

# TRANSFER SYSTEM ALTERNATIVES – COST

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Transfer Plan Review Workshop 3  
September 27, 2013



Department of Natural Resources and Parks

**Solid Waste Division**

# Comparing Alternatives

- **Cost – focus for today**
- Equitable distribution of facilities and services
- Flexibility to meet future needs
- Level-of-service criteria
  - Drive time
  - Time on site
  - Facility hours
  - Recycling services
  - Tonnage capacity
  - Vehicle capacity
  - Storage capacity
  - Compaction
  - Building and safety standards
  - Noise and odor standards
  - Traffic standards
  - Proximity to residences
  - Compatibility with surrounding land use

# Transfer System Alternatives

	Base (Current Plan)	Alternative A	Alternative A*	Alternative B	Alternative C	Alternative C**	Alternative D	Alternative D**	Alternative D***
Open facilities	Shoreline Bow Lake Factoria Northeast South County	Shoreline Bow Lake Factoria South County	Shoreline Bow Lake Factoria South County  Houghton (self-haul only)	Shoreline Bow Lake Northeast South County	Shoreline Bow Lake Northeast	Shoreline Bow Lake Northeast  Algona (self-haul only)	Shoreline Bow Lake Factoria	Shoreline Bow Lake Factoria  Algona (self-haul only)	Shoreline Bow Lake Factoria  Algona (self-haul only) Houghton (self-haul only)
Closed facilities	Algona Renton Houghton	Algona Renton Houghton	Algona Renton	Algona Renton Houghton	Algona Renton Houghton	Renton Houghton	Algona Renton Houghton	Renton Houghton	Renton
Do not build		Northeast	Northeast	Factoria	Factoria South County	Factoria South County	Northeast South County	Northeast South County	Northeast South County

# Capital Cost

- Capital costs are financed by solid waste tipping fees charged at the transfer facilities and the landfill
- Capital costs are supported by all users of the system
  - Self-haulers – residents and businesses
  - Commercial haulers (curbside service)
- The current rate includes payments on the capital costs of the Shoreline and Bow Lake stations and sunk costs for Factoria and South County
- Capital costs will be paid off – assumed 20-year bonds at 5 percent
- Lower capital cost generally correlates with lower service

# Capital Cost – Total

*estimated in millions*

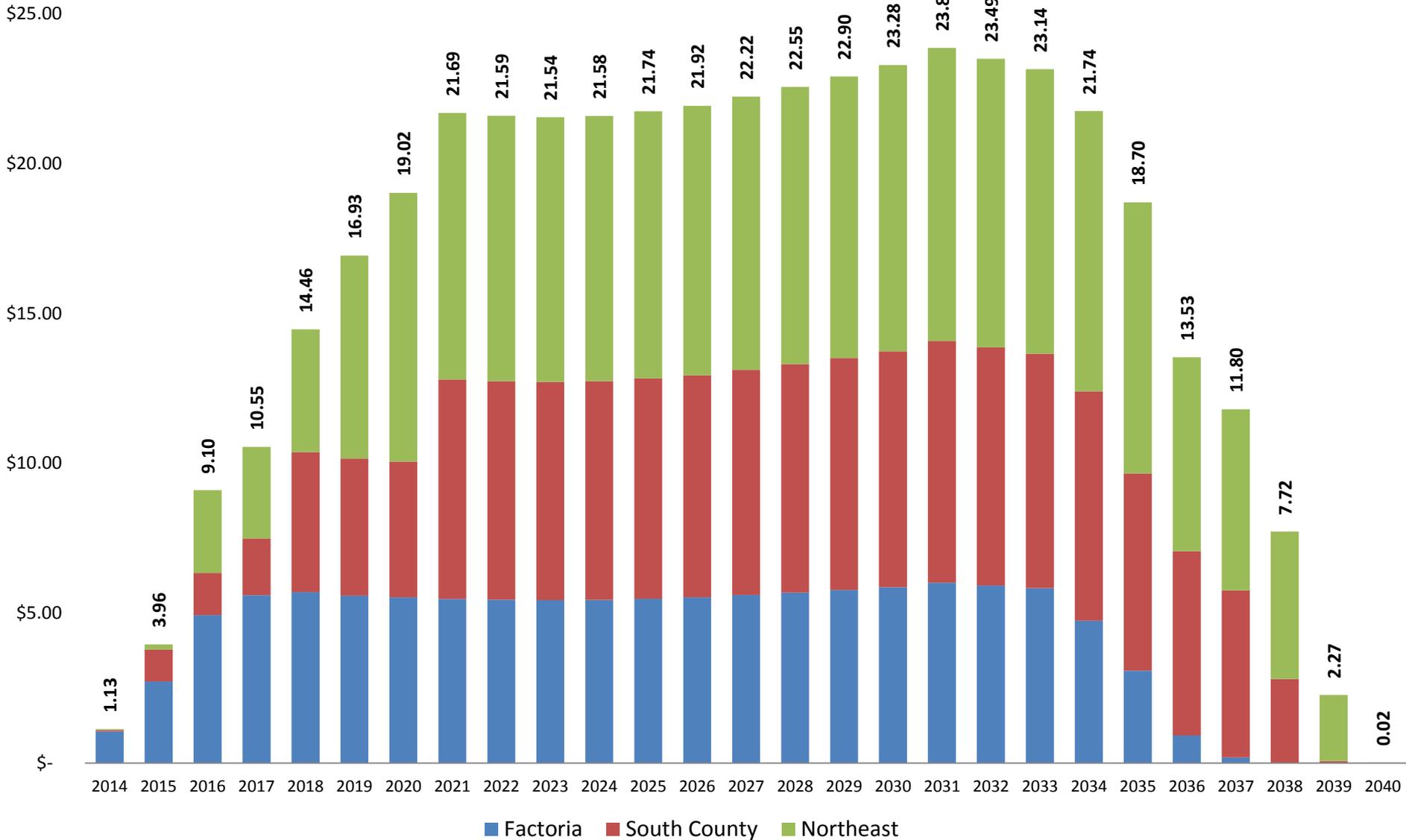
	2013\$	Inflated	With Interest (assumed 5%)
<b>Base</b>	\$ 222	\$ 244	\$ 386
<b>A</b>	\$ 186	\$ 208	\$ 328
<b>A*</b>	\$ 136	\$ 148	\$ 233
<b>B</b>	\$ 187	\$ 209	\$ 328
<b>C</b>	\$ 113	\$ 127	\$ 201
<b>C**</b>	\$ 122	\$ 137	\$ 217
<b>D</b>	\$ 112	\$ 126	\$ 201
<b>D**</b>	\$ 121	\$ 135	\$ 217
<b>D***</b>	\$ 71	\$ 75	\$ 121

# Capital Cost – Cost per Ton

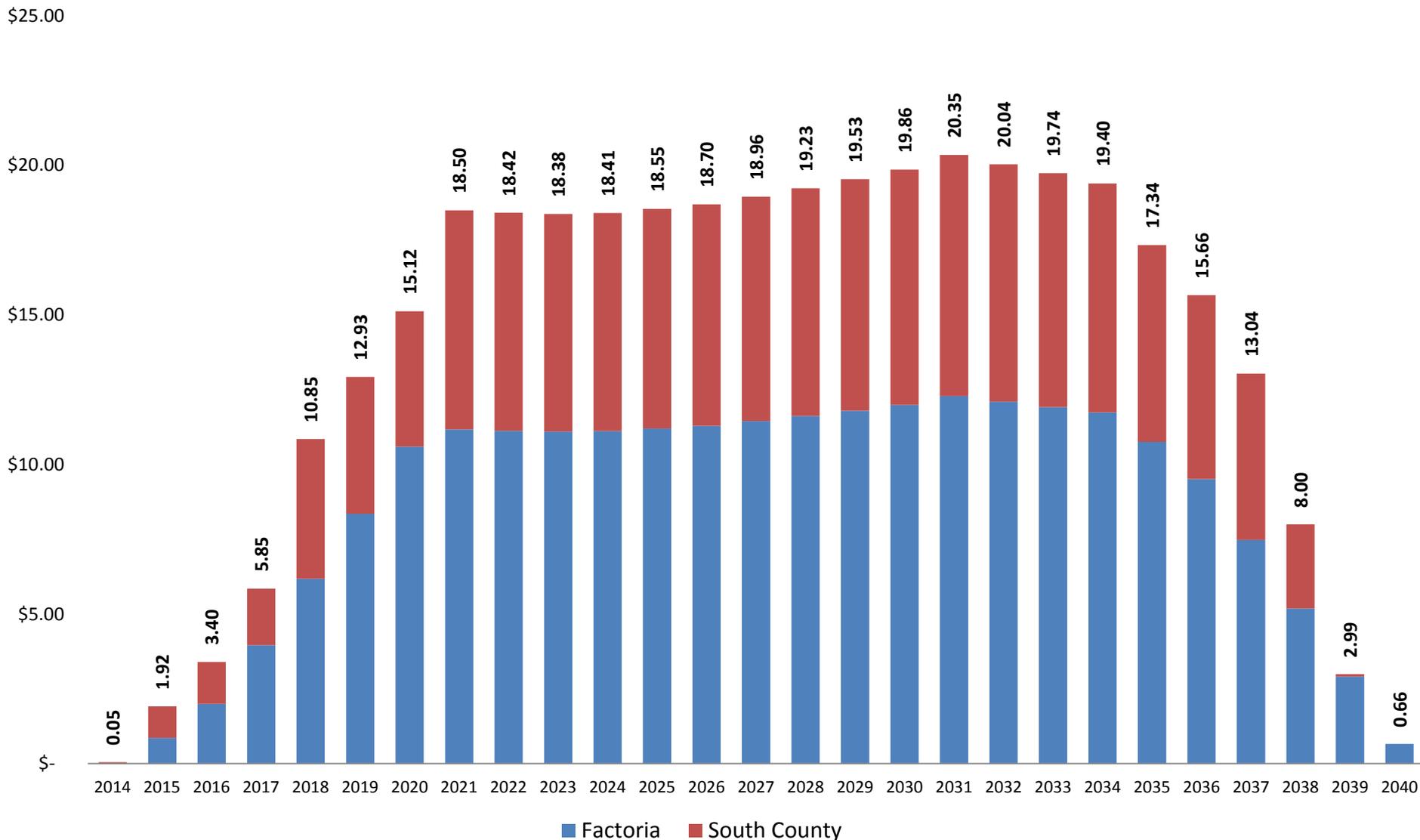
## Estimated Average Cost Per Ton 2014-2040



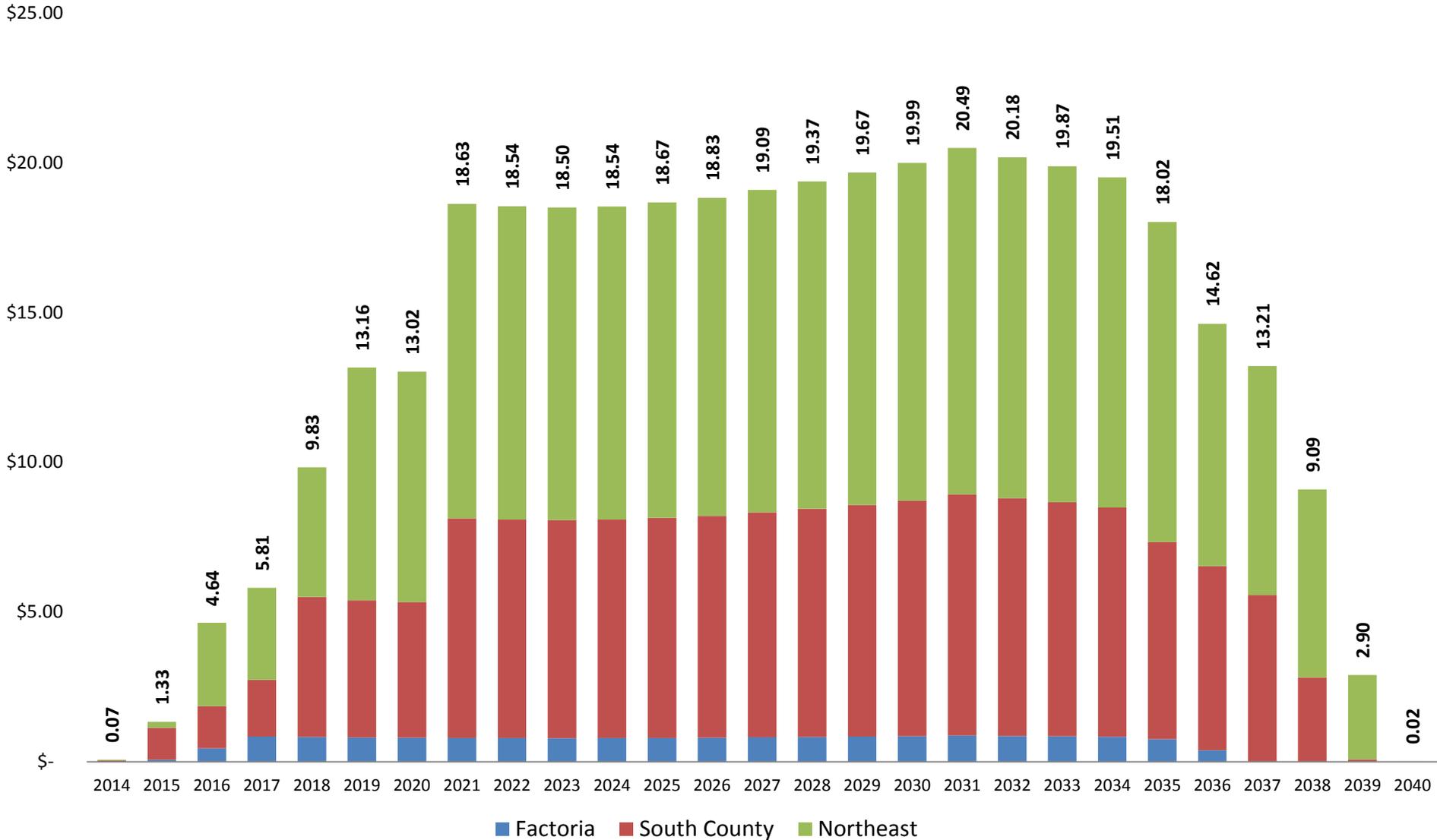
# Capital Cost Per Ton Base Alternative



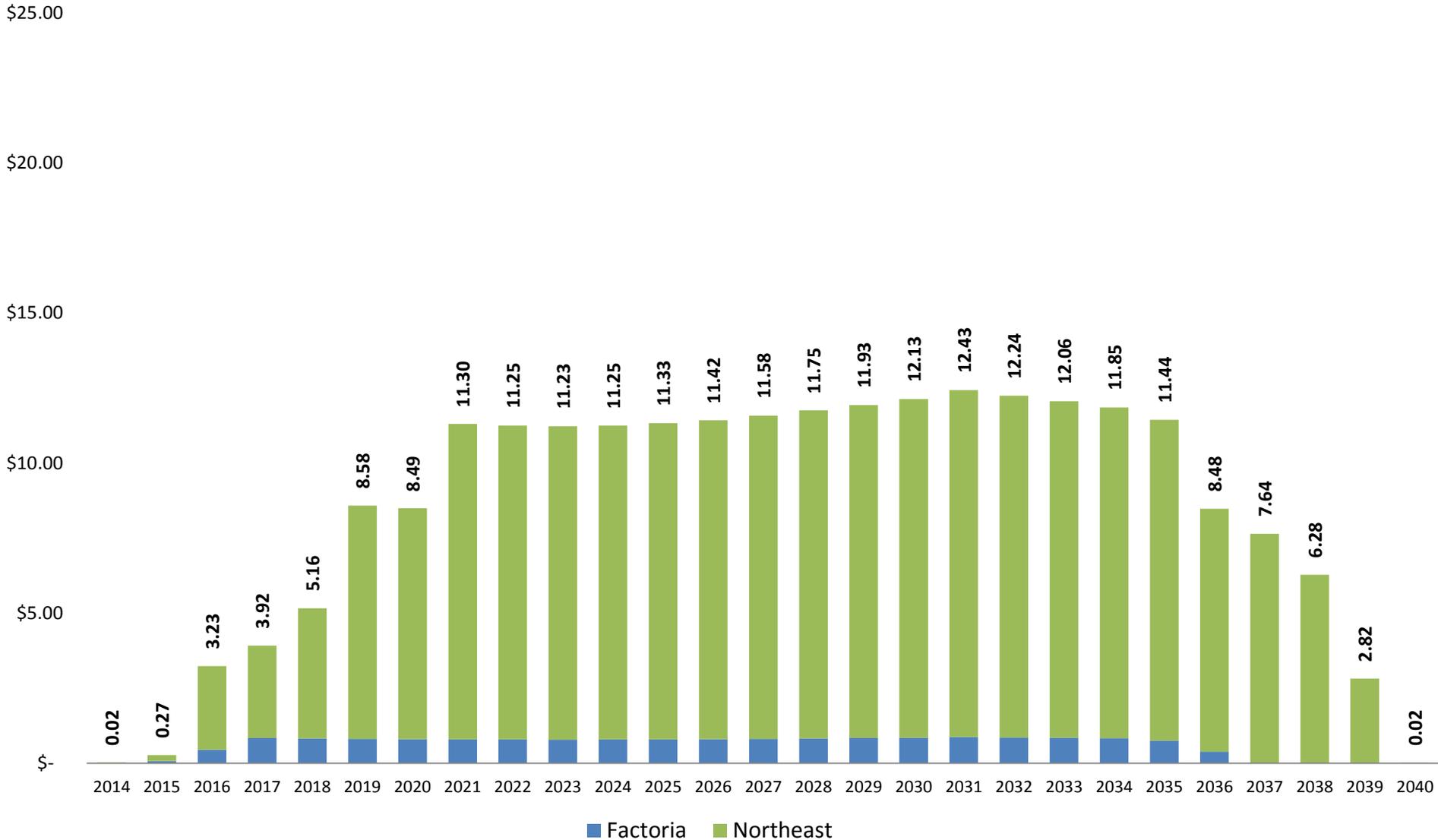
# Capital Cost Per Ton Alternative A



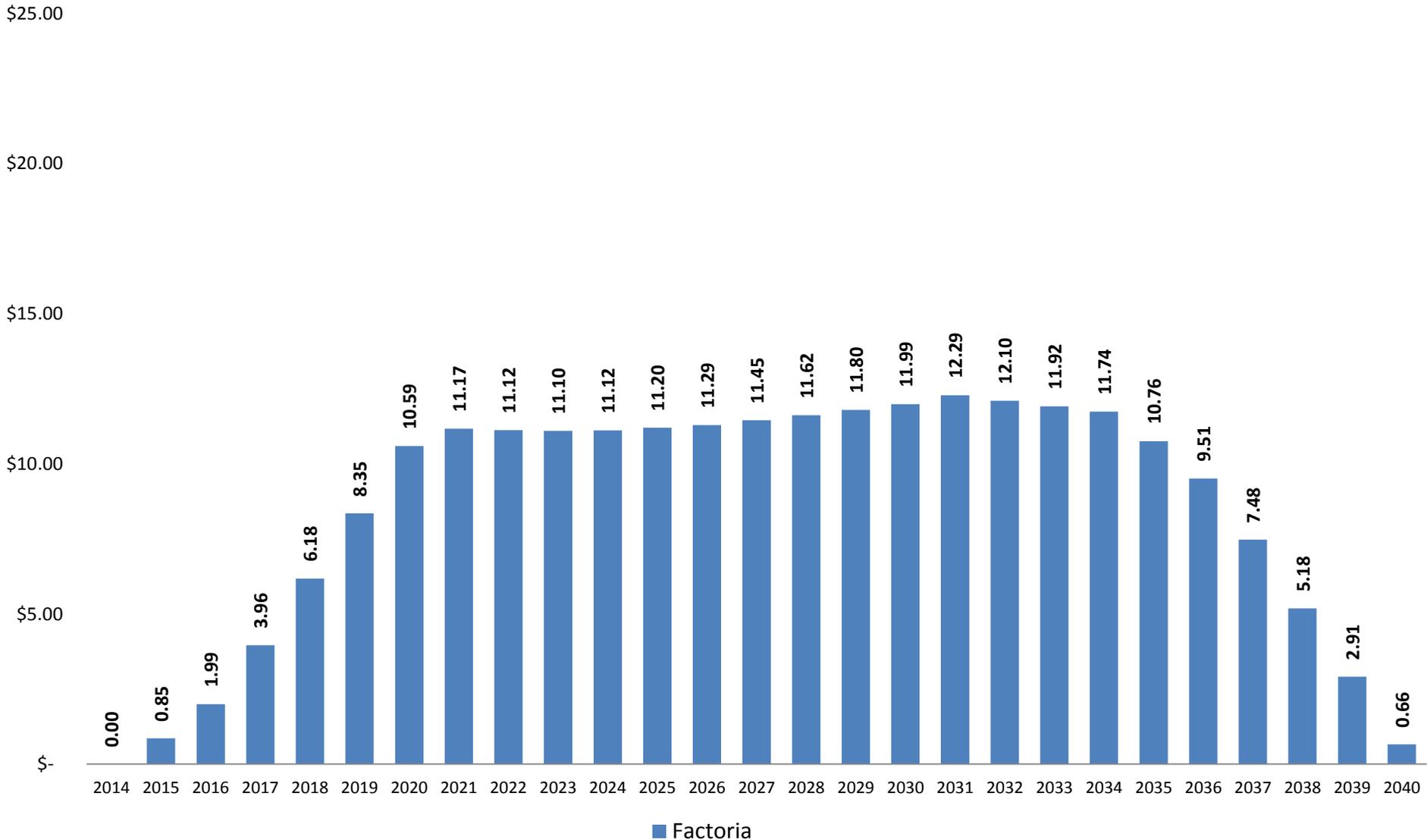
# Capital Cost Per Ton Alternative B



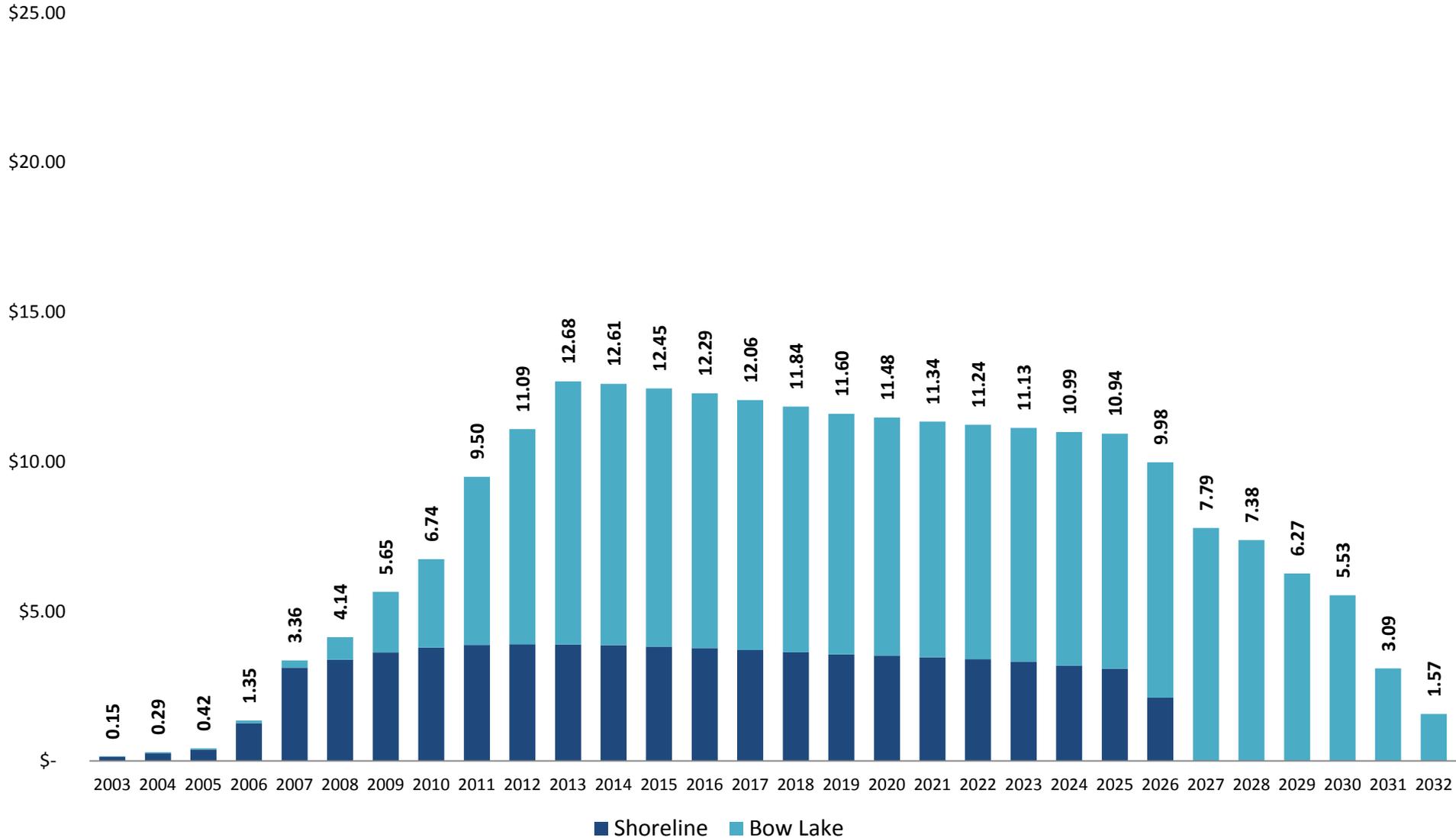
# Capital Cost Per Ton Alternative C



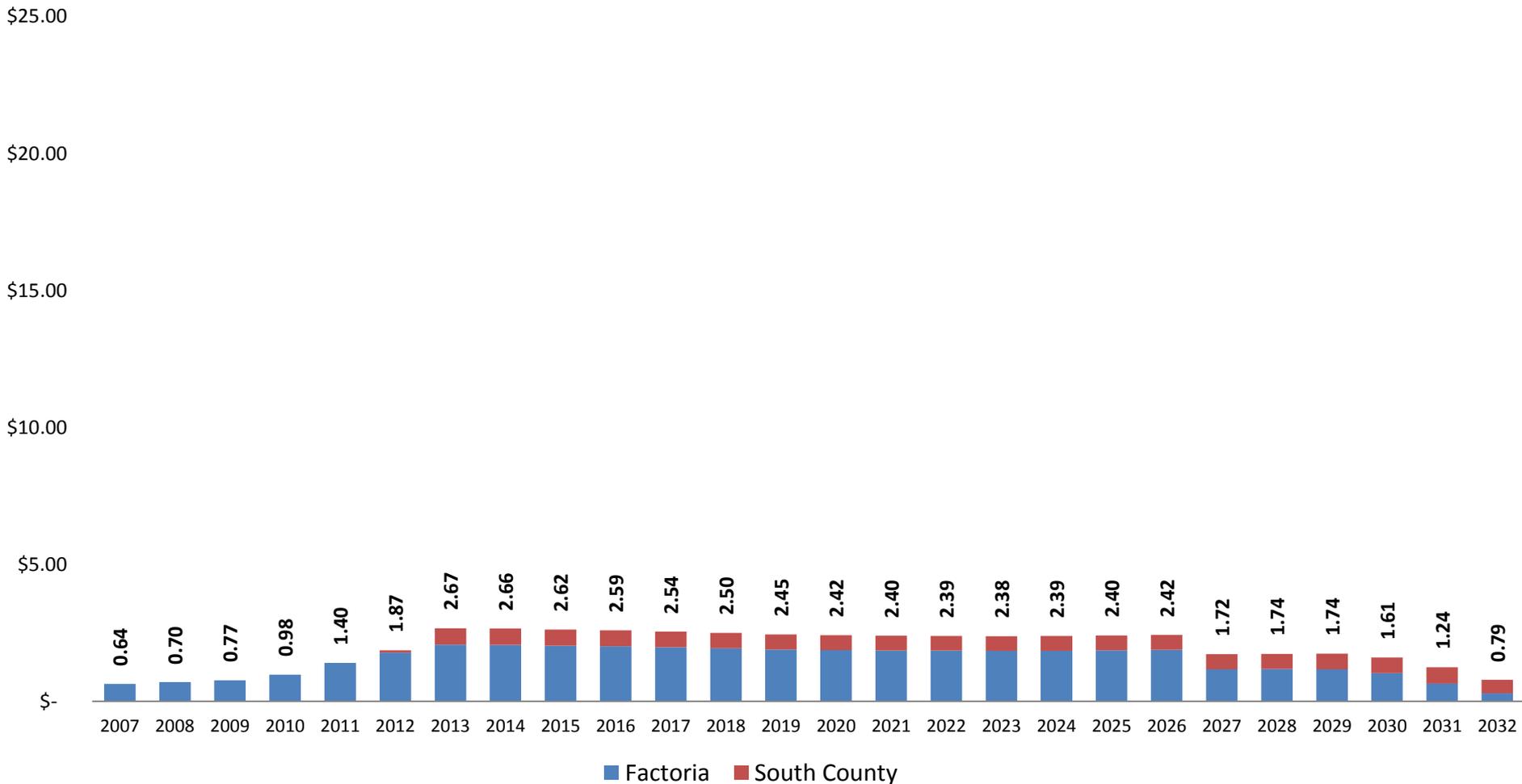
# Capital Cost Per Ton Alternative D



# Capital Cost Per Ton Shoreline and Bow Lake



# Capital Cost Per Ton Factoria and South County Sunk Cost

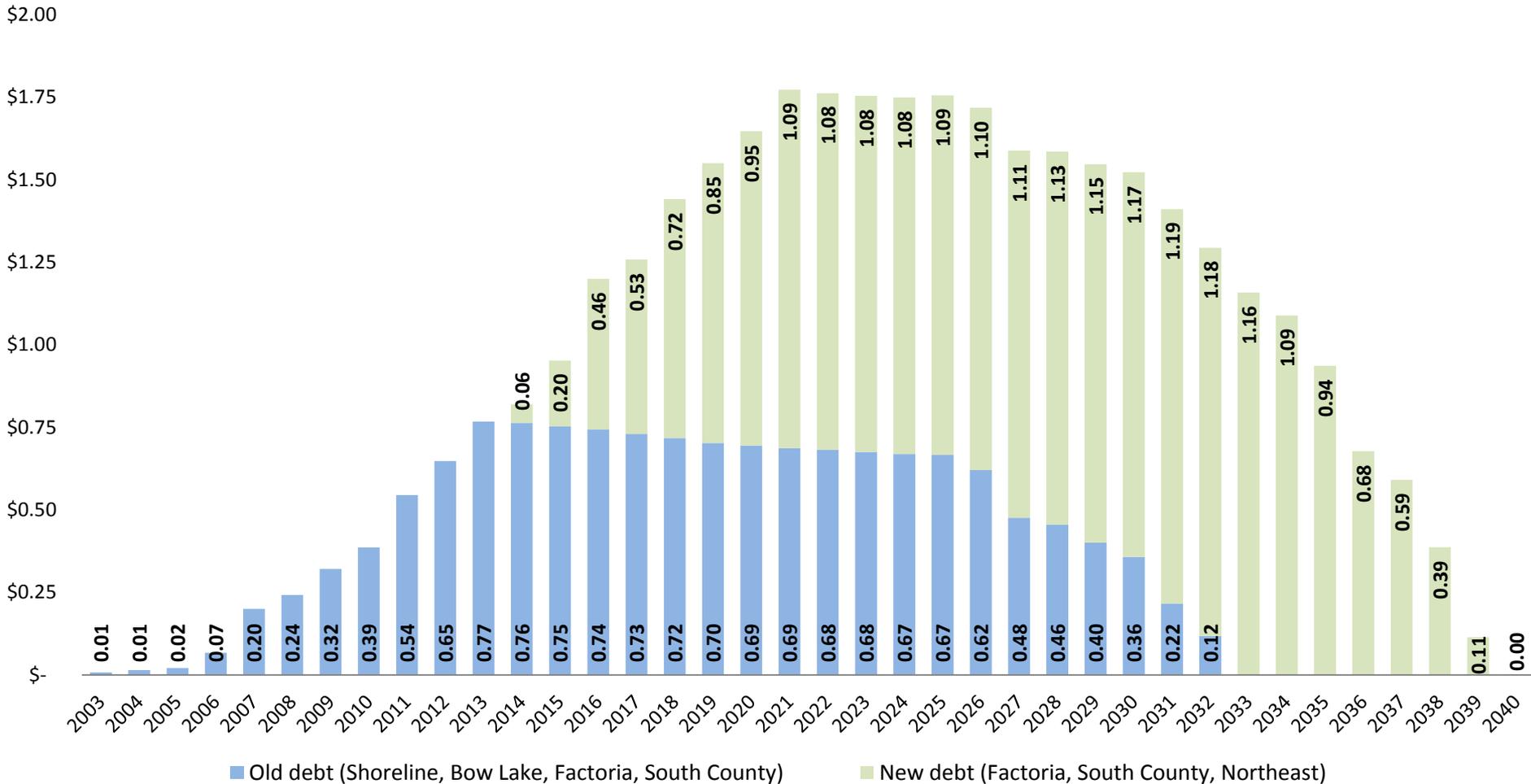


# Capital Cost – Average Household

Added cost per month for the average household  
(estimated median cost of capital debt 2014-2040)

Alternative	Monthly Cost
Base	\$ 1.08
A	\$ 0.92
A*	\$ 0.66
B	\$ 0.93
C	\$ 0.56
C**	\$ 0.61
D	\$ 0.55
D**	\$ 0.60
D***	\$ 0.34

## Estimated Monthly Cost Per Average Household for Transfer System Capital Investment (old debt + new debt for Base Alternative)







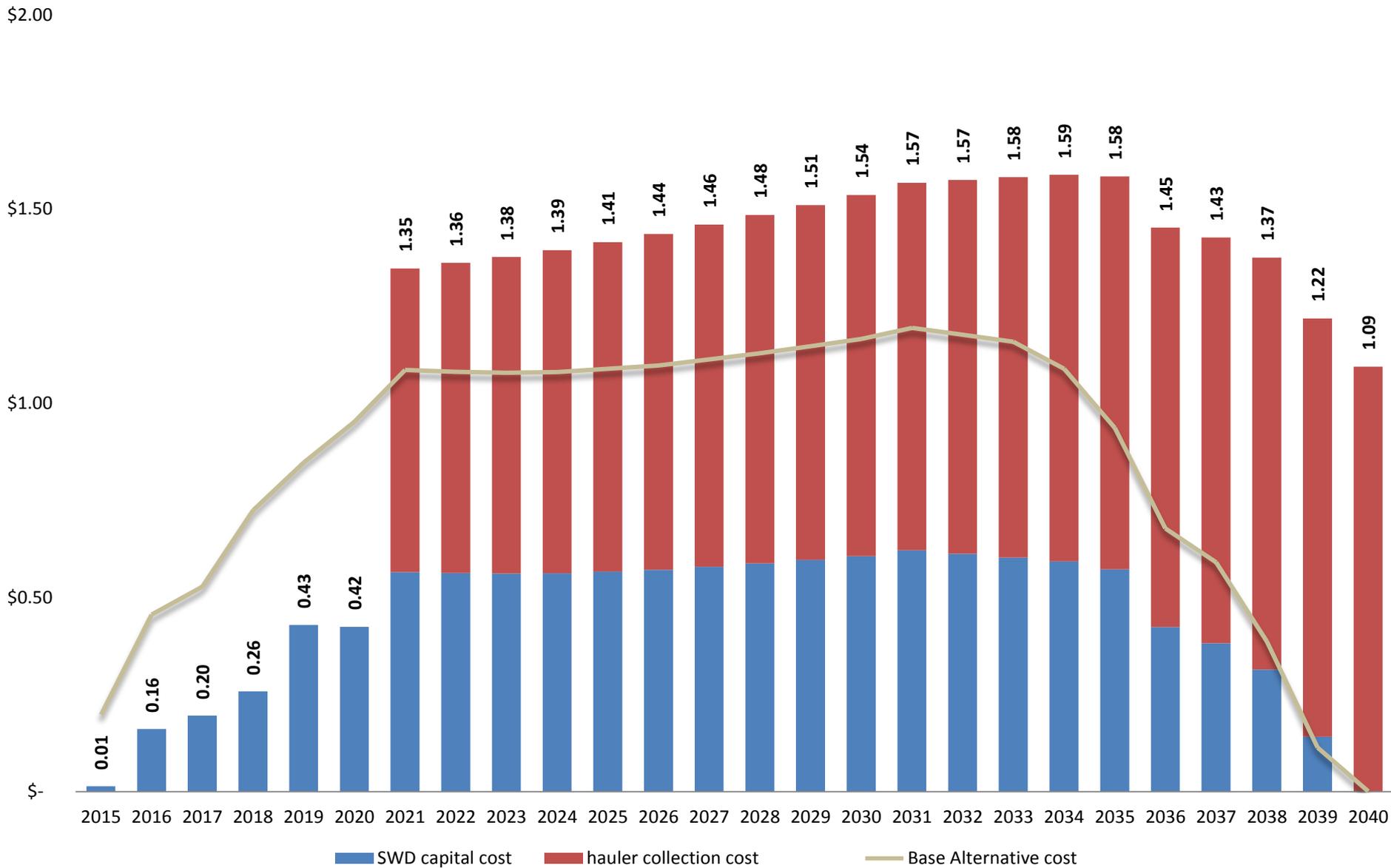
# Collection Cost

- Collection costs are paid by residents and businesses that have garbage picked up
- Collection costs increase as there are fewer facilities to serve the commercial haulers
- Cost drivers:
  - Increase in miles driven = increased fuel use and truck maintenance
  - More driver hours spent on the road and waiting at the facility and less time on the route = more drivers and more trucks
- Collection costs will continue to grow with inflation

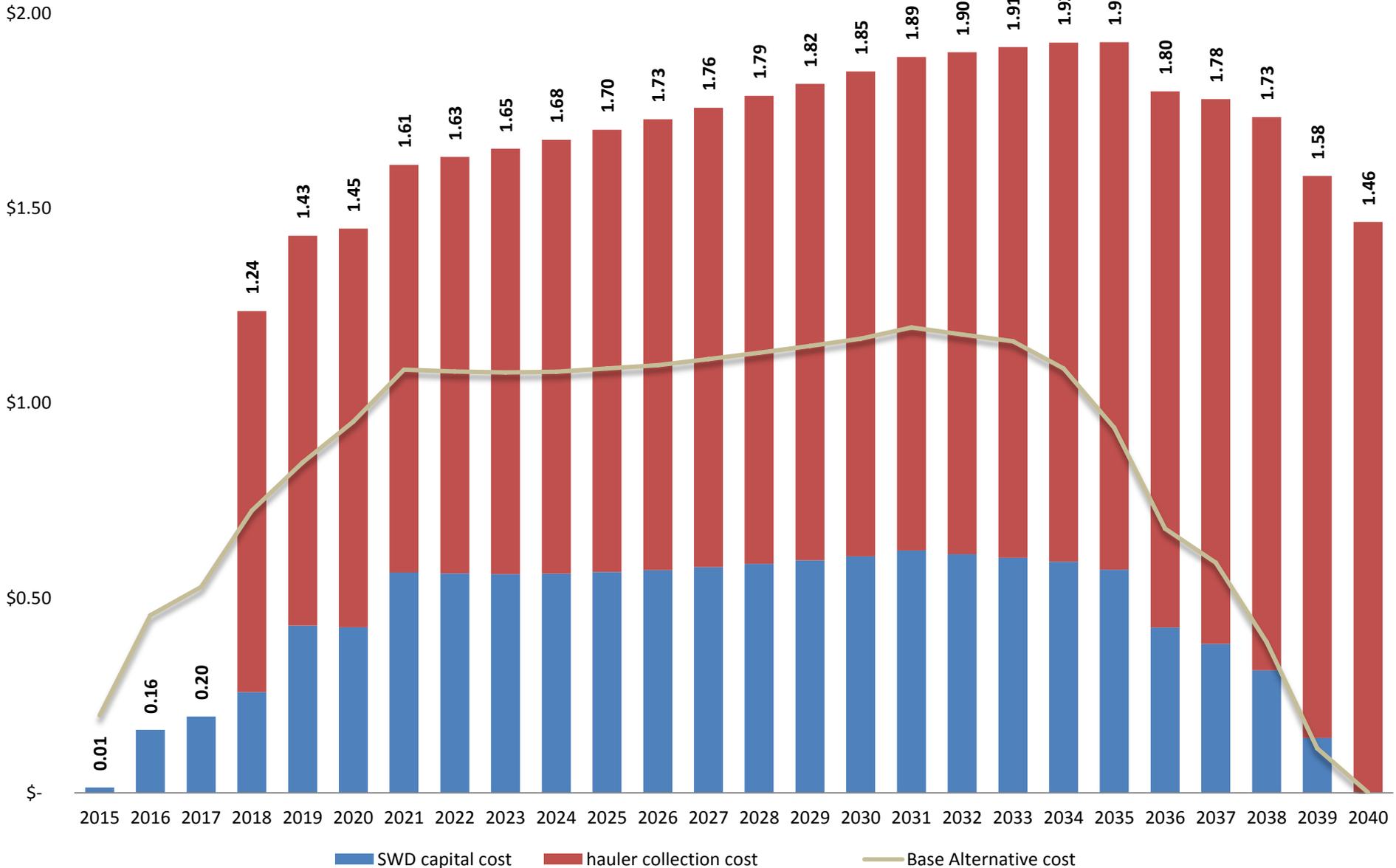
# Collection Cost Analysis

- Some changes to the transfer system that would reduce capital costs would shift costs to the commercial haulers – and ultimately back to the ratepayer
- Unlike capital costs, which are uniformly distributed throughout the system, increased collection costs are not distributed equally
- There is no one amount for collection cost impacts – cost will vary depending on location and distance from a transfer facility
- Residents and businesses in areas that are not served by nearby transfer facilities would bear the brunt of increased collection costs

# Estimated Monthly Cost Increase Capital and Collection Alternative C - Eastside Republic



# Estimated Monthly Cost Increase Capital and Collection Alternative C - Waste Management South Sound





King County

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