lots of mud and roots. Total footage jetted 901'.

Mount Laurel Township-Miscellaneous

- As a courtesy for Mount Laurel Township, the MUA Sewer Collections Department cleans out the Pond at PAWS Farm and tanks out the septic tank at Laurel Acres Park the 2nd Tuesday of each month.
- The Township began performing quarterly street sweeping of the Hartford Rd WPCF in accordance with the MUA's NJPDES Stormwater Pollution Prevention Plan.

Mount Laurel Fire Department:

- The Fire Department is storing their rescue boat in our 81 Elbo Lane facility

Burlington County Highway Department:

- The County's Jet Vac truck was out of service for repairs so our Jet Vac truck and crew was utilized to help install guide rails on Centerton Road in Mount Laurel at the Parker's Creek Bridge directly adjacent to the MUA's sanitary sewer outfall main.

Capital Projects:

Water

Well #3 Building Replacement

This project includes the construction of a prefabricated building to house the well and controls with addition of an emergency generator behind the building. The project also included the redevelopment of the well screen and a new pump and motor. To date the actual cost of design, permitting and construction is \$564,749. The vast majority of construction has been satisfactorily completed by the contractor, Eagle Construction Services. Some minor punchlist remain and the project can be closed out upon completion of the punchlist items and submittal of other necessary documentation.

Buckingham Water Main Replacement

This project included replacement of 700 feet of existing DIP water main with new poly wrapped DIP including cathodic protection. Although the water main in this neighborhood was less than 15 years old (mains of this type should last well over 60 years), due to local acid soil conditions a large number of water main breaks occurred in this area in a short period. We were unable to provide an adequate level of service to our customers so replacement of this area of water main was added to our capital improvement plan several years ago. The construction contract was awarded to Seminole Construction with a total project cost of \$159,578. Work was completed in winter 2012 and accepted in September 2012.



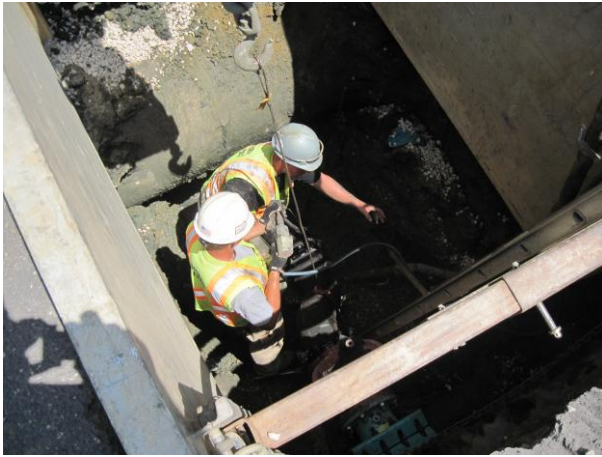
Original corroded water main (to be replaced)



Tapping residential service lines to the new main

Indigo Drive Water Main Replacement

This project includes replacement of 1,120 linear feet of 8" DIP water main, 2 fire hydrants and 41 house service connections. Since the existing pipe was only 15 years old when it reached the end of its useful service life due to acidic soil conditions, the new main will be encased in plastic and will have 30 cathodic protection anodes devices installed. Although unnecessary to accommodate the water main replacement, the roadway will be repaved from curb to curb by the MUA as requested by Mount Laurel Township. To date, we have expended \$71,870 towards the estimated overall project cost of \$400,000. The contractor, Pioneer Pipe Contractors, has completed installation and testing of the new main and is in the process of transferring the house water services from the old main to the new main. The old main will be filled with grout and abandoned in place.



Pipe installation at utility crossing



Welding of sacrificial anode onto new pipe encased in plastic (2 forms of corrosion protection)

Well #4 Pump Rehabilitation and Piping Modifications

This project includes replacement of the well pump, redevelopment of the well, piping modifications, installation of a new flow meter, new electrical control equipment and SCADA system modifications. Project cost is estimated at \$310,000. Design is underway and bidding is scheduled for November 2012.

Sewer

Parkers Creek Outfall Main Crossing

This project is for the replacement and repair of the structural timber piling and cross members that support the sewer plant's effluent discharge line across the Parkers Creek along Centerton Road in Moorestown and Mount Laurel. Originally, the project also included repainting of the steel support structure for corrosion control protection; however, the original bids for the overall project were substantially over the budget so the repainting portion of the project was separated into another contract with the redesigned project in order to reduce overall expenses. The structural project was awarded to Albert Marine Construction in January 2012. All work was recently completed at a cost of \$183,370.



Before Rehabilitation



After Rehabilitation

Painting of Outfall Pipe and Support Bridge Over Parkers Creek

This project includes painting of the steel support structure for the sewer plant's effluent discharge line. The project was completed by Allied Painting Inc. and contract closed out at the September 2012 Board Meeting. Total project cost was \$65,687.

Orchard PS and Holiday Village East PS Electrical Modifications

This project includes new controls and equipment replacements at two of the Authority's forty sanitary sewer pump stations. Total cost is estimated at \$250,000. A predesign meeting was already held and the bid opening is scheduled for the winter 2013.

Orchard PS Site Work

Orchard PS experiences flooding problems due to site runoff. This project includes new paving and drainage improvements to address this situation. A new fence is also included. The contract for this work is expected to cost \$140,000, with bidding in the spring of 2013.

FY12 Cleaning and Videoing of Sanitary Sewer Mains

This project consists of televising 67,600 feet of sanitary sewer mains of various diameter primarily in the Innisfree, Ramblewood Farms and Rancocas Woods sections of the sewer system. The project is part of the Authority's over multi-year assessment of the sanitary sewer system. Work was performed between 10pm and 6am (low flow period) in order to best observe infiltration and inflow ("leaks") into the sanitary sewer system. Video work was completed in May 2012; however, we are waiting for confirmation of the as-built quantities before finalizing and closing the project. Engineering and construction management was performed by Authority staff for an overall cost savings. Project cost was \$42,193.

Administrative

Admin Parking Lot Reconstruction

Authority engineering staff has completed the design for the parking lot reconstruction. The project also includes selected sidewalk and curb replacements. Estimated cost is \$40,000, with work anticipated in October 2012.

Records Retention/Disposal

The Authority has begun the process of categorizing, quantifying and applying to the Department of Community Affairs to dispose of authority public records. The last major records disposal project occurred over 5-years ago.