

# Prioritizing Resilience:

From Planning to Capital Investments

Dan Nason, Town Administrator  
Harvard, MA



# Town Administrator vs. Department Head

- Rely on your team of professional leaders
  - Do not micromanage
  - Stay out of the weeds
  - Foster collaboration
  - Facilitate
- Support, include, educate, & collaborate with the team
- Much larger / holistic responsibility
  - Prioritize and align projects with Select Board / Community goals



# Capital Plan Development

- No previous plans in place?
  - Identify tools that can be used as basis for CIP
- Master Plans
  - Water Master Plan
  - Comprehensive Wastewater Management Plan (CWMP)
  - Municipal Vulnerability Preparedness (MVP)
- Inventories / Assessments
- Prioritization of projects
  - Comprehensive analysis



# Capital Budgeting Using Vehicle Inventory

- Categorize Rolling Stock:
  - Light / Medium Duty Trucks (Pick Up Trucks)
  - Heavy Duty Trucks (CDL Rated)
  - Light / Small Equipment
  - Heavy / Construction Equipment
  - Specialty Equipment (i.e., sidewalk machines)



# Capital Budgeting Vehicle Inventory

- Recommended replacement thresholds

APWA Replacement Recommendations		
VEHICLE TYPE	REPLACEMENT RANGE YEARS	THRESHOLD MILEAGE/HOURS
Administrative Sedans	5	75,000 – 100,000
Emergency Sedans	3	85,000 – 100,000
Pick Up Trucks	7	100,000 – 120,000
Dump Trucks, Diesel	7 – 10	150,000
Back Hoes, Loaders	7 – 10	6,000 – 7,500 hrs

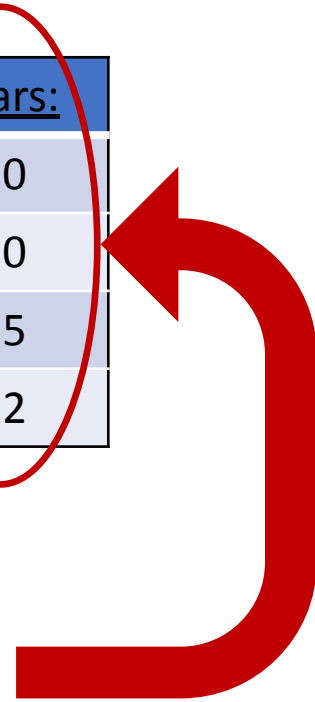
Source: American Public Works Association Vehicle Replacement Guide

Federal Government GSA Replacement Recommendations		
VEHICLE TYPE	REPLACEMENT RANGE YEARS	THRESHOLD MILEAGE/HOURS
Sedans	3	60,000
Ambulances	7	60,000
Pick Up Trucks	6	50,000
Light Dump Trucks	7	60,000
Heavy Dump Trucks	9	80,000
4-Wheel Drive Vehicles	6	40,000

Source: Federal Minimum Replacement Standards 41CFR 102-34.280

Vehicle Type:	Years:
Administrative	10
Pick Up Trucks	10
Large (CDL) Trucks	15
Backhoes/Loaders	12

**More fiscally conservative!**



Light / Medium Duty Trucks						
2	DRAINAGE	2015	CHEVROLET	SILVERADO 2500	Pickup	Melanson
45	DRAINAGE	2015	CHEVROLET	SILVERADO 2500	Pickup	Cetrone
14	DPW	2015	CHEVROLET	SILVERADO 2500	Pickup	Tarves
PR3	PARKS AND GROUNDS	2015	CHEVROLET	SILVERADO CK2590	Pickup	Felt
PR4	PARKS AND GROUNDS	2015	CHEVROLET	SILVERADO CK2590	Pickup	Russo
1	DPW	2019	FORD	SUPER DUTY F250	Pickup	McCabe
37	DRAINAGE	2011	CHEVROLET	SILVERADO 3500	1 Ton Stake Body	
29	TREES & CEMETERY	2014	CHEVROLET	SILVERADO 3500	1 Ton Stake Body	
38	HIGHWAY	2015	CHEVROLET	SILVERADO 3500	1 Ton Stake Body	
40	DRAINAGE	2015	CHEVROLET	SILVERADO 3500	1 Ton Stake Body	
7	HIGHWAY	2015	CHEVROLET	SILVERADO 3500	1 Ton Stake Body	
28	HIGHWAY	2015	CHEVROLET	SILVERADO 3500	1 Ton Stake Body	
PR2	PARKS AND GROUNDS	2011	CHEVROLET	SILVERADO CK31003	1 Ton Dump	
PR1	PARKS AND GROUNDS	2015	CHEVROLET	SILVERADO CK36003	1 Ton Dump w /Slide in Spreader	
PR11	PARKS AND GROUNDS	2015	CHEVROLET	SILVERADO CK3500	1 Ton Dump w /Slide in spreader	
17	TREES & CEMETERY	2015	CHEVROLET	SILVERADO 2500	Utility Body	
30	FLEET MAINTENANCE	2017	FORD	F350	Fiberglass Utility Body & Compressor	
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Heavy Duty Trucks						
4	DRAINAGE	2013	FREIGHTLINER	114SD	6-Wheel Dump	
11	HIGHWAY	2014	FREIGHTLINER	114SD	6-Wheel Dump	
9	DRAINAGE	2016	FREIGHTLINER	114SD	6-Wheel Dump	
12	DRAINAGE	2006	MACK	CV713	10-Wheel Dump	
27	HIGHWAY	2007	MACK	CV713	10-Wheel Dump	
10	HIGHWAY	2012	FREIGHTLINER	114SD	10-Wheel Dump	
34	HIGHWAY	2016	FREIGHTLINER	114SD	10-Wheel Dump	
36	TREES & CEMETERY	2000	GMC	T7500	6-Wheel Swap Body (Dump, Chip, Brine)	
23	TREES & CEMETERY	2008	INTERNATIONAL	7300	6-Wheel Spreader (Swap Body - Chip, Dump)	
6	DPW	2006	MACK	CV713	10-Wheel Spreader w /Wing	
5	DPW	2008	VOLVO	VHD64F	10-Wheel Spreader	
24	DPW	2008	INTERNATIONAL	7400	6-Wheel Spreader w /Wing	
44	DPW	2004	MACK	CV712	6-Wheel Spreader	
3	DPW	2007	MACK	CV712	6-Wheel Spreader	
18	DPW	2007	MACK	CV712	6-Wheel Spreader	
20	DPW	2011	VOLVO	VHD42F	6-Wheel Spreader	
19	DRAINAGE	2015	FREIGHTLINER	114SD	Catch Basin Cleaner, 6-Wheel Dump	
L1	DRAINAGE	2016	FREIGHTLINER	114SD	10-Wheel Roll off (Transfer Station)	
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# Capital Budgeting Vehicle Inventory

- Light / Medium Duty Trucks: 17 total
  - Recommended replacement cycle:
    - Sudbury (every 10 years) = 1.7 vehicles per year
    - APWA (every 7 years) = 2.4 vehicles per year
    - Federal (every 6 years) = 2.8 vehicles per year

Need to replace 2 of these vehicles per year to maintain a sustainable fleet

- If only 1 is replaced per year → 17 years old
- If only 1 is replaced every other year → 34 years old



# Capital Budgeting Vehicle Inventory

- Heavy Duty Trucks: 18 total
  - Recommended replacement cycle:
    - Sudbury (every ~15-20 years) = ~1 vehicles per year
    - APWA (every 7-10 years) = ~2 vehicles per year
    - Federal (every 9 years) = 2 vehicles per year

Light / Medium Duty Trucks						
2	DRAINAGE	2015	CHEVROLET	SILVERADO 2500	Pickup	Melanson
45	DRAINAGE	2015	CHEVROLET	SILVERADO 2500	Pickup	Cefrone
14	DPW	2015	CHEVROLET	SILVERADO 2500	Pickup	Tarves
PR3	PARKS AND GROUNDS	2015	CHEVROLET	SILVERADO 0K2950	Pickup	Felt
PR4	PARKS AND GROUNDS	2015	CHEVROLET	SILVERADO 0K2950	Pickup	Russo
1	DPW	2019	FORD	SUPER DUTY F250	Pickup	McCabe
37	DRAINAGE	2011	CHEVROLET	SILVERADO 3500	1 Ton Stake Body	
29	TREES & CEMETERY	2014	CHEVROLET	SILVERADO 3500	1 Ton Stake Body	
38	HIGHWAY	2015	CHEVROLET	SILVERADO 3500	1 Ton Stake Body	
40	DRAINAGE	2015	CHEVROLET	SILVERADO 3500	1 Ton Stake Body	
7	HIGHWAY	2015	CHEVROLET	SILVERADO 3500	1 Ton Stake Body	
28	HIGHWAY	2015	CHEVROLET	SILVERADO 3500	1 Ton Stake Body	
PR2	PARKS AND GROUNDS	2011	CHEVROLET	SILVERADO 0K31003	1 Ton Dump	
PR1	PARKS AND GROUNDS	2015	CHEVROLET	SILVERADO 0K30003	1 Ton Dump w/Slide In Spreader	
PR11	PARKS AND GROUNDS	2015	CHEVROLET	SILVERADO 0K3500	1 Ton Dump w/Slide In Spreader	
17	TREES & CEMETERY	2015	CHEVROLET	SILVERADO 2500	Utility Body	
30	FLEET MAINTENANCE	2017	FORD	F350	Fiberglass Utility Body & Compressor	
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Heavy Duty Trucks						
4	DRAINAGE	2013	FREIGHTLINER	114SD	6-Wheel Dump	
11	HIGHWAY	2014	FREIGHTLINER	114SD	6-Wheel Dump	
9	DRAINAGE	2016	FREIGHTLINER	114SD	6-Wheel Dump	
12	DRAINAGE	2006	MA CK	CV 713	10-Wheel Dump	
27	HIGHWAY	2007	MA CK	CV 713	10-Wheel Dump	
10	HIGHWAY	2012	FREIGHTLINER	114SD	10-Wheel Dump	
34	HIGHWAY	2016	FREIGHTLINER	114SD	10-Wheel Dump	
36	TREES & CEMETERY	2000	GMC	17500	6-Wheel Swap Body (Dump, Chip, Brine)	
23	TREES & CEMETERY	2008	INTERNATIONAL	7300	6-Wheel Spreader (Swap Body - Chip, Dump)	
6	DPW	2008	MA CK	CV 713	10-Wheel Spreader w/Wing	
5	DPW	2008	YOLVO	VHD4F	10-Wheel Spreader	
24	DPW	2008	INTERNATIONAL	7400	6-Wheel Spreader w/Wing	
44	DPW	2004	MA CK	CV 712	6-Wheel Spreader	
3	DPW	2007	MA CK	CV 712	6-Wheel Spreader	
18	DPW	2007	MA CK	CV 712	6-Wheel Spreader	
20	DPW	2011	YOLVO	VHD4E	6-Wheel Spreader	
19	DRAINAGE	2015	FREIGHTLINER	114SD	Catch Basin Cleaner, 6-Wheel Dump	
L1	DRAINAGE	2016	FREIGHTLINER	114SD	10-Wheel Roll off (Transfer Station)	
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Need to replace 1 of these vehicles per year to maintain a sustainable fleet

- If only 1 is replaced every other year → 36 years old





# Capital Plan Analysis / Recommendations

- Organization 1
  - Senior Department Leaders perform review, rate and recommend
- Organization 2
  - Department heads provide requests
  - Boards / Committees review, rate, and recommend
- Organization 3
  - Department heads provide requests
  - Town Manager reviews, rates, and recommends

