



REPORT

LEGISLATIVE REFERENCE BUREAU

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21.

DPW—Fleet,

2014

Proposed Plan and Executive Budget Review

21. Department of Public Works-Fleet

I. EXECUTIVE SUMMARY.

Table 21.1. Statement of Changes in Operating Budget, 2013 to 2014.

Fleet Services Section	
2012 Actual Expenses	\$11,702,848
2013 Adopted Budget	\$11,698,077
Personnel Costs	
Salaries & Wages	\$464,456
Fringe Benefits	\$174,020
Total Changes	\$638,476
Operating Expenses	\$668,042
Equipment Purchases	\$600
Special Funds	\$0
Total Changes	\$1,307,118
2014 Proposed Budget	\$13,005,195

Fleet Dispatch Section	
2012 Actual Expense	\$15,060,682
2013 Adopted Budget	\$13,680,264
Personnel Costs	
Salaries & Wages	\$622,141
Fringe Benefits	\$243,529
Total Changes	\$865,670
Operating Expenses	\$58,206
Equipment Purchases	\$0
Total Changes	\$1,819,276
2014 Proposed Budget	\$15,500,140

1. Strong Neighborhood Investment Plan. The 2014 Proposed Budget includes \$896,000 in O &M funding to demolish 100 vacant houses using City staff. An additional \$707,000 in capital funding is also provided to purchase an excavator and related equipment to be used by City staff to demolish the houses.

2. \$500,000 for the purchase of fully automated garbage collection vehicles. The 2014 Proposed Budget contains additional capital funding for the marginal cost (\$166,000) of 3 fully-automated vehicles which will enable garbage routes to be serviced by a single employee.

3. Funding for Police Vehicle Repair Shifted to Fleet Services Section: Currently, the Police Department reimburses Fleet Services for the repair and maintenance of Police Department vehicles. The 2014 Proposed Budget shifts the funding for the repair and maintenance of Police Department vehicles from the Police Department budget to the Fleet Services Section budget.

4. Increased repair costs related to new emission standards. DPW experienced an increase in engine failures in 2013. To date there have been 25 failures, most of them in 2010 or newer equipment. Many of the failures have been linked to emission-related engine components.

II. INITIATIVES AND PROGRAMS.

1. Mayor's Strong Neighborhood Investment Plan.

As part of the Mayor's Strong Neighborhood Investment Plan to use City staff to demolish 100 *In rem* houses, \$896,000 in O&M funding is included in the Fleet Operations/Dispatch Section's In-house Demolition Program Special Fund. Table 21.2 shows the planned expenditures of the 2014 In-house Demolition Program Special Fund.

Table 21.2. In-house Demolition Program Special Fund.

City Positions & Salaries	Amount
1-Tractor, Bulldozer, Endloader, Grade All Operator	\$57,000
1-City Laborer	\$40,000
Other Expenditures	
Landfill Tonnage	\$501,000
4-WCS Workers*	\$125,000
Clean Fill	\$227,600
Total	\$896,000

* The workers provided by Wisconsin Community Services will take the place of City Operation Driver Workers in other DPW sections, who will work on the demolitions.

In addition to the O&M funding, \$707,000 in capital funding is also provided to purchase an excavator and related equipment to be used by City staff to the demolition of the houses. (See page 21.8 for additional information on the capital equipment).

2. Automated Packers.

The 2014 Proposed Budget includes \$500,000 (\$166,000 marginal cost x 3 packers) in funding for the purchase of 3 additional, fully-automated pieces of equipment that will enable garbage collection to be performed by one person. DPW currently has 6 fully automated side-loading trucks which were tested in 2013 to determine operational constraints. DPW has determined that packers with CNG engines are not effective for auto-loading routes because the extended wheelbase makes them too big to maneuver effectively in many alleys. The auto-loading packers will have diesel engines.

3. Funding for Police Vehicle Repair Shifted to Fleet Services Section.

Currently, the Police Department reimburses Fleet Services for the repair and maintenance of Police Department vehicles. The 2014 Proposed Budget shifts the funding for the repair and maintenance of Police Department vehicles from the Police Department budget to the Fleet Services Section's budget. The 2014 Proposed Budget provides an additional \$1.1 million in the 2014 Fleet Services budget for the servicing of Police Department vehicles, which is \$200,000 less than DPW had requested,

III. EXPENDITURES.

Table 21.3. Changes in Expenditure Amounts by Account.

Expenditure Account		2012 Actual	2013 Adopted Budget	% Change	2014 Proposed Budget	% Change
Salaries and Wages	Fleet	4,316,537	\$4,427,486	3%	\$4,891,942	10%
	Dispatch	\$5,641,942	4,887,750	-13%	\$5,509,891	13%
Fringe Benefits	Fleet	\$2,176,682	\$2,125,193	-2%	\$2,299,213	8%
	Dispatch	\$2,770,876	\$2,346,120	-15%	\$2,589,649	10%
Operating Expenditures	Fleet	\$4,650,780	\$4,425,398	-5%	\$5,093,440	15%
	Dispatch	\$6,647,114	\$6,446,394	-3%	\$6,504,600	1%
Equipment Purchases	Fleet	\$558,849	\$720,000	29%	\$720,600	0%
	Dispatch	\$0	\$0	0%	\$0	0%
Special Funds	Fleet	\$0	\$0	0%	\$0	0%
	Dispatch	\$0	\$0	0%	\$896,000	100%
Total Operating Budget	Fleet	\$11,702,848	\$11,698,077	0%	\$13,005,195	-1%
	Dispatch	\$15,060,682	\$13,680,264	-9%	\$15,500,104	13%
	Joint	\$26,763,530	\$25,378,341	-5%	\$28,505,299	12%

Fleet = Fleet Services Section; Dispatch = Fleet Operations/Dispatch Section; Joint = both sections combined.

1. Budget Summary.

Fleet Services Section. The total operating budget in the 2014 Proposed Budget is \$13,005,195, an increase of \$1,307,118 (11%) from \$11,698,077 in the 2013 Adopted Budget.

Fleet Operations/Dispatch Section. The total operating budget in the 2013 Proposed Budget is \$15,500,140, a decrease of \$1,819,876 (13%) from \$13,600,264 in the 2013 Adopted Budget.

The total operation budgets for the both sections combined increases of 12% from the 2013 Adopted Budget.

2. Personnel Costs.

Fleet Services Section. The 2014 Proposed Budget provides \$7,191,155 for Fleet Services Section personnel costs (net wages and fringes), an increase of \$638,476 (10%) from the 2013 Budget. The increase is primarily the result of increased fringe benefit costs (\$174,000), and decreases in the Reimbursable Services Deduction (\$400,000), and the Personnel Cost Adjustment (\$50,682).

Fleet Operations/Dispatch Section. The 2014 Proposed Budget provides \$8,099,540 for Fleet Operations/Dispatch personnel costs, an increase of \$865,670 (12%) from the 2013 Budget. This increase is primarily the result of increases in overtime (\$460,000), fringe benefit costs (\$243,529), salaries related to the Mayor's Strong Neighborhood Investment Plan (\$117,000) and a reduction in the Personnel Cost Adjustment (\$47,7704).

3. Operating Expenditures.

Fleet Services Section.

Operating expenditures in the 2014 Proposed Budget for Fleet Services Section are \$5,093,440, an increase of \$668,042 (15%) from the \$4,425,398 provided in the 2013 Adopted Budget. The increase can primarily be attributed to shifting the funding of police vehicle repair from the police department to DPW (\$1,100,000), which is partially offset by a reduction in energy (\$330,000) and various other accounts.

In 2014, Fleet Services will no longer bill the Milwaukee Police Department (MPD) for repair of MPD vehicles. Instead, \$1,100,000 was added to the Fleet Services budget, with \$400,000 added to salaries, \$300,000 added to the Tools & Machinery Parts account, vehicle services account and \$400,000 added to the Vehicle Services Repair account.

The reduction (\$330,000 in Fleet Services Energy account) is part of the rebalancing of a number Fleet Services account to better align historical spending with the budget allocation, while not increasing the total Fleet O&M budget.

Fleet Operations/Dispatch Section.

The 2014 Proposed Budget provides \$6,504,600 for Fleet Operations/Dispatch operating expenditures, a slight increase of \$58,206 (1%) from the 2013 Budget. The increase is primarily the result of a 1% increase in energy (\$76,150), which was partially offset by reductions in various other accounts.

4. Equipment Purchases.

Fleet Operations/Dispatch Section.

None.

Fleet Services Section.

The 2014 Proposed Budget provides \$720,600 for Fleet Services equipment purchases, the approximately the same amount as in 2013. If a piece of replacement equipment is less than \$50,000, it is budgeted in the operating expenses for the Fleet Services Section. Equipment purchases over \$50,000, with a life expectancy of at least 10 years, are budgeted under capital expenditures.

According to DPW, the \$720,600 in proposed funding is not based on the DPW equipment replacement schedule in effect. DPW indicates that the funding will most likely meet the needs of the section. It is important to note that as the fleet ages, vehicles require more maintenance

and costlier repairs, resulting in increased downtime, negatively affecting the delivery of City services.

Fleet Services Section has no intent of keeping vehicles and equipment that have been replaced. As new equipment is placed in service, used equipment is retired from service and sold as surplus. As of October 1, 2013, 53 pieces of new equipment had been received, including 50 units for DPW and 3 for the Police Department.

As of August 13, 2013, 66 pieces had been sold or disposed of by Fleet Services, for a net decrease of 13 pieces. An additional 37 vehicles are currently prepared and awaiting sale. At this point in 2013, the City has received \$134,397 from the sale of 44 DPW and 22 MPD pieces of equipment.

Table 21.4. Proposed Replacement Equipment Purchases, Fleet Services, 2014.

Number of Units	Type of Equipment	Total Cost for All Units
6	Cars, Compact Hybrid	\$132,000
4	Pickup Truck, 4400 lb. 4x2	\$80,000
7	Pickup Truck, 8600 lb. 4x2	\$175,000
2	Truck, Platform, 11,000lb	\$80,000
3	Truck, Van, Cargo, 6000 lb.	\$75,000
5	Truck, Van, Cargo, 9500 lb.	\$135,000
32	Computer Hardware	\$32,500
1	Engine Diagnostic Analyzer	\$6,000
1	Scanner	\$5,100
61	Total	\$720,600

5. Special Funds.

None.

IV. PERSONNEL.

Table 21.5. Changes in Full-Time Equivalent (FTE) and Authorized Positions.

Position Category		2012 Actual	2013 Adopted Budget	Change	2014 Proposed Budget	Change
O&M FTEs	Fleet	92.33	95.5	7.5	102.7	7.2
	Dispatch	116.67	93.0	-23.67	95.0	2.0
Non-O&M FTEs	Fleet	8.85	10.5	0	3.3	-7.2
	Dispatch	0.06	0	0	0	0
Total Authorized Positions*	Fleet	131	131	0	131	0
	Dispatch	535	532	0	509	-23.0
	Joint	666	663	-1.0	640	-23.0

* Includes auxiliary positions. Fleet = Fleet Services Section; Dispatch = Fleet Operations/Dispatch Section; Joint = both sections combined.

1. Personnel Changes.

The total number of authorized positions in the Fleet Services Section under the 2014 Proposed Budget is 131, the same as in the 2013 Adopted Budget. The total number of authorized positions in the Fleet Operations/Dispatch section under the 2014 Proposed Budget is 509, a decrease of 23 from 2012 Adopted Budget. The position changes are summarized in Table 21.6.

Fleet Services.

The total number of authorized positions in the Fleet Services Section under the 2014 Proposed Budget is 131, the same as in the 2013 Adopted Budget.

Fleet Operations/Dispatch Section.

As part of the Mayor's Strong Neighborhood Investment Plan to have City staff demolish 100 *in rem* houses the following 2 positions are added to the Fleet Operations Section:

- One Tractor, Bulldozer, End loader or Grade All Operator.
- One City Laborer

The 2014 Proposed Budget includes eliminating 20 of the current 200 Auxiliary Snow Driver positions and 5 of the current 107 Auxiliary Operations Driver/Worker positions. In recent years, the positions have been rarely filled, and DPW indicates the elimination will have no impact on its operations.

Table 21.6 Summary of Position Changes, 2014.

	Nbr.	Title of Position	Reasons For Change
Eliminated	-20	Auxiliary Snow Driver (Fleet Operations)	Unused, no longer needed.
	-5	Operations Driver Worker (Fleet Operations)	
Added	+1	Tractor, Bulldozer, Endloader or Grade All Operator	City Housing Demolition (Mayor's Strong Neighborhood Investment Plan)
	+1	City Laborer	
	-23		

Fleet Operations Overtime.

Overtime compensated is increased from \$315,000 in 2013 to \$775,000 in the 2014 Proposed Budget, which is the amount that was provided in the 2012 budget. In 2013, the budgeted amount of overtime was reduced as a large amount of carryover was available. This carryover supplemented the budgeted overtime in 2013.

2. Vacancies.**Fleet Services Section.**

As of October 3, 2013, there were 2 vacant Garage Attendant positions and 6 vacant Vehicle Service Technician positions. The authority has been granted to fill the 6 Vehicle Service Technicians, and Fleet is in the process of hiring.

Fleet Operations/Dispatch Section.

As October 3, 2013, there were no vacancies in the Fleet Operations/ Dispatch Section.

V. SPECIAL FUNDS.**Fleet Services Section**

There are no Special Funds in the Proposed 2014 Fleet Services Budget.

Fleet Operations/Dispatch Section

As part of the Mayor's Strong Neighborhood Investment Plan to use City staff to demolish 100 *In rem* houses, \$896,000 is included in the Fleet Operations/Dispatch Section's In-house Demolition Program Special Fund. (See page 21. 2 for additional information).

VI. SPECIAL PURPOSE ACCOUNTS (SPA).

None.

VII. REVENUES.

The 2014 Proposed Budget estimates that \$4,183,000 will be generated in revenues by DPW—Fleet Services. This is a \$57,000 (1%) decrease from the 2013 Budget estimate. Revenue is generated from billing reimbursable services that include reimbursements from other departments for various repairs, fuel, equipment utilization and services.

Table 21.7 Summary of Revenues.

Revenue Account	2012 Actual	2013 Adopted Budget	% Change	2014 Proposed Budget	% Change
Charges for Services	\$4,974,078	\$4,240,000	-15.0%	\$4,183,000	-1%

VIII. CAPITAL PROJECTS.

Major Capital Equipment, \$7,517,000.

This program provides for equipment that exceeds \$50,000 and has a life expectancy of at least 10 years. The program focuses on equipment replacement for garbage and recycling collection, snow and ice control, and pick-up and dump trucks for use as pool equipment.

Funding for this program increases by \$1,017,000 (15.7%) from the 2013 Budget. The additional funding will provide for the purchase of equipment that will be used by DPW to demolish vacant houses. The equipment will include an excavator (\$298,000), a trailer (\$59,000), a skeleton bucket (\$10,000) and 2 quad axle dump trucks (\$340,000). The total cost for the demolition equipment is \$707,000.

The 2014 Proposed Budget omits 2 multi-purpose tractors, one dump truck with an underbody plow, and one rear load recycling packer from DPW's requested budget. Table 21.8 shows the vehicles requested by the department and a prioritized list of vehicles based on the funding available in the Proposed Budget. Actual equipment purchases may be different depending on fleet performance. Average annual funding for this program since 2002 is \$5.7 million. Nearly \$6 million in carryover borrowing authority remains.

The current average age of capital equipment is 12.56 years, an increase of 0.76 years from October 2012. The optimal average age based on the average useful life of equipment is 6.0 years. The average age of the capital fleet in 2009 was 9.5 years. The age of the fleet is of concern because older vehicles cost more to operate. They typically require more extensive repairs, experience more down time and are less fuel-efficient than newer vehicles.

Table 21.8. Types of Vehicles Requested and Proposed for 2014.

Description of unit	Requested Units	Proposed Units	Estimated Unit Cost
Sweeper	2	2	\$196,000
Tractors			
Light, Multi-Purpose	2	0	\$105,000
Trucks			
Aerial, 50 Ft, Utility Body	1	1	\$205,000
Chipper, Brush	3	3	\$53,000
Dump, 16 yard, Tri-Axle	2	2	\$150,000
Dump, 2 Yard w/ Crane	8	8	\$52,000
Dump, 5 Yard	1	0	\$120,000
Dump, 5 Yard w/Underbody Plow	10	9	\$160,000
Dump, 24 Yard, Chip Body	2	2	\$115,000
*Dump, Quad Axle		2	\$170,000
Packer, 25 Yard, Rear load, w/ Automated Arm	3	3	\$451,000
Packer, 25 Yard, Rear load/Recycle	7	6	\$285,000
Packer, 31 Yard Top Load	1	1	\$275,000
Roll-Off	2	2	\$165,000
*Excavator		1	\$298,000
*Trailer		1	\$59,000
*Skeleton Bucket		2	\$10,000
Total Number of Units	44	44	

*Vehicles for the DPW SNIP demolition crew. Total cost, \$707,000.

In 2013, DPW has experienced major repair expenses on newer equipment that is subject to the new emission standards that went into effect in 2010. From January 1 through October 1, 2013, DPW has had 25 major engine failures, mostly on 2010 and newer trucks.

Historically, the average number of failures has been between 4 and 6 annually and typically occurred on older equipment. The most common cause of the failures is an emission related component called an exhaust gas recirculation (EGR) cooler, which is highly sensitive to engine coolant levels. DPW is working with drivers on preventative measures. It is not known how the new emission standards will affect the overall service life of vehicles.

DPW is beginning to transition its garbage and recycling packers to compressed natural gas (CNG) engines. DPW currently has 21 CNG-powered packers in use. The marginal cost of the CNG engines (\$36,000 each) was funded by a grant. 80% of the marginal cost of 20 additional packers is being funded by a \$720,000 CMAQ grant. If the marginal cost of the CNG engines

remains unchanged on this purchase, the grant will cover \$28,800 of the cost for each truck. Bids on the purchase close October 31, 2013. DPW has projected that each packer will save approximately \$6,500 in fuel costs annually. The long-term effect of CNG on engine life and vehicle replacement cycles is unknown at this time.

Ventilation and code upgrades will be required at all repair facilities to accommodate CNG vehicles. DPW has been able to use CMAQ grant money to make many of the necessary upgrades. The grants typically have an 80/20 cost share. The CNG-related portion of the Northwest Garage is expected to be approximately \$600,000. An electrical upgrade at Lincoln Garage (\$900,000) will be going to bid in October 2013. DPW estimates that Central Garage will need \$1.25 million in upgrades. Currently repairs on CNG vehicles are done outdoors whenever possible. Limited repairs can be done indoors if the vehicles tanks are shut off.

The 2014 Proposed Budget includes \$500,000 (\$166,000 marginal cost x 3 packers) in funding for the purchase of 3 additional, fully-automated pieces of equipment that will enable garbage collection to be performed by one person. DPW currently has 6 fully-automated side loading trucks which it tested in 2013 to determine operational constraints. DPW has determined that packers with CNG engines are not effective for auto-loading routes because the extended wheelbase makes them too big to maneuver effectively in many alleys. The auto-loading packers will have diesel engines.

Table 21.9. Capital Program Summary, 2014.

Program	2014 Proposed Budget	2013 Actual Budget	Increase (decrease)	% Chng.	6-year Request
Major Capital Equipment	\$7,517,000	\$6,500,000	\$1,017,000	15.7%	\$48,801,000

2. Unfunded Capital Requests.

There are no unfunded requests for 2014.

3. Project Updates.

Two-Way Radio Replacement & AVL/GPS Initiative.

This program provided funding to strategically replace obsolete 2-way radio equipment with equipment that uses the Police Department's M/A-COM Communication Infrastructure (Open Sky). This project has received \$1.7 million in funding since 2009.

Not all DPW equipment has a communications radio installed. Radios are normally installed in certain larger vehicles such as dump trucks, sweepers, refuse trucks, aerial lifts, and backhoes.. Radios are rarely installed in cars, pickups or vans. Installations have been made in 529 vehicles including 376 Fleet units, 103 Water units and 50 Parking units. There are 40 Fleet radios and 5 Parking radios that are currently in storage until the intended vehicles are delivered. Several new vehicles that are out for bid or on order from the 2013 Budget will have radios provided as part of the purchase contract. Radios have not been installed in any sewer equipment.

GPS is available on any vehicle that has an Open Sky radio installed. The automatic vehicle locator (AVL) system is now operational. DPW is working with the vendor to improve it and add additional features. DPW is also reviewing how to best monitor vehicles.

Central Repair Garage, Back Lot.

The 2014 Proposed Budget provides funding for this project in the DPW's Facilities Exterior Program. The area behind the Central Repair garage on Canal Street has poor drainage and is prone to flooding. During heavy rain events, storm water runoff containing oil and fuel remnants flows over the Hank Aaron State Trail and into the Menomonee River. In 2012, DPW requested \$573,000 to repave the back lot. No funding was provided in the 2012 Budget. The request was resubmitted for 2013. The Capital Improvements Committee did not recommend funding for this project in 2012 but because of continuing environmental concerns recommended funding for 2013.

4. Future Capital Requests.

None.

IX. ISSUES TO CONSIDER.

1. The long-term effect of CNG vehicles on maintenance costs and vehicle replacement cycles is unknown. The City has been budgeting approximately \$6 million per year for the replacement of major capital equipment. The department typically requests nearly twice that amount, basing its request on the age of the fleet and industry recommended replacement cycles. CNG packers are expected to save nearly \$6,500 in fuel costs annually, but if they don't last as long as vehicles with diesel engines or if they require significantly more maintenance, those savings will be offset by higher replacement and maintenance costs.
2. The transition to CNG vehicles may result in extensive upgrades to City repair facilities. (See discussion in the DPW – Infrastructure Services Section)
3. On October 2, 2013, DPW reported under Common Council File Number 130531 to the Public Works Committee that the 2010 changes to emission standards has had a negative impact on the fleet. There have been numerous engine failures that have been costly to repair. It is not known if this is a trend that will continue or if increased monitoring and driver training will be able to reverse it. The long-term effects of the emission changes on the fleet's replacement cycle are also unknown at this time. To mitigate the impact of the issue, DPW is continuing to train staff and educate drivers on the new systems, and remind them of their daily responsibilities regarding maintaining the equipment.

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