ENVIRONMENTAL SITE ASSESSMENT OF THE PROPOSED BUSHKILL CREEK 3RD ST. DAM REMOVAL

December 17, 2010

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1. INTRODUCTION

The purpose of this report is to evaluate the possibility of contaminants existing in the sediment behind the 3rd Street dam. Properties adjacent to the stream between the Route 22 overpass and 3rd street were investigated due to their proximity to the dam as were a few potential high risk sites upstream. Phase I of our assessment included a review of Sanborn Maps, newspaper articles, EPA databases, and other sources in order to establish historic ownership and industrial uses of these properties. Phase II of our assessment involved sediment sampling near the dam and an analysis of the samples for heavy metals and PCBs.

2. HISTORICAL REVIEW

2.1 STUDY AREA DESCRIPTION

The 3rd Street dam is situated on the Bushkill Creek near its confluence with the Delaware River as is shown in Figure 2.1. The area upstream consists of commercial, residential, and natural areas. Additionally, this low head dam is preceded by others of similar size further up the creek.

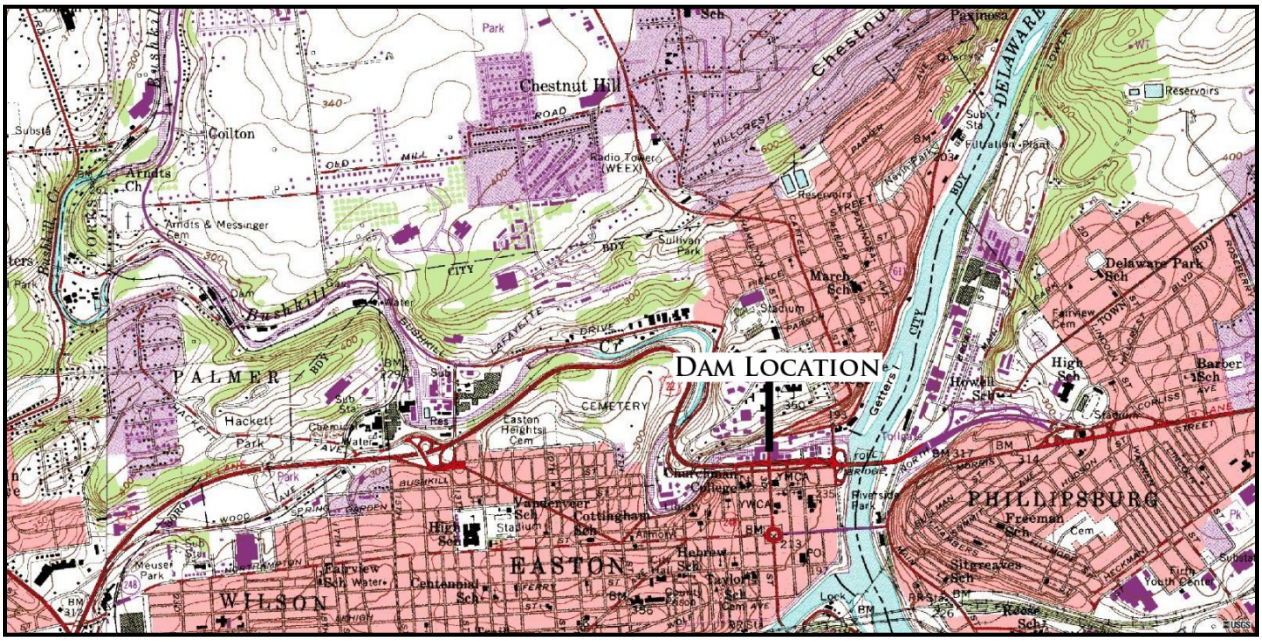


Figure 2.1 - Topographic map showing dam location and surrounding area (source: USGS 1:24000 7.5-minute topographic map, Easton PA-NJ quadrangle).

2.2 SCOPE

The depth of the review was determined based on geographic location as shown below. The historical review area is the smallest, spanning from the confluence to where Bushkill St. crosses the creek. Environmental records were examined for all sites bordering the Bushkill Creek from 13th St to the dam. Sites on the Resource Conservation and Recovery Act (RCRA) list, EPA's Brownfield List, or the Superfund National Pollutants List have known environmental problems, and are also taken into consideration despite being further away. The scope of each phase of review is shown below in Figure 2.2.

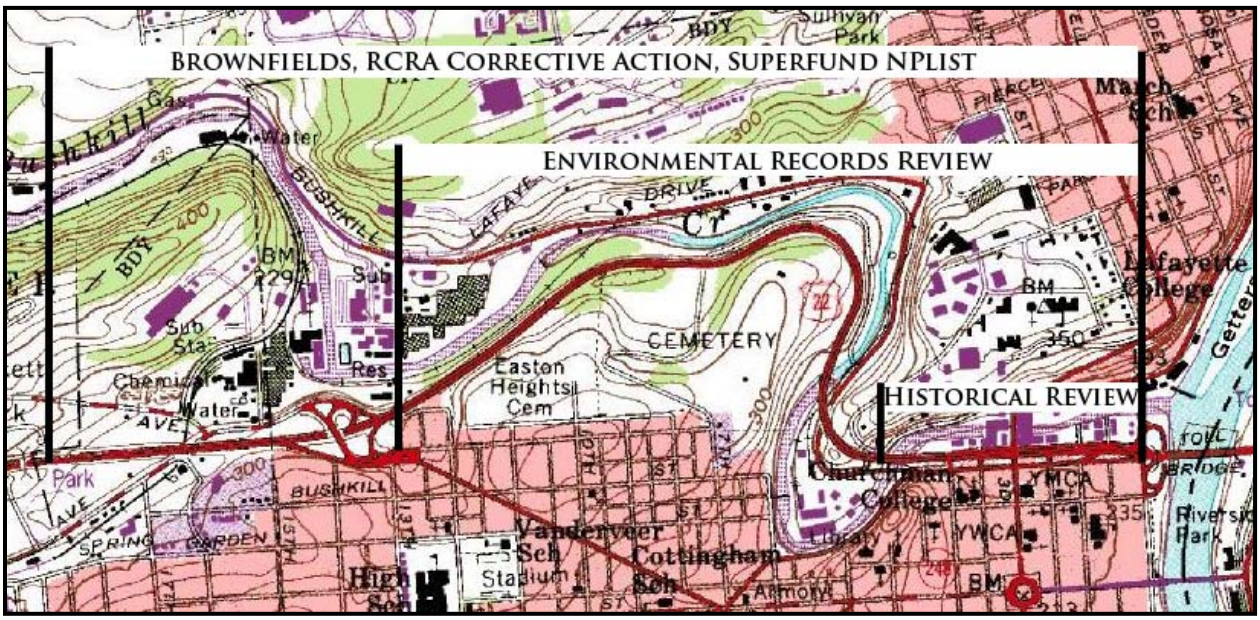


Figure 2.2 - Topographic map with the scope of each review phase

2.3 SANBORN FIRE INSURANCE MAPS

Sanborn maps are a reliable source of historical building information as they show all built structures, label building materials, show dimensions of the building, use of the building, and the owner of the building. We examined Sanborn maps from the years 1885, 1904, 1911, 1919, and 1927-49. This can help to identify sites of interest and possible sources of contamination. All Sanborn Maps for the area can be found in **Appendix A.**

In 1885, the only point of interest is the C. Groetsinger Grist Mill. By 1904, this mill had ceased operation. Also by this time a junkyard had come in to existence on the south bank of the Bushkill. By 1911, a new business called Easton Auto Co. had been established. The grist mill was still present and nonoperational. The junk yard had expanded. Although the 3rd St. dam had

been built, it is not visible in the provided map. By 1919, a number of new businesses had emerged. Three silk mills and a carpet cleaning company had appeared. The grist mill had become the Cementor Auto business. The junk yard remained the same size. Also, the Easton Auto Co. was no longer visible. The 3rd St. dam is visible in this map. In 1927 the Cementor Auto Company was still in existence and the Easton Auto Co. had re-emerged. The carpet cleaning company had turned into the Chemical Publishing Co. The silk mills and junk yard were still intact. By 1927-1947, the silk mills had been turned into a pants factory and a rug mill. The junk yard was replaced with a suit factory. The Cement Auto Co. had turned into a warehouse.

2.4 NEWSPAPER REVIEW

Photographs and historic newspaper articles were reviewed in order to characterize the development of the area near the dam. Photographs of the Mann and Allshouse mill (Buscemi, 2007) show the site of the dam before its installation in the year 1900. Furthermore, photographs of the nearby Seitz Brewing Company were found. The brewery experienced an explosion on October 24, 1943. The facility was destroyed by this accident and was not rebuilt with the area giving way to the construction of Route 22. The photographs can be seen in **Appendix B.**

Additionally, a number of newspaper articles were compiled to give a history of area surrounding the dam. These articles were obtained from the microfilm collection of the Easton Area Public Library. The library had a local newspaper index on a searchable electronic database. Search terms used included “dam”, “spill”, “bushkill”, “accident”, “contamination”, “mill”, and other related terms. Our investigation found record of an oil spill upstream of the dam in the year 1974. No other significant environmental concerns were found. Of particular note were two articles from September 3, 1907 and August 22, 1908. These articles entitled “New Dam on Bushkill Will Be Improvement” and “Mann & Allshouse Building New Dam” respectively detail the reasons for the dam’s installation. These and other articles of interest are presented in **Appendix C.**

3. POTENTIAL UPSTREAM SOURCES OF CONTAMINATION

Multiple sources were reviewed to evaluate contamination potential from properties within the area of investigation. Multiple electronic databases were searched for records of contamination from current and previous property uses. Phase I Environmental Site Assessments of select properties were available from the Environment Site Assessment course taught by Professor Arthur D. Kney of Lafayette College.

3.1 CLEANUPS IN MY COMMUNITY DATABASE

A map of nearby sites that are on the Resources Conservation and Recovery Act (RCRA) List, EPA's Brownfield List, or Superfund National Pollutants List is shown in Figure 2. Both of the nearby Brownfield's properties were assessed by the Environment Protection Agency and no contamination was found. EPA reports for these properties can be found in **Appendices D.1 and D.2**. The RCRA Correction action site on the map is Rockwood Pigments; see **Appendix D.3** for more information. The EPA's NPDES compliance report the site indicates noncompliance with effluent discharge permits for nitrogen and ammonia limits and oil and grease limits, however these are unlikely to be found in stream sediment since nitrogen compounds tend to enter biological cycles quickly and oil and grease rarely come in physical contact with soil due to their low density and hydrophobic nature. The NPDES Compliance Report for Rockwood Pigments can be seen in **Appendix D.4**.

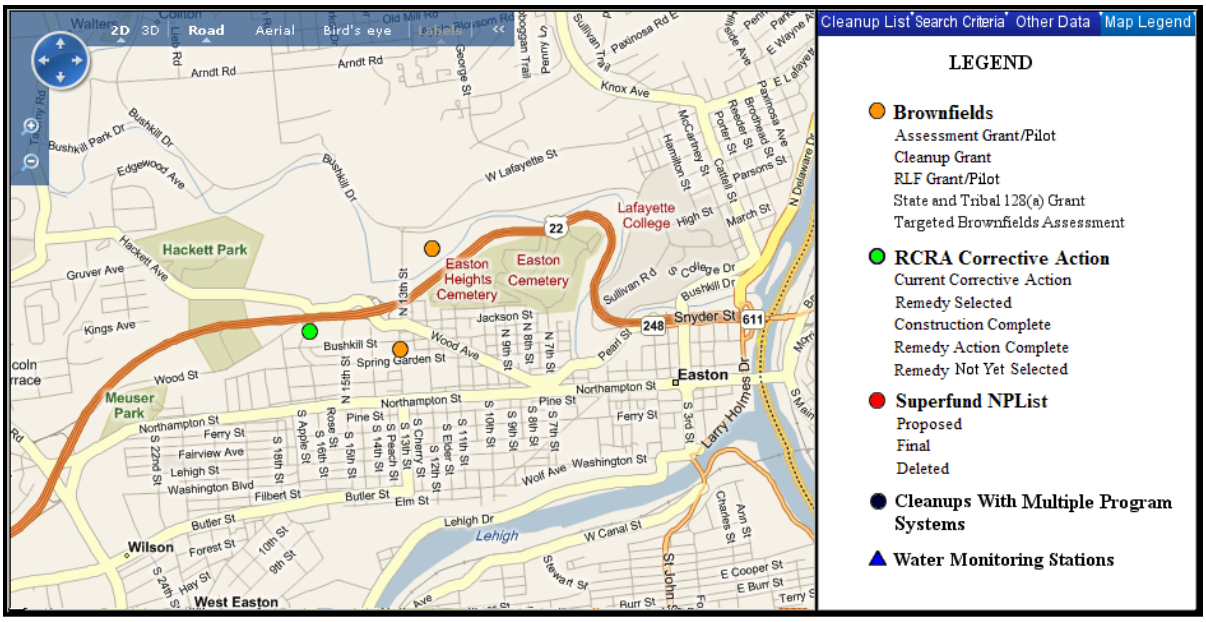


Figure 3.1 – Map of Brownfield and RCRA Corrective Action Sites from EPA Cleanups in My Community database http://iaspub.epa.gov/Cleanups/

3.2 Environmental Site Assessment Review

Phase I Environmental Site Assessments of select properties were available from the Environment Site Assessment course taught by Professor Kney of Lafayette College. All assessments within our search were reviewed and compiled with associated risk levels in Figure 3.1. Risk levels were based qualitatively on the following criteria: industrial uses of site, quality of record keeping by owners, and EPA compliance records.

Figure 3.2.1 – Map of Sites within 3rd to 13th Area of Interest

The NPDES permit database was searched for all water discharge permits for the 18042 zip code in order to encompass all of the properties in the area of interest. Air release permits were not relevant to this project and were not considered. NPDES permits were found for Chrin's Body Shop and Easton Iron and Metal Co. Chrin's Body Shop has permits for refuse systems. Easton Iron and Metal Realty have permits for scrap and waste materials. The assessment of the Easton Iron and Metal Realty site provided reason for additional concerns as well. An easement, pictured below as Figure 2.3, reveals transformers existing next to this building before 1970 was found. These transformers are no longer on site and no records regarding their disposal were found.

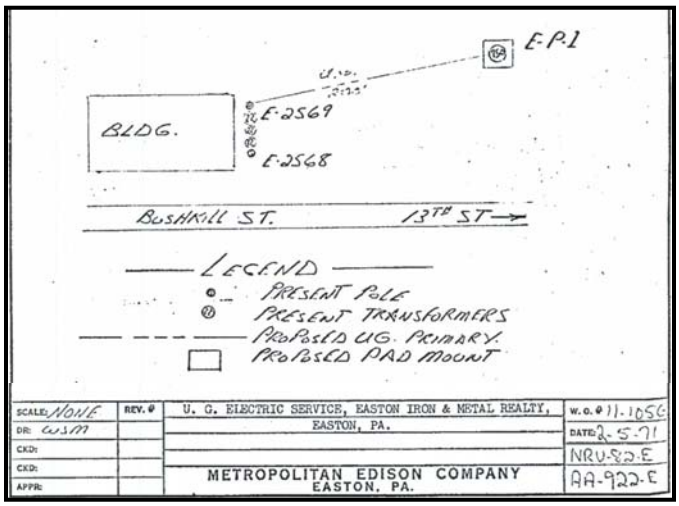


Figure 3.2.2 – Easton Iron and Metal Realty easement

A table summarizing risk level, suspected possible contaminants, and NPDES permit information is presented below in Table 3.2. Information on possible contaminants was obtained from the Phase I Environment Site Reports. NPDES permits for these companies are presented in **Appendices E.5 and E.6.**

Table 3.2 – Summary of Information from Environmental Site Assessment Reports

Letter	Company	Risk Level	Possible Contaminants	NPDES Permits
A	Simon Silk Mill	Medium	Petroleum, Iron oxide, Lead, Asbestos, Heavy metals	
B	College Hill Auto Sales	Low		
C	Elias Auto Center	Low		
D	Hemstreet Spring and Alignment	Medium	PCB's	
E	Easton Haunts	Low		
F	Bushkill Auto Repair	Low		
G	Lynn's Garage	Low		
H	Easton Iron and Metal Co	High	PCB's, metals, petroleum	scrap and waste materials
I	Trinity Fitness	Low		
J	WB Moore Inc.	Low		
K	Chrin's Body Shop	Low	Refuse	refuse systems
L	Crossfit Advanced	Low		
M	Deiter Bros. Heating Cooling Security	Medium	Petroleum	
N	APR Supply Co	Low		
O	Stanley E Marshall Inc	Low		
P	United Ring and Seal Corporation	Low		
Q	610 Motoring	Low		
R	MS Reilly Inc.	Low		
S	International Dye and Chemical	Low		
T	Integrated Automative Services	Medium	Petroleum	
U	Safe Harbor Easton	Low		
V	Don's Welding	Low		
W	Rough Dry Laundry	Low		

3.3 Possible Sources of Contamination in Upstream Extended Area

Based on a drive-by survey along Bushkill Drive, Belyea Power Incorporated and Equipto, a structural metal fabricator, were considered potential high risk properties and were further reviewed. Belyea Power Incorporated is located upstream of the dam on Northwood Avenue. Equipto is located on Main Street in Tatamy. The reasons for the extended reviews include potential PCBs from transformers from Belyea Power and possible heavy metals from the fabrication process for Equipto. EPA databases were searched for these properties. No results were returned for Belyea Power Incorporated. Equipto had NPDES permits for fabricated structural metal. NPDES permit information for Equipto can be found in **Appendix E.7**. As a result of the Phase I Environmental Site Assessment for the dam, PCBs and heavy metals will be tested for in the Phase II assessment of this report.

3.4 Summary

Based on our Phase I Environment Site Assessment, a number of possible sources of contamination were identified from past or current industrial uses near Bushkill Creek. We recommend sampling for PCBs and heavy metals, as these were identified as possible contaminants and are strongly hydrophobic, and thus would tend to be present in stream sediment. The following section details the sampling and analysis.

4. Site Sampling and Contaminant Analysis

4.1 Site Sampling

Sample locations were determined by identifying depositional areas based on a qualitative assessment of the area upstream of the dam. The first sampling location is located close to the dam and the farthest upstream sampling site is located on the left side of the island. Once the sampling sites were determined, we entered the creek with a hand auger and took a surface sample and one foot deep sample at each location. The two sample sites furthest upstream had sediment too coarse to be a likely sorbent for contaminants. The locations for these sampling sites are shown in Figure 1. While sampling we observed that the majority of the riverbed was comprised of sand size and larger material. Thus, if the dam were to be removed, there would be very little release of contaminant laden sediment. If contaminants are found, the volume of sediment with contaminants should be examined.

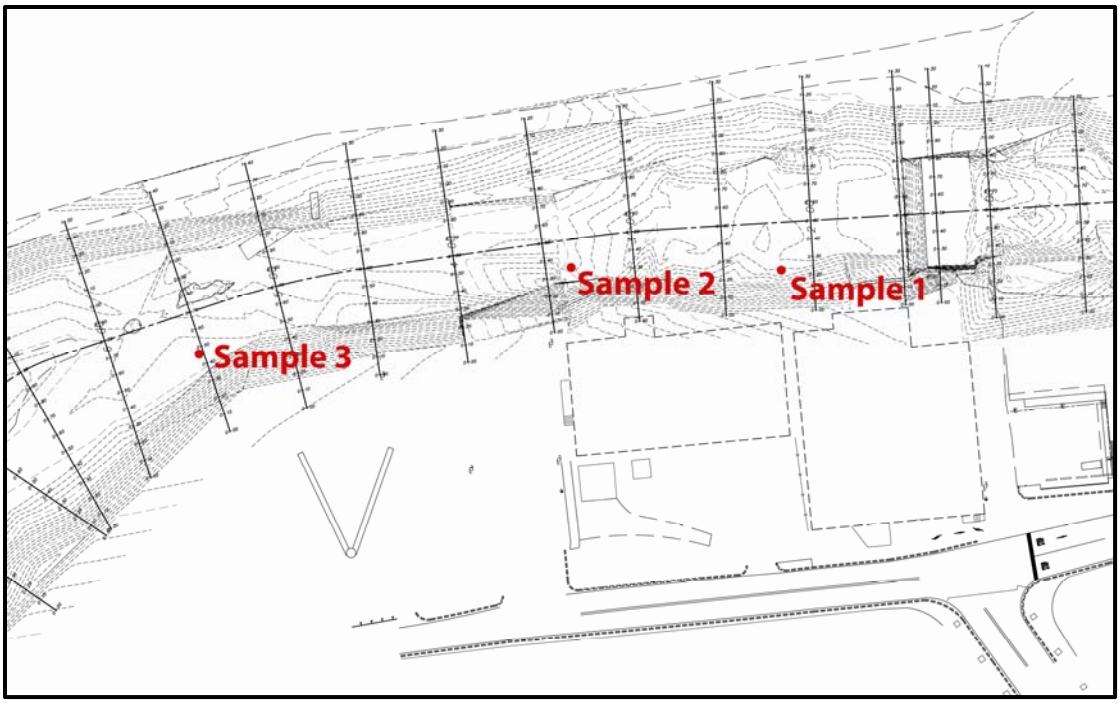


Figure 4.1.1 – Locations of sampling sites within the stream bed. Two samples were taken at each location, one surface sample and one at the maximum depth of the sediment.

4.2 Contaminant Analysis

Based on the Phase I assessment, the following contaminants were identified to be of concern and were therefore measured:

- Polychlorinated Bi-phenols (PCBs)
- Heavy Metals
    - Lead
    - Mercury
    - Cadmium
    - Nickel
    - Manganese

To test for heavy metals we digested our soil samples and prepared two matrix-matched standards. We then used atomic absorption spectroscopy to determine the contaminant concentration in each sample. PCB testing used a spectrophotometric immunoassay method from a Hach Company kit (Method 10050). After the samples were mixed in curettes, we used

the spectrophotometer to measure the amount of amount of light that passes through a sample at a certain wavelength. A more detailed procedure for each testing method is provided in **Appendixes E.1 and E.2.**

4.3 Analysis Results

The results of the heavy metal testing are shown in Table 4.3.1 along with the medium specific concentrations specified by the PADEP. The table contains testing results for each of the six samples for lead, mercury, cadmium, nickel and manganese as well as the allowable amount in the state of Pennsylvania. The detailed analysis and error propagation is available in **Appendix F.1, a** sample calculation is provided in **Appendix F.2**.

Table 4.3.1 – Heavy metal concentrations in the soil samples and PADEP medium specific concentrations (MSCs) in mg/kg. n.d. indicates tests in which none of the metal was detectable by the method used, defined as any value in which the result was zero or negative. The method used to obtain these results was not successfully verified against known standards and therefore, these results should be verified by a certified lab.

	1 Surface	1 Depth	2 Surface	2 Depth	3 Surface	3 Depth	Non-Residential Limits
Lead	109.0 ± 7.5	220.9 ± 17.0	111.4 ± 9.4	138.1 ± 23.5	38.6 ± 15.4	134.3 ± 12.0	1000.0
Mercury	152.2 ± 57.7	172.0 ± 42.8	166.2 ± 16.3	86.3 ± 30.5	n.d.	n.d.	840.0
Cadmium	n.d.	n.d.	1.7 ± 2.1	42.5 ± 3.3	n.d.	n.d.	210.0
Nickel	44.3 ± 4.8	19.0 ± 13.0	29.9 ± 6.7	41.5 ± 5.2	28.2 ± 9.2	22.9 ± 6.7	56000.0
Manganese	181 ± 7.7	246.1 ± 10.4	235.5 ± 12.3	191.5 ± 9.2	259.5 ± 10.8	677.1 ± 30.2	190000.0

A summary table of the testing results for polychlorinated bi-phenols (PCBs) can be seen below in Table 4.3.2. The PCB testing results are an inverse relationship between concentration and absorbance. If a value is higher than the standards tested, there are less PCBs than the lower standard test. If the samples tested are in the range of the standards tested, then the amount of PCBs in the sample are in that range. Finally, if the value is lower than the higher concentration value, then the sample must be tested in the higher range of standards. Based on our tests, because the sample test for 1S is lower than the standard value for 5 ppm but higher than the

value for 10 ppm, the resulting range is 5-10 ppm for sample 1S. A more detailed summary of our results can be seen in **Appendix F.3.**

Table 4.3.2 – PCB concentration ranges in sediment samples

PCB Testing Results	
Sample	Resulting Range
1S	5 ppm - 10 ppm
1D	1ppm - 5 ppm
2S	1ppm - 5 ppm
2D	1ppm - 5 ppm
3S	1ppm - 5 ppm
3D	1ppm - 5 ppm

We compared our results to the allowable non-residential standards as dictated by the Pennsylvania DEP. These standards are given only for individual PCB compounds. The method used for PCB analysis gives the potential range of each of these compounds. These ranges and a the allowable limits are given in **Attachment F.4.**

4.4 Interpretation of Results

Upon completion of our testing we compared our results to the nonresidential limits as stated by Appendix A of the Pennsylvania Code Title 25 Chapter 250. In Table 4 of the appendix entitled Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Soil, there is information regarding the set limits for both residential and non-residential soil classifications for heavy metals. We used the non-residential surface soil limitations since these values correlated to our sampling depth and locality. A copy of this table is available in **Appendix F.5.**

Based on the results of our testing, all of the sediment samples had heavy metal concentrations that were considerably lower than the non-residential MSCs for Pennsylvania. Cadmium had the lowest testing results with four of the samples being non-detectable, one having less than 2 ppm and one with 42.5 ppm. Cadmium also has the lowest allowable amount so it makes sense that cadmium has the lowest values. In addition to cadmium, the mercury testing produced two samples that had non-detectable amounts of mercury. Lead had one value less than 50 ppm, four values that tested in the hundreds and one maximum value of 220.9 ppm, far less than the

allowable amount is 1000 ppm. Nickel had the most consistent low testing results with a range of 19 ppm to 44 ppm which are extremely low considering the allowable amount is 56000 ppm. Finally, manganese had the highest testing results with a range of 181 ppm to 259 ppm and one outlier of 677.1 ppm. While these values seem high, the allowable amount of manganese in Pennsylvania is 190000 ppm. While all of our values are considerably lower than the limits as determined by Pennsylvania, the metals results were not successfully verified against a known standard. Based on this, we feel that further testing is required by a certified testing facility to corroborate our findings.

As discussed above, we tested for polychlorinated bi-phenols (PCBs) using a test kit that we ordered from Hach Company. Due to time and cost restrictions, the method used to assess PCBs gives a range of total PCB concentration rather than a specific value for each type of PCB. The method was extremely complicated and therefore took several attempts to get accurate data. Of the six sediment samples, five tested to have between 1 ppm and 5 ppm of PCBs in the sediment. The other sample tested to have between 5 ppm and 10 ppm of PCBs. We compared our results to the allowable non-residential standards as dictated by the Pennsylvania DEP. These standards are given for individual PCB compounds which were compared to the ranges given in the test method. These ranges and a the allowable limits are given in **Attachment F.4.** All of the ranges are considerably less than the allowable limits. Based on this, we feel that the release of the sediment would not pose an environmental risk downstream based on the PCB testing only.

5. CONCLUSION

The historical review identified several sites of concern in the upstream area from the dam. These sites pose threats for heavy metal, PCB, hydrocarbon and nitrogen contamination. Of these pollutants, heavy metals and PCBs are likely to be persistent in the soil and were therefore tested for. The test results for heavy metals (mercury, cadmium, nickel, manganese, and lead) were considerably lower than the allowable amounts in the state of Pennsylvania. However, we feel that more testing is required in order to corroborate our results before the environmental risk can be assessed. Further metal testing is ongoing by Maricate Conlon and Professor Mylon. The total PCB levels were between 1 and 5 ppm in every sample except one, which was between 5 and 10 ppm. These values are well below PADEP non-residential limits and are therefore not a

concern. Based on this, it appears that the release of the sediment behind the 3rd street dam would not be an environmental cause for concern with regard to PCBs. However, further testing of heavy metals is required.

6. NOTE AND DISCLAIMER

The methods used throughout this report were consistent with the ASTM Phase I Environmental Site Assessment standards. Standard analysis methodologies were used for finding the concentrations of heavy metals and polychlorinated biphenols in the sediment samples; however, the results should be considered preliminary only. Further sediment testing is needed by a Delaware River Basin Commission approved testing facility in order to corroborate our results.

7. REFERENCES

ASTM Standards:
E 1528 Guide for Environmental Site Assessments: Transaction Screen Process
E2091 Guide for Use of Activity and Use Limitations, Including Institutional and Engineering Controls

Buscemi, L.S. Sr. (2007) Easton Remembered. Buscemi Enterprises: Easton.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA" or "Superfund") and amended be Superfund Amendments and Reauthorization Act of 1986 ("SARA") and Small Business Liability Relief and Brown Fields Revitalization Act of 2002 ("Brownfields Amendment"), 42 U.S.C.§§ 9610 *et seq.*

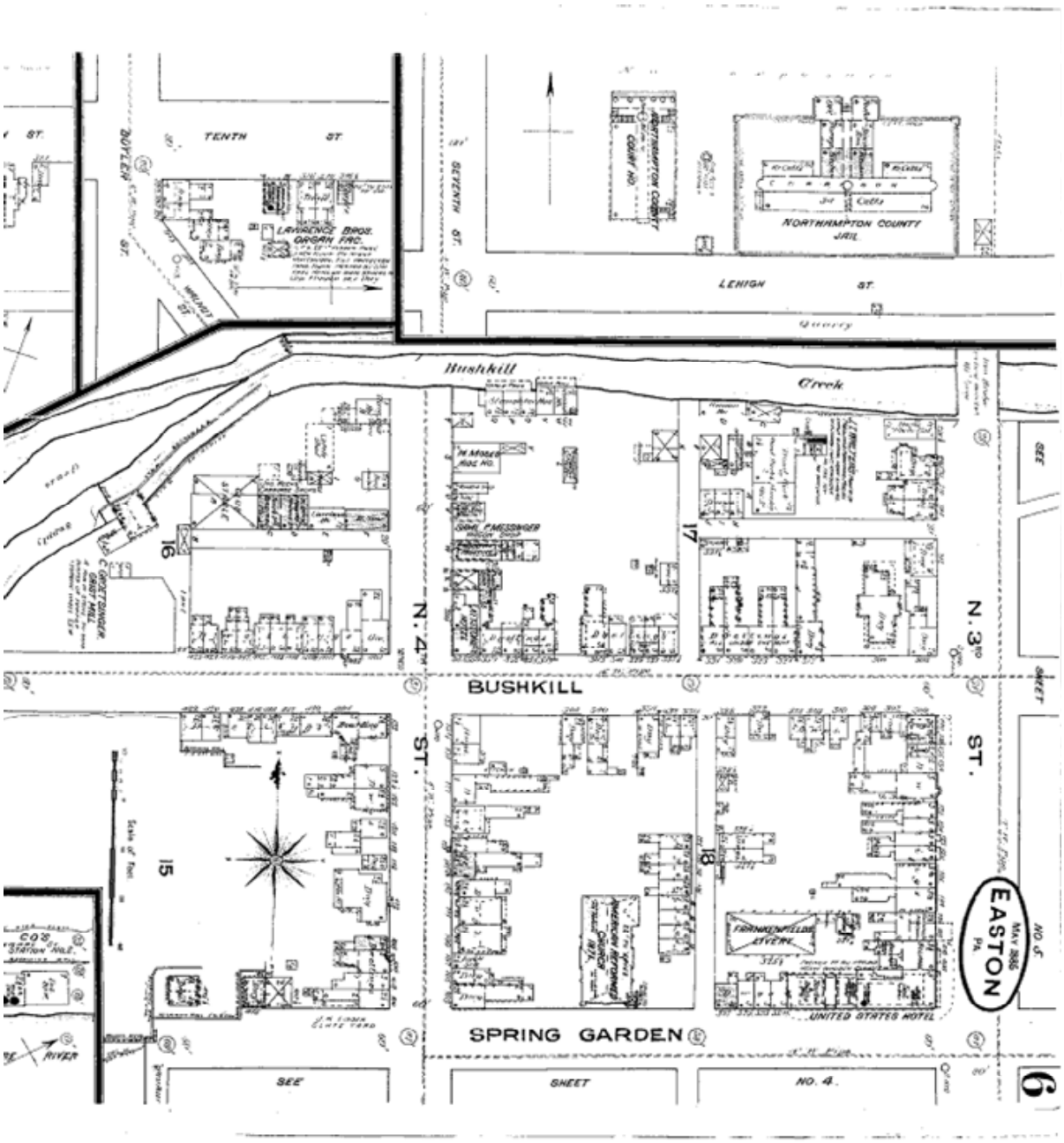
Northampton County Public Access Web Site. "Northampton County Property Records" <http://www.ncpub.org/Search/GenericSearch.aspx?mode=address> (April 14th, 2010).

Toxicology Data Network. "Hazardous Substances Data Bank (HSDB)" <http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB> (April 20th, 2010).

PA Code Title 25 Chapter 250
<http://www.pacode.com/secure/data/025/chapter250/025_0250.pdf> (November 23rd, 2001).

APPENDIX A – Sanborn Fire Insurance Maps of the Site

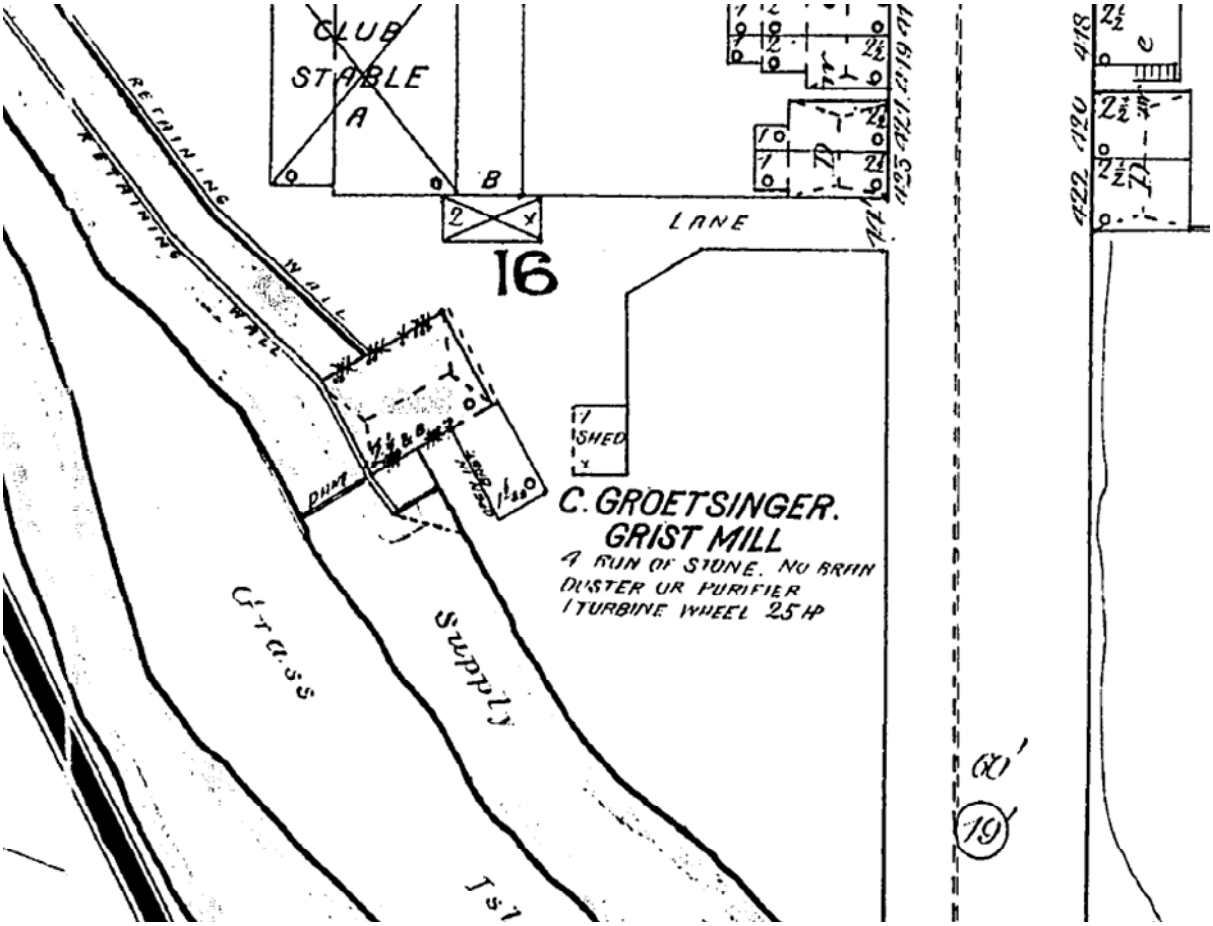
Appendix A.1 – 1885 Map of Bushkill



Date: 1885	**Source:** Sanborn Map Archive

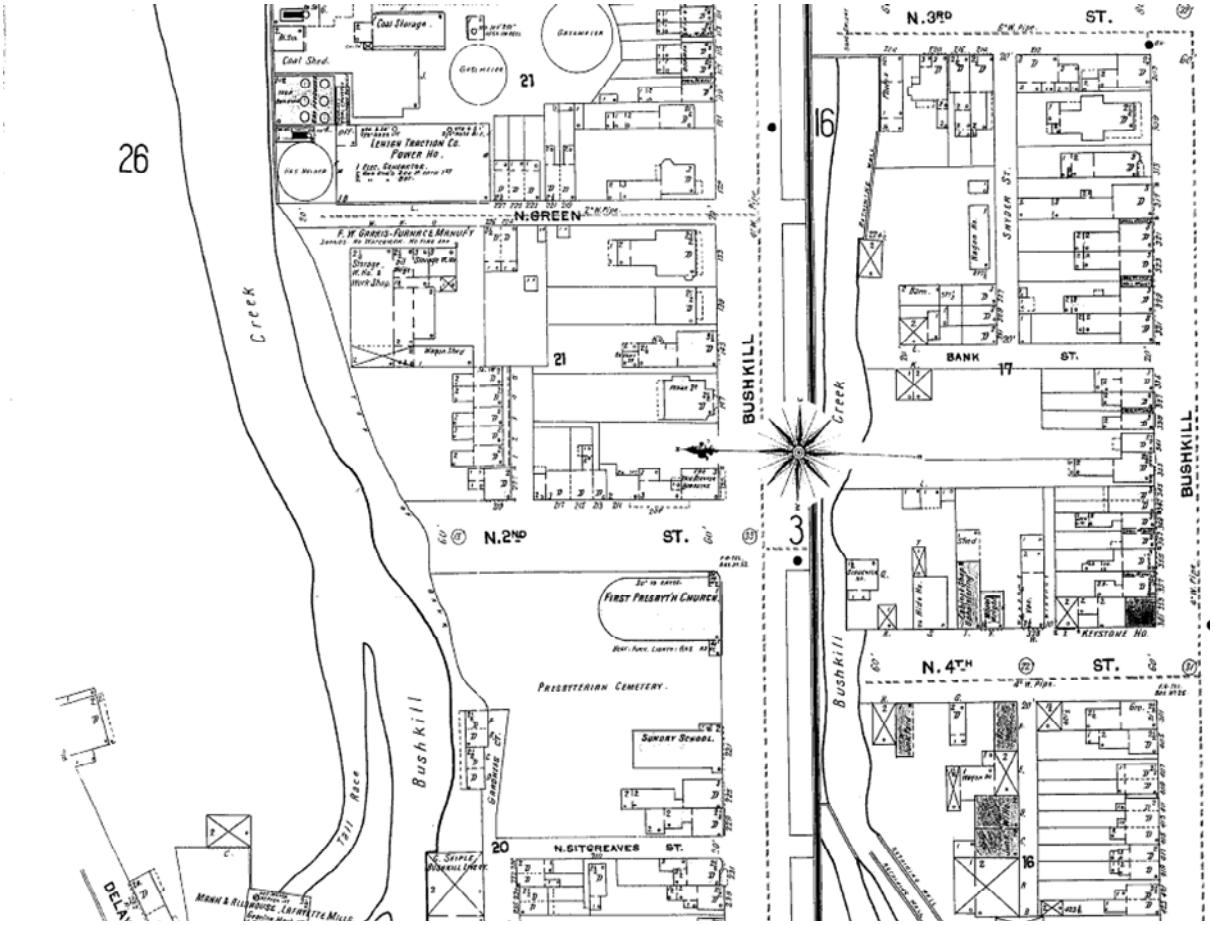
Description: Map of Bushkill

Appendix A.2 - 1885 Grist Mill



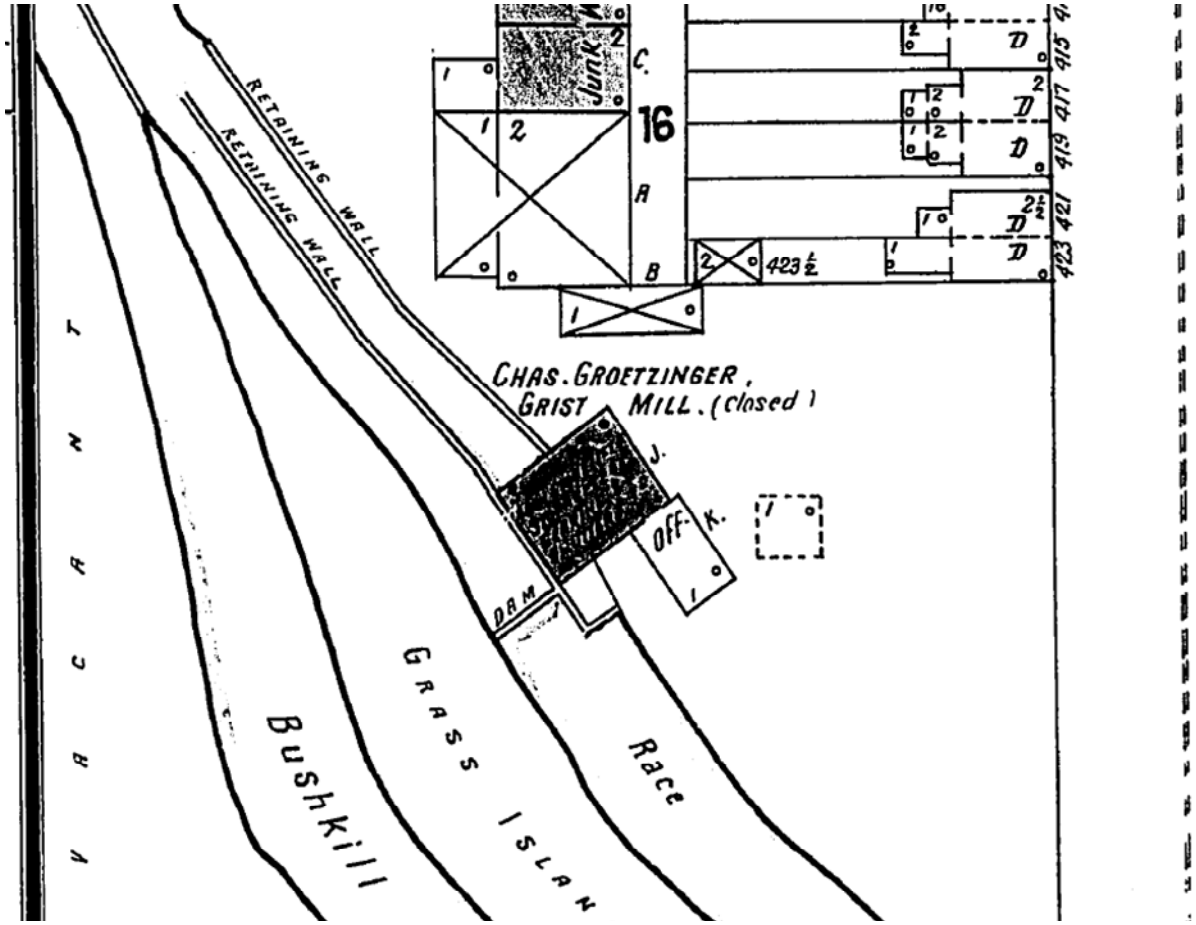
Date: 1885	**Source:** Sanborn Map Archive
Description: C. Groetsinger Grist Mill	

Appendix A.3 – 1904 Map of Bushkill



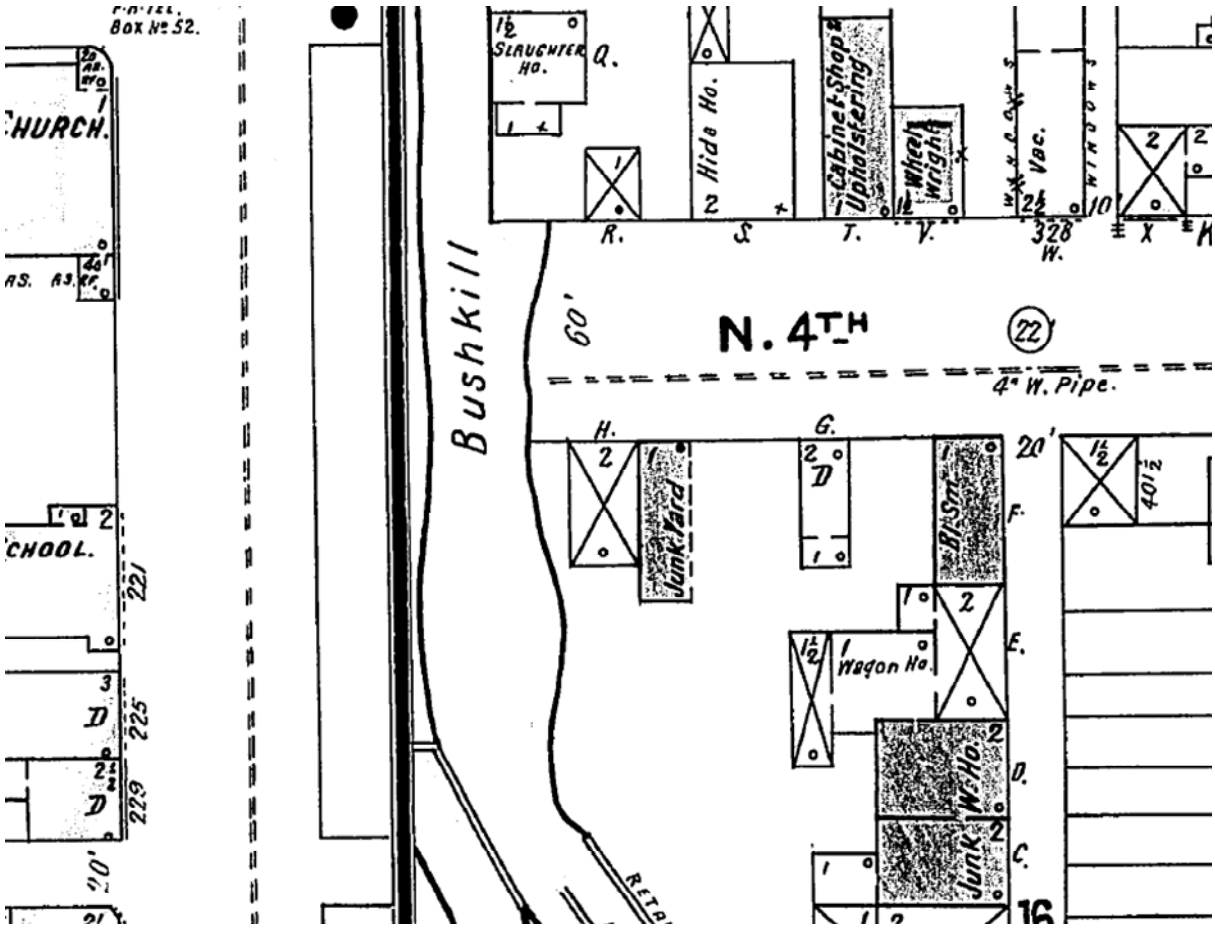
Date: 1904	**Source:** Sanborn Map Archive
Description: Map of Bushkill	

Appendix A.4 – 1904 Grist Mill



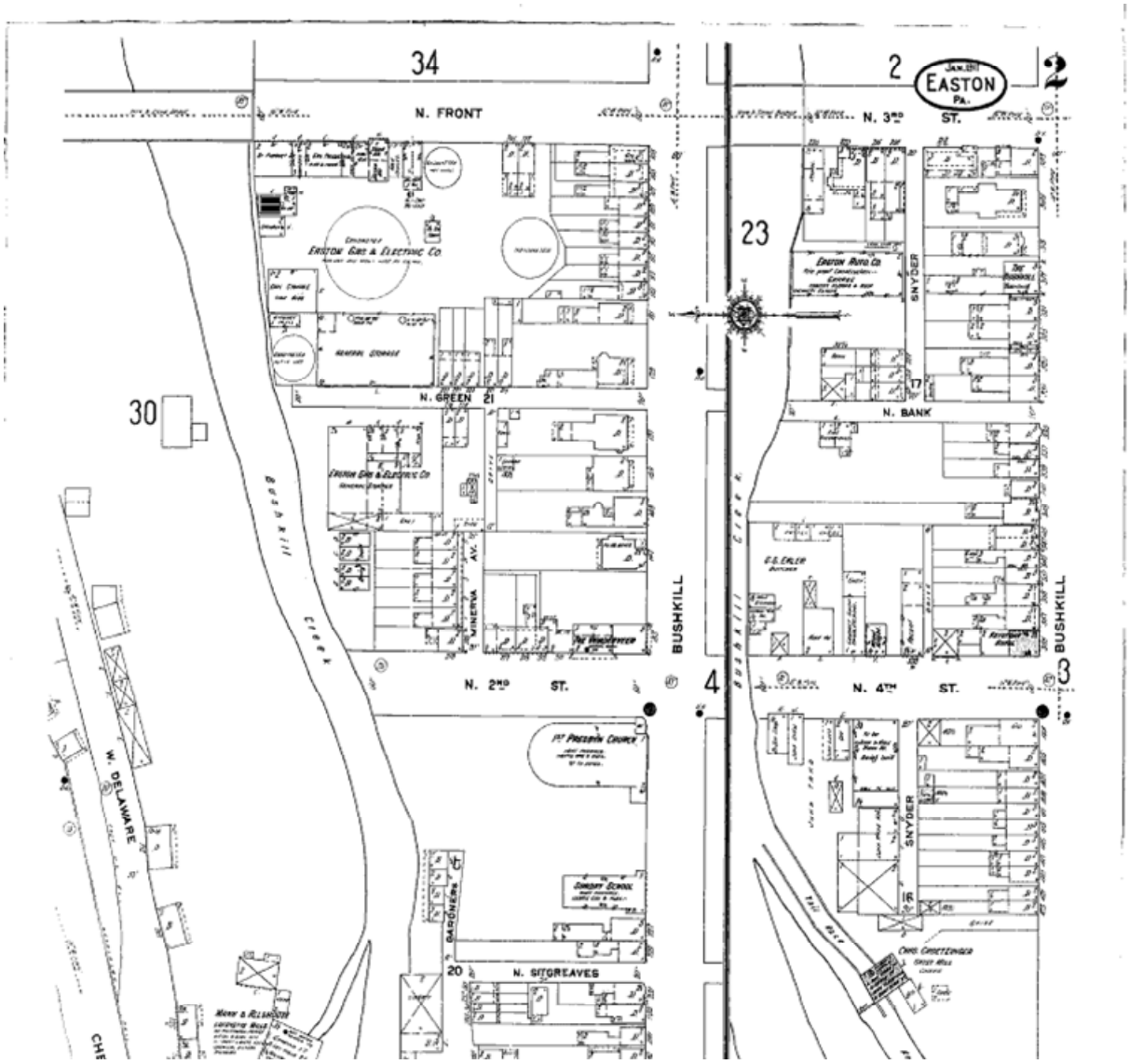
Date: 1904	**Source:** Sanborn Map Archive
Description: Chas. Groetzlinger Grist Mill (closed)	

Appendix A.5 – 1904 Junk Yard



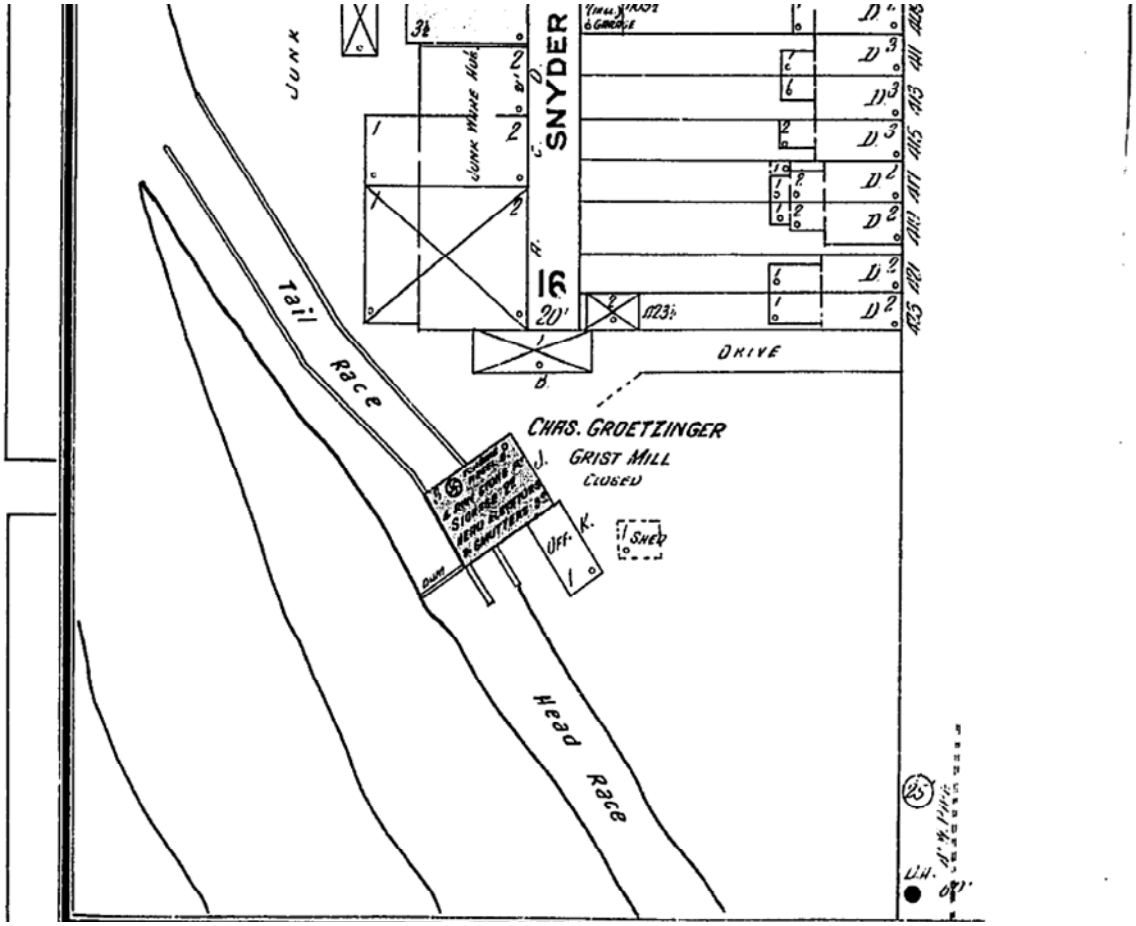
Date: 1904	**Source:** Sanborn Map Archive
Description: Junk Yard	

Appendix A.6 – 1911 Map of Bushkill



Date: 1911	**Source:** Sanborn Map Archive
Description: Map of Bushkill	

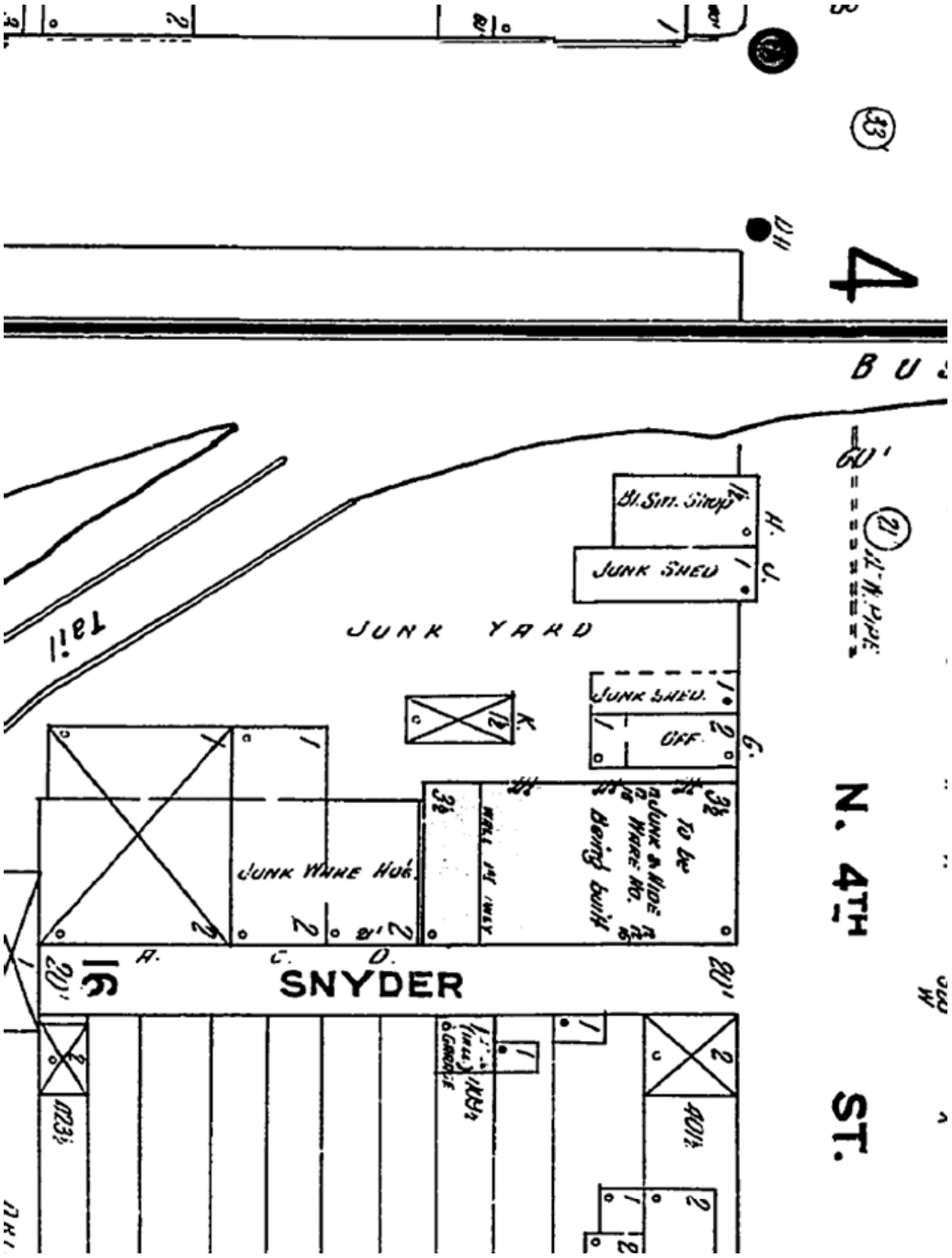
Appendix A.7 – 1911 Grist Mill



Date: 1911	**Source:** Sanborn Map Archive

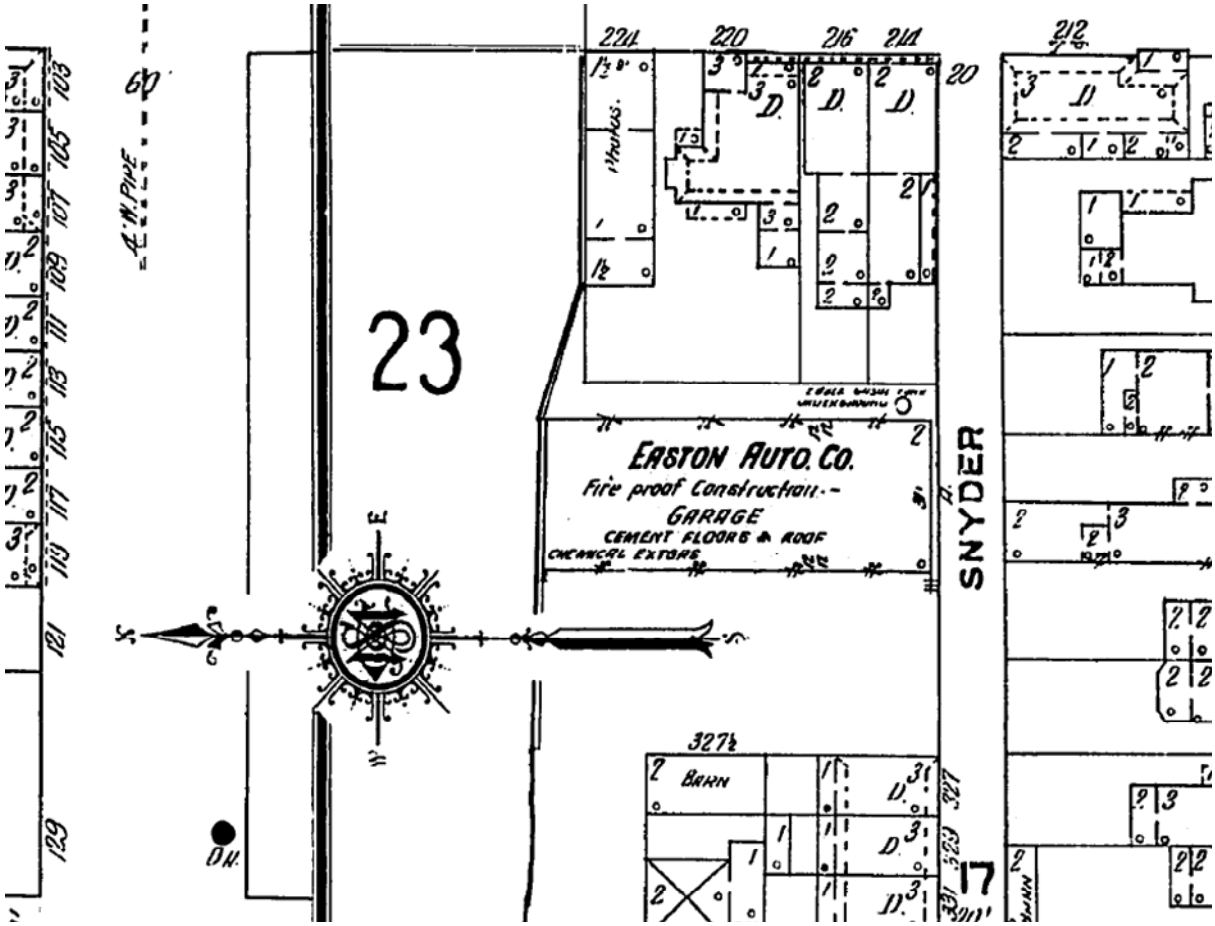
Description: Chas. Groetzinger Grist Mill (closed)

Appendix A.8 – 1911 Junk Yard



Date: 1911	**Source:** Sanborn Map Archive
Description: Junk Yard	

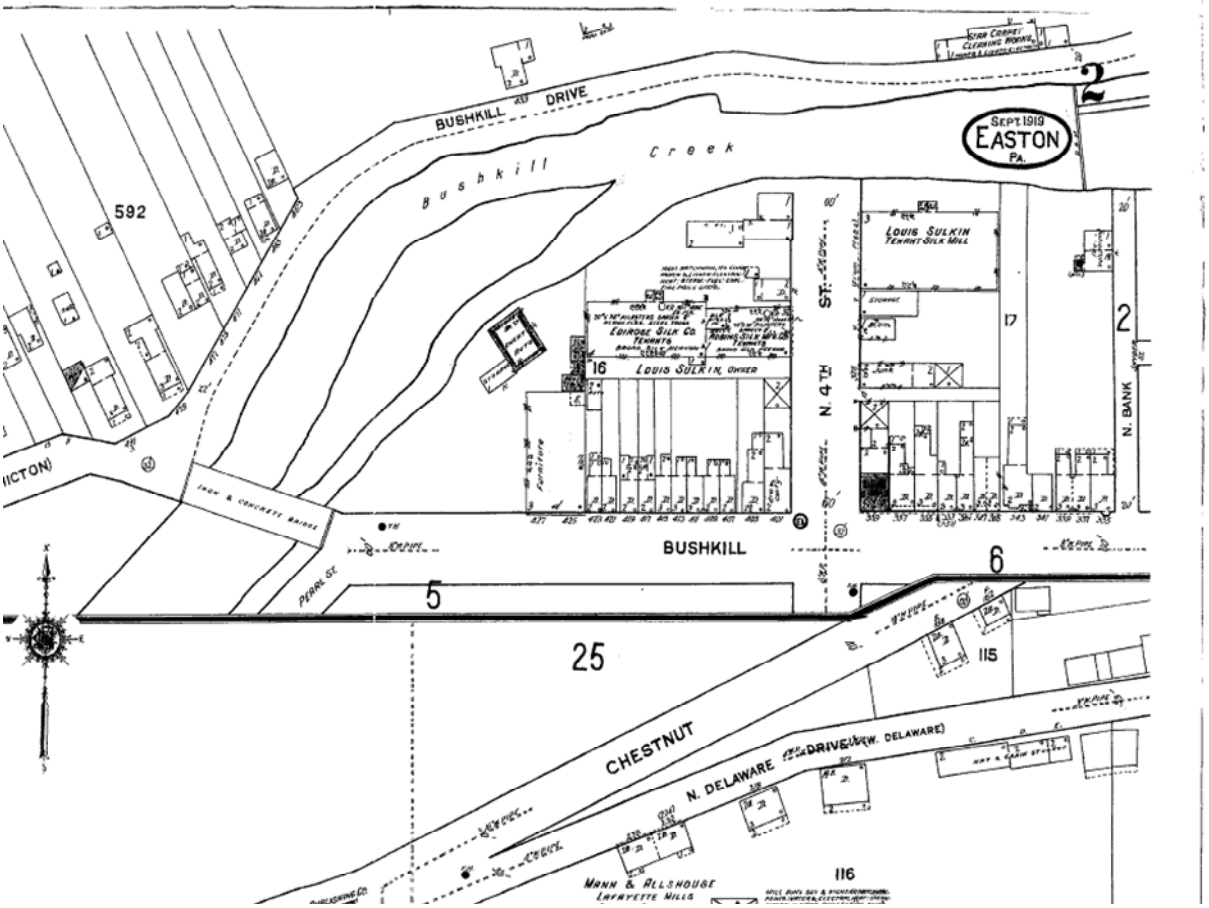
Appendix A.9 – 1911 Easton Auto Co.



Date: 1911	**Source:** Sanborn Map Archive

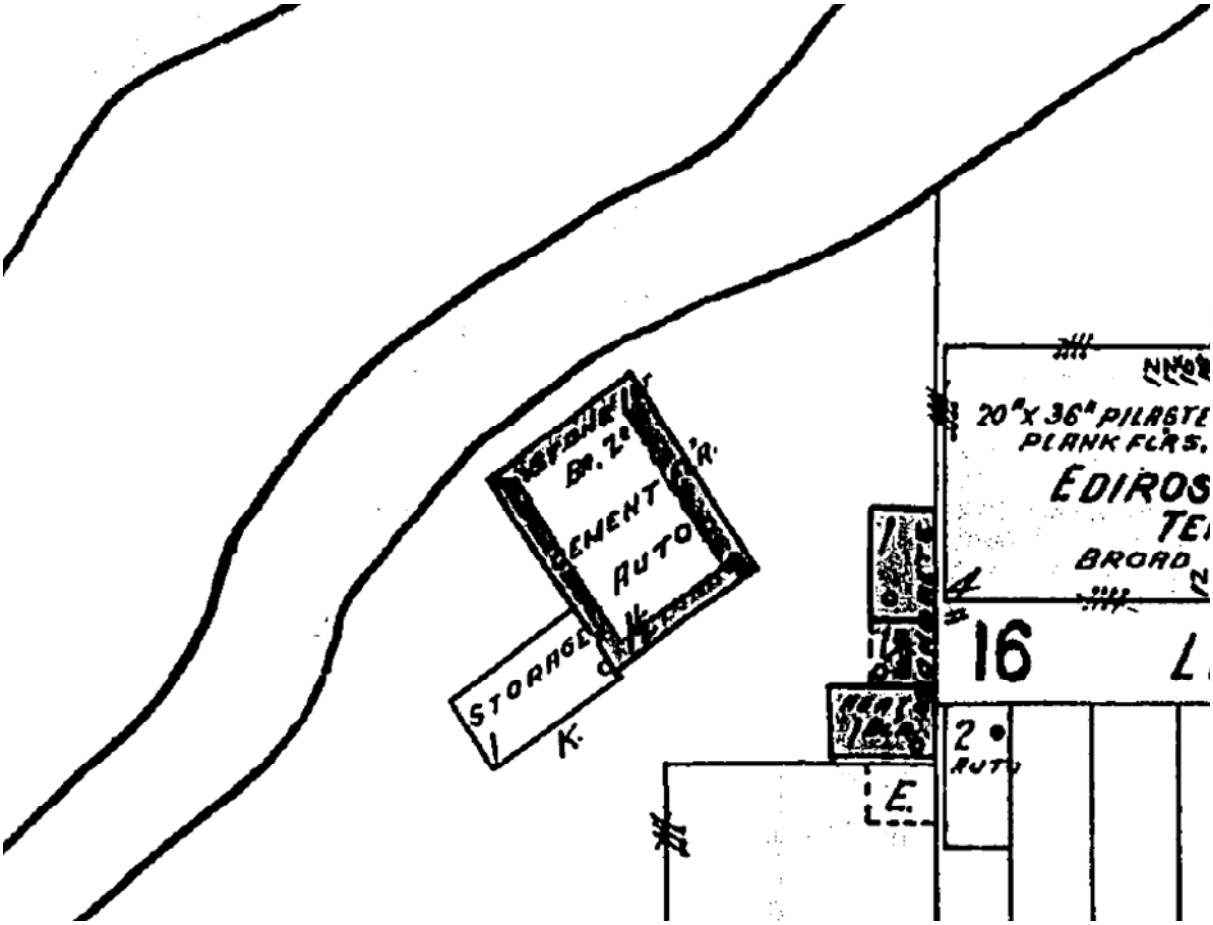
Description: Easton Auto Co.

Appendix A.10 – 1919 Map of Bushkill



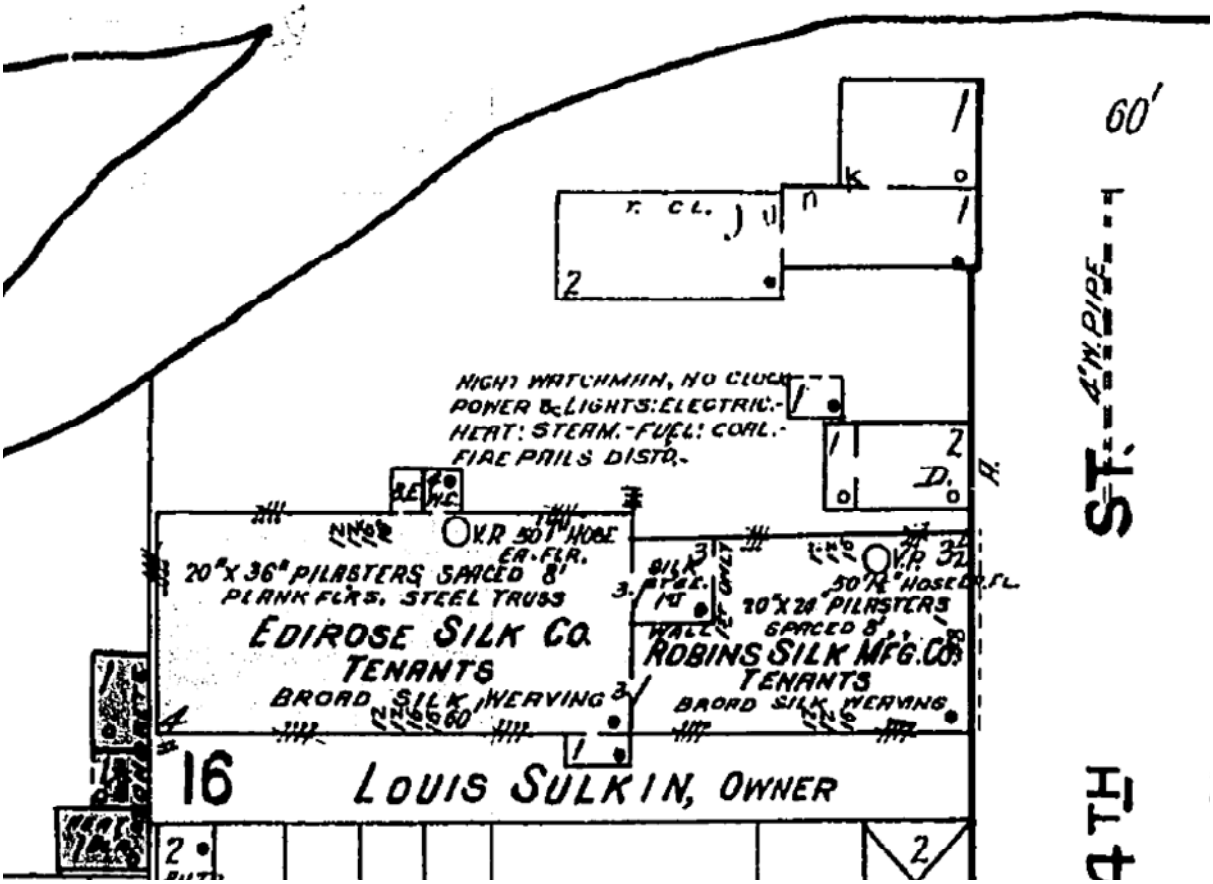
Date: 1919	**Source:** Sanborn Map Archive
Description: Map of Bushkill	

Appendix A.11 – 1919 Cementer Auto



Date: 1919	**Source:** Sanborn Map Archive
Description: Cementer Auto	

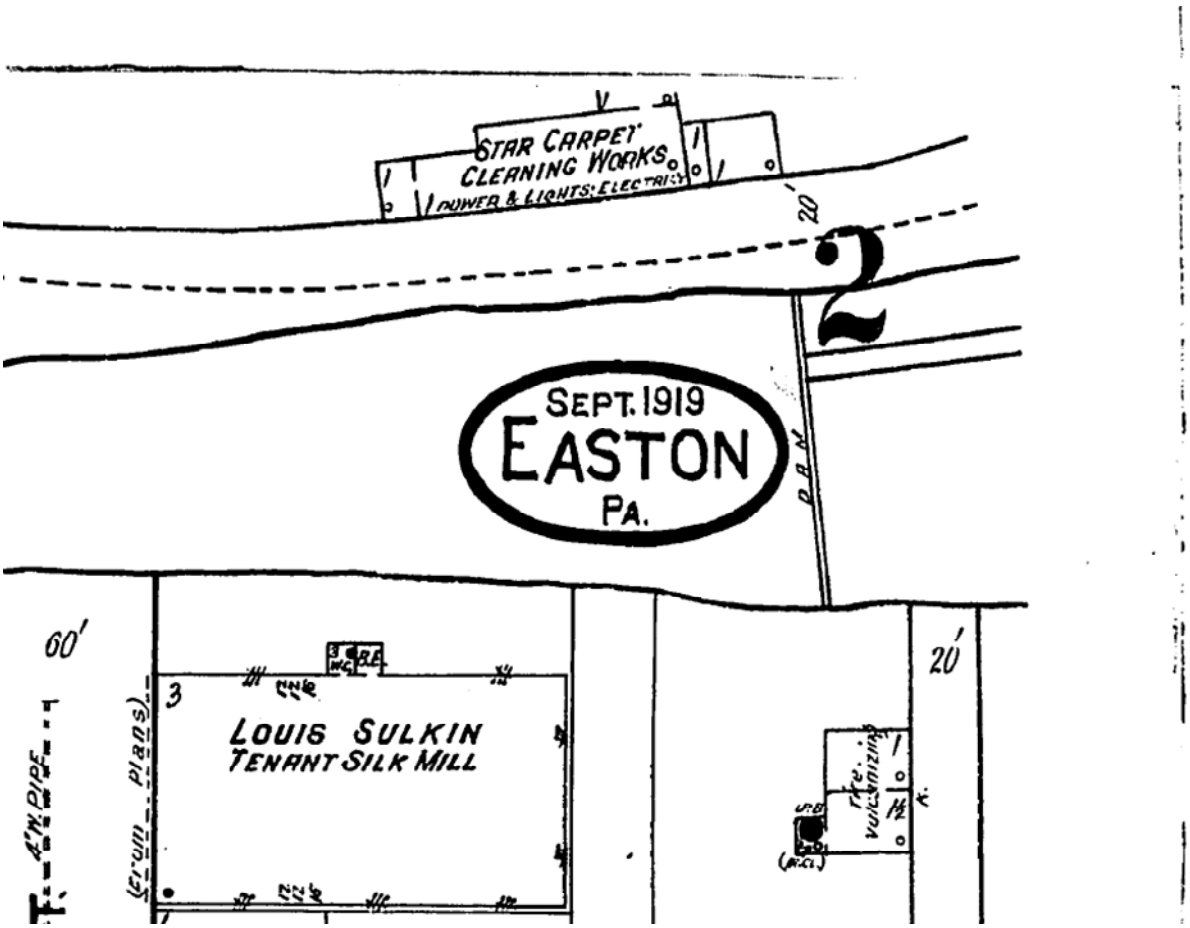
Appendix A.12 – 1919 Junk Yard and Silk Mills



Date: 1919	**Source:** Sanborn Map Archive

Description: Junk Yard, Edirose Silk Co. Tenants Broad Silk Weaving, and Robins Silk MFG. Co. Tenants Broad Silk Weaving

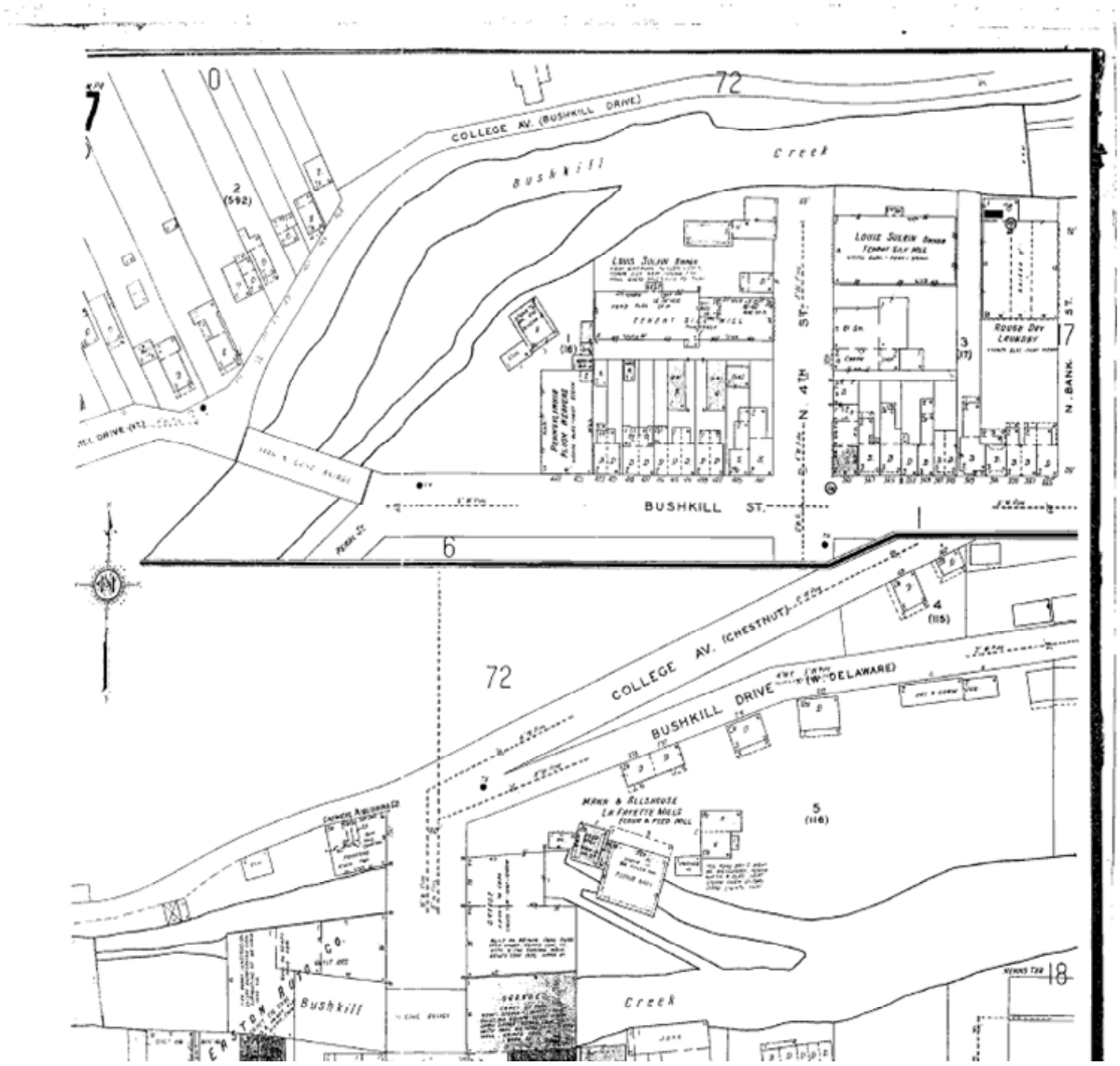
Appendix A.13 – 1919 Silk Mill, Cleaning Company, and dam



Date: 1919	**Source:** Sanborn Map Archive

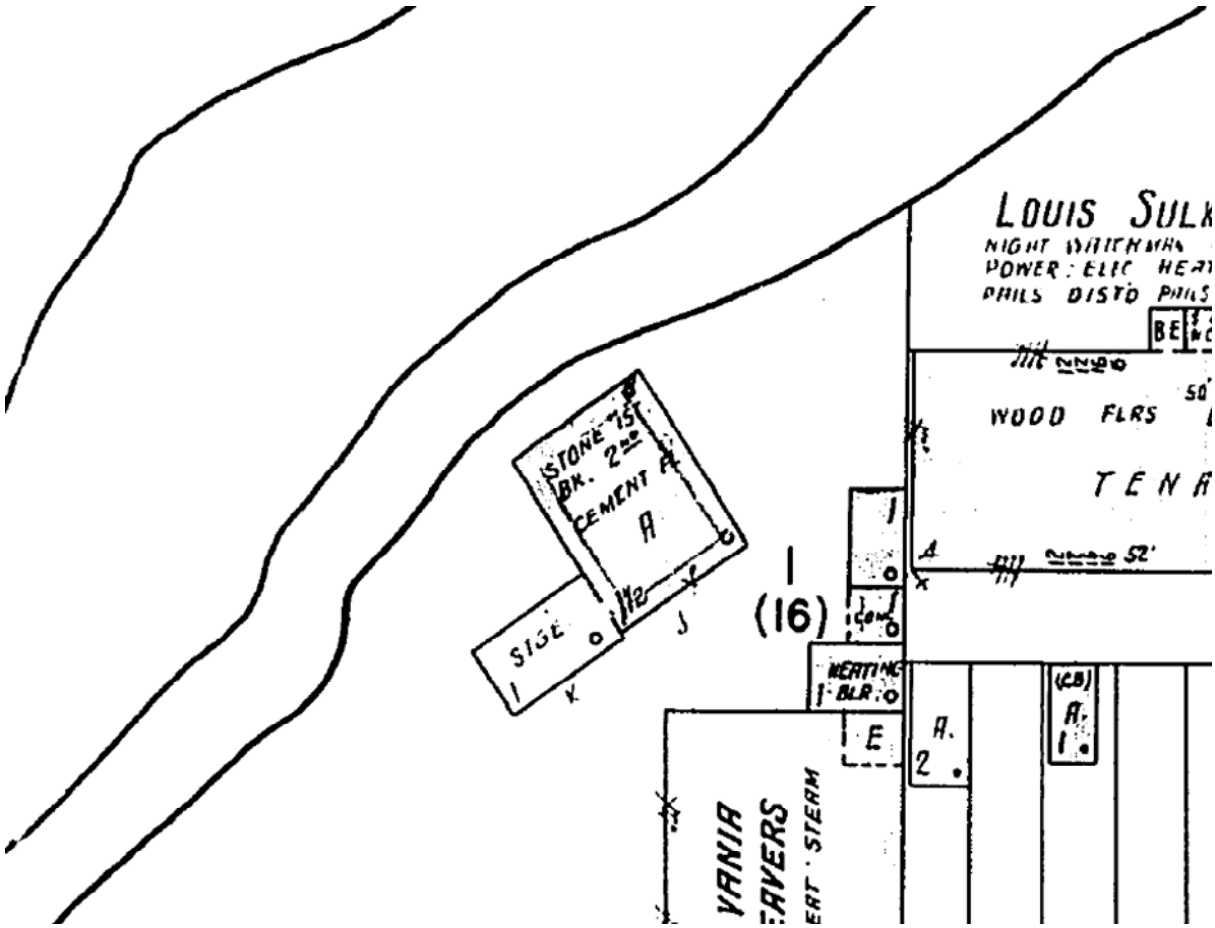
Description: Louis Sulkin Tenant Silk Mill, Star Carpet Cleaning Works, and dam

Appendix A.14 – 1927 Map of Bushkill



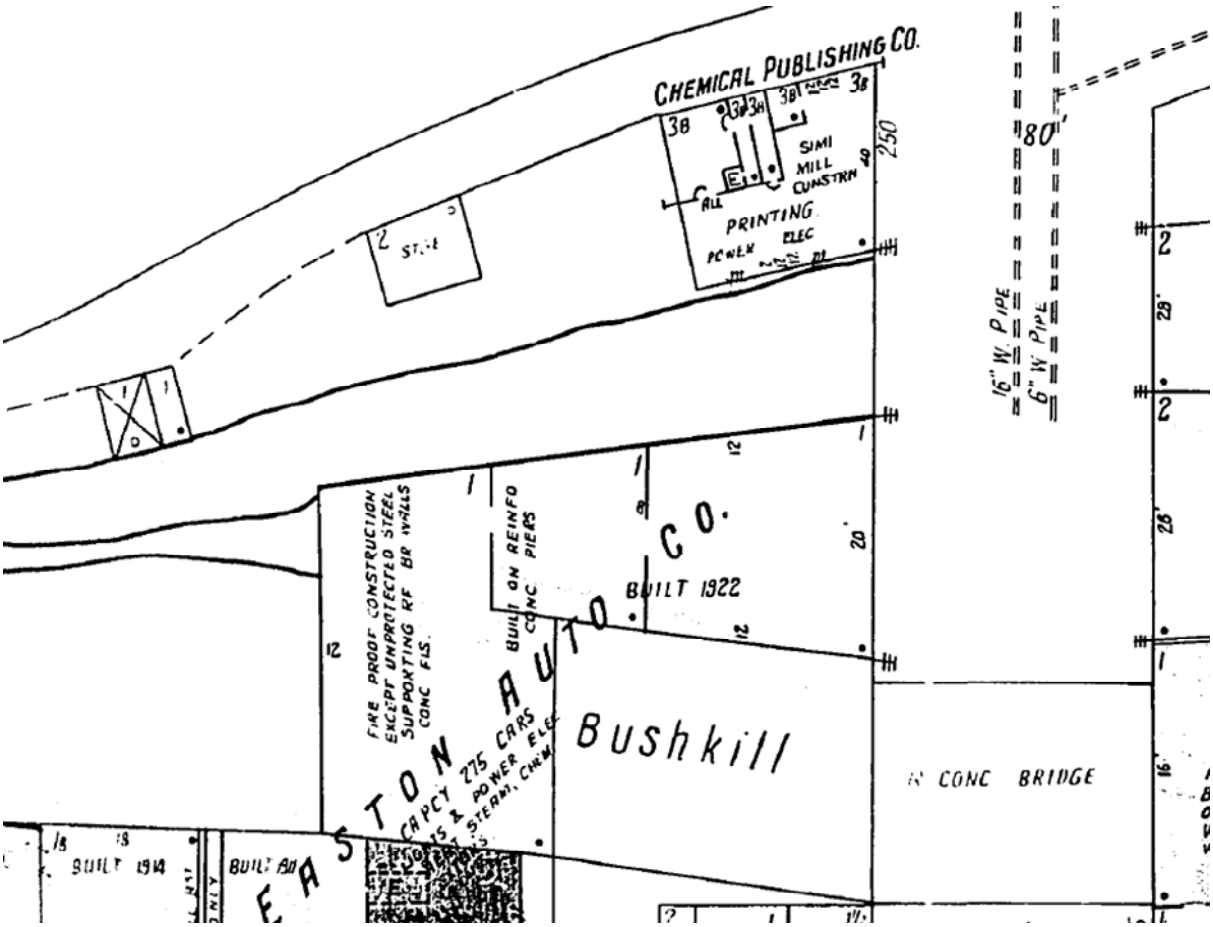
Date: 1927	**Source:** Sanborn Map Archive
Description: Map of Bushkill	

Appendix A.15 – 1927 Cement Auto



Date: 1927	**Source:** Sanborn Map Archive
Description: Cement Auto	

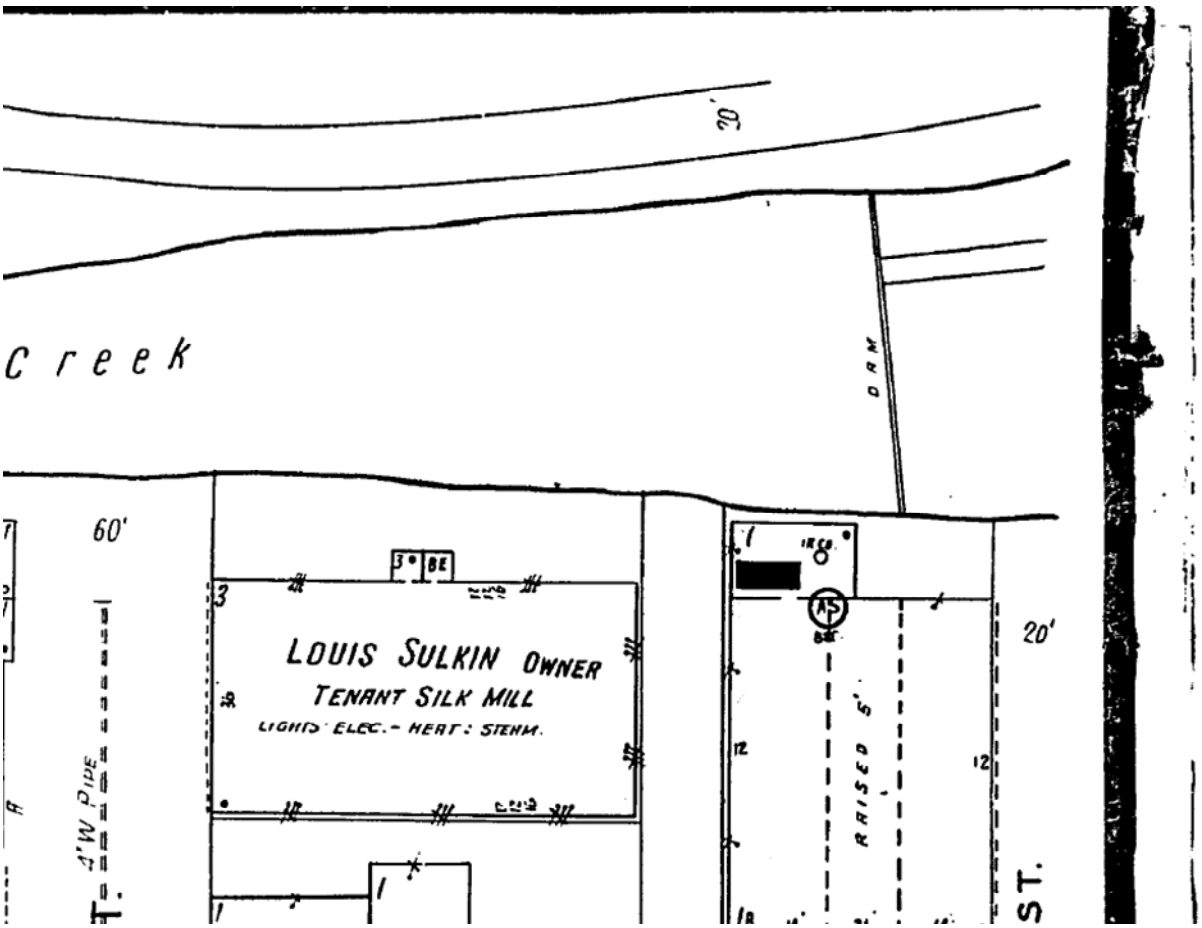
Appendix A.16 – 1927 Chemical Publishing Co. and Easton Auto Co.



Date: 1927	**Source:** Sanborn Map Archive

Description: Chemical Publishing Co. and Easton Auto Co.

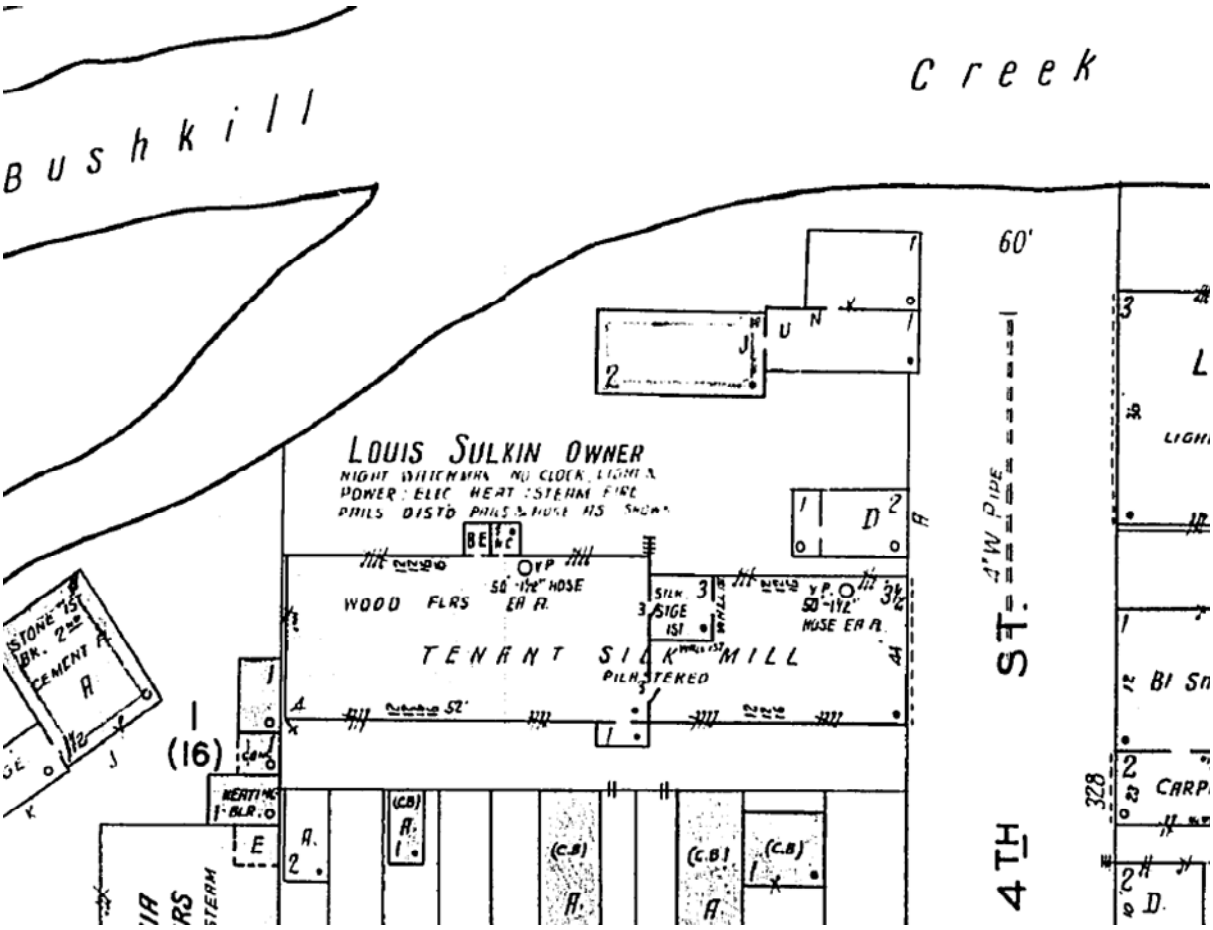
Appendix A.17 – 1927 Silk Mill and dam



Date: 1927	**Source:** Sanborn Map Archive

Description: Louis Sulkin Owner Tenant Silk Mill and dam

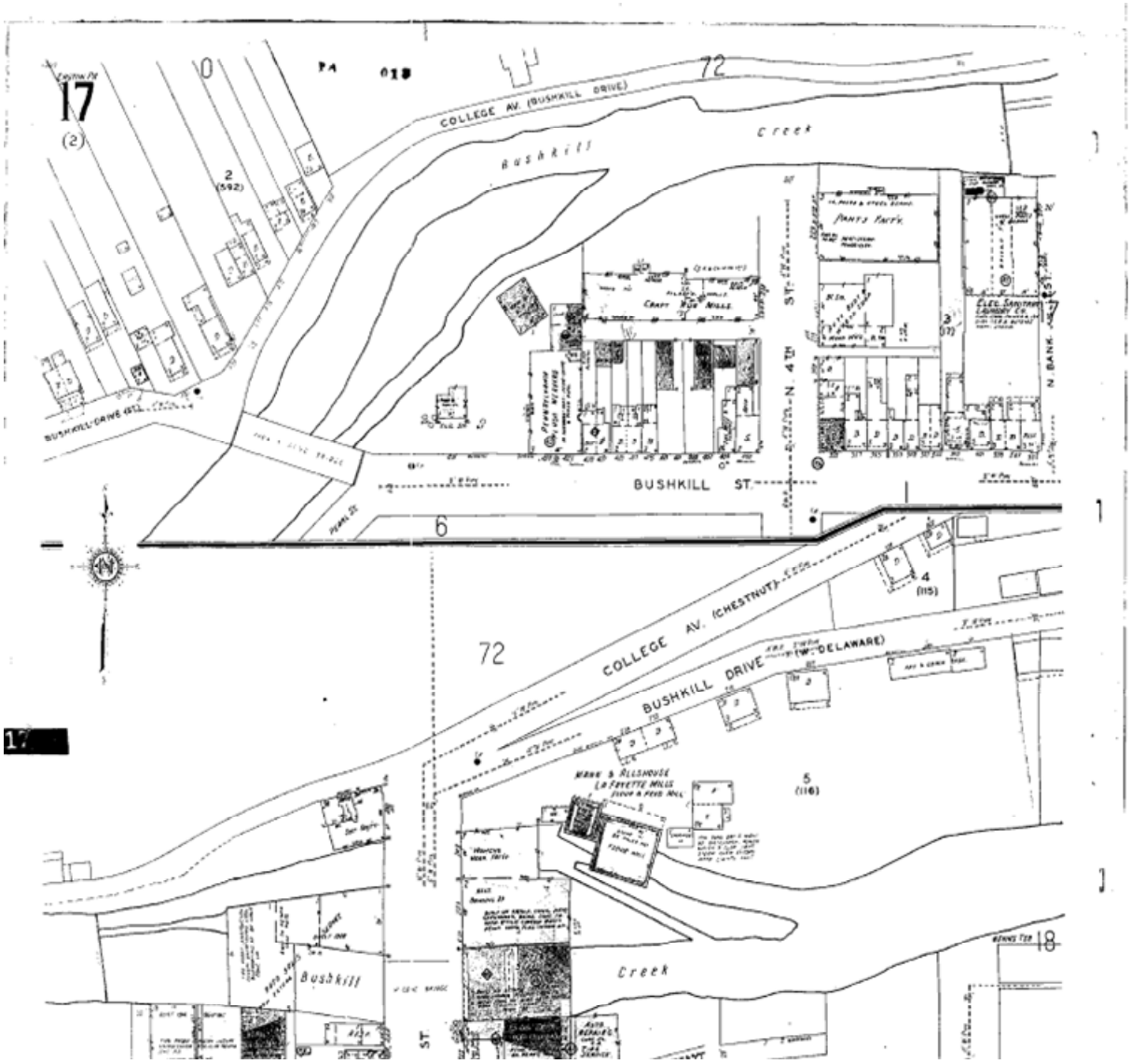
Appendix A.18 – 1927 Silk Mills and Junk Yard



Date: 1927	**Source:** Sanborn Map Archive

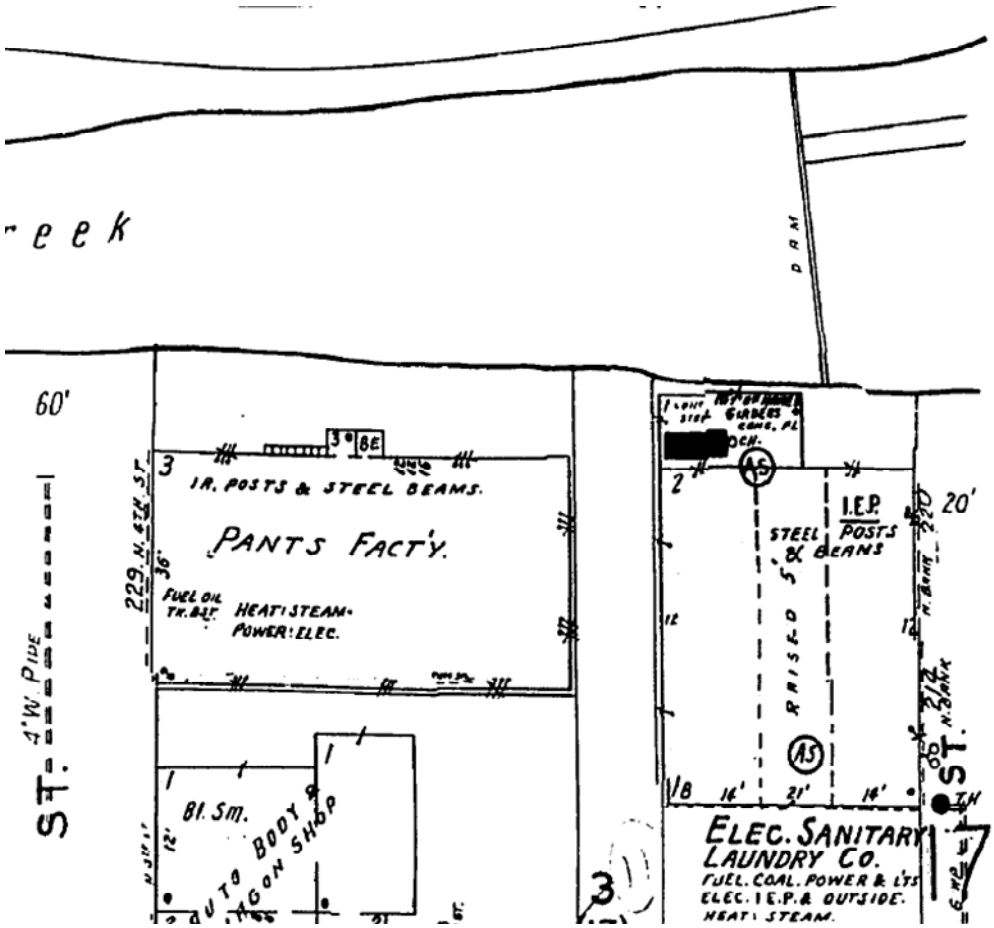
Description: Louis Sulkin Owner Tenant Silk Mills and Junk Yard

Appendix A.19 – 1927-1949 Map of Bushkill



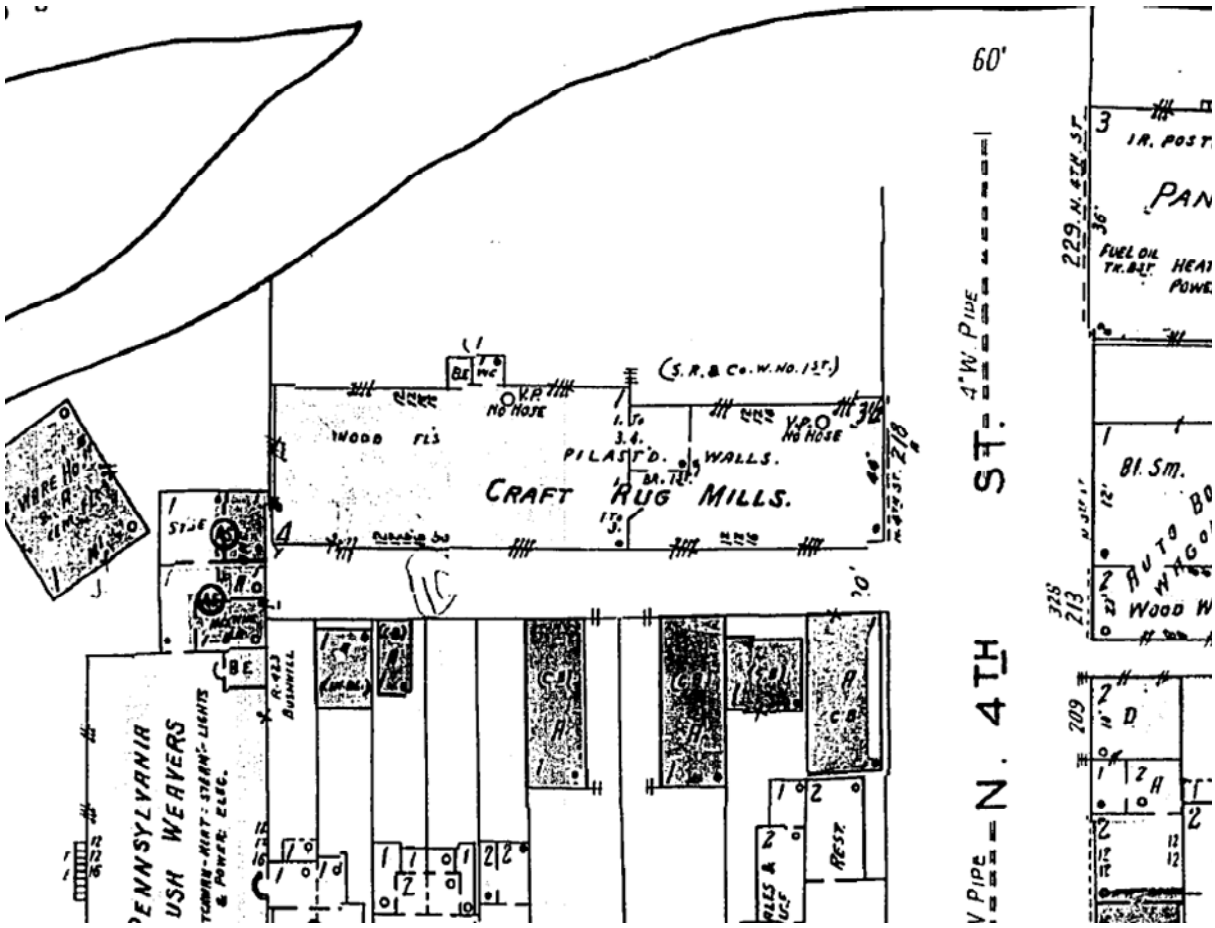
Date: 1927-1949	**Source:** Sanborn Map Archive
Description: Map of Bushkill	

Appendix A.20 – 1927-1949 Pants Factory and dam



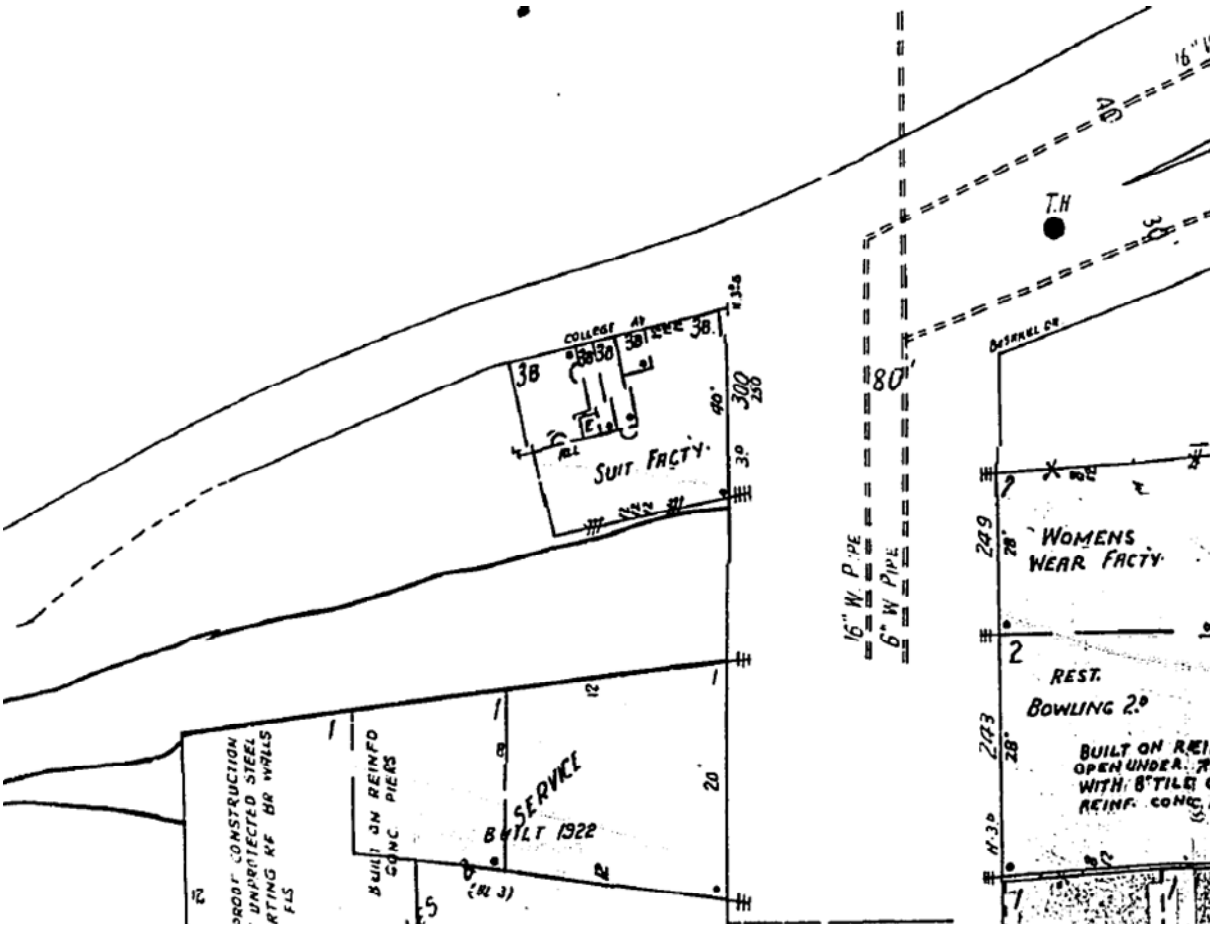
Date: 1927-1949	**Source:** Sanborn Map Archive
Description: Pants Factory and dam	

Appendix A.21 – 1927-1949 Rug Mills



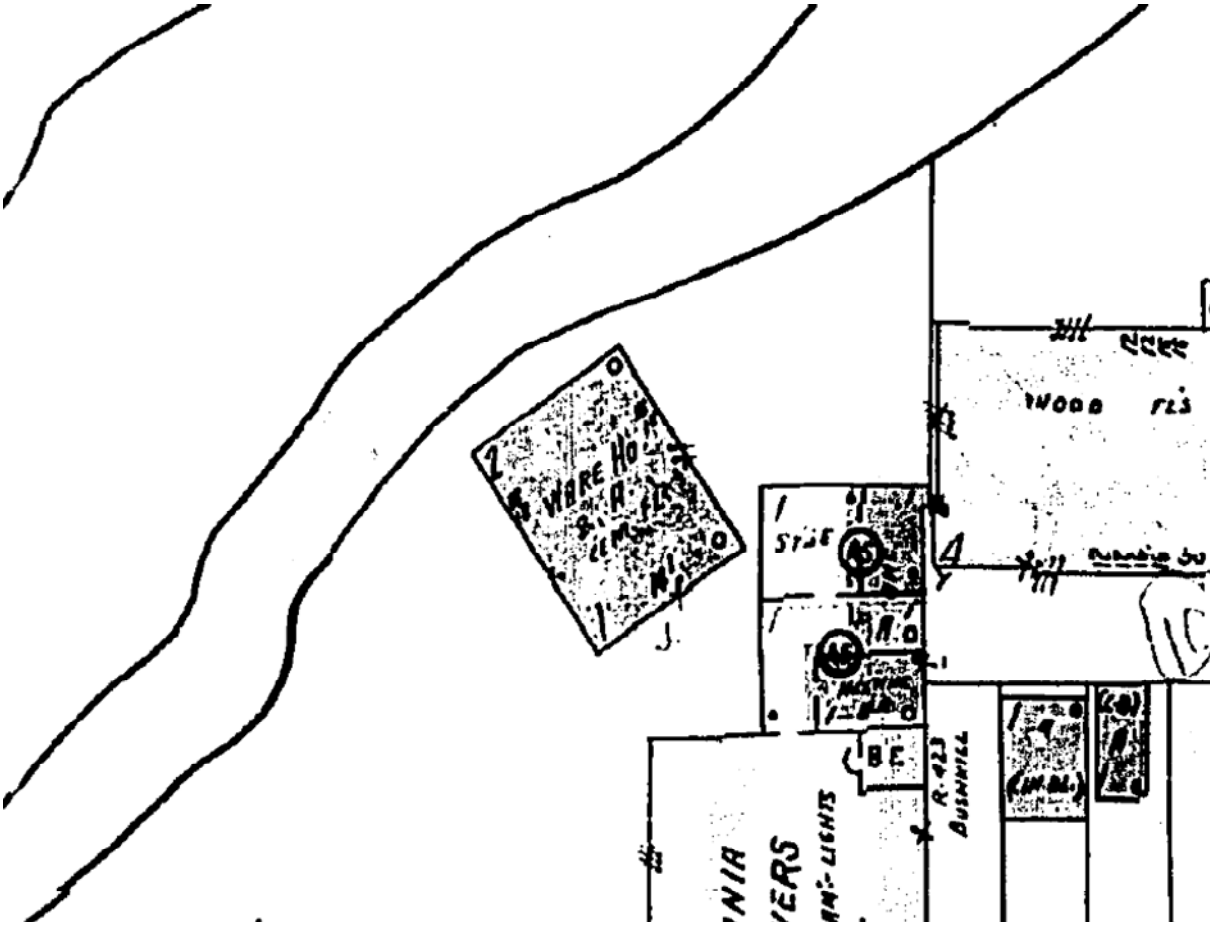
Date: 1927-1949	**Source:** Sanborn Map Archive
Description: Craft Rug Mills	

Appendix A.22 – Suit Factory



Date: 1927-1949	**Source:** Sanborn Map Archive
Description: Suit Factory	

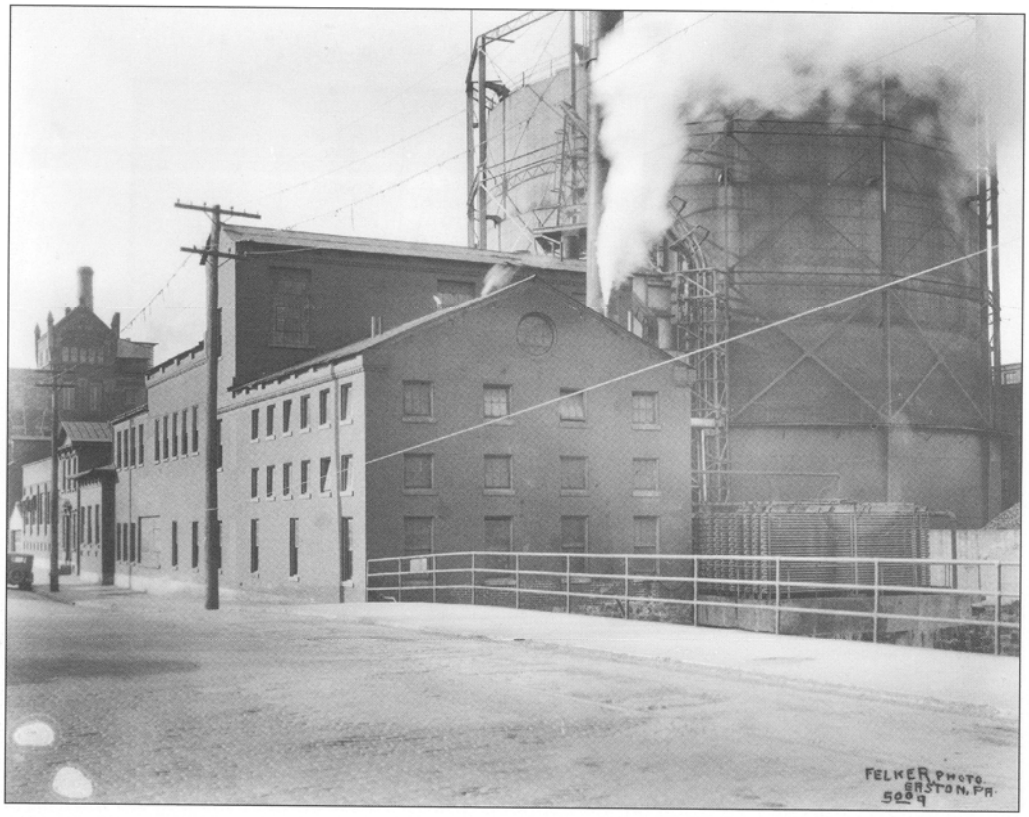
Appendix A.23 - Warehouse



Date: 1927-1949	**Source:** Sanborn Map Archive
Description: Warehouse	

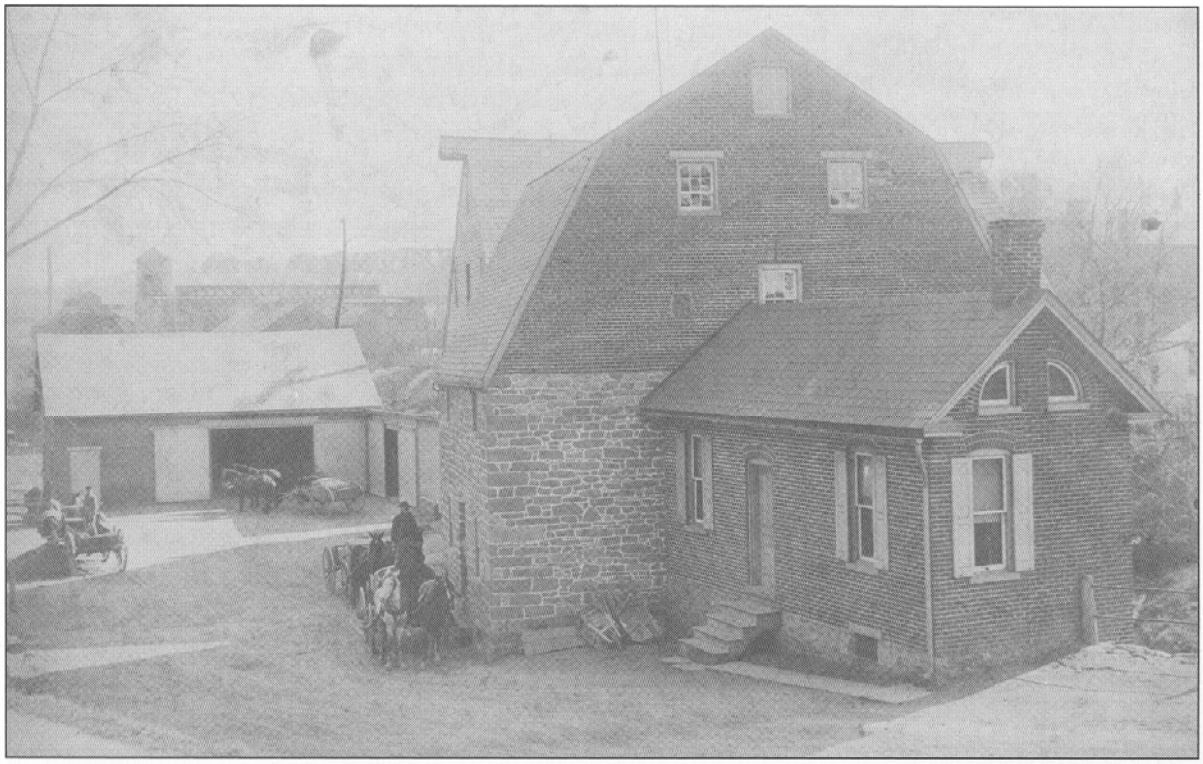
APPENDIX B – Historical Photographs

Appendix B.1 – Seitz Brewing Company



The Easton Gas Works, North Front Street and the Bushkill Creek. To the left we can see the Seitz Brewing Company. The gas works was destroyed by an explosion at 5:15 A.M. Sunday October 24, 1943. The Seitz Brewery gave way to Route 22.

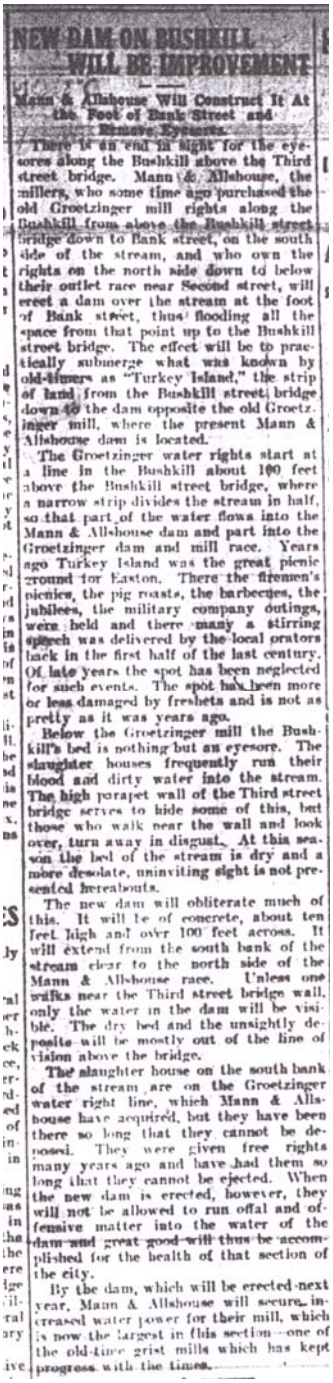
Appendix B.2 – Mann and Allshouse Feed Company



This is a circa 1900 view of the Mann and Allshouse Feed Company, 240 Bushkill Drive. Presently this is the sight of Easton Shammy Shine Car wash.

APPENDIX C – Historical News Clippings

Appendix C.1 – Easton Express Times Article



NEW DAM ON BUSHKILL WILL BE IMPROVEMENT

Mann & Allshouse Will Construct It At the Foot of Bank Street and Remove Eyesore.

There is an end in sight for the eyesores along the Bushkill above the Third street bridge. Mann & Allshouse, the millers, who some time ago purchased the old Groetzinger mill rights along the Bushkill from above the Bushkill street bridge down to Bank street, on the south side of the stream, and who own the rights on the north side down to below their outlet race near Second street, will erect a dam over the stream at the foot of Bank street, thus flooding all the space from that point up to the Bushkill street bridge. The effect will be to practically submerge what was known by old-timers as "Turkey Island," the strip of land from the Bushkill street bridge down to the dam opposite the old Groetzinger mill, where the present Mann & Allshouse dam is located.

The Groetzinger water rights start at a line in the Bushkill about 100 feet above the Bushkill street bridge, where a narrow strip divides the stream in half, so that part of the water flows into the Mann & Allshouse dam and part into the Groetzinger dam and mill race. Years ago Turkey Island was the great picnic ground for Easton. There the firemen's picnics, the pig roasts, the barbecues, the jubilees, the military company outings, were held and there many a stirring speech was delivered by the local orators back in the first half of the last century. Of late years the spot has been neglected for such events. The spot has been more or less damaged by freshets and is not as pretty as it was years ago.

Below the Groetzinger mill the Bushkill's bed is nothing but an eyesore. The slaughter houses frequently run their blood and dirty water into the stream. The high parapet wall of the Third street bridge serves to hide some of this, but those who walk near the wall and look over, turn away in disgust. At this season the bed of the stream is dry and a more desolate, uninviting sight is not presented hereabouts.

The new dam will obliterate much of this. It will be of concrete, about ten feet high and over 100 feet across. It will extend from the south bank of the stream clear to the north side of the Mann & Allshouse race. Unless one walks near the Third street bridge wall, only the water in the dam will be visible. The dry bed and the unsightly deposits will be mostly out of the line of vision above the bridge.

The slaughter house on the south bank of the stream are on the Groetzinger water right line, which Mann & Allshouse have acquired, but they have been there so long that they cannot be deposed. They were given free rights many years ago and have had them so long that they cannot be ejected. When the new dam is erected, however, they will not be allowed to run offal and offensive matter into the water of the dam and great good will thus be accomplished for the health of that section of the city.

By the dam, which will be erected next year, Mann & Allshouse will secure increased water power for their mill, which is now the largest in this section—one of the old-time grist mills which has kept progress with the times.

Date: September 3, 1907	**Source:** Easton Express Times

Description: The dam will flood Turkey Island, which has become an eyesore. The building referred to as the slaughter house will no longer be permitted to dump blood into the stream. The dam will provide power to the Mann & Allshouse Mill, which is the biggest in the area.

Appendix C.2 – Easton Express Times Article

MANN & ALLSHOUSE BUILDING NEW DAM

Will Improve the Appearance of the Bushkill Creek Above Bank Street and Give More Water Power For Mill.

Mann & Allshouse, the millers at the Third street Bushkill bridge, have begun the construction of a dam on the Bushkill creek at the foot of Bank street. As stated in the Free Press some months ago, the firm purchased the old Groetzinger water rights on the south side of the Bushkill, and this gave them the water rights of the entire stream, from just above the Bushkill street bridge to Bank street. Their old dam is opposite the abandoned Groetzinger mill, and their race leads down on the north side of the stream, to their large grist mill below the Third street bridge.

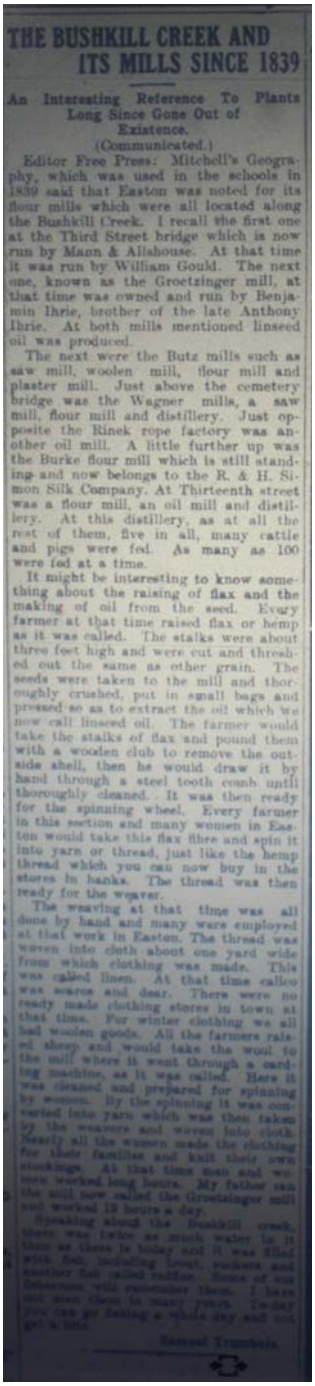
The new dam will be about seventy feet wide and will be constructed of cement. It will be seven feet high and will raise the water so that it will cover the old dam and will back the water to above the Bushkill street bridge. It will flood the now partly-dry and unhealthy waterway that led into the old Groetzinger mill and will greatly improve the appearances of things along the Bushkill below the Bushkill street bridge.

The firm expect that under normal conditions it will have 150 horse power.

Date: August 22, 1908	**Source:** Easton Express Times

Description: Mann & Allshouse bought the water rights to the Bushkill from Bank Street to Bushkill Street and are going to build a new dam at Third Street. It will improve the appearance of things along the Bushkill below the Bushkill street bridge and provide more power to their mill.

Appendix C.3 – Easton Express Times Article



THE BUSHKILL CREEK AND ITS MILLS SINCE 1839

An Interesting Reference To Plants Long Since Gone Out of Existence.

(Communicated.)

Editor Free Press: Mitchell's Geography, which was used in the schools in 1839 said that Easton was noted for its flour mills which were all located along the Bushkill Creek. I recall the first one at the Third Street bridge which is now run by Mann & Allshouse. At that time it was run by William Gould. The next one, known as the Groetzinger mill, at that time was owned and run by Benjamin Ihrie, brother of the late Anthony Ihrie. At both mills mentioned linseed oil was produced.

The next were the Butz mills such as saw mill, woolen mill, flour mill and plaster mill. Just above the cemetery bridge was the Wagner mills, a saw mill, flour mill and distillery. Just opposite the Rinek rope factory was another oil mill. A little further up was the Burke flour mill which is still standing and now belongs to the R. & H. Simon Silk Company. At Thirteenth street was a flour mill, an oil mill and distillery. At this distillery, as at all the rest of them, five in all, many cattle and pigs were fed. As many as 100 were fed at a time.

It might be interesting to know something about the raising of flax and the making of oil from the seed. Every farmer at that time raised flax or hemp as it was called. The stalks were about three feet high and were cut and threshed out the same as other grain. The seeds were taken to the mill and thoroughly crushed, put in small bags and pressed so as to extract the oil which we now call linseed oil. The farmer would take the stalks of flax and pound them with a wooden club to remove the outside shell, then he would draw it by hand through a steel tooth comb until thoroughly cleaned. It was then ready for the spinning wheel. Every farmer in this section and many women in Easton would take this flax fibre and spin it into yarn or thread, just like the hemp thread which you can now buy in the stores in hanks. The thread was then ready for the weaver.

The weaving at that time was all done by hand and many were employed at that work in Easton. The thread was woven into cloth about one yard wide from which clothing was made. This was called linen. At that time calico was scarce and dear. There were no ready made clothing stores in town at that time. For winter clothing we all had woolen goods. All the farmers raised sheep and would take the wool to the mill where it went through a carding machine, as it was called. Here it was cleaned and prepared for spinning by women. By the spinning it was converted into yarn which was then taken by the weavers and woven into cloth. Nearly all the women made the clothing for their families and knit their own stockings. At that time man and woman worked long hours. My father ran the mill now called the Groetzinger mill and worked 13 hours a day.

Speaking about the Bushkill creek, there was twice as much water in it then as there is today and it was filled with fish, including trout, suckers and another fish called redfins. Some of our fishermen will remember them. I have not seen them in many years. To-day you can go fishing a whole day and not get a bite.

General Trumpeter.

Date: August 18, 1914	**Source:** Easton Express Times

Description: Easton has four mills, all located along the Bushkill. There was twice as much water and fish in the creek in 1839.

Appendix C.4 – Easton Express Times Article

EASTON EXPRESS, TUESDAY, SEPTEMBER 24, 1968 PAGE FIVE

ighway Reconstruction Work Damages Bushkill Creek

By MADELEINE B. MATHIAS
Express Staff Writer
(First of Four Articles)

The bitter controversy that has evolved from reconstruction of Bushkill Drive in Forks Township dramatizes the national conflict between the highway builders' earth movers and the "common man's" castle.

Today's mobile society with its two-car families demands smooth, wide, curveless roads on which to speed to their destinations. The engineers are charged with thinking only of moving traffic and often failing to recognize or concede that their actions disrupt the social and economic balance of communities.

Within the past few months, residents of Hellertown, Stockertown and Alpha, have been embroiled in disputes over locations of two major highways.

Several public hearings have been called in Hellertown and Alpha because residents are protesting the location of Interstate Route 78. And Stockertown residents don't want the Route 611 interchange to impinge on their lives.

The interests of the people versus the plans of the highways department often seem irreconcilable.

The quiet scenic drive along the Bushkill Creek has been torn into a confusion of dust, dirt and noise.

The creek has been denuded of shade-producing trees; trout holes have been bulldozed to make way for a wide, curveless road.

To area residents the state Highways Department's project is—in the words of one objector—a "wasteful expenditure of taxpayers' money for a concrete monument to special interests."

Homeowners, business people and sportsmen are angry—claiming that one of the most scenic highways and one of the finest trout streams in the area are being destroyed.

They charge that if the Highways Department had properly maintained the road, reconstruction would not be necessary.

They denounce the governor, township supervisors, representatives of the Highways Department and the state Fish and Game Commission for "ignoring" their pleas.

They say it's up to the legislation and, in the words of one resident, "will never again permit the destruction of a beautiful highway or creek by unenlightened engineers and officials who disregard the esthetic for straight-line reasoning."

Some have resigned themselves to the condition, saying, "It's done. What can we do about it?" Many others say they are not so willing to concede.

Edward J. Pados Sr., whose 100-year-old family home was razed, called the project "the worst thing that could happen in Pennsylvania." He said an organization is being formed to lobby for legislation to preserve scenic highways.

"All they had to do was blacktop and widen the road. Now what we will have is the best drag strip in the area," he said.

Pados said he was forced to go into debt to build a new home because the state paid him only $9,700 for his property plus 25 feet of right-of-way on each side of the road.

Several residents said a group is being formed to see if they can beautify the barren areas with plantings.

Kenneth Stocker, owner of Ken's Body Shop, said his feelings from the beginning have been that "the state will do it their way regardless of the thoughts or feelings of any of the taxpayers."

"How could the Fish and Game Commission be lax enough to permit destruction of the creek? There won't be any trees there. How could there be when they have lined the banks with stone?" he asked.

Stocker questioned the extensive right-of-way he said the Highways Department is taking.

He said 50 feet had been taken from landowners in some places. When he asked a state official about this, he said he was told that they are "taking it for the future."

He asked "What about my future? How can our eminent domain laws permit the taking of land for speculation 20 years from now?"

Stocker claims that in fact the state said it would blacktop the road. But, he said, instead survey teams came into the area — "no one could get anything out of them" — and the work was never done.

About that time, Stocker said, the Joint Planning Commission of Lehigh and Northampton Counties told the Highways Department "point blank it would waste money rebuilding the road."

The reason he said, was that the planners estimated the 1,100 cars using the highway daily would drop to two in 1990.

"This was to be a local feeder route," he said. "Because Routes 115 and 611 would get the bulk of the traffic, particularly after those roads were improved. Traffic was estimated at 6,400 cars daily on Route 115 and 3,000 on Route 611."

Stocker said the commission *later did "an about-face"* and endorsed reconstruction.

A resident said 22 signatures were collected on a petition and sent to the governor. "The governor sent the letter to the Highways Department office in Allentown," she said, "and called it a crank letter."

Mrs. Lorraine Case, whose property once was featured in American Home magazine for its beautiful ranch fence, has seen this part of her property destroyed by the road machines.

Blue spruces, maples, the unique fence and the fish pond in front of her home were taken.

The target for most of the anger has been Victor W. Anckaitis of Easton, chief engineer of the Highways Department. Many feel that he has been the moving force behind the rebuilding because of his "special interest" in Lafayette College.

Some charge that Anckaitis, a 1925 graduate of Lafayette, built the road because it leads from Easton to the new Forks Township site for the college's intramural athletic fields.

Others claim Anckaitis helped create the problem when he sat on the Joint Planning Commission and was one of those reversing the decision on the road building.

Anckaitis denies this, noting he wasn't a member of the Highways Department until 1956 and the road was planned five to six years before this.

The last maintenance work, the residents claim, was done 28 years ago when the WPA put in stone shoulders. The state they say, started putting in guardrails 25 years ago and never finished the job.

Express Photos by Mathias

CENE — In the upper part of the Bushkill Creek, not connected with the ction of Bushkill Drive, the quiet beauty of the area is still evident. Full and heavy shrubbery provide the shade to keep the stream's temperature uch for trout.

Richardson

posium On Community College's Role e Part Of Inauguration Program

on the role of gymnasium at Moravian named to his post by the board leges will be one Seminary for Girls at Green in February 1968. held in conjunc- Greetings will be extended by... inauguration of Dr. Dr. Glenn J. Christensen, Louis Mollach, president of the chadwin Jr. as chairman of the Board, student parliament, a ent of the Soc- of trustees and vice-provost of representative of the faculty ...ity Area Com- Lehigh University, will install and Dr. W. Fleming Lewis, ...Sunday. the new president, who was president of Lehigh University ...k Meder, vice ...and chairman of the state Board ...y of Rutgers of Education.

Freedom High Band To Be In Souderton

Organ Prelude

Dr. Robert E. Schantz, assistant professor of music, will present an organ prelude before ... Miller, president. The Freedom High School ...

School Group Okays Plan On Negro History

Date: September 24, 1968	**Source:** Easton Express Times

Description: Easton citizens are angry about the effects the construction is having. They feel ignored and betrayed by government officials. One of the prettiest roads along one of the best places to fish in Pa is ruined.

Appendix C.5 – Easton Express Times Article

EASTON EXPRESS, WEDNESDAY, SEPTEMBER 25, 1968 PAGE FIVE

Highway Department Defends Bushkill Drive Work

By MADELEINE B. MATHIAS
Express Staff Writer

(Second of Four Articles)

While the majority of Bushkill Drive residents deplore what they call the "destruction" of the scenic highway, representatives of the state Highways Department strongly defend the rebuilding work.

Highway personnel deny that either the beauty of the area is ruined or the fish streams destroyed. They reject contentions their department is concerned only with building roads and not with the social and economic problems it causes for people.

F. Karl Witherow, district engineer at Allentown said his department "always puts itself in the position of property owners and we try to do the best for them."

Whenever a project is planned, he said, all factors are taken into consideration—highway needs, safety requirements, properties, property owners, land damages and beauty.

Witherow said designers consider every alternative to cut property losses. More than ever, he said, the department researches the esthetic features and tries to retain as many as possible.

For example he said the department might have retained the old, dangerous entrances to Tatamy, but instead realigned the road, reducing property losses.

Witherow said the plans called for removal only of trees in the way of construction.

Witherow and Victor W. Aneksitis, of Easton, deputy secretary and chief highways engineer, said the creek's rechanneling was designed in accord with Department of Forests and Waters and Fish and Game Commission specifications.

Road builder Hugh Stewart, construction manager for the Wright Contracting Co., Columbus, Ga. agreed. He said the Fish and Game Commission took the fish to another part of the stream before work began.

A wide channel was dug in the creek to allow fish to migrate, as few trout holes as possible were disturbed, he said.

The problem of feed for the fish, which fishermen say was destroyed by the mechanizing, should be solved by reseeding the banks, he said. Much of this work has already been completed.

Witherow added that Crown Vetch, a ground cover that blossoms in the summer would be planted.

He said a beautification plan was not included in the specifications — as on many major highway projects — because the "landscape was only remotely disturbed" along the Bushkill.

Aneksitis said landscape architects are checking the area and the Highways Department might consider additional orders for beautification.

Highway officials deny neglect of the roadway. Witherow said periodic maintenance work has been done. He said details on this are in his files and available at his Allentown office.

Aneksitis said that although he was not associated with the Highways Department until 1965, he was certain the road received normal maintenance such as sealing of joints, patching, and cleaning of ditches.

Proof of the need for reconstruction is that in 1961, the highway administration from the governor down to the chief engineer and the district engineer — Victor Cesare of Pen Argyl, crew division construction engineer — considered the road should be rebuilt and such a project was authorized, Aneksitis said.

Aneksitis said the road, bu in 1971, is one of the 46 highways in Northamp County.

"We plan for a 30-year lif he said, "and in many ca today before this time expir major reconstruction becar necessary and desirable."

Cesare said the road considered one of the dangerous and had the high maintenance costs in the co ty.

"We tried to scrape enough money to do a dee job," he said, "and in i it was programmed reconstruction. Blacktopp had been considered previ ly, but it was decided road was too narrow and deteriorated to merit this penditure.

We gave this road priority and when mo became available it was bi

All highway officials benefits of the project being overlooked.

An important fact Witherow said, will be decrease and possible elim tion of flooding that placued the area for ye This has been corrected raising the road above water level.

Of equal importance sand, will be creation safer highway by elimina curves and grades.

RECHANNEL CREEK — This aerial photograph shows one of the three areas of the Bushkill Creek which was rechanneled for the reconstruction of Bushkill Drive. All the trees and shrubs were removed from one side of the creek to permit the realignment. The spot is about one mile south of Tatamy, shown at the top of the photo and north of the Scudder's Mill Bridge. (Staff Photo by Joseph P. Lathrop)

Vincent Ramunni Heads PTA Unit At St. Anthony's

Vincent F. Ramunni was installed as president of St. Anthony's PTA last night by the Rev. Francis Barbato, pastor, at the school auditorium.

Others installed were James Conti, vice president; Mrs. Paul Lipari, secretary; Mrs. Meiner do Santos, treasurer; and Mrs. Joseph Castloonia, sergeant at arms.

Committee chairmen appointed for the year are: Mrs. Edward Germain, program; Mrs. Lincoln Bubba, November drawing; Mrs. Salvatore Pardo, refreshments; Mrs. John Mar

Federal Official Checks Complaints About I-78 Route

Another controversy between road builders and the "common man's castle" is developing in the Lehigh Valley area.

It has been reported an investigator from the U. S. Transportation Department is in the Lehigh Valley this week to check on the controversy concerning Interstate 78.

[illegible] A. Revell Jr., a special representative of the Transportation Department's office of Audit and Investigation, would not discuss what he was doing but did acknowledge he is infact

Hontz To Make First Trip To Return Prisone

Northampton County

William J. Hontz will lea day for Kansas to bring Richard Dale Messinger Nazareth, who is being h that state as a parole viola

Sheriff Hontz will be ac ied by Charles Nellac Bethlehem, a special sh deputy.

Hontz says it is the firs trip he has made to a prisoner during the 12 he has been in office. He from his office have had

Date: September 25, 1968	**Source:** Easton Express Times

Description: The majority of residents are against the construction work involved in rechanneling the Bushkill because they fear the effects it will have on the look of the highway and fish in the creek. The Highway Department officials say that these fears are unwarranted because those factors were taken into account.

Appendix C.6 – Easton Express Times Article

Fishermen In Area Are Wary Of Bushkill Creek Restoration

By MADELEINE B. MATHIAS
Express Staff Writer
(First of Two Articles)

When the bulldozers moved into the Bushkill Drive area last summer, they stirred up a controversy that couldn't be hidden in the dust and the dirt.

Residents criticized the destruction of their landscaped properties and the stately trees that lined the picturesque highway — just for the sake of a curveless road.

Fishermen charged the once tranquil Bushkill Creek was ruined as a favorite fishing spot.

The controversy brought together representatives of the two state agencies involved — the State Highways Department and the Fish Commission. They held a number of meetings — hopefully to find the path to resolve the conflict between esthetics and progress.

Some constructive steps materialized. The most important is an agreement which should limit future destruction of scenic highways and streams by roadbuilders.

In addition, major plans have been developed — and some already implemented — to see that the creek will again become a prime fishing area and that trees and shrubs will be planted to shade the creek waters and provide seasonal colors.

Area fishermen, however, are apprehensive. They argue that the creek restoration plans are minimal, and that the measures will be only temporary. They fear that within a year, the creek will be worse than when the roadbuilders disturbed the stream to eliminate the curves in the 4.3 miles of highway between Easton and Tatamy.

But the Highways Department is optimistic. It feels the measures taken "will put the creek in good shape for fishing this year."

The Fish Commission had submitted extensive plans for creek restoration, including asking for a wide channel,

MADELEINE MATHIAS

placement of many gabions (wire baskets filled with rocks which act as deflectors for the current), shore plantings, rock shelters for fish, and walks along the base of the creek slopes.

These suggested improvements were described by one highways official "as quite costly."

However, some of the plans have been implemented. Hugh Stewart, construction manager for the road contractor, Wright Contracting Co., said his company has done the work — at no cost to the state.

Stewart used his bulldozers to cut a 40-foot-wide fish channel in the creek—original plans called for a 16-foot channel. This permits the fish to move from one area to another, particularly when the flow of water is low in the creek.

Then Stewart took some of the huge boulders uncovered in the road building and placed these in the creek to create holes as hiding places for fish. Other rocks have been placed as dams in the streams to act as current deflectors and create additional fish pools.

Area fishermen agree these first steps will help fishing this year, but fear heavy rains will push dirt and stones into the channel and displace the boulders. Without the gabions, they believe the temporary measures are worthless.

Both Fish Commission and Highways Department officials recognize that these are "stop gap" measures, but stress they are only the first — and most important — steps to restoration.

Robert Hetherington, public information officer for the highways department, said "each step will be taken as we go along." He said the other proposals by the PFC will be studied to see if they are needed.

With the creek work almost completed, the contractor will turn his attention to beautification of the banks and road area.

Hetherington said a contract will be awarded for the planting of 400 trees and 400 shrubs.

This was promised last fall, but no action was taken on the contract because Stewart's first estimates for the work totaled $40,000.

Further study of the proposals reduced the costs to about $20,000, which met with the Highway Department's approval.

In addition to the plantings, which are expected to provide shade to keep the creek waters cool, the contractor will place topsoil on the banks which were lined in some areas with large rocks as a base for the road. These will be seeded and planted with ground covers.

While this physical rehabilitation may be a redeeming factor in the controversial road construction, there is one action that should preclude any repetition of the Bushkill Creek destruction.

This is the agreement of understanding worked out between the Highways Department and the Fish and Game commissions, voiding a 1963 agreement.

The new agreement, signed last September, provides that the commissions will have review powers over highway blueprints in advance — an action which Robert Bielo, fish commission executive director, says, "will save a lot of grief."

The document also provides that the commissions will receive notice of all public hearings, continuing reviews as designs progress, and the right to observe construction methods and make recommendations for improvements favorable to conservation.

Bielo lauded the agreement, noting it is "well under way and working."

"We want good roads as much as anyone else," he said, "but we must remember these can't be built to damage other resources of the Commonwealth."

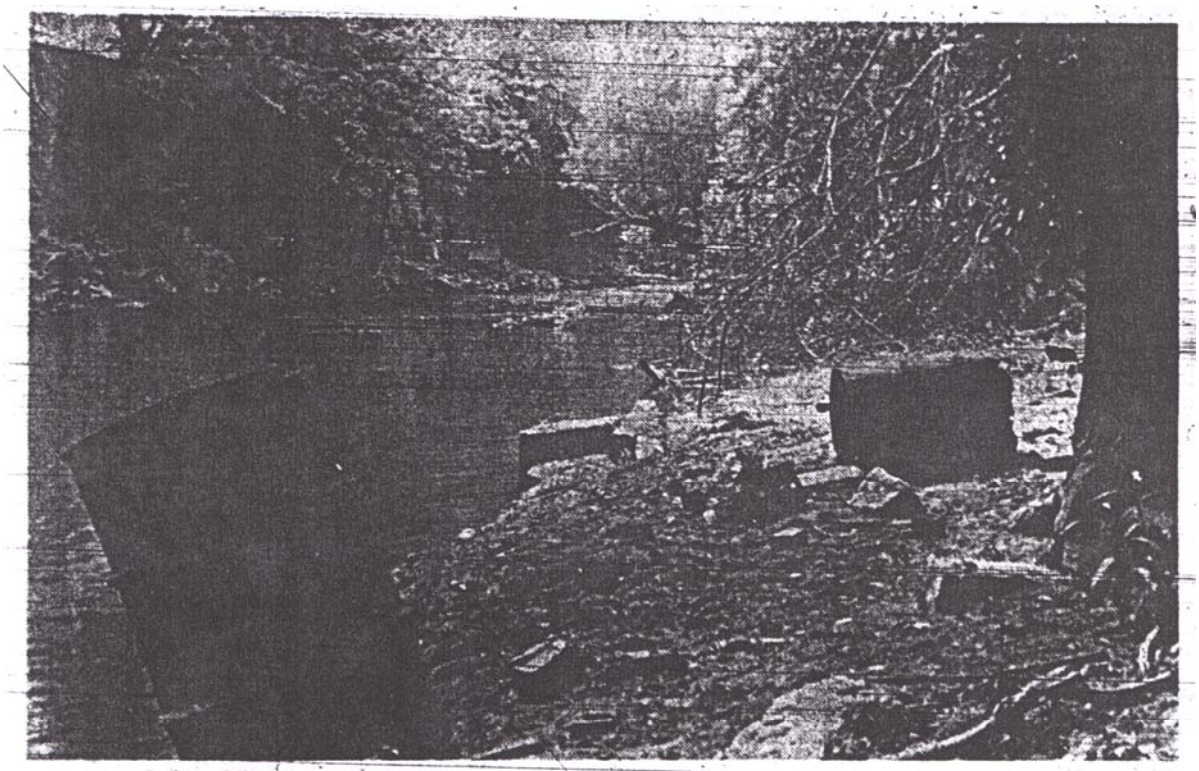
His words typify the reactions of the average man whose anger over the destruction of Bushkill Creek and Drive for a high-speed road has brought some corrections.

But time will be the only revealer of whether the scenic highway will once again be a beauty spot.

Date: April 7, 1969	**Source:** Easton Express Times

Description: A beautiful landscape was destroyed for the construction of a curved road. It ruined the fishing quality of the creek. Highway Dept and Fish and Game commissions have signed an agreement to plan future projects together so that they won't ruin the environment. They have pledged to implement restoration plans. Residents fear that it isn't enough and that fishing will still be poor.

Appendix C.7 – Easton Express Times Article



Refuse blights Bushkill Creek between the Delaware River and North Third Street.

Bushkill Pays the Price of Civilization

You wind up feeling sorry for the Bushkill. It pays the price of a once bright and babbling stream that finds itself in the middle of a city.

Far north of Easton, the creek provides relaxation and sport for fishermen and children who like to wade in the cold, clear water or play on the pleasant banks of the stream.

But by the time the Bushkill merges into the Delaware River just above the Bushkill Street toll bridge, its character has changed. The clear water has turned to a leaden green flecked with patches of yellow suds.

Choked Creek

As it winds through the city, the creek is almost completely cut off from the casual hiker by a combination of undergrowth and industrial development.

From the mouth of the Bushkill at the Delaware to where it disappears around a bend west of 13th Street, the Bushkill is a challenge.

Under bridges, through tangled ground cover, over rocks, around cement walls, along steep embankments of trash, you've got to scratch and claw your way, sometimes leaping from rock to rock in the water because the banks are impenetrable.

At 13th Street, the properties of C.K. Williams Co. and Chas. Pfizer Co. encompass the creek, so you've got to go around. Above these properties, an easier walk along the stream is possible to calmer, clearer, and more accessible locations.

Date: August 7, 1969	**Source:** Easton Express Times

Description: Bushkill Creek is clean upstream but very dirty downstream where it combines with the Delaware. There is litter and debris scattered along the banks and the water has turned a leaden color.

Appendix C.8 – Easton Express Times Article

THE EXPRESS, Easton, Pa., Wed., Aug. 13, 1969 5

Officials Charge Bushkill Creek Damaged By Highway Building

By MADELEINE B. MATHIAS
Express Staff Writer

HARRISBURG—Two state officials charged yesterday Bushkill Creek has been "severely damaged" by highway construction.

Maurice K. Goddard, secretary of the Department of Forests and Waters, and Robert J. Bielo, executive director of the Pennsylvania Fish Commission, blamed the state Highways Department for the destruction.

They asserted the highway builders used inadequate planning and construction procedures that may have destroyed the creek's value for many years.

The two were among eight state and federal officials who spoke in Harrisburg yesterday at an environmental seminar, called by the Highways Department to find ways of resolving ecological and esthetic problems in road building.

Promise Cooperation

Through the all-day session, the speakers criticized the Highways Department for its disregard of natural resources. But, in turn, the speakers promised full cooperation to develop programs in which streams, game lands and historical sites could be protected from indiscriminate road building in the future.

State Highways Secretary Robert Bartlett and Deputy Secretary Victor W. Anckaitis, although at times asserting they haven't used unwise practices in road building, said they were hoping the session would open doors to more cooperation between agencies.

Goddard told the group of about 235 engineers and conservationists that Bushkill Creek was one of two trout streams that will suffer the marks of improper road building for years.

Accepting some of the blame, Goddard said, "It is obvious that all agencies dealing with the designs and approvals of the project did not take into consideration environmental planning in the preparation of the final plans."

Equilibrium Affected

He said that in the Bushkill and the First Fork of the Sinnemahoning Creek in the western part of the state, "The natural equilibrium of the channel was so adversely affected that it will take many years for it to be restored."

He said in the future full consideration would be given to the effects of highway work on stream equilibrium.

"We no longer can afford to allow our natural resources to be degraded because of insufficient environmental planning," he said.

Goddard called for the development of plans to rehabilitate the Bushkill, for if it isn't done, he said, "Years will pass before this stream is considered again an important fishery."

Bartlett had previously noted in his talk that some rehabilitation work was being planned for the Bushkill. These would include stream deflectors and riprap on the banks.

Denuded Creeks

Bielo presented a slide presentation, showing creeks, including the Bushkill, which have been rechanneled and denuded of trees and shrubs during road projects.

He acknowledged that streams and roads are bound to conflict, but said, "We can't afford to sacrifice our natural resources simply because it is cheaper."

He cited the destruction of land by the coal industries, noting that today the taxpayer is paying to have these lands reclaimed.

Bielo said highway administrations "must accept a broad responsibility for projects. Our engineers and developers are on a collision course, particularly in the field of water and water resources."

Goddard and Bielo noted that one of the serious problems to streams caused by highway construction has been the silt which has been washed into the streams because the slopes were denuded. This adversely affects the water quality, Goddard said.

He said thousands of dollars have been spent to clear streams of silt washed down from eroded banks.

Advocates Planning

Stressing his advocacy of environmental planning, Goddard said, "While we have spent billions of dollars for the construction of major facilities, only small amounts have been spent in order to eliminate the detrimental effects of the construction on our environment."

Oscar Gray, acting director of the office of environmental impact, U. S. Department of Transportation, didn't mince words on the environmental problems either.

He said a "hatred" was developing against road building projects. Because of this, he warned, state highways departments must consider environment and people in their plans, or the federal government would be forced to enact laws to protect the environment.

The federal official called for pre-construction programs, coordination with [illegible] involved and analysis of all sociological, ecological and environmental factors.

Cities League Defeats Moves To Curb Authorities' Power

By EDWARD P. KENNEDY
Express Staff Writer

PHILADELPHIA — Several efforts to curb the power of authorities were batted down yesterday in the closing business session of the 70th annual convention of the Pennsylvania League of Cities.

The first move of the sort, proposed by McKeesport, would [illegible]

Also tabled after long discussion was a move by Hazleton to have redevelopment authority members named by the mayor and council rather than just the mayor. Several mayors, including Ray Bracy of Allentown, said they always ask for council confirmation of such appointments.

Another defeated resolution would have called on the state to pay 75 per cent of the [illegible]

[illegible] ing that local governmental boundaries should be "flexible." It held that "the primary prerequisite for the initiation of any annexation, consolidation, incorporation or other local boundary change proceedings authorized by uniform law shall be whether such action shall serve best to provide an optimum of local services."

The resolution hit at proposed laws which would make annex[illegible]

Date: August 3, 1971	**Source:** Easton Express Times

Description: In a daylong session in Harrisburg, two officials expressed great concern about the health of the Bushkill Creek. They said that the Highway Department built a new highway without consideration of natural resources. As a result, the stream's value as a major fishery has been degraded. The department pledged to develop restoration programs.

Appendix C.9 – Easton Express Times Article

BUSHKILL CREEK OIL SLICK — Paul LaBar of Tatamy points out a pool of oil slick in the Bushkill Creek near the Tatamy Bridge. Hercules Cement Plant officials say the spill occurred yesterday morning during a fuel oil delivery. Damage to the Bushkill's aquatic life is not certain. —Express Photo By Ed Koskey Jr.

Bushkill Spill Probed

By R. VERNE BRADFORD
Slate Belt Bureau

STOCKERTOWN — An early morning oil spill at the Hercules Cement Co. here yesterday led to oil slicks and sludge accumulations on the Bushkill Creek and possibly caused some damage to the stream.

A Pennsylvania Fish Commission spokesman said action would be taken against the responsible party if negligence could be shown.

According to Larry Walker, president of the Hercules plant, the accidental spill occurred sometime yesterday morning when fuel was being delivered to storage tanks at the plant.

The light fuel oil was spilled near the tanks and apparently flowed into a water drain that runs into the Bushkill, he said.

"We discovered it ourselves," Walker said, "but had it cleaned-up before 10:30 a.m. This is the first time we've had this sort of problem."

He said company employes used sand to cover and soak up the spilled oil.

Miles Witt of the fish commission said the responsible party would be offered two alternatives if negligence were shown. "They can make restitution for damage to aquatic life in the stream, or they can have a day in court," he said.

"There appears to be a degree of negligence," he added.

Concerning the effects of the oil spill, Don Cadwell, a Lafayette College geology professor, said, "It might cause significant harm in the stream." The presence of the oil in the water could hinder aquatic life, increase the stream's nutrient level, and possibly kill fish, he said.

The spill was discovered at about 10:30 a.m. yesterday by a passing truck driver who informed Mrs. Helen Patterson, Easton R. D. 2, a member of the Bushkill Watershed Association. She notified the fish commission and the Department of Environmental Resources. Mrs. Patterson, who inspected the stream, said she noticed no dead fish.

Crash Injures Palmer Couple In Allentown

Charles Schoenberger, 86, of 2201 Jones Blvd., Palmer Township, and his wife Hattie V., 79, were injured yesterday

Date: April 30, 1974	**Source:** Easton Express Times

Description: There was an oil spill at Hercules Cement Co. that leaked down a water drain and into the Bushkill. It was promptly cleaned up, but there was still development of oil slicks and sludge accumulations. Action will be taken if there was negligence. Damage to wildlife is uncertain.

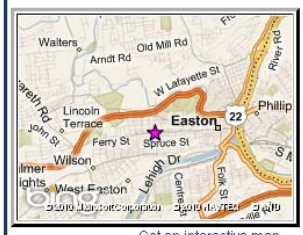
APPENDIX D – Relevant Environmental Site Assessments and Discharge Reports

Appendix D.1 – EPA Brownfield Assessments

Easton Silk Mill Buildings #6 and #11 (G3MJ0R00)

This profile provides a summary of the accomplishments reported to the US EPA by a Brownfields grant recipient or Targeted Brownfields Assessment Contractor at this Brownfields property.

Property Location



Get an interactive map

EPA Region 3 implements the Brownfields program for the state in which this property is located.

Easton Silk Mill Buildings #6 and #11 (G3MJ0R00)
13th Street
Easton, PA 18042

Property Size: 10.0 acres

View Census 2000 Block Data Around this Property Location>>

Regional Brownfields coordinator

Assessment & Cleanup Activities and Progress Summary

This property has been assessed

View Summary of the Property Progress>>

View Assessment Activities >>

View Cleanup Activities>>

View Institutional Controls>>

View Redevelopment Underway>>

Assessment & Cleanup Results and Impact Summary

Each property is assessed to determine if any contaminants are found.

If the property is under an assessment grant from EPA, information on this assessment is reported to EPA.

The assessment has not found contamination at this property or contamination at this property is undetermined.

View Media Affected and Contaminants Found>>

If the property is contaminated and is being cleaned up under a cleanup grant from EPA, information on the cleanup may be reported to EPA.

View Media Addressed and Contaminants Removed>>

View Leveraged Accomplishments>>

Property Progress

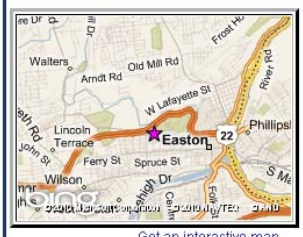
Assessment	Cleanup	Inst. Controls	Ready for Reuse	Redevelopment
Complete	Not Started	Unknown	No	No

Appendix D.2 – EPA Brownfield Assessments

Bushkill Moon Property

This profile provides a summary of the accomplishments reported to the US EPA by a Brownfields grant recipient or Targeted Brownfields Assessment Contractor at this Brownfields property.

Property Location



Get an interactive map

EPA Region 3 implements the Brownfields program for the state in which this property is located.

Bushkill Moon Property
1250 Bushkill Drive
Easton, PA 18042

Property Size: 3.0 acres

View Census 2000 Block Data Around this Property Location>>

Regional Brownfields coordinator

Assessment & Cleanup Activities and Progress Summary

This property has been assessed

View Summary of the Property Progress>>

View Assessment Activities >>

View Cleanup Activities>>

View Institutional Controls>>

View Redevelopment Underway>>

Assessment & Cleanup Results and Impact Summary

Each property is assessed to determine if any contaminants are found.

If the property is under an assessment grant from EPA, information on this assessment is reported to EPA.

The assessment has not found contamination at this property or contamination at this property is undetermined.

View Media Affected and Contaminants Found>>

If the property is contaminated and is being cleaned up under a cleanup grant from EPA, information on the cleanup may be reported to EPA.

View Media Addressed and Contaminants Removed>>

View Leveraged Accomplishments>>

Property Progress

Assessment	Cleanup	Inst. Controls	Ready for Reuse	Redevelopment
Complete	Not Started	Unknown	No	No

Appendix D.3 – RCRA Corrective Action Site Report

Rockwood Pigments NA, Inc.

7101 Muirkirk Road
Beltsville, Maryland 20705
Congressional District
EPA ID #: MDD062011796
Facility Property Area: 3.5 acres
Last Updated: 05/12/2010

Status

RCRA Corrective Action activities at this facility are being conducted under the direction of EPA Region 3 with assistance from the Maryland Department of the Environment (MDE). Rockwood Pigments NA, Inc. (Rockwood) entered the Facility Lead Program on August 19, 2005. In accordance with the Facility Lead Agreement, Rockwood submitted a Work Plan/Phase I Site Characterization Report on December 1, 2005. Rockwood met with EPA and MDE in June 2006 to discuss site characterization work at the facility. EPA/MDE approved the work plan, and the investigation began in the summer of 2008. A report documenting the results of this investigation was submitted in October 2008. The next phase of the investigation is scheduled to begin in the summer of 2010.

Site Description

Rockwood Pigments, formerly operating under the names Laporte Pigments and Mineral Pigments, operates a pigment manufacturing facility, located approximately two miles north of Beltsville, Maryland. The site is bordered to the west by US Route 1 and the Chessie Railroad tracks; to the east by Conway Road; to the north by Muirkirk Road, and to the south by a light industrial park. Records indicate that the site has been used for industrial purposes since at least the 1940s. The earliest file records mentioning Mineral Pigments, however, date to 1972. The facility activities include the manufacturing of zinc phosphate and the milling and blending of iron oxides. Shallow groundwater at the site has been investigated since 1985 under MDE supervision. Two source areas were removed under MDE supervision in the 1980s and 1990s. The primary contaminant of concern at the site is chromium in groundwater.

Government Contacts

EPA Project Manager
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USEPA Region III
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Philadelphia, PA 19103-2029
Phone: (215) 814-3413
Email: Geiger.William@epamail.epa.gov

Maryland Department of the Environment
Dr. Chau Nguyen
1800 Washington Boulevard
Baltimore, Maryland 21230
Phone: (410) 537-3000
E-mail: Cnguyen@mde.state.md.us.
For more information about EPA's corrective action webpage, including Environmental Indicators, please visit our site at: www.epa.gov/reg3wcmd/correctiveaction.htm

Appendix D.4 – NPDES Permitting Information

Detailed Facility Report

Map | Report Error | Data Dictionary

For Public Release - Unrestricted Dissemination Report Generated on 12/11/2010
US Environmental Protection Agency - Office of Enforcement and Compliance Assurance

Facility Permits and Identifiers

Data Dictionary

Statute	System	Source ID	Facility Name	Street Address	City	State	Zip
	FRS	110000334790	ROCKWOOD PIGMENTS	1525 WOOD AVENUE	EASTON	PA	18042
TSCA	TSCA	100604100					
CAA	AFS	4209500129	ROCKWOOD PIGMENTS/EASTON	1525 WOOD AVE	EASTON	PA	18042
CWA	ICP	PA0013064	ROCKWOOD PIGMENTS	1525 WOOD AVENUE	EASTON	PA	18042
CAA	NEI	NEIPAT$1952	ELEMENTIS PIGMENTS INC			PA	18042
CAA	NEI	NEIPAT$1952	ELEMENTIS PIGMENTS INC/EASTON			PA	18042
RCRA	RCR	PAD002391548	ROCKWOOD PIGMENTS NA INC	1525 WOOD ST	EASTON	PA	18042
RCRA	RCR	PAD987368057	HARCROS PIGMENTS INC-EASTON	1525 WOOD AVE	WASTON	PA	18045
EP313	TRI	18042HRCRS1525W	ROCKWOOD PIGMENTS	1525 WOOD AVE	EASTON	PA	18042

Facility Characteristics

Data Dictionary

Statute	Source ID	Universe	Status	Areas	Permit Expiration Date	Latitude/ Longitude	Indian Country?	SIC Codes	NAICS Codes
	110000334790					LRT: 40.696375 , -75.233177	No		
CAA	4209500129	Major (Fed. Rep.)	Operating	TITLE V PERMITS , SIP			NA	2816	325131
CWA	PA0013064	Major; NPDES Individual Permit	Effective		03/31/2012	40.696389, -75.233611	No	2816	
RCRA	PAD002391548	LQG	Active (H A)				No	2816	325131
RCRA	PAD987368057		Inactive				No		
EP313	18042HRCRS1525W					40.6964 , -75.2319	NA	2816	325131

If the CWA permit is past its expiration date, this normally means that the permitting authority has not yet issued a new permit. In these situations, the expired permit is normally administratively extended and kept in effect until the new permit is issued.

For the RCRA program, activities that contribute to an overall facility status of Active are displayed in parentheses using the acronym HPACS, where H indicates handler activities, P - permitting, A - corrective action, C - converter, and S - state-specific. More information is available in the Data Dictionary.

Inspection and Enforcement Summary Data

Data Dictionary

Statute	Source ID	Insp. Last 05Yrs	Date of Last Inspection	Formal Enf Act Last 05 Yrs	Penalties Last 05 Yrs
CAA	4209500129	5	09/29/2010	1	$12,750
CWA	PA0013064	8	02/04/2010	0	$00
RCRA	PAD002391548	4	06/08/2010	0	$00
RCRA	PAD987368057	0	Never	0	$00

Compliance Monitoring History (05 years)

Data Dictionary

Statute	Source ID	System	Inspection Type	Lead Agency	Date	Finding
CAA	*4209500129*	*AFS*	*PERMIT ON-SITE PCE (STATE)*	*State*	*05/04/2006*	

CAA	4209500129	AFS	STATE CONDUCTED FCE/ON-SITE	State	05/04/2006	
CAA	*4209500129*	*AFS*	*STATE PCE/ON-SITE*	*State*	*08/15/2006*	
CAA	*4209500129*	*AFS*	*STATE PCE/ON-SITE*	*State*	*10/16/2006*	
CAA	*4209500129*	*AFS*	*STATE PCE/ON-SITE*	*State*	*11/27/2006*	
CAA	*4209500129*	*AFS*	*STATE PCE/ON-SITE*	*State*	*11/29/2006*	
CAA	*4209500129*	*AFS*	*STATE PCE/ON-SITE*	*State*	*12/19/2006*	
CAA	*4209500129*	*AFS*	*STATE PCE/ON-SITE*	*State*	*12/19/2006*	
CAA	4209500129	AFS	STATE CONDUCTED FCE/ON-SITE	State	12/12/2006	
CAA	*4209500129*	*AFS*	*STATE PCE/ON-SITE*	*State*	*01/31/2007*	
CAA	*4209500129*	*AFS*	*STATE PCE/ON-SITE*	*State*	*11/13/2006*	
CAA	*4209500129*	*AFS*	*STATE PCE/ON-SITE*	*State*	*04/19/2007*	
CAA	*4209500129*	*AFS*	*STATE PCE/ON-SITE*	*State*	*05/11/2007*	
CAA	4209500129	AFS	STATE CONDUCTED FCE/ON-SITE	State	09/29/2008	
CAA	*4209500129*	*AFS*	*TITLE V COMPLIANCE CERTIFICATION REVIEW*	*State*	*10/28/2008*	*Result=IN COMPLIANCE*
CAA	*4209500129*	*AFS*	*STATE REQ (O/O COND) STACK TEST/NOT OBS*	*State*	*11/21/2008*	*Result=STACK TEST PASSED*
CAA	*4209500129*	*AFS*	*TITLE V COMPLIANCE CERTIFICATION REVIEW*	*State*	*04/22/2009*	*Result=IN COMPLIANCE*
CAA	4209500129	AFS	STATE CONDUCTED FCE/ON-SITE	State	09/25/2009	
CAA	*4209500129*	*AFS*	*STATE PCE/ON-SITE*	*State*	*09/29/2009*	
CAA	*4209500129*	*AFS*	*STATE PCE/OFF-SITE*	*State*	*10/28/2009*	
CAA	*4209500129*	*AFS*	*TITLE V COMPLIANCE CERTIFICATION REVIEW*	*State*	*04/15/2010*	*Result=IN COMPLIANCE*
CAA	4209500129	AFS	STATE CONDUCTED FCE/ON-SITE	State	09/29/2010	
CAA	*4209500129*	*AFS*	*STATE PCE/OFF-SITE*	*State*	*10/06/2010*	
CAA	*4209500129*	*AFS*	*TITLE V COMPLIANCE CERTIFICATION REVIEW*	*EPA*	*02/27/2006*	*Result=Blank; Deviations=Y*
CAA	*4209500129*	*AFS*	*EPA PCE/ON-SITE*	*EPA*	*06/01/2006*	
CAA	*4209500129*	*AFS*	*TITLE V COMPLIANCE CERTIFICATION REVIEW*	*EPA*	*06/01/2007*	*Result=Blank; Deviations=Y*
CAA	*4209500129*	*AFS*	*TITLE V COMPLIANCE CERTIFICATION REVIEW*	*EPA*	*02/26/2008*	*Result=Blank; Deviations=Y*
CWA	PA0013064	ICP	Reconnaissance without Sampling (ROS); NPDES - Base Program	State	08/19/2005	
CWA	PA0013064	ICP	Evaluation (CEI); NPDES - Base Program	State	02/27/2006	
CWA	PA0013064	ICP	Sampling (SA1); NPDES - Base Program	State	07/20/2006	
CWA	PA0013064	ICP	Reconnaissance without Sampling (ROS); NPDES - Base Program	State	04/10/2007	
CWA	PA0013064	ICP	Evaluation (CEI); NPDES - Base Program	State	01/28/2008	
CWA	PA0013064	ICP	Evaluation (CEI); NPDES - Base Program	State	08/21/2008	
CWA	PA0013064	ICP	Evaluation (CEI); NPDES - Base Program	State	04/06/2009	
CWA	PA0013064	ICP	Reconnaissance without Sampling (ROS); NPDES - Base Program	State	02/04/2010	
RCRA	PAD002391548	RCR	COMPLIANCE EVALUATION INSPECTION ON-SITE	State	05/16/2007	No Violations Or Compliance Issues Were Found
RCRA	PAD002391548	RCR	COMPLIANCE EVALUATION INSPECTION ON-SITE	EPA	07/29/2008	Undetermined, Agency May Still be Determining
RCRA	PAD002391548	RCR	COMPLIANCE EVALUATION INSPECTION ON-SITE	State	03/24/2010	Violations Or Compliance Issues Were Found
RCRA	PAD002391548	RCR	COMPLIANCE EVALUATION INSPECTION ON-SITE	State	06/08/2010	No Violations Or Compliance Issues Were Found

Entries in *italics* are not considered inspections in official counts.

Compliance Summary Data

Data Dictionary

Information on the nature of alleged violations is available on the FAQ page.

Statute	Source ID	Current SNC/HPV?	Description	Current As Of	Qtrs in NC (of 12)

CAA	4209500129	NO		11/13/2010	**12**
CWA	PA0013064	NO		Apr-Jun10	**2**
RCRA	PAD002391548	Yes		11/09/2010	**12**
RCRA	PAD987368057	No		11/09/2010	**0**

Three Year Compliance Status by Quarter

Data Dictionary

Violations shown in a given quarter do not necessarily span the entire 3 months. Information on the nature of alleged violations is available on the FAQ page, and information on the duration of non-compliance is available at the end of this report.

AIR Compliance Status												
Statute:Source ID CAA: 4209500129	QTR1 Jan-Mar08	QTR2 Apr-Jun08	QTR3 Jul-Sep08	QTR4 Oct-Dec08	QTR5 Jan-Mar09	QTR6 Apr-Jun09	QTR7 Jul-Sep09	QTR8 Oct-Dec09	QTR9 Jan-Mar10	QTR10 Apr-Jun10	QTR11 Jul-Sep10	QTR12 Oct-Dec10
HPV History	**Unaddr-State**	**Unaddr-State**	**Unaddr-State**	**Addrs-State**	**Addrs-State**	**Addrs-State**						
Program/Pollutant in Current Violation												
TITLE V PERMITS	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN
FACILITY-WIDE PERMIT REQUIREMENTS												V-UNKNOWN
SIP	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN
FACILITY-WIDE PERMIT REQUIREMENTS												V-UNKNOWN

High Priority Violator (HPV) History section: "Unaddr" means the facility has not yet been addressed with a formal enforcement action. "Addrs"means the facility has been addressed with a formal enforcement action, but its violations have not been resolved. Lead Agency designated can be US EPA, State, Both, or No Lead Determined. If HPV History is blank, then the facility was not a High Priority Violator. C=Compliance; V=Violation; S=Compliance Schedule.

CWA/NPDES Compliance Status														
Statute:Source ID CWA:PA0013064		QTR1 Jul-Sep07	QTR2 Oct-Dec07	QTR3 Jan-Mar08	QTR4 Apr-Jun08	QTR5 Jul-Sep08	QTR6 Oct-Dec08	QTR7 Jan-Mar09	QTR8 Apr-Jun09	QTR9 Jul-Sep09	QTR10 Oct-Dec09	QTR11 Jan-Mar10	QTR12 Apr-Jun10	
Non-compliance in Quarter		No	No	No	Yes	No	Yes	No	No	No	No	No	No	
SNC/RNC Status »														
Effluent Violations by NPDES Parameter:														
View effluent charts for all parameters: Only Charts with Violations All Charts Custom Output (or click on parameter names below for individual parameter charts)														
Discharge point:002														
Nitrogen, ammonia total (as N)	Mthly						5%							
Oil & Grease	NMth				9%									

Effluent Violations are displayed as highest percentage by which the permit limit was exceeded for the quarter.**Bold, large**print indicates Significant Non-compliance (SNC) effluent violations.**Shaded boxes** indicate unresolved SNC violations.

RCRA Compliance Status													
Statute:Source ID RCRA: PAD002391548		QTR1 Jan-Mar08	QTR2 Apr-Jun08	QTR3 Jul-Sep08	QTR4 Oct-Dec08	QTR5 Jan-Mar09	QTR6 Apr-Jun09	QTR7 Jul-Sep09	QTR8 Oct-Dec09	QTR9 Jan-Mar10	QTR10 Apr-Jun10	QTR11 Jul-Sep10	QTR12 Oct-Dec10

Facility Level Status		In Viol	In Viol	In Viol	In Viol	In Viol	In Viol	In Viol	In Viol	In Viol	SNC	SNC	SNC
Type of Violation	Agency												
TSD - Manifest/Records/Reporting	PA	12/07/90	>>>>>	>>>>>	>>>>>	>>>>>	>>>>>	>>>>>	>>>>>	>>>>>	>>>>>	>>>>>	>>>>>
TSD - Manifest/Records/Reporting	PA	08/12/91	>>>>>	>>>>>	>>>>>	>>>>>	>>>>>	>>>>>	>>>>>	>>>>>	>>>>>	>>>>>	>>>>>
Generators - Records/Reporting	PA									03/24/10	06/08/10		
Generators - Pre-transport	PA									03/24/10	06/08/10		
Universal Waste - Small Quantity Handlers	PA									03/24/10	06/08/10		
Universal Waste - Small Quantity Handlers	PA									03/24/10	06/08/10		
Generators - Records/Reporting	PA									03/24/10	06/08/10		
Generators - Records/Reporting	PA									03/24/10	06/08/10		

RCRA Compliance Status													
Statute:Source ID RCRA: PAD987368057		QTR1 Jan-Mar08	QTR2 Apr-Jun08	QTR3 Jul-Sep08	QTR4 Oct-Dec08	QTR5 Jan-Mar09	QTR6 Apr-Jun09	QTR7 Jul-Sep09	QTR8 Oct-Dec09	QTR9 Jan-Mar10	QTR10 Apr-Jun10	QTR11 Jul-Sep10	QTR12 Oct-Dec10
Facility Level Status		Compl	Compl	Compl	Compl	Compl	Compl	Compl	Compl	Compl	Compl	Compl	Compl
Type of Violation	Agency												

The first date displayed for a RCRA Violation corresponds to the violation determination date, and the next to the resolution date (if the violation has been resolved).

Notices of Violation or Informal Enforcement - AFS, PCS, ICIS-NPDES, RCRAInfo (05 year history)

Data Dictionary

Statute	Source ID	Type of Action	Lead Agency	Date
CAA	4209500129	STATE NOV ISSUED	State	03/08/2007
CAA	4209500129	STATE NOV ISSUED	State	06/04/2007
RCRA	PAD002391548	WRITTEN INFORMAL	State	04/12/2010

Formal Enforcement Actions - (05 year history)

AFS, PCS, RCRAInfo, NCDB

Data Dictionary

Statute	Source ID	Type of Action	Lead Agency	Date	Penalty	Penalty Description
CAA	4209500129	STATE ADMINISTRATIVE ORDER ISSUED	State	08/14/2008	$12,750	

In some cases, formal enforcement actions may be entered both at the initiation and final stages of the action. These may appear more than once above. Entries in *italics* are not "formal" actions under the PCS definitions but are either the initiation of an action or penalties assessed as a result of a previous action. This section includes US EPA and State formal enforcement actions under CAA, CWA and RCRA.

ICIS

Data Dictionary

Primary Law/Section	Case Number	Case Type	Lead Agency	Case Name	Issued/Filed Date	Settlement Date	Federal Penalty	State/Local Penalty	SEP Cost	Comp Action Cost
- No data records returned.										

Federal enforcement actions and penalties shown in this section are from the Integrated Compliance Information System (ICIS-FE&C). These actions may duplicate records in the Formal Enforcement Actions section.

Environmental Conditions

Data Dictionary

Permit ID	Watershed	Watershed Name	Receiving Waters	Impaired Waters?	Combined Sewer System?
PA0013064	1F		Bushkill Creek	NO	No

TRI History of Reported Chemicals Released in Pounds per Year at Site:18042HRCRS1525W

Data Dictionary

Chemical releases reported to TRI are provided for context and are not associated with non-compliance for that facility.

Year /	Total Air Emissions	Surface Water Discharges	Underground Injections	Releases to Land	Total On-site Releases	Total Off-site Transfers	Total Releases and Transfers
2000	40,221	33,258			73,479	250	73,729
2001	7,936	33,964			41,900	250	42,150
2002	10,889	38,248			49,137		49,137
2003	6,363	25,433			31,796		31,796
2004	8,128	31,510			39,638		39,638
2005	8,851	35,354			44,205		44,205
2006	5,134	20,497			25,631		25,631
2007	4,092	23,734			27,826		27,826
2008	25,382	22,553			47,935		47,935

TRI Total Releases and Transfers by Chemical and Year

Chemical releases and transfers are in pounds except where otherwise noted.

Chemical Name	2000	2001	2002	2003	2004	2005	2006	2007	2008
MANGANESE	250	250	250	5	250	12	10	10	5
AMMONIA	73,479	41,900	48,887	31,791	39,388	44,193	25,621	27,816	47,930

Demographic Profile of Surrounding Area (3 Miles)

Data Dictionary

Open more detailed information in a new window (links leave ECHO): 1 Mi 3 Mi or 5 Mi.
This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2000 US Census data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table(LRT) when available.

Radius of Area:	**3 Miles**	**Land Area:**	**97.77%**	**Households in area:**	**26,864**
Center Latitude:	**40.694033**	**Water Area:**	**2.23%**	**Housing units in area:**	**28,868**
Center Longitude:	**-75.228654**	**Population Density:**	**2510.68/sq. mi.**	**Households On Public Assistance:**	**723**
Total Persons:	**69,370**	**Percent Minority:**	**15.07%**	**Persons Below Poverty Level:**	**6,922**

Race Breakdown	Persons (%)	Age Breakdown:	Persons (%)
White:	61,056 (88.01%)	**Child 5 years and less:**	5,100 (7.35%)
African-american:	4,317 (6.22%)	**Minors 17 years and younger:**	16,515 (23.81%)
Hispanic-Origin:	3,777 (5.44%)	**Adults 18 years and older:**	52,856 (76.19%)
Asian/Pacific Islander:	990 (1.43%)	**Seniors 65 years and older:**	10,563 (15.23%)
American Indian:	92 (0.13%)		
Other/Multiracial:	1,434 (2.07%)		

Education Level (Persons 25 & older)	Persons (%)	Income Breakdown:	Households (%)
Less than 9th grade:	2,822 (6.59%)	**Less than $15,000:**	4,493 (16.72%)
9th-12th grades:	7,058 (16.49%)	**$15,000-$25,000:**	3,601 (13.40%)
High School Diploma:	17,738 (41.44%)	**$25,000-$50,000:**	8,093 (30.13%)
Some College/2-yr:	7,532 (17.60%)	**$50,000-$75,000:**	5,658 (21.06%)

B.S./B.A. or more:	7,655 (17.88%)	**Greater than $75,000:**	5,008 (18.64%)

Please note: Entries in gray denote records that are not federally required to be reported to EPA. These data may not be reliable.

Notice About Duration of Violations -- The duration of violations shown on this report is an estimate of the actual duration of the violations that might be alleged or later determined in a legal proceeding. For example, the start date of the violation as shown in the ECHO database is normally when the government first became aware of the violation, not the first date that the violation occurred, and the facility may have corrected the violation before the end date shown. In some situations, violations may have been corrected by the facility, but EPA or the State has not verified the correction of these violations. In other situations, EPA does not remove the violation flag until an enforcement action has been resolved.

This report was generated by the Integrated Data for Enforcement Analysis (IDEA) system, which updates its information from program databases monthly. The data were last updated: AFS: 11/13/2010. RCRAInfo: 11/09/2010. FRS: 11/11/2010. TRI: 04/16/2010. ICIS: 11/12/2010.

Some regulated facilities have expressed an interest in explaining data shown in the Detailed Facility Reports in ECHO. Please check company web sites for such explanations.

Appendix D.5 – NPDES Permitting Information

Detailed Facility Report

Map | Report Error | Data Dictionary

For Public Release - Unrestricted Dissemination Report Generated on 12/11/2010
US Environmental Protection Agency - Office of Enforcement and Compliance Assurance

Facility Permits and Identifiers

Data Dictionary

Statute	System	Source ID	Facility Name	Street Address	City	State	Zip
	FRS	110001075345	CHRINS	1053 BUSHKILL DR	EASTON	PA	18042
CWA	ICP	PA0063142	CHRIN BROTHERS INC	635 INDUSTRIAL DR	EASTON	PA	18042
RCRA	RCR	PAD981947187	CHRINS	1053 BUSHKILL DR	EASTON	PA	18042

Facility Characteristics

Data Dictionary

Statute	Source ID	Universe	Status	Areas	Permit Expiration Date	Latitude/ Longitude	Indian Country?	SIC Codes	NAICS Codes
	110001075345					LRT: 40.661111 , -75.234722	No		
CWA	PA0063142	Minor; NPDES Individual Permit	Expired		04/30/2010	40.661111, -75.234722	No	4953	
RCRA	PAD981947187	SQG	Active (H)				No		

If the CWA permit is past its expiration date, this normally means that the permitting authority has not yet issued a new permit. In these situations, the expired permit is normally administratively extended and kept in effect until the new permit is issued.

For the RCRA program, activities that contribute to an overall facility status of Active are displayed in parentheses using the acronym HPACS, where H indicates handler activities, P - permitting, A - corrective action, C - converter, and S - state-specific. More information is available in the Data Dictionary.

Inspection and Enforcement Summary Data

Data Dictionary

Statute	Source ID	Insp. Last 05Yrs	Date of Last Inspection	Formal Enf Act Last 05 Yrs	Penalties Last 05 Yrs
CWA	PA0063142	6	06/25/2010	0	$00
RCRA	PAD981947187	0	Never	0	$00

Compliance Monitoring History (05 years)

Data Dictionary

Statute	Source ID	System	Inspection Type	Lead Agency	Date	Finding
CWA	PA0063142	ICP	Reconnaissance without Sampling (ROS); NPDES - Base Program	State	03/20/2006	
CWA	PA0063142	ICP	Audit (AU1); NPDES - Base Program	State	10/05/2006	
CWA	PA0063142	ICP	Reconnaissance without Sampling (ROS); NPDES - Base Program	State	12/06/2007	
CWA	PA0063142	ICP	Audit (AU1); NPDES - Base Program	State	07/15/2008	
CWA	PA0063142	ICP	Reconnaissance without Sampling (ROS); NPDES - Base Program	State	10/16/2008	
CWA	PA0063142	ICP	Reconnaissance without Sampling (ROS); NPDES - Base Program	State	06/25/2010	

Entries in *italics* are not considered inspections in official counts.

Compliance Summary Data

Data Dictionary

Information on the nature of alleged violations is available on the FAQ page.

Statute	Source ID	Current SNC/HPV?	Description	Current As Of	Qtrs in NC (of 12)
CWA	PA0063142	N/A		Apr-Jun10	
RCRA	PAD981947187	No		11/09/2010	**0**

Three Year Compliance Status by Quarter

Data Dictionary

Violations shown in a given quarter do not necessarily span the entire 3 months. Information on the nature of alleged violations is available on the FAQ page, and information on the duration of non-compliance is available at the end of this report.

RCRA Compliance Status													
Statute:Source ID RCRA: PAD981947187		QTR1 Jan-Mar08	QTR2 Apr-Jun08	QTR3 Jul-Sep08	QTR4 Oct-Dec08	QTR5 Jan-Mar09	QTR6 Apr-Jun09	QTR7 Jul-Sep09	QTR8 Oct-Dec09	QTR9 Jan-Mar10	QTR10 Apr-Jun10	QTR11 Jul-Sep10	QTR12 Oct-Dec10
Facility Level Status		Compl	Compl	Compl	Compl	Compl	Compl	Compl	Compl	Compl	Compl	Compl	Compl
Type of Violation	Agency												

The first date displayed for a RCRA Violation corresponds to the violation determination date, and the next to the resolution date (if the violation has been resolved).

Notices of Violation or Informal Enforcement - AFS, PCS, ICIS-NPDES, RCRAInfo (05 year history)

Data Dictionary

Statute	Source ID	Type of Action	Lead Agency	Date
- No data records returned.				

Formal Enforcement Actions - (05 year history)

AFS, PCS, RCRAInfo, NCDB

Data Dictionary

Statute	Source ID	Type of Action	Lead Agency	Date	Penalty	Penalty Description
- No data records returned.						

In some cases, formal enforcement actions may be entered both at the initiation and final stages of the action. These may appear more than once above. Entries in *italics* are not "formal" actions under the PCS definitions but are either the initiation of an action or penalties assessed as a result of a previous action. This section includes US EPA and State formal enforcement actions under CAA, CWA and RCRA.

ICIS

Data Dictionary

Primary Law/Section	Case Number	Case Type	Lead Agency	Case Name	Issued/Filed Date	Settlement Date	Federal Penalty	State/Local Penalty	SEP Cost	Comp Action Cost
- No data records returned.										

Federal enforcement actions and penalties shown in this section are from the Integrated Compliance Information System (ICIS-FE&C). These actions may duplicate records in the Formal Enforcement Actions section.

Environmental Conditions

Data Dictionary

Permit ID	Watershed	Watershed Name	Receiving Waters	Impaired Waters?	Combined Sewer System?
PA0063142	02040106	Lehigh. Pa.	UNT OF LEHIGH RIVER IN WTRSHD 2-C	NO	No

TRI History of Reported Chemicals Released in Pounds per Year at Site:

Data Dictionary

Year /	Total Air Emissions	Surface Water Discharges	Underground Injections	Releases to Land	Total On-site Releases	Total Off-site Transfers	Total Releases and Transfers
- No data records returned.							

TRI Total Releases and Transfers by Chemical and Year

Chemical Name	1997	1998	1999	2000	2001	2002	2003	2004	2005

- No data records returned.

Demographic Profile of Surrounding Area (3 Miles)

Data Dictionary

Open more detailed information in a new window (links leave ECHO): 1 Mi 3 Mi or 5 Mi.
This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2000 US Census data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table(LRT) when available.

Radius of Area:	3 Miles	Land Area:	97.67%	Households in area:	26,011
Center Latitude:	40.700568	Water Area:	2.33%	Housing units in area:	28,128
Center Longitude:	-75.216252	Population Density:	2440.60/sq. mi.	Households On Public Assistance:	741
Total Persons:	67,385	Percent Minority:	15.33%	Persons Below Poverty Level:	7,014

Race Breakdown	Persons (%)	Age Breakdown:	Persons (%)
White:	59,192 (87.84%)	Child 5 years and less:	5,088 (7.55%)
African-american:	4,276 (6.35%)	Minors 17 years and younger:	16,308 (24.20%)
Hispanic-Origin:	3,794 (5.63%)	Adults 18 years and older:	51,077 (75.80%)
Asian/Pacific Islander:	913 (1.35%)	Seniors 65 years and older:	10,015 (14.86%)
American Indian:	81 (0.12%)		
Other/Multiracial:	1,437 (2.13%)		

Education Level (Persons 25 & older)	Persons (%)	Income Breakdown:	Households (%)
Less than 9th grade:	2,789 (6.76%)	Less than $15,000:	4,535 (17.43%)
9th-12th grades:	6,947 (16.84%)	$15,000-$25,000:	3,518 (13.53%)
High School Diploma:	17,273 (41.87%)	$25,000-$50,000:	7,808 (30.02%)
Some College/2-yr:	7,099 (17.21%)	$50,000-$75,000:	5,391 (20.73%)
B.S./B.A. or more:	7,148 (17.33%)	Greater than $75,000:	4,741 (18.23%)

Please note: Entries in gray denote records that are not federally required to be reported to EPA. These data may not be reliable.

Notice About Duration of Violations -- The duration of violations shown on this report is an estimate of the actual duration of the violations that might be alleged or later determined in a legal proceeding. For example, the start date of the violation as shown in the ECHO database is normally when the government first became aware of the violation, not the first date that the violation occurred, and the facility may have corrected the violation before the end date shown. In some situations, violations may have been corrected by the facility, but EPA or the State has not verified the correction of these violations. In other situations, EPA does not remove the violation flag until an enforcement action has been resolved.

Map

This report was generated by the Integrated Data for Enforcement Analysis (IDEA) system, which updates its information from program databases monthly. The data were last updated: RCRAInfo: 11/09/2010. FRS: 11/11/2010. ICIS: 11/12/2010.

Some regulated facilities have expressed an interest in explaining data shown in the Detailed Facility Reports in ECHO. Please check company web sites for such explanations.

Appendix D.6 – NPDES Permitting Information

Detailed Facility Report

Map | Report Error | Data Dictionary

For Public Release - Unrestricted Dissemination Report Generated on 12/11/2010
US Environmental Protection Agency - Office of Enforcement and Compliance Assurance

Facility Permits and Identifiers

Data Dictionary

Statute	System	Source ID	Facility Name	Street Address	City	State	Zip
	FRS	110001090480	EASTON IRON & METAL	1100 BUSHKILL DR	EASTON	PA	18042
CWA	ICP	PAR602213	EASTON IRON & METAL CO INC	1100 BUSHKILL DRIVE	EASTON	PA	18042

Facility Characteristics

Data Dictionary

Statute	Source ID	Universe	Status	Areas	Permit Expiration Date	Latitude/ Longitude	Indian Country?	SIC Codes	NAICS Codes
	110001090480					LRT: 40.700089 , -75.220353	No		
CWA	PAR602213	Minor; General Permit Covered Facility	Expired		11/06/1997	40.700089, -75.220352	No	5093	

If the CWA permit is past its expiration date, this normally means that the permitting authority has not yet issued a new permit. In these situations, the expired permit is normally administratively extended and kept in effect until the new permit is issued.

For the RCRA program, activities that contribute to an overall facility status of Active are displayed in parentheses using the acronym HPACS, where H indicates handler activities, P - permitting, A - corrective action, C - converter, and S - state-specific. More information is available in the Data Dictionary.

Inspection and Enforcement Summary Data

Data Dictionary

Statute	Source ID	Insp. Last 05Yrs	Date of Last Inspection	Formal Enf Act Last 05 Yrs	Penalties Last 05 Yrs
CWA	PAR602213	0	Never	0	$00

Compliance Monitoring History (05 years)

Data Dictionary

Statute	Source ID	System	Inspection Type	Lead Agency	Date	Finding
CAA / §211	600082065	ICIS	Motor Vehicle Fuels	EPA	01/30/2008	

Entries in *italics* are not considered inspections in official counts.

Compliance Summary Data

Data Dictionary

Information on the nature of alleged violations is available on the FAQ page.

Statute	Source ID	Current SNC/HPV?	Description	Current As Of	Qtrs in NC (of 12)
CWA	PAR602213	N/A		Apr-Jun10	

Three Year Compliance Status by Quarter

Data Dictionary

Violations shown in a given quarter do not necessarily span the entire 3 months. Information on the nature of alleged violations is available on the FAQ page, and information on the duration of non-compliance is available at the end of this report.

Statute:Source ID	QTR1	QTR2	QTR3	QTR4	QTR5	QTR6	QTR7	QTR8	QTR9	QTR10	QTR11	QTR12
- No data records returned.												

Notices of Violation or Informal Enforcement - AFS, PCS, ICIS-NPDES, RCRAInfo (05 year history)

Data Dictionary

Statute	Source ID	Type of Action	Lead Agency	Date
- No data records returned.				

Formal Enforcement Actions - (05 year history)

AFS, PCS, RCRAInfo, NCDB

Data Dictionary

Statute	Source ID	Type of Action	Lead Agency	Date	Penalty	Penalty Description
- No data records returned.						

In some cases, formal enforcement actions may be entered both at the initiation and final stages of the action. These may appear more than once above. Entries in *italics* are not "formal" actions under the PCS definitions but are either the initiation of an action or penalties assessed as a result of a previous action. This section includes US EPA and State formal enforcement actions under CAA, CWA and RCRA.

ICIS

Data Dictionary

Primary Law/Section	Case Number	Case Type	Lead Agency	Case Name	Issued/Filed Date	Settlement Date	Federal Penalty	State/Local Penalty	SEP Cost	Comp Action Cost
- No data records returned.										

Federal enforcement actions and penalties shown in this section are from the Integrated Compliance Information System (ICIS-FE&C). These actions may duplicate records in the Formal Enforcement Actions section.

Environmental Conditions

Data Dictionary

Permit ID	Watershed	Watershed Name	Receiving Waters	Impaired Waters?	Combined Sewer System?
PAR602213			EASTON STORM SEWER;DELAWARE RIVER	NO	No

TRI History of Reported Chemicals Released in Pounds per Year at Site:

Data Dictionary

Year /	Total Air Emissions	Surface Water Discharges	Underground Injections	Releases to Land	Total On-site Releases	Total Off-site Transfers	Total Releases and Transfers
- No data records returned.							

TRI Total Releases and Transfers by Chemical and Year

Chemical Name	1997	1998	1999	2000	2001	2002	2003	2004	2005
- No data records returned.									

Demographic Profile of Surrounding Area (3 Miles)

Data Dictionary

Open more detailed information in a new window (links leave ECHO): 1 Mi 3 Mi or 5 Mi.
This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2000 US Census data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table(LRT) when available.

Radius of Area:	3 Miles	Land Area:	97.66%	Households in area:	25,962
Center Latitude:	40.700618	Water Area:	2.34%	Housing units in area:	28,091
Center Longitude:	-75.215368	Population Density:	2436.67/sq. mi.	Households On Public Assistance:	742
Total Persons:	67,252	Percent Minority:	15.34%	Persons Below Poverty Level:	7,019

Race Breakdown	Persons (%)	Age Breakdown:	Persons (%)
White:	59,072 (87.84%)	**Child 5 years and less:**	5,081 (7.56%)
African-american:	4,273 (6.35%)	**Minors 17 years and younger:**	16,285 (24.21%)
Hispanic-Origin:	3,793 (5.64%)	**Adults 18 years and older:**	50,967 (75.79%)
Asian/Pacific Islander:	905 (1.35%)	**Seniors 65 years and older:**	9,991 (14.86%)
American Indian:	81 (0.12%)		
Other/Multiracial:	1,437 (2.14%)		

Education Level (Persons 25 & older)	Persons (%)	Income Breakdown:	Households (%)
Less than 9th grade:	2,793 (6.78%)	**Less than $15,000:**	4,542 (17.49%)
9th-12th grades:	6,948 (16.88%)	**$15,000-$25,000:**	3,514 (13.54%)
High School Diploma:	17,242 (41.88%)	**$25,000-$50,000:**	7,798 (30.04%)
Some College/2-yr:	7,070 (17.17%)	**$50,000-$75,000:**	5,370 (20.68%)
B.S./B.A. or more:	7,117 (17.29%)	**Greater than $75,000:**	4,722 (18.19%)

Please note: Entries in gray denote records that are not federally required to be reported to EPA. These data may not be reliable.

Notice About Duration of Violations -- The duration of violations shown on this report is an estimate of the actual duration of the violations that might be alleged or later determined in a legal proceeding. For example, the start date of the violation as shown in the ECHO database is normally when the government first became aware of the violation, not the first date that the violation occurred, and the facility may have corrected the violation before the end date shown. In some situations, violations may have been corrected by the facility, but EPA or the State has not verified the correction of these violations. In other situations, EPA does not remove the violation flag until an enforcement action has been resolved.

This report was generated by the Integrated Data for Enforcement Analysis (IDEA) system, which updates its information from program databases monthly. The data were last updated: FRS: 11/11/2010. ICIS: 11/12/2010.

Some regulated facilities have expressed an interest in explaining data shown in the Detailed Facility Reports in ECHO. Please check company web sites for such explanations.

Appendix D.7 – NPDES Permitting Information

Detailed Facility Report

Map | Report Error | Data Dictionary

For Public Release - Unrestricted Dissemination Report Generated on 12/11/2010
US Environmental Protection Agency - Office of Enforcement and Compliance Assurance

Facility Permits and Identifiers

Data Dictionary

Statute	System	Source ID	Facility Name	Street Address	City	State	Zip
	FRS	110001103500	EQUIPTO MFG	225 MAIN STREET	TATAMY	PA	18085
CAA	AFS	4209500151	AURORA EQUIP CO/TATAMY	225 MAIN ST	TATAMY	PA	18085
CWA	ICP	PAS202206	EQUIPTO INC	225 MAIN ST	TATAMY	PA	18085
RCRA	RCR	PAD056607708	EQUIPTO MFG	225 MAIN ST	TATAMY	PA	18085

Facility Characteristics

Data Dictionary

Statute	Source ID	Universe	Status	Areas	Permit Expiration Date	Latitude/ Longitude	Indian Country?	SIC Codes	NAICS Codes
	110001103500					LRT: 40.742300 , -75.250420	No		
CAA	4209500151	Minor (Fed. Rep.)	Operating	SIP			NA	2542	337215
CWA	PAS202206	Minor; NPDES Individual Permit	Expired		03/09/2008	40.746389, -75.250833	No	3441	
RCRA	PAD056607708	SQG	Active (H)				No	2542	

If the CWA permit is past its expiration date, this normally means that the permitting authority has not yet issued a new permit. In these situations, the expired permit is normally administratively extended and kept in effect until the new permit is issued.

For the RCRA program, activities that contribute to an overall facility status of Active are displayed in parentheses using the acronym HPACS, where H indicates handler activities, P - permitting, A - corrective action, C - converter, and S - state-specific. More information is available in the Data Dictionary.

Inspection and Enforcement Summary Data

Data Dictionary

Statute	Source ID	Insp. Last 05Yrs	Date of Last Inspection	Formal Enf Act Last 05 Yrs	Penalties Last 05 Yrs
CAA	4209500151	2	07/23/2008	1	$1,200
CWA	PAS202206	0	Never	0	$00
RCRA	PAD056607708	0	01/25/1996	0	$00

Compliance Monitoring History (05 years)

Data Dictionary

Statute	Source ID	System	Inspection Type	Lead Agency	Date	Finding
CAA	4209500151	AFS	STATE CONDUCTED FCE/ON-SITE	State	09/20/2006	
CAA	4209500151	AFS	STATE CONDUCTED FCE/ON-SITE	State	07/23/2008	

Entries in *italics* are not considered inspections in official counts.

Compliance Summary Data

Data Dictionary

Information on the nature of alleged violations is available on the FAQ page.

Statute	Source ID	Current SNC/HPV?	Description	Current As Of	Qtrs in NC (of 12)
CAA	4209500151	NO		11/13/2010	**5**
CWA	PAS202206	N/A		Apr-Jun10	
RCRA	PAD056607708	No		11/09/2010	**0**

Three Year Compliance Status by Quarter

Data Dictionary

Violations shown in a given quarter do not necessarily span the entire 3 months. Information on the nature of alleged violations is available on the FAQ page, and information on the duration of non-compliance is available at the end of this report.

AIR Compliance Status													
Statute:Source ID CAA: 4209500151	QTR1 Jan-Mar08	QTR2 Apr-Jun08	QTR3 Jul-Sep08	QTR4 Oct-Dec08	QTR5 Jan-Mar09	QTR6 Apr-Jun09	QTR7 Jul-Sep09	QTR8 Oct-Dec09	QTR9 Jan-Mar10	QTR10 Apr-Jun10	QTR11 Jul-Sep10	QTR12 Oct-Dec10	
HPV History													
Program/Pollutant in Current Violation													
SIP	C-PROCED	C-PROCED	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	V-UNKNOWN	C-PROCED	C-PROCED	C-PROCED	C-PROCED	C-PROCED	

High Priority Violator (HPV) History section: "Unaddr" means the facility has not yet been addressed with a formal enforcement action. "Addrs"means the facility has been addressed with a formal enforcement action, but its violations have not been resolved. Lead Agency designated can be US EPA, State, Both, or No Lead Determined. If HPV History is blank, then the facility was not a High Priority Violator. C=Compliance; V=Violation; S=Compliance Schedule.

RCRA Compliance Status													
Statute:Source ID RCRA: PAD056607708		QTR1 Jan-Mar08	QTR2 Apr-Jun08	QTR3 Jul-Sep08	QTR4 Oct-Dec08	QTR5 Jan-Mar09	QTR6 Apr-Jun09	QTR7 Jul-Sep09	QTR8 Oct-Dec09	QTR9 Jan-Mar10	QTR10 Apr-Jun10	QTR11 Jul-Sep10	QTR12 Oct-Dec10
Facility Level Status		Compl	Compl	Compl	Compl	Compl	Compl	Compl	Compl	Compl	Compl	Compl	Compl
Type of Violation	Agency												

The first date displayed for a RCRA Violation corresponds to the violation determination date, and the next to the resolution date (if the violation has been resolved).

Notices of Violation or Informal Enforcement - AFS, PCS, ICIS-NPDES, RCRAInfo (05 year history)

Data Dictionary

Statute	Source ID	Type of Action	Lead Agency	Date
CAA	4209500151	STATE NOV ISSUED	State	07/29/2008

Formal Enforcement Actions - (05 year history)

AFS, PCS, RCRAInfo, NCDB

Data Dictionary

Statute	Source ID	Type of Action	Lead Agency	Date	Penalty	Penalty Description
CAA	4209500151	STATE ADMINISTRATIVE ORDER ISSUED	State	05/04/2009	$1,200	

In some cases, formal enforcement actions may be entered both at the initiation and final stages of the action. These may appear more than once above. Entries in *italics* are not "formal" actions under the PCS definitions but are either the initiation of an action or penalties assessed as a result of a previous action. This section includes US EPA and State formal enforcement actions under CAA, CWA and RCRA.

ICIS

Data Dictionary

Primary Law/Section	Case Number	Case Type	Lead Agency	Case Name	Issued/Filed Date	Settlement Date	Federal Penalty	State/Local Penalty	SEP Cost	Comp Action Cost
- No data records returned.										

Federal enforcement actions and penalties shown in this section are from the Integrated Compliance Information System (ICIS-FE&C). These actions may duplicate records in the Formal Enforcement Actions section.

Environmental Conditions

Permit ID	Watershed	Watershed Name	Receiving Waters	Impaired Waters?	Combined Sewer System?
PAS202206			BUSHKILL CREEK	NO	No

TRI History of Reported Chemicals Released in Pounds per Year at Site:

Data Dictionary

Year /	Total Air Emissions	Surface Water Discharges	Underground Injections	Releases to Land	Total On-site Releases	Total Off-site Transfers	Total Releases and Transfers
- No data records returned.							

TRI Total Releases and Transfers by Chemical and Year

Chemical Name	1997	1998	1999	2000	2001	2002	2003	2004	2005
- No data records returned.									

Demographic Profile of Surrounding Area (3 Miles)

Data Dictionary

Open more detailed information in a new window (links leave ECHO): 1 Mi 3 Mi or 5 Mi.
This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2000 US Census data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table(LRT) when available.

Radius of Area:	**3 Miles**	**Land Area:**	**98.23%**	**Households in area:**	**5,735**
Center Latitude:	**40.755021**	**Water Area:**	**1.77%**	**Housing units in area:**	**6,038**
Center Longitude:	**-75.598168**	**Population Density:**	**529.42/sq. mi.**	**Households On Public Assistance:**	**123**
Total Persons:	**14,702**	**Percent Minority:**	**3.10%**	**Persons Below Poverty Level:**	**1,089**

Race Breakdown	Persons (%)	Age Breakdown:	Persons (%)
White:	14,364 (97.70%)	**Child 5 years and less:**	972 (6.61%)
African-american:	97 (0.66%)	**Minors 17 years and younger:**	3,515 (23.91%)
Hispanic-Origin:	237 (1.61%)	**Adults 18 years and older:**	11,186 (76.08%)
Asian/Pacific Islander:	31 (0.21%)	**Seniors 65 years and older:**	2,059 (14.00%)
American Indian:	48 (0.33%)		
Other/Multiracial:	87 (0.59%)		

Education Level (Persons 25 & older)	Persons (%)	Income Breakdown:	Households (%)
Less than 9th grade:	591 (6.25%)	**Less than $15,000:**	786 (13.71%)
9th-12th grades:	1,535 (16.24%)	**$15,000-$25,000:**	757 (13.20%)
High School Diploma:	4,603 (48.69%)	**$25,000-$50,000:**	1,842 (32.12%)
Some College/2-yr:	1,463 (15.48%)	**$50,000-$75,000:**	1,384 (24.13%)
B.S./B.A. or more:	1,261 (13.34%)	**Greater than $75,000:**	955 (16.65%)

Please note: Entries in gray denote records that are not federally required to be reported to EPA. These data may not be reliable.

Notice About Duration of Violations -- The duration of violations shown on this report is an estimate of the actual duration of the violations that might be alleged or later determined in a legal proceeding. For example, the start date of the violation as shown in the ECHO database is normally when the government first became aware of the violation, not the first date that the violation occurred, and the facility may have corrected the violation before the end date shown. In some situations, violations may have been corrected by the facility, but EPA or the State has

not verified the correction of these violations. In other situations, EPA does not remove the violation flag until an enforcement action has been resolved.

This report was generated by the Integrated Data for Enforcement Analysis (IDEA) system, which updates its information from program databases monthly. The data were last updated: AFS: 11/13/2010. RCRAInfo: 11/09/2010. FRS: 11/11/2010. ICIS: 11/12/2010.

Some regulated facilities have expressed an interest in explaining data shown in the Detailed Facility Reports in ECHO. Please check company web sites for such explanations.

APPENDIX E – Analysis Methods

Appendix E.1 - Metals Analysis

Each sample was placed in an acid washed sampling jar and brought back to the lab where they were dried in an oven at 104˚C. Approximately .5g of soil was massed and added to a digestion flask containing 8mL of sulfuric acid. This sample was heated to 440˚C for four minutes before 10mL of hydrogen peroxide was added. The hydrogen peroxide percolated through an apparatus above the solution such to control the reaction rate. One minute after all of the hydrogen peroxide percolated the sample was removed, cooled and diluted to 100 mL with deionized water.

The digests were analyzed using atomic absorption spectroscopy which works by measuring the absorbance of an acetylene-air flame containing an atomized sample. Each metal has a unique wavelength of light for which absorbance can be correlated with concentration. A unique bulb for each metal is placed into the spectrometer which aims the wavelength directly through a line of flame. Standards were created by diluting stock standards with digested deionized water for matrix matching purposes. The standard values were chosen to be the characteristic check value, one-half the characteristic check value and a blank. All of our samples were within the linear range of the test and the r^2 for each test was greater than .99.

Appendix E.2 - PCB Analysis

The other testing method that we used determined the amount of PCBs were in each of our samples. For this test we ordered a test kit from the Hach Company and followed method 10050. In addition to our six samples we also tested two standards for a similar linear relationship concept as we used with the heavy metal testing. So far, we have been able to test the two standards but do not currently have all the necessary equipment to run our samples. We are going to order these tomorrow and expect to be able to finish testing by the time of our presentation.

The process of testing the samples is extremely time sensitive but also relatively simple to follow. The first step is to combine 5 grams of the soil sample with 5 grams of sodium sulfate and 10 mL of an extraction liquid which we currently to not have. Once this is completed, 50 µL of the sample liquid, 0.5 mL of the diluents solution, and 0.5 mL of the PCB enzyme Conjugate solution into an Antibody Cuvette and placed into a cuvette rack. The Antibody cuvette already contains all of the enzymes that react with PCBs and if there are PCBs in our sample(s), the solution will change color. We then placed this rack onto a shaking table and shook the samples for 30 seconds. After the shaking, we let the samples sit for 4.5 minutes and completed the cycle one more time. After these ten minutes, we emptied the solutions in all of the cuvettes into a waste container and forcefully washed each with deionized water. Finally, we drained each of the cuvettes completely by tapping them upside down on a paper towel.

In order test the empty cuvettes, we pipetted 0.5 mL of Color Developing Solution into each of the cuvettes and let them sit for 5 minutes, with 30 seconds of shaking occurring after 2.5 minutes. Once these five minutes are over, we pipetted 0.5 mL of Stop Solution into each cuvette. If there are PCBs in the solution, the liquid should turn blue after the Color Developing Solution has been added and the blue should turn yellow after the addition of the Stop Solution.

In order to determine the concentration of PCBs in the cuvette, we placed them into a spectrophotometer. This instrument measures the amount of light that passes through a sample at a certain wavelength. The wavelength of light that corresponds to PCBs is 450 nm. The machine was zeroed with a deionized water curvette. Then the absorbance for each sample was found and compared to the standard curve to find the amount of PCBs present in the sample.

APPENDIX F –Detailed Analysis Results and Calculations

Appendix F.1 Detailed Testing Results for Heavy Metals

		1S	1D	2S	2D	3S	3D
Digestion	Mass (g)	0.479	0.479	0.482	0.48	0.482	0.481
	Mass Error (±g)	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
	Digest Volume (mL)	100	100	100	100	100	100
	Volume Error (±mL)	1	1	1	1	1	1
Lead	Digest Concentration (mg/L)	0.522	1.058	0.537	0.663	0.186	0.646
	Standerd Deviation	0.017	0.039	0.022	0.056	0.037	0.028
	Soil Concentration (mg/kg)	**109.0**	**220.9**	**111.4**	**138.1**	**38.6**	**134.3**
	20mg/L Standard Error (±mg/L)	0.281	0.281	0.281	0.281	0.281	0.281
	10mg/L Standard Error (±mg/L)	0.127	0.127	0.127	0.127	0.127	0.127
	Digest Concentration Error to 95% Certainty (±mg/L)	0.035	0.081	0.045	0.113	0.074	0.057
	Error (±mg/kg)	**7.5**	**17.0**	**9.4**	**23.5**	**15.4**	**12.0**
Mercury	Digest Concentration (mg/L)	0.729	0.824	0.801	0.414	0.096	0.096
	Standerd Deviation	0.138	0.102	0.038	0.073	0.089	0.108
	Soil Concentration (mg/kg)	**152.2**	**172.0**	**166.2**	**86.3**	**19.9**	**20.0**
	200mg/L Standard Error (±mg/L)	3	3	3	3	3	3
	100mg/L Standard Error (±mg/L)	1.66	1.66	1.66	1.66	1.66	1.66
	Digest Concentration Error to 95% Certainty (±mg/L)	0.276	0.205	0.078	0.146	0.178	0.216
	Error (±mg/kg)	**57.7**	**42.8**	**16.3**	**30.5**	**36.9**	**44.9**
Cadmium	Digest Concentration (mg/L)	-0.002	-0.006	0.008	0.204	-0.01	-0.002
	Standerd Deviation	0.003	0.009	0.005	0.007	0.007	0.006
	Soil Concentration (mg/kg)	**-0.4**	**-1.3**	**1.7**	**42.5**	**-2.1**	**-0.4**
	1.5mg/L Standard Error (±mg/L)	0.0299	0.0299	0.0299	0.0299	0.0299	0.0299
	.75mg/L Standard Error (±mg/L)	0.023	0.023	0.023	0.023	0.023	0.023
	Digest Concentration Error to 95% Certainty (±mg/L)	0.006	0.018	0.010	0.016	0.014	0.012
	Error (±mg/kg)	**1.3**	**3.8**	**2.1**	**3.3**	**2.9**	**2.5**
Nickel	Digest Concentration (mg/L)	0.212	0.091	0.144	0.199	0.136	0.11
	Standerd Deviation	0.011	0.031	0.016	0.012	0.022	0.016
	Soil Concentration (mg/kg)	**44.3**	**19.0**	**29.9**	**41.5**	**28.2**	**22.9**
	20mg/L Standard Error (±mg/L)	0.39	0.39	0.39	0.39	0.39	0.39
	10mg/L Standard Error (±mg/L)	0.207	0.207	0.207	0.207	0.207	0.207
	Digest Concentration Error to 95% Certainty (±mg/L)	0.023	0.062	0.032	0.025	0.044	0.032
	Error (±mg/kg)	**4.8**	**13.0**	**6.7**	**5.2**	**9.2**	**6.7**

		1S	1D	2S	2D	3S	3D
Maganese	Digest Concentration (mg/L)	0.867	1.179	1.135	0.919	1.251	3.257
	Standerd Deviation	0.006	0.008	0.019	0.012	0.007	0.016
	Soil Concentration (mg/kg)	**181.0**	**246.1**	**235.5**	**191.5**	**259.5**	**677.1**
	1.30mg/L Standard Error (±mg/L)	0.0349	0.0349	0.0349	0.0349	0.0349	0.0349
	2.49mg/L Standard Error (±mg/L)	0.0472	0.0472	0.0472	0.0472	0.0472	0.0472
	3.49mg/L Standard Error (±mg/L)	0.0586	0.0586	0.0586	0.0586	0.0586	0.0586
	Digest Concentration Error to 95% Ce	0.036	0.049	0.058	0.043	0.051	0.142
	Error (±mg/kg)	**7.7**	**10.4**	**12.3**	**9.2**	**10.8**	**30.2**

Appendix F.2 – Sample Calculations

Given:

Digest Concentration:	.522 mg/L, Standard Deviation .017 mg/L
Sample Mass:	.479 ± .0005 g
Digest Volume:	100 ± 1 mL
Stock Standard Concentration:	1000± 10 mg/L

Find Pb Concentration in Soil (C):

$$C = \frac{0.522\text{mg/L}\bullet 100\text{mL}}{0.479\text{g}} \bullet \frac{1\text{L}}{1000\text{mL}} \bullet \frac{1000\text{g}}{1\text{kg}} = \boxed{109.0\text{mg/L}}$$

Find Error In Standards:

The in the standards was due to both the known error in the stock solution (the first term under the radical) and the error introduced due from dilutions using pipettes (the second and third terms under the radical). These quantities are multiplied together to find the concentration of the standard, thus:

10mg/L: $$\partial R = 10\text{mg/L}\sqrt{0.01^2 + 0.005^2 + 0.006^2} = \pm 0.127\text{mg/L}$$

20mg/L: $$\partial R = 20\text{mg/L}\sqrt{0.01^2 + 0.005^2 + \left(\frac{\sqrt{2\bullet 6}}{1000}\right)^2} = \pm 0.281\text{mg/L}$$

Error Due to Standards:

The error transferred to the final result from the error present in the standards was assumed to be linearly related to the concentration of the sample with zero concentration containing no error due to the standard.

$$\partial S = \sqrt{\left(\frac{0.522\text{mg/L}\bullet 0.127\text{mg/L}}{10\text{mg/L}}\right)^2 + \left(\frac{0.522\text{mg/L}\bullet 0.281\text{mg/L}}{20\text{mg/L}}\right)^2} = \pm 0.00989\text{mg/L}$$

Total Error in Digest Concentration:

The standard deviation of the digest concentration was multiplied by two to get a standard error to 95% confidence based on an assumed normal distribution. This was added to the error due to standards.

$$\partial D = \sqrt{(0.00989\text{mg/L})^2 + (0.034\text{mg/L})^2} = \pm 0.035\text{mg/L}$$

Total Error:

The total error consists of the error in the digest concentration, the sample mass and the digest volume. All of these quantities are multiplied together to find concentration:

$$\partial T = 109.0\text{mg/L}\sqrt{\left(\frac{0.035\text{mg/L}}{0.522\text{mg/L}}\right)^2 + \left(\frac{1\text{mL}}{100\text{mL}}\right)^2 + \left(\frac{0.0005\text{g}}{0.479\text{g}}\right)^2} = \boxed{\pm 7.5\text{mg/kg}}$$

Appendix F.3 – PCBs Testing Results

Testing for 1 ppm to 5 ppm range		
Sample	Test Result	Resulting Range
1S	0.342	Higher than 5 ppm
1D	0.418	1ppm - 5 ppm
2S	0.428	1ppm - 5 ppm
2D	0.603	1ppm - 5 ppm
3S	0.449	1ppm - 5 ppm
3D	0.418	1ppm - 5 ppm
1 ppm	0.670	
5 ppm	0.415	

Testing for 10 ppm to 50 ppm range		
Sample	Test Result	Resulting Range
1S	0.693	10 ppm to 50 ppm
10 ppm	0.656	
50 ppm	0.393	

F.4 – PADEP PCB Limits and Test Sensitivity to Individual PCB Compounds

Compound	PADEP Non-Residential Surface Soil MSC (mg/kg)	Concentration to Give Positive Result (mg/kg)		
		1 mg/kg	5 mg/kg	10 mg/kg
PCB-1016	200	2	9	20
PCB-1242	160	1.2	6	14
PCB-1248	44	1	5	10
PCB-1254	44	1.4	4.6	11
PCB-1260	130	1.1	4.9	11

Compounds Not Detectable at 1000 mg/kg

Biphenyl
2,4,6-trichlophenyl
1,3-dichlorobenzene
2,4-dichlorophenyl
pentachlorophenol
1,4-dichlorobenzene
2,4,5-trichlorphenyl
1,2-dichlorobenzene
1,2,4-trichlorobenzene

Test sensitivity is sourced from Hach Method 10050.

Appendix F.5 – Pennsylvania Code of Allowable Limits

APPENDIX A

TABLE 4—MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR INORGANIC REGULATED SUBSTANCES IN SOIL

A. Direct Contract Numeric Values

REGULATED SUBSTANCE	CASRN	Residential MSC 0-15 feet	Non-Residential MSCs Surface Soil 0-2 feet	Non-Residential MSCs Subsurface Soil 2-15 feet
ALUMINUM	7429-90-5	190,000 C	190,000 C	190,000 C
ANTIMONY	7440-36-0	88 G	1,100 G	190,000 C
ARSENIC	7440-38-2	12 G	53 G	190,000 C
BARIUM AND COMPOUNDS	7440-39-3	15,000 G	190,000 C	190,000 C
BERYLLIUM	7440-41-7	440 G	5,600 G	190,000 C
BORON AND COMPOUNDS	7440-42-8	20,000 G	190,000 C	190,000 C
CADMIUM	7440-43-9	47 G	210 G	190,000 C
CHROMIUM III	16065-83-1	190,000 C	190,000 C	190,000 C
CHROMIUM VI	18540-29-9	94 G	420 G	190,000 C
COBALT	7440-48-4	4,400 G	56,000 G	190,000 C
COPPER	7440-50-8	8,200 G	100,000 G	190,000 C
CYANIDE, FREE	57-12-5	4,400 G	56,000 G	190,000 C
IRON	7439-89-6	66,000 G	190,000 C	190,000 C
LEAD	7439-92-1	500 U	1,000 S	190,000 C
MANGANESE	7439-96-5	31,000 G	190,000 G	190,000 C
MERCURY	7439-97-6	66 G	840 G	190,000 C
NICKEL	7440-02-0	4,400 G	56,000 G	190,000 C
SELENIUM	7782-49-2	1,100 G	14,000 G	190,000 C
SILVER	7440-22-4	1,100 G	14,000 G	190,000 C
THALLIUM	7440-28-0	15 G	200 G	190,000 C
TIN	7440-31-5	130,000 G	190,000 C	190,000 C
VANADIUM	7440-62-2	1,500 G	20,000 G	190,000 C