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## 2023 Department Overview

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### Public Works Department

#### Service Description

##### **Mutual Trust and Respect**

We value people's opinions, contributions, and feedback not only from within our department and the organization as a whole, but from our external customers. We strive to provide quality customer service and to be courteous, fair, consistent, and helpful.

##### **Honesty and Integrity**

We aim to be open, transparent, align our actions with our values and hold ourselves accountable for our actions. We strive to deliver our programs and services with high standards making every effort to live up to our commitments.

##### **Collaboration/Communication**

Communication is a vital component of all work carried out in the Public Works (PW) Department, whether it is with internal staff, contractors and consultants, the public, member municipalities and/or other outside agencies, elected officials and stakeholders. We collaborate with all our partners to ensure everyone is informed on what we are doing and to provide the opportunity for feedback and consultation as well as to gain efficiencies in local government through shared resources. By sharing ideas and experiences, we believe collective knowledge and effectiveness is achieved. We firmly believe that collaboration and communication define successful relationships.

##### **Caring and Supportive**

The multi-disciplined PW Department delivers a wide range of municipal services with care and support. Subject matter experts in the department understand and respect the needs of our customers, business partners and constituents and deliver services in a caring and supportive manner. We respect and understand the needs and priorities of our internal and external partners and continually work with them to further develop a caring culture in our community.



## **Accountability**

The PW Department is accountable to all our customers, ensuring that we provide a service that is in line with our core values. We are responsible for working in and providing a safe environment and we are always ready to take responsibility for our behaviours, actions, and results.

## **Innovation and Excellence**

The PW Department strives to deliver the highest quality services, while continually looking for new, innovative products or methodologies to improve efficiencies and effectiveness. Examples include the development and implementation of Cityworks in collaboration with the Finance Department for County wide asset management; switching to salt brine product for anti-icing, which results in less salt being applied to the roadways during winter operations while achieving the same results; developing and issuing multi-year joint tenders for various services and materials to reduce administrative time in preparing annual tenders and to obtain competitive pricing; collaboration with member municipalities to provide services and a consistent standard for data management within the County through data hosting and managed service agreements and shared licensing.

## **Engineering Group**

The Engineering Group sets priorities and goals for the management of the Public Work assets. The Engineering Group is comprised of three divisions: Major Capital Projects, Infrastructure, and GIS and Asset Management. The roles and responsibilities for each Division is described below.

### **Major Capital Projects:**

Major Capital Projects Division (MCP) supports large-scale projects along with technical staff such as architects, project engineers and construction inspectors. MCP is responsible for planning, designing, developing, and overseeing the construction of projects. MCP will continue to develop new projects with the County, as well as with our member municipalities, and provide our clients with turnkey projects assisting them throughout the entire development process. MCP allows our customers the opportunity to have an in-house project management firm looking after their interests and all the responsibilities that come with a major project so that they can continue with the day-to-day operations of their department.

Major Capital Projects is responsible for supporting the following Capital Projects within the County:



- The Golden Plough Lodge and Northumberland County Archives and Museum redevelopment, construction start December 2020, completion anticipated in 2024;
- The Elgin Park Affordable Housing Redevelopment Project, anticipated construction start of Fall 2021, estimated completion in late 2023.

### **Infrastructure:**

The Infrastructure Division administers delivery of the municipal infrastructure capital works program. Responsibilities consist of capital works planning, programming, confirming budgets, overseeing feasibility studies, municipal class environmental assessment (EA) studies, corridor management, preliminary and detailed design, construction administration and overall project management for roads, bridges, streetscape, traffic signals, street lighting, storm water management, erosion control works, water courses, and trails. The Transportation capital works program is valued in excess of \$10 million annually. The Infrastructure division is also responsible for review and approval of planning and development applications as well as municipal consents and permitting for utilities within the County right-of-way.

The Infrastructure Division in collaboration with the Road Operations Division strives to improve the benchmarks of high performance for our transportation network including:

- Providing a safe and efficient road network
- Meeting or exceeding Minimum Maintenance Standards
- Ensuring economic efficiency and organizational excellence
- Quality design and construction of sustainable infrastructure

### **GIS and Asset Management**

The GIS and Asset Management Division is responsible for managing the County GIS through development and maintenance of the GIS database which includes roads, infrastructure, property fabric, LIDAR elevations, air photo imagery, and other County facilities and housing.

In the area of Asset Management, the team manages the County's Asset Management software, Cityworks, develops and updates the County's Asset Management Policy and Plan in accordance with Ontario Regulation 588/17 - Infrastructure for Jobs and Prosperity Act, 2015, and assists with capital planning.

### **Operations Group**

#### **Road Operations**



The Road Operations Division is responsible identifying regional road maintenance needs, and for establishing and implementing effective strategies and programs to keep the roadways safe and effective year-round, for all road users.

Responsibilities include summer maintenance, consisting of pothole repairs and patching, sweeping, shoulder grading, removal of road debris, brush, and trees, ditching and entrance installations for property owners along County Roads. Winter maintenance includes snow plowing, sanding, and salting of County Roads and culvert thawing. Year-round safety maintenance includes repair and replacement of safety devices (guide rails/posts), traffic signage, traffic control, emergency road closures and call-outs.

The Road Operations Division operates a surface treatment program for County Roads and works collaboratively with member municipalities to complete surface treatment of municipal roads within their approved budget. The Division also encompasses fleet management for all County departments.

### **Waste Operations**

Waste Management services offered by Northumberland County include the collection, processing and transfer or disposal of residential and Industrial, Commercial, and Institutional (IC&I) garbage, organic waste, and recyclables, the composting of yard waste, and the management of household hazardous waste (HHW) and electronic waste.

Currently, the County contracts out the curbside collection of garbage, organic waste, recyclables, and leaf and yard waste to a third party. The County owns and operates a Material Recovery Facility (MRF), which processes residential and IC&I recyclable materials. With the exception of separated organic waste and leaf & yard waste, collected waste is currently being landfilled. The County owns one (1) active landfill site (Brighton Landfill) and two (2) waste transfer stations (Bewdley Waste Transfer Station and Seymour Waste Transfer Station) – all of which are now referred to as “Community Recycling Centres. The County also pays for the operation of a third waste transfer station, which is owned and operated by the Municipality of Port Hope and used solely by its Ward 2 residents.

The County of Northumberland has continued to provide residents and the IC&I sector with successful diversion programs through the operation of a two-stream recyclables MRF; an organic waste collection and diversion program; the operation of three leaf and yard waste composting sites; as well as diversion programs for scrap metal, tires, drywall, electronic waste, hazardous waste, bulky plastics, Styrofoam, textiles, and Freon containing items. Waste reduction and diversion efforts have improved through the maintenance of our County-wide bag tag system, and continuous improvement programs have been implemented through the County’s Waste Management By-Law (No. 2018-22). Among other things, this By-law regulates our waste management services systems.



In addition to its three (3) active disposal sites, (1 landfill, and 2 waste transfer stations), the County is responsible for the perpetual care of nine (9) closed landfills (Baltimore, Bewdley, Cramahe, Eagleson, Grafton, Highland Drive, Hastings, Seymour, and an un-named Landfill in A/H).

## **Facilities**

The Facilities Services Division provides advice and maintenance services to all County Departments as well as the Northumberland Non-Profit Housing Corporations. Responsibilities include repairs and maintenance of all County owned buildings, infrastructure, grounds, and implementation of capital building projects and/or providing project management services to all County departments and area municipalities.

The Facilities Services Division assists in the development of short and long-term building maintenance plans for all County departments. We will continue to explore and develop new and improved methodologies of delivering the best service possible.

## **Mandatory Programs**

### **Engineering Group**

#### **Major Capital Projects:**

The Major Capital projects team delivers a wide range of diverse, complex projects to support the needs and requirements of the various departments including the infrastructure group, Social Services, Corporate Services, Paramedics, etc. Each project is driven by the requirements and needs of that department that may be driven by legislative requirements (i.e., GPLNCAM redevelopment) or other needs that have been identified and approved by Council (Campbellford Bridge). Each project is unique and is required to follow the relevant applicable legislation, codes, and standards such as the Environmental Assessment Act, Ontario Building Code, Ontario Fire Code, Accessibility Standards, etc.

#### **Infrastructure:**

##### **Bridge/Structure Inspections (O. Reg. 104/97):**

Northumberland County is responsible for completing structural inspections under the direction of a professional engineer in accordance with the Ontario Structure Inspection Manual (OSIM) every second calendar year. A structure under this regulation is defined as:



- bridges, culverts, and tunnels with a span greater than 3 metres
- All retaining walls
- All movable bridges

Under this definition the County owns 113 bridges and culverts and 20 retaining walls.

The County is also responsible for keeping structures safe and in good repair. The County completes regular maintenance and repair as per O. Reg. 239/02 (Minimum Maintenance Standards) and has also developed a 10-year capital plan for structure maintenance and rehabilitation to maintain and extend the life of our assets.

**Ontario Underground Infrastructure Notification System Act, 2012:**

As of June 19th, 2014, every municipality in Ontario was required to become a member of Ontario One Call (ON1Call) in accordance with the Ontario Underground Infrastructure Notification System Act, 2012. As a member of ON1Call, the County is responsible for responding to all locate requests received within five (5) days and respond to emergency locate requests within two hours of receiving the request.

**Environmental Assessment Act, R.S.O. 1990, c.E.18:**

All capital works projects must be completed in accordance with the Environmental Assessment Act and more specifically with the Municipal Class Environmental Assessment process.

**Ontario's Building Broadband Faster Act**

The County's corridor group receives, reviews, and approves all municipal consent applications and permits for utilities within the County Right-Of-Way. In 2022, new legislation was introduced to allow for faster approvals for broadband development that requires the County to review all broad band infrastructure proposals within 10-15 days of receipt. Failure to meet these timelines exposes the County to financial penalties.

**More Homes Built Faster Act (proposed)**

The proposed legislation includes updates that may impact the County's review of planning and development applications. Further information will be included when legislation is passed.

**GIS and Asset Management**

**Ontario Regulation 588/17 - Infrastructure for Jobs and Prosperity Act, 2015:**

As of December 27, 2017, changes to the municipal infrastructure asset management came into effect for Ontario municipalities and was amended on March 15, 2021. The major



requirements as part of the new regulation include development of an Asset Management Policy by July 1, 2019, development of an Asset Management Plan for Core Assets by July 1, 2022, and update of the Asset Management Plan (AMP) to include all assets by July 1, 2024. Every municipality is required to review and update its Asset Management Policy and Plan at least every five (5) years. The AMP will include the summary of all assets, replacement costs, age and condition of the assets, lifecycle information including years of useful life, maintenance, and repair activities as well as rehabilitation/replacement options.

## **Operations Group**

### **Road Operations:**

Under the Provincial Regulation 239/02 the Minimum Maintenance Standards for Municipal Highways, Northumberland County is responsible to maintain a safe and effective road network to meet our obligations and to provide quality services to our residents and traveling public.

### **Winter Maintenance:**

The County strives to adhere to the Winter Provincial Minimum Maintenance Standard (MMS) for Municipal Highways as prescribed by O. Reg. 239/02. This includes patrol frequency, snow accumulation, icy road formation, and deploying resources, as soon as practical, after becoming aware of needs, and ensuring an efficient and effective winter control program.

### **Salt Management:**

The County follows the Council approved Salt Management Plan for the proper storage and application of salt. Northumberland County aims to be a best practices leader by using de-icers in an environmentally sensitive manner to improve the efficiencies and effectiveness of winter maintenance and response to snow/ice events.

### **Roadway Maintenance:**

This includes repair of asphalt or surface treatment on County Roads. Other roadway maintenance activities include pothole repair, crack repairs, utility cut repairs, traffic sign repairs, vegetation control, sweeping, drainage improvements, catch basin and maintenance hole cleaning and repairs on County Roads.

### **Road Patrol:**

The County carries out road patrols in accordance with the patrol frequency as prescribed in the MMS of O. Reg. 239/02, on all County roads, year-round.

### **Safety Devices:**



This includes repairs and maintenance of flex beam guiderail and 3-strand cable safety devices, as well as replacement of defective or damaged road signs.

**Roadside Maintenance:**

This includes items such as grass cutting, ditching, debris pick up, tree / brush removal, culvert repairs, flood control, shoulder grading.

**Sign Reflectivity:**

Reflectivity of County regulatory and warning signs are checked annually, and all other signs biennially using a RoadVista retro-reflectometer to ensure they comply with the MMS O. Reg. 239/02 for sign retro-reflectivity.

**Waste Operations**

**Recycling of Blue Box Materials (O. Reg. 101/94):**

Northumberland County is mandated, by O. Reg. 101/94 to provide a curbside collection service for “Blue Box” recyclable materials to its residents. The County contracts this service out to a third party.

The County is also responsible for ensuring that the materials collected are processed and sent to end markets to be recycled. In the early 1990’s the County elected to construct and operate a Material Recovery Facility (MRF) in order to process the “blue box” recyclable materials collected from its residents. The MRF continues to be owned and operated by the County. Currently the MRF receives, and processes materials collected as part of its curbside collection program, as well as materials for private sector businesses in the County.

**Landfills and Waste Transfer Stations (O. Reg. 347):**

The County is approved, through Environmental Compliance Approvals (ECAs) issued by the Ministry of Environment, Conservation and Parks (MECP) to operate two (2) Waste Transfer Stations (Bewdley and Seymour Waste Transfer Stations) and one (1) active landfill (Brighton Landfill). The County refers to these facilities as “Community Recycling Centres”.

In addition to these three (3) Community Recycling Centres (CRCs), the County is also required, by ECAs, to provide perpetual care and environmental oversight of seven (7) closed landfill facilities located within the County.

**Leaf & Yard Waste Composting (O. Reg. 101/94):**

Northumberland County is mandated, by O. Reg. 101/94 to provide a leaf and yard waste diversion program to its residents. To satisfy this requirement, the County operates three (3)





Leaf & Yard Waste Composting facilities. One is located at each of the County's three (3) CRCs.

**Waste Haulage Services (O. Reg. 347):**

The County is approved, through an ECA issued by the Ministry of Environment, Conservation and Parks (MECP) to operate a waste haulage service. This approval enables the County, through the use of its fleet of three (3) roll-off trucks and its inventory of roll-off bins, to haul waste materials from its Bewdley and Seymour CRCs, the Hope Transfer Station, and the MRF to the Brighton Landfill for disposal.

**Facilities**

The Facilities Services Division is responsible for providing services to various site locations including 344 Housing Units, three (3) Corporate Buildings, six (6) Paramedic Bases, the Golden Plough Lodge, one (1) Landfill and two (2) Waste Transfer Stations, one (1) Material Recovery Facility, four (4) Roads Depots and the Ontario Agri-Food Venture Centre (OAFVC). The mandatory programs for each site are as follows:

- Repairs and maintenance which includes life safety work, plumbing, security, electrical, HVAC, paint and drywall, landscaping, and snowplowing;
- Develop fire plans for each County building as legislated by the Ontario Fire Code O. Reg. 213/07;
- Conduct fire drills for all housing and corporate building as legislated by the Ontario Fire Code O. Reg. 213/07;
- Monitor utilities for all County buildings;
- Ensure facilities staff and contractors operate within the Ontario Occupational Health and Safety Act and Regulations and take all necessary training;
- Implementation of the County's 5-Year Energy Conservation Plan as mandated by the Energy Green Act, 2009;
- Accessibility improvements to all County buildings and new builds.

## Discretionary Programs

### Engineering Group

#### Major Capital Projects

Major Capital Projects has committed to supporting the following on-going and projected projects once they are approved, and once names and dates have been determined:



- GPLNCAM Redevelopment
- Elgin Park Development
- Brighton Joint Fire and Paramedics Base
- Northumberland County Joint Operations Facility
- Affordable Housing Development located at 473 Ontario Street – Design and Construction
- Port Hope Affordable Housing Project 1
- Forestry Operations Base Development Project

## **Infrastructure**

### **Pavement Rehabilitation and Maintenance:**

Development and implementation of a 10-year capital plan for pavement rehabilitation and maintenance for the 498km of County roads. Development of the plan involves biennial Pavement Condition Index (PCI) surveys to determine the condition of the road, prioritization based on the PCIs as well as numerous other factors including traffic volumes, collision data, rehabilitation strategy, road users, recommendations from previous studies or master plans, budget, etc. Implementation involves potential completion of a Municipal Class Environmental Assessment (EA) for the project, engineering survey and design, public and agency consultation, securing approval from agencies, tender preparation, budget approval and securing funding from other levels of government, and construction contract administration and inspection.

### **Bridge Rehabilitation and Maintenance:**

Development and implementation of a 10-year capital plan for bridge rehabilitation and maintenance for the County's 112 bridges, 20 retaining walls, and hundreds of culverts less than 3 metres in diameter. Development of the plan involves biennial structure inspections in accordance with Ontario Structure Inspection Manual (OSIM) to determine the condition of the structure, prioritization based on the OSIMs as well as numerous other factors including traffic volumes, collision data, rehabilitation strategy, road users, recommendations from previous studies or master plans, budget, etc.. Implementation involves potential completion of a Municipal Class EA for the project, engineering survey and design, public and agency consultation, tender preparation, budget approval and securing funding from other levels of government, and construction contract administration and inspection.

### **Traffic Safety Measures:**

Annual programs to improve traffic safety include roadside safety devices (guiderails), traffic signal maintenance and upgrades, installation of rural streetlights at County Road intersections. Safety improvements are also identified through the Transportation Master Plan and various other studies and the implementation of safety measures can vary from year



to year and can include intersection improvements, installation of warning lights/signs, pavement markings, railway crossing safety improvements in partnership with Canadian National Railway (CNR), Canadian Pacific Railway (CPR) and Transport Canada, etc.

**Service Expansion:**

The Core Infrastructure Team manages major EA studies for service expansion of the County Road and bridge network, including the Trent River Bridge and Arterial Road Network EA, the County Road 2 EA, as well as Master Plan studies including the Cycling Master Plan (adopted by County Council in 2012), and the Transportation Master Plan (adopted by County Council in 2017). Implementation of these studies is on-going.

The Core Infrastructure Team also reviews planning and development applications on County roads to ensure any traffic, stormwater, or other development related impacts are mitigated and to ensure that the necessary County infrastructure improvements because of development are addressed.

**GIS / Asset Management:**

GIS is a growing service within the department, and not only provides service to the PW Department but also all other County Departments and member municipalities through the GIS Co-operative and managed service agreements. The GIS group, in collaboration with the Finance Department is also responsible for fulfilling requirements under Ontario Regulation 588/17 for asset management as described above. This involves maintaining assets in the GIS and Cityworks software and producing various reports, as well as the development and review of the asset management policy and plans.

**Operations Group**

**Road Operations:**

**Fleet Management:**

The Road Operations Team oversees the management of the County's fleet for all departments including repairs, maintenance, and acquisition of fleet vehicles, off-road and specialized equipment, CVOR inspections and safety inspections.

**Gravel Pits:**

The County has four (4) licensed gravel pits (Weatherson, Packard, Little Lake, and Knights) and one (1) closed gravel pit (Cremanis), which we surface excavate to extract stone; this material is used on some of our road construction and maintenance projects.



**Special Event Road Closures:**

The County works with local municipalities on temporary closures of County Roads to accommodate special events.

**Road Safety:**

The Road Operations Team maintains numerous safety features within the County ROW including community safety zones, safety devices, traffic signs, radar speed signs, traffic calming areas, etc.

**Surface Treatment:**

The County owns the equipment required to surface treat roadways for both County and member municipalities. Over many years the County has developed a well-established surface treatment program based on collaboration between the County and member Municipalities and successfully surface treats over 100 kilometers of roadway annually.

**Waste Operations**

**Curbside Collection of Garbage, Organic Waste and Leaf & Yard Waste:**

The County is not mandated to provide curbside garbage, organic waste, and leaf and yard waste collection. These are services the County has elected to provide.

The County provides year-round weekly curbside garbage, and organic waste collection and seasonal curbside collection of leaf and yard waste to its residents and some smaller commercial entities.

The garbage collected is disposed of at the Brighton Landfill; the organic waste collected is sent to a MECP approved processing facility, where it is processed into compost; and the leaf and yard waste collected is received at one of the County's three composting facilities (one at each Community Recycling Centre).

**Household Hazardous Waste (HHW) & Electronic Waste (E-Waste) Disposal:**

The County is not mandated to provide a service to its residents for the disposal of HHW & E-Waste; however, in the interest of keeping as much HHW and E-Waste from being improperly disposed of in landfill, the County elects to provide this service.

The County currently provides year-round access to HHW and E-Waste disposal at its Brighton and Bewdley CRCs. It also operates a seasonal HHW & E-Waste depot at its Seymour CRC.

HHW & E-Waste materials are accepted free of charge from all County residents.



## **Facilities**

The Facilities Division offers discretionary programs for the following sites: 344 Housing Units, three (3) Corporate Buildings, six (6) Paramedic Bases, one (1) Landfill and two (2) Waste Transfer Stations, one (1) MRF, four (4) Roads Depots and an Agri-Food building; and includes the following:

- Prepare 10-Year Capital Plans for all County Buildings;
- Implement capital work for all County Buildings;
- Project management for the design and construction of all new builds;
- Ensure facilities and inspection staff have the proper training/education to keep current in their field;
- Development and implementation of the energy green projects.

## **Partnerships**

Informal collaboration and partnerships are on-going in both engineering and operations between peers for sharing of equipment, knowledge, etc., and is often facilitated through quarterly Inter-Municipal Public Works Committee Meetings.

The Public Works Department has also participated in local High School Co-op programs and Colleges to provide local students an opportunity to work and learn about engineering and operations in a municipal environment.

## **Engineering Group**

### **Major Capital Projects**

The Major Capital Projects Division has partnerships with all County departments, as well as all member municipalities and local fire departments (recently completed joint fire and paramedic base in Colborne, Roseneath and Campbellford). The MCP Division also work closely with government regulated bodies such as Technical Standards and Safety Authority (TSSA) and Electrical Safety Authority (ESA), and local building officials.

### **Infrastructure**

The County works closely with our Engineering and Public Works peers in member municipalities by sharing knowledge and resources in several different capacities. The County has issued a number of joint tenders/request for proposals (RFPs) with the member municipalities for various services including Pre-Qualification for an Engineering, Architectural and Environmental Services Roster, OSIM inspections, Microsurfacing, Culvert Supply, Traffic



Signal Maintenance, Roadside Safety Devices, Traffic Control Markings and Crack Sealing. It is anticipated these and other joint tendering opportunities will continue.

### **GIS and Asset Management**

The GIS Division works closely with each of our member municipalities through the Northumberland GIS Cooperative which was formed in 2008 as a forum for sharing data, knowledge, and experience, as well as enable growth of individual and shared GIS network through various cost-sharing initiatives and projects. In addition, there are currently four (4) GIS Managed Service Agreements (MSA) in place with member municipalities and a variety of services are provided under these, including but not limited to, asset mapping for software integration, data collection, web application and mobile app development, data hosting services, planning, and zoning updates, parcel fabric updates and ad hoc mapping deliverables.

### **Operations Group**

#### **Road Operations**

The Road Operations Division has developed maintenance agreements with the member municipalities as well as neighbouring municipalities to provide more effective and efficient summer and winter operations.

#### **Waste Operations**

##### **Alderville First Nation:**

In 2018, the County and Alderville First Nation (AFN) entered into a service agreement, whereby the County agreed to provide waste management services to the residents AFN. This service agreement, benefits both parties. AFN receives more cost-effective services and access to all of the waste management service the County provides; and the County anticipates capturing more recyclable materials that would otherwise have gone to the Brighton Landfill, or elsewhere, for disposal.

#### **Facilities**

The Facilities division continues to work with the NCHC board to maintain, improve and expand the housing portfolio in Northumberland County.

## **Environmental Scan**

### **Population & Demographics**

### **Engineering Group (All Divisions)**



Population growth and the resulting increased traffic volumes will place continuing pressures on roadway capacity. The aging of the population will lead to pressures to upgrade the general safety aspects of the roadway system. Older drivers on more congested roads will need larger factors of safety to maintain and lessen existing accident levels.

As drivers who are accustomed to higher standards in urban areas, such as the Greater Toronto Area, relocate to Northumberland County, driver expectations are raised with respect to road standards and the potential for accidents and litigation increases.

Increasingly, road authorities are involved in litigation related to road maintenance, design and installation of various road elements such as exposed bridge abutments, unprotected embankments, road conditions due to weather impacts, etc. This provides an increasing incentive to ensure proper construction and maintenance of our County road system.

Design and construction of roads, bridges, buildings need to take into consideration environmental impacts and sustainability.

Major Capital Projects is working on two LEED Silver certified buildings and continue to investigate new building systems such as Passive House and Integrated Project Delivery and developing formats that will work on various projects with the newest sustainable building methods.

The impact of these demands and how they may affect future service delivery and use of assets have been identified and documented in the County's approved AMP for core infrastructure. Moving forward, maintaining an inventory of County assets and accurate maintenance, operations, and replacement costs through the use of Cityworks will be vital in future planning and decision making.

## **Operations Group**

### **Road Operations**

Population growth and the resulting increased traffic volumes will place continuing pressures on roadway capacity. Older drivers on more congested roads will need larger factors of safety to maintain and lessen existing accident levels.

As drivers who are accustomed to higher standards in urban areas, such as the Greater Toronto Area, relocate to Northumberland County, driver expectations are raised with respect to road standards and the potential for accidents and litigation increases.



Increasingly, road authorities are involved in litigation related to road maintenance, road conditions due to weather impacts, etc. This provides an increasing incentive to ensure proper construction and maintenance of our County road system.

### **Waste Operations**

Residential and IC&I growth, and the continued influx of seasonal residents, will generate steady increases in waste services demand in Northumberland County. These trends will continue into the foreseeable future. All levels of government are working with waste generators to reduce waste through alternatives and / or reductions in product packaging.

Recently, the Province announced that Producers of printed paper and packaging will become fully responsible for the recyclable products they introduce into the marketplace. Currently the County is legislated to provide a recycling collection program to its residents, and Producers are required to cover 50% of the net cost of the recycling program the County provides. When Producers become fully responsible for their recyclable products, they will be responsible for 100% of the cost, and also fully responsible for ensuring that their materials are captured and recycled. The Province is calling for the transition of recycling services, from municipalities to Producers, to be phased in over a three-year period, between 2023 and 2025. The County will transition on January 1, 2024. The County may choose to enter into service agreements with Producers, to continue to offer curbside collection services for recyclables, however, Producers may choose not to enter into such a service agreement.

### **Facilities**

The County of Northumberland (County) is a geographically large municipality that is composed of urban and rural areas. Northumberland County has several urban areas including Port Hope, Cobourg, Brighton, Grafton, Colborne, Hastings, Campbellford and Warkworth.

There are 877 social housing units in Northumberland County and under the Local Services Restructuring Act January 1, 1998, the County became the service manager for the above-mentioned social housing and is directly responsible for 344 of the units.

The County has three (3) corporate buildings in the Cobourg area which provide office spaces for staff. They consist of our Headquarters building located at 555 Courthouse Road, our 860 William Street building which houses POA and the Provincial Courts, and our 600 William Street building which contains our Paramedics headquarters, along with our Food-4-All warehouse. The County also owns and operates the Golden Plough Lodge.

The County has four (4) roads depots; they are located in Cobourg, Morganston, Roseneath and Plainville, with a total of sixteen (16) structures to maintain.





The County has a niche food processing facility known as the Ontario Agri-Food Venture Centre (OAFVC) located in Colborne, a Material Recovery Facility (MRF) located in Grafton, one active landfill located in Brighton, and two waste transfer stations; one located in Bewdley and one in Campbellford.

Northumberland County currently owns five (5) paramedic stations: Cobourg, Port Hope, Roseneath, Campbellford, Colborne and the County rents space in Brighton.

## **Funding**

### **Engineering Group**

#### **Major Capital Projects**

The MCP Division has developed a 10-year capital plan for major projects. Funding is a combination of levy, and grants/funding from other levels of government when available with cost sharing incorporated for joint projects with member municipalities such as joint Fire and Paramedics Bases.

Based on the 10 year plan a total of \$130,000,000 is required for various housing projects (Elgin Park Redevelopment, etc.), the Golden Plough Lodge and Northumberland County Archives and Museum Redevelopment, the new Campbellford Bridge and arterial road network, and the Joint Operations Facility.

#### **Infrastructure**

The budget to maintain the County roads system had been under-funded in the past with the result that the condition of County roads and bridges were deteriorating at a rate that exceeded the County's ability to maintain them.

Between 1995 and 2002, the money that was allocated from the property tax levy for road construction and maintenance was not increased at a rate that would allow the County to cover the loss of provincial funding, the additional roads downloaded by the Province, or the increased cost of labour and materials to maintain them. In fact, the levy was decreased each year so that, by 2001, there was only \$358K for the levy funded capital roads and bridges program.

During the 2002 budget process, a multi-year strategy was adopted to gradually ramp up the County tax levy funding to a level that would maintain the County road system at an acceptable level. This program was adopted by Council to increase the capital roads levy by \$400,000 each year, thus reducing the draw on the Highway Reserve by a corresponding \$400,000 per year.



Since 2002, the roads capital program has generally grown through an annual levy increase of \$400,000 and beginning in 2008, the bridge maintenance levy was further increased by \$100,000 annually. Since 2018, an annual increase of \$500,000 for Transportation funding overall has been requested (actual increase has been less), to provide flexibility where the funding is needed each year (i.e., roads, bridges, safety improvements, or service expansion). Since 2006, the capital roads budget also utilized other available funding sources to supplement the capital roads program, such as the highway reserve, the federal gas tax rebate, the one-time Move Ontario funding, the one-time Build Canada Fund, the Municipal Infrastructure Initiative (MII), and most recently the Ontario Community Infrastructure Fund (OCIF) for both formula funding and top-up funding), and Clean Water and Wastewater Fund (CWWF). There has been uncertainty in the continuity of the OCIF Formula funding, however, the County has recently been notified that OCIF formula funding will be provided for 2023 within 15% of the previous years' funding, which equates to approximately \$1.3M and has been included in the 2023 Capital Plan to fund the annual \$500,000 levy increase with the remaining funding to be transferred to the Campbellford Bridge Reserve.

The Canadian federal government has invested in environmentally sustainable municipal infrastructure through the transfer of Federal Gas Tax revenue to municipalities, which was made permanent through federal legislation. In 2022 the County anticipates receiving \$2,699,055 of Federal Gas Tax funds to support the capital construction program.

### **GIS and Asset Management**

The GIS/AM program has had steady growth since 2012 and is funded through County base levy, cost-sharing initiatives with our member municipalities (i.e., SCOOP aerial photos, Northumberland Digital Elevation Model), and municipal service and data hosting agreements. It is anticipated that requests for MSA's and/or the number of allotted hours in these agreements will continue to increase over the next few years.

## **Operations Group**

### **Road Operations**

The mandatory road maintenance program is funded from base levy funds as the County endeavours to meet the needs of the travelling public, to support the movement of goods and services throughout our region, and to support growth.

Cost-of-living increases are typically experienced in the areas of materials and supplies used in road maintenance activities, such as fuel, road salt, gravel, negotiated contract settlements and other such products.



Variances in operating costs can result from extreme weather conditions that may be experienced during a heavier than normal winter season or during extreme summer rainstorm events. The County has developed a Road Maintenance Reserve equal to about 50% of the annual winter maintenance budget to support periods when extreme weather events impact the base operating budget.

Variance in operating costs can also result from fluctuations in global markets affected by national and international affairs, as was recently highlighted by increased building and material cost in 2021 due to the COVID 19 Pandemic.

### **Waste Operations**

The budget projection is based on the support from revenues of the sale of recyclable materials, landfill tipping fees, user pay fees and stewardship funding initiatives. The waste management operation is not totally funded by the above referenced revenue streams and there has been an ongoing tax levy contribution each year. In 2023, the anticipated tax levy contribution will be approximately \$8.3 million. This represents a 6.5% increase over the 2022 levy contribution.

Northumberland County continues to obtain funding for our recycling programs from Stewardship Ontario, as mandated in the Waste Diversion Act. Based on the funding formula being used to administer this legislation, the County of Northumberland will receive approximately \$1.8 million to support its 2023 residential recycling operating initiatives.

In addition to Stewardship Ontario funding for “blue box” material recycling, the Waste Services Division also anticipates receiving funds from Producer Responsibility Organizations (PROS) who are responsible for Household Hazardous Waste and Electronic Waste, and Batteries. In 2023 it is anticipated that the Waste Services Division will receive approximately \$100,000 in funds for its management of these materials.

### **Facilities**

The overall condition of the County’s buildings and housing reflect a prosperous and sustainable community. It is imperative that the County develops a self-sustaining base capital budget to sustain vital housing infrastructures.

The Facilities Services Division has developed 10-year capital plans for all the buildings mentioned above. Our primary source of funding is from the levy each year; however, we do apply for funding grants from other levels of government when available.

Based on our need’s analysis, the County facilities annual construction program should be \$600,000 for the Social Housing stock and \$400,000 for existing Corporate buildings.



## **Legislative**

### **Engineering Group**

#### **Major Capital Projects**

Major Capital Projects (as well as its contractors and sub-contractors) completes projects in compliance with the following legislation for both new builds and renovations:

- Ontario Building Code
- Ontario Fire code
- Environmental Assessment Act, R.S.O. 1990, c.E.18
- More Homes Built Faster Act
- Accessibility for Ontarians with Disabilities Act, 2005
- Smoke-Free Ontario Act
- Ontario Electrical Safety Code
- Technical Safety Standards Authority
- Leadership in Energy and Environmental Design (LEED)
- Local by-laws and permits

#### **Infrastructure**

The Infrastructure Division designs and constructs the road system in compliance with the following legislation:

- The Municipal Act
- The Public Transportation and Highway Improvement Act
- The Highway Traffic Act
- Ontario Regulation 239/02, Minimum Maintenance Standards for Municipal Highways
- Ontario Regulation 104/97, Standards for Bridges
- Ontario Underground Infrastructure Notification System Act, 2012
- The Environmental Assessment Act, R.S.O. 1990, c.E.18
- Accessibility for Ontarians with Disabilities Act, 2005
- Ontario Regulation 588/17, Infrastructure for Jobs and Prosperity Act, 2015
- Building Broadband Faster Act
- More Homes Built Faster Act
- Any other applicable and pertinent legislation.

#### **GIS and Asset Management**

The GIS and Asset Management Division manages the County's GIS and development and maintenance of assets in compliance with the following legislation:



- Accessibility for Ontarians with Disabilities Act, 2005
- Ontario Regulation 588/17, Infrastructure for Jobs and Prosperity Act, 2015, and
- Any other applicable and pertinent legislation.

## **Operations Group**

### **Road Operations**

The Road Operations Division maintains and repairs the County Road System in compliance with the following legislation:

- The Municipal Act
- The Public Transportation and Highway Improvement Act
- The Highway Traffic Act
- Ontario Regulation 239/02, Minimum Maintenance Standards for Municipal Highways
- Ontario Regulation 104/97, Standards for Bridges
- Ontario Underground Infrastructure Notification System Act, 2012
- Accessibility for Ontarians with Disabilities Act, 2005
- CVOR, Hours of Work

### **Waste Operations**

Waste services initiatives are in response to

- Bill 201 of the Municipal Act
- Environmental Protection Act
- Waste Free Ontario Act
- Ontario Regulation 101/94 Recycling and Composting of Municipal Waste
- Ontario Regulation 347 General – Waste Management
- Various Municipal Bylaws.

In 2016, *The Waste Diversion Act (Bill 90)* was replaced by *the Waste Free Ontario Act (Bill 151)*. The *Waste Free Ontario Act* contains two supporting Acts, those being the *Waste Diversion Transition Act* and the *Resource Recovery and Circular Economy Act*. Under the *Waste Diversion Transition Act*, municipalities are still responsible for providing “Blue Box” recycling services to their residents. The overarching *Waste Free Ontario Act* will transfer the responsibility for managing Blue Box materials and other waste materials, such as Household Hazardous Waste (HHW) and Electronic Waste from municipalities to the individuals or businesses that produce the various waste streams. The MECP’s Strategy for a Waste Free Ontario recommends that the responsibility for managing Blue Box material be transitioned to the producers in between 2023 and 2026. The County will transition on January 1, 2024. Until the transition occurs, the



County will still be responsible for managing a Blue Box program for its residents and will continue to receive 50% funding of the Blue Box program from the producers.

The County is committed to pro-actively managing its operating and closed landfills in an environmentally sound manner to minimize existing and future environmental impacts and maintain compliance with O. Reg. 347.

### **Facilities**

The Facilities Services Division is committed to pro-actively maintaining and repairing all buildings in accordance with the:

- Ontario Building Code
- Ontario Fire Code
- Accessibility for Ontarians with Disabilities Act
- Local by-laws and permits

Further detail on some of the requirements under these various acts are included in mandatory programs, above.

### **Economic Factors**

### **Engineering Group**

### **Major Capital Projects**

The County's Major Capital Projects are funded by a variety of sources including Levy funding, debenture financing and Ministry Funding. Fundraising and shared services from involved lower tiers also contribute to the project financing.

### **Infrastructure**

The investments made by County Council since 2003 has had a measurable impact on the County road network. Funds provided through capital roads levy increases in combination with Federal and Provincial grants has resulted in improvements to the overall condition of the road network with:

**Road system adequacy improvements  
from 24% in 2003 to 54% in 2020.**

However, this has partially been achievable with the unsustainable grants provided by the higher levels of government. Windfall grants from senior levels of government may not be relied upon as a regular source of sustainable infrastructure funding.



The overall condition of the transportation system reflects an attractive and prosperous community, and it is imperative that the County continues to develop a self-sustaining base capital budget needed to sustain the vital transportation infrastructure.

The County's approved Asset Management (AM) Plan for core assets (roads, structures, and storm sewer) identifies the necessary funding required to provide services is \$29M on average per year over the 10-year planning period. The anticipated planned budget for core assets leaves a shortfall of \$9.2M on average per year. These needs are outlined in further detail in the AM Plan and the Transportation Funding Issue paper, with the intention to focus on these areas in the next ten years.

### **GIS and Asset Management**

The GIS and Asset Management Division is funded through a variety of sources including levy funding, GIS Managed Service Agreements (MSA) and data hosting agreements. Government grants and cost sharing initiatives with member municipalities also contribute to project financing.

## **Operations Group**

### **Road Operations**

In addition to normal inflationary pressures to goods and services used by the Road Operations Division, the Division must also try to plan and budget for extreme weather events and abnormally harsh winter seasons. This is coupled with the growing expectations of resident for road operations to maintain winter road conditions above Minimum Maintenance Standards, and overall increased usage of our overall road network.

### **Waste Operations**

In addition to normal inflationary pressures to goods and services used by the Waste Services Division, the Waste Services Division must try to forecast and manage fluctuations in commodity market prices which are beyond its control. Each year we sell thousands of tonnes of recyclable materials (glass, metals, plastics, paper) into the marketplace, and the revenue from the sale of these materials helps to offset a large portion of the operating cost of our Material Recovery Facility (MRF).

Predicting the cost of leachate management is another budgetary challenge. The amount of leachate which is generated by the Eagleson Landfill and Brighton Landfill each year is directly tied to the amount of precipitation we receive. Staff determines the annual leachate



management costs for the Brighton and Eagleson Landfills, based on the previous 5-year average volumes.

### **Facilities**

In addition to normal and inflationary pressures to goods and services used by the Facilities Services, Northumberland County is also hindered by its aging building stock with a good portion of its buildings being over 40 years old. This is coupled with the County's need to create facilities to house its growing service needs.