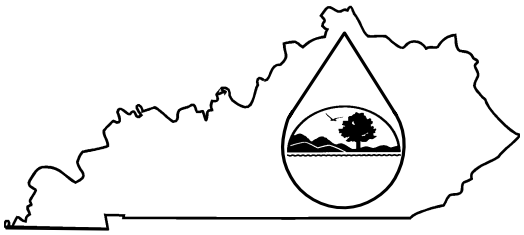
KPDES FORM SDAA



Kentucky Pollutant Discharge Elimination System (KPDES)

Socioeconomic Demonstration and Alternatives Analysis

The Antidegradation Implementation Procedure found in 401 KAR 10:030, Section 1(3)(b)3 requires KPDES permit applications for new or expanded discharges to waters categorized as "Exceptional or High Quality Waters" to conduct a socioeconomic demonstration and alternatives analysis to justify the necessity of lowering local water quality to accommodate important economic or social development in the area in which the water is located. This demonstration shall include this completed form and copies of any engineering reports, economic feasibility studies, or other supporting documentation

I. Project Information

Facility Name: Clintwood Elkhorn Mining Company

Location: Phyllis	**County: Pike**

Receiving Waters Impacted: Island Creek, Levisa Fork

II. Socioeconomic Demonstration

1. Define the boundaries of the affected community:
(Specify the geographic region the proposed project is expected to affect. Include name all cities, towns, and counties. This geographic region must include the proposed receiving water.)

Reference Attachment II (1)

2. The effect on employment in the affected community:
(Compare current unemployment rates in the affected community to current state and national unemployment rates. Discuss how the proposed project will positively or negatively impact those rates, including quantifying the number of jobs created and/or continued and the quality of those jobs.)

Reference Attachment II (2) and II (2a)

Affected Geographic Regions

The areas that would be affected by mining operations being conducted by Clintwood Elkhorn Mining Company typically are Pike and Letcher counties. The smaller communities located within these counties typically are, but not limited to, Pikeville, Elkhorn City, Phelps, Coal Run, Ashcamp, Dorton, Fedscreek, Hellier, Neon, Jenkins, and Whitesburg. This particular operation is located near Phyllis in Pike County.

There are no known surface water users in these areas. The majorities of these users are on local municipal supplies and will not be impacted by any possible adverse effects caused by mining operations. There are still users which acquire their water via wells. These wells typically extend to the floor of the respective aquifer and will not be impacted by mining operations. In the event, that their water supply was interrupted by mining operations, the coal company is required to restore their water supply by whatever means necessary.

Employment of the Affected Community

The unemployment rates in Pike County from 2006 to 2009 have been compared to the current state and national average rates, and clearly demonstrate an economy that is struggling, thus the need for more jobs with which to allow for more economic growth. Please reference the following unemployment rates which have been obtained from the Workforce Kentucky website:

	2006/2007	2008	2009
Pike County:	6.7%	5.9%	11.0%
State of Kentucky:	6.1%	6.4%	11.1%
United States:	5.1%	5.8%	9.7%

The statistics from June 2009 further indicated that Pike County had a total labor force of 24,130 employed individuals and 2,979 unemployed individuals.

Attachment II (2a) has been obtained form the Kentucky Office of Employment and Training. This chart includes the Kentucky unemployment rates for every county in 2008.

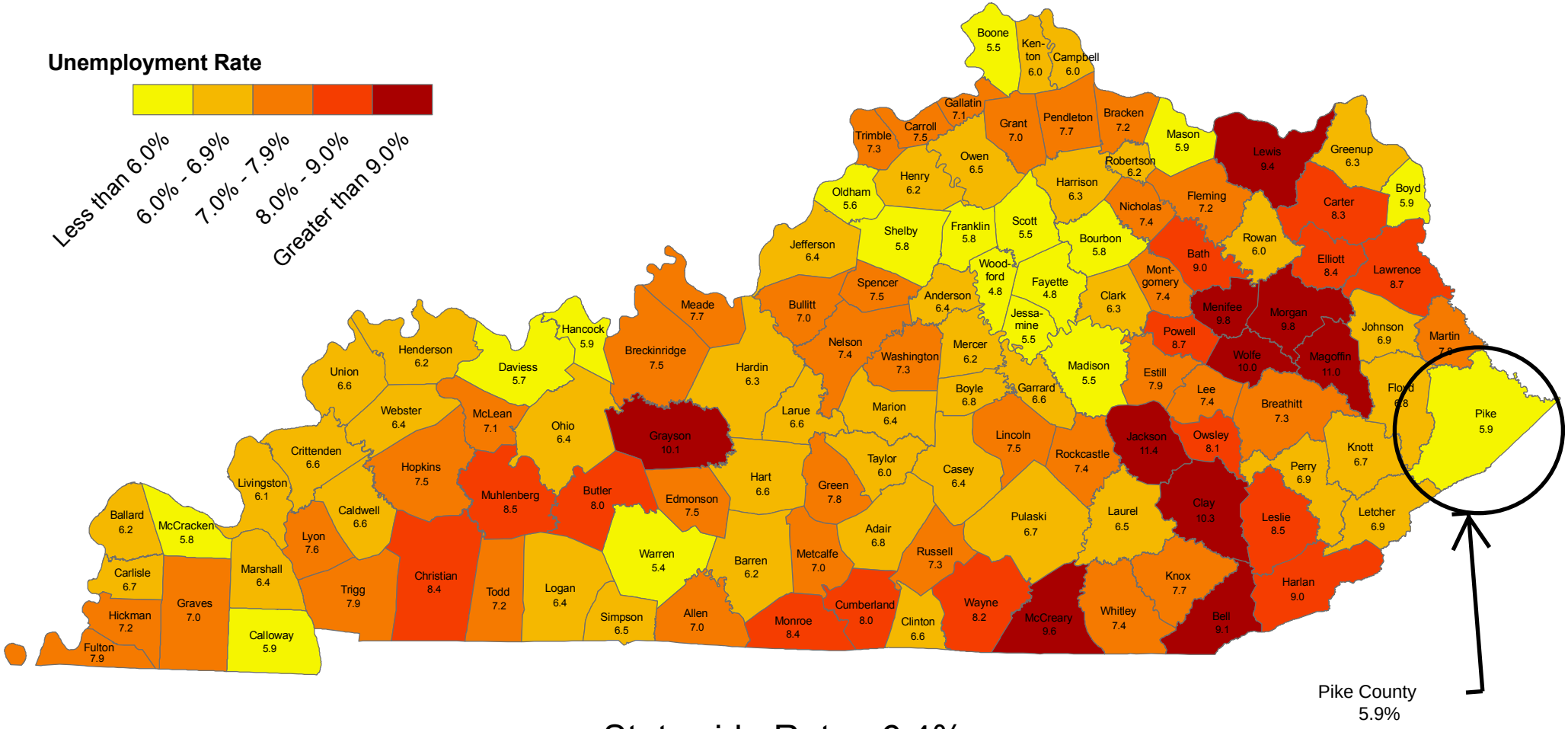
As shown, Pike County previously had a significantly higher unemployment rate than both the state and national averages. The recent spike during the first months of 2009 is a result of the recent downturn in the national economy, and the coal mining industry has been at the forefront of this recession. Of the few High Wage Industries in eastern Kentucky, mining is a very vital aspect in regard to contributing to the local economies of Eastern Kentucky, including Pike County. For example, a typical mining operation may employ approximately 40 workers, which include miners, equipment operators, mechanics, coal truck drivers, and foremen. The trickle down effect then applies as the product has been delivered to coal preparation plants and tipples, cleaned, and then shipped to various locations and sold to numerous types of industry, and ultimately generating electricity for up to 90% of the state of Kentucky and 50% nationwide.

Take for example that for only (1) operation, the typical life of a coal mine is 5years, thus the workers will be employed for this duration of time. As these areas "mine out" and approach completion, the majority of these workers will be reassigned to new mining operations or may remain to aid in reclamation operations.

If a typical mining operation can generate jobs for 40 new individuals, then the unemployment rate will obviously decrease, and will provide for additional revenue to be spent in the local economy. This will in turn provide for a higher standard of living, improvements in ancillary industries including supplies, retail, and various services within the local area.

Kentucky Unemployment Rates* by County

2008



Pike County
5.9%

Statewide Rate: 6.4%
U.S. Rate: 5.8%

Source: Kentucky Office of Employment and Training, Research and Statistics Branch
Attachment II (2a)

II. Socioeconomic Demonstration- continued

3. The effect on median household income levels in the affected community:
(Compare current median household income levels with projected median household income levels. Discuss how proposed project will positively or negatively impact the median household income in the affected community including the number of households expected to be impacted within the affected community.)

Reference Attachment II (3) and II (3a)

4. The effect on tax revenues of the affected community:
(Compare current tax revenues of the affected community with the projected increase in tax revenues generated by the proposed project. Discuss the positive and negative social and economic impacts on the affected community by the projected increase.)

Reference Attachment II (4)

Household Income of the Affected Community

The current median household income levels in Pike County from the fiscal year of 2006/2007 have been obtained from the Workforce Kentucky website and have been compared to the current state and national average rates as follows:

Pike County:	$27,239
State of Kentucky:	$30,824
United States:	$38,615

Please refer to attachment II (3a) for comparisons in per-capita incomes for 1999 thru 2007.

The current median household income levels in Pike County for coal miners alone are shown as follows:

Annual Mean:	$49,187
Annual Entry Level:	$31,037
Annual Experienced:	$58,262

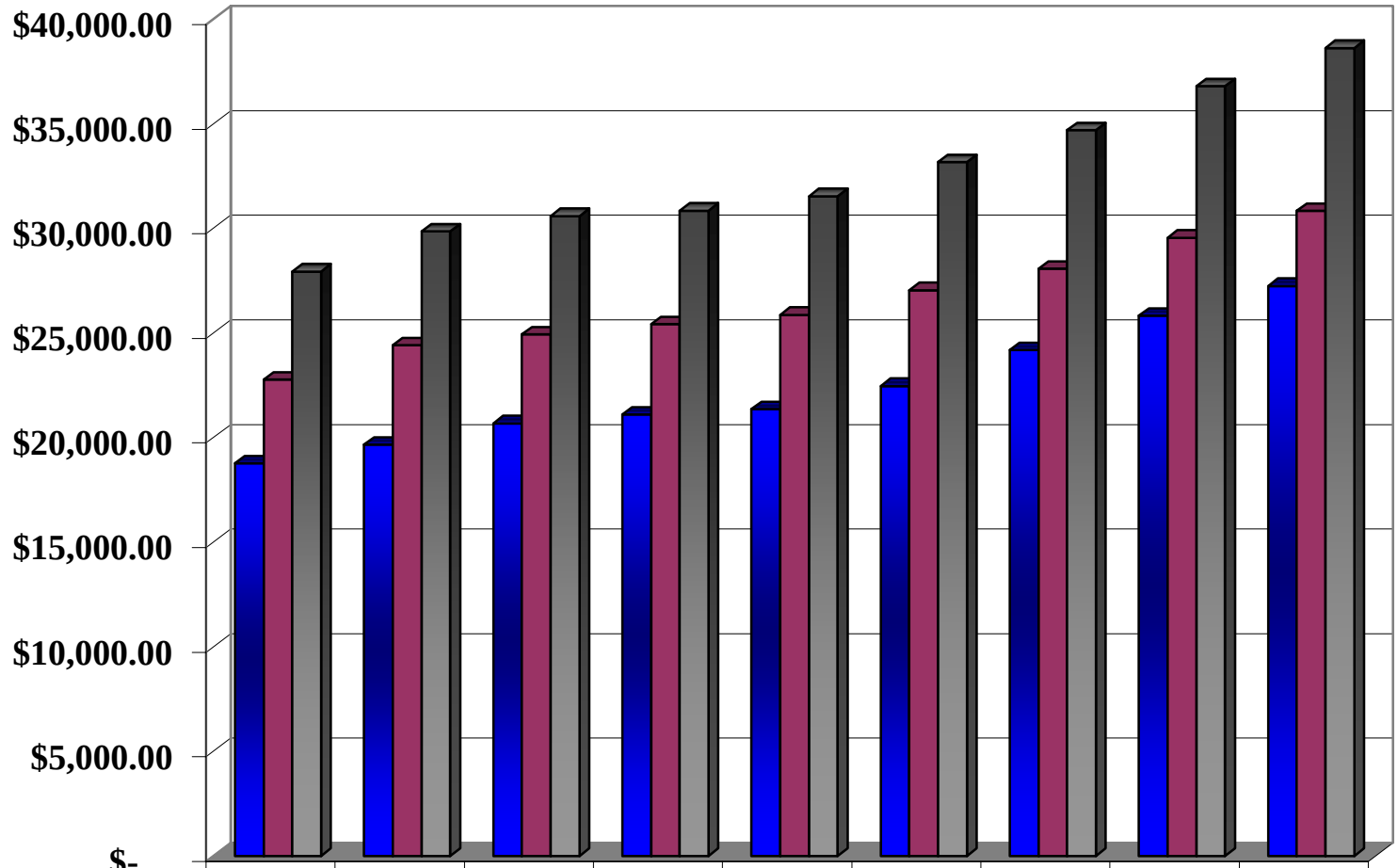
As shown above, the average miner will earn nearly twice the amount of an individual employed elsewhere. As many as forty households will be directly impacted with many more indirectly impacted by increased tax revenues in the county. The tax revenue and retail spending lead to improved social conditions with the advancement of the health care system, educational system and the improvement of local infrastructure. The overall quality of life in the region will be improved with the sustained economic growth. This economic growth leads to clean water supply systems and sanitary sewer systems to places where these facilities do not currently exist.

Assuming there are 40 workers employed at a given mine site, and assuming the median miner makes approximately $50,000 a year for (5) years, then this equates to $10,000,000 of taxable income into the general tax base and local economy.

According to the Kentucky Council on Post-Secondary Education there are currently an approximate 4,300 individuals in Pike County employed in agriculture, mining, and other natural resource related fields. Of those, it is anticipated that the majority of these individuals are employed directly in the mining industry or other industries that maintain the mining industry, such as those that manufacture mining products and heavy equipment. The remaining jobs would be those associated with logging operations and natural gas production.

According to the Kentucky Coal Association, at least (3) indirect jobs are created for every (1) coal mining job. For example if 40 coal miners are hired, it can be assumed that 120 jobs within the local area will be created indirectly as the economy grows.

1999-2007 Per-capita Income



	1999	2000	2001	2002	2003	2004	2004	2006	2007
Pike County	$18,764.00	$19,662.00	$20,676.00	$21,092.00	$21,352.00	$22,460.00	$24,184.00	$25,819.00	$27,239.00
Kentucky	22,763.00	24,413.00	24,923.00	25,415.00	25,863.00	27,045.00	28,071.00	29,542.00	30,824.00
United States	27,939.00	29,847.00	30,582.00	30,838.00	31,530.00	33,157.00	34,690.00	36,794.00	38,615.00

Attachment II (3a)

Tax Revenues of the Affected Community

The most recent severance tax revenues for coal mining operations in Pike County have been acquired from the Kentucky Revenue Cabinet's website and were accrued during the 2006/2007 fiscal year. Coal production in Pike County produces and exceeds more than twice the amount of coal and tax revenue than any other mining county in the state. The next closest county was Harlan, as shown below:

	Gross Value	Taxed Revenue
Pike County:	$1,061,847,049	$47,482,781
Harlan County:	$490,345,623	$20,462,020

As shown, this is a significant amount of severance tax that is returned to the county and dispersed accordingly as seen fit by the governing authorities. According to Workforce Kentucky, future projections anticipate that the mining industry in Pike County will have grown 1.2% by 2016.

As before, this proposed operation will provide approximately 40 jobs sustainable for (5) years or more. Given that the average coal miner earns approximately $50,000 annually, this equates to $10,000,000 of taxable income into the general tax base and local economy. This money provides for better living conditions, improvements in infrastructure and support of ancillary industries including supplies, retail, and services in the local area.

The proposed operation would result in $162,457 dollars of coal severance tax revenue that could be utilized and returned back into the local community. This amount is based upon approximately 144,407 tons of coal being mined at $2.25 per ton with 50% severance tax money being returned to the community.

II. Socioeconomic Demonstration- continued

5. The effect on an existing environmental or public health in affected community:
(Discuss how the proposed project will have a positive or negative impact on an existing environmental or public health.)

Reference Attachment II (5)

6. Discuss any other economic or social benefit to the affected community:
(Discuss any positive or negative impact on the economy of the affected community including direct and or indirect benefits that could occur as a result of the project. Discuss any positive or negative impact on the social benefits to the community including direct and indirect benefits that could occur as a result of the project.)

Reference Attachment II (6)

Public & Environmental Health of the Affected Community

As many as fifteen households will be directly impacted, with many more indirectly impacted by increased tax revenues in the county. The tax revenue and retail spending lead to improved social conditions with the advancement of the health care system, educational system and the improvement of local infrastructure. The overall quality of life in the region will be improved with the sustained economic growth. This economic growth leads to clean water supply systems and sanitary sewer systems to places where these facilities do not currently exist.

While this project does not directly provide sewage treatment facilities, the taxes paid by employees can be used to provide or improve existing municipal water and sewage treatment facilities. Approximately, $10,000,000 will be generated in taxable income by the 40 or so jobs created by the mining operation.

Furthermore, tax revenue generated from wages earned can be used for local improvement projects, such as municipal water supplies, sanitary sewer projects, transportation and other infrastructure. These water related projects are sorely needed in Eastern Kentucky where clean drinking water supplies and adequate sanitation are needed badly.

For 2007, the federal poverty level was $20,650.00 for a family of four as published by the National Center for Children in Poverty. This project could potentially decrease the poverty level in Pike County by employing approximately 40 individuals at an average annual salary of $50,000, which is approximately twice the median wage of $27,239 as previously discussed. Furthermore, these mining companies offer excellent health care and insurance plans, whereas otherwise, the majority of minimum wage jobs either do not offer plans, or the expense of paying a substantial portion of wages for this coverage does not outweigh the necessity of providing for a family on a day to day basis.

According to Workforce Kentucky, the unemployment rate for the state of Kentucky in 2007 was 5.7%. In 2008 approximately 16,600 individuals were directly employed in the coal mining industry in the state of Kentucky.

Economic Benefits on the Affected Community

The proposed operation will provide approximately 40 jobs and numerous other jobs that support the mining industry. As before, approximately $10,000,000 will be earned as taxable income over the life of the operation. This money can be used to provide better schools, roads, housing, water supplies and sanitary sewer facilities. Additionally, up to an anticipated $5,000,000 in wages will be spent in the local economy, thereby supporting additional jobs and generating additional tax revenue.

The continuation and creation of jobs by the proposed operation will aid in sustaining the local economy and sociological progress of the community. Due to the fact that the local economy is dependent upon the mining industry and all of the other economic impacts that mining creates, a loss of jobs or potential jobs has a very large detrimental impact upon the social condition of the region. It is anticipated that a loss of 40 jobs could also affect the loss of another 120 jobs in support sectors. When these jobs are lost, most people seek employment in other regions. This results in a decline in population which directly affects the quality of the regional health care system, road system and educational facilities.

Pike County has a population of approximately 67,000 residents with per capita income averaging $27,239 as previously discussed. This operation would employ approximately 40 individuals. Currently miners earn an average of $50,000 per year which is approximately double the earnings for the average individual in Pike County. According to the Kentucky Coal Association, at least three additional indirect jobs are created for every one coal job. If 40 miners are employed by this operation, then approximately 120 jobs may be indirectly created from this operation which would further lower the unemployment rate for Pike County.

In addition to the economic benefits of this operation, the post mining land use of wildlife habitat will enable the permittee to generate flat land and new roads for recreational areas for hunting or fishing. The development of habitat areas in the midst of unmanaged forestland is beneficial to wildlife by providing food, cover, forage, and water sources where these may otherwise be limited. The possibility exists to create walking trails or ATV trails using the old haul roads in order to promote tourism. Additionally, the reclaimed areas offer the future potential for residential or business development after bond release.

III. Alternative Analysis

1. Pollution prevention measures:
(Discuss the pollution prevention measures evaluated including the feasibility of those measures and the cost. Measures to be addressed include but are not limited to changes in processes, source reductions or substitution with less toxic substances. Indicate which measures are to be implemented.)

Reference Attachment III (1)

2. The use of best management practices to minimize impacts:
(Discuss the consideration and use of best management practices that will assist in minimizing impacts to water quality from the proposed permitted activity.)

Reference Attachment III (2)

3. Recycle or reuse of wastewater, waste by-products, or production materials and fluids:
(Discuss the potential recycle or reuse opportunities evaluated including the feasibility of implementation and the costs. Indicate which of these opportunities are to be implemented)

Reference Attachment III (3)

Pollution Prevention Measures

Chemical treatment options at the public water supply were considered for the proposed site. Chemical treatment costs vary widely depending upon the wastewater constituents. Assuming an average rainfall of 44 inches, a seventy-five percent runoff rate, a five year treatment period and an affected permit area of 394.95 acres, this equates to 2.12 billion gallons of water to be treated. Given 2.12 billion gallons of water generated from the proposed site over the life of the mine and a minimal cost of $0.50/gallon for the use of the necessary chemicals will cost approximately $1.06 billion to treat the discharge from the proposed site. This cost does not include start-up or mobilization costs.

Another possibility is to contain the discharge in septic systems, or cisterns, for on-site storage. Septic systems are not designed to handle this type of water. Use of such a system would essentially serve the same purpose as a sediment pond. Cistern use for storing the excess water is available for $65,000 per 75,000 gallons. This would bring an additional $1.84 billion to the cost of excess water storage for the proposed site. This cost does not include start-up or mobilization costs.

The proposed sediment control structures will indirectly treat existing pre-law mining disturbances, gas and oil production disturbances and extensive logging disturbances. These disturbances exist within the watersheds where the proposed structures are located. The sediment control structures will aid in reducing sedimentation and water quality pollution to the receiving stream caused by the existing disturbances. These ponds will be constructed in conjunction with the proposed mining plan to ensure proper containment and treatment of on-site wastewater. The construction and maintenance of the pond structures associated with the proposed project will cost approximately $60,000 for the life of the mine, based on 6 structures at a minimum of $10,000 each. The current wastewater containment and drainage control plan for the proposed project are the measures to be implemented.

Additionally, this project will indirectly treat existing sources of pollution by the construction or improvement of sanitary sewage systems. Up to $10,000,000 of taxable income will be generated for the state and federal tax base. This money can be used for providing municipal sanitary sewer facilities for the area. Due to the general topography and varying individual economic statuses, individual sewage facilities are often inadequate. This results in many “straight pipe” discharges to local streams and rivers. Generated tax revenues can be used for improvements in these public facilities.

Best Management Practices

Sediment structures and associated diversions will be constructed concurrently with vegetation removal within the watersheds for which the structures are designed. The runoff from initially disturbed areas will be retained on the mine bench with no discharge leaving the permitted area without passing through temporary sediment control until the primary sediment control structure is constructed and certified. Temporary sediment control may be provided during the mining operation for the transition from one pond area to another by diverting the drainage back into the previously constructed pond until the next pond is constructed and certified. Mining operations will at no time advance prior to the construction of the next proceeding pond.

Additional Implemented Measures

Best management practices will be used during the life of the mining operations. These practices will aid in minimizing impacts to the downstream areas. These practices will consist of but will not be limited to the following:

1. Constructing the sediment structures prior to any surface disturbance of the respective watershed.

2. Minimization of the disturbance areas during mining to the fullest extent possible.

3. Prompt seeding and mulching of the backfilled and graded mining areas in order to minimize the amount of sediment entering the sediment structure, thus reducing the amount of suspended solids.

4. The use of additional sediment control measures during pond removal. These measures will consist of the use of straw bales or silt fences, followed by seeding and mulching as necessary.

5. Other best management practices may be implemented as new conditions arise. Any measure deemed appropriate by the mine foreman to minimize potential adverse impacts to downstream areas will be utilized to the fullest extent possible.

DESCRIPTION OF BEST MANAGEMENT PRACTICES TO BE UTILIZED FOR HAUL ROAD ONLY 898-7077

The Best Management Practices listed only pertain to permit 898-7077, as it is a Haul Road Only permit and has no outfalls. Best management practices will be used during the life of the mining operations. These practices will aid in minimizing impacts to the downstream areas. These practices will consist of but will not be limited to:

1. The haul road will be routinely maintained as required to minimize erosion and sedimentation.

2. Out slopes of the road will be seeded and mulched to provide a good vegetative cover thereby preventing erosion.

3. A road grader, dozer or end loader will be used to clean the ditches and level the road surface when necessary.

4. The road surface will be supplemented with durable sandstone and limestone.

5. The road will be watered with a water truck as needed during dry conditions to control dust emissions.

6. Culverts will be installed in established natural drains, where possible, to minimize the potential for erosion. Where needed, the culvert outlets will be rip-rapped to prevent erosion.

Water Re-use or Recycle

Water may be used on a limited basis for the watering of roads to reduce the potential of fugitive dust and other dust problems associated with surface mining. There are no other uses for water on surface mines. This amount of water usage is negligible in comparison to the total amount of water required to be processed and discharged. The estimated amount of water to be treated is approximately 2.12 billion gallons over the period of 5 years. It is estimated that approximately 6.50 million gallons of water (5,000 gallons/day x 5 days/week x 52 weeks/year x 5 years) could be used for road watering and dust control. The cost for collection and distribution is estimated to be $560,000.00 ($40,000 for collection station + $520,000.00 distribution cost) The distribution cost was calculated utilizing 1 truck at $50.00 per hour for 8 hours per day for 5 days a week 52 weeks per year times five years. It is evident that this alternative use is not sufficient to reuse or recycle all of the water to be treated, due to the size of the watersheds affected.

A second alternative use would be to use the water during reclamation activities. These activities could include dust control and hydroseeding. This usage would only account for less than 0.2% of the total amount of water estimated to be processed. It is estimated that the total amount of water used during reclamation would be 418,000 gallons or less. Such usage would equate to a cost of $80,000 (8 hours x 197 days x $50/hour + $1,200 equipment cost).

Clintwood Elkhorn Mining Company routinely uses the second alternative in their mining operations to the maximum extent possible. This alternative is sufficient and cost effective for dust control and revegetation.

III. Alternative Analysis - continued

4. Application of water conversation methods:
(Discuss the potential water conservation opportunities evaluated including the feasibility of implementation and the costs. Indicate which of, of these opportunities are to be implemented)

Reference Attachment III (4)

5 Alternative or enhanced treatment technology:
(Compare feasibility and costs of proposed treatment with the feasibility and costs of alternative or enhanced treatment technologies that may result in more complete pollutant removal. Describe each candidate technology including the efficiency and reliability in pollutant removal and the capital and operational costs to implement those candidate technologies. Justify the selection of the proposed treatment technology.)

Reference Attachment III (5)

Water Conservation

The water conservation techniques that will be implemented during this project consists of on-site water distribution, which is limited to watering haul roads for dust suppression, hydroseeding for reclamation, and watering of reclaimed areas. These water re-use techniques will cost approximately $100,000 annually. These methods for on-site water redistribution will be implemented. The proposal of the sediment control facilities within this mining permit will also aid in treating existing surface disturbances that have occurred in years past. The watersheds treated by these facilities have been logged within the last ten years. The level of disturbance varies from watershed to watershed with each having some level of impact. The sediment control structures will receive runoff from the proposed disturbances along with the degraded water quality from such logging operations.

Also, tax revenue generated from wages earned can be used for local improvement projects, such as municipal water supplies, sanitary sewer projects, transportation and other infrastructure. These water related projects are sorely needed in Eastern Kentucky where clean drinking water supplies and adequate sanitation are badly needed.

Alternative Treatment Technology

Alternative processes and treatments have been considered. One alternative would be the filtering of the discharge using commercial filtering systems. These systems are estimated to cost 0.50 cents per thousand gallons of filtered water. The estimated amount of water to be treated over a period of 5 years is 2.12 billion gallons. This results in a cost of approximately $1,060,000 over the life of the mining operation. This figure does not include equipment and mobilization costs, anticipated repairs, maintenance, energy costs, and labor to maintain the system efficiently.

Another alternative would be the use of coagulants. Coagulant treatment is anticipated to cost 0.70 cents per thousand gallons of water, resulting in a cost of $1,484,000 over the life of the mining operation just for chemicals. This figure does not include equipment and mobilization costs, anticipated costs for labor, nor for the cost of disposal of precipitates.

A second alternative would be the underground only method of mining. Underground mining only would have the possibility of reducing the amount of water generated by having a smaller surface disturbance. However, this alternative mining method would only recover less than half of the affected coal reserves as some seams are too thin to mine by the underground method. Also, it is anticipated that fewer jobs could be created using this method of mining.

A third alternative would be discharging water under lower effluent limitations. This alternative would require additional treatment methods other than those described previously. These additional methods would consist of a higher level of filtration systems which would significantly increase the cost of treatment. The alternative would consist of using a high volume reverse osmosis filtration system. It is estimated that this alternative would cost approximately $1.25 per thousand gallons of water. The total cost associated with this alternative would be approximately $2,650,000 (2.12 BG x $1.25/1000G). Additionally, this figure does not include equipment and labor costs. Such treatment may only yield limited results. The effectiveness of a higher level of treatment would be affected by the variable rate of treatment that would be encountered. Due to the fact that surface discharge occurs during precipitation events it could be assumed that the treatment system would be overwhelmed during large rainfall events.

The final alternative considered would be no mining. This alternative is not feasible, as significant investments have been made by the applicant and the local economy is dependant upon the mining industry for the generation of revenue. In this particular case the taxable income that would be lost for Pike County alone would be approximately $26.2 million (40 jobs @ $50,000/yr x 5 yrs + 120 jobs @ $27,000/yr x 5 yr). No other conceivable treatment alternatives are available other than the proposed gravity settlement of suspended solids provided by the sediment ponds.

III. Alternative Analysis - continued

6. Improved operation and maintenance of existing treatment systems:
(Discuss improvements in the operation and maintenance of any available existing treatment system that could accept the wastewater. Compare the feasibility and costs of improving an existing system with the feasibility and cost of the proposed treatment system.)

Reference Attachment III (6)

7. Seasonal or controlled discharge options:
(Discuss the potential of retaining generated wastewaters for controlled releases under optimal conditions, i.e. during periods when the receiving water has greater assimilative capacity. Compare the feasibility and cost of such a management technique with the feasibility and cost of the proposed treatment system.)

Reference Attachment III (7)

Maintenance of Existing Treatment Systems

While this project does not directly provide for sewage treatment facilities, the taxes paid by employees can be used to provide or improve existing municipal water and sewage treatment facilities. Approximately, $10,000,000 will be generated in taxable income by the 40 or so jobs provided by the operation.

The existing treatment facilities proposed are those provided in the form of sediment ponds. These structures are designed so that all discharges meet effluent limitations. These structures are routinely inspected for sediment capacity and the quality of the discharging water. Once the structure has reached or is nearing its allowable sediment capacity, the material is removed from the pond and allowed to dry. Once dry, it is tested for any possible toxicity and then disposed of accordingly. The sediment is blended with other spoil material used to backfill mine benches, construct hollowfills, or buried underneath and encased with at least 4' of non-combustible/toxic impermeable material.

Controlled Discharge Options

Another alternative would be to pump the discharge water to the sediment control structures located approximately 1,700 feet at the mouth of an unnamed tributary west of Island Creek. This alternative discharge consists of collecting the runoff from each affected watershed and pumping it into an adjacent watershed stream. However, this is cost-ineffective. The cost for this alternative pumping would be estimated at approximately $359,500.00 ($90,000 for six pumps, $35/ft x 1,700 ft = $59,500, $35/hr x 6000 hr = $210,000) for labor and maintenance for the term of the pumping period. Additionally, this cost does not include mobilization or energy costs which are estimated to exceed $250,000. However, this structure is not designed to control such a massive amount of runoff from another watershed. The cost of enlarging the impoundment if possible, would also have to be included in the cost of this alternative.

Another alternative would be to pump the discharge water to any another location but after evaluating the area, this option would not be feasible as it is believed most of the surrounding mines are currently being drained. Due to the increase of water from the natural aquifer system in the mine works to over 2 billion pumped gallons would lead to mass flooding or even blowouts in other areas. Also, a review of streams adjacent to the permit area indicates that these adjacent streams are also high quality in nature. Subsequently, this is not considered a viable alternative due to the fact that degradation of another high quality stream may occur.

No other conceivable treatment alternatives are available other than the proposed gravity settlement of suspended solids and heavy metals contained by the sediment ponds.

III. Alternative Analysis - continued

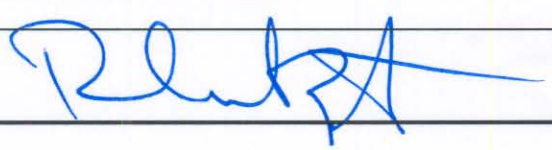
8 Land application or infiltration or disposal via an Underground Injection Control Well
(Discuss the potential of utilizing a spray field or an Underground Injection Control Well for shallow or deep well disposal. Compare the feasibility and costs of such treatment techniques with the feasibility and costs of .proposed treatment system.)

Reference Attachment III (8)

9 Discharge to other treatment systems
(Discuss the availability of either public or private treatments systems with sufficient hydrologic capacity and sophistication to treat the wastewaters generated by this project. Compare the feasibility and costs of such options with the feasibility and costs of the proposed treatment system.)

Reference Attachment III (9)

IV Certification: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Title:	**Robert J. Zik, Vice-President**	**Telephone No.:**	606-835-4006
Signature:		**Date:**	2/21/11

Land Infiltration or Underground Disposal Options

Both of these options have been taken into consideration and based upon the following information, neither of these methods would be feasible:

The use of a spray field to dispose of waste water does not provide for any different result than a discharging sediment pond meeting effluent limitations. Both options require that the water is meeting effluent conditions, thus constructing a spray field to disperse the effluent from a sediment pond is not providing any advantage to the mining operation and is thus cost-ineffective to include this additional measure in discharging water, as both methods end with the same result. The most reasonable method is the proposed gravity settlement of suspended solids and heavy metals contained by the sediment ponds alone.

The utilization of either a Class III or Class V injection well to dispose of waste water has been considered and determined as both are cost-ineffective and un-feasible for the geographical region. Considering that it is anticipated that 2.12 billion gallons of water will pass through sediment control over a 5 year period, containing and storing this water on site in these wells is impossible.

The cost of installing the well(s) is cost-ineffective as opposed to creating either a dugout or embankment pond. Furthermore, this injected water would not be treated, and the cost of attempting to clean up an adverse impact to the groundwater table pales in comparison to confining the material on the surface in the form of a sediment pond. In this event, the water would be siphoned out of the structure and treated accordingly depending on the source of contaminant.

The installation of these wells to contain this amount of water would result in well depths and sizes that would in all cases penetrate active or abandoned underground mine works creating the potential for a blow-out situation. Furthermore, if this water was to be stored in these wells, they would not be able to be constructed deep enough to reach far below the floor of the fractured alluvial aquifers and would essentially be infiltrating the water back into the groundwater table un-treated by natural processes, which is the intent of well injection discharge methods. According to the US EPA, Class V wells are used to store run-off storm waters which are “rule authorized”, I.e., no permits are required for their construction, operation, maintenance, or abandonment. In the unlikely event that an un-noticed illicit spill of any hazardous substance occurred, this would almost certainly be returned to the ground water table un-treated, as opposed to the sediment ponds which contain all water on site. Any applicable substance would settle out in the pond along with the naturally occurring heavy metals and sediment that are common in the strata of this region.

Alternative Discharge Options

Alternative discharging techniques have been considered consisting of pumping the discharge to the nearest municipal wastewater treatment facility. However, municipal treatment is not available in this area and the anticipated expense of extending the service line is cost-prohibitive. The service line would need to be extended from the job site to the Pikeville Municipal Treatment plant. The estimated cost for extending the service line 25 miles would be approximately: $55/ft x 5280 ft/mi x 25 mi = $7,260,000. Additionally, the wastewater treatment facility is not designed to handle the anticipated peak flows and would require system upgrades exceeding $1,000,000. No other conceivable treatment alternatives are available other than the proposed gravity settling provided by the sediment ponds.