

# Delaware Rapid Assessment Procedure

## DELAWARE RAPID ASSESSMENT Version 3.0 DRAFT

Site # \_\_\_\_\_ Site Name \_\_\_\_\_ Date \_\_\_\_\_

Observers \_\_\_\_\_

HGM Subclass \_\_\_\_\_ Reference or Assessment Site (circle one)

Natural Re-establishment Establishment Rehabilitation Enhancement (circle one)

Watershed \_\_\_\_\_ Potential Reference Standard? yes or no (circle one)

lat/long \_\_\_\_\_ Photos \_\_\_\_\_

AA moved from original location? yes or no (circle one) If yes, reason \_\_\_\_\_

AA split? yes or no (circle one) If yes, list below the vegetation zones and coverage of the original AA

veg zone \_\_\_\_\_ % of AA \_\_\_\_\_ veg zone \_\_\_\_\_ % of AA \_\_\_\_\_

**Qualitative Condition Rating** Least Disturbed 1 2 3 4 5 6 Highly Disturbed (circle one number)

HABITAT/PLANT COMMUNITY (within site)	Weight
<input type="checkbox"/> MOWING	<input type="checkbox"/>
<input type="checkbox"/> FARMED	<input type="checkbox"/>
<input type="checkbox"/> GRAZING	<input type="checkbox"/>
<b>FOREST HARVESTING</b>	
Clear Cut <input type="checkbox"/> Selective Cut <input type="checkbox"/> unsure <input type="checkbox"/>	
<input type="checkbox"/> No forestry activity within last 50 years	
<input type="checkbox"/> Forestry activity within last 30-50 years	<input type="checkbox"/>
<input type="checkbox"/> Forestry activity within last 15-30 years	
<input type="checkbox"/> Forestry activity with last 15 years	
<input type="checkbox"/> Clear cut within past 2 years	
<input type="checkbox"/> Cleared land not recovering	
<input type="checkbox"/> Forest activity <10% of site	
<input type="checkbox"/> EXCESSIVE HERBIVORY/PINEBARK BEETLE/ GYPSY MOTH	<input type="checkbox"/>
<b>PRESENCE OF INVASIVE SPECIES</b>	
<input type="checkbox"/> Dominating the site	<input type="checkbox"/>
<input type="checkbox"/> Do NOT dominate the site	
<input type="checkbox"/> CHEMICAL DEFOLIATION	<input type="checkbox"/>
<input type="checkbox"/> MANAGED OR CONVERTED TO PINE	<input type="checkbox"/>
<input type="checkbox"/> BURNED	<input type="checkbox"/>

HABITAT/PLANT COMMUNITY (within site)	Weight
(CONTINUED)	
<input type="checkbox"/> TRAILS	<input type="checkbox"/>
<input type="checkbox"/> GARBAGE/ISOLATED DUMPING	<input type="checkbox"/>
<b>INCREASED NUTRIENT</b>	
<input type="checkbox"/> Direct application/runoff into site	<input type="checkbox"/>
<input type="checkbox"/> Dense algal mats	
<b>ROAD</b>	
<input type="checkbox"/> Logging road	<input type="checkbox"/>
<input type="checkbox"/> Dirt or gravel constructed road	
<input type="checkbox"/> Paved constructed road	
<input type="checkbox"/> OTHER _____	<input type="checkbox"/>
<b>SUBTOTAL HABITAT/PLANT COMMUNIT</b>	<input type="checkbox"/>
<b>COMMENTS ON HABITAT/PLANT COMMUNITY</b>	

# DERAP Objectives

- Evaluates condition
- Requires a site visit
- Rapid, no detailed data collected
- Applies to all types of wetlands
- Provides data useful for prioritizing restoration and protection



# Stressor-based

- Habitat/ Plant Community

- Hydrology

- Buffer

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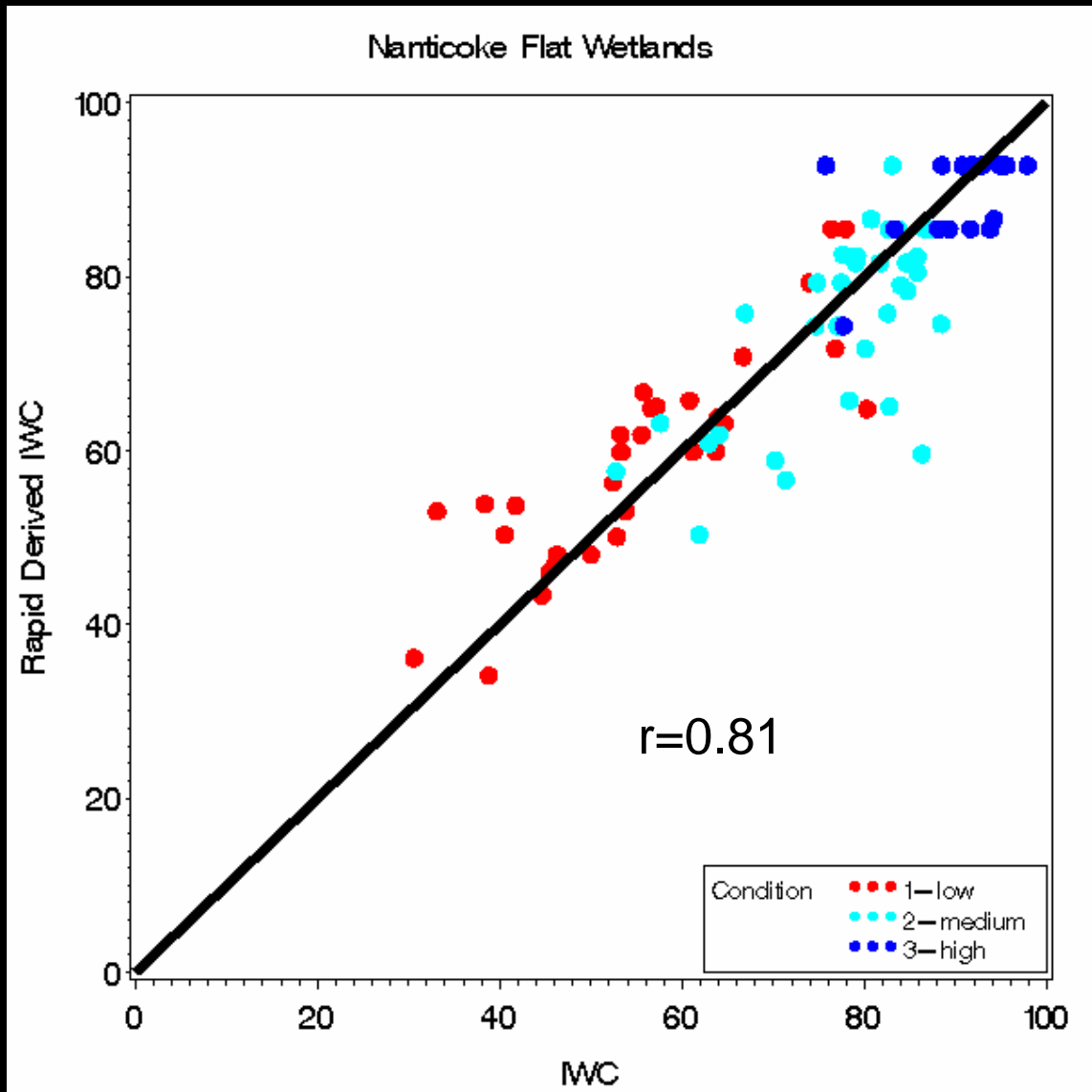
**Qualitative Condition Rating** Least Disturbed 1 2 3 4 5 6 Highly Disturbed (circle one number)

HABITAT/PLANT COMMUNITY (within site) Weight	HABITAT/PLANT COMMUNITY (within site) Weight
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<input type="checkbox"/> FARMED <input type="checkbox"/>	<input type="checkbox"/> GARBAGE/ISOLATED DUMPING <input type="checkbox"/>
<input type="checkbox"/> GRAZING <input type="checkbox"/>	<b>INCREASED NUTRIENT</b>
<b>FOREST HARVESTING</b>	<input type="checkbox"/> Direct application/runoff into site <input type="checkbox"/>
Clear Cut <input type="checkbox"/> Selective Cut <input type="checkbox"/> unsure <input type="checkbox"/>	<input type="checkbox"/> Dense algal mats
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<input type="checkbox"/> Clear cut within past 2 years	<input type="checkbox"/> OTHER _____ <input type="checkbox"/>
<input type="checkbox"/> Cleared land not recovering	<b>SUBTOTAL HABITAT/PLANT COMMUNIT</b> <input type="checkbox"/>
<input type="checkbox"/> Forest activity <10% of site	<b>COMMENTS ON HABITAT/PLANT COMMUNITY</b>
<input type="checkbox"/> EXCESSIVE HERBIVORY/PINEBARK BEETLE/ GYPSY MOTH <input type="checkbox"/>	
<b>PRESENCE OF INVASIVE SPECIES</b>	
<input type="checkbox"/> Dominating the site <input type="checkbox"/>	
<input type="checkbox"/> Do NOT dominate the site	
<input type="checkbox"/> CHEMICAL DEFOLIATION <input type="checkbox"/>	
<input type="checkbox"/> MANAGED OR CONVERTED TO PINE <input type="checkbox"/>	
<input type="checkbox"/> BURNED <input type="checkbox"/>	

Variables	Proportion of Models	Scoring Weights
Intercept		93
Forest harvest - recovering	1.00	-7.3
Forest harvest - recent	1.00	-22
Mowed area	1.00	-11
Microtopo alt. 10-100%	1.00	-15
Ditching - moderate	1.00	-14
Ditching - severe	1.00	-18
Ditching - slight	0.99	-13
Managed or converted to pine	0.88	-5.9
Microtopographic alt. <10%	0.55	-5.0
Road - Dirt/Paved	0.51	-3.2
Development	0.48	-3.0

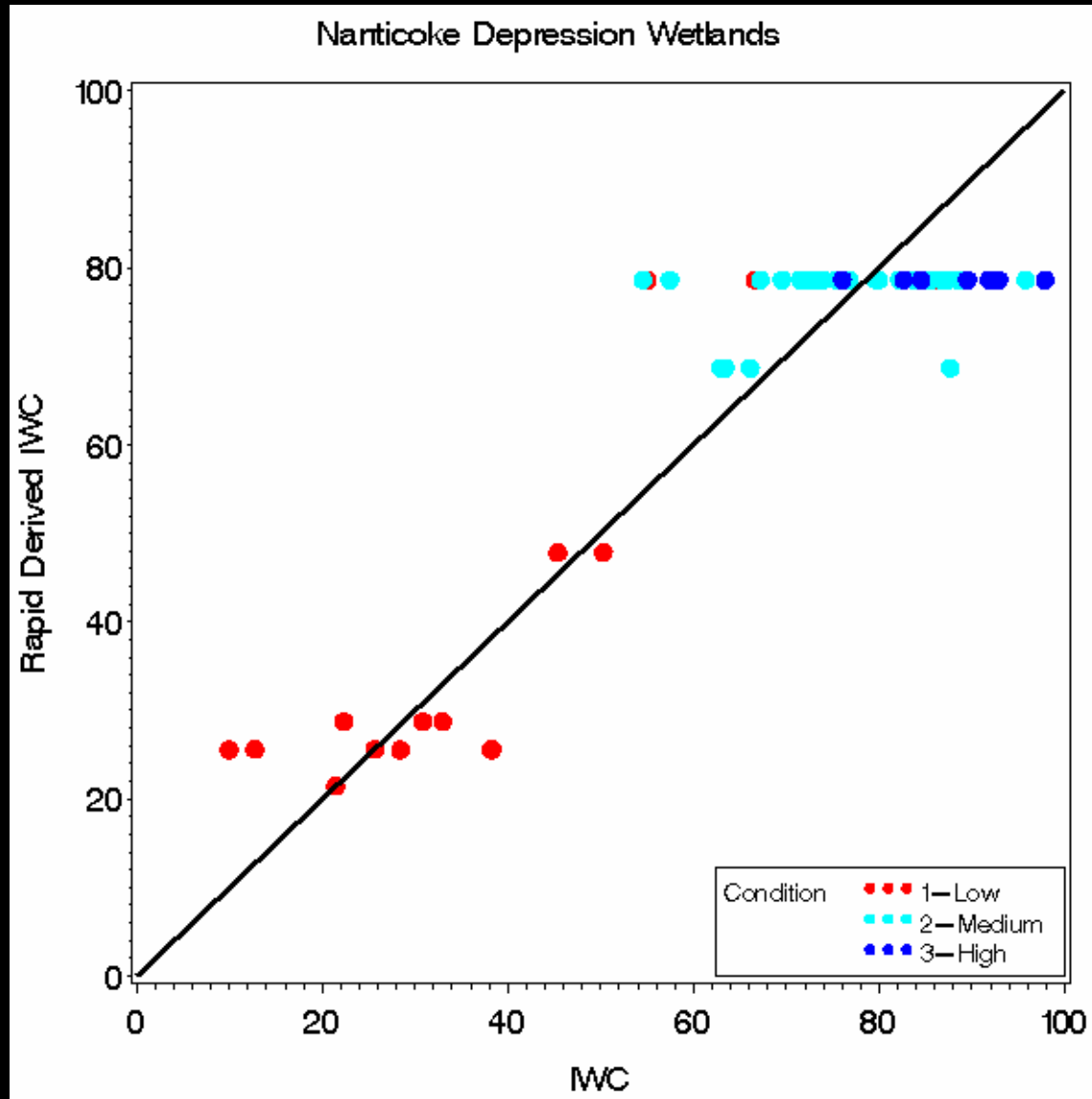
# Rapid versus IWC

## Flat Wetlands



# Rapid versus IWC

## Depression Wetlands



# Field Assessment

- Define Assessment Area
- Complete Stressor Checklist (one form for all wetlands)
- Do not double count stressors
- Must identify the wetland subclass
- Averages 1 hour on site



# Computing Total Score

	Weights	
	Flats	Depression
<b>Habitat Category</b>		
Mowing in AA	9.2	
Farming activity in AA		53.1
Grazing in AA		
Forestry activing 15-30 years	7.7	
Forestry w/in 15	22.7	
Cleared land not recovering		53.1
Excessive Herbivory/Pinebark Beetle/Gypsy	6.3	
Garbage/Isolated Dumping		49.9
Nutrients direct application/runoff	13.1	
<b>Hydrology Category</b>		
Ditching slight	9.9	
Ditching moderate	11.8	10.0
Ditching severe	18.0	
Chan str not maintained		
<b>Intercept</b>	<b>93.3</b>	<b>78.7</b>
<b>R-square</b>	<b>0.81</b>	<b>0.81</b>

# Alternate Scoring

## Habitat Category

<input type="checkbox"/>	Mowing	-3
<input type="checkbox"/>	Farmed	-9
<input type="checkbox"/>	Grazing	-3
<input type="checkbox"/>	Forest harvesting (>50% of stand)	
	Recovered	0
	Recovering	-5
	Recent	-7
	Cleared not recovering	-7
<input type="checkbox"/>	Excessive herbivory	-3
<input type="checkbox"/>	Presence of invasive spp.	
	Dominate the site	-7
	Do NOT dominate the site	-2
<input type="checkbox"/>	Chemical defoliation	-3
<input type="checkbox"/>	Managed or converted to pine	-5
<input type="checkbox"/>	Burned	-3
<input type="checkbox"/>	Trails	-1
<input type="checkbox"/>	Garbage/ isolated dumping	-1
<input type="checkbox"/>	Other	
	<b>Subtotal Habitat Community</b>	
	10 + sum of above, if score <0 record 0	



# Comparison of Effort to sample 50 sites

## *Comprehensive*

- 4 hours/ site
- 4 person crew
- 25 days(2 sites/day)
- 100 person-days
- Several hours office work

## *DE RAP*

- 2 hours/ site
- 2 person crew
- 12.5 days (4 sites/day)
- 25 person-days
- Minimal office work