

# **Engineering and Capital Works Department**

## **2020 Annual Report**

# Engineering and Capital Works Department

**Manage the County's capital replacement and major maintenance programs to ensure long term sustainability of the County's \$925M in infrastructure.**

Departmental Structure (28 staff total):

- Administration (2 staff)
- Engineering Services – ENG (13 staff)
- Water & Wastewater Engineering - WWE (7 staff)
- Facilities Capital & Asset Management – FCA (6 staff)

GM Engineering & Capital Works  
**Tyson Haedrich**

Administrative Coordinator  
**Sue Flaherty**

### Engineering Services

Manager  
Engineering Services  
**Kris Franklin**

Business Services Assistant  
**Vacant**

Project Manager  
Municipal Infrastructure  
**Danielle Fletcher**

Project Manager  
Municipal Infrastructure  
**Lloyd Rollinson**

Project Manager  
Municipal Drains  
**John Van Rooy**

Municipal Technologist  
**Jordan Higgins**

Municipal Technologist  
**Mike Fleschhut**

Engineering Technologist  
**Doug Reimer**

Municipal Technologist  
**Krystina Topp**

Municipal Technologist  
**Lucas Hunter**

Transportation Engineering  
Technologist  
**Judy Brown**

Project Manager  
Granular Conversion  
**Mark Long**

Engineering Services Student  
(Mohawk Coop – 8 months)

### Water & Wastewater Engineering

Manager  
W&WW Engineering  
**Phil Wilson**

Project Manager  
W&WW Engineering  
**Warren Wight**

Project Manager  
W&WW Compliance  
**Stephanie Nolet**

W&WW Technologist  
**Vacant**

W&WW Technologist  
**Vacant**

SCADA Coordinator  
**Ben Howard**

W&WW Technologist  
**Jessica Ignaszak**

### Facilities Capital & Asset Management

Manager  
Facilities Capital & Asset Management  
**Jeff Oakes**

Project Manager  
Facilities Infrastructure  
**Dean Stewart**

Project Manager  
EMS Station  
**Vacant**

Facilities Technologist  
**Ashley Schaeffer**

FCA Summer Student  
(Mohawk Coop – 4 months)

Asset Management Analyst  
**Cindy King**



**Engineering Services  
(Kris Franklin)**



**Water & Wastewater Engineering  
(Phil Wilson)**



**Facilities Capital &  
Asset Management  
(Jeff Oakes)**

# 2020 Challenges/Opportunities

- **Challenges**

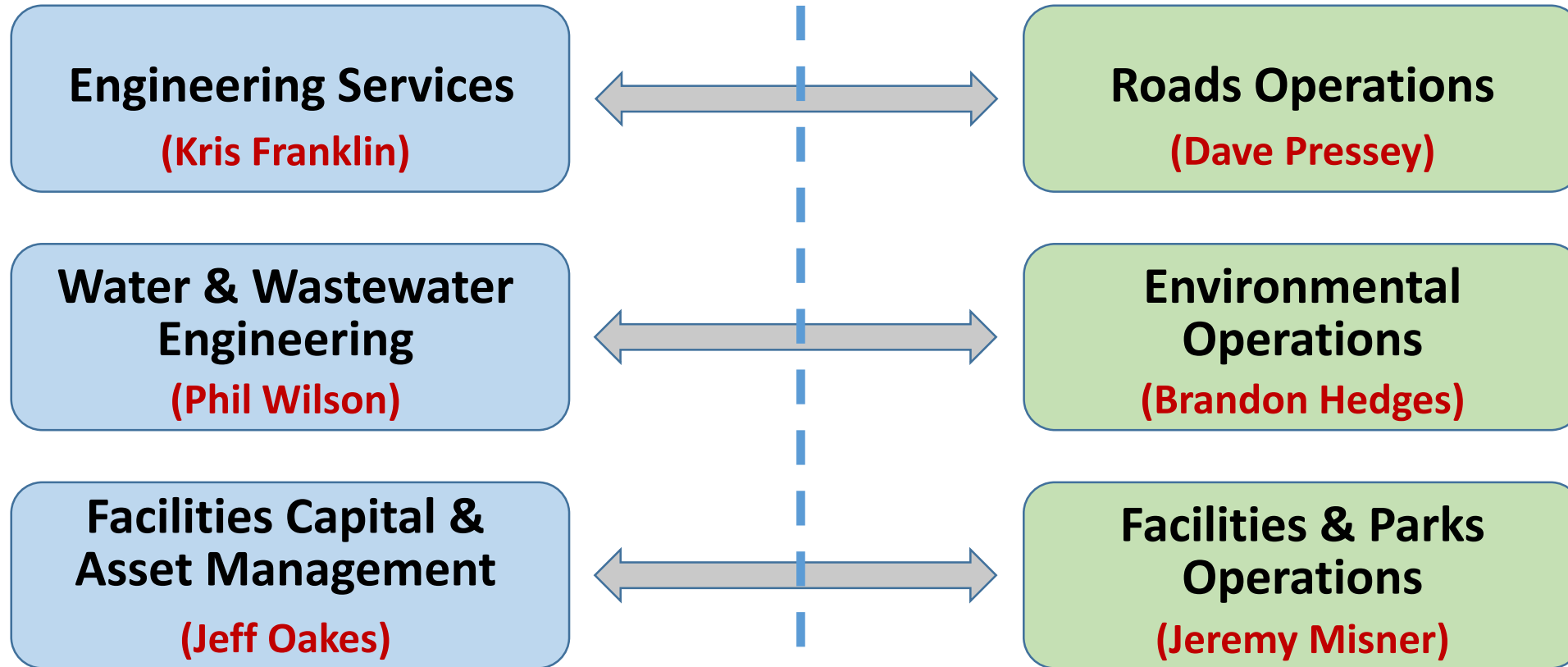
- Covid 19 Pandemic
- Retirements/Staff in New Positions
- Divisional Responsibilities

- **Opportunities**

- Contract Pricing
- New Staff Recruitment
- Alignment with Operations

## (ECW) Plan/Construct

## (PWO) Operate/Maintain





# Engineering Services - Responsibilities

- Road Reconstruction Program
- Hot Mix Resurfacing Program (400 km of paved rural and urban arterial roads)
- Urban Paving Program (130 km of urban local roads)
- Surface Treatment (Tar and Chip) Program (750 km of surface treated roads)
- Gravel Road Conversion Program (65 km remaining)
- Structures (Bridges and Culverts) Program (266 bridges/culverts with 3+ metre span)
- Municipal Drains Program (84 municipal drains on ten year cycle)
- Developer Related Infrastructure

# Engineering Services - 2020 Highlights

- Accelerated Gravel Road Conversion Program
- Phased Increase to Surface Treatment Program
- Cayuga Cast Iron Watermain Replacements
- Rainham Road Resurfacing/Army Camp Road Resurfacing
- Argyle/Haddington Signalization
- Installation of 12 Electronic Speed Signs
- Caledonia/Hagersville/Jarvis Subdivision Infrastructure Inspection and Approvals
- 2019/2020 Lake Erie Storm Damage Assessment and Repair
- Highway 3 (Broad Street) Connecting Link Resurfacing



# Engineering Services - 2021 Priorities

- Condition Assessments of Cast Iron Watermains (with Environmental Services)
- Review Development Inspection and Acceptance Processes
- 2021 Roads Needs Study
- Harrop Drain Reassessment
- Review Boundary Road Agreements (with Roads Operations)
- Staff Development and Mentorship

# W&WW Engineering - Responsibilities

- Water Treatment and Distribution Systems (2 Plants and 5 Standpipes)
- Wastewater Treatment and Collection Systems (4 Plants, 4 Lagoons, 20 Pumping Stations)
- SCADA Network
- Optimization Program (with Environmental Operations)
- Long Term Servicing Plans (with Planning)
- Liaison with Industry (with Environmental Operations)
- Technical Support to other County Divisions

# W&WW Engineering – 2020 Highlights

- Dunnville Water Treatment Plant Upgrades
- Jarvis to Townsend Forcemain Tender Award
- Implementation of Real Time County W&WW Data Management System
- Norfolk/Six Nations Water Supply – Technical and Financial Analyses
- Caledonia Wastewater Treatment Plant Location Analysis
- Industry
  - Port Maitland (Innophos) dedicated pumps
  - Grant funding award (\$700K) for shared pumping strategy (Stelco/Imperial Oil)

# W&WW Engineering – 2021 Priorities

- Norfolk Water/Six Nations Water Supply Agreements
- Nanticoke Water Treatment Plant Rerating
- Caledonia Wastewater Treatment Plant Site/EA Scoping
- Jarvis to Townsend Forcemain Construction
- Nairne Street Grand River Forcemain Construction
- Pump Station Assessments
- LEIP Master Servicing Plan (with Planning)
- Staff Development and Mentorship

# FCA - Responsibilities

- Facilities Capital Program
  - Fire Halls
  - Roads Yards
  - Community Halls
  - Arenas
  - Libraries
- Asset Management Program
- Energy Management Program

# FCA – 2020 Highlights

- HCCC/Dunnville Multipurpose Building Renovations for HNHU/OPP
- Kohler Tower Replacement
- Haldimand Agricultural Centre Foundation Repair and Cistern Replacement
- Selkirk Library Elevator Replacement
- Cayuga/Dunnville Arenas – LED Lighting Retrofits
- Wilson McDonald Memorial School Museum – Septic System Replacement
- Caledonia Lawn Bowling Club Upgrades



# FCA – 2021 Priorities

- Caledonia EMS Station
- Cayuga Administration Building Demolition
- Kohler Yard Renovation
- Roofing Program
- Asset Management – Level of Service Plan
- Energy Conservation and Demand Management Plan
- Building Condition Assessments (Firehalls, Roads Yards, Libraries, Community Halls)
- Ten Year Capital Budget Buildout
- Staff Development and Mentorship

# Engineering & Capital Works – 2021 Priorities

- Divisional Integration Across Department
- Business Process Optimization through Continuous Improvement
- Staff Development and Mentorship
- Succession Planning

# Thank You