5.1.3 Results and Discussion

Data show that properties above longwall mining receive an assessment reduction at a greater frequency than the total population of properties. In Greene County, over the time period of the study, 2.76% of all county properties received a reduction in county value, while 6.03% of longwall properties were reduced. In Washington County, 1.48% of all county properties were reduced, compared to 4.72% of longwall properties. In both counties, however, the percentage of property value reduction is very small. Over the study period in Greene County, the total property value is $7,641,951,917 and the total reduction is $1,370,900, or 0.017%. In Washington County, the total property value is $53,754,692,047 and property value reduction potentially attributed to longwall mining is $6,057,540, or 0.011%.

Analyses of the countywide data for Washington County showed a significant number of value changes between 1999 and 2000 compared to the other years. These differences were also seen in the longwall population. After contacting Washington County, RTC learned these changes were due to the revaluation of 'Clean and Green' properties. 'Clean and Green' is a type of tax exemption where land can be taxed on its soil carrying capacity rather than the higher value of the area. With assistance from Washington County, 'Clean & Green' changes were removed from the analysis, leaving a total of 21 downward county value changes due to longwall. This value fits nicely with the other years. In Greene County, there were many county value changes from 1997 to 2000 because data for the intervening years was not available. The changes from 1997 to 2000 were averaged over the missing years – 1997-1998, 1998-1999, and 1999-2000.

In Greene County, there are 88 property value reductions potentially attributed to longwall mining activity, and 97 properties with settlements were found when combining coal company and DEP data. In Washington County, there are 173 potential longwall reductions and 196 mining settlements. A valid settlement is one that has been completed and that ranged between $1,000 and $5,000,000. If a settlement was greater than $5,000,000, it was assumed to be an industrial use property.

The amount the coal companies have paid out is much greater than the county value (and subsequent tax revenue) lost in the appeal process **(Exhibits 5.1.3-1 and 5.1.3-2)**. Final settlements can be high, as coal companies frequently pay for damage, buy replacement property, and cover moving expenses, all which is included in the final settlement reported.

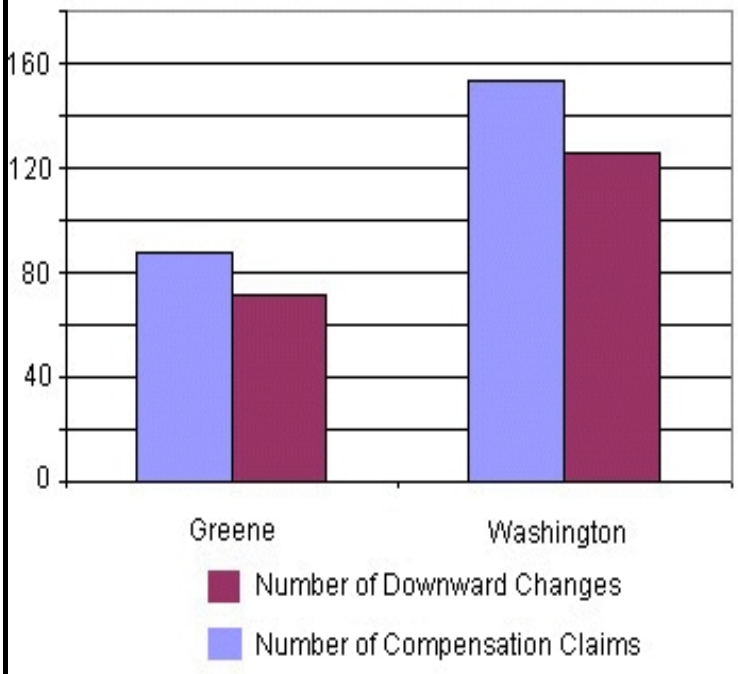

Exhibit 5.3.1-2: Comparison between the number of county value reductions potentially due to longwall mining to the number o f compensation settlements.

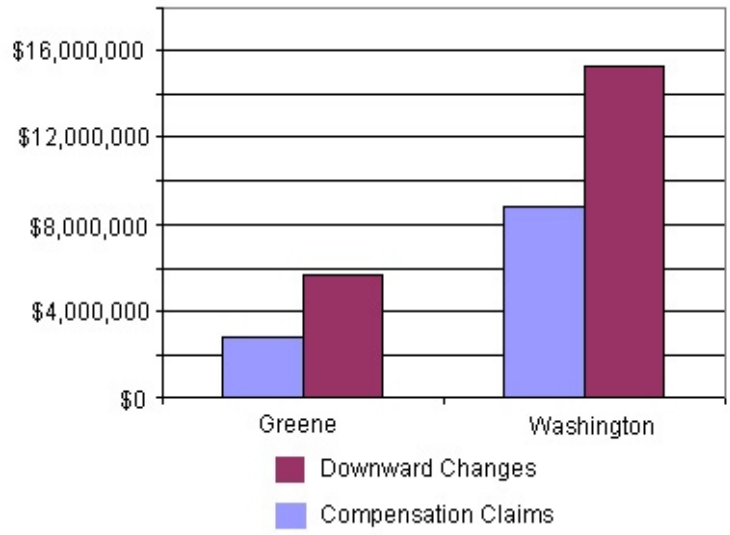

Exhibit 5.1.3-2: Comparison between the reduction of county value potentially due to longwall mining and the value of compensation settlements.

Two more types of comparisons were completed. In the first, the longwall population was compared to similar attributes in the county and control group populations. In this type of comparison, for example, in 1994-1995, longwall properties make up 0.86% of all the properties in Greene County. Longwall properties account for 2.40% of all properties that received an assessment reduction in county value, higher than expected. However, these properties only account for a 0.16% reduction in total county value. This means that the properties did not contribute significantly to a drop in the county's tax base. Similar tables show the results for the control groups in Greene County and for the longwall and control groups in Washington County. The trends in Washington County are similar to Greene County. The number of reductions in longwall mining areas is greater than expected, but the dollar amount is smaller than expected.

The second analysis compares attributes within the same population to each other **(Exhibit 5.1.3-3)**. For example, the percentage of properties that have changed county value compared to the total number of properties was analyzed for both the Longwall population and Control Group population. For Greene County in 1994-1995, 1.53% of countywide properties changed county value, compared to 3.66% of longwall properties. How the county value of the longwall properties changes compared to total county value, the number of reductions compared to total changes, and the value of the reductions compared to the value of all the changes is shown. The longwall population is usually a little greater than the control populations. This means there are more changes in the longwall population than in the control. The difference is greater when comparing number of changes than when comparing value of changes. This shows longwall mining affects the number of property value changes in Greene and Washington Counties, but county value is affected to a lesser extent.

Exhibit 5.1.3-3 also shows the results of the longwall population compared to the county population over the entire study period in Greene County. There is a slight, but consistent, increase in frequency of assessment reductions in county value in longwall properties compared to the control groups. Similar results are seen in Washington County and all control areas. However, losses in county value due to longwall properties is 0.017% in Greene County and 0.011% in Washington County compared to the total tax

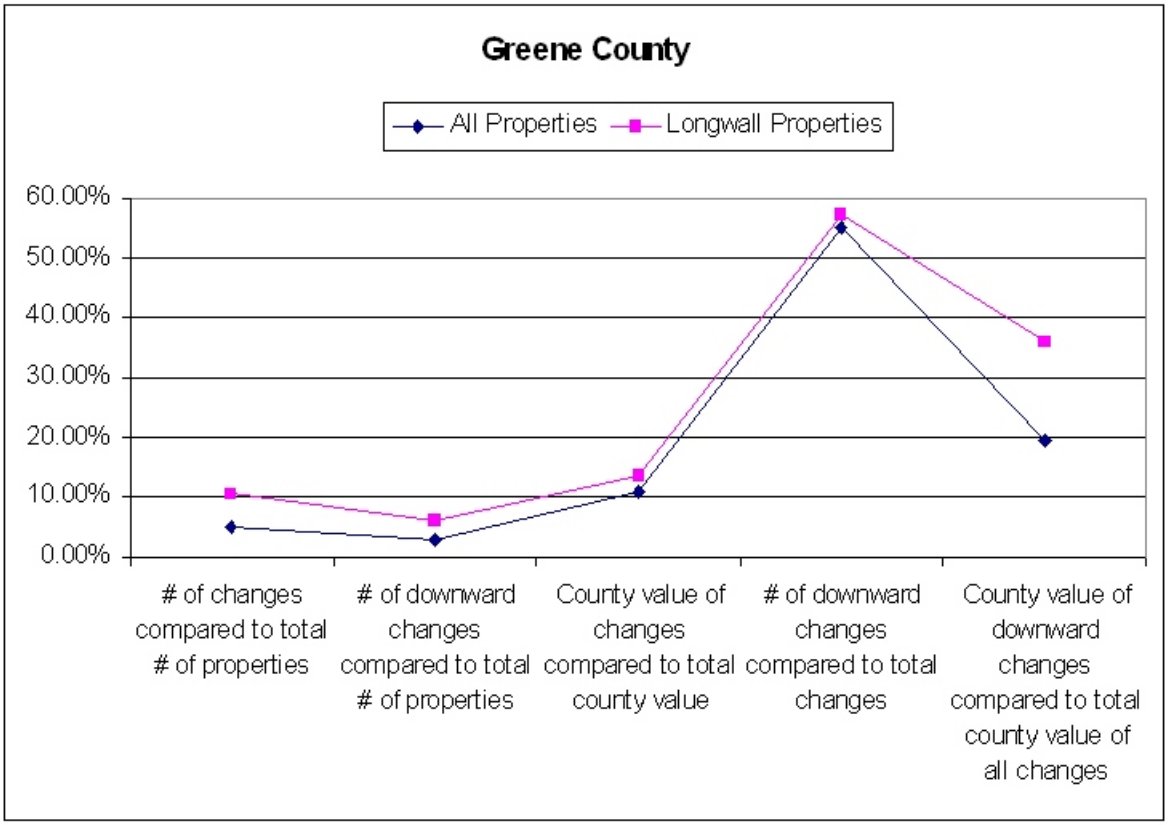

Exhibit 5.1.3-3: Chart shows how the longwall population changes more frequently than the total population in Greene County.

base. The dollar value changes are not as significant as the number of changes. Also, as shown above, the money paid to individuals by coal companies more than makes up for the county value reduction.

5.2. Long- Term and Short-Term Assessment Changes

The following objective is addressed:

Within the longwall group, identify all properties that were reassessed subsequent to longwall mining so as to obtain lower assessment values and to also determine if the reductions were short term or long term.

5.2.1 Methodology

The methodology for Section 5.2.1 follows the methodology for Section 5.1.2. The number of longwall properties that received an assessment reduction in county value in each county per year can be found was found. In addition, each individual property that received a reduction in value was extracted into a new table. To determine if the changes were short term or long term, the county value for the year before mining, the county value for the year after mining, and the county value for the final year were found.

A short-term county value reduction was identified if a property's final county value increased after the reduction due to mining and ended at a value of at least 100% of the original value. A long-term county value reduction was identified if a property's value did not go back up after mining or if it did not go back up to 100% of the original value.

In Washington County, for the year 1999-2000, only the 21 properties not associated with clean and green revaluation were used. Downward county value changes for the final year (2001 for Greene County and 2002 for Washington County) were not used because there is no data for comparison.

5.2.2 Results and Discussion

There are a total of 239 properties that received an assessment reduction in county value potentially attributed to longwall mining in both counties in the years studied. **Exhibit 5.2.2-1** shows that the majority of the properties remain within 80 to 100 percent of their original value at the end of the study period. Twelve percent of properties go up in value, and 55% remain below 80% of the original value.

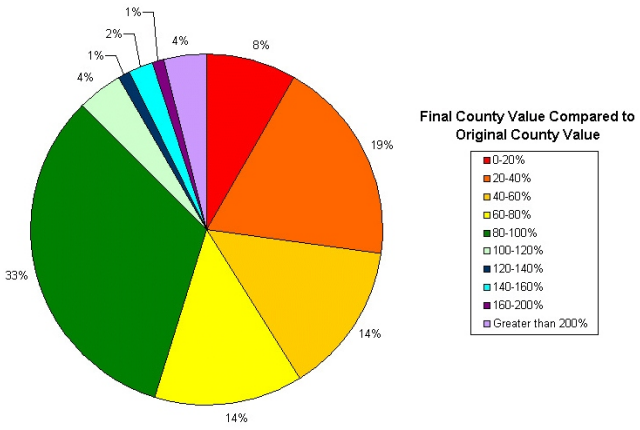

Exhibit 5.2.2-1 County value changes after longwall mining: Pie chart shows the final county value compared to the original county value

Exhibit 5.2.2-2 shows the breakdown between long-term and short-term property value changes due to longwall mining. One hundred ninety four long-term county value changes have been identified. Of the long-term changes, 55 do not go below 85% of the original value. There are 45 short-term changes. Of these, 30 are above 100% of the original value. This means there was significant improvement to these properties after the value fell.

When looking at the appeal data compared to the settlement data, individuals are being compensated for their loss, but in some instances the counties' tax bases are losing value because the property assessment values does not go back up to pre-mining values. The properties above 100% of the original value may indicate some compensation is going back into the property. Also, as shown above, the drop in property value due to the long-term changes is insignificant compared to the counties' property value tax bases.

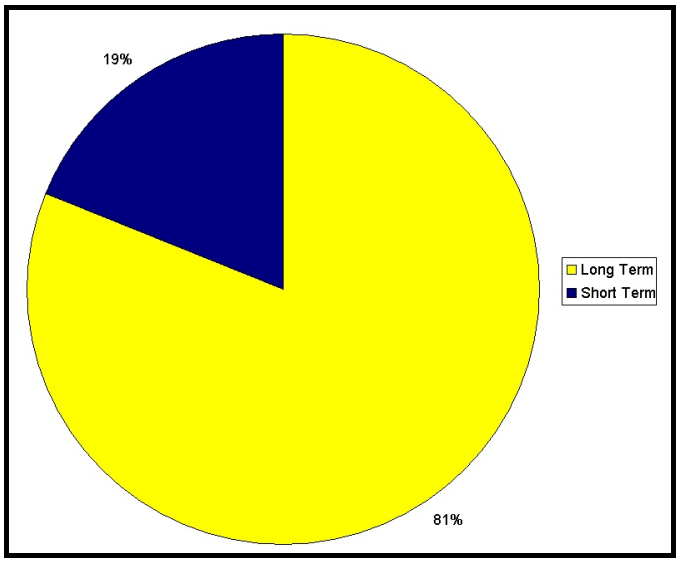

Exhibit 5.2.2-Pie chart shows breakdown of properties affected by Longwall mining: 81% of properties have long-term county value changes, 19% have short term county value changes.

5.2.3 Longwall Mining Damage and Compensation Process

In general:

- The assessed values of properties underlain by longwall mines are appealed more than properties in control areas
- Properties underlain by longwall mines are granted assessment reductions due to appeal more frequently than properties in control areas
- Properties underlain by longwall mines are granted greater reductions in assessed value than properties in control areas that have filed for appeal.

In theory, properties that were granted reductions in assessment value due to damage caused by longwall mining should return to their original value after repair or compensation from the mining company. Just over 5,000 improved residential properties are located in the longwall regions of both counties. Of these, just under 3,000 are located in areas where longwall mining was active from 1993 through 2002. The vast majority of these properties did not file compensation claims or assessment appeals during the ten year period. The following provides an overview of the number of properties in both counties that are located in the longwall area that filed assessment appeals and/or that received compensation claims:

- 261 properties were identified with assessed value reductions in areas that were underlain by longwall mines
- 235 claims were filed against coal companies in Washington and Greene Counties during the same time period from the same mining locations.
- 95 properties were included in both data sets; the properties were the same
- Of the properties that did not match:
    - 166 properties, located within the longwall area were not included in the coal company claims lists (received no compensation)
    - 140 properties receiving compensation did seek property assessment reductions
- Not matching may be based on the following:
    - Some of the assessment reductions may not be due to longwall mining. The reduction may be based on other market factors, assessment errors, or property revisions
    - There may be assessment reductions related to longwall operations where no coal company compensation was obtained:

- Owner did not file
- Company did not grant compensation (While the research did not identify any of these, the investigation did find a few claims that were in dispute -- company offered less than home owner desired. These would have been included as matches between the data sets.)
- Some of the properties where compensation had been paid were repaired and were therefore not eligible for assessment reductions.
- Some homeowners were unaware of the assessment appeals process.

The following tables tracks the 95 properties that are in both populations through the "Longwall Mining Damage and Compensation Process." Ideally, in the case of properties where damage has occurred. the process should consist of the following steps:

- Longwall mining occurs
- Damage assessment is completed
- Compensation claim is filed
- Mining company compensates property owner (cash settlement or repair)
- Assessment appeal is filed
- Appeal granted if necessary – repair will require more than tax year to complete, damage is permanent (Damage not repairable or property owner chooses not to repair damage.)
- Property repaired
- Assessment value returned to pre-mining value.

As shown below, of the 95 properties that were granted an appeal, 75 received compensation that exceeded the value reduction granted by the appeals process and 20 received compensation that was less than the amount estimated in the appeals reduction. Forty-one of the properties were returned to the pre-mining assessed value; 54 remained at the reduced value as estimated by the assessment reduction process.

Overview of Appeal/Compensation Process				
Step 1	Longwall mining occurs and reduction appeal is filed			
Action	Appeal Denied	0	Appeal Granted	95
Reasons	1. Appeal board feels there is no reason to reduce value. 2. Site visited and no damage seen		1. Appeal board feels there is reason to reduce value 2. Site visited and damage seen	
Step 2	Mining company compensates property owner			
Action	Compensation less than assessment reduction	20	Compensation greater than assessment reduction	75
Reasons	1. Landowner believes damage to house greater than coal company paid 2. Coal company refuses to pay correct amount 3. Other factors considered with the appeal (appeal bundled with non-mining related reductions)		1. Coal company overcompensated to cover costs plus intangibles. 2. Landowner reports greater damage to coal company than actually occurred.	
Step 3	**Property repaired, assessment value returned to pre-mining value**			
Action	Compensation money accounted for in property assessment	41	Compensation money not accounted for in property assessment	54
Reasons	1. Property owner notified county to increase property assessment to a value reflecting repairs 2. Coal company did not pay any money to landowner.		1. Coal company did not provide enough money to repair the property adequately. 2. Compensation money not used to repair property.	

5.3 Conclusions

This section shows that properties above longwall receive an assessment decrease from the county at a slightly greater frequency than properties not above longwall mining. The drop in value is not a significant portion of the county tax base. It was also found that the majority of properties do not receive an assessment increase (return to pre-mining value) in the long run. However, it was found that the total value of coal company settlements is greater than the total drop in county value.

6.0 STUDY OF TAX REVENUES FROM COAL MINING

6.1 Introduction

This study includes an analysis of property tax revenues generated in Greene and Washington Counties from both coal extraction and coal reserves. These data are available for both counties from the respective Tax Assessment Offices. From these data, the effects on tax revenues from longwall mining were obtained.

The following objectives are addressed:

> *For each county, determine the total annual revenue generated by taxing the coal reserves (mineral estate) of the longwall mining operations, the significance of that revenue as a source of county income, and the extent to which that revenue offsets declines in fair market and assessed value* [if the values drop].

6.2 Analysis

Coal accounts for approximately $200,000,000 in market value in Washington County. The county assesses coal based on an assumed market value of $800 per acre for reserve coal and on a variation of the income approach for coal involved in active permits. Some partially mined-out and some reserves are assessed at lower values. The average value of all the coal included in the Washington County assessment system is approximately $675 per acre. Coal is assessed when severed from the surface by deed or lease; coal value is assumed to be incorporated in the value of undivided fee properties. The county assesses approximately 35,000 acres as active at an average of $3,000 per acre and 216,800 acres of reserve coal at approximately $400 per acre. Active coal values vary from $1,000 per acre to just under $7,000 per acre. Most active coal is assessed at around $4,000 per acre.

Coal accounts for approximately $400,000,000 in market value in Greene County. Approximately 38,000 acres are under active mining (84,000 acres are included in permits). Greene County assesses over 200,000 acres of coal. Approximately 116,000 acres are listed as reserves. The market value of active coal varies from $1,000 to $8,500 per acre with the average being approximately $6,400 per acre. Reserve coal is assessed from $25 per acre to $2,000 per acre with the average reserve value assessed at $1,400 per acre.

In Greene County, coal generates approximately $14,000,000 in tax revenue to all taxing authorities. Coal is roughly 35% of the county's tax base; $2,000,000 of county revenue is generated from property taxes levied against coal estates. West Greene School District, the location of the largest mining operation (Bailey/Enlow Fork), receives nearly 60% of its income from coal revenue. Washington County has a higher population and a more diverse tax base. In contrast, coal accounts for less than 10% of Washington County's tax base, generating less than $7,000,000 to all taxing authorities.

The value of coal is dependent upon the ability to mine it and the immediacy of the market for mined fuel. Coal that can easily be exploited and sold profitably into today's market is worth significantly more than coal that is not available for mining or that is expensive to mine or that does not command a relatively high price in the current market.

The use of the income approach for the valuation of the active mines is an accepted appraisal industry practice. The approach is based on the concept that a dollar received today is worth more today than a dollar that will not be received for some years to come – in short there is a cost associated with a delay in realizing income (it costs money to wait for money). Without judging the specific formulas or variables used by the individual counties, it can be said that by using the income approach to value the active reserves (properties within the current mining permits, but not being mined), both counties are maximizing the taxable receipts from the coal operations. Valuation of inactive reserves (outside permit areas and no plans to mine) is more subjective, usually based on a combination of income and comparable sales approaches. Both counties recognize that active mineral properties (properties currently being mined) and active reserves are significantly more valuable than inactive reserve properties.

The key factor in analyzing coal assessment is the realization that the per acre value is a calculated unit value used to get the assessed value on the tax roll. What is valued in all instances is the quantity of minable coal. For example, a six-foot-thick Pittsburgh coal seam (which can produce 10,000 tons per acre) with sufficient area to develop a longwall mine is worth significantly more than a two-foot-thick Sewickley coal seam that cannot support a mine operation. The percent recovery is a key factor in estimating the value of a coal deposit. Surface mines can exploit approximately 83% of the coal in-place, traditional room-and-pillar mines can extract around 50% of the coal in-place, and longwall mining extracts nearly 100% of the coal in panels and more than 50% of the coal in mains and entries (averaging around 75% overall extraction). All else being equal, an acre of surface minable coal is worth more than an acre of deep minable coal and an acre of longwall minable coal is worth more than an acre of conventional minable coal. Minable coal has value, nonminable coal has little if any value.

Minability is both a technical and an economic term. If the coal is technically minable, it may have value. However, coal that cannot be economically exploited has little or no current value. This coal is judged to be speculative and is typically valued accordingly. As an example, in southern West Virginia, some seams are literally too thin to mine. Using the technique of mountaintop removal, coal companies can extract those thin seams along with other more desirable seams. The efficiencies afforded by the technique confers value to the seams. However, the technique results in large-scale destruction of the natural landscape, heretofore an external cost to the coal company. Recent court decisions have made the use of the mountaintop mining technique more difficult and expensive, and perhaps impossible. Because the value of the thin seams was directly related to the (elusive) efficiencies afforded by the mountaintop mining technique, the thin seams no longer have any significant present value. In short, coal that cannot be mined has little if any value.

With the advent of longwall mining, the value of the active Pittsburgh coal seam reserves was significantly increased. This point was established in court in 1991 in *Greene County v Consolidation Coal Company*. Earlier, the courts had established the precedent of equating all factors that effect value with the assessed value of the coal. The basis for assessing the value of coal was delineated by the Commonwealth Court in 1988 in the appeal of *CNG Coal Company v. Greene County Board of Assessment Appeal (551 A.2d. 328).* Here the court cited earlier decisions *(Ciafonnia v. Washington County Board of Assessment Appeal, 535 A.2d 247* and *Philadelphia & Reading Coal & Iron v. Commissioners of Northumberland County, 323 Pa. 185)* in its finding that:

> The factors to be considered in determining the market value of coal lands have frequently been stated by this court. In addition to the prices paid in sales of similar lands, due regard must be given to the physical features of the property to be valued. The formation of the coal strata should be taken into account as well as the number of veins, their depth, thickness, pitch, basins, their proximity to outcrop, and the character of the separating rock formation. Similarly, the quality of the coal, and whether of a gaseous or nongaseous nature; the kind of overlying surface; the availability of the coal and the difficulty in mining it; the probable quantity of the merchantable coal in the ground with allowance for loss in mining; the demand for the product and all elements that a prudent purchaser would take into consideration should also be taken into consideration.

Over 50,000,000 tons of coal are extracted each year from deposits in Greene and Washington Counties. Coal lands that have been depleted have no remaining coal value. At the rate of extraction, all active properties in both Greene and Washington Counties will be depleted within the next 15 years. Unless new reserves are brought into production, the bulk of the coal tax value in both counties will significantly diminish. In fact, if active mining ceases in the counties, the value of the remaining reserves will also diminish. The value of these reserves is related in part to their proximity to active operations and the likelihood that these valuable activities could be extended into the reserves. A loss cessation of mining would call this basic assumption into question.

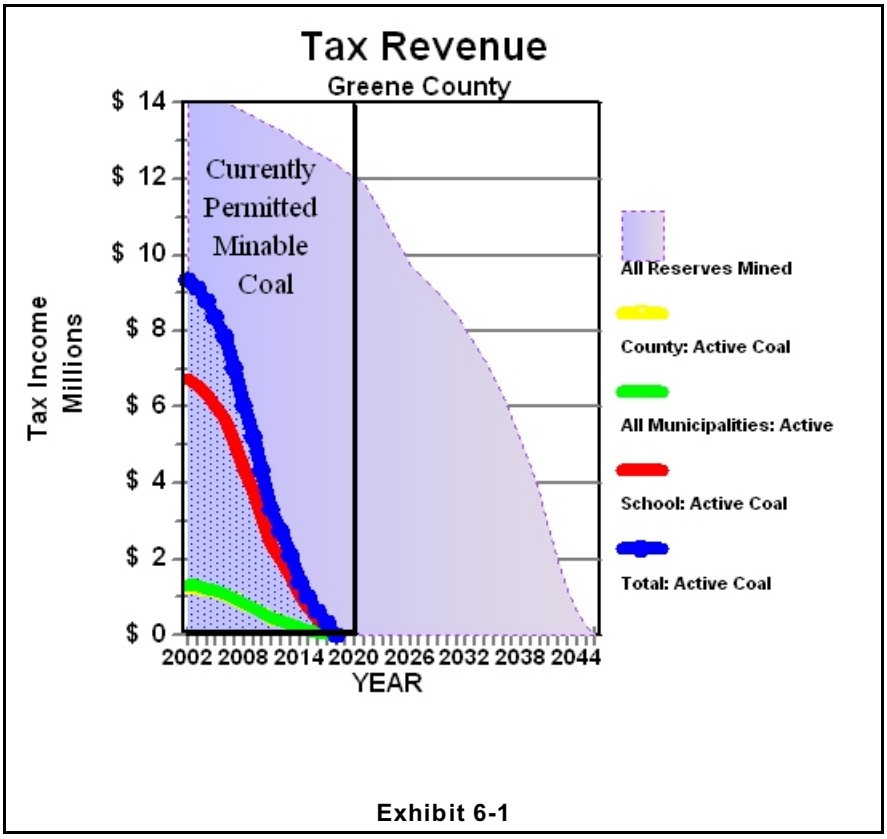

Exhibit 6-1

Exhibit 6-1 shows the current and planned coal related tax receipts for Greene County. **Exhibit 6-2** shows similar data for Washington County. As shown in both exhibits, the tax income anticipated to be generated from coal deposits will decline. The exhibits show: 1) the immediacy of that decline should mining stop with the currently permitted mining operations and 2) the more gradual (shaded area), but inevitable decline based on the assumption that all current reserves will be permitted by coal companies for future active mining operations.

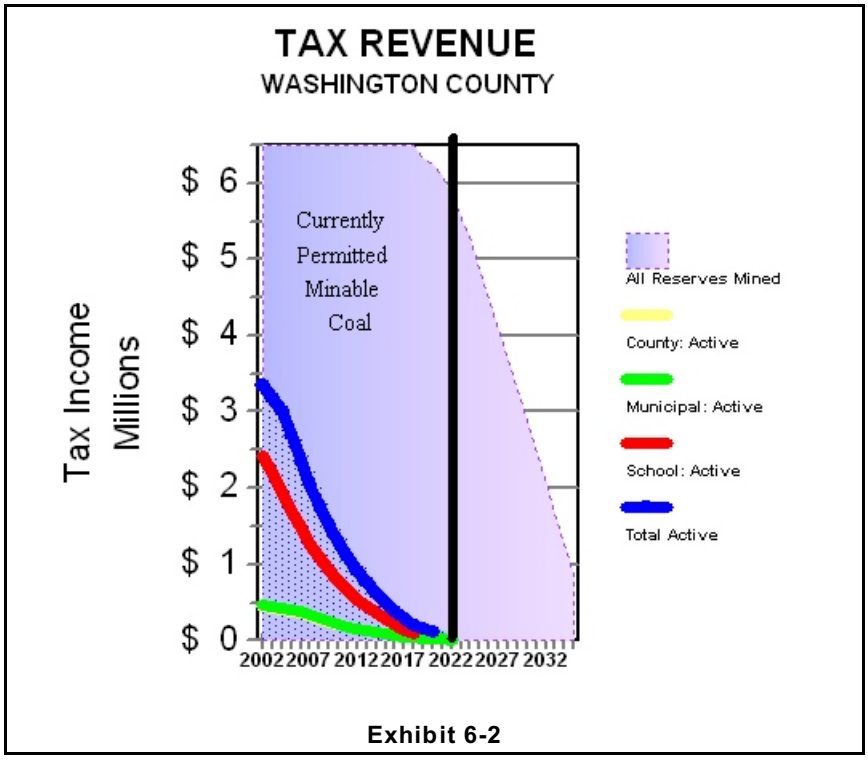

Exhibit 6-2

Should the reserve coal not be converted to actively mined coal permitted – current mining areas expanded to include the unmined coal, coal revenue will cease to be significant in Greene County by the year 2017 and by 2012 in Washington County.

Neither scenario is likely. It is unlikely that no new mines will be opened, nor is it likely that no existing mine will be expanded. It is equally unlikely that ALL

existing minable coal will be exploited. In either situation, following the depletion of active mines – what remains is speculative coal value, much of which would be subject to assessment challenge, thus lowering the coal income to the county, schools, and municipalities.

Exhibit 6-3 provides a map showing the relative geographic distribution of the current coal value as compared to the current surface value. Areas portrayed as green are where the coal produces more real estate tax than the surface property, areas portrayed as red are where the surface provides more taxable income than the coal estate, and areas shown in blue are where the contributions to the tax base are approximately equal. **Exhibit 6-4** excludes the mined-out areas from the calculation.

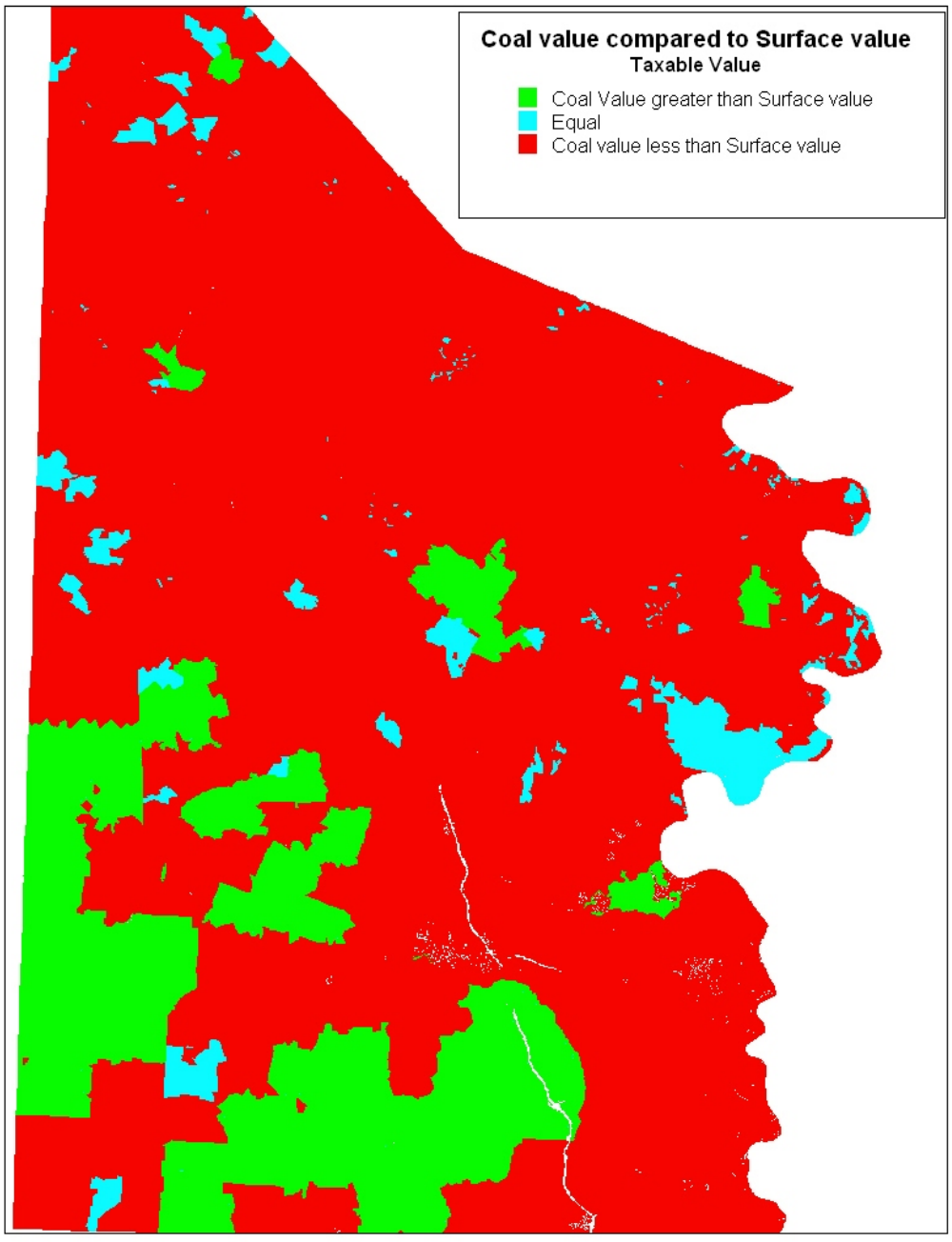

Exhibit 6-3 Coal Value Compared to Surface Value

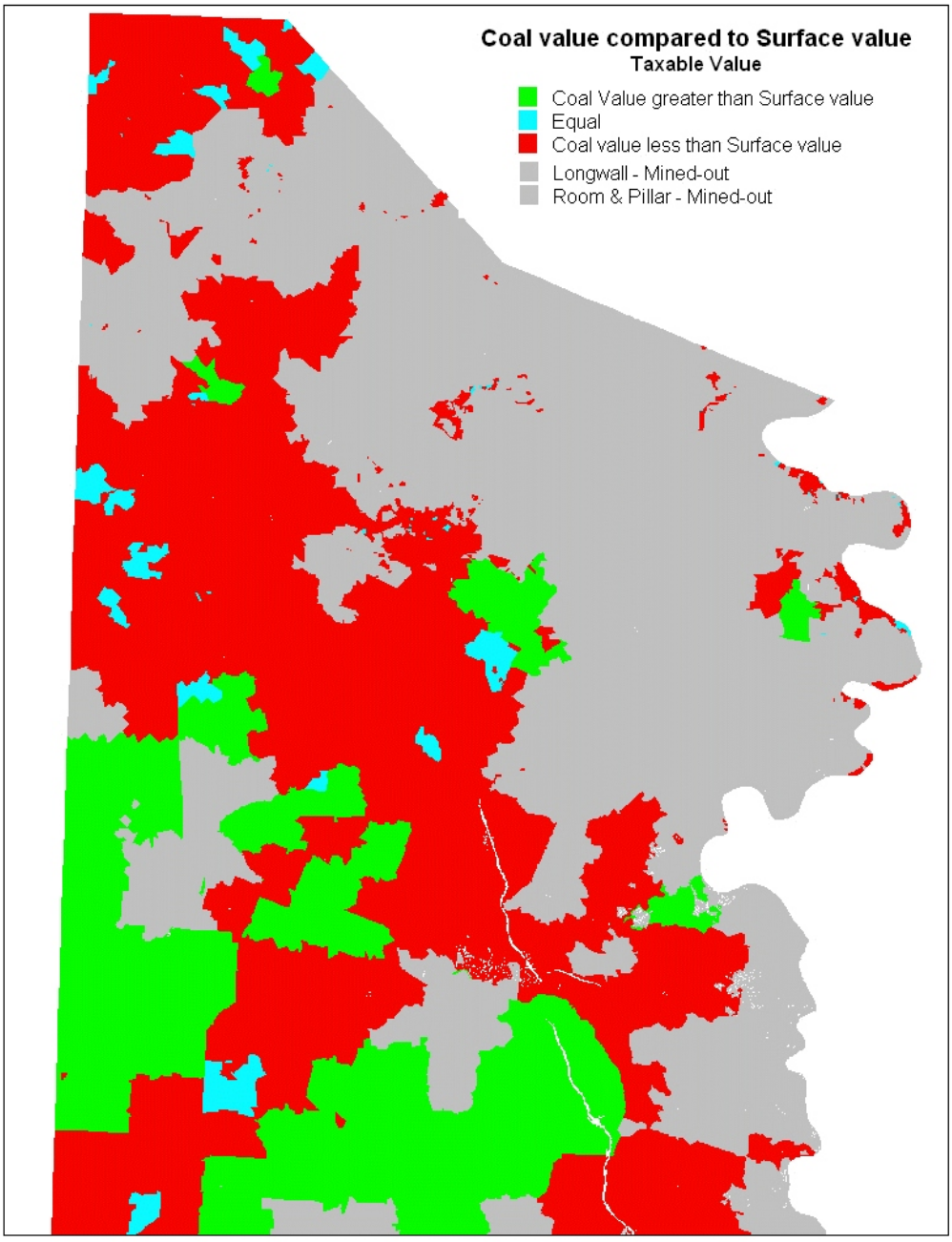

Exhibit 6.4 Coal Value Compared To Surface Value Excluding Mined-Out Areas