

Table 7. Nature and causes of coastal wetland changes in the Narragansett Bay Estuary from the 1950s to the 1990s. Note: The acreage of areas of change affected by multiple causes has been listed under each of the relevant causes, so acreage totals in this table exceed actual acreage of loss or gain for each coastal wetland type as reported in Table 6.

Wetland Type*	Acreage Affected	Gain From or Lost To	Major Causes (% of affected acreage)
E2EM	52.6	From open water	coastal processes (67), succession (15)
	87.1	From E2US	tidal restriction (48), coastal processes (37)
	33.4	From E2SS	Phragmites invasion (55), ditching (36)
	8.8	From P-wetland	tidal restriction (36), ditching (31), excavation/impoundment (23)
	16.4	From upland	coastal processes (48), unknown (28)
	50.9	To open water	coastal processes (49), tidal restriction (31)
	38.3	To E2US	coastal processes (85)
	0.5	To E2SB	coastal processes (100)
	78.8	To E2SS	<u>Iva</u> succession (61), succession following ditching (33)
	111.1	To P-wetland	ditching (41), tidal restriction (37), succession (11)
	189.8	To upland	rangeland (36), residential (19), commercial/services (14), transportation/utilities (13)
	280.6	Change in EM type	Phragmites (59), other succession (20), tidal restriction (9, excluding Phragmites)
E2SS	0.8	From E2US	coastal processes (100)
	78.8	From E2EM	<u>Iva</u> succession (61), succession/ditching (33)
	33.1	To E2EM	Phragmites (56), succession/ditching (36)
	6.0	To upland	commercial/services (33), forest (27), industrial/commercial (14), agriculture (9), residential (9)

Table 7. (continued)

Wetland Type*	Acreage Affected	Gain From or Lost To	Major Causes (% of affected acreage)
E2US	140.5	From open water	coastal processes (89)
	36.6	From E2EM	coastal processes (89)
	1.5	From E2RS	coastal processes (83)
	34.0	From upland	coastal processes (80)
	250.1	To open water	coastal processes (99)
	112.3	To E2EM	succession (40), tidal restriction (37), coastal processes (17)
	0.8	To E2SS	coastal processes (100)
	21.5	To P-wetland	tidal restriction (52), succession (44)
	105.3	To upland	golf course (33), rangeland (30), barren land (14), commercial/services (5)
	48.5	Change in Type	coastal processes (73)

*E2EM - estuarine emergent wetland; E2SS - estuarine scrub-shrub wetland; E2US - estuarine unconsolidated shore; E2SB - estuarine streambed; E2RS - estuarine rocky shore; P - palustrine.