

Alnwick-Haldimand Council Meeting 2021 Asset Management Plan June 09, 2022



**Infrastructure
Solutions**

Neil Roberts, President

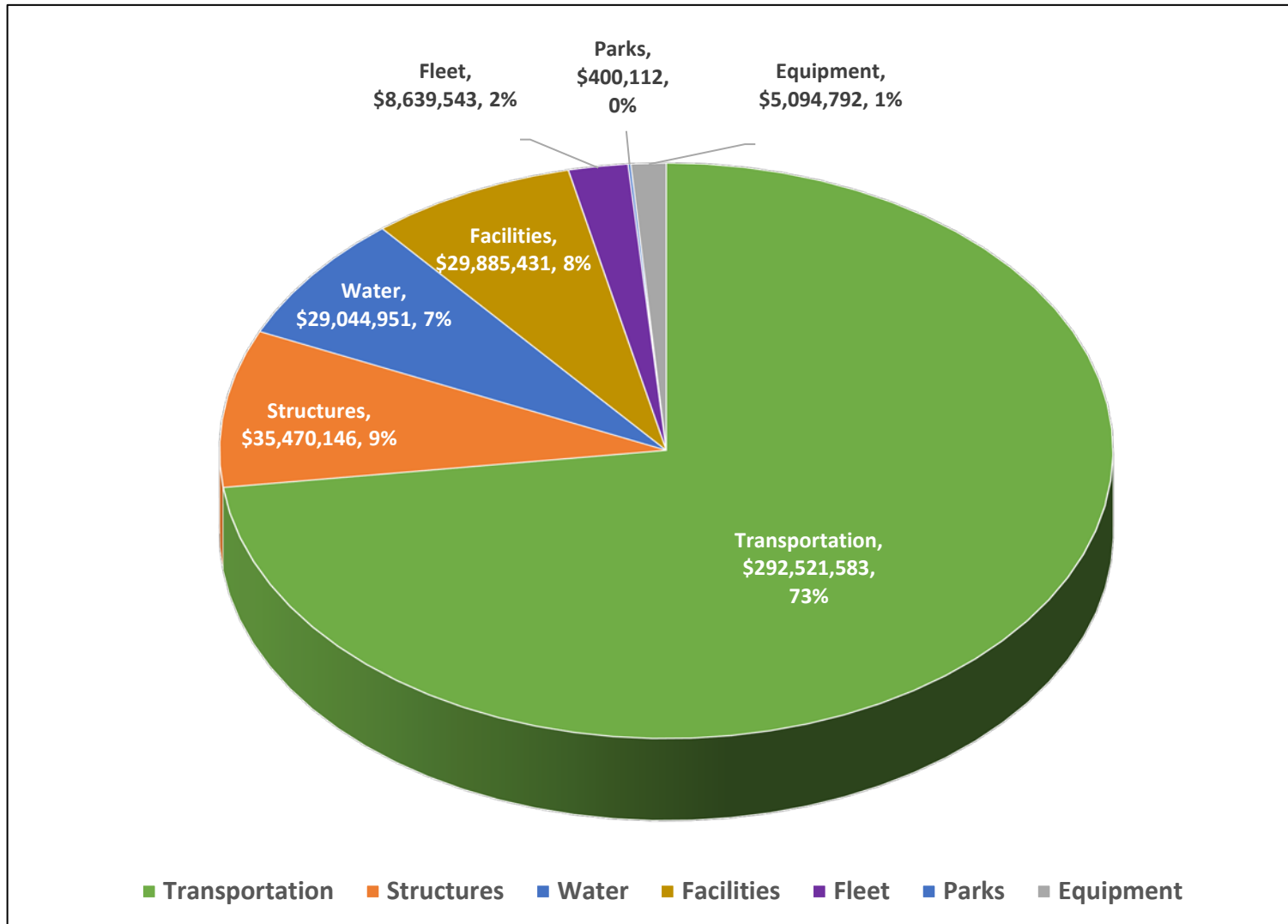
Hans J. Hens, M.S. (Eng.), MBA, Director of Project Management

Asset Inventory

The Asset Inventory was assembled using data from the following sources:

- GIS database inventory - supplied by Lakefront Utility and Township
- PSAB Tangible Capital Asset Detail – supplied by Township
- Condition Assessment Reports – supplied by Township
- Insurance documents – supplied by Township
- Asset Inventory reviews by Township department heads
- 2020 Rate Study and 2013 Asset Management Plan – prepared by Infrastructure Solutions

Replacement Cost Summary

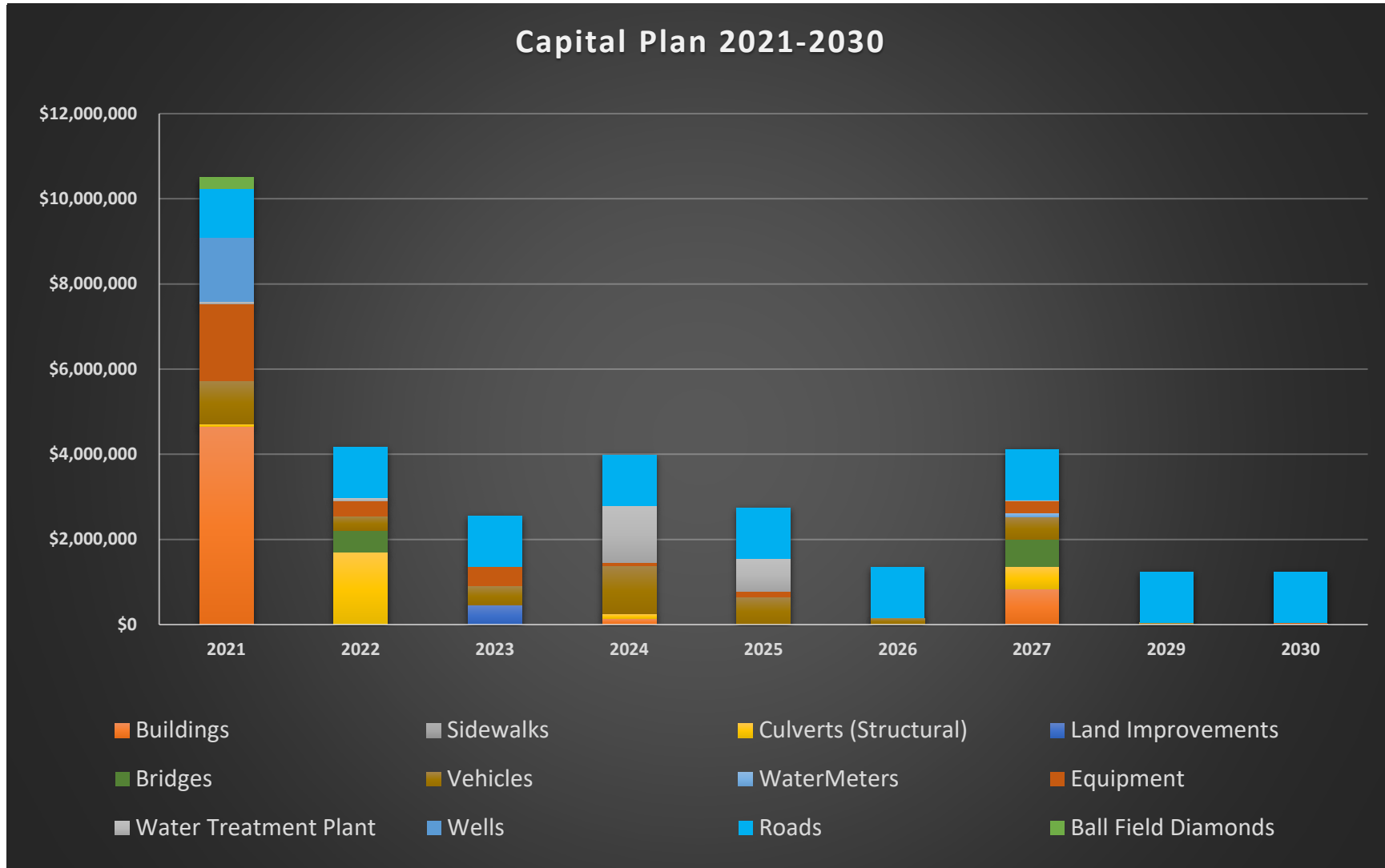


Total 2020 Replacement Cost All Assets: \$401 million

State of the Infrastructure

Asset Type	Network Size	No. of Assets	Network Condition	Condition State	Condition Distribution
Roads	635 Km	808	36.4	Poor	27% 58% 15%
Street Lights	\$146,272	224	75	Good	100%
Bridge	\$21,352,335	20	71.58	Fair	92% 53%
Culverts (Structural)	\$12,715,037	26	68.82	Fair	7% 88% 5%
Sidewalks	2 Km	12	53	Good	12% 88%
Traffic Signs	3010 ea.	1584	67	Good	3% 90%
Waterlines	19 Km	195	67	Good	78% 22%
Treatment Plants (Water)	\$5,253,406	38	47	Fair	1% 38% 58% 2%
Valves (Water)	\$944,398	224	70	Good	35% 64%
Hydrants	\$947,955	118	48	Fair	100%
Water Meters	\$307,528	3	73	Excellent	28% 1% 72%
Vehicles	\$8,488,341	41	51	Fair	11% 11% 27% 22% 28%
Playgrounds	4 ea.	4	82	Excellent	25% 75%
Ball Fields-Diamonds	4 ea.	4	0	Very Poor	100%
Equipment	\$4,370,958	83	41	Fair	34% 2% 24% 9% 31%
Land Improvements	3 ea.	3	63	Good	33% 67%
Wells	2,979,533	3	18	Poor	50% 50%
Buildings	\$18,645,197	39	49	Fair	25% 5% 14% 44% 12%

Capital Replacement Schedule



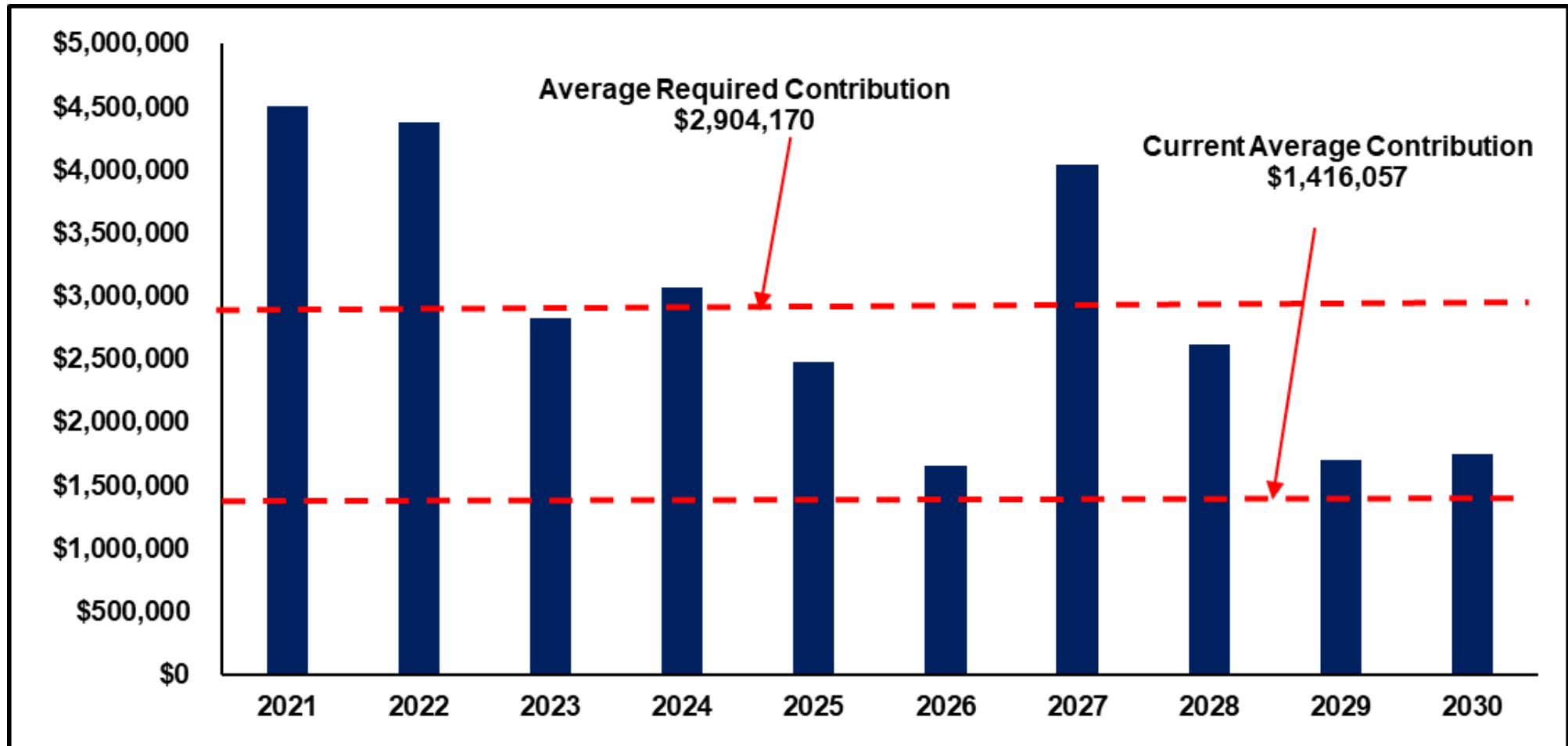
Major Capital Projects

Year	Buildings	Culverts (Structural)	Bridges	Vehicles	Equipment	Water Treatment Plant	Wells	Roads
2021	\$4,657,604	\$52,500	\$0	\$1,010,585	\$1,819,443	\$46,630	\$1,500,721	\$1,149,273
2022	\$0	\$1,689,219	\$520,000	\$340,000	\$348,734	\$74,093	\$0	\$1,189,836
2023	\$0	\$0	\$0	\$451,716	\$456,476	\$0	\$0	\$1,190,941
2024	\$134,915	\$111,500	\$0	\$1,122,136	\$78,678	\$1,352,084	\$0	\$1,185,535
2025	\$0	\$0	\$0	\$635,000	\$141,746	\$777,653	\$0	\$1,191,283
2026	\$0	\$0	\$0	\$150,000	\$0	\$0	\$0	\$1,193,566
2027	\$838,962	\$508,885	\$655,380	\$515,454	\$281,622	\$26,420	\$0	\$1,193,831
2028	\$228,104	\$0	\$0	\$572,549	\$222,921	\$0	\$0	\$1,194,570
2029	\$0	\$0	\$0	\$47,804	\$0	\$0	\$0	\$1,194,464
2030	\$0	\$0	\$0	\$0	\$43,725	\$0	\$0	\$1,190,952

Financial Analysis Assumptions

- 3.5% annual operating income increase (property taxation, base scenario)
- 3.5% annual increase in user fees (excluding water) and other revenues
- 3.5% annual operating expenditure increase
- 3.5% annual increase in capital replacement costs
- 2021 Canada Community-Building Fund (formerly Gas Tax Fund) of **\$427,278** for **2021** as per AMO allocation table. In 2021 there is a top-up amount included, but for the financial forecasting only the base amounts as per AMO allocation table are included, **\$217,851** for **2022**, and **\$227,323** for **2023** and beyond with no increases.
- Building replacements based on age triggers are excluded from the financial forecasting analysis

Tax Funded Assets – Capital Contribution Requirements vs. Existing



Options to Close Funding Gap

- Increase in property taxes and user fees annually by 2.7% above the 3.5% base rate to 6.2%
- Special Infrastructure Levy
- Level of Service reduction by deferred replacement
- Debt financing
- Government Grants

Recommendations

- Adopt the principles of Asset Management, doing the right thing at the right time
- Utilize the DOT™ Software Tool to optimize capital planning decision
- Embrace Preventive Maintenance to minimize Lifecycle Costs
- Move from an Age-based towards a Condition-based analysis for critical and high value assets, with regularly scheduled condition assessments.
- Consider an Element based setup for Facilities and Structures to refine the planning
- Define Level of Service targets for all asset types
- Create a public communication program to engage the community in discussing the true cost of services and the assets required to provide those services
- Maintain the Asset Management Plan as a living document