Town of Orleans, Massachusetts
Water Quality and Wastewater Planning
Permeable Reactive Barrier (PRB) Demonstration Siting Evaluation

Criteria	Criteria Weight	Site A: Main Street and Tonset Road		Site B: South Orleans Road at Tonset (RT-28 Site)		Site C: Town Cove Gibson Road		Site D: Namequoit Road		Site E: Town Landfill		Site F: Paw Wah Pond		Site G: Rock Harbor Road		Site H: Kescayo Gansett (Lonnie's Pond)	
		Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score
Site Suitability																	
Downgradient Potable Water Use - Wells	1	1	1	1	1	1	1	0	0	1	1	0	0	1	1	1	1
Topography	1	1	1	1	1	0	0	-1	-1	0	0	-1	-1	1	1	1	1
Depth to Groundwater	1	1	1	-1	-1	0	0	-1	-1	-1	-1	1	1	1	1	1	1
Groundwater Nitrogen Profile (concentration/depth)	1		0		0		0		0		0		0		0		0
Groundwater Flow Direction and Velocity	1	0	0	1	1	0	0	0	0	1	1	0	0	-1	-1	1	1
Ease of Access/Use of Property	1	1	1	1	1	-1	-1	1	1	1	1	-1	-1	1	1	0	0
Representativeness	1	1	1	1	1	1	1	-1	-1	0	0	-1	-1	0	0	-1	-1
													-		-		-
Permitting																	
Outside ACEC, Upland Areas	1	1	1	1	1	1	1	-1	-1	1	1	-1	-1	1	1	-1	-1
Abutter Compatibility	1	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0
Property Ownership/Road Layout	1	0	0	1	1	1	1	1	1	1	1	-1	-1	0	0	-1	-1
Utility Conflicts	1	-1	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
													-		-		-
Project Evaluation																	
PRB Nitrogen Removal Efficiency	1	1	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0
Overall Ease of Monitoring	1	0	0	1	1	0	0	0	0	0	0	-1	-1	0	0	-1	-1
Accessible Well Locations	1	0	0	1	1	1	1	1	1	0	0	-1	-1	0	0	0	0
Quantity/Quality of Existing Information	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
													-		-		-
Other/Overriding Considerations																	
Community Acceptability	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0
Potential for Public Education	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Potential for Watershed/Estuary Impacts	1	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0
Funding Potential	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Potential for Full Scale Implementation	1	1	1	1	1	1	1	0	0	0	0	-1	-1	-1	-1	0	0
Total Criteria Points		9		14		7		1		10		-6		4		1	
Rank		3		1		4		6		2		8		5		6	

Notes:

High Criteria Weight = Greater Importance
Higher Rating = Better Conditions
A good ranking (1) was assigned if the criterion could be fully met.
A neutral ranking (0) was assigned if the criterion could be met in part, but
A poor ranking (-1) was assigned if the criterion could not be met.

Remarks

Password = Orleans