DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:	TCRC - Hurds Corner ROW	Date:	7/29/03
Applicant/Owner:	Gosling Czubak	County:	Tuscola
Investigator:	Pete Kallioinen	State:	Michigan

Do Normal Circumstances exist on the site?	Yes	✓	No	Community ID:	Plot WET-1
Is the site significantly disturbed (Atypical Situation)?	Yes		No	✓ Transect ID:	
Is the area a potential Problem Area (explain on back)?	Yes		No	Plot ID:	Wetland #1

VEGETATION

Dominant Plant Species (Scientific Name)	Common Name	Stratum	% Cover	Indicator
1. Fraxinus americana	white ash	T	10	facu
2. Fraxinus nigra	black ash	T	10	facw+
3. Acer rubrum	red maple	T	50	fac
4. Alnus rugosa	speckled alder	S	20	Obl
5. ~~Fraxinus nigra~~	black ash	S	10	facw+
6. Cornus racemosa	red-panicled dogwood	S	25	facw-
7. Aronia melanocarpa	black chokeberry	S	20	facw-
8. Onoclea sensibilis	sensitive fern	H	40	Facw
9. Solidago rugosa	rough-stemmed goldenrod	H	10	Fac+
10. Carex laxiflorae	loose-flowered sedge	H	20	UPL
11. Carex intumescens	bladder sedge	H	10	facw+
12. Fragaria virginiana	virginia strawberry	H	15	fac-

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). _____

Remarks: other species: Paper birch, blue-flag iris, Carex Scoparia, riverbank grape, Salix sp., red-osier dogwood

HYDROLOGY

___ Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth to Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12"
- ✓ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators(2 or more required):
- ___ Oxidized Root Channels (Upper 12")
- ___ Water-Stained Leaves
- ___ Local Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

Cover class as a percentage: 6 = 95-100%; 5 = 75-95%; 4 = 50-75%; 3 = 25-50%; 2 = 5-25%; 1 = 0-5%

TCRC - Hurds Corner Row
Gosling C Zubak - Pete Kalliainen
7/29/03

Community ID: Plot Wet-1
Wet and #1

SOILS

Map Unit Name (Series and Phase): _____

Drainage Class: _____

Field Observations Confirm Mapped Type? Yes ___ No ___

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-9		10YR2/1	NA	NA	Fibric organic w/ silt/sand
9-15		10YR4/1	NA	NA	Fine Sand w/ organic
15-24		2.5Y5/2	NA	NA	Fine Sand

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ✓ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	___	No	___
Wetland Hydrology Present?	Yes	✓	No	___
Hydric Soils Present?	Yes	___	No	___

Is this Sampling Point Within a Wetland? Yes ___ No ___

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:	TERC - Hurds Corner Row	Date:	7/30/03
Applicant/Owner:	Gosling Czubak	County:	Tuscola
Investigator:	Pete Kallioinen	State:	Michigan
Do Normal Circumstances exist on the site?	Yes ✓ No	Community ID:	Wetland #4
Is the site significantly disturbed (Atypical Situation)?	Yes No ✓	Transect ID:	
Is the area a potential Problem Area (explain on back)?	Yes No	Plot ID:	WET-2

VEGETATION

Dominant Plant Species (Scientific Name)	Common Name	Stratum	% Cover	Indicator
1. Acer rubrum	red maple	T	30	fac
2. Ulmus rubra	slippery elm	T	15	fac
3. Populus tremuloides	quaking aspen	T	20	fac
4. Pinus strobus	white pine	T	10	facu
5. Alnus rugosa	speckled alder	S	30	obl
6. Vitis riparia	riverbank grape	V	10	facw-
7. Salix sp.	willow	S	25	[fac+]
8. Cornus racemosa	red-panicle dogwood	S	15	facw-
9. Carex intumescens	bladder sedge	H	50	facw+
10. Onoclea sensibilis	sensitive fern	H	30	facw
11. Rubus pubescens	Solitary raspberry	H	10	facw+
12. juncus effusus	soft rush	H	10	obl

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 92

Remarks: other species: choke cherry, lily-of-the-valley, wood strawberry, sandbar willow, bed straw, carex scoparia, equisetum sp., Solidago sp.

HYDROLOGY

___ Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth to Surface Water: ___ (in.)
Depth to Free Water in Pit: 22 (in.)
Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12"
- ✓ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators(2 or more required):
- ___ Oxidized Root Channels (Upper 12")
- ___ Water-Stained Leaves
- ___ Local Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

Cover class as a percentage: 6 = 95-100%; 5 = 75-95%; 4 = 50-75%; 3 = 25-50%; 2 = 5-25%; 1 = 0-5%

TCRC Hurds Corner Rd. ROW
Gosling Czubak - Pete Kallioinen
7/30/03

SOILS

Community ID: WET-2

Map Unit Name (Series and Phase): _____

Drainage Class: _____

Taxonomy (Subgroup): _____

Field Observations Confirm Mapped Type? Yes ___ No ___

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-10		10YR2/1	NA	NA	Fibric Organic w/ Sand & Silt
10-15		10YR4/2	10YR4/4	10%	Fine Sand
15-24		2.5Y5/2	NA	NA	Fine-med. Sand

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ___ No ___

Wetland Hydrology Present? Yes ___ No ___

Hydric Soils Present? Yes ___ No ___

Is this Sampling Point Within a Wetland? Yes ___ No ___

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:	TCRC - Hurds corner Rd. ROW	Date:	7/20/03
Applicant/Owner:	Gosling Czubak	County:	Tuscola
Investigator:	Peter Kallionen	State:	Michigan
Do Normal Circumstances exist on the site?	Yes ___ No ___	Community ID:	Wetland #5
Is the site significantly disturbed (Atypical Situation)?	Yes ___ No ___	Transect ID:	
Is the area a potential Problem Area (explain on back)?	Yes ___ No ___	Plot ID:	WET-3

VEGETATION

Dominant Plant Species (Scientific Name)	Common Name	Stratum	% Cover	Indicator
1. Pinus strobus	white pine	T	20	facu
2. Pinus banksiana	jack pine	T	10	facu
3. Ulmus rubra	slippery elm	T	10	fac
4. Lonicera sp.	honeysuckle	S	10	
5. Equisetum arvense	field horsetail	H	40	fac
6. Solanum dulcamara	nightshade	V	10	fac
7. Thalictrum dasycarpum	purple meadow-rue	H	10	facw-
8. Solidago sp.		H	10	
9.	moss	H	10	
10.				
11.				
12.				

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 67

Remarks: other species = violet, dogwood, bracken fern

HYDROLOGY

___ Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth to Surface Water: ___ (in.)
Depth to Free Water in Pit: >20 (in.)
Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12"
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ✓ Drainage Patterns in Wetlands

Secondary Indicators(2 or more required):
- ___ Oxidized Root Channels (Upper 12")
- ___ Water-Stained Leaves
- ___ Local Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

Cover class as a percentage: 6 = 95-100%; 5 = 75-95%; 4 = 50-75%; 3 = 25-50%; 2 = 5-25%; 1 = 0-5%

TCRC - Hurds Corner Rd. ROW
Gosling Czubak - Pete Kalliainen
7/30/03

Community ID: Plot WET-3

SOILS

Map Unit Name (Series and Phase): _____

Drainage Class: _____

Taxonomy (Subgroup): _____

Field Observations Confirm Mapped Type? Yes ___ No ___

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12	J	7.5YR3/2	NA	NA	organic (hemic)
12-20		Gley 5/N	10YR 5/6	<10%	silt w/clay, sand

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ___ No ___

Wetland Hydrology Present? Yes ___ No ___

Hydric Soils Present? Yes ___ No ___

Is this Sampling Point Within a Wetland? Yes ___ No ___

Remarks:

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:	Hurd's Corner Road	Date:	10/21/03
Applicant/Owner:	TCRC	County:	Tuscola
Investigator:	Pete Kallainen - SCES	State:	MI
Do Normal Circumstances exist on the site?	Yes ✓ No	Community ID:	Plot UPL-1
Is the site significantly disturbed (Atypical Situation)?	Yes No ✓	Transect ID:	
Is the area a potential Problem Area (explain on back)?	Yes No ✓	Plot ID:	

VEGETATION

Dominant Plant Species (Scientific Name)	Common Name	Stratum	% Cover	Indicator
1. Acer rubrum	red maple	T	40	
2. Populus tremuloides	quaking aspen	T	20	
3.	elm	T	10	
4.	Black cherry	S	10	
5.	white ash	S	10	
6.	Strawberry	S	30	
7. Solidago accidentalis	Goldenrod	H	20	
8.	Grass	H	10	
9.	red-panicled dogwood	S	10	
10. Soil				
11.				
12.				

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks: other spp: cherry sp., June berry?

HYDROLOGY

___ Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations: NA

Depth to Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12"
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators(2 or more required):
- ___ Oxidized Root Channels (Upper 12")
- ___ Water-Stained Leaves
- ___ Local Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

Cover class as a percentage: 6 = 95-100%; 5 = 75-95%; 4 = 50-75%; 3 = 25-50%; 2 = 5-25%; 1 = 0-5%

21501-30/coewet

wet #4 closed gentian
#3 red chokeberry?
#1, Early goldenrod
Late goldenrod

TCRC - Hurds Corner Rd
10/21/03
Pete Kallioinen - GCES

SOILS

Community ID: Plot UPL-1

Map Unit Name (Series and Phase): _____

Drainage Class: _____

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes ___ No ___

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-1	Oa				Fibric organic
1-3	Oa				Organic w/ Fine Sand
3-6	A				Fine Sand
6-8					Fine Sand
8-24	lt. brn				

Hydric Soil Indicators: NA

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ___ No ___
Wetland Hydrology Present? Yes ___ No ___
Hydric Soils Present? Yes ___ No ___

Is this Sampling Point Within a Wetland? Yes ___ No ___

Remarks:

2003112.01

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:	TSEC - Hunk Corner ROW	Date:	7/30/03
Applicant/Owner:	Carolina Czubak	County:	Tuscola
Investigator:	Pete Kalliainen	State:	Michigan

Do Normal Circumstances exist on the site?	Yes	✓	No		Community ID:
Is the site significantly disturbed (Atypical Situation)?	Yes		No	✓	Transect ID:
Is the area a potential Problem Area (explain on back)?	Yes		No		Plot ID: UPL-2

VEGETATION

Dominant Plant Species (Scientific Name)	Common Name	Stratum	% Cover	Indicator
1. Quercus alba	white oak	T	25	facu
2. Pinus strobus	white pine	T	15	facu
3. Pinus resinosa	red pine	T	20	facu
4. Prunus virginiana	choke cherry	T	10	fac-
5. Rosa Sp.	rose	S	25	
6. Acer rubrum	red maple	S	20	fac
7. Fragaria virginiana	Strawberry	H	10	fac-
8. Osmorhiza Claytonii	sweet cicely	H	20	facu-
9.				
10.				
11.				
12.				

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 14

Remarks: other species: whiteash,

HYDROLOGY NA

___ Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth to Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12"
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators(2 or more required):
- ___ Oxidized Root Channels (Upper 12")
- ___ Water-Stained Leaves
- ___ Local Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

Cover class as a percentage: 6 = 95-100%; 5 = 75-95%; 4 = 50-75%; 3 = 25-50%; 2 = 5-25%; 1 = 0-5%

TCRC - Hurds Corner Rd. ROW
Gosling Ctubak - Pete Kallioinen
7/30/03

SOILS

Community ID: Plot UPL-2

Map Unit Name (Series and Phase): _____

Drainage Class: _____

Taxonomy (Subgroup): _____

Field Observations Confirm Mapped Type? Yes ___ No ___

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-4		5YR4/2	NA	NA	organic w/ sand
4-10		10YR5/2	NA	NA	Fine sand
10-24		7.5YR5/6	NA	NA	Fine sand

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ___ No ___
Wetland Hydrology Present? Yes ___ No ___
Hydric Soils Present? Yes ___ No ___

Is this Sampling Point Within a Wetland? Yes ___ No ___

Remarks:

2003112.01

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site:	TCRC - Hurds Corner Rd. ROW	Date:	7/30/03
Applicant/Owner:	Gosling Czubak	County:	Tuscola
Investigator:	Pete Kallioinen	State:	Michigan

Do Normal Circumstances exist on the site?	Yes	✓	No		Community ID:
Is the site significantly disturbed (Atypical Situation)?	Yes		No	✓	Transect ID:
Is the area a potential Problem Area (explain on back)?	Yes		No		Plot ID: UPL-3

VEGETATION

Dominant Plant Species (Scientific Name)	Common Name	Stratum	% Cover	Indicator
1. Pinus banksiana	jack pine	T	40	facu
2. Ulmus americana	American elm	T	10	facw-
3. Salix sp.	willow	S	10	[fac+]
4. Rubus idaeus	red raspberry	S	10	facu+
5. Lonicera sp.	honeysuckle	S	10	
6. Equisetum arvense	field horsetail	H	50	fac
7. Pteridium aquilinum	bracken fern	H	20	facu
8.				
9.				
10.				
11.				
12.				

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 50

Remarks: other species: dogwood, Solidago sp., strawberry, black ash

HYDROLOGY NA

Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other
- ___ No Recorded Data Available

Field Observations:
- Depth to Surface Water: ___ (in.)
- Depth to Free Water in Pit: ___ (in.)
- Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12"
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators(2 or more required):
- ___ Oxidized Root Channels (Upper 12")
- ___ Water-Stained Leaves
- ___ Local Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

Cover class as a percentage: 6 = 95-100%; 5 = 75-95%; 4 = 50-75%; 3 = 25-50%; 2 = 5-25%; 1 = 0-5%

2003112.01

TCRC - Hurds Corner Rd ROW
Gosling Czubak Pete Kalkoinen
7/30/03

SOILS

Community ID: Plot VPL-3

Map Unit Name (Series and Phase): _____

Drainage Class: _____

Taxonomy (Subgroup): _____

Field Observations Confirm Mapped Type? Yes ___ No ___

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-5		5YR4/2	NA	NA	Fibric organic w/sand
5-12		10YR5/2	NA	NA	Fine Sand
12-24		7.5YR5/6	NA	NA	Fine Sand

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes ___ No ___
Wetland Hydrology Present? Yes ___ No ___
Hydric Soils Present? Yes ___ No ___

Is this Sampling Point Within a Wetland? Yes ___ No ___

Remarks:

21501-30/coewet