

Mid-Atlantic Tidal Wetland Rapid Assessment Method V4.1

Site # _____ Site Name _____ Date _____
 Time of Start& Finish _____:_____:_____ Crew Initials _____
 Watershed _____ Sub-Watershed _____
 lat/long _____ AA shape: circle or rectangle or entire wetland polygon (circle)
 AA moved from original location? Yes or No (circle one) If yes: distance, direction, reason _____

Classification: (circle one) Marine Tidal Fringing Estuarine Tidal Expansive Estuarine Tidal Back Barrier Estuarine Tidal Fringing Palustrine Tidal Expansive Palustrine Tidal	Reference or Assessment (circle one) Natural, Re-establishment, establishment Enhancement, Impoundment (circle one)
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What best describes the tidal stage over the course of the time spent in the field? (circle one)
 Note: It is recommended that the assessment be conducted at low tide.

Tide Stage H <-----M-----> L 5 4 3 2 1	Range of Photo Identification Numbers: Stressor Photo Description:
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Assessment Area Sketch

low marsh or high marsh or fresh (circle one)
 Distance to Upland _____ meters
 Distance to Open Water _____ meters

Stability of AA (check one)
<input type="checkbox"/> Healthy & Stable
<input type="checkbox"/> Beginning to deteriorate and/or some fragmentation
<input type="checkbox"/> Severe deterioration and/or substantial fragmentation

Soils
 Depth of organic layer (cm): _____
 Comments on soil sample: _____

Salinity _____ ppt

Vegetation Communities and Features

Enter midpoint for each species/combination present using the cover class chart below

_____ <i>Spartina alterniflora</i>	_____ <i>Phragmites australis</i>	_____ root mat
_____ <i>Spartina patens</i>	_____ pannes, pools, creeks	_____ unvegetated, mud or sand
_____ <i>Spart. alterniflora/Spart. cynosuroides</i>	_____ open water	_____ unhealthy marsh-SWD, deterioration
_____ <i>Spartina patens-Distichlis spicata</i>	_____ ditches	_____ other 1 _____

Cover Classes	MidPt	Cover Classes	MidPt	Cover Classes	MidPt
0	0	6-25%	15.5	76-99%	88.5
<1%	0.5	26-50%	38	100%	100
1-5%	2.5	51-75%	63		

Comments:

Qualitative Disturbance Rating						(circle one)
1	2	3	4	5	6	
Low <-----Disturbance-----> High						

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Site # _____

Date ____/____/____

Attribute 1: Buffer/Landscape (All W/in 250m)

B1. Percent of Assessment Area Perimeter with 10m-Buffer

Percent _____ %	Max: 3,456m ²
Alternative States(not including open-water areas)	Rating
Buffer is 100% of AA perimeter.	12
Buffer is 94-99.9% of AA perimeter.	9
Buffer is 80-93.9% of AA perimeter.	6
Buffer is <79.9% of AA perimeter.	3

B2. Natural Land Use in Buffer (excluding AA)

% Natural Land Use _____	Max: 274,890m ²
Alternative States	Rating
100% natural land use buffer	12
75-99.9% natural land use buffer	9
55-74.9% natural land use buffer	6
<54.9% natural land use buffer	3

B3. Altered and High Impact Land Use in Buffer (excluding AA)

Un-Natural Land Use _____ % High Impact Land Use _____ % (250m buffer = 274,890m²)

Alternative States	Rating
No Un-Natural Landuses	12
0-20% Un-Natural Land Use and <5% High Impact Land Use	9
20-50% Un-Natural Land Use and/or 5-20% High Impact Land Use	6
>50% Un-Natural Land Use or >20% High Impact Land Use	3

B4. Buffer Landscape Condition

Alternative States	Rating
AA's surrounding landscape is comprised of only native vegetation, has undisturbed soils, no point source discharges, and there is no evidence of human disturbance.	12
AA's surrounding landscape is dominated by native vegetation, has undisturbed soils, receives water from a stormwater pond drain, and there is little or no evidence of human visitation.	9
AA's surrounding landscape is characterized by an intermediate mix of native and non-native vegetation, and/or a moderate degree of soil disturbance/compaction, and/or receives water from one or more agricultural field ditch(es), and/or there is evidence of moderate human visitation.	6
AA's surrounding landscape is characterized by barren ground and/or dominated by invasive species and/or highly compacted or otherwise disturbed soils, and/or receives discharge directly from a polluted source, and/or there is evidence of very intensive human visitation.	3

B5. Barriers to Landward Migration

	Alternative States	Rating
% Perimeter Obstructed _____ % Dist. From Center of AA _____ m	Absent: no barriers	12
	Low: <10% of perimeter obstructed	9
	Moderate: 10-25% of perimeter obstructed	6
	High: 26-100% of perimeter obstructed	3

Attribute 3: Habitat (All W/in AA)

HAB1a. Bearing Capacity (Hummocks) *

% Hummocks _____ %	Mark Depth (cm)							
	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6	Plot 7	Plot 8
Water Depth (cm)								
Initial depth								
Blow 1								
Blow 2								
Blow 3								
Blow 4								
Blow 5 (Final)								
Blow 5 - Initial								

Hummocks average = _____

* if hummocks are present >10% use this workspace

_____ % of AA in hummocks x _____ hummocks avg (HAB1a) = _____
_____ % of AA in hollows x _____ hollows average (HAB1b) = _____
Sum of two weighted averages = _____

Tidal Salt

Tidal Fresh

Av. of Final - Initial for the 8 Sub-plots	Rating (circle one)	Av. of Final - Initial for the 8 Sub-plots	Rating (circle one)
≤ 1.80	12	≤ 4.40	12
1.81-4.00	9	4.41-6.70	9
4.01-6.20	6	6.71-11.40	6
> 6.21	3	> 11.41	3

Average Final-Initial = _____ cm

HAB1b. Bearing Capacity (Unvegetated Hollows) if applicable*

% Hollows _____ %	Mark Depth (cm)							
	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6	Plot 7	Plot 8
Water depth (cm)								
Initial depth								
Blow 1								
Blow 2								
Blow 3								
Blow 4								
Blow 5								
Blow 5 - Initial								

Hollows average = _____

HAB2. Horizontal Vegetative Obstruction

Sub-plot	1	3	5	7
0.25m				
0.50m				
0.75m				
1.00m				
1.25m				
Sum				
Dominant Veg. Type				

Out of: _____

% unobstructed: _____

100-% unobstructed= % obstructed: _____

Tidal Salt	Tidal Fresh	Rating
≥60%		12
45%-59.9		9
30%-44.9%		6
≤29.9%		3

HAB3. # of Plant Layers (covers ≥ 10% of AA)

Floating/ Aquatic Species	_____
Short <0.3m	_____
Medium 0.3m- 0.75m	_____
Tall 0.75m- 1.5m	_____
Very Tall > 1.5m	_____

Number of Plant Layers: _____

Scoring Plant Layers	Rating
4-5 layers	12
2-3 layers	9
1 layer	6
0 layer	3

HAB4. Species Richness (covers > 10% of AA)

<i>Amaranthus cannabinus</i>	_____	<i>Polygonum arifolium</i>	_____
<i>Asclepias incarnata</i>	_____	<i>Polygonum punctatum</i>	_____
<i>Atriplex prostrata</i>	_____	<i>Polygonum ramosissimum</i>	_____
<i>Baccharis halimifolia</i>	_____	<i>Pontederia cordata</i>	_____
<i>Boehmeria cylindrica</i>	_____	<i>Sagittaria latifolia</i>	_____
<i>Bolboschoenus robustus</i>	_____	<i>Salicornia virginica</i>	_____
<i>Clethra alnifolia</i>	_____	<i>Saururus cernuus</i>	_____
<i>Distichlis spicata</i>	_____	<i>Schoenoplectus americanus</i>	_____
<i>Echinochloa walteri</i>	_____	<i>Scirpus taberaemontani</i>	_____
<i>Hibiscus moscheutos</i>	_____	<i>Solidago sempervirens</i>	_____
<i>Impatiens capensis</i>	_____	<i>Spartina alterniflora</i>	_____
<i>Iva frutescens</i>	_____	<i>Spartina cynosuroides</i>	_____
<i>Juncus effusus</i>	_____	<i>Spartina patens</i>	_____
<i>Juncus gerardii</i>	_____	<i>Symplocarpus foetidus</i>	_____
<i>Kosteletzkya virginica (pentacarpos)</i>	_____	<i>Typha angustifolia</i>	_____
<i>Leersia oryzoides</i>	_____	<i>Typha latifolia</i>	_____
<i>Limonium carolinianum</i>	_____	<i>Zizania aquatica</i>	_____
<i>Nuphar luteum</i>	_____		_____
<i>Panicum virgatum</i>	_____		_____
<i>Peltandra virginica</i>	_____		_____
<i>Phragmites australis</i>	_____		_____
<i>Pluchea odorata</i>	_____		_____

HAB4. Species Richness

Alternative States	Rating
≥ 6 species	12
4 or 5 species	9
2 or 3 species	6
1 species	3

HAB5. % Invasive Cover in AA

Alternative States	Rating
0%	12
>0-25%	9
26-50%	6
>50%	3

Invasive Species Present: _____

Attribute 2: Hydrology

H1a. Ditching/Excavation (OMWM) (AA only) (Salt)

% of AA Ditched or Excavated	Rating
No Ditching	12
0-2.5%	9
2.6-5%	6
>5%	3

OR

H1b. Point Source (250m) (Fresh)

Alternative States	Rating
Absent, No Discharge	12
Low: 1 small discharge from a natural area	9
Moderate: 1 discharge from a developed area or 2 discharges from a natural area	6
High: ≥ 2 discharges from a developed area or ≥ 3 from a natural area	3

	Ditch 1	Ditch 2	Ditch 3
Width 1			
Width 2			
Width 3			
Length			
Total			

H2. Fill (AA only)

% of AA Filled	Rating
No Fill	12
0.1-5%	9
5.1 - 10%	6
≥10.1%	3

Estimate Amount of Fill: _____ % of AA
 Dimensions of Fill Pile: _____

H3. Diking & Tidal Restriction (250m)

Alternative States	Rating
Absent: no restriction, free flow	12
Elevated Path	9
Dike, Levee Bridge, Berm	6
Undersized Culvert or Bridge	3

Description of Restriction: _____

	AA=7,854m ²	
1%	78m ²	9m x 9m
5%	393m ²	20m x 20m
10%	785m ²	28m x 28m

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Site Number:	Site Name:	Date: ___ / ___ / ___
Attributes and Metrics	Raw Value	Scores
Buffer/Landscape		
B1. % of AA Perimeter with 10m Buffer		
B2. Natural Land Use		
B3. Surrounding Land Use		
B4. 250 Landscape Condition		
B5. Barriers to Landward Migration		
((($\sum(B1, B2, B3, B4, B5)$)/60)*100)-25)/75)*100 = Buffer Attribute Score		
Hydrology		
H1 Ditching & Excavating (OMWM) or Point Sources		
H2. Fill		
H3. Diking/Restriction		
((($\sum(H1, H2, H3)$)/36)*100)-25)/75)*100 = Hydrology Attribute Score		
Habitat		
HAB1. Bearing Capacity		
HAB2. Horizontal Vegetative Obstruction		
HAB3. Number of Plant Layers		
HAB4. Species Richness		
HAB5. Percent Invasives		
((($\sum(HAB1, HAB2, HAB3, HAB4, HAB5)$)/60)*100)-25)/75)*100 = Habitat Attribute Score		
((Buf/Land + Hydrology + Habitat Attribute Scores)/3)= Final Score		Final Score = _____