

Owasco Lake Watershed 2017 Roadside Ditch Assessment



The information included in this assessment was collected between late October and early November 2017. It reflects only a percentage of roadway ditches throughout the watershed that have been recently cleaned and have no visible management practices and/or have not been re-vegetated. The Inspection Program will continue to monitor these ditch segments for stabilization while others are being identified. Ditches that have been disturbed during 2017 and are experiencing erosion due to high water velocities and instability will also be scrutinized.

The goal of this effort is to provide awareness to each town, county, and state jurisdiction, throughout the watershed, to:

1. Ascertain the total linear mileage of exposed/eroding ditches,
2. Encourage each jurisdiction to perform good housekeeping on roadside conveyance systems, and
3. Reduce sediment and nutrient loads to Owasco Lake

Criteria for Ranking Sites

Direct

Connection or proximity to a stream

Points

10

Percent Vegetation

0-25%

15

26-50%

10

51-75%

5

76-100%

1

Level of erodibility

High

10

Moderate

5

Low

1

Bank slope

Steep Grade

10

Moderate Grade

5

Flat

1

Linear footage of ditch

≥401 ft

15

201-400 ft

10

≤200 ft

5

Total Points	Rank
	No Ditch Present/ No Action Needed
≤20	Low
21-39	Moderate
40-60	High



A Trimble GPS unit is used to map different features of the ditches, allowing for the Inspection Program to categorize the level of erodibility and risk of ditch failure

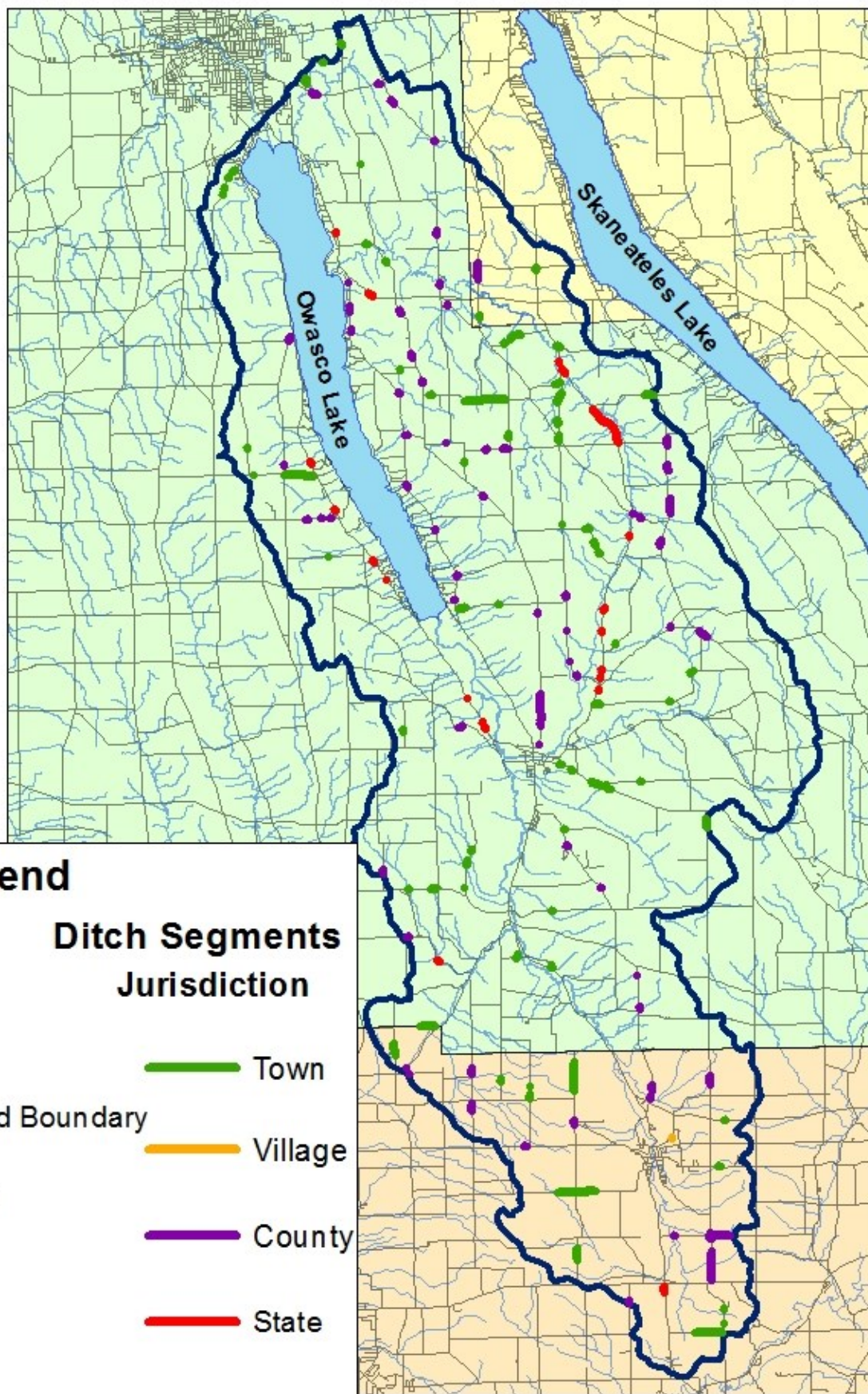
Road Ditch Assessment Sites in the Owasco Lake Watershed (Summer & Fall 2017)



Map created by
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Inspector

Owasco Lake
Watershed
Inspection Program

November 30, 2017



Legend

Ditch Segments Jurisdiction

— Roads

— Streams

— Owasco Watershed Boundary

Onondaga County

Cayuga County

Tompkins County

Town

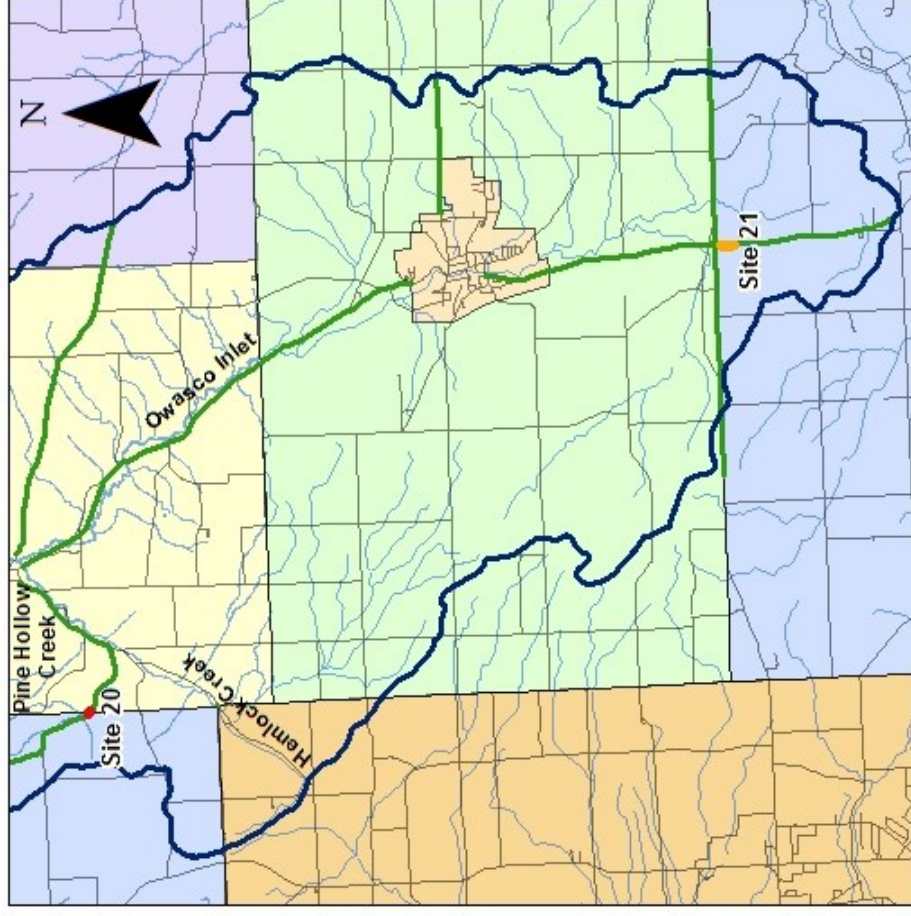
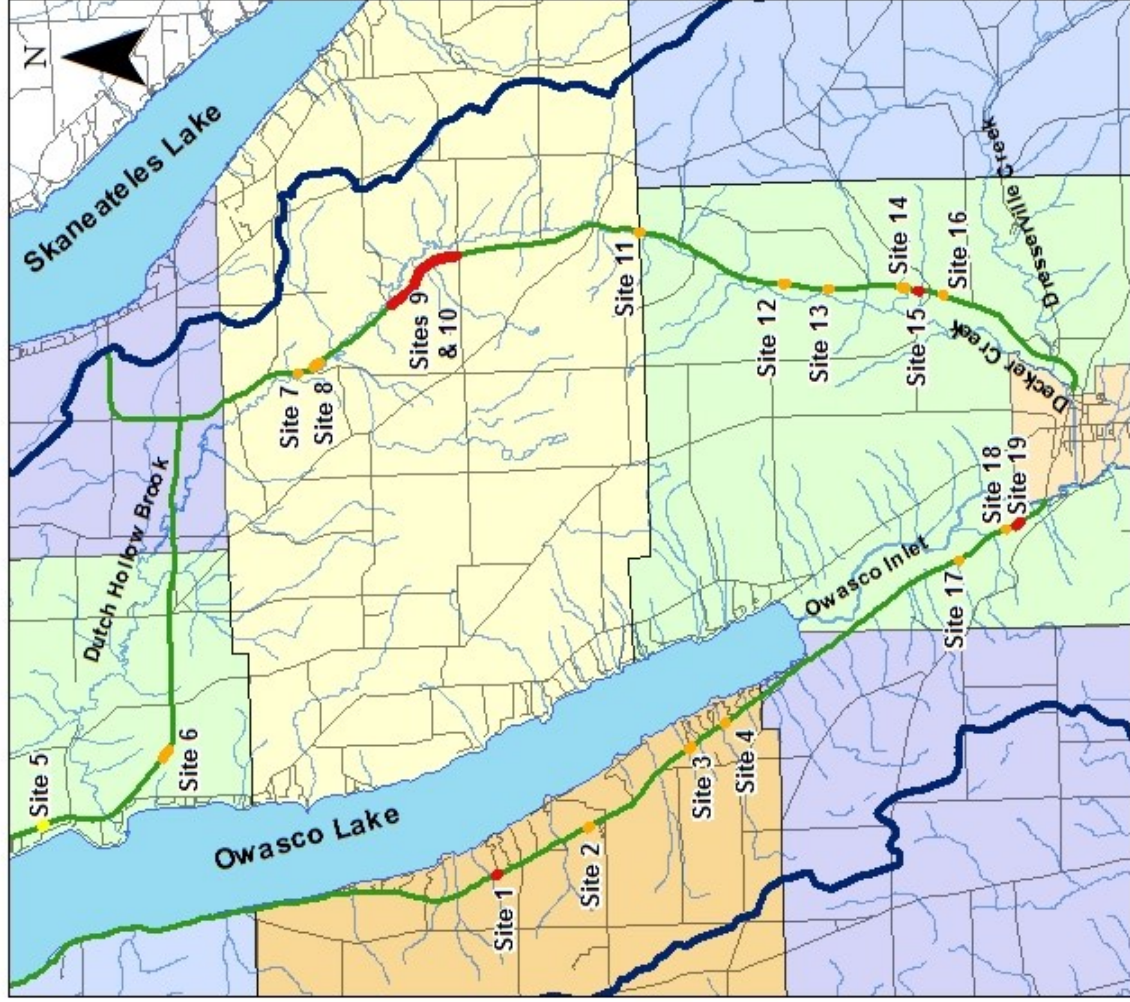
Village

County

State

0 10 Miles

Owasco Watershed State Highway Road Ditch Assessment Sites (Summer & Fall 2017)



Ditch Segments

Rank

High

Moderate

Low

No Ditch Present/No Action Needed





Map Identifier: Site 1
Sub-watershed: Unknown
Road Name: State Route 38
Town: Scipio
Road Jurisdiction: State DOT
Closest Intersection: State Route 38/Fire Lane 19
Direct connection or proximity to a stream?: Yes
Percent Vegetation & Type: 50% Grasses
Level of Erodibility: Moderate
Slope of Area: Moderate Grade
Length of Ditch: 250 ft
Management Recommended: Hydroseeding
Resolvability: Simple

Rank: High (Score = 40)
Estimated Cost: \$125



Map Identifier: Site 2
Sub-watershed: Unknown
Road Name: State Route 38
Town: Scipio
Road Jurisdiction: State DOT
Closest Intersection: State Route 38/Center Road
Direct connection or proximity to a stream?: Yes
Percent Vegetation & Type: 60% Grasses
Level of Erodibility: Moderate
Slope of Area: Moderate Grade
Length of Ditch: 250 ft
Management Recommended: Hydroseeding
Resolvability: Simple

Rank: Moderate (Score = 35)
Estimated Cost: \$125

10/31/2017



Map Identifier: Site 3

Sub-watershed: Willow Point Tributary

Road Name: State Route 38

Town: Scipio

Road Jurisdiction: State DOT

Closest Intersection: State Route 38/
Willow Point Drive

Direct connection or proximity to a stream?: Yes

Percent Vegetation & Type: 80%
Grasses

Level of Erodibility: Low

Slope of Area: Flat

Length of Ditch: 300 ft

Management Recommended:
Hydroseeding

Resolvability: Simple

Rank: Moderate (Score = 23)

Estimated Cost: \$150



10/31/2017

Map Identifier: Site 4

Sub-watershed: Edgewater Point

Road Name: State Route 38

Town: Scipio

Road Jurisdiction: State DOT

Closest Intersection: State Route 38/
Fire Lane 9

Direct connection or proximity to a stream?: Yes

Percent Vegetation & Type: 75%
Grasses

Level of Erodibility: Low

Slope of Area: Moderate Grade

Length of Ditch: 100ft

Management Recommended:
Hydroseeding

Resolvability: Simple

Rank: Moderate (Score = 26)

Estimated Cost: \$50

Comments: Hillside also eroding



Map Identifier: Site 5

Sub-watershed: Unknown

Road Name: State Route 38A

Town: Owasco

Road Jurisdiction: State DOT

Closest Intersection: State Route 38A/Waters Edge

Direct connection or proximity to a stream?: No

Percent Vegetation & Type: 75% Grasses

Level of Erodibility: Moderate

Slope of Area: Flat

Length of Ditch: 150 ft

Management Recommended: Hydroseeding

Resolvability: Simple

Rank: Low (Score = 16)

Estimated Cost: \$75

Comments: Drainage pipe in photo severely cracked



Map Identifier: Site 6

Sub-watershed: Unknown

Road Name: State Route 38A

Town: Owasco

Road Jurisdiction: State DOT

Closest Intersection: State Route 38A/Valentine Road

Direct connection or proximity to a stream?: No

Percent Vegetation & Type: 80% Grasses

Level of Erodibility: Moderate

Slope of Area: Flat

Length of Ditch: 700 ft

Management Recommended: Hydroseeding

Resolvability: Moderate

Rank: Moderate (Score = 22)

Estimated Cost: \$350



Map Identifier: Site 7

Sub-watershed: Dutch Hollow Brook

Road Name: State Route 38A

Town: Niles

Road Jurisdiction: State DOT

Closest Intersection: State Route 38A/Old State Road

Direct connection or proximity to a stream?: Yes

Percent Vegetation & Type: 75% Grasses

Level of Erodibility: Low

Slope of Area: Flat

Length of Ditch: 100ft

Management Recommended: Hydroseeding

Resolvability: Simple

Rank: Moderate (Score = 22)

Estimated Cost: \$50



Map Identifier: Site 8

Sub-watershed: Dutch Hollow Brook

Road Name: State Route 38A

Town: Niles

Road Jurisdiction: State DOT

Closest Intersection: State Route 38A/Old State Road

Direct connection or proximity to a stream?: Yes

Percent Vegetation & Type: 75% Grasses

Level of Erodibility: Moderate

Slope of Area: Flat

Length of Ditch: 550 ft

Management Recommended: Hydroseeding

Resolvability: Simple

Rank: Moderate (Score = 36)

Estimated Cost: \$275



Map Identifier: Site 9

Sub-watershed: Dutch Hollow Brook

Road Name: State Route 38A

Town: Niles

Road Jurisdiction: State DOT

Closest Intersection: State Route 38A/Cream Hollow Road

Direct connection or proximity to a stream?: Yes

Percent Vegetation & Type: 75% Grasses

Level of Erodibility: Moderate

Slope of Area: Moderate

Length of Ditch: 5,150 ft

Management Recommended: Hydroseeding

Resolvability: Simple

Rank: High (Score = 40)

Estimated Cost: \$2,575



Map Identifier: Site 10

Sub-watershed: Dutch Hollow Brook

Road Name: State Route 38A

Town: Niles

Road Jurisdiction: State DOT

Closest Intersection: State Route 38A/Cream Hollow Road

Direct connection or proximity to a stream?: Yes

Percent Vegetation & Type: 50% Grasses

Level of Erodibility: Moderate

Slope of Area: Moderate Grade

Length of Ditch: 150 ft

Management Recommended: Hydroseeding

Resolvability: Moderate

Rank: Moderate (Score = 35)

Estimated Cost: \$75

10/31/2017

**Map Identifier:** Site 11**Sub-watershed:** Decker Creek**Road Name:** State Route 38A**Town:** Niles/Moravia**Road Jurisdiction:** State DOT**Closest Intersection:** State Route 38A/Murphy Hill Road**Direct connection or proximity to a stream?:** No**Percent Vegetation & Type:**
50% Mature Trees**Level of Erodibility:** Moderate**Slope of Area:** Moderate Grade**Length of Ditch:** 150 ft**Management Recommended:**
Hydroseeding**Resolvability:** Moderate**Rank: Moderate (Score = 25)****Estimated Cost:** \$75

10/31/2017

Map Identifier: Site 12**Sub-watershed:** Decker Creek**Road Name:** State Route 38A**Town:** Moravia**Road Jurisdiction:** State DOT**Closest Intersection:** State Route 38A/Buckley Hill Road**Direct connection or proximity to a stream?:** Yes**Percent Vegetation & Type:**
60% Grasses**Level of Erodibility:** Moderate**Slope of Area:** Moderate Grade**Length of Ditch:** 300 ft**Management Recommended:**
Hydroseeding**Resolvability:** Simple**Rank: Moderate (Score = 35)****Estimated Cost:** \$150



10/31/2017

Map Identifier: Site 13

Sub-watershed: Decker Creek

Road Name: State Route 38A

Town: Moravia

Road Jurisdiction: State DOT

Closest Intersection: State Route 38A/Buckley Hill Road

Direct connection or proximity to a stream?: Yes

Percent Vegetation & Type: 60% Grasses

Level of Erodibility: Moderate

Slope of Area: Moderate Grade

Length of Ditch: 250 ft

Management Recommended: Hydroseeding

Resolvability: Simple

Rank: Moderate (Score = 35)

Estimated Cost: \$125



10/31/2017

Map Identifier: Site 14

Sub-watershed: Decker Creek

Road Name: State Route 38A

Town: Moravia

Road Jurisdiction: State DOT

Closest Intersection: State Route 38A/Sayles Corners Road

Direct connection or proximity to a stream?: Yes

Percent Vegetation & Type: 50% Grasses

Level of Erodibility: Moderate

Slope of Area: Flat

Length of Ditch: 300 ft

Management Recommended: Hydroseeding

Resolvability: Moderate

Rank: Moderate (Score = 36)

Estimated Cost: \$150

Comments: Clearing prior to hydroseeding strongly recommended



Map Identifier: Site 15

Sub-watershed: Decker Creek

Road Name: State Route 38A

Town: Moravia

Road Jurisdiction: State DOT

Closest Intersection: State Route 38A/Sayles Corners Road

Direct connection or proximity to a stream?: Yes

Percent Vegetation & Type: 25% Grasses

Level of Erodibility: Moderate

Slope of Area: Flat

Length of Ditch: 300 ft

Management Recommended: Hydroseeding

Resolvability: Simple

Rank: High (Score = 41)

Estimated Cost: \$150



Map Identifier: Site 16

Sub-watershed: Decker Creek

Road Name: State Route 38A

Town: Moravia

Road Jurisdiction: State DOT

Closest Intersection: State Route 38A/Sayles Corners Road

Direct connection or proximity to a stream?: Yes

Percent Vegetation & Type: 60% Grasses

Level of Erodibility: Moderate

Slope of Area: Moderate Grade

Length of Ditch: 150 ft

Management Recommended: Hydroseeding

Resolvability: Simple

Rank: Moderate (Score = 30)

Estimated Cost: \$75

10/31/2017

**Map Identifier:** Site 17**Sub-watershed:** Owasco Inlet**Road Name:** State Route 38**Town:** Moravia**Road Jurisdiction:** State DOT**Closest Intersection:** State Route 38/Warner Road**Direct connection or proximity to a stream?:** Yes**Percent Vegetation & Type:** 50% Grasses**Level of Erodibility:** Moderate**Slope of Area:** Flat**Length of Ditch:** 100 ft**Management Recommended:** Hydroseeding**Resolvability:** Simple**Rank:** Moderate (Score = 31)**Estimated Cost:** \$50

10/31/2017

**Map Identifier:** Site 18**Sub-watershed:** Owasco Inlet**Road Name:** State Route 38**Town:** Moravia**Road Jurisdiction:** State DOT**Closest Intersection:** State Route 38/Warner Road**Direct connection or proximity to a stream?:** Yes**Percent Vegetation & Type:** 80% Grasses**Level of Erodibility:** Moderate**Slope of Area:** Flat**Length of Ditch:** 100 ft**Management Recommended:** Hydroseeding**Resolvability:** Simple**Rank:** Moderate (Score = 22)**Estimated Cost:** \$50



Map Identifier: Site 19

Sub-watershed: Owasco Inlet

Road Name: State Route 38

Town: Moravia

Road Jurisdiction: State DOT

Closest Intersection: State Route 38/Warner Road

Direct connection or proximity to a stream?: Yes

Percent Vegetation & Type: 25% Grasses

Level of Erodibility: Moderate

Slope of Area: Flat

Length of Ditch: 350 ft

Management Recommended: Rock Armor

Resolvability: Moderate

Rank: High (Score = 41)

Estimated Cost: \$525



Map Identifier: Site 20

Sub-watershed: Pine Hollow Creek

Road Name: State Route 90

Town: Genoa

Road Jurisdiction: State DOT

Closest Intersection: State Route 90/Goose Street

Direct connection or proximity to a stream?: Yes

Percent Vegetation & Type: 5% Grasses

Level of Erodibility: Moderate

Slope of Area: Moderate Grade

Length of Ditch: 250 ft

Management Recommended: Hydroseeding

Resolvability: Moderate

Rank: High (Score = 50)

Estimated Cost: \$125

10/31/2017



Map Identifier: Site 21

Sub-watershed: Owasco Inlet

Road Name: State Route 38

Town: Dryden

Road Jurisdiction: State DOT

Closest Intersection: State Route 38/
State Route 34B

Direct connection or proximity to a stream?: No

Percent Vegetation & Type: 50%
Grasses

Level of Erodibility: Moderate

Slope of Area: Flat

Length of Ditch: 800 ft

Management Recommended:
Hydroseeding

Resolvability: Simple

Rank: Moderate (Score = 31)

Estimated Cost: \$400

Summary

Cumulative Roadside Ditch and Total Costs for State Roads
Based on Municipal Jurisdiction:

Cayuga County

Town of Scipio:
4 sites, **900 ft, \$450**

Town of Owasco:
2 sites, **850 ft, \$425**

Town of Niles:
4 sites, **5,950 ft, \$2,975**

Town of Moravia:
8 sites, **1,850 ft, \$1,275**

Town of Niles/Town of
Moravia: 1 site, **150 ft, \$75**

Town of Genoa:
1 site, **250 ft, \$125**

Tompkins County

Town of Dryden: 1 site,
800ft, \$400

**Total: 21 sites,
10,750 ft
(2.04 miles),
\$5,725**