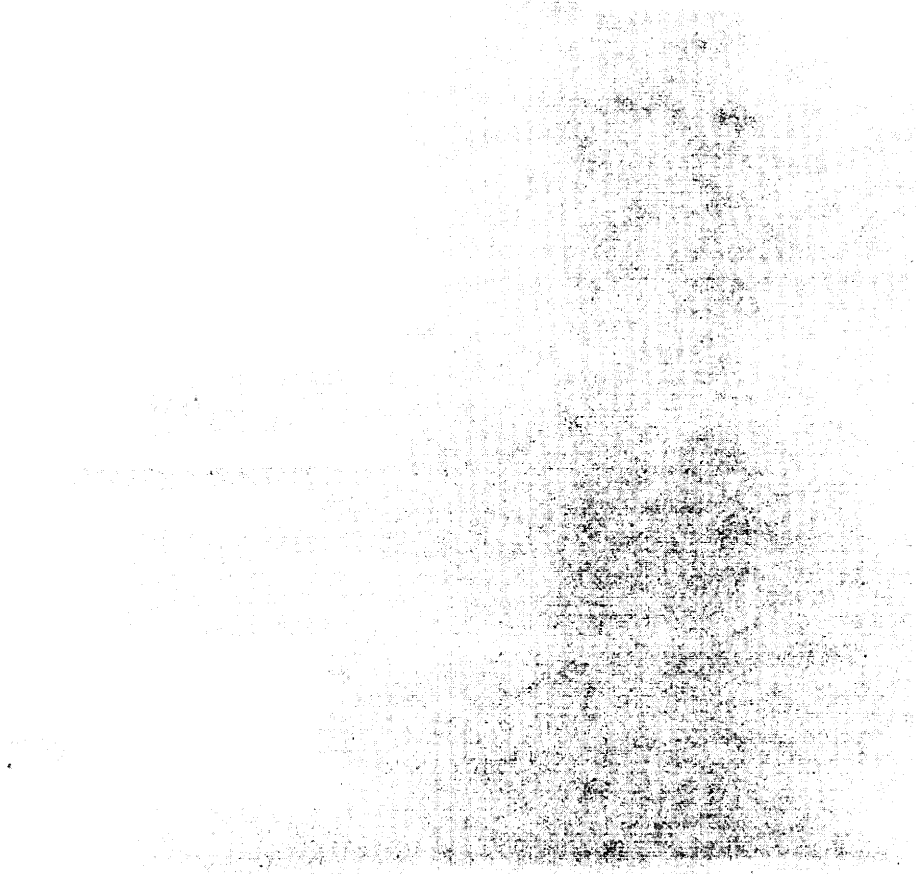
Chapter 1
Introduction



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Since 1920, the Department of the Interior (DOI) has administered a leasing program that allows the private sector to develop federally owned coal resources. A lease grants to the lessee the exclusive right to obtain a mining permit for, and to mine coal on, the lease tract, subject to the terms of the lease and permit and to applicable Federal and State laws. Historically, leases have been issued by two methods: competitively, to the highest bidder at a lease sale; and noncompetitively, to prospectors who discovered commercial coal reserves and submitted an application for a "preference right" lease. About half of all pre-1976 leases were issued under each method.

In 1970, a Bureau of Land Management (BLM) study of the Federal coal leasing program found that, since 1955, the amount of coal under lease had increased sharply while the amount of production from Federal leases had declined (3). In 1971, in response to this study, BLM imposed an informal moratorium on the issuance of new leases. The purpose of the moratorium, which was made formal by Secretarial order in 1973, was to provide time to reassess Federal coal leasing policies. Over the next several years, public debate focused on issues related to the size, timing, and location of new leasing, and the relation of coal development to environmental resource values.

In 1973, environmental groups sued DOI over the lack of a comprehensive regional environmental impact statement (EIS) for coal development in the Northern Great Plains. In 1976, the Supreme Court held in *Sierra Club v. Kleppe* that, once a Federal action is pending, the National Environmental Policy Act may require a comprehensive impact statement covering several related projects pending at the same time (6). In 1975, while this suit was under appeal and while Congress was considering changes to mineral leasing legislation, DOI released the final programmatic EIS for a new coal leasing system—the Energy Minerals Activity Recommendation System (EMARS) (1). The EMARS was an integrated planning process for lease sales that involved annual nominations for coal leasing areas by the industry and the public. The program was opposed by the Western governors and by agricultural and environmental interest groups. In 1977, a Federal District Court found the programmatic EIS to be inadequate and enjoined DOI from implementing EMARS (except for leases needed to maintain production at an existing mine or to meet existing contracts for coal) until the requirements of the National Environmental Policy Act were met (4). This decision applied to both competitive leases and preference right lease applications (PRLAs).

Public concern and debate about the structure and management of the leasing program led to congressional hearings and to approval of the Federal Coal Leasing Amendments Act of 1976 (FCLAA; Public Law 94-377) and the Federal Land Policy Management Act of 1976 (FLPMA; Public Law 94-579). In FCLAA, Congress substantially overhauled provisions of the Mineral Leasing Act of 1920 as it applies to Federal coal lands, including repeal of the noncompetitive preference right leasing system, provisions for the consolidation of leases into "logical mining units" (LMUs), a 10-year limit for diligent development of leases, a requirement for continuous operation on each lease, and preparation of a comprehensive land use plan before coal lease sales. FCLAA also requires lessee's to ensure compliance with the Clean Air and Water Acts.

FLPMA provides the statutory framework for BLM's overall land use planning. The act requires BLM's comprehensive land use planning program to maintain an up-to-date inventory of public lands and their resources, giving priority to the designation and protection of areas of critical environmental concern; project future uses of public lands and resources; and provide for the management of Federal lands in accordance with the principles of multiple use and sustained yield, considering the relative scarcity of the resource values involved and the availability of alternative means for realization of those values.

These acts were followed a year later by the Surface Mining Control and Reclamation Act of 1977 (SMCRA; Public Law 95-87), which requires companies to submit a detailed mining and reclamation plan and obtain a surface mining permit prior to opening a mine. SMCRA also established performance standards to assure that surface coal mining operations would be so conducted as to mitigate damage to the mine site.

The final law which bears directly on environmental protection on Federal coal lands is the National Environmental Policy Act of 1969 (NEPA; Public Law 91-190). NEPA requires all Federal agencies to prepare a detailed statement on the anticipated environmental effects of every . . . major Federal action significantly affecting the quality of the human environment. . . .“ Regulations to guide the implementation of NEPA have been promulgated by the Council on Environmental Quality (CEQ). A large body of Federal case law has further defined NEPA requirements, particularly with regard to the scope and content of EISs.

A comprehensive Federal coal leasing program implementing these statutes was instituted in 1979, following the preparation of a programmatic EIS under NEPA (2). The first lease sales under the new program were held in 1981 and 1982 (see table 1). In 1982 and 1983, DOI revised the regulations implementing the program to reflect a departmental shift **in policy toward making more coal available for lease, to eliminate duplicative regulations, and to streamline the leasing process in order to facilitate lease sales.** The changes in leasing policy and certain aspects of the sales held since 1981 have become controversial. In particular, some groups have charged that the Federal Government did not receive fair market value for the coal, and that the environmental protection provisions of the leasing program had been softened and were not being implemented fully or would not be followed when the coal is developed.

As a result of these concerns, in mid-l983, Congress mandated the establishment of an Advisory Commission to review Fair Market Value for Federal Coal Leasing. In the fiscal year 1984 Interior and Related Agencies Appropriations Bill, almost all leasing was suspended until 90 days after completion of the Fair Market Value Commission Report (delivered on Feb. 17, 1984). The Conference Committee Report on that bill specified that:

> . . . the managers will direct **the Office of Technology Assessment to provide the Congress with an assessment of the [Federal coal leasing] program's ability to ensure the development of coal leases in an environmentally compatible manner (7),**

Subsequently, OTA received a formal letter of request from the Senate and House Appropriations Committees, and their Interior subcommittees, which indicated that the conferees believed that OTA could provide an independent analysis of the leasing program in a timely manner because of OTA's previous report on Federal coal leasing–An *Assessment of the Development and Production Potential of Federal Coal Leases (5).* The letter of request repeated the language from the Conference Committee Report, and went on to say:

Table I.—Lease Sale Schedules

Sale	Sale date	Leasing target/level	Offered	sold
			(millions of tons)	
Green River-Hams Fork[a] . . . . . Round 1	1/81 ;4/81 ;6/81	416	573	573
Uinta-Southwestern Utah[a] . . . . . Round I	7/81 ;2/82;5/82	322	555	88
Powder River . . . . . Round I	4/82; 10/82	2,360	1,681	1,580
Fort Union[b] . . . . . Round I	9/83	800-1,200	543	102[b]

[a]In place reserves.
[b]Bid received, but not sold because of lease sale ban in fiscal year 1984 Interior Appropriations Bill.

SOURCE: Office of Technology Assessment, from Bureau of Land Management documents.

In particular, we want to ensure that the public lands suffer no unmitigated or undue environmental problems when recently leased Federal coal tracts are developed. Are there characteristics of some of these tracts that would make development difficult under current environmental laws and regulations? When all characteristics are considered, is the cumulative environmental effect cause for concern? We are also interested in the pre-sale planning being carried on by the Department of Interior. In your judgment, are data and research about the tracts adequate to base a decision on whether the tracts can be developed in an environmentally compatible manner? If not, we would appreciate your suggestions.

OTA designed this study to respond to the five basic questions posed in the letter of request. The scope of the study was defined narrowly due to the time schedule specified by the requesting committees. "Environmental compatibility" was interpreted by OTA to mean "compatible with current environmental laws and regulations, " such as the Clean Air and Water Acts and NEPA. (These laws are described briefly in app. A to this report.) While this report evaluates the adequacy of **DOI and BLM** programs and regulations in light of the full range of statutory mandates, OTA could not explicitly review the adequacy of all the laws mentioned in appendix A. Thus, the report generally assumes that programs external to DOI are adequate to protect environmental values on public lands.

Second, the study was restricted, for the most part, to issues related to the physical environment. In most areas, impacts of coal mining on the human environment, including social and economic impacts, and surface owner consent, are of equal concern. These issues are sufficiently complex that it would not have been possible to address them adequately in this report. However, where these are the predominant concerns for an interest group or region, they are noted (e.g., Indian Tribes).

Third, OTA limited its analysis to the coal **leasing** program, and did not consider the permitting process or other coal development issues such as transportation, or the siting and operation of conversion facilities (e.g., powerplants, synfuels plants). Fourth, OTA's analysis was limited to the five major Western coal regions where most of the environmental controversy has arisen. These regions: Fort Union, Green River-Hams Fork, Powder River, San Juan River, and Uinta-Southwestern Utah, are shown in figure 1.

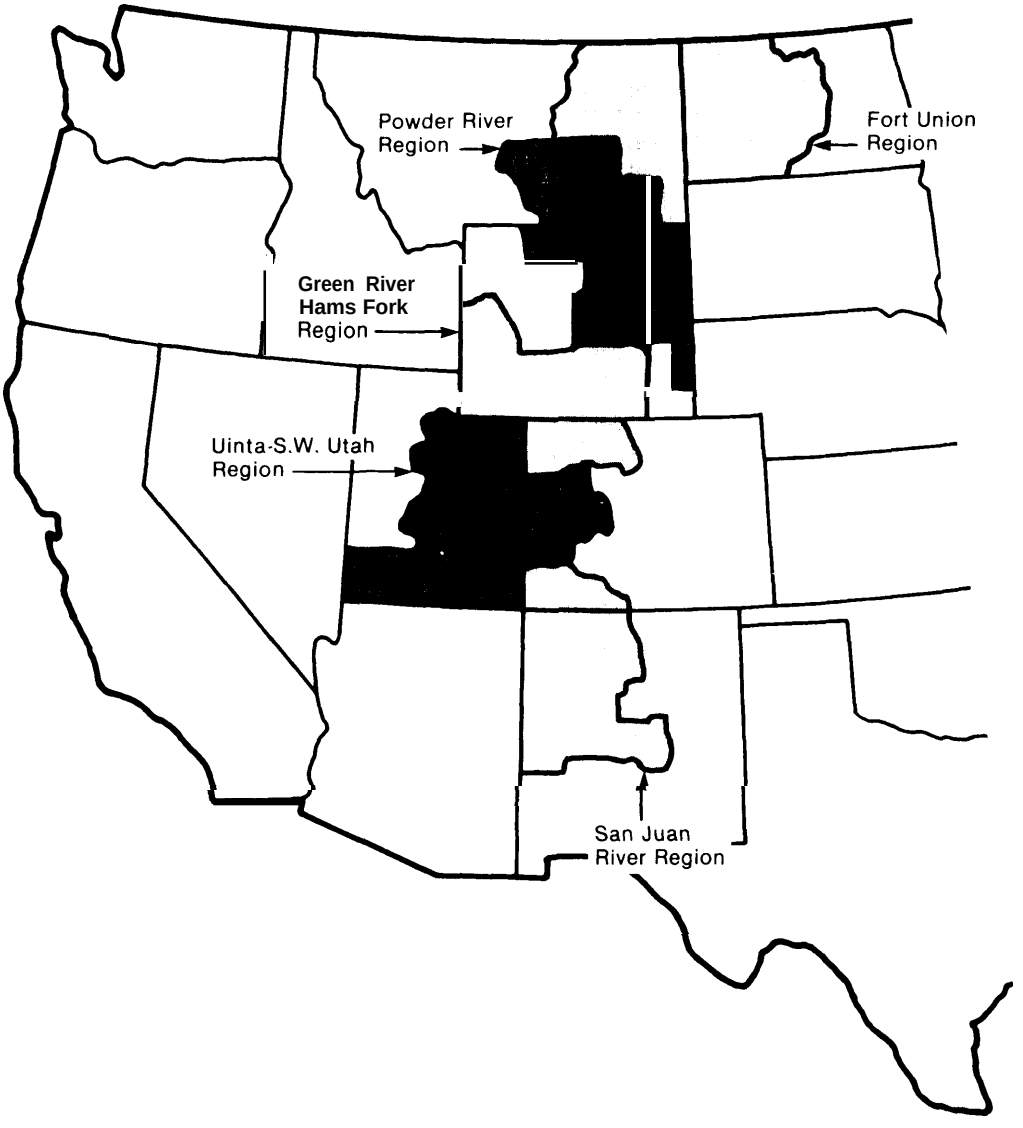
To assist in the formulation of OTA's response to the letter of request, background papers were prepared that documented the leasing program and its implementation to date in five Western coal regions. In particular, those papers evaluated BLM's pre-sale planning and environmental assessment and documented the controversy surrounding the environmental aspects of the leasing program based on extensive interviews with BLM personnel, State government representatives, coal companies, and public interest groups in the five regions. The findings of those reports were reviewed at an OTA-sponsored workshop (see front of report for a list of workshop participants). The workshop also included detailed discussion of the full range of environmental issues raised by the participants in the leasing program.

This report is the product of the extensive interviews, background reports, and workshop discussions on the environmental aspects of the Federal coal leasing program. The report outlines DOI's pre-lease environmental assessment and planning process, describes how that process was implemented in the five Western coal regions, discusses the issues that have been raised with respect to the adequacy of that process and its implementation, and reviews policy options that would allow leasing to proceed in an environmentally compatible manner.

The report is organized as follows:

- chapter 2 presents OTA's findings on the questions posed in the Conference Committee Report and the letter of request and analyzes policy options for consideration by Congress to improve the leasing program's ability to ensure that leasing decisions will be environmentally sound;
- chapter 3 describes the Federal coal management program and its provisions for environmental protection, as established in laws and regulations; and

Figure 1 .—Five Western Coal Regions



SOURCE" Office of Technology Assessment

- chapter 4 discusses the issues that have been raised about the environmental aspects of the leasing program, and outlines OTA's findings on those issues.

The background papers documenting the structure of the leasing program and its implementation in the five Western coal regions are presented as appendixes in a separate volume.

CHAPTER 1 REFERENCES

1. **Bureau of Land Management,** *Final Environment/ Impact Statement, Proposed Federal Coal Leasing Program, FES-75-80* **(Washington, D.C: U.S. Government Printing Office, 1975).**
2. **Bureau of Land Management,** *Final Environment/ Statement, Federal Coal Management Program* **(Washington, D.C: U.S. Government Printing Office, April 1979).**
3. **Bureau of Land Management,** *Ho/dings and Development of Federal Coal Leases* **(Washington, D.C: U.S. Department of the Interior, 1970).**
4. *NRDC v. Hughes,* **437 F. Supp. 981 (D. D.C. 1977).**
5. **Office of Technology Assessment, U.S. Congress,** *An Assessment of the Development and Production Potential of Federal Coal Leases,* **OTA-M-150 (Washington, D.C: U.S. Government Printing Office, December 1981).**
6. *Sierra Club v. K/eppe, 327* **U.S. 390 (1 976).**
7. **U.S. House of Representatives,** *Making Appropriations for the Department of the Interior and Related Agencies for the Fiscal Year Ending September 30, 1983,* **Conference Report to accompany H.R. 3363 (House Report No. 98-399, 98th Cong., 1st sess., p. 22).**