

LEFT/RIGHT BANK OPPOSITE

#35  
CE 523

### Stream Visual Assessment Protocol

(Modified by the Rutgers Cooperative Extension Water Resources Program, [www.water.rutgers.edu](http://www.water.rutgers.edu))

PROJECT: Pat Stover, Johannah Weinhofner

Evaluators Name Marianne Rampalla Date 9/14/07 Time 3:30

Property Owners Name (if applicable) \_\_\_\_\_

Stream Name FIRST MESHANIC Grid ID D3

Reach Location CE523

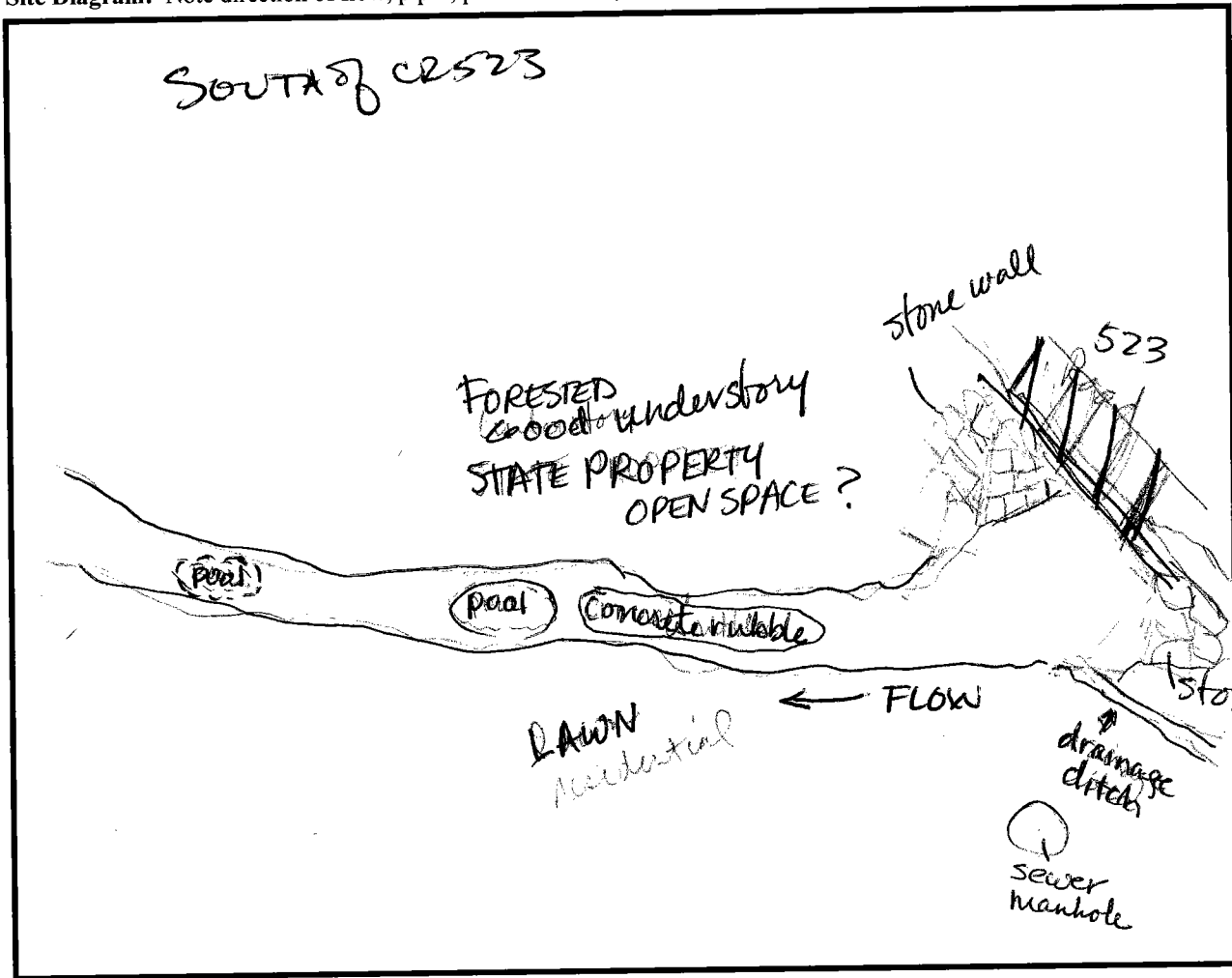
Applicable Reference Site \_\_\_\_\_

GPS Coordinates (in degrees, minutes, and seconds): \_\_\_\_\_

Weather conditions today Sunny Past 2-5 days Sunny - light rain Friday night

Active channel width 12 ft Dominant substrate (circle one): boulder cobble gravel sand silt mud

Site Diagram: Note direction of flow, pipes, photo locations, stream characteristics, stormwater infrastructure, & ditches.



- Photo Notes: 1. \_\_\_\_\_ 2. \_\_\_\_\_  
 3. \_\_\_\_\_ 4. \_\_\_\_\_  
 5. \_\_\_\_\_ 6. \_\_\_\_\_  
 7. \_\_\_\_\_ 8. \_\_\_\_\_  
 9. \_\_\_\_\_ 10. \_\_\_\_\_

MAY BE BACKWARDS

**Assessment Scores (1-Poor to 10-Excellent)**

\*\*\* (facing upstream) \*\*\*

Channel Condition 8  
 Hydrologic Alteration 8  
 (Score only if Applicable)  
 Riparian Zone Left: 2 Right: 10  
 Bank Stability Left: 6 Right: 9  
 Water Appearance 10  
 Nutrient Enrichment 10  
 Barriers to fish movement 10  
 Instream fish cover 8

Pools 7  
 Invertebrate habitat 10

**Score only if applicable**

Canopy Cover 7  
 (use Manual for guidance)  
 Manure presence NONE  
 Salinity NONE  
 Riffle embeddedness 7  
 (look in riffles)  
 Macroinvertebrates   
 Observed (optional)

Overall Score	< 6.0	Poor
(Total divided by number scored)	6.1-7.4	Fair
Left: <u>7.9</u> Right: <u>9.0</u> Average: <u>8.4</u>	7.5-8.9	Good
<u>7.9</u> <u>9.0</u>	> 9.0	Excellent

**Streamside Land Use:**

(within 100 ft. of top of bank)  
 Check all that apply:

Land Use Category	While Observed in the field	
	Left Bank	Right Bank
Forest		✓
Pasture		
Cultivated Field		
Nursery		
Residential	✓	
Commercial		
Industrial		
Other		✓ STATE OWNED OPEN SPACE?

**Outfall Pipe 1:** (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
 \_\_\_\_\_ W  
 Diameter: \_\_\_\_\_ in  
 Headwall? YES NO Double culvert? YES NO Streambank at outfall eroded? YES NO  
 Pipe Material: concrete steel PVC Clay Other  
 Location of Pipe: in stream, at top of bank, in bank, out of/ under bridge, other \_\_\_\_\_  
 Channel downstream eroded? YES NO  
 Pipe gathers water from (road, yard, farm, etc.): \_\_\_\_\_  
 Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_

**Outfall Pipe 2:** (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
 \_\_\_\_\_ W  
 Diameter: \_\_\_\_\_ in  
 Headwall? YES NO Double culvert? YES NO Streambank at outfall eroded? YES NO  
 Pipe Material: concrete steel PVC Clay Other  
 Location of Pipe: in stream, at top of bank, in bank, out of/ under bridge, other \_\_\_\_\_  
 Channel downstream eroded? YES NO  
 Pipe gathers water from (road, yard, farm, etc.): \_\_\_\_\_

Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_

-----  
**Drainage Ditch:** (Photograph # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
Width of ditch one ft \_\_\_\_\_ W  
Begins at: STORM DRAIN Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_  
Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady  
Stream channel downstream is: stable, eroded, silted Flow is: clear cloudy, oily, foamy, colored  
Ditch comes from: 523  
-----

**Drainage Ditch:** (Photograph # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
Width of ditch \_\_\_\_\_ ft \_\_\_\_\_ W  
Begins at: \_\_\_\_\_ Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_  
Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady  
Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored  
Ditch comes from: \_\_\_\_\_  
-----

**Comments & Suggestions:**

Do you have suggestions for remediation along this reach?

LEFT BANK COULD BE PLANTED WITH NATIVE  
VEGETATION - DRAINAGE DITCH NEEDS TO BE DUG OUT  
TO PREVENT FLOODING TO LAWN

Given dry weather, is there any running water in nearby stormwater structures?

Access to this site...how far off of road is it? Accessible for large equipment, if necessary?

~~ADJ~~ ADJACENT

Debris, trash, litter?

YES - CONCRETE CHUNKS + PIECE OF PIPE IN STREAM -  
Neighbor reported that during floods, lots of rubble imbeds  
in this stretch - She + her husband remove it.  
Additional comments:

Adjacent neighbor reports during heavy rains ~~the~~ stream  
overflows her lawn up to 75 feet -

CR 523

#35

### Stream Visual Assessment Protocol

(Modified by the Rutgers Cooperative Extension Water Resources Program, [www.water.rutgers.edu](http://www.water.rutgers.edu))

**PROJECT:**

Evaluators Name Craig / Nowsey Date 5 Oct 07 Time 10:00 AM

Property Owners Name (if applicable) \_\_\_\_\_

Stream Name 1st Neck Trail Grid ID \_\_\_\_\_

Reach Location CR 523

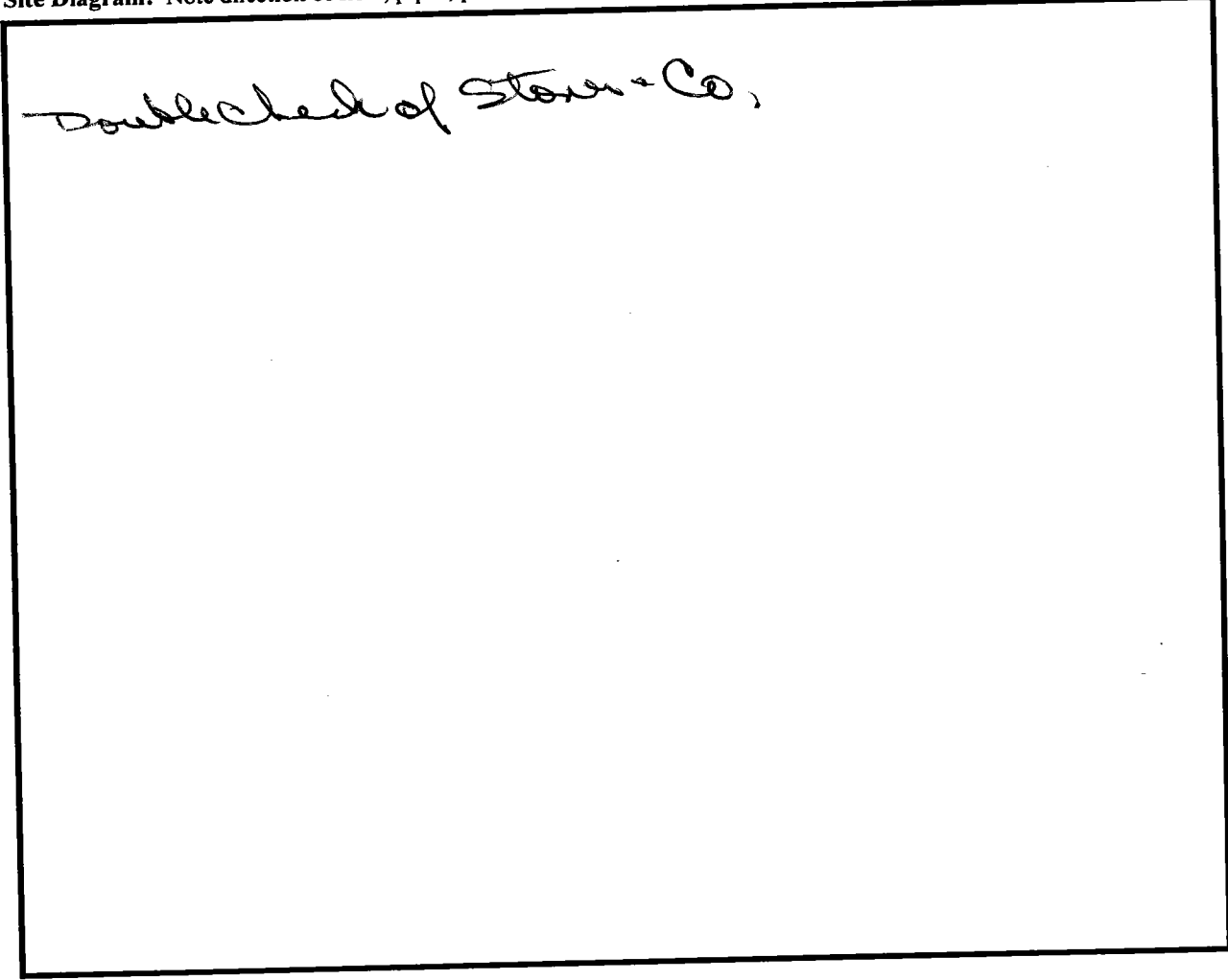
Applicable Reference Site \_\_\_\_\_

GPS Coordinates (in degrees, minutes, and seconds): \_\_\_\_\_

Weather conditions today CLOUDY, OVERCAST Past 2-5 days Dry - hot - UNSEASONABLE

Active channel width ~8 ft Dominant substrate (circle one): boulder cobble gravel sand silt mud

Site Diagram: Note direction of flow, pipes, photo locations, stream characteristics, stormwater infrastructure, & ditches.



- Photo Notes: 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_
- 6. \_\_\_\_\_
- 7. \_\_\_\_\_
- 8. \_\_\_\_\_
- 9. \_\_\_\_\_
- 10. \_\_\_\_\_

### Assessment Scores (1-Poor to 10-Excellent)

\*\*\*(facing upstream)\*\*\*

Channel Condition 6

Hydrologic Alteration (Score only if Applicable) 6

Riparian Zone Left: 9 Right: 4

Bank Stability Left: 6 Right: 7

Water Appearance 7 *Not running but water in pools clear*

Nutrient Enrichment 4

Barriers to fish movement 8

Instream fish cover 7

Pools 6

Invertebrate habitat 10

*Score only if applicable*

Canopy Cover 10  
(use Manual for guidance)

Manure presence -

Salinity -

Riffle embeddedness -  
(look in riffles)

Macroinvertebrates -

Observed (optional) -

Overall Score < 6.0 Poor  
(Total divided by number scored) 6.1-7.4 Fair  
 Left: 6.9 Right: 6.5 Average: 6.7 7.5-8.9 Good  
~~6.9~~ > 9.0 Excellent

### Streamside Land Use: (within 100 ft. of top of bank) Check all that apply:

Land Use Category	While Observed in the field	
	Left Bank	Right Bank
Forest		X
Pasture		
Cultivated Field		
Nursery		
Residential	X <i>CAWN</i>	
Commercial		
Industrial		
Other		

**Outfall Pipe 1:** (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
 Diameter: \_\_\_\_\_ in \_\_\_\_\_ W  
 Headwall? YES NO Double culvert? YES NO Streambank at outfall eroded? YES NO  
 Pipe Material: concrete steel PVC Clay Other  
 Location of Pipe: in stream, at top of bank, in bank, out of/ under bridge, other \_\_\_\_\_  
 Channel downstream eroded? YES NO  
 Pipe gathers water from (road, yard, farm, etc.): \_\_\_\_\_  
 Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_

**Outfall Pipe 2:** (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
 Diameter: \_\_\_\_\_ in \_\_\_\_\_ W  
 Headwall? YES NO Double culvert? YES NO Streambank at outfall eroded? YES NO  
 Pipe Material: concrete steel PVC Clay Other  
 Location of Pipe: in stream, at top of bank, in bank, out of/ under bridge, other \_\_\_\_\_  
 Channel downstream eroded? YES NO  
 Pipe gathers water from (road, yard, farm, etc.): \_\_\_\_\_

Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_

Drainage Ditch: (Photograph # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N

Width of ditch 3 ft \_\_\_\_\_ W

Begins at: \_\_\_\_\_ Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_

Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady

Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored

Ditch comes from: CR523

Drainage Ditch: (Photograph # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N

Width of ditch 3 ft \_\_\_\_\_ W

Begins at: \_\_\_\_\_ Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_

Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady

Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored

Ditch comes from: CR523

**Comments & Suggestions:**

Do you have suggestions for remediation along this reach?

PLANTING - LARGE BUFFER  
- CR523 PLANTED SWALE

Given dry weather, is there any running water in nearby stormwater structures?

NO STRUCTURES

Access to this site...how far off of road is it? Accessible for large equipment, if necessary?

EASY ACCESS

Debris, trash, litter?

YES

Additional comments:

LOTS OF ROAD RUNOFF BUT SITE IS IN

RELATIVELY GOOD SHAPE DESPITE IMPACTS.

BRIDGE IS FALLING... SLOWLY.

ON E SIDE OF STREAM FOR CR523

#36  
MANCHESTER RD.

**Stream Visual Assessment Protocol**  
(Modified by the Rutgers Cooperative Extension Water Resources Program, [www.water.rutgers.edu](http://www.water.rutgers.edu))

**PROJECT:**

Evaluators Name CORVAN / YOUSEY Date 28 AUG 07 Time 9:30

Property Owners Name (if applicable) ?

Stream Name ? Grid ID \_\_\_\_\_

Reach Location MANCHESTER RD. - South of Redville Rd.

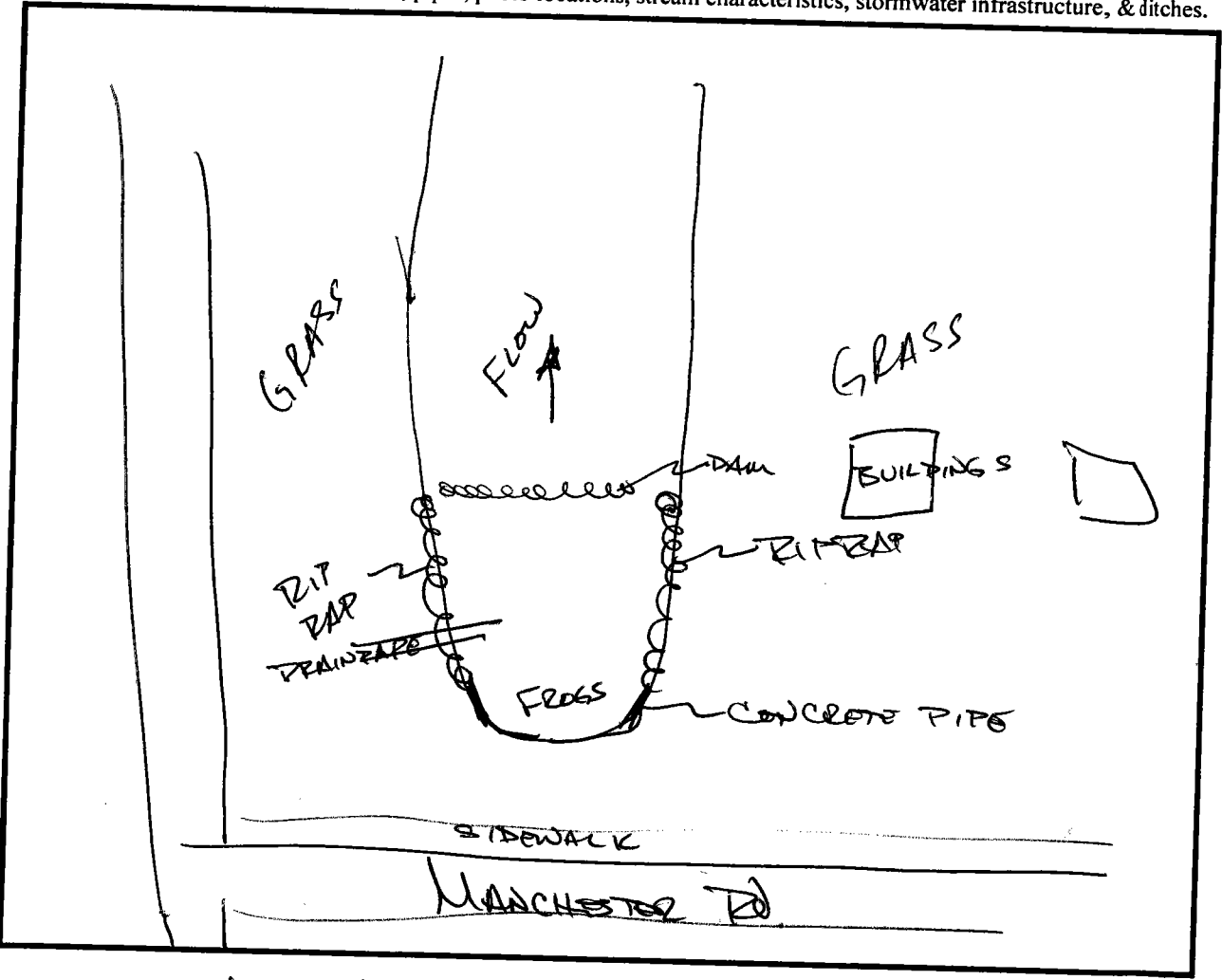
Applicable Reference Site \_\_\_\_\_

GPS Coordinates (in degrees, minutes, and seconds): \_\_\_\_\_

Weather conditions today \_\_\_\_\_ Past 2-5 days RAIN on SATURDAY + TUES.

Active channel width 20 ft Dominant substrate (circle one): boulder cobble gravel sand silt mud

Site Diagram: Note direction of flow, pipes, photo locations, stream characteristics, stormwater infrastructure, & ditches.



- Photo Notes:
1. North of Manchester Rd
  2. South of Man. Rd. - DS
  3. DRAIN PIPE
  4. OUT LET
  5. STORM DRAIN on Manchester
  6. \_\_\_\_\_
  7. \_\_\_\_\_
  8. \_\_\_\_\_
  9. \_\_\_\_\_
  10. \_\_\_\_\_

18.5  
26  
17.9

2.20  
2.40

20th Street  
#1 Manchester Rd. KIRKAP  
- DAM GATES

# Assessment Scores (1-Poor to 10-Excellent)

\*\*\* (facing upstream) \*\*\*

Channel Condition  1

Hydrologic Alteration (Score only if Applicable)  1

Riparian Zone Left:  1 Right:  1

Bank Stability Left:  7 Right:  7

Water Appearance  1

Nutrient Enrichment  1

Barriers to fish movement  1

Instream fish cover  1

Pools  1

Invertebrate habitat  1

*Score only if applicable*

Canopy Cover (use Manual for guidance)  1

Manure presence  —

Salinity  —

Riffle embeddedness (look in riffles)  ~~1~~

Macroinvertebrates Observed (optional)  —

~~1~~ TREE

NO RIFFLES

SW STRUCTURE - No real flow

Overall Score 11

(Total divided by number scored)

Left: 1.5 Right: 1.5 Average: 1.5

17 17

< 6.0	Poor
6.1-7.4	Fair
7.5-8.9	Good
> 9.0	Excellent

GPS #  
ENDY Road

1 DRAGONFLY  
1 BUTTERFLY

## Streamside Land Use:

(within 100 ft. of top of bank)  
Check all that apply:

Land Use Category	While Observed in the field	
	Left Bank	Right Bank
Forest		
Pasture		
Cultivated Field		
Nursery		
Residential	100%	100%
Commercial		
Industrial		
Other		

Outfall Pipe 1: (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N

Diameter: 4 in \_\_\_\_\_ W

Headwall? YES NO Double culvert? YES NO Streambank at outfall eroded? YES NO

Pipe Material: concrete steel PVC Clay Other

Location of Pipe: in stream, at top of bank, in bank, out of/ under bridge, other SIDE

Channel downstream eroded? YES NO

Pipe gathers water from (road, yard, farm, etc.): STREET?

Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_

Outfall Pipe 2: (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N

Diameter: \_\_\_\_\_ in \_\_\_\_\_ W

Headwall? YES NO Double culvert? YES NO Streambank at outfall eroded? YES NO

Pipe Material: concrete steel PVC Clay Other

Location of Pipe: in stream, at top of bank, in bank, out of/ under bridge, other \_\_\_\_\_

Channel downstream eroded? YES NO

Pipe gathers water from (road, yard, farm, etc.): \_\_\_\_\_



Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_

-----  
**Drainage Ditch:** (Photograph #\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
Width of ditch \_\_\_\_\_ ft \_\_\_\_\_ W  
Begins at: \_\_\_\_\_ Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_  
Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady  
Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored  
Ditch comes from: \_\_\_\_\_

-----  
**Drainage Ditch:** (Photograph #\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
Width of ditch \_\_\_\_\_ ft \_\_\_\_\_ W  
Begins at: \_\_\_\_\_ Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_  
Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady  
Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored  
Ditch comes from: \_\_\_\_\_

-----  
**Comments & Suggestions:**

Do you have suggestions for remediation along this reach?

*Create more natural situation*

Given dry weather, is there any running water in nearby stormwater structures?

*No Flow*

Access to this site...how far off of road is it? Accessible for large equipment, if necessary?

*Yes*

Debris, trash, litter?

*No*

Additional comments:

*Mosquito Breeding Ground*

# 36

MANCHESTER RD.

DID NOT RATE

### Stream Visual Assessment Protocol

(Modified by the Rutgers Cooperative Extension Water Resources Program, [www.water.rutgers.edu](http://www.water.rutgers.edu))

**PROJECT:**

Evaluators Name Pat Stover Johannah Weinkopfer Date 9/30/07 Time 5 pm

Property Owners Name (if applicable) Flemington Estates South

Stream Name FIRST MESHANIC Grid ID D4

Reach Location REACH IS ESSENTIALLY A STORMWATER STRUCTURE

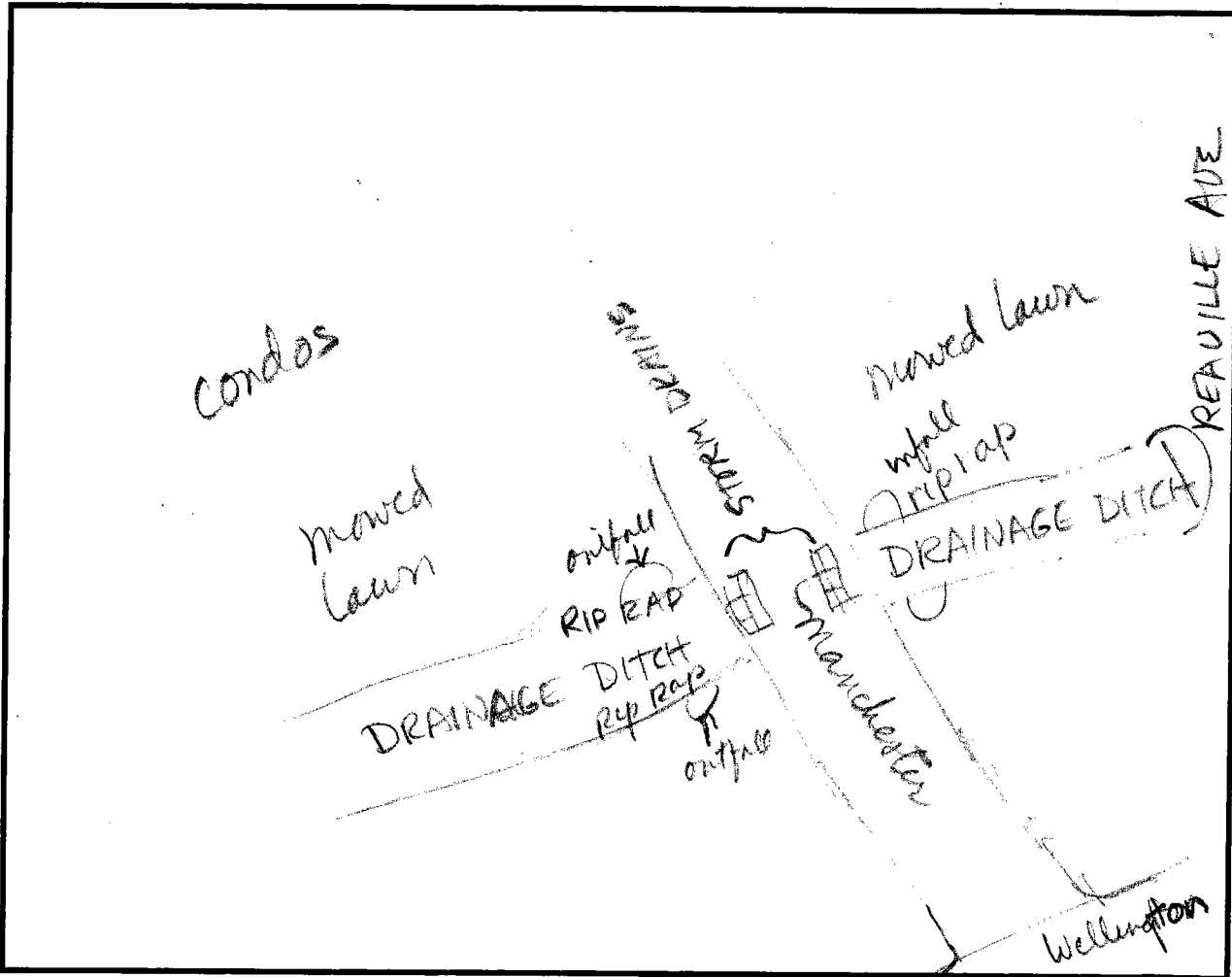
Applicable Reference Site MANCHESTER RD.

GPS Coordinates (in degrees, minutes, and seconds): \_\_\_\_\_

Weather conditions today Sunny Past 2-5 days Sunny

Active channel width 3 ft Dominant substrate (circle one): boulder cobble gravel sand silt mud grass

Site Diagram: Note direction of flow, pipes, photo locations, stream characteristics, stormwater infrastructure, & ditches.



- Photo Notes: 1. \_\_\_\_\_ 2. \_\_\_\_\_  
 3. \_\_\_\_\_ 4. \_\_\_\_\_  
 5. \_\_\_\_\_ 6. \_\_\_\_\_  
 7. \_\_\_\_\_ 8. \_\_\_\_\_  
 9. \_\_\_\_\_ 10. \_\_\_\_\_

**Assessment Scores (1-Poor to 10-Excellent)**

\*\*\*(facing upstream)\*\*\*

Channel Condition

Hydrologic Alteration   
(Score only if Applicable)

Riparian Zone Left:  Right:

Bank Stability Left:  Right:

Water Appearance

Nutrient Enrichment

Barriers to fish movement

Instream fish cover

Pools

Invertebrate habitat

**Score only if applicable**

Canopy Cover   
(use Manual for guidance)

Manure presence

Salinity

Riffle embeddedness   
(look in riffles)

Macroinvertebrates   
Observed (optional)

Overall Score	< 6.0	Poor
(Total divided by number scored)	6.1-7.4	Fair
Left: _____ Right: _____ Average: _____	7.5-8.9	Good
	> 9.0	Excellent

**Streamside Land Use:**

(within 100 ft. of top of bank)  
Check all that apply:

Land Use Category	While Observed in the field	
	Left Bank	Right Bank
Forest		
Pasture		
Cultivated Field		
Nursery		
Residential	✓	✓
Commercial		
Industrial		
Other	mowed lawn	mowed lawn

**Outfall Pipe 1:** (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N \_\_\_\_\_ W

Diameter: \_\_\_\_\_ in

Headwall? YES NO Double culvert? YES NO Streambank at outfall eroded? YES NO

Pipe Material: concrete steel PVC Clay Other

Location of Pipe: in stream, at top of bank, in bank, out of/ under bridge, other \_\_\_\_\_

Channel downstream eroded? YES NO

Pipe gathers water from (road, yard, farm, etc.): \_\_\_\_\_

Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_

**Outfall Pipe 2:** (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N \_\_\_\_\_ W

Diameter: \_\_\_\_\_ in

Headwall? YES NO Double culvert? YES NO Streambank at outfall eroded? YES NO

Pipe Material: concrete steel PVC Clay Other

Location of Pipe: in stream, at top of bank, in bank, out of/ under bridge, other \_\_\_\_\_

Channel downstream eroded? YES NO

Pipe gathers water from (road, yard, farm, etc.): \_\_\_\_\_

Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_

-----  
**Drainage Ditch:** (Photograph #\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
Width of ditch \_\_\_\_\_ ft \_\_\_\_\_ W  
Begins at: \_\_\_\_\_ Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_  
Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady  
Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored  
Ditch comes from: \_\_\_\_\_

-----  
**Drainage Ditch:** (Photograph #\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
Width of ditch \_\_\_\_\_ ft \_\_\_\_\_ W  
Begins at: \_\_\_\_\_ Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_  
Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady  
Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored  
Ditch comes from: \_\_\_\_\_

-----  
**Comments & Suggestions:**  
Do you have suggestions for remediation along this reach?

Given dry weather, is there any running water in nearby stormwater structures?

Access to this site...how far off of road is it? Accessible for large equipment, if necessary?

Debris, trash, litter?

Additional comments:

**Stream Visual Assessment Protocol**  
(Modified by the Rutgers Cooperative Extension Water Resources Program, [www.water.rutgers.edu](http://www.water.rutgers.edu))

#120

**PROJECT:**

Evaluators Name Bishop + Cameron Date 5 July 09 Time 1030

Property Owners Name (if applicable) Random Corp.

Stream Name Walnut Brook Grid ID E3

Reach Location Winn Road Brook

Applicable Reference Site \_\_\_\_\_

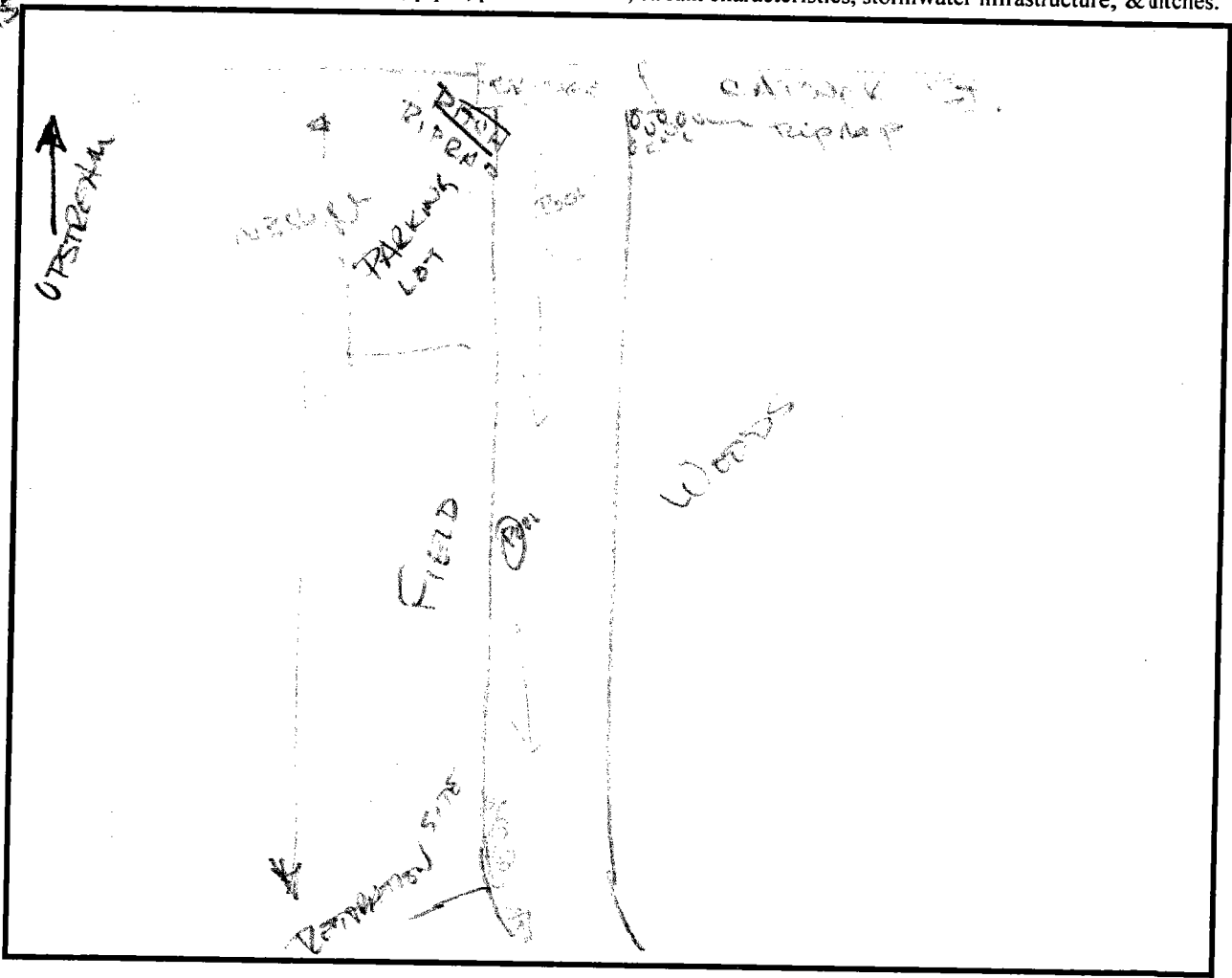
GPS Coordinates (in degrees, minutes, and seconds): \_\_\_\_\_

Weather conditions today Overcast Misty Past 2-5 days Partly Sunny

Active channel width 3.5 ft Dominant substrate (circle one): boulder cobble gravel sand silt mud

Site Diagram: Note direction of flow, pipes, photo locations, stream characteristics, stormwater infrastructure, & ditches.

1  
330  
330  
195  
115



- Photo Notes: 1. \_\_\_\_\_ 2. \_\_\_\_\_  
3. \_\_\_\_\_ 4. \_\_\_\_\_  
5. \_\_\_\_\_ 6. \_\_\_\_\_  
7. \_\_\_\_\_ 8. \_\_\_\_\_  
9. \_\_\_\_\_ 10. \_\_\_\_\_

### Assessment Scores (1-Poor to 10-Excellent)

\*\*\* (facing upstream) \*\*\*

Channel Condition *Jerry Poor* 1 *Riprap concrete walls*

Hydrologic Alteration (Score only if Applicable) 3

Riparian Zone Left: 2 Right: 7

Bank Stability Left: 2 Right: 5

Water Appearance 9

Nutrient Enrichment 6

Barriers to fish movement 9

Instream fish cover 6

Pools 3

Invertebrate habitat 10

**Score only if applicable**

Canopy Cover 6  
(use Manual for guidance)

Manure presence

Salinity

Riffle embeddedness 10  
(look in riffles)

Macroinvertebrates

Observed (optional)

Overall Score < 6.0 Poor

(Total divided by number scored) 6.1-7.4 Fair

Left: 5.6 Right: 6.2 Average: 5.9 7.5-8.9 Good

67 75 > 9.0 Excellent

### Streamside Land Use:

(within 100 ft. of top of bank)  
Check all that apply:

Land Use Category	While Observed in the field	
	Left Bank	Right Bank
Forest	X 50%	X 80%
Pasture	X 75%	
Cultivated Field		
Nursery		
Residential		X 70%
Commercial		
Industrial		
Other <i>parking lots</i>	X 20%	

**Outfall Pipe 1:** (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N \_\_\_\_\_ W

Diameter: \_\_\_\_\_ in

Headwall? YES NO      Double culvert? YES NO      Streambank at outfall eroded? YES NO

Pipe Material: concrete steel PVC Clay Other

Location of Pipe: in stream, at top of bank, in bank, out of/ under bridge, other \_\_\_\_\_

Channel downstream eroded? YES NO

Pipe gathers water from (road, yard, farm, etc.): \_\_\_\_\_

Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_

**Outfall Pipe 2:** (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N \_\_\_\_\_ W

Diameter: \_\_\_\_\_ in

Headwall? YES NO      Double culvert? YES NO      Streambank at outfall eroded? YES NO

Pipe Material: concrete steel PVC Clay Other

Location of Pipe: in stream, at top of bank, in bank, out of/ under bridge, other \_\_\_\_\_

Channel downstream eroded? YES NO

Pipe gathers water from (road, yard, farm, etc.): \_\_\_\_\_

Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_

-----  
**Drainage Ditch:** (Photograph # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
Width of ditch 6 ft \_\_\_\_\_ W  
Begins at: edge of road parking lot Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_  
Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady  
Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored  
Ditch comes from: road + parking lot  
-----

**Drainage Ditch:** (Photograph # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
Width of ditch \_\_\_\_\_ ft \_\_\_\_\_ W  
Begins at: \_\_\_\_\_ Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_  
Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady  
Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored  
Ditch comes from: \_\_\_\_\_  
-----

**Comments & Suggestions:**

Do you have suggestions for remediation along this reach?

planting + larger riparian buffer on left side

Given dry weather, is there any running water in nearby stormwater structures?

Access to this site...how far off of road is it? Accessible for large equipment, if necessary?

easy

Debris, trash, litter?

a little bit

Additional comments:

NEIGHBOR REPORTS FLOODING INTO GARAGE -

#122

# Stream Visual Assessment Protocol

(Modified by the Rutgers Cooperative Extension Water Resources Program, [www.water.rutgers.edu](http://www.water.rutgers.edu))

**PROJECT:**

Evaluators Name BISHOP + CROWAN Date 5 Jul 07 Time 0930

Property Owners Name (if applicable) ?

Stream Name WALNUT BROOK Grid ID F3

Reach Location BARTON HOLLOW

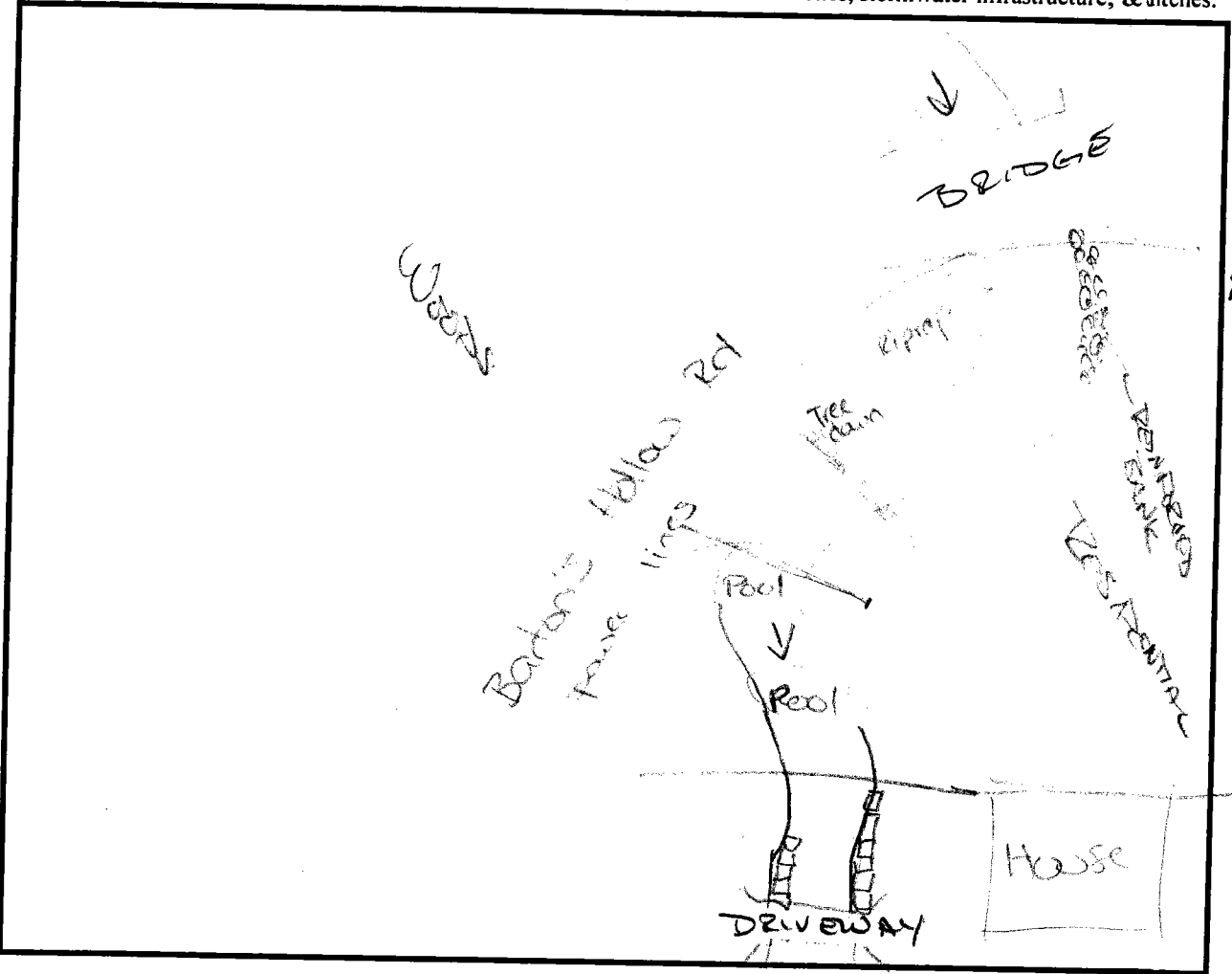
Applicable Reference Site \_\_\_\_\_

GPS Coordinates (in degrees, minutes, and seconds): \_\_\_\_\_

Weather conditions today OVERCAST, MISTY Past 2-5 days RAIN ~ 24 hrs. 3 days ago

Active channel width 14.9 ft Dominant substrate (circle one): boulder cobble gravel sand silt mud

Site Diagram: Note direction of flow, pipes, photo locations, stream characteristics, stormwater infrastructure, & ditches.



5/2/07  
30

14.2  
16.1  
14.6  
-----  
44.9  
14.9

14  
12  
-----  
26

- Photo Notes: 1. \_\_\_\_\_ 2. \_\_\_\_\_  
 3. \_\_\_\_\_ 4. \_\_\_\_\_  
 5. \_\_\_\_\_ 6. \_\_\_\_\_  
 7. \_\_\_\_\_ 8. \_\_\_\_\_  
 9. \_\_\_\_\_ 10. \_\_\_\_\_



### Assessment Scores (1-Poor to 10-Excellent)

\*\*\*(facing upstream)\*\*\*

Channel Condition 5

Hydrologic Alteration 8  
(Score only if Applicable)

Riparian Zone Left: 2 Right: 6

Bank Stability Left: 4 Right: 6

Water Appearance 8

Nutrient Enrichment 9

Barriers to fish movement 9

Instream fish cover 6

Pools 3

Invertebrate habitat 10

*Score only if applicable*

Canopy Cover 7  
(use Manual for guidance)

Manure presence /

Salinity /

Riffle embeddedness 10  
(look in riffles)

Macroinvertebrates /  
Observed (optional)

Overall Score < 6.0 Poor

(Total divided by number scored) 6.1-7.4 Fair

Left:  $\frac{6.8}{81}$  Right:  $\frac{7.2}{87}$  Average: 7.0 7.5-8.9 Good

> 9.0 Excellent

### Streamside Land Use:

(within 100 ft. of top of bank)

Check all that apply:

Land Use Category	While Observed in the field	
	Left Bank	Right Bank
Forest	X 60%	X 30%
Pasture		
Cultivated Field		
Nursery		
Residential		X 70%
Commercial		
Industrial		
Other road	X 40%	

**Outfall Pipe 1:** (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N

Diameter: \_\_\_\_\_ in \_\_\_\_\_ W

Headwall? YES NO Double culvert? YES NO Streambank at outfall eroded? YES NO

Pipe Material: concrete steel PVC Clay Other

Location of Pipe: in stream, at top of bank, in bank, out of/ under bridge, other \_\_\_\_\_

Channel downstream eroded? YES NO

Pipe gathers water from (road, yard, farm, etc.): \_\_\_\_\_

Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_

**Outfall Pipe 2:** (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N

Diameter: \_\_\_\_\_ in \_\_\_\_\_ W

Headwall? YES NO Double culvert? YES NO Streambank at outfall eroded? YES NO

Pipe Material: concrete steel PVC Clay Other

Location of Pipe: in stream, at top of bank, in bank, out of/ under bridge, other \_\_\_\_\_

Channel downstream eroded? YES NO

Pipe gathers water from (road, yard, farm, etc.): \_\_\_\_\_

Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_

-----  
**Drainage Ditch:** (Photograph #\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
Width of ditch \_\_\_\_\_ ft \_\_\_\_\_ W  
Begins at: \_\_\_\_\_ Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_  
Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady  
Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored  
Ditch comes from: \_\_\_\_\_

-----  
**Drainage Ditch:** (Photograph #\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
Width of ditch \_\_\_\_\_ ft \_\_\_\_\_ W  
Begins at: \_\_\_\_\_ Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_  
Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady  
Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored  
Ditch comes from: \_\_\_\_\_

-----  
**Comments & Suggestions:**

Do you have suggestions for remediation along this reach?

move road, planting

Given dry weather, is there any running water in nearby stormwater structures?

Access to this site...how far off of road is it? Accessible for large equipment, if necessary?

yes

Debris, trash, litter?

very little

Additional comments:

#129

DS 82106 #129

### Stream Visual Assessment Protocol

(Modified by the Rutgers Cooperative Extension Water Resources Program, [www.water.rutgers.edu](http://www.water.rutgers.edu))

**PROJECT:**

Evaluators Name CRONAN BISHOP Date July 5, 2007 Time 11:40

Property Owners Name (if applicable) ?

Stream Name FIRST NESH TRIBUTS Grid ID D3

Reach Location Medford - 129

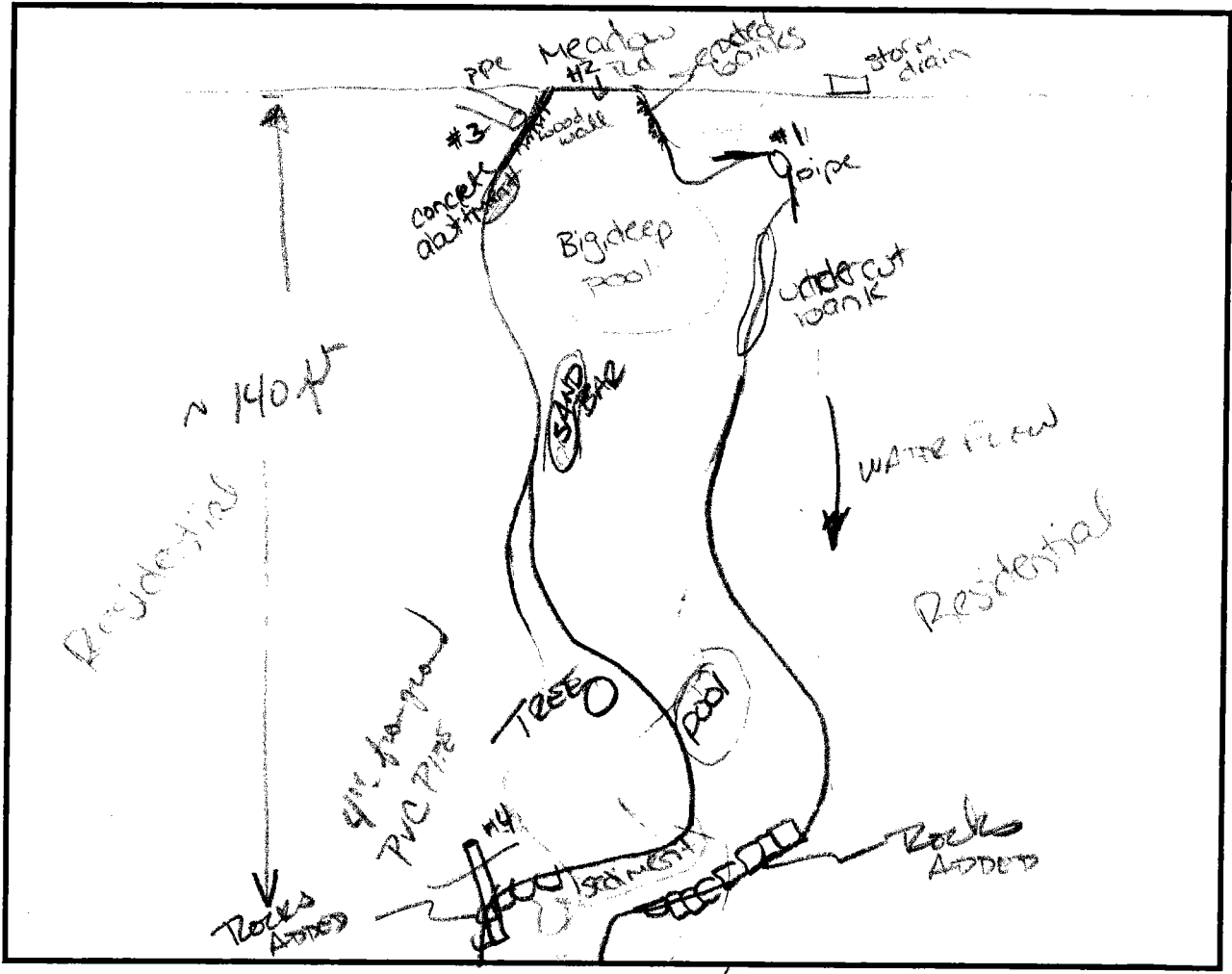
Applicable Reference Site \_\_\_\_\_

GPS Coordinates (in degrees, minutes, and seconds): \_\_\_\_\_

Weather conditions today overcast Past 2-5 days RAIN - Past 24 hrs.

Active channel width 12 ft Dominant substrate (circle one): boulder cobble gravel sand silt mud

Site Diagram: Note direction of flow, pipes, photo locations, stream characteristics, stormwater infrastructure, & ditches.



- Photo Notes: 1. \_\_\_\_\_ 2. \_\_\_\_\_  
 3. \_\_\_\_\_ 4. \_\_\_\_\_  
 5. \_\_\_\_\_ 6. \_\_\_\_\_  
 7. \_\_\_\_\_ 8. \_\_\_\_\_  
 9. \_\_\_\_\_ 10. \_\_\_\_\_

### Assessment Scores (1-Poor to 10-Excellent)

\*\*\* (facing upstream) \*\*\*

Channel Condition 3

Hydrologic Alteration (Score only if Applicable) 3

Riparian Zone Left: 2 Right: 3

Bank Stability Left: 2 Right: 2

Water Appearance 7

Nutrient Enrichment 6

Barriers to fish movement 8

Instream fish cover 10

Pools 7

Invertebrate habitat 10

**Score only if applicable**

Canopy Cover 8  
(use Manual for guidance)

Manure presence /

Salinity /

Riffle embeddedness 7  
(look in riffles)

Macroinvertebrates /

Observed (optional) /

Overall Score	< 6.0	Poor
(Total divided by number scored)	6.1-7.4	Fair
Left: <u>6.1</u> Right: <u>6.2</u> Average: <u>6.2</u>	7.5-8.9	Good
<u>73</u> <u>74</u>	> 9.0	Excellent

### Streamside Land Use:

(within 100 ft. of top of bank)  
Check all that apply:

Land Use Category	While Observed in the field	
	Left Bank	Right Bank
Forest		
Pasture		
Cultivated Field		
Nursery		
Residential	X 100%	X 100%
Commercial		
Industrial		
Other		

**Outfall Pipe 1:** (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N

Diameter: 2 ft in \_\_\_\_\_ W

Headwall?  YES  NO Double culvert? YES  NO Streambank at outfall eroded?  YES  NO

Pipe Material:  concrete steel PVC Clay Other

Location of Pipe: in stream, at top of bank,  in bank, out of/ under bridge, other \_\_\_\_\_

Channel downstream eroded?  YES  NO

Pipe gathers water from (road, yard, farm, etc.): road + residential

Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_ ?

**Outfall Pipe 2:** (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N

Diameter: 4 ft in \_\_\_\_\_ W

Headwall?  YES  NO Double culvert? YES  NO Streambank at outfall eroded?  YES  NO

Pipe Material:  concrete steel PVC Clay Other

Location of Pipe: in stream, at top of bank, in bank, out of/  under bridge, other \_\_\_\_\_

Channel downstream eroded?  YES  NO

Pipe gathers water from (road, yard, farm, etc.): upstream residential stormwater

observed heavy vegetation

Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_

#3

**Drainage Ditch:** (Photograph # \_\_\_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
 Width of ditch 6 in # corrugated plastic \_\_\_\_\_ W  
 Begins at: \_\_\_\_\_ Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_  
 Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady  
 Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored  
 Ditch comes from: \_\_\_\_\_

#4

**Drainage Ditch:** (Photograph # \_\_\_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
 Width of ditch 4 in # PVC \_\_\_\_\_ W  
 Begins at: \_\_\_\_\_ Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_  
 Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady  
 Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored  
 Ditch comes from: \_\_\_\_\_

**Comments & Suggestions:**

Do you have suggestions for remediation along this reach?

Increase riparian buffer, reduce upstream storm water flow

Given dry weather, is there any running water in nearby stormwater structures?

Access to this site...how far off of road is it? Accessible for large equipment, if necessary?

yes

Debris, trash, litter?

yes

Additional comments:

Stream floods onto lawns  
 shed & RV near stream  
 little vegetation

	#3	#4
Headwall	yes	yes
double culvert	no	no
erosion at outfall location?	yes	yes
channel downstream eroded	top of bank	top of bank
Pipe gathers water from	yes	yes
flow appearance	yard	yard
	none	none

9' wide LEFT / RIGHT BANK OPPOSITE

#129  
Meadow/CIRCLE

### Stream Visual Assessment Protocol

(Modified by the Rutgers Cooperative Extension Water Resources Program, [www.water.rutgers.edu](http://www.water.rutgers.edu))

US BRIDGE

PROJECT: Pat Stover, Johannah Weinhofer

Evaluators Name Marianne Rampalla

Date 9/14/07

Time 1:30 pm

Property Owners Name (if applicable)

Stream Name FIRST MESHANIC

Grid ID D3

Reach Location MEADOWS / CIRCLE DR

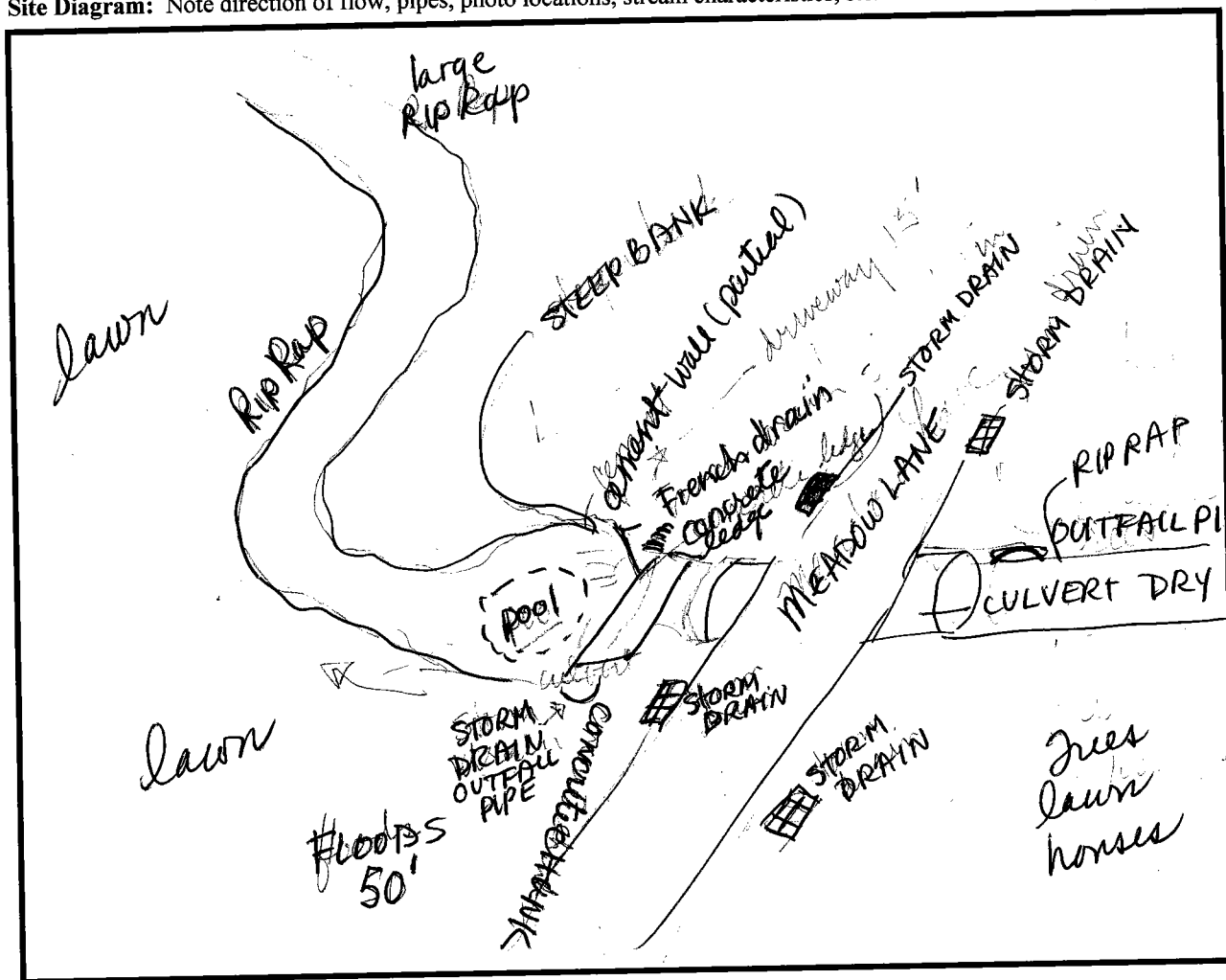
Applicable Reference Site

GPS Coordinates (in degrees, minutes, and seconds):

Weather conditions today SONNY Past 2-5 days SONNY - rain (light) Fri. night

Active channel width 9 ft Dominant substrate (circle one): boulder cobble gravel sand silt mud

Site Diagram: Note direction of flow, pipes, photo locations, stream characteristics, stormwater infrastructure, & ditches.



- Photo Notes: 1. \_\_\_\_\_ 2. \_\_\_\_\_  
 3. \_\_\_\_\_ 4. \_\_\_\_\_  
 5. \_\_\_\_\_ 6. \_\_\_\_\_  
 7. \_\_\_\_\_ 8. \_\_\_\_\_  
 9. \_\_\_\_\_ 10. \_\_\_\_\_

### Assessment Scores (1-Poor to 10-Excellent)

\*\*\* (facing upstream) \*\*\*

Channel Condition

Hydrologic Alteration   
(Score only if Applicable)

Riparian Zone Left:  Right:

Bank Stability Left:  Right:

Water Appearance

Nutrient Enrichment

Barriers to fish movement

Instream fish cover

Pools

Invertebrate habitat

**Score only if applicable**

Canopy Cover   
(use Manual for guidance)

Manure presence

Salinity

Riffle embeddedness   
(look in riffles)

Macroinvertebrates Observed (optional)

Overall Score	< 6.0	Poor
(Total divided by number scored)	6.1-7.4	Fair
Left: <u>6.7</u> Right: <u>6.4</u> Average: <u>6.6</u>	7.5-8.9	Good
<u>60</u> <u>58</u>	> 9.0	Excellent

### Streamside Land Use: (within 100 ft. of top of bank) Check all that apply:

Land Use Category	While Observed in the field	
	Left Bank	Right Bank
Forest		
Pasture		
Cultivated Field		
Nursery		
Residential	✓	✓
Commercial		
Industrial		
Other		

**Outfall Pipe 1:** (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
 Diameter: 18" in = BROKEN Left BANK \_\_\_\_\_ W  
 Headwall? YES NO Double culvert? YES NO Streambank at outfall eroded? YES NO  
 Pipe Material: concrete steel PVC Clay Other  
 Location of Pipe: in stream, at top of bank, in bank, out of/ under bridge, other \_\_\_\_\_  
 Channel downstream eroded? YES NO  
 Pipe gathers water from (road, yard, farm, etc.): STORM DRAINS  
 Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_

**Outfall Pipe 2:** (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
 Diameter: 24 in RIGHT BANK ACROSS STREET \_\_\_\_\_ W  
 Headwall? YES NO Double culvert? YES NO Streambank at outfall eroded? YES NO  
 Pipe Material: concrete steel PVC Clay Other  
 Location of Pipe: in stream, at top of bank, in bank, out of/ under bridge, other \_\_\_\_\_  
 Channel downstream eroded? YES NO  
 Pipe gathers water from (road, yard, farm, etc.): STORM DRAIN

Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_

-----  
**Drainage Ditch:** (Photograph # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
Width of ditch \_\_\_\_\_ ft \_\_\_\_\_ W  
Begins at: \_\_\_\_\_ Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_  
Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady  
Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored  
Ditch comes from: \_\_\_\_\_

-----  
**Drainage Ditch:** (Photograph # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
Width of ditch \_\_\_\_\_ ft \_\_\_\_\_ W  
Begins at: \_\_\_\_\_ Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_  
Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady  
Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored  
Ditch comes from: \_\_\_\_\_

-----  
**Comments & Suggestions:**

Do you have suggestions for remediation along this reach?

*Lawn is planted right up to stream bank. Lawn/tree debris stored near stream*

Given dry weather, is there any running water in nearby stormwater structures?

*no*

Access to this site...how far off of road is it? Accessible for large equipment, if necessary?

*adjacent*

Debris, trash, litter?

*In stream. Brush stored near stream bank*

Additional comments:

*Two neighbors to the left state that the stream floods 50 feet or more onto their lawns  
Neighbor on R' bank has shed close to stream - no vegetation - Recreational vehicle path close to stream - large rip rap downstream on Right bank*



#130

#130

### Stream Visual Assessment Protocol

(Modified by the Rutgers Cooperative Extension Water Resources Program, [www.water.rutgers.edu](http://www.water.rutgers.edu))

**PROJECT:**

Evaluators Name CRONAN + BISHOP Date July 5, 2007 Time 10:55

Property Owners Name (if applicable) \_\_\_\_\_

Stream Name First Neshanic Trib. Grid ID B3

Reach Location Meadow Rd

Applicable Reference Site \_\_\_\_\_

GPS Coordinates (in degrees, minutes, and seconds): \_\_\_\_\_

Weather conditions today overcast + misty Past 2-5 days rain in last 24 hrs.

Active channel width 8 ft Dominant substrate (circle one): boulder cobble gravel sand silt mud

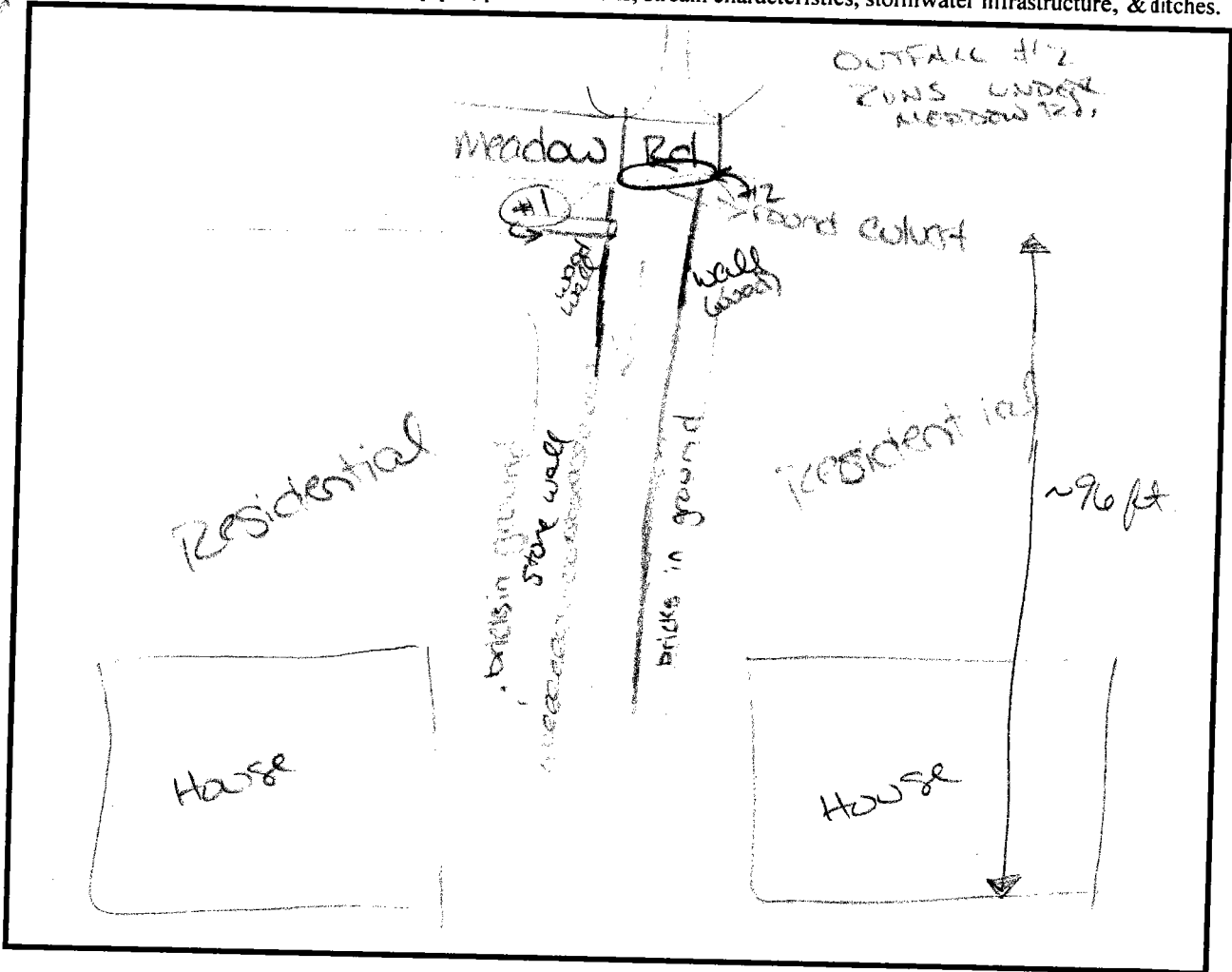
Site Diagram: Note direction of flow, pipes, photo locations, stream characteristics, stormwater infrastructure, & ditches.

27  
8.8  
11.2  
27.7

84  
96

36 Meadow rd  
Flowing

TABLET NOTE  
782-61 +



- Photo Notes: 1. \_\_\_\_\_ 2. \_\_\_\_\_  
 3. \_\_\_\_\_ 4. \_\_\_\_\_  
 5. \_\_\_\_\_ 6. \_\_\_\_\_  
 7. \_\_\_\_\_ 8. \_\_\_\_\_  
 9. \_\_\_\_\_ 10. \_\_\_\_\_

### Assessment Scores (1-Poor to 10-Excellent)

\*\*\*(facing upstream)\*\*\*

Channel Condition

Hydrologic Alteration (Score only if Applicable)

Riparian Zone Left:  Right:

Bank Stability Left:  Right:

Water Appearance

Nutrient Enrichment

Barriers to fish movement

Instream fish cover

Pools

Invertebrate habitat

*Score only if applicable*

Canopy Cover (use Manual for guidance)

Manure presence

Salinity

Riffle embeddedness (look in riffles)

Macroinvertebrates Observed (optional)

Overall Score (Total divided by number scored)

Left:  $\frac{4.2}{5}$  Right:  $\frac{3.9}{4}$  Average:  $\frac{4.0}{4.7}$

< 6.0 Poor  
 6.1-7.4 Fair  
 7.5-8.9 Good  
 > 9.0 Excellent

### Streamside Land Use:

(within 100 ft. of top of bank)  
 Check all that apply:

Land Use Category	While Observed in the field	
	Left Bank	Right Bank
Forest		
Pasture		
Cultivated Field		
Nursery		
Residential	X 100%	X 100%
Commercial		
Industrial		
Other		

Outfall Pipe 1: (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N \_\_\_\_\_ W

Diameter: 12 in

Headwall? YES NO Double culvert? YES NO Streambank at outfall eroded? YES NO

Pipe Material: concrete steel PVC Clay Other

Location of Pipe: in stream, at top of bank, in bank, out of/ under bridge, other \_\_\_\_\_

Channel downstream eroded? YES NO

Pipe gathers water from (road, yard, farm, etc.): road, residential

Flow appearance: clear turbid oily foamy colored other no flow

Outfall Pipe 2: (Photo # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N \_\_\_\_\_ W

Diameter: 6 ft

Headwall? YES NO under road Double culvert? YES NO Streambank at outfall eroded? YES NO

Pipe Material: concrete steel PVC Clay Other

Location of Pipe: in stream, at top of bank, in bank, out of/ under bridge, other \_\_\_\_\_

Channel downstream eroded? YES NO

Pipe gathers water from (road, yard, farm, etc.): upstream development

Flow appearance: clear turbid oily foamy colored other \_\_\_\_\_

-----  
**Drainage Ditch:** (Photograph # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
Width of ditch \_\_\_\_\_ ft \_\_\_\_\_ W  
Begins at: \_\_\_\_\_ Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_  
Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady  
Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored  
Ditch comes from: \_\_\_\_\_

-----  
**Drainage Ditch:** (Photograph # \_\_\_ and mark on site diagram) GPS Coordinates \_\_\_\_\_ N  
Width of ditch \_\_\_\_\_ ft \_\_\_\_\_ W  
Begins at: \_\_\_\_\_ Ditch lining: stone, vegetation, concrete, mud, other \_\_\_\_\_  
Ditch is: Stable, Eroding Ditch Flow is: none, intermittent, steady  
Stream channel downstream is: stable, eroded, silted Flow is: clear, cloudy, oily, foamy, colored  
Ditch comes from: \_\_\_\_\_

-----  
**Comments & Suggestions:**

Do you have suggestions for remediation along this reach?

Increase riparian buffer

Given dry weather, is there any running water in nearby stormwater structures?

Access to this site...how far off of road is it? Accessible for large equipment, if necessary?

yes

Debris, trash, litter?

no

Additional comments:

old stream has become stormwater ditch

NEIGHBORS INDICATE LAWNS/ROADS FLOOD DURING HEAVY RAINS