DEFINING VEHICLES INVESTMENT CATEGORY

Kirby Becker – OTAT Data & Asset Management Supervisor

February 26, 2019

PRESENTATION OUTLINE

- Current Replacement Guidelines by Class
  - Uncertainty of FTA Asset Management
- Overview of 5311 Capital Fleet Summary – Data Crunch
- Overview of 5307 Capital Fleet Summary – Data Crunch
- Discussion

CURRENT REPLACEMENT GUIDELINES

- MnDOT Transfer/Disposal Policy
  - Specific guidelines for vehicle replacement
    - Minimum years + Minimum mileage

      OR
    - Maximum years

Small Light-Duty Transit Bus
(Up to 12,500 GVWR)
☞ Approximately 16' – 22'
Raised roof/single or dual rear wheels

Class 200
(not pictured)
Class 300

- Minimum Replacement Years = 4
- Life Mileage = 100,000
- Maximum Replacement Years (Ceiling) = 5

Med-Size Light-Duty Transit Bus **Class 400**
(12,300 – 16,000 GVWR)
☞Approximately 20' – 30'
Raised roof/dual rear wheels

- Minimum Replacement Years = 5
- Life Mileage = 150,000
- Maximum Replacement Years (Ceiling) = 7

Med-Size Med-Duty Transit Bus **Class 500**
(17,000 – 24,000 GVWR)
☞Approximately 25' – 40'

- Minimum Replacement Years = 7
- Life Mileage = 200,000
- Maximum Replacement Years (Ceiling) = 9

CURRENT REPLACEMENT GUIDELINES BY CLASS

Class 200, 300, 400, 500

Med-Size Hvy-Duty Transit Bus **Class 600**
(21,000 – 32,000 GVWR)
☞Approximately 25’ – 40’

- Minimum Replacement Years = **10**
- Life Mileage = 350,000
- Maximum Replacement Years (Ceiling) = **13**

Lrg Hvy-Duty Transit Bus **Class 700**
(Over 30,000 GVWR)
☞Approximately 30’ and longer

- Minimum Replacement Years = **12**
- Life Mileage = 500,000
- Maximum Replacement Years (Ceiling) = **15**

REPLACEMENT GUIDELINES BY CLASS
Class 600, 700

- Class 200 – Min. 4 years/100K miles; Max. 10 years
- Class 300 – Min. 4 years/100K miles; Max. 10 years
- Class 400 – Min. 5 years/150K miles; Max. 10 years
- Class 500 – Min. 7 years/200K miles; Max. 10 years
- Class 600 – Min. 10 years/350K miles; Max. 14 years
- Class 700 – Min. 12 years/500K miles; Max. 14 years

FUTURE REPLACEMENT GUIDELINES

FTA Asset Management – Useful Life Benchmarks

- All 74 funded 2019 vehicles (1st and 2nd solicitations) identified and marked as active
  - Default in-service date set to July 1, 2019
- Assumes vehicles identified for replacement for new 2019 vehicles will be disposed or spare
- Assumes no expansion vehicles
- Assumes vehicle status (active vs. spare) identified through 5-year planning process is correct
- Assumes "active" status vehicles have not been replaced
- Missing default in-service dates were set to July 1 of vehicle year
- Vehicles marked as spare or needing to be disposed were not included
- Minimum age replacement does not take into account mileage
  - Analysis is only age-based

5307/5311 CAPITAL FLEET ANALYSIS/ASSUMPTIONS

- 5311 **Active** Fleet Inventory – 576
  - Class 200 – 19
  - Class 300 – 11
  - Class 400 – 424
  - Class 500 – 122

OVERVIEW OF 5311 CAPITAL FLEET SUMMARY

2020 Minimum Age Replacement		
	Vehicles	**Cost**
Class 200	11	$440,000
Class 300	10	$740,000
Class 400	239	$21,032,000
Class 500	30	$4,500,000
TOTAL	**290**	**$26,712,000**

2021 Minimum Age Replacement		
	Vehicles	**Cost**
Class 200	3	$126,000
Class 300	0	$0
Class 400	37	$3,367,000
Class 500	23	$3,565,000
TOTAL	**63**	**$7,058,000**

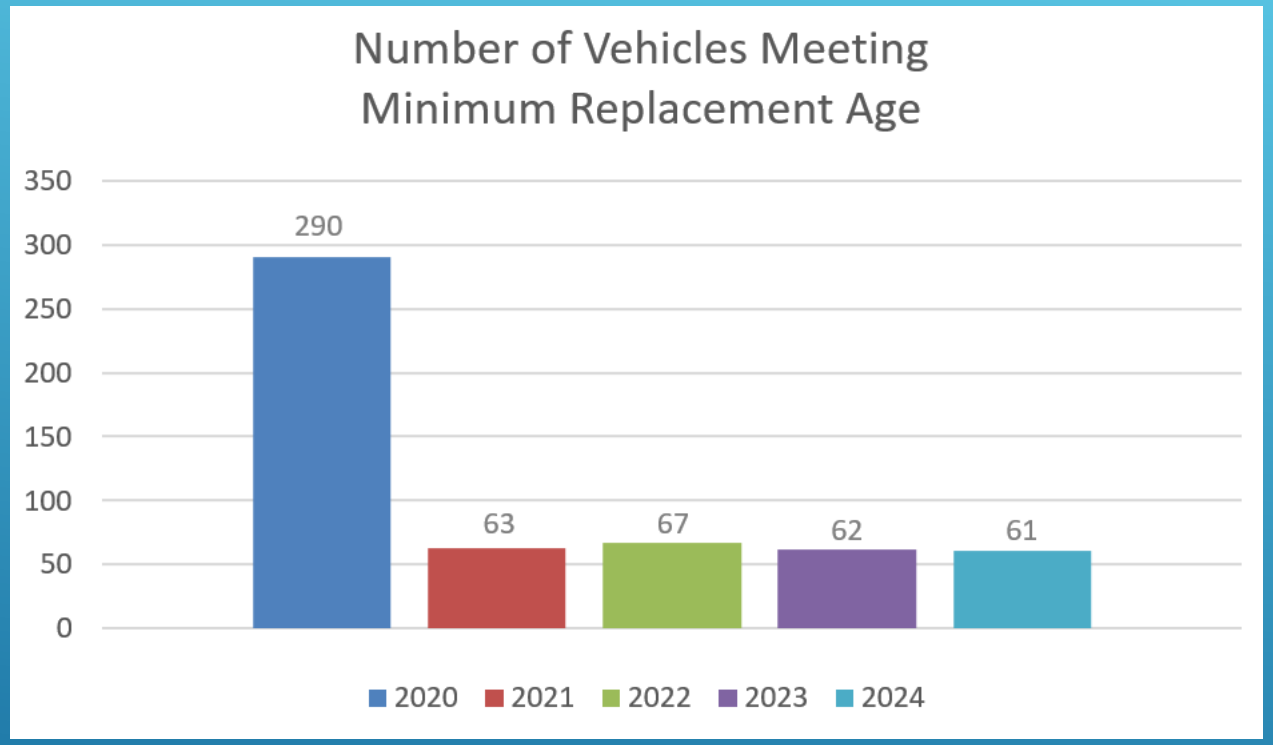
2022 Minimum Age Replacement		
	Vehicles	**Cost**
Class 200	2	$88,000
Class 300	0	$0
Class 400	53	$4,982,000
Class 500	12	$1,920,000
TOTAL	**67**	**$6,990,000**

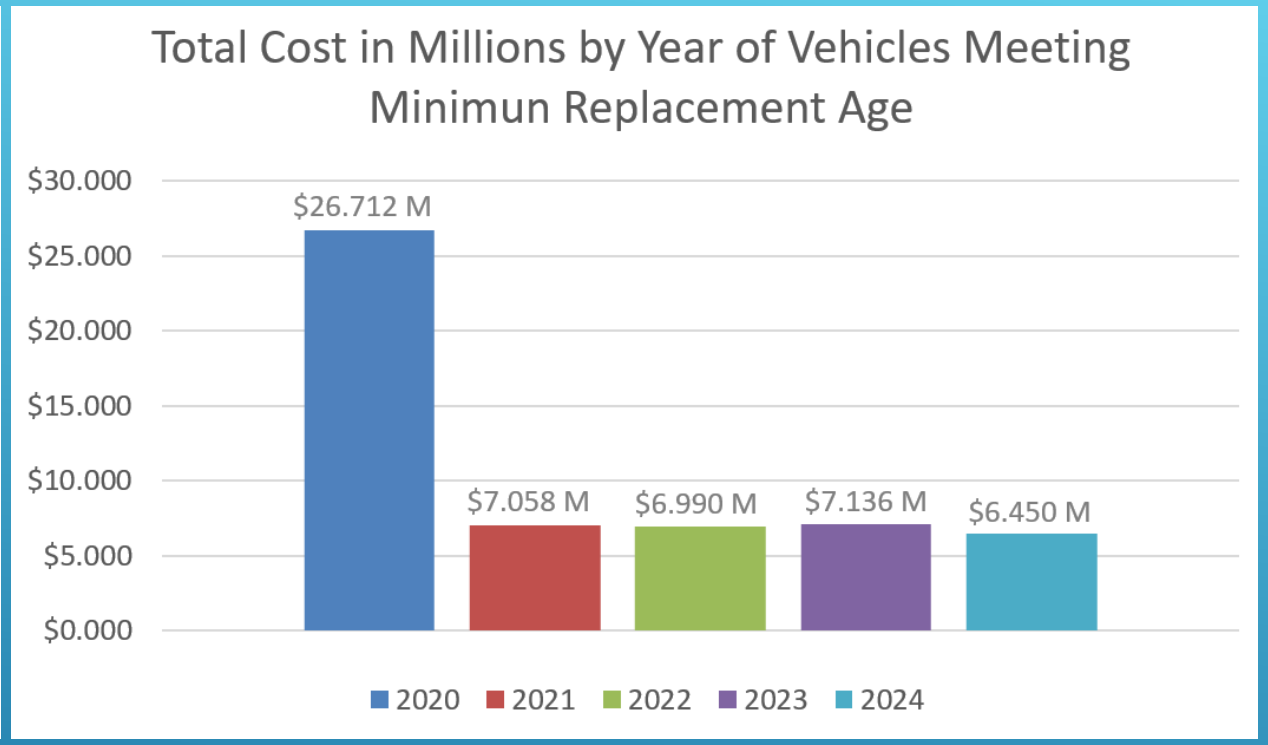
2023 Minimum Age Replacement		
	Vehicles	**Cost**
Class 200	3	$138,000
Class 300	1	$80,000
Class 400	39	$3,783,000
Class 500	19	$3,135,000
TOTAL	**62**	**$7,136,000**

2024 Minimum Age Replacement		
	Vehicles	**Cost**
Class 200	0	$0
Class 300	0	$0
Class 400	56	$5,600,000
Class 500	5	$850,000
TOTAL	**61**	**$6,450,000**

5311 CAPITAL FLEET SUMMARY

Vehicle and Cost Totals by Class by Year for Minimum Age Replacement





5311 CAPITAL FLEET SUMMARY

Vehicle and Cost Totals by Year for Minimum Age Replacement

2020 Maximum Age Replacement		
	Vehicles	**Cost**
Class 200	7	$280,000
Class 300	10	$740,000
Class 400	134	$11,792,000
Class 500	17	$2,550,000
TOTAL	**168**	**$15,362,000**

2021 Maximum Age Replacement		
	Vehicles	**Cost**
Class 200	4	$168,000
Class 300	0	$0
Class 400	30	$3,640,000
Class 500	8	$1,240,000
TOTAL	**42**	**$5,048,000**

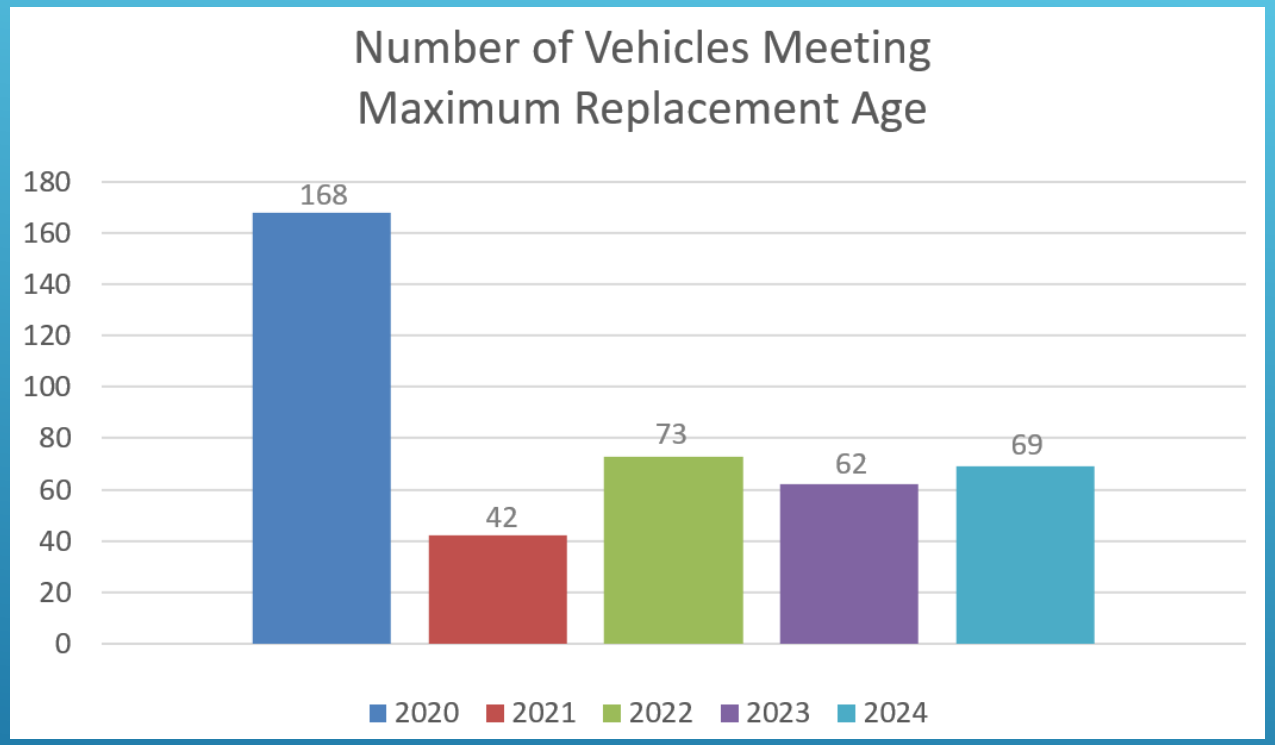
2022 Maximum Age Replacement		
	Vehicles	**Cost**
Class 200	3	$132,000
Class 300	0	$0
Class 400	65	$6,110,000
Class 500	5	$800,000
TOTAL	**73**	**$7,042,000**

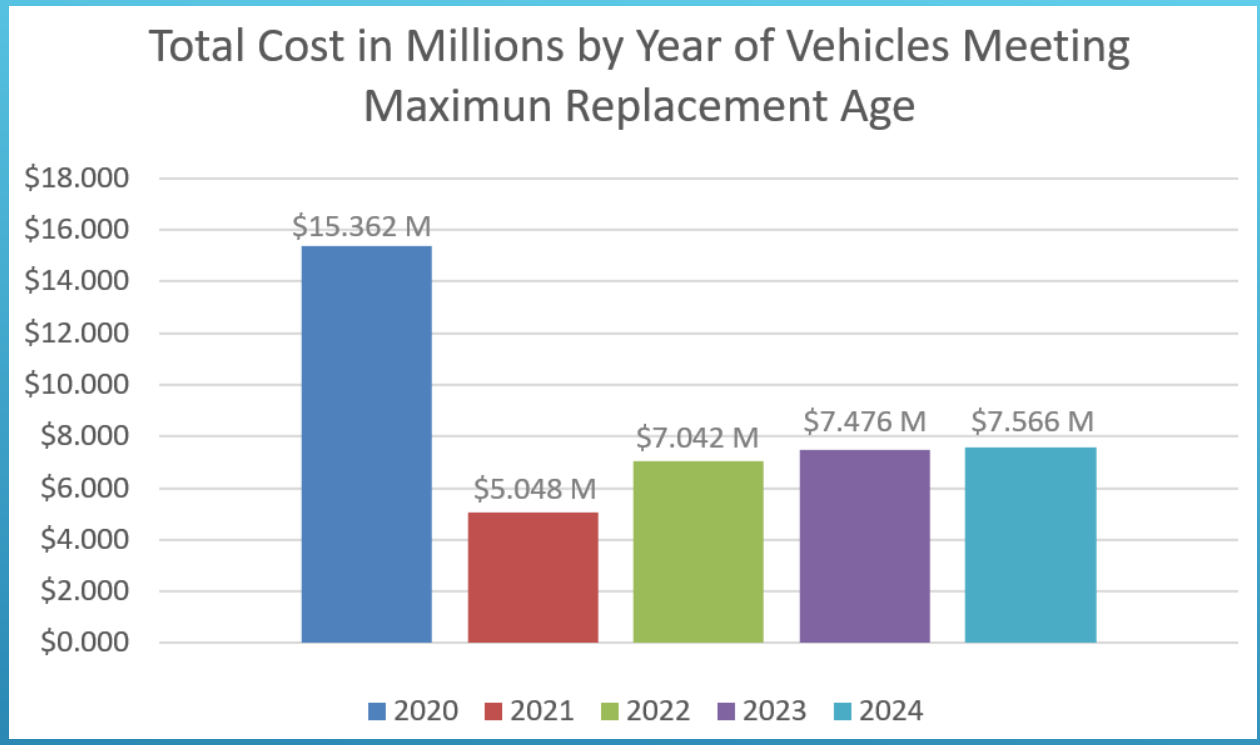
2023 Maximum Age Replacement		
	Vehicles	**Cost**
Class 200	2	$92,000
Class 300	0	$0
Class 400	37	$3,589,000
Class 500	23	$3,795,000
TOTAL	**62**	**$7,476,000**

2024 Maximum Age Replacement		
	Vehicles	**Cost**
Class 200	3	$144,000
Class 300	1	$82,000
Class 400	53	$5,300,000
Class 500	12	$2,040,000
TOTAL	**69**	**$7,566,000**

5311 CAPITAL FLEET SUMMARY

Vehicle and Cost Totals by Class by Year for Maximum Age Replacement





5311 CAPITAL FLEET SUMMARY

Vehicle and Cost Totals by Year for Maximum Age Replacement

- 5307 **Active** Fleet Inventory – 271
  - Class 200 – 15
  - Class 300 – 3
  - Class 400 – 53
  - Class 500 – 2
  - Class 700 – 198

5307	MNDOT Funded	Other	Total Buses	% of MNDOT Funded	% other funded
City of East Grand Forks	3	1	4	75%	25%
City of La Crescent	1	0	1	100%	0%
City of Mankato	18	7	25	72%	28%
City of Moorhead	9	13	22	41%	59%
City of Rochester	26	46	72	36%	64%
Duluth Transit Authority	23	70	93	25%	75%
St. Cloud Metropolitan Transit Commission	45	36	81	56%	44%

298 Total Vehicles

- State Funded
  - 125 or 42%
- Non-MnDOT State Funded
  - 173 or 58%

5307 CAPITAL FLEET SPENDING

Comparison of state and federal spending on capital fleet by system

2020 Minimum Age Replacement		
	Vehicles	**Cost**
Class 200	12	$480,000
Class 300	0	$740,000
Class 400	34	$2,992,000
Class 500	2	$300,000
Class 700	53	$27,295,000
TOTAL	**101**	**$31,807,000**

2021 Minimum Age Replacement		
	Vehicles	**Cost**
Class 200	2	$84,000
Class 300	0	$0
Class 400	7	$637,000
Class 500	0	$0
Class 700	8	$4,240,000
TOTAL	**17**	**$4,961,000**

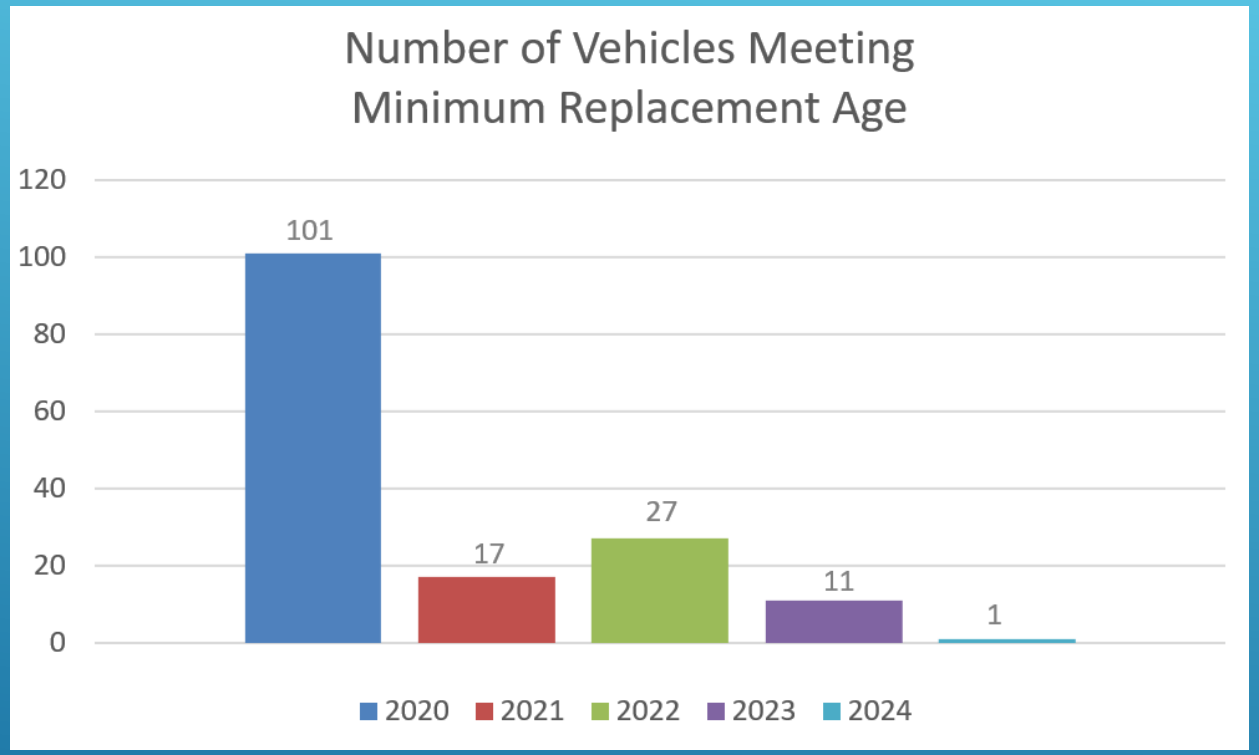
2022 Minimum Age Replacement		
	Vehicles	**Cost**
Class 200	1	$44,000
Class 300	3	$234,000
Class 400	2	$188,000
Class 500	0	$0
Class 700	21	$11,466,000
TOTAL	**27**	**$11,932,000**

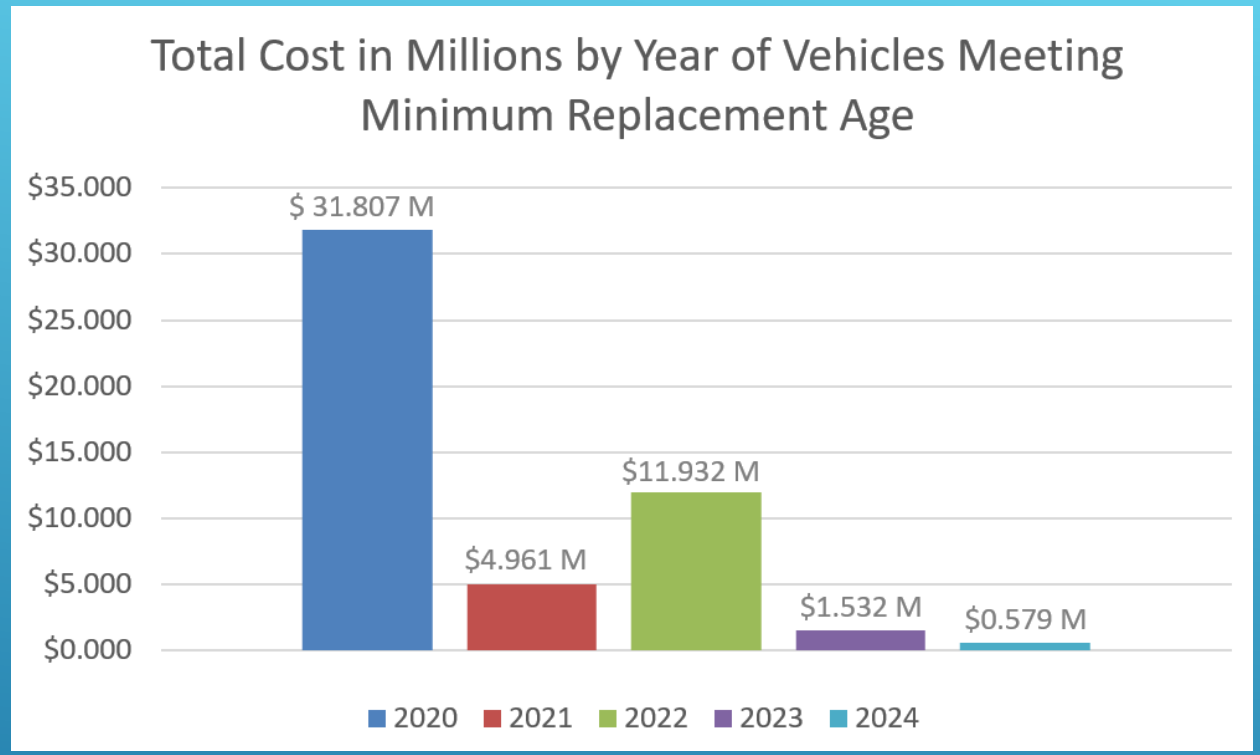
2023 Minimum Age Replacement		
	Vehicles	**Cost**
Class 200	0	$0
Class 300	0	$0
Class 400	10	$970,000
Class 500	0	$0
Class 700	1	$562,000
TOTAL	**11**	**$1,532,000**

2024 Minimum Age Replacement		
	Vehicles	**Cost**
Class 200	0	$0
Class 300	0	$0
Class 400	0	$0
Class 500	0	$0
Class 700	1	$579,000
TOTAL	**1**	**$579,000**

5307 CAPITAL FLEET SUMMARY

Vehicle and Cost Totals by Class by Year for Minimum Age Replacement





5307 CAPITAL FLEET SUMMARY

Vehicle and Cost Totals by Year for Minimum Age Replacement

2020 Maximum Age Replacement		
	Vehicles	**Cost**
Class 200	12	$480,000
Class 300	0	$0
Class 400	23	$2,024,000
Class 500	2	$300,000
Class 700	34	$17,510,000
TOTAL	**71**	**$20,314,000**

2021 Maximum Age Replacement		
	Vehicles	**Cost**
Class 200	0	$0
Class 300	0	$0
Class 400	7	$637,000
Class 500	0	$0
Class 700	8	$4,240,000
TOTAL	**15**	**$4,877,000**

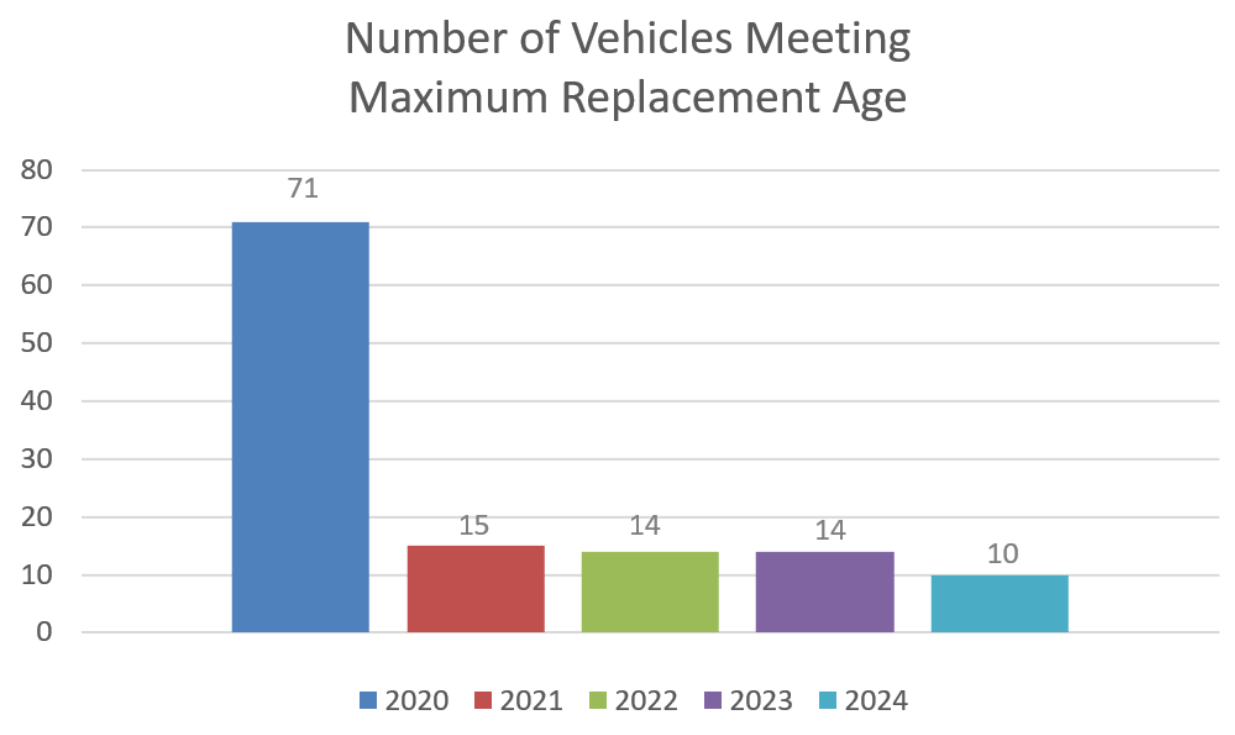
2022 Maximum Age Replacement		
	Vehicles	**Cost**
Class 200	2	$88,000
Class 300	0	$0
Class 400	4	$376,000
Class 500	0	$0
Class 700	8	$4,368,000
TOTAL	**14**	**$4,832,000**

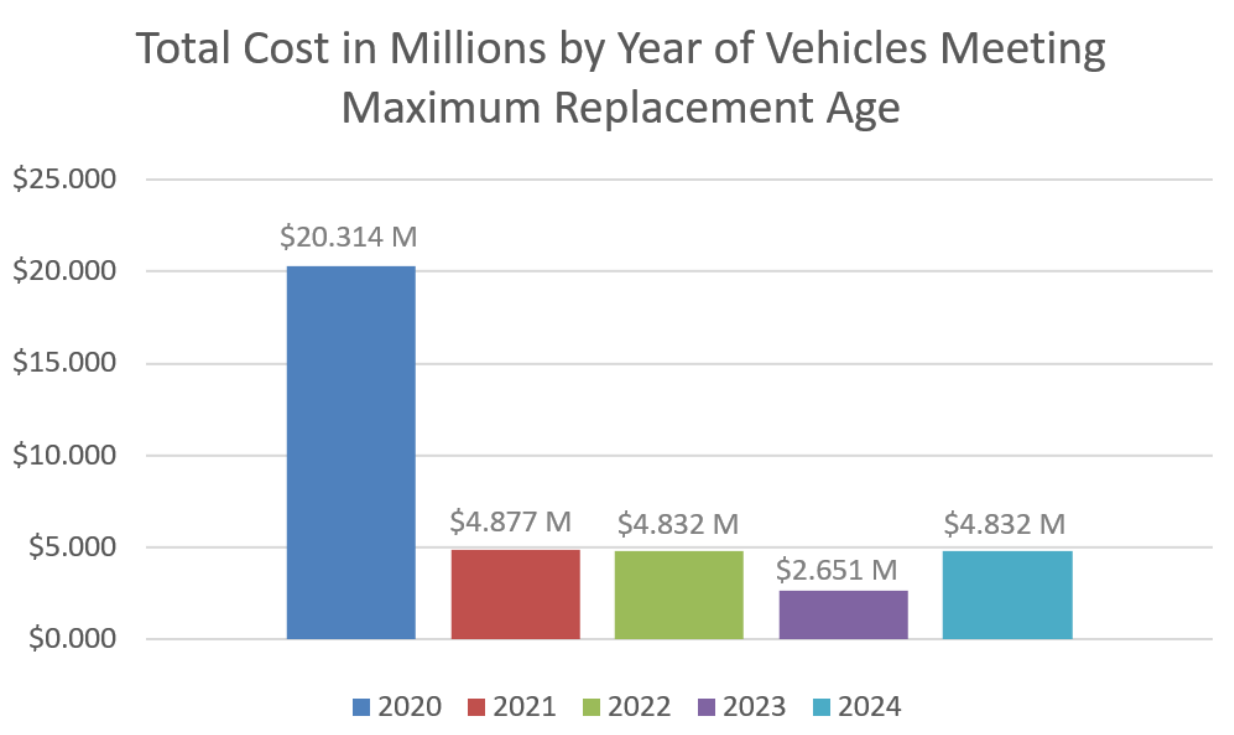
2023 Maximum Age Replacement		
	Vehicles	**Cost**
Class 200	1	$46,000
Class 300	3	$240,000
Class 400	7	$679,000
Class 500	0	$0
Class 700	3	$1,686,000
TOTAL	**14**	**$2,651,000**

2024 Maximum Age Replacement		
	Vehicles	**Cost**
Class 200	0	$0
Class 300	0	$0
Class 400	2	$200,000
Class 500	0	$0
Class 700	8	$4,632,000
TOTAL	**10**	**$4,832,000**

5307 CAPITAL FLEET SUMMARY

Vehicle and Cost Totals by Class by Year for Maximum Age Replacement





5307 CAPITAL FLEET SUMMARY

Vehicle and Cost Totals by Year for Maximum Age Replacement

Discussion

- How do we address 5307 and 5311 fleet needs?
  - Addressing the first year bubble?
  - Lump or split funding by program?