

Oatka Creek Site Inspection 2003

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Oatka Creek Quick Facts

- approximately 58 miles in length
- headwaters of Oatka Creek are located in Wyoming County
- Oatka Creek ends in Monroe County where it joins the Genesee River
- watershed encompasses four counties

2003 Inspection

- conducted between September 30th and October 24th
- 68 sites were examined
- AVStEams geographic information systems program was utilized to display gathered information
- detailed notes were taken and entered into AVStEams
- All erosion points, stream segments and photo points were plotted using AVStEams

Stream Bank Assessment Inventory

Time Series: fall 2003-1 **Site ID:** E001 **Current Date:** 9/29/2003

Stream Width (Ft): 2 **Stream ID:** E001 **Stream Type:**

Latitude: 42 51' 58" **Longitude:** 78 2' 12"

Distance of Structure to Erosion (Left Bank): >100 Feet **Distance of Structure to Erosion (Right Bank):** >100 Feet

Structure Type (Left Bank): Garage **Structure Type (Right Bank):**

Bank Side	Bank Height	Bank Angle	Root Density	Particle Size
Right	medium	medium	high	medium
Left	high	medium	medium	low

Comments

erosion on right bank, opposite side has a lot of vegetation

Stream Bank Erosion Inventory

Site ID: E001 **Time Series:** fall 2003-1 **WRDS No:** **Date:** 9/30/2003

Stream Name: Oatka Cr **Reach:** **Evaluation:**

Length (Ft): 20 **Height (Ft):** 4 **County:** GENESEE **Bank Side:** Left
Adjacent Landuse (Left) Machine **Adjacent Land (Right)** Machine

Soil Texture Sandy Clay Loam, Sandy Loam, Sand

Stream Alignment Sharply Curved

Vegetation Crop, Pasture, Urban Lawn

Stream Gradient Moderate (Balanced)

Slope Eroding Bank Steep (1:1 to Vertical)

Slope Depositional Bar Moderate (<3:1 but >10:1)

Erosion (Tons/Year)

0.88128

Riverkeeper Riparian Restoration Report

Site Id: E001 **Time Series :** fall 2003-1 **Latitude :** 42 51' 57" **Longitude:** 78 2' 9" **Date :** 9/29/2003

Evaluator: Jill **Location Description :** **Contact Name :**

Phone Number: **Address :** **City :** **Zip :**

Watershed/Sub Watershed: Oatka Creek **USGS Quad Map :** **North :** 0 **West :** 0

WRDS No:

Surrounding Land Use (Total 100%)

Row Crops 50

Meadow/Hay 0

Pasture 0

Forest 50

Residential 0

Commercial 0

Industrial 0

Other 0

Stream Reach (12-20x width Ft) 0

Average Channel Depth (Ft) 0

Active Channel Width (Ft) 0

Gradient Medium

Present Weather : cold, sunny

Past Weather for 2-5 Days : cold, sunny

Dominant Substrate : Gravel

Subdominant Substrate : Cobble

Stream Assessment Score

Assessment Categories

Assessment Score (1-10)

Comments:

Channel Conditions 8

Hydrologic Alteration 8

Riparian Zone 7

Bank Stability 7

Water Appearance 6

Nutrient Enrichment 7

Barriers to Fish Movement 10

In-Stream Fish Cover 0

Pools 0

Invertebrate Habitat 0

Warm Water Canopy 0

Cold Water Canopy 0

Mature Presence 0

Salinity 0

Riffle Embeddedness 0

Macroinvertebrates Observed 0

Overall Score: 6.2

Total Points = the sum of individual scores from each category that are > 1.

Overall Score = total points divided by the number of categories

Poor <6.0

Fair 6.1-7.4

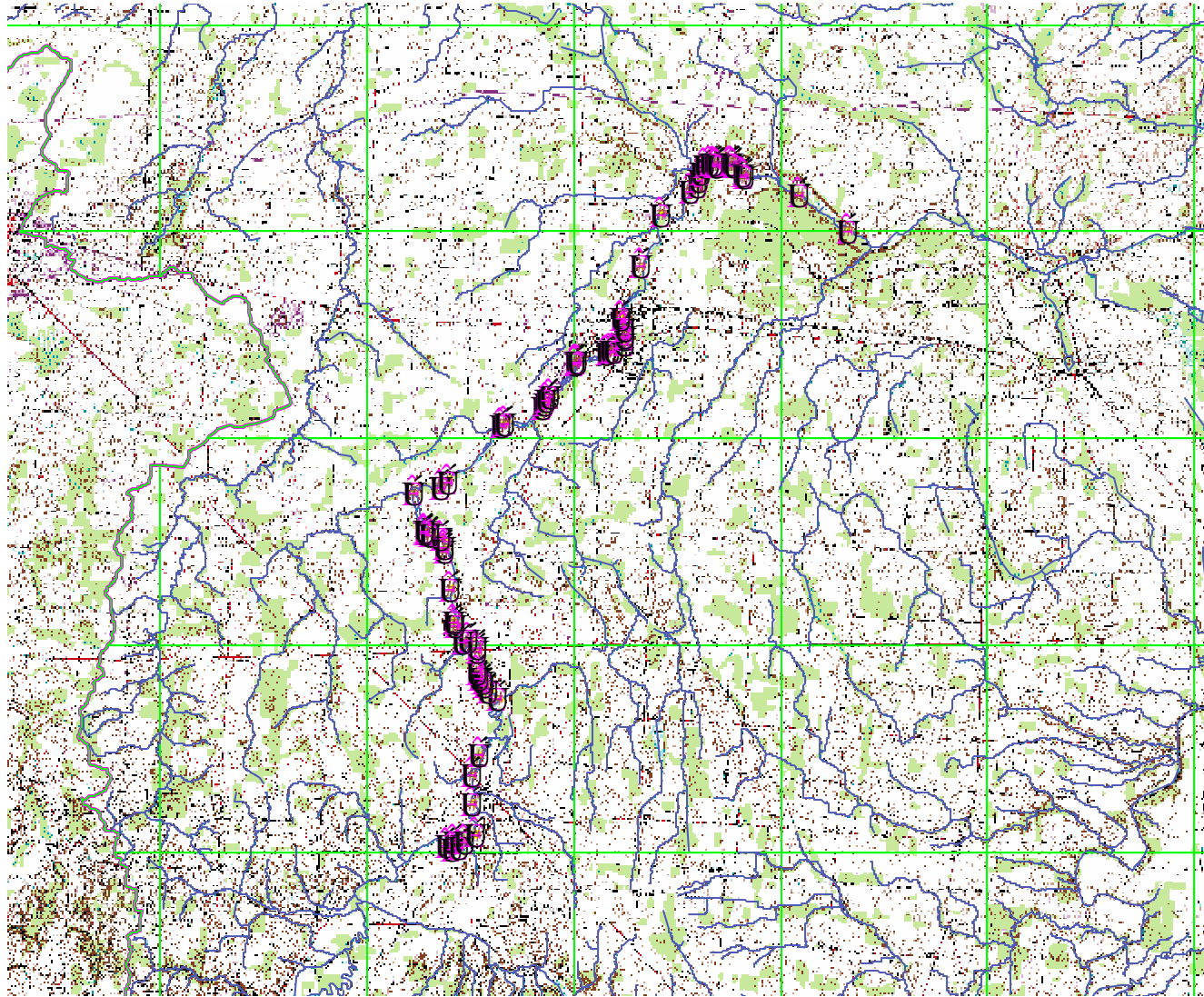
Good 7.5-8.9

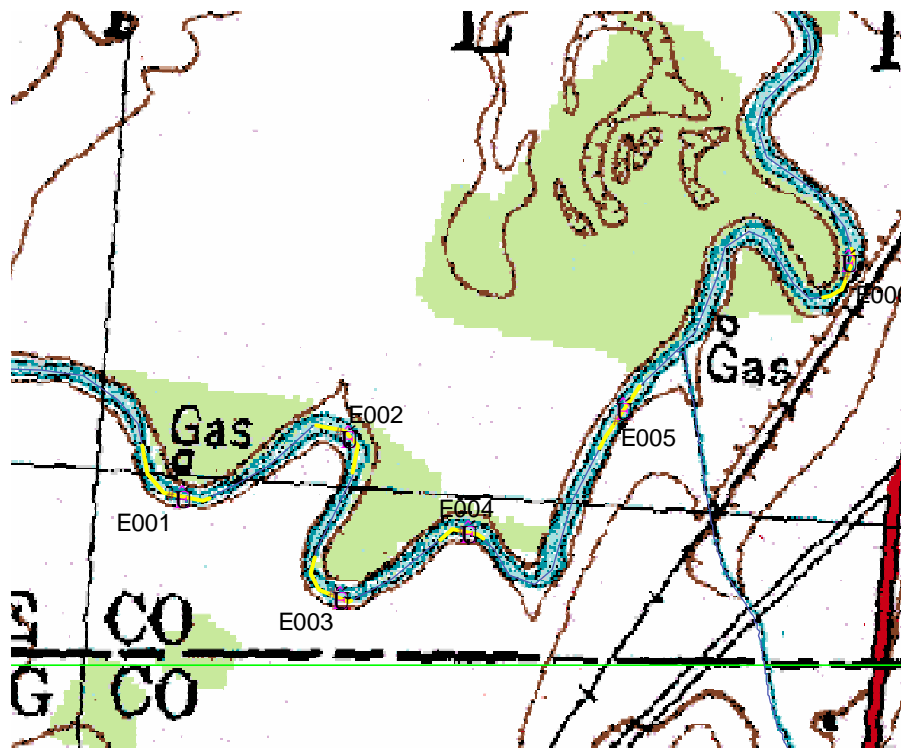
Excellent >9.0

Comments and Observations

Recommendations

Oatka Creek Inspection Sites

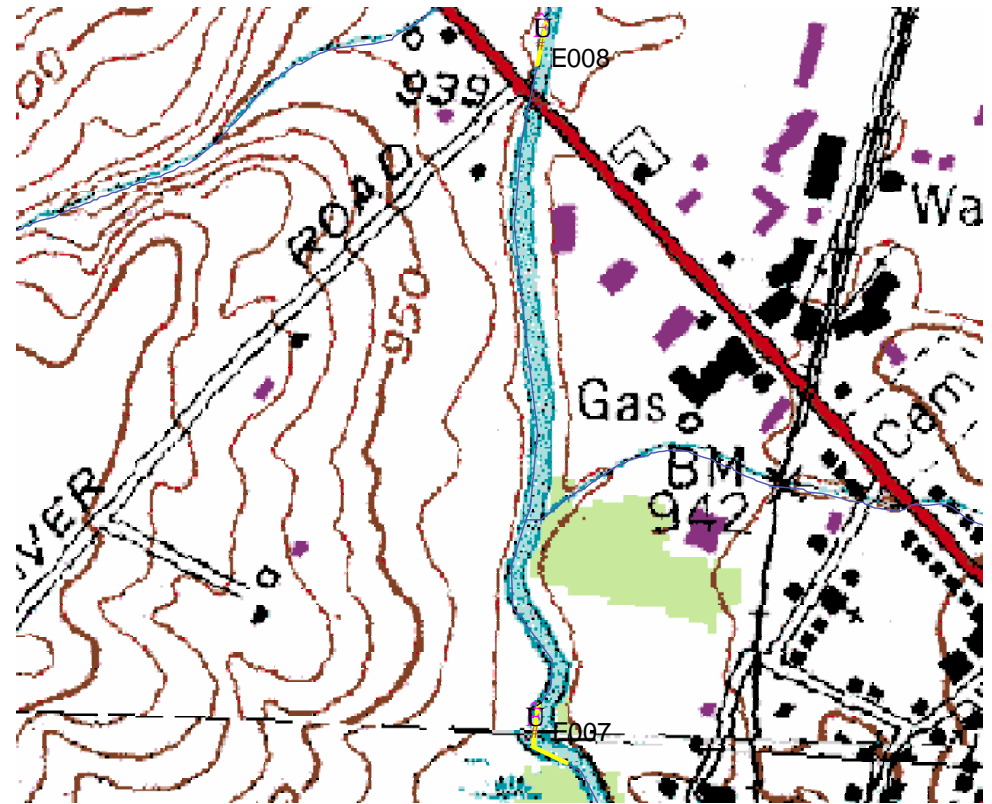


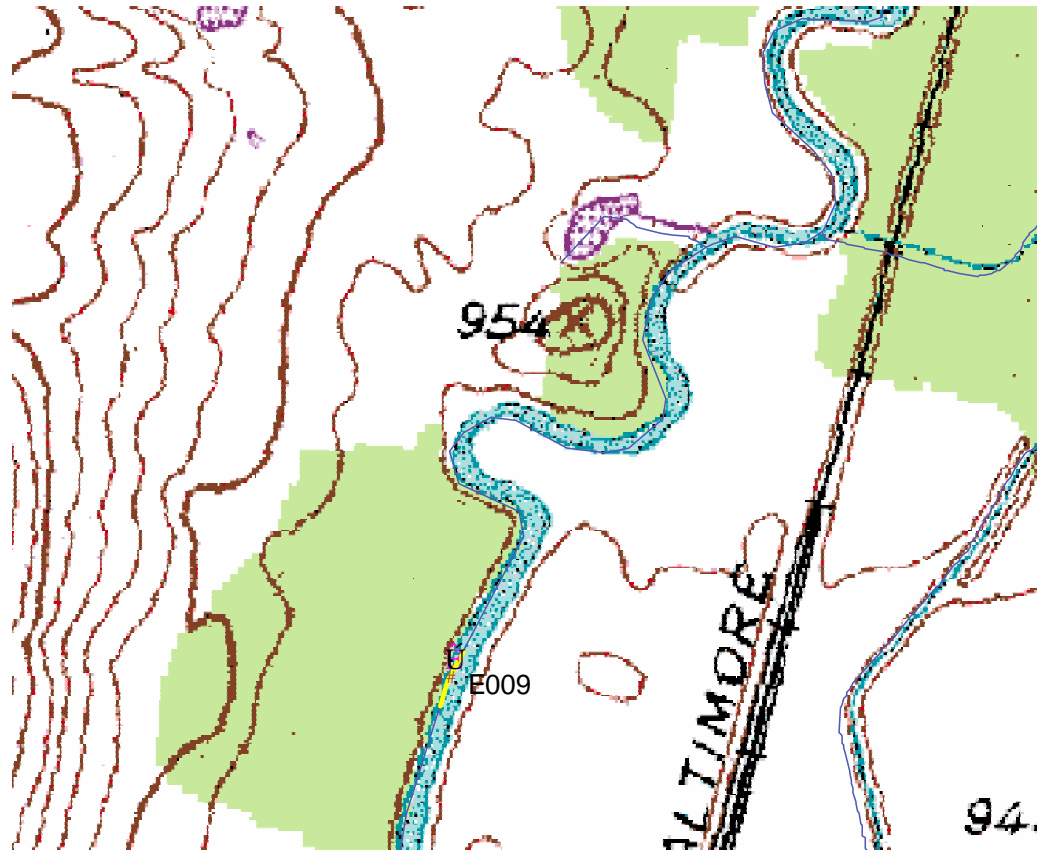


In this section, most erosion occurs where the bends are in the creek. Erosion is hypothesized to be a result of farming practices.

Erosion point E006 is in need of erosion control. Here, the railroad tracks are very close to the creek. As a result, it is assumed that this area will become a trouble spot in the near future.

Erosion point E007 has a great deal of erosion occurring on the left bank. Here, several log jams have also been identified. It is recommended that this area be examined further and that erosion prevention methods be implemented.

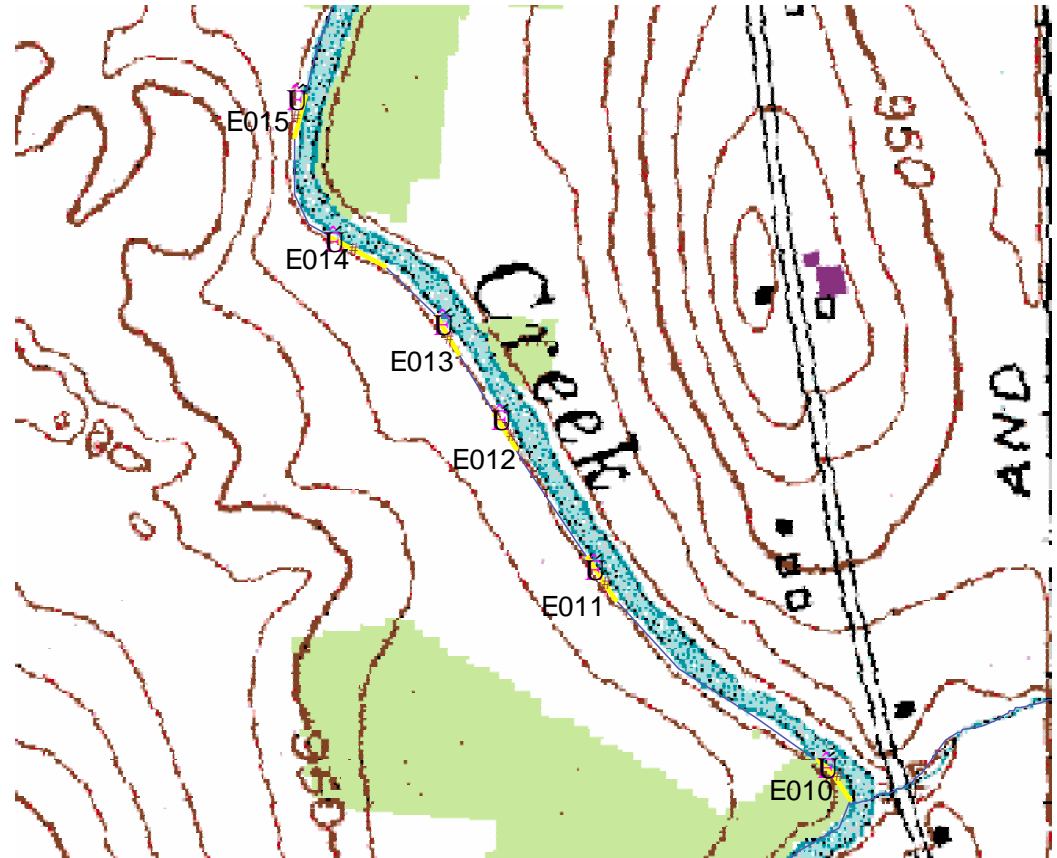


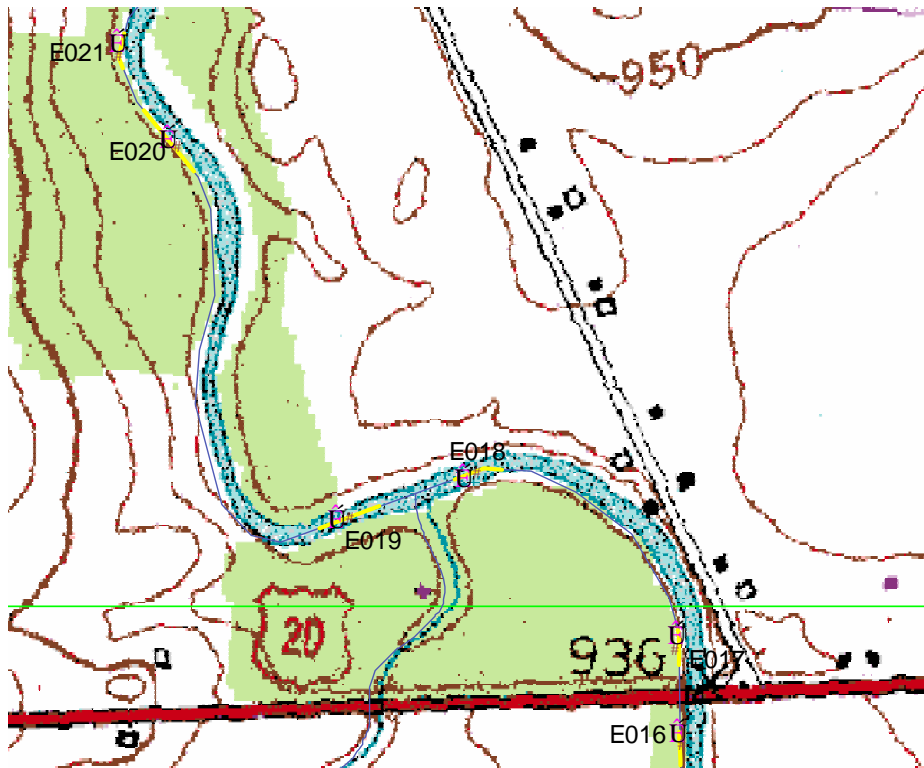


At erosion point E009, sediment has collected on the right side of the creek forcing water towards the left side. This has caused slight erosion of the left bank.

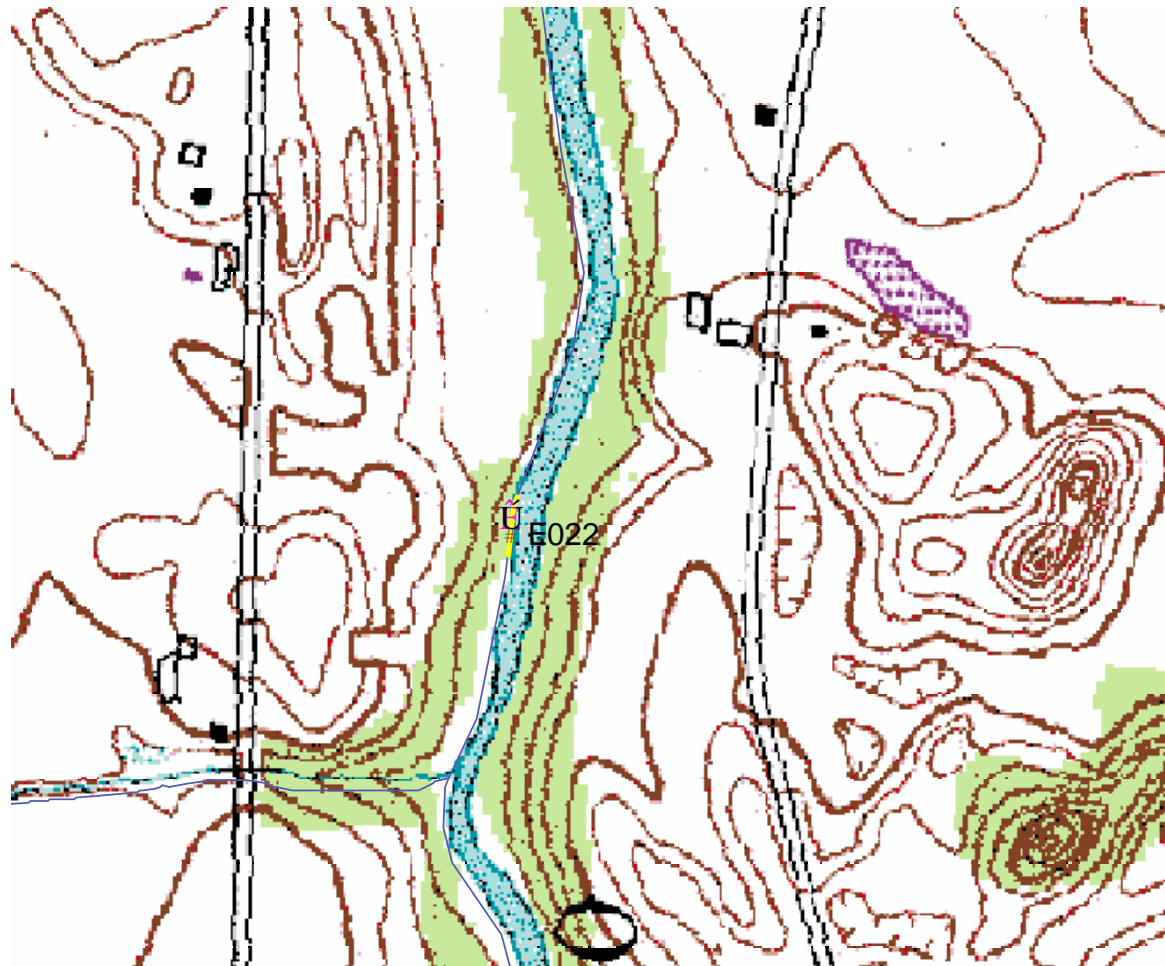
At all points displayed, there is sediment that has collected on one bank, forcing water over to the opposite bank. This in turn is causing increased erosion.

At erosion point E010, the creek is eroding the soil between itself and the road. Erosion Point E015 has arguably the most erosion in this section. About 250 feet of the left bank is undergoing massive erosion.

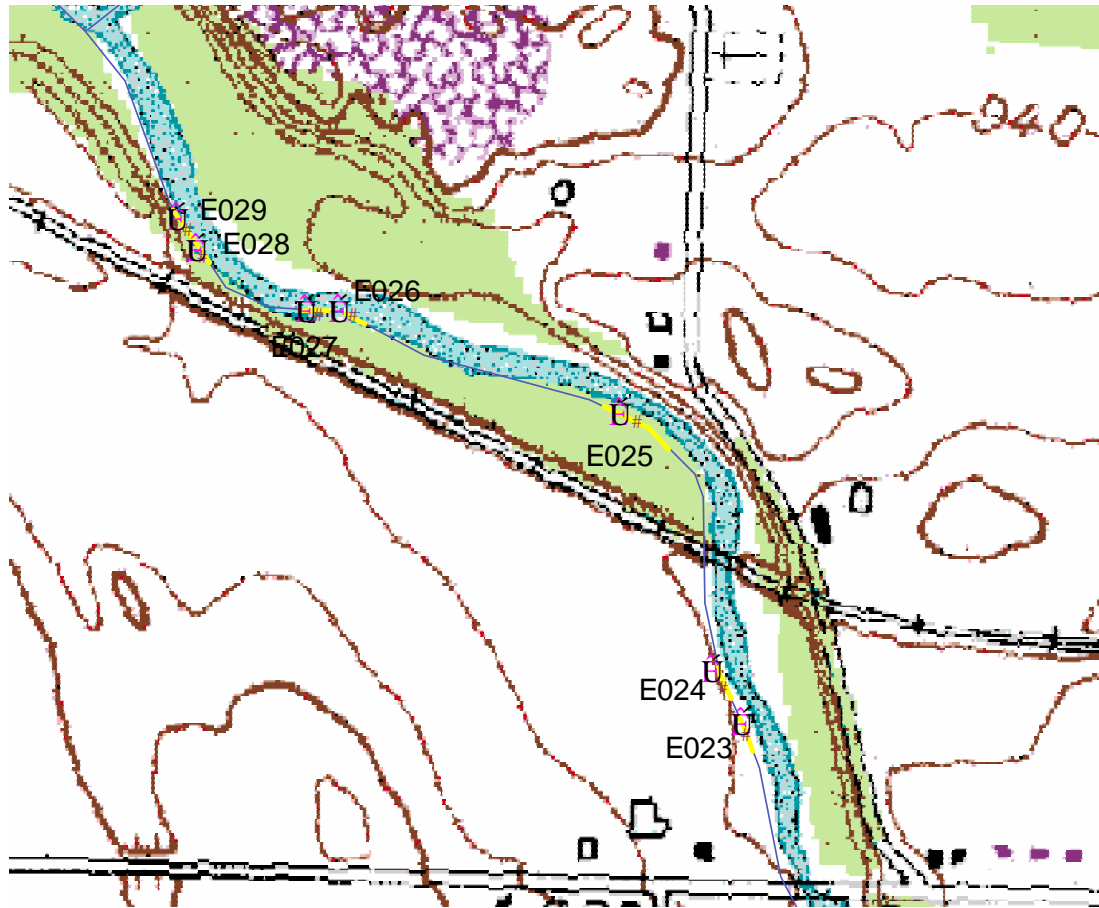




Erosion here is mostly occurring near the bridge. Sediment has collected at erosion points E016 and E017, forcing water to the opposite side of the collected sediment.

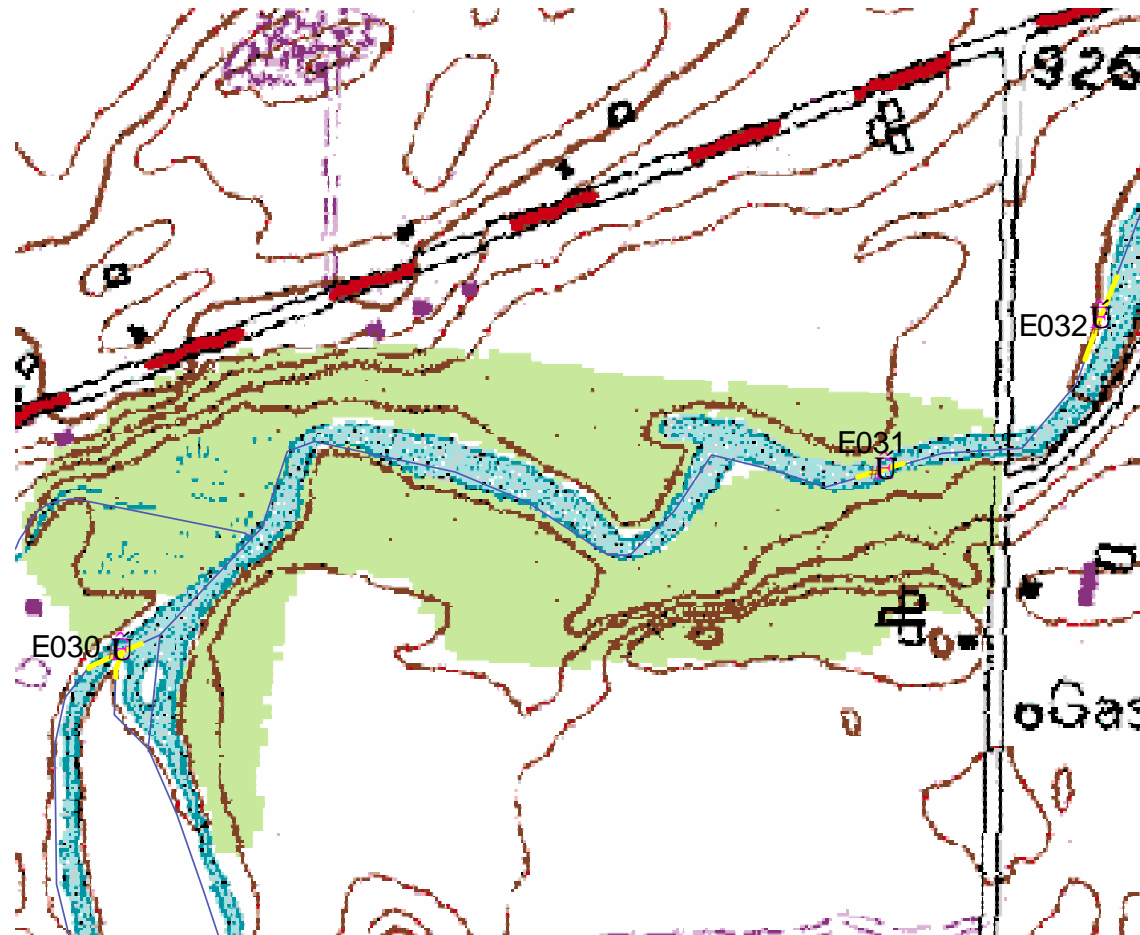


Along this portion of the creek, specifically E022, both the left and right bank are very steep. This is of course a result of erosion.

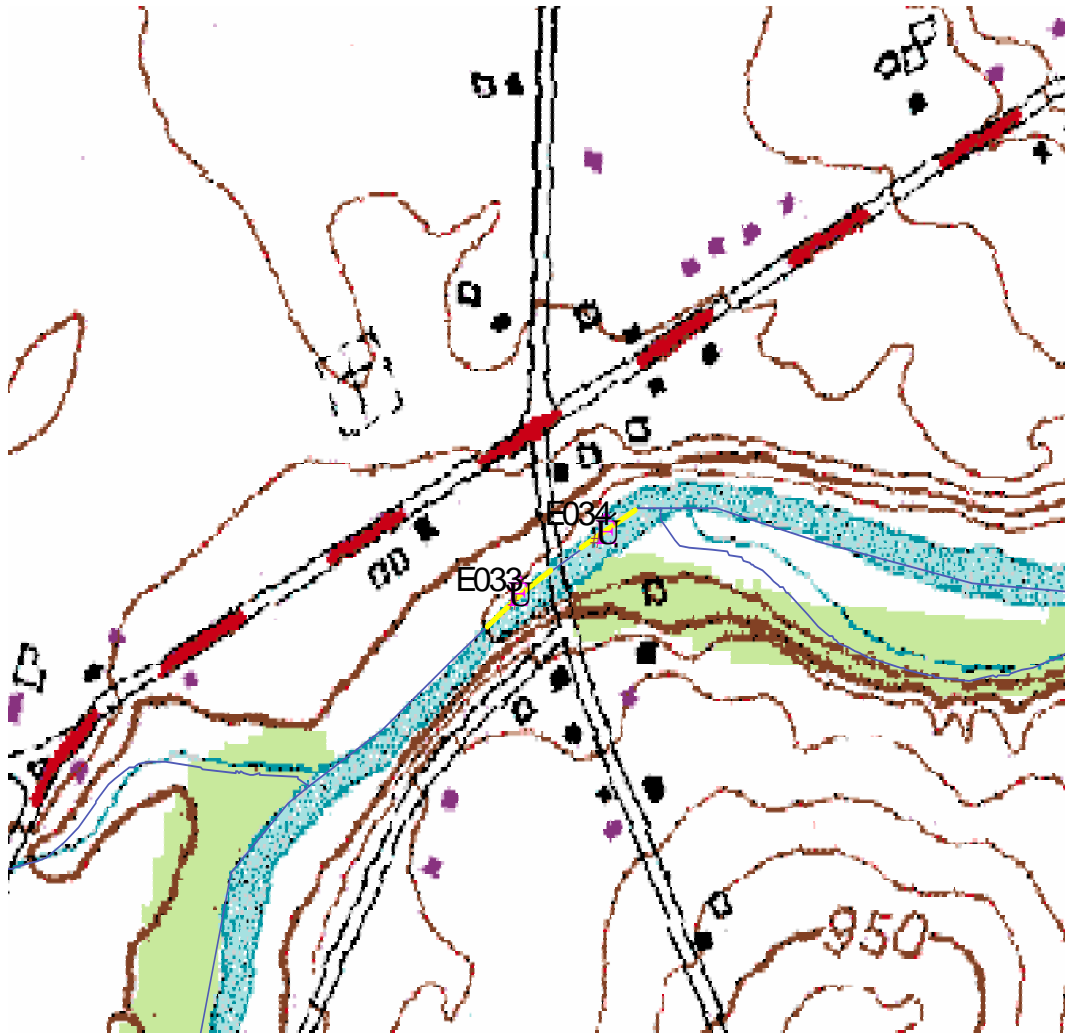


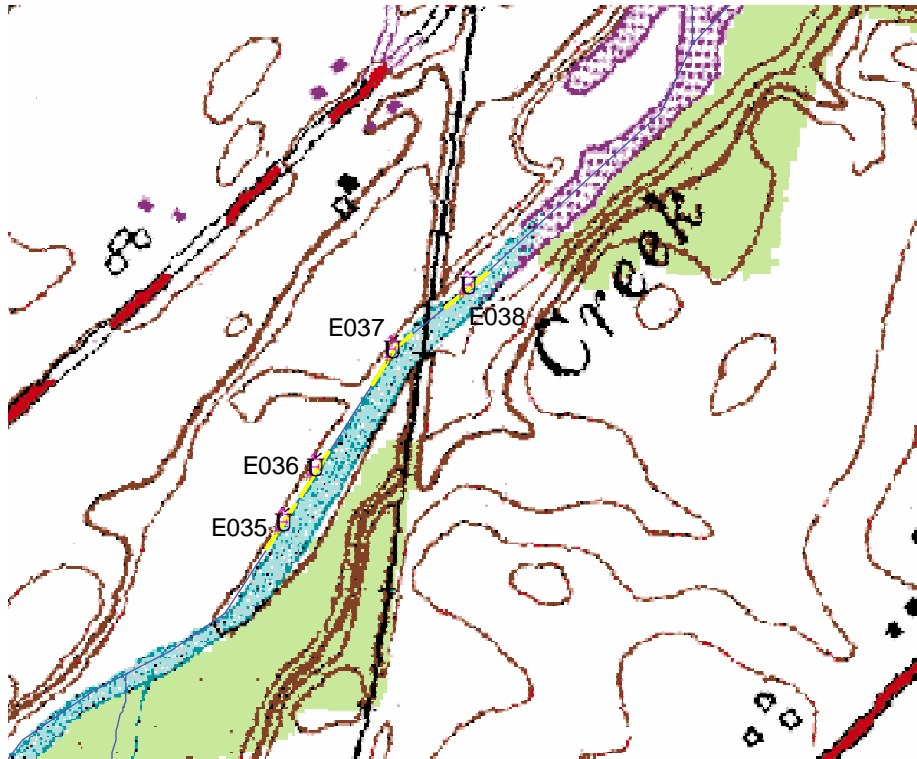
In this section there are no erosion points of immediate concern. Most erosion is a result of deposition along the banks which forces water towards the other bank.

At erosion points E030 and E031, erosion is occurring on the left bank. The right bank of E032 is undergoing erosion.



At erosion points E033 and E034, erosion is occurring on the left and right banks respectively. It is assumed that the erosion of both banks is hastened by lawn mowing practices of residents in this area.

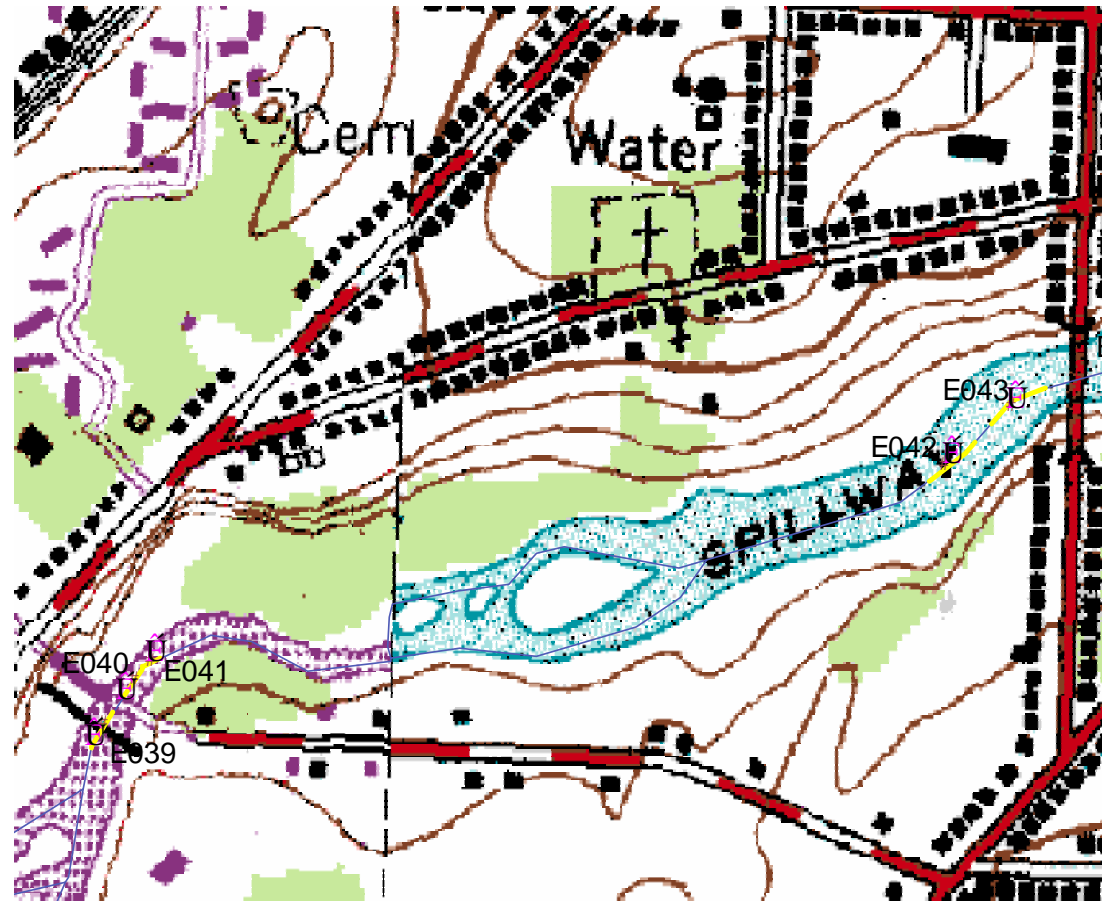




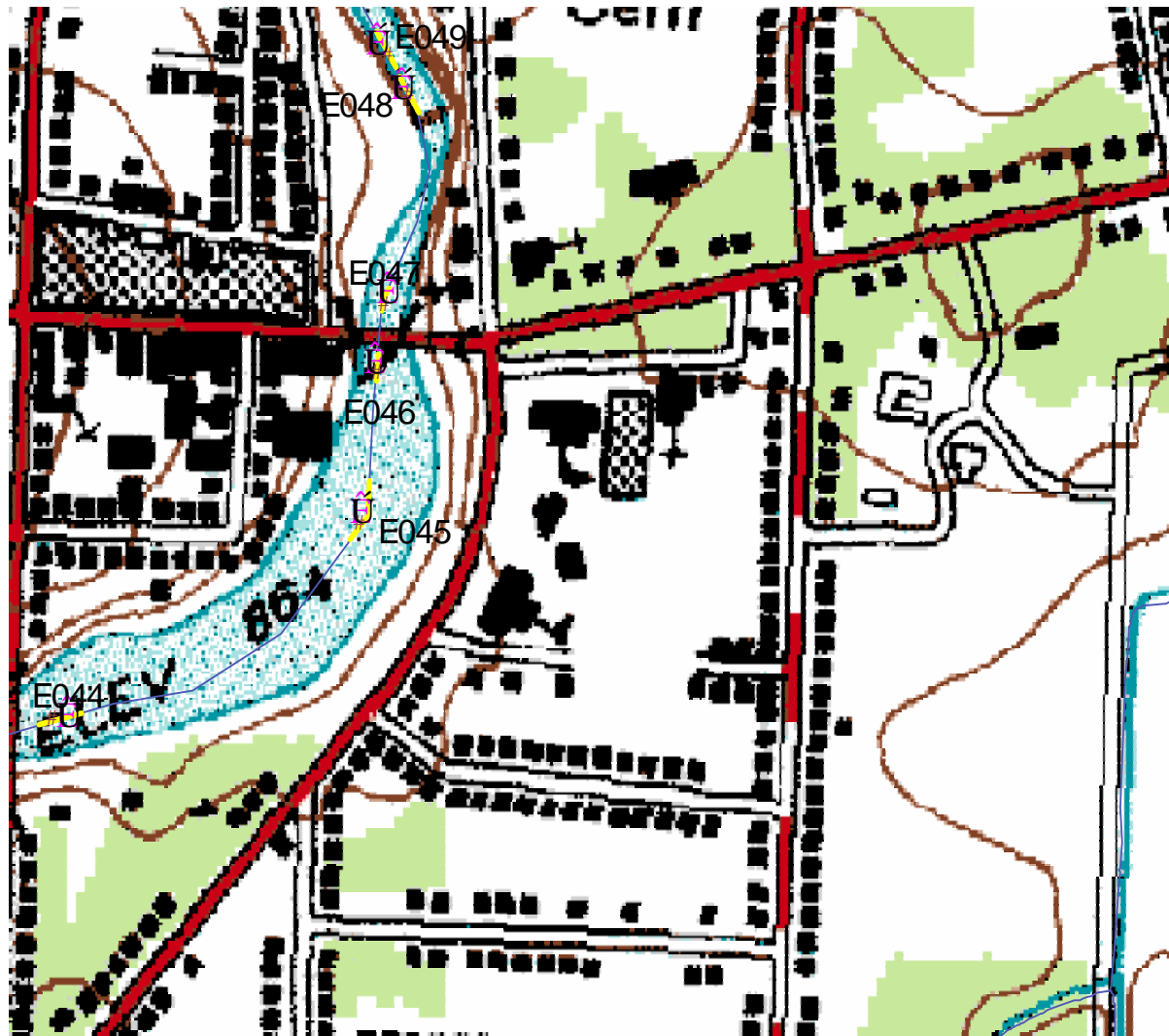
Most erosion in this area is near the railroad tracks.

At erosion point E036, the right bank slope is very steep.

Near the railroad bridge, at erosion points E037 and E038, erosion is also occurring.



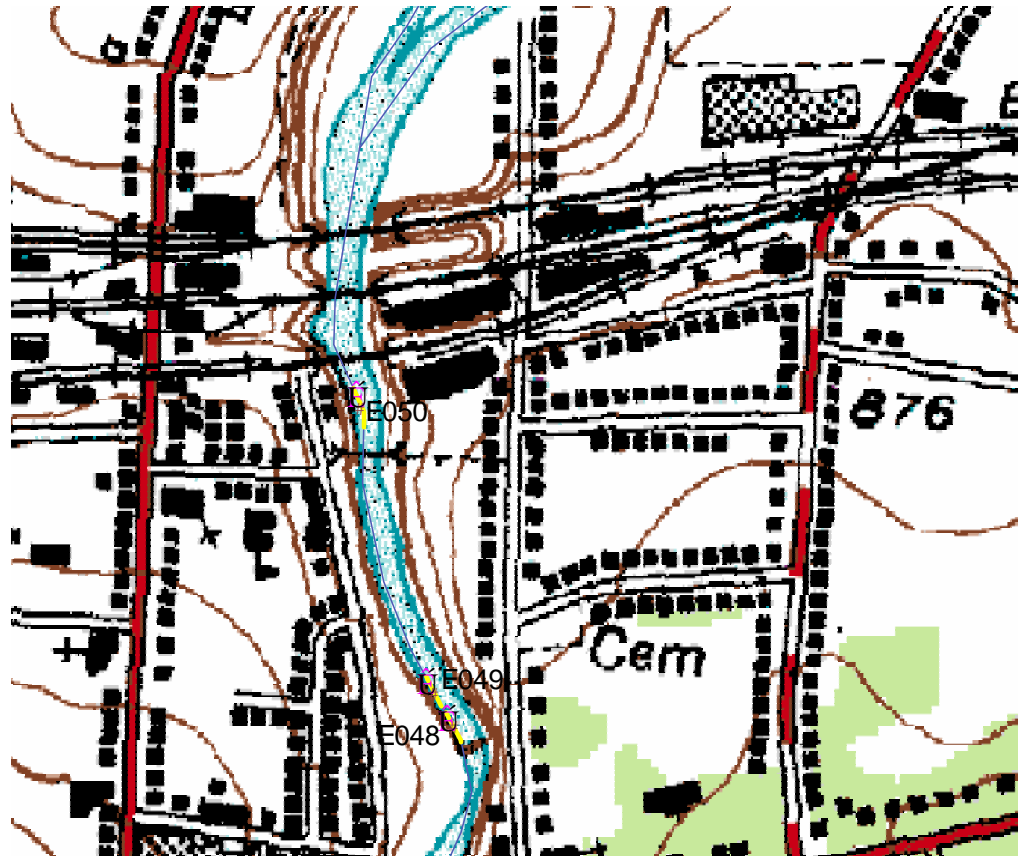
The erosion that is occurring in this section can be attributed to the lawn mowing practices of residents. As a result, erosion has made the left and right banks steep in this area.

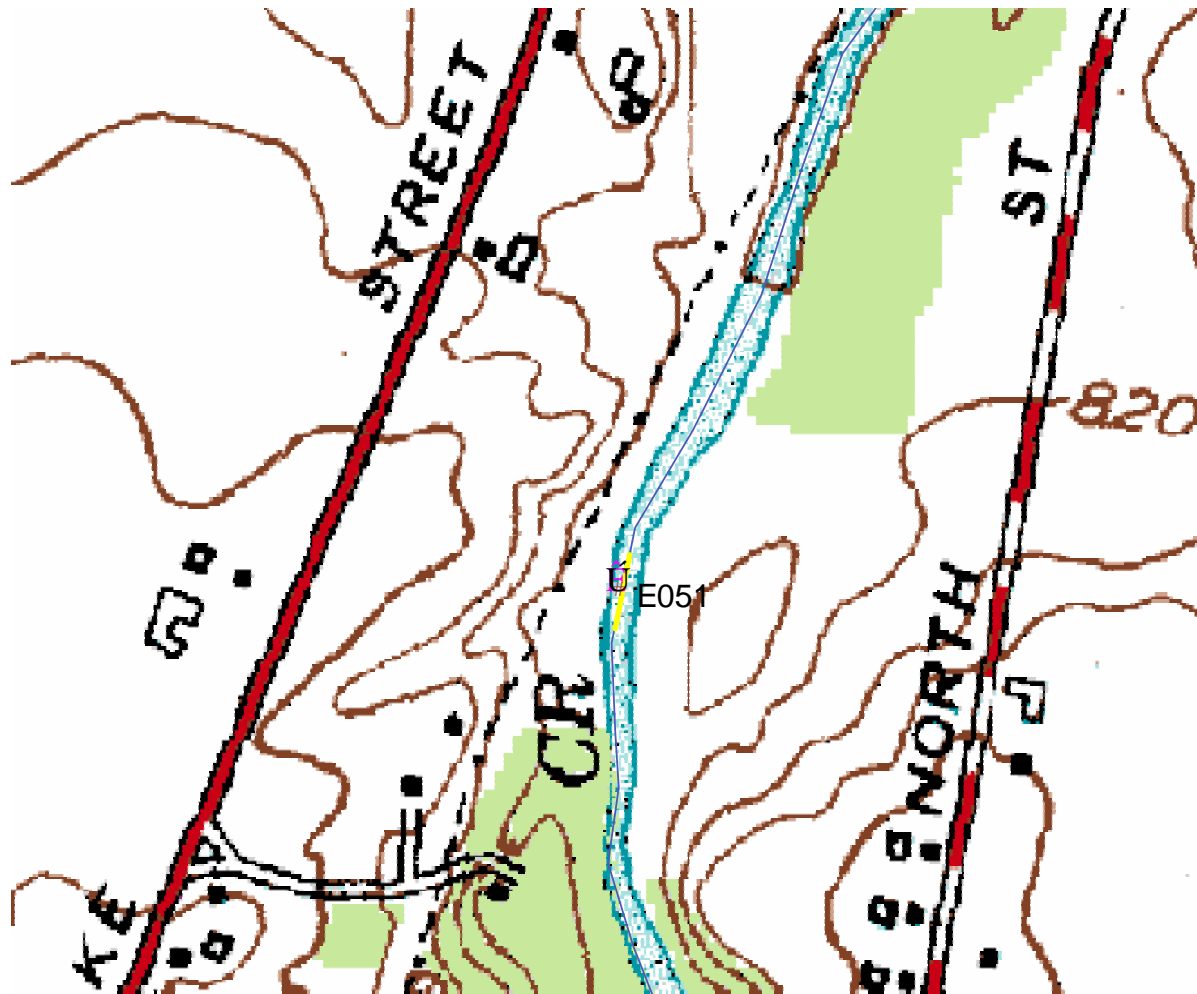


This section is also experiencing increased erosion due to lawn mowing practices.

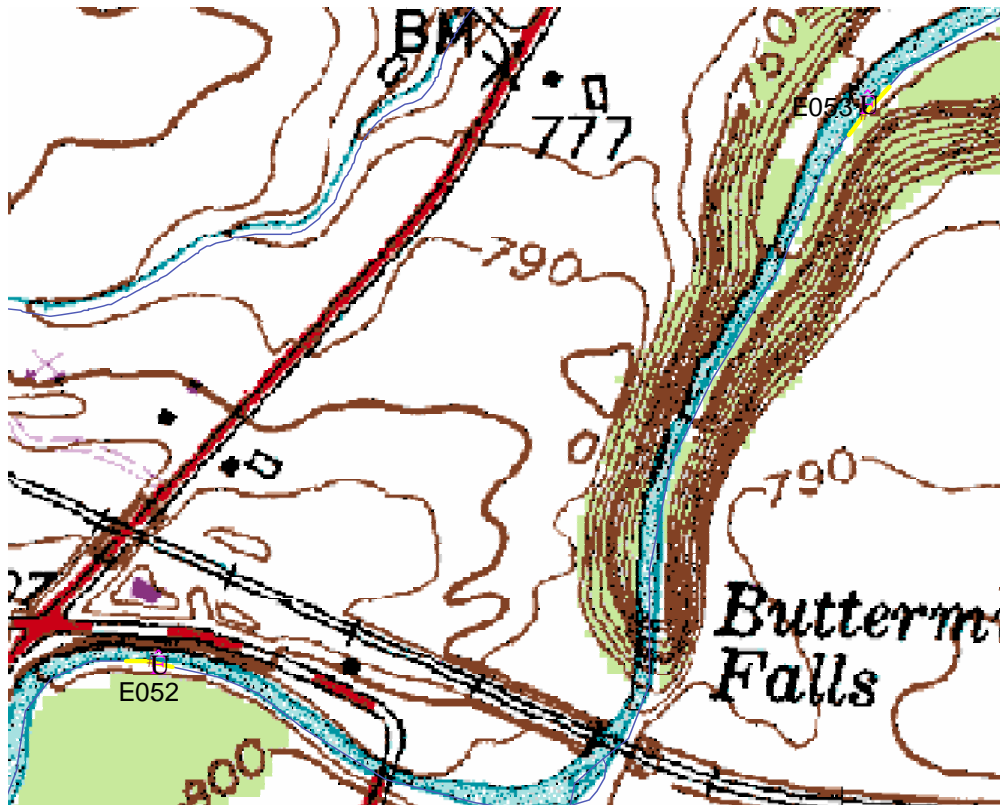
At erosion points E046 and E047, buffers are forcing water over to the opposite side, leading to increased erosion.

Banks in this section are very steep. At erosion point E048, several trees appear as if they may soon fall into the creek.



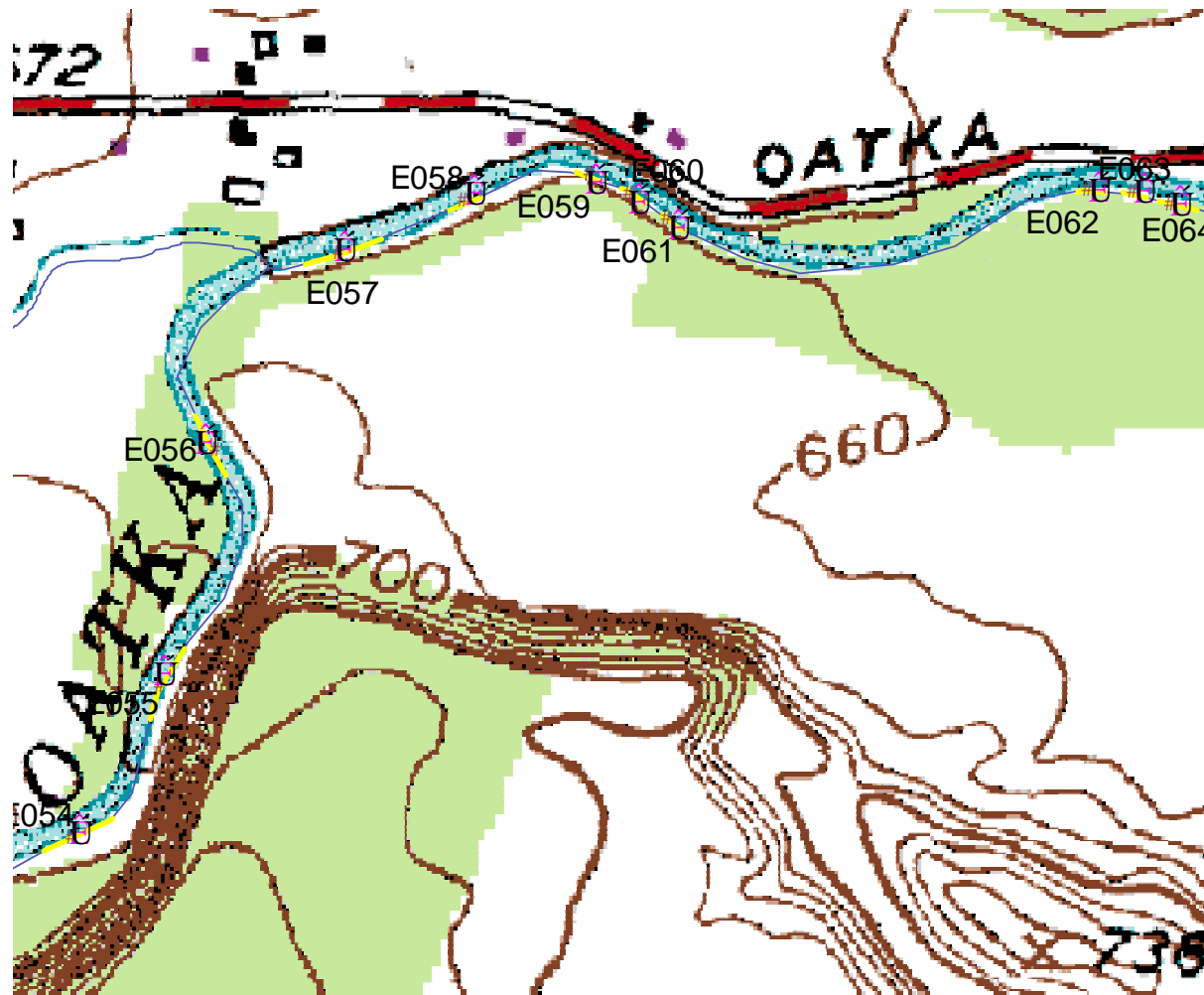


Erosion point E051 is experiencing erosion as a result of debris near the left bank. The most erosion is occurring on the right bank as a result.



At erosion point E052, erosion is occurring along the left bank, near the road.

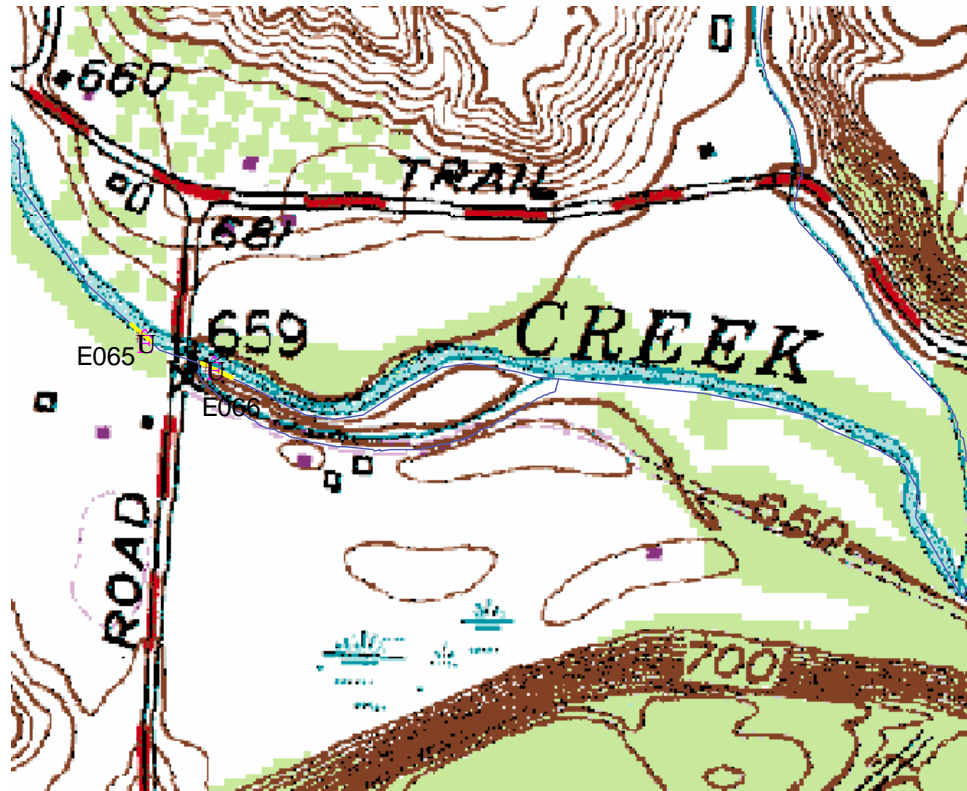
At erosion point E053, the right bank is undergoing massive erosion. There also exists the potential for logs jams at this erosion point.

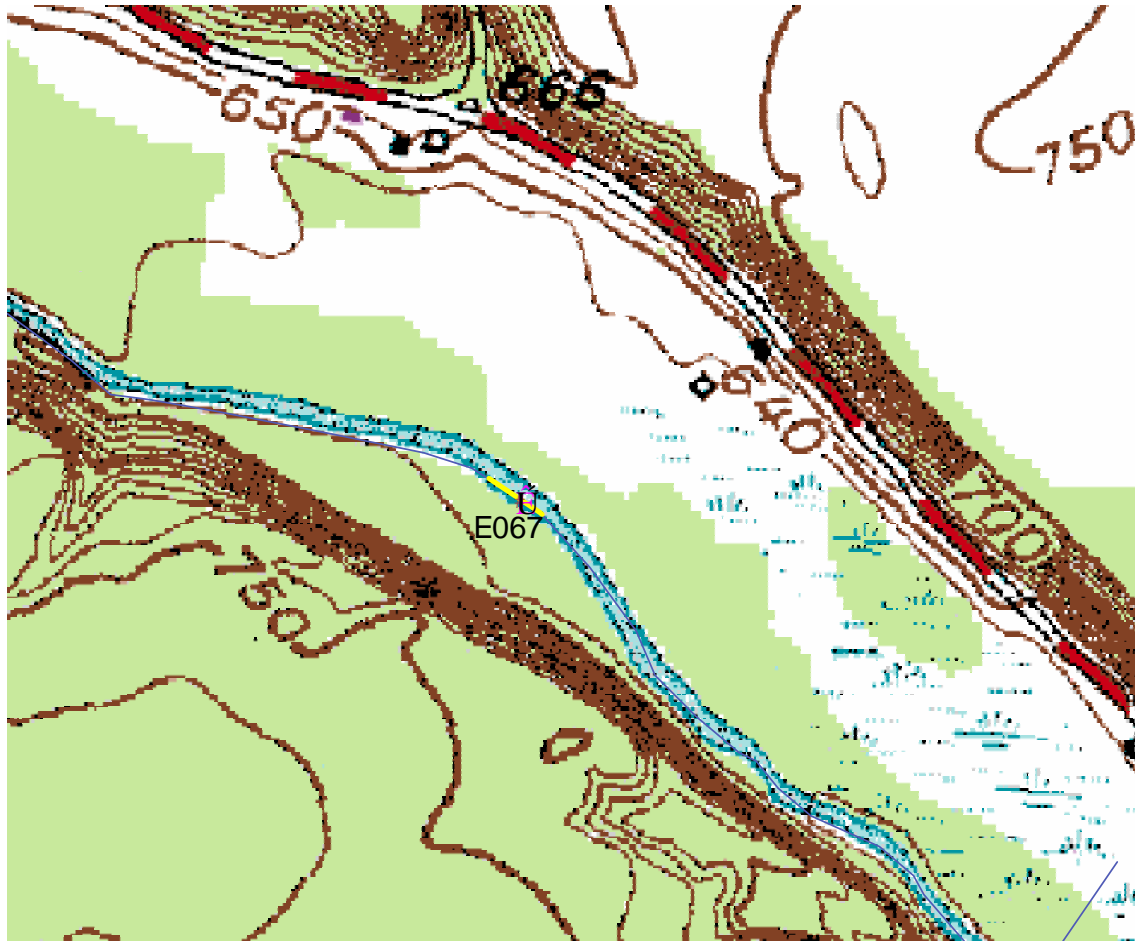


Between erosion points E054 and E058, there are several log jams and trees that can potentially fall into the creek, resulting in log jams.

At erosion points E061 and E062, the creek is eroding the soil closest to the road, creating a problem in the future.

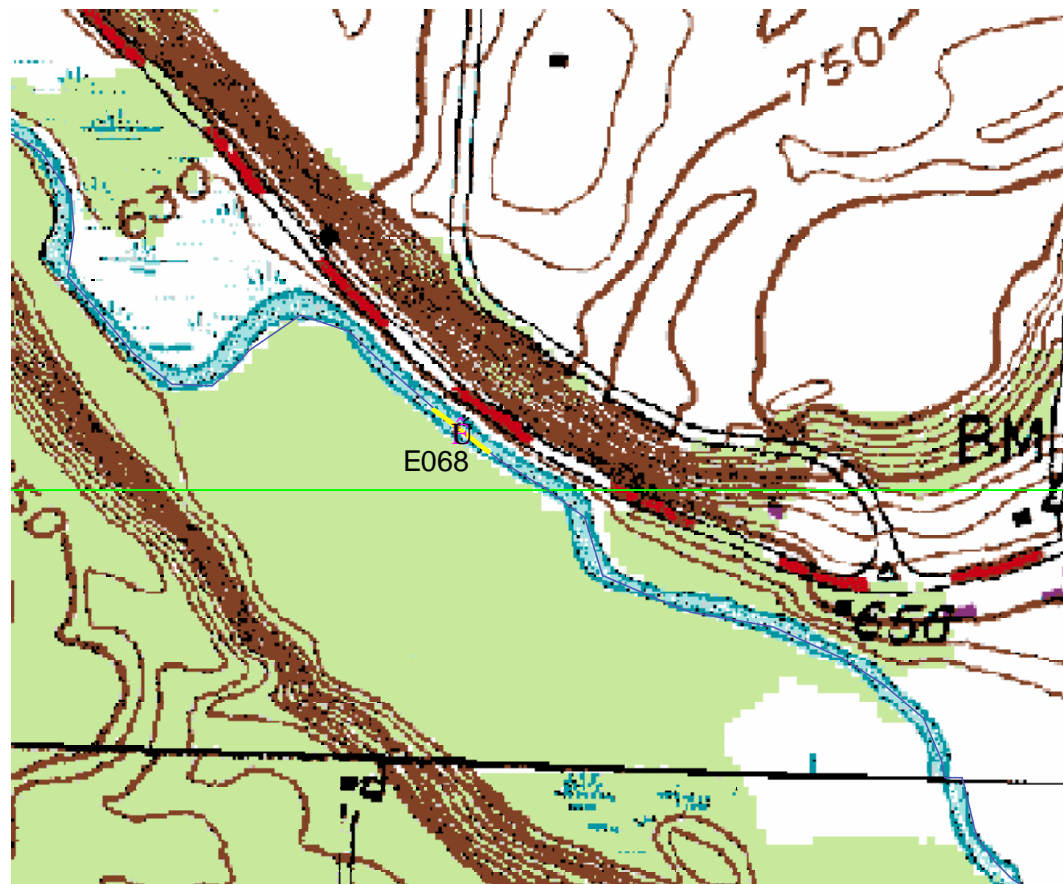
At erosion points E065 and E066, erosion is occurring on the right banks.





Here, at erosion point E067, the right bank is undergoing the most erosion. However, it should be noted that both banks are very steep in this area.

The left bank of erosion point E068 is experiencing erosion. Here, the creek is getting close to the road.



Limitations of this Inspection

- All sites were not surveyed on the same day. Therefore, it is not fair to compare sites to each other.
- No global positioning system was used to accurately plot erosion points. As a result, all point positions are an educated guess.

Conclusions

Overall, the Oatka Creek is in fair condition. Some sections have immense erosion, while most are undergoing only natural erosion. If steps are taken to initiate methods of erosion control in problem areas, the Oatka Creek will continue to remain in its present condition.

It has been found that erosion along the Oatka Creek is caused by:

- farming practices
- lawn mowing practices
- debris and sediment collection