

2020-2021 Planning Study Summary Alternatives Matrix

ALTERNATIVE CONFIGURATION		ALTERNATIVE EVALUATION								LANDWARD IMPACTS				
		PURPOSE AND NEED		SECONDARY GOALS			OTHER			Landward Water Surface Elevation (WSEL) (NAVD88)	Increased Acreage Impact	Number of Properties	Hazardous Waste Sites	Wells/Septic
		Overall Structure Rating	Railroad Corridor	Fisheries (passage)	Sea Level Rise (SLR)	Transpo. & Community Uses	Impacts to Tidal Regime	Constructability & Maintenance	Stride Bridge (#3973)	NOTE: Impacts noted are from differences in normal water levels for normal tides and normal riverine flow (non-flood events)				
Alt. No.	Culvert or Bridge, Span and Size	'Good'	Preserves railroad corridor	Improvement (Yes/No) & Monitoring	Consistent w/ Town & State Climate Council guidance	Maintains current public uses of the causeway	Ranges from No change to full restoration	Water management, dredging, and future maint.	1948 ~ 12.5 ft span culvert located upstream	MHW WSEL LOW (<2') MEDIUM (2' to 4') HIGH (>4')	Acreage impacts due to change in WSEL	Parcels impacted by change in WSEL	Hazmat sites impacted by change in WSEL	Parcels w/ wells & septic impacted by change in WSEL
1	Replacement in-kind	Yes	Yes	No	Yes	Yes	None	• Difficult dewatering		LOW (EL. -2.5' Change = -1.7')	N/A	N/A	N/A	N/A
4	5 culverts, 4 gated, 1 open, all at EL-6.05	Yes	Yes	Yes (w/incoming tide) fish monitoring & long term take of Endangered Atlantic Salmon anticipated	Yes	Yes	Improvement 40 intertidal habitat acres	• 1,000± CY of dredging • Difficult dewatering		LOW (EL. 0.8' Change = +1.5')	40	10	0	0
4 MOD	3 larger culverts, 2 gated @-4.05, 1 open @-6.05	Yes	Yes	Yes (w/incoming tide) fish monitoring & long term take of Endangered Atlantic Salmon anticipated	Yes	Yes	Improvement 86 intertidal habitat acres	• 1,000± CY of dredging • Difficult dewatering		MEDIUM (EL. 2.1' Change = +2.8')	86	28	1 municipal landfill (needs further study)	0
9	4 open box culverts	Yes	Yes	Yes (w/incoming tide) fish monitoring & long term take of Endangered Atlantic Salmon anticipated	Yes	Yes	Improvement 168 intertidal habitat acres	• No flap gates to maintain • Difficult dewatering	• Requires replacement sooner	MEDIUM/HIGH (EL. 4.1' Change = +4.8')	168	38	1 municipal landfill (needs further study)	1
10	120 to 150 ft bridge, parking in bridge approaches only	Yes	Yes	Yes (conditions replicate natural fish passage, but no fish monitoring)	Yes	Yes	Restoration; 398 intertidal habitat acres	• 6,000± CY of dredging • Landward sediment scour & seaward shoaling needs further study	• Requires replacement now due to increased hydraulic opening, salinity and ice floes	HIGH (EL. 7.9' Change = +8.6')	398	54	1 municipal landfill (needs further study)	5
10A	120 to 150 ft bridge, w/parking on bridge & approaches	Yes												

*Not all alternatives considered in the current study are shown here. The shown alternatives were selected for detailed study as being representative of a wider range of alternatives.