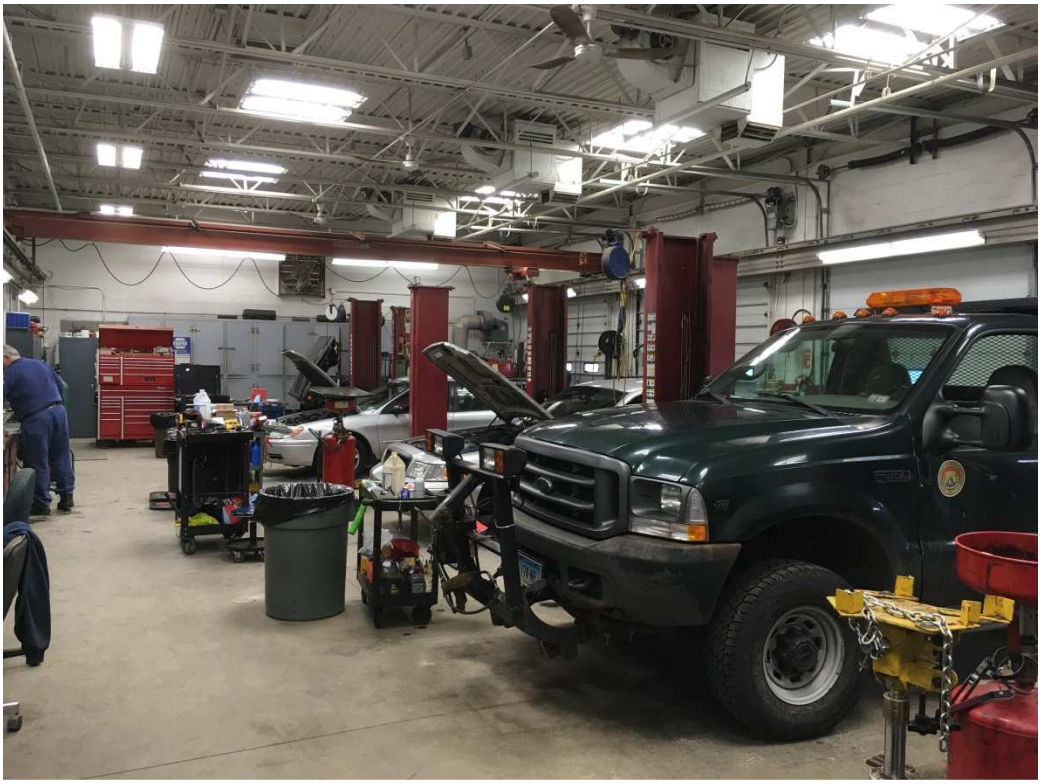
City of New Britain

Department of Public Works

ANNUAL FLEET REPORT



June 2017

PREPARED BY:

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NEW BRITAIN PUBLIC WORKS - FLEET OPERATIONS

1. EXECUTIVE SUMMARY

This report is the second Annual Fleet Report prepared by New Britain Public Works. It provides a comprehensive update about the status of the City's Fleet Operations for calendar year 2016. Since Public Works' first Fleet Report was completed in January of 2016 there has been substantial progress made in many areas with some of the highlights being:

1. The Mayor issued a memorandum in February of 2016 establishing a 5% goal for reducing the size of the City's fleet. size and fuel consumption. **A 7.8% reduction of City vehicles was achieved.**
2. Due to lower fuel pricing the City completed FY-16 with slightly over a **26% decrease ($184k less) in spending on gas & diesel** when compared to the previous fiscal year.
3. The establishment of a 1-year Capital Equipment Bond for $4,200,000 to fund the purchase of 38 critical vehicles and equipment for various City departments.
4. The promotion of Sam Plumley to the City's Fleet Manager in January of 2016. The City had been operating without a full time permanent Fleet Manager since 2007.
5. The promotion of Joe Vereneau to Mechanic Foreperson.
6. The hiring to 2 new Vehicle Equipment Technicians in 2016.
7. The improved ability to determine vehicle and equipment lifecycles based on NBPW's own experience rather than industry standards.

The City's fleet currently consists of 354 vehicles and 108 pieces of large equipment which is down 30 vehicles and 6.7% from last year. The City's Fleet Operations actually maintains approximately additional 50 vehicles beyond this total because they perform the maintenance repair work for both the New Britain Housing Authority and the Board of Education.

2. FLEET OVERVIEW

Picture shows a new International 6-Wheel Dump Truck purchased with 2016 Capital Equipment Bond

Like all cities, the City of New Britain maintains a large fleet of vehicles and equipment that is needed for everything from routine maintenance activities to emergency response, and the City's fleet itself is one of the most important and costly assets to manage. The proper management of the City's fleet assets is critical and hundreds of thousands of dollars can be saved each year through the proper management of the City's fleet by efforts to maximize fuel efficiency, minimize fuel consumption, maximize vehicle and equipment life cycles, and minimizing the overall size of the fleet.

With the exception of the NBFD, the City of New Britain's Fleet Operations are managed by the City's Public Works Department, and are based out of two primary locations: the Public Works City Yard on Harvard Street which primarily manages passenger and larger fleet vehicles, and the maintenance garage at Stanley Quarter Park which primarily handles fleet equipment.

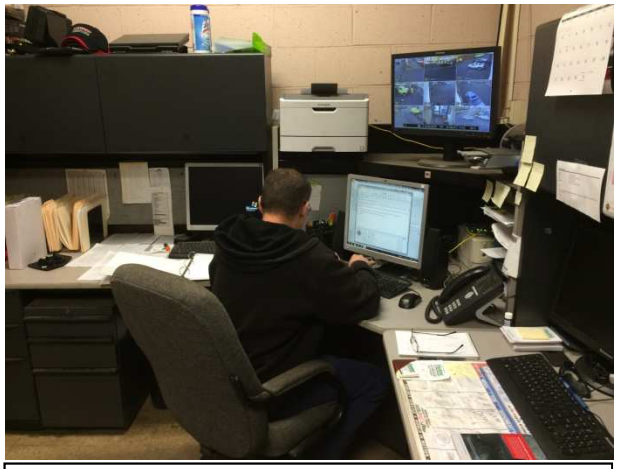
The management, maintenance, and repair for the City's fleet of vehicles and equipment includes the following responsibilities:

- Managing and overseeing the City's capital equipment replacement program
- Establishing procedures to extend vehicle service life
- Scheduling and performing daily repairs and maintenance
- Maintaining computerized records for all maintenance and repair activities performed on every vehicle and piece of equipment in the City's fleet
- Tracking accidents that involved City fleet vehicles and equipment and establishing procedures and best practices for the reduction of vehicle accidents
- The ordering and management of the City's fuel for vehicles and equipment
- Preparing an annual report that documents the current status of the City's fleet, the City's fuel consumption, and any relevant changes

While not discussed in detail in this report, Public Works Fleet Division is also responsible for the operation and maintenance of the City's Park pools and splash pads.

3. STAFFING

Public Works Fleet Operations are part of the Fleet Division, and the Fleet Manager who is one of 5 direct reports to the Director of Public Works. Overall staffing for Public Works' Fleet Operations for FY-17 consists of a Fleet Manager, a Mechanic Foreperson, a Lead Mechanic, and 9 Vehicle Equipment Technicians (V.E.T.).



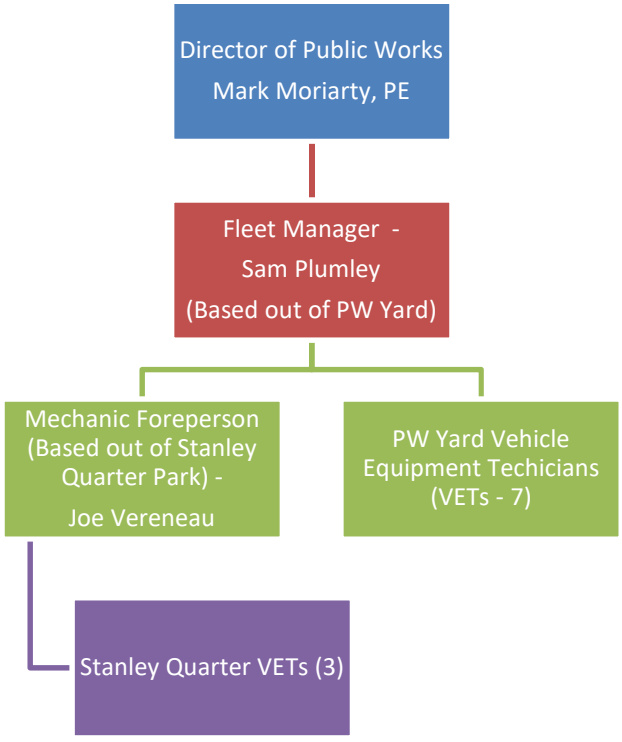
Don Woitowitz entering information into RTA software in the Fleet Manager's office at the City Yard

Public Works Fleet Operations - Vehicle Equipment Technicians

Donald Woitowitz *
Charles Ebrahimi
Mark Corrigan
William Raineault
Willam LaForest
Patrick Lamantini
Brian Crespan
Ryan Cote
Miguel Aldea
Scott Bernabucci

*Acting as Lead Mechanic

In 2016 the City finally filled the City's Fleet Manager position which had been vacant since 2007. This was the first essential step in improving the City's Fleet Operations. The City also filled the Mechanic Foreperson positon which occurred as a result of Sam Plumley being promoted to Fleet Manager and filled its of two Vehicle and Equipment Technician vacancies with external candidates. Improving the staffing of the City's Fleet Operations has been at the foundation of all the other improvements realized by the Fleet Division, and the Fleet Division is operating at full staff for the first time in years.



New Britain Public Works
Fleet Operations Organizational Chart

4. FLEET SAFETY

Safety is an essential component of every fleet operation, and our Fleet Safety Program's primary objective is to prevent motor vehicle accidents. The US National Safety Council defines a preventable accident as "one in which the driver failed to do everything that they reasonably could have done to avoid it". The City is committed to minimizing the number of preventable accidents involving City employees, and stresses that City employees operating City-owned vehicles and pieces of equipment shall do so in a safe manner, and shall follow all applicable laws.

Overall, New Britain Public Works is committed to further developing and maintaining a culture of safety, and fleet safety is a major component of this. Fleet Safety Programs typically include four main components:

1. Fleet safety training on issues including:

    - preventable accidents
    - backing accidents
    - avoiding rear end collisions
    - defensive driving
    - effective vehicle pre-trips
    - winter driving & black ice
    - trailer use & properly securing materials
    - driver awareness & distracted driving
    - work zone safety

2. The development and enforcement of fleet safety policies and procedures

3. Monitoring driver behavior and modifying driver behavior as needed

4. Comprehensive accident tracking and investigation

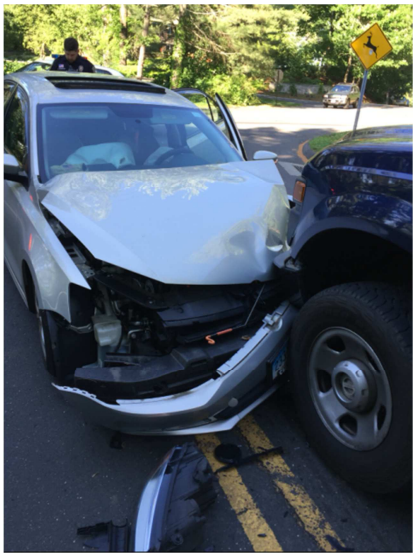
The Public Works Department has maintained an Accident Review Committee (ARC) since 2008 which reviews all vehicle and equipment related accidents within the department. The purpose of this committee is to jointly determine whether or not an accident was preventable along with if the Public Works driver was at fault. Additionally the ARC is charged with identifying patterns in driver behavior, and in some cases identifying drivers that may need retraining or have other corrective action taken. The current Accident Review Committee members include:

1. Sam Plumley, Fleet Manager

2. Mike Thompson, Field Services Division Superintendent

3. Chris Polkowski, Superintendent of Public Works Utilities (Acting)

4. Dominic Mutone, Public Works Foreperson



Picture shows a 2016 accident where a car struck Water Caretaker Mike Ziegenhagan's pick-up truck head-on.

The table below shows a listing of Public Works Accidents by year for the past 5 years:

Year	City Driver at Fault by ARC	City Driver Not at Fault by ARC	Totals by Year
2013	3 – Significant 1 – Minor 4 – Total	4 – Significant 6 – Minor 10 – Total	14
2014	2 – Significant 3 – Minor 5 – Total	3 – Significant 4 – Minor 7 – Total	12
2015	5 – Significant 5 – Minor 10 – Total	2 – Significant 0 – Minor 2 – Total	12
2016	5 – Significant 5 – Minor 10 – Total	2 – Significant 3 – Minor 5 – Total	15

New Britain Public Works has seen an increase in vehicle accidents over the past two years. This seems to be associated with the hiring of new, and less experienced Public Works Maintainers and Utility Workers, and in most cases the accidents occurred during a Winter Storm Operation. There is concern that factors such as distracted driving and smart phone usage may play a part in this. To proactively deal with this troubling pattern the department will be putting further emphasis on its driver safety program in 2017. The Public Works Department is also expecting that implementing GPS tracking will help reduce vehicle accidents and increase driver safety by improving driver behavior which is one of its major benefits.

5. VEHICLES AND EQUIPMENT (BY DEPARTMENT)

The table below lists the number of fleet vehicles by City department:

City Department	Number of Vehicles	
	FY 15/16	**FY 16/17**
Mayor	1	1
Assessor	1	1
Building Dept.	6	7 (+1 from FY-16)
DMD & City Plan	2	2
EMS	12	12
Fire Dept./ OEM	39	39
Health Dept.	6	5 (-1 from FY-16)
PW-Engineering	6	5 (-1 from FY-16)
PW-Field Services (Streets, Parks, Sanitation, and Traffic)	101	90 (-11 from FY-16)
PW-Utilities (Water & Sewer)	60	51 (-9 from FY-16)
PW-Fleet and Facilities	19	17 (-2 from FY-16)
PW - Cemetery	2	2
Police Dept.	111	104 (-13 from FY-16)
Recreation	7	7
Senior Center	5	5
Stanley Golf	2	2
Youth Services	4	4
Total	**384**	**354** (-30 from FY-16 equaled a 7.8% reduction)

2016 Equipment by Location		
Locations	**Large Equipment**	**Small Equipment**
AW Stanley Park	8	16
Chesley Park	3 (-1 from FY-16)	8
Fairview Cemetery	18	30 (-2 from FY-16)
Horticulture	8	56
Forestry	3	18
Stanley Quarter Park	9 (-1 from FY-16)	17 (-1 from FY-16)
SQ Maint. Garage		28
WB Maintenance	1	18
Willowbrook Park	11	26
Walnut Hill Park	10	30
Golf Course	18	21
City Hall	4	22 (-1 from FY-16)
Sanitation	2	9
Water & Sewer	13 (-1 from FY-16)	48
Streets and Traffic		15
Totals	**108** (-3 from FY-16)	**362** (-4 from FY-16)

6. FLEET LIFECYCLE MANAGEMENT

There are many factors involved in managing the lifecycle of the City's fleet of vehicles and equipment, and public sector entities often manage vehicle lifecycle using a different approach than many private sector entities. Many private sector entities replace vehicles frequently, strive to optimize their fleet's salvage value, place a high value on the image associated with having a fleet of newer vehicles, and have minimal to no tolerance for vehicle downtime. While these factors are also important in the public sector, New Britain's, like most municipalities, overall approach is to minimize the capital cost associated with maintaining our fleet.

Using this approach fleet vehicles and equipment are typically run to the end of their useful service life. Vehicles are typically not retired or replaced until the end of their lifecycle is achieved which is determined based on on-going repair costs, vehicle downtime, and/or safety considerations. Exceptions to this approach primarily involve vehicles critical to emergency response. In these cases high reliability and minimizing downtime are more important, and these vehicles are typically replaced more frequently. An example of this is front line police cars which are typically planned for replacement after four years.

There are some factors that can affect the lifecycle of municipal fleet vehicles is substantially when compared to some other types of fleets. City fleet vehicles are primarily used for city driving that involves frequent stopping. This frequent stopping and starting causes more engine, transmission, brake, and tire wear along with reducing a vehicle's fuel efficiency. City driving also subjects a vehicle's suspension to a wider variety of road conditions from rough roads, changing grades, and potholes which increase the wear and tear on a vehicle's suspension system.

The lifecycle of a municipal fleet vehicle or piece of equipment is also reduced in northern climates subject to winter snow and ice storms. Fleet vehicles and equipment in these areas are subject to heavy wear and tear from snow clearing, and also the impact of salt on the vehicles which is commonly used for anti-icing. For this reason in addition to routine maintenance regularly washing fleet vehicles is particularly important in northern climates, and especially the vehicles and equipment involved in winter storm operations.

Picture shows an example of the significant rusting on a Public Works dump truck used in Winter Storm Operations. Salt related rust & corrosion issues continue to be the most serious issue faced by the City's Fleet Operations as they relate to decreasing vehicle lifecycles.

Formally preparing an Annual Fleet Report has been useful to our Lifecycle planning efforts. This year we increased the planned lifecycle of several types of its fleet vehicles because we are now basing our lifecycles on the actual longevity we've achieved rather than industry standards. On average are vehicles are lasting two years more than the industry standards.

The following table shows the planned life for the more common vehicle and equipment categories in the City's fleet:

Primary Vehicle & Equipment Categories	**Includes**	**Planned Lifecycle (Years)**
Passenger Vehicles	Sedans, vans, and similar	12-15 years *(was at 10-12 in last year's report)*
Four Wheel Drive Sports Utility Vehicles	Supervisor, inspector, administration vehicles and similar	12-15 years *(was at 10-12 in last year's report)*
Pickup Trucks	Primarily used for Field Operations SV Vehicles	10-12 years *(was at 8-10 years in last year's report)*
Field Equipment	Tractors, trucksters, motorized mowing equipment, and similar	12-20 years
Police Primary Vehicles	Front line police cruisers	4-6 years
Heavy Duty Dump Trucks	GVW of 33,000 lbs and load carrying capacity of 5 tons	10-12 years *(was at 8-10 years in last year's report)*
Light Duty Dump Trucks	GVW of 17,000 lbs and equipped with 4WD	8-10 years
Utility Trucks	Forestry and traffic bucket trucks, and other similar vehicles	12-15 years *(was at 10-15 years in last year's report)*
Specialty Trucks	Forestry Lift Truck, Traffic Lift Truck, and similar	10-15 years
Heavy Equipment	Backhoes, front end loaders, sweepers, and similar equipment	12-15 years *(was at 15 years in last year's report)*

7. FLEET MAINTENANCE

Performing routine preventative maintenance is the most critical element for optimizing the life span for City vehicles and equipment. It is also critical for avoiding the repair or replacement of costly major vehicle components such as engines, transmissions and drive trains. As with any preventative maintenance program the goal for New Britain Public Works' preventative maintenance practices is to keep vehicles and equipment in sound operating condition.

This is one of the areas where the City's Fleet Operations saw their largest improvements in the past year. This can be attributed to this division now having a permanent Fleet Manager in charge and actively managing the City's entire fleet, and by having mechanics at full staff so they can keep up with the associated workload. Every City fleet vehicle and piece of equipment had its required preventative maintenance performed in the past year.

The preventive maintenance practices our mechanics follow are typically based on manufacturer's recommendations for each type of vehicle or equipment, the use for that vehicle, and on local driving conditions which vary throughout the year. Our mechanics make adjustments to the manufacturer's recommendations based on the specific vehicle's use. For example, a police vehicle may idle for an extended period of time while an officer monitors a high-risk area. When an engine idles, it incurs wear and tear that will require future maintenance. So the maintenance schedule for a vehicle that runs idle 50 percent of the time may be as frequent as that of a comparable one that drives more miles. It is important to fully understand the preventative maintenance requirement of each fleet vehicle because both overly frequent and delinquent preventive maintenance intervals are counter productive to controlling costs.

Computerized maintenance and repair records are kept for each City vehicle and large equipment utilizing RTA Fleet Management Software which is a widely used Fleet Management software. Each Fleet Division Vehicle and Equipment Technician (V.E.T.) inputs the maintenance and repair work they perform into the RTA program, and these records are a key tool for making fleet management decisions.

Overall maintenance and repair costs represent a significant portion of the total cost to own and operate a vehicle or piece of equipment, and these costs tend to increase as the vehicle or equipment ages. Once a vehicle or equipment's maintenance and repair costs become too high, and the vehicle has too much downtime, the City typically looks towards replacement.

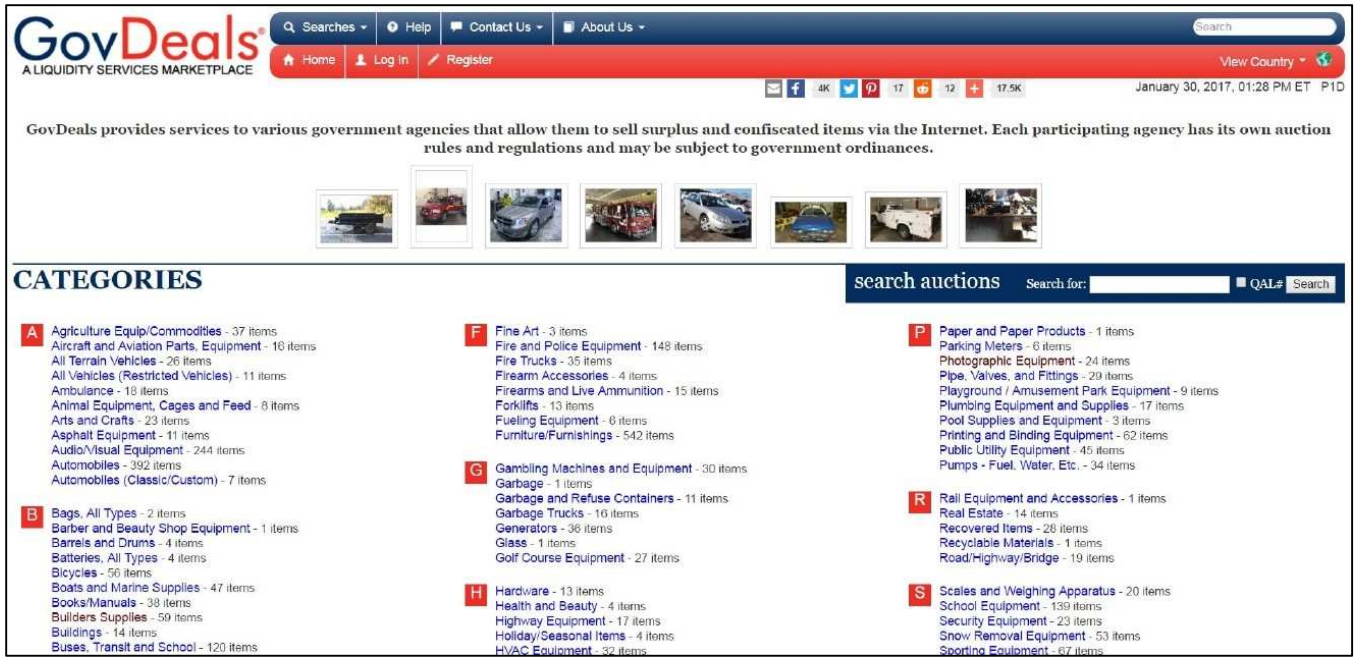
The City's regular maintenance program for fleet vehicles and equipment involves the following:

Type of Vehicle or Equipment	**Preventative Maintenance Program Guidelines** Involves: Lube, oil, & filter replacement & safety inspection of tires, brakes, suspension, steering components, lights, & electrical systems
Police Cruisers, Passenger Vehicles, Pickup Trucks	Performed every 6 months or 3,000 miles
Medium Size Trucks (Lowboys, F350's)	▪ Performed every 6 months or 5,000 miles ▪ Additional maintenance occurs after every winter snow operation including vehicle wash
Large Dump Trucks	▪ Performed once per year (prior to snow season) or every 5,000 miles ▪ Additional maintenance occurs after every winter snow operation including vehicle wash
Heavy Equipment (backhoes, loaders, etc…)	▪ Performed every 6 months or 300 hours ▪ Additional maintenance occurs after every winter snow operation including vehicle wash
Street Sweepers	Performed once per year or 300 hours
Smaller Equipment (Mowers, Snow Blowers)	▪ Routine maintenance and fluid and filter replacement performed 2 or 3 times per year ▪ Full safety check performed each winter

8. VEHICLE AND EQUIPMENT REPLACEMENT AND SALVAGE

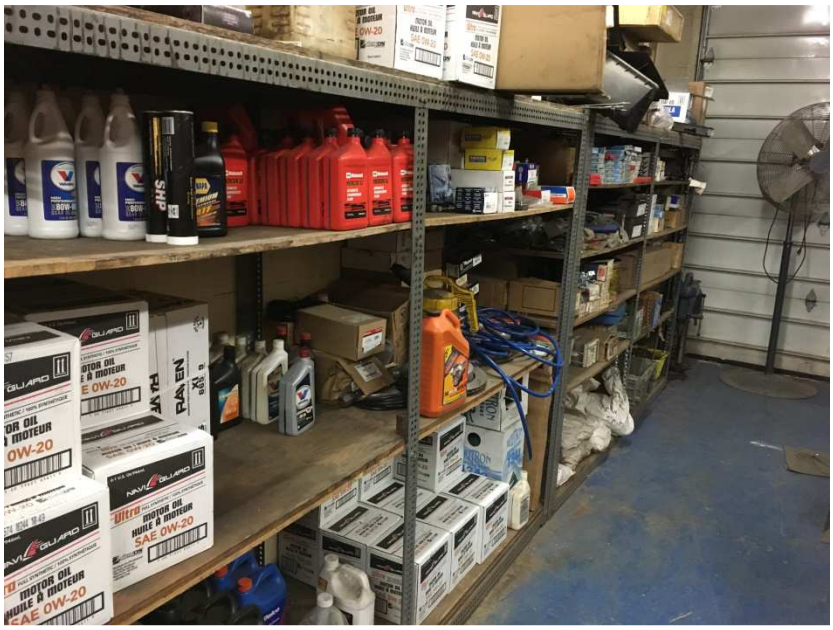
The number of fleet vehicles and equipment the City maintains is sized to meet the current needs of the City, and overall the Fleet Division's goal is to minimize the number of vehicles and equipment it maintains. For vehicles and equipment deemed essential once the maintenance and repair costs for a vehicle or equipment become too high the City typically looks towards the replacement and sale of that item. The amount of downtime of a vehicle due to frequent repairs, and its impact on services is also a major consideration on vehicle and equipment replacement decisions.

New Britain still does not currently have an annual fleet replacement program or budget for these costs. Instead the City typically bonds for the purchase of vehicles and equipment when the need becomes great enough. This occurred in 2016, and the City bonded $4.2 Mil. for the purchase of 38 vehicles and equipment primarily for the Public Works, Police, and Fire Department. Developing a comprehensive 5-Year Capital Equipment Replacement plan to more proactively manage the City's fleet remains a goal for Public Works. The current approach may be the best approach for minimizing costs and maximizing lifecycles.



Major improvements were made for the City's vehicle salvage practices this past year. The City now primarily uses GovDeals, an on-line auction service, for selling its old vehicles and equipment. This was a joint effort between the City's Finance Department and Public Works' Fleet Division. This has resulted in salvaged vehicles and equipment being sold quicker and often for more money. It has also resulted in buyers of the City's old vehicles and equipment coming from as far away as Tennessee, Texas, and Ohio. Thirty eight (38) vehicles were sold on GovDeals in 2016.

9. PARTS ORDERING AND SUPPLY



There were no major changes in parts ordering and supply over the past year other than having parts and supplies, as well as the entire shop, being organized at a much higher level. Parts ordering and supply for New Britain's fleet faces a similar challenge as most other municipal fleets. Most fleet purchases are based on a public, low bid process meaning municipal fleets tend to involve a wide variety of types, makes and models of vehicles and equipment making parts ordering and maintaining inventory more difficult. On-going efforts to standardize some of the City's emergency response vehicles are occurring such as front line snow plows and police cruisers to help address this.

Many private companies standardize their fleet vehicles so it is easier for them to have more replacement parts readily in stock, and also so their fleet mechanics have more familiarity and expertise with the makes and models of the fleet vehicles and equipment they are required to service. It is also not practical to carry a large inventory of parts so the City relies on a large number of vendors to supply parts with some of the largest suppliers being NAPA, Crowley Ford, and Fleet Pride.

The City does keep windshield wiper parts, brakes, filters, common electrical parts, gaskets, seals, and tires in stock with an emphasis on quick repairs that may need to be made during an emergency operation like winter storm operations.

10. FLEET POLICIES

The City has several policies, procedures, and work rules governing the use of its fleet vehicles and equipment, and updates to these were included in Public Works "Standards of Conduct" which was issued in January of 2017 along with Mayor Erin Stewart's new Employee Handbook.

Specific to Public Works Fleet Policies the following language was included in PW's Standards of Conduct:

The City's vehicles and equipment are some of the most costly assets the City owns, and their proper use, care and maintenance is a shared responsibility of all users. The following are Public Works rules and requirements regarding the use of City owned vehicles and larger equipment:

1. *City vehicles and equipment are to be treated with proper care, and drivers must obey all applicable driving laws (i.e. cell phone use, seat belts, etc.);*
2. *Aggressive and reckless driving shall not be tolerated;*
3. *City vehicles and equipment are to be used for work related activities only;*
4. *Employees are required to do a thorough pre-trip check prior to using any City vehicle and/or equipment, and any issues shall be immediately reported to your supervisor and/or the Fleet Manager;*
5. *Vehicle trips shall follow the most direct route practical to minimize vehicle mileage, wear, and fuel consumption;*
6. *At the end of a shift or work day remove any trash and/or personal items from the vehicle, make sure the vehicle has a minimum of a ¼ tank of fuel, and return the keys to the key board or applicable location;*
7. *Smoking is not allowed in Public Works vehicles;*
8. *Properly secure tools, equipment, and/or materials you are transporting;*
9. *Work assignments shall strive to minimize the number of vehicles needed to perform an assignment while still maintaining efficiency of operations;*
10. *The idling of vehicles is illegal under CT State statues, and the City has a no idling policy. Only in cases of temperature extremes will idling be allowed, and then only with your supervisor's approval.*

CDL drivers should note that violations of cell phone laws qualify as "serious traffic violations" under FMCSA regulations, and drivers that violate these restrictions will face penalties up to $2,750 for each offense.

11. FUEL EFFICIENCY, CONSUMPTION & COSTS

Pre and Post pictures of improvements at New Britain City Yard Fueling Station on Harvard Street

Managing fuel consumption, fuel efficiency, and fuel costs are all vital components in the management of the City's fleet. Historically City of New Britain has spent over $700,000 a year purchasing gasoline and diesel fuel, but there's been a focused effort to reduce fuel consumption and improve vehicle efficiency to help lower the City's costs. In 2016, the City of New Britain continued to benefit from fuel prices that remain relatively low, and despite an increase in fuel consumption in 2016 substantially lower fuel pricing enabled the City complete FY-16 with slightly over a 26% reduction in fuel costs.

While annual fuel consumption is an important for budgeting, annual fuel consumption is not a good indicator about fuel conservation efforts. This is because fuel consumption is influenced by several outside factors such as staffing level changes and the weather. Staffing levels in both Public Works and the Police Department have increased in the past few years which directly increased fuel consumption as more workers, vehicles, and equipment have been on the street performing work. The severity of winters and storm events such as hurricanes also have a major impact on the amount of gasoline and diesel fuel consumed in a given year. One item being implemented that we expect to reduce fuel consumption is the installation of a web-based GPS tracking on all City vehicles. Studies have shown that GPS tracked vehicles reduce miles driven by up to 20% which translates to lowering fuel consumption.

Fuel efficiency is also weather dependent, but to a lesser degree than fuel consumption. When compared annually fuel efficiency provides a more accurate measure for fuel conservation efforts, and is the next area the Fleet Division will baseline and strive to improve moving forward. One of these improvements that's already in process is taking measures to eliminate unnecessary idling. A good example of this is with the Police Department's Traffic "Road Cars" which are used by police officers to provide traffic control for construction on city streets. Historically police cars used for these assignments were left running all day to keep the flashing warning lights running without draining down the vehicles battery. Five older Police Traffic "Road Cars" are currently being retrofitted so that they will automatically power on every twenty minutes and then run for 5 minute.

Related to measuring the fuel efficiency of the fleet the City's fuel system, Fuel Master, was upgraded in 2016, and now can be accessed from any "network" computer. Fuel Master measures fuel consumption and efficiency for various vehicles and City departments is tracked using the fuel management software, and is used by agencies like CT DOT and the US Department of Defense. Currently Fuel Master is only installed at the fuel stations at the Public Works City Yard on Harvard Street, and not the several smaller fuel stations

located around the City. Reports on fuel use for the smaller fuel stations are manually tracked and submitted monthly to the Public Works Fleet Manager.

Public Works conducts annual bids for both gas and diesel fuels, and typically awards bids based on fixed pricing. Based on these bids East River Energy is the City's supplier for gasoline, and Dime Oil is the supplier for diesel fuel in FY-17.

The following tables provide historical data related to the City's Fleet Operations:

Table 11-1: The table below shows the City's fuel tanks locations and sizes:

Fueling Stations	Gals.	Fuel Tank Information	Gas	Diesel
Public Works Yard (55 Harvard Street)	15,000	U/G - outdoors	x	
	15,000	U/G - outdoors		x
NB Water Department Bld. (1000 Shuttle Meadow Ave.)	2,000	Outdoors / above ground	x	
	1,000	Outdoors / above ground		x
Stanley Golf Course (254 Hartford Road)	1,000	Outdoors / above ground	x	
	2,000	Outdoors / above ground		x
Stanley Quarter Park (451 Blake Rd.)	500	Outdoors / above ground	x	
	500	Outdoors / above ground		x
AW Stanley Park (2159 Stanley Street)	250	Inside		x
Hungerford Park (1000 Shuttle Meadow Ave.)	250	Outdoors / above ground	x	
	250	Outdoors / above ground		x
Willow Brook Park	250	Outdoors / above ground	x	
	250	Outdoors / above ground		x
Walnut Hill Park	250	Outdoors / above ground	x	
	250	Outdoors / above ground		x
Fairview Cemetery (120 Smalley Street)	500	Outdoors / above ground	x	
	500	Outdoors / above ground		x

Table 11-2: Pricing for diesel and gas fuel the past five (5) fiscal years:

FISCAL YEAR	GAS PRICE PER GAL. ($/Gal.)	DIESEL PRICE PER GAL. ($/Gal.)
FY 12/13	$3.166	$2.8321
FY 13/14	$3.166	$3.036 - $3.304 (variable pricing)
FY 14/15	$3.051	$3.025
FY 15/16	$2.135	$1.822
FY 16/17	$1.645	$1.884

Table 11-3: The table below shows gas and diesel costs for the past four (4) fiscal years:

FUELING PUMPS AT THE PUBLIC WORKS CITY YARD ON HAVARD STREET				
FISCAL YEAR	**PW FUEL BUDGET ($)**	**GAS TOTAL COST ($)**	**DIESEL TOTAL COST ($)**	**TOTAL COST ($)**
FY 12/13	$800,000 *	$443,135	$267,364	$710,499
$267,364	$800,000 *	$436,442	$225,254	$661,696
$225,254	$740,000 *	$396,910	$224,459	$594,369
FY 15/16	$740,000 *	$291,885	$143,753	$435,638
FY 16/17	$680,000 *	TBD	TBD	TBD
*-PW Fuel Budget also cover purchase of other items such a oils, hydraulic fluids, and other fluids				
FUELING PUMPS AT THE WATER TREATMENT PLANT				
FISCAL YEAR	**PW FUEL BUDGET ($)**	**GAS TOTAL COST ($)**	**DIESEL TOTAL COST ($)**	**TOTAL COST ($)**
FY 12/13	N/A	$11,713	$37,071	$48,784
FY 13/14	N/A	$13,012	$41,731	$54,743

FY 14/15	N/A	$14,872	$45,371	$60,243
FY 15/16	$76,500	$28,969	$26,291	$55,260
FY 16/17	$76,500	TBD	TBD	TBD
FUELING PUMPS AT THE VARIOUS PARKS GAS PUMPS				
FISCAL YEAR	**PW FUEL BUDGET ($)**	**GAS TOTAL COST ($)**	**DIESEL TOTAL COST ($)**	**TOTAL COST ($)**
FY 12/13	$20,000	$5,661	$14,221	$19,882
FY 13/14	$20,000	$4,935	$12,066	$17,001
FY 14/15	$20,000	$8,351	$15,903	$24,254
FY 15/16	$20,000	$1,830	$7,034	$8,864
FY 16/17	$20,000	TBD	TBD	TBD
FUELING PUMPS AT STANLEY GOLF COURSE				
FISCAL YEAR	**FUEL BUDGET ($)**	**GAS TOTAL COST ($)**	**DIESEL TOTAL COST ($)**	**TOTAL COST ($)**
FY 12/13	$23,500	$6,341	$10,505	$16,846
FY 13/14	$23,500	$9,681	$18,796	$28,477
FY 14/15	$23,500	-	$12,321	-
FY 15/16	$23,500	$5,076	$10,013	$15,089
FY 16/17	$22,500	TBD	TBD	TBD

Picture shows newly installed electric vehicle charging station installed in parking lot by NBPD.

12. ALTERNATIVE FUEL VEHICLES

A relatively small percentage of the City's fleet involves passenger vehicles which are the primary market sector for alternative fuel vehicles. The City also keeps passenger vehicles for 12-15 years so there is minimal annual replacement for these vehicles. This being the case there has not been much movement on incorporating alternative fuel vehicles into the City's fleet. As passenger vehicles are replaced alternative fuel vehicles will continue to be considered for their replacement when they make sense financially. The City also continues to monitor grant funding that could become available towards the purchase of these types of vehicles.

Alternative fuel vehicles (AFVs) still make up a small but growing part of the overall US market for light-duty vehicles, but most auto makers are investing heavily in these technologies and are making great advancements. Manufacturers are still trying to determine what technologies will lead the way for AFV's in the future, but right now hybrid, electric battery, and hydrogen fuel cell powered vehicles seem to be leading the way.

Manufacturers are dropping their pricing on some of their alternative fuel vehicles which is making them a more attractive option for all users including for the light-duty vehicles in municipal fleet vehicles. Even so predictions are all over the place about what percentage of the light-duty automobile market will use alternative fuel vehicles in the coming years, and currently the high purchase costs for most AFV's makes them unattractive for a municipal fleet operation based on minimizing its capital costs.

Talk over the past year has actually shifted more to autonomous, self-driving vehicles more so than alternative fuel vehicles. Regardless it is very clear that there will be big changes in store for the City's fleet of vehicles and equipment.

New Britain is increasing our "Clean City" efforts as is evidenced by our increased reliance on solar power for our building facilities, a move toward mass transit, and our bicycle friendly community work. In 2013

New Britain was one of the first CT communities to become a "Clean Energy Community", and in 2016 worked with Eversource Energy on implementing a project funded through a $15,000 "Bright Idea Grant" which will fund an energy saving project. The City also has a goal of joining both New Haven's and Norwich's recognition by the US Department of Energy as federally recognized "Clean Cities". Related to this the City continues to look at how we can further "Green our Fleet" by further integrating AFV's into the City's fleet of light-duty vehicles, and just this year worked cooperatively with Eversource Energy and the CT DEEP to install three electrical vehicle charging stations in downtown.

Picture shows signage indicating new electric vehicle charging station in the Szeczney Parking Garage.

13. FLEET GOALS AND ACCOMPLISHMENTS

Each year the Fleet Management Division establishes annual goals and lists their top accomplishments. This is an important task, and critical to help ensure that the Fleet Division is making good progress, and staying current with the best management practices of a properly managed Fleet Operation.

The Fleet Divisions' Goals and Accomplishments for calendar years 2016 and 2017 are as follows:

1. 2016 Fleet Division Top Accomplishments:

a. The Mayor issued a memorandum in February of 2016 establishing a 5% goal for reducing the size of the City's fleet size and fuel consumption. A 7.8% reduction of City vehicles was achieved.
b. The establishment of a 1-year Capital Equipment Bond for $4,200,000 to fund the purchase of 38 critical vehicles and equipment for various City departments.
c. The promotion of Sam Plumley to the City's Fleet Manager in January of 2016. The City had been operating without a full time permanent Fleet Manager since 2007.
d. The promotion of Joe Vereneau to Mechanic Foreperson.
e. The hiring to 2 new Vehicle Equipment Technicians in 2016.
f. The improved ability to determine vehicle and equipment lifecycles based on NBPW's own experience rather than industry standards.

g. Improved process for the salvaging of old fleet vehicles and equipment using "GovDeals".
h. Upgraded networked based Fuel Master System.

2. 2017 Fleet Division Primary Goals:

a. Proactively deal with the increasing number of vehicle accidents that are occurring in Public Works through defensive driver training and other related methods.
b. Fully implement a web-based GPS Tracking System on all PW Fleet Vehicles and applicable pieces of equipment to increase vehicle safety and reduce unnecessary trips and fuel consumption.
c. Benchmark the fuel efficiency for various classification of City vehicles, and comparing them against industry standards with the goals of improving the City's overall fuel efficiency.
d. Install a Key Keeper System at the Public Works Yard which will enable the Fleet Manager to fully managed, control, and track vehicle and equipment use.
e. Continued improvement on Lock-out Tag-out program for vehicles and equipment in need of repair
f. Accurately measure the annual mileage of all City vehicles.
g. Further reduce the overall number of fleet vehicles and equipment.

14. SUMMARY

A City's fleet of vehicles and equipment are critical for everything from providing regular daily maintenance and services for residents and businesses to providing critical emergency response for police, fire, and emergency winter storm operations. As such there is no more important task performed in a Public Works Department than maintaining its fleet. The proper management of a City's fleet is crucial, and decisions made about managing a fleet can either save or cost a municipality hundreds of thousands of dollars a year.

Over the past year New Britain Public Works' Fleet Division has continued to make very good strides improving its Fleet Management efforts, and the contents of this report are a testament to this.

This year, and moving forward the Annual Fleet Report will continue to provide detailed information about the status of the City's fleet operations and the fleet itself, and will serve as a valuable benchmark for measuring annual progress. New Britain Public Works is committed to making sure the City's Fleet Division serves as a role model for other organizations, and that the dollars the City spends investing in its fleet are optimized to their highest potential.