USE OF INSTITUTIONAL CONTROLS IN MINE CLOSURE

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Paper 8

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I. Introduction

Faced with increasing pressure to expedite the cleanup of contaminated sites and to return them to productive use, beginning in the mid-1990s, federal and state environmental agencies fundamentally changed their approach to cleanup of contaminated sites. Under the more traditional cleanup approach, environmental agencies required remedial actions that permanently treated or significantly reduced the presence of contaminants to allow unrestricted land use of the previously contaminated site.[1] This approach proved lengthy, costly and difficult to achieve. As an alternative to complete treatment or removal of contaminants, environmental agencies began to accept less stringent cleanups of contaminated properties, based on site-specific risk assessments, which took into account the probable future use of the site and measures that could be implemented to limit public exposure to the residual contamination.[2] Those measures include "engineered controls" and "institutional controls." Engineered controls are physical barriers, such as impermeable caps on mine waste rock disposal areas, that physically separate the public and environmental receptors from contact with contaminants. "Institutional controls" are legal or administrative controls that prevent public exposure to contaminants through limits on the public's use of a contaminated site. Incorporating engineered controls and institutional controls into a cleanup decision can significantly expedite cleanup times and reduce cleanup costs, yet serve to protect both the public health and the environment.

This paper initially examines the use and success of institutional controls in conducting these so-called "risk-based" cleanups. The paper then examines the different types of institutional controls, the concerns regarding the enforceability of negative easements and covenants that typically have been used as institutional controls and the legislative measures that have been implemented to address those enforceability issues. The paper next examines whether institutional controls should be used and, if so, how they can be used in mine closures and then considers drafting techniques to help avoid the risk of an institutional control failing. The paper

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[1] 42 U.S.C. § 9621(b)(1) (2005).

[2] This approach to supplement remedial actions with land use restrictions gained momentum with the advent of the federal brownfields and state voluntary cleanup programs beginning in the latter half of the 1990s. To expedite the Superfund process, the EPA adopted several directives in 1995 that promoted brownfields redevelopment (*e.g.*, Contaminated Aquifer Policy, Land Use in the CERCLA Remedy Selection Process). *See Land Use in the CERCLA Remedy Selection Process*, EPA, Office of Solid Waste and Emergency Response ("OSWER") Directive No. 9355.7-04, 9 (May 1995). As discussed later in this paper, most states have now adopted risk-based voluntary cleanup programs, which rely on risk assessments based on reasonable projections of likely future land use coupled with a mix of administrative and legal controls to ensure that the land is used only as projected.

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finally examines how institutional controls have been used and how they have fared in mine closures.

II. What Are Institutional Controls and Are They Useful in Environmental Cleanups?

The United States Environmental Protection Agency (the "EPA") defines institutional controls as non-engineered measures such as legal or administrative controls that help to minimize the potential for public exposure to contamination or to enhance or protect the integrity of a remedy.[3] Institutional controls work by limiting land use or by providing information that helps modify or guide human behavior at a site.[4] Institutional controls can range from easements and covenants running with the land to zoning and groundwater restrictions.

Environmental cleanups conducted under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"),[5] the Resource Conservation and Recovery Act ("RCRA"),[6] and state Superfund statutes traditionally were conducted with treatment technologies that significantly reduced the volume, toxicity and mobility of hazardous substances in the soil and groundwater at a site.[7] A site was considered "clean" when hazardous substances were removed to a level that posed no known risk to human health or the environment.[8] Such a cleanup satisfied the expectation that once cleaned a site could be made available for unrestricted future land use whether it be residential, industrial, or recreational.[9] This cleanup approach engendered much criticism as cleanups became protracted and expensive. Critics argued that this approach was wasteful and a misallocation of economic resources that resulted in significant expenditures of resources without much added protection of human health and the environment.[10]

Under the threat of decreasing federal funding and limited private resources for cleanups, a new paradigm of environmental cleanups emerged in the mid-1990s.[11] Under this new

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[3] *Institutional Controls: A Site Manager's Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups*, EPA, OSWER Directive 9355.0-74FS-P, 2 (2000) ("Site Manager's Guide").

[4] EPA, OSWER, *Institutional Controls: A Guide to Implementing, Monitoring, and Enforcing Institutional Controls at Superfund, Brownfields, Federal Facility, UST and RCRA Corrective Action Cleanups*, 2 (December 2002), *available at* http://www.epa.gov/superfund/policy/ic/guide/index.htm ("Draft Institutional Controls Guide").

[5] Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9601-9675 (2005 & Supp. 2009).

[6] Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6992k (2003 & Supp. 2009).

[7] See, e.g., 42 U.S.C. § 9621(b)(1) (such remedial actions "are to be preferred over remedial actions not involving such treatment").

[8] Andrea L. Rimer, *Environmental Liability and the Brownfields Phenomenon: An Analysis of Federal Options for Redevelopment*, 10 TUL. ENVTL. L.J. 63, 89-90 (1996).

[9] Alex Geisinger, *Rethinking Risk-Based Environmental Cleanup*, 76 IND. L. J. 367, 370 (2001).

[10] Id. at 370-371 (citing STEPHEN BREYER, BREAKING THE VICIOUS CIRCLE 11-19 (1993)).

[11] The new paradigm established itself very quickly. In the first twelve years after CERCLA was enacted, institutional controls were used in approximately 14 percent of all cleanups. Larry Schnapf, *Protecting Health and*

approach, cleanup objectives are achieved by a more practical approach that combines permanent remedies with mechanisms that limit exposure to the hazardous substances that remain at a site. This new risk-based approach is premised on the notion that by limiting exposure to hazardous substances through land use restrictions, the same amount of protection of human health and the environment can be achieved without undertaking the kind of costly and time consuming cleanups relied upon in the past.[12] Cleanups that rely, partially or wholly, on institutional controls by allowing, for example, contaminants to remain in deeper soils on the property or not requiring groundwater treatment, are often more cost effective and are completed much faster than the more comprehensive remedial actions under CERCLA. In other words, by tailoring cleanups to anticipated future land uses, the same protections can be achieved cheaper and faster. Under this new cleanup paradigm, institutional controls are the mechanisms used to ensure that, in future land uses, human exposure to hazardous substances left at a site is limited.[13]

Concurrent with the arrival of institutional controls and the desire to streamline the cleanup process, state voluntary cleanup programs began to emerge across the country. These programs offered an opportunity to conduct environmental studies and cleanup properties to support future development or redevelopment under a risk-based cleanup approach. Voluntary risk-based cleanups that do not contemplate future unrestricted land use typically include a process in which the landowner voluntarily imposes institutional controls on the property that restrict or limit its future use. For example, land development may be limited to industrial or commercial uses or a restriction may be imposed banning use of groundwater beneath the property for drinking water or culinary purposes. At the end of the cleanup process, the landowner receives a certificate of completion that recognizes that the property has been cleaned up and protects the landowner against claims arising from the historic environmental conditions addressed in the voluntary cleanup, including claims made by the environmental state agencies, third-party claims and contribution claims under state environmental laws. Currently, almost every state in the country offers a voluntary cleanup program.

Although the EPA does not view institutional controls as a means to circumvent the objectives of permanent treatment, it does consider institutional controls to be an integral component of a complete remedy, particularly at CERCLA sites.[14] In the National Contingency Plan ("NCP"), the implementing regulations of CERCLA, the EPA expressly acknowledges that institutional controls are appropriate when more permanent or active treatment of hazardous substances is impractical:

> . . . treatment of the principal threats posed by a site, with priority placed on treating waste that is liquid, highly toxic or highly mobile, will be combined with engineering controls (such as

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Safety With Institutional Controls, 14 NAT. RESOURCES & ENV'T 251 (2000). Since the mid-1990s, about 60 percent of all remedies approved by the EPA have utilized some form of institutional controls to address long-term management issues at contamination sites. *Id.* The percentage of cleanups utilizing institutional controls is even higher for sites administered under state brownfields and voluntary cleanup statutes. *Id.*

[12] Geisinger, *supra* note 9, at 371.

[13] Environmental Law Institute, *Institutional Controls In Use*, ELI Project No. 922042, 3-4 (1995).

[14] *See generally* Draft Institutional Controls Guide, *supra* note 4.

containment) and *institutional controls*, as appropriate, for treatment residuals and untreated waste.[15]

While the NCP emphasizes that institutional controls should be used to supplement permanent treatment remedies, institutional controls can be used as the sole remedy in circumstances where active response measures are determined to be impracticable.[16] The EPA also recognizes the use of institutional controls at RCRA corrective action sites.[17] Similarly, most states have enacted risk-based voluntary cleanup programs that also set cleanup standards according to reasonably foreseeable future land uses. In almost all cases, the projected future land use for such sites is secured with a variety of institutional controls.[18] Thus, institutional controls can and have increasingly played an important role in cleanup programs throughout the nation. This paper examines whether institutional controls can play an equally important role to the mining industry in mine closures.

III. Types of Institutional Controls, Common Law Limitations on Institutional Controls and Environmental Covenants Acts

A. Types of Institutional Controls

There are a wide variety of institutional controls that can be used to limit human exposure to contamination, impose restrictions on activities that may compromise the integrity of a remedy, and provide continuing access to a site for monitoring purposes.[19] Institutional controls include informational devices, governmental controls and contract-based land use restrictions.

Informational devices, such as deed notices, state hazardous waste site registries and advisories, are helpful in informing subsequent landowners of the nature of the contamination remaining on a former mine site, but provide no enforcement mechanism to prohibit unwanted activity on the site. Governmental controls, consisting primarily of zoning ordinances and groundwater use restrictions, are enforcement mechanisms that can be relied upon to preclude some unwanted activities on the site, but they require cooperation by governmental entities to implement them. And that cooperation must continue in perpetuity. Just as a local government can decide to impose a particular zoning restriction, the next administration can decide to modify

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[15] 40 C.F.R. § 300.430(a)(1)(iii)(C) (2009) (emphasis added). The regulation further states that the EPA "expects to use institutional controls such as water use and deed restrictions to supplement engineering controls as appropriate." *Id.* § 300.430(a)(1)(iii)(D).

[16] *Id.* § 300.430(a)(1)(iii)(D).

[17] *See Proposed Rules: Corrective Action for Releases from Solid Waste Management Units at Hazardous Waste Management Facilities*, 61 Fed. Reg. 19,432 (proposed May 1, 1996); *Completion of Corrective Action Activities at RCRA Facilities*, 67 Fed. Reg. 9,174 (Feb. 27, 2002).

[18] *See* ASTM Intl., *Standard Guide for Use of Activity and Use Limitations, Including Institutional and Engineering Controls*, E 2091-00, 7-9 (2000).

[19] For a more detailed description of the use of these various proprietary controls, see Patricia J. Winmill and Hal J. Pos, *Use and Enforceability of Institutional Controls in Risk-Based Environmental Cleanups–They're Cheap and Good Looking, But Will they Last?*, 49 ROCKY MT. MIN. L. INST. 23-1 (2003).

or terminate the restriction.[20] Accordingly, governmental controls cannot provide a guarantee that restrictions will be enforced on a long-term basis.

The most fertile ground for finding an institutional control that can prevent undesirable land uses over time are state property law and state statutory devises that allow permanent land use controls. These institutional controls, referred to as "proprietary controls", include: covenants running with the land, equitable servitudes, negative easements, and environmental covenants created under state statutes.

B. Enforceability Issues Associated with Using Real Covenants and Negative Easements as Institutional Controls

If certain criteria are met, real covenants and negative easements create real property interests that give the holder of the interest the right to prevent, or to require, a particular activity on a parcel of land and enforce that right against subsequent purchasers. While these interests have different legal characteristics, they have one thing in common—neither provides a perfect vehicle to ensure that a use restriction designed to protect the human health and the environment (an "environmental use restriction") will be enforceable against subsequent owners of the land.[21]

As discussed below, many states have adopted the Uniform Environmental Covenants Act and similar legislation that, in some circumstances, make environmental use restrictions enforceable in spite of the common law rules discussed in this section. However, not all states have adopted such laws, some statutes do not apply to reclamation activities, and few apply to mine closure activities that are not mandated by a reclamation or other statutory program. Thus in many circumstances, an operator wishing to impose restrictions on the future use of a mine site must consider how to do so in light of the common law rules restricting the creation of real covenants and easements.

1. Common Law Rules Regarding Real Covenants

Real covenants—covenants running with the land and equitable servitudes—are covenants that affect real property and bind subsequent purchasers of the land.[22] While these covenants are widely used as tools to impose land use controls in a variety of settings, the law governing real covenants is murky. As one commentator so succinctly put it—the jurisprudence of real covenants is an "unspeakable quagmire."[23] Real covenant rules are complex, vague, and

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[20] Geisinger, *supra* note 9, at 387.

[21] The question of the enforceability of these proprietary controls has been addressed in several articles. *See, e.g.*, Winmill, *supra* note 19; Geisinger, *supra* note 9; Heidi G. Robertson, *Legislative Innovation in State Brownfields Redevelopment Programs*, 16 J. ENVTL. L. & LITIG. 1 (2001); John Pendergrass, *Sustainable Redevelopment of Brownfields: Using Institutional Controls to Protect Public Health*, 29 ENVTL. L. REP. 10243, 10245-46 (May 1999); John S. Applegate and Stephen Dycus, *Institutional Controls or Emperor's Clothes? Long-Term Stewardship of the Nuclear Weapons Complex*, 28 ENVTL. L. REP. 10631 (1998); Susan C. Borinsky, *The Use of Institutional Controls in Superfund and Similar State Laws*, 7 FORDHAM ENVTL. L. J. 1 (Fall 1995).

[22] RICHARD R. POWELL, 9 POWELL ON PROPERTY § 60.01[2].

[23] *Id.* § 60.01[5] (quoting EDWARD H. RABIN ET AL., FUNDAMENTALS OF MODERN REAL PROPERTY LAW 489 (1974)).

rarely based on common sense.[24] In addition, the rules applied vary dramatically from state to state, and in many states, there is not enough case law available to determine how a state court might approach the varying rules that have been applied in other states. Thus, it is often not possible to determine with any certainty whether a particular environmental use restriction will be found to be enforceable against subsequent purchasers.

Traditionally, in order for a covenant to run with the land and bind subsequent purchasers, three elements must be satisfied: 1) the covenant must **touch and concern** land; 2) there must be horizontal and vertical **privity** of estate; and 3) the parties must have **intended** that the covenant run.[25]

Some courts also recognize and will enforce an "equitable servitude" against subsequent purchasers. In states where equitable servitudes are recognized, courts will enforce a covenant against subsequent purchasers of the land when: 1) the covenant **touches and concerns** land; 2) the parties **intended** that the covenant run; and 3) the successor took the land with **notice** of the covenant.[26]

In light of modern recording statutes, a covenant running with the land will be enforced only if the successor took with notice of the covenant.[27] Thus, the only distinction between covenants running with the land and equitable servitudes is whether or not privity exists.

In considering whether a covenant will be binding on successive landowners, the primary concerns are whether the privity and touch and concern elements can be satisfied. The notice requirement is easily fulfilled by proper recording. The intent requirement can be met stating the intent in the transfer document.

a. The Privity Requirement

Enforcement of a covenant running with the land requires that two elements of the privity requirement be satisfied: horizontal privity and vertical privity. Horizontal privity exists when a covenant is created at the time the original covenantee transfers an interest in land to the covenantor.[28] Vertical privity exists when the original parties to the covenant transfer their interest to subsequent purchasers.[29]

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[24] *See id.* § 60.01[5].

[25] Flying Diamond Oil Corp. v. Newton Sheep Co., 776 P.2d 618, 623 (Utah 1989) (emphasis added).

[26] POWELL, *supra* note 22, § 60.01[5] (emphasis added).

[27] *See* 1 JAMES H. BACKMAN & DAVID A. THOMAS, A PRACTICAL GUIDE TO DISPUTES BETWEEN ADJOINING LANDOWNERS–EASEMENTS § 3.01[3][c][vi] (2008).

[28] POWELL, *supra* note 22, § 60.04[3][c][iii]. Note that many courts have done away with the horizontal privity requirement. *Id.* § 60.04(3)[c].

[29] *Id.* § 60.04[3][c][iv].

Concerns regarding whether horizontal privity exists for an environmental use restriction primarily arise in the context of a governmentally required restriction. When the EPA or a state agency requires a landowner to record a notice of deed restrictions, there is, of course, no horizontal privity because there is no transfer of land. If, however, a mine owner wishes to impose an environmental use restriction for its own benefit, it can do so when it transfers the land. The transfer creates horizontal privity.

The mine owner cannot, however, ensure that vertical privity will always exist with respect to the burdened land[30] because it cannot control subsequent land transfers. In many instances, a landowner who is in a position to violate a covenant will be in privity with the original covenanting party. There are, however, exceptions. For example, in most states, an adverse possessor takes free of the covenant because there is no privity between the adverse possessor and the record owner.[31] In addition, some courts require that for privity to exist, the successor must have acquired the same estate as that held by a covenanting party.[32] For example, if a covenanting party who owns the land in fee simple grants a lease, the leasehold is not burdened by the covenant.

b. The Consequence of a Lack of Privity: the Remedy Available

Because privity is not a requirement for the enforcement of a covenant as an equitable servitude, the fact that a landowner may not always be able to satisfy the privity requirement does not mean that these servitudes are completely inadequate enforcement tools. The practical distinction between a covenant running with the land and an equitable servitude is the remedy available for a breach of the covenant. If a covenant is deemed to run with the land, it can be enforced in law or equity, i.e., injunctive relief and damages can be obtained. On the other hand, as its name suggests, an equitable servitude is only enforced in equity, i.e., only injunctive relief is available.[33] Thus, to ensure that a lack of privity does not destroy the protection of a covenant, the holder of the covenant must be vigilant in monitoring the land's use to ensure that violations are identified and enjoined before they can cause damage. Of course, vigilance will provide no protection against violations of covenants that result in immediate damage, such as a violation of a no excavation covenant that was intended to protect a tailings cap.

c. The Touch and Concern Requirement

The touch and concern requirement is the most troubling issue in considering whether real covenants can be effectively used as proprietary controls. While most courts agree that to be

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[30] In this discussion, the focus is on whether privity exists on the burdened side, because in a cleanup context, the issue is whether the original promisee can enforce the covenant against subsequent owners of the site. However, it should be noted that similar doctrines affect the running of the benefit of a covenant. *See* RESTATEMENT (FIRST) OF PROPERTY § 547 (1944).

[31] BACKMAN & THOMAS, *supra* note 27, § 3.01[3][c][v][B][I].

[32] *Id.* § 3.01[3][c][v][B][I]; 9 POWELL, *supra* note 22, § 60.04[3][c][iv]; Geisinger, *supra* note 9, at 392.

[33] 9 POWELL, *supra* note 22, § 60.04[2].

enforced as a real covenant or an equitable servitude a covenant must touch and concern land, they have not provided a clear test for determining when a covenant does touch and concern land. There have been a number of formulations of the touch and concern rule:

- The covenant in purpose and effect must substantially alter the rights that flow from ownership of the land.
- The covenant must "bear upon the use and enjoyment of the land and be of the kind that the owner of an estate or interest in land may make because of his ownership right."
- "If the performance of a covenant can be enforced regardless of one's status as owner of an interest in the land, the covenant is personal . . . ."
- "A real covenant bestows a benefit or imposes a burden only on the rights of a landholder, as landholder."
- The covenant must be of "such a character that its performance or nonperformance will so affect the use, value, or enjoyment of the land itself that it must be regarded as an integral part of the property."
- The test is whether it "enhances the land's value [on the benefit side], and for the burden side, whether it diminishes the land's value."[34]

However it is formulated, the touch and concern requirement does not provide a predictable gauge for assessing when a covenant touches and concerns land.[35] In addition, courts are increasingly lenient in applying the touch and concern requirement,[36] but this trend only means the ground is shifting. It does not make it any easier to predict how a court will address a particular covenant. The hallmark of the touch and concern requirement is its unpredictability.

d. Must the Covenant Touch and Concern on Both the Benefited Side and the Burdened Side?

In the context of environmental use restrictions, the primary issue is whether the benefit of the covenant touches and concerns land. In almost all cases a restriction on land use designed to protect the environment will touch and concern the burdened land. On the other hand, the

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[34] Flying Diamond Oil Corp. v. Newton Sheep Co., 776 P.2d 618, 623-625 (Utah 1989).

[35] *See* Susan F. French, *Highlights of the New Restatement (Third) of Property: Servitudes*, 35 REAL PROP. PROB. & TR. J. 225, 232-33 (2000); *see also* A. Dan Tarlock, *Touch and Concern Is Dead, Long Live the Doctrine*, 77 NEB. L. REV. 804, 810 (1998) ("Touch and concern continues to be diligently, if incoherently, applied by courts because it has a function, although courts often have trouble articulating it.").

[36] *See* BACKMAN & THOMAS, *supra* note 27, § 3.01[3][c][iv][A].

benefit of an environmental use restriction often does not touch and concern land, either because the covenantee no longer owns any land that can be benefited or because the covenant is designed to protect human health and the environment, not adjacent land.

The courts are in disagreement as to whether the touch and concern element must be satisfied both as to the burden and the benefit side of the covenant. When considering whether a burden will run, some courts require that the touch and concern requirement be satisfied on both the benefit and burden side of the equation, whether enforcing the covenant in law or equity.[37] Other courts reach a contrary conclusion.[38] Still other courts take the position that in order for the burden to run at law, the touch and concern requirement must be satisfied as to both the benefited and burdened land, but an equitable servitude can be enforced in equity even if there is no benefited land.[39] Moreover, in many western states, there is simply no case law on the subject. And to confound the question even further, as many commentators have observed, courts tend to apply these rules strictly or leniently depending upon their view of the social utility of the particular covenant involved.[40] Again, predictability is not this body of law's strong suit.

e. The Special Problems of Affirmative Covenants

To ensure that a partially remediated site does not pose a threat to human health and safety or the environment, institutional controls often include provisions requiring the landowner to take affirmative steps to help guarantee that result. For example, a remedial action may require installation, monitoring and maintenance of fences and various types of barriers. Or it may require the landowner to notify the EPA and the state agency if a proposal is made to change the zoning restrictions on the property. In some jurisdictions, there may be a question as to whether such an affirmative obligation can run with the land.

In the late nineteenth century, English courts took the view that affirmative covenants could not run with the land.[41] Although only a few American jurisdictions expressly adopted this rule,[42] there is still some reluctance among the courts to enforce covenants that impose affirmative burdens.[43] While this vestige of the common law is disappearing as modern real

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[37] 9 POWELL, *supra* note 22, § 60.04[3][a].

[38] *Id.*

[39] *Compare* RESTATEMENT (FIRST) OF PROPERTY § 537 cmt. c (1944) (for covenant to run with land there must be benefited land) *and id.* § 539 cmt. k (equitable servitude can be enforced even where there is no benefited land).

[40] 9 POWELL, *supra* note 22, § 60.04[3][a].

[41] French, *supra* note 35, at 230.

[42] *Id.*

[43] RESTATEMENT (THIRD) OF PROPERTY: SERVITUDES § 3.1 cmt. k (2000) (reluctance reflected in application of touch and concern requirement).

estate developments increasingly require that various types of affirmative burdens be imposed on land, it has not been abolished in all jurisdictions.[44]

f. Negative Easements and the Benefited Land Requirement

A promise not to use land in a certain manner can also be characterized as a negative easement. Most easements are affirmative, i.e., they authorize the holder to conduct an activity on another's land. In contrast, a negative easement gives the holder the right to preclude a particular activity from being conducted on another's land.[45] Such easements are used to guarantee a landowner that adjoining property will not be used in a way that will impair the use and enjoyment of his own property.

Historically, courts did not favor negative easements because they restricted productive uses of land, clouded title and their existence was not apparent to prospective purchasers inspecting the land.[46] This distrust has continued to the present day.[47] Courts "with some significant exceptions . . . will not recognize purported negative easements" beyond the four easements recognized by the English common law: easements for air, light, subjacent and lateral support and the flow of water.[48]

The types of negative easements traditionally recognized by the courts are, by their nature, "appurtenant" to land. An appurtenant easement "is created to benefit and does benefit" the holder of the easement in the use and enjoyment of his land.[49] An easement that does not benefit any particular land is referred to as an "easement in gross."[50]

The law does not favor interests held in gross.[51] This disfavor, combined with the court's dim view of negative easements, in general, have led most commentators to conclude that a negative easement in gross is not enforceable against successors to the burdened land.[52] Such easements are virtually identical in purpose and effect to a covenant running with the land or an equitable servitude. Accordingly, the same reasons that cause courts to require that covenants

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[44] *See* 9 POWELL, *supra* note 22, § 60.06[1]-[2].

[45] RESTATEMENT (FIRST) OF PROPERTY § 452 (1944).

[46] *See* National Conference of Commissioners on Uniform State Laws, *Commissioners' Summary of the Uniform Conservation Easement Act*, *available at* http://www.nccusl.org/nccusl/uniformact_summaries/uniformacts-s-ucea.asp (explaining need for uniform law providing for creation of conservation easements).

[47] 7 THOMPSON ON REAL PROPERTY § 60.02(e)(1) (David A. Thomas ed., 2nd ed. 2006).

[48] *Id.*

[49] RESTATEMENT (FIRST) OF PROPERTY § 453.

[50] *Id.* § 454.

[51] *Commissioners' Summary of the Uniform Conservation Easement Act*, *supra* note 46, at 1.

[52] 4 POWELL, *supra* note 22, § 34.11[3].

benefit land before enforcing them against subsequent purchasers have also led courts to impose the same requirement on negative easements.[53]

g. Environmental Use Restrictions Rarely Touch and Concern or Benefit Land

Under traditional common law rules, an environmental use restriction—whether characterized as a covenant running with the land, an equitable servitude, or a negative easement—must benefit some land before it will be enforced against subsequent purchasers of land. Accordingly, in most jurisdictions, neither the EPA nor the state can enforce these proprietary controls against subsequent purchasers. Those entities do not own land in the vicinity of the burdened land and can make no argument that the restrictions benefit their land. Similarly, the owner of a contaminated site who wishes to impose an environmental use restriction in a conveyance of the entire site will retain no land that could be benefited by the covenant.

Owners who transfer only a portion of their land, retaining nearby land, might attempt to impose an environmental use restriction on the land and argue that the restriction benefits the retained land. However, many of the most common environmental use restrictions may not be viewed as benefiting land. That result is not particularly surprising, because in most cases they are intended to benefit the environment, not land. For example, in most circumstances, a restriction prohibiting residential use of a site would likely not be viewed as benefiting the retained land. Many use restrictions do benefit land because they prohibit uses that are perceived to be detrimental to nearby lands. However, residential use typically is not viewed as being detrimental to nearby lands. Thus, in the usual circumstance, it is unclear how a ban on residential use could be viewed as benefiting nearby land. On the other hand, if the site is located in an industrial zone, an argument can be made that a residential use restriction does benefit the nearby land, because it creates a non-residential buffer around the industrial facilities.

Similarly, an excavation or drilling restriction would not typically be viewed as benefiting nearby land, because the restriction simply prevents the public's exposure to contamination and has no impact on neighboring property. There are, however, fact scenarios that might give rise to a reasonable argument that such restrictions do benefit nearby lands. If, for example, an excavation restriction relates to the contaminated bed and bank of a stream, the restriction does benefit downstream property, because it prevents the contaminated materials from being washed downstream. Similarly, if the contaminated materials are light enough to be blown by the wind, the owner of nearby property can reasonably argue that preventing such materials from being unearthed benefits his land by protecting it against contamination.

A landowner seeking to ensure the enforceability of a proprietary control by retaining land in the vicinity of the contaminated site must commit to the long-term ownership of the retained land. Covenants running with the land and equitable servitudes are enforceable by the

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[53] *See id.* § 34.11[3] (whether viewed as negative easement or equitable servitude, it is doubtful such interest will be enforceable against subsequent owners where "the benefit is only personal (in gross)"); *see also* Geisinger, *supra* note 9, at 390.

owner of the land benefited by the restriction, not by the person or entity that imposed the restriction in the first instance.[54] Similarly, an appurtenant easement, i.e., one that benefits other land, transfers with a transfer of the benefited land. Thus, the strategy of retaining adjacent land in order to help establish the enforceability of an environmental use restriction comes at a cost.

h. The New Restatement: New Rules for Covenants and Easements

The Restatement (Third) of Property: Servitudes proposes a number of dramatic departures from the common law concepts described above.[55] The new Restatement eliminates the horizontal and vertical privity requirements[56] and the touch and concern requirement of covenant law,[57] and dispels any notion that an affirmative burden cannot run with the land.[58] The new Restatement also eliminates the requirement that a negative easement be appurtenant to other land.[59] Instead of these traditional rules, under the new Restatement, a real covenant or a negative easement will be enforced against subsequent owners or possessors of land,[60] if 1) the covenant is valid, 2) enforcement does not violate public policy, 3) the parties intended to bind subsequent owners and 4) the subsequent owner took with notice of the servitude.[61]

The drafters of the Restatement admit that case law does not support this new approach,[62] and the courts have not adopted it.[63] It also seems unlikely that they will do so in the near future.

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[54] RESTATEMENT (FIRST) OF PROPERTY § 549.

[55] For an overview of the new Restatement, see French, *supra* note 35. The Restatement (Third) of Property is the first Restatement addressing the law of servitudes since the original Restatement (First) was published in 1944. The Restatement (Second) of Property addressed only Landlord and Tenant and Donative Transfer issues. For a listing of the various Restatements addressing property law issues see American Law Institute's website at http://www.ali.org/.

[56] RESTATEMENT (THIRD) OF PROPERTY: SERVITUDES § 2.4, § 5.2 cmt. B (2000).

[57] *See* French, *supra* note 35, at 232-33.

[58] RESTATEMENT (THIRD) OF PROPERTY: SERVITUDES § 3.1 cmt. k.

[59] *Id.* § 2.6 (benefits held in gross allowed); *see also id.* § 1.2 cmt. h ("[T]here are no differences between negative easements and restrictive covenants. The benefit of any servitude may be created and held in gross.").

[60] *See id.* §§ 5.1 to 5.9 for the new Restatement's succession rules that have replaced the vertical privity requirement. Under the new Restatement, with certain exceptions, benefits and burdens run to all subsequent owners and possessors of the land.

[61] BACKMAN & THOMAS, *supra* note 27, § 3.01[3].

[62] "[T]he Restatement Third is designed to restate the law of servitudes for the future, rather than to document the past." RESTATEMENT (THIRD) OF PROPERTY: SERVITUDES, Intro. at xix (Tentative Draft No. 1, 1989).

[63] *See* Alfred L. Brophy, *Contemplating When Servitudes Run With the Land*, ST. LOUIS U. L. J. 691, 692-93 (2002) (Restatement approach "may win converts in the courts. However, at this point, courts are still talking about the traditional requirements . . . ").

Not all commentators agree with the drafters' approach.[64] In addition, while Restatements typically carry great weight in the courts, this Restatement reflects an abrupt departure from prior precedent. It seems likely that, like the commentators, not all courts will agree that this new approach is the right one. Thus, at least for now, a mine owner seeking to impose a land use restriction on a former mine site cannot rely on the new Restatement to ensure that the restriction is enforceable.

C. The Uniform Environmental Covenants Act

In 2003, the National Conference of Commissioners of Uniform State Laws adopted the Uniform Environmental Covenants Act (the "Uniform Act"),[65] which in some circumstances eliminates concerns regarding the enforceability of environmental use restrictions. Five western states—Idaho, Nevada, South Dakota, Utah, and Washington—have adopted some version of the act.[66]

The Uniform Act uses the term "environmental covenant" to include an environmental use restriction, whether it is couched in terms of an easement or a covenant. Section 5 of the Act specifies that an environmental covenant binds subsequent purchasers of property and is valid even though: it is not appurtenant to property; it imposes a negative burden; it imposes affirmative obligations on the owner of the burdened property; the covenant does not touch or concern property; and there is no privity.[67]

A cardinal feature of the Uniform Act is that it only applies to environmental covenants imposed in an "environmental response project" conducted with governmental oversight.[68] However, the Uniform Act defines an environmental response project very broadly to include "a plan or work performed for environmental remediation" that is "conducted under a federal or state program governing environmental remediation, including [insert references to state law governing environmental remediation]."[69] None of the western states adopting the Uniform Act

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[64] *See, e.g.*, Tarlock, *supra* note 35, at 811 (criticizing new Restatement's rejection of touch and concern requirement and observing that approach "has quite limited academic and judicial support").

[65] UNIF. ENVTL. COVENANTS ACT § 1 et seq. (2003); National Conference of Commissioners on Uniform State Laws, *Uniform Environmental Covenants Act* (2003), *available at* http://www.law.upenn.edu/bll/archives/ulc/ueca/2003final.htm.

[66] National Conference of Commissioners on Uniform State Laws, *Uniform Environmental Covenants Act, Legislative Fact Sheet* (2003), *available at* http://www.nccusl.org/Update/uniformact_factsheets/uniformacts-fs-ueca.asp. In all, 22 states have adopted the Uniform Act.

[67] UNIF. ENVTL. COVENANTS ACT § 5(a) and (b). The Uniform Act does, however, clarify that the statute will not invalidate any interest that is otherwise enforceable under state law, indicating that the enactment of the statute is not intended to suggest that other environmental use restrictions are invalid. *Id.* § 5(d).

[68] *Id.* § 2(4) (environmental covenants covered by Uniform Act defined as servitudes arising under "environmental response project").

[69] *Id.* § 2(5). The Act also applies to closure of solid or hazardous waste management units and state voluntary cleanup programs. *Id.*

have listed mine reclamation statutes as examples of the statutory programs to which the Act applies.[70] And for the most part, the Uniform Act is understood as applying to remediation projects conducted under general environmental laws, not reclamation laws. Nevertheless, the drafters of the Uniform Act intended the definition of an environmental response project to be read broadly to include any governmentally supervised remediation project,[71] and it is likely that many of the statutes that are based on the Uniform Act would be interpreted as extending to reclamation activities overseen by a governmental agency.

Despite the broad scope of the Uniform Act, however, because many of the states adopting the Uniform Act have altered various of its provisions, each state statute must be evaluated independently to assess whether its provisions extend to reclamation activities.[72] In addition, a practical difficulty in relying on the environmental covenant statutes to impose an environmental use restriction on reclaimed lands is that the state reclamation agency will likely not be familiar with the statute and not have mechanisms in place to implement such a restriction.

In any event, the vast majority of environmental covenant statutes clearly apply only where the government is involved in the remediation. A mine owner who seeks to impose environmental use restrictions on land that is not subject to a statutory reclamation or other remediation requirement cannot rely on the environmental covenant statutes to ensure that the restriction is enforceable. This is a significant limitation for owners of historic mine sites. In many cases, such sites include land contaminated by historic operations, but not included in the current mining and reclamation plan or subject to other governmentally required remediation. Mine owners in such circumstances may wish to voluntarily remediate the land to avoid future liability. In this kind of remediation, however, the mine owner can take advantage of the environmental covenant statute only if it is willing to subject itself to a state voluntary cleanup program.

The Uniform Act authorizes a variety of persons to enforce an environmental covenant by injunctive relief, including the "holder," the agency involved, local governments, as well as "a person . . . whose liability may be affected by the alleged violation of the covenant."[73] A "holder" of an environmental covenant can be any person, including the landowner.[74] Thus, the

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[70] *See, e.g.*, IDAHO CODE ANN. § 55-3002 (Michie 2007); NEV. REV. STAT. ANN. § 445D.070 (Michie Supp. 2007); S.D. CODIFIED LAWS § 34A-17-2 (Supp. 2008); UTAH CODE ANN. § 57-25-102 (Supp. 2009); WASH. REV. CODE ANN. § 64.70.020 (West Supp. 2009).

[71] *See* UNIF. ENVTL. COVENANTS ACT § 2 cmt. 7 (definition "is written broadly to also encompass both current federal law, future amendments to both state and federal law, as well as new environmental protection regimes should they be developed").

[72] *See, e.g.*, WASH. REV. CODE ANN. § 64.70.020 (limiting "agency" to "either the department of ecology or the United States environmental protection agency, whichever determines or approves the environmental response project pursuant to which the environmental covenant is created").

[73] UNIF. ENVTL. COVENANTS ACT § 11.

[74] *Id.* § 3(a).

Act would give responsible parties authority to enforce environmental covenants to prevent breaches of the covenant that may increase their liability. Notably, however, the Act does not appear to allow actions for damages arising out of a breach of an environmental covenant.[75]

Another significant aspect of the Uniform Act is a set of provisions intended to ensure that environmental covenants will be perpetual. An environmental covenant is not subject to being extinguished by any of the common law or statutory termination doctrines that apply to real covenants and easements.[76] An environmental covenant may be amended or terminated only with the consent of the agency, the current owner, the holder, and any other party who signed the covenant.[77] Because responsible parties who are not holders of the covenant may nevertheless sign the document and become a party to the covenant,[78] they can assure themselves that they will be allowed to participate in any termination or modification proceeding.

D. Other Environmental Use Restriction Statutes

A number of states, including several western states, have adopted their own versions of an environmental covenant statute, providing that certain kinds of environmental use restrictions will run with the land and bind subsequent landowners. While these statutes vary widely in scope and form, most take the approach reflected in the Uniform Act and only serve to validate environmental use restrictions that are imposed in a regulatory setting.[79] However, some of these statutes appear to be directed toward covenants imposed in a CERCLA type clean up setting and would likely not apply to reclamation activities.[80]

In the main, the existing environmental covenant statutes are far less comprehensive than the Uniform Act. Significantly, few of the statutes expressly grant responsible parties the power to enforce the restriction[81] or the right to consent to a modification or termination of the restriction.[82] In addition, none of the statutes reviewed contain provisions stating that the statute

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[75] *Id.* § 11(a) (action for "injunctive or other equitable relief" may be maintained).

[76] An environmental covenant cannot be terminated in an eminent domain proceeding, unless the relevant agency consents, and a covenant cannot be terminated under the doctrine of changed circumstances, unless the agency consents and all parties to the covenant have been made parties to the judicial proceeding. *Id.* §§ 9, 10.

[77] *Id.* § 10.

[78] *Id.* § 4(a)(5) Reporter's Notes.

[79] *See, e.g.,* ARIZ. REV. STAT. ANN. §§ 49-152(H) and -158(D) (2004); COLO. REV. STAT. ANN. § 25-15-321 (2009); MONT. CODE ANN. § 76-7-101 (2009); WYO. STAT. ANN. § 35-11-1607 (2009); *but see* CAL. CIVIL CODE § 1471 (West Supp. 2009).

[80] *E.g.,* ARIZ. REV. STAT. ANN. § 49-158.

[81] *See, e.g.,* ARIZ. REV. STAT. ANN. §§ 49-152(F) and -158(B); WYO. STAT. ANN. § 35-11-1607(e); *but see* COLO. REV. STAT. § 25-15-322 (grantor and third party beneficiaries can enforce covenant).

[82] *See, e.g.,* ARIZ. REV. STAT. ANN. §§ 49-152(D) and -158(L); MONT. CODE ANN. § 76-7-212; WYO. STAT. ANN. § 35-11-1607(f).

is not to be interpreted as indicating that other types of environmental covenants and easements are unenforceable. The omission is significant. It can be argued that a statute drafted to ensure that certain environmental use restrictions run with the land reflects the legislature's belief that, absent the statute, such restrictions would not do so. That negative implication could make it more difficult to argue that other types of environmental use restrictions are binding on subsequent purchasers. In sum, while each of these statutes addresses the fundamental question of whether an environmental use restriction is enforceable, few address the related issues posed by that question as comprehensively as does the Uniform Act.

IV. The Regulatory Background of Mine Closures

Mine closure and reclamation plans are designed to address mining-related disturbances and environmental conditions left behind following mine closure. These plans are often subject to numerous environmental permits and environmental laws. They typically include, among other things, plans or strategies concerning groundwater and surface water quality protection, dust control measures, contaminated soil encountered during building demolition and revegetation techniques. Mine closure and reclamation plans are filed with a state mining agency (e.g., Utah Division of Oil, Gas & Mining) and typically describe the land use and vegetation that were present before mining began and present potential post-mining land uses and reclamation strategies.

Mine closure and reclamation plans are subject to and must comply with all applicable environmental permits and laws governing surface water, groundwater, air emissions, hazardous wastes and soil contamination both during and after mine closure. Many of these permits and laws profoundly influence the extent and character of post-mining closure activities. For example, groundwater discharge permits, managed by the state environmental agency over water quality (e.g., Utah Division of Water Quality) require closure plans that address all aspects of closure that may have an impact on water quality, such as management of an open pit mine or waste rock and tailings disposal area that may impact groundwater quality. These plans typically include post-closure maintenance and long-term, post-closure monitoring of these areas. In addition, the state water quality agency will manage National Pollutant Discharge and Elimination Systems ("NPDES") permits for surface water discharges off the mine property after closure. The permit specifies water quality criteria at each permitted outfall point, storm water management practices and continued management of both surface water and captured groundwater from the mine property after closure.

State air quality agencies (e.g., Utah Division of Air Quality) manage air quality approval orders, Title V operating permits and portions of the state implementation plans or SIPs relating to operating facilities such as an open pit mine, concentrator, smelter, refinery or tailings impoundment. These agencies typically continue to be involved in post-closure activities to monitor the level of dust emissions from a mine and waste rock and tailings disposal area during reclamation activities

Larger mines, especially those in close proximity to urban areas, may have been, or may be, involved in CERCLA remedial actions before, or at the time of, mine closure activities. Often times, these remedial actions are focused on historically contaminated areas within the mine site boundaries that are impacting soil, groundwater and surface water on and off the mine

site. In such instances, the EPA as the lead agency will oversee and specify minimum cleanup standards during remedial action activities. Depending on the scope and timing of the remedial action, mine closure activities may coincide with or overlap an ongoing remedial action.

V. Mine Closures Are Different From Remedial Actions But Institutional Controls Can be Equally Useful in Both Settings

The use of institutional controls in a remedial action performed under CERCLA is a well-accepted practice in the industry. However, the application of these controls in the context of an environmental cleanup under a mine closure and reclamation plan is not. This difference might impact the nature of the institutional controls available in a mine closure—in particular, whether statutory environmental covenants might be available. Unlike remedial actions under CERCLA where the use of environmental covenants are now well recognized, the state agencies that typically administer mine closures often are not familiar with environmental covenants and, in any event, may not be authorized to implement such covenants. Unless a state agency that is authorized to execute and is familiar with statutory environmental covenants becomes involved in the mine closure, the environmental covenant statute may not be used or even available. As a consequence, an operator in a mine closure, unlike a responsible party in a CERCLA remedial action, may not be able to take advantage of the statutory provisions that eliminate concerns regarding the long term enforceability of land use restrictions that arise under real property law. Nevertheless, as discussed below, even where a statutory environmental covenant is not available, there are strategies that may help ensure the long term enforceability of institutional controls.

Another distinction between the use of institutional controls in CERCLA remedial actions and in mine closures arises out of the differing land use settings in which such projects are undertaken. CERCLA remedial actions are intended to respond to an already identified risk to human health and the environment and typically arise in an established urban setting. In contrast, mine closure plans must necessarily address changes in land uses. Thus, they often serve as a preemptive action rather than a responsive action. As discussed below,[83] mine closure and reclamation plans often contemplate that new land uses may arise that did not exist before mining commenced. Not surprisingly, these new uses often come into being because of the mine itself. In opening a new mine, operators create the infrastructure needed to support the operation. That same infrastructure—road systems and electrical, natural gas, water and telephone service—is also necessary before land can be used for other purposes such as residential or recreational development. Thus, reclaimed mine sites are readily adaptable to redevelopment once exposure risks are mitigated. Many of these sites are also situated in scenic areas that attract residential and recreational uses. In addition, as large tracts of land become scarcer, reclaimed mine sites may become an increasingly valuable resource for large-scale development projects. For these reasons, operators of mining facilities that are closing should anticipate that new land use patterns may emerge and may wish to implement institutional controls as a preemptive measure to address those new uses.

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[83] *See infra* Section VI.

Despite these differences, institutional controls may be helpful in mine closures for many of the same reasons they have been shown to be useful in remedial actions. Environmental cleanups contemplated in mine closure and reclamation plans and in CERCLA remedial actions often address similar environmental issues. Both may address common environmental issues such as contaminated soil, groundwater and surface water. In addition, institutional controls can compliment engineered controls regardless whether such controls are implemented in a mine closure setting or in a CERCLA remedial action. For example, excavation or drilling restrictions at a site would be effective to protect surface and subsurface water collection systems whether the site is a mine waste rock disposal area or a contaminated area being remediated under CERCLA. Because CERCLA remediation sites and former mine sites pose similar environmental conditions, institutional controls should be equally effective in either setting.

VI. Identifying Post-Mining Land Use Restrictions in the Closure Process

Closure and reclamation plans, by design, involve decisions concerning possible post-closure land use at a mine. What post-closure land uses are possible is dictated by limitations imposed by the regulatory, chemical and physical setting that will exist in different areas of the mining site after closure is completed. Thus, a mine closure and reclamation plan will typically identify different post-closure land use scenarios for the different operating areas of a mine. On the one hand, mine areas without long-term maintenance requirements and where all physical and chemical hazards are removed, may have an unrestricted post-closure land use. On the other hand, some areas of a site may only be suitable for very limited post-closure land use because of the need for continuous maintenance after closure or because they continue to pose physical or chemical hazards. For example, because of the need for long-term water management in and around an open pit mine and the public safety issues associated with steep and potentially unstable pit walls, this area of the mine site must be managed with limited or no public access and virtually no post-closure land use is possible. Similarly, for the same reasons and, because of the likely acidic nature of the waste rock, post-mining land uses in a waste rock disposal area would again, by necessity, be limited.

For ore processing areas such as the concentrators, smelter and refinery, the primary limits on post-closure land use will be determined by the concentrations and extent of soil and groundwater contamination that remain in and beneath these areas at closure. As to these areas of the site, the post-closure value of the land may dictate the degree of remediation the operator may wish to conduct. If, for example, the most likely and valuable land use is industrial or commercial use, a less rigorous soil clean up standard will apply than if residential use is contemplated. Or if the contemplated post-mining land use is wildlife habitat, then the risk-based soil cleanup standard will be based on acceptable exposures for potentially impacted species. In order to maximize the value of the post-closure land use of various areas within the mine site, an operator may wish to conduct a more complete remediation designed to allow unrestricted land use, including residential use and wildlife habitat.

Remediation conducted during closure should be based on cleanup standards applicable to the future use of the land that are derived from either agency-accepted risk-based cleanup standards[84] or from a site specific exposure and risk assessment. Institutional controls can help

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[84] See EPA, Preliminary Remediation Goals: Screening Levels for Chemical Contaminants (updated April 2009),

insure that post-mining land use is consistent with the selected cleanup standard. Identifying and deciding which land use restrictions should apply to the various areas of a mine site early in the mine closure planning process can help define the closure and reclamation strategy. Use of institutional controls in this process can help the operator achieve the long-term, post-closure objectives of maximizing the value of the land's future uses and protecting human health and the environment.

VII. When Should a Mine Owner or Operator Impose Institutional Controls Even Though the Government Does Not Require Such Controls?

Mine owners or operators should consider the use of institutional controls in closure planning if the use of such controls is cost effective and can be enforced and ensure the long-term effectiveness of the mine closure. Like institutional controls used at Superfund or brownfields sites, the use of institutional controls in mine closures can expedite the closure process and reduce closure costs, while serving to protect the public health and the environment. For example, a cleanup that remediates soils to risked-based industrial or commercial soil cleanup standards, coupled with an institutional control that precludes future residential land use on the property, may be faster and cheaper than, but equally protective as, a cleanup based on residential soil cleanup standards. Where mine closure and reclamation plans incorporate risk-based remediation standards, institutional controls serve to ensure that post-closure uses are consistent with that level of remediation.

One of the chief purposes of a mine closure and reclamation plan is to leave the former mine site in a stable and productive condition that is protective of public health and the environment and consistent with its location, topography and future land uses. Many closure decisions will be based on the predicted land use of the former mine site, but they can also be tailored to address existing environmental conditions that might draw the attention of the EPA's Superfund branch. In such an instance, risk adverse mine owners or operators may consider imposing institutional controls on various portions of the mine site even where governmental agencies do not require land use restrictions. Such a strategy can minimize the risk of tort liability and the risk that a closed or reclaimed mine might be listed on the National Priorities List ("NPL"), better known as the "Superfund list."

At mine closure, consideration should be given to existing environmental conditions, which if left unattended, could trigger an EPA site investigation, followed by a full-blown remedial investigation and remedial action under the EPA's Superfund program or corresponding state environmental program. Mine sites that have, for example, not adequately addressed historical leach water and acid rock drainage losses may be a leading candidate site for a post-closure EPA investigation. The EPA often targets mine sites located near urban centers, mine sites with a long mining history and known historical contamination or acid rock drainage issues and mines located in drainages where historically several mines have operated.[85] The

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http://www.epa.gov/region09/superfund/prg/index.html.

[85] Kevin R. Murray, *Watershed Approach to Site Remediation: Clean Water or Quagmire*, ROCKY MT. MIN. L. INSTIT. 11A (Special Instit. Jan. 2002).

EPA may also target mines located in recreationally-sensitive areas or in areas that have attracted residential land development years after mine closure.

Mine closure and reclamation plans must address an array of environmental conditions and issues ranging from one end of the spectrum—establishing risk-based soil cleanup standards to remediate contaminated soils beneath a demolished ore processing facility—to the other end of the spectrum—managing acid rock drainage issues. In the latter instance, these plans must address a condition in which historical leach water and acid rock drainage losses that have occurred at the base of a waste rock or tailings disposal area or from a reservoir, evaporation pond or leach pad have contaminated portions of the alluvial aquifer beneath and down gradient of the mine property. As a result, concentrations of sulfates and metals in some parts of the aquifer may exceed risk-based human health standards (*i.e.*, maximum contaminant levels or "MCLs") for some contaminants. In this setting, corrective measures to prevent additional releases to the aquifer might include a variety of engineered controls, such as: (i) capturing or improving the capture of seepage from the waste rock disposal area by installing or upgrading surface and subsurface collection systems; (ii) lining a reservoir with a multiple-layer liner system; (iii) removing or consolidating sludges within an evaporation pond and capping and reclaiming the pond area; or (iv) treating acidic soil beneath the leach pad area to neutralize the pH of the soil and capping and reclaiming the leach pad area.

To be effective, these source control measures for protecting the aquifer against further contamination must be coupled with measures to protect and ensure the long-term effectiveness of the remedy. As has been demonstrated at many Superfund and RCRA sites, institutional controls can, if thoughtfully selected, implemented and integrated with the engineered controls in place, ensure the long-term effectiveness and permanence of remedial measures. Institutional controls that, for example, preclude the use of groundwater beneath or down gradient of the mine site or restrict excavation into a clay barrier or impermeable cap, can ensure that in future land uses human exposure to contaminants at a former mine site is substantially limited. Institutional controls could make the difference between a mine site becoming a Superfund site or not.

Because of this potentially significant risk, we often advise our mining clients to develop long-term mine closure plans that minimize potential CERCLA liability. More specifically, with the technical assistance of an environmental consultant, we evaluate various mine closure scenarios against anticipated EPA model criteria to identify closure technologies that compliment the anticipated closure scenarios and serve to reduce the hazard ranking system ("HRS") scoring potential of the mine under CERCLA.[86]

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[86] The HRS is a scoring system the EPA uses to evaluate relative risks to human health and the environment posed by releases of hazardous substances to the environment. The HRS was originally adopted in 1982 to meet the requirements of CERCLA and was substantially revised in 1990. *See United States Environmental Protection Agency, Hazard Ranking System, Final Rule*, 55 Fed. Reg. 51,532 (Dec. 14, 1990). The HRS is a numerically-based scoring system that uses information obtained during the preliminary assessment and site investigation phases of the Superfund site assessment process. Using this information, the HRS assigns each site a score ranging from 0 to 100 on the basis of three categories: likelihood of a release; waste characteristic, including quantity and toxicity; and targets (human populations and sensitive environments). Factors within these three categories are used to assess the overall threat to targets potentially exposed to hazardous substances from the site via four pathways—groundwater, surface water, soil and air. A final score of 32.5 or greater buys a ticket to the Superfund ball.

The HRS scoring model is used to score contaminated sites for potential inclusion on the NPL or Superfund list. The EPA has issued implementing regulations that are designed to assure, to the maximum extent feasible, that the system accurately assesses the relative degree of risk to human health and the environment posed by sites and facilities subject to review.[87] The regulations set forth criteria for prioritizing sites with releases or threatened releases for purposes of taking remedial action or, if required, an emergency removal action. Such criteria and priorities are designed to assess the relative risk to public health or the environment posed by a site, taking into account, to the extent possible, the population at risk; the hazard potential of contaminants at a site; the potential for contamination of drinking water supplies; the potential for direct human contact to contaminants; the potential for destruction of sensitive ecosystems; the potential damage to natural resources that may adversely affect the human food chain; and the potential contamination of ambient air.[88]

Undoubtedly, many of these issues are addressed through mine closure and reclamation plans and closure plan requirements under a mine's groundwater discharge permit. For example, groundwater discharge permits require post-closure maintenance, long-term monitoring and corrective actions if an out of compliance situation exists, such as a release of contaminants or seepage from a waste rock disposal to the groundwater. While remedial or corrective actions can directly address these environmental conditions through engineered controls such as collection walls or impermeable caps, institutional controls can play an important role in ensuring that these controls remain in place for many years after mine closure. They can also be used to ensure that future land uses limit the public's exposure to any residual contamination. This combination of an effective response to the environmental conditions, coupled with institutional controls to insure that the response will remain in place and be protective of human health and the environment, can make the difference when the mine site is being considered for possible inclusion on the NPL.

VIII. Selecting the Right Institutional Controls for Mine Closure

Whether institutional controls are appropriate at a mine site will depend on whether the site will support unlimited land use and unrestricted exposure, regardless of anticipated future land uses, or whether the integrity of an engineered remedy requires protection.[89] If the residual contamination at a mine site limits land use or if there are any exposure limitations required for a remedy to be protective, then institutional controls are generally appropriate. Cleanup options that leave residual contamination on site include capping mine wastes in place, construction of containment facilities, groundwater pump and treat and natural attenuation. These options typically require institutional controls to prevent disturbance of mine wastes capped in place or to avoid exposure to contaminated groundwater during the attenuation period. In such instances, the mine owner or operator should evaluate the best institutional controls for addressing site-specific circumstances. The types of institutional controls selected depend, in part, on whether the need for such controls is driven by the need to protect against an anticipated future land use or a potential exposure or to protect an engineered remedy.

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[87] 42 U.S.C. § 9605(c)(1) (2005).

[88] *Id.* §§ 9605(a)(8), (c)(2), (d).

[89] Draft Institutional Controls Guide, *supra* note 4, at 4.

In light of the long-term purposes of institutional controls and their impact on future land use, several important issues must be considered early on in the mine closure process. First, what institutional controls are appropriate for a site? Second, what are the legal and practical limits of the available institutional controls? Third, which parties will ultimately be responsible for ensuring that the institutional controls selected for a site remain effective and enforceable for as long as they are needed—however long that may be.

Institutional controls are considered to be response actions under CERCLA and RCRA. Like engineered components of a remedy, institutional controls must meet all statutory requirements and are subject to a nine evaluation criteria provided in the NCP.[90] Of these criteria, typically the long-term effectiveness and permanence criterion is the most critical in evaluating proposed institutional controls. Whether an institutional control will be effective over the long term depends on a number of factors, including whether the controls will need to be imposed on numerous landowners, the size of the area to be managed, the contaminated media to be cleaned up, the persistence of the contamination, and whether the local government is willing and able to monitor and enforce long-term institutional controls.[91]

Institutional controls established under a state voluntary cleanup program are not generally subject to the statutory requirements and nine evaluation criteria provided in the NCP. Similarly, institutional controls adopted by a mine owner or operator outside of any regulatory setting are not subject to governmental scrutiny. However, if the use of institutional controls is intended to reduce tort liability or minimize potential CERCLA liability by reducing the ultimate HRS scoring potential of the mine site, then the institutional controls selected for the mine site should meet the NCP requirements and criteria, whether required by the state agency or not. Institutional controls that are viewed by the EPA as having long-term effectiveness and permanence will be important in fending off a future CERCLA scoring.

At some mine sites, governmental institutional controls may be preferable to other types of controls. For example, a local government may be willing to pass an ordinance that prohibits deep excavation that might cause exposure to subsurface residual contamination. In such instances, implementation of government controls may be preferable to informational devices, which generally have a short useful life or enforcement tools such as consent decrees, which would be binding only on certain parties.[92] Also, where numerous parcels of land are involved, pursuing governmental controls may be more practical than proprietary institutional controls, because the latter would require obtaining easements from multiple landowners.[93] Governmental controls are, however, subject to the whims of future governmental administrations and cannot ensure long-term restrictions on land use.[94]

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[90] 40 C.F.R. § 300.430(e)(9) (2009).

[91] Site Manager's Guide, *supra* note 3, at 8.

[92] *See* Lawrence P. Schnapf, *How to Use Institutional Controls for Contaminated Sites*, 17 (1) PRAC. REAL EST. LAW. 25, 26-27 (2002).

[93] *See id.*

[94] *See* discussion *supra* Section III.

Often institutional controls can be used simultaneously—i.e., "layered"—to enhance the protectiveness of a remedy. To restrict future land use, a mine owner or operator might impose a real covenant on the property restricting use of the land for residential purposes, seek a zoning change restricting residential use, enhance awareness of the restriction through deed notices and, depending on the regulatory setting, enter into an enforcement agreement such as a consent decree.[95] Institutional controls may also be applied in series to ensure short-term and long-term reliability. For example, a mine owner or operator might agree to a site management plan that initially prohibits any development activities during the closure and cleanup phases, and then later requires the mine owner or operator to notify the EPA if the site is sold and to work with the local government to implement certain zoning restrictions on the site.[96]

Depending on the intended future land use, various institutional controls might be appropriate for a mine closure. Risk-based decisions under a mine closure and reclamation plan to remediate soils beneath an ore processing facility for future industrial or commercial exposures can be enhanced by an institutional control that precludes future residential land use on the property. For those areas of a mine site such as an open mine pit or waste rock disposal or tailings impoundment area that require limited land use and public access under the mine closure and reclamation plan, real property covenants or statutory environmental covenants that require long-term engineering controls like fencing or signage can bolster the intended restrictions. In addition, areas with groundwater contamination may be susceptible to unrestricted land use, as long as there is an institutional control in place that prohibits use of groundwater beneath the property. Soils can also be removed beneath structures to residential soil cleanup standards while leaving deeper soil contamination in place by using an institutional control that restricts excavation below a certain depth. Finally, restrictions on the use of groundwater and excavation into clay barriers or engineered impermeable caps may be appropriate institutional controls to address acid rock drainage issues at a mine site.

In sum, the right blend of institutional controls can help ensure the long-term effectiveness and permanence of a mine closure. However, inadequate or inappropriate institutional controls can lead to a reevaluation and modification of the mine closure components, including the institutional control components. Adding institutional controls to a mine closure as an afterthought, without a thorough consideration of their objectives, how they fit into the overall closure plan and objectives and whether they can be effectively monitored and enforced long term can jeopardize the effectiveness and protectiveness of the mine closure plan.

IX. Implementing and Monitoring Institutional Controls in the Mine Closure Setting

Once institutional controls have been selected for a mine site, various measures must be taken to ensure that the controls will be enforced and remain effective over time. These issues are the most complex and challenging for practitioners in this area, particularly if statutory environmental covenants are not or cannot be used at the mine site.

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[95] Site Manager's Guide, *supra* note 3, at 2.

[96] *Id.*

A. Implementing Statutory Environmental Covenants

In the context of a mine closure, institutional controls must be designed to ensure the long-term effectiveness and permanence of the closure and cleanup activities. For institutional controls to be effective, the EPA or environmental state agencies must have assurances that the covenants or, easements used to impose land use restrictions are enforceable and will continue to remain enforceable for as long as the environmental contamination at the mine site exists. As discussed above, the common law real property impediments such as the necessity that covenants must "touch and concern" land have raised significant issues regarding the long-term enforceability and permanence of institutional controls. In response, states have begun to adopt environmental covenant statutes, such as the Uniform Environmental Covenants Act, which effectively eliminate issues of enforceability and permanence.[97]

Such Acts, however, typically only apply to environmental covenants imposed with governmental oversight.[98] Though these covenants can be negotiated with the EPA (and might, in fact, need to be if the EPA is involved in an ongoing remedial action at the time of mine closure), they are more likely to be negotiated with a state environmental agency responsible for environmental cleanup of real property. Depending on the purpose of the environmental covenant and language of the specific state environmental covenant statute, the state water quality agency already involved in the mine closure process might be able to impose environmental covenants at the mine site. However, most state water quality agencies would likely not be familiar with environmental covenants as they are not the agency that typically deals with them. Rather, the agency responsible for administering the state's voluntary cleanup or Superfund programs would more likely be the agency with the authority and the expertise to impose environmental covenants. Such agencies typically are not involved in the mine closure process. Thus, in many states an operator wishing to avail itself of the protections of the environmental covenant statute will need to involve the cleanup agency in the closure process, either in an informal advisory role or in a more formal role under the state's voluntary cleanup statutes.

This raises the question of when a mine owner or operator would opt to initiate a voluntary cleanup action, include yet another environmental agency in its mine closure process or to propose another regulatory requirement that the agency supervising the closure might not otherwise require? The short answer is when the risks of either imposing institutional controls outside of the regulatory setting or not using them at all outweighs the risks of accepting the additional regulatory burden that comes with a statutory environmental covenant.

Beyond the natural inclination to limit the level of regulatory involvement in a mine closure, deciding to involve another state environmental agency in the mine closure process may not be a giant leap of faith when the process already involves state environmental agencies, such as the state water quality and air quality agencies that manage groundwater and surface water discharge and air emission issues. In addition, a state voluntary cleanup program is just that—"voluntary." If the program becomes burdensome or if the once perceived value of

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[97] *See supra* Section III.C.

[98] *See id. e.g.,* UNIF. ENVTL. COVENANTS ACT § 2(4).

environmental covenants no longer seems apparent, a mine owner or operator can opt out of the program and proceed with its mine closure without the involvement of the state environmental agency that oversees the state's voluntary cleanup program. Because environmental covenants can provide meaningful, long-term protection to the mine closure process, including protection against a possible Superfund listing, in many instances involving another state environmental agency in the cleanup process to create enforceable institutional controls, may be a relatively small risk to take or price to pay.

B. Crafting the Institutional Control

In a regulatory setting, the scope and form of an institutional control is controlled by the environmental covenants statute, if any, and negotiations with the regulatory agency.[99] An institutional control can be defined by, and enforced under, the terms of a CERCLA enforcement agreement or a site management plan under a state's voluntary cleanup program. In the context of a mine closure, the institutional control might be included in a mine closure plan or a groundwater discharge permit. Where there is no environmental covenant statute, the enforcement document will typically set forth the elements of the use restriction and require the mine owner to separately execute and record a document incorporating those provisions.[100]

How an institutional control is implemented will depend on the jurisdiction in which the property is located, i.e., whether an environmental covenant statute applies or the control must be imposed under the state's property laws.[101] Other factors affecting implementation of the institutional control include whether the responsible party is the site owner and if not, whether the landowner is willing to convey the necessary property interests.[102]

Whether governed by an environmental covenant statute or not, a proprietary control should: identify the objective of the institutional control and describe the nature and extent of the contamination and the uses being restricted; identify the administrative record underlying the regulatory action under which the restriction is being imposed; provide a legal description of the site, include provisions regarding enforcement of the restrictions and who has the right to enforce the restriction; include language to assure that the proprietary control is binding on subsequent purchasers or a reference to the environmental covenants statute; and provide specific notice and approval provisions regarding modification or termination the control.[103] Depending upon the circumstance, the proprietary control may also include a requirement that the parties notify the governing agency if the control is violated or if there is any change in the use of the land.[104] To ensure effective implementation of a use restriction, an experienced real estate attorney with

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[99] *See* UNIF. ENVTL. COVENANTS ACT § 4 (listing required contents of environmental covenant).

[100] *See, e.g., Model RD/RA Consent Decree*, U.S. EPA, ¶ 26(c) (revised 2009), *available at* http://www.epa.gov/compliance/resources/policies/cleanup/superfund/mod-rdra-cd.pdf.

[101] *See supra* Section III.

[102] Draft Institutional Controls Guide, *supra* note 4, at 9.

[103] *Id.*; *see also, e.g.*, UNIF. ENVTL. COVENANTS ACT § 4; UTAH CODE ANN. § 57-25-104 (Supp. 2009).

[104] Draft Institutional Controls Guide, *supra* note 4, at 9; UNIF. ENVTL. COVENANTS ACT § 4.

expertise in real property law of the jurisdiction where the site is located should be involved in drafting these provisions.

In some instances, the remedy might require restricting land not owned by the mine owner or operator. The EPA or the applicable state environmental agency may require that the mine owner or operator exercise its best efforts to obtain the necessary proprietary control, which might require that compensation be paid or that a liability release be given to the landowner.[105] If the mine owner or operator cannot obtain the proprietary control despite best efforts, then it may be required to compensate the EPA or the applicable state environmental agency for all costs it incurs in acquiring the proprietary control.[106]

Effective implementation of a proprietary control requires that there is a suitable party to enforce the control. At CERCLA and other regulated sites, the party responsible for implementing the control typically holds title to that property interest.[107] Under the Uniform Environmental Covenants Act, a number of entities can enforce the covenant, including any party to the covenant and any person whose interest in property or liability will be affected by the covenant.[108] Thus, the statute gives the mine owner the authority to enforce an environmental covenant.

Where ownership of the mine is to be transferred, the mine owner should consider incorporating proprietary controls into the transfer by creating new covenants or easements running in its favor. In effect, the mine owner or operator can attempt to create a new set of proprietary controls held by it that mirrors, or even exceeds, the proprietary controls imposed by the governmental agency.[109] Such a strategy allows the mine owner or operator to minimize its potential liability by becoming, in essence, a holder of the proprietary controls, with a right to enforce them. This is a particularly important strategy if statutory environmental covenants are not or cannot be used as institutional controls at a mine site.

In addition, as discussed above, in states that do not have environmental covenant statutes, proprietary controls have a better chance of being enforced against subsequent landowners if they are included in a transfer of an interest in land.[110] If the mine owner or operator retains its own set of proprietary controls in a subsequent transfer of the mine site, it can help guard against the possibility that the proprietary controls imposed during the cleanup will not be enforceable against subsequent purchasers. Thus, if the holder has difficulty enforcing the

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[105] *Model RD/RA Consent Decree*, *supra* note 100, ¶¶ 27 and 28.

[106] *Id.* ¶ 28.

[107] Under section 104(j) of CERCLA, 42 U.S.C. § 9604(j) (2005), the EPA may choose to be the grantee of a proprietary control at a CERCLA site. Our experience though is that the agency rarely does. However, once the remedy is completed, another entity must take the property interest or the interest must be terminated. *Id.*

[108] UNIF. ENVTL. COVENANTS ACT § 11.

[109] However, as discussed above in Section III.C, most environmental covenant statutes do not apply to privately created easements and covenants. Accordingly, the effectiveness of this strategy will depend on the state common law rules discussed above in Section III.B.

[110] *See supra* Section III.D.

original proprietary controls, the mine owner or operator may be able to achieve the same result by enforcing its own separate property rights.

C. Monitoring Institutional Controls

Rigorous periodic review of institutional controls is critical to ensuring their long-term effectiveness. The mine owner should ensure that there is a process that routinely evaluates whether the controls remain in place and whether they continue to provide the protections required by the remedy. CERCLA cleanups provide mechanisms such as operations and maintenance requirements and a five-year review process for ensuring appropriate institutional control monitoring.[111] Similarly, mine closure and reclamation plans typically require long-term monitoring to ensure their effectiveness. In addition, long-term groundwater monitoring is required by a mine's groundwater discharge permit.[112] To ensure that there are no adverse effects to groundwater quality, these monitoring requirements often last for thirty years after mine closure and sometimes in perpetuity if groundwater monitoring relates to acid rock drainage issues. Mine owners are subject to long-term monitoring requirements whether an institutional control is imposed or not. Thus, additional monitoring requirements to ensure the effectiveness of an environmental use restriction will not significantly add to the mine owner's regulatory burden.

The principal tool for ensuring effective institutional control monitoring at CERCLA sites is a detailed operations and maintenance plan.[113] This plan typically describes the required monitoring activities and schedules, responsibilities for performing such activities, reporting requirements, and the process to be followed to address any potential issues.[114] Though the frequency of institutional control monitoring varies depending on site-specific circumstances, operations and maintenance monitoring typically occurs annually.

Another institutional control monitoring tool is the periodic review, or in the case of CERCLA sites, the five–year review. These reviews are required if the remedy leaves residual contamination that does not allow for unlimited land use and unrestricted exposure at a site. During the review, the site is inspected and the effectiveness of the institutional controls in protecting human health and the environment or the integrity of the engineered remedy is evaluated. The review may include an evaluation of title to the property to determine whether institutional controls have been modified or terminated. If any of the institutional controls are not in place during the review, the EPA or the applicable state environmental agency will likely require the party responsible for implementing the controls to commit to a schedule as to when

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[111] *See* 40 C.F.R. § 300.430(f)(4)(ii) (2009).

[112] In addition, an applicable NPDES permit for a mine may also require long-term, post-closure monitoring to ensure the protection of surface waters down gradient of the mine site.

[113] A similar plan referred to as a site management plan is prepared for RCRA corrective action sites or state voluntary cleanup sites. Also, at sites where an owner transfers land and retains or creates its own proprietary controls in the transfer, the site owner might require the subsequent landowner to prepare a site management plan to monitor and enforce such controls at a site.

[114] Draft Institutional Controls Guide, *supra* note 4, at 17.

such controls will be implemented.[115] If the EPA determines that additional institutional controls are required, it may seek to invoke the "additional work" provisions in its enforcement agreement.[116] The additional work can include requiring the responsible party to implement further land use or activity restrictions or requiring additional cleanup activities if the responsible party refuses to implement enforceable land use or activity restrictions.[117]

Similarly, a state environmental agency that oversees a site management plan under its state's voluntary cleanup program or other agency that has implemented an environmental covenant can require monitoring and periodic reviews. The plan or other mechanism under which the environmental covenant was imposed can also provide that after such a review, the agency may require that the mine owner or operator implement additional institutional controls to ensure the effectiveness of the remedial action or an engineered control.[118]

D. Costs of Implementing Institutional Controls

Cost estimates for implementing, monitoring and enforcing institutional controls should be developed early in the mine closure and cleanup process. Depending on the institutional controls selected, the cost estimates might address, for example, the cost of legal fees associated with obtaining easements, the cost of purchasing property rights and the long-term cost of personnel to monitor and enforce institutional controls at a site. Estimating the costs of institutional controls is important for several reasons. First, if the mine is implementing institutional controls in the context of the CERCLA process, that process requires that the responsible party compare the cost-effectiveness of remedies that rely on institutional controls to the cost-effectiveness of permanent remedies that would eliminate the need for such controls in the remedy selection process.[119] Given the required duration of institutional controls, their costs may extend well beyond the traditional thirty-year time frame used to estimate cleanup costs under CERCLA and RCRA or under the financial assurance requirements of a mine closure plan.

Another important reason to estimate the costs of institutional controls early in the mine closure process is to provide the basis for an analysis of whether the costs and risks inherent in a risk-based cleanup outweigh the costs of conducting a permanent cleanup. In some circumstances, a permanent cleanup may be cheaper than a risk-based cleanup because of the ongoing need to monitor and enforce the institutional controls.

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[115] *See* Site Manager's Guide, *supra* note 3, at 9.

[116] *Model RD/RA Consent Decree*, *supra* note 100, ¶¶ 18-21.

[117] In such instance, this may require an amendment to the Record of Decision, an Explanation of Significant Differences, or a RCRA permit modification, depending on the significance of the change in the remedy. Site Manager's Guide, *supra* note 3, at 9.

[118] In such instance, if the mine owner or operator rejects the state's request, the state environmental agency could deny the issuance or, if already issued, revoke the issuance of a certificate of completion for the work completed under the voluntary cleanup program. *See e.g.,* UTAH CODE ANN. §§ 57-25-111 (Supp. 2009), 19-8-112 (2007 & Supp. 2009).

[119] 40 C.F.R. § 300.430(e)(9)(i) (2009).

Even in the more typical case where the risk-based cleanup appears to be the less expensive alternative, other considerations may suggest that it is not the best alternative. Various circumstances can increase the risk of an institutional control failing. For example, whether governmental controls (*i.e.*, zoning requirements) restricting land development will be effective over the long term depends to a large extent on the political climate in the area and what kind of development pressures affect the mine site. Poor rural counties are sometimes lax in enforcing zoning restrictions and not particularly sensitive to environmental concerns. Economically challenged counties and towns also tend to welcome any land development that will increase the tax base. In such instances, there is a risk that governmental controls will fail, particularly where a site appears to have good development potential. In this circumstance, careful consideration should be given to whether proprietary controls can be relied upon to limit the development of the site. If an analysis of state law suggests that the proprietary controls may also fail, because they may not be enforceable against subsequent landowners,[120] there is a significant risk that the entire remedy will fail in the long term.

In this kind of situation, serious consideration should be given to whether the risks of the institutional controls failing outweigh the cost savings of a risk-based cleanup. When institutional controls fail, the consequences for the mine owner or operator are potentially severe. In addition to stipulated penalties that could be imposed pursuant to any applicable enforcement agreement, the mine owner or operator could be required to conduct further cleanup activities[121] and might face the possibility of toxic tort claims. Accordingly, where the cost savings of a risk-based cleanup are not substantial, and the risks of institutional controls failing appear significant, a permanent cleanup may be the more cost effective approach.

X. Drafting and Transactional Considerations

In most states, in the absence of a validating statute, there can be no assurance that all environmental use restrictions will be enforceable against subsequent owners of the land. However, other mechanisms are available to approximate that result, and careful drafting may increase the odds of a use restriction being enforced over time. Most of these tools cannot be used in the context of imposing proprietary controls in a regulated cleanup or mine closure, but could be used in a subsequent transfer of a remediated or closed mine site to ensure compliance with the previously imposed proprietary controls or to create new controls that the mine owner may wish to use to protect an engineered control or the environment.

A. Drafting the Covenant

As discussed above,[122] intent to bind subsequent landowners is a requirement for either real covenants or equitable servitudes to run with the land. Because courts like to enforce the

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[120] *See* discussion *supra* Section III.B regarding the enforceability issues affecting proprietary controls.

[121] To protect against the risk of stipulated penalties, parties should try to negotiate language in the enforcement agreement that specifies that the failure of a future property owner or operator at the site to comply with environmental restrictions does not trigger stipulated penalties. *See* United States v. J.H. Baxter & Co., 2001 WL 902552, *11 (N.D. Cal. 2001).

[122] *See supra* Section III.B.

parties' intent when they can, the practitioner should not make the court search for that intent. Vague statements that the provisions of the deed are binding on the parties' successors and assigns might be sufficient, but a clearer statement is more likely to be honored:

> Covenants Running With the Land. The covenants contained in this Deed are intended to, and shall, run with the Property and shall bind successors to the Property in perpetuity.

To further confirm the parties' intent, assertions that the parties intend that the covenants touch and concern land can be used:

> The parties agree and understand that the Non-Residential Covenants are intended to and do benefit and touch and concern lands retained by Grantor in the vicinity of the Property.

B. Reversionary Interests

Although traditional covenant and easement doctrines are not well suited for enforcement of environmental use restrictions, reversionary interests can provide additional protection for owners of contaminated sites who are considering a transfer of their property. A landowner can convey real property, but specify that if a specified event occurs or does not occur, the property will either automatically revert to the grantor—a "fee simple determinable,"[123]—or the grantor can choose to take back the property—a "fee simple subject to a condition subsequent." [124]

Unlike covenants and negative easements, where a transferor may enforce the restriction by injunctive relief and seek damages for a breach of the restriction, a reversionary interest does not give rise to a cause of action if the unwanted activity occurs. The only remedy that a holder of a reversionary interest has is to take the property back if the prohibited activity takes place. Thus, reversionary interests are best suited for restrictions, like nonresidential use restrictions, where the damage caused by a violation of the restriction is not immediate. Nevertheless, even as to other restrictions, there is value in a reversionary interest because it acts as a strong deterrent. Landowners who know that engaging in a prohibited behavior will result in the loss of their land typically do not engage in the behavior.

C. Conservation Easements

Most states have adopted statutes that provide for easements to conserve and protect natural and scenic properties. These easements, commonly referred to as conservation easements,[125] can be used to limit exposures to contamination and protect engineered controls. For example, maintaining land as open space could be used to eliminate residential use of a site or preclude activities, such as excavation, that might impair the integrity of a tailings cap.

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[123] 1 POWELL, *supra* note 22, § 13.05[1].

[124] *Id* § 13.05 [2].

[125] *See* UNIF. CONSERVATION EASEMENT ACT (1981), *available at* http://www.law.upenn.edu/bll/ulc/fnact99/1980s/ucea81.htm.

Conservation easements are created pursuant to statutes and are not subject to the enforceability issues that affect traditional easements and covenants. Although such easements are rarely used as proprietary controls, in some situations they could be. Many conservation easement statutes specify that a conservation easement may only be used to protect the natural and scenic condition of land.[126] Although mine sites are neither natural nor scenic, after reclamation is completed, they might be. In addition, some state statutes are broad enough to include easements given to protect human health and the environment. For example, the Uniform Conservation Easement Statute provides that conservation easements may be created for the purposes of "protecting natural resources [or] maintaining or enhancing air or water quality."[127] Land use restrictions to protect the environment from hazardous substances would appear to fit within this broader standard.

Typically, conservation easements can only be held by a governmental body or charitable organization.[128] Thus, one practical difficulty in relying upon a conservation easement as a proprietary control is convincing a governmental agency or charitable organization to accept an easement over contaminated land. It would appear that the holder of a conservation easement would likely not be held responsible under CERCLA merely because it holds the easement.[129] Nevertheless, there is little law on this point and the potential risk of liability might cause the agency or the charitable organization to refuse to hold the easement or, if it did agree, to extract significant indemnities.

D. Possible End Run Around the Common Law: The "Self-Replicating" Covenant

Although it will not make a covenant run that would not otherwise do so, a "self replicating" covenant such as the one quoted below offers some protections for a landowner seeking to restrict future land uses. After setting out the various land use restrictions to be imposed, the following clause can be inserted in an attempt to ensure that subsequent transferees abide by the restrictions:

> 6. Subsequent Transfers. Grantee shall include in any deed or other instrument conveying or transferring an interest in the Property provisions substantially similar to those contained in paragraphs 1-6 of this Deed (including this Paragraph 6), such that the transferee under such deed or instrument shall be bound by those provisions to the same extent as Grantee. Grantee also agrees that XYZ (the original landowner) is a third party

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[126] *E.g.*, UTAH CODE ANN. § 57-18-2(1) (2002).

[127] UNIF. CONSERVATION EASEMENT ACT § 1(1).

[128] *Id.* § 1(2).

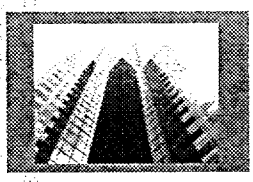
[129] *See, e.g.*, Long Beach Unified School Dist. v. Dorothy B. Godwin California Living Trust, 32 F.3d 1364 (9th Cir. 1994) (holding easement does not create liability under CERCLA). The risk that a conservation easement holder might be considered liable under CERCLA could also be minimized under the "bona fide prospective purchaser" provisions of 42 U.S.C. § 9601(40) (2005).

beneficiary of the covenants contained in paragraphs 1-6 of this Deed.

The third party beneficiary language is included because the original grantor will not be in privity of contract with remote grantees and would not otherwise have a cause of action for future violation of a covenant. Whether or not the third party beneficiary language would always be enforced, a self replicating covenant would likely cause remote grantees to at least think twice before violating the covenants, increasing the odds that they will be honored.

XI. Conclusion

Risk-based cleanups incorporating the right blend of institutional controls can achieve the same level of protectiveness of human health and the environment as a permanent cleanup under a mine closure plan, but for substantially less costs. However, thorough planning, beginning early in the mine closure process, is critical to ensuring that institutional controls are implemented, monitored and enforced properly to ensure their long-term effectiveness and permanence. In states that have not adopted environmental covenant statutes, this planning must include a thorough analysis of the state's covenant and easement case law to determine whether the proposed proprietary controls will be enforceable over time, as well as a consideration of what additional measures can be adopted to increase the chances that the restrictions will be honored. Finally, the use of institutional controls in mine closures could make the difference between a mine site becoming a Superfund site or not.



Parsons Behle & Latimer
Salt Lake City Las Vegas ♦ Reno

Use of Institutional Controls in Mine Closures

Patricia J. Winmill, Hal J. Pos and
Elizabeth A. Schulte

Old Cleanup Paradigm

- Cleanup Level: No Known Risk to Human Health or the Environment
- Remediate Sites so They are Available for Unrestricted Land Use Only

Criticism of the Old Paradigm

- Costly and Wasteful
- Not Necessary to Cleanup to Residential Standard When Property Will Not be Used That Way

New Cleanup Paradigm

- Cleanup Only to Level Required to Support Probable Future Use of the Site
  - Engineered Controls to Limit Exposure
  - Institutional Controls to Ensure Future Use is Consistent with Cleanup Level

Advantages of Risk-Based Cleanups

- Cheaper
- Faster
- Human Health Protected by Restricting Land Use and Limiting Exposure to Contamination

Risks of Risk-Based Cleanup

- Accurately Predicting Future Land Use
- Consent Decrees
  - Stipulated Penalties
  - Additional Remediation
- Threat of Toxic Tort and Property Damage Claims

What Are Institutional Controls?

- Legal and Administrative Measures That:
  - Limit Exposure to Contamination
  - Protect Engineered Controls

Types of Institutional Controls

- Proprietary Controls
- Informational Devices
- Governmental Controls

1. Governmental Controls

Examples:

- Zoning Ordinances
- Groundwater Use/Restrictions

2. Informational Devices

Examples:

- Recorded Notices
- State Registries

3. Proprietary Controls

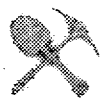
- Real Covenants
  - Covenants Running with the Land
  - Equitable Servitudes
- Negative Easements
- Affirmative Easements

Covenants Running

Enforceable If:

- Touch and Concern Land
- Horizontal and Vertical Privity
- Intent for Covenant to Run

[Successor Takes with Notice]

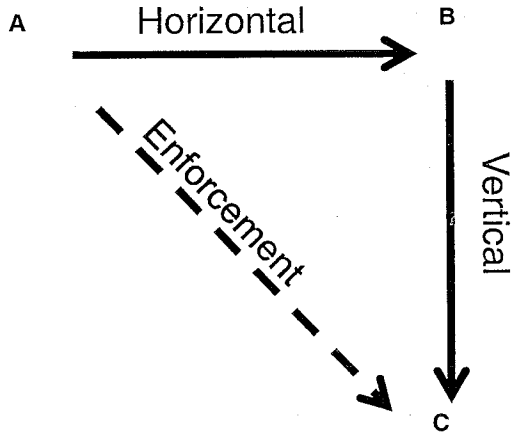


Equitable Servitudes

Enforceable if:

- Touch and Concern
- Intent for Covenant to Run
- Successor Takes with Notice

Privity



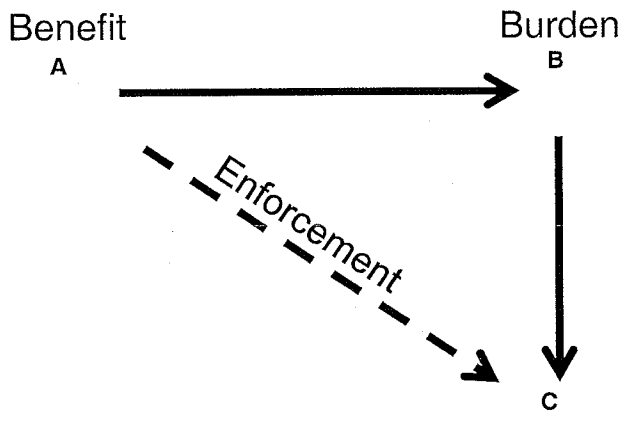
Consequences of No Privity

- Can Still Be Enforced as an Equitable Servitude
- Damages Not an Available Remedy

Touch and Concern

- Various Tests
- Easiest to Understand

The Benefited and Burdened Sides of a Covenant



Challenges With Touch and Concern Element

Tests are Not a Predictable Gauge

- Incoherently and Inconsistently Applied
- Results Oriented Jurisprudence
- Increasingly Lenient on the Touch and Concern Element
- Not Enough Law

Challenges With Touch and Concern Element

Differing Views on the Running of a Burden

- T&C Must be Satisfied on BOTH Sides
- No Need for T&C on the Benefited Side
- If No T&C on the Benefited Side, Can't Run at Law, but Can in Equity

Negative Easements = Real Covenants

- Gives the Easement Holder a Right to Preclude Activity from Being Conducted on Another's Land
- To Be Enforced Against Successor It Must Still Benefit Land (i.e., Cannot be Held in Gross)

THUS . . .

TO BE ENFORCEABLE

. . .

THE COVENANT MUST:

BENEFIT LAND

Most Proprietary Controls Do Not Benefit Land

- No Residential Use
- No Excavation
- No Wells
- No Zoning Changes
- Notice of Consent Decrees and Institutional Controls in All Deeds

Change In The Law

- New Restatement Third of Servitudes
- Uniform Environmental Covenants Act

1. Restatement Third

"Servitudes" Enforceable If:

- Covenant Is Valid and Not a Violation of Public Policy
- Parties Intended to Bind Subsequent Owners
- Subsequent Owner Took with Notice

Restatement Third

Abolishes:

- Distinction Between Covenants, Equitable Servitudes and Easements--All are "Servitudes" Governed by the Same Rules
- Privity
- T&C
- Benefited Land Requirement for Negative Easement

THIS IS NOT THE LAW !!

2. Uniform Environmental Covenants Act

- Environmental Covenants Run with the Land
- Comprehensive Treatment of the Issues

Cardinal Features Of The Act

- Requires Agency Involvement in the Cleanup
- Can Be Enforced By Any Party
  - Holder (typically the agency)
  - Landowner
  - Local Governments
  - Persons Whose Liability may be Affected by a Violation

Other Important Features Of The Act

- Perpetual: Extinguishment Doctrines and Statutes Do Not Apply
- No Amendment or Termination Without Consent of ALL Interested Parties

Various State Adaptations

Evaluate on a State-By-State Basis

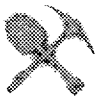
- Washington Code (Wash. Rev. Code Ann. § 64.70.020)
- Utah Code (Utah Code Ann. § 57-25-102)

Other State Statutes

- Government Remediation
- Often Limited to Agency Enforcement
- No Reference to Who Can Be Involved

Question of the Hour

- We Know that Institutional Controls Work for Risk-Based Cleanups But Will They Work in Mine Closures?



- Mine Closures are Different Than Remedial Actions But Institutional Controls Can Be Equally Useful in Both Settings

- Unlike Remedial Actions Where the Use of Institutional Controls and Environmental Covenants are Well Recognized, State Agencies that Typically Administer Mine Closures are Not Familiar with These Concepts

- Mine Operator May Not be Able to Take Advantage of Environmental Covenants that Eliminate Enforceability Concerns

- Institutional Controls Implemented in Remedial Actions are Intended to Respond to Identified Risks to Human Health
- In Contrast, Use of Institutional Controls in Mine Closures are Based on Projected Changes and Land Use and Serve as a Preemptive Action Rather Than Responsive Action

- Despite Differences, Institutional Controls May be Helpful in Mine Closures for Many of the Same Reasons as Remedial Actions
  - Often Address Similar Environmental Issues
  - Institutional Controls Can Complement Engineered Controls Regardless Whether Such Controls are Implemented in a Mine Closure or Remedial Action

Post Closure Land Use

- Mine Closure Plans Identify Different Post Closure Land Use Scenarios
  - Areas of Unrestricted Post-Closure Land Use
  - Areas of Limited Post-Closure Land Use Because of Need for Continuous Monitoring or Area Continues to Pose Physical or Chemical Hazards
  - To Maximize Value of Post-Closure Land Use, Mine Operator May Conduct More Complete Remediation to Allow for Unrestricted Land Use

- Remediation Conducted During Mine Closure Should be Based on Cleanup Standards Applicable to Future Land Use
  - Institutional Controls Can Help Achieve Long-Term Post-Closure Objectives of Maximizing Value of Land's Future Use While Protecting Human Health and the Environment

When Should Mine Owner or Operator Impose Institutional Controls

- When Use is Cost Effective
- Can Ensure Long-Term Effectiveness of Mine Closure
- Can be Enforced

- Consideration Given to Existing Environmental Conditions, Which if Left Unattended, Could Trigger EPA CERCLA Investigation
  - Historical Leach Water and Acid Rock Drainage Losses
  - Recreationally-Sensitive Areas That Have Attracted Residential Land Development
  - Near Urban Areas

- Mine Closure Plans Address an Array of Environmental Conditions Ranging from Risk-Based Soil Cleanup to Managing ARD Issues.

- To Address ARD, Mine Operator Might Implement Source Control Measures to Protect Aquifer Against Further Contamination Coupled with Measures to Ensure Long-Term Effectiveness and Permanence of Remedy
  - Preclude Use of Impacted Groundwater
  - Restrict Excavation Into Cap

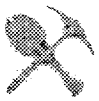
- Recommend Clients to Develop Long-Term Mine Closure Plans to Minimize CERCLA Liability
  - Evaluate Mine Closure Scenarios Against EPA Model Criteria to Identify Closure Technologies that Complement Anticipated Closure Scenarios and Reduce Hazard Ranking Scoring (HRS)

- HRS Model Used to Score Contaminated Sites for Potential Inclusion on the National Priorities List
  - Population at Risk
  - Hazard Potential of Contaminants
  - Potential Damage to Natural Resources
  - Potential Destruction to Sensitive Ecosystems

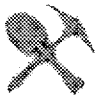
Selecting the Right Institutional Controls for Mine Closure

- Institutional Controls are Appropriate When Contamination at Mine Limits Future Land Use and Engineered Remedy Requires Protection
- Type of Control Depends on Whether the Need for Such Controls is Driven by the Need to Protect Against Future Anticipated Land Use, Potential Exposure or Need to Protect Engineered Remedy

- Institutional Controls are Considered Response Actions under CERCLA and Must Meet Statutory Requirements Under CERCLA Regulations (NCP)
  - Most Important Requirements are Long-Term Effectiveness and Permanence



- Institutional Controls Established Voluntarily are Not Generally Subject to Statutory Requirements
- If Use Intended to Minimize CERCLA Liability or Tort Liability Then Institutional Controls Selected for Mine Closure Should Meet CERCLA Requirements



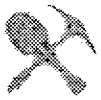
- Institutional Controls Can be "Layered" to Enhance the Effectiveness of the Remedy or Closure (e.g., Residential Land Use Restriction Coupled with Zoning Change Restrictions)

- Institutional Controls Potentially Appropriate to Support Mine Closure
  - Restrict Residential Land Use in Former Ore Processing Facility
  - Restrict Public Use or Limit Land Use in Open Pit and Waste Rock Disposal Areas
  - Restrict Use of Groundwater in Areas of Contaminated Groundwater
  - Restrict Excavation or Drilling in Engineered Caps

- Right Blend of Institutional Controls Can Help Ensure Long-Term Effectiveness and Permanence of Mine Closure

Implementing Institutional Controls

- Implementation Dependent on Jurisdiction – Whether Environmental Covenant Applies or State Property Laws
- To Be Effective, Must Have Assurances that Institutional Control are Enforceable and Will Remain Enforceable
- Consider Use of Environmental Covenants (Requires Environmental Response Project)



- Consider Agency to Pursue Environmental Covenants – Might Need Agency Outside Closure Setting

- Consideration – Risk of Imposing Institutional Control That May Not be Enforceable Outweighs Risk of Accepting Regulatory Burdens that Come with Environmental Covenants

- Risks of Additional Regulatory Agency (e.g., VCP) May Not be Significant
  - Already Several Environmental Agencies Involved
  - Voluntary Program – Can always Opt Out

Monitoring Institutional Controls

- Rigorous Periodic Review
- Incorporate Into Long-Term Monitoring Requirements Under Mine Closure Plans (e.g., Groundwater Discharge Permit)
- Site Management Plan if Applying Environmental Covenants under VCP

Costs of Institutional Controls

- Consider Legal Costs of Obtaining Covenants and Costs to Monitor and Enforce Long Term
- Are Costs of Risk-Based Cleanup with Long-Term Monitoring Greater Than Costs of Permanent Cleanup

Risk of Institutional Control Failure

- Governmental Controls
- State Property Law
- Reduce Presence Following Closure

Crafting Institutional Controls

- Include Restrictions in the Deed to Purchaser and Retain Nearby Land
- State Intent of Institutional Controls Loudly and Clearly
- "The covenants contained in this Deed are intended to, and shall run with the Property and shall bind successors to the Property in perpetuity"

- Assert that the Covenant or Easement Touches and Concerns or Benefits Land
- "The parties agree and understand that the Non-Residential Covenants are intended to and do benefit and touch and concern lands retained by Grantor in the vicinity of the Property."
- Waive Common Law Defenses

- Where Mine Ownership Transfers Consider Adding Additional Covenants in Deed
- Mirrors or Exceeds Covenants or Controls Already in Place
- Allows Mine Owner to Minimize Liability by Becoming Holder with a Right to Enforce – Especially Important if Environmental Covenants Not Applicable

- Retain Rights to Perform the Affirmative Obligations
- Retain Rights to Access and Use of Property to Perform the Affirmative Burdens Imposed By the Institutional Control

Self Replicating Clause

- "Subsequent Transfers. Grantee shall include in any deed or other instrument conveying or transferring an interest in the Property provisions similar to those contained in Paragraph of this Deed (including this paragraph), such that the transferee under such deed or instrument shall be bound by those provisions to the same extent as Grantee."

- Include Provision That Original Mine Owner is a Third Party Beneficiary of the Covenants Contained in Deed

- "Grantee also agrees that [the original landowner] is a third party beneficiary of the covenants contained in Paragraph of this Deed."

Use Reversionary Interests

- Landowner Can Convey Real Property But Specify that If a Specified Event Occurs or Does Not Occur, the Property Will Either Automatically Revert to Grantor or Grantor Can Choose to Take Property Back

CONCLUSION

- Can Protect Mine Closure
- Right Blend of Controls
- Tailored to Environmental Conditions
- Implemented, Monitored and Enforced
- Use Environmental Covenants
- Careful Drafting if ECs Not Available
- Might Make a Difference - Superfund

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