

# FINANCIAL IMPACT OF BLIGHT ON THE TRI-COG COMMUNITIES

## EXECUTIVE SUMMARY



*Prepared for the :*

Steel Valley Council of Governments  
Turtle Creek Valley Council of Governments  
Twin Rivers Council of Governments  
September 2013



DELTA DEVELOPMENT GROUP  
INC.

# TABLE OF CONTENTS

<b>Acknowledgements .....</b>	<b>1</b>
Tri-COG Collaborative – Board of Directors .....	1
Executive Directors and Staff .....	1
Delta Team .....	1
Funding Assistance .....	1
<b>Executive Summary .....</b>	<b>3</b>
Key Findings.....	3
<b>Measuring the Financial Impacts of Blight Full Report .....</b>	<b>10</b>
<b>Introduction .....</b>	<b>11</b>
<b>Background .....</b>	<b>13</b>
<b>Direct Costs – Municipal Services .....</b>	<b>19</b>
Code Enforcement .....	19
Public Safety Services .....	20
Public Works Departments .....	24
Demolition of Blighted Structures.....	25
<b>Direct Costs – Loss of Tax Revenue .....</b>	<b>27</b>
Real Estate Taxes.....	27
Earned Income Tax.....	31
Costs Associated with Collecting Delinquent Taxes.....	33
<b>Indirect Costs Associated with Blight .....</b>	<b>34</b>
Impact on Property Values.....	34
Repurposing and New Residential Development .....	37
New Commercial Development .....	44
<b>Summary and Conclusions .....</b>	<b>49</b>

<b>Appendix A: Vacant Land and Poor Condition Structures by Municipality .....</b>	<b>51</b>
<b>Appendix B: Code Enforcement Staffing by Municipality .....</b>	<b>53</b>
<b>Appendix C: Average Value of Owner-Occupied Housing by Municipality .....</b>	<b>55</b>
<b>Appendix D: 9-1-1 Calls by Type, Potential Link to Blighted Parcels.....</b>	<b>57</b>
<b>Appendix E: 2011 Estimated Delinquent Real Estate Taxes by Municipality.....</b>	<b>60</b>
<b>Appendix F: 2012 Estimated Delinquent Real Estate Taxes by School District .....</b>	<b>62</b>
<b>Appendix G: Estimated Lost EIT Attributable to Vacant Housing Units .....</b>	<b>63</b>
<b>Appendix H: Hedonic Regression Analysis.....</b>	<b>65</b>
<b>Appendix I: Projected Employment by Community 2010 to 2020.....</b>	<b>66</b>
<b>Appendix J: – Indirect Cost by Community .....</b>	<b>68</b>
<b>Appendix K: Summary of Direct and Indirect Costs of Blight – By Community .....</b>	<b>69</b>

## Tables

Table 1 – Total Impacts Associated with Vacant Parcels and Blighted Structures .....	9
Table 2 – Population Loss and Vacant Housing Units Since 1950.....	13
Table 3 – Vacant Parcels and Blighted Structures By COG.....	16
Table 4 – Estimate of Direct Code Enforcement Costs .....	20
Table 5 – Estimated Police and Fire Costs Associated with Blighted Properties in 2012 .....	24
Table 6 – Maintenance Costs for Privately Owned Vacant Properties .....	25
Table 7 – Annual Demolition Costs by COG, 2008 to 2012 .....	26
Table 8 – Estimated 2011 Delinquent Taxes for Blighted Properties by Municipality.....	29
Table 9 – Estimated Lost Earned Income Tax Attributable to Demolished Structures.....	31
Table 10 – Estimated Lost Earned Income Tax Attributable to Vacant Housing Units .....	32
Table 11 – Estimated Delinquent Tax Collection Costs Associated with Blighted Properties .....	33

Table 12 – Estimated Indirect Impact of Blighted Properties on Property Value.....	36
Table 13 – Projected New Residential Units .....	38
Table 14 – Construction Impacts, Projected New Residential Construction .....	40
Table 15 – Projected New Construction Fiscal Impact, New Residential Construction.....	41
Table 16 – Projected Annual Real Estate Tax Revenues, New Residential Construction .....	42
Table 17 – Estimated Realty Transfer Tax Revenues by Municipality.....	43
Table 18 – Estimated Annual Net New Earned Income Tax Revenues by Municipality .....	43
Table 19 – Tri-COG Communities Projected for Employment Growth and New Office Space over the Next 10 Years <b>Error! Bookmark not defined.</b>	
Table 20 – Construction Phase Impacts, New Commercial development.....	46
Table 21 – Projected Economic Impact from Construction of New Commercial Space .....	47
Table 22 – Projected Real Estate Tax Revenues at Build-out, New Commercial Construction .....	48
Table 23 – Summary of the Direct and Indirect Costs and the Loss of Economic Benefit.....	50

## Figures

Figure 1 – Number of Vacant Parcels by COG.....	15
Figure 2 – Blighted Parcels by COG .....	15
Figure 3 – Tax Delinquency .....	<b>Error! Bookmark not defined.</b>
Figure 4 – Vacant Housing Units by COG in 2011 .....	32

## Maps

Map 1 – Study Area with Vacant Parcels and Blighted Structures .....	17
Map 2 – Vacant Parcels in the Tri-COG Communities by Land Use .....	18
Map 3 – Blighted Structures and Blight Buffer Areas. ....	22
Map 4 – Progressive Blighted Structures from Poor, to Unsound, to Very Poor.....	23

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## TRI-COG COLLABORATIVE – BOARD OF DIRECTORS

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A special thank you to the Boards of Directors of the Steel Valley Council of Governments, Turtle Creek Valley Council of Governments, and the Twin Rivers Council of Governments who have supported, contributed to, and facilitated the Blight Study process.

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## EXECUTIVE SUMMARY



## EXECUTIVE SUMMARY

Delta Development Group, Inc. (Delta) was retained by the Steel Valley Council of Governments (SVCOG), the Turtle Creek Valley Council of Governments (TCVCOG), and the Twin Rivers Council of Governments (TRCOG) to analyze the financial impact of blight on their 41 member communities. Blighted and vacant properties undermine the value of real estate within a community, cost municipalities significant dollars to maintain, and erode the local tax base because of the tax delinquency often associated with blighted properties. As a result, the Tri-COG Collaborative hopes to use the study, in part, to develop consensus among various stakeholders regarding the magnitude of the impact of blight and to develop meaningful ways to address the issue of vacant and blighted properties.



Specifically, the following study addresses the direct costs and indirect costs of vacant and blighted parcels including: 1) the direct costs related to municipal services, 2) the direct loss of tax revenues, and 3) the indirect costs associated with blight including a resultant decrease in property values for those properties located in close proximity to a blighted property. It also quantifies the potential to repurpose blighted or vacant sites and generate new development and new tax revenues for the Tri-COG communities.

The study area is the geographical boundaries of the three COGs as it relates to their service areas and member communities. For purposes of this study, the term “Tri-COG Communities” shall mean the 41 member communities of the three COGs. Among the three COGs, there are a total of 20,077 vacant lots and 7,158 lots with blighted structures (defined as structures with a poor, very poor, or unsound condition rating). The vacant and blighted lots are scattered throughout the Tri-COG Communities and the majority are privately owned. The following is a summary of some of the key financial implications of these blighted and vacant properties.

## KEY FINDINGS

Blight has a devastating effect on the Tri-COG Communities. Blighted and vacant properties damage the fabric of the community, cost significant dollars to maintain, and erode the local tax base because of the tax delinquency often associated with blighted properties. Even more compelling is the fact that blight prevents private reinvestment in the neighborhoods because it undermines the values of real estate making market driven redevelopment unlikely.

This study reveals that the costs of blight on an annual basis are staggering and that

viewed in the long term they present an overwhelming challenge for communities. The study found that:

- The direct cost to municipal services is \$10,720,302.
- The direct cost related to the loss of tax revenue is \$8,637,875.
- The indirect costs associated with a loss in property value are estimated at between \$218 million and \$247 million.
- The indirect costs associated with the loss of real estate taxes due to a decline in property value is estimated to be between \$8,574,723 and \$9,718,019.

In addition, the loss associated with the lack of economic development and reinvestment is **\$11,812,644 in construction impacts (one-time) and another \$8,284,294 annually for ongoing impacts.**

The following is a breakdown of the identified impacts of blight and vacant properties on the Tri-COG Communities.

#### ***DIRECT COSTS – MUNICIPAL SERVICES***

**Code Enforcement:** Code enforcement costs are derived from a review of the typical services that are provided including field inspections, complaints, elimination of rodents and vermin, high grass and weeds, junk cars, and unsafe structures. The calculation is partially based on a survey of the code enforcement personnel. Costs are **estimated at \$595,350** annually for the Tri-COG communities.

**Public Safety:** In order to estimate the incremental increase in costs associated with fire and police services as a result of the presence of blighted properties, a complete list of 9-1-1 calls from 2012 was analyzed and those calls that are associated with a blighted property were isolated. Next, with input from the Tri-COG Collaborative, a blight buffer was determined, which includes all parcels within 150 feet of a parcel with a building that was defined as blighted. The combined incremental cost for annual calls is estimated at **\$6,400,296 for police service and \$2,378,525 for fire service.**

Overall, the economic impacts of blight and vacant properties results in a total impact to the Tri-COG Communities of over \$19.3 million in direct costs, with an estimated loss in property value of between \$218 and \$247 million. Repurposed sites would generate an additional \$11.8 million in one-time construction fiscal impacts and \$8.2 million in recurring fiscal impacts.





**Public Works:** The total number of lots and vacant structures maintained by public works departments for health and safety purposes is based on a survey of local municipalities and an understanding of local public works operations. The annual cost is estimated at about \$727,195 for the Tri-COG communities.

**Demolition of Blighted Structures:** Demolition costs are tracked by each of the COGs and can vary based on the size of the structure, site conditions, and site accessibility. Total demolition costs over the past five years (2008 to 2012) were \$2,908,782 and annual demolition costs for the Tri-COG communities' averages \$618,936. Once a property is demolished, there are costs associated with the maintenance of the vacant lot and the repurposing of it for future productive use.

### ***DIRECT COSTS – LOSS OF TAX REVENUE***

**Real Estate Taxes:** A major source of lost revenue associated with blighted parcels is tax delinquency. In 2011, there were 3,191 parcels in 38 of the Tri-COG communities that were both blighted and tax delinquent. Delinquent taxes at the municipal, school district, and county level associated with blighted properties resulted in an annual **loss of \$2,758,137**. Delinquent taxes from vacant lots resulted in an additional **\$2,256,222 in uncollected taxes**.

While some of these revenues may ultimately be recovered, this represents a significant amount of lost revenues for the Tri-COG communities. It should be noted that this includes only those parcels that were tax delinquent in 2011. In many cases, properties are tax delinquent for several years, accruing interest and penalty charges as they remain chronically delinquent.

**Earned Income Taxes:** When structures are demolished and residents leave the area, significant earned income taxes (EIT) are lost. The loss of EIT revenue was estimated in two ways: 1) a calculation based on the demolitions of structures in recent years and 2) a calculation related to structures that are vacant and/or abandoned.

First, Delta reviewed the Tri-COG records regarding the number of demolitions for the Tri-COG communities for the past five years from 2008 through 2012. The methodology then applied the local income tax rate to the median household income for each municipality. Using this analysis, the total amount of lost EIT attributable to structures that have been demolished in the past 5 years is **\$820,323 annually**.

Second, the 2011 census data was used to determine the number of vacant housing units in each municipality. Although the total vacant housing units was 15,308, this number was adjusted to account for vacancies that occur due to natural transition and units that are for rent, for sale, or seasonal. The adjusted number of vacant housing units in the Tri-COG communities was 6,786 vacant units. By applying the same median household income to the vacant housing units and then applying the local tax rates, it is estimated that the loss to municipalities and school districts for vacant units in the Tri-COG communities **is estimated to be \$2,552,475 annually**.

**Costs Associated with Collecting Delinquent Taxes:** In addition to the loss of tax revenue, there is a cost associated with the collection of delinquent taxes. Using a 5.5% cost for the collection of delinquent taxes, the total cost for collection of 2011 delinquent taxes is estimated to be \$140,674 if 100% of the taxes are collected in one year. However, because 100% collection is unrealistic, it was assumed that only about 50%

of delinquent taxes are collected in any given year and that at least three (3) years of taxes are addressed by the tax collector in each calendar year. Based on these assumptions, it is estimated that **\$250,718 is spent** for tax delinquent collections in any given year.

### ***INDIRECT COSTS – IMPACT ON PROPERTY VALUES***

The indirect cost of blighted properties on neighboring parcels has been well documented. There appears to be a link between proximity to a blighted property and a resultant decrease in property value. A 2010 Philadelphia Study found that property located up to 200 feet from a vacant parcel decreased in value by between 8.6% and 16.5%. A 2008 Federal Reserve Bank of Cleveland study found that a foreclosed home within a neighborhood can decrease home prices by 0.9% to 8.7%. Similarly, a 2011 Federal Reserve Bank of Cleveland study that looked at properties in Cuyahoga County, Ohio, found that a foreclosed, vacant, and tax-delinquent property reduces neighboring property values by as much as 10%.

In order to measure the potential impact of blighted properties on neighboring properties within the Tri-COG communities, Delta first defined the area of impact as those properties that are located within 150 feet of a blighted property. The analysis resulted in 28,478 total properties with a combined fair market value of \$1.5 billion. It is estimated that the negative impact on adjoining property values is between 15% and 17%,

with an estimated decrease in property value of between **\$218 million and \$247 million**. The result is an estimated loss of real estate tax revenue of between **\$8.4 million and \$9.7 million** annually.



### ***REPURPOSING AND NEW RESIDENTIAL DEVELOPMENT***

It is also important to consider the potential benefits that will accrue to the region as new development occurs on what is now vacant land, thereby encouraging new rounds of residential development and inducing new rounds of spending in the area. For purposes of this study, it was assumed that new home construction is most likely to occur in those areas where existing home values exceed the cost of new home construction.

There are four municipalities in the Tri-COG communities that meet the threshold test of average home value exceeding average new construction costs: Churchill, Edgewood, Monroeville, and Plum (detailed home values by municipality are reflected in Appendix C). For each of these four municipalities, it was assumed that new residential construction

would occur on lots where demolition had occurred or on residential vacant lots appropriately sized for new construction (assumed to be between 4,000 and 20,000 square feet). There are 704 lots in the four municipalities that fit these criteria; it is conservatively estimated that these units would be constructed over a ten-year time frame, or about 70 units annually.

New residential development within the four municipalities highlighted will generate economic (jobs) and fiscal (tax revenues) impacts both during construction and also after the new units are occupied.

### **CONSTRUCTION IMPACTS**

The economic impacts attributable to the construction of new housing units is significant due to the total development costs of about \$118 million (an average residential cost of approximately \$112 per square foot is assumed; this cost includes a base cost of \$95 per square foot with an additional 15% for land costs and contingencies). The development of these housing units results in estimated labor costs of approximately \$47.2 million, or a total of about 1,118 full-time-equivalent jobs. State-earned income tax revenues attributable to construction employment total approximately \$1.3 million. The assumed local resident income tax of 1.0% adds an additional \$424,885 in local income tax revenues.



A significant portion of tax revenues from construction are attributable to the purchase of construction materials, which is estimated to generate a total of \$3.9 million in total sales tax revenues.

### **RECURRING IMPACTS**

The recipients of the real estate tax levies from development, and the amounts that would accrue to each entity, have also been calculated. Total annual real estate tax revenues of approximately \$3.5 million are estimated for the four municipalities as a result of new construction on residential vacant lots. These are recurring impacts and reflect build-out of all 704 lots.

In Allegheny County, real estate sales are subject to both a state and local realty transfer tax, which is based on a percentage of the total sales price. Annual realty transfer tax revenues attributable to new housing development is estimated at about \$2.7 million. Again, this reflects build-out of all housing units.

The new residential units built in the four municipalities would

also attract new residents and local income tax revenues. Annual net new resident income tax revenues are estimated at about \$166,692 once all of the new housing units are constructed.

### **COMMERCIAL SPACE REINVESTMENT**

In order to estimate reinvestment with respect to commercial properties, Delta reviewed employment growth projections for the next 10 years, as prepared by the Southwestern Pennsylvania Commission (SPC). New demand for office space was projected based on the total number of new service jobs projected for those communities with a critical mass of new employees (assumed as more than 250 new employees over the next 10 years). A total of about 845,253 square feet of new commercial space is projected over the next 10 years based on these projections.

A total of 1,201 one-time construction jobs are forecast as a result of construction of new commercial space. In turn, this is forecast to generate \$1.4 million in state income tax revenues and \$456,437 in local resident income tax revenues. A total of \$4.3 million in sales tax revenues from the purchase of construction materials is forecast. It is estimated that once the commercial space is built out, the new office space will generate about \$4.7 million in new real estate tax revenues.

**Table 1** summarizes the direct, indirect, and reinvestment impacts associated with the vacant and blighted properties in the Tri-COG communities.





TABLE 1 – TOTAL IMPACTS ASSOCIATED WITH VACANT PARCELS AND BLIGHTED STRUCTURES

DIRECT COSTS		
<b>Impact on Municipal Services:</b>		
	Code Enforcement	\$595,350
	Police	\$6,400,296
	Fire	\$2,378,525
	Public Works	\$727,195
	Demolition	\$618,936
	<b>Total Municipal Services</b>	<b>\$10,720,302</b>
<b>Loss Of Tax Revenue:</b>		
	RE Taxes - Due to Blight	\$2,758,137
	RE Taxes - Due to Vacant Lots	\$2,256,222
	EIT- Due to Vacant Structures	\$2,552,475
	EIT - Due to Vacant Lots	\$820,323
	Tax Collection	\$250,718
	<b>Total Loss of Tax Revenues</b>	<b>\$8,637,875</b>
	<b>TOTAL ANNUAL DIRECT COSTS</b>	<b>\$19,358,177</b>
INDIRECT COSTS		
<b>Impact on Property Values:</b>		
	Loss of Property Value at 15%	\$218,556,773
	Loss of Real Estate Tax Due to Loss of Property Value	\$8,574,719
	<b>TOTAL ANNUAL INDIRECT COSTS</b>	<b>\$227,131,492</b>
<b>Loss of Economic Benefit</b>		
	<u><b>Annual</b></u>	
	Real Estate Tax	\$8,117,602
	New Resident EIT	\$166,692
	<b>TOTAL LOSS OF ECONOMIC BENEFIT</b>	<b>\$8,284,294</b>
<b>TOTAL DIRECT AND INDIRECT IMPACTS</b>		<b>\$254,773,963</b>

## MEASURING THE FINANCIAL IMPACTS OF BLIGHT FULL REPORT

## INTRODUCTION

For generations, the Monongahela (Mon) Valley which includes communities along the Monongahela River and its tributaries was the economic engine that drove the Pittsburgh economy with its manufacturing and steel making enterprises. However, over the past four decades, the Mon Valley's industrial base was decimated. In the late 1970s and early 1980s, US Steel, Westinghouse Electric, Westinghouse Air Brake Company (WABCO), Union Switch and Signal, and Wheeling-Pittsburgh Steel all closed major manufacturing plants in the Mon Valley. Some sources indicate that as many as 175,000 industrial and manufacturing jobs were lost in the region when the plants closed.

During their prime, major industrial sites had occupied hundreds of acres of land, and as landowners, the corporations were major taxpayers. When major corporations left, the clean-up of the sites was left for the communities to address. Without the business taxes, local governments in the Mon Valley were hard pressed to provide basic services to their residents let alone the clean-up of old industrial sites. People moved out, the Valley's image suffered, and the role as the engine of the regional economy was lost.

As a result, the population in the Mon-Valley communities declined dramatically from an estimated high of about 370,000 to the current low of 285,000. Although, overall, this is about a 23 percent decrease in population, many of the towns in the Mon Valley were disproportionately affected by the economic downturns over the past decades. Communities like Braddock, Clairton, Duquesne, East Pittsburgh, Homestead, Rankin, Wall, and Wilmerding lost over two-thirds of their population. These dramatic population losses directly affected the vacancy and abandonment rates of housing stock in the Mon Valley communities. According to the 2010 census, in Wilkinsburg alone there are about 1,500 vacant properties and another 1,400 in the City of McKeesport. Many of the vacant properties are blighted, unsafe, and uninhabitable destabilizing the neighborhoods around them and weakening the overall housing market for the community.



In order to address the blight and vacancy problem, the Steel Valley COG (SVCOG), the Turtle Creek Valley COG (TCVCOG) and the Twin Rivers COG (TRCOG), representing 40 communities in Allegheny County and 1 community (West Newton) in Westmoreland county (known as the “Tri-COG Communities” for the purpose of this study), made a decision to work together and secure funding to address the first phase of the project which was designed to fully identify the financial implications of blight and vacancy. Delta Development Group, Inc. (Delta) was retained to assist with the analysis of the financial impact of blight on the Tri-COG Communities.

Blighted and vacant properties undermine the value of real estate within a community, cost municipalities significant dollars to maintain, and erode the local tax base because of the tax delinquency often associated with blighted properties. The Tri-COG Directors and member municipalities hope to use the study, in part, to develop consensus among various stakeholders regarding the magnitude of the impact of blight and to develop meaningful ways to address the issue of vacant and blighted properties.

For this first phase of the project, Delta was charged with the tasks of:

1. Assessing the cost burden for the affected 41 Tri-COG communities, 15 school districts, and 2 counties by identifying the
  - A. Direct costs related to municipal services;
  - B. Direct costs from the loss of tax revenues; and
  - C. Indirect costs related to the decreased property value caused by blighted structures.
2. Conveying in clear and concise terms, the magnitude of the blight and vacancy problem
3. Estimating the future benefit of repurposing and new development, and
4. Assisting the Tri-COG Collaborative with building consensus among the stakeholders at the local, county, and state level

By utilizing this approach the Tri-COG members hope to engage the local and state officials, energize community groups, and build consensus among residents around the strategies developed through the public engagement process to address common problems and reverse the negative trends.



## BACKGROUND

The Pittsburgh Post Gazette reported in an article in September of 2011 that “dense pockets of vacant and blighted properties are found around the region in poor urban areas” and observed that “the municipalities carrying the biggest burden of vacant and abandoned property are among the most economically fragile in the region and the least likely to have the resources at hand to do something about it”<sup>1</sup>

Many of the communities in the Mon Valley continue to suffer from huge population losses, weak housing markets, poor housing stock, poverty, and higher crime rates than their more affluent neighbors. In many cases, the taxes and liens owed on the property far exceed the value of the property which makes them almost impossible to sell. Property owners simply walk away from the problem leaving it for the communities to deal with on a case by case basis.

The study area is the geographical boundaries of the three COGS and their relevant service areas and member communities. **Table 2** provides a complete history of the population changes since 1950 and the number of vacant housing units as of the 2010 census in the Tri-COG Communities.

TABLE 2 – POPULATION LOSS AND VACANT HOUSING UNITS SINCE 1950

Municipality	Type	Total Housing Units 2010	Total Rental Units 2010	Vacant Housing Units 2010	Vacancy Rates 2010	Owner Occupied Rates 2010	Population 1950	Population 1990	Population 2010	% Diff Since 1950	% Diff Since 1990
Braddock	Borough	1086	510	263	24.20%	44.1%	16,488	4,682	2,159	-86.9%	-53.9%
Braddock Hills	Borough	1078	513	62	5.80%	50.3%	1,966	2,026	1,880	-4.4%	-7.2%
Chalfant	Borough	450	136	46	10.20%	68.8%	1,381	959	800	-42.1%	-16.6%
Churchill	Borough	1438	56	75	5.20%	96.1%	1,733	3,883	3,011	<sup>2</sup> 73.7%	-22.5%
Clairton	City	3889	1578	762	19.60%	60.1%	19,652	9,656	6,796	-65.4%	-29.6%
Dravosburg	Borough	1000	384	108	10.80%	60.7%	3,786	2,377	1,792	-52.7%	-24.6%
Duquesne	City	3163	1512	670	21.20%	45.0%	17,620	8,525	5,565	-68.4%	-34.7%
East McKeesport	Borough	1152	450	147	12.80%	61.6%	3,171	2,678	2,126	-33.0%	-20.6%
East Pittsburgh	Borough	1035	585	213	20.60%	38.4%	5,259	2,160	1,822	-65.4%	-15.6%
Edgewood	Borough	1669	571	90	5.40%	65.4%	1,466	3,581	3,118	112.7%	-12.9%
Elizabeth Boro	Borough	715	283	89	12.40%	58.6%	2,615	1,610	1,493	-42.9%	-7.3%

<sup>1</sup> “Look at Vacant Property as an Opportunity,” Pittsburgh Post Gazette, Sunday, September 25, 2011.

<sup>2</sup> Cells that are highlighted indicate growth during the decades shown.

Municipality	Type	Total Housing Units 2010	Total Rental Units 2010	Vacant Housing Units 2010	Vacancy Rates 2010	Owner Occupied Rates 2010	Population 1950	Population 1990	Population 2010	% Diff Since 1950	% Diff Since 1990
Forest Hills	Borough	3304	740	205	6.20%	78.0%	6,301	7,335	6,518	3.4%	-11.1%
Forward	Township	1521	213	118	7.80%	86.0%	4,292	3,875	3,376	-21.3%	-12.9%
Glassport	Borough	2255	809	291	12.90%	64.2%	8,707	5,582	4,483	-48.5%	-19.7%
Homestead	Borough	1895	1111	410	21.60%	34.8%	10,046	4,179	3,165	-68.5%	-24.3%
Liberty	Borough	1151	186	57	5.00%	84.9%	1,900	2,744	2,551	34.3%	-7.0%
Lincoln	Borough	477	60	40	8.40%	87.0%	1,467	1,187	1,072	-26.9%	-9.7%
McKeesport	City	10088	4287	1735	17.20%	53.6%	51,502	26,016	19,731	-61.7%	-24.2%
Monroeville	Home Rule	13496	4541	884	6.60%	67.4%	7,841	29,349	28,386	262.0%	-3.3%
Munhall	Borough	5825	2156	583	10.00%	63.0%	16,437	13,158	11,406	-30.6%	-13.3%
North Braddock	Borough	2797	1205	607	21.70%	51.5%	14,724	7,036	4,857	-67.0%	-31.0%
North Versailles	Township	5219	1666	434	8.30%	68.0%	9,821	12,302	10,229	4.2%	-16.9%
Penn Hills	Home Rule	20342	4827	1556	7.60%	76.7%	25,280	51,430	42,329	67.4%	-17.7%
Pitcairn	Borough	1866	990	311	16.70%	44.3%	5,857	4,087	3,294	-43.8%	-19.4%
Plum	Borough	11494	2490	608	5.30%	79.0%	8,214	25,609	27,126	230.2%	5.9%
Port Vue	Borough	1832	386	138	7.50%	78.8%	4,756	4,641	3,798	-20.1%	-18.2%
Rankin	Borough	1046	646	136	13.00%	34.3%	8,941	2,503	2,122	-76.3%	-15.2%
South Versailles	Township	161	16	8	5.00%	89.5%	370	310	351	-5.1%	13.2%
Swissvale	Borough	5072	2488	633	12.50%	50.1%	16,488	10,637	8,983	-45.5%	-15.5%
Turtle Creek	Borough	2851	1563	383	13.40%	41.3%	12,363	6,556	5,349	-56.7%	-18.4%
Versailles	Borough	866	441	97	11.20%	48.1%	2,484	1,821	1,515	-39.0%	-16.8%
Wall	Borough	334	121	75	22.50%	59.8%	1,850	853	580	-68.6%	-32.0%
West Elizabeth	Borough	250	71	40	16.00%	69.0%	1,137	634	518	-54.4%	-18.3%
West Homestead	Borough	995	271	130	13.10%	75.0%	3,257	2,495	1,929	-40.8%	-22.7%
West Mifflin	Borough	9462	2034	657	6.90%	78.0%	17,985	23,644	20,313	12.9%	-14.1%
West Newton	Borough	1361	440	233	6.90%	66.2%	3,619	3,152	2,633	-27.2%	-16.5%
Whitaker	Borough	606	190	64	10.60%	68.8%	2,149	1,416	1,271	-40.9%	-10.2%

Municipality	Type	Total Housing Units 2010	Total Rental Units 2010	Vacant Housing Units 2010	Vacancy Rates 2010	Owner Occupied Rates 2010	Population 1950	Population 1990	Population 2010	% Diff Since 1950	% Diff Since 1990
White Oak	Borough	3888	1020	277	7.10%	74.0%	6,159	8,761	7,862	27.7%	-10.3%
Wilkins	Township	3381	1140	233	6.90%	66.2%	4,261	7,487	6,357	49.2%	-15.1%
Wilkesburg	Borough	10046	5745	1894	18.90%	37.7%	31,418	21,080	15,930	-49.3%	-24.4%
Wilmerding	Borough	1189	761	171	14.40%	33.6%	5,325	2,222	2,190	-58.9%	-1.4%
		141,745	49,192	15,533	11.0%		370,088	334,238	280,786	-24.1%	-16.0%
Steel Valley	COG	18,701	7,786	2,829	15.1%		76,415	59,585	49,070	-35.8%	-17.6%
Turtle Creek	COG	89,267	31,231	8,964	10.0%		188,182	206,429	177,286	-5.8%	-14.1%
Twin Rivers	COG	33,777	10,175	3,740	11.1%		105,491	68,224	54,430	-48.4%	-20.2%
		141,745	49,192	15,533			370,088	334,238	280,786	-24.1%	-16.0%

SOURCE: 2010 US CENSUS DATA, DELTA ANALYSIS

In addition to the vacant housing units identified in the census data, there are currently 20,777 vacant parcels located in the 41 Tri-COG communities. Among the Tri-COG communities, the greatest number of vacant parcels is located in the TCVCOG, with approximately 10,857, followed by the TRCOG with 6,088 vacant parcels, and the SVCOG with 3,832 parcels.

In order to assess the costs associated with blighted parcels within the Tri-COG communities, it was first necessary to define “blight” for the purposes of this study. Detailed information is available for the Tri-COG communities regarding the parcels through the Allegheny County assessment website and through data published by the county. There was a consensus that the blight analysis should be based on a parcel condition rating as reported by the county assessors’ observations of the structures. A rating of poor, very poor, or unsound indicates that the existing structure is at risk and constitutes “blight” or at least an early indication of “blight.” Based on the county data, there were 7,158 parcels with blighted structures that were rated poor, very poor, and unsound. Of these structures, there were 2,330 that were rated very poor or unsound, or considered to be in such poor condition that they are unsalvageable.

**Figure 1** and **Figure 2** provide a breakdown of the vacant and blighted parcels by COG.

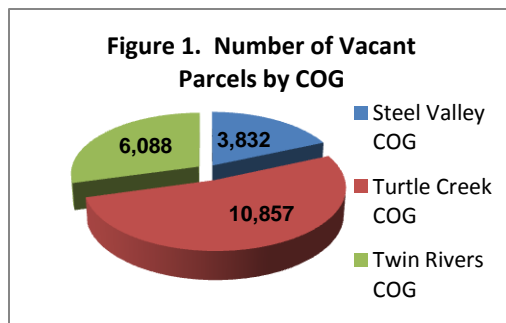


FIGURE 1 – NUMBER OF VACANT PARCELS BY COG

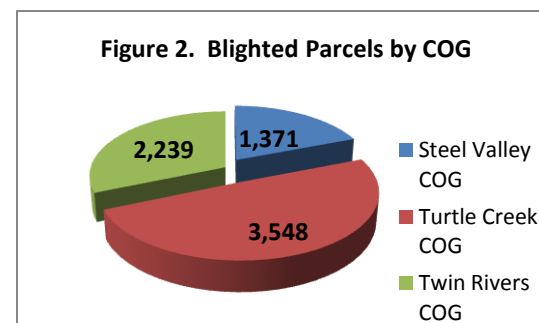


FIGURE 2 – BLIGHTED PARCELS BY COG

**Table 3** provides a summary of the vacant lots and blighted properties based on the county's condition rating.

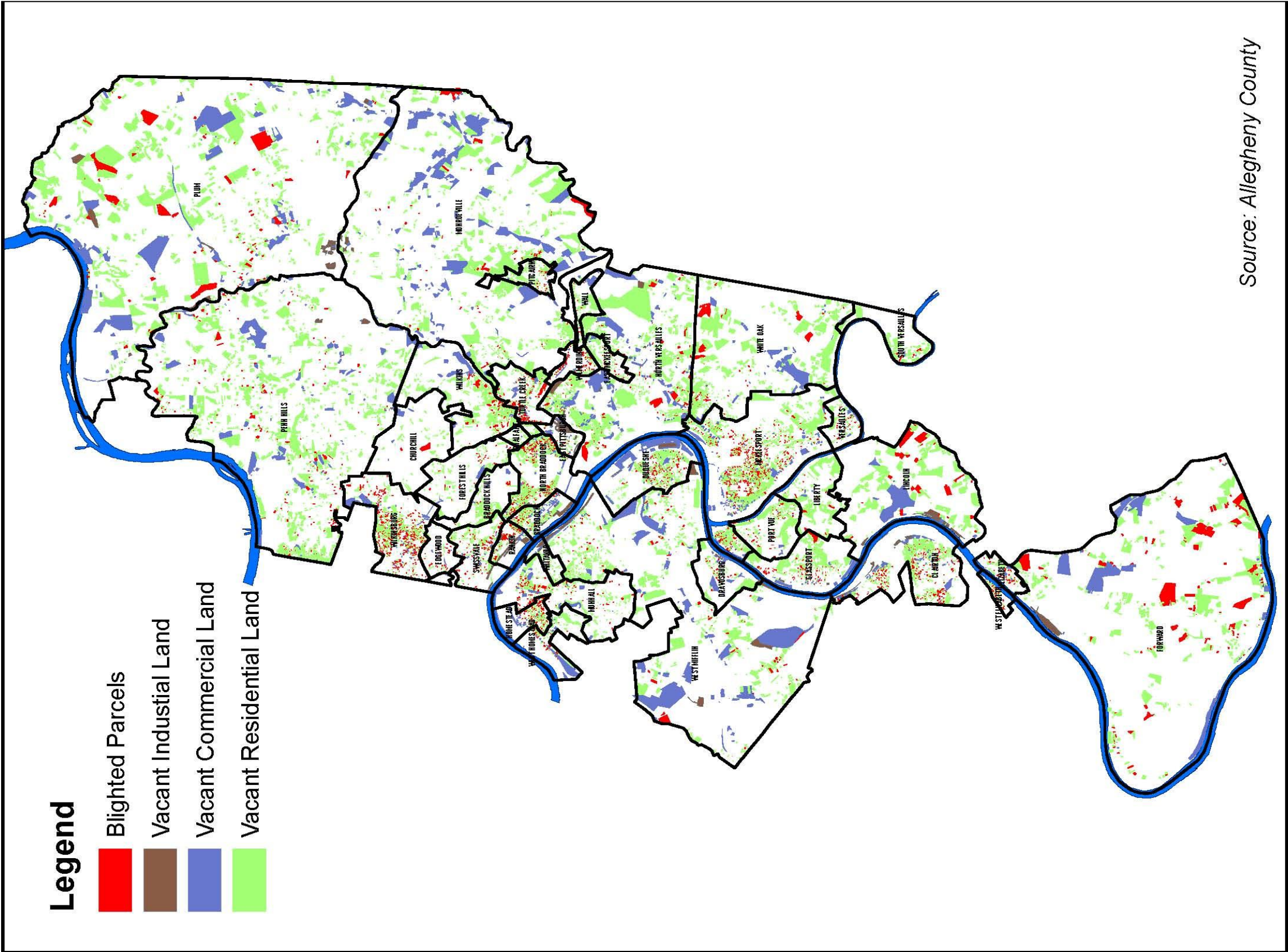
TABLE 3 – VACANT PARCELS AND BLIGHTED STRUCTURES BY COG

<b>Total Vacant Parcels (No Structures)</b>	
Steel Valley COG	3,832
Turtle Creek COG	10,857
Twin Rivers COG	6,088
<b>Total COG's</b>	<b>20,777</b>
<b>Blighted/Parcels Rated Poor, Very Poor, and Unsound (With Structures)</b>	
Steel Valley COG	1,371
Turtle Creek COG	3,548
Twin Rivers COG	2,239
<b>Total COG's</b>	<b>7,158</b>
<b>Blighted/Parcels Rated Unsound and Very Poor (With Structures)</b>	
Steel Valley COG	396
Turtle Creek COG	1,186
Twin Rivers COG	748
<b>Total COG's</b>	<b>2,330</b>
SOURCE: ALLEGHENY COUNTY ASSESSMENT OFFICE, ANALYSIS BY: COG DATA, DELTA	

The Tri-COG Collaborative was able to use the county data to map the parcels in the Tri-COG communities. **Map 1** provides a view of the Tri-COG communities and the parcels that are vacant and blighted. **Map 2** provides a breakdown of the vacant parcels in the Tri-COG communities by land use.

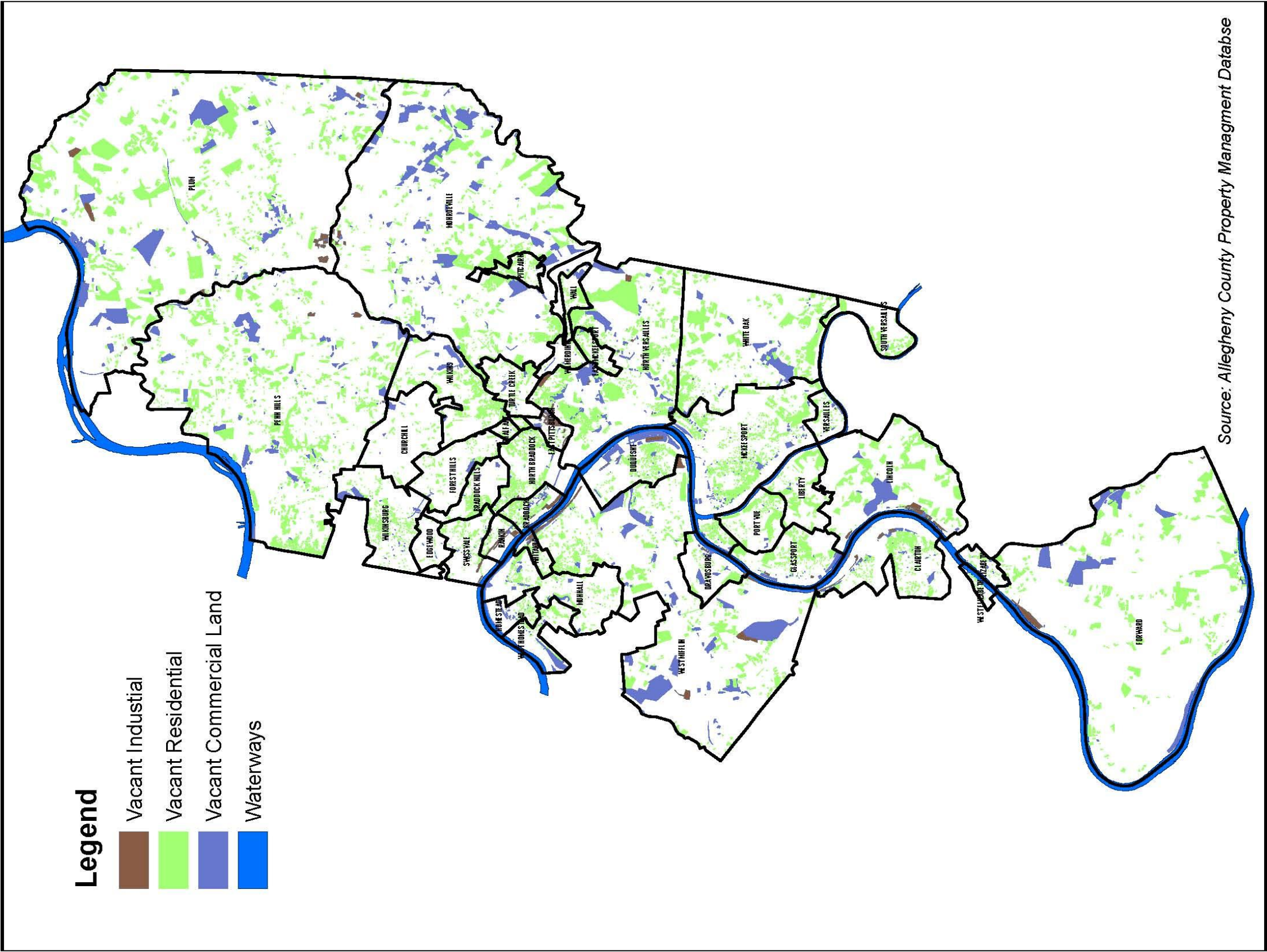


MAP 1 – STUDY AREA WITH VACANT PARCELS AND BLIGHTED STRUCTURES





MAP 2 – VACANT PARCELS IN THE TRI-COG COMMUNITIES BY LAND USE



## DIRECT COSTS – MUNICIPAL SERVICES

There is a substantial and continuing impact on municipal services associated with the presence of vacant and blighted properties in a community. Nearly every department in the local government operation is affected and has identifiable costs attributable to blight. The following is a detailed analysis of the impact of blight on the delivery of public services by the Tri-COG Communities.

### CODE ENFORCEMENT

Blight generally results from a gradual disinvestment and disinterest in the continued maintenance of residential and commercial structures. This is typically due to the inability of the owner to pay the taxes that are due on the property, coupled with the reduction in market value for the property, resulting in a negative liability to asset ratio. As the properties become more devalued and the tax delinquencies continue to rise, the occupant is more inclined to forego maintenance and care of the property. Many property owners reach a point where they are willing to walk away from the property rather than investing additional capital.

For these reasons, the municipal service that is most impacted by vacancies and blighted conditions is the Code Enforcement departments. For the purposes of this study, code enforcement activities are defined as field inspections, complaints, elimination of rodents and vermin, high grass and weeds, junk cars, and unsafe structures. In order to assess the direct costs associated with code enforcement for each of the municipalities, the following methodology was applied:

- The number of code enforcement personnel by municipality was tallied based on data provided by the Tri-COG Collaborative.
- Annual code enforcement hours were calculated. In many cases, a municipality employed a part-time code enforcement official or outsourced the job. In these cases, a discount rate was applied.
- Based on discussions with a sample of the code enforcement personnel, it was assumed that approximately one-half of code enforcement hours are attributable to blighted properties.
- Code enforcement average wages are based on the current State Occupational Employment and Wage Survey for the Commonwealth of Pennsylvania which indicates a rate of \$15 per hour.

**Table 4** below provides the calculation that was used to arrive at the total cost of code enforcement for the Tri-COG communities.



TABLE 4 – ESTIMATE OF DIRECT CODE ENFORCEMENT COSTS

		SVCOG	TCVCOG	TRCOG	TOTAL
Weekly Code Enforcement Hours <sup>3</sup>		228	1,032	360	1,620
Annual Code Enforcement Hours <sup>4</sup>		11,172	50,568	17,640	79,380
Assume 50% Hours Attributable to Blighted Parcels		5,586	25,284	8,820	39,690
Assume Hourly Wage		\$15	\$15	\$15	\$15
<b>Total Cost - Code Enforcement</b>	<sup>5</sup>	<b>\$83,790</b>	<b>\$379,260</b>	<b>\$132,300</b>	<b>\$595,350</b>

This methodology does not result in a complete cost for code enforcement since it does not include administrative hours involved, nor does it reflect the hours spent by some police departments in code enforcement activities. However, based on this somewhat limited, conservative, review of code enforcement activities, the total **annual code enforcement cost for blighted properties is estimated at \$595,350** for the Tri-COG communities

## PUBLIC SAFETY SERVICES

Parcels with blighted and vacant structures can also have a significant impact on police and fire calls raising the overall cost for police and fire protection in the communities. A 2008 study completed for the City of Baltimore used econometric analysis to show the impact of vacant properties on police and fire services.<sup>6</sup> The Baltimore study found that the cost of police and fire services per block increases by \$1,472 for each vacant and unsafe structure on that block. This cost is over and above the typical expenses associated with neighborhood blocks with no vacant structures.

In order to estimate the incremental increase in costs associated with fire and police services as a result of the presence of blighted structures, a complete list of 9-1-1 calls from 2012 was analyzed and those calls that might potentially be associated with a parcel with a blighted structure were isolated. Only those call types that are specifically recognized as relevant to the blighted structures were included. This list was vetted by

<sup>3</sup> Since not all municipalities have a full-time code enforcement officer, the following weights were applied: In-house part-time = .5; Outsourced part-time = .3.

<sup>4</sup> Assumes 49 paid weeks annually

<sup>5</sup> Assumes \$15 per hour based on May 2012 State Occupational Employment and wage Survey for the State of PA, US Bureau of Labor Statistics

<sup>6</sup> "Determining the Cost of Vacancies in Baltimore," *Government Finance Review*, June 1, 2009.





Delta, the Tri-COG Directors, and reviewed by the police advisory committees of the Tri-COG Communities. (The list of 9-1-1 categories is included in Appendix D of this report).

Next, with input from the Tri-COG Collaborative, a blight buffer that includes all parcels within 150 feet of parcels with blighted structures was identified and the parameters set out with GIS mapping. These properties were then cross referenced with the targeted 9-1-1 calls. In order to account for only those calls that are associated with a blighted property, calls within the blight buffer were compared with 9-1-1 calls within the “residential control” area.<sup>7</sup> Finally, a cost per call for both police and fire calls was applied to the total number of calls estimated to be associated with a blighted structure. As shown in **Table 5**, the annual estimated cost for calls for service to parcels with blighted structures and to parcels in the blight buffer **for police is estimated to be \$6,400,296 and for fire is estimated to be \$2,78,525**. There were 31,850 total calls, about 45% of all police and fire calls, that were related to the blighted properties and properties located in the blight buffer area.

It should be noted that it is believed that these costs are greatly **underestimated** because there is no data available about the deployment of police officers for fire incidents and for multiple fire departments who respond to back-up other fire departments. In many cases the costs are doubled or tripled because multiple departments from multiple jurisdictions respond to a single fire or police call as in the case of a motor vehicle accident or a structural fire. Although, these calls are reported by the 9-1-1 center as a single call for service, multiple departments are deployed to the call increasing the cost dramatically.

**Map 3** provides an overview of the blighted structures along with the buffer areas that were established as 150 feet from a parcel with a blighted structure. **Map 4** provides an overview of the blighted structures in a progression from poor to unsound to very poor conditions.

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<sup>7</sup> The “residential control” area was defined as a 150 foot buffer from every residential parcel which was also a traditional household (e.g. single family, condo, etc.). In this way, the calls associated with properties that were rated good, average, excellent, etc. could be compared with the calls that were within the blight buffer in order to determine the incremental increase of calls associated with “blight.”



MAP 4 – PROGRESSIVE BLIGHTED STRUCTURES FROM POOR, TO UNSOUND, TO VERY POOR

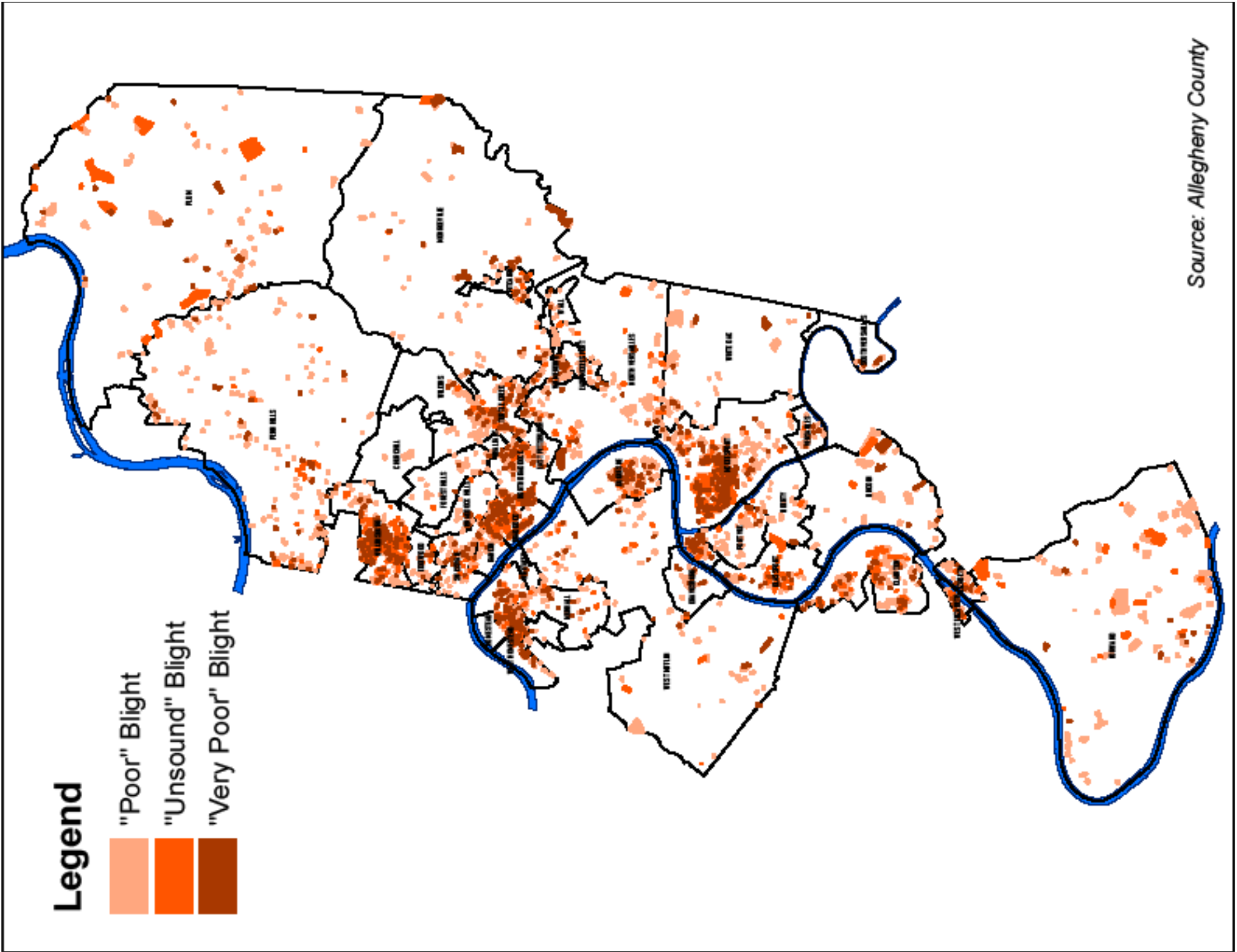


TABLE 5 – ESTIMATED POLICE AND FIRE COSTS ASSOCIATED WITH BLIGHTED PROPERTIES IN 2012

Direct Police and Fire Costs	Notes	Calls/Costs
Estimated Number of Total Calls Associated with Parcels with Blighted Structures and in the Blight Buffer in 2012	<sup>8</sup>	31,850
Estimated Number of Police Calls Associated with Parcels with Blighted Structures and in the Blight Buffer in 2012		29,631
Estimated Cost per Call for Police Service	<sup>9</sup>	\$216
<b>Total Incremental Cost for Police Service</b>		<b>\$6,400,296</b>
Estimated Number of Fire Calls Associated with Parcels with Blighted Structures and in the Blight Buffer in 2012		2,219
Blended Cost per Call for Fire Service		\$2,378,525
<b>Total Incremental Cost for Fire Service</b>	<sup>10</sup>	<b>\$8,764,321</b>
SOURCE: 9-1-1 CALLS FOR SERVICE, IACP FORMULA, DELTA DEVELOPMENT GROUP		

## PUBLIC WORKS DEPARTMENTS

Blight and vacancy have a devastating impact on neighborhoods and community resources. As vacant lots and structures are abandoned, problems such as high grass, broken windows, and noxious plants create attractive nuisances for vandals and trespassers. These parcels also harbor vermin and rodents. In many cases, local public works departments must maintain private vacant lots, for health and safety purposes, by mowing grass, cutting weeds, trimming overgrown trees and bushes, and cleaning sidewalk areas at the vacant properties.

<sup>8</sup> The estimated police calls are based on a comparison of crime calls which occurred in the blight buffer versus the “residential” area. There were 31,913 calls within the blight buffer and 70,180 relevant calls within the “residential” area. Since the blight buffer accounts for only a portion of the total “residential” area (18%), the number of calls within the blighted buffer would be anticipated at 12,767. The difference between the actual number of calls and the anticipated calls relative to the size of the blight buffer is the estimated number of calls associated with blighted property

<sup>9</sup> The cost for a police call was based on a “fully loaded” annual cost of \$100,000 to employ and outfit an officer which is an average hourly rate of \$48.08. “Fully loaded” includes compensation, benefits, payroll taxes, equipment, vehicles, and building overhead costs. Although some communities use part-time officers, the \$48.08/hour is an average cost based on extensive analysis from prior police studies conducted by DELTA. It is generally assumed that a call for service takes about .75 hours for response, multiplied by 3 for reporting, investigating, and follow-up resulting in a cost per officer per call for service of \$108. Since 2 officers are typically deployed for a call, the total cost of a police call is \$216. This was applied to the 29,631 calls in order to calculate an annual cost.

<sup>10</sup> The COG communities have mostly volunteer companies which report a cost of about \$1,000 per fire call for moving equipment, supplies, etc. There are two paid departments and several partially paid departments which report a cost closer to \$1,800 for a fire call. By using the two rates and assigning them to the appropriate calls for service, a blended rate of \$1,067 was used to apply to the 2,219 fire calls in 2012.



The total number of lots and blighted structures maintained is based on a survey of local municipalities and Delta's understanding of local public works operations. As reflected below, the annual **maintenance cost is estimated at about \$727,195** for the Tri-COG Communities. Delta has estimated that about 10% of all private lots are maintained to some degree by local government and that about 70% of municipalities actually provide these maintenance services.

TABLE 6 – MAINTENANCE COSTS FOR PRIVATELY OWNED VACANT PROPERTIES

Number of Vacant Parcels	Notes	Number/Costs
Steel Valley COG		3,832
Turtle Creek COG		10,857
Twin Rivers COG		6,088
<b>Total Tri-COG Communities</b>		<b>20,777</b>
Total Publically Owned Vacant Lots		775
Total Number of Privately Owned Vacant Lots		20,002
Estimated Number of Private Lots Maintained	<sup>11</sup>	2,077
Number of Times Maintained Annually		5
Estimated Cost per Maintenance Visit		\$70
<b>Estimated Total Maintenance Costs</b>		<b>\$727,195</b>
ALLEGHENY COUNTY DATA, US BUREAU OF LABOR STATISTICS, COG ANALYSIS, DELTA ANALYSIS		

## DEMOLITION OF BLIGHTED STRUCTURES

Based on the county data, there are 7,158 parcels with blighted structures that are rated poor, very poor, or unsound. Many are structurally unsound and should be demolished but this is a huge undertaking for most communities considering the number of existing unsound and unsafe structures.

<sup>11</sup> Based on a phone survey of municipalities, it is assumed that 10% of the private lots are maintained and that 70% of the municipalities maintain some portion of private lots and that those lots require at least 5 visits annually for maintenance work.



As part of the COG services, demolitions are funded each year in the communities primarily with the use of Community Development Block Grant (CDBG) funds from Allegheny County. In some cases, there are other sources of grant funds that are used for these purposes.

The direct costs associated with blight must, therefore, include the costs of the demolition of these structures. Demolition costs are tracked by the COGs and can vary based on the size of the structure, site conditions, and the difficulty of access to the structure. The demolition cost per structure within the Tri-COG communities was typically under \$10,000 per structure. As reflected below, total demolition costs over the past five years (2008 to 2012) were \$2,908,782; annual average **demolition cost for the Tri-COG communities was \$618,936.**



TABLE 7 – ANNUAL DEMOLITION COSTS BY COG, 2008 TO 2012

COG	2008	2009	2010	2011	2012	Total
TCVCOG	\$15,340	\$5,500	\$287,210	\$481,090	\$288,298	\$1,077,438
TRCOG	\$295,120	\$167,680	\$118,850	\$168,200	\$73,570	\$823,420
SVCOG	\$245,100	\$221,034	\$129,890	\$91,750	\$320,150	\$1,007,924
	<b>\$555,560</b>	<b>\$394,214</b>	<b>\$535,950</b>	<b>\$741,040</b>	<b>\$682,018</b>	<b>\$2,908,782</b>
SOURCE: ALLEGHENY COUNTY DATA, TRI-COG COLLABORATIVE ANALYSIS, DELTA ANALYSIS						

## DIRECT COSTS – LOSS OF TAX REVENUE

The presence of blighted and vacant structures directly reduces the most important revenue sources for a community and undermines the ability of the local government to provide vital public safety, health and welfare services. Real estate taxes are, by far, the largest source of revenue for local governments in Pennsylvania. Real estate taxes are a

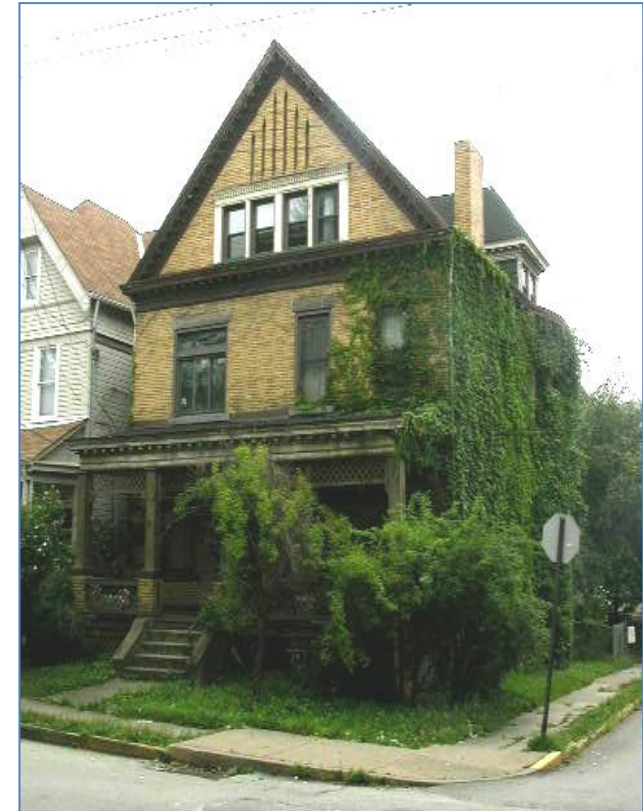


product of the local tax levy in mills as applied to the county assessment of property value to each parcel. The second largest source of revenue for most communities is the EIT levy that is limited to 1% except under certain special conditions. The EIT revenue is split between the municipality and the school district.

### REAL ESTATE TAXES

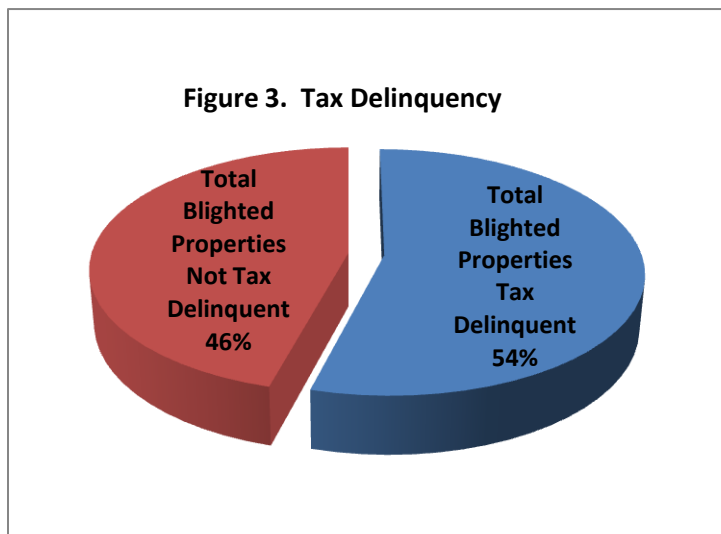
A major source of lost revenue associated with blighted and vacant parcels is delinquent real estate taxes. Tax delinquency in the Tri-COG communities in 2011 for municipalities, school districts, and the county is estimated to be **over \$27 million**. There were over 15,000 parcels in 2011 that were delinquent by at least \$50. The breakdown of the estimated delinquent taxes is as follows:

Municipal	\$5.66 million
County	\$4.13 million
School District	\$17.63 million
<b>TOTAL</b>	<b>\$27.42 million</b>



Although not all delinquent properties are blighted, there is a strong correlation between delinquent taxes and blight. Delinquent taxes are often the first indicator of a property at risk and have a huge impact on the ability of local governments to generate revenue. Appendix E and Appendix F provide complete lists of estimated delinquent taxes by municipality and by school district.

In 2011, there were 3,191 parcels in 38 of the Tri-COG communities that were both blighted and tax delinquent. There is a strong correlation between blighted and vacant properties and delinquent real estate taxes. Overall, 54% of the total parcels that were defined as blighted also exhibited real estate tax delinquencies. **Figure 3** below shows that correlation.



The COGs were able to obtain delinquent property tax records for 2011 from Allegheny County. In order to estimate the total amount of delinquent taxes within the Tri-COG communities, it was assumed that those properties that were delinquent with respect to County taxes were also delinquent with local and school district real estate taxes. In fact, the delinquent taxes owed to school districts and local governments is probably much higher than the County delinquency rate since the County tax bill is usually lower than the municipal and school district tax bills and is the first to be received by tax payers. It is likely that a tax payer, when faced with a choice of which tax bill to pay will choose the County tax bill.

As shown in **Table 8**, delinquent taxes associated with blighted parcels **are estimated to be \$2,758,137 million in 2011**. While some of these revenues may ultimately be recovered, this represents a significant amount of lost revenue for the Tri-COG communities on an annual basis.

**Table 8** also indicates that the municipalities of Clairton, McKeesport, North Braddock, and Wilkinsburg experienced the highest tax delinquencies associated with blighted parcels. Chalfant and Churchill reported no delinquent parcels that were also blighted. It should be noted that these totals only include those parcels that were both categorized as “blighted” and “tax delinquent” in 2011. In many cases properties are delinquent for several years, accruing interest and penalty charges, as they remain chronically delinquent.

In addition to the review of parcels that were both blighted and delinquent, vacant properties were also cross checked with delinquent taxes to determine the loss of real estate tax related to vacant lots that were also delinquent in real estate taxes. The total taxes lost due to vacant lots **that are also tax delinquent is \$2,256,222** adding to the loss of real estate taxes that have already been identified.

TABLE 8 – ESTIMATED 2011 DELINQUENT TAXES FOR BLIGHTED PROPERTIES BY MUNICIPALITY

Community	Assessed Value of Delinquent and Blighted Parcels	2011 School District Tax Rates	2011 School District Delinquent Taxes	2011 Municipal Tax Rates	2011 Municipal Delinquent Taxes	2011 Allegheny County Tax Rate	2011 Allegheny County Delinquent Taxes	TOTAL Estimated 2011 Delinquent Taxes
Braddock	\$1,781,200	25.6500	\$45,688	13.700	\$24,402	4.6900	\$8,354	\$78,444
Braddock Hills	\$806,200	25.6500	\$20,679	7.000	\$5,643	4.6900	\$3,781	\$30,104
Chalfant	\$0	25.6500	\$0	6.900	\$0	4.6900	\$0	\$0
Churchill	\$0	25.6500	\$0	5.750	\$0	4.6900	\$0	\$0
Clairton	\$2,836,100	3.5 Building 87.0 Land	\$76,575	2.22 Building 28 Land	\$25,525	4.6900	\$13,301	\$115,401
Dravosburg	\$487,800	17.0500	\$8,317	7.315	\$3,568	4.6900	\$2,288	\$14,173
Duquesne	\$2,689,500	21.1000	\$56,748	13.47 Building 19.0 Land	\$41,687	4.6900	\$12,614	\$111,049
East McKeesport	\$30,300	27.5400	\$834	8.100	\$245	4.6900	\$142	\$1,222
East Pittsburgh	\$461,100	25.6500	\$11,827	15.150	\$6,986	4.6900	\$2,163	\$20,975
Edgewood	\$495,200	25.6500	\$12,702	8.160	\$4,041	4.6900	\$2,322	\$19,065
Elizabeth Boro	\$1,017,200	25.0118	\$25,442	8.000	\$8,138	4.6900	\$4,771	\$38,350
Forest Hills	\$182,300	25.6500	\$4,676	8.350	\$1,522	4.6900	\$855	\$7,053
Forward	\$2,009,300	25.0118	\$50,256	2.950	\$5,927	4.6900	\$9,424	\$65,607
Glassport	\$1,367,200	18.4900	\$25,280	8.990	\$12,291	4.6900	\$6,412	\$43,983
Homestead	\$1,865,740	24.1860	\$45,125	13.000	\$24,255	4.6900	\$8,750	\$78,130
Liberty	\$203,600	18.4900	\$3,765	5.000	\$1,018	4.6900	\$955	\$5,737
Lincoln	\$181,600	18.4900	\$3,358	8.550	\$1,553	4.6900	\$852	\$5,762
McKeesport	\$10,400,600	17.0500	\$177,330	4.26 Building 16.50 Land	\$124,807	4.6900	\$48,779	\$350,916



Community	Assessed Value of Delinquent and Blighted Parcels	2011 School District Tax Rates	2011 School District Delinquent Taxes	2011 Municipal Tax Rates	2011 Municipal Delinquent Taxes	2011 Allegheny County Tax Rate	2011 Allegheny County Delinquent Taxes	TOTAL Estimated 2011 Delinquent Taxes
Monroeville	\$658,600	21.0200	\$13,844	2.200	\$1,449	4.6900	\$3,089	\$18,382
Munhall	\$1,464,400	24.1686	\$35,392	10.750	\$15,742	4.6900	\$6,868	\$58,003
North Braddock	\$6,217,600	25.6500	\$159,481	11.000	\$68,394	4.6900	\$29,161	\$257,036
North Versailles	\$1,345,300	27.5400	\$37,050	8.000	\$10,762	4.6900	\$6,309	\$54,121
Penn Hills	\$3,562,600	24.8100	\$88,388	5.600	\$19,951	4.6900	\$16,709	\$125,047
Pitcairn	\$584,700	21.8500	\$12,776	5.750	\$3,362	4.6900	\$2,742	\$18,880
Plum	\$1,676,000	22.2000	\$37,207	4.300	\$7,207	4.6900	\$7,860	\$52,274
Port Vue	\$738,200	18.4900	\$13,649	7.860	\$5,802	4.6900	\$3,462	\$22,914
Rankin	\$598,700	25.6500	\$15,357	13.800	\$8,262	4.6900	\$2,808	\$26,427
South Versailles	\$41,400	17.0500	\$706	4.200	\$174	4.6900	\$194	\$1,074
Swissvale	\$2,571,200	25.6500	\$65,951	10.100	\$25,969	4.6900	\$12,059	\$103,979
Turtle Creek	\$2,390,700	25.6500	\$61,321	8.500	\$20,321	4.6900	\$11,212	\$92,855
Versailles	\$198,300	17.0500	\$3,381	8.000	\$1,586	4.6900	\$930	\$5,897
Wall	\$143,400	27.5400	\$3,949	8.000	\$1,147	4.6900	\$673	\$5,769
West Elizabeth	\$878,300	21.0800	\$18,515	6.000	\$5,270	4.6900	\$4,119	\$27,904
West Homestead	\$1,136,200	24.1686	\$27,460	9.310	\$10,578	4.6900	\$5,329	\$43,367
West Mifflin	\$2,080,900	22.9920	\$47,844	7.270	\$15,128	4.6900	\$9,759	\$72,732
Whitaker	\$8,500	22.9920	\$195	9.580	\$81	4.6900	\$40	\$317
White Oak	\$352,900	17.4900	\$6,172	5.660	\$1,997	4.6900	\$1,655	\$9,825
Wilkins	\$1,457,700	25.6500	\$37,390	5.513	\$8,036	4.6900	\$6,837	\$52,263
Wilkinsburg	\$12,201,100	35.0000	\$427,039	14.000	\$170,815	4.6900	\$57,223	\$655,077
Wilmerding	\$892,800	27.5400	\$24,588	8.000	\$7,142	4.6900	\$36,293	\$68,023
<b>TOTAL</b>	<b>\$68,014,440</b>		<b>\$1,706,258</b>		<b>\$700,786</b>		<b>\$351,093</b>	<b>\$2,758,137</b>

SOURCE: ALLEGHENY COUNTY DELINQUENT TAX DATA, COG DATA, DELTA ANALYSIS



## EARNED INCOME TAX



The EIT levy is the second largest source of revenue for most municipalities in Pennsylvania. EIT is collected based on where a person lives and is therefore dramatically affected by loss of population. In order to measure the loss of EIT that is attributable to blighted and abandoned buildings, there were two calculations done to measure the impacts: 1) a calculation based on the demolition of structures in recent years, and 2) a calculation accounting for structures that are vacant and/or abandoned. First, Delta reviewed the COG records regarding the number of demolitions for the past five years from 2008 through 2012 for the Tri-COG communities. As reflected in the following table, the methodology then applied the local income tax rate to the median household income for each municipality. Using this analysis, the **annual loss of EIT attributable to structures that have been demolished in the past 5 years is \$820,323.**

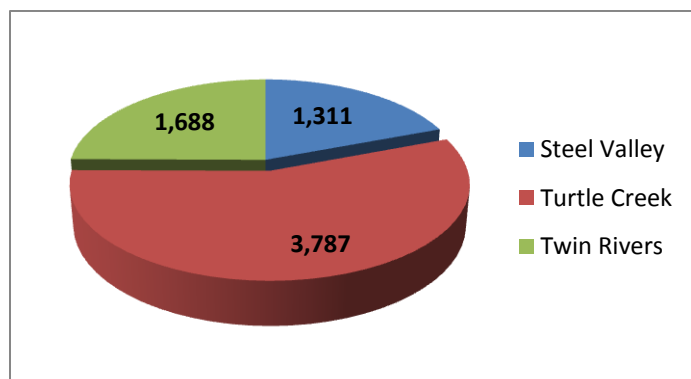
TABLE 9 – ESTIMATED LOST EARNED INCOME TAX  
ATTRIBUTABLE TO VACANT LOTS

COG	# Vacant Lots	2011 Median HH Income	Total Lost Income	Total Lost EIT
SVCOG	383	\$39,387	\$1,453,270	\$145,327
TCVCOG	1,086	\$34,138	\$4,744,962	\$474,496
TRCOG	609	\$37,368	\$2,005,006	\$200,500
<b>TOTAL</b>	<b>2,0788</b>	<b>\$39,387</b>	<b>\$8,203,238</b>	<b>\$820,323</b>

In addition to the EIT revenue that is lost due to demolitions of existing structures, a second analysis was conducted to determine the likely EIT that is lost due to vacant and abandoned housing units in the Tri-COG communities.

In order to conduct this analysis, the 2011 census data was used to determine the number of vacant housing units in each municipality. Although the total vacant housing units according to the US Census was 15,308, this number was adjusted to account for vacancies that occur due to natural transition and units that are for rent, for sale, or are seasonal. The adjusted number of vacant housing units in the Tri-COG communities was 6,786 vacant units. The distribution of the vacant units is shown in **Figure 4**.

FIGURE 3 – VACANT HOUSING UNITS BY COG IN 2011



By applying the median household income to the vacant housing units and applying the local tax rates, it is estimated that the loss to municipalities and school districts for vacant units in the Tri-COG communities is **\$2,552,475 annually**. **Table 10** provides this calculation by COG. **Appendix G** provides the estimated lost EIT by municipality.

TABLE 10 – ESTIMATED LOST EARNED INCOME TAX ATTRIBUTABLE TO VACANT HOUSING UNITS

Tri-COG Communities	All Vacant Units	Census Adjusted Vacant Units (For Sale, Rent, Seasonal)	10% Reduction for Natural Transition	Median HH Income 2011	Estimated Total Lost Income	Estimated Lost Municipal Earned Income Tax	Estimated Lost School District Earned Income Tax	Total Estimated Lost Earned Income Tax
TCVCOG	8,835	4,208	3,787	\$39,725	\$146,711,841	\$733,559	\$737,550	\$1,471,109
TRCOG	3,644	1,876	1,688	\$40,387	\$56,394,166	\$281,971	\$281,971	\$563,942
SVCOG	2,829	1,457	1,311	\$39,028	\$41,063,623	\$205,318	\$312,104	\$517,422
	15,308	7,541	6,787		\$244,169,630	\$1,220,848	\$1,331,625	\$2,552,473
SOURCE: 2011 CENSUS DATA, DELTA ANALYSIS								

### COSTS ASSOCIATED WITH COLLECTING DELINQUENT TAXES

In addition to the actual loss of tax revenue, there is a cost associated with the collection of delinquent real estate taxes. Some of these costs are passed along to the taxpayer but many are absorbed by the municipalities and school districts in the form of administrative and legal services. For this reason, Delta estimated the costs associated with collecting delinquent taxes as a part of the direct costs associated with the blighted properties.

Based on experience and an informal survey of several municipalities in the Tri-COG communities, it is assumed that the cost of delinquent tax collection is about 5.5% of the total amount of delinquent taxes that are ultimately recovered. Using the 5.5% cost for the collection of delinquent taxes, the total cost for collection of 2011 delinquent taxes is estimated to be \$137,907 if 100% of the taxes are collected in one year. However, because 100% collection is unrealistic, it was assumed that only about 50% of delinquent taxes are collected in any given year and that at least three years of taxes are addressed by the tax collector in each calendar year. Based on these assumptions, it is estimated that **the cost for tax collection attributable to blighted structures is \$250,718 annually**. Table 11 provides a calculation by COG for the tax collection costs for delinquent real estate taxes that are associated with blighted properties.

TABLE 11 – ESTIMATED DELINQUENT TAX COLLECTION COSTS ASSOCIATED WITH BLIGHTED PROPERTIES

COG	2011 Estimated Delinquent Real Estate Taxes - Municipal	Delinquent Collection Cost 5.5% - Municipal	2011 Estimated Delinquent Real Estate Taxes - School District	Delinquent Collection Cost 5.5% - School District	Total Cost of Delinquent Collections
TCVCOG	\$390,015	\$21,451	\$1,090,062	\$59,953	\$81,404
TRCOG	\$173,758	\$9,557	\$370,769	\$20,392	\$29,949
SVCOG	\$141,398	\$7,777	\$391,698	\$21,543	\$29,320
Total	\$705,171	\$38,784	\$1,852,529	\$101,889	\$137,907
Assume 50% Collection Rate					\$70,337
Assume at Least 3 Years Collection Activity					\$250,718
SOURCE: ALLEGHENY COUNTY TAX DATA, COG ANALYSIS, DELTA ANALYSIS					

## INDIRECT COSTS ASSOCIATED WITH BLIGHT

### IMPACT ON PROPERTY VALUES

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The impact and indirect cost to adjacent and neighboring properties from parcels with blighted structures has been well documented.<sup>12</sup> There appears to be a direct link between the proximity to a blighted property and a resultant decrease in property value. In many cases, the decline has been analyzed based on hedonic regression analysis, which allows the analyst to look at real estate values based on the various component parts that influence pricing (e.g., location, number of bedrooms, proximity to amenities, etc.). In order to accurately measure the costs and loss of value to adjacent properties, it was necessary to isolate the impact of proximity to a blighted structure.

The 2010 Philadelphia Study looked at the impact of home sales on three different variables: (1) distance to the nearest blighted property, (2) whether the distance was less than 75 feet, and (3) whether the distance was between 75 and 200 feet. The regression analysis revealed that for homes within 75 feet, there was a 16.5% decrease in property value (estimated at about \$20,000 based on a median home value in Philadelphia of \$125,000) and a 8.6% decrease (or about \$11,000) for homes located within 75 to 200 feet of the nearest blighted property. The 2008 Federal Reserve Bank of Cleveland study found that a foreclosed home within a neighborhood can decrease home prices from 0.9% to 8.7%. The 2011 Federal Reserve Bank of Cleveland study, which looked at properties in Cuyahoga County, Ohio, found that a foreclosed, vacant, and tax-delinquent property reduces neighboring property values by as much as 10%.

A hedonic regression analysis was completed for the communities located within the Tri-COG communities (the analysis is included in the **Appendix H** of this report). Similar to the Philadelphia study, the regression analysis completed for the Tri-COG communities looked at recent home sales (2012 sales data was utilized). The findings of the analysis indicate that there is a strong correlation between property value and proximity to a blighted property, with a property value reduction of \$21,638 for those properties located within 150 feet of a blighted structure (or about a 24% decrease in property value based on a sales average of \$90,382 in the Tri-COG communities). It should be noted, however, that the statistical sample size for the Tri-COG community analysis was significantly smaller than that for the Philadelphia Study (254 home sales recorded for the Tri-COG study versus about 23,000 home sales analyzed in the Philadelphia study).

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<sup>12</sup> “Vacant Land Management in Philadelphia: The Costs of the Current System and the Benefits of Reform,” Econsult Corporation, November 2010; “The Municipal Costs of Foreclosures: A Chicago Case Study,” Homeownership Preservation Foundation, February 27, 2005; “Spatial Analysis of the Impact of Vacant, Abandoned and Foreclosed Properties,” Federal Reserve Bank of Cleveland, November 2008; “The Impact of Vacant, Tax-Delinquent, and Foreclosed Property on Sales Prices of Neighboring Homes,” Federal Reserve Bank of Cleveland, September 2011.





In order to measure the potential impact of blighted properties on neighboring properties within the Tri-COG communities, Delta first defined the area of impact as those properties located within 150 feet of a blighted property.<sup>13</sup> Based on the regression analysis completed for the Tri-COG communities and also considering the findings from the Philadelphia study, it was conservatively assumed that a decrease in property value of between 15% and 17% is valid.<sup>14</sup>

The analysis resulted in 28,478 total properties located within 150 feet of a blighted property, with a combined fair market value of \$1.4 billion. With a conservative estimate of the negative impact on adjoining property values estimated to be between 15% and 17%, the estimated decrease in property values is between \$218 million and \$247 million for the Tri-COG communities. The estimated loss in property value also results in a loss in property taxes for all three taxing bodies – the county, school districts, and municipalities. It is estimated that the resultant loss in property taxes is between \$8.5 million and \$9.7 million. **Table 12** provides the complete calculation for this estimated reduction in market value and the impact on the collection of real estate taxes for the taxing bodies.

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<sup>13</sup> Since the regression analysis measures a relative decrease in home sales, all of those properties that did not include a structure were eliminated. Also, since properties receiving a rating of poor, very poor, or unsound are already considered blighted, these properties were also excluded from the list of properties analyzed.

<sup>14</sup> It would be anticipated that the percent decrease in property value in Philadelphia would be less given a higher average home sale of \$125,000 versus \$90,382 for the Tri-COG communities. For example, a \$21,638 property value decrease would translate to a 17% decrease for Philadelphia versus the 24% decrease reflected in the Tri-COG area. While the regression analysis for the three COG communities resulted in a correlation between proximity to a blighted property and a reduction in the home sales price, Delta conservatively assumed a lower percentage decrease given the relatively small sample size. The small sample size also did not allow for inclusion of certain factors, such as proximity to amenities which could, in fact, increase the value of some properties.



TABLE 12 – Estimated Indirect Impact of Blighted Properties on Property Value

			Total
Total Fair Market Value, 150' Blight Zone			\$1,457,045,142
Estimated Impact on Property Value			Estimated Decrease in Property Value
	15%		\$218,556,771
	17%		\$247,697,674
			Estimated Loss in Real Estate Tax at 15%
Average Real Estate Tax Millage Rates			
Local	8.900		\$ 1,953,980
School District	24.600		\$ 5,377,155
County	5.69		\$ 1,243,588
Annual Loss of Real Estate Tax Attributable to 15% Decrease in Property Value			\$8,574,723
			Estimated Loss in Real Estate Tax at 17%
Average Real Estate Tax Millage Rates			
Local	8.000		\$2,214,510
School District	20.000		\$6,094,109
County	4.73		\$1,409,400
Annual Loss of Real Estate Tax Attributable to 17% Decrease in Property Value			\$9,718,019

### REPURPOSING AND NEW RESIDENTIAL DEVELOPMENT

It is also important to consider the potential benefits that will accrue to the region as new development occurs on what is now vacant land, thereby encouraging new rounds of residential (and potentially commercial) development and inducing new rounds of spending in the area. Although the repurposing analysis was done with just a sample from the communities, it should be noted that new residential units and commercial space could be constructed anywhere in the study area. For example, new small-scale infill development could encourage more investment in the area, leading to greater and greater fiscal and economic benefits for the region.

While it is beyond the scope of this study to determine the market support for each of the individual municipalities, it is possible to look at likely targets for new development based on existing housing prices and a comparison with the cost of new construction of a typical single family home in the area. For purposes of this study, it was assumed that new home construction is most likely to occur in those areas where existing home values exceed the cost of new home construction. This methodology was applied in the 2010 Philadelphia Study and is a viable first test of investment opportunities. While there are many other factors to consider when analyzing market support for a project (e.g., in-migration into the Pittsburgh area, planned new residential construction, quality of life, etc.), this threshold is a reasonable assumption when considering broad-based market support.

It is also acknowledged that existing home prices may not be directly comparable to pricing for new residential units. However, this test is a reasonable early check in assessing the viability of new residential construction in any one of the municipalities. It is also recognized that new construction may occur in those municipalities with lower home values as economic development efforts target some of the disadvantaged areas. Again, this is an assumption to help assess the impact of generating new development in any one of the communities.

There are four municipalities in the Tri-COG communities that meet the threshold test of average home value exceeding average new construction costs: Churchill, Edgewood, Monroeville, and Plum (detailed home values by municipality are reflected in Appendix C). For each of these four municipalities, it was assumed that new residential construction would occur on lots where demolition had occurred or on residential vacant lots appropriately sized for new construction (assumed between 4,000 and 20,000 square feet). As reflected below, there are 704 lots in the four municipalities that fit these criteria; it has been conservatively estimated that these units would be constructed over a ten-year timeframe, or about 70 units annually. **Table 13** provides a projection of new housing starts by community. The projected housing starts were compared with new home construction in the selected municipalities over the past few years in order to test the validity of the projected



housing starts (taking into consideration the beginning of the recession cycle in 2008).<sup>15</sup> **Table 13** provides the distribution for the projected new residential units in the repurposing sample used for the study.

TABLE 13 – PROJECTED NEW RESIDENTIAL UNITS

Municipality	Residential Vacant Lots <sup>16</sup>	Assumed Annual Construction
Churchill	36	5
Edgewood	13	2
Monroeville	375	15
Plum	280	48
<b>TOTAL</b>	<b>704</b>	<b>70</b>
SOURCE: ALLEGHENY COUNTY DATA, COG ANALYSIS, DELTA ANALYSIS		

It should be noted that the analysis in **Table 13** captures primarily new single family market-rate housing constructed in markets with higher home values. It is also likely that new infill development will occur in the other communities as a result of targeted investment and creative financing. New rental housing is also being constructed throughout the region based on both market demand and the ability to secure financing. For example, the Pittsburgh History and Landmarks Foundation (PHLF) recently completed the restoration of 27 units of affordable housing at two apartment buildings in Wilksburg (Crescent Apartments and Wilson Apartments). PHLF used a variety of funding sources for the restoration, including historic tax credits and affordable housing tax credits. PHLF has also restored several single family homes in the area as well; since they operate as a non-profit, they can undertake projects that the majority of for-profit developers would pass over since the redevelopment costs would outweigh the return on investment.

While it is difficult to project new infill housing and multi-family housing because of the variability involved in developing these projects throughout the area, it points out further the conservative nature of the projections presented below.

<sup>15</sup> There were 148 homes built among the four municipalities over the past three years; 121 of the units were constructed in Plum and 27 of the units were constructed in Monroeville (Allegheny County Property Management Database).

<sup>16</sup> In order to exclude significantly small or large lots, only those residential lots between 4,000 and 20,000 square feet were included.

***ECONOMIC AND FISCAL IMPACTS ASSOCIATED WITH NEW DEVELOPMENT***

New residential development within the four municipalities highlighted will generate economic (jobs) and fiscal (tax revenues) impacts both during construction and also after the new units are occupied. For this reason, Delta has estimated the potential revenues that may accrue to various public agencies in the region.

Temporary benefits are those that accrue to local and state governments during the construction phase. The primary economic benefits that will accrue to local government during the development of the mixed-use project are employment, earnings, and material sales. Permanent benefits are those that will be achieved once the residential units have been built and fully occupied.

***CONSTRUCTION, ECONOMIC, AND FISCAL IMPACTS***

The economic impacts attributable to the construction of new housing units is significant, owing to total development costs of about \$118 million (an average residential cost of approximately \$112 per square foot is assumed; this cost includes a base cost of \$95 per square foot with an additional 15% for land costs and contingencies).

The proposed new housing units result in estimated labor costs of approximately \$47.2 million, or a total of about 1,118 full-time-equivalent jobs (assuming that labor accounts for about 40% of total construction hard costs and about 90% of the labor will be local). Since construction progresses in stages, the total number of employees involved in the development of the new units at any one time will likely vary. If a build-out of ten years is assumed, 112 annual construction jobs are projected.

Based on the construction costs enumerated above, total material purchases of \$70.8 million are projected (assuming that material costs account for 60% of the total hard construction costs and 80% of the materials are purchased locally). These represent one-time construction costs for all 704 residential units.





TABLE 14 – CONSTRUCTION IMPACTS, PROJECTED NEW RESIDENTIAL CONSTRUCTION

SUMMARY OF CONSTRUCTION PHASE IMPACTS			
Total New Residential Units Constructed			704
Estimated \$ per square foot cost	<sup>17</sup>		\$111.76
<b>Total Hard Costs</b>	<sup>18</sup>		<b>\$118,023,529</b>
<b>Breakout of Construction Materials and Wages</b>			
Construction Materials	60%	of Hard Costs	\$70,814,118
Construction Wages	40%	of Hard Costs	\$ 47,209,412
			<b>\$118,023,529</b>
Local Share of Labor	90%		\$42,488,471
Local Share of Materials	80%		\$56,651,294
Total			<b>\$99,139,765</b>
<b>Construction Employment</b>			
		Construction Wages	<b>\$42,488,471</b>
		/ Mean Annual Construction Wage <sup>19</sup>	<b>\$38,000</b>
		= Person Years of Employment	<b>1,118</b>
		/ Estimated Construction Timeframe (Years)	<b>10</b>
		<b>Annual Construction Jobs</b>	<b>112</b>
SOURCE: PENNSYLVANIA DEPARTMENT OF LABOR AND INDUSTRY; BUREAU OF ECONOMIC ANALYSIS MARSHALL & SWIFT, DELTA DEVELOPMENT GROUP, INC.			

Total temporary tax impacts associated with the construction period are summarized in **Table 14**. The proposed construction of new housing units will result in temporary tax revenues for the local municipalities and school districts, Allegheny County, and the Commonwealth of Pennsylvania. A significant portion of tax revenues are attributable to the purchase of construction materials, which is estimated to generate \$3.9 million in total sales tax revenues. Delta applied the Allegheny County 1% sales tax and 6% state sales tax to the estimated cost of construction materials.

<sup>17</sup> Based on average construction cost of \$95/square foot and additional 15% for land and contingencies.

<sup>18</sup> Assumes average home size of 1,500 square feet

<sup>19</sup> Average wage for construction occupations for Pittsburgh MSA from Pennsylvania Department of Labor and Industry.

State earned income tax revenues attributable to construction employment total approximately \$1.3 million. The assumed local resident income tax of 1.0% adds an additional \$424,885 in local income tax revenues.

TABLE 15 – PROJECTED NEW CONSTRUCTION FISCAL IMPACT, NEW RESIDENTIAL CONSTRUCTION

<b>Breakout of Construction Materials and Wages</b>			
Construction Materials (purchased locally)	\$56,651,294		
Direct Construction Wages (local)	\$42,488,471		
Total	<b>\$99,139,765</b>		
<b>Sales Tax Revenues</b>	<b>County</b>	<b>Commonwealth</b>	<b>Total</b>
Tax Rate	<b>1.00%</b>	<b>6.00%</b>	
Total Revenues	\$566,513	\$3,399,078	<b>\$3,965,591</b>
<b>Payroll and State Earned Income Revenues</b>			
Assumed Local Resident Income Tax			<b>100%</b>
<b>Local Resident Income Tax Revenues</b>			<b>\$424,885</b>
State Earned Income Tax			3.07%
<b>State Earned Income Tax Revenues</b>			<b>\$1,304,396</b>
SOURCE: DELTA DEVELOPMENT GROUP, INC.			

### ONGOING ECONOMIC AND FISCAL IMPACTS

The recipients of the real estate tax levies from development, and the amounts that would accrue to each municipality where the new housing units would be constructed, are reflected below. No attempt has been made in this study to estimate the real increases in off-site property taxes from permanent impacts from the new residential development. As already noted, vacant and blighted parcels can have an associated negative impact on nearby property values; conversely, new construction would help alleviate the downward impact on property values.



The real estate taxes for the residential units were calculated by applying the appropriate tax rates to the estimated market value. The market value for the units is based on the construction cost and size (1,500 square feet).

Total **annual** financial impacts are shown in the following table, with total real estate tax revenues of approximately \$3.5 million estimated for the four communities as a result of new construction on residential vacant lots. These are recurring impacts and reflect build-out of all residential units over the 10 year period.

TABLE 16 – PROJECTED ANNUAL REAL ESTATE TAX REVENUES, NEW RESIDENTIAL CONSTRUCTION

	Total Market Value	Tax Rate			Tax Revenues		
		City	School District	Allegheny County	City	School District	Allegheny County <sup>20</sup>
<b>Churchill</b>	\$6,035,040	5.75	25.65	4.73	\$34,701	\$154,799	\$25,481
<b>Edgewood</b>	\$2,179,412	8.161	25.65	4.73	\$17,786	\$55,902	\$9,202
<b>Monroeville</b>	\$62,867,647	2.2	21.02	4.73	\$138,309	\$1,321,478	\$265,436
<b>Plum</b>	\$46,941,176	4.3	22.2	4.73	\$201,847	\$1,042,094	\$198,193
<b>TOTAL</b>	<b>\$118,023,275</b>				<b>\$392,644</b>	<b>\$2,574,273</b>	<b>\$498,312</b>
SOURCE: ALLEGHENY COUNTY ASSESSMENT AND MILLAGE RATES, DELTA ANALYSIS							

<sup>20</sup> Allegheny County tax revenues reflect the Homestead Exclusion which allows for the initial \$18,000 in assessed value to be excluded from County taxation for long time homeowners.

In Allegheny County, real estate sales are subject to both state and local realty transfer taxes, which are based on a percentage of the total sales price. Realty transfer tax revenue attributable to new housing development is estimated at about \$2.7 million for all of the new housing starts identified over a 10 year period as shown in **Table 17** below.

TABLE 17 – ESTIMATED REALTY TRANSFER TAX REVENUES BY MUNICIPALITY

Municipality	Churchill	Edgewood	Monroeville	Plum
State	1.0%	1.0%	1.0%	1.0%
Municipal	0.5%	0.5%	1.0%	0.5%
School District	0.5%	0.5%	0.5%	0.5%
Annual Units Added	36	13	375	280
Estimated Average Home Price <sup>21</sup>	\$167,640	\$167,640	\$167,640	\$167,640
Total Real Estate Transfer Tax Revenues	\$120,701	\$43,586	\$1,571,625	\$938,784
SOURCE: MARSHALL & SWIFT, DELTA ANALYSIS				

Based on the new housing starts identified in **Table 17**, the new residential units built in the four municipalities would also attract new residents and generate local income tax revenues.

TABLE 18 – ESTIMATED ANNUAL NET NEW EARNED INCOME TAX REVENUES BY MUNICIPALITY

Municipality	Churchill	Edgewood	Monroeville	Plum
Average Household Size	2.21	1.97	2.21	2.48
Number of New Housing Units Added Annually	36	13	375	280
Net New Residents to County <sup>22</sup>	30%	30%	30%	30%
Total New Wage Earners	11	4	113	84
Average Household Income	\$80,990	\$59,821	\$59,023	\$66,680
Net New Household Income	\$874,692	\$233,302	\$6,640,088	\$5,601,120
Local Resident Income Tax	1%	1%	1.5%	1%
Total Annual Net New Resident Income Tax Revenues	\$8,747	\$2,333	\$99,601	\$56,011

<sup>21</sup> Based on average construction cost of \$111.76 per square foot and average home size of 1,500 square feet.

<sup>22</sup> Not all residents will be net new to Allegheny County; the majority of new residential units are occupied by existing County residents. Net new residents are based on American Community Survey data, which reports that, of residents moving in the past year in Allegheny County, 70% were moving from elsewhere within the County.



It is assumed that about 30% of the residents moving into the new units will be new to Allegheny County. Total net new resident income tax revenues are estimated at about \$158,755 as shown in **Table 18**.

### **NEW COMMERCIAL DEVELOPMENT**

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Vacant and blighted parcels include both residential and commercial properties; it is assumed that neighborhood reinvestment strategies will address both residential and commercial parcels.

In order to estimate reinvestment with respect to commercial properties, Delta looked at employment growth projections for the next 10 years, as prepared by the SPC (detailed projections are included in Appendix J). For those communities with a critical mass of new employees forecast (for the purposes of this study, “critical mass” is defined as more than 250 new employees over the next 10 years), new demand for office space was projected based on the total number of new service jobs projected. While new scattered, small-scale office space may be constructed in other markets, the focus is on larger-scale office space constructed to meet projected employment forecasts and also potentially constructed on vacant land designated for commercial use.

**Table 19** outlines the communities in the Tri-COG area that met the “critical mass” of 250 new employees. It also identifies the number of commercial lots that are available for development in each community. Table 19 includes only those communities with a projection of at least 250 new employees over the next 10 years, which is the assumed threshold for new commercial construction. New smaller scale development may and are likely to occur in other municipalities.

TABLE 19 – TRI-COG COMMUNITIES PROJECTED FOR EMPLOYMENT GROWTH AND NEW OFFICE SPACE OVER THE NEXT 10 YEARS

Municipality	Total Employment Change-Service	Total Square Feet <sup>23</sup>	Total Square Feet New Office Users <sup>24</sup>	Total Square Feet Absorbed in New Space <sup>25</sup>	Number of Vacant Commercial Lots
Forest Hills Borough	521	117,225	46,890	44,546	12
Homestead Borough	329	74,025	29,610	28,130	59
McKeesport City	848	190,800	76,320	72,504	224
Municipality of Monroeville	2906	653,850	261,540	248,463	153
Munhall Borough	352	79,200	31,680	30,096	36
North Versailles Township	298	67,050	26,820	25,479	130
Penn Hills Township	893	200,925	80,370	76,352	135
Plum Borough	1163	261,675	104,670	99,437	114
Swissvale Borough	281	63,225	25,290	24,026	32
Turtle Creek Borough	355	79,875	31,950	30,353	21
West Mifflin Borough	860	193,500	77,400	73,530	109
White Oak Borough	315	70,875	28,350	26,933	49
Wilkins Township	285	64,125	25,650	24,368	15
Wilksburg Borough	480	108,000	43,200	41,040	51
<b>TOTAL</b>	<b>9886</b>	<b>2,224,350</b>	<b>889,740</b>	<b>845,253</b>	<b>1,140</b>
SOURCE: SOUTHWESTERN PENNSYLVANIA COMMISSION, DELTA ANALYSIS					

<sup>23</sup> Based on 225 square feet per employee for the Service Sector

<sup>24</sup> The Service Sector includes healthcare, retail sales, hospitality/tourism and other non-office space users. It is assumed that 40% of the Service Sector jobs are traditional office user jobs based on current employment by sector in the Pittsburgh MSA.

<sup>25</sup> It is assumed that 5% of employment will be absorbed in existing vacant space based on the region-wide vacancy rate of 8%.

As reflected in **Table 20**, not all projected service jobs will be office-related (e.g., a large percentage of the service jobs forecast are in the healthcare and hospitality/tourism sectors) and therefore not included in the calculation of projected new commercial space. A total of about 845,253 square feet of new commercial space is projected among the 14 communities. There is a significant amount of vacant commercial land in several of the communities included in the projections. **Table 20** provides a calculation of the construction phase impacts for new commercial development in the Tri-COG communities.

TABLE 19 – CONSTRUCTION PHASE IMPACTS, NEW COMMERCIAL DEVELOPMENT

SUMMARY OF CONSTRUCTION PHASE IMPACTS				
Total Square Feet of New Commercial Space Constructed			845,253	
Estimated \$ per square foot cost			\$150.00	
<b>Total Hard Costs</b>			<b>\$ 126,787,950</b>	
<b>Breakout of Construction Materials and Wages</b>				
Construction Materials	60%	of Hard Costs	\$76,072,770	
Construction Wages	40%	of Hard Costs	\$50,715,180	
			<b>\$126,787,950</b>	
Local Share of Labor	90%		\$45,643,662	
Local Share of Materials	80%		\$60,858,216	
<b>Total</b>			<b>\$106,501,878</b>	
<b>Construction Employment</b>				
			Construction Wages	\$45,643,662
			/Mean Annual Construction Wage <sup>26</sup>	\$38,000
			= Person Years of Employment	\$1,201
			/Estimated Construction Timeframe (Years)	10
			= Annual Construction Jobs	120
SOURCE: PENNSYLVANIA DEPARTMENT OF LABOR AND INDUSTRY; BUREAU OF ECONOMIC ANALYSIS; MARSHALL & SWIFT, DELTA DEVELOPMENT ANALYSIS				

<sup>26</sup> Average wage for construction occupations for Pittsburgh MSA from Pennsylvania Department of Labor and Industry.



As with the projected residential units, new commercial development will generate construction and ongoing economic and fiscal impacts. A total of 1,201 one-time construction jobs are forecast. In turn, this is expected to generate **\$1.4 million in state income tax revenues** and **\$456,437 in local EIT revenues**. A total of **\$4.26 million in sales tax revenues** from the purchase of construction materials is also forecast. **Table 21** summarizes the economic impact from the projected commercial office space construction projects.

TABLE 20 – PROJECTED ECONOMIC IMPACT FROM CONSTRUCTION OF NEW COMMERCIAL SPACE

Breakout of Construction Materials and Wages			
Construction Materials (purchased locally)	\$ 60,858,216		
Direct Construction Wages (local)	\$ 45,643,662		
Total	\$ 106,501,878		
<u>Sales Tax Revenues</u>	<u>County</u>	<u>Commonwealth</u>	<u>Total</u>
Tax Rate	1.00%	6.00%	
Total Revenues	\$608,582	\$3,651,493	<b>\$4,260,075</b>
<u>Payroll and State Earned Income Revenues</u>			
Assumed Local Resident Income Tax	1.00%		
Local Resident Income Tax Revenues	<b>\$456,437</b>		
State Income Tax	3.07%		
State Income Tax Revenues	<b>\$1,401,260</b>		
SOURCE: DELTA DEVELOPMENT			

Finally, as reflected in **Table 22**, repurposed vacant commercial land will also generate significant new revenues in the form of real estate taxes. It is estimated that once the commercial space is built out, the new office space will generate about \$4.7 million in new real estate tax revenues.



TABLE 21 – PROJECTED REAL ESTATE TAX REVENUES AT BUILD-OUT, NEW COMMERCIAL CONSTRUCTION

Municipality <sup>27</sup>	Total Square Feet	Net Operating Income <sup>28</sup>	Estimated Market Value <sup>29</sup>	Tax Rate			Tax Revenues		
				Municipal	School District	Allegheny County	Municipal	School District	Allegheny County
Forest Hills Borough	44,546	\$641,455	\$7,127,280	8.5000	25.6500	4.69	\$60,582	\$182,815	\$33,427
Homestead Borough	28,130	\$405,065	\$4,500,720	13.0000	24.1686	4.69	\$58,509	\$108,776	\$21,108
McKeesport City	72,504	\$1,044,058	\$11,600,640	16.5000	17.0500	4.69	\$191,411	\$197,791	\$54,407
Monroeville Municipality	248,463	\$3,577,867	\$39,754,080	2.2000	21.0200	4.69	\$87,459	\$835,631	\$186,447
Munhall Borough	30,096	\$433,382	\$4,815,360	10.7500	24.1686	4.69	\$51,765	\$116,381	\$22,584
North Versailles Township	25,479	\$366,898	\$4,076,640	8.0000	27.5400	4.69	\$32,613	\$112,271	\$19,119
Penn Hills Township	76,352	\$1,099,462	\$12,216,240	5.3500	24.8100	4.69	\$65,357	\$303,085	\$57,294
Plum Borough	99,437	\$1,431,886	\$15,909,840	4.3000	22.2000	4.69	\$68,412	\$353,198	\$74,617
Swissvale Borough	24,026	\$345,967	\$3,844,080	10.1000	25.6500	4.69	\$38,825	\$98,601	\$18,029
Turtle Creek Borough	30,353	\$437,076	\$4,856,400	8.5000	25.6500	4.69	\$41,279	\$124,567	\$22,777
West Mifflin Borough	73,530	\$1,058,832	\$11,764,800	7.2700	22.9920	4.69	\$85,530	\$270,496	\$55,177
White Oak Borough	26,933	\$387,828	\$4,309,200	5.6000	17.0500	4.69	\$24,132	\$73,472	\$20,210
Wilkins Township	24,368	\$350,892	\$3,898,800	4.5130	25.6500	4.69	\$17,595	\$100,004	\$18,285
Wilkesburg Borough	41,040	\$590,976	\$6,566,400	14.0000	35.0000	4.69	\$91,930	\$229,824	\$30,796
<b>TOTAL</b>	<b>845,253</b>	<b>\$12,171,643</b>	<b>\$135,240,480</b>				<b>\$915,399</b>	<b>\$3,106,911</b>	<b>\$634,278</b>

SOURCE: ALLEGHENY COUNTY REAL ESTATE WEBSITE, DELTA ANALYSIS

<sup>27</sup> Table 22 includes only those communities with a projection of at least 250 new employees over the next 10 years, the assumed threshold for new commercial construction. New smaller scale development may be constructed in other markets.

<sup>28</sup> The Net Operating Income is based on the following assumptions: rent per square foot of \$20, assumed occupancy of 90%, expenses as percent of operating income at 20%

<sup>29</sup> At assumed capitalization rate of 9%.

## SUMMARY AND CONCLUSIONS

Blight has a devastating effect on the Tri-COG Communities. Blighted and vacant properties damage the fabric of the community, cost significant dollars to maintain, and erode the local tax base because of the tax delinquency often associated with blighted properties. Even more compelling is the fact that blight prevents private reinvestment in the neighborhoods because it undermines the values of real estate making market driven redevelopment unlikely.

This study reveals that the costs of blight on an annual basis are staggering and that viewed in the long term they present an overwhelming challenge for individual communities. The study found that:

- The direct cost to municipal services is \$10,720,302. The direct cost related to the loss of tax revenue is \$8,637,875.
- The indirect costs associated with the estimated 15% loss in property value for blighted parcels and for parcels in the blight buffer zone are estimated to be between \$218 million and \$247 million.
- The indirect costs associated with the loss of real estate taxes due to a loss of property value are estimated at between \$8,574,723 and \$9,718,019.

Overall, the economic impacts of blight and vacant properties results in a total impact to the COG Communities of \$19.3 million in direct costs, with an estimated loss in property value of between \$218 and \$247 million resulting in additional tax revenue loss of at least \$8.5 million annually. Repurposed sites would generate an additional \$11.8 million in one-time construction fiscal impacts and \$8.2 million in recurring financial impacts.

Tax payers are not only burdened by the direct and indirect costs to their government services which comes in the form of higher taxes to make up for the lost revenue, but also are directly harmed by the loss of value in their own properties. This results in the inability to realize the true value of privately owned real estate and discourages private reinvestment. There is, in fact, a loss associated with the lack of economic development and reinvestment in the amount of \$11,812,644 in construction impacts (one-time) and another \$8,284,294 annually for ongoing impacts.

Overall, the financial impact to the Tri-COG Communities is in excess of \$254 million per year of lost revenue and lost opportunity. This is a staggering \$1 billion impact to the region over a four year period. There are approximately 112,315 households in the Tri-COG communities that are negatively affected by the impacts associated with blight. The economic cost for the average household in the Tri-COG area is about \$2,267.24 a year but the economic burden may not be the most important negative impact. The presence of blight in neighborhoods and commercial districts destroys the community fabric, reduces property values, and erodes the quality of life. Most importantly, blight and vacancy prevent reinvestment because it so undermines the value of real estate that reinvestment and redevelopment become improbable, expensive, and unlikely to occur without significant public intervention. **Table 23** below provides a complete overview of the estimated financial impacts of blight and vacancy on the Tri-Cog Communities. **Appendix K** provides a complete breakout of direct and indirect costs by community.

TABLE 22 – SUMMARY OF THE DIRECT AND INDIRECT COSTS AND THE LOSS OF ECONOMIC BENEFIT

DIRECT COSTS		
<b>Impact on Municipal Services:</b>		
	Code Enforcement	\$595,350
	Police	\$6,400,296
	Fire	\$2,378,525
	Public Works	\$727,195
	Demolition	\$618,936
	<b>Total Municipal Services</b>	<b>\$10,720,302</b>
<b>Loss Of Tax Revenue:</b>		
	RE Taxes - Due to Blight	\$2,758,137
	RE Taxes - Due to Vacant Lots	\$2,256,222
	EIT- Due to Vacant Structures	\$2,552,475
	EIT - Due to Vacant Lots	\$820,323
	Tax Collection	\$250,718
	<b>Total Loss of Tax Revenues</b>	<b>\$8,637,875</b>
	<b>TOTAL ANNUAL DIRECT COSTS</b>	<b>\$19,358,177</b>
INDIRECT COSTS		
<b>Impact on Property Values:</b>		
	Loss of Property Value at 15%	\$218,556,773
	Loss of Real Estate Tax Due to Loss of Property Value	\$8,574,719
	<b>TOTAL ANNUAL INDIRECT COSTS</b>	<b>\$227,131,492</b>
<b>Loss of Economic Benefit</b>		
	<b>Annual</b>	
	Real Estate Tax	\$8,117,602
	New Resident EIT	\$166,692
	<b>TOTAL LOSS OF ECONOMIC BENEFIT</b>	<b>\$8,284,294</b>
	<b>TOTAL DIRECT AND INDIRECT IMPACTS</b>	<b>\$254,773,963</b>

APPENDIX A: VACANT LAND AND POOR CONDITION STRUCTURES BY MUNICIPALITY<sup>30</sup>

	Vacant Land		Condition Rating Unsound		Condition Rating Very Poor		Condition Rating Poor	
	#	%	#	%	#	%	#	%
Allegheny	61,451	10.66%	2,355	0.41%	2,690	0.47%	11,915	2.07%
All COGS	20,777	14.61%	1,117	0.79%	1,227	0.86%	4,633	3.26%
<b>Steel Valley COG</b>	<b>3,832</b>	<b>14.62%</b>	<b>207</b>	<b>0.79%</b>	<b>189</b>	<b>0.72%</b>	<b>968</b>	<b>3.68%</b>
Braddock Hills	377	33.84%	5	0.45%	4	0.36%	29	2.60%
Clariton	1,119	21.99%	42	0.82%	100	1.95%	265	5.16%
Dravosburg	133	14.63%	9	0.99%	1	0.11%	23	2.53%
Homestead	284	16.72%	40	2.35%	23	1.35%	182	10.71%
Munhall	372	7.38%	37	0.73%	20	0.40%	119	2.36%
West Elizabeth	51	14.91%	8	2.34%	10	2.92%	58	16.96%
West Homestead	259	19.00%	24	1.76%	4	0.29%	68	4.99%
West Mifflin	1,090	10.98%	41	0.41%	25	0.25%	228	2.29%
Whitaker	147	19.65%	1	0.13%	2	0.27%	3	0.40%
<b>Turtle Creek Valley COG</b>	<b>10,857</b>	<b>12.70%</b>	<b>560</b>	<b>0.66%</b>	<b>626</b>	<b>0.73%</b>	<b>2317</b>	<b>2.71%</b>
Braddock	761	37.58%	37	1.83%	88	4.35%	116	5.73%
Chalfant	93	18.53%	2	0.40%	0	0.00%	2	0.40%
Churchill	64	3.92%	0	0.00%	0	0.00%	2	0.12%
East McKeesport	231	18.61%	3	0.24%	3	0.24%	18	1.45%
East Pittsburgh	114	13.77%	0	0.00%	1	0.12%	26	3.14%
Edgewood	51	3.74%	4	0.29%	4	0.29%	21	1.54%
Forest Hills	264	7.93%	4	0.12%	3	0.09%	29	0.87%
Monroeville	985	8.47%	16	0.14%	3	0.03%	88	0.76%

<sup>30</sup> The vacant land category includes only those parcels with no structures. It also includes vacant agricultural land, which is a very small percentage of the total vacant land parcels.



	Vacant Land		Condition Rating Unsound		Condition Rating Very Poor		Condition Rating Poor	
	#	%	#	%	#	%	#	%
North Braddock	938	27.48%	140	4.10%	112	3.28%	358	10.49%
North Versailles	1,456	23.65%	17	0.28%	25	0.41%	103	1.67%
Penn Hills	2,081	9.99%	37	0.18%	18	0.09%	198	0.95%
Pitcairn	215	14.17%	15	0.99%	10	0.66%	38	2.50%
Swissvale	387	9.43%	19	0.46%	12	0.29%	103	2.51%
Turtle Creek	256	10.93%	59	2.52%	18	0.77%	275	11.74%
Wall	194	30.31%	2	0.31%	0	0.00%	21	3.28%
Plum	1,064	9.32%	26	0.23%	20	0.18%	117	1.02%
Rankin	185	20.44%	14	1.55%	9	0.99%	231	25.52%
Wilkins	598	17.62%	18	0.53%	8	0.24%	96	2.83%
Wilmerding	85	9.32%	22	2.41%	5	0.55%	390	42.76%
Wilkinsburg	835	11.44%	125	1.71%	287	3.94%	130	1.78%
<b>Twin Rivers COG</b>	<b>6,088</b>	<b>20.01%</b>	<b>350</b>	<b>1.16%</b>	<b>412</b>	<b>1.36%</b>	<b>1348</b>	<b>4.45%</b>
Duquesne	972	27.21%	48	1.35%	32	0.90%	282	7.95%
Elizabeth Borough	115	14.47%	7	0.88%	6	0.75%	40	5.03%
Forward Township	572	24.41%	12	0.52%	21	0.91%	185	7.99%
Glassport	368	14.30%	15	0.58%	35	1.36%	65	2.53%
Liberty	139	10.28%	3	0.22%	1	0.07%	12	0.89%
Lincoln	162	21.20%	6	0.79%	3	0.39%	19	2.49%
McKeesport	2,656	22.63%	238	2.04%	307	2.63%	727	6.22%
Port Vue	272	13.03%	6	0.29%	4	0.19%	56	2.68%
South Versailles	105	37.55%	4	1.44%	0	0.00%	4	1.44%
Versailles	98	12.42%	4	0.52%	1	0.13%	25	3.27%
White Oak	629	15.26%	7	0.17%	2	0.05%	62	1.51%
SOURCE: ALLEGHENY COUNTY, TRI-COG COLLABORATIVE, DELTA ANALYSIS								

## APPENDIX B: CODE ENFORCEMENT STAFFING BY MUNICIPALITY

Municipality:	Code Enforcers:	Code Unit Weight:	Code Hours:
<b>Steel Valley COG:</b>			
Braddock Hills	Outsourced: 1 Part time	0.3	12
Clairton	In House: 1 Full time	1	40
Dravosburg	Outsourced: 1 Part time	0.3	12
Homestead	In House: 1 Full time	1	40
Munhall	In House: 1 Full time	1	40
West Elizabeth	In House: 1 part time	0.5	20
West Homestead	Outsourced: 1 Part time	0.3	12
West Mifflin	In House: 1 Full time	1	40
Whitaker	Outsourced: 1 Part time	0.3	12
<b>TOTAL</b>			<b>228</b>
<b>Turtle Creek COG:</b>			
Braddock	Outsourced: 1 Part time	0.3	12
Chalfant	Outsourced: 1 Part time	0.3	12
Churchill	Outsourced: 1 Part time	0.3	12
East McKeesport	Outsourced: 1 Full time 1 Part time	0.9	36
East Pittsburgh	In House: 1 Part time	0.5	20
Edgewood	Outsourced: 1 Part time	0.3	12
Forest Hills	In House: 1 Part time	0.5	20
Monroeville	In House: 3 Full time	3	120
North Braddock	In House: 1 Full time	1	40
North Versailles	Outsourced: 1 Part time	0.3	12
Penn Hills	In House: 6 Full time	6	240
Pitcairn	In House: 1 Part time	0.5	20
Plum	In House: 2 Full time 2 Part time	3	120
Rankin	Outsourced: 1 Part time	0.3	12
Swissvale	In House: 3 Full time 13 Part time	3	120
Turtle Creek	Outsourced: 2 Part time	0.6	24

Municipality:	Code Enforcers:	Code Unit Weight:	Code Hours:
<b><u>Turtle Creek COG:</u></b>			
Wall	In House: 1 Part time	0.5	20
Wilkins	In House: 1 Part time	0.5	20
Wilkinsburg	In House: 3 Full time	3	120
Wilmerding	In House: 2 Part time	1	40
<b>TOTAL</b>			<b>1032</b>
<b><u>Twin Rivers COG:</u></b>			
Duquesne	In House: 1 Full time	1	40
Elizabeth Boro	None	0	0
Forward	Outsourced: 1 Part time	0.3	20
Glassport	Outsourced: 1 Part time	0.3	12
Liberty	Outsourced: 1 Part time	0.3	20
Lincoln	In Outsourced: 1 Part time	0.3	12
McKeesport	In House: 3 Full time	3	120
Port Vue	Outsourced: 1 Part time	0.3	12
South Versailles	Outsourced: 1 Part time	0.3	12
Versailles	In House: 1 Part time	0.5	20
West Newton	Outsourced: 1 Part time	0.3	12
White Oak	In House: 1 Full time	1	40
<b>TOTAL</b>			<b>320</b>

## APPENDIX C: AVERAGE VALUE OF OWNER-OCCUPIED HOUSING BY MUNICIPALITY

County or municipality, county	Owner occupied housing units	Average value (dollars) of owner-occupied housing units
<b>Allegheny County</b>	<b>347,353</b>	<b>\$158,311</b>
Braddock Borough	324	\$42,323
Braddock Hills Borough	511	\$89,442
Chalfant Borough	295	\$91,178
Churchill Borough	1,209	\$178,575
Clairton City	2,066	\$61,071
Dravosburg Borough	560	\$72,165
Duquesne City	1,149	\$59,145
East McKeesport Borough	680	\$70,824
East Pittsburgh Borough	290	\$48,362
Edgewood Borough	1,089	\$202,227
Elizabeth Borough	378	\$78,968
Forest Hills Borough	2,327	\$128,341
Forward Township	1,025	\$105,649
Glassport Borough	1,354	\$64,939
Homestead Borough	452	\$55,570
Liberty Borough	906	\$85,792
Lincoln Borough	376	\$103,165
McKeesport City	4,677	\$61,105
Monroeville Municipality	8,547	\$151,606
Munhall Borough	3,525	\$84,977
North Braddock Borough	1,107	\$53,071
North Versailles Township	3,290	\$86,347
Penn Hills Township	14,524	\$100,855
Pitcairn Borough	868	\$73,350



County or municipality, county	Owner occupied housing units	Average value (dollars) of owner-occupied housing units
Plum Borough	8,549	\$152,764
Port Vue Borough	1,381	\$78,523
Rankin Borough	302	\$47,500
South Versailles Township	124	\$89,173
Swissvale Borough	2,541	\$114,979
Turtle Creek Borough	1,141	\$65,180
Versailles Borough	376	\$63,185
Wall Borough	166	\$54,819
West Elizabeth Borough	202	\$56,040
West Homestead Borough	628	\$104,936
West Mifflin Borough	6,430	\$98,205
West Newton		
Whitaker Borough	452	\$63,213
White Oak Borough	2,923	\$112,140
Wilkins Township	2,066	\$112,214
Wilkinsburg Borough	3,053	\$92,121
Wilmerding Borough	352	\$52,244
SOURCE: 2007-2011 AMERICAN COMMUNITY SURVEY (ACS) 5-YEAR ESTIMATES TABLE B25003 (TENURE), DELTA DEVELOPMENT GROUP		

## APPENDIX D: 9-1-1 CALLS BY TYPE, POTENTIAL LINK TO BLIGHTED PARCELS

Description	Description
911 HANGUP	COUNTY FIRE MARSHAL REQUEST
ABANDONED VEHICLE	COUNTY HAZARDOUS MATERIALS TEAM REQUEST
ANIMAL BITES - NON RECENT (> 6HRS)	COUNTY PD - BOMB SQUAD DETAIL
ANIMAL BITES - NOT DANGEROUS BODY AREA	COUNTY PD - HOMICIDE DETAIL
ANIMAL BITES - POSS DANGEROUS BODY AREA	COUNTY PD GENERAL INVESTIGATIONS DETAIL
ANIMAL BITES - SERIOUS HEMORRHAGE	CRIMINAL MISCHIEF
ANIMAL BITES - SUPERFICIAL BITES	DANGEROUS ANIMAL
ANIMAL BITES - UNKNOWN STATUS	DETAIL - FIRE
ANIMAL BITES -ATTACK OR MULTIPLE ANIMALS	DETAIL - POLICE
ASSAULT - CHEST OR NECK INJURY	DISORDERLY PERSON
ASSAULT - MULTIPLE VICTIMS	DISPUTE
ASSAULT - NO INJURIES	DISTURBANCE
ASSAULT - NON DANGEROUS BODY AREA	DOMESTIC VIOLENCE
ASSAULT - NON RECENT (> 6HRS)	DRUGS COMPLAINT
ASSAULT - NOT ALERT	DUMPSTER FIRE
ASSAULT - POSS DANGEROUS BODY AREA	ELECTROCUTION - POWER NOT OFF *HAZARD*
ASSAULT - SERIOUS HEMORRHAGE	ELECTROCUTION - ALERT & BREATHING
ASSAULT - UNCONSCIOUS OR ARREST	EXTINGUISHED FIRE OUTSIDE
ASSAULT - UNKNOWN STATUS	FIGHT-UNKNOWN OR NO WEAPONS
AUTO THEFT IN PROGRESS/JUST OCCURRED	FIRE CALL RINGDOWN
AUTO THEFT IN PROGRESS	FIRE RES BLDG - FLAMES AND/OR ENTRAPMENT
AUTO THEFT REPORT	FOLLOWUP - POLICE
BRUSH/GRASS/MULCH FIRE	FOOT PURSUIT
BURGLARY ATTEMPT REPORT	GRAFFITI-HATE CRIME
BURGLARY IN PROGRESS	GRAFFITI-NON HATE CRIME
BURGLARY IN PROGRESS/JUST OCCURRED	GUNSHOT - CENTRAL WOUNDS
BURGLARY-HOME INVASION IN PROG/JUST OCCURRED	GUNSHOT - MULTIPLE VICTIMS
POSS BURGLARY	GUNSHOT - MULTIPLE WOUNDS
POSS BURGLARY IN PROGRESS	GUNSHOT - NON RECENT (>6HRS) PERIPHERAL
ATTEMPTED BURGLARY	GUNSHOT - NOT ALERT
BURGLARY ATTEMPT	GUNSHOT - OBVIOUS DEATH
BURGLARY REPORT	GUNSHOT - SERIOUS HEMORRHAGE
CAR JACKING	GUNSHOT - SINGLE PERIPHERAL WOUND
CHILD ABUSE	GUNSHOT - UNCONSCIOUS OR ARREST

CONTAINMENT/CLEAN UP DETAIL	GUNSHOT - UNKNOWN STATUS
COUNTY CORONER(MEDICAL EXAMINER) REQUEST	GUN-THREATENED OR SEEN
COUNTY CRIME LAB REQUEST	HARASSMENT IN PROGRESS/JUST OCCURRED
COUNTY EMERGENCY MANAGEMENT REQUEST	HARASSMENT IN PROGRESS
HARASSMENT REPORT	OVERDOSE - NARCOTICS (INTENTIONAL)
HOT WIRES ON FIRE OR ARCHING	OVERDOSE - NOT ALERT
HOUSE CHECK	OVERDOSE - NOT ALERT (ACCIDENTAL)
ILLEGAL DUMPING	OVERDOSE - NOT ALERT (INTENTIONAL)
ILLEGAL FIRE	OVERDOSE - POISON CONTROL
INACCESS INC-CONFINED SPACE	OVERDOSE - UNCONSCIOUS (ACCIDENTAL)
INACCESS INC-CONFINED SPACE (ABOVE)	OVERDOSE - UNCONSCIOUS (INTENTIONAL)
INACCESS INC-MECHANICAL ENTRAP	OVERDOSE - UNKNOWN STATUS
INACCESS INC-NOT TRAPPED/NO INJ	OVERDOSE - UNKNOWN STATUS (ACCIDENTAL)
INACCESS INC-NOT TRAPPED/UNK INJ	OVERDOSE - UNKNOWN STATUS (INTENTIONAL)
INACCESS INC-PERIPHERAL ENTRAP	OVERDOSE - UNKNOWN STATUS (VIOLENT)
INACCESS INC-PERIPHERAL ENTRAP (ABOVE)	OVERDOSE (ACCIDENTAL)
INACCESS INC-STRUCTURE (ABOVE)	OVERDOSE (INTENTIONAL)
INACCESS INC-UNKNOWN STATUS	OVERDOSE (VIOLENT)
INACCESS INC-UNKNOWN STATUS (ABOVE)	OVERDOSE (VIOLENT)
INTOX PERSON	PENETRATING - SINGLE PERIPHERAL WOUND
JUVENILE COMPLAINT	PENETRATING TRAUMA - CENTRAL WOUNDS
JUVENILE CURFEW VIOLATION	PENETRATING TRAUMA - UNKNOWN STATUS
JUVENILE TRUANT	PENETRATING-NON RECENT(>6HRS) PERIPHERAL
MUTUAL AID - POLICE	PERSON REMOVAL
MUTUAL AID REQUEST - FIRE	PFA VIOLATION REPORT
NATURAL GAS SMELL/LEAK RES BLDG	POISONING (ACCIDENTAL)
ORDINANCE COMPLAINT	POLICE CALL RINGDOWN
OVERDOSE	POSS FIRE RES - SMELL OF SMOKE/BLDG ENDG
OVERDOSE - ABNORMAL BREATHING	POSS FIRE RES - SMOKE SEEN
OVERDOSE - ABNORMAL BREATHING (ACCIDENT)	POSSIBLE HOT WIRES DOWN
OVERDOSE - ABNORMAL BREATHING (INTENT)	PROPERTY REPORT
OVERDOSE - ABNORMAL BREATHING (VIOLENT)	PROWLER
OVERDOSE - ACID OR ALKALI (ACCIDENTAL)	PSYCH - DANGEROUS HEMORRHAGE *WEAPON*
OVERDOSE - ACID OR ALKALI (INTENTIONAL)	PSYCH - MINOR HEMORRHAGE *VLNT&WEAPON*
OVERDOSE - ANITDEPRESSANTS (VIOLENT)	PSYCH - MINOR HEMORRHAGE *WEAPON*
OVERDOSE - ANTIDEPRESSANTS (ACCIDENTAL)	PSYCH - NON SUICIDAL/ALERT*VLNT&WEAPON*
OVERDOSE - ANTIDEPRESSANTS (INTENTIONAL)	PSYCH - NOT ALERT *VLNT&WEAPON*
OVERDOSE - CHANGING COLOR (ACCIDENTAL)	PSYCH - NOT ALERT *WEAPON*
OVERDOSE - CHANGING COLOR (INTENTIONAL)	PSYCH - SERIOUS HEMORRHAGE *WEAPON*

OVERDOSE - CHANGING COLOR (VIOLENT)	PSYCH - SUICIDAL/ALERT *VIOLENT&WEAPON*
OVERDOSE - COCAINE (INTENTIONAL)	PSYCH - SUICIDAL/ALERT *WEAPON*
OVERDOSE - NARCOTICS	PSYCH - THREATING SUICIDE *WEAPON*
OVERDOSE - NARCOTICS (ACCIDENTAL)	PSYCH - THREATING SUICIDE*VLNT&WEAPON*
	PSYCH - UNKNOWN STATUS *VLNT&WEAPON*
	PSYCH - UNKNOWN STATUS *WEAPON*
	PUBLIC WORKS REQUEST
	PURSE SNATCHING
RECOVERED STOLEN VEHICLE	THEFT IN PROGRESS
REMOVE PERSON	THEFT REPORT
REPOSSESSED VEHICLE REPORT	TRAUMA - CHEST OR NECK INJURY
ROBBERY-IN PROGRESS	TRAUMA - NON RECENT (> 6HRS)
ROBBERY-REPORT	TRAUMA - NOT ALERT
RQST ASST FIRE - EMERGENCY	TRAUMA - NOT DANGEROUS BODY AREA
RQST ASST FIRE - NON EMERGENCY	TRAUMA - POSS DANGEROUS BODY AREA
RQST ASST POLICE - EMERGENCY	TRAUMA - SERIOUS HEMORRHAGE
RQST ASST POLICE - NON EMERGENCY	TRAUMA - UNCONSCIOUS OR ARREST
RUNAWAY JUVENILE	TRESSPASS-REPORT
SEX ASSAULT - MULTIPLE VICTIMS	UNKNOWN TYPE FIRE
SEX ASSAULT - NON DANGEROUS BODY AREA	VERBAL DOMESTIC
SEX ASSAULT - NON RECENT (> 6HRS)	VERBAL THREAT IN PROGRESS
SEX ASSAULT - NOT ALERT	VERBAL THREAT-REPORT
SEX ASSAULT - POSS DANGEROUS BODY AREA	WARRANT SERVICE
SEX ASSAULT - UNKNOWN STATUS	WATER CONDITION INSIDE
SHOTS FIRED/HEARD	WEAPON-THREATENED OR SEEN
STABBING - CENTRAL WOUNDS	WELFARE CHECK
STABBING - MULTIPLE VICTIMS	WIRE DOWN-NON DANGEROUS
STABBING - MULTIPLE WOUNDS	VICE COMPLAINT
STABBING - NON RECENT (>6HRS) PERIPHERAL	
STABBING - NOT ALERT	
STABBING - SERIOUS HEMORRHAGE	
STABBING - SINGLE PERIPHERAL WOUND	
STABBING - UNCONSCIOUS OR ARREST	
STABBING - UNKNOWN STATUS	
SUSPICIOUS ACTIVITY	
SUSPICIOUS PERSON	
SOURCE: ALLEGHENY COUNTY 911 DATA, TRI-COG ANALYSIS, DELTA ANALYSIS	

## APPENDIX E: 2011 ESTIMATED DELINQUENT REAL ESTATE TAXES BY MUNICIPALITY

Community	Assessed Value of Delinquent and Blighted Parcels	2011 School District Tax Rates	2011 School District Delinquent Taxes	2011 Municipal Tax Rates	2011 Municipal Delinquent Taxes	2011 Allegheny County Tax Rate	2011 Allegheny County Delinquent Taxes	TOTAL Estimated 2011 Delinquent Taxes
Braddock	\$1,781,200	25.6500	\$45,688	13.700	\$24,402	4.6900	\$8,354	\$78,444
Braddock Hills	\$806,200	25.6500	\$20,679	7.000	\$5,643	4.6900	\$3,781	\$30,104
Chalfant	\$0	25.6500	\$0	6.900	\$0	4.6900	\$0	\$0
Churchill	\$0	25.6500	\$0	5.750	\$0	4.6900	\$0	\$0
Clairton	\$2,836,100	3.5 Building 87.0 Land	\$76,575	2.22 Building 28 Land	\$25,525	4.6900	\$13,301	\$115,401
Dravosburg	\$487,800	17.0500	\$8,317	7.315	\$3,568	4.6900	\$2,288	\$14,173
Duquesne	\$2,689,500	21.1000	\$56,748	13.47 Building 19.0 Land	\$41,687	4.6900	\$12,614	\$111,049
East McKeesport	\$30,300	27.5400	\$834	8.100	\$245	4.6900	\$142	\$1,222
East Pittsburgh	\$461,100	25.6500	\$11,827	15.150	\$6,986	4.6900	\$2,163	\$20,975
Edgewood	\$495,200	25.6500	\$12,702	8.160	\$4,041	4.6900	\$2,322	\$19,065
Elizabeth Boro	\$1,017,200	25.0118	\$25,442	8.000	\$8,138	4.6900	\$4,771	\$38,350
Forest Hills	\$182,300	25.6500	\$4,676	8.350	\$1,522	4.6900	\$855	\$7,053
Forward	\$2,009,300	25.0118	\$50,256	2.950	\$5,927	4.6900	\$9,424	\$65,607
Glassport	\$1,367,200	18.4900	\$25,280	8.990	\$12,291	4.6900	\$6,412	\$43,983
Homestead	\$1,865,740	24.1860	\$45,125	13.000	\$24,255	4.6900	\$8,750	\$78,130
Liberty	\$203,600	18.4900	\$3,765	5.000	\$1,018	4.6900	\$955	\$5,737
Lincoln	\$181,600	18.4900	\$3,358	8.550	\$1,553	4.6900	\$852	\$5,762
McKeesport	\$10,400,600	17.0500	\$177,330	4.26 Building 16.50 Land	\$124,807	4.6900	\$48,779	\$350,916
Monroeville	\$658,600	21.0200	\$13,844	2.200	\$1,449	4.6900	\$3,089	\$18,382



Community	Assessed Value of Delinquent and Blighted Parcels	2011 School District Tax Rates	2011 School District Delinquent Taxes	2011 Municipal Tax Rates	2011 Municipal Delinquent Taxes	2011 Allegheny County Tax Rate	2011 Allegheny County Delinquent Taxes	TOTAL Estimated 2011 Delinquent Taxes
Munhall	\$1,464,400	24.1686	\$35,392	10.750	\$15,742	4.6900	\$6,868	\$58,003
North Braddock	\$6,217,600	25.6500	\$159,481	11.000	\$68,394	4.6900	\$29,161	\$257,036
North Versailles	\$1,345,300	27.5400	\$37,050	8.000	\$10,762	4.6900	\$6,309	\$54,121
Penn Hills	\$3,562,600	24.8100	\$88,388	5.600	\$19,951	4.6900	\$16,709	\$125,047
Pitcairn	\$584,700	21.8500	\$12,776	5.750	\$3,362	4.6900	\$2,742	\$18,880
Plum	\$1,676,000	22.2000	\$37,207	4.300	\$7,207	4.6900	\$7,860	\$52,274
Port Vue	\$738,200	18.4900	\$13,649	7.860	\$5,802	4.6900	\$3,462	\$22,914
Rankin	\$598,700	25.6500	\$15,357	13.800	\$8,262	4.6900	\$2,808	\$26,427
South Versailles	\$41,400	17.0500	\$706	4.200	\$174	4.6900	\$194	\$1,074
Swissvale	\$2,571,200	25.6500	\$65,951	10.100	\$25,969	4.6900	\$12,059	\$103,979
Turtle Creek	\$2,390,700	25.6500	\$61,321	8.500	\$20,321	4.6900	\$11,212	\$92,855
Versailles	\$198,300	17.0500	\$3,381	8.000	\$1,586	4.6900	\$930	\$5,897
Wall	\$143,400	27.5400	\$3,949	8.000	\$1,147	4.6900	\$673	\$5,769
West Elizabeth	\$878,300	21.0800	\$18,515	6.000	\$5,270	4.6900	\$4,119	\$27,904
West Homestead	\$1,136,200	24.1686	\$27,460	9.310	\$10,578	4.6900	\$5,329	\$43,367
West Mifflin	\$2,080,900	22.9920	\$47,844	7.270	\$15,128	4.6900	\$9,759	\$72,732
Whitaker	\$8,500	22.9920	\$195	9.580	\$81	4.6900	\$40	\$317
White Oak	\$352,900	17.4900	\$6,172	5.660	\$1,997	4.6900	\$1,655	\$9,825
Wilkins	\$1,457,700	25.6500	\$37,390	5.513	\$8,036	4.6900	\$6,837	\$52,263
Wilkinsburg	\$12,201,100	35.0000	\$427,039	14.000	\$170,815	4.6900	\$57,223	\$655,077
Wilmerding	\$892,800	27.5400	\$24,588	8.000	\$7,142	4.6900	\$36,293	\$68,023
<b>TOTAL</b>	<b>\$68,014,440</b>		<b>\$1,706,258</b>		<b>\$700,786</b>		<b>\$351,093</b>	<b>\$2,758,137</b>

SOURCE: ALLEGHENY COUNTY DELINQUENT TAX DATABASE, TRI-COG COLLABORATIVE, DELTA ANALYSIS

## APPENDIX F: 2012 ESTIMATED DELINQUENT REAL ESTATE TAXES BY SCHOOL DISTRICT

SCHOOL DISTRICT	2012 REAL ESTATE TAX RATE	2012 ESTIMATED DELINQUENT TAXES
CLAIRTON	22	\$436,127
DUQUESNE AREA	21.1	\$289,244
EAST ALLEGHENY	27.54	\$1,366,486
ELIZABETH-FORWARD	25.0118	\$387,904
GATEWAY	21.85	\$1,398,641
MCKEESPORT AREA	17.49	\$1,439,181
PENN HILLS	24.81	\$2,872,929
PLUM	22.2	\$1,910,112
SOUTH ALLEGHENY	18.49	\$517,307
STEEL VALLEY	24.169	\$848,284
WEST JEFFERSON	21.08	\$26,152
WEST MIFFLIN AREA	22.992	\$1,041,161
WILKINSBURG	36.672	\$2,346,436
WOODLAND HILLS	26.21	\$2,754,869
		<b>\$17,634,831</b>

## APPENDIX G: ESTIMATED LOST EIT ATTRIBUTABLE TO VACANT HOUSING UNITS

Municipality	Vacant Housing Units 2011	Vacant Units Adjusted	Deduct for Typical Transition	Median HH Income 2011	Estimated Lost Annual Income	EIT Rate	Estimated Lost School District EIT	Estimated Lost Municipal EIT	Total Estimated Lost EIT
Braddock	263	199	179	\$22,283	\$3,990,885	1.10	\$19,954	\$23,945	\$43,900
Braddock Hills	62	35	32	\$31,445	\$990,518	1.00	\$4,953	\$4,953	\$9,905
Chalfant	46	33	30	\$47,500	\$1,410,750	1.00	\$7,054	\$7,054	\$14,108
Churchill	53	26	23	\$80,990	\$1,895,166	1.00	\$9,476	\$9,476	\$18,952
Clairton	762	324	292	\$29,237	\$8,525,509	1.50	\$42,628	\$85,255	\$127,883
Dravosburg	108	57	51	\$46,324	\$2,376,421	1.00	\$11,882	\$11,882	\$23,764
Duquesne	670	469	422	\$21,714	\$9,165,479	1.70	\$45,827	\$109,986	\$155,813
East McKeesport	147	52	47	\$42,154	\$1,972,807	1.00	\$9,864	\$9,864	\$19,728
East Pittsburgh	213	103	93	\$24,929	\$2,310,918	1.00	\$11,555	\$11,555	\$23,109
Elizabeth Boro	89	45	41	\$39,596	\$1,603,638	1.00	\$8,018	\$8,018	\$16,036
Edgewood	90	37	33	\$59,821	\$1,992,039	1.00	\$9,960	\$9,960	\$19,920
Forest Hills	205	87	78	\$58,618	\$4,589,789	1.00	\$22,949	\$22,949	\$45,898
Forward	118	73	66	\$45,823	\$3,010,571	1.00	\$15,053	\$15,053	\$30,106
Glassport	291	63	57	\$31,450	\$1,783,215	1.00	\$8,916	\$8,916	\$17,832
Homestead	410	239	215	\$34,464	\$7,413,206	1.00	\$37,066	\$37,066	\$74,132
Liberty	57	14	13	\$51,719	\$651,659	1.00	\$3,258	\$3,258	\$6,517
Lincoln	40	23	21	\$45,917	\$950,482	1.00	\$4,752	\$4,752	\$9,505
McKeesport	1735	1103	993	\$27,098	\$26,900,185	1.00	\$134,501	\$134,501	\$269,002
Monroeville	884	196	176	\$59,023	\$10,411,657	1.00	\$52,058	\$52,058	\$104,117
Munhall	583	226	203	\$41,147	\$8,369,300	1.00	\$41,846	\$41,846	\$83,693
North Braddock	607	400	360	\$25,759	\$9,273,240	1.00	\$46,366	\$46,366	\$92,732
North Versailles	434	192	173	\$43,236	\$7,471,181	1.00	\$37,356	\$37,356	\$74,712
Penn Hills	1556	678	610	\$48,311	\$29,479,372	1.00	\$147,397	\$147,397	\$294,794
Pitcairn	311	129	116	\$38,982	\$4,525,810	1.00	\$22,629	\$22,629	\$45,258

Municipality	Vacant Housing Units 2011	Vacant Units Adjusted	Deduct for Typical Transition	Median HH Income 2011	Estimated Lost Annual Income	EIT Rate	Estimated Lost School District EIT	Estimated Lost Municipal EIT	Total Estimated Lost EIT
Plum	608	236	212	\$66,680	\$14,162,832	1.00	\$70,814	\$70,814	\$141,628
Port Vue	138	58	52	\$37,471	\$1,955,986	1.00	\$9,780	\$9,780	\$19,560
Rankin	136	76	68	\$20,191	\$1,381,064	1.00	\$6,905	\$6,905	\$13,811
South Versailles	8	2	2	\$56,250	\$101,250	1.00	\$506	\$506	\$1,013
Swissvale	633	254	229	\$39,972	\$9,137,599	1.00	\$45,688	\$45,688	\$91,376
Turtle Creek	383	199	179	\$33,444	\$5,989,820	1.00	\$29,949	\$29,949	\$59,898
Versailles	97	32	29	\$35,099	\$1,010,851	1.00	\$5,054	\$5,054	\$10,109
Wall	75	31	28	\$44,643	\$1,245,540	1.00	\$6,228	\$6,228	\$12,455
West Elizabeth	40	22	20	\$36,161	\$715,988	1.00	\$3,580	\$3,580	\$7,160
West Homestead	130	56	50	\$50,481	\$2,544,242	1.00	\$12,721	\$12,721	\$25,442
West Mifflin	657	297	267	\$45,099	\$12,054,963	1.00	\$60,275	\$60,275	\$120,550
West Newton	137	57	51	\$30,200	\$1,549,260	1.00	\$7,746	\$7,746	\$15,493
Whitaker	64	29	26	\$36,895	\$962,960	1.00	\$4,815	\$4,815	\$9,630
White Oak	277	109	98	\$49,155	\$4,822,106	1.00	\$24,111	\$24,111	\$48,221
Wilkins	233	87	78	\$45,980	\$3,600,234	1.00	\$18,001	\$18,001	\$36,002
Wilkinsburg	1894	1022	920	\$31,169	\$28,669,246	1.00	\$143,346	\$143,346	\$286,692
Wilmerding	64	171	154	\$20,805	\$3,201,890	1.00	\$16,009	\$16,009	\$32,019
	<b>15,308</b>	<b>7,541</b>	<b>6,787</b>		<b>\$244,169,630</b>		<b>\$1,220,848</b>	<b>\$1,331,625</b>	<b>\$2,552,473</b>

SOURCE: 2011 CENSUS DATA, DELTA ANALYSIS

## APPENDIX H: HEDONIC REGRESSION ANALYSIS

Hedonic regression analysis is commonly used to understand how home prices are impacted by a variety of both positive and negative characteristics. Traits modeled in the following analysis include the architectural quality of the building, condition of the parcel, total baths, total finished living area space, and location within the blight zone. It should be noted that the following analysis does not consider more qualitative factors such as proximity to local amenities and attractions. Since the analysis is based on 253 residential sales recorded in 2012, some municipalities within the Tri-COG communities did not record a sale and it was not possible to compare relative sales among all of the communities (because of the small size of several of the communities within the three COGs, sales reflected in ALL of the communities would allow for a comparison of relative proximity to amenities, millage rates, etc.).

The resultant R-Squared value from the regression analysis is 73.5%, suggesting a strong correlation between proximity to a blighted parcel and assessed value; the total reduction in value is estimated at \$21,638.



APPENDIX I: PROJECTED EMPLOYMENT BY COMMUNITY 2010 TO 2020<sup>31</sup>

	2010					2020					Total	Total Change
	Retail	Manufacturing	Service	Other	Total	Retail	Manufacturing	Service	Other	Total	Change	Service
Braddock Borough	113	29	951	120	<b>1213</b>	101	35	1008	178	<b>1322</b>	109	57
Braddock Hills Borough	199	6	544	77	<b>826</b>	193	10	625	125	<b>953</b>	127	81
Chalfant Borough	25	19	97	24	<b>165</b>	24	21	107	41	<b>193</b>	28	10
Churchill Borough	17	12	986	68	<b>1083</b>	15	17	1097	108	<b>1237</b>	154	111
Clairton City	137	604	1134	112	<b>1987</b>	119	445	1165	181	<b>1910</b>	-77	31
Dravosburg Borough	40	55	375	84	<b>554</b>	38	52	422	143	<b>655</b>	101	47
Duquesne City	175	116	723	213	<b>1227</b>	140	101	690	283	<b>1214</b>	-13	-33
East McKeesport Borough	58	4	352	75	<b>489</b>	56	6	375	100	<b>537</b>	48	23
East Pittsburgh Borough	49	594	424	48	<b>1115</b>	48	596	453	95	<b>1192</b>	77	29
Edgewood Borough	574	9	884	62	<b>1529</b>	561	16	1027	122	<b>1726</b>	197	143
Elizabeth Borough	103	21	393	52	<b>569</b>	99	25	450	96	<b>670</b>	101	57
Forest Hills Borough	322	101	2,993	195	<b>3611</b>	318	115	3,514	275	<b>4222</b>	611	521
Forward Township	60	220	246	306	<b>832</b>	54	228	263	390	<b>935</b>	103	17
Glassport Borough	205	40	546	323	<b>1114</b>	197	43	621	401	<b>1262</b>	148	75
Homestead Borough	1,845	29	2,140	167	<b>4181</b>	1,792	32	2,469	244	<b>4537</b>	356	329
Liberty Borough	27	2	240	66	<b>335</b>	27	7	283	109	<b>426</b>	91	43
Lincoln Borough	13	26	178	25	<b>242</b>	12	26	200	64	<b>302</b>	60	22
McKeesport City	932	455	7,827	1,144	<b>10358</b>	869	433	8,675	1,199	<b>11176</b>	818	848
Monroeville Municipality	9,113	1,226	18,850	2,211	<b>31400</b>	8,854	1,330	21,756	2,623	<b>34563</b>	3163	2906
Munhall Borough	752	60	2,307	436	<b>3555</b>	730	53	2,659	563	<b>4005</b>	450	352
North Braddock Borough	23	9	585	149	<b>766</b>	18	15	522	205	<b>760</b>	-6	-63
North Versailles Township	1,622	108	2,008	1,445	<b>5183</b>	1,569	107	2,306	1,589	<b>5571</b>	388	298
Penn Hills Township	2,266	436	6,712	1,372	<b>10786</b>	2,162	428	7,605	1,576	<b>11771</b>	985	893
Pitcairn Borough	134	1	1,213	72	<b>1420</b>	129	4	1,375	97	<b>1605</b>	185	162
Plum Borough	1,111	312	4,415	1,296	<b>7134</b>	1,182	298	5,578	1,522	<b>8580</b>	1446	1163
Port Vue Borough	56	50	364	16	<b>486</b>	53	40	406	53	<b>552</b>	66	42
Rankin Borough	16	135	312	135	<b>598</b>	15	132	360	216	<b>723</b>	125	48

<sup>31</sup> Those communities highlighted in blue indicate an increase in total employment from 2010 to 2020 of at least 250 employees.

	2010					2020					Total	Total Change
	Retail	Manufacturing	Service	Other	Total	Retail	Manufacturing	Service	Other	Total	Change	Service
South Versailles Township	4	0	6	1	<b>11</b>	5	5	11	36	<b>57</b>	46	5
Swissvale Borough	941	105	1,840	247	<b>3133</b>	913	105	2,121	335	<b>3474</b>	341	281
Turtle Creek Borough	120	151	2,960	117	<b>3348</b>	113	157	3,315	182	<b>3767</b>	419	355
Versailles Borough	157	107	375	197	<b>836</b>	148	116	417	249	<b>930</b>	94	42
Wall Borough	15	6	251	83	<b>355</b>	13	11	268	135	<b>427</b>	72	17
West Elizabeth Borough	0	0	4	0	<b>4</b>	0	8	1	52	<b>61</b>	57	-3
West Homestead Borough	947	31	633	213	<b>1824</b>	921	35	731	289	<b>1976</b>	152	98
West Mifflin Borough	4,771	638	6,012	1,136	<b>12557</b>	4,591	485	6,872	1,364	<b>13312</b>	755	860
Whitaker Borough	20	26	85	5	<b>136</b>	19	34	98	40	<b>191</b>	55	13
White Oak Borough	849	57	2,206	98	<b>3210</b>	817	57	2,521	144	<b>3539</b>	329	315
Wilkins Township	1,593	169	2,013	1,199	<b>4974</b>	1,531	167	2,298	1,336	<b>5332</b>	358	285
Wilkinsburg Borough	500	175	4,791	580	<b>6046</b>	463	171	5,271	719	<b>6624</b>	578	480
Wilmerding Borough	88	1,711	430	100	<b>2329</b>	91	1,600	527	162	<b>2380</b>	51	97
SOURCE: SOUTHWESTERN PENNSYLVANIA COMMISSION; DELTA DEVELOPMENT												

## APPENDIX J: – INDIRECT COST BY COMMUNITY

Municipality	Total Assessed Value	15% Loss in Property Values	17% Loss in Property Values	School District Tax Rate	Municipal Tax Rate	County Tax Rate	Estimated School District RE Tax Loss	Estimated Municipal RE Tax Loss	Estimated County RE Tax Loss	TOTAL Loss of Real Estate Taxes Due to Property Value
Braddock	\$16,214,300	\$2,432,145	\$2,756,431	26.2100	13.7000	5.6900	\$63,747	\$33,320	\$13,839	\$110,906
Braddock Hills	\$10,566,300	\$1,584,945	\$1,796,271	26.2100	7.0000	5.6900	\$41,541	\$11,095	\$9,018	\$61,654
Chalfant	\$1,532,000	\$229,800	\$260,440	26.2100	6.9000	5.6900	\$6,023	\$1,586	\$1,308	\$8,916
Churchill	\$9,842,200	\$1,476,330	\$1,673,174	26.2100	5.7500	5.6900	\$38,695	\$8,489	\$8,400	\$55,584
Clairton	\$60,323,800	\$9,048,570	\$10,255,046	22.0000	14.0000	5.6900	\$199,069	\$126,680	\$51,486	\$377,235
Dravosburg	\$12,757,400	\$1,913,610	\$2,168,758	17.4900	7.3150	5.6900	\$33,469	\$13,998	\$10,888	\$58,356
Duquesne	\$33,270,941	\$4,990,641	\$5,656,060	21.1000	15.5000	5.6900	\$105,303	\$77,355	\$28,397	\$211,054
East McKeesport	\$22,486,000	\$3,372,900	\$3,822,620	27.5400	8.1000	5.6900	\$92,890	\$27,320	\$19,192	\$139,402
East Pittsburgh	\$11,689,600	\$1,753,440	\$1,987,232	26.2100	15.1500	5.6900	\$45,958	\$26,565	\$9,977	\$82,499
Edgewood	\$66,205,900	\$9,930,885	\$11,255,003	26.2100	8.1600	5.6900	\$260,288	\$81,036	\$56,507	\$397,831
Elizabeth Boro	\$18,399,215	\$2,759,882	\$3,127,867	25.0118	8.0000	5.6900	\$69,030	\$22,079	\$15,704	\$106,812
Forest Hills	\$43,270,125	\$6,490,519	\$7,355,921	26.2100	8.3500	5.6900	\$170,116	\$54,196	\$36,931	\$261,243
Forward	\$35,400,060	\$5,310,009	\$6,018,010	25.0118	2.9500	5.6900	\$132,813	\$15,665	\$30,214	\$178,691
Glassport	\$46,059,900	\$6,908,985	\$7,830,183	18.4900	8.9900	5.6900	\$127,747	\$62,112	\$39,312	\$229,171
Homestead	\$25,711,800	\$3,856,770	\$4,371,006	24.1690	13.0000	5.6900	\$93,214	\$50,138	\$21,945	\$165,297
Liberty	\$10,912,350	\$1,636,853	\$1,855,100	18.4900	5.0000	5.6900	\$30,265	\$8,184	\$9,314	\$47,763
Lincoln	\$7,710,000	\$1,156,500	\$1,310,700	18.4900	8.5500	5.6900	\$21,384	\$9,888	\$6,580	\$37,852
McKeesport	\$132,155,675	\$19,823,351	\$22,466,465	17.4900	9.0000	5.6900	\$346,710	\$178,410	\$112,795	\$637,915
Monroeville	\$43,532,600	\$6,529,890	\$7,400,542	21.8500	2.2000	5.6900	\$142,678	\$14,366	\$37,155	\$194,199
Munhall	\$69,268,000	\$10,390,200	\$11,775,560	24.1690	10.7500	5.6900	\$251,121	\$111,695	\$59,120	\$421,936
North Braddock	\$39,919,100	\$5,987,865	\$6,786,247	26.2100	11.0000	5.6900	\$156,942	\$65,867	\$34,071	\$256,879
North Versailles	\$42,992,900	\$6,448,935	\$7,308,793	27.5400	8.0000	5.6900	\$177,604	\$51,591	\$36,694	\$265,890
Penn Hills	\$126,794,550	\$19,019,183	\$21,555,074	24.8100	5.6000	5.6900	\$471,866	\$106,507	\$108,219	\$686,592
Pitcairn	\$15,680,800	\$2,352,120	\$2,665,736	21.8500	5.7500	5.6900	\$51,394	\$13,525	\$13,384	\$78,302
Plum	\$62,599,600	\$9,389,940	\$10,641,932	22.2000	4.3000	5.6900	\$208,457	\$40,377	\$53,429	\$302,262
Port Vue	\$32,706,500	\$4,905,975	\$5,560,105	18.4900	7.8600	5.6900	\$90,711	\$38,561	\$27,915	\$157,187
Rankin	\$9,752,000	\$1,462,800	\$1,657,840	26.2100	13.8000	5.6900	\$38,340	\$20,187	\$8,323	\$66,850
South Versailles	\$2,195,800	\$329,370	\$373,286	17.4900	4.2000	5.6900	\$5,761	\$1,383	\$1,874	\$9,018
Swissvale	\$96,981,870	\$14,547,281	\$16,486,918	26.2100	10.1000	5.6900	\$381,284	\$146,928	\$82,774	\$610,986
Turtle Creek	\$31,017,100	\$4,652,565	\$5,272,907	26.2100	8.5000	5.6900	\$121,944	\$39,547	\$26,473	\$187,964
Versailles	\$14,861,550	\$2,229,233	\$2,526,464	17.4900	8.0000	5.6900	\$38,989	\$17,834	\$12,684	\$69,507
Wall	\$4,907,200	\$736,080	\$834,224	27.5400	8.0000	5.6900	\$20,272	\$5,889	\$4,188	\$30,349
West Elizabeth	\$5,836,200	\$875,430	\$992,154	21.0800	6.0000	5.6900	\$18,454	\$5,253	\$4,981	\$28,688
West Homestead	\$8,560,800	\$1,284,120	\$1,455,336	24.1690	9.3100	5.6900	\$31,036	\$11,955	\$7,307	\$50,298
West Mifflin	\$67,104,176	\$10,065,626	\$11,407,710	22.9920	7.2700	5.6900	\$231,429	\$73,177	\$57,273	\$361,879
Whitaker	\$3,662,200	\$549,330	\$622,574	22.9920	9.5800	5.6900	\$12,630	\$5,263	\$3,126	\$21,018
White Oak	\$26,523,400	\$3,978,510	\$4,508,978	17.4900	5.6600	5.6900	\$69,584	\$22,518	\$22,638	\$114,740
Wilkins	\$21,775,800	\$3,266,370	\$3,701,886	26.2100	5.5130	5.6900	\$85,612	\$18,007	\$18,586	\$122,205
Wilksburg	\$151,552,830	\$22,732,925	\$25,763,981	36.6720	14.0000	5.6900	\$833,662	\$318,261	\$129,350	\$1,281,273
Wilmerding	\$14,312,600	\$2,146,890	\$2,433,142	27.5400	8.0000	5.6900	\$59,125	\$17,175	\$12,216	\$88,516
<b>TOTAL</b>	<b>\$1,457,045,142</b>	<b>\$218,556,771</b>	<b>\$247,697,674</b>				<b>\$5,377,155</b>	<b>\$1,953,980</b>	<b>\$1,243,588</b>	<b>\$8,574,723</b>

APPENDIX K: SUMMARY OF DIRECT AND INDIRECT COSTS OF BLIGHT – BY COMMUNITY

Steel Valley COG		Municipal Characteristics									Direct Costs										Indirect Impacts		TOTAL Annual Direct and Indirect Impacts Related to Blight
Municipality	Type	School District	Population 2010	% Diff Since 1950	% Diff Since 1990	Total Housing Units 2010	Vacant Housing Units 2010	Vacant Units Adjusted For Transition	Median HH Income 2011	Vacant Lots	Cost Code Enforcement	Cost Police Services Related to Blight	Cost Fire Services Related to Blight	Cost Public Works	Average Annual Cost of Demolitions	RE Tax Loss Due to Blight - Delinquent	RE Tax Loss Due to Vacant-Delinquent	EIT Loss Due to Vacant Lots	EIT Loss Due to Vacant Structures	Delinquent Tax Collection	15% Loss of Property Value	RE Tax Loss Due to Property Value Loss	
Braddock Hills	Borough	Woodland Hills	1,880	-4.40%	-7.20%	1,078	62	32	31,445	377	4,410	18,792	6,402	13,195	9,480	30,104	39,289	11,855	9,905	3,470	1,584,945	61,654	1,731,846
Clairton	City	Clairton	6,796	-65.40%	-29.60%	3,889	762	292	29,237	1,119	14,700	407,160	137,643	39,165	23,642	115,401	179,059	32,716	127,883	14,723	9,048,570	377,235	10,140,662
Dravosburg	Borough	McKeesport Area	1,792	-52.70%	-24.60%	1,000	108	51	46,324	133	4,410	27,216	26,675	4,655	4,135	14,173	6,861	6,161	23,764	1,052	1,913,610	58,356	2,032,712
Homestead	Borough	Steel Valley	3,165	-68.50%	-24.30%	1,895	410	215	34,464	284	14,700	402,624	181,390	9,940	62,690	78,130	35,144	9,788	74,132	5,664	3,856,770	165,297	4,730,972
Munhall	Borough	Steel Valley	11,406	-30.60%	-13.30%	5,825	583	203	41,147	372	14,700	156,384	19,206	13,020	29,678	58,003	38,579	15,307	83,693	4,829	10,390,200	421,936	10,823,598
West Elizabeth	Borough	West Jefferson	518	-54.40%	-18.30%	250	40	20	36,161	51	7,350	32,184	25,608	1,785	3,290	27,904	3,277	1,844	7,160	1,559	875,430	28,688	987,391
West Homestead	Borough	Steel Valley	1,929	-40.80%	-22.70%	995	130	50	50,481	259	4,410	68,040	36,278	9,065	26,080	43,367	30,748	13,075	25,442	3,706	1,284,120	50,298	1,544,330
West Mifflin	Borough	West Mifflin Area	20,313	12.90%	-14.10%	9,462	657	267	45,099	1,090	14,700	41,688	19,206	38,150	25,170	72,732	174,187	49,158	120,550	12,346	10,065,626	361,879	10,633,513
Whitaker	Borough	West Mifflin Area	1,271	-40.90%	-10.20%	606	64	26	36,895	147	4,410	7,560	3,201	5,145	17,420	317	12,053	5,424	9,630	618	549,330	21,018	615,108
			49,070			25,000	2,816	1,156		3,832	83,790	1,161,648	455,609	134,120	201,585	440,131	519,196	145,327	482,159	47,966	39,568,601	1,546,361	43,240,132
Turtle Creek Valley COG		Municipal Characteristics									Direct Costs										Indirect Impacts		Direct and Indirect Impacts Related to Blight
Municipality	Type	School District	Population 2010	% Diff Since 1950	% Diff Since 1990	Total Housing Units 2010	Vacant Housing Units 2010	Vacant Units Adjusted	Median HH Income	Vacant Lots	Cost Code Enforcement	Cost Police Services	Cost Fire Services	Cost Public Works	Average Annual Cost of Demolitions	RE Tax Loss Due to Blight - Delinquent	RE Tax Loss Due to Vacant-Delinquent	EIT Loss Due to Vacant Lots	EIT Loss Due to Vacant Structures	Delinquent Tax Collection	15% Loss of Property Value	RE Tax Loss Due to Property Value Loss	
Braddock	Borough	Woodland Hills	2,159	-86.90%	-53.90%	1086	263	179	22,283	761	4,410	238,680	75,757	26,635	62,816	78,444	83,904	16,957	43,900	8,117	2,432,145	110,906	3,182,672
Chalfant	Borough	Woodland Hills	800	-42.10%	-16.60%	450	46	30	47,500	93	4,410	6,048	4,268	3,255	4,452	0	18,236	4,418	14,108	912	229,800	8,916	298,822
Churchill	Borough	Woodland Hills	3,011	73.30%	-22.50%	1438	75	23	80,990	64	4,410	3,240	3,201	2,240	0	0	2,447	5,183	18,952	122	1,476,330	55,584	1,571,710
East McKeesport	Borough	East Allegheny	2,126	N/A	-20.60%	1152	147	47	42,154	231	22,050	46,008	32,010	8,085	2,820	1,222	30,378	9,738	19,728	1,580	3,372,900	139,402	3,685,920
East Pittsburgh	Borough	Woodland Hills	1,822	-65.40%	-15.60%	1035	213	93	24,929	114	7,350	65,448	7,469	3,990	9,242	20,975	14,821	2,842	23,109	1,790	1,753,440	82,499	1,992,974
Edgewood	Borough	Woodland Hills	3,118	112.70%	-12.90%	1669	90	33	59,821	51	4,410	25,704	12,804	1,785	0	19,065	3,605	3,051	19,920	1,134	9,930,885	397,831	10,420,194
Forest Hills	Borough	Woodland Hills	6,518	3.40%	-11.10%	3304	205	78	58,618	264	7,350	30,024	35,211	9,240	2,160	7,053	15,496	15,475	45,898	1,127	6,490,519	261,243	6,920,797
Monroeville	Home Rule	Gateway	28,386	262.00%	-3.30%	13496	884	176	59,023	985	44,100	42,552	5,335	34,475	0	18,382	45,354	58,138	104,117	3,187	6,529,890	194,199	7,079,728
North Braddock	Borough	Woodland Hills	4,857	-67.00%	-31.00%	2797	607	360	25,759	938	14,700	334,800	139,777	32,830	50,670	257,036	160,446	24,162	92,732	20,874	5,987,865	256,879	7,372,771
North Versailles	Township	East Allegheny	10,229	4.20%	-16.90%	5219	434	173	43,236	1456	4,410	39,312	7,469	50,960	12,460	54,121	175,228	62,952	74,712	11,467	6,448,935	265,890	7,207,916
Penn Hills	Home Rule	Penn Hills	42,329	67.40%	-17.70%	20342	1556	610	48,311	2081	88,200	193,968	71,489	72,835	0	125,047	206,853	100,535	294,794	16,595	19,019,183	686,592	20,876,091
Pitcairn	Borough	Gateway	3,294	-43.80%	-19.40%	1866	311	116	38,982	215	7,350	100,440	56,551	7,525	13,860	18,880	14,981	8,381	45,258	1,693	2,352,120	78,302	2,705,341
Plum	Borough	Plum	27,126	230.20%	5.90%	11494	608	212	66,680	1064	44,100	42,120	43,747	37,240	0	52,274	42,652	70,948	141,628	4,746	9,389,940	302,262	10,171,657
Rankin	Borough	Woodland Hills	2,122	-76.30%	-15.20%	1046	136	68	20,191	185	4,410	147,528	65,087	6,475	15,285	26,427	20,565	3,735	13,811	2,350	1,462,800	66,850	1,835,323
Swissvale	Borough	Woodland Hills	8,983	-45.50%	-15.50%	5072	633	229	39,972	387	44,100	313,848	96,030	13,545	3,508	103,979	48,300	15,469	91,376	7,614	14,547,281	610,986	15,896,036
Turtle Creek	Borough	Woodland Hills	5,349	-56.70%	-18.40%	2851	383	179	33,444	256	8,820	141,912	32,010	8,960	14,275	92,855	29,290	8,562	59,898	6,107	4,652,565	187,964	5,243,218
Wall	Borough	East Allegheny	580	-68.60%	-32.00%	334	75	28	44,643	194	7,350	0	0	6,790	0	5,769	31,129	8,661	12,455	1,845	736,080	30,349	840,427
Wilkins	Township	Woodland Hills	6,357	49.20%	-15.10%	3381	233	78	45,980	598	7,350	49,680	35,211	20,930	4,660	52,263	68,279	27,496	36,002	6,027	3,266,370	122,205	3,696,473
Wilkinsburg	Borough	Wilkinsburg	15,930	-49.30%	-24.40%	10046	1894	920	31,169	835	44,468	1,079,568	322,234	29,225	44,629	655,077	160,914	26,026	286,692	40,800	22,732,925	1,281,273	26,703,830
Wilmerding	Borough	East Allegheny	2,190	-58.90%	-1.40%	1189	171	154	20,805	85	14,700	105,192	27,742	2,975	11,830	68,023	8,864	1,768	32,019	3,844	2,146,890	88,516	2,512,364
			177,286			89,267	8,964	3,786		10,857	388,448	3,006,072	1,073,402	379,995	252,667	1,656,892	1,181,740	474,496	1,471,109	141,932	124,958,863	5,228,648	140,214,263
Twin Rivers COG		Municipal Characteristics									Direct Costs										Indirect Impacts		TOTAL Annual Direct and Indirect Impacts Related to Blight
Municipality	Type	School District	Population 2010	% Diff Since 1950	% Diff Since 1990	Total Housing Units 2010	Vacant Housing																