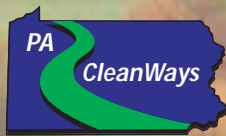
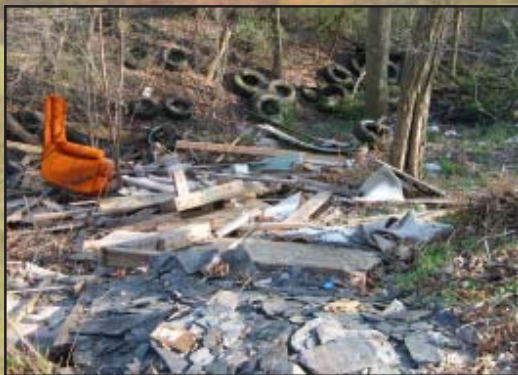


PA CleanWays - Keep Pennsylvania Beautiful Illegal Dump Survey Final Report Union County 2010



Empowering people to
eliminate illegal dumping
and littering in Pennsylvania





Empowering people to eliminate illegal dumping and littering in Pennsylvania



PA CleanWays and Keep Pennsylvania Beautiful recently joined forces to promote illegal dump cleanups, anti-litter education, special collections, and beautification projects to make their work with local partners and volunteers more effective. Since 1990, PA CleanWays has been dedicated to empowering people to eliminate illegal dumping and littering. Through the coordinated efforts of nearly 52,000 PA CleanWays volunteers, over 11,900 tons of trash have been removed from illegal dumpsites in Pennsylvania and properly disposed. Through cleanups and special collection events sponsored by PA CleanWays chapters and affiliates, over 410,000 tires and 2,250 tons of scrap metal have been properly disposed and recycled. More than 337,000 youths and adults have been reached through educational presentations. Our experience over two decades proves that local involvement, partnerships, and support are vital to lasting success in addressing illegal dumping and littering.

PA CleanWays – Keep Pennsylvania Beautiful

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EXECUTIVE SUMMARY

PA CleanWays - Keep Pennsylvania Beautiful is a nonprofit organization that empowers people to eliminate illegal dumping and littering in Pennsylvania through various education and environmental programs. PA CleanWays - Keep Pennsylvania Beautiful illegal dump surveys educate state, county, and local officials about the problem of illegal dumping and provide valuable data about the dumpsites and the community in which they reside to address the problem through cleanups, municipal waste collections, and recycling programs.

Illegal dumpsite identification was completed by driving roads and contacting various constituent groups such as municipal offices and community services, state agencies, and environmental and conservation groups in the area. Limitations of the survey process included poor visibility in high growth areas and surveyors not accessing private lands or high crime/high risk areas. Due to these limitations, it is likely that there were additional dumpsites not accounted for in this report. Farm dumps and private dumps were not included in the survey. The survey process is to document sites where landowners have been the victim of illegal dumping from other parties, not sites where they have been doing the dumping themselves, or past owners did the dumping.

There were 21 dumpsites identified containing an estimated 42.63 tons of trash. Seventy-six percent of the sites were determined to be active and 90% of the sites were located in a rural area. Of 14 municipalities in Union County, one municipality has mandatory trash collection. Two of the municipalities (14%) within Union County have a curbside recycling program in their community while 10 municipalities (72%) have access to a recycling drop off program. Seven municipalities (50%) have illegal dumping activity. Twenty-one sites (100%) were located in municipalities without a curbside recycling program.

Five, or 24%, of the surveyed sites were in the vicinity (50 feet and within) of some sort of waterway or body of water. Of those, two sites had waste materials directly in the waterway itself. Of the items inventoried at each dumpsite assessed, 67% of the sites contained household trash and yard waste, and 62% of the sites had recyclables, tires, and construction and demolition waste. Recyclables are defined as steel, bi-metallic, and aluminum cans, glass, plastic bottles and containers, newspaper, magazines, cardboard, etc.

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BACKGROUND

PA CleanWays - Keep Pennsylvania Beautiful is a nonprofit organization that empowers people to eliminate illegal dumping and littering in Pennsylvania. Since 1990, PA CleanWays - Keep Pennsylvania Beautiful has helped people who are ready to take action against these destructive problems. By partnering with county and local officials, concerned residents, and community organizations, tangible results can be seen within a community through:

- organization of illegal dump and litter cleanups,
- adoption of local areas,
- prevention of future dumping by the watchful eyes of volunteer monitors,
- placement of physical deterrents, and,
- enforcement action when needed.

PA CleanWays - Keep Pennsylvania Beautiful educates the public about proper waste disposal, recycling, and practical alternatives to dumping and littering through the dissemination of literature, presentations, and coordination of collection events for hard-to-dispose of items.

PURPOSE OF ILLEGAL DUMP SURVEYS

The purpose of the illegal dump survey was to assess and document as many illegal dumpsites as possible within the county. Illegal dumping mostly occurs in remote and secluded places, rural areas where few people live and the roads are less traveled. However, for many people who are residents of an urban area, an illegal dump can often be found within a one-mile radius of their home. Illegal dumping, within an urban context, has its own set of unique characteristics. Overall, very few people are aware of the widespread problem of illegal dumping.

The first step in developing an action plan against illegal dumping in a community is to determine the extent of the illegal dumping problem. Once sites are identified, assessed, and mapped, the data gathered can be used to:

- show that a problem does indeed exist,
- prioritize the sites and areas for cleanup and abatement,
- document problem materials within the dumpsites and develop plans for proper disposal, and,
- provide a benchmark to measure cleanup progress.

The survey is also a tool that can be used for planning purposes within the community. It can provide valuable insight into the development and enhancement of solid waste and recycling programs. It can also be used to gain support for funding for public awareness programs and education, as well as to generate funds to clean the existing dumpsites.

IMPACTS OF ILLEGAL DUMPING

Illegal dumping poses a direct threat to the health and safety of humans and animals. Illegal dumping attracts disease-spreading rodents and mosquitoes by giving them a place to live and

breed. West Nile Virus, carried by mosquitoes, has been a primary concern for environmental officials. Illegal dumps also can be a source of physical injury for humans and animals due to broken glass, rusty metals, and toxic substances.

Recently, a new threat has been added to illegal dumping. Methamphetamine labs, used to produce the illegal drug crystal meth, are becoming more and more common. The materials used to make the illegal drug are tossed along the roadsides in illegal dumps and are extremely toxic.

Environmentally, illegal dumping pollutes our soil, surface, and groundwater supplies, as well as the air we breathe if a site catches on fire. The emissions released by the burning plastics and household hazardous waste can be extremely toxic. It is also aesthetically unpleasing and ruins the beauty of natural areas, including many public places such as community parks and state forests, parks, and game lands.

Economically, illegal dumps are expensive to clean up. Government agencies spend millions annually on cleanup efforts. The estimated cost to clean up a site can be anywhere from \$600 to over \$1,000 per ton for clean up and removal.¹

Illegal dumpsites can also impact property values, can be a liability for property owners, and affect property purchases and transfers. Tourism revenue can also be affected by illegal dumps, which project to tourists that trash is not a concern of the community or the persons living there.

Illegal dumping also has social impacts on an area. When illegal dumping in neighborhoods and communities becomes status quo, quality of life is impacted and low-level property crime often increases.² This is what is referred to as the “broken window theory” developed originally by James Q. Wilson and George Kelling. The “broken window theory” suggests that neighborhood strategies help to deter and reduce crime by the fast clean up of illegally dumped items, litter, and spilled garbage, and by the prompt removal of disposed of items.³

SURVEY METHOD

Definition of an Illegal Dumpsite

One of the primary goals of an illegal dump survey is to ultimately address the trash in our communities; therefore, the following were considered illegal dumpsites and included in the survey:

- Areas of concentrated trash,
- Areas of scattered trash that:
 - are not considered roadside litter (bottles, fast food wrappers, cans, etc.)

¹PA CleanWays averaged cost from multiple cleanups throughout 2004 & 2005.

² Wilson, James Q., Kelling, George L., “Broken Windows”, *Atlantic Monthly*, March 1982.

³ Henry G. Cisneros, “Defensible Space: Detering Crime and Building Community”, January 1995.

- appear to have new trash thrown on them occasionally (more than twice a year)
- appear to have new trash thrown on them occasionally, but cleanup maintenance is prevalent to prevent accumulation,
- Areas containing only piles of yard waste (grass, leaves, branches, trees, etc.). These sites can often attract the dumping of other materials and can grow into major dumpsites, and,
- Areas containing isolated or solitary items, such as 1 or 2 appliances or tires that may or may not be dumped on in the future.

Site Identification and Assessment

PA CleanWays - Keep Pennsylvania Beautiful has learned through its experiences that, to effectively identify illegal dumpsites in an area, it is necessary to physically travel the roadways. By focusing on high probability areas for dump locations such as pull-offs, roads with hillsides, etc., efficient surveying can be done on large areas within a short amount of time.

Preliminary data gathering was conducted by sending a letter to every municipality within the county concerning the survey project. The letters detailed the survey purpose and plan, and asked for known illegal dumpsites to be reported back to PA CleanWays - Keep Pennsylvania Beautiful. Letters were also sent to environmental groups interested in conservation of this area, as well as to state agencies such as the Pennsylvania Department of Environmental Protection, Pennsylvania Department of Conservation and Natural Resources, the Pennsylvania Game Commission, and the Pennsylvania Fish and Boat Commission. Follow up phone calls were made to each municipality prior to beginning assessments in its area.

Once an illegal dumpsite was located, characteristics about the site itself were recorded and documented on standard forms (a copy of the Illegal Dump Survey Assessment Form and Instruction Sheet are available by contacting PA CleanWays - Keep Pennsylvania Beautiful). Pictures were also taken of the illegal dumpsites to further document the problem. GPS coordinates were recorded for each site in order to produce illegal dumpsite maps within the county based on municipalities, population density, and environmental features (see Attachments 1, 2, and 3).

Limitations

The primary limitation with road surveys is that they only permit discovery of sites visible from the public right-of-way, therefore, only those sites were assessed by PA CleanWays - Keep Pennsylvania Beautiful. PA CleanWays - Keep Pennsylvania Beautiful did not enter private property to assess sites. It can be presumed that there are significant numbers of illegal dumpsites out of sight on private property with limited access. Because safety considerations were a priority for this project, areas were not assessed in high crime/risk areas. Most surveying began after the foliage had thinned in the fall and visibility improved, however, some site assessments were limited due to high vegetation and snowfall.

Similar to dense foliage or snow cover, another limitation to the survey is estimating the amount of waste that lies underneath the waterline. As is reported, 5 of the sites are in or within

50 feet of a waterway with 2 sites directly in the waterway itself. There is no way to estimate the amount of waste that lies underneath the waterline thus these estimates could be low.

Due to cleanup efforts after surveying occurred, some sites in this report may no longer be present.

Farm/Private Dumping

While PA CleanWays - Keep Pennsylvania Beautiful strives to include as many illegal dumpsites in each county as possible, there are two types of dumpsites we do not include in our reports; farm dumps and private dumps. The survey process is to document sites where landowners have been the victim of illegal dumping from other parties, not sites where they have been doing the dumping themselves, or past owners did the dumping.

Farm dumping is still in practice today, although not to the extent it was decades ago. Typically, there was not a disposal plan in place for many areas in the state, therefore farmers disposed of their household garbage, empty chemical containers, yard waste, and other unneeded materials somewhere on their property. A majority of today's farmers have unfortunately inherited farm dumps on their properties, although some continue the practice to save money and time. Increased public awareness of environmental issues caused by any dumpsites has shed light on the reasons not to continue to use farm dumps. Without regulations or enforcement in place to stop it, farm dumping is still an issue in Pennsylvania and many other agricultural states in the U.S. To learn more about how farmers can clean their own dumps and the legalities of farm dumping, contact the Penn State University Agricultural & Biological Engineering Extension at 814-865-7685.⁴

Private dumpsites, ones that are put on the property by the owners, are also not included. These include sites such as stockpiles of scrap, yard waste, household trash, and other things you may find in an illegal dumpsite. Usually these sites are determined private by its proximity to a residence, or marked private with no trespassing signs. There are many times when the surveyor is not able to distinguish between a private site and an illegal dumpsite. In these cases, the site is surveyed and sent to the PA CleanWays - Keep Pennsylvania Beautiful office where, based on the data gathered and photos taken, it is determined whether to include it in the final report as an illegal dumpsite. If a dumpsite in a published report is found to be a farm or private dumpsite, the site is immediately removed from the report.

UNION COUNTY ILLEGAL DUMPSITE SURVEY AREA AND RESULTS

Survey Area

Union County encompasses 316.73 square miles and is located in the central of Pennsylvania. The county is bordered by Lycoming County to the north, Northumberland County to the east, Snyder County to the south, Mifflin County to the west, and Centre County to the northwest. The county has numerous watersheds within its boundaries, including the White Deer – Buffalo

⁴ Garthe, J. W. & Shufran, J. L. (1997). Farm Dumps: Problems and Solutions. Penn State Agricultural and Biological Engineering. Retrieved from <http://www.abe.psu.edu/extension/factsheets/c/C28.pdf>.

Creeks Watershed, Penns – Middle Creeks Watershed, Muncy – Chillisquaque Creeks Watershed, Bald Eagle Creek Watershed, and the Kishacoquillas – Jacks Creeks Watershed.

According to the Census Bureau, the 2000 census recorded the population as 41,624. The median household income is \$40,336. The per capita income is \$17,918. The percentage of individuals below poverty status is 8.8%, while 5.1% of families are below poverty status. The national average is 12.4% for individuals and 9.1% for families. The percent of high school graduates or higher is 73.1%, which is lower than the state average of 81.9%.

On March 22, 1813, Union County was formed when land west of the Susquehanna River was separated from Northumberland County. Named for the "union" of American states, Union County's eastern boundary is the Susquehanna River. The northern and southern boundaries are Appalachian mountain ranges that come to a point in the western end of the county. Between these mountains is "Buffalo Valley." In 1855 land was taken from Union County to form Snyder County. New Berlin was the original county seat (1813-1855). Lewisburg, on the Susquehanna River, became a market town with the building of The Pennsylvania Canal in 1830 and was selected as the county seat in 1855. Lewisburg is home to Bucknell University, which was founded as the University of Lewisburg in 1846. Between 1865 and 1910, Mifflinburg grew to be the horse buggy capital of America.

Today, farms cover almost one-third of the county, making it competitive in the production of field grains, poultry, and dairy products.⁵ Union County's economy also depends on services, such as health care and education, and manufacturing of lumber and wood products. Union County has 41,624 residents and features a blend of communities, woodlands, farmlands, and many streams. It has little urban development. Its 317 square miles feature mountainous ridge-and-valley terrain, and include Buffalo, Paddy, and Nittany Mountains. State Forests in Union County include Bald Eagle State Forest and Shikellamy State Forest, and State Parks include Sand Bridge State Park and R. B. Winter State Park.

In Pennsylvania, municipal solid waste (msw) includes municipal waste, sewage sludge, construction and demolition waste, asbestos, and ash. In Union County, one municipality offers trash collection and two of Union County's municipalities (14%) have a curbside recycling program within their community. There are ten municipalities (72%) with access to drop off locations. Seven municipalities (50%) have illegal dumping activity. Twenty-one sites were located in municipalities without a curbside recycling program (see Attachment 4). In 2005, according to the Pennsylvania Department of Environmental Protection, Union County reported a total of 36,212.88 tons of municipal solid waste generated. Of that total, 5,961.2 tons were recycled giving Union County a 17% recycling rate. While these numbers are the most recent available for this report, recycling rates fluctuate due to the economy, program availability, and many other factors; thus, this rate may not reflect the current recycling rate in the county. The county has an msw generation rate of 0.87 tons per person per year. The national average is 0.82 tons per person per year.

⁵ Pennsylvania Historical and Museum Commission.

Site Characteristics

The Union County survey resulted in the identification of 21 illegal dumpsites totaling an estimated 42.63 tons of trash. The sites ranged in size from approximately .125 tons to 6 tons of waste. A chart of Site Characteristics by Municipality can be found as Attachment 5 of this report.

Of the 21 dump sites, 90% were in rural areas. The terrain of Union County is somewhat hilly. Hillsides provide illegal dumpers with a convenient place for easy unloading. Seventy-six percent of the sites were considered to be a continuous problem where dumping occurs routinely. No sites (0%) had “No Dumping” signs present. Signs, although effective in some areas, often send a message that this is a “safe” place to dump. In some county surveys, the presence of signs resulted in the identification of sites that were not visible from the road. Concerning visibility, 57% of the sites were visible and 38% were partly visible from the road. This fact lends itself to the theory that illegally dumped trash will attract more trash.

Impacts on Waterways

Of all the illegal dumpsites, those posing the most direct and obvious threat to the environment were located in or near waterways. Five, or 24%, of the surveyed sites were in the vicinity (50 feet and within) of some sort of waterway or body of water. Of those, two sites had waste materials directly in the waterway itself (see Attachment 5). It should, however, be noted that all illegal dumps contaminate our water supply.

Waste Characteristics

Union County illegal dumpsites contained a variety of waste types. In some areas, the common presence of a waste type may indicate the need for a refuse/recycling program for that particular material. One hundred percent of the dumpsites found were located in a municipality without a curbside recycling program. Of the items inventoried at each dumpsite assessed, 67% of the sites contained household trash and yard waste, and 62% of the sites had recyclables, tires, and construction and demolition waste. Recyclables are defined as steel, bi-metallic, and aluminum cans, glass, plastic bottles and containers, newspaper, magazines, cardboard, etc. A chart of the Waste Characteristics by Municipality can be found as Attachment 6, as well as a chart showing Illegal Dumpsite Characteristics Summary by County as Attachment 7 of this report.

POSSIBLE CAUSES AND SOLUTIONS

Illegal dumping occurs in every county of the state. There are a multitude of reasons and excuses why people dump: the cost or inconvenience of proper disposal; the lack of, or frustration in, finding proper disposal options; lack of public education; profit making; the result of other criminal activity or malicious mischief.

Possible Causes

- Municipal curbside trash collection is unavailable
Because it is not mandated by the state, trash collection options are dependent on the city or municipal government. As many rural and small-town

municipalities lack funding for mandatory trash collection, it is up to the resident to pay for trash collection. Communities that depend on private subscription for waste collection services have reported greater dumping problems. Inherent inefficiencies and associated higher costs exist in almost all private subscription systems because trucks must travel long distances between customers.⁶

- Recycling programs are unavailable or inconvenient
Act 101 dictates that all communities with populations over 10,000, and densely populated municipalities between 5,000 and 10,000, have recycling programs. Communities that fall outside of these parameters must pay for recycling on their own. Depending on the county, many or all of these communities don't have funding to support a curbside recycling program. Curbside recycling communities have reported a lower incidence of residential waste accumulation problems and a slightly lower incidence of dumping problems.⁷
- Disposal of Construction and Demolition debris (C&D)
C&D debris is a serious solid waste management issue because of the amount that is generated each year, along with the lack of convenient and or affordable disposal options available. C&D debris is often found in illegal dumps and creates a compounded problem because some of the materials may be hazardous, such as wood that has been chemically treated or painted with lead based paint, insulation containing asbestos, or shingles.
- Shortage of enforcement
Unfortunately, many communities cannot devote people and resources to effectively deal with illegal dumping. As a result, dumpers do not fear prosecution and have no reason to stop their habits.
- Education
Illegal dumping has been a learned habit for many. Prior to anti – dumping laws, it was common practice to use open town dumps, burn or bury trash, or dump in a convenient out of the way area. Today we know the harmful effects from illegal dumping. Education is key to diminish the habits learned and teach the public proper and safe disposal practices.

Possible Solutions

- Organize a cleanup
Cleanups are an effective way to combat littering and illegal dumping. Cleanups help to build ownership, restore community pride, and send a message that dumping will no longer be tolerated.
- Organize a special collection event

⁶ PA CleanWays and PROP, "Factors Influencing Illegal Dumping in Pennsylvania Communities", Spring 2001.

⁷ PA CleanWays and PROP, "Factors Influencing Illegal Dumping in Pennsylvania Communities", Spring 2001.

Special one-day collection events are worthwhile. These special collection opportunities are very effective when routinely offered, such as each spring or fall as a community cleanup day, but are also successful when offered as community resources permit. These special collections commonly target hard-to-dispose of materials such as tires, appliances, scrap metal, computers, electronics, and household hazardous waste. Most of these items account for what is found in illegal dumps.

- **Physical deterrents**
The placing of guard rails or mounds of dirt at pull-off areas, as well as the planting of trees, can help provide a barrier that will limit accessibility to a site for future dumping.
- **Site monitoring and maintenance**
It is important to monitor a site after an area has been cleaned in order to watch for subsequent dumping or littering, to keep the site clean, and to report any incriminating evidence to the proper enforcement agency. Keeping the site clean makes it easier to spot new trash and discourages subsequent dumping, since trash attracts trash.

Enforcement, with site monitor support, effectively decreases the incidents of dumping and littering. When word gets out that dumping activity will not be tolerated and violators will be caught and prosecuted, dumping decreases.

- **Community education**
Intentional illegal dumping and littering are social problems that require a shift in attitudes and practices. Education is the key to changing values, habits, and attitudes. Education programs should be tailored to inform the community and can take many forms, such as, school/community presentations, press releases, radio and newspaper ads, and publications.
- **Enforcement of existing laws**
Any improper disposal of trash is illegal and violators can be prosecuted. Numerous Pennsylvania agencies enforce laws addressing improper disposal of trash. The Pennsylvania General Assembly creates and enacts our littering and dumping laws.⁸ County and municipal governments create and enact ordinances that are specific within their local boundaries.

SUMMARY

This survey accounted for 21 illegal dumpsites in Union County consisting of an estimated 42.63 tons of trash. This is not a comprehensive survey of the entire county as it is expected that there are many more illegal dumpsites on private lands and farms, as well as ones on public lands that have gone undetected. However, the documentation and assessment of these 21 sites

⁸ Read about the Pennsylvania Code at www.pacode.com.

in Union County is a strong step forward in the fight against illegal dumping in Pennsylvania. By providing the needed data to address the problem of illegal dumping, constituents can begin doing so through public policy, resource allocation, community education, and cleanups.

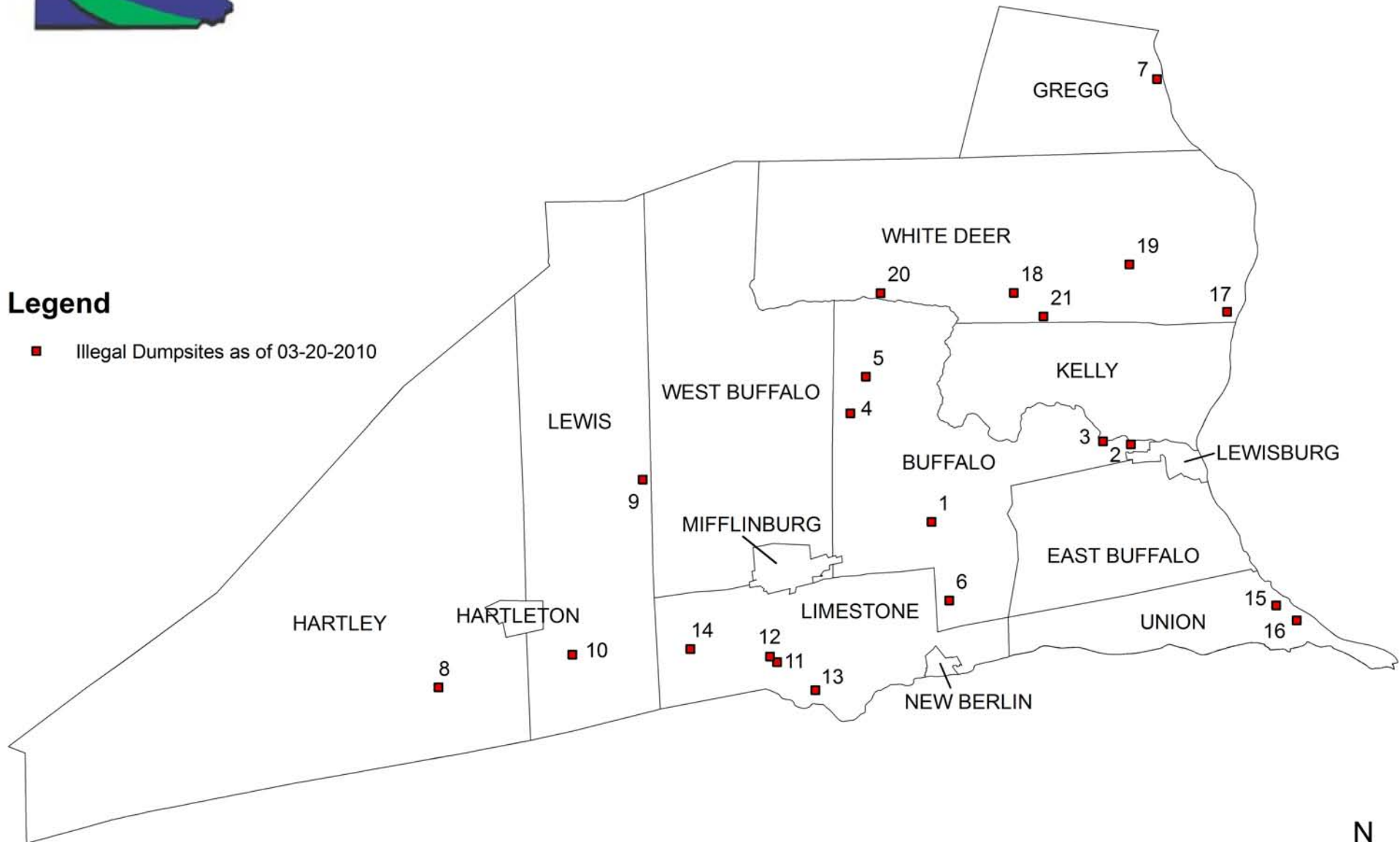


Union County, Pennsylvania Illegal Dumpsites and Municipalities March 2010

Attachment 1

Legend

■ Illegal Dumpsites as of 03-20-2010





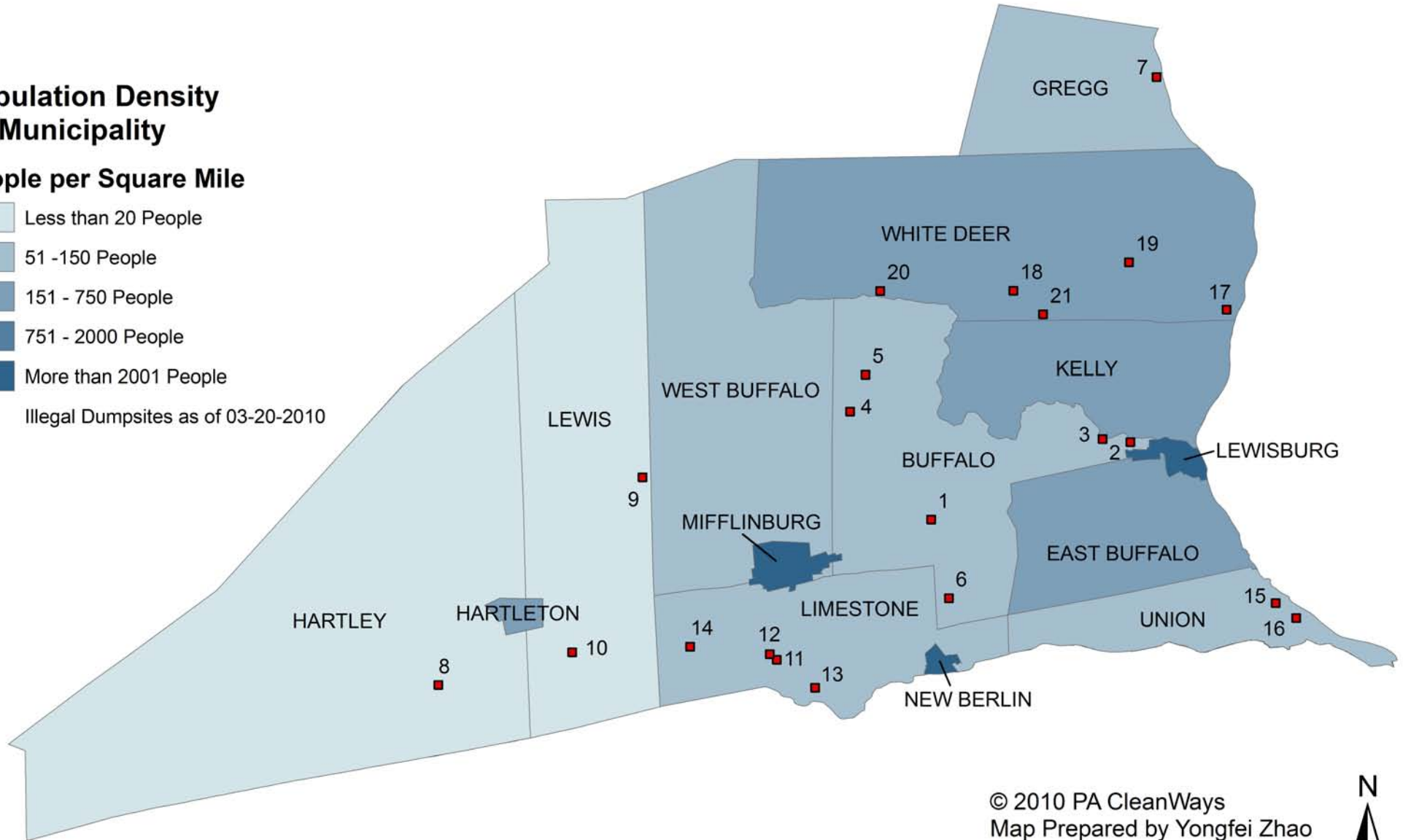
Union County, Pennsylvania Illegal Dumpsites and Population Density March 2010

Attachment 2

Population Density by Municipality

People per Square Mile

-  Less than 20 People
-  51 -150 People
-  151 - 750 People
-  751 - 2000 People
-  More than 2001 People
-  Illegal Dumpsites as of 03-20-2010



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Map Prepared by Yongfei Zhao
UCSUR, University of Pittsburgh



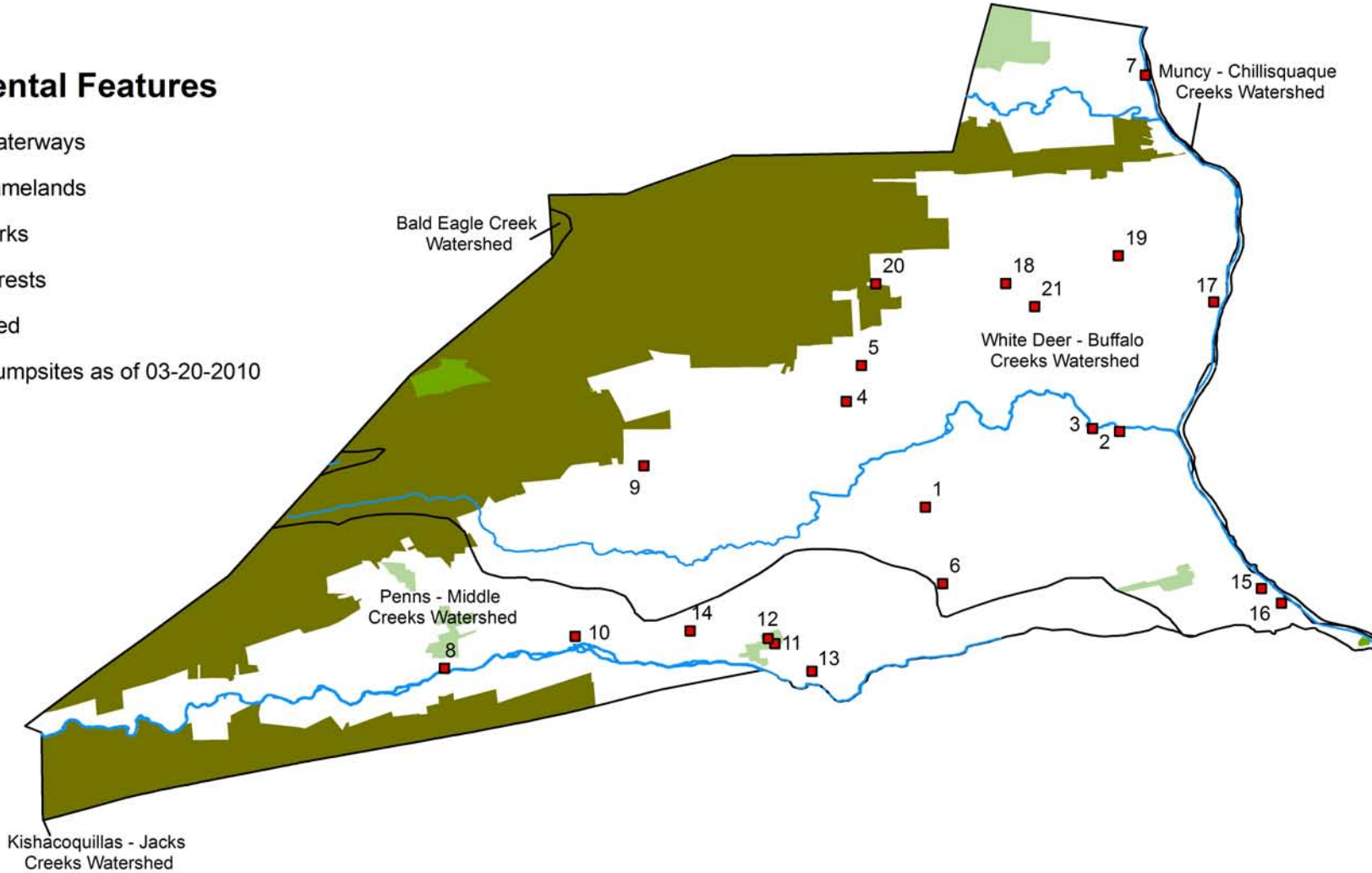


Union County, Pennsylvania Illegal Dumpsites and Environmental Features March 2010

Attachment 3

Environmental Features

- Major Waterways
- State Gamelands
- State Parks
- State Forests
- Watershed
- Illegal Dumpsites as of 03-20-2010



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Map Prepared by Yongfei Zhao
UCSUR, University of Pittsburgh



Illegal Dumpsites and Trash Collection by Municipality**

Municipality	Illegal Dumpsites	Calculated Tons*	Trash Collection	Curbside Recycling	Drop Off Recycling
Buffalo Township	6	22.5			
East Buffalo Township	0	0		X	X
Gregg Township	1	0.5			
Hartleton Borough	0	0			X
Hartley Township	1	2			X
Kelly Township	0	0			X
Lewis Township	2	1.25			X
Lewisburg Borough	0	0	X	X	X
Limestone Township	4	5.25			
Mifflinburg Borough	0	0			X
New Berlin Borough	0	0			X
Union Township	2	2			X
West Buffalo Township	0	0			
White Deer Township	5	9.125			X

Fifty percent of Union County's municipalities have illegal dumping activity.

One of Union County's municipalities has trash collection.

Two of Union County's municipalities have a curbside recycling program.

One hundred percent of the sites were located in municipalities without a curbside recycling program.

*Quantities assessed at time of survey were estimates based on what was visible.

**Information concerning mandatory trash collection, curbside recycling, and drop off recycling is deemed correct at time of printing and cannot be guaranteed due to changes in ordinances and funding in each individual municipality. Data was provided by the Union County Planning Commission.

Union County IDS Site Characteristics by Municipality*

Municipality	Site Name	Site Number	Calculated Tons	Demographics	Distance from Waterway	Visibility from Roadway	Road Ownership	Terrain Type	Active
Buffalo Township	Campbell Mill Road Site 1	0002	6	Rural	50 - 100 ft	Partial	Municipal	Gently sloped	Yes
Buffalo Township	Campbell Mill Road Site 2	0003	5	Rural	Within 50 ft	Yes	Municipal	Gently sloped	Yes
Buffalo Township	Glover Hill Road	0004	3	Rural	No waterway nearby	Yes	Municipal	Medium slope	Yes
Buffalo Township	Indian Ridge Road	0005	3	Rural	Within 50 ft	Partial	Municipal	Steep slope	Yes
Buffalo Township	Strickler Road	0001	0.5	Rural	No waterway nearby	Yes	Municipal	Flat	No
Buffalo Township	Turkey Run Road	0006	5	Rural	No waterway nearby	Yes	Municipal	Gently sloped	Yes
Gregg Township	River Road	0007	0.5	Suburban	More than 100 ft	Yes	Municipal	Flat	Yes
Hartley Township	Pick Road	0008	2	Rural	No waterway nearby	Yes	Municipal	Gently sloped	Yes
Lewis Township	Libby Road	0010	1	Rural	No waterway nearby	No	Municipal	Flat	Yes
Lewis Township	Old Shingle Road	0009	0.25	Rural	No waterway nearby	Partial	Municipal	Medium slope	No
Limestone Township	Long Road	0011	0.5	Rural	More than 100 ft	Yes	Municipal	Gently sloped	Yes
Limestone Township	Mensch Road	0012	0.25	Rural	No waterway nearby	Partial	Municipal	Gently sloped	Yes
Limestone Township	White Springs Road	0014	1.5	Rural	No waterway nearby	Yes	Municipal	Medium slope	Yes
Limestone Township	Zimmerman Road	0013	3	Rural	No waterway nearby	Yes	Municipal	Gently sloped	Yes
Union Township	Seven Kitchens Road Site 1	0015	1.5	Rural	In Waterway/Wetland	Partial	Municipal	Medium slope	Yes
Union Township	Seven Kitchens Road Site 2	0016	0.5	Rural	Within 50 ft	Yes	Municipal	Flat	No
White Deer Township	Old Route 15	0017	2	Suburban	No waterway nearby	Yes	State	Flat	Yes
White Deer Township	Ridge Road	0019	1	Rural	More than 100 ft	Partial	Municipal	Medium slope	Yes
White Deer Township	Spruce Run Road	0020	0.125	Rural	In Waterway/Wetland	Partial	State Forest	Medium slope	No
White Deer Township	Sunrise Road	0021	5	Rural	No waterway nearby	Partial	Municipal	Extremely steep	Yes
White Deer Township	Swanger Road	0018	1	Rural	No waterway nearby	Yes	Municipal	Flat	No

Total Number of Sites: 21

Total Calculated Tons: 42.63

* Characteristics assessed at time of survey were based on what was visible.

Union County Illegal Dump Survey Waste Characteristics by Municipality*

Municipality	Site Name	Site Number	Calculated Tons	Bagged Trash	Household Trash	Recyclables	HHW	Tires	Clean Fill	C_D Waste	Yard Waste	White Goods	Electronics	Televisions	Furniture	Mattresses	Vehicle Parts	Car Batteries
Buffalo Township	Campbell Mill Road Site 1	0002	6	Yes	No	No	No	45	Yes	Yes	Yes	0	0	0	0	0	No	0
Buffalo Township	Campbell Mill Road Site 2	0003	5	Yes	No	Yes	No	22	Yes	Yes	Yes	0	0	1	0	0	No	0
Buffalo Township	Glover Hill Road	0004	3	Yes	No	No	No	4	No	No	Yes	0	0	0	0	0	No	0
Buffalo Township	Indian Ridge Road	0005	3	Yes	Yes	Yes	No	30	No	Yes	No	1	0	0	2	0	No	0
Buffalo Township	Strickler Road	0001	0.5	No	No	No	No	0	Yes	Yes	Yes	0	0	0	0	0	No	0
Buffalo Township	Turkey Run Road	0006	5	No	Yes	Yes	Yes	10	No	Yes	No	5	0	0	0	0	No	0
Gregg Township	River Road	0007	0.5	Yes	Yes	Yes	No	0	No	Yes	Yes	0	0	0	0	0	No	0
Hartley Township	Pick Road	0008	2	Yes	No	Yes	No	0	Yes	Yes	Yes	0	0	0	0	0	No	0
Lewis Township	Libby Road	0010	1	No	Yes	No	No	0	Yes	Yes	Yes	0	0	0	0	0	No	0
Lewis Township	Old Shingle Road	0009	0.25	No	Yes	Yes	No	1	No	No	No	0	0	0	0	0	No	0
Limestone Township	Long Road	0011	0.5	No	Yes	Yes	No	0	No	No	Yes	0	0	0	0	0	No	0
Limestone Township	Mensch Road	0012	0.25	No	Yes	Yes	No	0	No	No	Yes	0	0	0	0	0	No	0
Limestone Township	White Springs Road	0014	1.5	No	Yes	No	No	5	Yes	Yes	Yes	0	0	2	0	0	No	0
Limestone Township	Zimmerman Road	0013	3	No	Yes	Yes	Yes	6	No	Yes	No	0	0	0	0	0	Yes	0
Union Township	Seven Kitchens Road Site 1	0015	1.5	No	Yes	Yes	No	5	No	No	Yes	0	0	0	0	0	No	0
Union Township	Seven Kitchens Road Site 2	0016	0.5	No	No	No	No	3	No	No	Yes	2	0	0	0	0	No	0
White Deer Township	Old Route 15	0017	2	Yes	Yes	Yes	Yes	7	No	No	Yes	1	0	1	5	0	No	0
White Deer Township	Ridge Road	0019	1	No	Yes	Yes	No	1	Yes	No	Yes	0	0	0	0	0	No	0
White Deer Township	Spruce Run Road	0020	0.125	No	Yes	Yes	No	5	No	Yes	No	0	0	0	0	0	No	0
White Deer Township	Sunrise Road	0021	5	Yes	Yes	No	No	0	No	Yes	No	0	0	0	0	0	No	0
White Deer Township	Swanger Road	0018	1	No	No	No	No	0	No	Yes	No	0	0	1	0	0	No	0

Total Number of Sites: 21

Total Calculated Tons: 42.63

* Characteristics assessed at time of survey were based on what was visible.

Illegal Dumpsite Characteristics Summary Chart by County

Dumpsite Characteristics	Allegheny	Adams	Armstrong	Beaver	Bedford	Berks	Blair	Butler	Cambria	Cameron
Total Sites Surveyed	202	116	176	120	128	100	116	217	203	6
Estimated Tons	344	218	585	333	870	185	168	317	254	18
Location Demographics										
Rural	15%	94%	99%	93%	90%	73%	82%	88%	87%	100%
Suburban	70%	6%	1%	6%	10%	25%	15%	11%	13%	0%
Urban	15%	0%	0%	2%	0%	2%	3%	1%	0%	0%
Visible from Road										
Yes	62%	35%	37%	30%	70%	63%	45%	60%	61%	17%
No	11%	22%	11%	34%	7%	10%	30%	6%	7%	83%
Partial	27%	42%	52%	36%	23%	27%	25%	34%	32%	0%
Distance from Waterway										
Directly In Waterway/Wetlands	24%	9%	14%	22%	6%	7%	22%	16%	13%	0%
Within 50 Feet and/or Directly in Waterway/Wetlands	45%	35%	32%	40%	22%	37%	33%	27%	27%	17%
Over 50 Feet or No Waterway	55%	65%	68%	60%	78%	63%	67%	73%	73%	83%
Road Type										
State	37%	22%	8%	11%	24%	18%	35%	3%	13%	67%
Municipal/County	49%	64%	90%	81%	73%	81%	63%	97%	86%	33%
Forest/Park	0%	13%	1%	8%	0%	1%	0%	0%	0%	0%
Private/Undetermined	14%	1%	1%	0%	3%	0%	2%	0%	1%	0%
Terrain										
Flat	52%	65%	10%	18%	24%	30%	23%	15%	38%	0%
Gently Sloped	22%	22%	20%	19%	31%	24%	34%	29%	26%	33%
Medium Sloped	14%	10%	28%	30%	18%	28%	18%	33%	28%	17%
Steep	12%	3%	52%	33%	27%	18%	24%	23%	8%	50%

Illegal Dumpsite Characteristics Summary Chart by County

Dumpsite Characteristics	Centre	Clarion	Clearfield	Clinton	Columbia	Crawford	Cumberland	Dauphin	Elk	Erie
Total Sites Surveyed	56	102	112	50	39	82	37	138	79	83
Estimated Tons	128	263	324	65	382	115	132	468	119	121
Location Demographics										
Rural	96%	100%	98%	100%	100%	95%	78%	61%	96%	71%
Suburban	4%	0%	1%	0%	0%	5%	19%	16%	1%	16%
Urban	0%	0%	1%	0%	0%	0%	3%	23%	3%	13%
Visible from Road										
Yes	73%	52%	38%	18%	85%	48%	46%	53%	71%	53%
No	7%	13%	21%	56%	2%	33%	11%	10%	8%	27%
Partial	20%	35%	41%	26%	13%	19%	43%	37%	21%	20%
Distance from Waterway										
Directly In Waterway/Wetlands	5%	6%	11%	14%	12%	6%	11%	10%	7%	19%
Within 50 Feet and/or Directly in Waterway/Wetlands	16%	15%	27%	72%	32%	43%	24%	25%	23%	30%
Over 50 Feet or No Waterway	13%	85%	73%	28%	68%	57%	76%	75%	77%	70%
Road Type										
State	18%	6%	21%	20%	13%	6%	11%	8%	23%	20%
Municipal/County	67%	93%	77%	46%	87%	93%	89%	76%	66%	78%
Forest/Park	13%	1%	0%	34%	0%	1%	0%	0%	7%	0%
Private/Undetermined	2%	0%	2%	0%	0%	0%	0%	16%	4%	2%
Terrain										
Flat	32%	12%	15%	18%	23%	28%	14%	46%	26%	45%
Gently Sloped	27%	26%	23%	32%	41%	28%	32%	20%	37%	22%
Medium Sloped	20%	27%	44%	36%	23%	24%	32%	9%	23%	14%
Steep	21%	34%	18%	14%	13%	20%	22%	25%	14%	19%

Illegal Dumpsite Characteristics Summary Chart by County

Dumpsite Characteristics	Fayette	Forest	Franklin	Fulton	Greene	Huntingdon	Indiana	Jefferson	Juniata	Lackawanna
Total Sites Surveyed	163	15	128	19	49	202	114	67	49	92
Estimated Tons	736	64	181	169	450	259	680	541	80	424
Location Demographics										
Rural	93%	100%	77%	100%	100%	87%	99%	100%	92%	45%
Suburban	7%	0%	13%	0%	0%	12%	1%	0%	4%	30%
Urban	0%	0%	10%	0%	0%	1%	0%	0%	4%	25%
Visible from Road										
Yes	73%	33%	33%	90%	84%	34%	53%	85%	27%	66%
No	10%	34%	14%	5%	8%	13%	31%	15%	53%	8%
Partial	17%	33%	53%	5%	8%	53%	16%	0%	20%	26%
Distance from Waterway										
Directly In Waterway/Wetlands	16%	0%	13%	0%	8%	7%	15%	12%	20%	7%
Within 50 Feet and/or Directly in Waterway/Wetlands	37%	13%	49%	5%	22%	35%	37%	25%	39%	23%
Over 50 Feet or No Waterway	63%	87%	51%	95%	78%	65%	63%	75%	61%	77%
Road Type										
State	24%	33%	23%	47%	4%	39%	4%	14%	31%	32%
Municipal/County	72%	40%	64%	48%	94%	59%	90%	82%	69%	68%
Forest/Park	0%	27%	12%	5%	0%	1%	0%	0%	0%	0%
Private/Undetermined	4%	0%	1%	0%	2%	1%	6%	4%	0%	0%
Terrain										
Flat	32%	40%	36%	26%	22%	22%	25%	54%	8%	47%
Gently Sloped	17%	0%	35%	10%	29%	31%	20%	25%	31%	15%
Medium Sloped	21%	20%	14%	32%	27%	26%	28%	9%	24%	13%
Steep	30%	40%	14%	32%	22%	21%	27%	12%	37%	25%

Illegal Dumpsite Characteristics Summary Chart by County

Dumpsite Characteristics	Lancaster	Lawrence	Lebanon	Luzerne	McKean	Mercer	Mifflin	Montgomery	Northumberland	Perry
Total Sites Surveyed	16	31	43	159	73	143	31	19	125	105
Estimated Tons	74	112	36	1723	165.5	154	30	17	1634	107
Location Demographics										
Rural	87%	68%	77%	75%	100%	99%	100%	68%	99%	100%
Suburban	13%	19%	19%	23%	0%	1%	0%	11%	1%	0%
Urban	0%	13%	4%	2%	0%	0%	0%	21%	0%	0%
Visible from Road										
Yes	56%	71%	35%	59%	52%	60%	39%	84%	62%	79%
No	6%	3%	30%	18%	29%	13%	38%	0%	8%	9%
Partial	38%	26%	35%	23%	19%	27%	23%	16%	30%	12%
Distance from Waterway										
Directly In Waterway/Wetlands	13%	26%	23%	5%	12%	13%	19%	0%	11%	5%
Within 50 Feet and/or Directly in Waterway/Wetlands	31%	48%	42%	11%	26%	34%	35%	16%	19%	39%
Over 50 Feet or No Waterway	69%	52%	58%	89%	74%	66%	65%	84%	81%	61%
Road Type										
State	6%	20%	35%	32%	29%	5%	45%	11%	16%	23%
Municipal/County	88%	74%	58%	32%	60%	94%	52%	89%	50%	77%
Forest/Park	0%	3%	2%	0%	11%	0%	0%	0%	0%	0%
Private/Undetermined	6%	3%	5%	36%	0%	1%	3%	0%	34%	0%
Terrain										
Flat	44%	32%	40%	40%	10%	55%	13%	79%	31%	29%
Gently Sloped	19%	19%	16%	32%	31%	20%	16%	0%	29%	34%
Medium Sloped	25%	23%	23%	17%	18%	18%	42%	0%	18%	17%
Steep	12%	26%	21%	11%	41%	7%	29%	21%	22%	20%

Illegal Dumpsite Characteristics Summary Chart by County

Dumpsite Characteristics	Schuylkill	Snyder	Somerset	Union	Venango	Warren	Washington	Westmoreland	York
Total Sites Surveyed	74	45	210	21	174	59	126	310	274
Estimated Tons	523	58	543	43	386	292	317	335	263
Location Demographics									
Rural	96%	0%	95%	90%	98%	95%	100%	89%	67%
Suburban	4%	0%	5%	10%	2%	5%	0%	8%	24%
Urban	0%	100%	0%	0%	0%	0%	0%	3%	9%
Visible from Road									
Yes	47%	56%	42%	57%	90%	49%	60%	83%	26%
No	7%	11%	22%	5%	2%	12%	27%	6%	2%
Partial	46%	33%	36%	38%	8%	39%	13%	11%	72%
Distance from Waterway									
Directly In Waterway/Wetlands	5%	16%	5%	10%	13%	7%	6%	31%	15%
Within 50 Feet and/or Directly in Waterway/Wetlands	28%	36%	15%	24%	44%	15%	41%	44%	47%
Over 50 Feet or No Waterway	72%	64%	85%	76%	56%	84%	59%	56%	53%
Road Type									
State	42%	40%	27%	5%	19%	14%	77%	26%	9%
Municipal/County	58%	60%	72%	90%	78%	76%	23%	73%	89%
Forest/Park	0%	0%	1%	5%	3%	10%	0%	>1%	0%
Private/Undetermined	0%	0%	0%	0%	0%	0%	0%	1%	1%
Terrain									
Flat	43%	47%	33%	29%	26%	25%	48%	24%	42%
Gently Sloped	23%	31%	20%	33%	23%	14%	43%	25%	34%
Medium Sloped	14%	7%	23%	29%	25%	24%	7%	26%	17%
Steep	20%	15%	24%	9%	26%	37%	2%	25%	8%

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