Strip Mining: Methods of Control by the Three Levels of Government

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INTRODUCTION

Recent devastation of the landscape by strip mining operators is by now a familiar story to all concerned with the environment. The arid and bleak landscapes that are the left-over product of strip mining operations cover thousands of square miles of this country's land surface. Legislative attention to this kind of environmental degradation, which has gained much headway in recent years, has been intensified by the current energy crisis. Removal of shale oil deposits in the Far West, for example, will bring the devastation of strip mining operations to so far untouched areas.

This Note discusses recent attempts to regulate strip mining at state, local, and national levels. It concentrates on the scope and validity of strip mining regulations, giving special consideration to strip mining regulation proposals that are now before Congress.

Strip mining is the process of removing the topsoil, rock and other material (overburden) covering a mineral deposit in order to extract the minerals. Strip mining is of two types: contour stripping and area stripping. The method used depends upon the topography of the land. Contour stripping is used in hilly regions where the coal deposit runs along the slope, while area stripping is used where the

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1. Strip mining can be used to remove coal, clay, limestone and other minerals, but coal is the most important mineral extensively removed by stripping operations. The statistics for 1972 coal production showed that the output from strip mines exceeded underground production. *U.S. DEPT OF THE INTERIOR, MINING AND MINERALS POLICY* app. I-59 (1973).

2. In contour stripping, power shovels make a deep depression, called a "box cut," to begin removal of the mineral. The shovels follow the coal deposit, removing the overburden and depositing it at the outer edge of the cut or on the slope below the cut. As the miner digs into the coal deposit, the height of the overburden on the slope eventually makes further mining uneconomical. This method leaves a steep cliff along the hill or mountain, called a "highwall," which
land is level. Strip mining differs from underground mining in many respects. Strip mining requires no mine shafts, tunnels or burrowing since the entire operation takes place at ground level. In that sense, strip mining is safer for the miner because it reduces the possibilities of mine accidents. Underground mining allows recovery of only about 45% of the coal deposit because of the necessity for surface support, while strip mining produces a 90-95% recovery from a coal seam. Improved automation has made strip mining more economically feasible, and the “energy crisis” has made the need for more coal acute. The efficiency of strip mining, however, must be balanced against its effects on the atmosphere, economics, ecology and aesthetics of the surrounding areas.

is the exposed face of the cut. Meiners, Strip Mining Legislation, 3 Natural Resources J. 442, 443 (1964) [hereinafter cited as Meiners]; Reitze, Old King Coal and the Merry Rapists of Appalachia, 22 Case W. Res. L. Rev. 650, 652 (1971) [hereinafter cited as Reitze].

3. In area stripping, all of the overburden is removed by power shovels, creating gorges of 100 feet or more. Smaller equipment is then used to extract the mineral. After the mineral is removed from one rectangular area, an adjacent cut is made and the overburden from the second cut is dumped into the trench that remains from the first cut. The last cut leaves an open trench, sometimes hundreds of feet deep. This method leaves a landscape of parallel ridges of discarded overburden (“spoil”) as well as a deep, open trench. Reitze 652.

4. Reitze 657-58. Strip mines also do not subject their workers to “black lung” disease as do underground mines. Id.

5. Donley, Some Observations on the Law of the Strip-Mining of Coal, 11 Rocky Mt. Mineral L. Institute 123, 124 (1966) [hereinafter cited as Donley]. Strip mining produces large percentage recoveries because the coal is scooped out of the ground after the overburden is removed. Scooping the deposit at ground level allows the miner to recover coal contained in space that he otherwise would have to employ for surface support if using the underground method.


7. Coal is our most abundant energy resource, comprising 80% of our current existent resources. U.S. Dep’t of the Interior, Office of Coal Research, Clean Energy from Coal—A National Priority 16 (1973). With the demand for more energy increasing at an ever-quickening rate, strip mining is the most efficient method of mining coal and therefore contributes to the principle of conservation of natural resources by allowing a greater amount of recovery from any one site. Donley 124; Reclamation 526.
Strip mining contributes to water pollution, air pollution, safety hazards, and destroys the natural beauty of the land. Water pollution is considered the most serious problem caused by strip mining. Coal contains sulfur in various forms. When these sulfur elements are uncovered and exposed to air they can form sulfuric acid. Water pollution results when these acid solutions filter from the strip mining sites into surrounding streams and bodies of water. The acid solutions are intense enough to destroy fish and cause water purification problems. As the acid moves downstream, its impact expands over an extensive area. Over one-half of this type of pollution comes from abandoned coal mines and to date there is no practical solution to the problem.

Sedimentation is another type of water pollution and is caused by dumping tremendous amounts of strip-mined soil into a stream or body of water near the strip mining site. It can be controlled by water impoundment to allow settling, but can also cause flooding in downstream areas.

Air pollution from strip mining results from dust and other fine particles that are released into the air during the mining process. Although creating a nuisance for the residents in the immediate area, the particles are not a substantial contributor to the regional chemical air pollution problem that is a hazard to health. Strip mining also creates safety hazards such as steep slopes that may cause landslides, as well as standing pools of water that breed mosquitoes and may be dangerous to children. The spoil that re-

10. Meiners 462.
12. See id. See also Bosselman 140; Meiners 462.
13. Bosselman 141.
15. Bosselman 140.
16. Id. at 142; Comment, The Regulation of Strip Mining in Alabama: An Analysis of the 1969 Alabama Surface Mining Act, 23 Ala. L. Rev. 422, 423 (1971); Reclamation 536. See also Hendricks v. Peabody Coal Co., 115 Ill. App. 2d 35, 253 N.E.2d 56 (1969) (strip miner held liable for personal injury to child who fell into water-filled strip mine).
mains after strip mining produces an unstable environment conducive to soil erosion, and sediment deposits may eventually block stream beds. If the sediment gives way, the water that is released can cause flooding.17

Strip mining destroys the aesthetics of the surrounding area. It actually turns the land upside down, creating deep contours over many acres and destroying all vegetation.18 Strip mining can turn a peaceful rural setting into a ravaged area of rubble and deep chasms.19 These effects are economically immeasurable and perhaps the most deplorable.

It can be argued that using land for strip mining prevents its use for agricultural development.20 Suggestions have been made that using land for strip mining and not reclaiming it for agricultural use brings closer the day when good agricultural land will be in short supply.21 Other commentators, however, note that very little of the land used for strip mining was arable enough to be used for agricultural purposes before the mining began.22

The presence of strip-mined land within a city or county can affect that local government's tax base. There is conflicting authority about the actual tax impact of strip mining. Most counties receive a substantial portion of their tax revenue from property taxes. When strip miners buy the land they pay the price at which the land is assessed. Without reclamation, the stripped land has considerably less value then it had at the time of purchase. Decreased tax revenues would result from lowering the tax assessment of the land to reflect its value after stripping.23 Strip mining also causes de-population by decreasing and isolating farms in areas of extensive stripping. The reduction of population can result in an increased tax burden on the remaining residents.24

17. Clyde, supra note 6, at 211.
18. Reclamation 532.
20. Reclamation 532.
22. Donley 124.
23. See Reclamation 533-36.
24. Id. at 535. See generally N.Y. Times, Mar. 13, 1966, § 6 (Magazine), at 26, 83.
The argument can be made, however, that current economic benefits of strip mining supplement county revenue. The coal industry operates in economically depressed areas where tax income from agriculture is very low and other industries are virtually nonexistent. When the coal industry pays taxes on the land, those payments are often a substantial portion of the taxes received by a county.25

The actual tax impact that strip mining has on any area depends upon several factors: 1) the use of the land before strip mining; 2) the assessment of the land before strip mining; 3) the extent of the strip mining; 4) the difference in pre-mining and post-mining assessment; and, 5) the effectiveness of reclamation, if any. A consideration of these factors should give a relatively accurate picture of the tax impact on an area by using other areas for comparison.

All of the above effects of strip mining must be considered before any governmental unit decides to prohibit or regulate strip mining. The variety of regulations dealing with strip mining can be shown by examining what laws have been enacted at each level of government.

I. State Control

Traditionally, the state has been the unit of government exercising the police power to protect the safety, morals and general welfare of its citizens. Pursuant to this power, 29 states have enacted statutes to regulate surface or strip mining.26 The statutes generally require that

25. Reitze 691.
an application be made and a filing fee be paid to the appropriate state agency before a permit is granted for strip mining in the state. A fine may be imposed if this procedure is not complied with. Most statutes require a performance bond to be secured at a set monetary amount per acre covered by the permit. Some statutes have reclamation requirements that impose upon the operator a duty to make some attempt to return the land to its original condition after the mining operations are completed.

The declaration of legislative policy in the Kentucky law lists the adverse effects of unregulated strip mining, thus indicating by implication that the police power is the basis of the legislation. Kentucky's strip mining law states that it advances public safety (because strip mining increases the likelihood of floods, fires, landslides and damage from rolling stones and overburden), protects the public interest by preventing the waste of natural resources (because strip mining causes soil erosion and counteracts conservation of soil, water and other resources), deals with public health and general welfare (because strip mining causes accumulation of stagnant water, pollution of streams, and destruction of aesthetic values), and notes that unregulated strip mining can destroy the property rights of others. The Kentucky law best illustrates how the traditional grounds for invoking the police power support the necessity for and enactment of strip mining legislation.

All of the state statutes "on their face" espouse the same general welfare rationale as the Kentucky law, i.e., concern for the protection of the state's citizens. Nevertheless, the real motive for the enactment of statutes is often more mercenary than altruistic, as the mining industry may attempt to obtain favorable state legislation to forestall federal intervention.

The validity and constitutionality of these state statutes has been the subject of litigation in three states—Maryland, Pennsylvania and

29. Id. §§ 350.010-.990.
30. Three strip mining bills were introduced in the United States Senate in 1968. Fearing federal intervention, states such as Alabama passed state surface mining acts written by members of the mining industry. The predominant motive behind this legislation was to forestall federal intervention by enacting mining regulations beneficial to the mining industry. Comment, The Regulation of Strip Mining in Alabama, supra note 16, at 431-33.
Illinois. The Maryland Strip Mining Act was challenged in *Maryland Coal & Realty Co. v. Bureau of Mines* on the ground that the Act was an invasion of property rights under the fourteenth amendment. The statute stated as its justification the preservation of public health and safety and required a filing fee and posting of a bond. It applied only to bituminous coal, not limestone and slate quarries, and exempted one county from coverage. The court held that the legislature's broad police power was sufficient to uphold the act, and that the purposes for the legislation had a substantial relation to the police power. In answer to a challenge of denial of equal protection by the Act's exemption of quarries, the court held that this classification was reasonable because quarrying was less dangerous than strip mining. The court found, however, that the exemption of one county did violate equal protection because that area was not different from the rest of the state, but it approved the delegation of authority to the Director of the Bureau of Mines to decide the degree of reclamation that would be required under the statute.

The Pennsylvania statute regulated only strip mining of bituminous coal and was challenged on fourteenth amendment due process and equal protection grounds in *Dufour v. Maize*. The statute recited objectives similar to those of the Maryland statute. Holding that this statute was a valid exercise of the police power, the Pennsylvania supreme court found evidence in the record of distinctions be-

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32. *Id.* at 635-36, 69 A.2d at 474.
33. *Id.* at 637, 69 A.2d at 474. The legislature stated that the purposes of the Act were: 1) to provide for the conservation and improvement of land affected by the open pit or stripping method of mining bituminous coal and fire clay, 2) to aid in the protection of birds and wildlife, 3) to enhance the value of such land for taxation, 4) to decrease soil erosion, 5) to aid in the prevention of the pollution of rivers and streams, 6) to prevent combustion of unmined coal, and 7) generally to improve the use and enjoyment of such lands. *Id.*
34. The court noted that strip mining required large cuts in the ground and left very high spoil banks, while quarrying affected a relatively small area and no spoil banks remained after the operation was completed. Strip mine operations could cause floods (when the strip mine breaks into a deep mine shaft) and fires (when a vein of coal is left exposed). The court found that quarrying for limestone or slate involved no risks from floods or fire. *Id.* at 638-39, 69 A.2d at 475.
35. *Id.* at 642-43, 69 A.2d at 477.
36. *Id.* at 640-41, 69 A.2d at 476.
between bituminous coal mining and other types of mining sufficient to enable the statute to withstand the equal protection challenge.\textsuperscript{38}

The Illinois statute was challenged in \textit{Northern Illinois Coal Corp. v. Medill}\textsuperscript{39} and the State offered its police power as authority for the Act. This statute required leveling and filling the land but exempted the final cut. Reasoning that if the police power objective was to remove threats to health, such as mosquito breeding pools, the supreme court held that the statute did not achieve its purpose since allowing the final cut to remain open could promote the formation of breeding pools.\textsuperscript{40} On this basis the court held that the statute was not a proper exercise of the police power. The court also noted that the state had no authority, under the guise of a conservation theory, to compel a private owner, at his own expense, to convert his property to what the state considers to be a higher or better use.\textsuperscript{41} Finally, the court held the statute unconstitutionally discriminatory because there was no reasonable ground for distinguishing between coal strip miners, to whom the statute applied, and strip miners of any other mineral, to whom the statute did not apply.\textsuperscript{42} The Illinois law was subsequently amended to eradicate the objectionable features identified in \textit{Medill.}\textsuperscript{43}

These cases illustrate how strip mining legislation has been upheld on police power grounds because of the state's pervasive authority to regulate activities to protect the health, safety and general welfare of its citizens. A more difficult problem is that of affording equal protection to all affected operators.\textsuperscript{44} These statutes raise practical prob-
lems concerning the permissible administrative structure to be utilized and the degree of authority to be delegated to the administering agency. In the absence of an applicable state statute, the permissibility of strip mining must be determined by looking to the lease or contract between the surface owner and the owner of the mineral rights. It is important to understand the attitudes of the courts toward the rights of the respective parties in order to evaluate what type of legislation will be most effective.

In most cases the mineral owner receives his rights from the surface owner by a "broad form" deed that conveys the right to remove all the minerals in, on, and under the surface. If the deed expressly provides that strip mining is permitted on the land, there is no difficulty in enforcing the right to remove the mineral by this means. Problems can arise, however, when there is a grant of a mineral estate with no mention of the method to be used in removing the mineral. Different courts have produced conflicting results when confronted with this situation. The intent of the parties to the deed is generally the controlling factor in determining what mining methods are permitted. The Kentucky case of Buchanan v. Watson laid the foundation for that state's liberal construction of "broad form" deeds in favor of strip mining. The court observed that the original parties

P.2d 574 (1971) (Montana Dredge Mining Regulation and Land Preservation Act declared unconstitutional as violative of equal protection because it exempted open pit mining and strip mining from coverage).

45. Note, Governmental Regulation of Surface Mining Activities, supra note 44, at 119. It has also been suggested that state and federal attempts at regulating strip mining may encounter more practical and legal difficulties than similar regulations at the local level. More widespread control raises problems of treating similar operations equally and justifying, as reasonable, any preferential treatment of a particular class. Id.

46. The "broad form" deed in Buchanan v. Watson, 290 S.W.2d 40 (Ky. 1956), granted and conveyed "property, rights and privileges, in, of, to, on, under, concerning and appurtenant [to] [a]ll the coal, minerals and mineral products, ... use and operate the same and surface thereof, ... in any and every manner that may be deemed necessary or convenient for mining ...." Id. at 41.


50. 290 S.W.2d 40 (Ky. 1956).
had not contemplated strip mining, but held that the mineral owner could strip mine without liability to the surface owner unless this power was exercised "oppressively, arbitrarily, wantonly, or maliciously . . ."  

The doctrine of permissiveness toward strip mining stated in Buchanan has been consistently reaffirmed.  

Other states, such as West Virginia, have held that "broad form" deeds do not convey the right to strip mine.  

West Virginia courts place great emphasis on a finding that the parties only intended to permit methods of mining known at the time the deed was executed and in most cases this does not include strip mining.  

The prohibition of strip mining under such a deed is based on the reasoning that strip mining implies injuring the land, and a reservation of the right to mine, with no more, does not imply a right to injure the land.  

Some state cases seem to follow the West Virginia approach, while others have reached varying results depending on the language of the conveyance.  

Commentators have suggested various rules of construc-

51. Id. at 43.  
52. See Peabody Coal Co. v. P.C. Pasco, 452 F.2d 1126 (6th Cir. 1971); Peabody Coal Co. v. Erwin, 326 F. Supp. 1005 (W.D. Ky. 1971); Sentry Royalty Co. v. Kimmel, 461 S.W.2d 76 (Ky. 1970); Martin v. Kentucky Oak Mining Co., 429 S.W.2d 395 (Ky. 1968); Richie v. Midland Mining Co., 347 S.W.2d 548 (Ky. 1961); Kodak Coal Co. v. Smith, 338 S.W.2d 699 (Ky. 1960); Blue Diamond Coal Co. v. Neace, 337 S.W.2d 725 (Ky. 1960). See also Schneider, Strip Mining in Kentucky, 59 Ky. L.J. 652, 654 (1971); Reclamation 528-31; Note, Construction of Deeds Granting the Right to Strip Mine, 40 U. Cin. L. Rev. 304-08 (1971).  
54. Some commentators assert that strip mining can be traced back to 1866, but admit that the first year for reliable statistics (with the federal government) is 1914. Meiners 444. While strip mining may have been introduced in limited areas in the early 1900's, the important issue in construing a deed is whether strip mining was prevalent in the particular area where the land in question is located. Strip mining did not become widely popular until after World War II with the development of large machinery and increasing consumer demands for electricity. Schneider, supra note 52, at 652.  
tion to be applied when interpreting these conveyances.58

II. LOCAL CONTROL

If the strip mining operation is within municipal boundaries the local government may decide to regulate it. Before a decision can be made whether there should be regulation, the local government must decide whether it can exert control. This inquiry raises the issue of pre-emption. If one unit of government has "pre-empted the field" by enacting legislation, this pre-emption precludes any valid action by subordinate units of government.59 Whether state legislation constitutes pre-emption is usually difficult to determine, and may depend on the type of action or regulation that the state and local governments undertake.60 It has been suggested that non-home rule cities are more likely to be pre-empted by state legislation than home rule cities.61 Where a state-local conflict is brought into court, some commentators urge the courts to rely less on legislative intent and more on the type of state-local conflict presented as well as the policies and interests reflected in the conflicting legislation.62

58. The suggestion has been made that because strip mining is so destructive, any deed made since April 22, 1970 (Earth Day) that severs the surface and mineral estates should be presumed not to grant the right to strip mine in the absence of a clear grant of that right. Note, Construction of Deeds Granting the Right to Strip Mine, supra note 52, at 311-12.


60. See D. Mandelker, Managing Our Urban Environment 183-221 (2d ed. 1971). Many courts look to whether the matter being regulated is by nature a "local" or "state" concern when deciding the pre-emption issue. Id.

61. Id. at 187-88. A possible reason for this suggestion is that home rule cities have in their charters a more independent source of power at the local level than cities with no charter. Therefore, it can more easily be said that any ordinance enacted pursuant to the charter is a "local" concern not subject to state pre-emption.

Several cases dealing with state-local conflicts in the strip mining area have raised the pre-emption issue. The court in *Harris-Walsh, Inc. v. Dickson City Borough* held that state strip mining laws may pre-empt local action. In that case the Supreme Court of Pennsylvania looked to the language of the state statute regulating strip mining and found it gave "exclusive jurisdiction" over "all coal stripping operations" to the state administrative body created by the statute. The court used the plain meaning rule to hold that this language was sufficient to show the state meant to pre-empt the field of strip mine regulation.

Once a local government decides that it can and should regulate strip mining, there are several methods it can employ. Whenever local regulation affects private property, the argument most frequently used against the regulation is that it results in a taking of property without just compensation and due process of law. Yet over the years the United States Supreme Court has taken a permissive attitude toward local regulation of surface mining activities. The Court has upheld a town ordinance that completely prohibited surface mining below the water table (dredging and pit excavating) within the town limits. The Court held this a valid exercise of the town's police

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63. See East Fairfield Coal Co. v. Booth, 166 Ohio St. 379, 143 N.E.2d 309 (1957); Kane v. Kreiter, 25 Ohio Op. 2d 295 N.E.2d 829 (C.P. Tuscarawas County 1963). The courts in these cases, however, did not come to a definitive ruling on the pre-emption issue.


65. The court explained the plain meaning rule in these words:

Both by statute and decisional law we are required to construe words and phrases according to their common and approved usage; statutes are presumed to employ words in their popular and plain everyday sense and the popular meaning of such words must prevail unless the statute defines them otherwise or unless the context of the statute requires another meaning. *Id.* at 271, 216 A.2d at 335.

66. The fifth amendment to the Constitution provides: "No person shall be... deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation." U.S. Const. amend. V. The fourteenth amendment to the Constitution provides: "No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law." U.S. Const. amend. XIV, § 1.


power that did not constitute such a taking of private property so as to require compensation.\textsuperscript{69}

One common method of local control is zoning, which is not generally held to conflict with state regulations.\textsuperscript{70} Zoning allows the local government to use the local administrative machinery that already exists for decision-making; a separate agency to regulate mining is not necessary.\textsuperscript{71} One disadvantage to zoning is its very restricted ability to control existing uses.\textsuperscript{72}

The validity of a zoning ordinance is usually tested by a standard of "reasonableness" as determined by the particular facts of the case. In \textit{Midland Electric Coal Corp. v. County of Knox}\textsuperscript{73} the Supreme Court of Illinois held a county zoning ordinance that prohibited strip mining in 90\% of the unincorporated area invalid, primarily because of the tremendous value of the coal and the economic loss to both plaintiff and the county if the coal were not recovered.\textsuperscript{74} In \textit{East Fairfield Coal Co. v. Booth}\textsuperscript{75} the zoning ordinance prohibited strip mining of coal anywhere in the township. The Ohio supreme court considered the value of the coal to be mined and the temporary use of the land for mining purposes in holding the ordinance invalid as ap-

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\textsuperscript{69} "If this ordinance is otherwise a valid exercise of the town's police powers, the fact that it deprives the property of its most beneficial use does not render it unconstitutional." \textit{Id.} at 592.
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\textsuperscript{70} Bosselman 157.
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\textsuperscript{71} \textit{Id.}; \textit{Note, Local Zoning of Strip Mining, supra note 62, at 747.}
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\textsuperscript{72} Bosselman 157.
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\textsuperscript{73} 1 Ill. 2d 200, 115 N.E.2d 275 (1953).
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\textsuperscript{74} \textit{Id.} at 222-23, 115 N.E.2d at 287. The court found: that the coal could only be removed by strip mining; that the land was worth $5,000 per acre for strip mining and only $250 per acre for farming; and that strip mining did not cause any nuisance, traffic hazards, or noxious bacteria. \textit{Id.} at 205, 207, 211, 115 N.E.2d at 279, 281. The court realized the broad impact of its decision and limited its holding:
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By this conclusion we do not mean to imply that all zoning regulation prohibiting the strip mining of materials is necessarily invalid. To the extent to which the decree of the trial court may be construed to apply to property in a different situation and involving different physical facts, it is inappropriate and the decree is modified to apply only to the property in question. \textit{Id.} at 223, 115 N.E.2d at 287.
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\textsuperscript{75} 166 Ohio St. 379, 143 N.E.2d 309 (1957).
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plied to plaintiff's property. In *Kane v. Kreiter* a township zoning ordinance that had established four classes of zoning districts and prohibited the strip mining of coal and other materials within the zoned territory was upheld. The Ohio court of common pleas held that the power to prohibit strip mining bears a substantial relationship to public health, safety and general welfare. The court, however, said that an absolute prohibition of strip mining would not be permitted. Although this ordinance was found to be a permissible "regulation" of strip mining, the court granted an injunction that allowed strip mining on a limited portion of plaintiff's land. The court believed it would be inequitable to deprive the owner of the "use of much of his property" and that such a restriction "would be unreasonable and arbitrary and would amount to a taking without due process of law" in violation of the state and federal constitutions. Zoning ordinances prohibiting other types of surface mining have also met with mixed results depending on the circumstances.

76. *Id.* at 383-84, 143 N.E.2d at 312. The coal in the *East Fairfield* case was worth over one million dollars and plaintiff testified that strip mining was the only way to remove the coal. *Id.* at 380-81, 143 N.E.2d at 310. The court said that strip mining was a legitimate business as dictated by Ohio statutes and that the township should be able to regulate the business only to the extent it does not deprive people of their property without due process. *Id.* at 382-83, 143 N.E.2d at 312.


78. The township could not absolutely prohibit strip mining because the state had enacted a law to regulate, not prohibit, strip mining. Since the legislature contemplated that strip mining would exist, the township ordinance could only be valid as a "regulation" or, in other words, a prohibition subject to appropriate limitations. One limitation was that the ordinance would not operate if by doing so it would constitute a taking without due process in violation of the fourteenth amendment. *Id.* at 298, 195 N.E.2d at 832.

79. The court accepted evidence that the land in question was not suited for agricultural uses and could be used to recover 100,000 tons of coal. The court's standard to determine if the ordinance applies to a piece of land is to look to the land's previous uses, potential uses, condition and locality. *Id.* at 297, 195 N.E.2d at 832.

From these cases it can be seen that the courts, in ruling on the validity of zoning ordinances, place great weight on the value of using the land for strip mining as compared with the value of using the land as zoned. Courts also consider the economic effects on the owner and community and the physical effects of strip mining on the land. They will not hold the zoning ordinance valid or invalid per se, but will consider it as applied to the land in question. One factor a court may consider in determining the ordinance's validity is the aesthetic effect of strip mining on the land. Courts generally hold that aesthetic considerations alone are not a sufficient basis for upholding a zoning ordinance.81 This view, however, is being undermined by decisions that hold aesthetics such an important factor that it alone justifies the zoning.82 Perhaps this change in attitude toward zoning is due to the recent growth of the ecological consciousness of the courts. If that is true, this attitude may eventually be applied to more cases to uphold, on aesthetic considerations alone, zoning ordinances that regulate strip mining.

Regulation, rather than prohibition, of surface mining activities can be achieved by such zoning techniques as special uses, variances and nonconforming uses.83 A special use is a zoning control method that maintains uniformity in the ordinary residential, commercial and industrial districts. The zoning board can grant permits for specified special uses in areas where they would not ordinarily be allowed. The purpose of granting a special use is to alleviate land use restrictions that are imposed by zoning and that have no relation to the police power.84 To obtain a special use permit under a zoning ordinance, the requested use must be "reasonable" in the area in which it is allowed and subject to regulation under the police power.85 Granting of special uses in the area of surface mining has met with mixed

83. For a discussion of the use of zoning power to preserve the land for surface mining see Bosselman 159-60.
85. See id. See also Herren v. Zoning Bd. of Appeals, 4 Ill. App. 3d 342, 280 N.E.2d 463 (1972), which dealt with a special use permit system under a county
results depending on the circumstances. Special use permit systems have great potential for equal protection violations since they usually enable a zoning board to grant or deny permits arbitrarily. At least one court has held that zoning ordinances limiting or restricting the right to engage in a legitimate business must be applied equally to all persons in similar circumstances.

Variances are another zoning technique that can be used to allow requested uses in areas where they would not ordinarily be permitted. A variance will usually be granted only in cases of individual hardship; it will not be allowed if the condition that causes the hardship is general to the area. In *Calcagno v. Town Board* the state appellate court enumerated three necessary conditions to granting a variance: 1) the land will not yield a reasonable return if used only for a purpose allowed in that zone; 2) the plight of the owner must be due to circumstances unique to his property; and 3) the use authorized by the variance will not alter the essential character of the locality.

The zoning concept of nonconforming uses is based on the principle that any use of land inconsistent with the purposes of a zoning ordinance, but present when the ordinance is enacted, will be allowed to continue. That use, however, will not be allowed to expand without zoning ordinance concerned with mining. The court discusses what is necessary to get a special use permit, noting that the granting of the permit is discretionary. The court held that a special use permit can be denied if the refusal bears a substantial relation to public health, safety and welfare.

86. See *La Salle Nat'l Bank v. County of Cook*, 60 Ill. App. 2d 39, 208 N.E.2d 430 (1965) (special use procedure valid under zoning ordinance but owner not granted special use permit for quarry); *City of Warwick v. Del Bonis Sand & Gravel Co.*, 99 R.I. 537, 209 A.2d 227 (1965) (special use procedure held not valid under zoning ordinance).

87. *Town of Caledonia v. Racine Limestone Co.*, 266 Wis. 475, 63 N.W.2d 697 (1954). For a more complete discussion of special uses in different areas of zoning see *Mandelker*, supra note 60, at 956-88.


89. Id. at 688, 41 N.Y.S.2d at 142. The mere fact that the petitioners' land contains deposits of sand and gravel and that the Board of Appeals has refused to grant them a permit to operate a commercial gravel pit does not in itself unlawfully deprive them of their property. The petitioners, in order to become entitled to a variance, must show factors sufficient to constitute such a hardship as would in effect deprive them of their property without compensation. *Id.* at 689, 41 N.Y.S.2d at 142. For a more complete discussion of variances in different areas of zoning see *Mandelker*, supra note 60, at 944-56.
permission of the zoning board. In deciding whether a permit to expand should be granted, the zoning board will determine whether the expansion conforms to the purpose of the existing use. The court will consider an extension of the area devoted to the nonconforming use, but not an increase in the amount of use within the same area.

Municipalities sometimes seek to regulate strip mining outside the context of zoning. Non-zoning ordinances that are used to prohibit or regulate surface mining activities are upheld so long as the ordinance is a valid exercise of the police power and bears a substantial relationship to the public welfare. An ordinance containing a general prohibition against surface mining with no apparent basis for its enactment would be held invalid.

Whether such a general ordinance is declared valid or invalid often depends on the court's conception of what interests should be protected pursuant to the police power. The ordinance in *Village of Spillertown v. Prewitt* prohibited strip mining of coal within the city and declared strip mining to be dangerous and hazardous to the life, limb and property of its citizens. The court upheld the ordinance, stating that though strip mining may be a legitimate business and harmless in some locations, the close and confined areas of a city are not such places. It refused to invalidate the ordinance as a taking of property without compensation or as a violation of due process.

Cases holding invalid non-zoning ordinances that attempted to prohibit surface mining within a municipality have rested on economic considerations. In *Merced Dredging Co. v. Merced County* the ordinance in issue prohibited surface mining by the use of dredgers, drag lines, or other soil moving devices without first obtaining a permit.

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90. DeFelice v. Zoning Bd. of Appeals, 130 Conn. 156, 32 A.2d 635 (1943) (application for extension of nonconforming use denied because use of "sand classifier" was not of the same purpose as operating a sand pit).

91. Town of Billerica v. Quinn, 320 Mass. 687, 71 N.E.2d 235 (1947) (owner of loam stripping operation not given an extension because it would add 19 more acres to his operation).


93. 21 Ill. 2d 228, 171 N.E.2d 582 (1961).

94. *Id.* at 230, 171 N.E.2d at 584. The strip mining operations in this case were near dwellings where small children lived and for this reason the court felt that strip mining endangered public health and safety. *Id.* at 231, 171 N.E.2d at 584.

It was passed in the name of public health to prevent formation of pools of stagnant water where mosquitoes breed and the pollution of the city water supply. The court held that the ordinance did not achieve those purposes because mosquito control was provided for in other legislation, and because there was no danger of water pollution from dredge mining.96

Another type of ordinance that can be enacted to control strip mining, which is more sophisticated than a simple prohibition, is a “mineral ordinance” specifically regulating the detailed methods of surface mining.97 These ordinances raise questions of the local government’s power to enact such ordinances, as well as questions of pre-emption by state action. A severe state-local conflict is created when the subject matter of the ordinance and a state statute are similar, and when the local government’s regulations provide a stricter standard than the state legislation.98 In these cases the courts must construe the state statute to decide whether the legislature intended to permit local control.99

Another possible type of local control could be implemented in those states that have reclamation provisions in their state strip mining statutes. A city or county could enact an ordinance that required compliance with the reclamation statute.100 Such an ordinance would provide local enforcement that could be utilized as a check on the state’s enforcement procedure and could serve to enforce reclamation requirements against small-scale miners, often exempted by state statutes or ignored by state enforcement agencies. It has been suggested that the ordinance is constitutional as long as it does not require more stringent standards than state legislation, since it would then be in support of the state’s policy rather than in conflict with it.101

Exerting control on a local level is perhaps more efficient than state or federal control because local control allows fewer people to escape enforcement. Local regulation could also be more meaningful by

96. A possible explanation for the court’s decision is that the owner wanted to dredge mine gold, and that the court felt this was too profitable an operation to be thwarted by such considerations as mosquito control, etc.

97. Bosselman 156.

98. Id.

99. Id. at 156 & n.120.

100. Reclamation 560.

101. Id. at 561. The author suggests what elements should be included in a reclamation ordinance. Id. at 562-63.
taking unique local characteristics into consideration when formulating the methods and standards of control. Allowing local governments to control strip mining could also satisfy the desire to keep power at the local level.

III. FEDERAL CONTROL

Federal regulation of strip mining has been minimal, and currently there is no federal legislation that deals directly with strip mining. But there is pending in Congress the Surface Mining Reclamation Act of 1973, which has passed the Senate and is being considered in the House. The Bill emphasizes the reclamation of strip-mined land and attempts to place the primary responsibility for regulation of surface mining with the states. The Bill establishes an Office of Surface Mining, Reclamation and Enforcement in the Department of the Interior to administer the various provisions. The Bill provides that the Secretary of the Interior shall file regulations for surface mining to inform the states what must be done to meet the requirements of the Bill. After the Secretary has issued regulations, the states have twelve months to submit their plans for regulating surface mining in their own jurisdictions. If the Secretary determines that the state program is in accordance with the Bill, and if the state has the legal and administrative facilities to implement its program, the Secretary may grant the state authority to regulate surface mining on state and private lands. If a state does not submit a program within twelve months, or submits an unacceptable program, or fails to enforce its program, the Secretary shall then prepare and


104. Senate Bill 425 passed the Senate on October 9, 1973. The House equivalent to S. 425 is H.R. 11500 (1973). The terms “Bill” and “Act” will be used interchangeably throughout this discussion of the federal proposal.


106. Id. § 201.

107. Id. § 204.
implement a federal program for the state.\footnote{108} The federal program must take into consideration the individual physical characteristics of the state, and if an acceptable state program is ultimately submitted and approved, the federal program will cease to be effective.\footnote{109}

The Bill provides an outline for the criteria that must be maintained in the state and federal programs. There must be a permit procedure before a person can engage in surface mining,\footnote{110} and the permit application must contain detailed information about the area, a certificate of insurance, and "a reclamation plan which shall meet the requirements of this Act."\footnote{111} Performance bonds sufficient to cover the cost of reclamation of the mined lands are required in any state or federal program.\footnote{112} The Bill provides detailed criteria of what should be included in a reclamation plan including the pre-mining condition of the land, the proposed use of the land after reclamation, steps to be taken to comply with air and water quality laws, a detailed timetable, and evidence of consideration given to making the plan consistent with state and local land use plans.\footnote{113} The Bill also provides minimum reclamation standards that must be included in every state and federal program.\footnote{114}

 Provision is made, and criteria established, for states to designate certain areas as unsuitable for surface mining.\footnote{115} A similar designation is required of the federal program. In addition, all land where the federal government owns the mineral rights to coal deposits, but not the surface rights, are withdrawn from surface mining.\footnote{116} This section

\begin{itemize}
\item[108.] Id. § 205.
\item[109.] Id.
\item[110.] Id. § 207.
\item[111.] Id. § 208.
\item[112.] Id. § 210.
\item[113.] Id. § 215.
\item[114.] Id. § 213(b). This section also provides for variances to be granted in certain specific situations where reclamation is outweighed by greater needs. Id. § 213(c).
\item[115.] Id. § 216(a)(2). This section also provides:
\begin{enumerate}
\item (2) An area may be designated unsuitable for all or certain types of surface mining operations if—
\begin{enumerate}
\item (A) reclamation pursuant to the requirements of this Act is not physically or economically possible;
\item (B) surface mining operations in a particular area would be incompatible with existing land use plans and programs; or
\item (C) the area is an area of critical environmental concern.
\end{enumerate}
\item[116.] Id. § 612(b).
\end{enumerate}
was perhaps one of the most controversial provisions of the Bill and was a great blow to the coal industry. Its effect is to protect ranchers and farmers from being forced off their land by coal companies holding federal leases.\footnote{Wyant, \textit{Tough Strip-Mining Bill Faces Test}, St. Louis Post-Dispatch, Oct. 30, 1973, at 1D, col. 1.}

Enforcement of the Act is first delegated to the Secretary of the Interior who is to make random inspections of surface mining and reclamation operations—not less than one inspection per month without prior notice.\footnote{S. 425, 93d Cong., 1st Sess. § 214(c) (1973).} The provision for federal enforcement provides several alternatives. If the Secretary has reason to believe that there is a violation of the Act he is instructed to notify the state regulatory authority.\footnote{Id. § 215(a).} If the Secretary believes there is a violation that "creates a danger to life, health, or property, or would cause significant harm to the environment," the Secretary can order a cessation of the surface mining.\footnote{Id. § 215(b).} The person affected by this order is entitled to a hearing within three days. If the Secretary finds that a state has failed to enforce its program, he must so notify the state, and if the state fails to comply within 30 days, he can enforce any permit condition or bring a civil or criminal action under the Act.\footnote{Id. § 215(c).}

The Bill also provides that the Secretary can request the Attorney General to institute a civil action in a federal district court for a restraining order or injunction to enforce any order provided for in the bill.\footnote{Id. § 215(e).} There is a provision for a civil penalty of not more than $1,000 for each day a person fails to comply with any federal program, any provision of the Act, or any permit condition required by the Act.\footnote{Id. § 215(f) (1).} Any person who knowingly and willfully violates the same provisions can be punished by a fine of not more than $10,000, or by imprisonment for not more than six months, or both.\footnote{Id. § 215(f) (2).} Any private citizen having an interest that is or may be adversely affected by a violation of the Act may bring a civil suit against the United States, the Secretary, or any state regulatory authority for violations of the provisions of the Act.\footnote{Id. § 219.}
A sum of 80 million dollars is designated to be used for an Abandoned Mine Reclamation Fund. This provision encourages states to acquire abandoned surface-mined land and gives them funds to restore these lands to their pre-mining condition. Money is also designated for research and demonstration projects. Other provisions in the Bill are designed to promote research to perfect both deep mining and surface mining techniques.

Several sections of the Bill deal with the issue of whether this Act would pre-empt state or local authority. Section 205 provides that whenever a federal program is adopted for a state, any statutes or regulations of that state that deal with surface mining are superseded insofar as they interfere with the purposes of the Act and the federal program. That section shows a clear intent to pre-empt any state regulation, at least in circumstances where a federal program is in force in that state. Section 611, however, contains the general provision on pre-emption for the entire Act, stating that no state law or regulation shall be superseded by the Act except insofar as the state law or regulation is inconsistent with the Act. In explaining what is meant by "inconsistent" with the Act, the Bill provides that any state law or regulation that is more stringent than the federal Act "shall not be construed to be inconsistent with the Act." In addition, any state law or regulation providing for the control of surface mining that the Act does not regulate "shall not be construed to be inconsistent with this Act." Section 611 does provide for federal pre-emption at least in the case of inconsistent state regulations. This section may be somewhat limited by the negative manner in which the definition of "inconsistent" is stated in the Act; there is no affirmative statement that more stringent state standards and extra state regulations shall be construed to be consistent with the Act. Regardless of the negative form of the pre-emption section, an argument can be made that the tone of the Bill encourages prudent regulation of surface mining and would sanction further state regu-

126. Id. § 301.
127. Id. § 604.
128. Id. §§ 401, 402, 501, 605.
129. Id. § 205(d)(2).
130. Id. § 611(a).
131. Id. § 611(b).
132. Id.
lations in the two areas mentioned. There is no mention in section 611 of pre-emption of local authority.

The tone of the Bill seems to provide for cooperation between all levels of government for regulation of surface mining. For example, the Secretary of the Interior, acting through the Office of Surface Mining, Reclamation and Enforcement, is to assist the state and local governments in coordinating their surface mining programs. The Bill also provides that the state programs should reflect local requirements and local environmental conditions.\textsuperscript{133}

Perhaps the most forceful provision is the section that provides minimum requirements for reclamation of the land after surface mining. The provision was hailed as a strong reclamation clause by environmentalists.\textsuperscript{134} The Bill provides that each permittee must, at a minimum,

\begin{enumerate}
\item return all surface areas to a condition which does not present a hazard to public health, safety, or property and is capable of supporting (a) the uses which existed immediately prior to any mining, or if approved by the regulatory authority pursuant to the approval of the permit or any revision thereof, (b) other alternate uses suitable to the locality;
\item backfill, compact \ldots and grade to restore the approximate original contour of the land with all highwalls, spoil piles, and depressions eliminated \ldots \textsuperscript{135}
\end{enumerate}

An important question raised by the Bill is the validity of this reclamation provision. The Supreme Court has never affirmed the validity of a reclamation requirement.\textsuperscript{136} State cases deciding the validity of state reclamation statutes have yielded mixed results. In \textit{Dufour v. Maize}\textsuperscript{137} the Supreme Court of Pennsylvania held constitutional a statute that provided for restoration of the surface and the planting of trees and shrubs. The basis for the decision was that the statute was consistent with the police power. An

\begin{footnotes}
\item 133. \textit{Id.} \S 202(c)(9).
\item 135. S. 425, 93d Cong., 1st Sess. \S 213(b) (1973).
\item 136. The ordinance that the Supreme Court upheld in \textit{Goldblatt v. Town of Hempstead}, 369 U.S. 590 (1962), contained a provision that imposed an affirmative duty on a person performing dredging and pit excavating to refill the existing excavation under penalty of fine. The Court refused to decide the validity of that provision because the petitioner did not seek enforcement under that provision.
\item 137. 358 Pa. 309, 56 A.2d 675 (1948).
\end{footnotes}
Illinois statute requiring any person, firm, corporation or association engaged in strip mining of coal to level the soil ridges so that the contour of the land was approximately the same as before mining was held unconstitutional in *Northern Illinois Coal Corp. v. Medill.*\(^{138}\) The court found the statute to be an unreasonable discrimination against coal strip mine operators, even though it might be conceded that the statute was valid as a measure designed to protect public health and serve as a conservation measure.\(^{139}\)

At the local level, a county ordinance requiring that all surface mining operations "shall be conducted in such manner as to replace the rocks and soil displaced by their operations . . . [and that] [t]he coarse material shall be placed at the bottom of the excavation, the fine material at the top, and the top soil shall be placed on top of the other material,"\(^{140}\) was held to be for a constitutional public purpose in *Merced Dredging Co. v. Merced County.*\(^{141}\) In this decision the court intimated that preservation of the validity of privately-owned land might come within the scope of the police power.

A non-statutory restoration clause in a mineral lease given by Northern Pacific Railway Company was upheld as enforceable in *The Montana Power Co.*\(^{142}\) The decision states that the Bureau of Land Management had included a restoration clause in all coal leases since 1951. It also noted that even if the restoration costs required as a result of the inclusion of the clause were high in relation to the value of the surface, they were quite moderate in relation to the value of the coal removed.\(^{143}\)

Reclamation is a desirable objective for land ravaged by strip mining, but it is sometimes fraught with difficulties. The high acidity of the spoil is often a bar to revegetation. In some cases the only alternative is to wait for the acid to filter out by natural weathering pro-

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138. 397 Ill. 98, 72 N.E.2d 844 (1947).
139. The use of the *Medill* case for precedent must be conditioned by the fact that the Illinois statute has now been re-drafted to remedy all objectionable features cited in *Medill.* See note 43 and accompanying text supra.
143. *Id.* at 520-21. "The undesirable after effects of the singleminded exploration of mineral resources are well known and the clause is merely a reasonable attempt to achieve some balance between the competing uses of land now and in the future." *Id.* at 521.
cesses.\textsuperscript{144} Other authorities suggest that there is no practical method for removing the polluting properties of the acid once it has been allowed to form.\textsuperscript{145}

In addition to these physical problems, reclamation affects the financial side of strip mining. If a miner in the past was allowed to remove the coal and leave the land unreclaimed after stripping, his costs were minimal. But if he is required to reclaim the land his costs will increase and the additional cost will ultimately be borne by the consumer. The actual cost per acre of reclamation depends on the topography of the land and the amount of reclamation that needs to be done. A reclamation requirement that is so financially burdensome that mining would be unprofitable could be argued to be an unconstitutional "taking" in violation of fourteenth amendment due process.\textsuperscript{146} So long as the reclamation requirement is financially reasonable, however, there should be no constitutional problems.\textsuperscript{147} Mainly for these financial reasons, reclamation after strip mining has not often been undertaken voluntarily.\textsuperscript{148} Perhaps the only way the land will be restored is if the government and other regulatory agencies force the coal miners to do so.

Some commentators have suggested that, with proper reclamation, land that has been strip mined can be made productive. The soil can be fragmented and made more porous, thus improving drainage and fertility. Small ponds and lakes created by damming the final cut can provide pleasant topographical relief in flat land and become a source of recreation. New vegetation, providing food and cover, may increase wildlife resources. Some grasses and plants grow better in strip-mined areas than in unmined areas,\textsuperscript{149} but these are certainly ideal conditions and results that require much planning, creativity and cooperation. In few areas is the result of strip mining so utopian.

Conclusion

Strip mining is an area in which this country must balance complex controversial issues. Strip mining severely affects the environment in

\begin{itemize}
\item \textsuperscript{144} Donley 127.
\item \textsuperscript{145} Meiners 462.
\item \textsuperscript{146} Reitze 665.
\item \textsuperscript{147} See U.S. Environmental Protection Agency, Legal Problems of Coal Mine Reclamation pt. VI (1972).
\item \textsuperscript{148} Cf. Note, Local Zoning of Strip Mining, supra note 62, at 741.
\item \textsuperscript{149} Reitze 716.
\end{itemize}
many harmful ways and can have long-range consequences in many cases. On the other hand, strip mining is an efficient source of energy in a time when our country is in the midst of an energy shortage. To balance these two important considerations and come to an equitable resolution is a large task that must be accomplished in a manner that does not ignore the needs and welfare of future generations. Nor should the current energy crisis result in environmental considerations being temporarily ignored, for if that is done we will have to pay higher environmental costs now and in the future.

Many commentators have suggested that proper planning is the answer to the strip mining problem. They have offered plans that can be adopted before strip mining begins in order to allocate the costs of reclamation between the strip miner and consumer and to provide detailed plans for reclamation. These plans should be given serious consideration for future strip mining because they attempt to allocate equitably all the private and social costs involved in strip mining. Note that advance planning is only helpful for strip mining that has not yet begun. The acres of land lying ravaged by past strip miners must also be dealt with; a conscious effort must be made to reclaim the land and correct these mistakes.

The experience of governmental intervention into strip mining in the past demonstrates that no unit of government can solve the strip mining dilemma alone. Uniform rules can be formulated on the federal or state level, but unique local characteristics must be considered for the regulations to be truly effective. What is needed in the area of strip mining regulation is the cooperation of all units of government so that the best possible results can be achieved.

150. See Bosselman 144; Brooks, Strip Mine Reclamation and Economic Analysis, 6 Natural Resources J. 13 (1966); Donley 129; Spore, The Economic Problem of Coal Surface Mining, 11 Environmental Affairs 685 (1973).

* The House of Representatives recently passed a version of H.R. 11500 (1973) which is basically similar to the resolution originally reported to the House by the Interior Committee. National Wildlife Federation, Conservation Report No. 27, at 359-60 (Aug. 2, 1974). The bill will now go to a conference committee to allow drafting a version of the bill acceptable to both the Senate and the House.