WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Fairview Cranberry-Smart Sand Site City/County: Monroe Sampling Date: 9/22/11
Applicant/Owner: Fairview Cranberry Company, LLC. State: Wisconsin Sampling Point: A-6
Investigator(s): Gary W. Starzinski Section, Township, Range: Sec.8,T 17 N-R 1 E
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave
Slope (%): 1% Lat.: Long.: Datum:
Soil Map Unit Name Newson Mucky Sand NWI Classification: Hardwood Swamp
Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? No Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? No circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):
Water table present?	Yes	X	No		Depth (inches): 10
Saturation present? (includes capillary fringe)	Yes	X	No		Depth (inches): 0

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Soil mapsand GIS photos.

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: A-6

Tree Stratum (Plot Size (30 FT.))	Absolute % Cover	Dominant Species	Indicator Status
1 *Fraxinus nigra*	70	Y	FACW
2 *Ulmus americana*	30	Y	FACW
3			
4			
5			
6			
7			
8			
9			
10			
	100 = Total Cover		

Sapling/Shrub Stratum (Plot Size (30 FT.))	Absolute % Cover	Dominant Species	Indicator Status
1 *Fraxinus nigra*	75	Y	FACW
2 *Ulmus americana*	25	Y	FACW
3			
4			
5			
6			
7			
8			
9			
10			
	100 = Total Cover		

Herb Stratum (Plot Size (5 FT.))	Absolute % Cover	Dominant Species	Indicator Status
1 *Calamagrostis canadensis*	60	Y	OBL
Urtica dioica	30	Y	FAC
3 *Onoclea sensibilis*	10	N	FACW
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	100 = Total Cover		

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Status
1			
2			
3			
4			
5			
	0 = Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum	20	50
Sapling/Shrub Stratum	20	50
Herb Stratum	20	50
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across all Strata: 6 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	60	x 1 =	60
FACW species	210	x 2 =	420
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	300 (A)		570 (B)

Prevalence Index = B/A = 1.90

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** A-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR2/1	99	7.5YR5/6	1	C	PL	Mucky Sand	
-24	10YrR7/1	100					Loamy sand	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
_X_ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? ___Y___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Fairview Cranberry-Smart Sand Site City/County: Monroe Sampling Date: 9/22/11
Applicant/Owner: Fairview Cranberry Company, LLC. State: Wisconsin Sampling Point: A-7
Investigator(s): Gary W. Starzinski Section, Township, Range: Sec.8,T 17 N-R 1 E
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
Slope (%): 3% Lat.: Long.: Datum:
Soil Map Unit Name Ironrun Loamy Sand NWI Classification: Upland
Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? No Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? No circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Indicators of wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No X	Depth (inches):	
Water table present?	Yes ____	No X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Soil mapsand GIS photos.

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: A-7

Tree Stratum	Plot Size (30 FT.)	Absolute % Cover	Dominant Species	Indicator Status
1	*Quercus rubra*	50	Y	FACU
2	*Fraxinus americana*	40	Y	FACU
3	*Populus tremuloides*	10	N	FAC
4				
5				
6				
7				
8				
9				
10				
		100	= Total Cover	

Sapling/Shrub Stratum	Plot Size (30 FT.)	Absolute % Cover	Dominant Species	Indicator Status
1	*Quercus rubra*	50	Y	FACU
2	*Fraxinus americana*	30	Y	FACU
3	*Corylus americana*	10	N	FACU
4	*Populus tremuloides*	10	N	FAC
5				
6				
7				
8				
9				
10				
		100	= Total Cover	

Herb Stratum	Plot Size (5 FT.)	Absolute % Cover	Dominant Species	Indicator Status
1	*Carex pensylvanica*	70	Y	UPL
2	*Aster macrophyllus*	20	Y	UPL
3	*Vaccinium angustifolium*	10	N	FACU
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		100	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	20	50
Sapling/Shrub Stratum	20	50
Herb Stratum	20	50
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 6 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	190	x 4 =	760
UPL species	90	x 5 =	450
Column totals	300 (A)		1270 (B)

Prevalence Index = B/A = 4.23

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** A-7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR3/2	100					Loamy Sand	
-24	10YR5/4	98	7.5YR5/6	2	C	M	Loamy Sand	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Fairview Cranberry-Smart Sand Site City/County: Monroe Sampling Date: 9/22/11
Applicant/Owner: Fairview Cranberry Company, LLC. State: Wisconsin Sampling Point: B-1
Investigator(s): Gary W. Starzinski Section, Township, Range: Sec.8,T 17 N-R 1 E
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave
Slope (%): 1% Lat.: Long.: Datum:
Soil Map Unit Name Newson Mucky Sand NWI Classification: Hardwood Swamp
Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? No Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? No circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches): ____
Water table present?	Yes	X	No	____	Depth (inches): 12
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches): 0

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Soil mapsand GIS photos.

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: B-1

Tree Stratum	Plot Size (30 FT.)	Absolute % Cover	Dominant Species	Indicator Status
1	*Acer negundo*	80	Y	FACW
2	*Fraxinus nigra*	20	Y	FACW
3				
4				
5				
6				
7				
8				
9				
10				
		100	= Total Cover	

Sapling/Shrub Stratum	Plot Size (30 FT.)	Absolute % Cover	Dominant Species	Indicator Status
1	*Acer negundo*	90	Y	FACW
2	*Fraxinus nigra*	10	N	FACW
3				
4				
5				
6				
7				
8				
9				
10				
		100	= Total Cover	

Herb Stratum	Plot Size (5 FT.)	Absolute % Cover	Dominant Species	Indicator Status
1	*Calamagrostis canadensis*	40	Y	OBL
2	*Urtica dioica*	40	Y	FAC
3	*Onoclea sensibilis*	20	Y	FACW
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
		100	= Total Cover	

Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status
1				
2				
3				
4				
5				
		0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	20	50
Sapling/Shrub Stratum	20	50
Herb Stratum	20	50
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across all Strata: 6 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	40	x 1 =	40
FACW species	220	x 2 =	440
FAC species	40	x 3 =	120
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	300 (A)		600 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** B-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR2/1	99	7.5YR5/6	1	C	PL	Mucky Sand	
-24	5G6/1	100					Loamy sand	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
X Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR R, MLRA 149B)**
___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
___ Thin Dark Surface (S9) **(LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) **(LRR K, L)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) **(LRR K, L, R)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
___ Dark Surface (S7) **(LRR K, L**
___ Polyvalue Below Surface (S8) **(LRR K, L)**
___ Thin Dark Surface (S9) **(LRR K, L)**
___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? ___Y___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Fairview Cranberry-Smart Sand Site City/County: Monroe Sampling Date: 9/22/11
Applicant/Owner: Fairview Cranberry Company, LLC. State: Wisconsin Sampling Point: B-2
Investigator(s): Gary W. Starzinski Section, Township, Range: Sec.8,T 17 N-R 1 E
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
Slope (%): 3% Lat.: Long.: Datum:
Soil Map Unit Name Tarr Sand NWI Classification: Upland
Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? No Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? No circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Indicators of wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No X	Depth (inches):	
Water table present?	Yes ____	No X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Soil mapsand GIS photos.

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: B-2

Tree Stratum (Plot Size (30 FT.))	Absolute % Cover	Dominant Species	Indicator Status
1 *Quercus rubra*	50	Y	FACU
2 *Fraxinus americana*	50	Y	FACU
3			
4			
5			
6			
7			
8			
9			
10			
	100	= Total Cover	

Sapling/Shrub Stratum (Plot Size (30 FT.))	Absolute % Cover	Dominant Species	Indicator Status
1 *Quercus rubra*	50	Y	FACU
2 *Fraxinus americana*	30	Y	FACU
3 *Corylus americana*	10	N	FACU
4			
5			
6			
7			
8			
9			
10			
	90	= Total Cover	

Herb Stratum (Plot Size (5 FT.))	Absolute % Cover	Dominant Species	Indicator Status
1 *Carex pensylvanica*	70	Y	UPL
Aster macrophyllus	20	Y	UPL
3 *Vaccinium angustifolium*	10	N	FACU
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	100	= Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Status
1			
2			
3			
4			
5			
	0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	20	50
Sapling/Shrub Stratum	18	45
Herb Stratum	20	50
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 6 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	200	x 4 =	800
UPL species	90	x 5 =	450
Column totals	290 (A)		1250 (B)

Prevalence Index = B/A = 4.31

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** B-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR3/2	100					Sand	
-24	7.5YR4/4	100					Sand	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Fairview Cranberry-Smart Sand Site City/County: Monroe Sampling Date: 9/22/11
Applicant/Owner: Fairview Cranberry Company, LLC. State: Wisconsin Sampling Point: B-3
Investigator(s): Gary W. Starzinski Section, Township, Range: Sec.8,T 17 N-R 1 E
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
Slope (%): 3% Lat.: Long.: Datum:
Soil Map Unit Name Ironrun Loamy Sand NWI Classification: Upland
Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? No Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? No circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Indicators of wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes ____	No X	Depth (inches):	
Water table present?	Yes ____	No X	Depth (inches):	
Saturation present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Soil mapsand GIS photos.

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: B-3

Tree Stratum (Plot Size (30 FT.))	Absolute % Cover	Dominant Species	Indicator Status
1 *Quercus rubra*	50	Y	FACU
2 *Fraxinus americana*	50	Y	FACU
3			
4			
5			
6			
7			
8			
9			
10			
	100	= Total Cover	

Sapling/Shrub Stratum (Plot Size (30 FT.))	Absolute % Cover	Dominant Species	Indicator Status
1 *Quercus rubra*	50	Y	FACU
2 *Fraxinus americana*	30	Y	FACU
3 *Corylus americana*	10	N	FACU
4			
5			
6			
7			
8			
9			
10			
	90	= Total Cover	

Herb Stratum (Plot Size (5 FT.))	Absolute % Cover	Dominant Species	Indicator Status
1 *Carex pensylvanica*	70	Y	UPL
2 *Aster macrophyllus*	20	Y	UPL
3 *Vaccinium angustifolium*	10	N	FACU
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	100	= Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Status
1			
2			
3			
4			
5			
	0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	20	50
Sapling/Shrub Stratum	18	45
Herb Stratum	20	50
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 6 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	200	x 4 =	800
UPL species	90	x 5 =	450
Column totals	290 (A)		1250 (B)

Prevalence Index = B/A = 4.31

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** B-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR2/2	100					Loamy Sand	
-24	10YR5/4	98	7.5YR5/8	2	C	M	Loamy Sand	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? ___N___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Fairview Cranberry-Smart Sand Site City/County: Monroe Sampling Date: 9/22/11
Applicant/Owner: Fairview Cranberry Company, LLC. State: Wisconsin Sampling Point: B-4
Investigator(s): Gary W. Starzinski Section, Township, Range: Sec.8,T 17 N-R 1 E
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave
Slope (%): 1% Lat.: Long.: Datum:
Soil Map Unit Name Newson Mucky Sand NWI Classification: Hardwood Swamp
Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? No Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? No circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y		
Indicators of wetland hydrology present?	Y	If yes, optional wetland site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living
- X Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled
- ___ Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery
- ___ (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches): ____
Water table present?	Yes	X	No	____	Depth (inches): 12
Saturation present? (includes capillary fringe)	Yes	X	No	____	Depth (inches): 0

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Soil mapsand GIS photos.

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: B-4

Tree Stratum (Plot Size (30 FT.))	Absolute % Cover	Dominant Species	Indicator Status
1 *Fraxinus nigra*	80	Y	FACW
2 *Ulmus americana*	20	Y	FACW
3			
4			
5			
6			
7			
8			
9			
10			
	100 = Total Cover		

Sapling/Shrub Stratum (Plot Size (30 FT.))	Absolute % Cover	Dominant Species	Indicator Status
1 *Fraxinus nigra*	90	Y	FACW
2 *Ulmus americana*	10	N	FACW
3			
4			
5			
6			
7			
8			
9			
10			
	100 = Total Cover		

Herb Stratum (Plot Size (5 FT.))	Absolute % Cover	Dominant Species	Indicator Status
1 *Calamagrostis canadensis*	40	Y	OBL
Urtica dioica	40	Y	FAC
3 *Onoclea sensibilis*	20	Y	FACW
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	100 = Total Cover		

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Status
1			
2			
3			
4			
5			
	0 = Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum	20	50
Sapling/Shrub Stratum	20	50
Herb Stratum	20	50
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across all Strata: 6 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	40	x 1 =	40
FACW species	220	x 2 =	440
FAC species	40	x 3 =	120
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	300 (A)		600 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** B-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-6	10YR2/1	99	7.5YR5/6	1	C	PL	Mucky Sand	
-24	5G5/1	100					Loamy sand	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
_X_ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? ___Y___

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Fairview Cranberry-Smart Sand Site City/County: Monroe Sampling Date: 9/22/11
Applicant/Owner: Fairview Cranberry Company, LLC. State: Wisconsin Sampling Point: B-5
Investigator(s): Gary W. Starzinski Section, Township, Range: Sec.8,T 17 N-R 1 E
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
Slope (%): 3% Lat.: Long.: Datum:
Soil Map Unit Name Tarr Sand NWI Classification: Upland
Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? No Are "normal
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? No circumstances" present? Yes
(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N	**Is the sampled area within a wetland?**	N
Hydric soil present?	N		
Indicators of wetland hydrology present?	N	If yes, optional wetland site ID:	

Remarks: (Explain altemative procedures here or in a separate report.)

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Microtopographic Relief (D4)

Field Observations:

Surface water present?	Yes	____	No	X	Depth (inches): ____
Water table present?	Yes	____	No	X	Depth (inches): ____
Saturation present? (includes capillary fringe)	Yes	____	No	X	Depth (inches): ____

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Soil mapsand GIS photos.

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: B-5

Tree Stratum (Plot Size (30 FT.))	Absolute % Cover	Dominant Species	Indicator Status
1 *Quercus rubra*	50	Y	FACU
2 *Fraxinus americana*	50	Y	FACU
3			
4			
5			
6			
7			
8			
9			
10			
	100	= Total Cover	

Sapling/Shrub Stratum (Plot Size (30 FT.))	Absolute % Cover	Dominant Species	Indicator Status
1 *Quercus rubra*	50	Y	FACU
2 *Fraxinus americana*	30	Y	FACU
3	10	N	
4			
5			
6			
7			
8			
9			
10			
	90	= Total Cover	

Herb Stratum (Plot Size (5 FT.))	Absolute % Cover	Dominant Species	Indicator Status
1 *Carex pensylvanica*	70	Y	UPL
2 *Aster macrophyllus*	20	Y	UPL
3 *Vaccinium angustifolium*	10	N	FACU
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
	100	= Total Cover	

Woody Vine Stratum (Plot Size ( ))	Absolute % Cover	Dominant Species	Indicator Status
1			
2			
3			
4			
5			
	0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	20	50
Sapling/Shrub Stratum	18	45
Herb Stratum	20	50
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 6 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	190	x 4 =	760	
UPL species	90	x 5 =	450	
Column totals	280	(A)	1210	(B)
Prevalence Index = B/A =			4.32	

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation
___ Dominance test is >50%
___ Prevalence index is ≤3.0*
___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? N

Remarks: (Include photo numbers here or on a separate sheet)

SOIL **Sampling Point:** B-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR3/2	100					Sand	
-24	7.5YR4/4	100					Sand	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains
**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

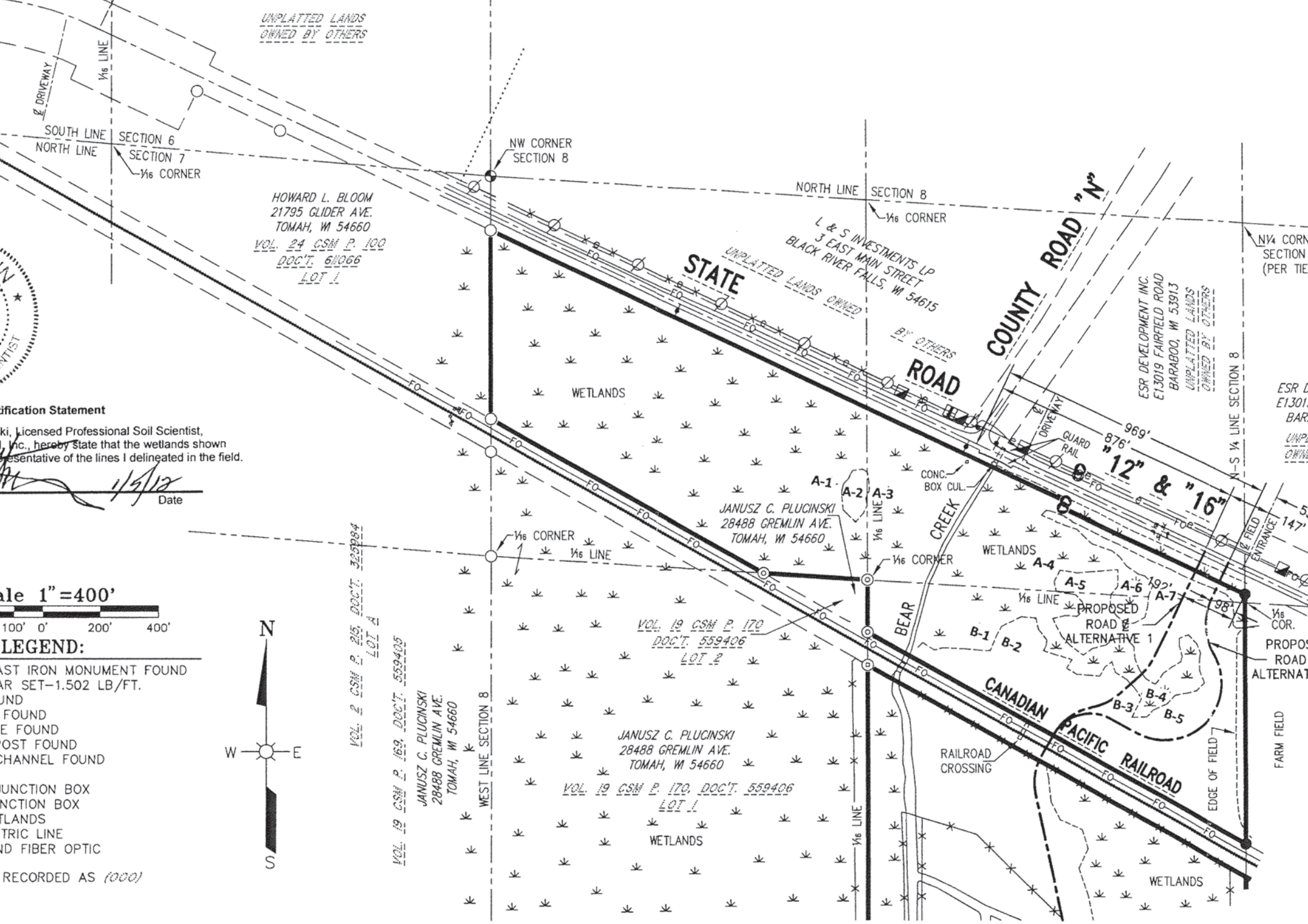
___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? N

Remarks:



ification Statement

ki, Licensed Professional Soil Scientist,
, Inc., hereby state that the wetlands shown
esentative of the lines I delineated in the field.

1/5/12
Date

ale 1"=400'

100' 0' 200' 400'

LEGEND:

AST IRON MONUMENT FOUND
AR SET–1.502 LB/FT.
UND
FOUND
E FOUND
OST FOUND
CHANNEL FOUND

UNCTION BOX
NCTION BOX
TLANDS
TRIC LINE
ND FIBER OPTIC

RECORDED AS *(000)*

CLIENT: **FAIRVIEW CRANBERRY COMPANY, LLC**

REVISIONS	
DATE	DESCRIPTION

DESIGNER: LARRY
DRAWN BY: PAT P

FAIRVIEW CRANBERRY CO., LLC
4/20/11

SOUTH OF OLD RAILROAD X'ING ROAD

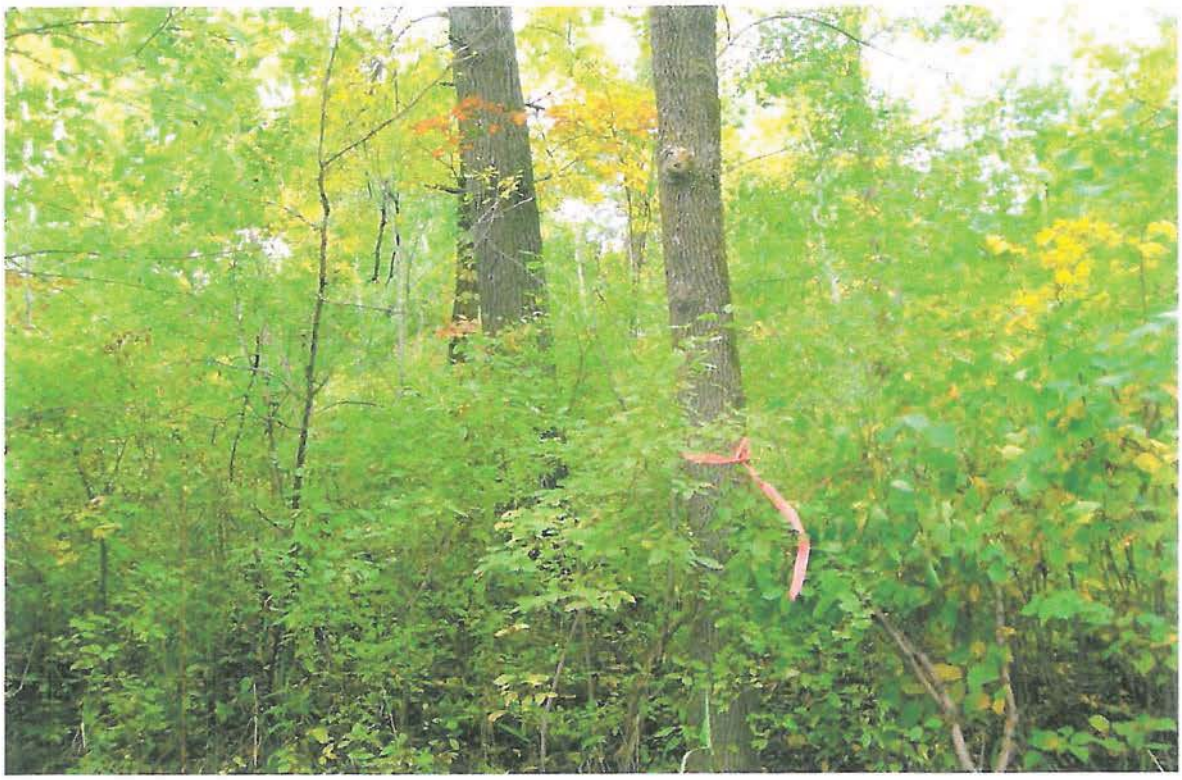
EAST OF " " " "

RAILROAD TO EAST

" TO WEST

B-3

RR DITCH SOUTH OF B-3



B4 TO B3

B3 TO B4

CROPLAND ABOVE EAST P/L

EAST P/L TO SOUTH

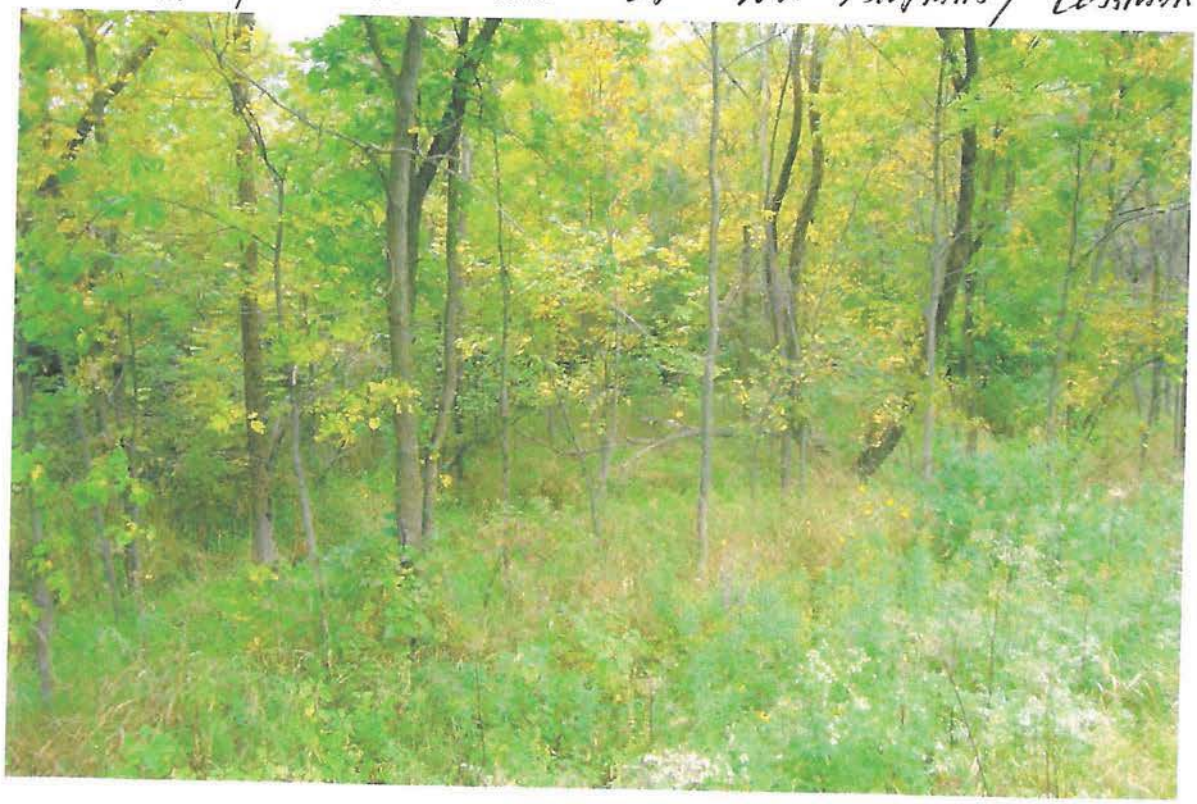
EAST P/L SOUTH TO RAILROAD

"CHOO-CHOO" TRAIN

NE PROPERTY CORNER

NE " " TO WEST ALONG HWY 10 & 16

Hwy 1346 East of NS Property Corner



Hardwood Swamp along Hwy 1346
at Proposed Mine.

Hwy 13916 ROAD SHOULDER

Co. Hwy N TO NW

BEAR CREEK SOUTH OF HWY 1246

ACCESS POINT OFF HWY 1246 TO A-3

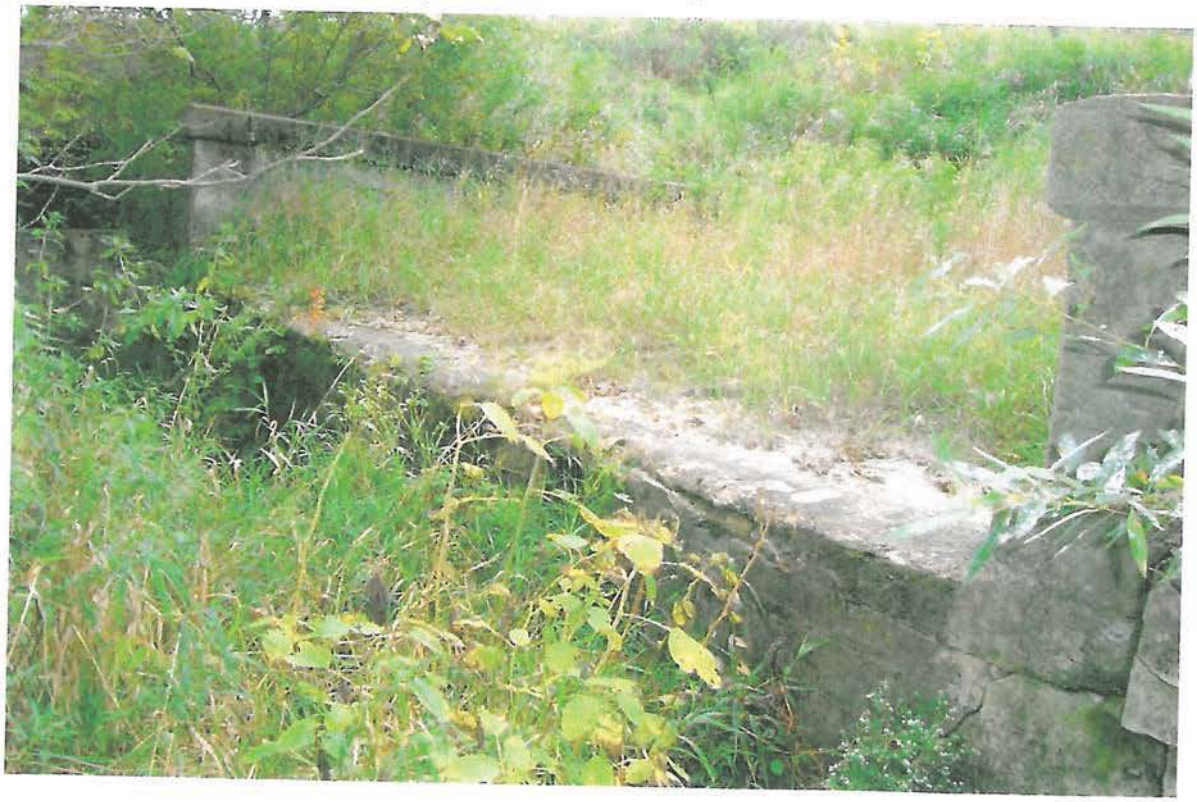
Hwy N TO NORTH Hwy 12416

Hwy 12416 EAST OVER BEAR CREEK

A-4

B-1 TO WEST

BEAR CRANK WEST OF B-1



OLD BALDOM XING BEAR CRANK - NORTH OF RR

BEAR CREEK BRIDGE AT RR

RAILROAD

RR TO WEST & SOUTH OF A-1

BEAR CREEK SOUTH OF RR

RR TO EAST & SOUTH OF B-3

B-3

B-2 TO B-3

B-5 TO B-4, Prickly Ash

"BUCK STAND" NEAR SE PROPERTY CORNER

WETLAND ALONG POND 13 9/16

A-1 TO WEST

A-2 TO SOUTH

A-2 TO NE

A-2

AT PROP. CORN. SOUTH OF A-3 TO WEST

" " " " TO EAST & BEAR CREEK

"TEXAS TOWER" ALONG BEAR CREEK

AT RR GRADE TO EAST TO BEAR CREEK

Elements by Townrange for Monroe County

The Natural Heritage Inventory (NHI) database contains recent and historic element (rare species and natural community) observations. A generalized version of the NHI database is provided below as a general reference and should not be used as a substitute for a WI Dept of Natural Resources NHI review of a specific project area. The NHI database is dynamic, records are continually being added and/or updated. The following data are current as of **11/04/2011**:

Town Range / Scientific Name	Common Name	State Status	Federal Status	State Rank	Global Rank	Group Name
Platanthera hookeri	Hooker's Orchid	SC		S2	G4	Plant
015N001E						
Aconitum noveboracense	Northern Wild Monkshood	THR	LT	S2	G3	Plant
Glyptemys insculpta	Wood Turtle	THR		S2	G4	Turtle~
015N001W						
Dry cliff	Dry Cliff	NA		S4	G4G5	Community
Empidonax virescens	Acadian Flycatcher	THR		S3B	G5	Bird
Emydoidea blandingii	Blanding's Turtle	THR		S3S4	G4	Turtle~
Haliaeetus leucocephalus	Bald Eagle	SC/P		S4B,S4N	G5	Bird~
Hemlock relict	Hemlock Relict	NA		S2	G2Q	Community
Liodessus cantralli	Cantrall's Bog Beetle	SC/N		S2S3	GNR	Beetle~
Moist cliff	Moist Cliff	NA		S4	GNR	Community
Silene nivea	Snowy Campion	THR		S2	G4?	Plant
Southern mesic forest	Southern Mesic Forest	NA		S3	G3?	Community
015N002W						
Adoxa moschatellina	Musk-root	THR		S2	G5	Plant
Diarrhena obovata	Beak Grass	END		S2	G4G5	Plant
Dry cliff	Dry Cliff	NA		S4	G4G5	Community
Empidonax virescens	Acadian Flycatcher	THR		S3B	G5	Bird
Hemlock relict	Hemlock Relict	NA		S2	G2Q	Community
Houstonia caerulea	Azure Bluets	SC		S2	G5	Plant
Moist cliff	Moist Cliff	NA		S4	GNR	Community
Northern mesic forest	Northern Mesic Forest	NA		S4	G4	Community
Pine relict	Pine Relict	NA		S2	G4	Community
Southern mesic forest	Southern Mesic Forest	NA		S3	G3?	Community
015N003W						
Silene nivea	Snowy Campion	THR		S2	G4?	Plant
015N004W						
Allogona profunda	Broad-banded Forestsnail	SC/N		S2S3	G5	Snail
Arabis shortii	Short's Rock-cress	SC		S1S2	G5	Plant
Bartramia longicauda	Upland Sandpiper	SC/M		S2B	G5	Bird
Carex careyana	Carey's Sedge	THR		S1	G4G5	Plant
Dendroica cerulea	Cerulean Warbler	THR		S2S3B	G4	Bird
Diplazium pycnocarpon	Glade Fern	SC		S2	G5	Plant
Dry cliff	Dry Cliff	NA		S4	G4G5	Community
Empidonax virescens	Acadian Flycatcher	THR		S3B	G5	Bird
Hendersonia occulta	Cherrystone Drop	THR		S2S3	G4	Snail
Hydrophyllum appendiculatum	Great Water-leaf	SC		S2S3	G5	Plant
Jeffersonia diphylla	Twinleaf	SC		S3	G5	Plant
Lithobates palustris	Pickerel Frog	SC/H		S3?	G5	Frog~
Oporornis formosus	Kentucky Warbler	THR		S1S2?B	G5	Bird

Town Range / Scientific Name	Common Name	State Status	Federal Status	State Rank	Global Rank	Group Name
Poa sylvestris	Woodland Bluegrass	SC		S1	G5	Plant
Southern dry-mesic forest	Southern Dry-mesic Forest	NA		S3	G4	Community
Southern mesic forest	Southern Mesic Forest	NA		S3	G3?	Community
016N001E						
Moist cliff	Moist Cliff	NA		S4	GNR	Community
Pine relict	Pine Relict	NA		S2	G4	Community
Stream--fast, hard, cold	Stream--Fast, Hard, Cold	NA		S4	GNR	Community~
016N001W						
Glyptemys insculpta	Wood Turtle	THR		S2	G4	Turtle~
Liodessus cantralli	Cantrall's Bog Beetle	SC/N		S2S3	GNR	Beetle~
016N002W						
Alder thicket	Alder Thicket	NA		S4	G4	Community~
Ammodramus henslowii	Henslow's Sparrow	THR		S2S3B	G4	Bird
Bat Hibernaculum	Bat Hibernaculum	SC		S3	GNR	Other
Dendroica cerulea	Cerulean Warbler	THR		S2S3B	G4	Bird
Empidonax virescens	Acadian Flycatcher	THR		S3B	G5	Bird
Emydoidea blandingii	Blanding's Turtle	THR		S3S4	G4	Turtle~
Forested seep	Forested Seep	NA		S2	GNR	Community~
Glyptemys insculpta	Wood Turtle	THR		S2	G4	Turtle~
Herp Hibernaculum	Herp Hibernaculum	SC		SU	GNR	Other
Myotis septentrionalis	Northern Long-eared Bat	THR		S1S3	G4	Mammal
Southern dry-mesic forest	Southern Dry-mesic Forest	NA		S3	G4	Community
Southern sedge meadow	Southern Sedge Meadow	NA		S3	G4?	Community~
016N003W						
Bat Hibernaculum	Bat Hibernaculum	SC		S3	GNR	Other
Crotalus horridus	Timber Rattlesnake	SC/P		S2S3	G4	Snake
Dry prairie	Dry Prairie	NA		S3	G3	Community
Enallagma traviatum	Slender Bluet	SC/N		S1S3	G5	Dragonfly~
Myotis septentrionalis	Northern Long-eared Bat	THR		S1S3	G4	Mammal
Polytaenia nuttallii	Prairie Parsley	THR		S2	G5	Plant
Southern dry forest	Southern Dry Forest	NA		S3	G4	Community
016N004W						
Crotalus horridus	Timber Rattlesnake	SC/P		S2S3	G4	Snake
Haliaeetus leucocephalus	Bald Eagle	SC/P		S4B,S4N	G5	Bird~
016N005W						
Dry-mesic prairie	Dry-mesic Prairie	NA		S2	G3	Community
Nothocalais cuspidata	Prairie False-dandelion	SC		S2	G5	Plant
Sand barrens	Sand Barrens	NA		SU	GNR	Community
Southern sedge meadow	Southern Sedge Meadow	NA		S3	G4?	Community~
017N001E						
Dry cliff	Dry Cliff	NA		S4	G4G5	Community
Dry-mesic prairie	Dry-mesic Prairie	NA		S2	G3	Community
Eleocharis engelmannii	Engelmann's Spike-rush	SC		S1	G4G5Q	Plant~
Floodplain forest	Floodplain Forest	NA		S3	G3?	Community~
Lycaeides melissa samuelis	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
Moist cliff	Moist Cliff	NA		S4	GNR	Community
Northern dry forest	Northern Dry Forest	NA		S3	G3?	Community

Town Range / Scientific Name	Common Name	State Status	Federal Status	State Rank	Global Rank	Group Name
Northern dry-mesic forest	Northern Dry-mesic Forest	NA		S3	G4	Community
Phemeranthus rugospermus	Prairie Fame-flower	SC		S3	G3G4	Plant
Southern dry-mesic forest	Southern Dry-mesic Forest	NA		S3	G4	Community
017N001W						
Emydoidea blandingii	Blanding's Turtle	THR		S3S4	G4	Turtle~
Glyptemys insculpta	Wood Turtle	THR		S2	G4	Turtle~
Southern dry-mesic forest	Southern Dry-mesic Forest	NA		S3	G4	Community
017N002E						
Dry-mesic prairie	Dry-mesic Prairie	NA		S2	G3	Community
017N002W						
Aflexia rubranura	Red-tailed Prairie Leafhopper	END		S2?	G2	Leafhopper
Alder thicket	Alder Thicket	NA		S4	G4	Community~
Artemisia dracunculus	Dragon Wormwood	SC		S2	G5	Plant
Canis lupus	Gray Wolf	SC/FL	LE	S4	G4	Mammal
Carex laevivaginata	Smooth-sheath Sedge	END		S1	G5	Plant~
Chlosyne gorgone	Gorgone Checker Spot	SC/N		S3	G5	Butterfly
Cicindela lepida	Little White Tiger Beetle	SC/N		S1	G3G4	Beetle
Erynnis persius	Persius Dusky Wing	SC/N		S3	G5	Butterfly
Gentiana alba	Yellow Gentian	THR		S4	G4	Plant
Lycaeides melissa samuelis	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
Northern wet-mesic forest	Northern Wet-mesic Forest	NA		S3S4	G3?	Community~
Opuntia fragilis	Brittle Prickly-pear	THR		S3	G4G5	Plant
Phemeranthus rugospermus	Prairie Fame-flower	SC		S3	G3G4	Plant
Pituophis catenifer	Gophersnake	SC/P		S2S3	G5	Snake
Poa paludigena	Bog Bluegrass	THR		S3	G3	Plant~
Polyamia dilata	Prairie Leafhopper	THR		S2	GNR	Leafhopper
Polytaenia nuttallii	Prairie Parsley	THR		S2	G5	Plant
Prenanthes aspera	Rough Rattlesnake-root	END		S1	G4?	Plant
Schinia indiana	Phlox Moth	END		S2S3	G2G4	Moth
Springs and spring runs, hard	Springs and Spring Runs, Hard	NA		S4	GNR	Community~
Stream--fast, hard, cold	Stream--Fast, Hard, Cold	NA		S4	GNR	Community~
017N003W						
Aflexia rubranura	Red-tailed Prairie Leafhopper	END		S2?	G2	Leafhopper
Alder thicket	Alder Thicket	NA		S4	G4	Community~
Canis lupus	Gray Wolf	SC/FL	LE	S4	G4	Mammal
Carex straminea	Straw Sedge	SC		S1	G5	Plant~
Chlosyne gorgone	Gorgone Checker Spot	SC/N		S3	G5	Butterfly
Emydoidea blandingii	Blanding's Turtle	THR		S3S4	G4	Turtle~
Erynnis persius	Persius Dusky Wing	SC/N		S3	G5	Butterfly
Glyptemys insculpta	Wood Turtle	THR		S2	G4	Turtle~
Hesperia ottoe	Ottoe Skipper	SC/N		S1	G3G4	Butterfly
Lycaeides melissa samuelis	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
Lythrurus umbratilis	Redfin Shiner	THR		S2	G5	Fish~
Microtus ochrogaster	Prairie Vole	SC/N		S2	G5	Mammal
Northern wet-mesic forest	Northern Wet-mesic Forest	NA		S3S4	G3?	Community~
Oak barrens	Oak Barrens	NA		S2	G2?	Community
Ophisaurus attenuatus	Slender Glass Lizard	END		S1	G5	Lizard
Opuntia fragilis	Brittle Prickly-pear	THR		S3	G4G5	Plant

Town Range / Scientific Name	Common Name	State Status	Federal Status	State Rank	Global Rank	Group Name
Paraphlepsius maculosus	A Leafhopper	SC/N		S1	GNR	Leafhopper
Phemeranthus rugospermus	Prairie Fame-flower	SC		S3	G3G4	Plant
Pituophis catenifer	Gophersnake	SC/P		S2S3	G5	Snake
Polytaenia nuttallii	Prairie Parsley	THR		S2	G5	Plant
Schinia indiana	Phlox Moth	END		S2S3	G2G4	Moth
Southern sedge meadow	Southern Sedge Meadow	NA		S3	G4?	Community~
Springs and spring runs, hard	Springs and Spring Runs, Hard	NA		S4	GNR	Community~
White pine-red maple swamp	White Pine-Red Maple Swamp	NA		S2	G3G4	Community~
017N004W						
Calylophus serrulatus	Yellow Evening Primrose	SC		S2	G5	Plant
Dry-mesic prairie	Dry-mesic Prairie	NA		S2	G3	Community
Glyptemys insculpta	Wood Turtle	THR		S2	G4	Turtle~
Nothocalais cuspidata	Prairie False-dandelion	SC		S2	G5	Plant
Phemeranthus rugospermus	Prairie Fame-flower	SC		S3	G3G4	Plant
Pituophis catenifer	Gophersnake	SC/P		S2S3	G5	Snake
Polytaenia nuttallii	Prairie Parsley	THR		S2	G5	Plant
Sand barrens	Sand Barrens	NA		SU	GNR	Community
Southern sedge meadow	Southern Sedge Meadow	NA		S3	G4?	Community~
017N005W						
Dry-mesic prairie	Dry-mesic Prairie	NA		S2	G3	Community
Nothocalais cuspidata	Prairie False-dandelion	SC		S2	G5	Plant
Pituophis catenifer	Gophersnake	SC/P		S2S3	G5	Snake
Sand barrens	Sand Barrens	NA		SU	GNR	Community
Southern sedge meadow	Southern Sedge Meadow	NA		S3	G4?	Community~
017N008W						
Ammocrypta clara	Western Sand Darter	SC/N		S3	G3	Fish~
018N001E						
Aphredoderus sayanus	Pirate Perch	SC/N		S3	G5	Fish~
Artemisia frigida	Prairie Sagebrush	SC		S2	G5	Plant
Carex straminea	Straw Sedge	SC		S1	G5	Plant~
Didiplis diandra	Water-purslane	SC		S1	G5	Plant~
Emydoidea blandingii	Blanding's Turtle	THR		S3S4	G4	Turtle~
Glyptemys insculpta	Wood Turtle	THR		S2	G4	Turtle~
Liodessus cantralli	Cantrall's Bog Beetle	SC/N		S2S3	GNR	Beetle~
018N001W						
Aphredoderus sayanus	Pirate Perch	SC/N		S3	G5	Fish~
Ardea alba	Great Egret	THR		S2B	G5	Bird~
Bird Rookery	Bird Rookery	SC		SU	G5	Other~
Chlidonias niger	Black Tern	SC/M		S2B	G4	Bird~
Emydoidea blandingii	Blanding's Turtle	THR		S3S4	G4	Turtle~
Lanius ludovicianus	Loggerhead Shrike	END		S1B	G4	Bird
Rallus elegans	King Rail	SC/M		S1B	G4	Bird~
018N002E						
Aphredoderus sayanus	Pirate Perch	SC/N		S3	G5	Fish~
018N002W						
Aflexia rubranura	Red-tailed Prairie Leafhopper	END		S2?	G2	Leafhopper
Asclepias ovalifolia	Dwarf Milkweed	THR		S3	G5?	Plant

Town Range / Scientific Name	Common Name	State Status	Federal Status	State Rank	Global Rank	Group Name
Canis lupus	Gray Wolf	SC/FL	LE	S4	G4	Mammal
Catocala abbreviatella	Abbreviated Underwing Moth	SC/N		S3	G4	Moth
Chondestes grammacus	Lark Sparrow	SC/M		S3B	G5	Bird
Emydoidea blandingii	Blanding's Turtle	THR		S3S4	G4	Turtle~
Gentiana alba	Yellow Gentian	THR		S4	G4	Plant
Glyptemys insculpta	Wood Turtle	THR		S2	G4	Turtle~
Grammia phyllira	Phyllira Tiger Moth	SC/N		S2	G4	Moth
Lycaeides melissa samuelis	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
Microtus ochrogaster	Prairie Vole	SC/N		S2	G5	Mammal
Opuntia fragilis	Brittle Prickly-pear	THR		S3	G4G5	Plant
Pine barrens	Pine Barrens	NA		S2	G2	Community
Pituophis catenifer	Gophersnake	SC/P		S2S3	G5	Snake
Poa paludigena	Bog Bluegrass	THR		S3	G3	Plant~
Polytaenia nuttallii	Prairie Parsley	THR		S2	G5	Plant
Prenanthes aspera	Rough Rattlesnake-root	END		S1	G4?	Plant
Schinia indiana	Phlox Moth	END		S2S3	G2G4	Moth
018N003W						
Bartramia longicauda	Upland Sandpiper	SC/M		S2B	G5	Bird
Canis lupus	Gray Wolf	SC/FL	LE	S4	G4	Mammal
Carex cumulata	Clustered Sedge	SC		S2	G4?	Plant~
Catocala whitneyi	Whitney's Underwing Moth	SC/N		S3	G3G4	Moth
Driotura robusta	A Leafhopper	SC/N		S1S2	GNR	Leafhopper
Emydoidea blandingii	Blanding's Turtle	THR		S3S4	G4	Turtle~
Gentiana alba	Yellow Gentian	THR		S4	G4	Plant
Glyptemys insculpta	Wood Turtle	THR		S2	G4	Turtle~
Hesperia ottoe	Ottoe Skipper	SC/N		S1	G3G4	Butterfly
Lycaeides melissa samuelis	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
Microtus ochrogaster	Prairie Vole	SC/N		S2	G5	Mammal
Oak barrens	Oak Barrens	NA		S2	G2?	Community
Ophisaurus attenuatus	Slender Glass Lizard	END		S1	G5	Lizard
Opuntia fragilis	Brittle Prickly-pear	THR		S3	G4G5	Plant
Phemeranthus rugospermus	Prairie Fame-flower	SC		S3	G3G4	Plant
Pine barrens	Pine Barrens	NA		S2	G2	Community
Pituophis catenifer	Gophersnake	SC/P		S2S3	G5	Snake
Poa paludigena	Bog Bluegrass	THR		S3	G3	Plant~
Rhexia virginica	Virginia Meadow-beauty	SC		S3	G5	Plant~
Schinia indiana	Phlox Moth	END		S2S3	G2G4	Moth
Scleria triglomerata	Whip Nutrush	SC		S2S3	G5	Plant~
Sturnella neglecta	Western Meadowlark	SC/M		S2B	G5	Bird
Tetracha virginica	Virginia Big-headed Tiger Beetle	SC/N		S1S2	G5	Beetle
018N004W						
Ophisaurus attenuatus	Slender Glass Lizard	END		S1	G5	Lizard
Opuntia fragilis	Brittle Prickly-pear	THR		S3	G4G5	Plant
Polytaenia nuttallii	Prairie Parsley	THR		S2	G5	Plant
Stream--fast, soft, cold	Stream--Fast, Soft, Cold	NA		SU	GNR	Community~
018N005W						
Pituophis catenifer	Gophersnake	SC/P		S2S3	G5	Snake
018N006W						

Town Range / Scientific Name	Common Name	State Status	Federal Status	State Rank	Global Rank	Group Name
Ammocrypta clara	Western Sand Darter	SC/N		S3	G3	Fish~
Moxostoma carinatum	River Redhorse	THR		S2	G4	Fish~
018N007W						
Ammocrypta clara	Western Sand Darter	SC/N		S3	G3	Fish~
018N008W						
Ammocrypta clara	Western Sand Darter	SC/N		S3	G3	Fish~
019N001E						
Ammodramus leconteii	Le Conte's Sparrow	SC/M		S2S3B	G4	Bird~
Arphia conspersa	Speckled Rangeland Grasshopper	SC/N		S2	G5	Grasshopper
Bartonia paniculata	Twining Screwstem	SC		S1	G5	Plant~
Botaurus lentiginosus	American Bittern	SC/M		S3B	G4	Bird~
Callophrys irus	Frosted Elfin	THR		S1	G3	Butterfly
Canis lupus	Gray Wolf	SC/FL	LE	S4	G4	Mammal
Carex cumulata	Clustered Sedge	SC		S2	G4?	Plant~
Central poor fen	Central Poor Fen	NA		S3	G3G4	Community~
Central sands pine-oak forest	Central Sands Pine-Oak Forest	NA		S3	G3	Community
Chlidonias niger	Black Tern	SC/M		S2B	G4	Bird~
Coturnicops noveboracensis	Yellow Rail	THR		S1B	G4	Bird~
Emergent marsh	Emergent Marsh	NA		S4	G4	Community~
Emydoidea blandingii	Blanding's Turtle	THR		S3S4	G4	Turtle~
Erynnis persius	Persius Dusky Wing	SC/N		S3	G5	Butterfly
Hardwood swamp	Hardwood Swamp	NA		S3	G4	Community~
Lycaeides melissa samuelis	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
Northern sedge meadow	Northern Sedge Meadow	NA		S3	G4	Community~
Northern wet forest	Northern Wet Forest	NA		S4	G4	Community~
Open bog	Open Bog	NA		S4	G5	Community~
Tamarack (poor) swamp	Tamarack (Poor) Swamp	NA		S3	G4	Community~
White pine-red maple swamp	White Pine-Red Maple Swamp	NA		S2	G3G4	Community~
019N001W						
Atrytonopsis hianna	Dusted Skipper	SC/N		S2S3	G4G5	Butterfly
Canis lupus	Gray Wolf	SC/FL	LE	S4	G4	Mammal
Haliaeetus leucocephalus	Bald Eagle	SC/P		S4B,S4N	G5	Bird~
Hesperia metea	Cobweb Skipper	SC/N		S2	G4G5	Butterfly
Lycaeides melissa samuelis	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
Northern dry forest	Northern Dry Forest	NA		S3	G3?	Community
019N002E						
Canis lupus	Gray Wolf	SC/FL	LE	S4	G4	Mammal
Central poor fen	Central Poor Fen	NA		S3	G3G4	Community~
Tamarack (poor) swamp	Tamarack (Poor) Swamp	NA		S3	G4	Community~
019N002W						
Alder thicket	Alder Thicket	NA		S4	G4	Community~
Asclepias ovalifolia	Dwarf Milkweed	THR		S3	G5?	Plant
Canis lupus	Gray Wolf	SC/FL	LE	S4	G4	Mammal
Emydoidea blandingii	Blanding's Turtle	THR		S3S4	G4	Turtle~
Erynnis persius	Persius Dusky Wing	SC/N		S3	G5	Butterfly
Glyptemys insculpta	Wood Turtle	THR		S2	G4	Turtle~
Lycaeides melissa samuelis	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly