

2019 Tioga County Illegal Dumpsite Summary



EXECUTIVE SUMMARY

The 2019 Illegal Dumpsite Project was initiated by the LEPC (Local Emergency Planning Committee) of Tioga County. Doug Wicks, the former Environmental Planner at the Tioga County DES (Department of Emergency Services), got the project under way and handed it off to Ben Kerkeslager, the current Environmental Planner. Mr. Wicks took inventory of all the existing 2019 illegal dumpsites by sending surveys to each of the 39 municipalities in the county. He then visited each site and took notes on the characteristics of waste products as well as location. Each dumpsite was tagged using GPS and mapped on ArcGIS (a geographic information system software). The data was then placed into a spreadsheet and prioritized for cleanup.

It should be noted that this project is likely not a complete list of every dumpsite in the county, as there could be private or hidden dumpsites that were not accounted for in the survey. The dumpsites that are accounted for are typically within approximately 300 ft. of a roadway. Other limitations of the project include dumpsites that are no longer visible due to overgrowth of vegetation or dumpsites that are inaccessible due to being located in high risk areas.

Progress has been made since 2011 as there were a total of 86 sites located at that time with an estimated 102.25 tons of waste. In the 2019 inventory, there are a total of 55 existing dumpsites with an estimated 54.1 tons of garbage. The issue of not having regular trash pickup throughout 100% of Tioga County still remains to be a problem. Only four out of 39 municipalities (10.3%) have mandatory trash collection. Twenty municipalities do not have recycling drop off locations, and 13 municipalities do not have any clean-up days.

TABLE OF CONTENTS

Executive Summary.....	ii
Introduction.....	1
Summary of Results.....	2
Site Characteristics.....	4
Waste Characteristics.....	4
Prevention.....	4
Next Steps for the Illegal Dumpsite Project.....	5
Priority for top 5 dumpsites.....	6
Priority #1: West Branch Road #1-9 (Site 66A-I).....	6
Priority #2: Mill Creek Rd. (Site 75).....	11
Priority #3: Krise Road (Site 48).....	15
Priority #4: Kerr Road (Site 28).....	20
Priority #5: Rattler Run Rd. (Site 54).....	24

INTRODUCTION

Illegal dumpsites are places where people dump personal waste and garbage on their own properties or on other unauthorized properties. The most common places for illegal dumpsites are on the banks of a road way or backroad pull-off area as this allows people to back a car or truck up to the edge of the road and dump trash down the bank. These are often the most hazardous as well because many steep banks on the sides of roads lead down to a waterway where the trash can be lifted and dispersed greatly in the event of flooding. A major cause of people dumping trash illegally in the first place is because the majority of municipalities in Tioga County do not offer mandatory trash and recycling services. Therefore, to get rid of trash, people may either burn it or dump it on the side of the road because they may not be willing to drive up to an hour to drop their garbage off at the nearest facility.

These illegal dumpsites can vary greatly in content, location, and size. An individual dumpsite could contain only a few bags of trash and a couple tires or contain up to several tons of garbage scattered across an entire roadside bank. Dumpsites could be located directly in a waterway, on land that is close to a waterway, or in a flat field far away from any water source. Lastly, dumpsites may contain contents such as bagged trash, household garbage, furniture, tires, recyclables, construction waste, appliances etc.

The impact of illegal dumping is a threat to the health of both humans and animals. Many dumpsites will attract different disease-spreading organisms such as rodents and mosquitos. Tires are especially attractive to mosquitos because they catch the rain water on the inner liner, giving mosquitos a stagnant pool of water where they can breed and lay eggs. Dumpsites can be physically damaging to humans as well because they may contain broken glass, rusted metals, or toxic substances. Environmentally, illegal dumpsites are sources of pollution for soil and groundwater. Not to mention, they are also eye sores for tourists and local communities.

This project will hopefully be a means of initiating action for both cleaning and preventing dumpsites from occurring in Tioga County.

SUMMARY OF RESULTS

Obviously not every site can be cleaned up at the same time, therefore, a means of prioritization had to be set into place in order to determine which sites would generate the highest impact once removed and are therefore first on the list to be cleaned up. The following list shows the prioritization of the existing illegal dumpsites in Tioga County:

Priority #	Municipality	Site Name	Site Number	Calculated Tons	Location Score (Weighted: 66.7%)	Feasibility Score (Weighted: 16.7%)	Content Score (Weighted: 16.7%)	OVERALL SCORE
1	Rutland Township	West Branch Road #1-9	66A-I	8	1	11	1	2.67
2	Tioga Township	Mill Creek Road	75	2	8	2	8	7.00
3	Liberty Township	Krise Road	48	5	2	34	6	8.00
4	Delmar Township	Kerr Road	28	3	5	12	23	9.17
5	Morris Township	Rattler Road	54	0.25	4	10	29	9.17
6	Chatham Township	Locey Creek Road	12	1.5	9	14	11	10.17
7	Farmington Township	Farmington Hill Road	31	2	7	35	2	10.83
8	Tioga Township	Tioga River Road #1-2	77A,B	1	11	15	18	12.83
9	Middlebury Township	Route 249 Pull Off	51	1.5	10	36	5	13.50
10	Morris Township	Three Springs Run Road	56	2.5	6	53	7	14.00
11	Lawrence Township	Depot Hill	43	0.5	3	48	33	15.50
12	Tioga Township	Bear Creek	74	1	14	37	12	17.50
13	Union Township	Ogdensburg Road #1-3	79A,B,C	1	13	41	13	17.67
14	Jackson Township	Switchback Road	42	1	16	39	9	18.67
15	Farmington Township	Pleasant Valley Road	32	1	15	38	15	18.83
16	Jackson Township	Eighmey Road #1-2	39A,B	0.5	18	18	40	21.67
17	Sullivan Township	Bradford Road	71	0.5	21	25	26	22.50
18	Sullivan Township	Strange Road	73	0.5	19	22	38	22.67
19	Nelson Township	Barney Hill Road	57	1	12	40	54	23.67
20	Morris Township	Hurley Hill Road	108	0.75	17	42	35	24.17
21	Gaines Township	Phoenix Road	37	0.5	23	43	22	26.17
22	Covington Township	East Creek Road #1-3	110A,B,C	0.5	24	44	19	26.50
23	Charleston Township	Hilboldt Road #1-2	5A,B	1	38	7	3	27.00
24	Osceola Township	Briar Hill Road	59	0.5	26	20	39	27.17
25	Tioga Township	Button Hill Site	101	2	40	1	4	27.50
26	Nelson Township	Baxter Lake Road	58	0.5	25	45	21	27.67

2019 Illegal Dumpsite Summary

27	Richmond Township	Westgate Road	63	0.5	22	49	36	28.83
28	Lawrence Township	State Route 328	44	0.5	27	46	20	29.00
29	Covington Township	Kendrick Road	20	2	39	13	10	29.83
30	Lawrence Township	River Road (Cummings Rd.)	45	0.25	34	26	17	29.83
31	Rutland Township	Old Royd Road	65	0.5	20	54	48	30.33
32	Union Township	Back Road #1-4	78A-D	0.5	28	23	49	30.67
33	Chatham Township	Hughes Road	11	1	43	4	14	31.67
34	Deerfield Township	State Routes 49/249	24	0.25	33	33	28	32.17
35	Shippen Township	Route 362	70	0.5	29	47	37	33.33
36	Middlebury Township	Jerry Green Road	52	1.5	41	3	34	33.50
37	Farmington Township	Starhigh Road	34	0.25	32	32	43	33.83
38	Gaines Township	Leetonia Road	36	0.25	31	31	50	34.17
39	Delmar Township	Ely Hill Road	107	1	44	16	16	34.67
40	Westfield Township	Holland Hill Road	85	0.25	35	27	41	34.67
41	Clymer Township	Strang Road	16	1	42	17	24	34.83
42	Deerfield Township	Prides Wood Road	23	0.25	30	50	44	35.67
43	Farmington Township	Soules Road	33	0.25	36	28	45	36.17
44	Duncan Township	Swede Hill Road #1-2	29A,B	0.25	46	8	27	36.50
45	Chatham Township	Ally Close Mill Road	8	0.5	47	19	25	38.67
46	Jackson Township	Bear Creek Road	106	0.5	49	5	32	38.83
47	Ward Township	Gleason Road	83	0.1	37	52	51	41.83
48	Chatham Township	Dug Road	10	0.5	45	21	55	42.67
49	Charleston Township	New Road #1-2	6A,B	0.25	52	9	42	43.17
50	Rutland Township	Bungy Road	64	0.5	48	24	52	44.67
51	Hamilton Township	Old Bloss Road	38	0.25	53	30	30	45.33
52	Charleston Township	Muck Road	4	0.25	50	29	46	45.83
53	Jackson Township	Rumsey Road	105	0.25	55	6	53	46.50
54	Tioga Township	Park Hill Road	76	0.25	51	51	47	50.33
55	Delmar Township	Lundquist Road	109	0.25	54	55	31	50.33

Location Score: This score was derived by sorting the dump sites first by their proximity to water (closest to farthest), then by the calculated tons of waste (largest to smallest), then by whether it is an active site or not (active first). The sites were then ranked in this order from 1-55. This is shown above as the Location Score and given a weight of 66.7%.

Feasibility Score: This score was derived by sorting the dump sites first by whether or not we have permission to enter the property, then by terrain type (flat to very steep slope), and finally by distance from the roadway (shortest to farthest). The sites were then ranked in this order from 1-55. This is shown above as the Feasibility Score and given a weight of 16.7%.

Content Score: This score is a representation of variety rather than quantity. The Content Score was derived by sorting the sites from the greatest number of "yes" categories to the least number of "yes" categories, meaning that these categories did contain that type of waste. Categories included: Bagged Trash, Household Trash, Recyclables, Tires, Clean Fill, Yard Waste, White Goods, Electronics, etc. The sites were ranked from 1-55 based on these parameters and the Content Score was given a weight of 16.7%.

Overall Score: This score is the average of the Location, Feasibility, and Content weighted scores. The smaller the number, the higher the priority.

Site Characteristics

The 2019 Tioga County Illegal Dumpsite inventory contains 55 dumpsites that total an estimated 53.5 tons of garbage. Of the 55 dump sites, 98.2% are in rural areas. Four sites (7.3%) are described as being “IN” a waterway. Though all dumpsites contaminate water supplies, those that are directly in the waterways have the greatest impact. Additionally, flooding events will cause the waste in these locations to float downstream and disperse miles away in some cases. Thirty five dump sites (60%) are noted as being “near” a waterway. Twenty four dump sites (43.6%) are listed as being “visible from the roadway.” Many of the dumpsites are located on medium to steep banks along the road where people can stop their car or truck and dump loads of trash down the hill. Tioga County has a large number of hills and mountains where steep banks are readily accessible for dumping illegally. In fact, 45 of the 55 dump sites (81.8%) are located on medium to very steep slopes. Six out of 55 sites are located off of state roadways, while the rest of the sites are on local township roads. Lastly, 32 out of 55 sites (58.2%) are still active sites and continue to be dumped on.

Waste Characteristics

The waste characteristics of the dumpsites can vary greatly. The most common type of waste in the dumpsites is household trash, where 50 out of 55 (90.1%) contained this type of waste. Tires are a close second with 49 out of 55 (89.1%) containing them. Twenty three out of 55 sites (41.8%) contained bagged trash. C & D waste (construction and demolition waste) is also contained in 41.8% of the dumpsites. From the largest number of sites containing this waste to the least number of sites containing this waste, the order of waste type is animal remnants, vehicle parts, televisions, furniture, recyclables, mattresses, white goods, electronics, and yard waste. However, none of the 55 sites contained HHW (household hazardous waste), clean fill, car batteries, or meth lab remnants.

PREVENTION

Prevention is just as important as the cleanup of these illegal dumpsites. Cleaning them up is a great step forward, but it is not a permanent solution if people are going to keep dumping trash there. There are several different approaches for preventing illegal dumpsites. The “Tioga County Illegal Dumpsite Survey” from 2011 covers them well.

- Community Cleanup Days
 - Dedicating certain days of the year for communities to get out and make an effort to clean up some of these dumpsites could be a very effective strategy. There could even be material specific cleanups that could be extremely useful. For example, one day could be dedicated to cleaning up tires and another day can be dedicated to cleaning up scrap metals or electronics.

2019 Illegal Dumpsite Summary

- Physical Deterrents
 - Placing guard rails, fences, mounds/dirt piles, or large concrete barriers can be an effective way to stop illegal dumpers. This strategy would be most useful for sites that are located at pull-offs on the side of the road that can be blockaded and made inaccessible. Whereas for the dumpsites that are on banks along the road, guardrails may not be enough to deter dumping.
- Site Monitoring and Maintenance
 - Site monitoring could exist in the form of a dedicated person that drives to each site and maintains an updated status of dumping or even a camera that is placed at the dumpsite to monitor dumping activities. Even a sign that says “smile you’re on camera” may be enough to deter some of the illegal dumpers. Maintenance of cleaned but active sites is important as well. Trash attracts trash, meaning that if there is already a pile of trash at a dumpsite, someone else is much more likely to also dump their trash there with the mindset that “if someone else can do it, I can do it.” Keeping sites clean will also make it easier to spot when new trash has been dumped and can be removed promptly.
- Community Education
 - Illegal dumping is a social problem that requires a shift in attitude and practices. Therefore, educating people on the adverse effects of their dumping as well as alternatives for how to dispose of their waste should be implemented wherever possible. Educating communities could be in the form of newspaper articles, press releases, radio announcements, school/community presentations, or even local television commercials.
- Enforcement of Existing Laws
 - Any improper disposal of trash is illegal and violators can be prosecuted. Many Pennsylvania agencies enforce laws addressing improper disposal of trash. County and municipal governments create and enact ordinances that are specific within their local boundaries. Enforcing these laws to the public to make sure that they are known can be a step in the right direction for preventing illegal dumpsites from happening.

NEXT STEPS FOR ILLEGAL DUMPSITE PROJECT

The next steps for this project would be contacting all the municipalities that contain illegal dumpsites as well as any other organizations that may be willing to give grants for the cleaning of the sites. Finding a funding source is a crucial next step in moving this project forward. Even finding social organizations that may want to help for volunteer or community service credit may be an effective option. Once the sites get cleaned up, one of the prevention methods should be implemented to hopefully stop the illegal dumping at that location permanently.

2019 Illegal Dumpsite Summary

PRIORITY PROFILE FOR TOP 5 SITES

#1 Priority Site: West Branch Road #1-9 (Site 66A-I)
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SITE INFORMATION

Municipality: Rutland Township Road Name: West Branch Road

GPS Coordinates: 41.89465600, -76.99745500 Parcel Number: 31-01.00-034F

Address: No Address Proximity to Water: In and Near

Slope Steepness: Medium Slope on Average Is this dumpsite active? Yes

Estimated Tons of Waste: 8.0

Types of Waste Present:

Bagged Trash ☒ Household Trash ☒ Recyclables ☒ HHW ☐ Tires ☒

Clean Fill ☐ C&D Waste ☐ Yard Waste ☐ White Goods ☒

Electronics ☒ Televisions ☒ Furniture ☒ Mattresses ☒

Vehicle Parts ☒ Car Batteries ☐ Meth Lab Remnants ☐

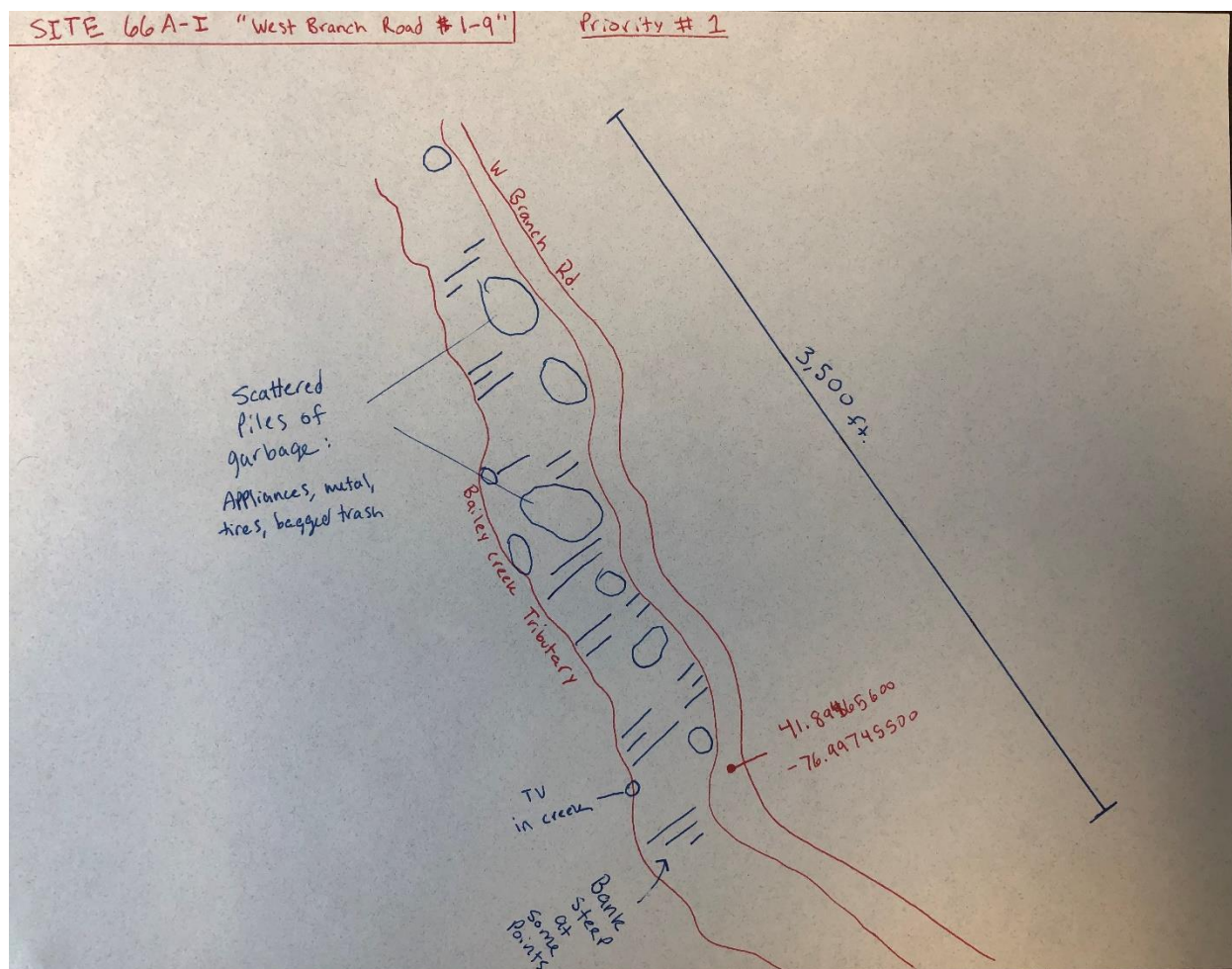
Animal Remnants ☐ Other: _____

Description:

This is a very large dump site with garbage scattered in and around Bailey Creek Tributary for roughly 3,500 feet. There are at least 50 tires that have been dumped along this stretch of road. Much of it was covered in leaves upon observation, therefore there may be more garbage than what was visible on the surface. The immense size of this dumpsite and its proximity to a waterway are the largest factors in making this site the #1 priority.

2019 Illegal Dumpsite Summary

Site Layout & Images



2019 Illegal Dumpsite Summary







Cleanup:

The cleanup of this site may be a bit difficult due to the steepness of some of the slopes. There is some garbage on gentle slopes but a few parts drop off quite drastically. The cleanup could definitely be completed in less than a week with the right amount of people. About 5 large dumpsters or a couple larger dump trucks would be needed to remove and haul all of the garbage. Some type of pulley system may need to be implemented on some of the steeper parts of this dumpsite, as some of the larger objects like furniture may be very heavy and waterlogged.

2019 Illegal Dumpsite Summary

#2 Priority Site: Mill Creek Rd. (Site 75)
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SITE INFORMATION

Municipality: Tioga Township

Road Name: Mill Creek Road

GPS Coordinates: 41.86313400, -77.04757900

Parcel Number: 34-05.00-024C

Address: 1133 Mill Creek Road

Proximity to Water: Near Mill Creek

Slope Steepness: Flat

Is this dumpsite active? Yes

Estimated Tons of Waste: 2.0

Types of Waste Present:

Bagged Trash ☒

Household Trash ☒

Recyclables ☐

HHW ☐

Tires ☒

Clean Fill ☐

C&D Waste ☒

Yard Waste ☐

White Goods ☒

Electronics ☐

Televisions ☒

Furniture ☒

Mattresses ☐

Vehicle Parts ☐

Car Batteries ☐

Meth Lab Remnants ☐

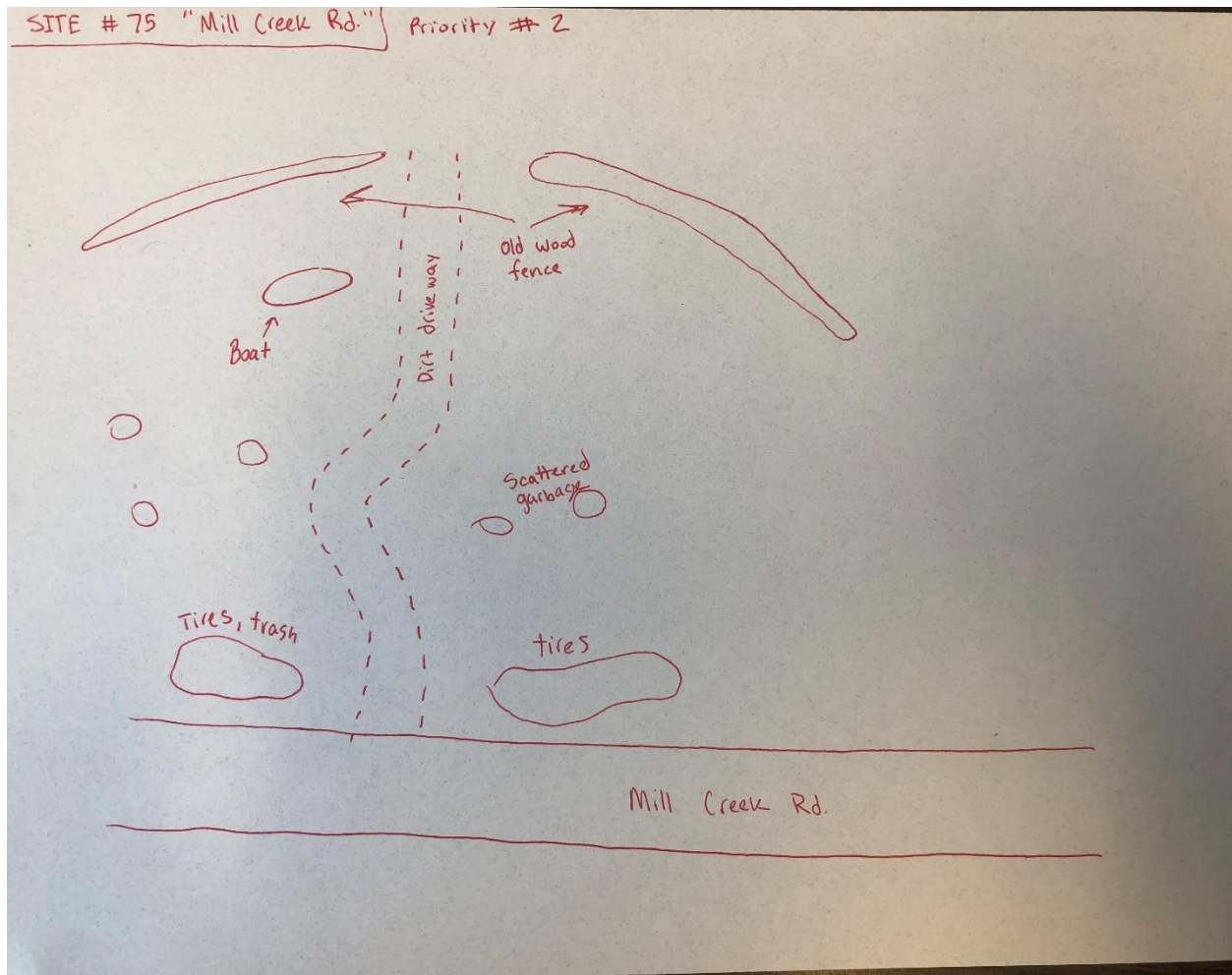
Animal Remnants ☐ Other: _____

Description:

This site spans across an entire property, where garbage and unused junk is compiled. In the summer, much of the junk is hidden behind very tall weeds. There is an old boat, a broken fence, tires, and loads of scraps. The house that owns this property as well as the neighboring house on the other side of the property are also a mess. The houses are surrounded by junk and trash. Though it is on private property, this site is an eye sore when driving down Mill Creek Road.

2019 Illegal Dumpsite Summary

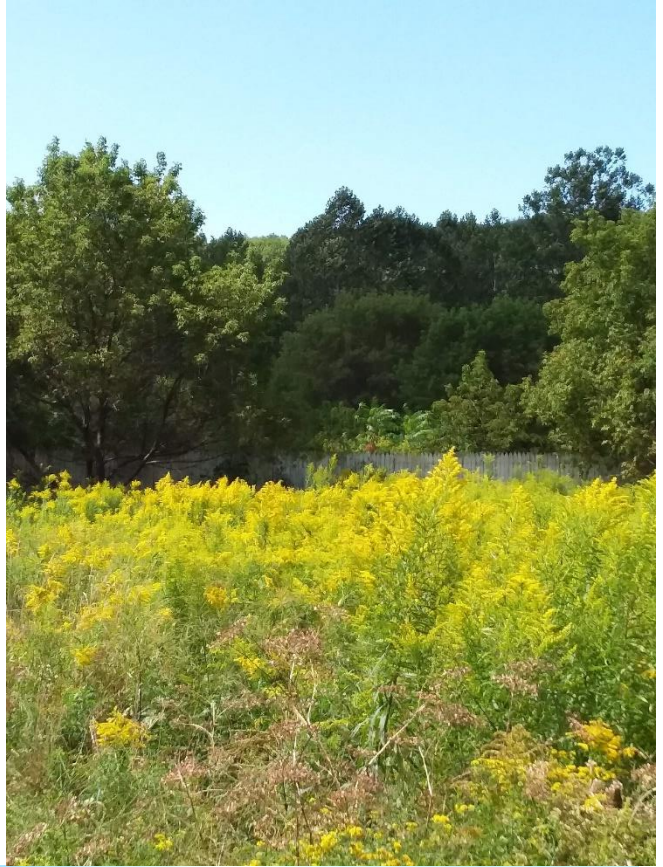
Site Layout & Images



2019 Illegal Dumpsite Summary



2019 Illegal Dumpsite Summary



2019 Illegal Dumpsite Summary

Cleanup:

With enough people, this site could be cleaned up in a couple days. The flat terrain would make this site much easier to clean than some of the other sites that are on very steep banks. Two or three large dumpsters should be enough to haul away all of the junk from this site. Larger equipment may be needed to remove the boat and some piles of debris.

#3 Priority Site: Krise Road (Site 48)
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SITE INFORMATION

Municipality: Liberty Township

Road Name: Salt Spring Road

GPS Coordinates: 41.56226900, -7702008200

Parcel Number: 21-08.00-030; 21-08.00-031

Address: 1170 Salt Spring Road

Proximity to Water: In and Near Salt Spring Run

Slope Steepness: Steep Slope

Is this dumpsite active? No

Estimated Tons of Waste: 5.0

Types of Waste Present:

Bagged Trash ☒

Household Trash ☒

Recyclables ☐

HHW ☐

Tires ☒

Clean Fill ☐

C&D Waste ☒

Yard Waste ☐

White Goods ☐

Electronics ☒

Televisions ☐

Furniture ☒

Mattresses ☐

Vehicle Parts ☒

Car Batteries ☐

Meth Lab Remnants ☐

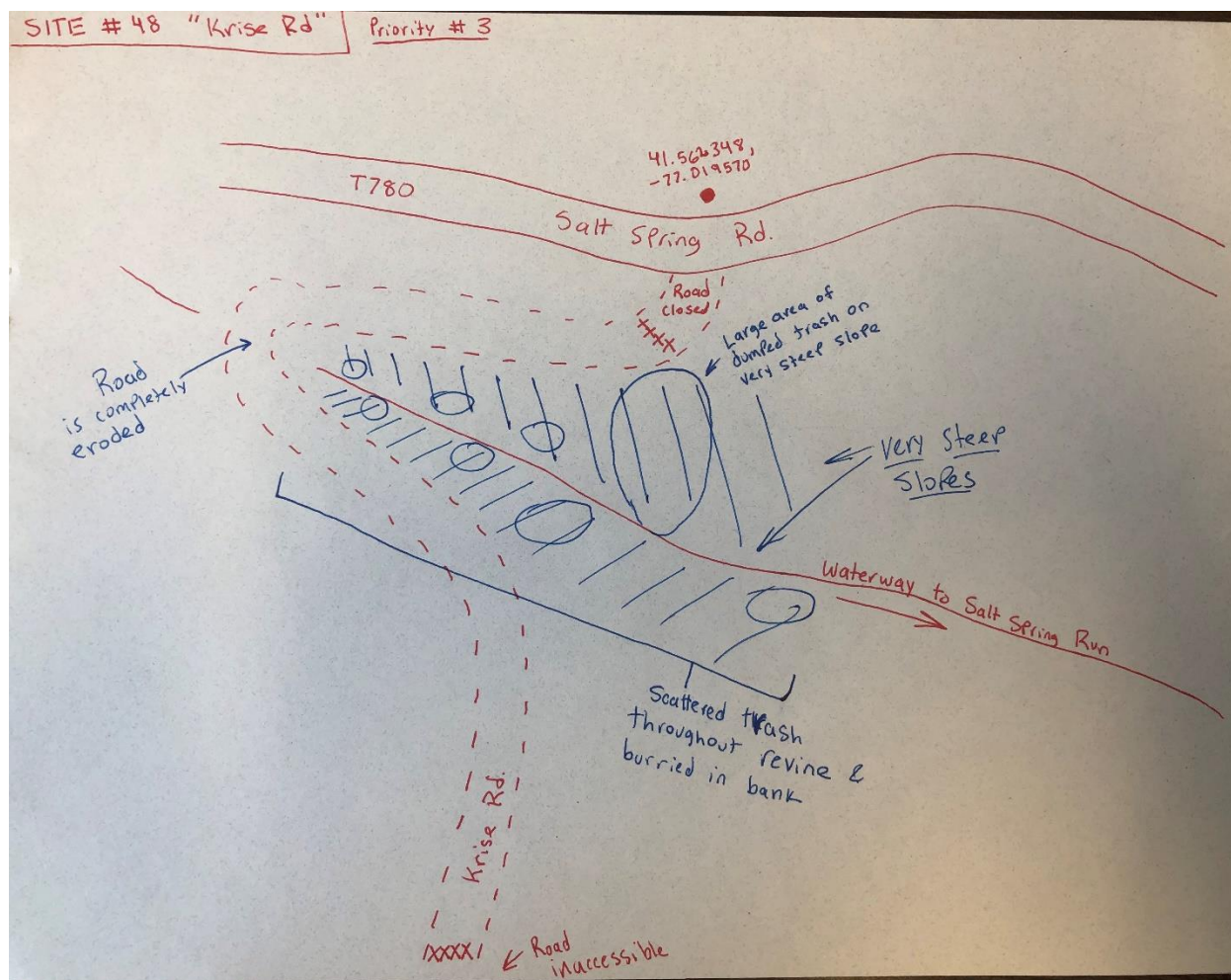
Animal Remnants ☐ Other: _____

Description:

This is a large, old dump site that is located in a waterway next to a road that has been eroded by flooding and is no longer an active road (Krise Road). There is a road closed sign on the entrance of Krise Road off of Salt Spring Road, whereas the other end of Krise road is simply inaccessible. The banks are very steep and are covered with garbage. There may very well be junk buried in the banks due to the age and flooding nature of this dumpsite. The garbage is also easily dispersed downstream during the flooding season, making this site a high priority for cleanup.

2019 Illegal Dumpsite Summary

Site Layout & Images









2019 Illegal Dumpsite Summary

Cleanup:

The cleanup of this site would likely be the most difficult of the top five priority sites due to the steepness of the banks and the size of the site. Garbage has been spread downstream from flooding, which adds some complications for cleanup because the waterway flows further away from the main road. Pulley systems would likely need to be implemented to haul the heavier junk out of the ravine. Large dumpsters and/or dump trucks would have to be used to haul the garbage away. No excavators will be able to enter the ravine due to the steepness, however there may be more garbage buried in the banks.

#4 Priority Site: Kerr Road (Site 28)

SITE INFORMATION

Municipality: Delmar Township

Road Name: Kerr Road

GPS Coordinates: 41.64211700, -77.41526800

Parcel Number: 09-12.00-010

Address: 344 Kerr Road

Proximity to Water: Near Pine Island Run

Slope Steepness: Medium Slope

Is this dumpsite active? Yes

Estimated Tons of Waste: 3.0

Types of Waste Present:

Bagged Trash ☐

Household Trash ☒

Recyclables ☐

HHW ☐

Tires ☒

Clean Fill ☐

C&D Waste ☐

Yard Waste ☐

White Goods ☒

Electronics ☐

Televisions ☐

Furniture ☐

Mattresses ☐

Vehicle Parts ☒

Car Batteries ☐

Meth Lab Remnants ☐

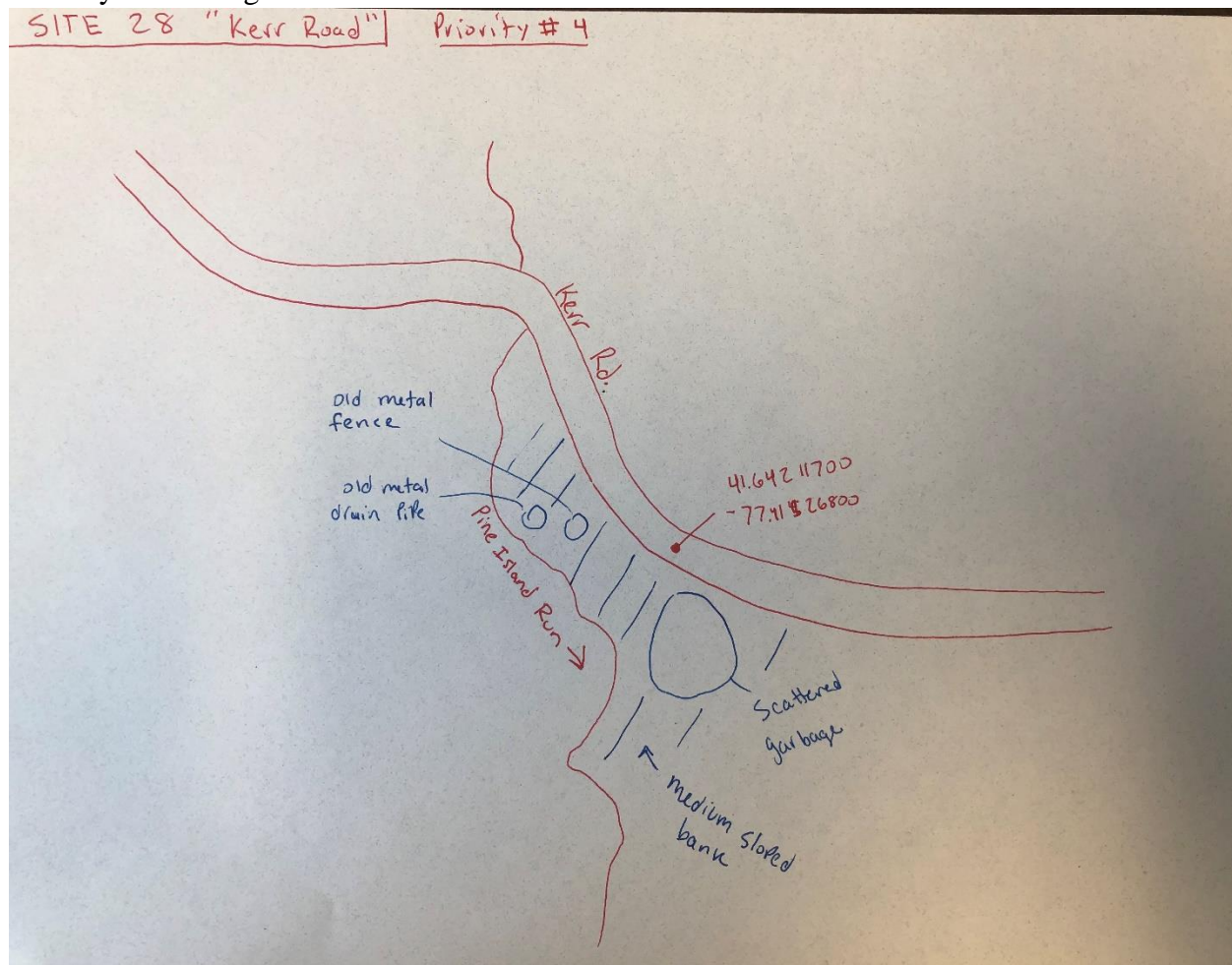
Animal Remnants ☐ Other: _____

Description:

This site is on a bank near Pine Island Run in between several farm fields. There is a metal fence, culvert pipes, some of which are partially buried in the bank. A couple pieces of scattered garbage and tires are along the bank as well.

2019 Illegal Dumpsite Summary

Site Layout & Images



2019 Illegal Dumpsite Summary





Cleanup:

The cleanup of this site would likely be relatively easy, assuming there is not a lot of buried garbage in the banks. One large dumpster should be all you need to clean up these old culvert pipes, metal fence, a couple tires, and some scattered garbage. The medium slope of this dumpsite should not be too difficult to maneuver, but may add some difficulty for the larger metal objects.

2019 Illegal Dumpsite Summary

#5 Priority Site: Rattler Run Rd. (Site 54)

SITE INFORMATION

Municipality: Morris Township

Road Name: Rattler Run Road

GPS Coordinates: 41.61940200, -77.32573100

Parcel Number: 25-02.00-001A-1

Address: No Address

Proximity to Water: In and Near Paint Run Tributary

Slope Steepness: Medium Slope

Is this dumpsite active? No

Estimated Tons of Waste: 0.25

Types of Waste Present:

Bagged Trash ☐

Household Trash ☒

Recyclables ☒

HHW ☐

Tires ☒

Clean Fill ☐

C&D Waste ☐

Yard Waste ☐

White Goods ☐

Electronics ☐

Televisions ☐

Furniture ☐

Mattresses ☐

Vehicle Parts ☐

Car Batteries ☐

Meth Lab Remnants ☐

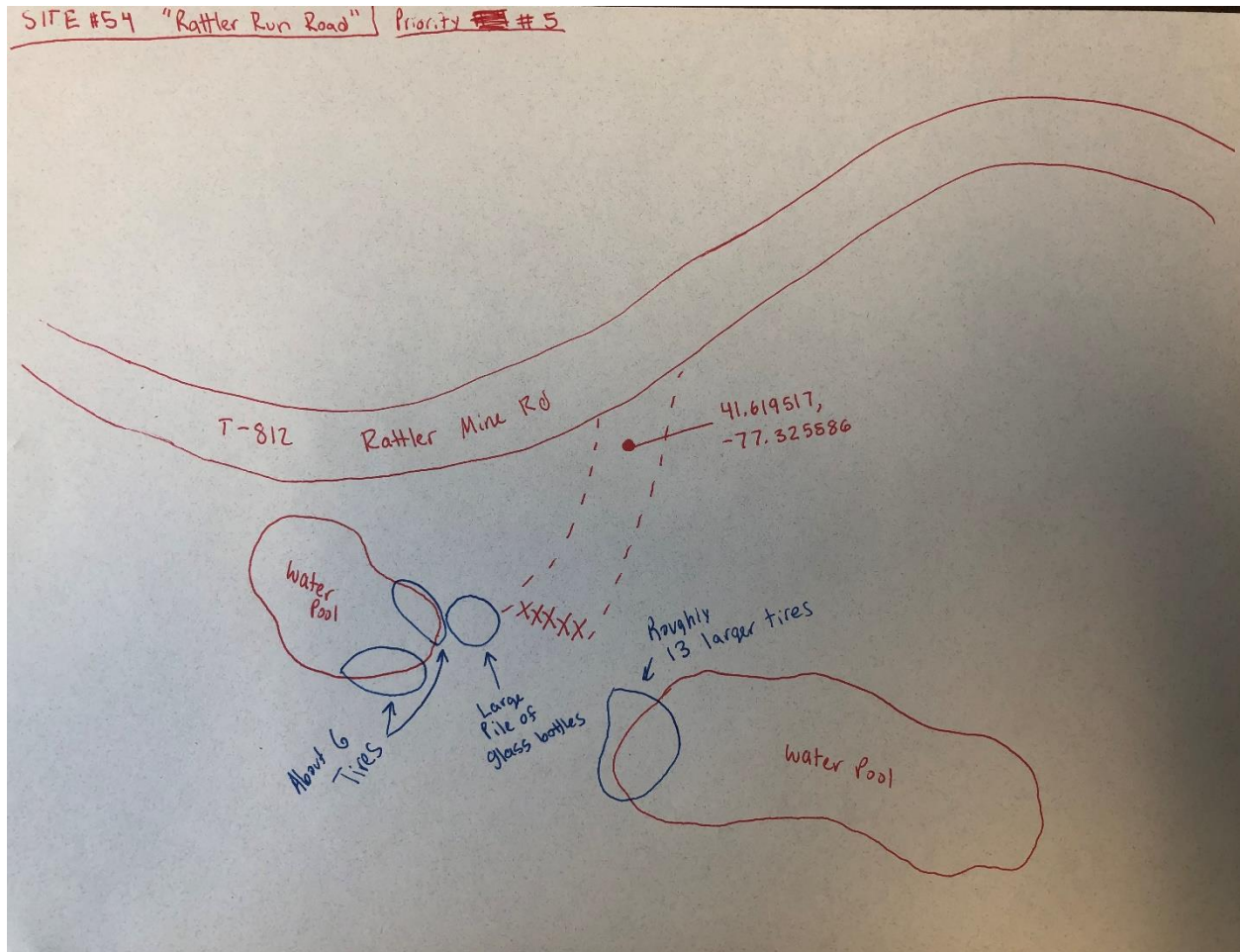
Animal Remnants ☐ Other: _____

Description:

This site is located on a small pull-off along Rattler Run Road that has been fenced across the middle to prevent vehicles from going back the road. There is a large pile of glass bottles, and about 20 tires spread on each side of the pull-off. There are two pools of water, one on each side of the pull-off, in which there is garbage and tires. These vernal pools of water are extremely important habitats for salamander and frog breeding and egg laying in the spring, making this site a high priority for cleanup and prevention.

2019 Illegal Dumpsite Summary

Site Layout & Images







2019 Illegal Dumpsite Summary

Cleanup:

The cleanup of this site would be relatively simple. One large dumpster should be all that is needed to remove the tires, the pile of glass bottles, and the other scattered garbage. Large boots should be worn because the ground will likely be very mucky, especially in the water. Some of the tires may be too large and heavy for one person to lift.