



LOCAL GOVERNMENT IMPLEMENTATION OF LONG-TERM STEWARDSHIP AT TWO DOE FACILITIES

August 2003

LOCAL GOVERNMENT IMPLEMENTATION
OF LONG-TERM STEWARDSHIP
AT TWO DOE FACILITIES

Environmental Law Institute®

Copyright©2003

Acknowledgements

This report was prepared by the Environmental Law Institute (ELI) and the Energy Communities Alliance (ECA) with funding from the U.S. Department of Energy, Office of Long-Term Stewardship, under Assistance Instrument No. DE-FC07-01ID14220. It does not represent the views of the Department of Energy and no official endorsement should be inferred. The authors of this report are John Pendergrass, Roman Czebiniak, and Kelly Mott of the Environmental Law Institute and Seth Kirshenber and Audrey Eidelman of the Energy Communities Alliance. Zachary Lamb, Erica Pencak, and Wendy Sandoz of ELI also assisted in the preparation of this report. The authors gratefully acknowledge the assistance of the many members of the communities affected by Los Alamos National Laboratory and Oak Ridge Reservation and the elected officials and staff from Los Alamos County, NM, Oak Ridge, TN, Anderson County, TN, Roane County, TN, New Mexico, and Tennessee; DOE; DOE contractors; and EPA who provided information for this report. The content of the report is, nevertheless, solely the responsibility of the authors.

Local Government Implementation of Long-Term Stewardship at Two DOE Facilities

Copyright © 2003, Environmental Law Institute[®], Washington, DC. All rights reserved. ELI Project #012101, ELI ISBN #1-58576-067-6.

(Environmental Law Institute[®], The Environmental Forum[®], and The Environmental Law Reporter[®], are registered trademarks of the Environmental Law Institute.)

Table of Contents

Executive Summary	7
Findings	9
General	9
Los Alamos	9
General	9
DOE-Los Alamos/Los Alamos National Laboratory (LANL)	9
New Mexico Environment Department (NMED)	9
Los Alamos County	9
Title Agents	10
Other	10
Oak Ridge	10
DOE-Oak Ridge	10
Tennessee Department of Environment and Conservation (TDEC) ..	11
Roane County	11
Anderson County	11
City of Oak Ridge	11
Recommendations	12
General ..	12
DOE	12
States	13
Local Governments	13
Practical Implementation of Long-Term Stewardship	14

Background and Methodology	14
Definitions	14
Legal Background for Long-Term Stewardship at DOE Facilities	15
Potential Scenarios for DOE Land Requiring Long-Term Stewardship	15
Covenants and Restrictions on Use of Property	16
Implementing Long-Term Stewardship	17
Case Study – Los Alamos, NM	19
Summary of Findings	19
County History	20
DOE – Los Alamos/LANL	21
Legal Enforcement Authority	21
Regulatory Oversight	21
Land Use Control Authority	22
Experience With Long-Term Stewardship	22
Federal Ownership: On-Site Tools	23
Off-Site Tools	24
Process for Implementing Controls	24
Other	25
New Mexico Environment Department	25
Legal Enforcement Authority	25
Experience with Long-Term Stewardship	25
Process for Implementing Controls	26
Other	27

Los Alamos County	28
Legal Enforcement Authority	28
Experience with Long-Term Stewardship	28
Process for Implementing Controls	31
Other	31
Title Agents	32
Process for Implementing Controls	32
Other	32
Case Study: Oak Ridge Reservation	33
Oak Ridge Background	33
Summary of Findings	34
DOE Oak Ridge	35
Legal Enforcement Authority	35
Experience with Long-Term Stewardship	35
Process for Implementing Controls	36
Other	36
Tennessee Department of Environment and Conservation	37
Legal Authority	37
Experience with Long-Term Stewardship	37
Process for Implementing Controls	38
Roane County	38
Legal Authority	38

Experience with Long-Term Stewardship	39
Process for Implementing Controls	39
Other	39
Anderson County	39
Legal Authority	39
Experience with Long-Term Stewardship	39
Process for Implementing Controls	40
Other	40
City of Oak Ridge	40
Legal Authority	40
Experience with Long-Term Stewardship	40
Process for Implementing Controls	41
Other	41
Title Research and Reporting	42
Process for Implementing Long-Term Stewardship	42
Other	42
Appendix A: State Statutory Authorities	43
Tennessee	43
State Long-Term Stewardship Activities	43
State Processes for Recording and Searching Property Documents	46
New Mexico	49
State Long-Term Stewardship Activities	49
State Processes for Recording and Searching Property Documents	52
Appendix B: DOE’s Legal Obligations for Cleanup and Long-Term Stewardship	54

Appendix C: Interviewees	62
Appendix D: Questionnaires	66

EXECUTIVE SUMMARY

The Department of Energy (DOE) is responsible for cleaning up the radioactive and chemical contamination that resulted from the production of nuclear weapons. At more than one hundred sites throughout the country DOE will leave some contamination in place after the cleanup is complete. In order to protect human health and the environment from the remaining contamination DOE, U.S. Environmental Protection Agency (EPA), state environmental regulatory agencies, local governments, citizens and other entities will need to undertake long-term stewardship of such sites. Long-term stewardship includes a wide range of actions needed to protect human health in the environment for as long as the risk from the contamination remains above acceptable levels, such as barriers, caps, and other engineering controls and land use controls, signs, notices, records, and other institutional controls. In this report the Environmental Law Institute (ELI) and the Energy Communities Alliance (ECA) examine how local governments, state environmental agencies, and real property professionals implement long-term stewardship at two DOE facilities, Los Alamos National Laboratory and Oak Ridge Reservation.

The short and long-term issues associated with long-term stewardship are complex. ECA and ELI developed this report to assist local, state, and tribal governments, citizens, DOE contractors, U.S. Environmental Protection Agency, DOE, and others to develop a better understanding of the long-term stewardship roles that local governments currently undertake at DOE sites. Another purpose of this report is to educate local communities and all other participants in long-term stewardship on the issues associated with implementing long-term stewardship.

At both sites most of the interviewees in the case studies stated that beyond federal ownership and deed restrictions in property conveyed by DOE to non-federal entities there are few “tools” and “laws” to implement and enforce land use controls in Los Alamos or Oak Ridge, even though long-term stewardship is recognized as a key to managing the risks at many sites at both facilities. Although not completely accurate since the state and local governments have some additional tools available, this perception generally reflects the current status of long-term stewardship implementation at ORR and LANL – it relies on a limited set of tools and is implemented in an ad hoc manner.

In reality, both sites use formal tools and informal tools to implement land use controls on DOE-owned property and on property transferred out of federal ownership. On site at both facilities, DOE uses an internal system to identify known contamination on its property records and takes procedural steps to ensure that before actions are taken on the property, the site is reviewed and investigated to ensure the proposed action is either safe to undertake or necessary remediation is performed before it can be used for the purpose. Different informal processes are used for off-site property. DOE and Los Alamos County have an informal process to analyze whether proposed new uses of non-LANL sites are safe to undertake. In Oak Ridge, DOE does not have a similar arrangement with the City. For property conveyed from DOE to non-federal ownership, DOE, as it does at all sites, includes notices of any possible contamination in the deed and provides a covenant in the conveyance documents that it will remediate the property if contamination is found after the transfer, as required by CERCLA Section 9620(h).

The other long-term stewardship tools currently in use at Los Alamos and Oak Ridge include federal ownership and control of land, internal databases of potential release sites, geographic information systems (GIS), site planning, state permitting, signs, zoning, and land

use restrictions imposed in deeds. Land use restrictions imposed in a deed at the time of transfer of property to a non-federal owner is a principal long-term stewardship tool at Los Alamos and Oak Ridge, as well as many other sites. Such restrictions are legally binding on the new owner of the land and, if properly drafted and recorded in the appropriate property records office, provide legal notice to subsequent owners of the land of the restriction. But such restrictions are not necessarily effective at providing actual notice to subsequent owners and users of the property of the restriction or the reason behind the restriction.

Long-term planning by DOE indicates both sites will rely on long-term stewardship. However, DOE personnel indicated that such planning is in the beginning stages and that additional work may be needed. The environmental regulatory agencies in both states are working with DOE and EPA to understand the available tools based upon current law and are looking to other states as models for creating and implementing long-term stewardship tools.

This investigation of current implementation of long-term stewardship at DOE facilities in Los Alamos and Oak Ridge reveals that DOE, state environmental regulatory agencies, local governments, contractors, and others are undertaking various long-term stewardship activities at each site. This investigation and report also reveals that there is substantial need for improvement in the implementation of long-term stewardship at these two DOE facilities. All of the entities involved in long-term stewardship could improve their use of existing tools, improve those tools, and create new tools to more effectively implement long-term stewardship.

FINDINGS

GENERAL

Long-Term Stewardship Tools

Many interviewees consider long-term stewardship to be a critical element of the DOE remediation program, but think that few legally enforceable tools exist for implementing long-term stewardship.

Tools currently in use at Los Alamos and Oak Ridge include: federal ownership of land, internal (DOE and contractor) permits for excavation or construction, internal databases of potential release sites, geographic information systems (GIS), site planning, state permitting, signs, zoning, and land use restrictions imposed in deeds.

Although properly recorded land use restrictions may satisfy legal requirements for notice to subsequent purchasers, they are not necessarily adequate to provide actual notice of such restrictions to subsequent purchasers of the land or others whose interests may be affected by such restrictions.

LOS ALAMOS

General

Most interviewees think federal ownership of land and deed restrictions on the use of land are the only legally enforceable long-term stewardship tools available at Los Alamos.

DOE-Los Alamos, Los Alamos National Laboratory (LANL), New Mexico Environment Department (NMED), and Los Alamos County all have experience implementing long-term stewardship on a site-by-site basis, but rely to a large extent on informal processes for determining the specific activities needed at a particular time.

DOE-Los Alamos/Los Alamos National Laboratory (LANL)

The State of New Mexico currently has no specific authority to require DOE or other parties to implement land use controls when sites are remediated to a level that leaves waste in place. Currently, there is no formal implementation of land-use controls after a site is remediated on or off the DOE property.

New Mexico Environment Department (NMED)

When land is conveyed from DOE to Los Alamos County, the State does not have an established process for involvement or a set role. The NMED lacks legal authority to require land use restrictions or controls.

NMED retains its ability to regulate the remediation of property pursuant to the New Mexico Hazardous Waste Act.

Los Alamos County

Los Alamos County is currently changing its deed search process from paper records to electronic. To search a deed, the user must know either the owner or the plat number- a search

cannot be performed based on the location of the property. If the user knows the owner or plat number for the property, the search is straightforward. Although easements are noted on the deeds, specific information on easements is not kept at the County Clerk's office. To obtain detailed information on easements, the user must check with the utility department. The utility department may or may not have private easements.

Los Alamos County has no specific legal authority in its codes to implement long-term stewardship. The County does not currently consider environmental conditions in reviewing and issuing building permits and zoning is not used for long-term stewardship.

The County generally relies on complaints to initiate enforcement of county codes and does not have staff capabilities to monitor and inspect for code compliance.

Title Agents

When asked to perform a title search, the title agents review every deed as well as other documents in chain of title. In performing these searches, they will look for environmental restrictions so that they can make an exception for them on the insurance. To perform a search, the title agent uses an electronic database to identify the appropriate deed information then must review the deeds on microfiche. All searches go back to the beginning of the county, about fifty years. The title insurance agency's system is updated daily by the County Clerk via CD.

Title agents are not required to disclose environmental restrictions if they are conducting a search and not providing title insurance. If they provide title insurance, they will include any information on environmental restrictions on the property. The title agent is not required by state law to list environmental restrictions; however, they generally do because of requirements from their underwriter.

Other

New Mexico's Land Use Easement Act authorizes a legally enforceable land use restriction for any property, which could include contaminated properties, if the future use of the property will be open space, protection of natural resources, agriculture, forest, or other specified use. The easement act does not authorize the use of easements where the use will be commercial, industrial, or residential. No attempt has been made to use this Act for long-term stewardship purposes.

OAK RIDGE

DOE- Oak Ridge

DOE-OR has transferred land to private and governmental entities with restrictions on the use of the land. In more than a decade of experience with such land transfers, DOE-OR has used several different methods of restricting the use of land, at least one of which was not successful in achieving its intended purpose.

DOE has not always promptly recorded deeds.

DOE-OR has no standard oversight mechanism for implementing controls such as the restrictions placed in documents conveying property off-site. DOE-OR officials note that they

can use the CERCLA 5-year review and Remedial Effectiveness Report as an oversight mechanism.

DOE has agreed to provide funds to cover the on-site activities of the Tennessee Department of Environment and Conservation (TDEC) in perpetuity for the long-term surveillance and maintenance of a CERCLA waste disposal facility on the Reservation.

Tennessee Department of Environment and Conservation (TDEC)

The State has no formal process for implementing land use controls, outside of the LUCAP/LUCIP framework. Also, TDEC has no system in place to monitor on-site changes in land use other than reliance on DOE-OR notifying them of a change. The State intends that institutional controls, as part of a remedy for DOE-OR cleanup, should be enforceable. However, who is responsible and where the authority comes from is still something the State is working out. Currently, TDEC is considering using the authority of state land use control laws in a more routine fashion to implement and enforce controls both on and off-site.

Roane County

Roane County does not have a process for searching deeds and easements before a change in zoning occurs. Therefore, County officials are of the opinion that the County does not have much responsibility for implementing land use controls.

Anderson County

A County attorney or other official with specific powers can enforce county ordinances.

The County is in the process of converting its property records to electronic form, which will make records searches more efficient. The electronic index has a category for restrictions on use included in a deed, but the person recording the deed or other document must specify if it includes a restriction. DOE has not always identified land use restrictions as such when recording deeds.

City of Oak Ridge

According to the Regional Planning Commission, the City's Community Development Department checks deeds and easements for land use restrictions before amending zoning.

The Community Development Department implements the City's land use permitting system, which includes a requirement to call a toll-free number before digging on any property. This system could be adapted to include review of environmental restrictions as another aspect of long-term stewardship.

The City has passed a zoning ordinance creating a Federal, Industry, and Research (FIR) district that covers any property that may be transferred by DOE. This ordinance does not assert any authority over land owned by the federal government, but is intended to ensure that the planning commission reviews the development plans for any property transferred out of federal ownership.

RECOMMENDATIONS

GENERAL

Local governments, states, DOE, and EPA should plan to use existing tools to implement long-term stewardship. In addition, each government agency should work to improve the existing tools over which it has control and to add new tools to improve implementation of long-term stewardship.

DOE, state and federal regulators, local governments, and any other entities involved in long-term stewardship should formalize their long-term stewardship plans, processes, and tools in a manner appropriate to the roles and responsibilities they will undertake.

DOE, state and federal regulators, local governments, and any other entities involved in long-term stewardship at a particular site should consider holding regular meetings to review specific projects and plans that may affect properties and sites subject to long-term stewardship and to review and revise as necessary their long-term stewardship systems.

Local governments, states, DOE, and EPA should share information regarding the tools each are using and plan to use, both on and off site. Each agency should ensure that appropriate information is easily accessible to be searched by the entities that provide building approval and permits.

DOE, state and federal regulators, local governments, landowners, prospective purchasers, and the public should not rely on title agents or title insurance as a means to transmit information concerning land use restrictions related to environmental conditions.

DOE

DOE should develop and improve its systems for overseeing long-term stewardship at the site and national level.

DOE should coordinate its site-level systems for long-term stewardship, particularly those dealing with property transferred to non-federal ownership, with state and federal regulators, affected local governments, and community reuse organizations and other stakeholder groups. This includes assuring that DOE regularly shares long-term stewardship information with local governments and stakeholder groups that deal with issues related to long-term stewardship and future use of DOE land.

DOE should improve its long-term stewardship information systems, including geographic information systems, maps, and databases, and work with state and federal regulators, local governments, and the public to share information from such systems to maximize its utility in promoting the goals of long-term stewardship. Geographic information systems (GIS) at all levels of government, in particular, should be improved and include data about site-specific residual risks and long-term stewardship.

DOE should ensure that all land use restrictions are promptly and properly recorded in the appropriate land records office. DOE should also work with the land records office to ensure

that any land use restriction is indexed or identified as such if the office has a system for identifying such restrictions.

DOE should ensure that it has complete and accurate backup copies of all records related to residual risks at sites and long-term stewardship. Backup copies should be stored at sites separated from the originals.

DOE-OR should develop a system for overseeing the creation and implementation of institutional controls such as land use restrictions included in deeds and the establishment and maintenance of information systems. Other DOE site offices should consider developing similar systems.

DOE-Los Alamos and Los Alamos County should work together to share with the County as much of DOE's GIS data concerning potential release sites and long-term stewardship on non-federal land as is possible. Other DOE site offices should consider similarly working with their local governments to share GIS data.

STATES

State environmental agencies should develop and implement a standard process for implementing long-term stewardship. The process should cover the state's role in establishing, maintaining records of, overseeing, monitoring, enforcing, modifying, and terminating institutional controls and other long-term stewardship tools.

States should consider adopting the Uniform Environmental Covenants Act¹ in order to ensure that long-term stewardship requirements will be reflected in the land records for affected property and can be effectively enforced under the law of real property.

LOCAL GOVERNMENTS

The City of Oak Ridge should consider adding to its land use permitting system restrictions on digging based on environmental risks. If it does add environmental conditions to the permit system, the City should request the assistance of DOE-OR, TDEC, Roane, and Anderson counties in developing a complete set of easily searchable records of properties subject to restrictions based on environmental risk. Other local or state governments, whichever is appropriate, should consider adopting similar systems to provide a public notification system for any property on which there is residual environmental risk.

Local governments should develop a standard process for implementing their long-term stewardship responsibilities. The process should cover the local government's role in establishing, maintaining records of, overseeing, monitoring, enforcing, modifying, and terminating institutional controls and other long-term stewardship tools.

¹ National Conference of Commissioners of Uniform State Laws, Uniform Environmental Covenants Act, <http://www.nccusl.org>.

PRACTICAL IMPLEMENTATION OF LONG-TERM STEWARDSHIP

BACKGROUND AND METHODOLOGY

The Environmental Law Institute (ELI) and the Energy Communities Alliance (ECA), in cooperation with the U.S. Department of Energy (DOE), wrote this report² to analyze the practical implementation of the legal authorities available to local governments, states, DOE, the U.S. Environmental Protection Agency (EPA), and citizens, in order to implement long-term stewardship activities at DOE facilities.

Several studies have been conducted on the legal mechanisms that may be available in various states to implement long-term stewardship. However, none of the studies review the practical implementation of the legal mechanisms. This report by ELI and ECA is intended to assist all parties that are required to implement or are interested in implementing long-term stewardship activities at DOE sites to better understand. ELI and ECA focused on the following issues:

Federal Statutes And Regulations	Zoning Law And Procedures
State Constitutions	Title Searches
State Statutes And Regulations	Title Recording And Reporting Procedures
Local Ordinances And Permits	DOE, EPA, NRC Guidance
Local Real Estate Practices	DOE Long-Term Stewardship Implementation Practices

ELI and ECA reviewed the issues outlined above at two DOE facilities: the Oak Ridge Reservation (ORR) in Tennessee and the Los Alamos National Laboratory (LANL) in New Mexico. ELI and ECA analyzed the legal tools available to implement long-term stewardship at the two DOE facilities and interviewed key real estate professionals and state and local government officials as well as DOE staff.

DEFINITIONS

ELI and ECA have used the following terms as defined below.

Long-Term Stewardship – Encompasses all activities required to maintain an adequate level of protection to human health and the environment from the hazards posed by nuclear and/or chemical materials, waste, residual contamination or infrastructure remaining after the strategy selected in the record of decision is implemented. These activities include implementation, monitoring, and enforcement of institutional controls and engineering processes.³

² This project is a follow-up to the ELI and ECA report entitled *The Role of Local Governments in Long-Term Stewardship at DOE Facilities*. For a copy of the report visit [http://www.elistore.org/reports_detail.asp?ID=555&topic=Contaminated Sites](http://www.elistore.org/reports_detail.asp?ID=555&topic=Contaminated%20Sites) or <http://www.energyca.org/LTS.html>.

³ U.S. Department of Energy, *Report to Congress on Long-Term Stewardship*, Release No. R-01-025 (January 19, 2001).

Institutional Controls - Non-engineering mechanisms, particularly legal measures, designed to limit or identify activities at a particular property. Examples of governmental institutional controls include zoning limitations on land-use and permit programs. Examples of property law based institutional controls include deed covenants and easements.

Cleanup – Active remediation and waste management to stabilize, contain and/or dispose of radioactive and hazardous waste and contamination. “Cleanup” does not necessarily mean a site will be returned to levels acceptable for unrestricted use of the property. It refers to the remedy selected by a Comprehensive Environmental Response, Compensation, and Liability Act⁴ (CERCLA) Record of Decision (ROD) or other agreement between DOE and federal and state regulators.

LEGAL BACKGROUND FOR LONG-TERM STEWARDSHIP AT DOE FACILITIES

A discussion of the federal laws governing long-term stewardship at DOE facilities is reprinted in Appendix B.

Potential Scenarios for DOE Land Requiring Long-Term Stewardship

There are several potential scenarios for property after it is remediated by DOE and long-term stewardship is required. Below are three general scenarios:

- DOE will retain the property for continuing missions with or without self-imposed or regulator-imposed restrictions.
- DOE will transfer the property to another federal agency. For example, DOE has transferred land to other federal agencies such as the Department of the Interior in trust for a tribe or to the U.S. Fish and Wildlife Service for open space.
- DOE will convey the property to a non-federal government owner. If land-use restrictions are required based upon the cleanup level, DOE will transfer the property and may restrict the use of the property with deed restrictions and contractual agreements. For example, DOE often conveys property with groundwater use restrictions in the deed at certain sites where groundwater contamination is an issue.

The transfer to other entities of federal property contaminated by federal activities presents challenges to long-term stewardship implementation. The federal government has ultimate legal, and hence fiduciary, responsibility for the environmental contamination left at the site and thus has an interest in the long-term stewardship process. For example, when the federal government conveys property to a non-federal entity, it is required to provide deed covenants that state that all necessary remediation has taken place and that if additional remediation is required in the future, the federal government will undertake the remediation.⁵ DOE has not fully determined how to oversee any restrictions or limits that are imposed, how to notify potential users of the property about the hazard, how to enforce any use restrictions, or how such activities will be funded.

Once the federal government conveys the property to a non-federal owner, the real property immediately becomes subject to all state and local laws and benefits – the property

⁴ 42 U.S.C. §§ 9601-9675 (2000).

⁵ 42 U.S.C. §9620(h). Under certain circumstances DOE may convey property to a non-federal entity before remediation is complete. 42 U.S.C. § 9620(h). Further, see DOE’s indemnification provision at Section 3158 of the Defense Authorization Act for Fiscal Year 1998 (Pub. L. 105-85, 111 Stat. 1629).

becomes part of a community. In most states, the local government will incorporate land use control, including zoning, as a local government function.⁶

The federal government frequently fails to do a complete analysis of the local laws and the local practices for development when it decides to convey property with land use restrictions for health and safety and environmental protection purposes. However, these laws and practices will be applied when the real property is conveyed to a non-federal owner for development. For example, after a developer acquires a parcel of property from DOE, the developer must conform to local laws when developing the property. The local government laws may require that all utilities be placed on the north side of a road within ten (10) feet of the paved portion of the road. Further, under local ordinance the developer may be required to dedicate that road and utility system to the local government through an easement. Several questions may arise out of such a situation, including: How do the local land use practices and local legal requirements mesh with the land use restrictions placed on the real property by DOE? Does the covenant run with the land? If so, for how long does the covenant run with the land? How can it be extinguished and for what reasons? Who can enforce the covenant? How does the covenant affect the local government if, in ten years, it decides to expand the road?

When selecting a remedy, DOE, the state environmental regulatory agency, and EPA must have an understanding of the local laws that govern the transaction. Further, they must understand the range of tools that they may have at their disposal – including local zoning ordinances -- to ensure that the hazards left in place will not pose a threat to human health and the environment.

Covenants and Restrictions on Use of Property

Most federal agencies conveying property to a non-federal entity attempt to control land use and development by inserting specific covenants (commonly referred to as deed restrictions⁷) in contractual agreements (i.e., no use of groundwater, prohibition to use property for residential purposes), usually in the deed. A deed covenant is an agreement or contract between the parties to the deed where one party promises to another to do or to refrain from doing something. The covenant is enforceable by the party to the contract. For example, when DOE conveys property to a non-federal entity with a covenant to restrict the use of groundwater, only the federal government can enforce the covenant – not the state or local government -- because the contract is between the federal government and the non-federal entity.

Further, a covenant will generally “run” with the land. Therefore, when an entity that obtained property from DOE conveys that property to a new entity, the promise made by the first entity will be binding on the second entity, if the second entity has notice of the covenant. Notice can be written into a new contract (the deed) or it can be construed if the covenant is recorded in a public record in a local land recorders office (the county recorders office in most states). The parties that can enforce the covenant between the first non-federal entity and the

⁶ For a brief discussion of local government land use control law in the context of long-term stewardship, see *The Role of Local Governments in Long-Term Stewardship at DOE Facilities*, supra note 2 at 14-15, see also John Pendergrass, *Sustainable Redevelopment of Brownfields: Using Institutional Controls to Protect Public Health*, 29 ELR 10243, 10245-10248 (May 1999)..

⁷ “Deed restriction” is not a traditional property law term, but rather is a generic term used in the NCP and elsewhere as a shorthand way to refer to types of institutional controls. Institutional controls are among the tools allowable under CERCLA. “Institutional Controls: A Site Manager’s Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups” EPA 540-F-00-005, OSWER 9355.0-74FS-P, dated September 2000.

new buyer are DOE and the first entity (the parties that have a contractual relationship through the deed covenant).⁸

Some land use experts believe that the control of land use through covenants is superior to control of land use through zoning while others do not:

“[T]he argument is sometimes made that since zoning has become so complicated, it would better to use covenants instead. I do not recall hearing this argument made by someone who had taken a law school course covering the law of covenants.”⁹

Courts recognize the constitutional right to contract by enforcing the most restrictive land use provision when a conflict arises between a covenant and a zoning ordinance. However, enforcement can be the most serious problem in the use of covenants to control a specific land use. The legal aspects of this issue are complex. The most important issue to be addressed is to ensure that the covenant actually will “run” with the land and be binding upon future owners of the property. The issue is addressed in each state law and local jurisdiction practice, and the form and substance of the covenant.

A key point when considering deed covenants and zoning are that both tools may be needed, among others, where contamination is left in place and long-term stewardship will be relied upon in the remedy. Redundancy of controls will provide more certainty that the controls will continue to protect human health and the environment.

Further, once property is conveyed to a non-federal owner, the property becomes part of the community. If the property will be developed, the development will need approvals from the local government before it can proceed. Many local governments will require exactions and dedications of property in order to allow the development. For example, where DOE conveys property to a developer to construct an office park, the developer may first need to get approval of a zoning board to allow that type of use in an area, next the developer will be required to get building and other permits for breaking ground or improving existing structures. Before the project is approved for development, the developer may have to agree to dedicate an area of property for a road and utilities. All of the actions that the developer may be required to undertake may affect or be affected by the restrictions placed on the property. All of these issues should be taken into account before the remedy is selected to ensure that the property remains safe for its intended use. Therefore, the entities selecting the remedy need to understand the local laws and practices of the jurisdiction within which the DOE property sits to ensure that any remedy that relies upon long-term stewardship remains protective.

Implementing Long-Term Stewardship

A key question that needs to be addressed at each site is what entity has the authority to implement a long-term stewardship process on a site. The legal authority to establish and implement an institutional control or engineering control depends upon ownership of property, federal law, state law, and local ordinances.

The owner of property has the right to put an engineering control, such as a fence, on its property. Further, the owner of the property can place a restriction in the deed at the time of transfer, or establish other types of proprietary controls authorized by state law on the property.

⁸ A deed covenant placed upon federally owned property by the federal owner is not enforceable by another entity not a party to the transfer because there is no privity of contract.

⁹ Professor Williams statement in *American Land Planning Law*. 5 N. Williams, *American Land Planning Law* 253, n.21 (1974), reprinted in D. Mandelker and R. Cunningham, Planning and Control of Land Development 506 (3rd Edition 1990).

Federal government owner. DOE and other federal agency owners of real property are not required to follow state or local zoning and land use laws.¹⁰ Therefore, some institutional controls may not apply to DOE except through voluntary mechanisms, such as voluntarily filing a deed restriction in county records or implementing an internal process for checking the controls. Further, DOE would be able to develop engineering controls at the site. DOE is subject to federal and state environmental regulation, and hence as part of a remedy selection agreement, may agree to place land use restrictions on any property that requires long-term stewardship.

State regulator. The state environmental regulator’s authority over the parcel of property will usually be based on RCRA, CERCLA, the state superfund law, and the state’s law regulating hazardous waste or the Federal Facilities Cleanup Agreement (FFCA) at the site. RCRA and/or the FFCA will permit the state to participate in the remedy selection process. The remedy, through negotiations with the owner of the property, should outline the long-term stewardship controls for a site and the potential long-term stewardship processes required.

Local government. Property law and the law of land use control are matters of state law because no federal real property law exists. A local government has no formal role in implementing a cleanup remedy at a site. However, based upon the state law at most DOE sites, a local government has land use authority over the area of the DOE facility if the land is transferred out of federal ownership. While DOE, as a federal entity is not required to follow local land use planning, DOE is required to look at future potential land use when selecting its remedy¹¹ and, if the property is ever conveyed, the local land use authority will apply to the property.

GOVERNMENTAL ENTITY	GOVERNMENTAL CONTROLS (Zoning, permits, etc.)	PROPRIETARY CONTROLS (Deeds, leases, easements, etc.)
FEDERAL	None – Internal procedures only.	Option to voluntarily put controls in place – no requirement.
STATE	Depends upon state laws. Some states may require a permit.	May require DOE, as part of a remedy agreement to implement proprietary controls on the site. No enforcement power over proprietary controls unless it enters the chain of title.
LOCAL	Can apply governmental controls. No requirement to implement controls. Federal entities do not have to follow governmental controls.	Only participates in proprietary controls if it will become an owner or user of the property.

The following chapters provide a summary of findings and case studies of long-term stewardship tools available at both Oak Ridge and Los Alamos.

¹⁰ U.S. CONST. art. IV, §3, cl. 2.

¹¹ *Land Use in the CERCLA Remedy Selection Process*, OSWER Directive No. 9355.7-04 (1995).

CASE STUDY - LOS ALAMOS, NM

This case study examines the authorities, tools, and processes available to, and used by, federal, state, and local governments for implementing long-term stewardship activities at Los Alamos National Laboratory (LANL or the Laboratory).

The 43 square miles of LANL are divided into 49 technical areas that are used for scientific and support building sites, experimental areas, waste disposal locations, roads and utilities, and safety and security buffers.¹² LANL is primarily situated in Los Alamos County, with a small area in Santa Fe County in north-central New Mexico. Since the Laboratory began operating in 1943, it has been managed by the Regents of the University of California (UC) pursuant to management and operating contracts with the Department of Energy and its predecessor agencies. The Los Alamos Site Office (LASO) administers the contract with UC and oversees contractor operations at the site. The DOE National Nuclear Security Administration (NNSA) is the LANL Site landlord.¹³

SUMMARY OF FINDINGS

Most of the interviewees in this case study stated that beyond federal ownership and deed restrictions in property conveyed by DOE to non-federal entities, there are few “tools” and “laws” to implement and enforce land use controls, even though long-term stewardship is recognized as a key to remediating much of LANL. The reality in Los Alamos, both on the DOE-owned property and on formerly owned DOE property, is that both formal tools and informal tools are used to implement land use controls.

On site, DOE uses an internal system to identify known contamination on its property records and takes procedural steps to ensure that before actions are taken on the property, the site is reviewed and investigated to ensure proposed action is safe to undertake or whether remediation is required at the site before it can be used for the purpose. Off the DOE-owned property, DOE and the County have an informal process to analyze whether proposed new uses of sites are safe to undertake; and for property conveyed from DOE to non-federal ownership over the past several years DOE ensures that it includes notices of any possible contamination and covenants in the deeds that it will remediate the property if contamination is found after the transfer in the conveyance documents, as required by CERCLA Section 9620(h).

Finally, as a general practice, DOE in the past has, where previously unknown contamination was later discovered during upgrades to buildings or new construction excavation, returned to remediate the property in the County.

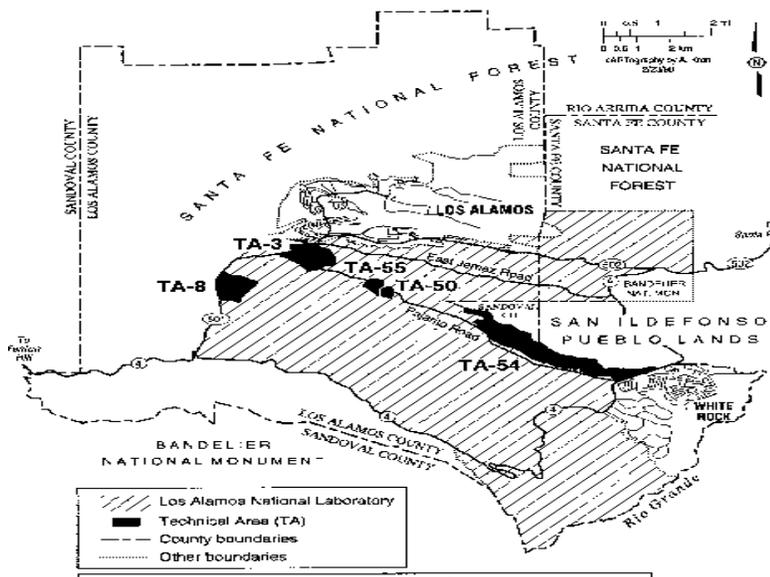
The long-term planning by DOE at LANL indicates long-term stewardship will be relied upon at the Site; however, indications from DOE personnel are that the planning is in the beginning stages and that additional work may be needed. The State of New Mexico (the State) regulators are concerned about remedy implementation at the Site and are investigating methods

¹² *From Cleanup to Stewardship: A Companion Report to Accelerating Cleanup: Paths to Closure.* U.S. Department of Energy, Office of Environmental Management. October 1999. DOE/EM-0466.

¹³ DOE generally defines the landlord as being the entity responsible for activities that involve the physical operation and maintenance of DOE installations. Specific tasks vary but generally include providing utilities, maintenance, and general infrastructure for the entire installation.

to ensure that the institutional controls will be known, enforceable, and investigated regularly to prevent failure.

COUNTY HISTORY



In 1943, the federal government began acquiring land in the Los Alamos area for the location of a secret research and development facility for the world's first nuclear weapon. In 1949, the New Mexico Legislature created the County of Los Alamos (the County) from portions of Santa Fe and Sandoval Counties.¹⁴

Under the Atomic Energy Community Act (AECA) of 1955,¹⁵ the federal government was made responsible for providing support to agencies or municipalities that were strongly

affected by their proximity to nuclear weapons facilities while these communities achieved self-sufficiency. Los Alamos was established as such a wholly government-owned community in which the federal government provided all municipal, educational, medical, housing, and recreational facilities. The current "town site" is located on the site of the original laboratory, which underwent cleanup to the standards of the time before being transferred. In 1998, with more than 234,000 people living within a 50-mile radius of LANL, the Laboratory was, and still is, the largest employer in Los Alamos County and Northern New Mexico.

The AECA also set forth policies directed at ending government ownership and management of the communities by facilitating the establishment of local self-government, providing for transfer to local entities of municipal functions, and providing for the sale to private purchasers of property within these communities.

Over the years, DOE's predecessor agency has leased and disposed of some of the federal lands under its management to the County, other government agencies, and to private parties. Today, about 38 percent of the total land that comprised the LANL reserve remains under DOE's administrative control.¹⁶

LANL's activities have produced several waste types: low-level, transuranic, radioactive liquid, chemical and mixed low-level. Chemical waste includes Resource Conservation and

¹⁴ Record of Decision: Conveyance and Transfer of Certain Land Tracts Administered by the Department of Energy and Located at Los Alamos National Laboratory, Los Alamos and Santa Fe Counties, New Mexico. Federal Register: March 20, 2000 (Volume 65, Number 54).

¹⁵ 42 U.S.C. 2301-2394.

¹⁶ Record of Decision: Conveyance and Transfer of Certain Land Tracts Administered by the Department of Energy and Located at Los Alamos National Laboratory, Los Alamos and Santa Fe Counties, New Mexico. Federal Register: March 20, 2000 (Volume 65, Number 54).

Recovery Act (RCRA) hazardous waste and other regulated waste including asbestos and polychlorinated biphenyls (PCBs). Most activities have been regulated by the State or have been self-regulated since the beginning of LANL's activities.

DOE-LOS ALAMOS/LANL

Legal Enforcement Authority

Regulatory Oversight

The State, as the lead agency under RCRA¹⁷ and the New Mexico Hazardous Waste Act (HWA),¹⁸ has the primary environmental regulatory oversight authority for activities at LANL, not the U.S. Environmental Protection Agency (EPA). LANL differs from most other large DOE facilities in that remediation activities at the facility are regulated by RCRA rather than by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).¹⁹ Further, whereas the New Mexico Environment Department (NMED) is the lead regulator at Los Alamos, the lead regulator at many DOE facilities is EPA.

The HWA charges the Environmental Improvement Board (EIB) with adopting rules governing hazardous wastes to protect human health and the environment.²⁰ The Board establishes the procedures for the issuance, suspension, revocation and modification of permits.²¹ The NMED reviews the permit applications, administers the fund, and oversees the enforcement of the regulations.²² While in general the rules identifying and regulating hazardous wastes and storage tanks must be "equivalent to and no more stringent than" those adopted by EPA pursuant to RCRA, EIB may adopt more stringent rules if it determines after notice and public hearing that the current rules are not sufficient to protect public health and the environment.²³ Under the HWA, the substances and materials designated as hazardous wastes are the same as those listed under RCRA.²⁴ Activities and substances regulated by the Federal Water Pollution Control Act (Clean Water Act or CWA), Safe Water Drinking Act, or the Atomic Energy Act are not subject to the HWA "except to the extent that such application or regulation is not inconsistent with the requirements of such acts."²⁵ With a few exceptions, the regulations adopted pursuant to the HWA are equivalent to the RCRA regulations under 40 C.F.R. § 260.²⁶ Hence, no external oversight exists for the nuclear materials and nuclear waste sites in Los Alamos.²⁷

Under the HWA, NMED may "take any action necessary to protect persons from injury or other harm which might arise from hazardous substance incidents."²⁸ Any person who generates, stores, treats, transports, disposes of or otherwise handles or has handled hazardous

¹⁷ 42 U.S.C.A. § 6901-6992(k).

¹⁸ NMSA § 74-4-1 et seq.

¹⁹ 42 U.S.C.A. § 9601-9675.

²⁰ NMSA 74-4-4(A).

²¹ *Id.*

²² NMSA 74-4-4.2, 74-4-10.

²³ NMSA 74-4-4(A), (C), (D).

²⁴ NMSA 74-4-4(A)(1).

²⁵ NMSA 74-4-3.1.

²⁶ N.M. Admin. Code tit. 20, § 4.1.100.

²⁷ Definition of "solid waste" in RCRA, which excluded "source material," precluded environmental groups' RCRA claims against U.S. government. Solid Waste Disposal Act, § 1004(27), as amended, 42 U.S.C.A. § 6903(27). See, Water Keeper Alliance v. U.S. Dept. of Defense, 152 F. Supp. 2d 163 (D. Puerto Rico 2001).

²⁸ NMSA 74-4-7(A).

wastes must furnish information to NMED and allow the NMED to enter, inspect, and obtain samples.²⁹ For the purposes of this provision, “persons” includes the U.S. Department of Energy. Persons owning or operating a hazardous waste facility (or planning to construct a facility) must first obtain a permit from NMED.³⁰ Persons owning a storage tank must also furnish information to NMED and allow the Department to inspect its records and have access for any corrective actions.³¹

The Atomic Energy Act (AEA)³² authorizes DOE to establish, implement, and enforce protective standards for activities under its jurisdiction. Further, the AEA provides DOE with the authority to convey real property to non-federal entities so long as its disposal would have a programmatic effect with regards to the AEA.³³ The AEA does not prohibit, nor does it provide specific authority to add, property restrictions to a deed when DOE conveys real property.

Land Use Control Authority

The State of New Mexico currently has no specific authority to require DOE or other parties to implement land use controls when sites are remediated to a level that leaves hazardous waste in place. NMED retains its ability to regulate the remediation of property pursuant to the Hazardous Waste Act. Hence, currently, there is no formal required implementation of land-use controls after a site is remediated on or off the DOE property.³⁴

EXPERIENCE WITH LONG-TERM STEWARDSHIP

As set forth below, at the time of the interviews, the Department of Energy (DOE) had not formally instituted a specific long-term stewardship process for properties remediated to risk-based levels.

LANL and the County have a significant amount of experience with long-term stewardship both on and off site. However, the activities that they have undertaken for several years grew out of experiences with former DOE facilities and not from the implementation of a long-term stewardship plan. Over the past 50 years, LANL and DOE have been involved in a number of land transfers and leases where the sites have been remediated or it was determined that no remediation was needed at the time of transfer. As standards change, or when a user finds residual contamination, DOE performs further remediation as required. One such transfer involved the Acid Canyon area. At the time of the transfer in 1967 the land was cleaned according to the standards of the time and no other controls were placed on the land. DOE has engaged in two additional substantial cleanups at Acid Canyon since the initial transfer, one in 1977 and another in 2001.

As one of the original Atomic communities, Los Alamos County and LANL encompass several areas where waste disposal in the 1940s and 1950s was conducted in ways that do not meet current standards. As a result, solid waste management units (SWMUs) in several areas on

²⁹ NMSA 74-4-4.3.1.

³⁰ NMSA 74-4-4(A)(6).

³¹ NMSA 74-4-4.3.2.

³² 42 U.S.C. §§ 2011-2259.

³³ 42 U.S.C. § 2201(g).

³⁴ The State of New Mexico legislature introduced specific land use control legislation in 2001; however, the legislation failed to gain enough support for passage. The NMED plans to work with the legislature to introduce land use control legislation.

LANL property and areas owned by Los Alamos County require corrective action under the HWA and RCRA.

Over the past fifty years, DOE and its predecessor, the Atomic Energy Commission (AEC), have conveyed property to the County and to citizens in the County. The AEC created the County pursuant to the Atomic Energy Community Act of 1954, which authorized the AEC to create the County and sell parcels of property to individuals. Portions of commercial downtown Los Alamos are located on the sites of World War II-era laboratory buildings. As the County of Los Alamos continues to grow, there has been an increasing need for DOE to transfer more land. Congress directed DOE to convey and transfer to Los Alamos County and the San Ildefonso pueblo parcels of land that are no longer needed for the national security mission at LANL and can be cleaned up within ten years of the passage of the legislation.³⁵

In order to ensure protection of human health and the environment, the County, DOE and LANL employees meet on a monthly basis to review future construction plans on non-DOE owned property to determine if contamination may exist in an area and where a concern exists LANL typically will investigate the area. If contamination is found LANL will usually remediate the area and, in some cases, will monitor excavation activities in the area.

Federal Ownership: On-Site Tools

On DOE property, the principal long-term stewardship tool used by the DOE is federal ownership. Using this technique, DOE is able to avoid placing any formal institutional control on the area as long as the land remains in its control.

The University of California, the contractor that operates LANL, uses an internal permitting process for land where excavation and/or construction is planned. The Environment, Safety, and Health Identification (ESH-ID) process requires the review of all projects in LANL controlled space, from new construction to modification of existing structures to decommissioning, to be screened for potential environmental hazards. Additionally the ESH-ID process can be used to obtain evaluation for projects involving actions with the potential to affect water quality, create airborne emissions or new waste streams, or affect the ecology of a site. The reviews of and recommendations from the ESH-ID process can be viewed on the LANL web site.

Database

DOE Environmental Restoration (ER) maintains a database of potential release sites (PRSs) that is updated regularly. This database is tied to the ER geographic information system (GIS) and can be combined with other GIS data from DOE such as engineering overlay information.

Signs

A LANL contractor maintains all of the signs around LANL. DOE and LANL have a GIS system that records the location of all signs around LANL, including environmental warnings. At the time of the interviews, this GIS system, however, was not available externally due to increased security since the September 11, 2001 terrorist attacks.

Site Plans

DOE includes long-term monitoring provisions in its site plans on a case-by-case basis. DOE's decisions about what institutional controls should be used at LANL sites, including both sites within the DOE complex and those transferred to the County, are made on a case-by-case

³⁵ Public Law 105-119 section 632, passed November 26, 1997.

basis. DOE Albuquerque, however, is currently working on a strategic plan/interim document that could be used as a model across DOE facilities that would include full life cycle documentation. This model would cover long-term stewardship issues including transitioning to long-term stewardship and determining the scope of long-term stewardship activities.

Off-Site Tools

Deed Restrictions and Notices

Although DOE has yet to transfer land at Los Alamos that would require long-term stewardship activities, i.e., leaving contamination above residential standards in place, DOE does indicate in the deed of any transferred property that all required remediation has been completed and that DOE has responsibility for any newly discovered pre-existing contamination as required by CERCLA.³⁶

Process for Implementing Controls

Internal permitting process

DOE's internal permitting process, ESH-ID, does not specifically require long-term stewardship activities. The ESH-ID process requires environmental investigation prior to receiving a permit for new programs, proposals, processes, and construction; decontamination, decommissioning, demolition; ER projects, and modifications with the potential to impact the ESH operating requirements of the facility or institution. DOE defines the ESH-ID process as an initial screening tool to assist LANL personnel "in identifying and managing Environment, Safety, and Health Laboratory Implementation Requirement having the potential to impact project planning and execution."

The ESH-ID process is implemented primarily on-line, unless information related to the project applying for the permit is sensitive, classified, or proprietary. To begin the ESH-ID process the user creates an electronic profile that includes all of the information on the activity for which they are applying for a permit. Once the profile has been submitted HSR-3 performs the required evaluation, and identifies and notifies the Subject Matter Experts (SMEs) relevant to the application. The SMEs review the project and post the project profile to the ESH-ID index web page for view and review. At the end of the review period, usually ten business days, the project-specific comments and the SME comments are posted to the ESH-ID Closure website where applicants may record, track and document dates and actions associated with permit closure requirements. Once a review of a project has been completed, it is valid as long as the recorded project description and details remain unchanged and/or new LANL requirements have not been issued.

Radioactive Sites: No External Review

For land transfers, DOE Order 5500.5 states that sites must be cleaned up to pre-release criteria for sites contaminated with radiation (RAD sites). These reports first go to DOE Albuquerque for review, then to DOE headquarters. There is no external review for RAD sites.

³⁶ 42 U.S.C. § 9620(h)(2000). DOE does not have a formal policy that states whether DOE would be responsible for future remediation if the land use of a site changes in the future. However, most people interviewed do not believe that DOE would be responsible for any additional remediation that may be required as a result of a voluntary change in land use after the property is conveyed to a non-federal entity.

Other

DOE Environment Restoration is currently transitioning responsibility for long-term stewardship to the NNSA, which is the land managing agency. Consequently, NNSA is reportedly requesting ER to complete higher levels of cleanup.

NEW MEXICO ENVIRONMENT DEPARTMENT

Legal Enforcement Authority

The New Mexico Environment Department's primary enforcement authority comes from RCRA. Section 3006 of RCRA authorizes states to assume responsibility for carrying out the RCRA program. In 1985, EPA transferred regulatory authority over hazardous wastes under RCRA to the New Mexico Environment Department. In 1990, EPA authorized New Mexico's Hazardous Waste Program to regulate mixed waste in lieu of the federal program. State authority for hazardous waste regulation is set forth in the New Mexico Hazardous Waste Act and Hazardous Waste Management Regulations. Accordingly, all legacy contamination found in the environment at LANL is primarily remediated pursuant to corrective action authority under the Hazardous Waste Act. In November 1989, DOE and the University of California were granted a RCRA operating permit establishing requirements for hazardous waste management units. The initial permit included 2,124 solid waste management units (SWMUs).

NMED views the Laboratory's and DOE's status as a permittee as the key to the enforceability of institutional controls. As long as DOE holds the property, it will be liable as permittee, even after the permit ends. Post-closure responsibility extends for 30 years and NMED has the option, under the Hazardous Waste Act, to extend that period if necessary. NMED can also require remediation of groundwater and surface water contamination at any time, regardless of whether the RCRA permit is current.

According to NMED, under current interpretations of State law, no site can receive a "no further action" letter until the site is cleaned up to residential use standards. The State however is currently reviewing other states' and the model state long-term stewardship laws. Adoption of this kind of law would provide the State authority to implement long-term stewardship activities and the State would then potentially release sites from the RCRA permit that are cleaned up to land-use based standards, not only residential standards. Beyond the use of the State Hazardous Waste Act, the State does not have any environmentally related land use controls or land use control authority.

Experience with Long-Term Stewardship

The New Mexico Environment Department stated that it does not use any institutional controls per se. The State will not allow the transfer of land or the removal of land from the RCRA permit until the land has been cleaned up to residential standards.

Permits

All sites at LANL, as well as sites that have been transferred to the County that have a history of contamination, are on the LANL RCRA permit. The presence of these sites on the permit ensures that the State can take enforcement action should additional contamination be

discovered if DOE does not take responsibility under the Water Quality Act,³⁷ and empowers the Water Quality Control Commission (Commission) to require permits for persons discharging a contaminant into State waters.³⁸ NMED, and any other “constituent agencies” designated by the Commission, are charged with enforcing its provisions.³⁹ The Commission may impose “reasonable conditions” on permit applicants to prevent and abate pollution, including monitoring, record keeping and reporting requirements.⁴⁰ The Act has its limitations, however, since it does not apply to activities subject to the Hazardous Waste Act,⁴¹ Groundwater Protection Act,⁴² or the Solid Waste Act,⁴³ “except to abate water pollution or to control the disposal or use of sewage and sludge.”⁴⁴ Additionally, the Act does not authorize the Commission to regulate polluted waters that are entirely within the boundaries of a property and do not combine with other waters.⁴⁵ The Water Quality regulations require a permit for any person who causes or allows effluent of leachate to move directly or indirectly into groundwater.⁴⁶

Database/Information Management

Under the State Hazardous Chemicals Information Act,⁴⁷ facility owners and operators, required under the federal Emergency Planning and Community Right-to-Know Act (EPCRA)⁴⁸ to file a notice or report with the state emergency response commission, must also annually submit an inventory covering each hazardous waste at the facility.⁴⁹ Additionally, NMED is in the process of creating a statewide database of environmental information and data using the TEMPO system. This system will include a large array of environmental information and could potentially integrate information on the use of institutional controls.

Process for Implementing Controls

When land is conveyed from DOE to a non-federal entity, the State does not have a set role or a set process for involvement. At the time of publishing DOE and the State were in the process of negotiating a process.

Permits

New Mexico’s Hazardous Waste Act⁵⁰ charges the Environmental Improvement Board (EIB) with adopting rules governing hazardous wastes that are protective of human health and the environment.⁵¹ The Board thus establishes the procedures for the issuance, suspension,

³⁷ NMSA 74-6-1 et seq.

³⁸ NMSA 74-6-5(A).

³⁹ NMSA 74-6-4(E); 20.6.2.1220 NMAC.

⁴⁰ NMSA 74-6-5(I).

⁴¹ NMSA 74-4.

⁴² NMSA 74-6(B).

⁴³ NMSA 74-9.

⁴⁴ NMSA 74-6-12(B).

⁴⁵ NMSA 74-6-12(C).

⁴⁶ 20.6.2.3104 NMAC.

⁴⁷ NMSA 74-4(E)-1 et seq.

⁴⁸ 42 U.S.C. § 11001-11050.

⁴⁹ NMSA 74-4E-5.

⁵⁰ NMSA 74-4-1 et seq.

⁵¹ NMSA 74-4-4(A).

revocation and modification of permits.⁵² The NMED reviews the permit applications, administers the fund, and oversees the enforcement of the regulations.⁵³ Persons owning or operating a facility (or planning to construct a facility) must first obtain a permit from NMED.⁵⁴ Any person who generates, stores, treats, transports, disposes of or otherwise handles or has handled hazardous wastes must furnish information to NMED and allow the department to enter, inspect, and obtain samples.⁵⁵ Persons owning a storage tank must also furnish information to NMED and allow the Department to inspect its records and have access for any corrective actions.⁵⁶ All storage tanks must be registered with NMED.⁵⁷

Other

Easements

New Mexico's Land Use Easement Act⁵⁸ authorizes the use of land use easements.⁵⁹ Under the Act a land use easement may be used to protect natural or open space values of land, and to assure that land is available for agriculture, forest, recreation, or open space use, or to protect natural resources.⁶⁰ This may limit the usefulness of easements as institutional controls for environmentally contaminated property as they appear not to be valid for property used for industrial, commercial, residential, or other intensive uses. Nevertheless, easements may be valid and useful for sites where the future use is open space, agricultural, forest, recreational, or protection of natural resources. Several of the interviewees, including staff in NMED, expressed doubt about the ability to use this Act for long-term stewardship purposes.

Nonprofit corporations, associations, and trusts are among those authorized to hold, and therefore enforce, a land use easement.⁶¹ In addition, such entities may enforce the terms of the easement if the easement expressly authorizes them to do so.⁶² Land use easements may not affect an interest in real property existing at the time the easement is created without the consent of the owner of the interest; and easements created prior to the Act are not subject to its provisions.⁶³ Land use easements must be recorded with the appropriate County Register's Offices to be valid.⁶⁴ Similarly, the easement enforcement rights of the holder under the easement are not valid unless registered with the appropriate County Register Offices.⁶⁵

⁵²*Id.*

⁵³ NMSA 74-4-4.2, 74-4-10.

⁵⁴ NMSA 74-4-4(A).6.

⁵⁵ NMSA 74-4-4.3.1.

⁵⁶ NMSA 74-4-4.3.2.

⁵⁷ NMSA 74-4-4.4.

⁵⁸ NMSA 47-12-1 et seq.

⁵⁹ NMSA 47-12-3(A).

⁶⁰ Land use easements are defined as: "a holder's nonpossessory interest in real property imposing any limitation or affirmative obligation the purpose of which includes retaining or protecting natural or open space values of real property, assuring the availability of real property for agricultural, forest, recreational or open space use or protecting natural resources." NMSA 47-12-2(B).

⁶¹ NMSA 47-12-2(A).

⁶² NMSA 47-12-2(C).

⁶³ NMSA 47-12-3(e), 6(B).

⁶⁴ NMSA 47-12-3(B).

⁶⁵ NMSA 47-12-3(C). Under the Act, land use easements are valid despite lack of privity of estate or contract, and even if they are not appurtenant to or do not "touch and concern" real property or a real property interest. NMSA 47-12-5(A), (D), (E). Land use easements are also valid even though they may impose affirmative obligations on

The rights and obligations created by a land use easement are enforceable only against the land affected by the easement.⁶⁶ The statute provides that lawsuits affecting a land use easement may be brought by the owner of the land affected by the easement, the holder of the easement, or a valid third party enforcer; however, the provision also states that it “does not affect the power of a court to modify or terminate a land use easement in accordance with any principle of law or equity.”⁶⁷

LOS ALAMOS COUNTY

Legal Enforcement Authority

The County does not currently have any specific provisions within its code to implement or enforce long-term stewardship activities. Furthermore a county official noted that unless it is a building code infraction, the County does not engage in proactive permit enforcement. For any other infraction the County usually receives a complaint before it takes action. There is one full time County employee who addresses code infractions.

Although at the time of the interviews few long-term stewardship land use restrictions had been recorded in deeds, the County could sue a developer in magistrate court for creating a nuisance if it discovered a land-use violation on land transferred to an entity that posed a threat to human health and the environment.

Experience with Long-Term Stewardship

Los Alamos County officials expect the property to be “clean” when it is transferred, and DOE has the policy of only transferring land that has been remediated to residential use standards; therefore, the use of institutional controls such as use and deed restrictions is not widespread. There are, however, many signs and permanent markers across the County indicating where there has been a cleanup or where a user cannot dig. Several deeds conveying property from DOE to the County contain notices indicating that a cleanup has been completed. The following list includes both actual and potential long-term stewardship tools:

Maps and GIS system

The County has a GIS system that includes basic plat information with the option to combine information with the utility company GIS and include utility easement information. The GIS system does not contain information on contamination or long-term stewardship activities. The County does however have maps showing where contamination is found on public property. These maps were created in 2000. The County and DOE have plans to ensure that the County can access DOE’s GIS data to integrate into the County’s GIS system.

Signs

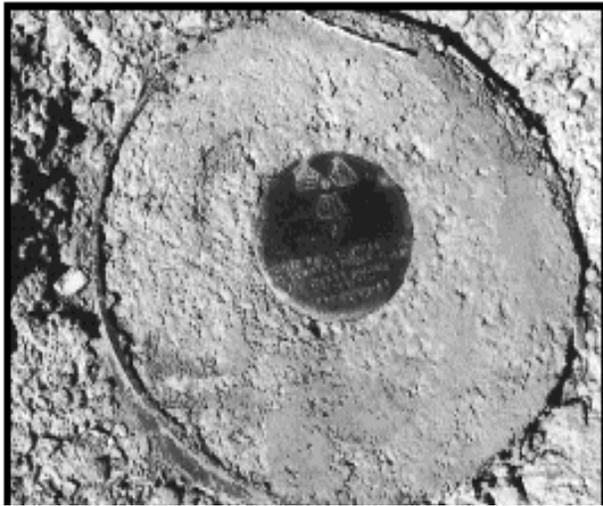
Throughout Los Alamos County, areas where cleanup activities have occurred contain signs or plaques. For example, the Bayo Canyon testing site, which was transferred to the County in 1967, has a number of small brass plaques that prohibit digging until 2142 and refer to the Administrative Record on-site. After transfer, contamination was found on the site. Site

the owner of the land covered by the easement or the holder of the easement, or otherwise impose a negative restriction on use of the land. NMSA 47-12-5(B), (C).

⁶⁶ NMSA 47-12-3(F).

⁶⁷ NMSA 47-12-4.

cleanup was completed in 1982 as part of the Formerly Utilized Site Remedial Action Program (FUSRAP), but radioactive traces were left in place in subsurface soil. Long-term stewardship at



the site is in the form of small brass plaques, prohibiting digging until 2142, and referring to the Administrative Record. This site, a part of a larger canyon system, is still subject to ongoing investigations.

There are many permanent markers throughout the County identifying where there has been a cleanup and where hazardous materials remain. These markers refer to where the deed information is recorded. However, one interviewee indicated that these are not always accurate and effective, giving as an example one DOE brass marker that referenced the wrong County courthouse.

The inscription reads: “Buried Radioactive Materials. No Excavation Prior to 2142 AD. See County Records. M 21 48 21 W.”

Deeds

The Laboratory has been involved in several transfers by lease and deed of land that had already been remediated or was determined to not need remediation at the time of transfer. For example, the Los Alamos town site was transferred from DOE to the County in the 1960s. According to DOE officials, when transferred, the land was cleaned to the standard of the time and no restrictions or other controls were placed upon the land. As standards changed, or when a user discovers residual contamination, DOE has returned to perform further remediation.

Now when land is conveyed to a non-federal entity in Los Alamos, DOE undertakes a review of the property as required by Section 120(h) of CERCLA.⁶⁸ DOE provides the analysis to the entity acquiring the property and the state to review prior to conveyance of the property. Once the review is complete, DOE conveys the property to the non-federal entity with a notice if any contamination existed on the property and specific deed restrictions. For example, when DOE executed a lease for TA-3, site of the Los Alamos Research Park next to the Laboratory, in August of 1998, information about hazardous substances required by CERCLA 120(h)⁶⁹ was attached to the lease because three Potential Release Sites (PRSs) were located on the parcel. The lease also includes a right of reentry for DOE if additional work is needed.

Below are general deed restrictions that are placed on real property being conveyed from a federal entity (including DOE) to a non-federal entity. The provisions may change slightly but the general requirements are set forth in CERCLA, as cited in the provisions below (the “Grantor” is DOE and the “Grantee” is the entity acquiring the real property):

⁶⁸42 U.S.C. § 9620(h)(3).

⁶⁹42 U.S.C. § 9620(h). CERCLA 120(h) requires a federal agency conveying property to report information about hazardous substances and certain hazardous wastes on the contract and deed. In addition, CERCLA 120(h) requires that a covenant to the deed allow DOE the right of reentry if remedial or corrective actions are needed after transfer.

“(i). **Hazardous Substance Notification.** Pursuant to CERCLA 42 U.S.C. Section 9620(h), notice is hereby provided that information contained in the [environmental notice document], identifies hazardous substances that were stored for one year or more, known to have been released, or disposed of on the Property.

(ii) **GRANTOR Covenant [CERCLA 42 U.S.C. §9620(h)(3)(A)(ii)(I)].** The GRANTOR covenants that all remedial action necessary to protect human health and the environment with respect to any known hazardous substance remaining on the Property has been taken, or the construction and installation of any approved remedial design has been completed, and the remedy has been demonstrated to the Administrator of the U.S. Environmental Protection Agency to be operating properly and successfully, before the date of conveyance.

(iii) **Additional Remediation Obligation [CERCLA 42 U.S.C. §9620(h)(3)(A)(ii)(II)].** GRANTOR covenants and warrants that GRANTOR shall conduct in accordance with applicable law any additional remedial action necessary after the date of transfer for any hazardous substance existing on the Property prior to the date of this Quitclaim Deed.

(iv) **Access [CERCLA 42 U.S.C. Section 9620 (h)(3)(A)(iii)].** In accordance with CERCLA 42 U.S.C. Section 9620 (h)(3)(A)(iii), GRANTOR reserves the right of access to the Property in any case in which a response action or corrective action is found to be necessary after the date of the conveyance of the Property. In exercising these rights of access, except in the case of imminent and substantial endangerment to human health or the environment, the GRANTOR (a) shall give the GRANTEE and any current owners, reasonable prior written notice of actions to be taken related to such remedial or corrective actions on the Property, and (b) make all reasonable efforts to minimize interference with the ongoing use of the Property. Furthermore, the GRANTOR and GRANTEE agree to cooperate in good faith to minimize any conflict between necessary response action or corrective action and the GRANTEE's current or anticipated use of the Property. Any response action or corrective action undertaken by the GRANTOR will, to the maximum extent practicable, be coordinated with representatives designated by the GRANTEE.”

Permit process

To date, the County permitting process does not include environmental review. Soil testing is included in the process; however, the soils are not screened for contaminants. A permittee conducts Phase I or Phase II environmental reviews only if they choose to or if required by a lender. A County official commented that it is not likely that the bank will require such reviews for lending. A County official noted that she had never seen a permit denied based on environmental health threats.

Access Agreements

In addition to the county permitting process, the County also has an access agreement process with DOE for additional cleanup and monitoring of transferred sites. Under this agreement, DOE must notify the County at least 48 hours before they access the site. The notification must include detail of the work DOE intends to do on-site.

Process for Implementing Controls

Deed searches

Los Alamos County stores its property records on computer files that are updated regularly and are easily searchable. Although all of the information related to a property is not available on the electronic search, the search identifies the records that may need to be searched manually (through the County Clerk's non-computer files). To search a deed, the user must know either the owner or the plat number. If the user knows the owner or plat number for the property the search is very straightforward. In addition, some utility easement information is stored in the utility department (which is close to the County Clerk's office).

Permitting

The majority of the permitting conducted by Los Alamos County is special use permits or site plans; there is very little rezoning. Under the Los Alamos County Development Code, no building or structure regulated by the code may be erected, constructed, enlarged, altered, repaired, moved, improved, removed, converted, or demolished unless a separate permit for each building or structure is obtained from the Community Development Department. The application process for both special use permits and site plans begins with the permittee's application. An inter-department review committee, which includes a representative from DOE, reviews the application and revisions are made according to committee comments. From there the application goes to the planning committee who approves of the proposed plan based on their set criteria. The planning committee's criteria are predominantly focused on issues such as height; they do not currently have a standard for responding to environmental issues. Once the committee approves the application, the permit is issued. The permitting process does not include a review of deeds for restrictions; the permitting committee generally reviews the plats, but not the deeds. If the construction takes place on public property, however, they will often review deeds.

In March 2002, the Los Alamos Council adopted a vision statement for the County Comprehensive Plan that included fourteen points. One of the points adopted addresses environmental issues. The community created the entire vision plan and currently there are seven citizen committees in charge of recommending actions that would implement their section of the vision statement. The environmental committee has recommended that the County prepare environmental regulations and put them in the land use code. These regulations would apply to public and private organizations. A decision on these recommendations is forthcoming by the end of 2003.

Other

County Officials believe that the DOE has the obligation to create some kind of repository/historical record of where contamination is located and what was previously on the site. The repository should be a combination scientific/historic archive. DOE officials noted that the County would best keep an archive because it would be much easier for the public to access information held by the County than by LANL. County officials said that they would be interested in developing such a repository, but would not want to vouch for the accuracy of LANL information.

Information exchange about cleanup as it relates to land transfer takes place as part of the Solid Waste Management Unit Working Group (SWMU). The SWMU consists of staff from the County, DOE, and LANL and was formed in the mid-1990s to develop a means of informing developers about DOE/LANL site data.

TITLE AGENTS

Process for Implementing Controls

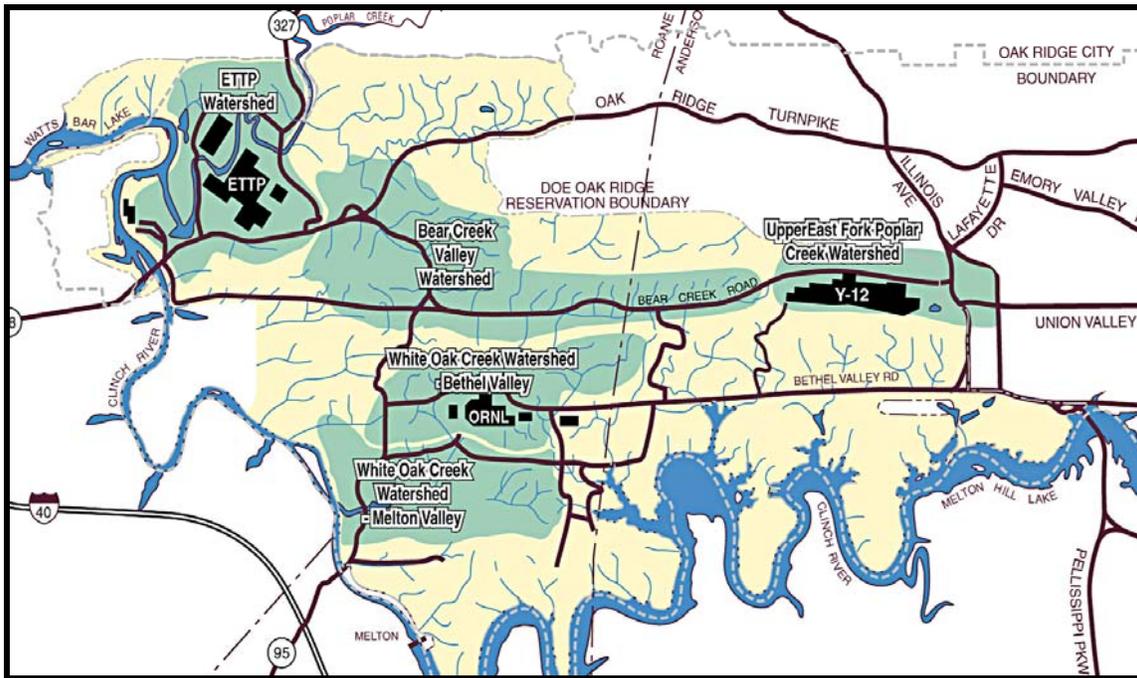
When asked to perform a title search, the title agents review every deed as well as other documents in chain of title. In performing these searches, they will look for environmental restrictions so that they can make an exception for them on the insurance. To perform a search, the title agent uses an electronic database to identify the appropriate deed information and then must review the deeds on microfiche. All searches go back to the beginning of the County, about fifty years. The title insurance agency's system is updated daily by the County Clerk via CD.

Title agents are not required to disclose environmental restrictions or any other related information on the deed if they are conducting a search and not providing title insurance. If they provide title insurance, they will include any information on environmental restrictions on the property. The title agent is not required by state law to list environmental restrictions; however, they generally do because of requirements from their underwriter. If the search yields restrictions, the title agent will list them and provide copies of the deed. The plat is only provided upon client request. The title agent noted that there are no properties in Los Alamos County with environmental restrictions.

Other

Currently, on DOE property there are several land use control processes used by the DOE contractor to identify areas of potential contamination and to ensure that before actions can be taken on a parcel of property, the environmental records for the area are searched. However, as with any system, there are anecdotal stories of failures: workers not obtaining permits and records being misplaced or lost and hence not knowing where all of the contamination is located.

CASE STUDY: OAK RIDGE RESERVATION



OAK RIDGE BACKGROUND

This case study of the Oak Ridge Reservation (ORR or the Reservation) examines the authorities and tools available to, and used by, federal, state, and local governments in implementing long-term stewardship activities at ORR, with a focus on local government.

The Oak Ridge Reservation exceeds 34,000 acres and includes the Oak Ridge National Laboratory (ORNL), East Tennessee Technology Park and the Y-12 NNSA facility. All but 608 acres of the Reservation fall within the boundaries of the City of Oak Ridge. The Reservation lies in both Anderson and Roane Counties. The ORR was established in 1942 by the Atomic Energy Commission (AEC), the predecessor to DOE, as part of the World War II Manhattan Project. The Manhattan Project also established the City.

In 1989, the ORR was placed on the CERCLA National Priorities List (NPL), the list of the country's most environmentally contaminated sites. Uranium is the principal radioactive material remaining on-site at the ORR, while other radioactive and toxic chemical substances such as strontium, cesium, and tritium are found in mixed-waste burial grounds, settlement ponds, seepage pits and trenches, inactive tanks, abandoned underground pipelines, soils, and natural waterways. Off-site contamination has been found in the Lower East Fork Poplar Creek, which flows through the City, the Clinch River, the Watts Barr Reservoir, and the Union Valley groundwater.

The State of Tennessee entered into the Tennessee Oversight Agreement (TOA) with DOE in 1991, to address pollution of State waters and the potential effects to human health and the environment surrounding the ORR. Under the TOA, DOE is required to provide the State with both financial and technical support, focused on four principal areas: environmental

restoration, environmental monitoring and oversight, emergency response and preparation, and public outreach.⁷⁰ The TOA was extended in 1996 and again in 2001.

In addition, DOE, EPA, and the State entered into an FFA⁷¹ in 1992, to begin work on the remediation of existing contamination at ORR. The FFA was designed to “ensure that the environmental impacts associated with past and present activities at the Site are thoroughly investigated and that appropriate remedial action is taken as necessary to protect the public health and welfare and the environment.”⁷² The FFA requires remediation activities to be accomplished under CERCLA.

SUMMARY OF FINDINGS

During the past two decades DOE’s Oak Ridge Operations Office (DOE-OR) has transferred land to private and governmental entities with restrictions on the use of the land. Over that period, DOE-OR has used several different methods of restricting the use of the land, at least one of which failed to achieve its goal. DOE-OR has not always promptly recorded deeds. DOE-OR has no standard mechanism for overseeing implementation of controls such as the restrictions placed in documents conveying property off-site. DOE-OR officials note that they can use the CERCLA 5-year review and Remedial Effectiveness Report as an oversight mechanism.

DOE and the Tennessee Department of Environment and Conservation (TDEC) reached an agreement on the long-term surveillance and maintenance of a CERCLA waste disposal facility on the Reservation in which DOE agreed to fund TDEC DOE-O’s on-site activities in perpetuity for maintenance and surveillance of the disposal facility.

The State has no formal process for implementing land use controls, outside of the LUCAP/LUCIP framework. Also, TDEC has no system to monitor on-site changes in land use other than reliance on DOE-OR notifying them of a change. The State intends that institutional controls, as part of a remedy for ORR cleanup, should be enforceable. However, TDEC is still considering issues of who is responsible for enforcement and the source of the authority. Currently, TDEC is considering using the authority of state land use control laws in a more routine fashion to implement and enforce controls both on and off-site.

The two counties within which ORR lies have very different capabilities and attitudes concerning long-term stewardship. Roane County does not have a process for searching deeds and easements before a change in zoning occurs. Therefore, County officials are of the opinion that the County does not have much responsibility for implementing land use controls. Anderson County officials are more interested in long-term stewardship, while recognizing that the City of Oak Ridge will take a lead role. A County attorney or other official with specific powers can enforce county ordinances. The County is in the process of converting its property records to electronic form, which will make records searches more efficient. The electronic index has a category for restrictions on use included in a deed, but the person recording the deed or other

⁷⁰ TDEC DOE Oversight Division, *Status Report to the Public*, December 1999. Auth. No. 327809.

⁷¹ Federal Facility Agreement Under Section 120 of CERCLA and Sections 3008(h) and 6001 of the Resource Conservation and Recovery Act (RCRA). DOE/OR-1014. Docket No. 89-04-FF (Federal Facility Agreement).

⁷² Federal Facility Agreement, DOE/OR-1014.

document must specify if it includes a restriction. DOE has not always identified land use restrictions as such when recording deeds.

The City of Oak Ridge City has passed a zoning ordinance creating a Federal, Industry, and Research (FIR) district that covers any property that may be transferred by DOE. This ordinance does not assert any authority over land owned by the federal government, but is intended to ensure that the planning commission reviews the development plans for any property transferred out of federal ownership. According to the Regional Planning Commission, the Community Development Department checks deeds and easements for land use restrictions before amending zoning.

DOE OAK RIDGE

Legal Enforcement Authority

DOE's Oak Ridge Operations Office (DOE-OR) has the legal authority to implement long-term stewardship through its realty process that allows real property officers to include restrictions on land use when transferring property off-site for reuse.⁷³ DOE-OR also has an internal process to control land use on-site. Through a system of permits, DOE-OR is able to restrict personnel from digging.

Through CERCLA and the Record of Decision (ROD) process, DOE-OR will include in the remedy document any action to be taken after the ROD is complete.

Experience with Long-Term Stewardship

Deed Restrictions

Over the past 15-20 years, DOE has transferred a number of parcels to non-federal owners. In many instances, the DOE-OR includes restrictions on the use of groundwater and controls the depth of digging on the land. DOE-OR real property officials state that the general policy is to include groundwater use restrictions on any transfer to non-federal owners. The following are descriptions of property transferred or leased by DOE-OR that include restrictions in the deed:

Parcel A-1

This parcel of property at the east end of the Reservation was conveyed from DOE-OR to the City of Oak Ridge by the use of a quitclaim deed. DOE-OR included restrictive language in the deed stating, "All structures, facilities and improvements requiring a water supply shall be required to be connected to the Grantee's approved water system for any and all usage." While DOE-OR's intent was to restrict the City's use of the groundwater, the City did not interpret the language as an explicit restriction. After this misunderstanding, all DOE-OR deeds conveying property with a groundwater restriction specifically state that the grantee, "and its successors and assigns are prohibited from the use of any groundwater source."⁷⁴

Boeing Property

This 182-acre parcel in the floodplain has numerous restrictions placed on it. The Tennessee Valley Authority has an easement based on its own legal authority that restricts uses in the floodplain. DOE-OR also put restrictions in the quitclaim deed for the property.

⁷³ For a discussion of DOE's legal authorities related to long-term stewardship see Appendix B, *infra*.

⁷⁴ Quitclaim Deed between the United States of America, acting by and through the Secretary of the Department of Energy and the City of Oak Ridge, dated September 23, 1992 and recorded on September 24, 1992.

Three-Bend Property

DOE-OR issued a 5-year use permit to Tennessee for this property and has reserved the right for long-term stewardship monitoring. DOE-OR believes the 5-year use permit will be renewed for a longer period of time.

Oak Ridge National Laboratory Revitalization Project

The 6.62-acre property was conveyed by DOE-OR to a non-profit organization that is constructing buildings—the property conveyed was a parking lot. The non-profit organization will lease the property to DOE-OR contractors. The property has restrictions on the use of groundwater and an 8-foot digging restriction.

Reversionary Clause

In some instances, when DOE-OR conveys property, a reversionary clause will be included in the conveyance document. Such clauses, which are based on traditional property law, state that any land use not agreed upon at the time of the conveyance will be grounds for the property to revert to the ownership and management of DOE-OR. In the quitclaim deed conveying Parcel A-1 to the City of Oak Ridge, the language states:

The property herein conveyed shall be used for residential purposes with related residential recreational support and/or commercial purposes only as set out in the GRANTEE's previously approved self-sufficiency plan, and in the event of use for industrial, airport, or for any other purpose, title to the land and all improvements affected by the breach of this conditions shall revert to and vest in the United States of America.⁷⁵

The reversionary clause in the deed quoted above was intended as a continuing covenant and will run with the land and be applicable to any successors to the land after the City of Oak Ridge.

Process for Implementing Controls

DOE-OR has no standard oversight mechanism for implementing controls such as the restrictions placed in documents conveying property off-site. DOE-OR officials note that they can use the CERCLA 5-year review and Remedial Effectiveness Report as an oversight mechanism.

Other

DOE-OR has a Land Use Focus Group made up of stakeholder organizations, City of Oak Ridge representatives, environmentalists, and property developers. The purpose of the Focus Group is to provide a 5-year plan for the future use of the west end of the Reservation. However, this Focus Group does not include a long-term stewardship representative from DOE-OR.

The community surrounding the Reservation is involved in long-term stewardship awareness and education activities. Ninth grade students in Karns High School researched and wrote an environmental report for the Reservation, funded by DOE-OR. The purpose of the report was to “inform the public of the ORR’s environmental cleanup projects, the laws that it must comply with and the effects of radiation on residents in the East Tennessee area.”⁷⁶

⁷⁵ Id.

⁷⁶ *Oak Ridge Reservation Annual Site Environmental Report Summary for 1999*. ORNL 2000-06331/gss.

DOE-OR is working with the Oak Ridge High School on long-term stewardship fact sheets based on information from the Annual Site Environmental Report. The fact sheets are a public information effort and will serve as a primer on environmental management activities at the Reservation.

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

The Tennessee Department of Environment and Conservation's (TDEC) DOE Oversight Division (TDEC DOE-O) was established to ensure that the environmental effects from ORR activities are investigated and monitored. TDEC DOE-O monitors the environmental restoration activities at the Reservation and assists in the cleanup decision-making process.

Legal Authority

Several statutory provisions provide the State authority to regulate land use. Under the Tennessee Code, the State can enforce conservation easements on private property.⁷⁷ The State is also authorized to record a notice and have the notice filed in the county register of deeds office.⁷⁸

In 2001, the State passed the Tennessee Brownfields Development Act, which allows the State environmental commissioner to file a notice of a land use restriction in the county register of deeds office, if the restriction is chosen for the remedial action of a cleanup, closure, or Brownfields project.⁷⁹ Included in the notice is a legal description of the site, information on the property, the hazardous substances known on the property and the specific restriction on the current or future use of the property. Under this provision, the State environmental commissioner is also responsible for notifying owners of adjoining property and all local governments with jurisdiction over the property, of any proposed changes to the land use restriction.

The U.S. Environmental Protection Agency (EPA), TDEC DOE-O, and DOE-OR administer the Land Use Control Assurance Plan (LUCAP) through a memorandum of understanding. The LUCAP sets out the procedures for dealing with land use controls over the long-term. When cleanup decisions are made, a Land Use Control Implementation Plan (LUCIP) is created to specify the enforcement authority for the parties involved and DOE outlines notices of deed restrictions in the LUCIP.

Experience with Long-Term Stewardship

Monitoring

DOE and TDEC reached an agreement on the long-term surveillance and maintenance of a CERCLA waste disposal facility on the Reservation. Under the agreement, DOE funds TDEC DOE-O's on-site activities in perpetuity for maintenance and surveillance of the disposal facility. The State was creative in finding authority for creating this long-term fund, with the governor's office relying on RCRA provisions that would be applicable to the CERCLA facility.

⁷⁷ T.C.A. § 68-9-301.

⁷⁸ T.C.A. § 68-212-212.

⁷⁹ T.C.A. § 68-212-225.

Federal Facilities Reuse

TDEC has long-term stewardship experience working with military facilities and the base reuse process. At a military Base Realignment and Closure site in Memphis, TDEC used a restrictive covenant and a plat with color-coded restrictions. The conveyance documents in that situation referenced the plat and were to incorporate the restrictions.

Process for Implementing Controls

The State has no formal process for implementing land use controls, outside of the LUCAP/LUCIP framework. Also, TDEC has no system in place to monitor on-site changes in land use other than reliance on DOE-OR notifying them of a change.

Though the statutory authority exists, the State has not used the Tennessee Brownfields Development Act to place a notice of land use restriction on property. While the law is intended to serve as an enforceable land use restriction, TDEC is unsure about the precise legal category of the restriction authorized by the law. This categorization determines which rules of property law would govern the operation of the restriction and raises uncertainty about the precise legal effect of the restriction.

The State intends that institutional controls, as part of a remedy for DOE-OR cleanup, should be enforceable. However, who is responsible and where the authority comes from are still issues that the State is working out. Currently, TDEC is considering using the authority of State land use control laws in a more routine fashion to implement and enforce controls both on and off-site.

ROANE COUNTY

Legal Authority

Tennessee statutes authorize counties to zone property by ordinance and divide territory within the county (outside of municipal corporations) into districts, based upon a zoning plan created by a regional planning commission (regional planning commissions in the State represent planning regions, as designated by the State planning office).⁸⁰ All zoning regulations must be recorded with the County Clerk. Roane County has adopted a zoning ordinance.

State statutes also authorize a county to enter into agreements for the purpose of permitting the county and a municipality to conduct necessary services and facilities.⁸¹ The County may also adopt or repeal a resolution incorporating by reference the provisions of any prepared building, plumbing, and gas codes, as long as copies are provided to and recorded with the County Clerk. A County attorney or other official with specific powers is authorized to enforce the County code i.e. those rules duly adopted by the County and having the force of law.⁸²

Counties also have statutory authority to establish the position of a building commissioner to enforce any zoning regulations through the withholding of building permits. The building commissioner issues permits for proposals that fully conform to all zoning regulations in effect.⁸³

⁸⁰ T.C.A. § § 13-7-101; 13-7-102.

⁸¹ T.C.A. § 5-1-113.

⁸² T.C.A. § 5-20-102.

⁸³ T.C.A. § 13-7-110.

Under a State policy, all counties must establish a “sister-county” relationship in which duplicates of property records are kept at the sister county.

Experience with Long-Term Stewardship

Recordkeeping

The Roane County Register of Deeds Office is the official repository for all County property documents. The Office contains a searchable index of property records that may be searched by the owner’s name. In 1999, the index was made available electronically. For transactions that occurred prior to 1999, however, records must be searched in handwritten index books. The County index system does not include a category for restrictions on property use.

Process for Implementing Controls

Roane County does not have a process for searching deeds and easements before a change in zoning occurs and therefore, County officials think the County does not have much responsibility for implementing land use controls. A County attorney or other official with specific powers can enforce the County code.⁸⁴

Other

Roane County has little experience with long-term stewardship. The County does not use any excess property from the Reservation for reuse and the County does little zoning of property for the purpose of controlling land use.

ANDERSON COUNTY

Legal Authority

Anderson County has the same statutory authority as discussed above for Roane County. Anderson County has adopted a zoning ordinance and is authorized to zone property.

Experience with Long-Term Stewardship

Recordkeeping

The Anderson County Register of Deeds office is the official repository for all County property documents. The Register of Deeds office contains a searchable index of property records that may be searched by the owner’s name. Anderson County started indexing records electronically in 1996, and the records are available via the internet.⁸⁵ In addition to the electronic index, Anderson County includes copies of deeds in the searchable database. As of July 2002, the electronic system includes warranty deeds since 1968 and trust deeds since 1987.

Anderson County’s indexing system has a category for listing restrictions that are either clearly noted in the deed, or separate restrictions filed with the deed. According to the Anderson County Clerk, the DOE-OR discloses the location of waste disposal sites in a property conveyance document and then files a restriction on the parcel of property. Whether the restriction is included in the conveyance document or a separate notice depends upon the size of

⁸⁴ T.C.A. § 5-20-104.

⁸⁵ Web Site for Anderson County Records Index is <http://www.titlesearcher.com>

the property. If the property is 30-40 acres or more, a separate restriction notice is usually filed.⁸⁶

Anderson County has five copies of its property records, some of which are stored in the County Courthouse and some are off-site, including the copy in the sister county.

Process for Implementing Controls

A County attorney or other official with specific powers can enforce the County code.⁸⁷

Other

The State does not have a law that requires the recording of property documents, but the law recognizes the holder of a recorded instrument as having bona fide rights. Many deeds are not recorded at the time of the transaction; for example, the Register of Deeds office recently recorded a deed that was dated 1969. Since there had been no bona fide purchaser in the intervening years the delay in recording caused no harm in this case. The County noted that the TVA does not record easements in a timely fashion.

Anderson County officials also noted that DOE-OR internally has no records backup system. In the past, the DOE-OR realty office has had to come into the Register of Deeds office to copy documents that were lost.

CITY OF OAK RIDGE

Legal Authority

Under State statutory authority, a city council may establish a planning commission and exercise authority to regulate land use through planning, zoning, and subdivision, by ordinance. The city council must approve the rules and regulations of the planning commission.⁸⁸ The City of Oak Ridge has established a Planning Commission.

Statutory authority provides that any zoning regulations allowing the transfer of development rights must provide that the property conveyances are in writing and are recorded in the office of the county register of deeds. When a municipal planning commission creates a zoning plan and provides it to the chief legislative body of the municipality, the chief legislative body, under the authority of T.C.A. § 13-7-201, can divide the municipality into districts or zones and regulate the use of buildings and structures and the uses of land.⁸⁹ Municipal planning commissions are also authorized by statute to amend zoning ordinances.⁹⁰

Experience with Long-Term Stewardship

Zoning

The City of Oak Ridge has zoning authority and recently passed a new zoning ordinance creating a Federal, Industry, and Research (FIR) district. The new ordinance states that any property conveyed by DOE-OR within the City's jurisdiction must be zoned FIR. Therefore, the new property owner must go through the City's planning commission to make any changes to the zoning. The purpose of creating this new district was to ensure that the planning commission had the opportunity to review the development plans for any parcel transferred by DOE-OR out

⁸⁶ This is not a standard DOE practice, rather it is an observation by the Anderson County Recorder's office.

⁸⁷ T.C.A. § 5-20-104.

⁸⁸ T.C.A. § 6-33-106.

⁸⁹ T.C.A. § § 13-7-201; 13-7-202.

⁹⁰ T.C.A. § 13-7-204.

of federal ownership. Consistent with the Property Clause of the U.S. Constitution,⁹¹ the new ordinance does not assert authority over property owned by the federal government; it merely ensures that property conveyed out of federal ownership is automatically included within a zone.

The City holds site review meetings on zoning issues—these are interdepartmental meetings that are held to ensure that zoning is concurrent with the comprehensive plan.

Permitting

Permits for land use are granted by the City’s Community Development Department. Before digging on any property, a toll-free number must be called. Permits granted for digging last for 15 days. This system could readily be adapted to provide a system for determining if the site of a proposed excavation was subject to any restrictions on digging for environmental reasons.

Monitoring

The City has stewardship experience through the monitoring activities it has performed at the Parcel 412 site, known as the “corporate center.” This property was formerly the location of an Atomic Energy Commission bulk oil facility. The City has been involved in the remediation of the property for 12 years and the site is listed on the State’s underground storage tank list of hazardous sites. All parties involved in the cleanup of the site recently reached agreement on a standard for determining the site to be “clean” and ready for redevelopment. The City must issue two more quarterly monitoring reports on the site and the property should then be eligible to be declared ready for redevelopment.

Process for Implementing Controls

The Community Development Department checks deeds and easements for land use restrictions before zoning is amended. Zoning amendments are made by the City Council after a recommendation by the Planning Commission.

Other

The City is not seeking to take on major long-term stewardship responsibilities. The City would rather have knowledge of environmental issues on-site and have a larger role in the decision-making process. The City has asked for improved access to environmental information from DOE-OR and TDEC DOE-O.

Though the City currently has no real record-keeping function for documents related to the Reservation, it would like to have an independent records management system apart from the DOE and county systems. There is currently no funding available at the City to implement such a system. A City representative stated that if funding existed, the first set of documents to be entered into the system would be the cleanup Records of Decision.

A City representative noted that the citizens of Oak Ridge have not reached consensus on the future land use for the Reservation. The debate over property reuse and development, particularly within the Site Specific Advisory Board and the City’s Environmental Quality Advisory Board, continues.

⁹¹ U.S. CONST. art. IV, § 3, cl. 2.

TITLE RESEARCH AND REPORTING

Process for Implementing Long-Term Stewardship

Records Searches

Title agents are responsible for searching property records and writing reports for title insurance agents before title insurance is granted to a new property owner. Property records are searchable in the grantor-grantee index by last name. A title report will reference a land use restriction by stating, “subject to the restrictions on this *book* and *page*.” According to a title agent from Anderson County, land use restrictions that are listed in a notice separate from the property conveyance document are easier to find. She stated that, although they look for restrictions in the documents, environmental restrictions are rarely encountered. Restrictions can be hard to find if they are not clearly identified as such and older deeds frequently include restrictions in a sentence that is not identified as a restriction. For this reason, the current practice in her office is to prepare deeds that have restrictions capitalized and in boldface type.

Title searches can go back 30, 40, or 60 years depending on the title insurance company, while some are only performed on the current owners.

Environmental Notices

Title insurance agents use a notice entitled “Environmental 8.1” to notify buyers about environmental issues that affect the property being insured. This is an exception from the policy notifying the buyer that the policy does not insure title with respect to this environmental condition.

Other

According to a title agent from Anderson County, environmental issues rarely come up in title searches, with the exception of mineral rights. The agent noted that indexing of county records determines a lot of the comprehensiveness of a title search and report. The agent also noted that land use restrictions listed on plats are easier to find than searching back 30 years in deeds. Title agents are much more likely to look at the plats, where the notice of restriction will be and will include the location of the restriction in the book/page of the property index of the county records office.

APPENDIX A: STATE STATUTORY AUTHORITIES

TENNESSEE

State Long-Term Stewardship Activities

- *What is the process for state permitting of land use activities and what entity has the authority/responsibility for implementing and enforcing permits, if any?*
 - The Tennessee Hazardous Waste Management Act, Tenn. Code Ann. § 68-212-101 et seq., provides that it is unlawful to: “place or deposit any hazardous waste into the waters of the state” unless authorized by TDEC or the Tennessee Water Quality Control Board. Tenn. Code Ann. § 68-212-105(1). It is also unlawful to “store, containerize, label, transport, treat or dispose of hazardous waste” or to “construct, alter, operate, own, close, *or maintain after closure* a hazardous waste treatment, storage, or disposal facility in violation of the rules... or in such a manner as to create a public nuisance or a hazard to public health.” Tenn. Code Ann. § 68-212-105(3), (4)(emphasis added). TDEC has inspection, investigation, and enforcement authority under the Act. Tenn. Code Ann. § 68-212-107,111,215. TDEC has the right to enter any place where hazardous substances (or potentially hazardous substances) “are, or may have been generated, stored, transported, treated, disposed of, or otherwise handled.” Tenn. Code Ann. § 68-212-216(a).
 - “No person shall construct, substantially alter, or own or operate a hazardous waste treatment, storage, or disposal facility, nor shall any person treat, store, or dispose of a hazardous waste... without first obtaining a permit from [TDEC].” Tenn. Code Ann. § 68-212-10(a)(1). TDEC has authority to “exercise general supervision” over the operation, maintenance, closure and post-closure care of hazardous waste storage, treatment, and disposal facilities. Tenn. Code Ann. § 68-212-107(a). This authority applies to “all features” of such facilities, which “do or may affect the public health and safety or the quality of the environment.” Tenn. Code Ann. § 68-212-107(a).
 - The Act prohibits additional permit requirements, including local government requirements: “No state or local permits shall be required for clean-up activities which are conducted entirely on site and in accordance with this part; provided, that such clean-up activities meet the standards that would apply if such permits were required.” Tenn. Code Ann. § 68-212-222.
 - Upon receipt of a permit application, TDEC must give public notice and provide for a community meeting. Tenn. Code Ann. § 68-212-108(f)(1). Representatives from the local county and municipal legislative bodies, as well as any municipality within 1 mile of the proposed site, must be present at the meeting, and may chose to prepare and submit a report to TDEC that represents their concerns. Tenn. Code Ann. § 68-212-108(f)(1).

- TDEC may require permit applicants to post a bond to ensure funds are available should the facility be abandoned, or become insolvent, etc. Tenn. Code Ann. § 68-212-108(c)(1). TDEC may require a fee, in addition to the bond, if it determines that there is a “reasonable probability” that the facility or site would eventually cease to operate while still containing hazardous wastes which would require “continuing and perpetual care or surveillance” in order to protect the public health, safety or welfare. Tenn. Code Ann. § 68-212-108(c)(2).
- If ownership or control of a hazardous waste storage facility “is at all changed” (i.e. sale, transfer, etc.), then the permit is automatically revoked. Tenn. Code Ann. § 68-212-108(g). TDEC may reinstate the permit within 90 days if it determines that the new owner/operator will meet all the existing permit requirements and conditions. Tenn. Code Ann. § 68-212-108(g). However, any “major modification” to the operation requires the issuance of a new permit. Tenn. Code Ann. § 68-212-108(g).
- Landfills for the disposal of solid or hazardous wastes must, in order to obtain a permit, meet the provisions of the Tennessee Scenic Rivers Act of 1968, which such sites to be at least 2 miles away from the center of a designated Class II river. Tenn. Code Ann. § 68-212-120, 11-13-111(b)(1). The Scenic Rivers Act, Tenn. Code Ann. § 11-13-101 et seq., is administered by TDEC in cooperation with the Wildlife Resources Agency. Tenn. Code Ann. § 11-13-106.
- Tennessee’s Hazardous Waste Rules, Tenn. Comp. R. & Reg. § 1200-1-11 et seq., generally follow those codified at 40 CFR 300. Institutional Controls are addressed in the Rules for Inactive Hazardous Substance Site Remedial Program, Remediation Goals section. Tenn. Comp. R. & Reg. § 1200-1-13-.08(10). Unless otherwise required by TDEC, institutional controls are required “whenever a remedial action does not address concentrations of hazardous substances which pose or may pose an unreasonable threat to the public health, safety, or the environment.” Tenn. Comp. R. & Reg. § 1200-1-13-.08(10)(i). Institutional controls are also required “for all areas where containment is a remedial action or the Department authorizes the discontinuance of pump and treat of ground water prior to attaining remediation goals.” Tenn. Comp. R. & Reg. § 1200-1-13-.08(10)(ii). At a minimum, the institutional controls must include deed restrictions on the sale and use of the property, and “secure[e] the area to prevent human contact with hazardous substances which pose or may pose a threat to human health or safety.” Tenn. Comp. R. & Reg. § 1200-1-13-.08(10)(iii). Owner/operators of hazardous sites (under a cleanup, remedy, or reclamation under Tenn. Code Ann. § 68-212-201) with a required institutional control must notify other liable parties and TDEC of “any change in use or proposed change in use”; and include such notice in the deed notification. Tenn. Comp. R. & Reg. § 1200-1-13-.08(10)(iv).
- Tennessee’s Rules for Inactive Hazardous Substance Site Remedial Program, Remediation Goals section, also addresses containment: “Any hazardous substance left on-site must be contained within a specified area and be protective of human health and the environment.” Tenn. Comp. R. & Reg. § 1200-1-13-.08(9). The

containment goal required the design of a compliance monitoring program “to insure the long-term integrity of the containment system,” and a ground water monitoring program for all areas where containment constitutes a remedial action (unless otherwise approved by TDEC). Tenn. Comp. R. & Reg. § 1200-1-13-.08(9).

- The Tennessee Water Quality Control Act of 1977, Tenn. Code Ann. § 69-3-101 et seq., makes it unlawful for any person to alter the “physical, chemical, radiological, biological, or bacteriological properties of any waters of the state” without a valid permit issued by TDEC. Tenn. Code Ann. § 69-3-108. Under the Act: “It is unlawful for any person to discharge any substance into the waters of the state or to place or cause any substance to be placed in any location where such substances, either by themselves or in combination with others, cause any [pollution under Tenn. Code Ann § 69-103(22)],” unless the discharge is due to “an unavoidable accident.” Tenn. Code Ann. § 69-3-114(a). Any such action is considered to be a public nuisance. Tenn. Code Ann. § 69-3-114(a). The Water Quality Control Board has the authority to issue and amend standards and regulations under the Act, while TDEC administers and enforces the Act (including its permit program). Tenn. Code Ann. § 104-118.
- Under regulations promulgated pursuant to the Water Quality Control Act, TDEC may issue fish advisories when the calculated risk of cancers from eating fish exceeds a certain level. Tenn. Comp. R. & Reg. § 1200-4-3.03(4)(j).
- Tennessee’s Water and Sewerage laws require TDEC approval prior to any construction of or change in the public water supply or sewerage system. Tenn. Code Ann. § 68-221-102. Under regulations passed by the Water Quality Control Board, any such action must be approved by the Tennessee Department of Public Health. Tenn. Comp. R. & Reg. § 1200-5-2-.02. Permits from TDEC are required when constructing, altering, extending, or repairing a subsurface sewage disposal system. Tenn. Code Ann. § 68-221-409.
- Tennessee’s Water Wells Act, Tenn. Code Ann. § 69-11-101 et seq., makes it unlawful for any person to drill or dig a water well without first obtaining a license from TDEC. Tenn. Code Ann. § 69-11-102(a). All wells must be constructed in accordance with the Act, and “at a safe distance from any known potential source of contamination.” Tenn. Comp. R. & Reg. § 1200-4-9.10. Each water well must be registered with TDEC. Tenn. Comp. R. & Reg. § 1200-4-9.14. Within 30 days of drilling the well, the person must submit a report to TDEC containing the date of drilling; location of the well (by both county, street address and road name, and driller map number or latitude and longitude); the name and address of the person for whom the well was drilled; the driller’s name and contractor identification number; and a “log” which is to include information on the geological formations penetrated while drilling. Tenn. Code Ann. § 69-11-102(a)(3); Tenn. Comp. R. & Reg. § 1200-4-9.15. TDEC has general supervisory, inspection, investigation, and enforcement authority under the law. Tenn. Code Ann. § 69-11-106,110.

- Tennessee has a “Fish Kill law” which imposes additional penalties upon persons responsible for the pollution of waters if such pollution results in the destruction or fish or aquatic life or habitat. Tenn. Code Ann. § 70-4-206. Such actions constitute a public nuisance, are subject to an injunction, and are punishable as a Class A Misdemeanor. Tenn. Code Ann. § 70-4-206. The Wildlife Resources Agency and full-time wildlife enforcement officers of other state or federal government agencies are charged with enforcing the state’s wildlife laws. Tenn. Code Ann. § 70-6-101(a).

State Processes for Recording and Searching Property Documents

- *What type of information management systems does the state keep relative to land use controls and long-term stewardship?*
 - Tennessee requires counties to create a County Records Commission, which are then authorized to adopt rules and regulations for making, filing, and storing public records (including deeds). Tenn. Code Ann. § 10-7-401,411. The State Public Records Commission is charged with providing for the proper disposition of state records. Tenn. Code Ann. § 10-7-302. The Commission may adopt regulations, which are to be administered by the Department of General Services, Records Management Division. Tenn. Code Ann. § 10-7-302. The Division is charged with coordinating the disposition of all records and cooperating with any agency seeking to create new records. Tenn. Code Ann. § 10-7-303.
- *What is the state law requirement for recording deeds and servitudes?*
 - “Land use restrictions may apply to activities on, over, or under the land, including, but not limited to, use of property, use of groundwater, building, filling, grading, excavating, and mining.” Tenn. Code Ann. § 68-212-225(c).
 - When notified by TDEC that hazardous wastes have been landfilled on property located in the county, the County Register must “enter or endorse” on the deed the following: (1) the hazardous wastes disposed of on the property; (2) the date of the TDEC notification; (3) the date of the Register's entry or endorsement; and (4) the Register’s official signature. Tenn. Code Ann. § 66-24-118(a). All deeds must be registered with the County where the land is located. Tenn. Code Ann. § 66-5-106. The record of deeds must also be kept in an alphabetical index that references both parties to every transaction. Tenn. Code Ann. § 10-7-201,203. County Registers may be indicted for a Class C misdemeanor and liable for any damages caused by their failure to perform any official duty. Tenn. Code Ann. § 8-13-111,117, 10-7-208. The Register must “carefully” preserve all records. Tenn. Code Ann. § 8-13-115.
 - When TDEC determines that land use restrictions will be used as remedial action, the Department (or the owner/operator of the site) must file a “Notice of Land Use Restrictions” with the County Register’s Office where the land is located, and mail a copy of the notice to all local jurisdictions that have jurisdiction over any portion of the property. Tenn. Code Ann. § 68-212-225(a). The County Register must record

the notice and index it in the grantor index under the names of the owners of the land. Tenn. Code Ann. § 68-212-225(d). The notice must include: (1) a legal description of the site that would be valid in an instrument of conveyance; (2) the location and dimensions of “areas of potential environmental concern with respect to surveyed, permanent benchmarks” (including a composite map or plat for sites encompassing more than one parcel of land); (3) the type, location, and quantity of on site hazardous wastes; and (4) the specific restrictions on the current or future use of the site. Tenn. Code Ann. § 68-212-225(b).

- TDEC must notify all local governments having jurisdiction over any part of the subject property as well as all owners of adjoining properties (by certified mail, return receipt requested) of any proposed changes to present land use restrictions. Tenn. Code Ann. § 68-212-225(e). After public notice and an opportunity for public input, TDEC may cancel or make less stringent any notice of land use restrictions (under this section) if it determines that the risk has been eliminated or reduced such that the less restrictive land use control would be protective of human health and the environment. Tenn. Code Ann. § 68-212-225(e). If such a determination is made, TDEC must send to the County Register (where the notice is recorded) a statement that the hazards have changed or been eliminated. Tenn. Code Ann. § 68-212-225(e). The statement must include the names of the landowners (as shown in the notice) and reference the plat book and page where the notice is recorded. Tenn. Code Ann. § 68-212-225(e). The Register shall record the statement in the deed books and index it on the grantor index in the names of the landowners and, in the grantee index, in the name of TDEC. Tenn. Code Ann. § 68-212-225(e).
- All persons owning or leasing property subject to a land use restriction (under this section) must abide by the land use restriction. Tenn. Code Ann. § 68-212-225(f). Any land use restriction (filed under this section) may be enforced by any owner of the land. Tenn. Code Ann. § 68-212-225(f). TDEC may enforce any such land use restriction through orders and civil actions (including injunctions). Tenn. Code Ann. § 68-212-225(f). Any local government unit having jurisdiction over any part of the subject property may enforce such land use restrictions, through a civil action (after having first exhausted any available administrative remedy). In addition, any person eligible for liability protection under an agreement entered into pursuant to this part may enforce the restrictions. Tenn. Code Ann. § 68-212-225(f). Land use restrictions may not be declared unenforceable due to “lack of privity of estate or contract, due to lack of benefit to particular land, or due to lack of any property interest in particular land.” Tenn. Code Ann. § 68-212-225(f).
- A Regional Planning Commission must approve subdivisions, if such Commission has adopted a regional plan and registered it with County Registers in the region. Tenn. Code Ann. § 13-3-402. The Commission may adopt regulations for the subdivision of lands within its jurisdiction. Tenn. Code Ann. § 13-3-403. Counties may not receive, file or record a subdivision plat without approval from the Regional Planning Commission. Tenn. Code Ann. § 13-3-402(c).

- State officials who obtain land on behalf of the state must register the deed with the Commissioner of Finance and Administration, whose must then record the deed with the county (or counties) where the land is located. Tenn. Code Ann. § 12-2-104,105.

NEW MEXICO

State Long-Term Stewardship Activities

- *What is the process for state permitting of land use activities and what entity has the authority/responsibility for implementing and enforcing permits, if any?*
 - New Mexico's Hazardous Waste Act, NMSA 74-4-1 et seq., charges the Environmental Improvement Board (EIB) with adopting rules governing hazardous wastes that are protective of human health and the environment. NMSA 74-4-4(A). The Board thus establishes the procedures for the issuance, suspension, revocation and modification of permits. NMSA 74-4-4A. The New Mexico Environment Department (NMED) reviews the permit applications, administers the fund, and oversees the enforcement of the regulations. NMSA 74-4-4.2, 74-4-10. However, the rules identifying and regulating hazardous wastes and storage tanks must be "equivalent to and no more stringent than" those adopted by US EPA pursuant to RCRA. NMSA 74-4-4(A), (C). Similarly, substances and materials designated as hazardous wastes are those listed by RCRA. NMSA 74-4-4(A)(1). However, EIB may adopt rules for the management of hazardous waste more stringent than those adopted by EPA under RCRA, if it determines (after notice and public hearing) that the current rules are not sufficient to protect public health and the environment. NMSA 74-4-4(D). Activities and substances regulated by the federal Clean Water Act (Federal Water Pollution Control Act), Safe Water Drinking Act, or the Atomic Energy Act, are exempt from the Act except insofar as its regulations are not inconsistent with such acts. NMSA 74-4-3.1. The regulations, with a few exceptions, adopt the RCRA regulations under 40 CFR 260. NMAC 20.4.1.100.
 - Under Hazardous Waste Act, NMED may "take any action necessary to protect persons from injury or other harm which might arise from hazardous substance incidents." NMSA 74-4-7.A. Persons owning or operating a facility (or planning to construct a facility) must first obtain a permit from NMED. NMSA 74-4-4.A.6. Any person who generates, stores, treats, transports, disposes of or otherwise handles or has handled hazardous wastes must furnish information to NMED and allow the department to enter, inspect, and obtain samples. NMSA 74-4-4.3.1. Persons owning a storage tank must also furnish information to NMED and allow the Department to inspect its records and have access for any corrective actions. NMSA 74-4-4.3.2. All storage tanks must be registered with NMED. NMSA 74-4-4.4.
 - The Ground Water Protection Act established a Corrective Action Fund, which NMED may use when investigating and undertaking corrective actions. NMSA 74.6B.7; 20.5.15, 20.5.17 NMAC. NMED is also authorized to adopt groundwater standards for any regulated substance which has been released and which does not already have an established groundwater standard. 20.5.13.1318 NMAC.
 - NMED has the authority under the Hazardous Waste Act and the Ground Water Protection Act to enter, inspect, and to take samples from the property of any person

- owning or operating a UST, or generating, storing, treating, transporting, disposing, handling or having previously handled hazardous wastes. NMSA 74-4-4.3, 74-6B-5.
- Under the Ground Water Protection Act, NMED is charged with creating an early response team to provide advice and technical assistance to counties and municipalities with regard to potential releases from underground storage tanks. NMSA 74-6B-12(A). Upon request by a local government, the response team must perform an onsite inspection and assessment of the potential release and its effect. NMSA 74-6B-12(A). The team must advise the property owner/operator of the procedures to contain or abate the release, and monitor or facilitate the progress of such abatement and remediation. NMSA 74-6B-12(B). Additionally, if the local government requests it, the team shall provide training to the owner/operator with regard to preventing and responding to potential releases of USTs. NMSA 74-6B-12(C).
 - The Water Quality Act, NMSA 74-6-1 et seq., empowers the Water Quality Control Commission to require permits for persons discharging a contaminant into state waters. NMSA 74-6-5(A). NMED, and any other “constituent agencies” designated by the Commission, are charged with enforcing its provisions. NMSA 74-6-4(E); 20.6.2.1220 NMAC. The Commission may impose “reasonable conditions” on permit applicants to prevent and abate pollution, including monitoring, recordkeeping and reporting requirements. NMSA 74-6-5(I). The Act has its limitations, however, since it does not apply to activities subject to the Hazardous Waste Act (NMSA 74-4), Groundwater Protection Act (74-6B), or the Solid Waste Act (NMSA 74-9), “except to abate water pollution or to control the disposal or use of sewage and sludge.” NMSA 74-6-12(B). Additionally, the Act does not authorize the Commission to regulate polluted waters which are entirely within the boundaries of a property, and which do not combine with other waters. NMSA 74-6-12(C).
 - The Water Quality regulations require a permit for any person who causes or allows effluent or leachate to move directly or indirectly into groundwater. 20.6.2.3104 NMAC. Public notification must be given for any discharge permit applications. 20.6.2.3108 NMAC. Prior to any transfer of ownership, control, or possession of a facility with a discharge permit, the transferor must notify the transferee in writing of the existence of the discharge permit and send a copy of the notification (and a certification of its receipt) to NMED. 20.6.2.3111 NMAC. The transferee then has a duty to inquire into all of the obligations imposed by the discharge permit. 20.6.2.3111 NMAC.
 - The Water Quality regulations require “any person intending to make a new water contaminant discharge or to *alter the character or location* of an existing water contaminant discharge” to file a notice with the NMED Ground Water Quality Bureau (for discharges which may affect groundwater) or with the Surface Water Quality Bureau (for discharges which may affect surface water) prior to initiating such action. 20.6.2.1201.A NMAC (emphasis added). This notice is not required if

the discharge is made into a community sewer system or is subject to the NM Liquid Waste Disposal Regulations. 20.6.2.1201.A NMAC.

- Any person intending to construct a sewerage system or modify a system “in a manner that would change substantially the quantity or quality of the discharge from the system” must also submit file plans and specifications with the NMED Ground or Surface Water Quality Bureau prior to initiating such action. 20.6.2.1202 NMAC. Modifications that would only have a minor effect on the sewerage system must also be reported to the applicable Bureau. 20.6.2.1202 NMAC.
- The Water Quality regulations establish water contamination and background concentration standards; and any pollution that causes a violation of such standards must be abated by the responsible person. 20.6.2.4101-4105 NMAC. Any discharge of oil or any water contaminant that may with “reasonable probability injure or be detrimental to human health” or the environment must be reported to NMED and abated as required by the regulations. 20.6.2.1203 NMAC.
- Under a separate law, a permit from the NM State Engineer must be obtained prior to any use of state waters and the drilling of any wells. NMSA 72-5-1 (surface waters), 72-12-1 (underground waters), 72-12-12 (well drilling). The State Engineer has the authority to inspect “works constructed for the storage, diversion or carriage of water [that] are unsafe and a menace to life or property.” NMSA 72-5-11. The State Engineer may initiate enforcement actions against unsafe works through county district attorneys. NMSA 72-5-12.
- *What monitoring role does the state play and how is it authorized?*
 - Under New Mexico’s Hazardous Waste Act, NMSA 74-4-1 et seq., NMED may require “monitoring, testing, analysis, and reporting” for a facility or site where hazardous waste is or has been stored, treated, or disposed of, if it determines that the release of such waste “may present a substantial hazard to human health or the environment.” NMSA 74-4-10.1(A). If the site or facility is no longer in operation, and the current owner could not reasonably have been expected to know of the waste and its potential for release, NMDE may order the previous owner or operator to carry out such monitoring, testing, etc. NMSA 74-4-10.1(B). If NMED finds that the applicable owner/operator would be incapable carrying out the monitoring, etc., in a satisfactory manner, it may carry out such tasks on its own (or designate a local authority or person to do so) and charge the applicable owner/operator with the costs of doing so. NMSA 74-4-10.1(D).
 - Under the Groundwater Protection Act, NMED may obtain samples of soil and ground water and provide access to any property for monitoring (or cleaning up) a hazardous waste facility or a storage tank leak provided such actions do not “unreasonably interfere with the owner's use of the property” or properly compensate the owner for such interference. NMSA 74-4-4.3(B).

- NMED may, though the issuance of discharge permits under the Water Quality regulations, require “the installation, use, and maintenance of effluent monitoring devices.” 20.6.2.3107.A.1-2 NMAC. Discharge plans may require the “continuation of monitoring after cessation of operations.” 20.6.2.3107.A.4 NMAC. NMED may also require a discharge plan to include a closure plan which must contain “a description of closure measures, maintenance, monitoring plans, post-closure maintenance and monitoring plans, financial assurance, and other measures necessary to prevent or abate such contamination.” 20.6.2.3107.A.11 NMAC. NMED may not approve a discharge plan for a period longer than 5 years. 20.6.2.3109.H.4 NMAC.
- Under the Environmental Compliance Act, the Environmental Improvement Board is charged with developing and implementing an environmental auditing program for “regulated entities” as necessary to further environmental and regulatory goals. NMSA 74-7-4.

State Processes for Recording and Searching Property Documents

- *What type of information management systems does the state keep relative to land use controls and long-term stewardship?*
 - The Emergency Management Act, NMSA 74-4B-1 et seq., seeks to ensure that the State has an adequate and coordinated system for handling hazardous waste emergencies by identifying the appropriate response agencies, coordinating their actions, and providing for a comprehensive hazardous materials emergency plan which explains the actions to be taken.
 - Under the State Hazardous Chemicals Information Act, NMSA 74-4E-1 et seq., facility owners and operators required under the federal EPCRA to file a notice or report with the state emergency response commission, must also annually submit an inventory covering each hazardous waste at the facility. NMSA 74-4E-5.
- *What is the state law requirement for recording deeds and servitudes?*
 - Subject to specific statutory exceptions, persons and body politics may convey any absolute or limited right or title to real estate. NMSA 47-1-4. Unless otherwise provided under the Land Use Easement Act, NMSA 47-12-1 to 47-12-6, a land use easement may be “created, conveyed, recorded, assigned, released, modified, terminated or otherwise altered or affected in the same manner as any other easement.” NMSA 47-12-3.A. The New Mexico Manufacturing and Fair Housing Act, NMSA 3-211A-1 to 3-21A-8, similarly states that it does not in any way abrogate or limit the enforceability of a recorded restrictive covenant or a deed restriction. NMSA 3-21A-6. The rights, obligations, and duties of an easement are only enforceable against the land located within the easement. NMSA 47-12-3.F.
 - All deeds and writings affecting real estate must be recorded in the County Clerk’s Office and the County Assessor’s Office in which the real estate is located. NMSA 14-9-1, 7-38-12.A. Instruments affecting state property interests, or the interests of

any municipality, district or other subdivision of the state, may also be filed with the County Clerk's Office where the land is located. NMSA 14-9-7. Land use easements are not effective unless the owner of the interest in real property consents to easements burdening his property and the easement is recorded in the County Clerk's office. NMSA 47-12-3.B-E.

- The County Clerk's Office must arrange the records of deeds (and other writings affecting title to real estate) in a reception book by the name of the grantor (or person whose title is affected) in alphabetical or numerical order along with the date and time of the recording. NMSA 14-9-4. Offices failing to do so are subject to a fine of \$100 and liable for any damages caused to a third party that results from their negligence. NMSA 14-9-4. Boards of County Commissioners have the authority to require their County Clerk Offices compile "a complete and accurate index... of all instruments of record affecting real property" if the Board determines that such an index "is necessary for the convenience of the public and the better preservation of titles to real estate." NMSA 14-10-1.
- The closure and post-closure provisions of New Mexico's Solid Waste rules require owner/operators to record a notation on the deed to the landfill facility property that shall, in perpetuity, notify any potential purchasers that the land was used as a landfill and its use is restricted by the post-closure care requirements. 20 NMAC 9.1.V.502.A.7.
- Art. XVI of New Mexico's State Constitution recognized and confirmed existing water rights, while proclaiming all unappropriated natural stream waters to be the property of state. Any change in ownership of a water right (e.g. sale, gift, conveyance) which affects a water right title that is permitted or licensed by the State Engineer, obligates the new owner to file a Change in Ownership form with the State Engineer and the County Clerk (where the water right is claimed). NMSA 72-1-2.1. The form must include a copy of the warranty deed (or other instrument of conveyance) as well as all the information needed to conform with a water right of record. NMSA 72-1-2.1.

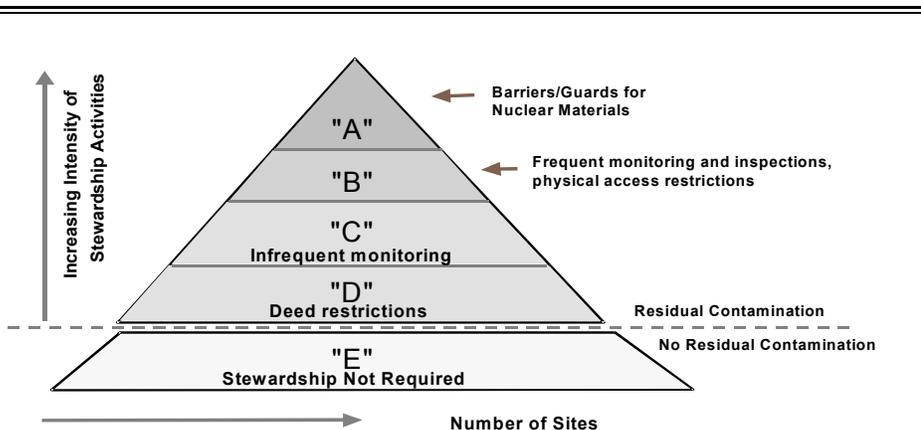
APPENDIX B: DOE'S LEGAL OBLIGATIONS FOR CLEANUP AND LONG-TERM STEWARDSHIP⁹²

DOE's interest in remediating environmentally contaminated property to protect human health and the environment stems from federal laws requiring federal agencies to remediate the environmental contamination caused by their activities. The primary laws that govern DOE's cleanup decisions and remediation processes are discussed below.⁹³

Most of DOE's cleanup activities are conducted under the Atomic Energy Act (AEA),⁹⁴ which directs DOE to manage radioactive materials in a manner consistent with the protection of health and safety of the public. The AEA authorizes DOE to establish standards to protect human health and the environment from activities under DOE jurisdiction. The cleanup of hazardous substances on DOE property proceeds under CERCLA,⁹⁵ state hazardous waste laws, and/or the Resource Conservation and Recovery Act (RCRA).⁹⁶ These laws explicitly require the entity that causes the contamination to pay for the remediation of the contaminated property. The federal environmental laws apply to DOE because the federal government's sovereign immunity is waived under these laws.⁹⁷

CERCLA allocates liability and responsibility for the cost of remediating a release or

Figure 1.2 Stewardship Activities Will Vary in Intensity



⁹² Reprinted from Environmental Law Institute and Energy Communities Alliance, *The Role of Local Governments in Long-Term Stewardship at DOE Facilities 5-12 (2001)* *supra* note 2.

⁹³ Appendix F (of *The Role of Local Governments in Long-Term Stewardship at DOE Facilities*, *supra* note 2 at 153) also contains descriptions of the DOE orders, guidance, and other documents that apply to long-term stewardship, as well as EPA and NRC laws, regulations, and guidance. A more extensive list can be found at DOE's Long-Term Stewardship Information Center, <http://lts.aps.em.doe.gov/center/reports/overview.html> (02/01).

⁹⁴ 42 U.S.C. §§ 2011-2259 (2000).

⁹⁵ 42 U.S.C. §§ 9601-9675 (2000).

⁹⁶ 42 U.S.C. §§ 6901-6992k (2000).

threatened release of hazardous substances that pose a threat to human health and the environment. Liability under CERCLA falls under the following categories: strict, joint, several, and retroactive.⁹⁸ A responsible party is liable for the costs of remediation if that person owned or operated the site or facility at the time of the disposal of hazardous substances,⁹⁹ or if the person generated or transported material to the property.¹⁰⁰ The strict, joint, and several liability scheme holds every potentially responsible party (PRP) at the site potentially liable for all of the costs of cleanup, even if that person only contributed to a small portion of the contamination and regardless of fault.¹⁰¹ Current owners or operators of a contaminated facility are also liable for the costs of remediation, even if the current owner/operator did not cause or contribute to the contamination. Finally, where the federal government is transferring land to a non-federal entity, CERCLA requires the federal agency to provide a warranty that all remediation necessary to protect public health has been taken and that the federal government will take any further action determined to be necessary.¹⁰² Therefore, DOE, as an owner, and possibly an operator, could retain legal liability for contamination remaining on the property, even when DOE conveys the property to a third party.¹⁰³

Similarly, many DOE facilities are remediated under state RCRA laws. RCRA governs the generation, transportation, storage, disposal, and treatment of hazardous wastes to minimize present and future threats to human health and the environment.¹⁰⁴ RCRA prohibits any person from treating, storing, or disposing of hazardous waste or constructing any hazardous waste facility for such treatment, storage, or disposal without (1) a permit or (2) designation of "interim status," obtained by notifying the regulatory body of the person's hazardous waste activities and submitting an application for a permit.¹⁰⁵ Disposal is defined as the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid or hazardous waste on the land or water in such a way that the waste enters the environment.¹⁰⁶ RCRA imposes two types of liabilities: 1) civil penalties and 2) a requirement to perform or finance the cleanup of the property.¹⁰⁷

⁹⁷ For an in-depth analysis of the issue of sovereign immunity and DOE, see K.C. Schefski, Shelby Perkins, and James D. Werner, *Sovereign Immunity and the National Nuclear Security Administration: A King That Can Do No Wrong?*, 31 ELR 10111-10124 (Jan. 2001).

⁹⁸ Strict, joint, several and retroactive liability are not mentioned in CERCLA; however, they have all been interpreted as part of the law by the courts. 42 U.S.C. §§ 9606-9607; See, *United States v. Alcan Aluminum Corporation*, 3 F.2d 889 (5th Cir. 1993).

⁹⁹ 42 U.S.C. § 9607(a)(2).

¹⁰⁰ 42 U.S.C. § 9607(3).

¹⁰¹ *United States v. Monsanto Co.*, 858 F.2d 160, 167 (4th Cir. 1988) cert. denied, 490 U.S. 1106 (1989) (“[T]he overwhelming body of precedent has interpreted [CERCLA] as establishing a strict liability scheme.”). This strict liability is subject only to the statute's narrow defenses for damages caused solely by acts of God, war, or third parties. 42 U.S.C. § 9607(a) and (b).

¹⁰² 42 U.S.C. § 9620(h)(3)(A)(ii). This covenant may be deferred and the property transferred before all necessary remedial actions have been taken if the regulators determine that the property is suitable for the intended use and the intended use is consistent with the protection of human health and the environment. 42 U.S.C. § 9620(h)(3)(C).

¹⁰³ DOE must follow specific procedures and meet a number of requirements before transferring property to a third party. These rules are summarized in Appendix G of DOE's Draft LTS Study.

¹⁰⁴ 42 U.S.C. § 6924(a). *United Technologies Corp. v. EPA*, 821 F.2d 714, 716 (D.C. Cir. 1987).

¹⁰⁵ 42 U.S.C. § 6925(a) & (e).

¹⁰⁶ 42 U.S.C. § 6903(3).

¹⁰⁷ 42 U.S.C. §§ 6924(u) and 6928.

Title I of the Uranium Mill Tailings Radiation Control Act (UMTRCA)¹⁰⁸ authorizes DOE to clean up 24 closed uranium mill sites and their associated tailings. Title II of UMTRCA requires DOE to take title to certain privately owned uranium sites after cleanup for the purpose of conducting long-term stewardship.¹⁰⁹ State regulations, site-specific agreements, and in some cases Nuclear Regulatory Commission (NRC) regulations, also govern some of DOE’s cleanup activities.

Existing Regulatory Requirements for Site Monitoring After Cleanup at DOE Facilities¹¹⁰	
Waste Type	Requirements
Hazardous Waste	RCRA requires 30-year post-closure monitoring for hazardous waste disposal units
Uranium Mill Tailings	EPA mandates tailings control requirements for 1,000 years (40 CFR 192)
Low-Level Waste	EPA radiological waste disposal regulation prohibits the reliance upon institutional controls for more than 100 years
Transuranic Waste	EPA must certify that waste in WIPP will remain isolated for 10,000 years
High-Level Waste	EPA must certify that waste in WIPP will remain isolated for 10,000 years

Figure 1.3

In general, sites are remediated to levels selected and agreed upon by DOE, EPA (at Superfund sites), and state regulators. Remedies are generally selected based upon risk-based levels of contamination acceptable for a predetermined future use. The practical presumption is that a site should be cleaned up to appropriate future-use, risk-based levels.¹¹¹ The future use of the site is, therefore, critical to risk management as risk-based standards rely on the use to limit human exposure to the hazards left in place. An additional assumption is that the predetermined future use can and will be maintained for as long as the levels of contamination make other uses unsafe.

Many sites can accommodate a variety of future land uses, despite residual contamination.¹¹² These reuses can be residential, recreational, commercial, industrial, or restricted access. The intended future use is taken into account in setting cleanup standards and in selecting a remedy that will be compatible with the predetermined future use. The remediation level, or “how clean is clean,” can be tailored to each parcel’s use. The future land

¹⁰⁸ 42 U.S.C. §§ 7901-7942 (Pub. L. 95-604). Cleanup standards and long-term stewardship requirements for UMTRCA sites are established directly by UMTRCA, NRC regulations (10 C.F.R. § 40.27), and EPA regulations (40 C.F.R. Part 192). According to NRC regulations, there is no termination of the general license issued by the NRC for custody and long-term care of residual radioactive material disposal sites. 10 C.F.R. § 40.27(b)(2000).

¹⁰⁹ 42 U.S.C. § 2113(b) (2000).

¹¹⁰ Draft LTS Study. See also <http://lts.aps.em.doe.gov/center/reports/overview.html> (02/01).

¹¹¹ See, Land Use in the CERCLA Remedy Selection Process, OSWER Directive No. 9355.7-04 (1995).

¹¹² ELI and ECA distinguish the term “future land uses” from “end state,” which generally is used by DOE to mean “the physical state of a site after cleanup activities have been completed.” From Cleanup to Stewardship at 9. ECA and ELI note that the term “future use” signifies that the use may change over time and is not the final use of the property.

use of the contaminated property, according to EPA guidance on remedy selection, should be incorporated into the risk assessment at the site.¹¹³ It is anticipated that adoption of less stringent cleanup standards, where appropriate and based on planned land uses and combined with other safeguards, may allow for faster and more cost-effective cleanups for DOE. Nevertheless, each remediation level must support the planned use of the property. Future use restrictions and other controls will vary depending on the site's intended future land use and the extent to which contaminants are left on site. Controls might include, deed restrictions, fences, signs, or test wells to monitor for the migration of contaminated groundwater.

The relationship between selecting a future land use, selecting a remedy, and designing any required long-term stewardship process is complex and misunderstood by many. In simple terms each decision relies upon the other.¹¹⁴ DOE and the state/federal regulators identify a specific future use (for example, industrial, commercial, residential, open space) for the site, establish cleanup levels, consistent with that use, and select a remedy that will achieve these cleanup levels.

For example, when “open space” land use is selected, the risk analysis selected by DOE may assume that a person can safely be on the property for one hour per week, one hour per day, or twenty-four hours per day – the possibilities are numerous. Each risk analysis has obvious implications for the community. If the community wants to use the property, it needs to ensure that the risk analysis will allow for the intended use. Therefore, in the case of open space that the community wants to use for a park, the remedy may not allow people to be on the property for an extended period, as outlined above. In some instances, because of technological and monetary constraints, the only viable remedy is open space that may not allow any use, or an extremely limited use.

The remedy will determine what, if any, long-term stewardship activities will be required for the site. Will the site require a fence around it to ensure that people do not enter the property? Will the site require a sign that states “Do not disturb the soil” or “Do not eat the fish”? Or, will the site have a deed restriction that requires the new owner of the property to get approval from the federal or state government before buildings are placed on the property? In the end, the engineering or legal controls that are required on site will be based on the remedy selected for the site, which is, in turn, based upon the original land use selected.

¹¹³ Land Use in the CERCLA Remedy Selection Process, OSWER Directive No. 93355.7-04 (1995).

¹¹⁴ See e.g., From Cleanup to Stewardship at 19 (“Future land use, cleanup strategies, and long-term stewardship needs are interdependent.”) and Figure 1.1.

LEGAL REQUIREMENTS FOR SELECTING A REMEDY UNDER CERCLA

Under CERCLA, contaminated property is required to be remediated to a level that is protective of human health and the environment. A remedy is selected pursuant to National Contingency Plan (NCP) criteria.¹¹⁵ The NCP requires the President to select the remedy and, under Executive Order 12580, DOE is delegated the authority to select the remedy, which is documented in an ROD (see Figure 1.4). The nine NCP remedy selection criteria are:

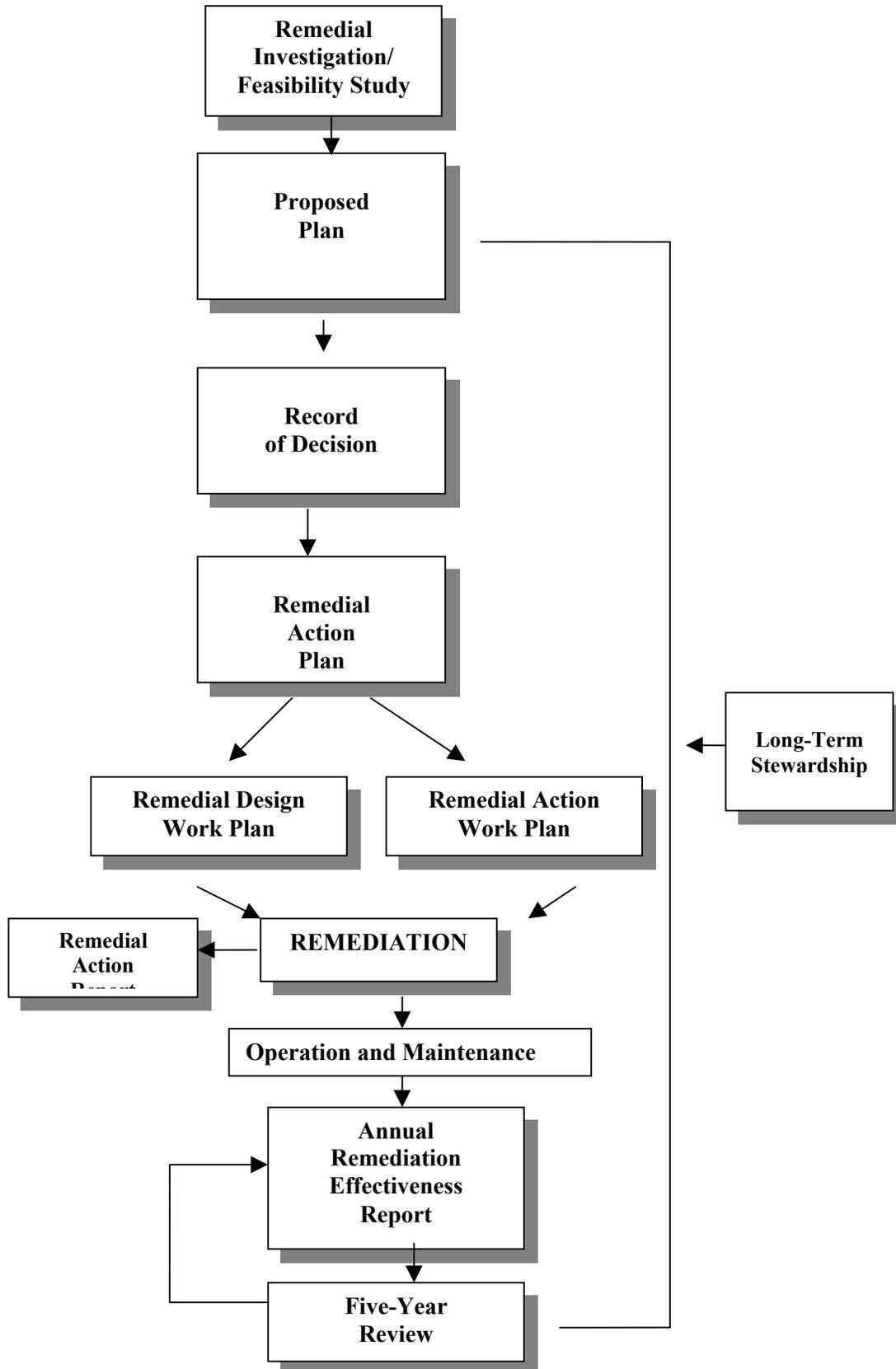
1. *Protection of human health and the environment:* The ability of each alternative to provide protection is assessed. The assessment draws on the baseline risk assessment and the evaluations of other criteria, especially the long and short-term effectiveness evaluations.
2. *Compliance with Applicable and Relevant and Appropriate Requirements (ARARs):* Each alternative must comply with chemical-specific, action-specific, and location-specific ARARs. ARARs can be established under federal or state law. If an alternative cannot achieve compliance, justification for a waiver of the ARAR must be developed.
3. *Long-term effectiveness and permanence:* This evaluation assesses the residual risk posed at the site following the remedial action. This assessment also considers the reliability and adequacy of the remedial action in providing a long-term solution to the contamination at the site and permanence of cleanup.
4. *Reduction of toxicity, mobility, or volume of contamination through treatment:* This involves assessment of the treatment process, the materials being treated, the effectiveness of the treatment, and the quantity of contaminated material remaining following the remedial action.
5. *Short-term effectiveness:* This addresses the risks posed by each remedial alternative during construction and implementation, up to the time the remedial action objectives are achieved.
6. *Implementability:* This assesses both the technical and administrative feasibility of implementing each remedial alternative.
7. *Cost:* This evaluation includes capital costs and operating and maintenance costs associated with the remedial action. This process should also consider the costs of any long-term liability associated with implementing the remedy.
8. *State acceptance:* The state as a legal regulator has direct input on the remedy.
9. *Community acceptance:* The remedy at a site is supposed to be selected with the input of the community.

If remediation leaves hazardous substances, pollutants or contaminants in place, CERCLA requires DOE to review the remedial action at least every five years to ensure that the controls protect human health and the environment.¹¹⁶

¹¹⁵ 40 C.F.R. § 300.430(e)(9)(iii); the NCP is the regulation that implements CERCLA.

¹¹⁶ 42 U.S.C. § 9621(c). See also 40 C.F.R. § 300.430(f)(4)(ii).

Figure 1.4 FLOWCHART OF THE CERCLA PROCESS



Institutional controls can be used during the remedial investigation and feasibility study (RI/FS), during implementation of the remedy, and as part of the final remedy for a site. However, the NCP is clear—institutional controls should not be used as a substitute for active response measures as the sole remedy unless active measures are not practicable, based upon the balancing of the nine NCP criteria.¹¹⁷

The need for institutional controls is born out of the remedy selection process. Protection of human health and the environment is a threshold criterion, which each alternative must meet; however, other issues such as implementability and cost are also balanced in deciding among alternatives. Pursuant to CERCLA, DOE can include institutional controls to ensure protection of human health and the environment.¹¹⁸ Although the regulations require a preference for permanence,¹¹⁹ cost and feasibility also must be considered.

The final remediation decision lies with DOE, in cooperation with EPA at Superfund sites, and the state. Hence, the future use and the long-term stewardship requirements and decisions are made by DOE.

In its *Draft LTS Study*, DOE stated that:

The cleanup strategy implemented at a site and the resulting end state achieved are closely related to the potential future use of land and water resources and long-term stewardship requirements. In some cases, intended future uses will determine the end state conditions to be achieved during cleanup. In other cases, technical, economic, and worker safety considerations may limit the end state conditions that can be achieved, and thus may limit future uses. Specific long-term stewardship requirements will depend directly on the cleanup strategy implemented, end state achieved, and desired future uses.¹²⁰

POTENTIAL SCENARIOS FOR DOE LAND REQUIRING LONG-TERM STEWARDSHIP

There are several potential scenarios for property after it is remediated by DOE and when long-term stewardship is required. Below are four general scenarios:

1. DOE will retain the property for continuing missions with or without self-imposed restrictions.
2. DOE will retain the property for the purpose of providing perpetual long-term stewardship, without any other continuing mission.
3. DOE will transfer the property to another federal agency such as the Department of the Interior in trust for a tribe or to the U.S. Fish and Wildlife Service (USFWS) for open space.
4. DOE will convey the property to a non-federal government owner. If land-use restrictions are required based upon the cleanup level, DOE will transfer the property and may restrict the use of the property with deed restrictions and

¹¹⁷ 40 C.F.R. § 300.430(a)(1)(iii).

¹¹⁸ 42 U.S.C. § 9621.

¹¹⁹ 40 C.F.R. § 300.430(e)(9)(iii).

¹²⁰ Draft LTS Study at 11.

contractual agreements. For example, DOE often conveys property with groundwater use restrictions in the deed at certain sites where groundwater contamination is an issue.

The transfer of environmentally contaminated property to other entities presents challenges to long-term stewardship implementation. The federal government has ultimate legal, and hence fiduciary, responsibility for the environmental contamination left at the site and thus has an interest in the long-term stewardship process. For example, when the federal government conveys property to a non-federal entity, it is required to provide deed covenants that state that all necessary remediation has taken place and that if additional remediation is required in the future, the federal government will undertake the remediation.¹²¹ At these sites, DOE conveys the property, possibly with some restrictions. DOE has not fully determined how to oversee any restrictions or limits that are imposed, how to notify potential users of the property of the hazard, how to enforce any use restrictions, or how such activities will be funded.

¹²¹ 42 U.S.C. § 9620(h) (2000). Under certain circumstances DOE may convey property to a non-federal entity before remediation is complete. 42 U.S.C. § 9620(h). Further, see DOE's indemnification provision at Section 3158 of the Defense Authorization Act for Fiscal Year 1998 (Pub. L. 105-85, 111 Stat. 1629).

APPENDIX C: INTERVIEWEES

OAK RIDGE

Local Government

Amy Fitzgerald
Special Assistant to the City Manager
City of Oak Ridge
865-425-3554
afitzgerald@cortn.org

Claudia Lever
Oak Ridge Regional Planning Commission
Planning Commission Representative to SSAB Stewardship Committee
(865) 483-8340
levercs@earthlink.net

Rex Lynch
County Executive
Anderson County
100 Main St., Suite 208
Clinton, TN 37716
(865) 457-5400
andcoexe@icx.net

Rick Merideth
Register of Deeds
Anderson County
100 Main St., Suite 208
(865) 457-5400
(865) 457-1638

Marlene Henry
Register of Deeds
Roane County
200 East Race Street
Kingston, TN
(865) 376-4673
(865) 376-2017 (election comm. fax)

DOE

Ralph Skinner
General Engineer
Oak Ridge National Laboratory Team
865-576-7403
865-576-5333

SkinnerRM@oro.doe.gov

Katy Kates
Real Estate Officer
U.S. Department of Energy
200 Administration Road
Oak Ridge, TN 37831

Cindy Hunter
U.S. Department of Energy
200 Administration Road
Oak Ridge, TN 37831

Pat Halsey
U.S. Department of Energy
200 Administration Road
Oak Ridge, TN 37831

State

John Owsley
DOE Oversight Division
Tennessee Department of Environment and Conservation
761 Emory Valley Road
Oak Ridge, TN 37830-7072
865-481-0995

John.Owsley@state.tn.us

Steve Stout
Office of the General Counsel
Tennessee Department of Environment and Conservation
761 Emory Valley Road
Oak Ridge, TN 37830

Doug McCoy
DOE Oversight Division
Tennessee Department of Environment and Conservation
761 Emory Valley Road
Oak Ridge, TN 37830

Title Insurance

Whitney Clement
Clinch River Title Insurance
210 Charles Sievers Boulevard
2nd Floor
(865) 457-4226
(865) 457-3162

LOS ALAMOS

Local Government

Fred Brueggeman
Assistant County Administrator
Los Alamos County
P.O. Box 30
2200 Trinity Drive
Los Alamos, NM 87544
brueggeman@lac.losalamos.nm.us

Mary McNery
County Administrator
P.O. Box 30
Los Alamos, NM 87544
Phone: (505) 662-8070
Fax: (505) 662-8079

Cheryl Nichols
County Chief Clerk

Pam Bacon
County Attorney
P.O. Box 30
Los Alamos, NM 87544
Phone: (505) 662-8020
Fax: (505) 662-8019
LAAttorney@lac.losalamos.nm.us

Chuck Theil
County Surveyor

Kyle Zimmerman
County Engineer
P.O. Box 30
Los Alamos, NM 87544
Phone: (505) 662-8151
zimmermank@lac.losalamos.nm.us

DOE

Deborah Griswold
Programs Team Leader
US DOE
Albuquerque Operations Office
P.O. Box 5400
Albuquerque, NM 871855400
Phone: (505) 845-4752

Fax: (505) 845-4239
dcouchman-griswold@doeal.gov

Everett Trollinger
DOE/NNSA Office of Project Management
U.S. Department of Energy
(505) 665-7203

Ted Taylor
U.S. Department of Energy

Kim Birdsall
LANL
U.S. Department of Energy

State

James Bearzi
Chief, Hazardous Waste and RAD
New Mexico Environment Department
PO Box 26110
Santa Fe, NM 87502

Title Insurance

Matt Miles
Central Title
1789 Central Ave #4
Santa Fe, NM
Phone: (505) 662-5586

APPENDIX D: QUESTIONNAIRES

Practical Implementation of Long-Term Stewardship

Project Questionnaire for Local Government Representatives

Long-Term Stewardship: Encompasses all activities required to maintain an adequate level of protection to human health and the environment posed by nuclear and/or chemical materials, waste, and residual contamination remaining after cleanup is complete.

1. Please generally explain the local zoning process.
2. How does your community development and comprehensive plan complement other regional, county and city plans in the area?
3. What types and forms of institutional controls¹ do you use to control land use?
4. Have you ever used institutional controls to control land use based upon a potential health or environment risk? If so, please explain.
5. What permits, if any, are required to construct/dig on private property? Does it vary if the owner is federal, state or local government?
6. Please explain the coordination between permitting and zoning processes?
7. How do you keep records of land use restrictions? How are they searched?
8. Are building permits filed on property records?

¹ Institutional Controls: Non-engineering measures-usually, but not always, legal controls-intended to affect human activities in such a way as to prevent or reduce exposure to hazardous substances. They include, but are not necessarily limited to: land and resource use and deed restrictions; well-drilling prohibitions, building permits and well-use advisories and deed notices; other legally enforceable measures.

9. Are deeds and easements searched in the County Register of Deeds before a permit or a change in zoning is permitted?

10. Given the legal tools available, what responsibility do you want in regards to long-term stewardship?



1101 Connecticut Ave., N.W.
Suite 1000
Washington, DC 20036-4374
202-828-2317 telephone
202-828-2488 fax



1616 P St, NW
Suite 200
Washington, DC 20036-1434
202 939-3846 telephone
202-939-3868 fax

Practical Implementation of Long-Term Stewardship

Project Questionnaire for State Officials

Long-Term Stewardship: Encompasses all activities required to maintain an adequate level of protection to human health and the environment posed by nuclear and/or chemical materials, waste, and residual contamination remaining after cleanup is complete.

1. What different types of institutional controls are you authorized to administer, if any? (i.e., permits, easements, etc.)
2. What are the most practical tools that the state uses to implement land use controls at DOE, other federal sites and at private sites?
3. Are there environmentally related land use control laws in your state? If not, how do you implement land use controls in your state where property is remediated to a risk based level?
4. Does the state have a role in permitting relative to land use activities and what is that role?
5. What monitoring role do you play and how is it authorized?
6. Do state regulators integrate long-term stewardship into the cleanup decision-making process at all DOE sites? Is the process different at DOE sites than at private sites?
7. What type of information management system do you keep relative to land use controls and long-term stewardship? Is the same system used for private and federal sites?
8. What is the state law requirement for re-recording deeds and servitudes?¹

¹ Deed: the written document that transfers title (ownership) or an interest in real property to another person.

Servitude: 'Real' servitudes, those in which the owner of an estate enjoys on a neighboring estate for the benefit of his own estate.



1101 Connecticut Ave., N.W.
Suite 1000
Washington, DC 20036-4374
202-828-2317 telephone
202-828-2488 fax



1616 P St, NW
Suite 200
Washington, DC 20036-1434
202 939-3846 telephone
202-939-3868 fax

Practical Implementation of Long-Term Stewardship

Project Questionnaire for DOE Officials

Long-Term Stewardship: Encompasses all activities required to maintain an adequate level of protection to human health and the environment posed by nuclear and/or chemical materials, waste, and residual contamination remaining after cleanup is complete.

1. What are the current tools that you have to implement land use controls both on and off-site?
2. How do you integrate long-term stewardship into the cleanup decision-making process?
3. When you integrate long-term stewardship into the cleanup decision-making process, how do you identify the parties responsible for implementing and enforcing long-term stewardship?
4. How do you track long-term stewardship controls (on-site and for property that is conveyed to a non-federal entity)?
5. What authority do you have over the facilities and property and how does that affect implementation of institutional controls?
6. What is the role of the federal government after property is conveyed to a non-federal owner where long-term stewardship is utilized?



1101 Connecticut Ave., N.W.
Suite 1000
Washington, DC 20036-4374
202-828-2317 telephone
202-828-2488 fax



1616 P St, NW
Suite 200
Washington, DC 20036-1434
202 939-3846 telephone
202-939-3868 fax

Practical Implementation of Long-Term Stewardship

Project Questionnaire for Title Insurance Brokers and Title Insurance Agents

Long-Term Stewardship: Encompasses all activities required to maintain an adequate level of protection to human health and the environment posed by nuclear and/or chemical materials, waste, and residual contamination remaining after cleanup is complete.

1. What are the major aspects of your job that relate to long-term stewardship as we have explained it?
2. What are your local practices for searching title records (i.e., what type of restrictions are you looking for in the search, what level of detail do you provide your client in a title search on all issues, etc.)?
3. To what detail are environmental notices or covenants required to be listed in the results of a normal title search, if at all?
4. How far back in time are records normally searched (local practice)?
5. What details are required to be disclosed to a prospective buyer or lessee through a title search?
6. What measures can be put into practice to mitigate the potential for human error in implementing and maintaining institutional controls?
7. How does title insurance deal with environmental notices or restrictions on land use, if at all?
8. Have you ever seen a title search turn up an environmental restriction or notice? If so, please explain.