

2010 VERNAL POOL MONITORING SUMMARY

February snow storms with accumulations in the 3+ foot range set up the start of the season where pools were at maximum depth and area. There was about a ten day period in early March with slow gradual melting. Then there were 2 multi inch rain events in March. The first was on the 12th and 13th and the second on the 22nd and 23rd. This was probably to the advantage of isolated pools away from the flood plain. However, several pools in the flood plain of the Wallkill River and the Papakating Creek were inundated with flood waters over a two week period during the prime egg laying season. Pools at the far end of the Wood Duck Trail, below Judge Beach Road (1A, 1B, 1C and one known pool – 1D) and 3A on the Kuperus Tract were heavily impacted by flood waters. Pools 32 A, B and C likely were well within this years' floodplain as well. These pools had no obligate species present on the initial survey and seem unlikely to produce any in the future. This is a low lying area where there are numerous uprooted tree stumps and other depressions that hold water in the spring but none appear to have obligate species. This is a low priority for long term monitoring. The complex of pools at Owens Station (47 A-F) also would be a low priority. These pools have been dry on return visits and have produced no obligates.

The known pools along Scenic Lake Road, continue to be productive primarily for *Rana sylvatica* in spite of significant mortality documented during the road crossing surveys in March. However, they are in need of maintenance. One pool is impacted by Phragmites and the other is dominated by shrubs. We plan to work on these in August/September 2010.

There are several other pools that were documented during the ACS (Adaptive Cluster Sampling) protocol, but were only potential pools – no obligates were documented. These are noted on the attached log for 2010 as low priority for future monitoring.

The consistently productive pools are marked as high priority for long term monitoring. There are also a few pools that have been productive in the past but were not viable this year for one reason or another such as being taken over by Bull Frogs (45A, 31-12) or flooding issues that should be monitored for changes long term if time and personnel permit.

Total egg masses counted – *Rana sylvatica* – 390

Ambystoma maculatum – 170

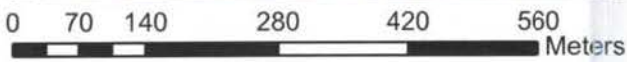
2010 Long Term Vernal Pool Monitoring Log

Pool #	Date	SS	WF	Comments		Priority
SLR-1	4/1/2010	5	86	Scenic Lk. Rd. Pool overrun by shrubs - maintenance needed	Known	H
SLR-2	4/1/2010	3	110	Scenic Lk Rd. - Invaded by Phragmites - maintenance needed	Known	H
VP31 I-1	4/1/2010		20	Bassett's Bridge Rd.	ACS	H
VP31 I-3	4/1/2010		59	Bassett's Bridge Rd. - new pool in 2010	NEW	H
VP4 I-1	4/2/2010	47		Wood Duck Trail	ACS	H
LKWRVP-1	4/2/2010		35	Lake Wallkill Rd. north of Bassett's Bridge Rd. Very muddy bottom - do not enter pool.	Known	H
VP41 I-2	4/5/2010		15	Kelly Rd. rail bed north	ACS	H
VP45-A	4/5/2010			Only Bullfrog tadpoles present - historically has produced Wood Frogs	ACS	M
VP15-A	4/5/2010	68	6	Lower Unionville Rd.	ACS	H
KUVP-1	4/6/2010	38		250+ Wood Frog tadpoles free swimming - new pool in 2009 - first time surveyed	NEW	H
VP41 I-1	4/6/2010		41	Free swimming tadpoles	ACS	H
VP41 I-3	4/6/2010		10	1000+ Wood Frog tadpoles free swimming - many American Toad eggs - new pool in 2010	NEW	H
VP1-C	4/7/2010	2	8	Hatched tadpoles on egg masses - on 1st visit this pool was inundated with flood water. Muddy bottom - difficult walking but accessible	ACS	H
VP1-B	4/7/2010	2		On 1st visit this pool was inundated with flood water	ACS	H
VP19-A	4/9/2010			Potential pool only - no historical production	ACS	L
VP27 I-2	4/12/2010			Probable Wood Frog tadpoles present - 50+	ACS	H
VP27 I-3	4/12/2010			Probable Wood Frog tadpoles present - 300+ - this should be VP27 I-1 most likely	ACS	H
VP28 I-1	4/12/2010	5		Many thousands of Wood Frog tadpoles present - 3 large clusters	ACS	H
VP47-A	4/14/2010			Pool mostly dry - some wet/muddy areas but no viable breeding area	ACS	L
VP47-B	4/14/2010			Pool completely dry	ACS	L
VP47-C	4/14/2010			Pool completely dry	ACS	L
VP47-D	4/14/2010			Pool completely dry	ACS	L
VP47-E	4/14/2010			Pool completely dry	ACS	L
VP47-F	4/14/2010			It is likely that this was part of the larger wetland area of VP47-A originally	ACS	L
VP31 I-2	4/14/2010			Bull Frog tadpoles only - historically has produced Wood Frogs	ACS	M
VP 4 I-1	4/15/2010			No historical production	ACS	L
VP4 I-3	4/16/2010			Inundated with flood water in March during egg laying season. Obligates present in the past	Known	M
VP34 I-1	4/16/2010			Small puddles and muddy areas - no viable breeding area	ACS	L

2010 Vernal Pool Log						
Pool #	Date	SS	WF	Comments	Priority	
VP32-C	4/19/2010			This pool is likely in the flood plain and unproductive	ACS	L
VP32-B	4/19/2010			This pool is likely in the flood plain and unproductive	ACS	L
VP32-A	4/19/2010			Unable to locate pool by GPS - no viable pools in area - no data sheet	ACS	L
VP3-A	4/20/2010			Pool completely dry	ACS	L
VP1-A	4/20/2010			Historically unproductive - heavy flood water impact	ACS	L
VP1-D	4/20/2010			Heavy flood water impact - obligates present in the past.	Known	H
VP26-A				No survey conducted - access too difficult - historically no obligates present	ACS	L



Long-term Monitoring Vernal Pools - South/Central



NJ State Plane NAD 1983 - MLT 3/2/2010



Long-term Monitoring Vernal Pools - South

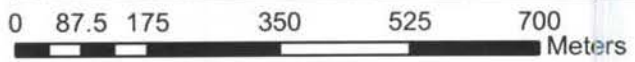
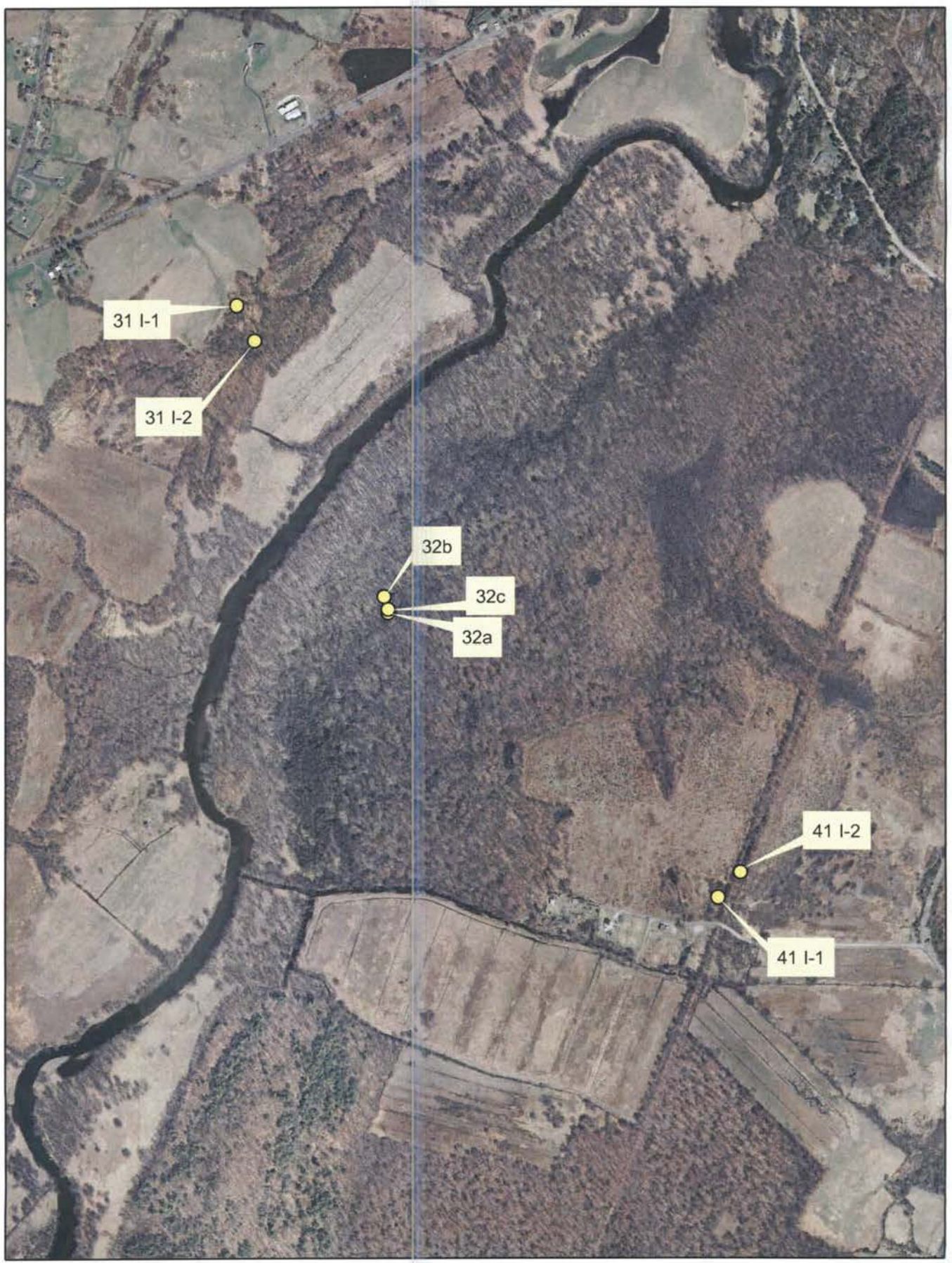


0 70 140 280 420 560
Meters

NJ State Plane NAD 1983 - MLT 3/2/2010



Long-term Monitoring Vernal Pools - North/Central



NJ State Plane NAD 1983 - MLT 3/2/2010



Long-term Monitoring Vernal Pools - Central



0 80 160 320 480 640
Meters

NJ State Plane NAD 1983 - MLT 3/2/2010



Long-term Monitoring Vernal Pools - North



0 112.5 225 450 675 900
Meters

NJ State Plane NAD 1983 - MLT 3/2/2010

2010 VERNAL POOL MONITORING

From North Loop of Dagmar Dale Trail



VP 27 I2



VP 27 I3

THIS SHOULD BE VP 27 I1 - THE POINT ON THE
GIS MAP WAS MISLOCATED

2010 VERNAL POOL MONITORING

Judge Beach Road Vernal Pools



VP 1B



VP 1C

2010 VERNAL POOL MONITORING

Judge Beach Road Vernal Pools



VP 1D



VP 1A

2010 VERNAL POOL MONITORING

Owens Station



VP 47a



VP 47b



VP 47c



VP 47d



VP 47e



VP 47f

2010 Vernal Pool Monitoring

From North Loop Dagmar Dale Trail



2010 VERNAL POOL MONITORING

Wood Duck Trail



VP 4 I2



VP 4 I1



WDT VP-3

2010 VERNAL POOL MONITORING

Kelly Road vernal pools



VP41 I1



VP41 I1



VP41 I2



VP41 I3
New pool in 2010



VP 34 I1



2010 VERNAL POOL MONITORING

Bassett's Bridge Road



VP 31 I1



VP 31 I2



VP 31 I3
New pool 2010

2010 VERNAL POOL MONITORING

Various Locations



VP 19A
From Dagmar Dale Turkey Foot



LWR VP 1
Lake Wallkill Road



VP 45A
Lott Farm



KU VP 1
Kuperus Tract – new pool
2009



VP 32B



VP 32C

2010 VERNAL POOL MONITORING

Lower Unionville Rd

VP 15a



2010 VERNAL POOL MONITORING

Scenic Lake Road Vernal Pools



SLR_VP1



SLR_VP2



05 WALLKILL RIVER LONG TERM MONITORING POOLS

	PoolName	Pool Record Type	Lat	Long
*	wrnwr1a	ACS	41:12:25.5	-074:35:20.3
x	wrnwr1b	ACS	41:12:28.3	-074:35:18.3
x	wrnwr1c	ACS	41:12:29.7	-074:35:12.8
x	wrnwr15a	ACS	41:16:52.53	-074:34:07.04
	wrnwr47a	ACS	41:16:02.8	-074:32:60.4
	wrnwr47b	ACS	41:16:02.2	-074:32:40.3
	wrnwr47c	ACS	41:16:03.7	-074:32:38.7
	wrnwr47d	ACS	41:16:06.2	-074:32:37.6
	wrnwr47e	ACS	41:16:05.0	-074:32:39.4
	wrnwr45a	ACS	41:17:13.2	-074:32:68.5
	wrnwr19A	ACS	41:12:27.5	-074:34:15.0
x	wrnwr32A	ACS	41:14:57.5	-74:33:23.3
x	wrnwr32B	ACS	41:14:58.5	-74:33:23.6
x	wrnwr32C	ACS	41:14:57.7	-74:33:23.3
x	wrnwr3A	ACS	41:11:59.19	-74:34:50.72
x	wrnwr26A	ACS	41:13:38.2	-74:33:45.68
	wrnwr41 I-1	INCIDENTAL	41:14:66.2	-074:32:93.7
	wrnwr41 I-2	INCIDENTAL	41:14:68.8	-074:32:90.6
	wrnwr4 I-2	INCIDENTAL	41:11:60.3	-074:35:11.0
x	wrnwr27 I-1	INCIDENTAL	41:12:33.3	-74:33:49.2
	wrnwr34 I-1	INCIDENTAL	41:14:19.6	-074:33:15.9
x	wrnwr31 I-1	INCIDENTAL	41:15:16.8	-74:33:35.7
x	wrnwr27 I-2	INCIDENTAL	41:12:52.4	-74:33:48.2
	wrnwr28 I-1	INCIDENTAL	41:12:86.0	-074:33:71.1
x	wrnwr31 I-2	INCIDENTAL	41:15:14.6	-74:33:34.2
	wrnwr4 I-1	INCIDENTAL	41:11:50.4	-074:35:01.2

KUPUP / INCIDENTAL 41:19:53.1 -074:58:49.0

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # VP-SLR 1

Photo _____

Date (mm/dd/yy): 4/1/10

Observer 1 Ken Witkowski

Observer 2 Michele Talmadge

Time Begin 10:00am Time End 10:18

Water temp 47.0 Air temp 54.0 pH _____ Sky code 0 Wind code 0 Prev. day precip? ☒ Yes _____ No

Latitude N41°11'06.7" Longitude W074°34'28.2"

Pool Max Width 5 m Max Length 8 m Max Depth 64 cm

Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 5 1 0 1 90

Canopy Cover 25 > 50% ☒ < 50%

☐ Refuge use only
☐ Light Traffic (< 10 cars)
☒ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

100 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

☐ Softwood (< 75% deciduous)

☒ % Agriculture/meadow/pasture

☐ % Residential: urban/suburban

☐ % Industrial

Pool Type:

☒ Natural

☐ Beaver Created

☐ Artificial/Human-altered

☐ Gravel Pit

☐ Impoundment

☐ Roadside Ditch

☐ Other

☐ Farm Pond

Distance to Forest: 0 m Distance to Road: 90 m

Road Type: ☒ Paved ☐ Gravel ☐ Dirt

Pool Permanency:

☐ Temporary ☐ Permanent ☒ Semi-permanent ☐ Unknown

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 86 Obs 2 _____
(Wood Frog)

Ambystoma maculatum egg masses: Obs 1 5 Obs 2 _____
(Spotted Salamander)

Comments:

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # UPSLR 2

Photo _____

Date (mm/dd/yy): 4/1/10

Observer 1 Ken Witkowski

Observer 2 Michele Talmadge

Latitude N41°11'10.3"

Longitude W074°34'25.5"

Water temp 45.5° Air temp 54° pH _____ Sky code 0 Wind code 0 Prev. day precip? ☒ Yes _____ No

Time Begin 10:24 Time End 10:40

Pool Max Width 10 m Max Length 48.3 m Max Depth 60 cm

Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 20 150 120

Canopy Cover _____ > 50% _____ < 50%

____ Refuge use only
____ Light Traffic (< 10 cars)
☒ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

100 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

____ Softwood (< 75% deciduous)

____ % Agriculture/meadow/pasture

____ % Residential: urban/suburban

____ % Industrial

Pool Type:

☒ Natural

____ Beaver Created

____ Artificial/Human-altered

____ Gravel Pit

____ Impoundment

____ Roadside Ditch

____ Other

____ Farm Pond

Distance to forest: 0 m

Distance to Road: 85 m

Road Type: ☒ Paved _____ Gravel _____ Dirt

Pool Permanency:

____ Temporary _____ Permanent ☒ Semi-permanent _____ Unknown

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 110

Obs 2 _____

Ambystoma maculatum egg masses: Obs 1 3

Obs 2 _____

(Wood Frog)

(Spotted Salamander)

Comments:

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # BB parking lot (UP31 I-1) Photo _____

Date (mm/dd/yy): 4/1/10

Observer 1 Wallkill K. Witkowski Observer 2 SUNY Orange

Latitude N41°15'16.8"

Longitude W074°33'35.7"

Water temp 65.8 Air temp 74 pH 7.62 Sky code 1 Wind code 1 Prev. day precip? Yes ☒ No

Time Begin 2:00 Time End 2:20

Pool Max Width 1.3 m Max Length 14.5 m Max Depth 25 cm

Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 1 1 1

Canopy Cover > 50% ☒ < 50%

 Refuge use only
 Light Traffic (< 10 cars)
☒ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

50 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

 Softwood (< 75% deciduous)

50 % Agriculture/meadow/pasture

☒ % Residential: urban/suburban

☒ % Industrial

Pool Type:

 Natural

 Beaver Created

☒ Artificial/Human-altered

 Gravel Pit

 Roadside Ditch

 Farm Pond

 Impoundment

☒ Other

Distance to forest: 0 m

Distance to Road: 260 m

Road Type: ☒ Paved Gravel Dirt

Pool Permanency:

☒ Temporary Permanent Semi-permanent Unknown

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 20 Obs 2 # *Ambystoma maculatum* egg masses: Obs 1 ☒ Obs 2
(Wood Frog) (Spotted Salamander)

Comments:

Long-term Vernal Pool Monitoring Data Sheet

CUP 211-3

Wallkill River NWR

Pool # BB# 2-10005

Photo _____

Date (mm/dd/yy): 4/1/10

Observer 1 K. WITKOWSKI

Observer 2 M. TALMADE

Latitude 41.25378N

Longitude 74.55968W

Water temp 59°F

Air temp 75.0

pH 5.13

Sky code 1

Wind code 0

Prev. day precip? Yes ☒ No

Time Begin 2:30 Time End 3:00

Pool Max Width 22.5 m Max Length 23.5 m Max Depth 31 cm

Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 5 1 130

Canopy Cover ☒ > 50% ☐ < 50%

☐ Refuge use only

☐ Light Traffic (< 10 cars)

☒ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

100 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

☐ Softwood (< 75% deciduous)

☐ % Agriculture/meadow/pasture

☐ % Residential: urban/suburban

☐ % Industrial

Pool Type:

☒ Natural

☐ Beaver Created

☐ Artificial/Human-altered

☐ Gravel Pit

☐ Impoundment

☐ Roadside Ditch

☐ Other

☐ Farm Pond

Distance to forest: 0 m

Distance to Road: 325 m

Road Type: ☒ Paved ☐ Gravel ☐ Dirt

Pool Permanency:

☒ Temporary ☐ Permanent ☐ Semi-permanent ☐ Unknown

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 59

(Wood Frog)

Obs 2 _____ # *Ambystoma maculatum* egg masses: Obs 1 _____ Obs 2 _____

(Spotted Salamander)

Comments:

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # WOTUP-1-2010 (4 I-1) Photo _____

Date (mm/dd/yy): 4/2/10 Observer 1 HN Observer 2 _____

Latitude N41° 11' 36.2" Longitude W074° 35' 06.6"

Water temp 57° Air temp 76.5° pH _____ Sky code 0 Wind code 2 Prev. day precip? Yes ☒ No

Time Begin 1:15 PM Time End 1:50 PM

Pool Max Width 8 m Max Length 48.5 m Max Depth 34 cm Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 10 1 10 1 10

Canopy Cover ☒ > 50% _____ < 50%

Land Cover (within 50 m of pool, add to 100%)

100 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

_____ Softwood (< 75% deciduous)

_____ % Agriculture/meadow/pasture

_____ % Residential: urban/suburban

_____ % Industrial

Distance to forest: 0 m

Distance to Road: 300 m

Road Type: ☒ Paved _____ Gravel _____ Dirt

Pool Permanency:

☒ Temporary _____ Permanent _____ Semi-permanent _____ Unknown

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 _____ Obs 2 _____ # *Ambystoma maculatum* egg masses: Obs 1 11 Obs 2 11

(Wood Frog)

(Spotted Salamander)

Comments:

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # LWRUP-1-2010

Photo _____

Date (mm/dd/yy): 4/2/10

Observer 1 HW

Observer 2 _____

Latitude N41°15'33.5"

Longitude W74°32'04.1"

Water temp 58° Air temp 78° pH _____ Sky code 0 Wind code 2 Prev. day precip? Yes ☒ No

Time Begin 2:25pm Time End 2:50pm

Pool Max Width 11 m Max Length 15 m Max Depth 6 m

Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 150 %

☐ Refuge use only

☐ Light Traffic (< 10 cars)

Canopy Cover ☒ > 50% ☐ < 50%

☒ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

100 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

☐ Softwood (< 75% deciduous)

☐ % Agriculture/meadow/pasture

☐ % Residential: urban/suburban

☐ % Industrial

Pool Type:

☒ Natural

☐ Beaver Created

☐ Artificial/Human-altered

☐ Gravel Pit

☐ Impoundment

☐ Roadside Ditch

☐ Other

☐ Farm Pond

Distance to forest: 0 m

Distance to Road: 65 m

Pool Permanency:

☒ Temporary ☐ Permanent ☐ Semi-permanent ☐ Unknown

Road Type: ☒ Paved ☐ Gravel ☐ Dirt

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 35 Obs 2 _____ # *Ambystoma maculatum* egg masses: Obs 1 _____ Obs 2 _____

(Wood Frog)

(Spotted Salamander)

Comments:

UNABLE TO GET MAX DEPTH - POOL BOTTOM TOO SOFT TO ENTER

Long-term Vernal Pool Monitoring Data Sheet

Walkkill River NWR

Pool # KRVP-1-2010 (4212)

Photo _____

Date (mm/dd/yy): 4/5/10

Observer 1 MT

Observer 2 KN

Latitude N41°14'41.3"

Longitude W079°32'54.4"

Water temp 57° Air temp 78° pH _____ Sky code 2 Wind code 3 Prev. day precip? Yes ☒ No

Time Begin 1:10 Time End 1:35

Pool Max Width 9 m Max Length 61 m Max Depth 35 cm Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 120 110

Canopy Cover ☒ > 50% _____ < 50%

Land Cover (within 50 m of pool, add to 100%)

50 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

_____ Softwood (< 75% deciduous)

50 % Agriculture/meadow/pasture

_____ % Residential: urban/suburban

_____ % Industrial

Distance to forest: 0 m

Distance to Road: 100 m

Road Type: ☒ Paved _____ Gravel _____ Dirt

Pool Permanency:

_____ Temporary _____ Permanent ☒ Semi-permanent _____ Unknown

_____ Refuge use only

☒ Light Traffic (< 10 cars)

_____ Heavy Traffic (> 10 cars)

Pool Type:

_____ Natural

_____ Beaver Created

☒ Artificial/Human-altered

_____ Gravel Pit

_____ Impoundment

☒ Roadside Ditch

_____ Other

_____ Farm Pond

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 15 Obs 2 _____ # *Ambystoma maculatum* egg masses: Obs 1 _____ Obs 2 _____

(Wood Frog)

(Spotted Salamander)

Comments:

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # UP45A (LOTT FARM) Photo _____

Date (mm/dd/yy): 4/5/10 Observer 1 K. MITKONSKI Observer 2 M. TALMAOBE

Latitude N41° 17' 07.9" Longitude W074° 32' 41.1"

Water temp 57° Air temp 77° pH _____ Sky code 1 Wind code 4 Prev. day precip? Yes ☒ No

Time Begin 2:00 Time End 2:21

Pool Max Width 13 m Max Length 28 m Max Depth 65 cm Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 1 3 1 5

Canopy Cover > 50% ☒ < 50%

Land Cover (within 50 m of pool, add to 100%)

 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

 Softwood (< 75% deciduous)

90 % Agriculture/meadow/pasture

 % Residential: urban/suburban

 % Industrial

Distance to forest: 100 m

Distance to Road: 250 m

Road Type: ☒ Paved Gravel Dirt

Pool Permanency:

 Temporary ☒ Permanent Semi-permanent Unknown

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 Obs 2 # *Ambystoma maculatum* egg masses: Obs 1 Obs 2

(Wood Frog)

(Spotted Salamander)

Comments: MANY BULLFROG TAPOLES PRESENT

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # W15A - Lower Monmouth

Photo _____

Date (mm/dd/yy): 4/5/10

Observer 1 K. WITKOWSKI

Observer 2 M. ALYADGE

Latitude N41° 13' 51.8"

Longitude W074° 34' 05.2"

Water temp _____ Air temp 80.7 pH _____ Sky code 1 Wind code 3 Prev. day precip? _____ Yes ☒ No

Time Begin 2:35 Time End 2:53

Pool Max Width 25 ^{56 total} m Max Length 56 m Max Depth 25 cm

Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): — 1 10 1 5

☐ Refuge use only

☐ Light Traffic (< 10 cars)

Canopy Cover ☒ > 50% ☐ < 50%

☒ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

70 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

☐ Softwood (< 75% deciduous)

30 % Agriculture/meadow/pasture

☐ % Residential: urban/suburban

☐ % Industrial

Pool Type:

☐ Natural

☐ Beaver Created

☒ Artificial/Human-altered

☐ Gravel Pit

☐ Impoundment

☐ Roadside Ditch

☐ Other

☒ Farm Pond/DITCH

Distance to forest: 0 m

Distance to Road: 300 m

Road Type: ☒ Paved ☐ Gravel ☐ Dirt

Pool Permanency:

☒ Temporary ☐ Permanent ☐ Semi-permanent ☐ Unknown

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 10

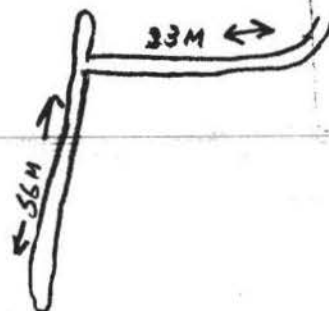
Obs 2 _____

Ambystoma maculatum egg masses: Obs 1 68 Obs 2 _____

(Wood Frog)

(Spotted Salamander)

Comments:



Rana sylvatica egg masses: 1 + 27

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # VP41 I-3

Photo _____

Date (mm/dd/yy): 4/6/2010 Observer 1 KN Observer 2 _____

Time Begin 2:25 Time End 2:44

Water temp 66° Air temp 84° pH 6.07 Sky code 0 Wind code 2 Prev. day precip? Yes ☒ No

Latitude N41°14'41.0" Longitude W074°32'59.5"

Pool Max Width 16 m Max Length 29 m Max Depth 25 cm ☒ Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 5% / 60% / 15%

Canopy Cover _____ > 50% ☒ < 50%

Refuge use only
☒ Light Traffic (< 10 cars)
_____ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

☒ % Forest (check appropriate type)
☐ Hardwood (> 75% deciduous)
☐ Softwood (< 75% deciduous)
☒ % Agriculture/meadow/pasture
☐ % Residential: urban/suburban
☐ % Industrial

Pool Type:

☒ Natural
_____ Beaver Created
_____ Artificial/Human-altered
_____ Gravel Pit _____ Impoundment
_____ Roadside Ditch _____ Other
_____ Farm Pond

Distance to Forest: 250 m Distance to Road: 90 m

Road Type: ☒ Paved _____ Gravel _____ Dirt

Pool Permanency:

☒ Temporary _____ Permanent _____ Semi-permanent _____ Unknown

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 10 Obs 2 _____
(Wood Frog)

Ambystoma maculatum egg masses: Obs 1 _____ Obs 2 _____
(Spotted Salamander)

Comments: 1,000 + free swimming tadpoles. 2 SNAPPING TURTLES IN POOL
multiple strings of american toad eggs.

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # UP41 I-1

Photo _____

Date (mm/dd/yy): 4/6/10

Observer 1 MT

Observer 2 _____

Time Begin 2:00 Time End 2:20

Water temp 62.6 Air temp 84.3 pH 5.59 Sky code 2 Wind code 2 Prev. day precip? Yes ☒ No

Latitude N41°14'39.7"

Longitude W074°32'56.2"

Pool Max Width 30 m Max Length 40 m Max Depth 27 cm

Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 0% 40% 5-10%

Canopy Cover - > 50% ☒ < 50%

☐ Refuge use only
☒ Light Traffic (< 10 cars)
☐ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

20 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

☐ Softwood (< 75% deciduous)

50 % Agriculture/meadow/pasture

☐ % Residential: urban/suburban

☐ % Industrial

Pool Type:

☒ Natural

☐ Beaver Created

☐ Artificial/Human-altered

☐ Gravel Pit

☐ Impoundment

☐ Roadside Ditch

☐ Other

☐ Farm Pond

Distance to Forest: 0 m Distance to Road: 55 m

Road Type: ☒ Paved ☐ Gravel ☐ Dirt

Pool Permanency:

☒ Temporary ☐ Permanent ☐ Semi-permanent ☐ Unknown

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 41 Obs 2 _____
(Wood Frog)

Ambystoma maculatum egg masses: Obs 1 _____ Obs 2 _____
(Spotted Salamander)

Comments:

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool #

^{UP}
1B (JUDGE BEACH RD.)

Photo

Date (mm/dd/yy):

4/7/10

Observer 1

KN

Observer 2

MT

Time Begin

12:00

Time End

12:20

Water temp

64°

Air temp

91.5

pH

Sky code

1

Wind code

2

Prev. day precip?

✓

Yes

No

Latitude

N41°12'17.0"

Longitude

W074°35'11.0"

Pool Max Width

3

m

Max Length

87

m

Max Depth

32

cm

Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub):

0 125 1 10

Canopy Cover

X

> 50%

< 50%

Refuge use only

✓ Light Traffic (< 10 cars)

Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

80

% Forest (check appropriate type)

✓ Hardwood (> 75% deciduous)

Softwood (< 75% deciduous)

20 % Agriculture/meadow/pasture

% Residential: urban/suburban

% Industrial

Pool Type:

✓ Natural

Beaver Created

✓ Artificial/Human-altered

Gravel Pit

Impoundment

✓ Roadside Ditch

Other

Farm Pond

Distance to Forest:

0

m

Distance to Road:

330

m

Road Type:

✓

Paved

Gravel

Dirt

Pool Permanency:

✓ Temporary

Permanent

Semi-permanent

Unknown

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1

Obs 2

(Wood Frog)

Ambystoma maculatum egg masses: Obs 1

2

Obs 2

(Spotted Salamander)

Comments:

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # 1C (JUDGE BEACH RD.) Photo _____

Date (mm/dd/yy): 4/7/10 Observer 1 Ken Witkowski Observer 2 Michele Talmadge

Time Begin 11:15 Time End 11:30

Water temp 65.5 Air temp 86.0 pH _____ Sky code 1 Wind code 1 Prev. day precip? ☒ Yes _____ No

Latitude N41° 12' 17.8" Longitude N074° 35' 07.7"

Pool Max Width 14 m Max Length 24 m Max Depth 31 cm Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 25/30/1-

Canopy Cover _____ > 50% ☒ < 50%

Refuge use only
☒ Light Traffic (< 10 cars)
_____ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

70 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

_____ Softwood (< 75% deciduous)

30 % Agriculture/meadow/pasture

_____ % Residential: urban/suburban

_____ % Industrial

Pool Type:

☒ Natural

_____ Beaver Created

_____ Artificial/Human-altered

_____ Gravel Pit

_____ Impoundment

_____ Roadside Ditch

_____ Other

_____ Farm Pond

Distance to Forest: 0 m Distance to Road: 300 m

Pool Permanency:

☒ Temporary _____ Permanent _____ Semi-permanent _____ Unknown

Road Type: ☒ Paved _____ Gravel _____ Dirt

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 8 Obs 2 _____
(Wood Frog) 6

Ambystoma maculatum egg masses: Obs 1 2 Obs 2 _____
(Spotted Salamander) 11

Comments: Hatched tadpoles on masses, not free-swimming

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # UP 19A

Photo _____

Date (mm/dd/yy): 4/8/10

Observer 1 KW

Observer 2 _____

Time Begin 9:30 Time End 9:40

Water temp 61° Air temp 63° pH _____ Sky code 2 Wind code 1 Prev. day precip? ☒ Yes _____ No

Latitude N41°12'16.6" Longitude W074°34'09.0"

Pool Max Width 4 m Max Length 7 m Max Depth 18 cm Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 1301-

Canopy Cover _____ > 50% ☒ < 50%

____ Refuge use only
____ Light Traffic (< 10 cars)
☒ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

25 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

____ Softwood (< 75% deciduous)

75 % Agriculture/meadow/pasture

____ % Residential: urban/suburban

____ % Industrial

Pool Type:

☒ Natural

____ Beaver Created

____ Artificial/Human-altered

____ Gravel Pit

____ Impoundment

____ Roadside Ditch

____ Other

____ Farm Pond

Distance to Forest: 0 m Distance to Road: 575 m

Road Type: ☒ Paved _____ Gravel _____ Dirt

Pool Permanency:

☒ Temporary _____ Permanent _____ Semi-permanent _____ Unknown

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 _____ Obs 2 _____
(Wood Frog)

Ambystoma maculatum egg masses: Obs 1 _____ Obs 2 _____
(Spotted Salamander)

Comments: NO EGG MASSES IN TADPOLE
CATISFLY LARVA PRESENT

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # UP2712

Photo _____

Date (mm/dd/yy): 4/12/10

Observer 1 HN

Observer 2 MT

Latitude N41°12'52.4"

Longitude W074°33'48.2"

Water temp 77° Air temp 67° pH _____ Sky code 0 Wind code 2 Prev. day precip? Yes ☒ No

Time Begin 9:30 Time End 9:42

Pool Max Width 16 m Max Length 44 m Max Depth 10 cm Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 5 1 5 1 30

Canopy Cover ☒ > 50% ☐ < 50%

☐ Refuge use only
☐ Light Traffic (< 10 cars)
☒ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

25 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

☐ Softwood (< 75% deciduous)

8 % Agriculture/meadow/pasture

☐ % Residential: urban/suburban

☐ % Industrial

Pool Type:

☒ Natural

☐ Beaver Created

☐ Artificial/Human-altered

☐ Gravel Pit

☐ Impoundment

☐ Roadside Ditch

☐ Other

☐ Farm Pond

Distance to forest: 25 m

Distance to Road: 630 m

Road Type: ☒ Paved ☐ Gravel ☐ Dirt

Pool Permanency:

☒ Temporary ☐ Permanent ☐ Semi-permanent ☐ Unknown

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 _____ Obs 2 _____ # *Ambystoma maculatum* egg masses: Obs 1 _____ Obs 2 _____
(Wood Frog) (Spotted Salamander)

Comments: PROBABLE WOOD FROG TADPOLES PRESENT 50+

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # UP2812

Photo _____

Date (mm/dd/yy): 4/12/10

Observer 1 K. NITKOWSKI

Observer 2 M. TALMADGE

Time Begin 10:00AM Time End 10:40AM

Water temp 62.2° Air temp 67° pH _____ Sky code 0 Wind code 2 Prev. day precip? Yes ☒ No

Latitude N41° 12' 51.6" Longitude W074° 33' 42.6"

Pool Max Width 100 m Max Length 150 m Max Depth 42 cm Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 10 / 25 / 25

Canopy Cover ☒ > 50% _____ < 50%

_____ Refuge use only
_____ Light Traffic (< 10 cars)
☒ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

100 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

_____ Softwood (< 75% deciduous)

_____ % Agriculture/meadow/pasture

_____ % Residential: urban/suburban

_____ % Industrial

Pool Type:

☒ Natural

_____ Beaver Created

_____ Artificial/Human-altered

_____ Gravel Pit

_____ Impoundment

_____ Roadside Ditch

_____ Other

_____ Farm Pond

Distance to Forest: 0 m Distance to Road: 500 m

Pool Permanency:

☒ Temporary _____ Permanent _____ Semi-permanent _____ Unknown

Road Type: ☒ Paved _____ Gravel _____ Dirt

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 _____ Obs 2 _____
(Wood Frog)

Ambystoma maculatum egg masses: Obs 1 5 Obs 2 _____
(Spotted Salamander)

Comments: 10,000+ LF TADPOLES

THIS IS AN EXTENSIVE WOODED WETLAND - MEASUREMENTS ARE ESTIMATED

Long-term Vernal Pool Monitoring Data Sheet

(S/B VP 27 I 1) - GIS MAP INCORRECT

Wallkill River NWR

Pool # VP 27 I 3

Photo _____

Date (mm/dd/yy): 4/12/10

Observer 1 KN

Observer 2 MT

Latitude N 41° 12' 53.5"

Longitude W 074° 33' 49.3"

Water temp 72° Air temp 67° pH _____ Sky code 0 Wind code 2 Prev. day precip? Yes ☒ No

Time Begin 9:44 Time End 10:05

Pool Max Width 17 m Max Length 22 m Max Depth 22 cm Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 25 / 10 / 1

Canopy Cover _____ > 50% ☒ < 50%

_____ Refuge use only
_____ Light Traffic (< 10 cars)
☒ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

25 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

_____ Softwood (< 75% deciduous)

25 % Agriculture/meadow/pasture

_____ % Residential: urban/suburban

_____ % Industrial

Pool Type:

☒ Natural

_____ Beaver Created

_____ Artificial/Human-altered

_____ Gravel Pit

_____ Impoundment

_____ Roadside Ditch

_____ Other

_____ Farm Pond

Distance to forest: 10 m

Distance to Road: 650 m

Road Type: ☒ Paved _____ Gravel _____ Dirt

Pool Permanency:

☒ Temporary _____ Permanent _____ Semi-permanent _____ Unknown

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 _____ Obs 2 _____ # *Ambystoma maculatum* egg masses: Obs 1 _____ Obs 2 _____
(Wood Frog) (Spotted Salamander)

Comments: MANY PROBABLE WF TAPOLES 500+

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # UP47E

Photo _____

Date (mm/dd/yy): 4/14/10

Observer 1 KN

Observer 2 MT

Latitude N41°16'04.3"

Longitude W074°32'35.0"

Water temp 50.4° Air temp 58° pH _____ Sky code 0 Wind code 1 Prev. day precip? Yes ☒ No

Time Begin 2:45 Time End 3:05

Pool Max Width 10 m Max Length 22 m Max Depth 22 m

Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 1/0 1/0

☒ Refuge use only
☐ Light Traffic (< 10 cars)
☐ Heavy Traffic (> 10 cars)

Canopy Cover ☒ > 50% ☐ < 50%

Land Cover (within 50 m of pool, add to 100%)

100 % Forest (check appropriate type)
☒ Hardwood (> 75% deciduous)
☐ Softwood (< 75% deciduous)
☐ % Agriculture/meadow/pasture
☐ % Residential: urban/suburban
☐ % Industrial

Pool Type:

☒ Natural
☐ Beaver Created
☐ Artificial/Human-altered
☐ Gravel Pit ☐ Impoundment
☐ Roadside Ditch ☐ Other
☐ Farm Pond

Distance to forest: 0 m

Distance to Road: 1MI m

Road Type: ☐ Paved ☐ Gravel ☒ Dirt

Pool Permanency:

☒ Temporary ☐ Permanent ☐ Semi-permanent ☐ Unknown

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 _____ Obs 2 _____ # *Ambystoma maculatum* egg masses: Obs 1 _____ Obs 2 _____
 (Wood Frog) (Spotted Salamander)

Comments: NO APPARENT EGGS OR TADPOLES

IT IS LIKELY THAT THIS WET AREA WAS ORIGINALLY PART OF A WETLAND WHICH WAS AN EXTENSIVE WOODED WETLAND IN THE PAST.

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # UP 31 I 2

Photo _____

Date (mm/dd/yy): 4/14/10

Observer 1 HN

Observer 2 _____

Time Begin 3:40 PM Time End 3:50 PM

Water temp 57 Air temp 69 pH _____ Sky code 0 Wind code 0 Prev. day precip? _____ Yes ☒ No

Latitude N 41° 15' 14.6" Longitude W 074° 33' 34.2"

Pool Max Width 3.5 m Max Length 7 m Max Depth 26 cm Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): — 1 — 1 —

Canopy Cover _____ > 50% ☒ < 50%

_____ Refuge use only
_____ Light Traffic (< 10 cars)
☒ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

100 % Forest (check appropriate type)
☒ Hardwood (> 75% deciduous)
_____ Softwood (< 75% deciduous)
_____ % Agriculture/meadow/pasture
_____ % Residential: urban/suburban
_____ % Industrial

Pool Type:

_____ Natural
_____ Beaver Created
☒ Artificial/Human-altered
_____ Gravel Pit
_____ Roadside Ditch ☒ Impoundment
_____ Farm Pond ☒ Other TRACTOR RUT

Distance to Forest: 0 m Distance to Road: 400 m

Pool Permanency:

_____ Temporary _____ Permanent _____ Semi-permanent _____ Unknown

Road Type: ☒ Paved _____ Gravel _____ Dirt

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 _____ Obs 2 _____
(Wood Frog)

Ambystoma maculatum egg masses: Obs 1 _____ Obs 2 _____
(Spotted Salamander)

Comments: ONLY BULLHEAD TROPOLES PRESENT

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # WOTUP-3

Photo _____

Date (mm/dd/yy): 4/16/10

Observer 1 KN

Observer 2 _____

Time Begin 9:45AM Time End 10:15AM

Water temp 52° Air temp 55° pH _____ Sky code 1 Wind code 1 Prev. day precip? _____ Yes X No

Latitude N41° 10' 27.8" Longitude W074° 34' 59.8"

Pool Max Width 3 m Max Length 100 m Max Depth 36 cm Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 110 125

Canopy Cover X > 50% _____ < 50%

_____ Refuge use only
_____ Light Traffic (< 10 cars)
X Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

0 % Forest (check appropriate type)

X Hardwood (> 75% deciduous)

_____ Softwood (< 75% deciduous)

25 % Agriculture/meadow/pasture

_____ % Residential: urban/suburban

_____ % Industrial

Pool Type:

_____ Natural

_____ Beaver Created

_____ Artificial/Human-altered

_____ Gravel Pit

X Roadside Ditch

_____ Farm Pond

_____ Impoundment

_____ Other

RAILROAD DITCH

Distance to Forest: 0 m Distance to Road: 400 m

Pool Permanency:

X Temporary _____ Permanent _____ Semi-permanent _____ Unknown

Road Type: X Paved _____ Gravel _____ Dirt

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 _____ Obs 2 _____
(Wood Frog)

Ambystoma maculatum egg masses: Obs 1 _____ Obs 2 _____
(Spotted Salamander)

Comments: NO EGGS - THIS AREA WAS COMPLETELY FLOODED FOR 2 WEEKS IN MARCH DURING PRIME EGG LAYING TIME.

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # UP 3421

Photo _____

Date (mm/dd/yy): 4/16/10

Observer 1 KN

Observer 2 _____

Time Begin 1:20 PM Time End 1:32

Water temp _____ Air temp 70° pH _____ Sky code 1 Wind code 1 Prev. day precip? _____ Yes ☒ No

Latitude N41°14'11.8"

Longitude W074°33'09.5"

Pool Max Width _____ m Max Length _____ m Max Depth _____ cm Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): _____ / _____ / _____

Canopy Cover ☒ > 50% _____ < 50%

_____ Refuge use only
_____ Light Traffic (< 10 cars)
_____ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

☒ % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

_____ Softwood (< 75% deciduous)

_____ % Agriculture/meadow/pasture

_____ % Residential: urban/suburban

_____ % Industrial

Pool Type:

_____ Natural

_____ Beaver Created

☒ Artificial/Human-altered

☒ Gravel Pit

☒ Roadside Ditch

_____ Farm Pond

_____ Impoundment

_____ Other

RAILBED DITCH

Distance to Forest: 0 m Distance to Road: 650 m

Road Type: _____ Paved _____ Gravel _____ Dirt

Pool Permanency:

☒ Temporary _____ Permanent _____ Semi-permanent _____ Unknown

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 _____ Obs 2 _____
(Wood Frog)

Ambystoma maculatum egg masses: Obs 1 _____ Obs 2 _____
(Spotted Salamander)

Comments: NO APPARENT VP HERE - STILL PADDLES & MUDDY AREAS

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # VP 32

Photo _____

Date (mm/dd/yy): 7/19/10

Observer 1 A. N. T. KOWSKI

Observer 2 _____

Time Begin 10:35

Time End 10:50

Water temp 48° Air temp 55° pH _____ Sky code 2 Wind code 1 Prev. day precip? _____ Yes X No

Latitude N 41° 14' 57.7"

Longitude W 074° 33' 23.3"

Pool Max Width 8 m Max Length 12 m Max Depth 54 cm

Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 1/0/1

Canopy Cover _____ > 50% X < 50%

_____ Refuge use only
_____ Light Traffic (< 10 cars)
_____ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

100 % Forest (check appropriate type)

X Hardwood (> 75% deciduous)

_____ Softwood (< 75% deciduous)

_____ % Agriculture/meadow/pasture

_____ % Residential: urban/suburban

_____ % Industrial

Pool Type:

X Natural

_____ Beaver Created

_____ Artificial/Human-altered

_____ Gravel Pit

_____ Impoundment

_____ Roadside Ditch

_____ Other

_____ Farm Pond

Distance to Forest: 0 m Distance to Road: 1200 m

Pool Permanency:

X Temporary _____ Permanent _____ Semi-permanent _____ Unknown

Road Type: _____ Paved _____ Gravel _____ Dirt

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 _____ Obs 2 _____
(Wood Frog)

Ambystoma maculatum egg masses: Obs 1 _____ Obs 2 _____
(Spotted Salamander)

Comments: NO EGGS OR TADPOLES OBSERVED - DEEP DARK WATER

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # UP 32B

Photo _____

Date (mm/dd/yy): 4/19/10

Observer 1 HN

Observer 2 _____

Time Begin 10:55AM Time End 11:05AM

Water temp 48.6° Air temp 55° pH _____ Sky code 2 Wind code 1 Prev. day precip? ____ Yes ☒ No

Latitude N41° 14' 58.5" Longitude W074° 33' 23.6"

Pool Max Width 4 m Max Length 9 m Max Depth 51 cm Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 1 1.5

Canopy Cover ☒ > 50% ____ < 50%

____ Refuge use only
____ Light Traffic (< 10 cars)
____ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

100 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

____ Softwood (< 75% deciduous)

____ % Agriculture/meadow/pasture

____ % Residential: urban/suburban

____ % Industrial

Pool Type:

☒ Natural

____ Beaver Created

____ Artificial/Human-altered

____ Gravel Pit

____ Roadside Ditch

____ Farm Pond

____ Impoundment

____ Other

Distance to Forest : 0 m Distance to Road : 1200 m

Pool Permanency:

☒ Temporary ____ Permanent ____ Semi-permanent ____ Unknown

Road Type : ____ Paved ____ Gravel ____ Dirt

INITIAL VISIT :

Rana sylvatica egg masses : Obs 1 _____ Obs 2 _____
(Wood Frog)

Ambystoma maculatum egg masses : Obs 1 _____ Obs 2 _____
(Spotted Salamander)

Comments: NO EGGS OR TADPOLES DETECTED - DEEP/DARK WATER

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # VP 3A

Photo _____

Date (mm/dd/yy): 4/20/10

Observer 1 KN

Observer 2 _____

Time Begin 11:05 Time End 11:15

Water temp _____ Air temp 66° pH _____ Sky code 0 Wind code 1 Prev. day precip? Yes ☒ No

Latitude N41°11'59.2" Longitude W074°34'50.7"

Pool Max Width _____ m Max Length _____ m Max Depth _____ cm Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): _____ / _____ / _____

Canopy Cover _____ > 50% ☒ < 50%

____ Refuge use only
____ Light Traffic (< 10 cars)
☒ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

25 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

____ Softwood (< 75% deciduous)

75 % Agriculture/meadow/pasture

____ % Residential: urban/suburban

____ % Industrial

Pool Type:

☒ Natural

____ Beaver Created

____ Artificial/Human-altered

____ Gravel Pit

____ Impoundment

____ Roadside Ditch

____ Other

____ Farm Pond

Distance to Forest: 10 m Distance to Road: 670 m

Road Type: ☒ Paved _____ Gravel _____ Dirt

Pool Permanency:

☒ Temporary _____ Permanent _____ Semi-permanent _____ Unknown

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 _____ Obs 2 _____

(Wood Frog)

Ambystoma maculatum egg masses: Obs 1 _____ Obs 2 _____

(Spotted Salamander)

Comments:

POOL DRY - IN PAPAATUNG CREEK FLOOD PLAIN

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # UP 1A

Photo _____

Date (mm/dd/yy): 4/20/10

Observer 1 KN

Observer 2 MT

Time Begin 2:05PM Time End 2:20PM

Water temp 55° Air temp 71° pH _____ Sky code 1 Wind code 1 Prev. day precip? ____ Yes ☒ No

Latitude N 41° 12' 25.5" Longitude W 074° 35' 20.3"

Pool Max Width _____ m Max Length _____ m Max Depth 68 cm Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 25 / 60 / 10

☒ Refuge use only
 _____ Light Traffic (< 10 cars)
 _____ Heavy Traffic (> 10 cars)

Canopy Cover ☒ > 50% _____ < 50%

Land Cover (within 50 m of pool, add to 100%)

75 % Forest (check appropriate type)

☒ Hardwood (> 75% deciduous)

_____ Softwood (< 75% deciduous)

25 % Agriculture/meadow/pasture

_____ % Residential: urban/suburban

_____ % Industrial

Pool Type:

☒ Natural

_____ Beaver Created

_____ Artificial/Human-altered

_____ Gravel Pit

_____ Impoundment

_____ Roadside Ditch

_____ Other

_____ Farm Pond

Distance to Forest: 0 m Distance to Road: 525 m

Pool Permanency:

_____ Temporary _____ Permanent ☒ Semi-permanent _____ Unknown

Road Type: _____ Paved _____ Gravel ☒ Dirt

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 _____ Obs 2 _____

(Wood Frog)

Ambystoma maculatum egg masses: Obs 1 _____ Obs 2 _____

(Spotted Salamander)

Comments:

Long-term Vernal Pool Monitoring Data Sheet

Wallkill River NWR

Pool # UP 10

Photo _____

Date (mm/dd/yy): 4/28/10

Observer 1 HN

Observer 2 MT

Time Begin 1:35 PM Time End 2 PM

Water temp 52° Air temp 65.5° pH _____ Sky code 1 Wind code 1 Prev. day precip? Yes X No

Latitude N 41° 12' 11.4" Longitude W 074° 35' 06.4"

Pool Max Width 34 m Max Length 67 m Max Depth 66 cm Road conditions at night:

% Vegetation in pool (SAV/emergent/shrub): 25 150 110

Canopy Cover X > 50% _____ < 50%

____ Refuge use only
____ X Light Traffic (< 10 cars)
____ Heavy Traffic (> 10 cars)

Land Cover (within 50 m of pool, add to 100%)

25 % Forest (check appropriate type)

X Hardwood (> 75% deciduous)

____ Softwood (< 75% deciduous)

25 % Agriculture/meadow/pasture

____ % Residential: urban/suburban

____ % Industrial

Pool Type:

X Natural

____ Beaver Created

____ Artificial/Human-altered

____ Gravel Pit

____ Impoundment

____ Roadside Ditch

____ Other

____ Farm Pond

Distance to Forest: 0 m Distance to Road: 1200 m

Pool Permanency:

____ Temporary ____ Permanent X Semi-permanent ____ Unknown

Road Type: X Paved ____ Gravel ____ Dirt

INITIAL VISIT:

Rana sylvatica egg masses: Obs 1 _____ Obs 2 _____
(Wood Frog)

Ambystoma maculatum egg masses: Obs 1 _____ Obs 2 _____
(Spotted Salamander)

Comments: NO EGGS DETECTED - SOME LARGE (BF) TAPOKES