

TAYLOR COLLIERY REDEVELOPMENT PROJECT

**Presented by:
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Malcolm Pirnie, Inc.**

July 14, 2009

Taylor History

- Taylor Borough is located in the central region of Lackawanna County; south west of Scranton in an area of Pennsylvania know as the “Anthracite Region”.
- Coal mining has been a part of Taylor since the late 1800’s. For generations, coal was the mainstay of Pennsylvania's economy.
- According to the most recent Land Use Distribution Study Taylor Borough totals approximately 3,413 acres.
- The largest land use in the Borough at 37.5% or 1,280 acres are strip mines and culm piles.

Taylor Mining History

- Coal mining operations were underway from 1856 to 1966.
- Taylor operations supported both surface and underground coal mining.
- Most common used mining systems were chamber and pillar and breast and pillar.
- Chambers of coal 24 to 30 feet in width and nearly 300 feet in length were removed from the vein and pillars of 26 to 36 inches in width were left in the mined out chambers to support the roof.
- In addition to the mining operations in Taylor, surface and subsurface, the colliery operations for processing coal for distribution.
- Breakers typically were known to have short life spans as they were typically built of wood and the vibrations and water from operations led to rapid deterioration. The breaker at the Taylor Colliery was unique in that it was the first and only all concrete breaker ever constructed in the anthracite fields.

About 5000 cubic yards of concrete, 500 tons of rebar, and 500,000 feet of lumber were used in the construction. When completed the structure stood 107 feet wide, 133 feet long, and 167 feet high, dominating the Taylor skyline.



Taylor Coal Operations History

- 1856 - Taylor wooden frame breaker opened
- 1910 - Hard coal fields only all concrete breaker opened
- 1918 – Prime of the Taylor Colliery, 695 men employed in the mines and breaker
- 1966 – All coal mining ceased in Lackawanna County due to flooded mines

Taylor Coal Operations History

1982

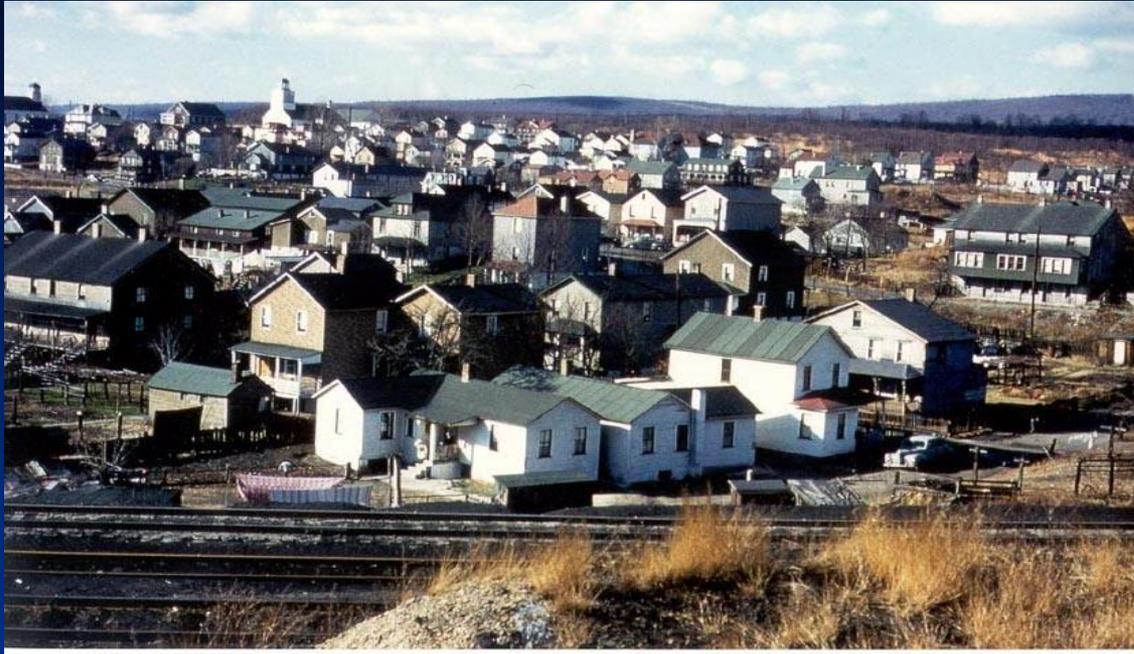
Taylor Breaker
demolished



Taylor Coal Operations Affect

- According to the most recent Land Use Distribution Study Taylor Borough totals approximately 3,413 acres.
- The largest land use in the Borough at 37.5% or 1,280 acres are strip mines and culm piles.
- Since the downturn of the coal mining industry and the closing of this facility, Taylor Borough lost 695 jobs.
- The lack of employment and decreasing population limits the ability of Taylor to sustain tax revenue and budget for the redevelopment of brownfield sites.
- Additionally over 200 acres of land are currently unusable due to mining hazards including 58 acres of land that was residential. The population of 113 homes were forced to relocate due to mining related subsidence issues while their homes sit vacant and condemned. This forced relocations caused a significant loss to the Taylor tax base which has existed for over 40 years.

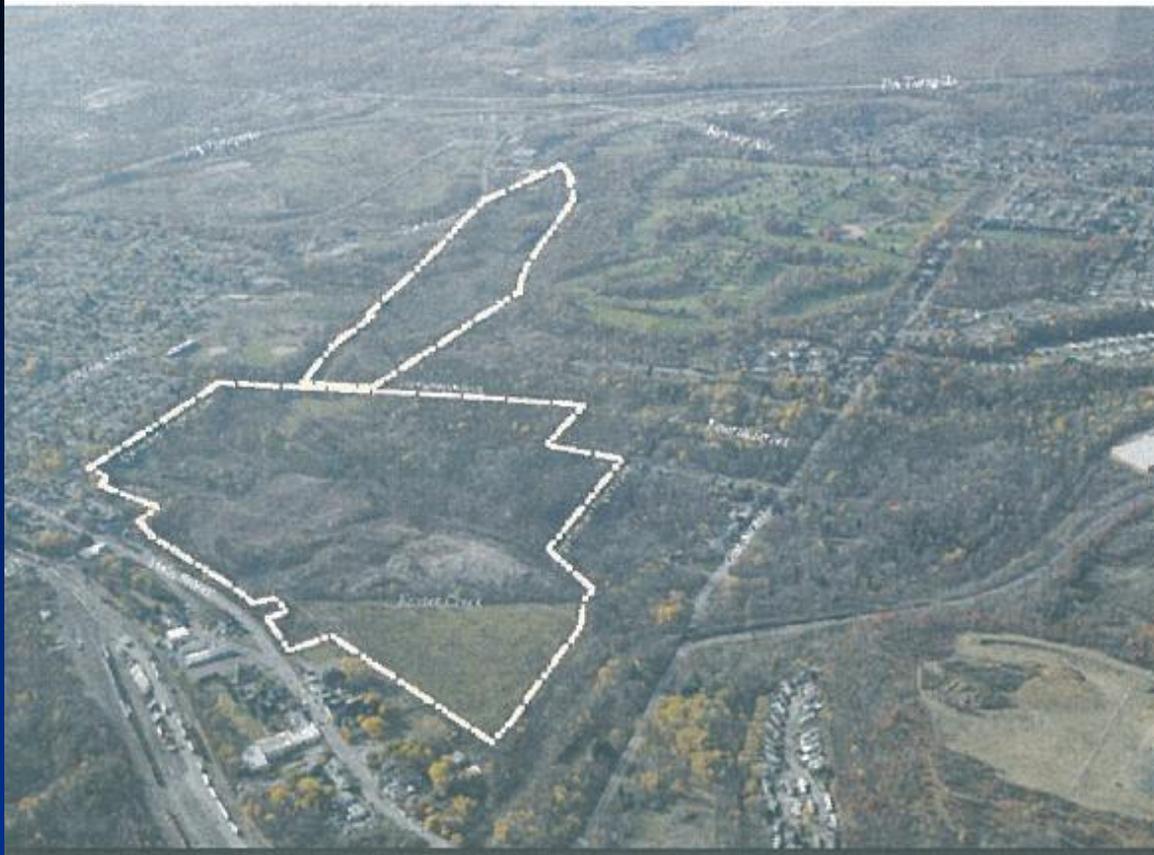
Coal Mining Issues on the Town, subsidence



- The Feltsville Patch swath of land adjacent to and above coal mining operations.
- Subsidence issues led to the condemnation of this 58 acre area of Taylor
- A total of nine coal seams exist below all or portions of the fifty-eight (58) acre area.

End of Operations

- **Coal mining operations ended in 1966;**
- **Taylor left with 695 less jobs;**
- **58 acres condemned in the Feltsville Patch;**
- **Priority Hazards as determined by the Bureau of Abandoned Mine Reclamation; and**



150 acres of abandoned mine scarred land

Redevelopment Plans

A NEW HOPE

- The Borough is currently is using a \$500,000 escrow account established from the Alliance Sanitary Landfill.
- Kaufman Engineering worked with Taylor Borough to develop redevelopment plans for the reuse of the abandoned 150 acre Taylor Colliery.
- The Borough understanding that not only mining issues but environmental issues were involved and brought in Malcolm Pirnie. The Team of Kaufman Engineering and Malcolm Pirnie have continued to move the project forward with the enthusiastic support of Taylor Borough. Malcolm Pirnie with input from Kaufman Engineering was able to author a successful US EPA Brownfields Grant for \$350,000 for further assessment of the property.

EPA Brownfields Grant

- The cost to redevelop and reuse brownfield sites has been a barrier to that redevelopment, reuse, and subsequent revitalization of the Borough.
- The Borough was awarded an US EPA Brownfield Assessment Grant in 2006 for the assessment of the Taylor Colliery. This grant funded the Phase I and Phase II Environmental Assessments and the Phase II Subsurface Subsidence Investigations on this Site.
- These assessments have identified what environmental and physical hazards are present from the previous mining activities on this mine scarred land. The assessments have also included the recommendations for the successful reclamation of these lands.
- Additional US EPA funding is now being requested to assess the extent of the subsidence that has caused 58.32 acres of Taylor to be condemned.

Kaufman Engineering and Malcolm Pirnie have completed the following task to date:

- Phase I Environmental Site Assessment*
- Phase II Environmental Site Assessment*
- History Analysis and Report
- Wetland Delineation
- Delineation of 100 year flood plain boundaries for Keyser Creek
- Zoning Analysis
- Study Surrounding Land Use
- Traffic Study
- Historic Structure Analysis*
- Phase I Subsidence Analysis
- Phase II Subsidence Analysis
- Soil/Geotechnical Review
- Tank Removal / Cleanup
- Site Photography: Ground Level and Aerial
- Bureau of Abandoned Mine Reclamation – Coordination and reclamation of old mining features*
- Economic Impact Study
- Brownfield Action Team Application

Boiler Building



- The existing structure is a one story structure in a truncated “T” configuration.
- Main portion is approximately 80’ x 60’
- Brick wall are approximately 12” thick
- Main portion is high enough to support two stories with a steel truss roof system

•Noteworthy Architectural Features

- Overall proportions and scale
- Articulated brickwork on exterior
- The heads of the panels are corbelled uniformly
- Graceful arched windows

Boiler Building, cont.



Photo by Linda Tucker

Boiler Building Assessment

Phase I Assessment Identified the following recognized environmental concerns;

- During the site reconnaissance, heavy petroleum staining was observed on the floor of the “boiler” building, the roof has collapsed in several areas and the structure may flood during rain events, potentially resulting in contaminated run off.
- During the site reconnaissance pits with apparent dirt bottoms were identified in the “boiler” building. As well as grates with unknown bottoms. It is unclear if these were utilized as floor drains.

Boiler Building Assessment, Phase I



Boiler Building Assessment, Phase I

- During the site reconnaissance an Asbestos Survey was conducted. Asbestos Containing Material's were identified.



Boiler Building Assessment, Phase I

During the site reconnaissance, various drums were found about the site the structure and their contents could not be determined due to lack of labeling. The drums appeared to be empty and were heavily corroded.



Boiler Building Assessment, Phase I

- During the site reconnaissance what appeared to be a possible man-way to an underground storage tank, possibly a rail tanker was noted.



Boiler Building Assessment, Phase I

- A Previous Phase I identified electrical transformers on the ground, which are known to potentially contain polychlorinated biphenyl's (PCBs).



Boiler Building Assessment, Phase II

- A total of 20 soil samples were collected at the Site as part of the Phase II investigation. No samples were collected from the potential UST because no UST was identified. All samples were analyzed for VOCs, SVOCs, RCRA metals, and PCBs with the exception of the samples from the electrical transformers which were analyzed for PCBs only.

Boiler Building Assessment, Phase II

Boiler Building Interior

- No VOCs or PCBs above the State Health Standards (SHS)
- SVOCs were detected in the floor drains above the SHS; and
- RCRA metals were identified above the SHS, in the floor drains and below the building.

Boiler Building Assessment, Phase II



Boiler Building Interior

- Based on the isolated nature of these exceedances, the most effective way to obtain an Act 2 closure with would be through removal of the soil in the floor drains.
- Additionally samples also exceeded the non-residential SHS for the soil-to-groundwater pathway. Recent promulgation of the Pennsylvania Uniform Environmental Covenants Act (UECA) closure under the non-residential MSCs would likely result in PADEP requiring deed restriction and possibly maintenance of engineering controls to eliminate potential exposure pathways for the detected RCRA metals in soil on-Site.
- The ACM will need to be removed.

Looking to the Future and Respecting the Past

- With the risk identified the planned cleanup and renovation of the boiler building will serve as a focal point of the redevelopment effort. In planning the redevelopment of this site, Taylor Borough intends to maintain and renovate the remaining boiler building.
- Plans include the preservation of machinery that is still in place as well as portions of the demolished breaker. Taylor Borough intends to display sections of the machinery in the renovated boiler building along with a historical display on the history of the coal mining industry within Taylor Borough and its effect on the nation.

Economic Redevelopment...not just filling in holes!

- The Taylor Colliery is located in the heart of Taylor.
- Redevelopment means more than identifying risk and hazard but also exploring the big picture, i.e., infrastructure and job creation.
- The following accomplished task listed will enable to fully develop the economic prosperity the Colliery provided to the region.
 - Traffic Studies
 - Stormwater Studies
 - Economic Studies
 - BAMR Support

Traffic Studies

- Current access to Site is limited. Due to the traffic studies performed the planned redevelopment incorporates infrastructure improvement to include access to the site and traffic routes.
- Currently the Site is adjacent to an industrial park. The traffic to and from this park is mainly truck from the interstate system. The planned redevelopment includes removing this traffic flow from the streets of Taylor improving the quality of life and life span of the road system.

Stormwater Studies

Current stormwater issues exist in Taylor. The Redevelopment of the Colliery offers the opportunity to correct these issues, thus saving money on costly improvement to existing stormwater systems.

Economic Studies

- Several studies have been performed involving the economic opportunity for increase residential and commercial development on this Site, in addition to open space.
- The potential increase to the Taylor tax base is estimated at over \$3 million annually.

BAMR Support

The Bureau of Abandoned Mine Reclamation has identified four old mining features which must be mitigated for the ultimate reclamation of this land.

- Breaker Debris Pile
- Rail Tie Wall
- Keyser Creek
- Red Ash Pile

The Breaker Debris Pile



The Railroad Tie Wall



The Red Ash Pile



Keyser Creek



BAMR Support cont.

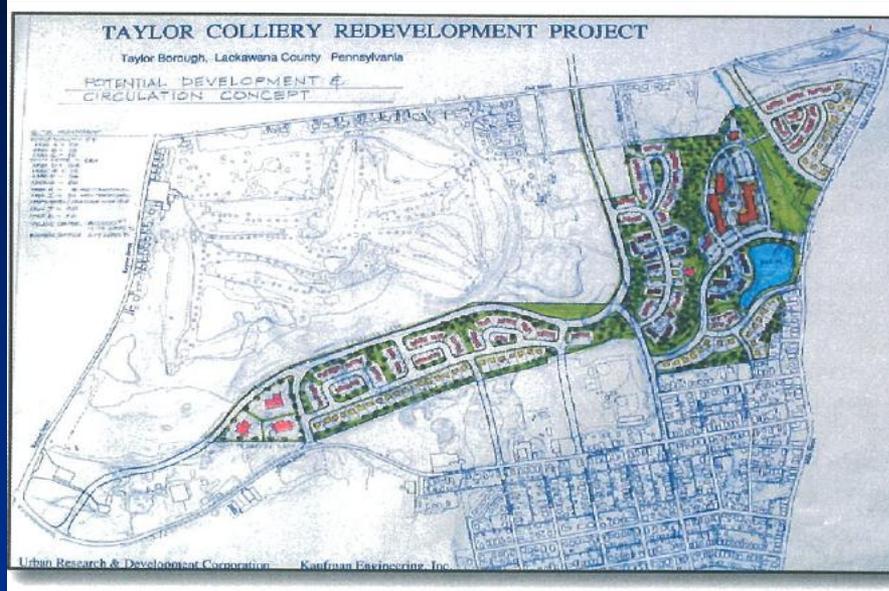
Taylor Borough kicked off the earth moving portion of the Taylor Colliery Redevelopment Plan on June 5 2009.

BAMR awarded a \$1.4 million contract for the regrading of the piles of soil and restoration of Keyser Creek.



TAYLOR COLLIERY REDEVELOPMENT PROJECT

Moving to a strong future with the support of a strong past.



Concept One

Estimated Redevelopment:

± 54 Single Family Home Sites

± 224 Town Homes

± 116 Condominiums

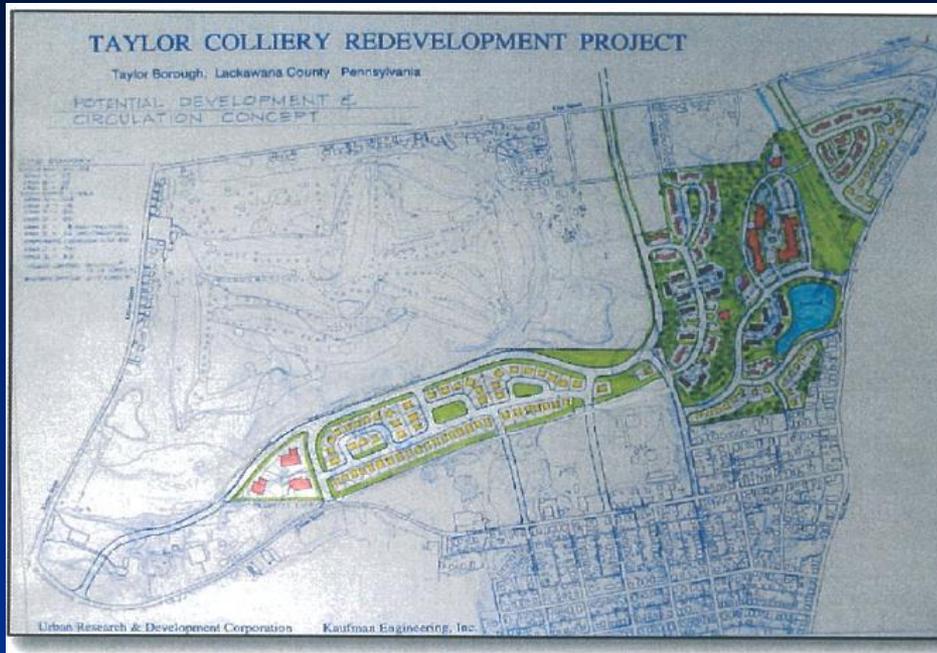
New Village Center
± 80,000 S.F.

± 111,100 S.F. Of
Business Park

± 48 Acres Of Open
Space



TAYLOR COLLIERY REDEVELOPMENT PROJECT



Concept Two

Estimated Redevelopment:

- ± 88 Single Family Home Sites
- ± 120 Town Homes
- ± 116 Condominiums
- New Village Center
± 80,000 S.F.
- ± 111,100 S.F. Of Business Park
- ± 48 Acres Of Open Space



Aerial Overview



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Special Thanks



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Questions?

Comments?

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