

*City of Saratoga Springs*  
Department of Public Works

**2014 ANNUAL REPORT**



**Anthony J. "Skip" Scirocco, Commissioner**  
**Timothy J. Cogan, Deputy Commissioner**



## A NOTE ABOUT THE COVER

### **BOG MEADOW INFRASTRUCTURE AND WATER SUPPLY PROJECT**

The City of Saratoga Springs has been faced with gradually increasing peak water demands during the summer months and in the summer of 2011 the NYSDOH put the City on an Administrative Order to develop additional water source capacity. In response, the Commissioner of Public Works directed the City's Engineering Department to begin a project to develop additional water source capacity. The goal was to find additional water source capacity that could be affordable to the City's residents, and also that would not require an upgrade to the City's Water Treatment Plant, which would add a considerable expense. The first step was to review old project reports and take inventory of property and resources that might be available to the City. In years past, the City had only looked to develop a major water source in excess of 10 mgd, which would completely replace all the existing source capacity. Looking at this issue again, we determined that the existing water sources, including the main supply of Loughberry Lake, the Geyser Crest well system, the Interlaken Well system, and an existing surface impoundment and pump station at Bog Meadow Brook were very viable and would continue to be. However, the associated infrastructure needed some upgrades. Rather than look at a completely new source capacity project, the thinking turned to supplementing the source capacity that we already had, and developing upgrades to existing infrastructure, which would be much less costly than a project like Saratoga Lake. The City owned approximately 70 acres of undeveloped, partially wooded, partially wetland area on the eastern side of the City, known as the Bog Meadow Brook area. In conjunction with our Engineer, EDP, we determined that for the next 20 year planning period, the City needed to develop additional source capacity of approximately 1.5 mgd. Based on preliminary review, it was determined that the Bog Meadow Brook area easily had the potential to produce this much groundwater. Development of this resource would also be cost effective, as the City already had water mains in the area that could be connected to; and, the Bog Meadow Surface Impoundment, which already had a pump station and force main system.

The City conducted field investigations of the Bog Meadow area including the installation of monitoring wells, soil and groundwater sampling and performing pumping, drawdown and hydro geological tests and modeling. Through this work, we were able to establish that this area could indeed yield the amount of additional groundwater source capacity needed to ensure that the City would have the water it needed for at least the next 20 years. Once this was established the City proceeded with design of the project and acquiring approvals to bring this project online. Four large diameter groundwater wells were installed in the Bog Meadow area, and a 72 hour pump test was conducted to verify the actual yield and confirm that the withdrawal of this water would not affect other area residential wells.

At the same time, the City's Bog Meadow Surface Impoundment pump station was showing its age, as it had not been upgraded since its original construction in 1964. The City decided to include new pumps and controls for this station as well, as all the improvements in the Bog Meadow Area were ultimately interconnected. Additionally, the option of whether to connect the new Bog Meadow wells directly to the distribution system vs. pumping the groundwater into the existing force main to Loughberry Lake was analyzed. If we were going to connect to the City distribution system at that point, a disinfection system would have needed to be constructed. It was determined to connect the new system to the force main to Loughberry Lake through the existing transmission main. However, the pumps were sized and controls were set up to be able to make this change to pump into the distribution system easily in the future if the City makes this change and adds provision for disinfection.

The final cost of the Bog Meadow Project to increase the City's source capacity project is anticipated to be \$1,000,000. This is a tremendous savings from an anticipated \$20,000,000 that would have been spent on the Saratoga Lake Project. More importantly, it's the culmination of sound engineering, scientific and practical thinking to solve a source capacity issue in an affordable manner. The project also required the coordination of numerous entities including the City, the Engineer, the Hydro geologists and the NYSDOH.

# TABLE OF CONTENTS

<u>Description</u>	<u>Page</u>
<b>I. Introduction</b>	
A. Expenditures Breakdown	1
B. DPW Organizational Flow Chart	2
C. Overview	3
D. Honors and Awards	4
<b>II. Streets &amp; Highways Department</b>	
A. Overview	6
B. Paving Program	6
C. Railroad Run Multi-Use Path	7
D. Seasonal Maintenance	7
E. Beautification	9
F. Public Right of Way Management	10
G. Street Acceptance	10
H. Safety Training	11
I. Storm Water Pollution Prevention Training	11
<b>III. Equipment &amp; Fleet Management</b>	
A. Overview	12
B. Fuels & Liquids Inventory	12
C. Snow & Ice Control Fleet	12
D. Major Equipment Purchases	12
<b>IV. Buildings &amp; Grounds Department</b>	
A. Overview	13
B. Canfield Casino & Congress Park	14
C. Waterfront Park	16
D. Music Hall	16
E. Water Spray Parks	16
F. 9-11 Sculpture	16
G. Electricians	17
<b>V. Solid Waste Department</b>	
A. Yard Waste & Composting Program	18
B. Transfer Station	19
C. Hazardous Waste	20

<u>Description</u>	<u>Page</u>
--------------------	-------------

VI.	Water & Sewer Department	
-----	--------------------------	--

A.	Water Supply & Treatment Plants	21
B.	Water Modeling	24
C.	Water & Sewer Infrastructure	25
D.	Water Service Lines & Emergency Repairs	27
E.	Storm Sewer Cleaning	27
F.	Expenditures Breakdown	28

VII.	Office of the City Engineer	
------	-----------------------------	--

A.	Overview	29
B.	Project Design, Management & Construction Administration	29
C.	Assistance to Other City Departments & Boards	30
D.	Address Numbering System	30
E.	Annual Highway Inventory	30
F.	Surveying & AutoCad Mapping	31

ATTACHMENT 1

2014 DPW Fleet

ATTACHMENT 2

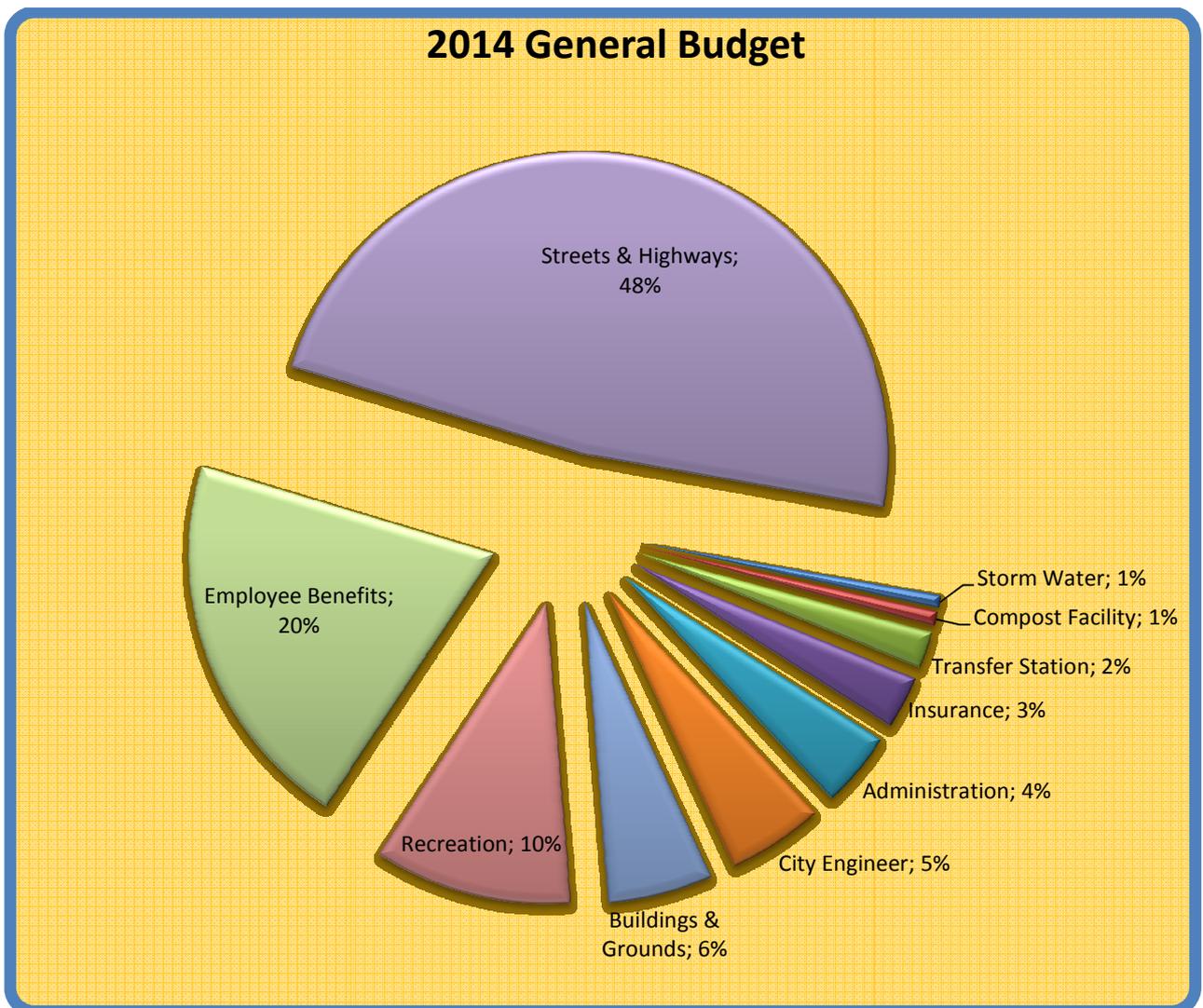
Awards

---

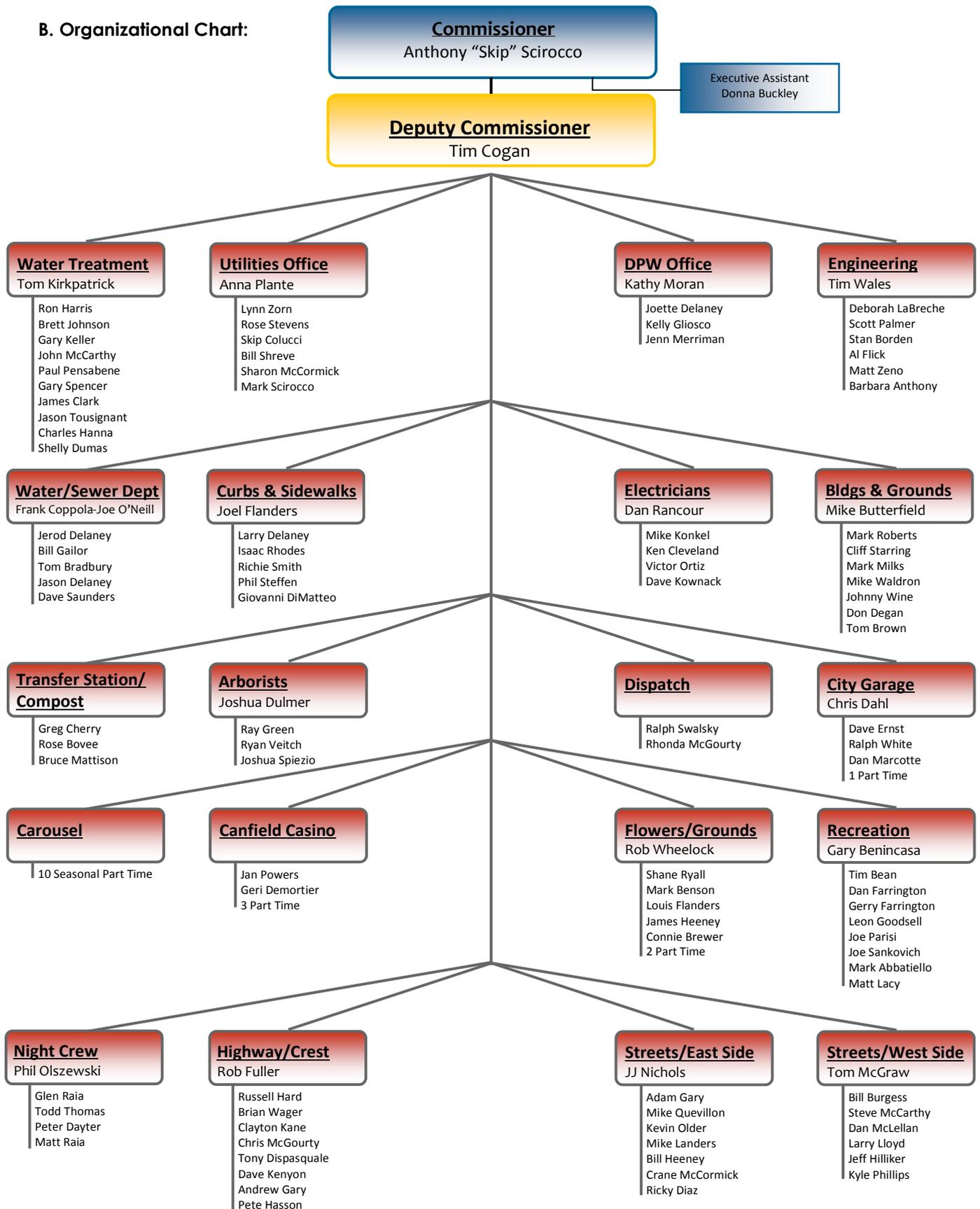
## INTRODUCTION

### A. Expenditures Breakdown:

The following report presents the activities of the Department of Public Works (DPW) for the year 2014 as required by the City Charter. The current spending and organizational structures that make-up of the City's DPW is depicted in the following charts:



**B. Organizational Chart:**



---

### C. Overview:

Maintaining Saratoga Springs public right-of-ways to be safe, clean and green is an enormous undertaking. It requires several large DPW crews to be out in the streets, at all times of the day, with a deep familiarity of the neighborhoods they work in and an ability to develop strong relationships and communicate well with residents and businesses. As you read through the annual report, we hope to share the scopes of work that our crews perform every day – often with limited resources. DPW's responsibilities are generally described below:

- ❖ 146 miles of Inside District & Outside District Streets
- ❖ 250+ miles of Water, Sanitary & Storm Sewer Utilities
- ❖ 200+ DPW vehicles & equipment
- ❖ 3 Water Treatment Plant Facilities
- ❖ City Water Supply - 1 surface water reservoir, 1 secondary water supply, and 2 groundwater well fields
- ❖ 24 Sewer Pumping Stations & 8,200 sewer service connections
- ❖ 43 major Buildings/ Structures and Grounds
- ❖ 113+ City Owned miscellaneous parcels
- ❖ 1 Public Restroom
- ❖ 1 City Park including Carousel and 8+ historic fountains & statuarys
- ❖ 4 Recreation Fields & Playgrounds (East, West South & Geyser)
- ❖ 4 Water Spray Parks
- ❖ 7 Surface Parking Lots & Three Parking Decks
- ❖ 2 Indoor Skating Rinks
- ❖ 1 Indoor Recreation Facility
- ❖ 1 Transfer Station
- ❖ 1 Compost Facility
- ❖ Waterfront Park

Some of the operations and events which are managed by DPW City Hall staff include:

- ❖ Public Works Administrative Office
- ❖ Utilities Dept./Water and Sewer Billing
- ❖ Utilities Dept./ Field Coordinator and Underground Locating
- ❖ Engineering Department/Administration and Field Staff
- ❖ Music Hall Events - 3rd floor City Hall
- ❖ Casino & Carousel Events
- ❖ Farmers Market
- ❖ Project Review and Counsel to Land Use Boards

## D. Honors and Awards:

### American Public Works Association Capitol District Chapter 2014 Award for Bog Meadow Infrastructure & Water Supply

In late January 2015 we nominated the Bog Meadow Infrastructure & Water Supply project for a 2014 American Public Works Association Environmental Project Award. The City's Bog Meadow Infrastructure and Water Supply Project was awarded the 2014 Project of the Year in the Environmental under \$5 million category by the American Public Works Association, Capitol District Chapter, at the Annual Awards Banquet. The Bog Meadow project will provide additional water source capacity to the City to meet our growing water demands for the next 20 years. The project also included the upgrade of the existing surface impoundment pump station that suffered from failing pumps and controls. The final cost of the entire Bog Meadow Project to increase the City's source capacity is approximately \$1.5 Million. This is a tremendous savings from an anticipated \$20,000,000 which would have been spent on the Saratoga Lake Project. More importantly, it's the culmination of sound engineering, scientific principles and practical thinking to solve a source capacity issue in an affordable manner. The project also required the coordination of numerous entities including the City, the Engineers, the Hydrogeologists, the general and electrical contractors, the NYSDOH and the NYSDEC. It's a great success story for the City.



**Bog Meadow Infrastructure Installation**

### American Public Works Association Capitol District Chapter 2014 Award for Canfield Casino First Floor Reinforcing & Basement Moisture Remediation:

In late January 2015 we also nominated the Canfield Casino First Floor Reinforcing & Basement Moisture Remediation for a 2014 American Public Works Association Historical Restoration/Preservation award. The project was awarded the 2014 Project of the Year in the historical restoration/preservation under \$5 million category. It was exciting to see how enthusiastically this National Historic Landmark is appreciated, even outside the City limits. We provided APWA with the Casino's colorful history, photos and As-Built Plans help to describe the first floor reinforcing and basement moisture remediation project, which had an important impact on the long term stability of the Casino.

DPW worked with structural engineers Ryan-Biggs Clark Davis Engineering & Surveying of Clifton Park, NY and geotechnical engineers Dente Engineering, P.C. of Watervliet, NY to design the Casino First Floor Reinforcing & Basement Moisture Remediation project. The construction was completed by Bunkoff General Contractors, P.C. of Latham, NY for a total price of \$502,000.

The structural portion of the project included new structural steel beams, microlams and steel columns to bring the entire first floor into Code compliance. The moisture remediation portion of the project included a multi-layered approach with new underdrain trenching, alarmed sump pump system, moisture vapor venting system, and concrete slab throughout the basement.



**Casino Basement Before Remediation**



**Casino Basement After Remediation**

APWA based their project selection on criteria such as project challenges and solutions as follows:

- ❖ Construction Schedule: 12/3/13 – 3/31/14

- ❖ Safety Performance: Zero injuries
- ❖ Unusual Accomplishments: There were plenty of adverse conditions such as crowded work areas, extremely wet soil conditions, low head clearance, site access and asbestos. ERSI had removed all of the asbestos prior to starting the project. There were many utility conflicts and underground structures discovered during the work.
- ❖ Innovations: Dente Engineering, PC of Watervliet, NY designed a geocomposite venting system which provided a place for the moisture vapors to escape without impacting the building systems. Bunkoff worked diligently to overcome the dark, wet conditions using wheel barrels to move much of the excavations by hand.
- ❖ Extraordinary Teamwork: Again, we must emphasize the team work that took place in this dark and less than ideal basement. Crews worked very hard in close proximity to one another during each phase of the work. Wheel barrel after wheel barrel of spoils were pushed to a designated area of the basement and had to be taken out by hand. Bunkoff was a pleasure to work with, was very organized and communicated with the City at all times.

A copy of the awards are included in Attachment 2.

## STREETS & HIGHWAYS DEPARTMENT

### A. Overview:

Maintenance and repair of the City's roadways are among DPW's highest priorities requiring our year-round commitment. Whether undertaking an aggressive paving and resurfacing program or developing improved procedures for patching City streets, DPW has made great progress in maintaining and improving the overall condition of the City's roadways. In addition, as required in the City Code, DPW crews also oversee the installation and maintenance of sidewalks, curbs, and street name signs around the City.

Unlike many other area cities, the Saratoga Springs DPW performs quality work involving most street reconstruction or resurfacing without relying on outside contractors. Performing these activities in-house results in significant savings to the City and offers a sense of pride and accomplishment for the Public Works crews. For example, in 2014, DPW installed the following sidewalks under Community Development Block Grant funding:

67 Lawrence Street  
44 Franklin Street

These sidewalk projects are paid for by residents, the Special Assessment District, and CDBG. DPW continually strives to meet the needs of the American With Disabilities Act and is working hard to systematically replace non-compliant pedestrian curb ramps with new ADA compliant ramps along the main City corridors.

### B. Paving Program:

The Consolidated Local Street and Highway Improvement Program, known as CHIPS, provides State funds to municipalities for support of construction and repair of highways and bridges not in the State Highway system. These monies are received from the State as a reimbursement to offset program eligible costs for street capital improvements including reconstruction and paving of City streets. For the year 2014, the City was eligible for, and received, full CHIP's program funding in the amount of \$711,505.09.

The DPW Resurfacing Program consists of pavement resurfacing, road base repair, curbs, gutters, storm sewer basins, sidewalks, and pedestrian curb ramp construction. DPW will repave, repair, and reconstruct various street segments throughout the City to ensure safety in the public right-of-way for pedestrians, and all vehicles, such as transit buses, cars, trucks, and bicycles.

In addition to maintaining 290 lane miles of streets, parking lots, downtown City building sidewalks and other downtown parcels, DPW undertook an especially aggressive program of street paving with a 10% increase from 2013. The following is a listing of those activities:

---

## 2014 CHIPS Paving Projects

## Project Cost

Arrowhead Road	1000 Ft South of Vista Dr to Dead End	\$37,830.76
Phila Street	Broadway to Henry Street	\$39,618.38
Reservation Avenue	Crescent Avenue to Dead End	\$30,529.27
Andrew Street	Van Rensselaer Street to Beekman Street	\$26,675.51
Marvin Street	Van Rensselaer Street to Beekman Street	\$20,308.52
Pine Road	Grand Avenue to Washington Street	\$46,928.42
Lake Avenue	Circular Street to Nelson Avenue	\$84,721.84
York Avenue	Warren Street to Circular Street	\$64,711.60
State Street	Greenfield Street to Vermont Street	\$24,135.86
Petrified Sea Garden Rd	Town of Milton to Town of Greenfield	\$92,133.87
North Lane	Nelson Avenue to Regent Street	\$23,737.41
South East Street	Lincoln Avenue to Park Place	\$27,273.30
Cottage Street	Park Place to White Street	\$27,698.28
North Lane	Nelson Avenue to Regent Street	\$2,234.27
Allen Drive South	Buff Road to Evergreen Drive	\$64,403.38
Quevic Drive	Hathorn Boulevard to Skidmore Drive	\$62,930.20
<b>TOTAL CHIPS REIMBURSEMENT REQUEST</b>		<b>\$675,870.87</b>

### **C. Railroad Run Multi-Use Trail:**

The Railroad Run Trail is one of 1,600 rail-trails supported by Rails-to-Trails Conservancy, a nonprofit organization working to create a nationwide network of trails from former rail lines and connecting corridors. Previously an

unused railroad corridor through the City, this "rail-trail" is now a great place to walk and bike in Saratoga Springs. In 2014, DPW completed the paving of the trail.

### **D. Seasonal Maintenance**

In addition to the activities associated with the annual street resurfacing program, the DPW Streets & Highways Division accomplishes a multitude of seasonal tasks. Routine with these tasks are the following:

#### **Hot Mix Blacktop Patching**

Broken water and sewer pipes can cause street cave-ins and roadway depressions also known as sinkholes, which are public safety hazards. This task also involves normal restoration projects associated with pavement cuts caused by private contractors doing work in City streets. During 2014 the DPW was responsible for undertaking 89 street repair projects related to water and sewer repairs and

depressions in the roadways, a 10% increase from 2014. DPW was also responsible for the temporary repair of potholes during the winter season until weather conditions allow for permanent repairs.

#### **Snow & Ice Control**

Winter maintenance activities are typically performed under the most demanding conditions. Preparation of equipment and

---

organizing manpower are basic to our success in snow fighting. Designated employees receive storm warning notifications and issue mobilization orders. DPW crews use designated route assignments to accomplish plowing and deicing in the most efficient manner based on the type of storm and required level of service.

An additional task under demanding weather conditions is the removal of snow from downtown City streets where adequate space is not available to accommodate on-site storage. Procedures for loading and transporting snow must be followed all while minimizing the impact to the drivers, businesses and residents in the vicinity.

#### **Street Cleaning & Graffiti Removal**

Depending on a variety of factors, maintaining the cleanliness of the City's streets is also 3 season operation and an on-going task. The clean-up of winter sand, accumulated along City streets, is performed using the department's two mechanical sweepers. The process takes several weeks to complete. Street sweeping is also an important part of the City's Storm water Pollution Prevention Program (MS4) as it keeps sand and other street debris from entering the municipal storm sewer system.

To keep the City free of blight, DPW monitors its properties and removes any defacing graffiti.

#### **Curb Side /Yard Debris Pick-Up Program**

From early spring through late fall, this City-wide program offers residents the opportunity to place containers of leaves, grass clippings, tree branches, and other yard debris at their roadside for pick-up by DPW crews. The objective is to reach each neighborhood, both inside and outside districts, at least once during every two-week period. This material is then transported to the DPW Compost Facility on Weibel Avenue. The composting process, which is conducted in-house,

produces an environmentally benign product that is then sold as high quality mulch to residents, generating revenue from waste. Additional information is included below in Section V under Solid Waste.

#### **Tree, Planting, Pruning and Maintenance**

Trees are one of the most cost-effective parts of our urban infrastructure. They have a direct positive effect on our economy, environment and health. Trees save energy, reduce pollution and sequester carbon. They increase property values and the profitability of restaurants and retail businesses. Trees beautify our city as well as provide shade to consumers and residents alike. They also provide habitat for wildlife. Our city contains thousands of trees in parks, tree lawns, Right of Ways and easements. Maintaining a crew of professional tree care specialists cuts down on the costs of maintenance, planting and removal. Our four man tree crew is led by ISA Certified Arborist Joshua Dulmer. Mr. Dulmer is the first professional Arborist to be employed by Saratoga Springs Department of Public Works.

At the beginning of calendar year 2014 the Tree Department started a "Dutch Elm Disease Sanitation Program." This program consists of several working parts. First and most important is the prompt removal and disposal of any DED infected American Elm trees within the working jurisdiction of the city. This program also employs a proactive stance by preventative inoculations with a systemic anti-fungal to prevent transmission of DED into large healthy American Elms. Part of the preventative maintenance is for the pruning of these trees to be done during dormancy. A number of large remaining American Elms are also under an observation schedule to provide quicker reaction times for problems that may arise. Rounding out the program is the reforestation and planting of disease resistant American Elm varieties.

The Tree Department continues to work in conjunction with local group, Sustainable

---

Saratoga, to promote and expand our population and diversity of trees. This partnership is also very valuable in spreading information about the positive values trees provide the community. The tree department is now taking a more scientific approach to reforestation. Using recent statistics and gathered data we can better decide which type of tree should be planted and where. Invasive species are no longer permitted for planting. Areas lacking suitable canopy coverage are now targeted for planting. Areas with excessive concrete are reviewed for possible installation of new tree lawns. In 2014 concrete was cut and removed allowing many new tree lawns to be installed in the downtown district. The installation of new tree lawns is done with help from the masonry crew as concrete slabs need to be cut and removed to do so.

A "Clearances Program" is also followed to maintain safe clearance distances from traffic, driveways, sidewalks, yards, homes and power lines. This program allows for a proactive approach to tree care. Certain areas are targeted at certain times throughout the year. This allows for inspection of trees as work is done. Work is also scheduled on a reactive platform through residential calls and emails. We also work closely with National Grid on energized line clearance projects. This close relationship ensures a high level of pruning and overall tree care that our residents deserve.

Our Tree Department has protocols in place for quick reactions to tree emergencies that may arise due to a myriad of possible factors including but not limited to inclement weather. These types of emergency situations often result in downed trees or limbs obstructing the roadways. Often the Street Department will assist with issues requiring Heavy Equipment Operators for large wood removal on time sensitive scenarios.

While these aforementioned areas are indeed important to our city, the number one priority for the Tree Department is public safety. Once identified, tree issues threatening public safety are promptly addressed. Issues may range from loss of visibility for pedestrians or motorists to large dangerous trees posing a high degree of risk. In line with our adopted Urban Forest Master Tree Plan, trees are only removed if they pose a significant threat to public safety or if the control of disease within the specimen is not a viable option. Sometimes a tree can pose a threat to property as well. In March of 2014 several large White Pine trees were removed that were threatening the "Spirit of Life" statue. This removal project led the way to restoration efforts of the statue and its surrounding area of the park.

Tree care and maintenance is a process that requires knowledge, dedication, skill and the ongoing will to learn. We have in place the proper policies and techniques ensuring our return on investment will continue to outweigh the cost.

## **E. Beautification**

DPW is the force behind beautiful public spaces in Saratoga Springs. This responsibility includes numerous public gardens located on City owned property. DPW is continually working to keep these important open spaces free of illegal dumping and other unhealthy activities to improve the quality of the neighborhood. We maintain a high standard of cleanliness by setting out each day to address issues that affect the quality of life in

the City and keep streets clean and inviting for residents, customers and other visitors.

For example, DPW crews landscape, mow, weed and water Congress Park, two cemeteries, the Farmer's Market, the Visitors Center, the Senior Center, the Arts Council, South Broadway and Union islands and the length of Broadway. We plant in excess of 60,000 annual plants including Hathorn Spring.

---

During the fall the flower crew plants thousands of tulips. In addition, DPW is responsible for the mowing of four recreation fields.



**Flowers at Union Ave. & Circular St.**

Holidays in the City are celebrated by lighted decorations hung by the DPW flower crew along Broadway, Congress Park, City Hall, and the Visitor Center, and trees around the Canfield Casino. Evergreen wreaths are made in-house by talented staff to decorate downtown poles with lights, red bows and green garland. A Menorah and other festive holiday decorations are placed in and around Congress Park. DPW continues to "go

green" by using new LED bulbs when possible to light the City's Christmas trees.

The following are some additional DPW sponsored programs which add to the beauty and sustainability of the City:

- Flag banner program that generates \$10,000 in revenue. Local organizations purchase colorful banners which are hung on the decorative street lights.
- Memorial Bench Program – Saratoga Springs has a bench program that generates revenue for the City to purchase benches for the City streets and parks. Benches can be purchased from DPW with plaques to honor the deceased. These are installed by DPW on Broadway and Congress Park.
- Horse head bicycle racks
- New Holiday decorations for the Downtown Business District
- New trash barrels to begin a new replacement program
- Recycling bins for City Hall offices to promote recycling.

## **F. Public Right of Way Management**

In the interest of public safety and convenience and to protect public facilities, DPW continually monitors the activities within the City's public right of way along the City streets. This includes items such as issuance of permits for underground and aboveground work, utility locations, and inspections. Street Opening permits control the construction, alteration, installation and occupied uses in accordance with applicable City Codes and standards. This also provides the opportunity to confirm that proper insurance is in place by the applicant. All public and private paving and construction projects are required to provide A.D.A. compliant curb ramps, giving priority to locations requested by the disabled.

## **G. Street Acceptance**

Another responsibility of the DPW administration is the duty of street acceptance. Typically when a new residential development is created and a subdivision map is approved, there are new roads added to the inventory. Once City planners and engineers approve the developer's as-built plans, the map is filed, and the proposed roads are dedicated to the City. It is DPW's charge to ensure that the new streets are built to proper City standards.

---

## **H. Safety Training**

2014 included safety training activities within the department's workforce. The sessions were conducted by the City's Director of Risk & Safety and focused on personal protective equipment. A survey was conducted with DPW foreman and laborers and equipment was purchased associated with the survey results.

## **I. Storm Water Pollution Prevention Training**

DPW field staff employees routinely receive in-house training focused on storm water pollution prevention as part of the City's Municipal Separate Storm Sewer System (MS4) Program. Topics for training include: Hazardous Materials Spill Prevention and Cleanup, Erosion & Sediment Control During Construction, and Identifying Illicit Discharges & Other Sources of Storm Water Pollution.

## EQUIPMENT & FLEET MANAGEMENT

### A. Overview

Routine repair, replacements, preventative maintenance, inspections, fleet inventory management, parts inventory, tools inventory, fuel inventory, safety and condition assessments, and emergency repairs are just some of the responsibilities of the DPW City Garage. DPW mechanics must maintain appropriate training, licenses, and certifications such as those required by the NYSDOT, air emissions, and commercial drivers licenses (CDL) in line with the functions of the job. In addition, the DPW garage analyzes equipment costs and defines replacement cycles, drafting purchasing specifications, and procuring all mechanized equipment. Attachment 1 includes a list of the 2014 DPW Vehicle List that is managed by the DPW garage which includes over 200 running engines.

### B. Fuels and Liquids Inventory

The DPW garage is responsible for managing and tracking the use of fuels, oils, lubricants and automotive fluids meeting all applicable environmental regulations. Gallons of fuel are continually tracked to determine any variance from recorded inventory levels. This reconciliation assists in determining fuel leaks. DPW must constantly monitor the above ground gas and diesel tanks in accordance with Petroleum Bulk Storage and permit regulations.

### C. Snow and Ice Control Fleet

Central to our ability to respond quickly and efficiently to winter storm conditions is having available the necessary equipment to do the job. Over the years, the Department has taken pride in its fleet maintenance procedures for trucks and equipment that are used all year. Proper calibration of spreading equipment is necessary to maintain the spreader settings that produce the correct application of deicing material within the guidelines of the State agencies.

During the winter season, the Department maintains various pieces of heavy equipment used for snow removal operations which typically includes: a Vohl Snow Blower, 2 Road Graders with Wing Plows, 4 Wheel Loaders, 6 Dump Trucks with Plow and Spreader, 7 Dump Trucks and Wing Plow and Spreader, 5 Dump Trucks with Plows. Also, key to our winter operation is the fleet of pick-up trucks with plows that work in tandem with the larger pieces of snow removal equipment.

### D. Major Replacement Purchases

DPW demonstrated their commitment to cost conscious spending in 2014 by trading in the aging units for the following major pieces of equipment:

- ❖ Two (2) 2014 Elgin Pelican Street Sweepers
- ❖ One (1) 2015 International 7500 with dump, plow and wing
- ❖ One (1) Caterpillar 930K, Loader Tool Carrier Machine
- ❖ One (1) Toro Groundsmaster 4000-D Mower

## BUILDINGS & GROUNDS DEPARTMENT

### A. Overview

The goal of DPW is to preserve and maintain all City owned facilities in a manner that provides a safe and efficient environment for City functions. Proper maintenance of facilities includes preparation of capital funding allocations for long and short term building and space needs. A conditions assessment is followed for all facilities maintained and updated on a regular basis.

Regular fire inspections for code compliance and fire hazard identifications are managed DPW through the use of a professional fire sprinkler firm. DPW provides custodial programs for all facilities, excluding those maintained by the Public Safety Department. Supplies are inventoried and stored as needed for City operations.

The following lists the majority of extensive facilities and structures which DPW is responsible for operating and maintaining. Many are listed on the National Register of Historic Places:

<b>Asset Name</b>	
❖ Excelsior Ave. Water Filtration Plant	❖ Rose Fountain
❖ Geyser Crest Water Treatment Plant	❖ Spirit of Life Bronze Statuary & Reflecting Pool
❖ Interlaken Water Treatment Plant	❖ "Night & Day" Urns
❖ Bog Meadow Secondary Water Supply Pump Station	❖ War Memorials & Veteran's Walk of Honor
❖ 25 Sanitary Sewer Lift Stations	❖ Farmers Market Pavilions & Gazebos
❖ Putnam Street Parking Deck	❖ 9-11 Memorial
❖ Woodlawn Avenue Parking Deck	❖ Waterfront Park on Saratoga Lake
❖ Long Alley Parking Garage	❖ High Rock Park Restroom
❖ City Hall	❖ Indoor Recreation Facility
❖ Arts Council	❖ Geyser Park Recreation Facilities and Building
❖ Franklin Community Center	❖ 4 Interactive Spray Parks
❖ Senior Citizens Center	❖ Weibel Ice Skating Arena
❖ Visitors Center	❖ Vernon Ice Skating Arena
❖ City Center (operates under City Center Authority)	❖ Compost Facility and Office Building
❖ Canfield Casino	❖ Transfer Station Facilities
❖ Congress Park	❖ DPW Garage, Dispatch & Fuel Facilities
❖ The Carousel	❖ DPW Carpentry Shop
❖ "Spit and Spat" Marble Statues and Reflecting Pool	❖ DPW Sheds
❖ Italian Gardens Statues	❖ Weibel Ave Garage
❖ Mineral Springs and Gazebos	❖ Geyser Park Garage
❖ "The Reservoir" Fish Pond at the Casino	❖ Landfill Site

---

## B. Canfield Casino and Congress Park

### Canfield Casino

The Canfield Casino serves as one of Saratoga Springs' most popular destination points for various parties, banquets, weddings, public and private events special to our City. Unique to this historic building is the fact that it is available for use by the general public in accordance with a schedule of rental charges. Increased public usage of this historic City treasure also places increased demands on the Public Works staff, which is responsible for the day to day operation. Critical to our success at the Canfield Casino, is the small dedicated support staff. This staff operates and oversees the Casino building and is also responsible for much of the outside maintenance work throughout the surrounding Congress Park.

During the year 2014 the Canfield Casino booked 94 events. Special chair rentals alone attributed to approximately \$4,165 in extra revenue. The monies generated by the Canfield Casino are used to offset expenses to the City's taxpayers. In addition, many outside events were held in Congress Park such as the annual Shakespeare In-The-Park, 4th of July celebration, summer concerts, and Arts and Crafts shows.

### The Mineral Springs

The City's natural mineral springs have been attracting summertime visitors for over 200 years. These springs were believed to have healing powers and are famous for their varied and distinct tastes. Visitors are welcome to bottle the spring water for personal consumption. DPW maintains these historic springs which are covered by highly ornate pavilions and marked by plaques.



**Hathorn Spring**

### Spirit of Life & Spencer Trask Memorial

In 1913, Katrina Trask, philanthropist, Yaddo founder, and Saratoga resident, along with George Foster Peabody, commissioned the memorial to honor her late husband, Spencer Trask, preserver of Saratoga's natural springs. Sculptor Daniel Chester French created the bronze sculpture *Spirit of Life* and architect Henry Bacon, who also designed the *Lincoln*

*Memorial* in Washington, designed the architectural features. The Commissioner of Public Works and the Saratoga Springs Preservation Foundation are working together toward a three year conservation and restoration project for this priceless treasure in time for the 2015 Centennial celebration.

### Veteran's Walk of Honor

This patriotic program was started in 1999, featuring a sidewalk of bricks engraved with the names of local war veterans to memorialize their names in front of the Congress Park War Memorial. The walkway is an extension of this important space where the City holds patriotic dedication ceremonies and gatherings with music, various speakers and refreshments. DPW oversees this ongoing program by offering a veteran's family and friends an opportunity to purchase a brick for \$50. To date, over 2,000 bricks have been dedicated. The bricks are engraved with the Veteran's name, rank and branch of service. Proceeds from the sale of the memorial bricks are used to fund future maintenance and upkeep of the War Memorial.

**Carousel**

2014 marked the twelfth year of operation of this magnificent one-of-a-kind historic Carousel. During the early spring season, DPW performs a scheduled maintenance and repair of the Carousel's mechanical operation and security system. Skilled DPW staffs pay special attention to the condition of the painted surfaces of the historic Carousel horses.

The Carousel hosted approximately 40 special events for the general public and 10 schools in 2014. The total revenue generated by the Carousel in 2014 was \$55,094 hosting approximately 51,000 riders not including weddings, school children and special events:

<b>Carousel Revenue Collected</b>	
<b>Year</b>	<b>Amount / Riders Hosted</b>
2009	\$30,391 / 60,780
2010	\$50,392 / 50,392
2011	\$49,000 / 49,000
2012	\$50,828 / 50,000
2013	\$55,094 / 55,094
<b>2014</b>	<b>\$51,802 / 51,802</b>



---

### **C. Waterfront Park on Saratoga Lake**

Through the efforts of the DPW and the Mayor's Office, the City's Waterfront Park on Saratoga Lake was opened to the public in August of 2012. The park was formerly the Waterfront Restaurant on the northwest bank of the Lake with access on Crescent Avenue, across from Cassidy Drive. The City purchased the property in 2006 with \$2 million in open space bond money. The goal is to make the Waterfront Park as usable as possible to the taxpayers within the limited budget.

### **D. City Hall Music Hall**

- ❖ The Music Hall is a historic civic asset and a lively home for numerous arts and local organizations. The third floor of City Hall is a beautiful location with seating for 300 people. DPW operates the activities and provides staff to help with maintenance.

Some of the on-going events include:

- ❖ SAVOY Swing Dances (occur every third Friday of the month)
- ❖ Johnny Cash Country Show Concerts
- ❖ Dance Flurry In February
- ❖ Weddings
- ❖ Community Celebrations
- ❖ Barmitvahs/Batmitvahs
- ❖ Saratoga Children's Theater

### **E. Water Spray Parks**

DPW oversees the summer operation of four interactive fountain parks which provide a free spot for kids of all ages to cool down. Through the use of computerized controllers, there is no need for lifeguards and water only flows when children are present. The four parks are located at Geyser Park, and at the West, South and East Side Recreation Areas. Spray parks are not maintenance free and must be inspected and maintained to be sure the park is being used properly and the area is free from any debris or potential hazards. All component surfaces and nozzles are checked for signs damage.

### **F. 9-11 Sculpture**

"Tempered by Memory" is a memorial constructed out of steel beams taken from the wreckage of the Twin Towers following the terrorist attacks of Sept. 11, 2001. The steel was assembled into the memorial by a pair of Saratoga County artists and paid for by Saratoga Arts, which donated it to the City at a formal dedication. The artists completed the 9/11 Memorial together with a volunteer team of iron workers, crane operators and a broad range of community-wide support. The sculpture and surrounding setting at High Rock Park is another important City treasure now under the care of DPW.

---

## G. Electricians

DPW maintains a skilled electric crew responsible for repair and maintenance of City owned facilities. The following is an overview of their responsibilities and activities for the year 2014.

- ❖ Replaced 10 Sternberg lights that were knocked down
- ❖ Fixed 182 Street lights that were not working
- ❖ Took over 41 Sternberg lights: 3 lights at 250 Grand Ave, 7 lights on East Broadway, McKenzie Way, and Marie St, 6 lights at 324 West Ave, 1 light at 718 N. Broadway, 1 light on Second St, 4 lights 30 Lake Ave, 10 lights at 235 Washington St, Central Ave and Outlook Ave, 4 lights at 247 Broadway, 3 lights at 227 Washington St, 1 light at new Recreation parking lot on Worth St, and 1 light at 192 Beekman St
- ❖ Cameras hooked up for Public Safety on Caroline Street
- ❖ Upgraded Casino and Carousel to LED lights under National Grid rebate
- ❖ Installed street lights at the new recreation parking lot on Worth St
- ❖ LED lighting upgrade of Woodlawn Ave and Putnam St parking garages
- ❖ Generator installed at the Casino

The Electrical Crew is comprised of the following employees:

- ❖ Senior Electrician supervises a crew of 4
- ❖ One Electrician- currently unmanned
- ❖ Two Maintenance Mechanics II
- ❖ One Maintenance Mechanic I
- ❖ One Laborer

They are responsible for preventive maintenance, installation, care, and repairs of:

- ❖ 24 sewage lift stations and associated alarm circuits: Biweekly operational check of all stations and alarms
- ❖ All city outdoor lighting at all properties, 24 Route 50 lights by SPAC, and 1138 Sternberg decorative lights
- ❖ 21 emergency generators at City Hall, Senior Center, Geyser water plant, Interlaken water plant, main water plant, City garage, dispatch, Recreation Center, Casino, Portable, and at sewage pump stations
- ❖ All City owned buildings, park , and recreation fields: outdoor lighting, indoor lighting, emergency lighting, power, all electrical equipment, and running of computer lines
- ❖ All mineral springs and fountains in ponds
- ❖ Marks all electrical utilities for DSNY notifications
- ❖ Orders all materials and maintains inventory of all electrical equipment
- ❖ Supervision of City's energy management system, control of heating of City Hall, control of heating and AC at Casino, water plant heat, and Recreation Center heating and AC
- ❖ Putting up and taking down of all Christmas wreaths in downtown area, helping Flower crew with Christmas lights in front of casino, putting flower baskets up in Spring and taking down in Fall
- ❖ Snow removal of streets and clearing of all pump stations, mowing of all pump stations and Geyser Crest Well field
- ❖ On 24 hour call to respond to all electrical emergencies including flooded pump stations, deco lights being knocked down by accidents, heat, and power issues

## SOLID WASTE DEPARTMENT

### A. Yard Waste & Composting Program

As indicated above under seasonal maintenance, the City's Yard Waste Program has earned the reputation as one of the best municipal composting operations in New York. This Public Works sponsored program has developed into an important City service that nearly every City resident depends on.

From early spring through late fall, DPW street crews provide a valuable service to all City residents by picking up all rakings, mowings, trimmings and weeding placed at curbside. This program has a few basic rules:

- ❖ April 15 through September 31 - All yard waste material must be placed at curbside in a reusable container or biodegradable paper bag.
- ❖ All yard waste material must be in the form of leaves, grass clippings or tree limbs cut in lengths shorter than four feet.
- ❖ October 1 until the snow falls - Materials may be placed loose by the curbside for pick up.

This yard waste is transported to the City's Weibel Avenue Compost facility and stock-piled. It is then ground and shred into a rough-cut mix of raw (or green) compost material utilizing the City's large tub grinder machine. The raw material is then placed in large windrows on the compost pad where it undergoes its natural process of bacterial decomposition.

Periodic turning of these large windrows is necessary to allow proper oxygenation to take place throughout the compost mix. Water is also added, especially during dry periods, to facilitate the natural decomposition process of the compost material. Considering that this cycle takes approximately a year to complete, in the spring of 2014 yard waste material collected in 2013, was ready for final processing into a fine, high quality, black compost material. This is accomplished by screening the aged compost material through a large scale trommel type machine specifically designed to remove and separate out any unwanted or large pieces of foreign material.

<b>2014 Compost Distribution</b>	<b>Use in Cubic Yards</b>
Individual Sales to area residents & businesses	2,275
Public Works Projects	270

While this Public Works sponsored program was initially established in 1995, as an alternative to the land filling of yard waste materials, the program has generated substantial revenue for the City. The sale of compost material during the year 2014 was at \$52,408, which helps to offset program costs.

<b>10 Year Compost Revenue Collected</b>	
Year	Amount
2005	\$78,751
2006	\$58,290
2007	\$82,307
2008	\$91,602
2009	\$55,596
2010	\$47,807
2011	\$65,652
2012	\$66,568
2013	\$52,408
2014	\$47,042
<b>10 Year Total</b>	<b>\$646,023</b>

## **B. Transfer Station**

The Saratoga Springs Transfer Station serves the residents of the City of Saratoga Springs as well as other surrounding communities and is operated by DPW. The facility became operational in 1995 for use as a transfer station after the City landfill was closed. The Transfer Station Facility primarily consists of a waste drop-off area where bagged and other non-recycled waste is deposited into a large stationary trash compactor. An adjacent small office building provides space for a DPW attendant to oversee operation of the compactor and provide service to the public. The transfer station processes approximately 3.5 tons of waste material per day or approximately 100 tons per month.

Revenue generated from the sales of trash bags for 2014 was \$160,316, a roughly 8% decrease from 2012.

---

## C. Hazardous Waste

Every other year Saratoga Springs has a Household Hazardous Waste Day, which is reimbursed 50% through a grant from NYSDEC. The Hazardous Waste Day allows Saratoga Springs City residents to get rid of harmful toxic substances and pollutants that can eventually end up in our watershed. This event was attended by 250 residents in 2014.

### Public Awareness

In 2014 three Skidmore students were mentored by DPW in the Household Hazardous Waste Grant process. The students surveyed residents and assisted in raising awareness of the Hazardous Waste event. As a result of the survey, social media was used to increase participation. In addition, DPW and Skidmore student co-authored a teaching curriculum designed as a hands-on program for education on Hazardous Waste, what it is, where it is found and the environmental impact to the watershed. The curriculum was presented to the Green Teams at the Division Street School.



**Seniors Faith Nicholas, Jennifer Garvin and Lauren Schilling (from left) explaining to students at Division Street Elementary School the importance of keeping household hazardous wastes out of the region's watersheds.**

## WATER & SEWER DEPARTMENT

### A. Water Supply & Treatment Facilities

One of the most important functions of the City's Department of Public Works is the responsibility to operate and maintain the City's water delivery system and treatment facilities. Keeping these facilities up-to-date and in excellent operating condition is critical to the needs of our community and remains a top priority for the administrations of the DPW.

#### Excelsior Avenue Treatment Plant

The Excelsior Avenue Treatment Plant has been the main treatment facility for the City since it was built in 1935. Prior to 1979, when the Geysers Crest system was purchased, it was the sole Water Treatment Plant for the entire city. Over the years the DPW has undertaken several capital improvement initiatives designed to upgrade and improve various treatment processes within the plant.



**Figure 4: Workers building the settling basins  
1935**

The basic treatment processes and procedures involved in treating Loughberry Lake water for human consumption may be referred to as conventional, or traditional. The processes done at the Excelsior Avenue facility include coagulation, flocculation, sedimentation, filtration, disinfection and fluoridation. The coagulant used is polyaluminum chloride. Sodium permanganate replaced activated carbon for taste and odor control in the summer

months. Fluoride is added at 1 Mg/L for prevention of tooth decay and copper sulfate is added directly to the Lake during summer months for algae control. Primary disinfection is attained through the application of UV light with sodium hypochlorite used for secondary disinfection.

The 2006 ultra-violet light (UV) system meets the new, stricter, EPA and NYSDOH regulations for disinfection by-products. As a result of the new EPA regulations, pre-chlorination had to be discontinued, which created the problem of algae growth in the settling basins. This was remedied by the application of sodium permanganate on essentially a full time basis. The addition of this chemical was hoped to be eliminated or at least be reduced by the installation of a cover on the sedimentation basins. Lack of money in the budget has prevented this from moving forward.

Water quality standards require turbidity and chlorine residual to be monitored continuously. Color, temperature, pH, alkalinity, hardness, fluoride and distribution turbidity are tested daily. Water quality bacteriological (total coliform) tests are routinely performed throughout the entire distribution system. Additionally, total organic carbon is tested monthly and disinfection byproducts are tested each quarter. The annual requirements for testing of nitrate, primary inorganic chemicals, principal organic chemicals, synthetic organic chemicals, asbestos, lead, copper and radiological elements are also performed. During 2014, the City met all drinking water quality conformance standards as set forth by state and federal guidelines. Additionally, we are proud to say the City has never violated a

---

maximum contaminant level or other water quality statement set by the state or federal guidelines.

The most significant improvement at the Water Plant in 2014 was the installation of a 4160 V, 1500KW emergency generator, in compliance with an administrative order of the NYS Dept. of Health. The emergency generator went on line and become operational in December 2014. This was a long overdue addition that will ensure that the City is supplied with safe potable water, with sustained pressure, in the event of a prolonged power outage. Prior to its installation the City was dependent on a 5 million gallon storage tank, which supplied the City by gravity, in the event of power loss. Though that may have been sufficient in 1935 when the plant was built, it has long outgrown its adequacy with pumping totals at times exceeding 7.5 million gallons per day. The immense size of this generator will supply the plant with enough power to run at its maximum rate if it needs to.



**Figure 5: Water Treatment Plant Filter Room**

In addition to the Loughberry Lake water supply the City depends on the system of wells located in the City's Geyser Crest neighborhood and also the Interlaken well system located in the Interlaken development. These wells supply the two developments and also supplement the Loughberry Lake water supply system in the inner City. Both of these systems are subject to the same strict water testing regulations set by

NYSDOH. In addition, the Bog Meadow pump station and the 20 inch raw water main into Loughberry Lake supplement the water supply during the summer season when there is an increased demand on Loughberry Lake.

### **Interlaken Water System**

As of 2005, the City acquired ownership of the Interlaken Water System from the Saratoga County Water Authority. The system is located within the Interlaken residential neighborhood off Crescent Avenue near Saratoga Lake.

There are three operating water wells and a new upgraded 60 kW Emergency Generator replaced the former 40 kW generator. This project was accomplished under contract with various construction contractors and in accordance with the engineering design and guidance of the City's water consultants Barton and Loguidice, P.C.

Also, associated with this project was the installation of 125 new "Radio Read" style water meters throughout the Interlaken residential neighborhood. The result of this project enables the City to utilize up to 300,000 gallons of additional water per day from the three operating wells. This in turn will supplement the entire service area in this section of the City's water distribution system.

The Interlaken water system was completed and online in April 2007. The increasing iron levels in the Interlaken wells have necessitated the addition of an ortho/poly phosphate chemical to sequester the iron. This keeps the iron in solution to stop it from staining fixtures and to hinder other related aesthetic problems in the distribution system. The phosphate addition use was started in November 2009. In 2011 it was discovered that the #2 well iron content was too high to sequester the iron. This well has been taken out of service, decreasing the capacity of the well field to 115,000 gallons per day. Discussions are going on at present as to the feasibility of installing a green sand filter at the Interlaken plant. This will ensure the removal of the iron, allowing #2 well to be put back in service thus restoring the full pumping capabilities of the well field.

### Geyser Crest Well System

In addition to the Loughberry Lake water supply the City also depends on the system of wells located in the City's Geysers Crest neighborhood. These wells primarily supply the Geysers Crest subdivision and adjoining neighborhoods in the Town of Milton with City supplied potable water. This well system also has the capability of supplying water if needed to the inner City system. While the Geysers well system represents a critical water supply source for the City's south west neighborhoods, serious draw-down impacts on the well system levels (especially during times of drought) have caused the City to initiate a ban on new connections to this system. This policy, initiated in 2002, remains in effect today.

In 2011 the Geysers Crest Well Field Improvement Project was finalized. This was a long needed improvement which was required for the City to comply with the 2010 EPA Ground Water Rule. A new hypochlorite disinfection system was installed to simplify treatment and to provide enough chlorine contact time to satisfy the new rule. The well pumps were equipped with variable speed drives and motors to save energy use and the two buildings were insulated to reduce heating costs. One of the main benefits of the project was the reconfiguration of piping and the installation of a booster pump that allows the transfer of water from the inner City system to the Geysers Crest system. This is an important upgrade that will provide enough water to the Geysers Crest system should an emergency occur. Of course Geysers Crest previously had, and still does have, the capability of supplementing the City system. Due to this upgrade it is possible to increase the amount of water being pumped to the City from Geysers Crest, lessening the strain on the Excelsior Ave Plant.

Water production and usage for the City of Saratoga Springs for the year 2014:

	TOTAL
Gallons pumped from Loughberry Lake to Excelsior Ave., WTP	1,290,281,000
Gallons pumped from Geysers Crest	241,952,000
Gallons pumped from Interlaken	33,294,000
<b>Total demand of City in 2014</b>	<b>1,565,527,000</b>

(Approximately 3% decrease from 2013)

During the year 2014, the highest single day water consumption for the entire City occurred on July 22, 2014, when 7.234 million gallons were used.

The treatment of the City's water supply is a 24 hour-a-day, 365-day operation. Constant care and monitoring of all treatment plant systems is a critical responsibility taken seriously by the entire water plant staff. It is important to note, the City's water treatment plant operators that are responsible for the Excelsior Avenue, Interlaken and Geysers Crest Treatment Plants represent a critically important team of employees within the Department of Public Works. In order to maintain their status as Water Treatment Plant Operators, these individuals are required to undergo and maintain certain levels of training by the New York State Health Department. It is with their constant care and oversight of all treatment plant operations that we are able to maintain one of the best and most cost effective systems in the State.

The Excelsior Avenue Water Works has hosted many tours of the plant in the past year, as it has done for many years. The groups requesting tours have ranged from Cub Scouts, college students, to senior citizens. It is nice to know educators in our City take the time to teach our young people the importance of water treatment and conservation. It is truly astonishing how knowledgeable the students are about the process and how well thought out their questions were during their tours.

---

### **Bog Meadow Pump Station**

Also in 2014 construction of The Bog Meadow Well Field Development and Pump Station Rehabilitation Project was begun. This too, was in compliance with an administrative order from NYS Dept. of Health. This project was initiated to ensure the City has an adequate source water supply in the event of a long term drought.

Bog Meadow Pump Station was constructed in 1964 to supplement Loughberry Lake in times of high usage. An impoundment was built on Bog Meadow Brook with the capability of pumping up to 2 million gallon per day directly to Loughberry Lake. In 1999 a connection off this line was made directly to the Water Plant for use to bypass Loughberry Lake if needed.

This project includes the development of three wells at the Bog Meadow site (a fourth well is drilled and available for future use). The water will be pumped from the wells into the existing transmission main, directly to the Water Plant (or to Loughberry Lake if desired). The well water will be blended with the water from the Lake which will significantly reduce the chemicals needed for treatment, due to its low turbidity and low disinfection demand.

Also the surface water impoundment will be upgraded with new variable speed pumps, retaining its present pumping capabilities. The well field will supply 1.5 million gallons per day and can be run independently or in conjunction with the surface water pumps. By implementing the wells and pumping directly to the plant, they can be run all year long instead of just supplementing the lake in the summer.



**Figure 6: Bog Meadow production well & observation/monitoring well**

## **B. Water Modeling**

The City also enlisted Chazen Companies to establish a water model for the City's distribution system in 2014. This will be a valuable tool in determining directional flow and chlorine residuals in the system under varying conditions and flow rates. It will also be an aid in how to proceed with future expansion of the system.

The treatment of the City's water supply is a 24 hour-a-day, 365-day operation. Constant care and monitoring of all treatment plant systems is a critical responsibility taken seriously by the entire water plant staff. It is important to note, the City's water treatment plant operators that are responsible for the Excelsior Avenue, Interlaken and the Geyser Crest Treatment Plants and they represent a critically important team of employees within the Department of Public Works. In order to maintain their status as Water Treatment Plant Operators, these individuals are required to undergo and maintain certain levels of training by the New York State Health Department. It is with their constant care and oversight of all treatment plant operations that we are able to maintain one of the best and most cost effective systems in the State.

The Excelsior Avenue Water Works has hosted many tours of the plant in the past year, as it has done for many years. The groups requesting tours have ranged from Cub Scouts, college students, to senior citizens. It is nice to know educators in our City take the time to teach our

young people the importance of water treatment and conservation. It is truly astonishing how knowledgeable the students are about the process and how well thought out their questions were during their tours.

### C. Water & Sewer Infrastructure

Our system of underground utilities represents a critically important element of our City's infrastructure. Accordingly, DPW is responsible for the operation, maintenance and repair of hundreds of miles of underground water, sanitary sewer and storm sewer lines throughout the City. The City installed 1,700 feet of new water main including fifteen (15) new vales and four (4) new hydrants.

In general, the City's distribution system spans over 7-miles from east to west. The system is physically divided by New York State Interstate 87 (I-87) with the Downtown area, Saratoga Racetrack, Spa State Park, and Geyser Crest Subdivision on the west side. On the east side of I-87 are residential developments off of Crescent Avenue and Dyer Switch Road to the southeast and off of Old Schuylerville Road on the northeast.

Approximate Miles of Underground Utilities		
UTILITY	PIPE SIZE (Diameter)	TOTAL MILES (APPROXIMATE)
Water*	Ranging from 4" to 24"	142 mi.
Sanitary Sewer**	Ranging from 4" to 30"	80 mi.
Storm Sewer***	Ranging from 6" to 84"	35 mi.

\* Including 1,200 Fire Hydrants and 2,000 valves

\*\* Including 1,736 Sanitary Manholes

\*\*\* Including 817 Storm Sewer Manholes and 1,634 Drop Inlet Drains

#### DPW Utilities Group and Meter Reading

DPW's Utilities Group works under the general category of Public Works. They are also supported by a separate and independent portion of the City budget. City collected utility fees, for water and sewer services, provides the revenue for these separate and distinct operations. Simply put, City collected water fees pay for all water related operations and City collected sewer fees pay for all sewer related operations.

The DPW Utilities Group consists of a Field Operations and Maintenance Crew as well as a Utilities Office staff responsible for all City water and sewer billing account activities. The City's cost for delivering water and maintaining sanitary sewer services is offset by revenues collected by system users. Responsibilities of the Utilities Group are distributed into the following divisions: office administration, billing, meter readers, metering

maintenance, water treatment plant, water/sewer field crew, and sewer pumping field crew.

#### Meter Reading

Meter reading is a vital part of the DPW operation and is referred to as the "cash box" component because meter readings are ultimately imported into the electronic billing system to create utility bills and the revenue they generate. The DPW strives to collect as many actual reads as possible because they permit maximum billable services while minimizing inconvenience and inaccurate bills to our customers. The Utilities Field Operations and Maintenance Crew work hand in hand with the Utilities Office staff to achieve a high actual meter reading percentage.

#### Hydrant Flushing

The City has approximately 1,200 fire hydrants, which are a vital part of the water distribution

---

system and an important safety asset. To improve and maintain the quality of the water in the system, hydrants are flushed periodically. The amount of hydrant flushing is dependent on observed and tested water quality parameters, but generally performed in the spring and fall of each year. A full flushing of the hydrants is not always warranted, however "dead-end" hydrants are flushed regularly due to their susceptibility to sediment accumulation and rusty water. The City is currently preparing to implement a more effective method known as uni-directional flushing designed to improve system performance and water quality.

### **New Water Service Connections**

In 1992, the City adopted a policy requiring a fee to be collected for all new connections to the City's water system. After a thorough research of locally enacted law of municipalities within New York State, legal counsel for the City generally advised that the water connection fees being charged were limited in the purchase for which they could be used. As a matter of fiscal policy, these monies can only be used to cover capital

expenditures designed to enhance the City's water system. Legal counsel, in consultation with Finance and Public Works, determined that the original legislation charging fees for water connections was no longer relevant and the removal of the fees from the City's Charter was determined to be legally and fiscally prudent.

In 2012 the City adopted by Water Resolution to fund capital improvements through a Capital Improvement Fee as part of an asset management program. The capital improvement fee is used solely for capital improvements that are made to the City's water supply system. Whereas the water connection fee was designed specifically for new water projects such as new water mains only, the capital improvement fees allows the funds to be used for new projects as well as improvements to existing infrastructure.

In 2014 the DPW water crew worked to extend the Gridley Street water main, an eight inch water main line, from Jefferson St to Adams Street. They also extended the ten inch water main on Crescent Street from Jackson Street and Nelson Avenue.

---

## **D. Water Service Lines & Emergency Repairs**

Much of the inner City water system is brittle cast iron pipe over 100 years old resulting in underground utility breaks or disruptions in the system. These most often occur in the form of water main breaks, damaged fire hydrants, plugged or fractured sanitary sewer mains and breaks to the City's storm water system due to undermining or damage caused by excessive storm water runoff. DPW maintains a 24-hour emergency response phone number located at the City's Public Works Garage on Division Street. In the case of a utility related emergency, Public Works crews are dispatched, called-in if necessary, to investigate and respond accordingly.

A 2006 City policy made DPW responsible for all emergency repairs to private water service pipe laterals that pose an immediate hazard or threat to the general public. Most of these occur during the winter months. The objective was to minimize losses of potable water, reduce traffic and safety hazards caused by water surfacing on City streets especially during the winter months and eliminate the time and expense for property owners, faced with an emergency, to make the necessary repairs. In 2014, the Utility Crew generated 101 Dig Safely requests which were prompted, in part, by needed repairs to water mains, water services, and hydrant replacements. This is a 20% increase from 2013. 30 of the 101 dig safely requests were the result of emergencies.

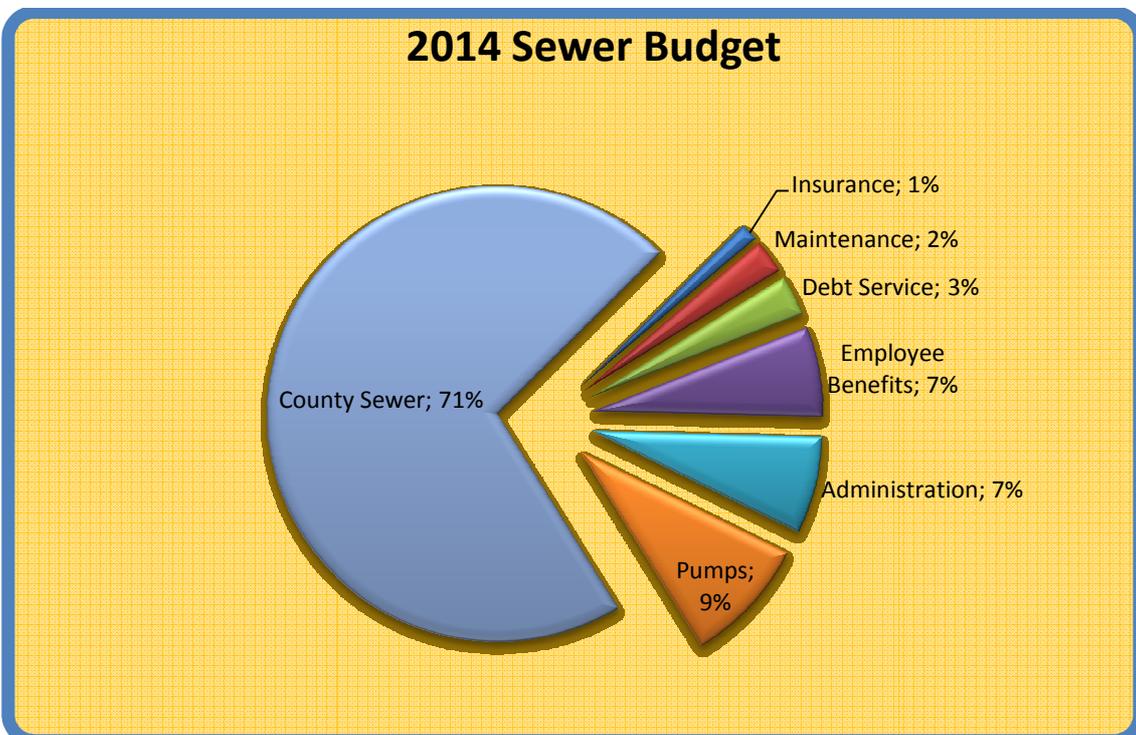
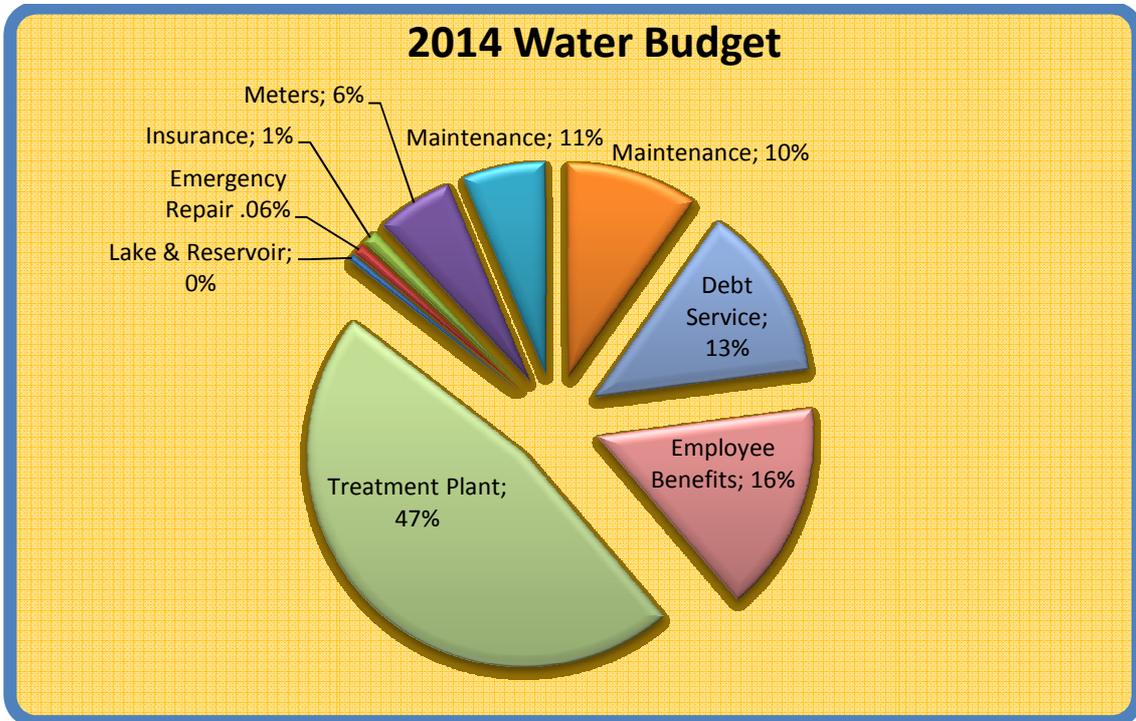
## **E. Storm Sewer Cleaning**

The City's system of underground storm sewers exists primarily throughout the downtown and inner city neighborhoods. Surface water, sand and typical street debris from the various streets serviced by this secondary collector system flows under city streets to the City's main collector system that runs from Congress Park and extends northerly to its discharge at the City's Spring Run Brook. Using a combination sewer jet and vacuum cleaning unit, DPW crews annually clean storm system drop-inlets, catch-basins, and storm sewer lines that have been identified in need of such work. This work compliments the City's MS4 Program with the goal of keeping debris and pollutants out of the storm sewer system. Other tasks, including replacing or reconstructing curbside storm system catch-basin structures and repairing or readjusting drop-inlet grates are routinely performed throughout the spring, summer and fall seasons.

Outlying areas of the City, which have storm collection systems, are typically comprised of storm drains connected to drywells or perforated pipe which allows storm water to infiltrate into the ground below. These are periodically cleaned by the City. Otherwise, the storm water is discharged directly to a pond, stream, or other water course.

**F. Expenditures Breakdown:**

The charts on the following page represent the water and sewer expenditures for the year 2014:



## OFFICE OF THE CITY ENGINEER

### A. Overview

The Office of the City Engineer is a division of the DPW and provides an in-house consulting service available to all departments and residents. The City Engineer's Office consists of the City Engineer, Assistant City Engineer, Senior Engineering Technician, Survey/AutoCAD Technician, Administrative Assistant, Utility Locating Technician and an Engineering Technician. They provide engineering and surveying services to the DPW on various storm sewer, sanitary sewer, water, sidewalk, street and building projects. In addition, they work with the DPS and the Mayor's office on various projects. They work closely with the Planning Board in reviewing site plans and subdivisions and have provided engineering services to the Zoning Board of Appeals. Included below are the wide range of activities performed to assist the various departments in City Hall, as well as, assisting the public and numerous other committees and public groups.

### B. Project Design, Management & Construction Administration

Where resources permit, the City Engineers Office identifies projects, prepares budgets, designs plans and specifications, assists with bid advertising, manages pre-bid meetings, reviews bidders qualifications, oversees bid openings, and makes award recommendations. These projects are then managed in-house during the construction phase through contract administration and field supervision. This saves funds that would otherwise be allocated to outside architecture and engineering firms. Here are the larger in-house projects for 2014 which the City Engineers Office was involved with:

- ❖ Canfield Casino Basement Moisture Remediation & First Floor Reinforcing
- ❖ City Court Room Renovations
- ❖ Spirit of Life Memorial Landscape Conservation
- ❖ Water Treatment Plant Generator
- ❖ Compost Facility Expansion
- ❖ Storm water Management Program (MS4)
- ❖ Woodlawn Reservoir Inspection
- ❖ Ballston Ave Traffic Improvements
- ❖ Weibel Ave Landfill Monitoring
- ❖ Landfill Compost Site SPDES Permit Renewal
- ❖ Bog Meadow Infrastructure and Water Supply Project
- ❖ Adams Street Pump Station Upgrade
- ❖ EBP Parking Deck LED Lighting Retrofit Design
- ❖ Court Resurfacing Bid
- ❖ Hodgeman Street Parking Plan
- ❖ Fire Sprinkler Repairs - Various City Bldgs
- ❖ Vernon Rink Ice Arena
- ❖ Worth Street Parking Lot
- ❖ Water Distribution System improvements
- ❖ Environmental permitting of City facilities
- ❖ Weibel Ave Landfill Gas Collection & Flare Project
- ❖ Canfield Casino Building Envelope Analysis
- ❖ Canfield Casino Platform Lift
- ❖ City Hall Space Study
- ❖ East Side Recreation Asbestos Study
- ❖ Excelsior Ave NPL Site Remediation
- ❖ North Broadway Water Main
- ❖ Waterfront Project
- ❖ Spa Solar Park Development
- ❖ Utility Mapping & Inventory
- ❖ Waste Water Pump Station Upgrades

The Engineering Department also prepares and reviews the following annual bid specifications at the request of DPW involving: storm drainage, solid waste, potable water testing, post closure landfill monitoring, precast structures, street lights, and other fleet equipment items.

---

### C. Assistance to City Depts & Boards

- ❖ Maintain inventory of City parcels, buildings and infrastructure. Current total is approximately 43 buildings, 113 parcels of land and 34 City owned structures. This information was updated with the MUNIS system and provides the City with a more comprehensive view of value of City property, providing a base for projecting repair expenses.
- ❖ Review issues for the Building Department regarding site plans, utilities, structural, septic systems, etc.
- ❖ Provide engineering assistance to the ZBA as requested on issues involving storm water, grading, etc.
- ❖ Planning & Zoning - site plan review for the Planning Board (77 Planning Board projects and reviewed 30 to 40 as-built drawings for project closeout from previous years projects).
- ❖ Review miscellaneous plans and specifications for the Recreation Dept, Department of Public Safety, Finance and the Department of Accounts as needed.

### D. Address Numbering System

Another facet of planning responsibility is seen in the involvement of addressing. The Office of the City Engineer is the official custodian of building number address system and allocates new numbers to new buildings and does such things that may be necessary to keep the address system up-to-date.

### E. Annual Highway Inventory

The DPW, through the Office of the City Engineer, is responsible for filing annual reports of Local Highway Inventory Update with the New York State Department of Transportation. This information is used by DOT in determining the City's eligibility for State-funded local highway aid. The City's total mileage of City owned streets for the year 2014 was roughly 146 miles.



---

## F. Surveying & AutoCAD Mapping

The City Engineers Office continues to operate its Global Positioning System (GPS) to locate all sewer manholes, storm sewer structures, hydrants, water valves, decorative street lights, traffic signs, street signs and plotting them on mapping using a Geographic Information system (GIS).

The following is the 2014 list of work completed by the Survey Technicians:

- ❖ Survey and topographic map of Crescent Ave (CR22) for sewer force main consultant
- ❖ Finished plan for Walnut Street storm drain
- ❖ Continued topographic survey and map for Wedgewood Drive storm drain design
- ❖ Existing vendors plan for High Rock Park Farmers Market
- ❖ Survey and topographic map of North Broadway for Skidmore water line extension
- ❖ Survey, topographic map and utility profiles of the Weibel Avenue landfill for various consultants and projects
- ❖ Survey and topographic map of existing conditions site plan of the Compost Facility
- ❖ Survey, topographic map and design of storm drain for Northway Court at Crescent Avenue
- ❖ Survey, topographic map and design of sewer main for East Harrison Street
- ❖ Worth Street parking lot stakeout
- ❖ Spring Run parking lot stakeout
- ❖ Additional topographic survey for Spirit of Life consultant

### **Miscellaneous Survey Tasks:**

- ❖ As-built Site Plan review and part-time construction observation
- ❖ Bi-annual elevation survey of Canfield Casino
- ❖ Annual volume analysis of compost
- ❖ Right of way research/recon for City Arborist
- ❖ GPS and GIS utility mapping
- ❖ Provide support to the Planning and Building Departments
- ❖ HVAC inventory

---

**ATTACHMENT 1**

## 2015 Vehicle List

VEH #	YEAR	MAKE	DESCRIPTION	PLATE #	VIN #
2	2006	FORD SD F-250	PICKUP	AC4957	1FTSX21Y06ED64533
3	2010	FORD F-350	PICKUP Diesel	AC5026	1FTWF3BR6AEB25563
4	2004	DODGE 2500	PICKUP	AC4944	3D7KU26D94G217802
5	2008	FORD F-350	PICKUP	AC5044	1FTWF31YX8EC75078
6	1999	CAT IT28G	LOADER SER#8CR01771	AC4996	8CR01771S23204
8	2001	FORD F-450	SMALL DUMP	AC4950	1FDXF47F01ED15931
9	2004	DODGE RAM 2500	PICKUP	L51947	3D7KU26D14G217793
10	2005	FORD F250 4x4	PICKUP	AC4989	1FTNF21585EC87172
11	2000	INTERNATIONAL	DUMP	AC4935	1HTGEAHR5YH342925
12	2002	DODGE 2500	PICKUP	K39906	3B7KF26ZX2M268577
13	2002	INTERNATIONAL	DUMP	AC5009	1HTGEAHR92H504269
14	2001	DODGE RAM 2500	PICKUP	AC4980	3B7KF26Z41M565469
16	2000	INTERNATIONAL	DUMP	AC4936	1HTGEAHR3YH342924
17	2000	INTERNATIONAL	DUMP	AC4934	1HTGEAHR8YH250451
18	1997	INTERNATIONAL	DUMP	AC4956	1HTGEAUR9VH487144
19	2005	FORD F-250	PICKUP	AC4979	1FTNF21525EC96854
21	2004	DODGE 2500	PICKUP	AC4945	3D7KU26D74G219354
23	2008	FORD F-350	PICKUP	AC5019	1FTWF31R78EE29092
26	2000	INTERNATIONAL	DUMP	AC4948	1HTGEAHR7YH251039
27	1993	JOHN DEERE 772B	GRADER	AG8475	DW772BH544277
28	2005	FORD F-350	PICKUP	AC5018	1FDSF35P25EA45056
30	2000	FORD ECONOLINE E-150	CARGO VAN	AC4947	1FTRE1423YHB66939
31	1999	INTERNATIONAL 2574 4x2	DUMP	AC4995	1HTGEAHR5XH681215
32	2006	FORD F350 w CREW CAB	PICKUP	AC4977	1FTWW33P06ED27402
33	2002	INTERNATIONAL	DUMP	AG8476	1HTGEAHR52H504270
34	1999	INTERNATIONAL 2574 4x2	DUMP	AC5004	1HTGEAHR3XH681214
35	2002	INTERNATIONAL	CAB/CHASSIS	AC4933	1HTSCAAR62H502313
37	2002	DODGE 2500	PICKUP	AC4953	3B7KF26Z82M268576
39	1985	CAT 12G	GRADER	AC4967	61M11200
42	2000	INTERNATIONAL	DUMP	AC4949	1HTGEAHR3YH251040
44	2003	STERLING L8500	DUMP	AC4987	2FZAAWCY83AL08597
45	2003	STERLING L8500	DUMP	AC4988	2FZAAWCY63AL08596
47	1995	INTERNATIONAL	DUMP	AC5043	1HTGEAURXSH628640
50	2007	FORD F-450	GARBAGE TRUCK	AC5006	1FDXF47P77EA84690
51	2000	CAT IT-28 ENG #4TF57976	LOADER	AC4946	8CR02292
53	1997	INTERNATIONAL	DUMP	AC4959	1HTGEAUR0VH487145
54	2002	INTERNATIONAL	DUMP	AC4981	1HTGGAHT02H514467
56	1991	INTERNATIONAL w/CAMEL	SEWER JET	AC4992	1HTSCNMN8MH382498
58	2005	INTERNATIONAL	DUMP	AC5042	1HTWAAARX5J080339
59	2005	INTERNATIONAL 7600	DUMP	AC5000	1HTWZAHR05J001906
62	2007	FORD	F-450 Diesel	AC5045	1FDXF47P87EB38868
63	2004	INTERNATIONAL-7600	DUMP	AC4971	1HTWXAHT34J086126
64	2004	INTERNATIONAL-7300	CHIP BOX DUMP	AC4969	1HTWAAAR84J091192
65	2004	CATERPILLAR IT28G	LOADER	AC4978	SER #DBT01176
66	2002	DODGE RAM 2500	PICKUP	AC4990	3B7KF26Z02M288904
67	2005	FORD F350 w/CREW CAB	PICKUP	AC5002	1FTWW33P05EC87840
69	1994	FORD F-150	PICKUP	K76740	1FTEF14N0RNB16606
70	2005	INTERNATIONAL 7600	DUMP	AC5001	1HTWZAHR45J003349

71	2005	FORD F-350 UTILITY	PICKUP	AC5017	1FDSF35PX5EA39313
72	2002	CATERPILLAR	EXCAVATOR MODEL M318		SER # L8AL03355
73	2001	UTILIMASTER/FREIGHTLINER	VAN	AC4952	4UZAASBW91CH89195
75	2001	FORD F-550 UTILITY	PICKUP	AC4951	1FDAF57F31EC60421
79	1994	FORD RANGER	PICKUP	AB6581	1FTCR10A6RTA41410
80	2003	DODGE RAM 3/4 TON	CARGO VAN	AC4958	2D7JB21Y63K525345
81	2006	ELGIN PELICAN	SWEEPER	AC4985	P4821D
82	1999	FERMAC TLK860	BACKHOE/LOADER	K76697	SMFB44ECOX8604799
83	2001	FORD-F-350	PICKUP	K10515	1FTSF31F01EB89930
84	2006	FORD E-250	VAN	AC4942	1FTNE24WX6HA09400
85	2002	ELGIN PELICAN	SWEEPER	AC4986	P3836D
87	2006	FORD E-250	VAN	AC4943	1FTNE26W76HA09404
90	2005	JOHN DEERE	624J 4WD TRACTOR/LOADER	AC4968	DW624JZ599505
91	2008	CATERPILLAR	BACKHOE/LOADER 430E	AC5022	CAT0430ETDDT00800
95	2007	FORD F-450	UTILITY PICKUP	AC4994	1FDXF47P57FA13584
96	1997	FORD F-350 UTILITY	PICKUP	K76727	1FTHF36F8VEB36370
98	2008	INTERNATIONAL	DUMP	AC5020	1HTWZHR08J562787
101		TORO WORKMAN 2100	UTILITY VEHICLE		
102	1988	PEERLESS	DUMPER TRAILER 20'	AC5021	TWTT4016
104	1998	BRI MAR	TRAILER	K76714	43YDC1620WC001337
105	2001	JOHN DEERE	TRACTOR w/AL IS74 MOWER		SER# L06110306589
106	1995	TORO	MOWER		
107	2002	TORO WORKMAN 3200	MOWER MODEL 07200		SERIAL # 210000369
108	2002	TORO GROUNDSMASTER 4000	MOWER MODEL 30410		SERIAL # 220000283
109	2002	NEW HOLLAND 2120	TRACTOR/LOADER #SIC0310		T 3UV33402/ L
110	2002	SMITHCO	SAND PRO		SER.# 4654
111	1985	HUDSON BROS.	TRAILER	A45708	A0HHBC14F1000055
112	2002	KAWASAKI	MOWER		2KAXS4312CA
113	1991	CRAFTCO	TAR MACHINE		
114	2003	HAULMARK TS610SA	TRAILER	AC4974	SN/16HCB10123PO29976
115	1997	BISON TURF BLAZER	MOWER		
116		PEABODY BARNES	PUMP		
117	1997	GGSCMA/FLOWER CART	TRAILER		
118		CARPENTER	TRAILER		
119	1997	TORO	SAND PRO		
120		CRAFTCO	PAVEMENT CUTTER		
123	1999	GEHL SKIDSTEER SL6635-DXT	LOADER w/BUCKET/FORKS	K76729	SER# 11918
124	1999	CASE IH CX90	TRACTOR	AC5003	SER #UJE1011348
125	1993	OLYMPIA	RESURFACER		RC8906778
126	2001	OLYMPIA	RESURFACER		2GCDK14H1K1185619
127	1957	FORD	TRACTOR		SER # 127506
128		TORO	MOWER		
129	2006	VERMEER RING-O-MATIC	VACUUM SYSTEM- 275		1R9J216185P303039
130	1980	KUBOTA-185W/CARONI	TRACTOR		
131	1987	DRESSER 4-6 TON	STATIC ROLLER		
132	1986	HYSTER C-330	STATIC ROLLER		A158C21396
133	1950	MACK	TANKER	AC4999	505S2086
134	1985	Q-125 LeROI	AIR COMPRESSOR		
135	2001	VERMEER 752/DENTZ ENG	STUMPER w/AUTO SWEEP	SER# 1VRN1514911000639	
136	2004	JOHN DEERE MODEL 4210	TRACTOR w/ATTACHMENTS	SER # LVR4210H321837	10H321837

137	2004	INGERSOLL-RAND	ROLLER		SER #179922
138	2005	GRADALL XL 4100		AC4998	# 0210017575
139	1975	JOHN DEERE 301A	TRACTOR		S/N 214129T
140	1975	JOHN DEERE 301A	TRACTOR		
142	2000	JOHN DEERE	MOWER		SER # M02148H011150
143	2006	TIMBER WOLF	FIREWOOD SPLITTER		TW610058211
144	1999	VOHL	SNOWBLOWER	K76744	NV970
145	2001	TORO PROLINE 30154	MOWER S/N 200000175	ENG MOD 28B702 TYPE 1041-E1	
146		FORD-OWENS	GENERATOR		
147					
149	2000	TENNANT 800	SWEEPER		8004477
150	2000	2000 INGERSOLL RAND	AIR COMPRESSOR		SER # 308677-UBK-221
151	2000	GAC 16E10	TRAILER	AC4973	1G94A1628YS203043
152	1986	INTERNATIONAL	DUMP	C54169	1HTLDUXN3GHA60981
154	2000	SWEEP STAR	TURF SWEEPER MODEL #77-100BF		SER# D-1445
155	2000	JOHN DEERE SABRE	TRACTOR MODEL # 2148HV		MO2148H011150
156	2001	SALSCO MODEL 813	CHIPPER	AC4932	SER#01010500100520998
157	2001	GAC #610U29	TRAILER	AC4997	1G91A10191S203037
158	2001	BRI- MAR	TRAILER	AC4938	43YDC16281C010487
159	2001	628 TURFCAT 26 HP 2WD	MOWER w DECK		SER##94671300302
160	2003	WACKER MODEL # RSS800A	TAILGATE ROLLER		SER # 5396909
161	2003	TORO GROUNDSMASTER 228	MOWER	SER 230000384/MODEL # 30242	
162	2003	TORO GROUNDSMASTER 228	MOWER	SER 230000429/MODEL # 30242	
163	2003	BRI-MAR MODEL DT818-20GN	TRAILER	AC4939	43YDC20263C022347
164	2003	BANDIT MODEL 150	CHIPPER	SER# 4FMOS15193R019026	
165	2004	NORTH STAR 459221	GAS PORTABLE AIR COMPRESSOR		SER# 02041768
166	2004	TORO	MOWER	SER# 230000408 MODEL #30242	
167	2004	TORO	MOWER	SER# 230000138 MODEL #30625	
168	2004	BRI MAR	UTILITY TRAILER	AC4975	43YDC10224C026245
169	2004	TORO GRANDMASTER	MOWER/SNOWBLOWER	SER #240000439 MODEL 30242	
171	2005	G.A.C MACHINE	UTILITY TRAILER	AC4972	1G91A12285S203015
172	2005	BRI-MAR	TRAILER	AC4940	43YDC14275C044221
173	2005	TORO WORKMAN 3200	UTILITY VEHICLE MODEL7361		SER# 250000507
174	2005	TORO WORKMAN 3200	UTILITY VEHICLE MODEL7361		SER# 250000533
175	2005	TORO SAND PRO 5020	3- WHEELER		SER# 250000614
176	2006	JOHN DEERE 6X4 GATOR	UTILITY VEHICLE- Diesel		ID# W0006X4D041489
177	2006	TORO WORKMAN 3300D	UTILITY VEHICLE MODEL 7362		SER# 260000355
178	2006	TOP BRAND	TRAILER	AC5008	VIN# 5HLAB12276F064119
179	2006	AQUAMARINE TDT 230	WEED HARVESTER- H6-230	AC4993	2E9BJ34CX61008003
180	2002	WACKER 5045A	TAMPER		
181		MK DIAMOND SAW 20	HONDA GX620		SER # 582085
182		MK DIAMOND SAW	HONDA 13		SER # 253348
183	2006	CUB CADET 530 SWE	11HP, 30" SNOW BLOWER		SER# 1G255B10154
184	2006	CUB CADET 530 SWE	11 HP, 30" SNOWBLOWER		SER# 1H035B10208
185	2000	TORO WORKMAN 7302	UTILITY VEHICLE MODEL 7302		SER.# 200000562
186	2007	BOBCAT S-185	SKIDSTEER/LOADER	AC4976	# 53031766330012007

187	2006	GENIE	SCISSOR LIFT		SER.# 55375
188	2007	LAWNBOY	MODEL 10795		SER. # 270001782
189	2007	LAWNBOY	MODEL 10795		SER. # 270001783
190	2007	GENERATOR (SENIOR CTR)			
191	2007	TORO LAWN MOWER	MODEL 22189		SER.# 270000232
192	2007	TOTO LAWN MOWER	MODEL 22189		SER.# 270000257
193	2007	WACKER RD16	ROLLER		SER.# 5750262
194	2007	TOP BRAND	TRAILER	AC4931	5HLAB12217F070421
195	2007	BRI MAR	DUMP TRAILER	AC4937	43YDC14237C063271
196	2008	CAM SUPERLINE	UTILITY TRAILER	AC4941	5JPBU25268P019468
197	2007	GENERATOR (CITY HALL)			
198	2008	WACKER PLATE TAMPER	WP 1550 AW		SER.# 6655784
199	2008	WACKER PLATE TAMPER	WP 1550 AW		SER.# 6655787
200	2007	VERMEER TUB H66000	TUB GRINDER		1VRY4531771000302
201	2000	FORD EXPLORER E250	SUBURBAN	AC4963	1FMZU71X8YZB75101
202	2008	TORO	SANDPRO 5040		270001135
203	2008	BRIMAR	TRAILER DT714LPHD14	AC5005	43YDC192X8C071720
204	1999	FORD E250	VAN	K76712	1FTPE2428XHBOS372
205	2008	ARIENS	SNOWBLOWER ST 1332 DLE		Ser.#003834
206	2008	ARIENS	SNOWBLOWER ST 1332 DLE		Ser.# 004251
207	2001	CHEVROLET BLAZER	VAN	AC4964	1GNDT13W41K247663
208	2008	CHEVROLET TRAIL BLAZER	SUV	AC5038	1GNDT13S382253221
209	2008	BRIMAR	TRAILER DT814-14BN	AC5024	43YDC14258C071406
210	2009	FORD F350	PICKUP	AC5025	1FTWF31R69EA35603
211	2009	INTERNATIONAL w BOOM	CHASSIS CAB w BOOM	AC5046	1HTMMAAN09H130528
212	2009	FLOWER TRAILER	HOME MADE	AC5010	ID# NYA598981
213	2009	INGERSOLL-RAND BX-8WH	18" PLATE COMPACTOR		
214	2009	TORO LAWN MOWER			290000820
215	2009	TORO LAWN MOWER			290000821
216	2009	TORO LAWN MOWER			290000822
217	2009	TORO LAWN MOWER			290000823
218	2009	ARIENS ST30DLE	SNOWBLOWER		Ser.# 001709
219	2009	ARIENS ST30DLE	SNOWBLOWER		Ser. # 004440
220	2010	FORD F350	PICKUP	AC5027	1FTWF3B53AEA74584
221	2010	TORO LAWNMOWER	Model 30467		Ser.# 31000105
222	2011	INTERNATIONAL 7500	DUMP (Sewer Vac.)	R10414	1HTWNAZT9CJ619034
223	2012	NORTH NEWTON	TRAILER	AC5029	4KPBF1317CN006076
224	1976	International	Dump		1HTLDUXN3GHA60971
225	2007	JEEP	Patriot	AC5023	1J8FF28W27D251255
226	2012	FORD F-350 D	Pick-up Dual Axle	AC5032	1FTRF3DT8CEB09163
227	2012	FORD F-350 D	Pick-Up	AC5031	1FTRF3BT9CEB09160
228	2012	FORD F-250	Pickup	AG8482	1FT7W2B64CEB24046
229	2012	BRIMAR	TRAILER DT818-20 GN	AC5030	43YDC2923CC093315
230	2009	KUBOTA	EXCAVATOR MODEL KX713		S/N 11796
231	2006	JGL	LIFT MODEL 600AJ		S/N 0300088879
232	2012	Goodall Car Starter			
233	2002	MERCURY SABLE	Station Wagon	R24115	1MEHM59S72G655600
234	2011	FORD Escape	SUV	R24119	1FMC49D76BKB69567
235	2011	FORD E-250	Van	AC5028	1FTNE2EW2BDA57232
236	2012	CHEVROLET	Van	AF8739	1GCSGAFX4C1133275
237	2012	Honda	Plate Compactor		S/N # 27608302

238	2013	BRI MAR	Trailer	AC5011	43YDC2921DC096974
239	2013	BRI MAR	Trailer	AC5012	43YDC2928DC096972
240	2013	Carry-On	Utility Trailer	AC5007	4YMUL0818DV013493
241	2013	Caterpillar	Loader	AC5033	CAT0930KLRHN01677
242	2013	BOBCAT S-650	Skid Steer	AC5016	A3NV21881
243	2013	FORD F-350 D	Pick-Up	AD9027	1FT8W3DT8DEB53080
244	2013	FORD F-350 D	Pick-Up	R31106	1FT8W3DT8DEB53079
245	2014	INTERNATIONAL	Dump	AC5014	1HTWLAZR2EH770236
246	2014	INTERNATIONAL	Dump	AC5015	1HTWLAZR4EH770237
247	2013	TORO Z-Master 2000 Mower	Mower Model #74141		SER 313000394
248	2009	FORD F-150	Pick-Up	AD9029	1FTRF12W79KB65123
249	2013	Chicago Pneumatic	Tamper		bgf033255
250	2007	Chevrolet	HR	AD9030	3GNDA13D07S593713
251	2014	TORO Groundmaster 4000-D	Mower Model #30448N		
252	2014	Caterpillar	Loader, Model 930K	AC5013	CAT0930KVRHN02941
253	2011	FORD F-350	Pick-Up	AF8740	1FTRF3B65BEA10232
254	2014	TORO Z3000	Model Model		314000602
255	2014	Carry-On	Trailer	AD9028	4YMUL0815EV027501
256	2014	Wacker	Tamper		1035292
257	2015	FORD F-250	Pick-Up	AA3331	1FTBF2B66FEA46996
258	2005	LOADR	Boat Trailer	AT6149	5A4XJRJ1552012313
259	2004	TRAC	Boat	7559GB	DP424316
260	2015	FORD F-250	Pick-Up	AF2733	1FTBF2B62FEA46994
261	2014	ELGIN PELICAN	Sweeper	AD1445	NP30283
262	2014	ELGIN PELICAN	Sweeper	AD1449	NP30284
263	2012	McCloskey MCB516	Product Screener		
264	2014	HONDA	Concrete Street Saw		
265	2014	FORD Escape	SUV 4WD	AT5467	1FMCU9GX6EUA46680
266	2015	INTERNATIONAL	Dump	AT2564	1HTWLAZR6FH596334
267		SIMPLICITY	Snow Blower		
268	2015	FORD F-250	Pick Up	AV4462	1FT7X2B6XFEC38263
269	2015	FORD F-250	Pick Up	AV5330	1FT7X2B6XFEC56584
273	1998	CHEVROLET	SUBURBAN	K76717	1GNDM19W2WB167161

---

**ATTACHMENT 2**



February 10, 2015

Skip Scirocco  
Commissioner of Public Works  
City of Saratoga Springs Dept. of Public Works  
City Hall  
474 Broadway  
Saratoga Springs, NY 12866

Dear Mr. Scirocco,

Congratulations, the Bog Meadow Infrastructure & Water Supply Project is being honored by the APWA Capital Branch as the 2014 Project of the Year in the Environmental (<\$5M) Category. Your City Public Works Department will be recognized for its role in the project.

The APWA Capital Branch is pleased to invite you and a guest to attend the Annual Awards Luncheon on Friday, February 27, 2015, where your project will be honored along with six others.

The luncheon will be held at the Century House, 997 New Loudon Road, Route 9, Latham, NY 12110, from Noon – 2:00 p.m. The luncheon choices are Herb Glazed Chicken, Oven Roasted Tilapia or Penne alla Vodka.

Please contact Suzanne Christopher at 518-453-2814 or via email [SChristopher@chacompanies.com](mailto:SChristopher@chacompanies.com) to make your reservation. Please make your reservations by no later than February 13th. If colleagues, friends, or family members beyond you and your guest are interested in attending, the cost is \$26.00 per person and reservations must be made.

On behalf of the APWA Executive Committee of the Capital Branch, I offer my sincerest congratulations for this honor.

Very truly yours,

Heather Wyld, P.E.  
Awards Chairman  
APWA Capital Branch

HW/sc  
cc: Monika King, APWA



February 10, 2015

Skip Scirocco  
Commissioner of Public Works  
City of Saratoga Springs Dept. of Public Works  
City Hall  
474 Broadway  
Saratoga Springs, NY 12866

Dear Mr. Scirocco,

Congratulations, the Canfield Casino First Floor Reinforcing & Basement Moisture Remediation Project is being honored by the APWA Capital Branch as the 2014 Project of the Year in the Historical Restoration/Preservation (<\$5M) Category. Your City Public Works Department will be recognized for its role in the project.

The APWA Capital Branch is pleased to invite you and a guest to attend the Annual Awards Luncheon on Friday, February 27, 2015, where your project will be honored along with six others.

The luncheon will be held at the Century House, 997 New Loudon Road, Route 9, Latham, NY 12110, from Noon – 2:00 p.m. The luncheon choices are Herb Glazed Chicken, Oven Roasted Tilapia or Penne alla Vodka.

Please contact Suzanne Christopher at 518-453-2814 or via email [SChristopher@chacompanies.com](mailto:SChristopher@chacompanies.com) to make your reservation. Please make your reservations by no later than February 13th. If colleagues, friends, or family members beyond you and your guest are interested in attending, the cost is \$26.00 per person and reservations must be made.

On behalf of the APWA Executive Committee of the Capital Branch, I offer my sincerest congratulations for this honor.

Very truly yours,

Heather Wyld, P.E.  
Awards Chairman  
APWA Capital Branch

HW/sc  
cc: Monika King, APWA