

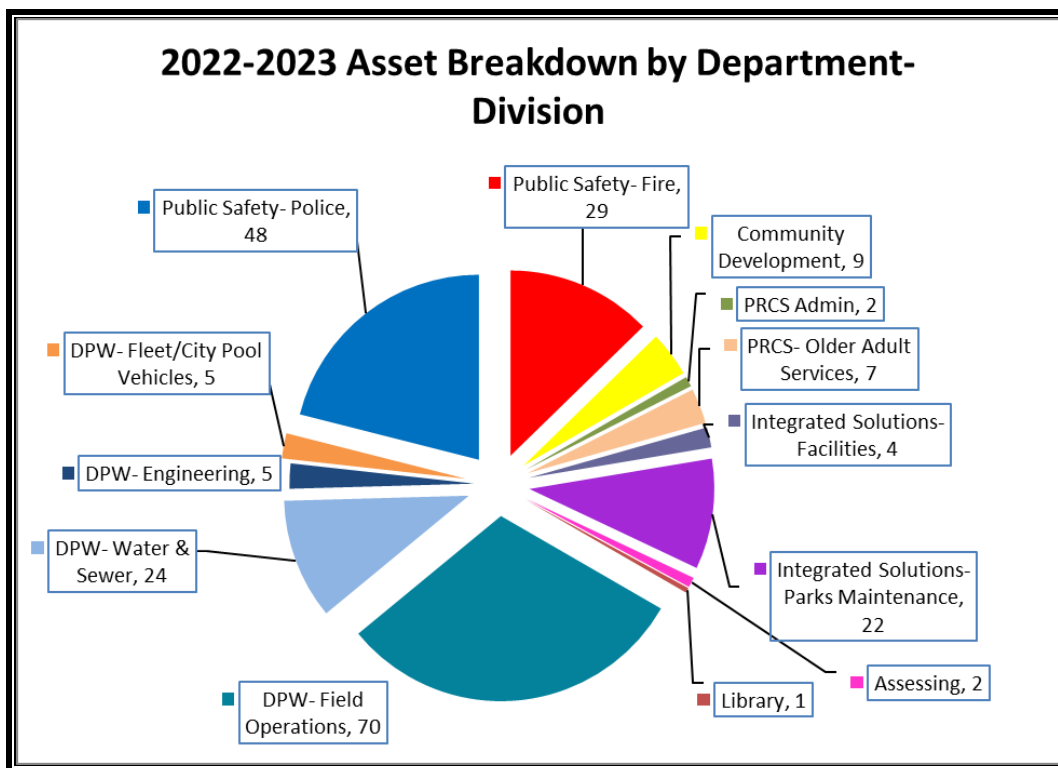
MEMORANDUM



TO: JEFFREY HERCZEG, DIRECTOR OF PUBLIC WORKS
FROM: MICHAEL RHATIGAN, FLEET ASSET MANAGER
MEGAN MIKUS, DEPUTY DIRECTOR OF PUBLIC WORKS
SUBJECT: FY 2021-2023 FLEET DIVISION REPORT
DATE: OCTOBER 24, 2023

Mayor and Council –
Please see the latest update and performance of the City's Fleet Division.
- Victor

This memorandum provides an update on the Fleet Division operations for FY 2021-22 and 2022-23. The Fleet Division is responsible for the maintenance and repair of over 228 vehicles and pieces of equipment in the City's fleet. The Fleet has increased 26 units since June 2021 because of more full-time staff and new maintenance activities. The following is a breakdown of assets by department and division:



Assets Purchased, On Order, and Sold

Purchased in FY 2021-22 & FY 2022-23

Division	Qty.	Year	Make	Model	Cost per Vehicle
Fire	1	2021	Chevrolet	Suburban	\$68,387
Police	1	2022	Chevrolet	Tahoe	\$59,969
Police	1	2022	Ford	F-150	\$34,231
Police	1	2023	Unmarked	N/A	\$36,421
PRCS-OAS	1	2022	Ford	Transit	\$57,229
DPW-Field Ops.	1	2022	Ford	F-550 Dump	\$67,255
DPW-Field Ops.	5	2022	Ford	F-350	\$45,960
DPW-Field Ops.	1	2022	Ford	F-350 Service Body	\$60,715
DPW-Field Ops.	1	2022	Kaufman	Deluxe Equipment tilt 22'	\$7,190
DPW-Field Ops.	1	2021	Michigan Cat	Backhoe 420XE	\$130,192
DPW-Field Ops.	1	2021	Great Lakes	Open General Cargo	\$4,500
DPW-Field Ops.	1	2021	Ventrac	4500Z Tractor VT	\$42,627
DPW-Field Ops.	1	2021	Bobcat	Toolcat 5600	\$91,383
DPW-Field Ops.	1	2021	TrafFix Scorpion II	Trailer Attenuator	\$28,834
DPW-Field Ops.	1	2021	Mitsubishi	FG55N1	\$68,932
DPW-Field Ops.	2	2021	International	HV607 4X2 RDS	\$232,312
DPW-Water & Sewer	2	2023	Ford	F-350	\$68,436
DPW-Water & Sewer	1	2022	Ford	F-350 Service Body	\$77,879
DPW-Water & Sewer	1	2021	International	HV613 Tandem Axle Swaploader	\$320,398
IS-Parks Maintenance	1	2022	Karavan	Trailer 5 x 8	\$1,575
IS-Parks Maintenance	1	2021	Joe's Trailer	Trailer 7 x 16	\$4,500
				Total:	\$ 1,993,531

Vehicles/ Equipment on Order (not delivered) from FY 21-23

Division	Qty.	Year	Make	Model	Cost per Vehicle
Police	7	2022	Ford	Explorer Hybrid	\$36,203
Police	1	2023	N/A	Unmarked	\$44,733
Fire	1	2021	Sutphen	Custom pumper PA-17	\$870,828
Fire	1	2023	Sutphen	Custom pumper PA-17	\$1,006,483
Community Dev.	1	2023	Ford	F-150	\$35,417
DPW-Field Ops	1	2024	International	HV607 RDS Snow Truck	\$291,210
DPW-Field Ops	1	2023	Bobcat	E42 Mini Excavator	\$72,553
DPW-Water & Sewer	1	2022	International / Vactor	HV607 SBA/ 2100i PD 18" Vacuum	\$482,153
DPW-Fleet	1	2023	Ford	F-350 Extended Cab	\$70,789
IS-Parks Maint.	4	2023	Ford	F-350 with upfits	\$67,266
Total:	19			Total:	\$3,396,651

Sold in FY 2021-22 & FY 2022-23

Division	Year	Make	Model	Miles	Revenue
IS-Parks Maint.	2008	Chevrolet	Colorado	77,585	\$1,801
PRCS-OAS	2009	Ford	E350 Van Terra Bus	100,275	\$5,550
PRCS-Admin	2013	Ford	F-150	51,653	\$9,177
Fire	2001	Freightliner	Ladder Truck L-1	51,339	\$11,400
DPW-Field Ops	2012	Tymco	Street Sweeper	23,261	\$30,600
DPW-Field Ops	2007	Case	Backhoe 580 SM	386 Hours	\$40,500
DPW-Field Ops	1999	Alta	Hi-Lo	627 Hours	\$10,588
DPW-Field Ops	2008	Ford	F-550 Sign Truck	34,706	\$8,400
DPW-Water & Sewer	2014	GMC	Terrain	32,951	\$13,599
DPW-Water & Sewer	2012	Ford	F-250	85,086	\$12,500
DPW-Water & Sewer	2010	GMC	Sierra HD 2500	47,289	\$13,200
Police	2017	Ford	Explorer	100,139	\$9,800
Police	2014	Chevrolet	Caprice	100,089	\$6,801

Police	2014	Chevrolet	Caprice	46,054	\$8,102
Police	2011	Ford	Taurus	132,399	\$4,150
Police	2010	Ford	Taurus	126,399	\$4,650
				Total:	\$190,818

Vehicle Maintenance & Repairs

Four (4) fleet mechanics perform routine maintenance and repairs on all units, averaging 57 vehicles or assets per mechanic. Most of the service and repairs are completed in-house; however, repairs and custom retrofits are also outsourced for economies of scale and efficiency.

Below are the mechanics, work location, and their certifications through the State of [Michigan](#):

- Steve Tallman- Police- Certified in five light-duty categories
- Larry Karvonen- DPW-Certified in three light-duty and two heavy-duty categories
- Mark Schwartz- DPW-Certified in one light-duty category
- Austin Teifke- DPW-Certified in one light-duty vehicle category

Fleet management software Ron Turley and Associates (RTA) tracks vehicle/equipment maintenance and repairs for in-house and outsourced work. In FY 2021-22, the city mechanics completed 1,664 repair tasks from 266 work orders, and in FY 2022-23, 1,353 repair tasks from 204 work orders.

Annually, about 17% of repairs are outsourced to complement staff work. Most repairs shopped out are cost-effective (tire replacements, upfits, or major time-consuming repairs) or specialty inspections/repairs requiring a certified technician (fire/emergency vehicles).

In total, 32% of work is preventative maintenance, while the remaining 68% is a mix of reactive repairs, pre-delivery preps, decommissioning, new equipment installation, and recalls/ service bulletins.

Changes in Vehicle Acquisitions

With the support of the City Council and City Leadership, the Fleet Division has aggressively replaced vehicles using the Total Cost of Ownership (TCO) model, which has reduced the fleet's average age from 9.6 years to 6.6 years. The replacement plan for light-duty vehicles was scheduled for between 5 to 7 years based on the average 30% discounted government purchase price, low maintenance costs, and high resell value. The acquisition of vehicles has become more difficult in recent years due to the following reasons:

- *Higher purchase prices:* Inflation and raw materials costs have led to increases in purchase prices. Government pricing, which used to be heavily discounted, is now

more in line with retail pricing. The following table provides a summary of increased costs for models and upfits. On average, there was a 25% price increase.

Model Price Increase			
Model	2022 Model Year	2023 Model Year	Percent Increase
Truck (medium-duty/ F-350) with plow & upfits	\$ 49,084	\$ 68,226	39%
Truck (light-duty/ F-150) with upfits	\$ 30,424	\$ 38,062	25%
Crossover/ Escape Gas	\$ 26,345	\$ 32,085	22%
Crossover/Escape Hybrid	\$ 29,437	\$ 34,975	19%
Crossover/ Escape Electric	\$ 31,851	\$ 38,791	22%
Police- Explorer Hybrids	\$ 36,593	\$ 45,680	25%

AVERAGE 25%

- *Shorter Order Banks/ Less Build Slots:* The automotive manufacturers are not prioritizing the orders from government entities over retail customers. The model has shifted over the last few years to the highest bidder or first come, first serve due to the limited supply of vehicles that have been able to be built. For instance, over 20,000 Police explorer orders had to be rolled over from model year 2023 to model year 2024 due to the supply and demand of the retail side of the business. Ford will not be receiving any 2024 Police Explorer model year orders and instead has talked about opening the 2025 model year window this November 2023 for future orders. The ordering banks are no longer open year-round for each make and model.
- *Longer delivery/ build times:* The fleet industry is seeing a major shift in the fulfillment of orders and delivery times that once were six months to one year and are now one to five years. Many fire trucks, like our Sutphen engines, are projected to be built three to five years from the time a purchase order is submitted.

Since these changes will impact the asset life expectancy Fleet Division will continue to review the total cost of ownership for each unit in the 6 year budget. Some heavy-duty vehicle orders, such as fire trucks and snowplows, may be requested to be pulled ahead to offset the long delivery times in acquiring the vehicle.

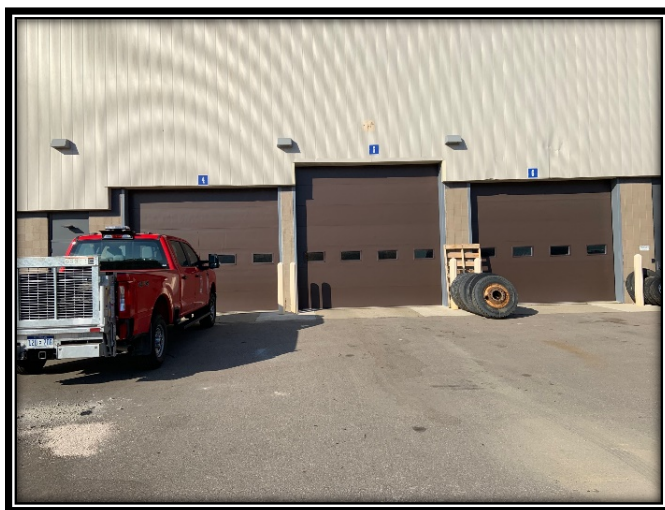
Special Projects

GPS Tracking System Upgrades from 3G to 4G

Each city vehicle is equipped with a GPS tracking system. Historically, these devices have transmitted data through the 3G network. In late 2021, our GPS provider, Precise, notified us the 3G network would start fading out in early 2022. After Precise provided new 4G capable hardware, in-house staff replaced 103 OBD-II devices and 16 snowplow truck devices.

DPW Mechanic Bay Doors Widening and Replacement Project

The 3 DPW mechanic bay doors were replaced, and the openings were widened from 12 feet to 14 feet wide. The Fleet garage and mechanic bay were not part of the 2019 DPW building renovation and were the building's original doors and openings from the 1980s. The new heavy-duty snowplow trucks and their wing plow attachments have a wider profile and were restricted by the old dimensions. Since most of the fleet has been replaced with a wider profile, widening the doors to 14 feet improved the efficiency and safety for the mechanics and operators.



Trailer Repurposing

The Fire Department requested a covered trailer to store their ATV. Staff were able to retro-fit an old DPW-Water & Sewer trailer rather than purchasing a new resulting in cost savings.



Before



After

Evaluation of New Technologies

Electrification of the Fleet

The Fleet Division continues to evaluate EV vehicles as they are introduced into the market. Currently, EVs are substantially more expensive than their internal combustion and hybrid counterparts. The infrastructure needed to charge them can be just as costly and requires diligent coordination between administration, the utility provider, and the fleet manager. Additionally, the EV market is not currently capable of serving all the needs of a municipal fleet. EV winter maintenance trucks and other heavy-duty vehicles lose most of their efficiency due to a lack of battery life and are currently not a viable replacement option. The Fleet Division will continue to consider the operational needs of a fleet before considering any conversion plan.

Fuel Cloud Odometer Controls

Recently, the City's fuel management system, Rios, rolled out odometer controls, which the Fleet Asset Manager will integrate with the fleet management software (RTA). When drivers fuel up at the DPW pumps, the current vehicle mileage is input, which will then be uploaded into the fleet management software. The software program will notify the Fleet Division when to schedule preventative maintenance based on current mileage.

Other Achievements

In February 2022, The Federal Motor Carrier Safety Administration (FMCSA) established new minimum training standards for individuals applying for a Class A or B Commercial Driver License (CDL) for the first time and upgrading an existing CDL (e.g., Class B CDL holder seeking a Class A CDL). DPW operators are required to maintain a Class A CDL. The new Entry-Level Driver Training requirements are more costly and time-consuming. The Fleet Division assisted the Field Operations Division in developing organizational training on the new requirements.

In the 2021 National Employee Survey, 86% of city employees rated the quality of fleet maintenance services as excellent or good, which was the highest ranking out of 26 other comparable communities.

In March 2023, Fleet Asset Manager Michael Rhatigan earned the Certified Public Fleet Professional (CPFP) designation from the American Public Works Association (APWA), which recognizes excellence in public fleet management. He is currently the only active CPFP in Michigan.