

OHIO AUDITOR OF STATE
KEITH FABER



City of Hilliard

Performance Audit

December 2022

OHIO AUDITOR OF STATE
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To the City of Hilliard Community:

The Auditor of State's Office recently completed a performance audit of the City of Hilliard's fleet operations at the request of the City Council. This review was conducted by the Ohio Performance Team and provides an independent assessment of the City's fleet.

This performance audit report contains recommendations, supported by detailed analysis, to enhance the overall economy, efficiency, and/or effectiveness of the City's fleet operations. This report has been provided to the City and its contents have been discussed with the appropriate elected officials and City management. The City has been encouraged to use the recommendations and information contained in the report to make informed decisions regarding future operations.

It is my hope that the City will use the results of the performance audit as a resource for improving operational efficiency as well as service delivery effectiveness. The analysis contained within are intended to provide management with information, and in some cases, a range of options to consider while making decisions about their operations.

This performance audit report can be accessed online through the Auditor of State's website at <http://www.ohioauditor.gov> and choosing the "Search" option.

Sincerely,

Keith Faber
Auditor of State
Columbus, Ohio

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Introduction

The Ohio Auditor of State’s Ohio Performance Team (OPT) conducts performance audits of government entities and provides data-driven analyses and recommendations which can assist officials in improving the economy, efficiency, and effectiveness of both an organization as a whole, or a small department or program.¹ While performance audits may be provided to entities as a result of certain fiscal concerns that are identified by OPT; any entity, regardless of financial condition, may request, and benefit from, a performance audit.

In 2021, the City of Hilliard (Hilliard or the City) requested a performance audit of its fleet management from OPT. A city’s fleet is a valuable organizational asset and it is important to implement management practices that promote the maximization of the useful life and utility of each vehicle while simultaneously minimizing long-term costs and potential liabilities. Proper fleet management helps streamline an organization’s efforts to achieve fleet efficiency, effectiveness, and transparency.

Fleet vehicles support many core functions of a modern city. Each and every vehicle is an important aspect of city operations. We reviewed the Operations Department’s fleet management practices and efficiency levels. Scope areas were analyzed with specific objectives in mind. When applicable, recommendations are based on industry standards, best practices, or peer comparisons.

City of Hilliard

Hilliard is located in Central Ohio and is a northwest suburb of Columbus. The City covers approximately 13 square miles and had a population of approximately 37,000 in 2020. There is an elected City Council, comprised of seven members who are each elected to serve a staggered four-year term and represent all residents living within city limits. The Council is responsible for setting policies, establishing goals, and overseeing the annual budget.

In 2020, Hilliard began operating under a Council/City Manager model of government after voters approved an update to the City Charter. The City Manager is appointed by the Council, and as defined by the City Charter, is responsible for overseeing all departments and divisions of the municipal government, including the hiring and firing of City employees. Hilliard’s government has multiple departments which are responsible for providing services to residents, including police, planning, community development, recreation and parks, and general administrative services.

¹ Performance audits are conducted in accordance with Generally Accepted Government Auditing Standards, see **Appendix A** for more details.

Fleet Operations

Hilliard has a fleet of 115 vehicles that are used to carry out a variety of functions. With the exception of Police Department vehicles, the City’s fleet is maintained by the Operations Department using a hybrid model. Most standard maintenance activities are performed in-house by City employees, and more time-consuming tasks, which are mostly related to large diesel trucks, are outsourced. The City uses several vendors for outsourced maintenance, and these vendors are chosen on an annual basis using cost estimates.² While the Operations Department is responsible for overall fleet management, it does not have a fleet manager. Further, the City does not have a fleet management software program or a system to track repairs by vehicle.

Vehicles used for the City’s operations often need substantial maintenance due to the ways in which they are used. For example, a large pick-up truck may be used to plow city streets, exposing it to a large quantity of salt and other debris that can cause stress and strain during plowing. Preventative maintenance, such as oil changes, are supposed to occur at regular intervals. However, the City does not have a formal plan to ensure this happens. Instead, vehicle operators are tasked with alerting maintenance technicians as to when maintenance is required.

City Finances

A city relies on a variety of revenue sources to provide services to residents including property taxes, income taxes, licensing fees, charges for services, and state aid and operating grants. These revenues allow a city to ensure that roads are salted in the winter, police respond promptly to calls, and city infrastructure is appropriately maintained. Much like an individual may have a checking, savings, and retirement account, cities operate using multiple types of accounts for various activities related to daily operations and long-term planning. Revenues are allocated to accounts based on a variety of factors including the City’s policy and legal authority, and these accounts allow for the transparent use of public dollars.

Hilliard maintains a reserve in the General Fund equal to 25 percent of annual operating expenditures from the General Fund, to cover unanticipated expenses or unanticipated revenue shortfalls. The reserve, which is required by City Council, is referred to as a restricted reserve, while any reserve above 25 percent is referred to as the unrestricted reserve. This is the equivalent of an individual having an emergency savings account.

Fund Types

Government entities can maintain three different types of funds: Governmental, Proprietary, and Fiduciary. Governmental and Proprietary funds can be used for operations whereas a Fiduciary fund contains resources held by a government but belonging to other individuals or entities.

² The Police Department outsources all vehicle maintenance and repairs.

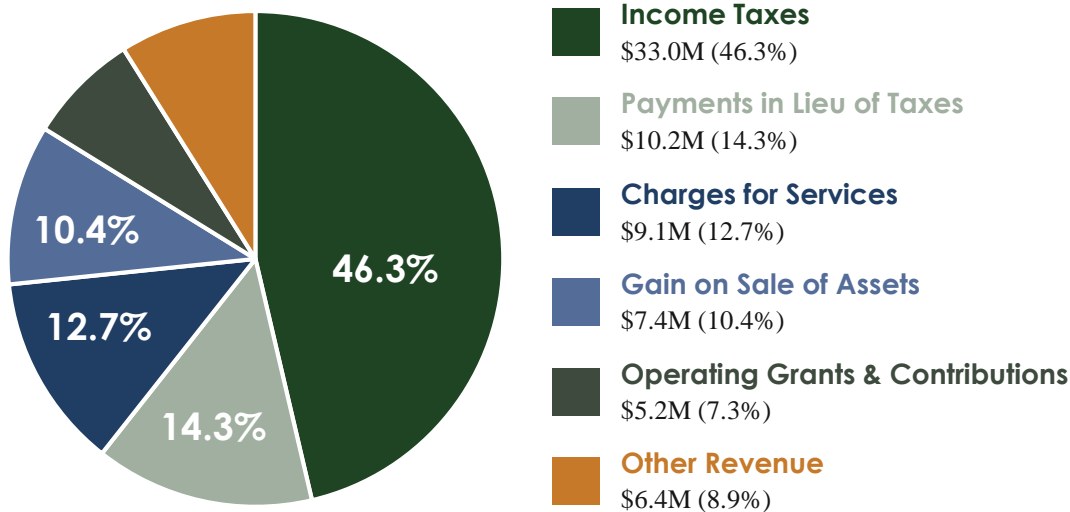
Hilliard uses the General Fund, a type of Governmental fund, for the majority of City-wide operations. The General Fund operates like an individual’s primary checking account. The majority of revenues go to the General Fund and can be used for the majority of day to day expenditures such as payroll or office supplies. The City uses a variety of other governmental funds. Some of these funds, like the Street Maintenance and Repair Fund, have revenues that can be used only for restricted purposes.

Revenues

In 2020, the City had approximately \$71.2 million in total revenue. A two-percent income tax is the City’s primary source of revenue.³ This tax is assessed on all salaries, wages, commissions, other compensation and on net profits earned within the City as well as on incomes of residents earned outside the City.⁴ The income tax raised approximately \$33 million, or 46 percent of the City’s total revenue for 2020. Approximately \$5.2 million, or 7.3 percent of the City’s revenue is from state operating grants and contributions. Additional revenue is generated through payments in lieu of taxes, fees for services, property taxes, and other miscellaneous sources.

FY 2020 Total Revenues

Total: \$71.2M



Source: City of Hilliard

Note: Other Revenue categories include Capital Grants & Contributions, Property Taxes, Grants and Entitlements Not Restricted to Specific Programs, Unrestricted Investment Earnings, and Miscellaneous.

³ Effective January 1, 2022, the City’s income tax increased to 2.5 percent.

⁴ The City of Hilliard allows a credit for income taxes paid to another municipality up to 100 percent of the City’s current tax rate.

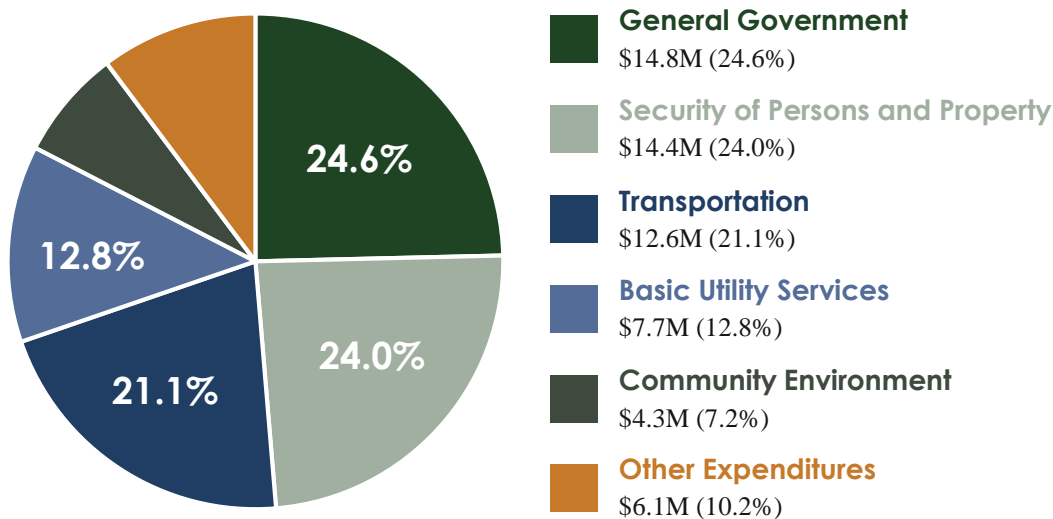
The \$33 million raised by the City’s income tax in 2020 was divided between the General Fund, Street Improvement Municipal Tax Special Revenue Fund, and Capital Improvement Municipal Tax Projects. The City’s remaining revenues were distributed between the General Fund and other governmental funds as appropriate.

Expenditures

In 2020, the City had approximately \$60 million in total expenditures. . It should be noted that \$7.4 million of the City’s revenue in 2020, or approximately 10 percent of total revenue, came from the sale of assets. This revenue is likely not recurring and resulted in expenditures for the year being lower than total revenue. As seen in the chart below, these expenses were for a variety of purposes including general government expenses, the security of persons and property, transportation, and utility services.

FY 2020 Total Expenditures

Total: \$60.0M



Source: City of Hilliard

Note: Other Expenditures categories include Leisure Time Activity, Interest & Fiscal Charges, and Public Health.

Fleet related expenditures are tied to a variety of funds. The Capital Improvement Municipal Tax Fund, which is funded using the City’s municipal income tax, is used to make purchases of new vehicles and equipment. Fleet expenses related to fuel, maintenance, and personnel are paid through five different special revenue funds:

- **Street Construction Maintenance and Repair Fund**, which accounts for the portion of the state gasoline tax and motor vehicle registration fees. This fund has restrictions and is used for the maintenance and repair of streets within the City.

- **County Motor Vehicle Tax Fund**, which accounts for funds received from the City’s permissive motor vehicle license tax and from the County’s permissive motor vehicle license tax. This fund has restrictions and is used for maintaining certain roadways within the City.
- **Water Revenue Fund and Sewer Revenue Fund**, these funds account for water and sewer tap fees and water and sewer surcharge revenues collected by the City of Columbus for Hilliard. These revenues are used for upgrading and making minor repairs to water and sewer lines.
- **Storm Water Utility Fund**, which accounts for storm water utility fees which are used to maintain and upgrade the storm water drainage systems.

The City splits the cost of personnel salaries and benefits evenly between the Street Construction Maintenance and Repair Fund, the Water Revenue Fund, the Sewer Revenue Fund, and the Storm Water Utility Fund.

Results of the Audit

At the request of City officials, we reviewed fleet operations with a specific focus on fleet cycling methods, overall fleet size and age, and vehicle maintenance. Based on our analysis, we identified four recommendations that, if implemented, would improve the efficiency and effectiveness of overall operations and improve the collection and transparency of fleet-related data. The implementation of these recommendations will allow City officials to make more informed decisions regarding future fleet operations.

Recommendation 1: The City does not have a formal policy regarding optimal fleet cycling. While the City has aspects of an informal cycling program in place, there are facets missing which would create a comprehensive cycling program. The absence of a formal fleet replacement program can lead to maintaining vehicles that have outlived their useful life, resulting in excessive maintenance and repair costs. The City should formalize a comprehensive citywide fleet cycling program that is tied to measurable criteria and is sustainable.

Recommendation 2: The City has 115 vehicles that are used across various departments. Using GPS data, peer comparisons, and City expectations for vehicle use, we determined that nine vehicles could be eliminated without negatively impacting City operations. The City would be able to realize an average annual fixed cost avoidance of approximately \$88,000 per year by not having to replace these vehicles in the future.

Recommendation 3: Currently Hilliard uses a combination of in-house technicians and outsourcing for fleet maintenance and repairs. The in-house employees are underutilized and have excess capacity. In order to fully utilize existing staff, the City should increase the amount of maintenance and repair work that is conducted in-house. By doing so, the City could realize approximately \$88,400 in cost avoidance associated with outsourcing this labor.

Recommendation 4: The City does not collect detailed data on maintenance and repair costs at the vehicle level. Outsourced labor is tracked by vendor and work conducted in-house is not recorded in a uniform or consistent manner. The City should track detailed information regarding maintenance and repair costs for each vehicle. Without detailed data, the City is limited in its ability to manage the existing fleet using real-time, data-driven decisions. Further, improved data collection will assist the City in strategically planning for future fleet needs.

Recommendations

Recommendation 1: Develop and Implement a Comprehensive Fleet Cycling Program

The City does not have a formal policy regarding optimal fleet cycling. While the City has aspects of an informal fleet cycling program in place, there are facets missing which would create a comprehensive cycling program that could be applied to all Hilliard departments. The absence of a comprehensive fleet replacement program can lead to maintaining vehicles that have outlived their useful life, resulting in excessive maintenance and repair costs. The City should formalize a comprehensive fleet cycling program that is tied to measurable criteria and is applied to all City departments.

Impact

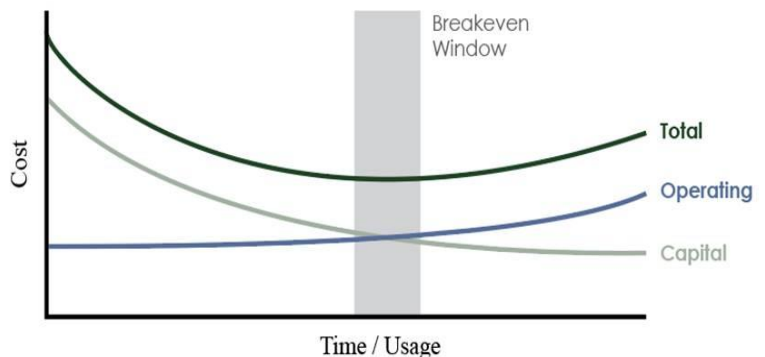
The vehicles owned and operated by an organization represent both a significant asset and source of expenditures. A comprehensive fleet cycling program may allow the City to optimize the useful life of vehicles while also planning for the capital outlay of routine vehicle replacement. A comprehensive fleet cycling program could reduce inefficient operations and reduce costs to maintaining a fleet that is aged and too large for organizational needs.

Background

Fleet cycling refers to the practice of replacing vehicles on a routine basis, or cycle. Lifecycle management of fleet is an important aspect of operations. This process accounts for an item's total operating costs and takes into account more than just the initial price of the vehicle. The additional factors, including maintenance and repairs, provide a more accurate understanding of the true cost of ownership.

Optimizing when vehicles are replaced is a critical component of a comprehensive fleet cycling program and can reduce the number of costly repairs and maintenance as a vehicle ages. According to the American Public Works Association (APWA), an organization that supports those that maintain public works and infrastructure, the Economic Theory of Vehicle Replacement is the concept that evaluates the point at which it is no longer economically practical to retain a vehicle. In short, as a vehicle increases in age, the average operating costs of the vehicle will generally increase while

Vehicle Replacement Schedule



Efficient • Effective • Transparent

the value of the vehicle and its capital costs decrease, creating a total cost curve. The optimal time to replace a vehicle is during that window of time before the total cost curve begins to rise.

In addition to identifying the appropriate point in time when a vehicle should be replaced, a comprehensive fleet cycling program takes into account other factors that allow an organization to make informed decisions that best meet its needs and available resources. The City currently owns the majority of its fleet and trades in vehicles when they are replaced for an appraised salvage value. Hilliard has taken steps to standardize its fleet through the purchase of the same make and model of vehicle for general operations. The City has a capital improvement budget that addresses projected fleet replacements through 2025, and it spends approximately \$1 million on an annual basis for fleet related purchases. While the City has existing cycling goals based on vehicle age, it has fallen behind this goal due to budget constraints. Because of the cost associated with updating its fleet, the City has considered alternative options to address fleet replacement needs, such as lease-to-purchase.

Methodology

We interviewed Hilliard personnel to determine the City’s fleet cycling policies, processes and practices. These practices were compared to industry standards and peer practices. We gathered data on the City’s current fleet as well as previous salvage history and the vehicle age at replacement. Finally, for informational purposes, we calculated future replacement costs based on stated cycling goals.

Analysis

While Hilliard does have aspects of a fleet cycling program, such as replacement goals and a weighted point system for verifying replacements, the current policies and procedures are not comprehensive, nor are they applied uniformly across all City departments. Because these policies are not uniformly applied, each department with fleet may create individual cycling goals and processes.

A comprehensive fleet cycling program is multifaceted and considers a variety of factors in determining when a vehicle should be replaced. According to the American Public Works Association (APWA), an organization that supports those that maintain public works and infrastructure, a comprehensive fleet replacement program is important for all public entities, and without such a program, managers may be unable to identify when to replace vehicles.⁵ According to the APWA, a comprehensive replacement program should include the following elements:

- Determining replacement criteria;
- Developing budgets and planning appropriate financing;

⁵ American Public Works Association, *Planned Fleet Replacement, 2nd Edition* (2021).

- Selecting units to be replaced and optimum disposal methods; and,
- Specifying and purchasing replacements.

Determine Replacement Criteria

The current criteria utilized by the City to determine when to replace fleet is based on age. The stated cycling goals for Hilliard are 7 years for pickup trucks, 10 years for light vehicles, and 10 years for all other trucks.⁶ This standard was developed over time but is not tied to any known analysis of optimal replacement cycles.

According to the APWA, there are two methods that may be used when determining replacement criteria: the lifecycle cost method and the best practices method. The lifecycle cost method includes annually tracking fixed and variable costs for each vehicle. The City would need to track fixed costs such as purchase price and insurance costs, and collect variable costs such as maintenance and repair costs, on each vehicle. The lifecycle cost method would provide the most-detailed analysis of vehicle data; however, the City does not currently have the data to implement this method and it would take time to establish criteria using this option (see **Recommendation 4**). The best practice method, which establishes replacement criteria based on surveying peer organizations with similar fleet and operating conditions, could be implemented by the City immediately.

Using Hilliard's current replacement goals for non-police vehicles, the City is currently behind on its goals for each vehicle type with 10.0 percent of light vehicles, 37.5 percent of pickup trucks, and 44.4 percent of large/specialty vehicles falling outside of each respective cycling goal.⁷ Furthermore, we reviewed the past four years of salvaged vehicle data, and the City has recently cycled vehicles beyond the stated goals, as well. In total, Hilliard salvaged 15 non-police vehicles from 2018 to 2022: 11 pickup trucks, 1 SUV, and 3 large/specialty vehicles. The average age of the salvaged vehicles was 13.2 years, 14.5 years, and 15.7 years, respectively. Developing data-driven criteria, along with collecting the needed data for each vehicle, would allow the City to use business intelligence to determine which vehicles need to be replaced and plan accordingly.

Develop Budget and Planning Appropriate Financing

Hilliard sets aside approximately \$1 million annually for the purchase of new vehicles and has scheduled fleet replacements in its five-year Capital Improvement Program. In previous budget cycles, the purchase of new vehicles has been deferred in order to reduce the City's overall

⁶ Light vehicles include sedans and SUVs, while pickups are primarily Ford F-350 Super Duty which are used for plowing streets. Large specialty trucks vary and can include 1-ton dump trucks, 2 1/2 ton salt trucks, bucket trucks, etc.

⁷ The City does not have a specific cycling goal for police vehicles, and past cycling decisions were budget-driven.

budget. While Hilliard currently purchases vehicles outright, it has also considered leasing as an option to finance vehicle replacement and regain its cycling goals.

An effective budget for a multi-year replacement plan should be developed using future replacement cost estimates. The APWA states the budget for a comprehensive fleet cycling program should consider fleet inventory and use. To properly create such a budget, it is important to accurately document the quantity of vehicles by classification, age, accumulated mileage or hours, and annual maintenance costs. Fleet inventory data should be routinely analyzed and updated to ensure accurate budgeting. Entities should avoid spikes in funding. Further, the AWPAs advises that an annual review of planned purchases is required even with appropriate budgeting.

Some methods of financing provided by the APWA include cash purchase, lease, and lease-purchase options. Since the City is behind on its current cycling goals, it may find that it needs to replace many vehicles in a short period of time and will need to determine the most cost-effective method to do so.

Determine Units to be Replaced and Optimum Disposal Methods

The City indicated that it uses an APWA weighted point system on a year-by-year basis in order to look deeper into vehicles that have reached their cycling targets to determine whether they will be replaced. However, the current weighted point system used by the City does not include relevant usage data that would allow for a more detailed cost analysis. Metrics such as maintenance and repair costs for individual vehicles are critical when identifying the cost of ownership and would help determine the optimal lifecycle for a variety of vehicles (see **Recommendation 4**). Because the City does not track maintenance and repair costs by individual vehicle, it must rely on the anecdotal knowledge of its fleet technicians to assign ratings in the reliability and maintenance and repair cost categories. The current method used by the City for the disposal of vehicles is trading in aged vehicles to a local car dealer.

APWA notes that practical reasoning should be used in tandem to a formal comprehensive fleet cycling program, “The fact that a particular vehicle has reached an age and/or usage threshold beyond which it is a candidate for replacement does not mean that it automatically should be replaced.” Ultimately, it is up to the City to determine which vehicles should be replaced. However, these decisions should, “...set replacement priorities and...ensure that the most deserving units are replaced with the level of funding available.” City officials should work to dispose of vehicles as quickly and effectively as possible.

Specifying and Purchasing Replacements

Identifying the requirements and needs of the City should be the first step when specifying and purchasing replacement vehicles. APWA states, “developing clear and attainable specifications prior to purchasing vehicles and equipment is one of the most important, if not the most important, tasks of the fleet organization.” Additionally, the City should determine if the vehicle

or equipment being replaced met the expectations during its use and whether the perceived or actual value of the vehicle or equipment is worth replacing. APWA recommends using a simple “Yes” or “No” system to determine if the current vehicle or equipment specifications are meeting the expectations that the vehicle or equipment provided during its lifecycle. While the City does purchase similar makes and models of vehicles, Hilliard should review whether those makes and models are meeting the needs of the City. Additionally, new vehicle availability may impact which vehicles are selected as replacements.

Options to Update Existing Fleet

The City stated its desire to get back onto a fleet cycling schedule. Using the current cycling goals and existing fleet, we calculated the annual cost of a variety of replacement scenarios. The actual budget impact will be dependent on the City’s chosen financing method and any updates to its fleet cycling program. For this calculation, we reviewed three vehicle replacement strategies. These strategies are not all-encompassing, nor are they the only strategies the City may choose. The three strategies are:

- Immediately cycle out all vehicles beyond the City’s current stated age targets and purchase necessary replacements;
- Use a lease-purchase model with a five-year, \$1 buyout option at the end of the lease; and,
- Implement a phased-in approach to purchasing over several years.

The analysis we performed for each strategy can be found in **Appendix B**. Each strategy has advantages and disadvantages along with varying financial implications to the City. It is up to the City to decide what best fits its needs and expectations for its comprehensive fleet cycling program.

Conclusion

Hilliard should develop a comprehensive fleet cycling program that will be applied to citywide operations. Using APWA guidelines will allow the City to make cost-effective data-driven decisions for its fleet and ensure that the comprehensive fleet cycling program is tied to measurable criteria and applied across all City departments.

Recommendation 2: Right Size Fleet

The City’s fleet includes 115 vehicles that are used across various departments. Using GPS data and peer comparisons, we determined that nine vehicles could be eliminated without negatively impacting City operations. By reducing the overall fleet size, the City will be able to avoid excess capital costs and insurance associated with the unnecessary vehicles.

Impact

Eliminating nine vehicles from the fleet will lead to an average annual fixed cost avoidance of approximately \$88,000.⁸ The vehicles identified for elimination are each due to be replaced, based on the City’s current cycling goals.

Background

As of April 2022, the City’s fleet included 115 vehicles. This fleet is assigned to and used by a variety of departments throughout the City. Approximately 34 percent of the fleet is used by the Police Department, with the remaining 66 percent being used for other City-related operations and activities.

Methodology

We reviewed the available utilization data for Hilliard’s fleet. GPS data and peer comparisons were used for analysis depending on the vehicle classification.

Non-Police Vehicles

We reviewed available GPS data for the following vehicle categories: SUVs, 4x4 plow trucks, 2 ½-ton salt trucks, and 1-ton dump trucks. It is important to note that there are standard naming conventions for vehicle type based on the make and model of a vehicle. However, Hilliard does not consistently follow these standards. For example, the City groups their Ford F-550 trucks as 1-ton vehicles; however, traditionally this classification would be used for F-350s.

Vehicle Usage

Our analysis focused upon how frequently most vehicles were used per day. As a part of this analysis, we identified instances where a vehicle was turned on for purposes that are not related to City operations. To account for this, we used GPS data and information from City officials to identify and exclude instances where a vehicle was turned on and immediately turned off or were shuffled in a parking lot.

Further, on high use days, there were instances where a vehicle may be used in the morning and a second vehicle of the same type is used in the afternoon. We consulted with the client regarding these occurrences to determine if one vehicle could have been substituted for another and then accounted for this as we identified opportunities for fleet reductions.

Our recommendation is based on the number of vehicles that would have been needed according to the City for use within each category on a given day.

⁸ Includes average annual capital cost (purchase price minus anticipated salvage value) plus annual cost of insurance.

We identified high utilization days, which were days that the majority of vehicles in each vehicle type were in use for any amount of time. Vehicle usage on high utilization days was then analyzed by tracking the actual usage in half-hour increments of each vehicle with GPS. This data was used to determine the amount of utilization for each vehicle and whether or not it was actually being used.

Police Department Vehicles

We compared the number of vehicles per officer maintained by Hilliard relative to peer cities.⁹ We used survey data to compare the number of police vehicles owned by the client with the number of police vehicles owned by the established peer set. We then calculated the average ratio of patrol officers per cruiser for the selected peers and compared it to the average within the City's Police Department to determine the number of cruisers that could be eliminated.

Analysis

The majority of non-police vehicles are equipped with GPS trackers through Verizon GPS telematics, which collects a significant amount of data. We were able to identify the highest utilization dates by counting the number of vehicles that were turned on and off on any given day within each vehicle class. Based on this, using the City's vehicle classifications, we identified four vehicle types that had the potential for reductions: sport utility vehicles (SUVs), 4x4 plow trucks, 2 ½-ton salt trucks, and 1-ton dump trucks.

Once vehicles were identified for potential reductions using key-on, key-off data, we conducted further analysis on the actual usage by analyzing the high utilization days in half hour increments to determine the number of vehicles that could be reduced within each vehicle category. Additionally, we considered whether a vehicle actually traveled anywhere on those days or if there was the potential to substitute another vehicle in its place.

SUVs

Based on initial data, there were four days when all four of the SUVs outfitted with GPS were in use. After further examination of the data, it was determined that there were only two days, or 1.61 percent of the 124-day date range, when all four SUVs outfitted with GPS were utilized.

4x4 Plow Trucks

Based on initial data, there were two days when all 25 plow trucks were used and three days when all but one vehicle was used. After further examination of the data, there was only one day, or 0.75 percent of the 113-day date range when all 25 4x4 plow trucks were used. There was only one additional day, or 1.50 percent of the date range, when twenty-four or more 4x4 plows

⁹ Cities used for peer comparisons are identified in **Appendix A**.

were used, and only 9 additional days, or 8.27 percent of the date range, when 23 or more 4x4 plows were used.

2½-Ton Salt Trucks

Based on initial data, there was only one day when all nine of the 2½-ton salt trucks outfitted with GPS were fully utilized. After further examination of the data, there was not a day when all nine or even eight of the nine 2 ½-ton salt trucks were used. Seven of the nine 2 ½-ton salt trucks were only actually needed on one day, or 1.59 percent, of the 63-day date range.

1-Ton Dump Trucks

Based on initial data, there were three days when all three 1-ton dump trucks outfitted with GPS were used and 14 days on which all but one was utilized. After further examination of the data, there were only two days, or 2.74 percent of the 73-day date range on which all three 1-ton dump trucks were used.

Based on the above findings and feedback from the client, we determined that one SUV, two 4X4 plow trucks, one 1-ton dump truck, and two 2 ½- ton salt trucks could be removed from the existing fleet.

Police Department Vehicles

We reviewed the Police Department vehicles separately and analyzed the number of patrol vehicles on a per-officer basis compared to peer cities. This analysis compared the number of patrol officers¹⁰ to cruisers.¹¹ The peer average for officers per cruiser was 2.0, while Hilliard had an officer per cruiser ratio of 1.8. The Hilliard Police Department ratio of 1.8 was equal to or below that of each peer. Based on this analysis, we determined that the City should eliminate three police patrol SUVs from the active fleet.

Patrol Officers per Cruiser

	Patrol Officers	Cruisers	Officers to Cruiser
Gahanna	39	20	2.0
Grove City	50	23	2.2
Reynoldsburg	48	27	1.8
Upper Arlington	37	17	2.2
Westerville	52	26	2.0
Peer Average	45.2	22.6	2.0
Hilliard	48	27	1.8

¹⁰ Patrol officers considered as part of the ratio included all patrol officers and their immediate supervisors, canine officers, and school resource officers.

¹¹ Cruisers include only those shared by the patrol officers used in this comparison.

Patrol Vehicles Needed	24
Recommended Vehicle Reductions	3

Source: City of Hilliard and peers

Factoring trade-in or salvage values, new vehicle purchase prices, insurance costs, and fleet cycling replacement plans, OPT was able to calculate the fixed cost avoidance for the elimination of three police cruisers, one SUV, two 4x4 plow trucks, one 1-ton dump truck, and two 2½-ton salt trucks. The City of Hilliard would be able to realize an average annual fixed cost avoidance of approximately \$88,000 per year by not having to replace these vehicles in the future.

Conclusion

The City’s GPS data indicates that multiple vehicles could be eliminated from its fleet. Further, the Police Department has more cruisers than the peer average on a per-officer basis. Eliminating nine vehicles from the City’s active fleet would provide the City with approximately \$88,000 in cost avoidance per year.

Recommendation 3: Insource Additional Fleet Maintenance

Hilliard currently uses a combination of in-house technicians and outsourcing for fleet maintenance and repairs. The in-house employees are underutilized and have excess capacity. In order to fully utilize existing staff, the City should increase the amount of maintenance and repair work that is conducted in-house.

Impact

By conducting additional maintenance and repair work in-house, the City will reduce the amount of technician downtime, increasing overall productivity. Additionally, the City will be able to avoid approximately \$88,400 in annual costs associated with outsourcing fleet maintenance and repairs.

Background

The City has two maintenance technicians that are dedicated to in-house fleet maintenance and repairs. These individuals perform a variety of skilled mechanical work that includes the routine inspection of vehicles and performing preventative maintenance and repairs. In addition to the in-house technicians, the City routinely sends vehicles to vendors for other maintenance and repairs. It should be noted that currently, the Police Department outsources all vehicle maintenance while every other department primarily outsources maintenance for costly, time-consuming activities or those that the City does not have the equipment to perform.

Methodology

We used data captured by the City regarding the number of maintenance and repair tasks conducted by the in-house technicians to determine if these individuals were maximizing their time spent on fleet maintenance. Because Mobile 311, the program used by the City to record repair work, does not show the time dedicated to conducting these activities, we applied average repair times calculated for outsourced work and deemed reasonable by the City to the activities performed in-house. We then calculated the hours required to perform different types of maintenance and repairs and used this information to identify how many additional activities could be transferred in-house. Finally, using invoice data, we identified the total potential cost savings the City could achieve through the more efficient use of existing maintenance staff.

Analysis

Current In-house Staffing Efficiency

Using a three-year average, we determined that the two maintenance employees used an average of 287 hours for vacation, personal, sick, holiday and funeral leave per year between 2019 and

2021.¹² Based on the number of hours the employees were actively working, and that 95 percent of the technician’s time is available for fleet activities¹³, we determined that there were 2,858 hours available each year to be used on maintenance activities between the two technicians.

The City uses Mobile 311, a software program designed to document and manage in-house maintenance work orders; however, not all activity is tracked in this software. City officials estimate that approximately 75 percent of all fleet maintenance work orders are being captured in the Mobile 311 system. Because detailed time-keeping records are also not kept, it is not possible to determine the exact utilization of the fleet technicians or the in-house labor demand in relation to fleet maintenance and repairs.

Using the available data in Mobile 311, we considered two scenarios to reflect the missing maintenance data.¹⁴ In the first scenario, we assumed that 75 percent of maintenance activities were recorded in the system as City officials estimated. For this first scenario, if the information contained in Mobile 311 reflects 75 percent of all in-house maintenance activities, the two technicians are spending only 25 percent of their available hours performing fleet related activities.

In the second scenario, we assumed that only 50 percent of maintenance activities were recorded in the system. For this second scenario, if the Mobile 311 system contains only 50 percent, or half, of the in-house maintenance activities, the technicians are still only using 35 percent of their time on fleet activities. According to *Government Fleet*, fleet maintenance technician staff should be performing direct labor at least 70 percent of the time, with 80 percent being the goal.¹⁵ Based on this, the City is not maximizing the usage of the technicians on staff.

Impact of Additional In-house Maintenance Activities

Using the outcome of either scenario in the previous subsection, we were able to determine that the City could bring additional maintenance activities in-house to reduce the expense associated with contracting to vendors for routine maintenance. Based on our initial analysis, the technicians employed by Hilliard have the potential to significantly increase workload.

We considered two scenarios for which bringing additional work in-house could increase the utilization of existing staff. By assuming that either 50 percent or 75 percent of in-house labor is captured in Mobile 311, we determined that Hilliard would be able to increase the utilization of

¹² A full-time equivalent (FTE) employee is based on working 2,080 hours annually; however, it is expected that employees will have leave time and other downtime that reduces the number of available work hours.

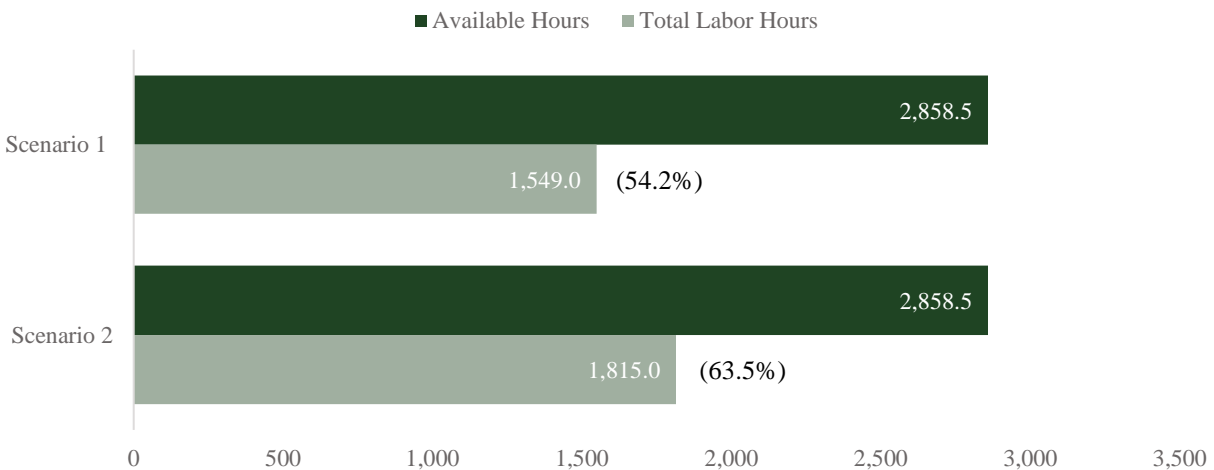
¹³ The City advised that its fleet maintenance technicians spend five percent of the time operating wood chippers.

¹⁴ We used labor costs and hourly rates for vendors to calculate the average labor hours for a variety of maintenance and repairs that are outsourced, and then applied those to the work being performed in-house in order to approximate the utilization of Hilliard’s fleet maintenance technicians.

¹⁵ Indirect vs. Direct Labor: How to Hit the Magic 70%. (2014) *Government Fleet*.

existing staff to as much as 63.5 percent by taking on tasks currently being outsourced. It should be noted that this is still below the industry benchmark of 70 to 80 percent, allowing for ample time for engagement in other activities such as meetings, training, and other work taken on outside of fleet. Additionally, there is room to in-source other fleet related work, such as computer or engine diagnostics for the Police Department fleet,¹⁶ which could result in additional annual savings but could require the purchase of additional tools or software.

Total Labor Hours for Fleet Maintenance Compared to Available Hours¹⁷



Conclusion

The City's fleet maintenance technicians are underutilized and have the capacity to handle additional workload. In order to improve the utilization of its two fleet maintenance technicians, the City should insource additional maintenance and repair work that is currently outsourced which the current technicians are qualified to perform. Insourcing this additional work can increase the utilization of fleet technicians to as much as 63 percent, which is still below the identified 70 to 80 percent benchmark. Furthermore, the City could see savings of approximately \$88,400 by more fully utilizing its current fleet technicians rather than using outside vendors for maintenance and repair activities that the in-house technicians are qualified to make.

¹⁶ The computer engine diagnostic equipment maintained in the Operations garage would require an update in order to handle diagnostics for the Police Department vehicles.

¹⁷ Scenario 1 assumes that 75 percent of in-house labor is captured in Mobile 311, while Scenario 2 assumes that 50 percent of in-house labor is captured in the system.

Recommendation 4: Improve Data Collection Efforts

The City does not collect detailed data on maintenance and repair costs at the individual vehicle level in a centralized manner. Outsourced labor is tracked by the vendor and available on purchase orders and invoices, while work conducted in-house is not recorded in a uniform or consistent manner. Without detailed data, the City is limited in its ability to manage the existing fleet using real-time, data-driven decisions. Further, improved data collection will assist the City in strategically planning for future fleet needs.

Impact

Improved data collection efforts will help inform decision making, specifically associated with optimal fleet cycling, in order to avoid costly repairs and downtime. Further, as data collections are improved, the City can update the fleet cycling policy to involve more precise calculations regarding the ideal time to replace vehicles (See **Recommendation 1**).

Background

As discussed in **Recommendation 3**, the City uses a combination of in-house technicians and outsourced vendors to handle fleet maintenance and repairs. However, there is no centralized system in place to accurately track the costs associated with this work. There is limited data collected through purchase orders for outsourced labor, but it does not provide data on a per-vehicle basis. Mobile 311, as discussed in **Recommendation 3**, is used to log internal labor associated with maintenance and repairs but reflects only a portion of actual activities performed. Additionally, Mobile 311 does not collect data on a per-vehicle basis.

Methodology

Throughout the audit, we collected information through interviews with Hilliard officials and by analyzing available financial data over a three-year period from FY 2019 through FY 2021. In several instances, the available data was found to be incomplete or lacking in detail. The City's data collection practices were compared to industry best practices and peer cities to determine ways in which data collection efforts could be improved.

Analysis

The City does not have standard and consistent procedures for collecting, storing, and managing fleet data on a per-vehicle basis. This means that it lacks the information necessary to make strategic, data-driven decisions regarding fleet management. According to *Government Fleet*, it is critical to collect data and information relevant to fleet assets to make informed and data-driven decisions relating to the replacement of vehicles in the fleet.¹⁸ There are numerous factors that should be integrated or considered when deciding when to replace vehicles. One of the

¹⁸ Catching Up on Vehicle Replacements. (2017) *Government Fleet*.

factors include, but is not limited to, maintenance and repair costs specific to individual fleet vehicles. Knowing the maintenance and repair costs performed on vehicles allows management to understand how the overall costs relate to the purchase price. Another factor is reliability. Entities should capture data that demonstrates how frequently a fleet vehicle is being repaired.

The City does not utilize fleet management software to track costs on a per-vehicle basis. This inhibits the City’s ability to make data-driven decisions regarding the fleet and is not in-line with best practices. According to *Government Fleet*, tracking all direct and indirect labor costs is key.¹⁹ Organizations should capture all indirect and direct labor costs through a fleet management software system. The information captured should include the following:

- Employee billable hours;
- Employee performance summary report: summarizes time by category such as training and meetings;
- Employee Performance Report: summarizes the activities by category that demonstrates how labor is being spent in the shop; and
- Employee Performance Detail Report: compares direct job time to industry standards for continuous improvement efforts.

Because the City is not tracking this information in a centralized manner, it is unable to do many things that could improve overall fleet operations. For example, using existing data, City officials cannot precisely determine the utilization of existing maintenance staff (see **Recommendation 3**). Additionally, decisions regarding fleet cycling (see **Recommendation 1**) and optimal fleet size (see **Recommendation 2**) are hampered due to lack of precise vehicle utilization detail.

It should be noted that all five local peers use fleet management software to capture data on an individual vehicle basis, which gives them the opportunity to make data-driven decisions relating to the management of fleet assets.

Conclusion

The City is not centrally capturing all labor, parts, or supplies costs on a per-vehicle basis. Data management is critical for informing business practice decisions, specifically in the area of fleet management. The City should work to improve its data collection and storage efforts to allow for real time, data-driven management of fleet operations and strategic planning for future fleet needs. Improved data collection would help the City track indirect and direct labor cost, allowing for more visibility into current practices and opportunities to improve overall utilization of its fleet maintenance technicians.

¹⁹ Catching Up on Vehicle Replacements. (2017) *Government Fleet*.

Client Response Letter

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November 28, 2022

Mr. Keith Faber, State Auditor
Office of the Auditor of State
88 East Broad Street, 5th Floor
Columbus, OH 43215

Auditor Faber,

In December of 2021, the City of Hilliard contracted with the State of Ohio Performance Audit Team to complete a review of City operations. The audit team reviewed aspects of fleet purchasing, maintenance and cycling to identify possible efficiencies.

We appreciate the thorough review of the City's operations and all the recommendations provided by the Performance Audit Team. The audit provided four recommendations regarding the City's management of its fleet:

Recommendation 1: Develop and Implement a Comprehensive Fleet Cycling Program

The City currently uses APWA standards for the replacement of vehicles, and tracks vehicle age and mileage. The City will work to formalize a fleet cycling program that also tracks maintenance costs per vehicle, and that standardizes fleet cycling decisions across all departments. Additionally, the City will seek ways that the overall age of the fleet can be reduced and brought in line with fleet cycling goals, with an aim toward reducing maintenance expenses.

Recommendation 2: Right Size Fleet

The City will seek to reduce the size of the fleet in line with the recommendations of this audit. Fleet size has already been adjusted with larger vehicles in Operations in accordance with audit recommendations. Current constraints on the availability of new vehicles may impact the time frame to reduce the size of the fleet.

Recommendation 3: Insource Additional Fleet Maintenance

More detailed reporting of employee maintenance activities consistent with Recommendation 4 are necessary to more accurately identify savings that could be achieved through insourcing. However, the City believes that the general recommendation to insource a greater number of simpler maintenance tasks is consistent with the goals of Operations staff.



Recommendation 4: Improve Data Collection Efforts

In the next year, the City will begin reviewing fleet management software that more easily tracks individual vehicle maintenance expenses and syncs with asset management tracking throughout the City.

The City will continue to use this Performance Audit as we strive to provide the highest level of service possible to the residents of Hilliard. Operational efficiencies and a balance between service level and costs are of the utmost importance. We thank the State of Ohio Performance Audit Team for all of their hard work and assistance.

In Service,

A handwritten signature in blue ink that reads "Michelle L. Crandall".

Michelle Crandall
City Manager

Appendix A: Purpose, Methodology, Scope, and Objectives of the Audit

Performance Audit Purpose and Overview

Performance audits provide objective analysis to assist management and those charged with governance and oversight to improve program performance and operations, reduce costs, facilitate decision making by parties with responsibility to oversee or initiate corrective action, and contribute to public accountability.

Generally accepted government auditing standards (GAGAS) require that a performance audit be planned and performed so as to obtain sufficient, appropriate evidence to provide a reasonable basis for findings and conclusions based on audit objectives. Objectives are what the audit is intended to accomplish and can be thought of as questions about the program that the auditors seek to answer based on evidence obtained and assessed against criteria.

We conducted this performance audit in accordance with GAGAS. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Audit Scope and Objectives

In order to provide the City with appropriate, data-driven, recommendations, the following questions were assessed within each of the agreed upon scope areas:

Audit Scope, Objectives, and Recommendations

Objective	Recommendation
Fleet Rightsizing	
What opportunities exist to improve the efficiency and effectiveness of Hilliard’s fleet	R.2, R.4
Fleet Cycling	

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What opportunities exist to improve the efficiency and effectiveness of fleet cycling practices?	R.1
Fleet Maintenance	
What opportunities exist to improve the efficiency and effectiveness of fleet maintenance practices?	R.3, R.4

Although assessment of internal controls was not specifically an objective of this performance audit, internal controls were considered and evaluated when applicable to scope areas and objectives. The following internal control components and underlying principles were relevant to our audit objectives:²⁰

- Control environment
 - We assessed the City’s exercise of oversight responsibilities in regards to detecting improper payroll reporting and benefits administration.
- Risk Assessment
 - We considered the City’s activities to assess fraud risks.
- Information and Communication
 - We considered the City’s use of quality information in relation to its financial, payroll, staffing, and fleet data.
- Control Activities
 - We considered the City’s compliance with applicable laws and contracts.

Internal control deficiencies were not identified during the course of the audit.

Audit Methodology

To complete this performance audit, auditors gathered data, conducted interviews with numerous individuals associated with the areas of City operations included in the audit scope, and reviewed and assessed available information. Assessments were performed using criteria from a number of sources, including:

- Peer Agencies;
- Industry Standards;
- Leading Practices; and,

²⁰ We relied upon standards for internal controls obtained from *Standards for Internal Control in the Federal Government* (2014), the U.S. Government Accountability Office, report GAO-14-704G

- Policies and Procedures.

Where needed, we selected cities similar in population and other demographics to form the peer group for comparisons contained in this report. These peers are identified in the following table.

Selected Peers and Criteria

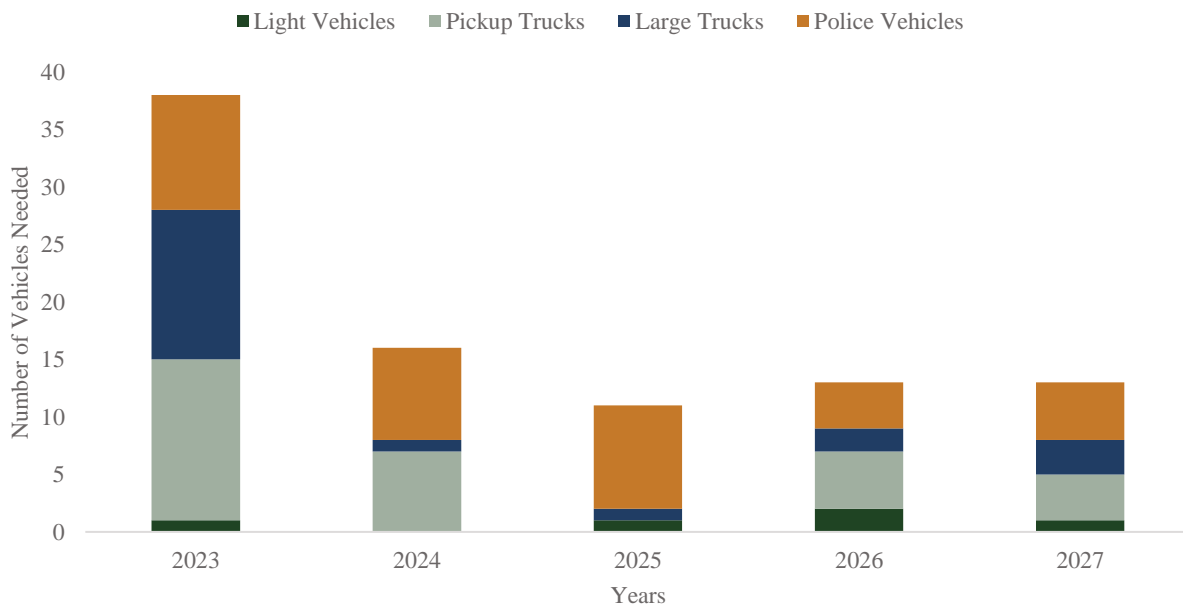
City	Population	Square Miles	Centerline Miles	Lane Miles	FT Officers	Total Officers
Hilliard	37,114	13.5	161.8	325.9	60	64
Gahanna	35,726	13	140	286	55	64
Grove City	41,252	17	191	384	62	63
Reynoldsburg	41,076	12	104	214	63	71
Upper Arlington	36,800	10	159	354	53	59
Westerville	39,190	13	166	368	73	82
Peer Average	38,809	12.9	152.2	321.4	61	68

Source: ODOT, OPOTA, City of Hilliard, Peers

Appendix B: Fleet Cycling

During the course of the audit, we identified several vehicles that are currently owned by the City that exceed its stated replacement guidelines in regards to age. Using the City’s existing informal cycling goals, several vehicles would need to be replaced in the next five years due to age. The chart below shows the number of vehicles that would meet the replacement age by vehicle type.

Number of Vehicles Needed to be Replaced per Year Based on Current Cycling Goals



Strategies to Replace an Outdated Fleet

When considering strategies to replace an outdated fleet, a few options may be considered. We reviewed three strategies to replace an outdated fleet and help the City get back onto its stated cycling goals. These strategies are discussed in the following section. It should be noted that these strategies may not encompass all options available to the City, but are instead presented to provide a sample of strategies that may be considered. Ultimately, Hilliard officials will need to determine what strategy for fleet cycling is most appropriate based on the needs and resources of the City.

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Purchase Option

One option for the City to consider would be to immediately cycle out all vehicles that are currently beyond the City’s stated replacement goal and purchase new vehicles outright. While this option would allow for the City to immediately achieve its cycling goals, it would require a large capital outlay in the initial year since there are many vehicles beyond the replacement criteria. In the table on the following page, we forecasted the City’s five-year capital costs based on the current cycling goals of the City. We included the City’s Police Department vehicles in this analysis, but it is important to note that the City does not have specific cycling goals for police vehicles. We included Police vehicles in our forecasting to give a more holistic view of the potential costs associated with replacing aged vehicles. Using the City’s current goals, Hilliard would expect to expend \$6.2 million replacing aged vehicles through 2027, with an initial investment of more than \$3.2 million in FY 2023.

Five-Year Capital Costs Based on Current Cycling Goals

Vehicle	2023	2024	2025	2026	2027	Total
Light Vehicles	\$27,495	\$0	\$29,283	\$60,440	\$31,187	\$148,405
Pickup Trucks	\$716,996	\$369,970	\$0	\$281,448	\$232,363	\$1,600,777
Specialty Vehicles	\$2,457,324	\$154,800	\$219,634	\$199,147	\$521,072	\$3,551,976
Police Vehicles	\$525,378	\$391,916	\$520,488	\$249,589	\$310,856	\$1,998,227
Trade-In Values	\$431,553	\$186,930	\$75,723	\$153,105	\$165,009	\$1,012,319
Total	\$3,295,641	\$729,756	\$693,681	\$637,518	\$930,469	\$6,287,065

Source: City of Hilliard and quotes from various vendors

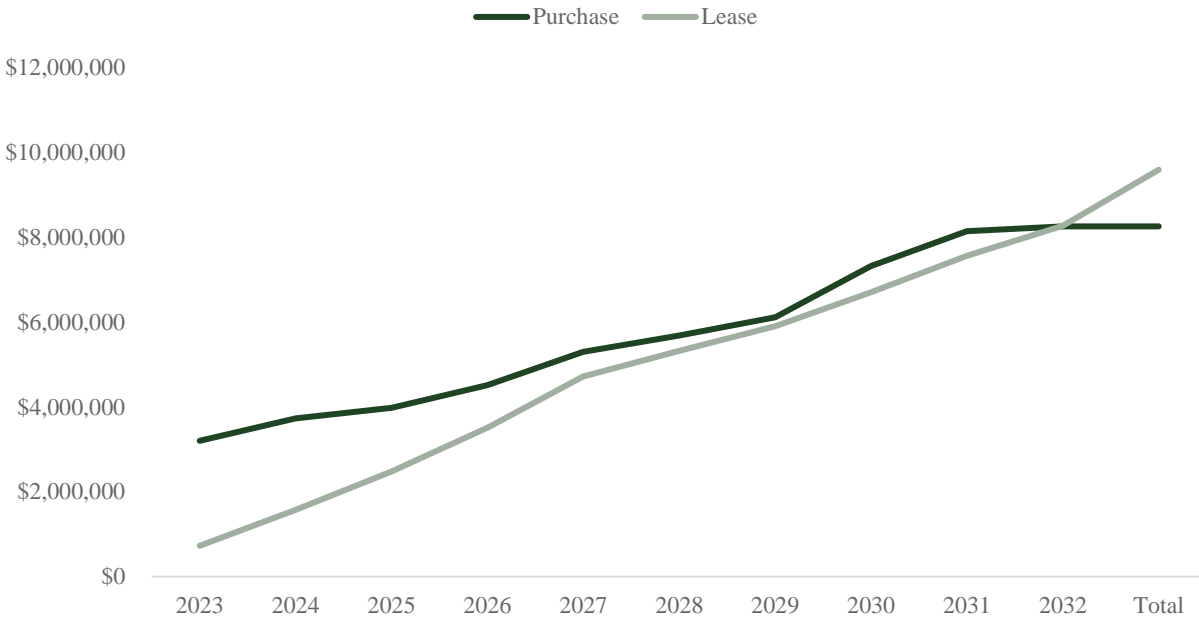
Note: Assumptions based on 3.2 percent inflation

Lease-Purchase Option

Another option for the City to consider would be a lease-purchase model. The lease-purchase model assumes a five-year leasing period with a \$1 buyout at the end of the lease, which is a preference of the City. While the lease-purchase option would lower the initial capital costs required for replacement vehicles, the city would pay more for the vehicles in the long-term. The cost of purchasing vehicles was compared to the cost of using a lease-purchase option with the same vehicles over the course of a 10-year period using the City's current vehicle replacement targets.²¹ Using the lease-purchase model would cost the City an additional \$1.3 million compared to purchasing vehicles outright. While the City's cycling goals may change and the costs of vehicles will fluctuate, this provides an example of how the cost to purchase vehicles compares to the cost of leasing those same vehicles.

²¹ The 10-year cycle was selected as it is the longest cycle-time for any of the vehicle types.

Purchase vs Lease-Purchase Cumulative Capital Outlay Comparison



Note: This table excludes police vehicles. Assumptions were used when projecting the City's future replacement costs. The City's cycling goals were used to determine when vehicles would be replaced. Prices were inflated annually by the historical average of 3.2%. Purchase and lease pricing were from a specific point in time and may fluctuate in the future based on the market and/or how the City chooses to cycle its vehicles.

Phase-In Approach

While the prior two options would provide an opportunity for Hilliard to immediately achieve its cycling goals, the City could also choose to implement a phased-in approach to vehicle purchasing over several years. A phased-in approach could provide an opportunity to level out capital expenditures, similar to the leasing option, while also being less expensive than the leasing option. When considering a phased-in approach, there are numerous ways the City could choose to phase-in purchases to achieve their stated cycling goals. The cost of an approach like this may vary widely and would also be highly dependent on how, when, and the order in which the City chooses to cycle its vehicles. While this phase-in approach could help the City to realign with its cycling goals in time, the approach may push the replacement of certain vehicles out even longer. This could increase maintenance costs as the vehicle ages.

Assuming that the City reduces its fleet based on the findings in **Recommendation 2**, we identified a phased in approach that would maintain fleet related purchases at \$1 million annually. This amount was identified using the City's capital budget. As seen in the table on the following page, using a phased-in approach will take the City approximately 10 years to update the fleet based on the existing fleet cycling goals.

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Replacement Cost per Year

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Phase-In	\$690k	\$737k	\$741k	\$758k	\$757k	\$739k	\$717k	\$699k	\$693k	\$712k
Police	\$300k	\$310k	\$320k	\$330k	\$340k	\$351k	\$362k	\$374k	\$386k	\$398k
Total	\$1.0M	\$1.0M	\$1.1M	\$1.1M	\$1.1M	\$1.1M	\$1.1M	\$1.1M	\$1.1M	\$1.1M

Source: City of Hilliard and quotes from various vendors

Note: Phase-In takes into account planned reduction in fleet size as discussed in Recommendation 2.

Number of Vehicles to be Replaced Per Year

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Pickups	6	1	5	2	5	6	5	6	1	5
Light Vehicles	0	0	1	0	2	1	1	0	0	4
Large/Specialty Trucks	3	4	2	2	2	2	3	2	2	1
Total	9	5	8	4	9	9	9	8	3	10

Source: City of Hilliard

Note: Phase-In takes into account planned reduction in fleet size as discussed in Recommendation 2.

Vehicles Remaining Above Goal

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Pickups	8	11	7	9	9	3	0	0	0	0
Light Vehicles	1	0	0	2	1	1	1	1	1	0
Large/Specialty Trucks	8	5	4	3	4	4	2	2	1	0
Total	17	16	11	14	14	8	3	3	2	0

Source: City of Hilliard

Note: Phase-In takes into account planned reduction in fleet size as discussed in Recommendation 2.

This phased-in approach is one way in which the City could update its existing fleet. However, with additional data, as discussed in **Recommendation 4**, and a comprehensive fleet cycling program, as discussed in **Recommendation 1**, the City may determine that the existing cycling goals are not appropriate and updates will be necessary. Ultimately, it will be up to City officials to determine how best to manage the existing fleet and future fleet purchases.

Appendix C: Fleet Maintenance

The table below shows the overall capacity of both fleet technicians, considering all unavailable hours such as breaks, lunches, annual leave used, and hours spent on non-fleet related activities. This information was used to identify the total number of hours that are available annually to work on fleet maintenance.

Annual Available Labor Hours per FTE Fleet Technician

Category	1 FTE	2 FTE
Total Annual Paid Work Hours	2,080	4,160
Work Hours @ 95 Percent Dedication to Fleet	1,976	3,952
Average Leave Hours	287	574
Non-Productive Labor Hours (Breaks + Lunches)	260	520
Total Available Labor Hours	1,429	2,859
Labor Capacity per FTE at 7 Daily Hours	0.69	0.69

Source: City of Hilliard and outsourced vendors

Because *Mobile 311* does not contain detailed data relating to in-house fleet maintenance activities in relation to the amount of time spent per activity and does not contain a complete list of the activities performed by the in-house technicians, we were required to use estimates for purposes of analysis. We identified the number of hours used by technicians in two scenarios. The first estimated that *Mobile 311* captured 75 percent of activities and the second estimated that *Mobile 311* collected only 50 percent of activities. These estimates were used in our analysis to identify the number of additional activities that could be conducted by the in-house technicians.

Current FTE Utilization

	75% In-House Reporting	50% In-House Reporting
Total Available Hours for Technician FTEs	2,858.5	2,858.5
Labor Hours at Specified % In-House Reporting	706	1,007.0
% Utilization	25%	35%

Source: City of Hilliard

OHIO AUDITOR OF STATE KEITH FABER



CITY OF HILLIARD

FRANKLIN COUNTY

AUDITOR OF STATE OF OHIO CERTIFICATION

This is a true and correct copy of the report, which is required to be filed pursuant to Section 117.26, Revised Code, and which is filed in the Office of the Ohio Auditor of State in Columbus, Ohio.



Certified for Release 12/15/2022

88 East Broad Street, Columbus, Ohio 43215
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