

Haldimand County Fire

Radio Communications Lifecycle Planning

Site UPS Batteries – lifecycle is typically 3 to 5 years.

Townsend Batteries – replaced in 2021

Other Sites – Current batteries are end of life, recommend replacement in 2021/2022

UPS hardware – lifecycle is typically 7 to 10 years

Recommend full UPS and battery replacement in 2025-2026

Projected replacement cost \$20,000-\$25,000 total

Radio Repeater - Kairos – lifecycle is typically 10 to 15 years

Recommend full replacement of original Kairos repeaters in 2027-2029

Projected replacement cost \$80,000-\$100,000 total

PA Amplifier – lifecycle is typically 10 to 15 years

We have seen failures in two of the four existing PA Amplifiers

Will be attempting to source repair parts for existing amplifiers.

Parts availability may dictate a replacement cycle sooner than typically expected.

Recommend full replacement of power amplifiers in 2023-2025

Projected replacement cost \$20,000 total

Microwave and Site Routers – lifecycle is typically 5 years

Many components have been refreshed in 2021

Recommend full replacement in 2025-2026

Projected replacement cost \$30,000-\$35,000 total

Site Antennas, Cabling and Lightning Protection – lifecycle is typically 15-20-25 years

Recommended replacement schedule:

Townsend – Recommend evaluation/potential replacement in 2028-2030 – budget \$15,000-\$20,000

Kohler – Brand New, no worries until 2035-2040

Moulton – future of site unknown, need more information

Caledonia – Recommend evaluation/potential replacement in 2026-2030 – budget \$15,000-\$20,000

Towers - Most towers will have a 20-30 year lifecycle

- Moulton – somewhat on hold at this time
- Kohler – new tower in 2020, no concerns
- Townsend Water Tower – OK at this point
- Caledonia Water Tower – not sure of status at this time, just waiting to hear back from the person in charge
- Additional towers?? (Canboro/Canfield area)

Planning for Future Projects

Dedicated Paging Channel

– adding a separate paging channel to increase capacity and separate operations

Anticipated cost - \$80,000 to \$100,000

New dispatch provider

– equipment/costs required to switch over

Anticipated costs vary based upon dispatch provider selected, but typically \$25,000 to \$50,000 for radio system integration.

(There will be other costs for 911/NG911 integration, plus CAD/mapping integration that are beyond the scope of our planning abilities. These costs will be negotiated with the new dispatch centre.)

Portable Radio Replacement

- to replace approx. 150 older models

Anticipated costs vary upon model selected, features required, and accessories required

Anticipated cost - \$180,000 to \$250,000

Mobile Radio Replacement

- To replace approximately XX in vehicle radios
- Anticipated costs vary upon model selected, features required, and accessories required (headsets, pump panel equipment, etc.
- Anticipated cost - \$2,000-\$3,000 per vehicle including installation and programming
- Note: Projected mobile replacement costs do not include vehicular repeaters

Moving OPS Channel to Digital (DMR) for added capacity

- Moving fully digital for OPS channels may be a future consideration
- Will require the dedicated paging channel to be completed
- Will require replacement of all portable equipment to be completed
- Will require replacement of all mobile equipment to be completed
- Project will require reprogramming of fleet
- Project will require user training and audio configuration support
- Anticipated cost - \$25,000 in addition to pre-requisite projects