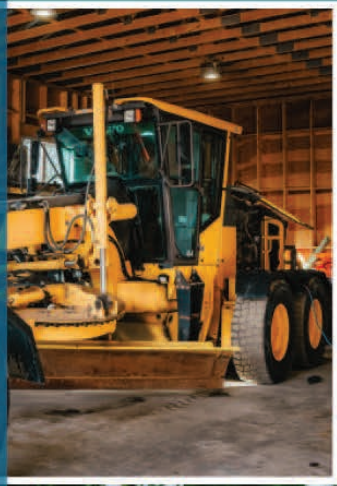
Oxford County

Growing stronger together

Fleet Management Plan

NOVEMBER 2025



Committed to

100% RE | Zero Waste | Zero Poverty

Contents

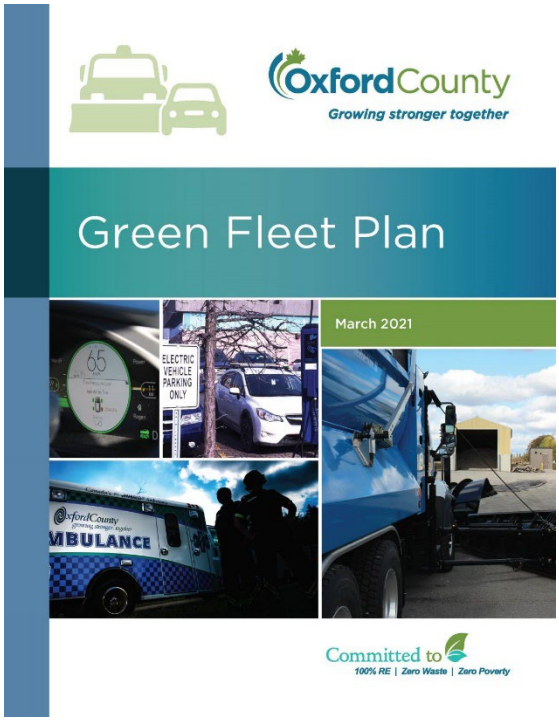
1.0 Introduction

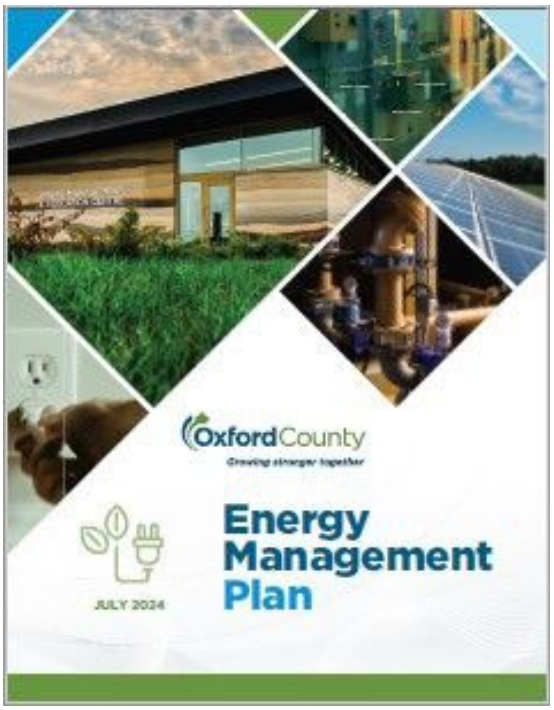
The information and figures within this plan have been developed based on the best available data at the time of this plan's development. The information will act as a guide for decision making for Levels of Service and Lifecycle Management activities, including the acquisition, operation, maintenance, renewal and disposal of County Fleet Services assets.

Council's adoption of the Green Fleet Plan in 2016, along with subsequent update in 2021, gave staff the directive to explore alternative means of fuel propulsion in an effort to progress the County's sustainability goals as well as reduce operational expenditures. In alignment with this directive, the Green Fleet Plan was developed and has been successfully implemented to a point where it has been taken as far as it can be as a stand-alone initiative. The principles of the Green Fleet Plan have been fully integrated into the County's normal Fleet Services operations. In an effort to continue to focus on operational excellence, it is time that the Green Fleet Plan transitions into an overall Fleet Management Plan, to provide full transparency on how the County manages its fleet.

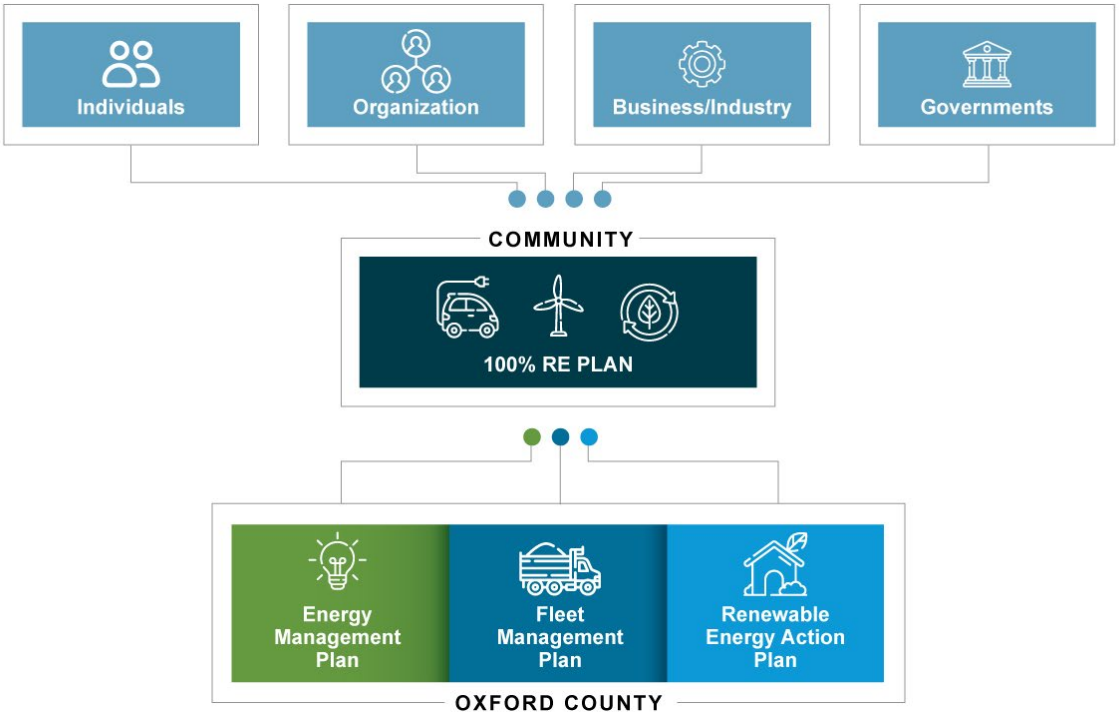
1.1 Background

In 2015, Oxford County Council endorsed a community goal of achieving the use of 100% Renewable Energy (RE) by 2050, and subsequently the 100% RE Plan in 2018.





To progress towards achieving this target, Oxford County, as an organization, has developed and implemented several initiatives, including the Energy Management Plan (EMP), the Renewable Energy Action Plan (REAP), and the Green Fleet Plan (GFP). The EMP focuses on energy usage across the entire corporate activity of services which the County delivers and includes initiatives to reduce energy consumption and improve system efficiencies. This EMP is revised every five years, along with annual updates to highlight areas of improvement and innovations to promote sustainability. The REAP supports the County organization's roadmap for changes in energy consumption, reduction in GHG emissions, and increases in renewable energy mix.



To date, the GFP has worked in conjunction with the EMP and the REAP to guide the contributions of the County organization towards the 100% RE goal. It is important to identify that the County organization is only one of multiple input entities that have a role in contributing to the 100% RE Plan. Moving forward, the Fleet Management Plan will replace the GFP; however, it will contribute to the overall goal in the same manner as before.

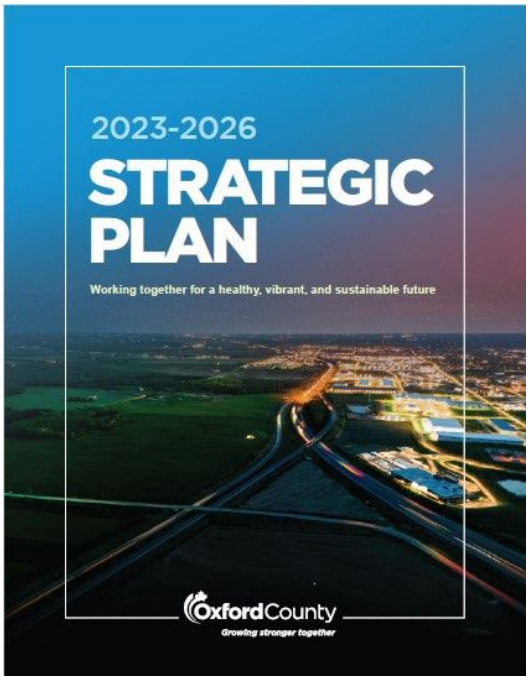
Oxford County's Fleet Services is an integral part of the 100% RE Plan, as fleet emissions are estimated to comprise approximately 36% of the County's overall emissions. Fleet Services has successfully reduced GHG emissions despite a 9.5% increase in vehicle kilometres travelled. This has been achieved by the incorporation of Compressed Natural Gas (CNG) vehicles and the gradual adoption of hybrid and electric vehicles as market availability improves. The percentage of corporate vehicles using alternative fuels has increased from 11% in 2017 to 32% as of 2024. Based on the current market offerings, the County estimates a maximum achievable rate of 48-50% for alternate fuel adoption. According to 2024 data, Fleet Services has achieved a 4.2% decrease in overall energy and a 6.8% decrease in GHG emissions compared to 2015 levels.

The County's Asset Management Plan has been prepared to meet the Ontario regulatory requirements, Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure. The County fleet asset category is a significant component of the County's infrastructure assets, providing available, reliable, economical and sustainable fleet assets for internal and external County service areas. Effective maintenance and renewal of these assets are critical to ensure that they continue to deliver adequate levels of service and provide expected benefits.

The Fleet Management Plan has been formulated to address all phases of the fleet process, in addition to including continued integration of green fleet opportunities, resulting in the reduction of both lifecycle costs and GHG emissions.

2.0 Strategic Plan

Oxford County's Strategic Plan is organized around seven values: Excellence, Accountability, Innovation, Integrity, Teamwork, Sustainability, Diversity, Equity and Inclusion. These values guide the actions, priorities and outcomes the County is working to achieve while balancing the community now and in the future. The Fleet Management Plan incorporates the long-term goals and objectives of the County's Strategic Plan by documenting and identifying the resources required to manage these assets through their lifecycles to achieve the optimal levels of service.



This Fleet Management Plan demonstrates the County's commitment to the values to fulfill the following goals of the County's Strategic Plan 2023 – 2026:

Goal 1.2 – Sustainable infrastructure and development, initiatives:

1. *Optimize asset management and preventative maintenance for aging and expanding infrastructure*
2. *Continue integrated growth management to support long-term sustainable growth*

Goal 2.1 – Climate change mitigation and adaptation, initiatives:

1. *Develop a Climate Action Plan with targets, resource requirements and an implementation plan, leveraging existing plans:*
    a. *100% Renewable Energy Plan*
    b. *Renewable Energy Action Plan*
    c. *Green Fleet Plan*
    d. *Energy Management Plan*

Goal 3.1 – Continuous improvement and results-driven solutions, initiatives:

1. *Assess and continually explore opportunities to establish effective and efficient service delivery levels and models, considering expected growth and community needs*
2. *Monitor and publicly report on service level performance and community satisfaction*
3. *Implement data analytics to inform evidence-based policy and service delivery decision-making*

Goal 3.4 – Continuous improvement and results-driven solutions, initiatives:

1. *Prioritize long-term financial planning and risk management, including evaluation of the full lifecycle costs of projects and assets*

3.0 Summary of Fleet Assets

3.1 Fleet Asset Classifications

Oxford County fleet assets support three main user groups: Public Works, Paramedic Services and Library Services. The fleet assets assigned to these groups are classified into seven (7) distinct sub-types based on the size and type of unit, including:

Ambulance – Ambulance vehicles within the Paramedic Services department

ERV – Emergency Response Vehicles within the Paramedic Services department

ATV/UTV – Utility vehicles.

Light – Cars, SUVs, Vans and Pick-up Trucks

Medium – Vans and Pick-up Trucks

Heavy – Dump / Plow Trucks, Roll off Trucks, Vacuum & Sweeper Trucks, Day Cabs

Major – Paving and Grading equipment, Tractors and Backhoes, Wheel Loaders, Hydrovac trucks, Forklifts, Dozer and Landfill Compactor.

Fleet Services also oversees Fueling, Charging Stations and Equipment assets. Fuel station sites dispense unleaded gasoline, diesel and dyed diesel to support operations, while multiple charging station locations across the County support both Public and County fleet electric vehicle charging needs. Equipment assets primarily include non-propulsion assets used in conjunction with fleet assets to perform operational tasks or provide functionality to fleet assets (e.g., dump boxes). Equipment assets have their own life cycles and are not necessarily replaced at the same time as the fleet asset they support. Fuel and charging stations, along with Equipment assets, are classified into five (5) different sub-types, including:

Fueling Station – Unleaded and Diesel fuel tanks

Charging Station – Level 2 and Level 3 Charging Stations

Marine – Boat/pontoon boat

Trailer – Light and heavy trailers and trailer-mounted equipment

Attachments – Flat Deck, Dump boxes, Service Bodies

3.2 Fleet Asset Types

Fleet Services assets, broken into Vehicle, Equipment and Fueling, along with their Classification and Types that are inventoried, are listed below. The acronyms that are associated with these vehicles have expanded descriptions, also listed below.

Table 3.2.1 – Asset Classification and Types

Vehicles		
Classification	**Type**	
Ambulance	Ambulance	
ERV	Emergency Response Vehicle Emergency Response Vehicle – HEV	
ATV/UTV	UTV	Golf Cart
Light	Car – BEV Car – PHEV Pickup – ½ Ton Pickup – ½ Ton – BEV Pickup – ½ Ton – CNG Pickup – ½ Ton – HEV Pickup – Compact	Pickup – Compact – CNG Pickup – Compact – HEV SUV SUV – CNG SUV – PHEV Van – Cargo Van – Cargo - CNG
Medium	Pickup – 1 Ton Pickup – 2 Ton – Sign Truck	Pickup – ¾ Ton
Major	Asphalt Paver Backhoe Brush Chipper Compactor – Large Forklift Motor Grader Pull Scraper Riding Lawn Mower Roller	Sweeper Telescopic Handler Tractor – Compact Tractor – Dozer Tractor – Mower Tractor – Mower / Broom Tractor – Utility Vacuum Hydro-Vac Wheel Loader
Heavy	Day Cab Paint Truck Single (axle Truck) Tandem Tandem – CNG	Tandem – Dump Body Tandem – Roll Off Truck – Vacuum Sweeper Vacuum unit

Equipment

Classification	Type	
Attachments	Pickup – 2 Ton – Service Body Direct Liquid Application (DLA) Tank Pickup – 1 Ton – Dump Box	Pickup – 1 Ton – Service Body Pickup – ½ Ton – Flat Deck
Marine	Pontoon Boat	
Trailer	Trailer	Trailer – Small
	Trailer – Crane	Trailer – Tandem Covered
	Trailer – Dump	Trailer – Tanker
	Trailer – Flat Bed	Trailer – Valve Maintenance
	Trailer – Fuel	Trailer – Emergency Signage
	Trailer – Generator	Trailer – Pontoon
	Trailer – Paint	Vacuum unit – Trailered Litter
	Trailer – Scrubber	Trailer – Single Covered
	Trailer – Emergency Support	

Fueling

Classification	Type	
Charging Station	Level 2 Charger	Level 3 Charger
Fueling Station	Unleaded Fuel Tank Diesel Fuel Tank	Colored Diesel Fuel Tank

BEV – Battery Electric Vehicle
CNG – Compressed Natural Gas
HEV – Hybrid Electric Vehicle
PHEV – Plug-in Hybrid Electric Vehicle

3.3 Lease & Rental Management

Oxford County Rental Management employs strategic practices to acquire, operate, and maintain fleet rental vehicles with the goal of improving operational efficiency and reducing costs. Key components of the rental management strategy include:

- Establishing clear objectives
- Developing and maintaining a rental schedule
- Tracking vehicle performance and related expenses
- Creating and adapting a rental budget and management plan

Currently, Oxford County utilizes rental vehicles for the following purposes:

- Short-term rentals for summer students (typically 4–5 months)
- Patrol yard loaders
- Bridging for new assets related to FTE requests
- Temporary replacement vehicles for extended repairs

Currently, light & medium-duty vehicle rentals are sourced through the Elgin Middlesex Oxford Perth (EMOP) Purchasing Group to leverage cooperative purchasing advantages. Patrol Yard Loaders are acquired through 3-year tendered contracts. Specialty equipment is sourced separately, based on specific operational needs and availability. All rental procurements are conducted in the best interests of the County, balancing cost with operational needs.

To mitigate short-term rental costs resulting from unscheduled repairs or extended maintenance repairs, two surplus assets are retained on a continuous basis before being sent for public sale. These units can be quickly deployed to avoid disruption to daily work operations. These two held surplus assets are rotated through as better-condition units become available.

3.4 Fuel Stations

Fleet Services oversees all Oxford County vehicle and equipment fuel stations, utilizing a range of systems and strategies to monitor, control, and optimize fuel consumption and purchasing across operations. The County currently operates six (6) fueling stations that dispense unleaded gasoline, diesel, and dyed diesel. These locations include:

- Highland Patrol Yard
- Drumbo Patrol Yard
- Woodstock Patrol Yard
- Springford Patrol Yard
- Oxford County Waste Management Facility
- Ingersoll Water Operations Center

Each site is equipped with above-ground fuel tanks for each fuel type, which allow for easier maintenance and more effective leak detection. In contrast, underground tanks pose a greater environmental risk in the event of a leak, as well as increased cleanup costs upon decommissioning. All tanks are Technical Standards and Safety Authority (TSSA) compliant, double-walled (ULC-5601), with capacities ranging from 1,100 to 4,500 litres. All County above-ground fuel tanks are protected by concrete barrier posts, and stations are equipped with compliant spill containment kits.

- **Fuel Management Systems:** Software solutions are used to track fuel consumption and transactions, as well as to identify fuel-related maintenance issues. This system also automatically notifies the fuel supplier when tanks are below the set minimum tank volume and require filling. This function is especially critical during winter snow events to ensure all snow and ice control equipment maintains a sufficient fuel supply.

- **Fuel Cards:** Oxford County issues personal access cards to ensure that only authorized, active employees can access fuel. Each card is uniquely assigned and used to capture essential data, including:

    - Vehicle asset numbers
    - Odometer readings
    - Staff member identification
    - Litres dispensed
    - Date and time of fueling
    - Fueling capacity limits enforcement

- **Fuel Tank Inspections:** All Oxford County-owned gasoline, dyed diesel, and clear diesel tanks are inspected biannually by an outsourced company, ensuring TSSA compliance, employing certified Petroleum Mechanics.

Figure.7.Woodstock.Patrol.Yard.Fuel.Tanks

Oxford County also utilizes select third-party fuel filling stations to support efficient Ambulance operations or refilling of vehicles equipped with Compressed Natural Gas (CNG). Rural Green Energy in Woodstock is the primary supplier of CNG, accessed using assigned CNG fuel cards. In cases where an alternate CNG supply is needed, two back-up sources are available: Hi-Tech Fuels in London and Core Fuels Ltd. in Stratford. Each location requires its own specific access card. These CNG fuel cards capture the same essential data as the standard fuel cards mentioned above.

3.5 Electrical Vehicle Charging Stations

Fleet Services oversees all County-owned Electric Vehicle (EV) chargers, both publicly available and private fleet only, using advanced software platforms that monitor, control, and optimize charger operations. Public chargers are accessible to both County employees and the general public, while private chargers are restricted for use by County fleet vehicles only. These private chargers will only initiate charging when used with authorized Oxford County vehicle access cards; public access is not permitted. EV chargers come in three levels, including:

- Level 1 – slow charge using a standard electrical outlet, charging typically complete in 8-50 hours depending on the vehicle.
- Level 2 – mid charge using EV specific charging infrastructure, charging typically complete in 4-10 hours.
- Level 3 – DC fast charger, charging typically complete in 25-60 minutes.

Fleet Services currently manages a total of 53 EV charging stations, including 46 Level 2 chargers and 7 Level 3 chargers. All chargers, whether public or private, require an access card specifically for the vehicle being charged. Level 3 chargers have been strategically placed at geographically balanced locations across the County to support charging needs. Future expansion of the charging network will be guided by fleet demand, based on vehicle utilization analysis and operational requirements.

Charging Operations and Access

County-owned EVs are assigned daily overnight parking locations equipped with private Level 2 chargers. Charging these vehicles on Level 2 chargers overnight ensures that charging occurs at off-peak times and ensures a full charge for the start of each work shift. During summer or winter months vehicle can be set up for pre-conditioning - a process that heats or cools the cabin and/or battery to an optimal temperature while still plugged into the grid using energy straight from the facility rather than the vehicle. This ensures both passenger comfort and the vehicle starts the day at 100% charge.

By assigning a dedicated charger to each EV, the County ensures that every fleet vehicle has a consistently available charging station, supporting reliable daily operations. If additional charging is required during the day, Level 3 fast charging stations are available at strategic locations throughout the County for quick top-ups. These quick top-ups are typically only needed in exceptional cases when the vehicle operates beyond its regular routine, such as on-call duties, towing or extended unscheduled use.

In the event of main grid power loss, most charging sites are upfitted with a backup generator that is sized to operate the Level 2 chargers. This will ensure that all vehicle charging and conventional fueling can continue uninterrupted during power outages.

Figure.8.Southside.Water.Treatment.Facility.Level.8.Charger

Current Charging Infrastructure

Public - Level 2 and 3 chargers are located at the following sites:

- Woodstock
  - 21 Reeve St. (Level 2)
  - 580 Bruin Blvd. (Level 2 & 3)
  - 75 Graham St. (Level 2)
  - 377 Mill St. (Level 2)
  - 300 Julliana Dr. (Level 2)
- Ingersoll
  - 16 King St. W. (Level 2 & 3)
  - 325 Thames St. (Level 2)
- Tillsonburg
  - 41 Bridge St. W. (Level 2)
  - 52 Venison St. W. (Level 2)
- Thamesford
  - 165 Dundas St. (Level 2)
- Salford
  - 384060 Salford Rd. (Level 2)

Private – Level 2 and 3 chargers are located at the following sites:

- Woodstock
  - Woodstock Patrol Yard, 515165 11th Line. (Level 2)
  - Southside Water Treatment Facility, 221 Victoria St. S. (Level 2 & 3)
- Springford
  - Springford Patrol Yard, 432594 Zenda Line. (Level 2 & 3)
- Drumbo
  - Drumbo Patrol Yard, 895939 Oxford Rd. 3 (Level 2 & 3)
- Embro
  - Highland Patrol Yard, 884135 Oxford Rd. 88 (Level 2 & 3)
- Ingersoll
  - Water Operations Center, 59 George Johnson Blvd. (Level 2)
  - Wastewater Treatment Facility, 56 McKeand St. (Level 3)
- Salford
  - Waste Management Facility, 384060 Salford Rd. (Level 2)

- **EV Charger Management Systems -** Fleet Services utilizes cloud-based platforms, including FLO and FordPro, to manage the following aspects of EV charger infrastructure:
  - Diagnostics and Monitoring
  - Data Reporting
  - Access Control and Restrictions

  In addition, smaller chargers assigned to electric forklifts and certain vehicles are monitored through the MyEydro service, which tracks:
  - Kilowatt hours (kWh) dispensed
  - Asset ID
  - Date and time of charging sessions

Figure.9.Springford.Patrol.Yard.Level.9.Charger

- **EV Charging Access Cards -** Each County vehicle is assigned a specific EV charging access card. These cards are used to:
  - Authorize charger use
  - Track kWh dispensed
  - Log asset ID and time/date of each charging session

- **Charger Types and Specifications**
  - Level 2 Chargers: Dispense power at a maximum of 11 kW/h
  - Level 3 (Fast) Chargers: Dispense power at a maximum of 100 kW/h

4.0 Lifecycle Management

All of Oxford County's fleet assets progress through a series of stages known as the Asset Lifecycle. Effective management of an asset's full lifecycle is essential for delivering consistent, reliable service and controlling costs over the asset's lifespan. A key principle of lifecycle management is that maintaining an asset in good condition is significantly more cost-effective than making costly repairs to keep a unit serviceable or prematurely replacing it once it has deteriorated too far. Oxford County's overall goal is to maximize the useful life and residual value of its assets while managing risks and optimizing total lifecycle costs.

4.1 Maintenance Program

The County's fleet assets are maintained through a Preventive Maintenance (PM) program, which directly influences the lifecycle and overall condition of vehicles and equipment. Proactive maintenance keeps assets in optimal working condition and reduces costs associated with breakdowns and unexpected repairs. The PM program is delivered through the following practices:

- **Scheduled Preventive Maintenance** – Regular maintenance based on time intervals or kilometres driven, as recommended by the manufacturer.
- **Seasonal Maintenance** – Specific servicing scheduled to prepare equipment and vehicles for seasonal condition changes and usage.
- **Proactive Maintenance Practices** – Identify potential risks before they occur, reducing downtime and increasing efficiency.

Oxford County staff identify potential risks before they occur by conducting regular inspections. Based on Regulation 199/07 of the Highway Traffic Act, in the event that a major defect is found during a daily inspection or during a trip, the vehicle cannot be driven until the defect is repaired. Minor repairs and seasonal maintenance are generally conducted in-house by County staff. However, recommended manufacturer-scheduled, preventative maintenance and larger repairs are typically handled by the vehicle manufacturer's dealer or a comparable third-party repair shop, as Oxford County does not operate its own vehicle or asset repair facility.

Based on the current size of the County's fleet, it is more efficient to outsource these repair activities, as operating an in-house repair facility is currently not cost-effective. Through outsourcing, the County can avoid major capital investment in shops and gain access to specialized expertise while remaining flexible to changing needs. A County-operated facility comes with numerous direct and indirect costs, including;

Initial Investment – Up front land costs, construction, specialized equipment, heavy-duty lifts & diagnostic technology.

Operating expenses – Annual utilities, insurance, maintenance of the facility and its equipment, parts inventory, required software programs, specialized tools and training.

Labour Costs – Salaries & benefits for technicians and administration staff.

As the County's fleet evolves, staff will continue to evaluate the effectiveness of the existing maintenance strategy and recommend changes, if and when it is appropriate.

4.2 Vehicle Replacement Rating

Fleet asset conditions are evaluated using either modelling or direct measurement approaches:

- The modelling approach applies standardized deterioration curves to estimate asset condition based on its expected remaining life.
- The direct measurement approach evaluates asset condition using real-world data such as inspection results, operational costs, and reliability history.

Fleet Services employs the direct measurement method, as it provides more accurate, unit specific and data-driven insights. Annual assessments are conducted to collect up-to-date condition data across all fleet and equipment assets. The County's direct measurement methodology is known as the Vehicle Replacement Rating (VRR). This system is used to assess the condition of assets managed under the fleet and equipment program. The VRR is based on four key indicators:

1. Age
2. Distance travelled or hours of operation
3. Repair and maintenance (R&M) expenditures
4. Reliability

Each indicator is assigned a score from 0 to 5, with 5 representing the poorest condition. These scores are then used to prioritize replacements and guide capital planning. Refer to Table 4.2.1 for the detailed formulation of each VRR indicator.

Table 4.2.1 – Indicator Criteria

Indicator	Point Criteria
Age	Fleet assets are assigned a maximum useful life based on the type of equipment. If the asset is at or exceeds its maximum age, then it is assigned a value of 5. If the asset is less than the assigned maximum age, then: $(5/(Maximum\_Age\ ))x(Current\_Age\ )$
Distance Travelled or Hours of Operation	One point per 40,000 km travelled: up to 5 OR One point per 1,000 hours of operation: up to 5
Repair and Maintenance	If repairs and maintenance (R&M) costs are less than the total purchase price, then: $\left(Total\ R\&M\ \frac{Costs}{Total} Vehicle\ Purchase\ Price\right) x5$ If R&M is greater than the total purchase price, then the value is 5
Reliability	The number of services is totalled per quarter. The average of all four quarters from the previous year is calculated to determine the score, with a maximum value of 5.

Once each indicator value is determined, they are then added together to determine the VRR for an individual unit. Asset ratings are reviewed and updated each year as part of the annual Business Plan and Budget process, which drives asset replacement selections for the following

budget year. Table 4.1.2 displays the conditions and characteristics corresponding to the VRR value.

Table 4.2.2 – VRR Scale

Condition	VRR Range	Characteristics
Excellent	0 – 4	No noticeable defects
Good	4.1 – 8	Minor Deterioration
Fair	8.1 – 12	Deterioration evident, function is affected
Poor	12.1 – 16	Serious deterioration. Function is inadequate
Critical	16.1 – 20	No longer functional, general or complete failure

4.3 Fleet Replacement Value & Useful Life

Replacement value refers to the estimated total cost required to replace an asset to the same functional standard. Oxford County staff determine this value using the current Manufacturer's Suggested Retail Price (MSRP), which is reviewed and updated annually to reflect changing market conditions.

The typical useful life of each asset type is established based on the average timeframe in which the Vehicle Replacement Rating (VRR) reaches its replacement threshold. This estimate is further informed by staff expertise and professional judgment, taking into account any extenuating operational or environmental factors. Ambulances and tandem plow trucks are more strictly regulated following a timeline replacement schedule versus the VRR replacement threshold due to their long lead times and operational criticality.

The projected asset renewal forecasts are based on these typical useful lives. The useful life of each asset type has been determined based on a combination of industry data, and County data including the typical point in time where repairs and downtime become problematic. While individual asset replacements are determined by VRR, typical useful lives are used to guide capital replacement contributions to ensure adequate funding to replace assets when required. Where assets exceed their typical life based on VRR values, they cease capital contributions resulting in an operational cost savings. A summary of the lifecycles used for forecasting purposes is presented in Table 4.3.1.

Table 4.3.1 – Useful Asset Lives

Classification	Type	Useful life
Light	Car	7 years
	Pickup Trucks ½ ton & Compact / SUVs / Cargo Vans	5-7 years
Medium	Pickup Trucks ¾ ton to 2 ton	5-9 years
Heavy	Day Cab, Paint Truck, Tandems	9-10 years
	Sweepers and Vacuum Trucks	9-10 years
Major	Backhoe, Forklifts, Graders, Scraper	20 years
	Paver, Roller, Sweepers, Compactors	10 years
	Chipper, Mowers	15 years
	Tractors	15-20 years
Ambulance	Ambulance, ERV	6 years or 350,000km
Trailers	Trailer of all types	10-25 years
Attachments	DLA Tanks	15 years
	Flat Decks, Dump Boxes, Service Bodies	10 years

4.4 Asset Replacement

Replacement Strategy

Oxford County aims to replace fleet assets at their optimal economic lifecycle to maximize value, minimize unexpected downtime, and ensure the fleet continues to meet evolving organizational needs. Proactive replacement helps control costs by avoiding frequent, high-cost repairs and downtime affecting County services, as well as by effectively managing the total cost of ownership.

When replacing existing assets, Fleet Services looks at what is available on the market which will meet the required operational need as cost-effectively as possible. This cost analysis looks at the total cost of ownership rather than just the initial purchase cost, and evaluates different available fuel sources and daily utilization needs that are suitable for the applicable asset in order to come up with the most cost-effective option.
Replacement decisions are based on a combination of the following criteria:

- Vehicle Replacement Rating (VRR)
- Unscheduled or significant impending repair costs
- Safety concerns
- Changes in operational requirements

Fleet Attachment Assets Replacement

It has been determined that certain fleet attachment assets should follow a different life cycle than the chassis on which they are mounted. Due to their durable construction, primarily using aluminum and stainless steel, these attachments typically outlast the chassis, making it more cost-effective to extend their service life. As such, the life cycles of these assets are set to be twice that of the chassis they are installed on, and capital contributions reflect the anticipated funds required for this refurbishment/replacement cycle. The general replacement strategy is as follows:

- Initial purchase of a new attachment asset
- Refurbishment and reuse when the chassis is replaced for the first time (ie. at 5 years)
- Attachment replacement with a new unit upon the second chassis replacement (ie. at 10 years)

Current attachment assets are defined as follows:

- **Service Body** – A replacement for a standard pickup truck bed, providing a compartmentalized, enclosed storage system designed to organize and protect tools, equipment, and materials.
- **Dump Box** – A metallic, open-top container mounted to a medium-duty (1-ton) pickup truck, equipped with a hydraulic system that tilts the bed to discharge materials such as sand, gravel, or debris by gravity.
- **Flat Deck** – A flat, open load-carrying platform that replaces the traditional bed of a ½-ton pickup truck, ideal for transporting large or bulky cargo that would not fit into a standard truck box.

Fleet Purchasing Mechanisms

The County adheres to its Purchasing Policy when acquiring fleet vehicles and equipment, utilizing various approved procurement methods, including:

- **EMOP** – Elgin Middlesex Oxford Purchasing Cooperative
- **Canoe** – Canoe Procurement Group of Canada
- **Public Tender** – Through the Bids & Tenders digital eProcurement platform

Fleet Greening

In alignment with Oxford County's 100% RE, the County remains committed to sustainability by taking all reasonable actions to reduce the environmental impact of its fleet vehicles.

As part of the procurement or replacement process, staff will continue to explore low-emission vehicle technologies available on the market, which may include:

- Electric Vehicles (EVs)
- Ethanol
- Compressed Natural Gas (CNG)
- Renewable Diesel (HDRD and Biodiesel)
- Hydrogen

The market for alternative-fueled vehicles is rapidly changing, and while effort is made to adopt cleaner technologies, suitability and performance for the intended application are carefully considered. In addition, availability and overall lifecycle cost remain key factors in all procurement decisions to ensure both financial responsibility and operational efficiency.

Future Demand and Ongoing Utilization Reviews

Fleet Services employs a structured and pragmatic approach to managing the growth of the County's fleet assets and regularly reviewing usage. This approach supports strategic decision-making and long-term financial planning by ensuring that the identification and timing of new initiatives or asset replacements align with operational needs.

The goal is to promote the efficient and effective delivery of services through appropriately sized and utilized equipment. Fleet demand planning is informed, in part, by utilization reporting, which includes:

- GPS-based monitoring of:
    - Hours of use
    - Idle time
    - Distance traveled
- Fuel usage reporting

These data points help determine optimal asset deployment, replacement timing, and opportunities for operational improvement. In addition, Fleet Services staff regularly review usage reports to ensure all existing asset utilization justifies a need for each asset. In the event usage for a specific asset is lower than expected, staff will engage the user group to notify them of the concern, seek to understand what is happening with the asset, and make recommendations.

4.5 Disposal

Asset disposal occurs when an asset has reached the end of its useful life. This decision is based on several factors, including:

- High operating and maintenance costs as indicated by an elevated Vehicle Replacement Rating (VRR) score
- Unscheduled in-year repair costs that approach or exceed the asset's current value, prompting disposal rather than planned replacement based on Vehicle Replacement Rating (VRR) calculations
- Regulatory or compliance changes
- Technological obsolescence
- Changes in service demands or asset purpose

Disposal involves all activities required to decommission the asset, including:

- Removing upfitted components and accessories
- Stripping decals or County branding
- Preparing and facilitating the sale or final disposal of the asset

Any residual value generated from the sale of decommissioned fleet assets are used annually to support the operating costs associated with managing the fleet. In the case of Paramedic Services assets, this disposal value offsets the annual levy associated with that department. Oxford County follows approved disposal methods in accordance with its internal policies, which include:

- Trade-ins during the purchase of replacement assets
- Local public auction companies
- Electronic public auctions (e.g., GovDeals)
- Scrapping the asset when resale is not viable

5.0 Levels of Service

5.1 Telematics GPS System

Fleet telematics GPS systems use advanced technology to collect and transmit real-time data from vehicles, allowing for continuous monitoring of location, speed, and driver behaviour. A telematics device is installed in each vehicle and connected to the onboard diagnostic (OBD) system, integrating with the vehicle's internal computing systems. This device gathers data and transmits it to a central software management platform, which captures information including:

- **Location** – Tracked using GPS technology.
- **Vehicle Performance** – Metrics such as speed, rapid acceleration, and hard braking.
- **Operational Data**

- Utilization metrics such as kilometres driven, hours of operation, and idling time.
- Winter operations data such as plow up/down, wing up/down, and salter spreader activity (on/off status and application rates).
- Inputs related to ambulance emergency response activities.

All collected data is stored within the management software and is accessible to authorized staff at any time for reporting purposes. This enables detailed analysis across any or all of the above categories when needed. The data is typically used to support requests such as verifying speeding events in accordance with Oxford County's Safe and Responsible Driver Policy 7.33, or to provide evidence related to winter operations when responding to road insurance claims.

5.2 Standard Upfitting

The upfitting of Oxford County vehicles is a tailored process designed to align each vehicle with its specific job function and intended end use. This process begins with careful planning and collaboration between operators, supervisors, and Fleet Services during the budget phase, and concludes with final installation before putting new units into service.

Key considerations during the planning phase include:

- Defining the vehicle's operational purpose
- Involving end users (e.g., operators and supervisors)
- Evaluating Gross Vehicle Weight Rating (GVWR)
- Selecting appropriate materials and equipment
- Integrating job-specific technology
- Ensuring compliance with all applicable regulations

Once these factors are determined and the required equipment is incorporated during the procurement stage, Fleet Services completes the remaining upfitting work, which typically includes:

- Shelving and storage solutions in cargo areas
- Amber beacon and auxiliary safety lighting
- Pick-up truck back racks for securing materials
- Tablet or laptop holders
- Installation of vehicle job specific specialty equipment
- Provide and install vehicle safety equipment, fire extinguishers and first aid kits
- Application of County vehicle branding
- Installation of private two-way Oxford County channel radios
- Integration of a fuel monitoring system
- Deployment of telematics and GPS tracking systems

5.3 Regulatory Compliance

Commercial Vehicle Operator's Registration

To drive a commercial vehicle in Ontario, there is a requirement to have a valid Commercial Vehicle Operator's Registration (CVOR) certificate, which is part of the Carrier Safety Rating program managed and reviewed by the Ministry of Transportation. County vehicles with a Gross weight or combined truck and trailer gross weight over 4,500kg are part of the CVOR program.

The Carrier Safety Rating is a public-facing "grade" assigned by the Ministry of Transportation in Ontario reflecting safety performance. Ratings range from:

- **Satisfactory** – A good safety record with a violation rate below established thresholds
- **Conditional** – A rating where violation rates exceed acceptable thresholds, requiring improvement
- **Unsatisfactory** – a poor safety record with high violation rates, which can lead to significant consequences

The Carrier Safety Rating is based on the overall violation rating number calculation, which is calculated on the sum of three key items weighted values, including:

- **Collisions** – The number and severity of accidents the carrier has been involved in (weighted value of total sum, 40%)
- **Convictions** – Points from driver and vehicle violations of traffic laws and safety regulations (weighted value of total sum, 40%)
- **Inspections** – The results of vehicle and driver safety inspections conducted by the MTO (weighted value of total sum, 20%)

In support of the CVOR requirements, the County maintains the following driver and vehicle records for management purposes:

- **Driver Records:** Current copies of each Driver's Abstract**,** Conviction Record**,** Collision Report, and Training Certificates are maintained on file with Human Resources. Driver record checks for all Oxford County staff operators are conducted bi-annually by Human Resources. In addition, CVOR Level 2 Abstracts are reviewed at a minimum annually by Fleet Services.
- **Vehicle Inspection and Log Records:** Daily Vehicle Inspection Reports and Driver Logs are retained for the current day and the preceding 14 days, in compliance with applicable regulations.
- **Carrier Safety Rating:** Oxford County's CVOR Safety Rating is reviewed and obtained through the CVOR Online Carrier Record Inquiry at a minimum of once every six months.
- **Accident Reporting:** Procedures for accident reporting are detailed in the Workplace Incident, Injury and Illness Reporting Policy 7.04, and the Insurance Incident Reporting and Claim Management Policy 6.04.

The Ministry of Transportation (MTO) may initiate a facility audit if a carrier's Overall Violation Rate (OVR) exceeds 50%. Audits can also be requested at the discretion of the Deputy Registrar. There are four tiers of facility audits:

- **Tier 1 – System-Generated Audits:** Typically triggered when the OVR exceeds 50%.
- **Tier 2 – Voluntary Audits:** Requested by the carrier to update their safety rating or upon request by the Deputy Registrar.
- **Tier 3 – Compliance Verifications:** Conducted to verify adherence to specific regulatory requirements.
- **Tier 4 – Investigations:** Initiated in response to serious safety concerns or regulatory breaches.

Audits are evaluated based on specific compliance elements, resulting in a Profile Compliance Rate Score**.** A failing compliance score (55% or lower)**,** may lead to serious consequences, including:

- Suspension of the CVOR certificate
- Increased insurance premiums
- Monetary penalties
- Mandatory follow-up audits

Oxford County's Fleet Services regularly updates all CVOR vehicle operational staff on changes or emerging trends related to the OVR. These notifications are intended to enhance program and status awareness and promote positive behavioural changes in daily operations with a focus on enhancing safety, inspection accuracy, and daily log detail. As of October 20, 2025, the County's OVR was 17.53%.

Ministry of Transportation

The Ministry of Transportation (MTO) operational requirements for County-related vehicles are primarily aligned with the CVOR program, which mandates vehicle registration, annual inspections, and ongoing maintenance. Annual vehicle licensing is completed by Fleet Services as required, based on notifications from Service Ontario. In some cases, emission tests are also required for heavy-duty vehicles over 4,500 kg and seven model years old or older, as part of the annual renewal process.

6.0 Financial

6.1 Budget

Operational Budget

The County's operational budget covers ongoing expenses required to manage its fleet. These include:

- Fuel
- Maintenance and services

- Insurance
- Licensing
- Annual Capital contributions
- Rentals
- Administrative operating costs
- Proceeds from asset sales

Fleet forecasting involves analyzing historical data to predict future needs for vehicle acquisition, maintenance, repairs, and disposals. This proactive forecasting helps optimize operations, improve safety, control costs, and plan for growth or changes in service demands.

Annual forecasting activities include:

- Review of repairs and maintenance (R&M)
- Fuel usage review and pricing analysis, which takes into account market rack rates, current taxation structure, and estimations of how market rates may change in the coming year. Fuel pricing can be heavily impacted by a number of factors that may be both domestic and global.
- Licensing cost review
- Insurance cost review
- Equipment master accounts review, including fuel software monitoring, repairs, and two-way radio annual fees.
- EV charger accounts review, including R&M, revenue, and software annual fees.
- Surplus asset sales review

Fleet Capital Budget

The County's Fleet Capital Budget is a designated portion of the overall capital budget focused on acquiring, replacing, or upgrading fleet vehicles and equipment. Funding sources for replacement of assets generally include either the Fleet Capital Reserve, Paramedic Services Reserve (for applicable assets) or specific grants. The initial purchase cost for new expansion assets is funded under the department requesting the asset and is either levy or rate funded by the applicable department.

Objectives:

- Ensure the fleet remains in a good state of repair
- Align purchases with the County's long-range financial and strategic plans.
    - Asset replacements will be budgeted and executed in alignment with the replacement strategies identified earlier in this plan, specifically driven by VRR data rather than simply asset age.
    - New asset purchases will be executed in a manner that evaluates market available alternative fuel options based on overall lifecycle costing.
- Implement asset management strategies to extend fleet life cycles and control costs

Annual Fleet Capital Budget activities include:

- Review of the Annual Replacement Profile
- Planning of required asset replacements based on VRR
- Annual review of capital replacement values and associated contributions
- Ensuring long-term financial sustainability for necessary fleet upgrades

Early Procurements & Mechanisms

This strategic approach involves early engagement with procurement teams to acquire new vehicles in advance. It was developed in response to the industry-wide supply chain challenges faced by Oxford County during the COVID-19 pandemic, when equipment needed to be ordered up to one year before the scheduled replacement date.

Although extended lead time is now returning to normal levels, Oxford County continues to apply this Early Procurement Approach for long-lead items that cannot be purchased and received within the same calendar year, (ie. tandem plow trucks, ambulances, compactors, dozers, tractors etc.). Key benefits of maintaining this approach include:

- Utilizing factory orders with pre-approved specifications
- Ensuring fleet suitability and meeting operational requirements
- Reducing costs by avoiding having to extend asset life while waiting on replacement units, which often result in higher-than-normal repair and maintenance (R&M) costs due to aging equipment remaining in service longer than intended
- Minimizing vehicle downtime caused by late or rushed assembly and upfitting.

Key Performance Indicators (KPI's)

Fleet Services tracks and reports annually on various KPI's to actively manage the County's fleet operations. These KPI's include:

- Total number of assets by department
- Annual kilometers travelled
- Fuel consumption
- Alternative fuel vehicle count
- Green House Gas (GHG) emissions
- Number of repair work orders completed

These KPI metrics are reported publicly through a combination of the annual Business Plan and Budget, as well as the County's Annual Energy Report.

7.0 Conclusion

Fleet management is a critical component of the County's day-to-day operations across several departments and operating in an effective and efficient manner has significant ramifications regarding service levels, as well as financial and environmental performance. The broad fleet industry is rapidly evolving and constantly contends with global pressures that affect a number of fleet management aspects.

The County's Fleet Services has evolved in recent years to combat these pressures and optimize fleet performance. Fleet Services will continue to keep up to date with the latest available technology and seek to implement where it suits operational needs and brings value to the organization. Through the initial implementation of the Green Fleet Plan, Fleet Services has had time to evaluate new technologies and completed extensive testing and data collection, which has proven that a diversified fleet brings more value by looking at matching the right application with the operational need, and implementing the solution that brings the best overall life cycle cost. At this time, the intent of the Green Fleet Plan has been fully implemented and adopted into normal processes within Fleet Services.

Moving forward, this Fleet Management Plan provides transparency on how the County's fleet is managed, through procurement, operations, maintenance, regulatory compliance and asset management. Staff will review this plan every 5 years and will report back to Council if and when any structural changes are intended to be made to this plan.