A Guide to Oil Shale—1976
Part II

January 1976
Winter comes to shale country.

SHALE COUNTRY is provided as a public service by the leaders of the oil-shale industry. Published monthly as a source of information for those interested in industry developments, SHALE COUNTRY is made available to shale-area residents without charge through various community outlets. However, should a reader wish to receive SHALE COUNTRY each month for 12 months through the mail, please send your request to Mountain Empire Publishing, Inc., 180 Cook St., Suite 414, Denver Colo. 80206 along with a check for $5.00 to cover costs of postage and handling in the United States. Outside the United States, the cost is $10.00 for regular mail or $21.00 for air mail.
In shale country (inside back cover), it's time to spotlight communities (p. 9-12), review the real-estate situation (p. 13-14), and make plans for the future (p. 4-9).
Editorial

SHALE COUNTRY's
1976
Resolutions

AS WE GO TO PRESS... 

... came the announcement that Atlantic Richfield Co. and The Oil Shale Corp. (TOSCO) have notified Shell Oil Co. of their withdrawal from the C-b Shale Oil Project. Shell, Operator of this federal oil-shale lease tract in Colorado, and Ashland Oil, Inc., as the surviving partners. This announcement dramatically underscores the message in this SHALE COUNTRY issue: the survival of the oil-shale industry is in serious question in 1976. Its future depends on a more favorable political, environmental and economic climate than now exists.

One year ago, the first issue of this publication began with an editorial statement about "Why SHALE COUNTRY?" in which we explained that the magazine was conceived as a source of information about the oil-shale industry. We also stated that it was conceived as a publication for the people who live in the shale area, for those who will build this industry, and for those who have a sincere interest in keeping informed about this industry.

As we compose this 1-year anniversary editorial statement, we feel a great sense of pride. From the response SHALE COUNTRY has received, we feel that the publication has accomplished its goals. We are especially proud that people in the shale area continue to tell us that they appreciate having a constant source of credible, objective information about the oil-shale industry, and we are particularly pleased that many of them say they feel that SHALE COUNTRY is "their magazine."

We are also pleased, though frankly surprised, to find that oil-shale company staff and contractor personnel say they find the publication very useful, as say many government officials, too. We are surprised about the compliments from these two sectors because each does have considerable access to information about oil-shale happenings, via technical industry and government reports. But, we finally figured out why they like SHALE COUNTRY—it is deliberately not technical. Instead, it aims to interpret technical information in a readable, interesting, graphic way and to put considerable emphasis on the human aspects of oil country by presenting personal opinions and by profiling the personalities of the communities, the companies, the government agencies.

We made another important point in our editorial 1 year ago; we pointed out that SHALE COUNTRY is an effort sponsored by a group of major energy companies—and that this is one of the few times such a group has agreed upon such a joint public information/education effort. We also said the sponsoring companies had asked the editors to call the shots as they saw them.

Once again, we are frankly surprised to be able to report how well such a unique approach has worked. After all, for all their sophisticated understanding that the public today must know what is going on—isn't it a bit much to expect eight energy companies not only to pay for featuring their own activities but also for spotlighting their industry competitors and their environmental and political critics?

But that's exactly what happened. During 1975, the sponsors occasionally sighed deeply over an article that SHALE COUNTRY editors had researched and written; and they occasionally said, "Don't forget there are two points of view." But they never said, "You can't run that article."

So, it's worked. SHALE COUNTRY is what we said it would be—"a serious publication written by professional editors, reporting on just what really is happening in this industry."

To some extent, however, we have neglected one arena. With the exception of a one-page industry guest editorial in each issue, we have spent the majority of editorial space in 1975 on the oil-shale concerns of the public. This year we will aim to give more attention to the oil-shale industry's concerns.

Once again, this is our decision, as professional journalists, not our industry sponsors. Rather, we plan to spend more time talking about industry concerns in order to fulfill our commitment to shale-country readers. In short, it would not be fair to you if we did not emphasize the very real questions facing the oil-shale industry this year about "Where Now?"

The key point: there are frustrations at public, governmental and industry levels that most Americans have not yet grasped the very real fact that we are faced with an energy imperative. We have not yet learned that we must consider carefully not only the factors of waste and scarcity, but also the necessity of making the best use of all our resources—including oil shale.

As Frank Zarb, administrator of the Federal Energy Administration, recently stated: "Many of us perceive in the nation's current energy problems—and in our capacity, or lack of capacity, to deal with them—the critical issue not only of this decade, but quite possibly, of this half century. Many of us believe that the energy crisis constitutes one of those watershed issues—an issue that tests a people's resourcefulness and strength, and determines their future as a nation."

"... there is the necessity, in times of crisis, to recapture the spirit and ability to act cooperatively as a nation in dealing with national problems ... and we will only achieve (this spirit) when the American people and their leaders at every level of government can join in a dialogue that is both open and free—a dialogue that leads to action now, not later."

As our 1976 resolution, we commit SHALE COUNTRY to continue striving to play a useful role in obtaining action-oriented dialogue—and answers to America's energy crisis.

The Editors

SHALE COUNTRY
When Is What Going To Happen?

Time after time, people in shale country ask, in frustrated tones, “When will oil-shale development really happen? When, when, when?” In reply, the industry says, in equally-frustrated tones, “We know the government wants a precise time schedule; we know shale-country citizens want definite dates, but we just don’t know them.”

It’s not that the oil-shale companies don’t have timetables; they do. It’s just that all such timetables hinge on events that cannot be precisely predicted, such as decisions on Detailed Development Plans (DDPs), powerline permits, water rights . . . .

And that remains the situation in January 1976—there are still a number of stumbling blocks that prevent the citing of specific development dates. What, then, can shale country plan on happening in 1976? There are no definites, but here are two basic rules of thumb. One: Do watch for events, not specific dates. For example, make careful note of when each DDP is submitted, then count forward 6 months—allow a month or so for leeway—and you’ll be close to the date when some pre-commercial construction could begin on the site.

Two: Do not look for major job openings or newcomer surges in 1976. There could be a slight increase in oil-shale related jobs, but most of the expected, small population influx will be from traditional sources, such as retirees, or from other energy-related activities, such as power-plant construction, coal development, oil/gas exploration and uranium mining—and not from oil-shale development.

What shale topics will make 1976 news? For sure, you can count on these: Community planning will continue as an overriding issue. The emphasis: pinpointing oil-shale’s impacts on communities, how to prepare for them, and how to finance front-end costs.

—“Divided socioeconomics” (population impacts in one county or state, revenues in another) will gain more attention this year. One example: how to handle the situation if a Utah in-situ site is selected that is close to the Colorado border; presently Utah would get the tax base, but Colorado would get the population impact.

—Impacts on other resources will also come into the spotlight as shale development nears. The concern: how to ascertain how much oil-shale development will impinge on oil/gas resources, and on nahcolite, dawsonite and other associated minerals.

—Legal battles may begin to bubble. One contention: DDPs should include site-specific environmental-impact statements, in spite of the fact that a six-volume regional EIS was done before the federal leasing program opened. This premise is supported by the Sierra Club, but is disputed by the Area Oil Shale Supervisor.

—Water will remain a big topic of discussion. In particular: how will White River water rights be divided among Colorado, Utah and the Uintah and Ouray Indians. Once that question is settled, there will still be the question of what portion of any water rights in the shale area should go to oil-shale development.

—Industrywide efforts to work with communities and government agencies will continue. For example: In 1976, the Rocky Mountain Oil and Gas Assn. Committee on Oil Shale will support a whole range of activities such as a cooperative venture with federal, state and local officials in western Colorado to establish a growth monitoring system.

—The Western Governors will continue to demand federal attention. Their position: the states must participate in decision-making related to energy development in the Mountain West.

There are some other general oil-shale events and timeframes to look for this year (see “Maybe” calendar). Just remember, many of the events are “possible”, rather than probable; all of the dates are tentative; and a slip of one date will affect many others. Also keep in mind that the path of the industry will be steered not only by events and decisions that are directly related to oil shale, but also by the overall economy, election-year happenings and international unpredictables.

A. N.
Oil Shale: 1976—Where Now?

By Alys Novak

Focusing on the oil-shale industry's status—and some of its questions

In February 1974, Mountain Empire Publishing published the predecessor of SHALE COUNTRY, a documentary publication entitled "Oil Shale—Now." This BENCHMARK publication, sponsored by two major oil-shale ventures—Colony Development Operation and Paraho Oil Shale Demonstration—began with these words:

"An energy crisis . . . a federal leasing program . . . and suddenly, after more than 50 years, the oil-shale industry is on the launch pad to full-scale development in the Mountain West."

Today, 2 years later, full-scale development is still on the launch pad. In fact, the oil-shale industry is low gear. This status is clearly confirmed by reviewing the present position of Colony—now in a state of suspension—and of Paraho, currently being delayed by a government request for an environmental-impact statement. The federal leasing program is progressing, but it is still in its study stage.

Because commercial development is still "on hold," the oil-shale launch pad continues to be surrounded by numerous questions that cannot really be answered by anything except the real thing—actual commercial operations. Thus today, as the oil-shale industry hovers close to "go," questions about water, reclamation, community impacts, state/federal roles, remain of prime concern to shale-area residents.

It is appropriate that priority attention be given to these questions by the public, government and industry—and they have. One set of questions, however, has received less front-page attention: those that industry is asking itself. The "industry", of course, is not a single entity with a single opinion or objective; rather it is a multitude of companies with a multitude of opinions and objectives. However, today many companies in the oil-shale industry are carefully considering many of the same questions, such as: What is industry's "proper" role in financing community costs of energy development? What environmental costs are "reasonable" for industry to assume? What government financial commitments, such as loan guarantees, are "necessary" for the industry to develop? Will the oil-shale industry "die" if the oil price rollback and/or new Clean Air Act requirements go through?

It is clear, too, that the companies in the industry also are carefully considering the bottom-line question: Can we "afford" to stay in the oil-shale industry?

This type of hard-core financial question was addressed by H. E. Bond, vice president, Atlantic Richfield, in the July 1975 issue of SHALE COUNTRY. He said: "Since Atlantic Richfield's capital program is more than $2 billion this year alone, compared to a capital base of about $5 billion, and the competition for available capital keen, the company must carefully analyze all capital-intensive alternatives to determine where to channel its dollars to get the best investment return and the best energy-resource utilization. The investment options include oil and gas (both onshore and offshore), coal, tar sands, oil shale, nuclear and petrochemicals. Thus, there are limited capital dollars available and a number of energy-resource options available."

Government: Mr. Answer Man

The oil-shale companies' decisions about the energy-resource options in which they put their available capital dollars depend to a great extent on federal government policies. Without a clearcut national energy policy, it has been almost impossible for energy-development companies to make long-term plans.

During 1976, however, many companies must make crucial decisions about their long-range relationship to oil shale and their decisions will have long-term effects on shale country. These decisions will be made after careful reading of political and public positions toward oil-shale development; and, in this regard, the recent synfuels commercialization hearings gave some indication of the Administration's present position. (This legislation did not pass in 1975; but similar bills are expected to be introduced in 1976. Thus the points made regarding this proposal remain relevant.)

For example, Robert Fri, deputy administrator of the U.S. Energy Research & Development Administration, made this statement before the House Science and Technology Committee:

"This authority is needed to enable the Federal Government to offer a realistic range of incentives to private industry for an orderly development of synthetic fuels production. The synthetic fuels program, in turn, is designed to encourage the establishment of the industrial base necessary for the production of

Morton Winston, president, The Oil Shale Corp.: "The crucial first step is to get the first two or three commercial-scale plants built and operating."
substantial amounts of clean-burning synthetic oil and gas from our domestically abundant supplies of coal, oil shale and other resources.

"The Nation needs this program to reduce our reliance on imported oil and gas and to provide less expensive energy if world oil prices rise. Without such a program," said Mr. Fri, "imports of petroleum will continue to rise substantially even with increased production from the Alaskan North Slope, the Outer Continental Shelf, and from enhanced oil and gas recovery techniques. The President's Synfuel Commercialization Program will develop the basis for, and encourage the construction of commercial demonstration facilities necessary to launch a major American synthetic fuels industry.

"We cannot expect the private sector to meet these needs without Government involvement: There are a number of serious obstacles discouraging private entry into this complex and capital intensive field. Uncertainty in the future price of world oil is perhaps the most important factor discouraging private investment. If world oil prices were to fall substantially, large plant invest-

The Loan-Guarantee Program—What Did It Mean?

The purpose of the Energy Research & Development Administration's synthetic loan-guarantee legislation proposed in 1976 was to authorize ERDA to guarantee both the payment of interest and the principal balance of bonds, debentures, notes, and other obligations issued by or on behalf of any borrower for the purpose of financing the construction and start-up and related community planning and development costs of commercial demonstration facilities for the conversion of domestic coal, oil shale, biomass... The amount guaranteed could not exceed 75 percent of the total cost of the commercial demonstration facilities, and could not exceed 90 percent of the total costs of the demonstration facility during the period of construction and start-up. The legislation was not intended to finance all oil shale development; in fact, very few companies were expected to be able to apply—or be interested in applying—for a loan guarantee under this program.

The proposal did not pass, but a similar one may be introduced in 1978. Therefore, to get a clearer understanding of the type of legislation, SHALE COUNTRY asked Russ Cameron, the chairman of Cameron Engineers, Inc., Denver, and an acknowledged synfuels expert, to comment on its meaning to the industry. He said: "The legislation aimed to help those companies with proven synfuels technology to take their projects into commercial development. In other words, it aimed to help the pioneer commercial plants. There was no direct restriction on whom would be able to benefit from the legislation; however, there is a misconception that the loan guarantee was for the oil shale companies. That is not true; the guarantee was for the lenders."

Russ Cameron, chairman, Cameron Engineers: "There is a misconception that the loan guarantee was for the oil shale companies. That is not true; the guarantee was for the lenders."

permits... so that the banker can make sure the project is worthy of putting his dollars into.

The oil-shale project sponsor would have the responsibility of proving he has technology that will work--he has operated a large-scale pilot plant; (2) has his own private lease lands or long-term leases; (3) has water rights; (4) an acceptable environmental plan; (5) a market for the product... Anyone who is in the position to prove these things could apply for a loan guarantee to keep his financial position.

"The loan-guarantee program was not for financing an R&D project; however, there are lots of other programs doing that. The new feature of this program was to help companies get over the hard part of financing the first commercial synfuels plants.

The proposed legislation did not specify how much of the $6 billion would go to oil shale or how many projects it would cover. ERDA would have had to decide how to divide up the $6 billion; next it would go to industry for propulsive and, then, probably it would choose to spread the dollar over several projects in terms of oil shale, or, for example, one group that might have submitted a proposal was Colony/TOSCO. If this group met all the tests, then ERDA might have decided to provide a loan guarantee for its 50,000 barrel-a-day plant and it might have also decided to approve loan guarantees for thirty or forty other oil-shale projects being developed on a modular basis.

Coal gasification probably would have gotten the biggest chunk of the $6 billion since these projects can use proven German technology, the country desperately needs gas, and there is absolutely no way these projects can get going without Government participation."
ments would not be paid off from revenues of low-priced but higher cost synthetically-produced fuels. Adding to this risk are uncertainties relating to environmental regulations, the complex economics of building full-scale synfuels facilities, and the adequacy of available labor and materials.

"At the same time, it is clear that significantly reduced reliance on imported petroleum requires establishment of a major U.S. synfuel industry capable of production of about 5,000,000 barrels per day (equivalent) by 1995 and 10,000,000 by the year 2000. Because of the long lead times and technical complexities involved, this means we must begin now to establish the basis for steady growth of this industry in the 1980's and 1990's." (Also see the accompanying box of information.)

Many views, mutual concerns

As noted, economic questions are front-and-center today in the oil-shale industry. Thus, many shale company spokesmen have testified at the synfuels-program and other hearings. Their opinions are diverse, but all are of interest to shale country because they indicate how the various companies are evaluating their positions. Here are some of their statements:

Morton Winston, president, The Oil Shale Corp., said: "TOSCO believes that U.S. shale oil can add at least 20 percent to America's present domestic oil production without strip-mining, without harmful air or stream pollution and without jeopardizing water supplies for other agricultural and consumer needs. The crucial first step is to get the first two or three commercial-scale plants built and operating.

"Limiting their size to less than commercial scale, however, would be extremely ill advised and even deceptive. It would conceal research subsidies in the guise of commercial loan guarantees. A small modular oil-shale plant could not possibly break even at today's oil prices. It would preclude vital economies of scale, the use of standard-size hydro-treating units, and pipelining of plant product, and would aggravate environmental and socioeconomic problems," said Winston.

"The primary reason for federal risk-sharing in synthetic fuels commercialization at this time is to provide an acceptable demonstration of its economic feasibility so that private financing will be available for expansion of the industry in the future. Investors, however, will not be satisfied with only the demonstration of a retort module since there is a great deal more to commercial shale oil production than merely the retorting step. Investors understand the difference between research and development, however promising, and the operation of a business venture. A project loan to a project that cannot be economic would be a sham."

Robert McClements, Jr., president, Sunoco Energy Development Co., made these remarks: "... we firmly believe that from our national interest viewpoint a program for the orderly development of a variety of synthetic fuels should be undertaken on a positive, technically-sound basis.

"If our goal is truly the development of a significant domestic supplement to our declining liquid hydrocarbon reserve; then the program should be a broad-based program which, from the outset, provides the foundation on which a major industry could emerge.

"We do not believe that the various schemes to 'incentivize' private industry to construct so-called commercial oil-shale plants is the proper, practical, or desirable way to proceed. Nor do we feel that the concept of the federal government 'guaranteeing' some significant portion of the financing of a 'commercial' size facility is timely or appropriate..."

"We believe the most realistic approach would be to pattern the program after the Office of Coal Research concept of jointly funded government-industry programs through the stage of technology development.

"It would be our thought that if a plant successfully demonstrates the new technology and if future economic conditions permit, the demonstration plant could be acquired by the industry partner on some agreed basis and would become the core of a truly commercial venture," said McClements.

Harry Pfozheimer, program director, Paraho Oil Shale Demonstration, gave SHALE COUNTRY this viewpoint: "We concur with the Colorado School of Mines Research Institute report ("A Practical Approach to Development of a Shale Oil Industry in the United States") that the best way to develop an oil-shale industry and to eliminate uncertainties relating to environmental, engineering and economic acceptability of a retorting process is to construct and operate a commercial-size retort using a process such as the Paraho process that has been proved on a semisworks scale."

Pfozheimer does not favor price supports for oil. He notes the effects of price controls elsewhere in our economy: "Unfortunately, our persistence in regulating and controlling the prices of domestic natural gas and crude oil in the face of dwindling finite supply has stimulated consumption, rather than conservation, while decreasing incentives to take risks in order to supplement the supply. This has promoted oil and gas imports and decreased our energy independence."

The pioneer group of commercial plants might require what Pfozheimer calls "non-recourse government loans, repayable out of profits from the project." In other words, a company would not be required to use profits from a non-shale oil venture to subsidize oil shale. In the end, he says, such a method of financing would "put the risk where it belongs—on the project."

J. Blaine Miller, executive vice president, Rio Blanco Oil Shale Project, made this statement: "There seems little doubt that the shale oil industry will develop, without special incentives, when crude oil prices are sufficiently high to make shale oil commercially at-
tractive. If, however, we wait until crude prices are that high, we will be faced with an immediate need for quantities of shale oil. But it will then take many years to build plants and obtain the experience necessary to operate an efficient industry. It would therefore appear to be in the national interest to accelerate the development of this fledgling industry so that it can become a timely supplier of oil to the nation. To promote this development before normal market forces provide adequate incentives for the risks involved will require Government help . . .

"To be most effective, such Government aid should be designed to encourage a number of projects; technology will advance much more rapidly if several companies tackle the complex problems in their own ways. Because each company or group finds itself in different circumstances, an effective incentives program must have many facets. Loan guarantees, for example, are apparently attractive to some companies, but are no help to others. A broad incentives program might include non-recourse loans, mortgages if you will, with a grace period on interest and principal repayments until production reaches design capacity. It might also include the defense plant concept of World War II, with the Government owning the plant and a company operating it with an option to purchase at net book value.

"There are many other approaches; what they must have in common is to make, one way or another, money available at low cost to develop and provide shale oil production before it can be justified commercially, and do this on a basis that uses Federal funds efficiently and effectively to accomplish a goal in the national interest . . ."

Coming to grips

It is evident, therefore, that, as in the government and public sectors, there are many opinions within the oil-shale industry itself in regard to federal vs. private financing. In 1976, however, it is likely that an agreement will be reached about some type of government financial involvement in the oil-shale industry. As a recent "Oil and Gas Journal"

The In-Situ "Camel"

In 1975, a 12-member selection committee, appointed by the U.S. Dept. of Interior and by Utah and Colorado Governors, formed a "jury" to study nine tracts nominated by industry for in-situ development of oil shale under the federal prototype leasing program. In situ techniques involve underground mining and processing and hold promise of less disturbance of the land surface. However, industry interest when two Wyoming tracts suitable for in-situ development were put up for bid by Interior in 1974 was nil: these two tracts are considered to be "lean" in shale-oil yield. Interior hopes the industry-proposed tracts now being studied will result in the offering of two sites that are more appealing in this second round of bids.

The selection committee report made in September 1975, recommended four tracts as suitable for leasing: one tract in Colorado and one in Utah were first choice; two other tracts in Utah were second choice. In making its selections, the Interior committee observed that it rejected five sites in the center of Colorado's Piceance Creek Basin. Although these sites contain large oil-shale resources, oil-shale recovery on these sites could have environmental problems and conflicts with recovery of other mineral resources (nahcolite and Dawsonite).

Advice draws more advice—The committee's recommendations drew a host of questions and heavy criticism from the Oil Shale Environmental Advisory Panel (OSEAP), a 29-member group that submits recommendations to Interior. An OSEAP subcommittee suggested that not enough background on the tracts had been studied, and recommended that the selections be rejected and the nomination process be reopened—with guidelines for tract selection clearly spelled out. Mike Strang, chairman of the OSEAP subcommittee, said that perhaps their report called to mind the "committee that was to design a horse and came up with a camel."

Ultimately, the panel reached a consensus, advising Interior's Assistant Secretary Jack Horton that:

—The selection committee's rejection of tracts in the center of the Piceance Basin appeared to be for "good and sufficient reason."
—Had the nominators known what criteria were to be applied in selection, other tracts might have been nominated. Therefore, consideration should be given to reopening bids.
—If the in-situ effort continues, those tracts recommended by the Interior selection committee (the one in Colorado and the three in Utah) should be considered for development, and industry input solicited.
—Tracts should be selected to test the widest range of technology, and any sites that might affect existing prototype programs (aboveground development on tracts C-a, C-b and U-a and U-b) should be rejected.
—Officials of Colorado and Utah should be consulted.
—Efforts should be expanded to weigh the potential socio-economic impacts of locating any in-situ development on a particular site.

In 1976, the Interior Secretary must decide which tracts, if any, should be offered for bid. The tracts would first undergo a detailed analysis of environmental impacts, which Horton has said should be ready for oil-shale panel review in February. The leases would probably be offered in summer 1976.

C.E
The dilemma is this: In the face of current price and technological risks, no private firm is ready to take the billion-dollar plunge for a major syn-

ty.

In regard to socioeconomic costs, speaking at the National Conference on Financial Requirements for Energy Development in the Western States Region, held recently in Albuquerque, Camilla Auger of TOSCO made these suggestions: "We have concluded that direct industry involvement in the provision of housing and municipal services offers several advantages for both industry and government . . . First, in contrast to new forms of taxation, which in many cases require new legislation and often are slow to return revenue to the area of impact, direct industry participation can provide front-end funds quickly, directly to the impacted communities, and with maximum flexibility and responsiveness to changing needs. Second, this approach links socioeconomic costs directly and clearly to the overall project cost, so that the full costs and benefits of energy development can be more clearly assessed and forthrightly handled. Third, as a materially-interested party who stands to lose millions of dollars in terms of the added costs of construction delays and worker turnover if services and housing are not available on time,

the operator derives obvious practical benefits by collaborating with local and state government to assure orderly development.

"Direct industry involvement in the financing and management of growth is not the only solution, of course. Many companies will not be prepared to take on the substantial political and financial risks involved and will prefer to prepay taxes or rely on other approaches. The most practical overall solution might be to provide a range of legislative options at the state level, involving a balanced system of both taxation and credits against special impact taxes for those companies who do wish to participate directly in the provision of housing and services."

In 1976, all of the companies can be expected to continue considering their best approaches to environmental and social costs as they evaluate their overall, long-term financial commitment to oil-shale development.

Into 1976 with ???

At this time, it appears there is a good chance that some companies may pull in their oil-shale horns slightly—or completely—during 1976. However, the best expectations are that the majority of the firms presently involved in the industry will seek to reinforce their oil-shale commitments during the year—if economic/political signs look favorable.

As for SHALE COUNTRY, in 1976 it will continue to look closely at the numerous facets of oil-shale development. Now it begins its new year by looking at two specific oil-shale matters that will call for critical decisions this year—the federal oil-shale lessees' Detailed Development Plans and the leasing of in-situ tracts.


From Rangely to Roosevelt, communities voice needs for roads, utilities, funds

If company were coming, but you didn’t know how many persons were expected, when they were arriving, or whether they planned to stay at your house or a motel, just how much food would you buy, how much bedding would you ready, how and when would you stock your cupboards? That is still the dilemma faced by shale-country communities, which are poised for oil-shale “company,” yet are uncertain of when and how many.

In general, officials in the local communities say they welcome oil-shale development. But many leaders specify that they want it to bring measured growth, and that they expect federal monetary aid to help adjust to rapid population influx. Some community leaders also want assistance from the oil-shale industry itself, though how much each expects varies greatly. Almost all local leaders think the feds should ante up. As a Vernal banker said, “I’d like to see us not depend on the federal bureaucracy. But it’s one of those things, we almost have to fall in line and ask for our share.”

The statement represents a change in attitude for some leaders; a year or so ago many were hoping for funding self-sufficiency. In 1974, for example, Cecil Lollar, then mayor of Rangely, told U. S. Sen. Floyd Haskell during a Grand Junction hearing on oil-shale impact, “The Rangely community is not presently seeking any assistance for utility extension, local street improvement or other internal governmental affairs. We believe that we can grow to a population of 6,000 without any aid in these areas. However, we are asking for your help in the construction of major highways, in the construction of the long-delayed Rangely Dam, in obtaining some Bureau of Land Management lands and in a general reduction of bureaucratic red tape . . .”

Today, Rangely is still seeking those things from government—and it is working with industry to plan for growth. In particular, the mayor, James Sinclair, and other citizens are working with Gulf Oil Real Estate Development Co. (GOREDCO). This planning firm was retained by the Rio Blanco Oil Shale Project to assist the town in developing a comprehensive master plan; Rio Blanco, the developer of the federally-leased tract C-a, has decided to place its major community expansion efforts into Rangely. GOREDCO’s first meeting with townpeople drew more than 100 persons; since then participation has tapered off as some citizens suffer from what Sinclair says is “planning fatigue.”

As in Rangely, each of the shale-area communities has certain concerns that seem to be never-ending, bread-and-butter issues, such as: how much growth can we expect, how will we pay for it, how will we pay for current needs such as water and sewer facilities, roads and housing? Here are some of the specific community issues now being debated, as well as some of the town leaders’ thoughts on pending oil-shale development.

Rangely and Meeker: close to the sites

The two federal oil-shale lease sites in Colorado are located in Rio Blanco County, and so are Superior Oil’s 7,000 acres of oil-shale land. Similar to sentiments of virtually all shale-community, the Rio Blanco commissioners have said that they support, “in general,” development of the oil-shale resources in the county. But, in the words of Commissioner Bill Brown, “If the federal government is going to provide guarantees to the companies developing fossil fuels (as legislation before Congress proposed), it should also provide guarantees to those communities that must bear the impact of development.”

Another theme articulated by Brown and repeated in other communities is that federal policy is responsible for the cloudy crystal ball in regard to impact from oil-shale development. Brown says, “The uncertainty caused to the lessees by the government red tape is having a bad effect on the orderly growth and development of our county. It is impossible to plan for the growth and development of Rio Blanco County based on an oil-shale industry without some guarantee that there will, in fact, be an oil-shale industry.”

Not only is the future vague, Brown also points out that any planning is hamstrung by insufficient financial resources. For example, to cope with current growth, School District Re-1, the district that includes Meeker, recently passed a $1-million school bond issue to construct a new junior high. Besides this junior high school, Meeker will also be constructing a new water system and making improvements to the sewer system, to be funded by a recently adopted

Community Profile

Guess Who’s Coming to Dinner

By Carol Edmonds

"We’ve had time," says Roosevelt area Chamber of Commerce manager Paula Bell, "to catch up" from boom growth related to the oil fields. Background is Bottle Hollow resort run by Utes east of Roosevelt.
bond measure.

Funding problems for tomorrow's oil-shale impact are further complicated by restrictions on the use of any existing tax revenues. Meeker Mayor Russ McDaniel complains, "The governmental entities have so restricted towns' and counties' revenues, and their formulas for getting these same funds back to the communities are so restricted and diluted that little remains to (pay for) front-end growth." He points out that Rio Blanco County receives $200,000 annually, the maximum allowed under state law, yet royalties from federal oil and gas production are many times that figure. The county accounted for some 58 percent of the total oil production in the state, and royalties from all mining under the Mineral Leasing Act of 1920 amounted to $34 million to the State of Colorado in 1975. In addition, the state received another $880,539 from its oil and gas production tax.

Other sources of revenue are limited in Rio Blanco County because governmental entities hold about 73 percent of the land. This governmental hold on the land affects not only the generation of revenue but also any site planning for growth. For example, Rangely officials think growth should occur primarily to the east, however, almost all of that land is owned by the Bureau of Land Management, and Congressional action is required before any growth can take place there.

Another prominent local concern is routing of roads. If Rio Blanco Oil Shale Project plans mature, its plant site would be connected to Rangely via 22 miles of new roadway that officials estimate would take two contractors 10 months to construct. Cost estimate of an access road to Rangely is $10.2 million; improving existing County Road 24 from C-a to Piceance Creek Road, which would improve eastern access, would cost around $2.2 million. Funding source? Company officials hope that the county can receive oil-shale bonus money for the roads' design and construction.

Rifle: acceptable lifestyles

Just next to Rio Blanco County, Rifle, too, has laid out the welcome mat for oil-shale development, but it's a qualified welcome. Mayor A. W. Van Arsdale says, "The city of Rifle would welcome growth to the area, if it is growth . . . in an orderly fashion, which in turn would create a lifestyle that would be acceptable to our present and future citizens. Any growth must pay for itself."

Located southeast of Colorado's public and private oil-shale development, the city is working toward orderly growth and has:

- Hired a planner
- Begun upgrading of utilities, including institution of metered water rates, rather than a flat charge
- Nearly doubled the land area size of the city to provide sites for housing some 4,000 persons
- Housing, extremely scarce, may become more available; there is some talk of starting work again on a mobile-home park whose development has not yet gotten off paper.

Grand Junction: growth now

As in other shale-country communities, the Grand Junction area—largest city in shale country—is already feeling impact from energy development, especially coal, as well as from traditional sources of growth, such as retirees. And with rapid population increases occurring now, county commissioner Lawrence Aubert estimates that about 40 percent of the county's residents are without an adequate sewer system. Grand Junction and Mesa County are seeking funds for current sewer needs.

Another county concern: as the area's largest city, Grand Junction will most likely attract the greatest oil-shale related growth. Yet the mining activity and the plants, located in neighboring counties, will give those counties—not Grand Junction—the advantage of higher assessed valuation.

Roosevelt and Vernal: new livelihood sought

In Utah, community leaders describe growth problems in a more favorable light than leaders in Colorado do. Compare comments in Colorado from Meeker Mayor Russ McDaniel to remarks by Utah's Dept. of Natural Resources chief Gordon Harmston. McDaniel has said that growth projections "don't stagger us as much as they used to. Now they simply scare the hell out of us."

Harmston, on the other hand, recently asserted, "We (in Utah) think it is very important that we go ahead with this oil-shale prototype development. Our communities want it, the state wants it . . . It is going to be tough, but we look at it as a challenge, yes, but it is also an opportunity." In Utah, it is the opportunity that is frequently stressed, and the problems are merely "challenges."

One of the local leaders who sees oil-shale and other energy development...
as an opportunity for the communities is
Paula Bell, manager of the Roosevelt Area Chamber of Commerce; the chamber has actively lobbied for a southeasterly road from Roosevelt through Ouray to oil-shale tracts U-a/U-b. Bell observes that activity in the oil fields northwest of Roosevelt is subsiding. Consequently, she says, “We have a labor force here that needs to be tapped. We have all these projects and improvements that the community built to serve the oil industry, and these projects still need to be paid for.” She thinks the already-expanded community services in Roosevelt could serve the oil-shale workers, while Roosevelt would “get some of the cream off this new growth.”

Community improvements in the last year have included:
—A $600,000 new airport
—A $2.8-million city sewer project
—Ground breaking for a $2-million Uintah Basin vocational center
—Expenditures of $1.5 million for new roads and $75,000 for upgrading existing roads

Planning and some funding for a museum.

Bell finds that Roosevelt has seen “a significant change in attitude.” Hit by boom growth from oil development in the past 4 years, the city is just now adjusting to that influx of people and change in lifestyles. “We’ve had time to catch up,” she observes.

Despite a leveling off in growth from the oil fields and from natural-gas production, the economy in the area is still healthy. A third-quarter report of the Utah Dept. of Employment Security on business trends throughout the basin, said that building construction was up during the first half of 1975 by 88 percent over a year ago—largely new residential construction. Oil production inched upward, but oil and gas exploration activities declined. Unemployment was up by 1.3 percent; midyear total joblessness was 6.9 percent, reflecting a hike in the labor force and a decline in job opportunities.

Roosevelt, in sum, is healthy economically, but is already feeling the effects of diminishing oil reserves. Likewise, Vernal, though farther away from the oil fields, expects to be affected by reduced oil exploration and development. Jack Wallis, publisher of the Vernal Express, writes in the weekly newspaper, “We hope the tar-sands commercial oil extraction development (near Vernal) can get underway soon in order to fill the void prior to oil-shale development. The tar-sands production of about 1,000 barrels a day would get us ready for the 50,000 and 100,000 barrels-a-day oil-shale production...”

Vernal, only 50 miles by existing roadway from the U-a and U-b oil-shale tracts, has these civic projects on the drawing boards:
—Formation of a federal Economic Development District that would result in an inventory of development needs for federal funding in the area
—Work on supplying water and sewer to areas outside of Vernal proper. A proposed trunk water line and small feeder lines would cost somewhere around $7 million. But Vernal, which owns and operates the existing municipal system, has decided it cannot afford to build a larger system outside the city. The Ashley Valley Water and Sewer District has appealed to the county commission for support.

Vernal, like its neighbor Roosevelt, wants a road to the federal U-a/U-b oil-shale tracts. Vernal’s proposed route would be 37 miles leading from the city to Bonanza, just north of the tracts. A current roadway to the tracts is in poor repair. Roosevelt’s road would link that city, Duchesne, Altamont and smaller Duchesne County communities through Ouray to the oil-shale tracts via some 53 miles of highway. Roosevelt and Vernal are vying with one another since each wants its road built first, although both areas agree that eventually a network of roads will be needed to serve the area. A joint committee appointed by the commissioners of Duchesne and Uintah Counties is attempting to reconcile the differences.

So activities in shale-country communities continue on two fronts, jumping back and forth between today and tomorrow. Sometimes the leap from today’s slippery rock to tomorrow’s seems risky. Yet community leaders are hardly wringing their hands. They continue to pursue “controlled growth.”
Street sign in Dinosaur, Colo.—Town is nearest community to Utah's federally-leased oil-shale tracts, U-a/U-b.

Famed vacation spot in Colorado Shale country—Glenwood Springs draws many visitors each year.

Downtown Grand Junction, Colo.—City has become service center for shale activities.

Natural history museum display—Vernal, Utah is noted for fossil relics as well as fossil fuels.
What's the 1976 Realty Situation?

In the January 1975 issue of SHALE COUNTRY, Realtors in the Colorado/Utah shale area reported a stable sales story; and their long-range prediction was that the real-estate market would remain healthy in the oil-shale region.

That prediction has proven to be true in January 1976. Market observers in both Utah and Colorado confirm that, overall, 1975 was a good realty year and that 1976 should be healthy too, though some problem pockets remain. The key one: housing. In contrast to the large surpluses of housing units available in many other parts of the country, including Denver, a housing shortage continues in the shale region. Particularly, there is a lack of housing for low-income persons.

Indeed, there remains a need to provide a full range of housing options in the shale area, especially outside of Grand Junction. A spokesman for the Colorado West Area Council of Governments stated the case succinctly to SHALE COUNTRY. "The housing situation is abominable. There are no vacancies and nothing is being built. The housing industry is waiting for something more positive to happen in the oil-shale industry. There is certainly no speculative building; it's just too expensive. However, this situation is not a surprise to anyone; it was expected."

The COG staff member also noted that housing surveys were a major effort of the local governments in shale country in 1975 and will be again in 1976. "All the counties have applied for HUD grants under the 701 Comprehensive Planning Program to fund housing surveys and all are either in the process of doing one or gearing up to do one. The results of these surveys should be available in May 1976 and will be used as a basis for more comprehensive future housing planning for the region."

Mesa County: steady, diverse

In the Grand Junction area, the housing situation is better, especially in terms of medium- and higher-priced residential construction. For example, in this Mesa County area, construction of single-family homes and apartments has progressed steadily during the year. The standard price for a new single-family home: $35,000-plus.

Looking more closely at Mesa County, Bob Bray, Bray & Co., Realtors, Grand Junction, reports that rental space in apartments is particularly tight in Grand Junction, even though a survey the city has just conducted seems to indicate that apartments now represent 33 percent of the residential real estate in this community. He also estimates that of the approximate 600 new single-family units built in the city/county area last year, less than 2 percent presently remain unsold.

In commercial real estate, Bray notes quite a demand for warehousing and for small manufacturing-type facilities. Office space also is tight and he reports that the federal government is now searching for 23,585 square feet of office space in Grand Junction.

In regard to raw land, Bray points out that the price spiral that was on a rampage last year in this market is no longer apparent. He says, "Subdivision development land prices, for example, haven't gone down, but they have stopped increasing so rapidly."

He also observes a change in attitude toward condominiums and townhouses. A year ago, he says, "These were a drag on the market. Today, they represent a good share of the offerings and are getting good response."

In short, he feels that 1975 was a good real-estate year in Mesa County, though "I think this year's market peaked in May, and I have observed a slowdown in the last quarter of the year." He adds, "Inflation has not been the problem it was in 1974; and there is plenty of mortgage money available, but it is expensive."

The good health of the real-estate market in this area is attributed to a combination of factors. For example, Bray says that much of the activity in
Grand Junction is coal-related; many companies active in coal developments in Northwest Colorado, for instance, are using Grand Junction as headquarters.

Dick Hollinger, Chief Building Inspector, Mesa County, agrees that the major stimulus to the real-estate market is energy development, but not necessarily oil shale. He says, “There is a fairly good-sized coal development near Palisade, for example, and the Grand Junction area also is getting an overflow from energy developments in other areas.”

He notes, too, that “there is a constant influx of people who just want to move here, and the city seems able to absorb them.” Also, Grand Junction’s medium-priced homes are attractive to the many individuals who chose to retire in the area. He confirms that there is a shortage of housing in the under-$30,000 category, and he says that mobile-home park space is also still a problem. “As soon as a park is opened, it’s filled,” he reports.

Hollinger also reports that his department is “swamped”. By the end of October 1975, Mesa County had already exceeded 1974's totals in building permits. In fact, the county had experienced a 36-percent increase in building-permit valuation; and building activity was up in all categories. Hollinger, in particular, notes that the valuation was influenced by permits requested for several large developments, notably a $1.5-million permit for a Fibreboard Corp. facility planned in Grand Junction.

In 1976, Hollinger says, “I don’t expect an additional 36-percent increase in building-permit valuation, but I don’t expect much of a drop either. I estimate we’ll have a 10-percent increase this year.

“The 1976 building situation depends to a great extent on oil-shale developments as well as on other industrial activities. For example, if Coors or Fibreboard opens up its planned facilities this year, more families will be moving in,” he says, adding, “Grand Junction has a lot of potential.”

Utah sees a change in pace

Glade Nelson, Vernal city manager, reports that last year this Utah area was undergoing a natural increase in real-estate activity because of the increased oil drilling at that time. “Now,” he says, “we’re seeing a slackening off of activity.”

For example, he says, “A year ago, you couldn’t buy a home in this area. Now the housing industry seems to have caught up with the market, and there are homes available for sale. Again, this is probably attributable to the slackening off of oil/gas drilling activity since the oil depletion allowance was cut off. In short, we seem to have met the demand for new housing and from now on, we’ll probably just see natural growth. Rental units, though, still are a problem, and the apartment vacancy rate is only about 2-3 percent. I feel this need will continue, despite the availability of housing, since many people can’t afford the $30,000-plus price tag of a new home.”

Nelson also says that, “Now we’ve met the housing need, there isn’t as much demand for mobile homes; 1 year ago the mobile-home parks were all full and now there are several vacancies. Of course, zoning is still an issue in terms of mobile homes, but it’s no longer in the limelight since the demand for them has gone down. This may, however, be the lull before the storm, since the demand will depend on whether the energy companies decide to gear up.”

In terms of commercial real estate, Nelson says, “We’ve seen quite a bit of commercial activity this year—one bank, two savings & loans, several small office buildings, an insurance company, miscellaneous services all moved in. Actually, Vernal is handling itself quite well in this area. As for land values, in the past 24 months, they’ve skyrocketed. I wouldn’t say they’ve peaked, because they may rise again, but for now they’ve leveled off.”

In terms of building permits, by the end of September 1975, permits issued in Vernal City were double the valuation recorded for the entire previous year. However, says Nelson, “I think that in 1976 the boom in housing will slacken off, because much of the construction in 1975 was for subdivisions that were approved in 1974. So there will be plenty of construction until the winter settles in. Then, it’s hard to say what will happen.”

Obviously, however, what happens in the real-estate arena in shale country in 1976 will, in large part, depend on the direction of the oil-shale industry and other energy developments.
Once known as “prosperity,” the socioeconomic consequences of natural-resource development are today called “impact,” says Casper, Wyo., Mayor Robert Pettigrew. Yet Pettigrew, who spoke before Colorado Western Slope community leaders recently, quickly adds that prosperity from uranium development in the ’50s and other earlier energy booms came when life was simpler. Today, like most community leaders, Pettigrew concedes that growth without planning can be a nightmare. But he also tells his audiences, growth and careful planning can bring prosperity.

Others reinforce this advice by telling less pleasant tales. Recently, for example, Neil McCandless, Moffat County commissioner, outlined problems that came to this county with construction of two units of a coal-generated electric utility plant, and the startup of several coal-mining ventures. McCandless observed, “Moffat County and Craig are being ridden by a creature called impact, and we’ve already gone over the cliff.” He particularly noted the area’s scarce housing, inadequate sanitary disposal treatment, overcrowded jail and county hospital.

Leaders in oil-shale communities are, for the most part, firmly resolved that, armed with time and planning, they can avoid similar problems. Addressing the question of impact from overnight growth, Robert McKeown, director of the Colorado West Regional Mental Health Center, asks, however, “Can rapid growth take place without the stress on psychological well-being and human relationships that has seemed to occur...in other boom areas?” He says the optimistic answer seems to be, “Partially.” In other words, careful planning can result in physical and social amenities that lessen stress. Yet, some social problems seem inevitably to accompany growth; McKeown sees these as including increased alcoholism, family disruption, and limitation on community recreational opportunities.

McKeown stresses, therefore, that human service agencies must prepare to help people cope with such social disruption. But, he says, professionals and social service agencies in the shale area already have trouble answering existing needs. For example, he points out that Rio Blanco County has had only two physicians until recently. He states, “Addressing the human living impact must become as integral to development planning as (addressing) the physical environmental impact.”

“We’re willing to go either way—new town or existing communities,” says Earl Ramsey, White River’s program director. Sewers before social workers

To date, most of the funding for socioeconomic impact planning in the shale area has gone toward more immediate concerns than social services. As Martin Dicker, an economist working for the Colorado West Area Council of Governments, points out, “It doesn’t pay to have a social worker if you don’t have a sewer.” However, although physical needs must be answered first, social services are significant needs, many community leaders stress. Dicker observes, for instance, that as small towns grow, the help that neighbor gave neighbor can disappear; a close-knit town and its community pride may be washed away in the tide of new people.

Yet it is difficult to plan for human needs that can’t be reduced to numbers and that are intangible. For example, Roosevelt, Utah, has already experienced some tension as non-Mormons moved into the area and felt threatened by the majority Mormon population. George Managan, a city attorney who has served the Mormon church as Bishop, says such tensions are lessening as non-Mormons are seeing that, “Mormons are human, they want the same things for their children in the end.” Non-Mormons have been elected and appointed to community leadership posts. Also, in Managan’s neighborhood all newcomers are greeted by a welcome party and are given information on the meeting time and place of all churches, whatever faith. This is an example of a community coming to grips with its own problem.

From new towns to farms

Some impacts from growth cannot be so readily resolved without reliance on outside aid. Recognizing this, the oil-
shale companies are conducting their own impact studies. For example, the White River Shale Project in Utah has on its staff a person whose sole responsibility is to plan community development. He is Merrill Littlewood, headquartered in Salt Lake City. White River has also hired a consultant, F. Robert Edman, of St. Paul, Minn., a grantsman, to help the local communities secure federal planning funds.

One of the big questions that needs study is whether to build a new community to house workers that would serve an oil-shale plant. White River project officials have said, for example, that a plant of 2,000 workers could generate a community whose total size would be around 10,000 persons. Whether these people will locate in a new town or in existing communities is a question for the Governor's Energy Planning Council. Says White River's program director Earl Ramsey, "We're willing to go either way—new town or existing communities." White River has released one baseline socioeconomic study and is now preparing a followup study on potential impacts from shale-oil development.

A similar study on varying local impacts from oil-shale related population expansion in a new town or in existing communities is being conducted by Utah State University (USU), as part of a larger socioeconomic-impact analysis funded by the Bureau of Land Management. USU is also involved in a separate study funded by the Interior Dept. Office of Water Research and Technology. This research examines oil-shale development's potential impact on agricultural water. The issue is a profound one: what is to happen to farmers and the land they plow? The $56,000, 2-year study will conclude in mid-1976. It will estimate water needs for oil-shale development and for the population it generates. Initial results of the study indicate, according to USU's Dr. B. Delworth Gardner, that "If a dam is built on the White River to supply water for the oil-shale prototype sites, the water utilized will be considered to come from Utah's presently unused portion of its Colorado River compact allotment. Therefore, present agricultural rights would not be affected and there would be little effect on agriculture along the White River." But that conclusion applies only to water for the shale industry itself. Water needs of the population are more complex. Gardner explains, "If the Central Utah Project is built as authorized, enough water will be developed in the project to take care of (oil-shale communities') municipal-domestic requirements without taking existing agricultural water rights." But, obviously, where oil-shale workers will choose to live is unknown. If they decide to locate in Vernal, the city might seek additional water from irrigation water rights, Gardner points out.

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Source: July 1975 Report, "Socioeconomic Impacts and Federal Assistance in Energy Development Impacted Communities in Federal Region VIII," Mountain Plains Regional Council, Region VIII, based on information supplied by the states.
School districts in shale country are making plans for expansion, but need both lead time and money.

But he says the most likely course is that “Unless the industry takes off on a fairly grand scale, there won’t be too much impact on agricultural water use (in Utah).”

However, other research at USU indicates that overall, projected large-scale energy development—coal mining, coal liquefaction and electrical power generation—in the Colorado River Basin (including Utah), will affect quality and quantity of the water (more discussion on the water situation in the March and April 1976 issues).

Multi-state perspective

Another USU study, funded by the Federal Energy Administration, is to determine the impacts on other industries if certain energy developments, including oil shale, take place in the states of Utah, Montana, Colorado, Wyoming and New Mexico.

Yet another four-state study, this one funded by industry, looks at manpower needs if coal and oil-shale development occur in Colorado, Montana, Utah and Wyoming. Studying this topic for the Rio Blanco Oil Shale Project, Morrison-Knudsen, Co., Inc., has found:
- Peak impact would be in 1978 and 1979.
- More miners will be needed in the four-state area by 1980; the need will be 2-1/2 times more than the 6,600 persons now in mining operations.

Focusing on existing manpower in 10 counties of northwestern Colorado, where the Rio Blanco Oil Shale Project is located, the study found:
- Compared to national figures, area residents reflect a higher educational level; median school years is over grade 12. Therefore, on-the-job training should take less time and cost less than it would in an area with less median schooling.
- If early training occurs, an ample supply of potential labor force exists for maintenance and operations.
- Only a minimum of imported workers, particularly key technical and management personnel, may be needed.

In sum, Morrison-Knudsen concluded, recruitment of area residents for most jobs in oil shale and coal should result in “less explosive population impact” than labor importation.

Two other studies that ought to provide overviews of energy-development impacts are now underway in the Utah Planning Coordinator’s Office and at the Colorado West Area Council of Governments (COG). In Colorado, COG, representing local governments, is developing a computerized growth-monitoring system, to be funded by government and industry. Using building permits, tap fees, employment figures and other indicators, the system is to record current impact and to project future impact of growth in northwestern Colorado.

Utah’s studies, also computerized, are part of a total state planning effort. Known as the Utah Process, these studies dissect results of such events as oil-shale and tar-sands development as they influence population, jobs, housing needs, property and sales tax bases and other factors.

All these studies will probably come into play in one of two major forums that are deliberating on community impacts in Colorado and Utah. These forums are committees appointed by each Governor: the Energy Planning Council of the Uintah Basin Assn. of Governments in
Utah and the Western Slope advisory committee of the Governor's Energy Policy Council in Colorado. The latter council—it has six members, most of them state department or division chiefs—is chaired by Governor Dick Lamm's right-hand man, Roy Romer. The council's citizen advisory committee, consisting of Western Slope officials, is to make recommendations to the Energy Council on: budgetary requests to fund energy-impacts studies, ground rules for industry to secure state government approval of energy projects; other issues such as state severance tax, and transfer of revenues from the state or county collecting the tax to the local municipality or other area of impact.

Among such issues, the Western Slope advisory committee has termed the question of lead-time financing of "paramount concern." In the words of committee member Bill Smith, Moffat County Planning Commissioner, "You can see the tax money tomorrow, but there's no way to get it today." Additional input on where to secure lead-time funds will also come from the Colorado Dept. of Local Affairs, whose director, Betty Miller, has announced receipt of a $200,000 Economic Development Administration grant to inventory means of financing the early years of boom growth.

Working with the Western Slope advisory committee is Colorado's oil-shale/community affairs coordinator Burman Lorenson. (His office's efforts, with COG, to secure additional impact aid will be discussed in February's SHALE COUNTRY in an article on legislation and funding at local state and federal levels.) Lorenson's counterpart in Utah is Chuck Henderson, director of the Energy Planning Council.

It is difficult, of course, for these two men and the communities they work with to piece together all these studies and to come up with any panoramic conclusions about socioeconomic impacts. In fact, it is easy to become overwhelmed. As Miller observes, "There is a lot of information around. It's just not in one place." At worst, the reports only "benefit the education of those who wrote them," to quote Frank Cooley, of Meeker an advisory council member:

At best, government and citizenry can collate this information and marshal it to help pry loose funding and to channel that funding into growth management. Only half-facetiously, Romer says, "I sit here with my Walter Mitty instincts. What we really need is a war room... one wall in which all information has to go through. One spot."

More health care facilities, such as Rangely's new clinic, will be needed if expected energy-related growth takes place.
Oil-Shale Information—Where to Find It

Q. Where can I find the basics, written in laymen's language, on oil shale?
A. SHALE COUNTRY, published monthly by Mountain Empire Publishing, Inc. and sponsored by eight energy companies. Distributed free at newsstands in Colorado's Western Slope and eastern Utah, this magazine looks at industry, government and communities as they are planning for oil-shale development.

Cost: $5 for 1-year mail subscription.
Address: 180 Cook St., Denver, CO. 80206.

Q. Where do I find information on a particular company or project?
A. Best bet is the public-information office at the company managing the project. (See Directory in December 1975 SHALE COUNTRY.)

Q. Are there some "Bibles," basic oil-shale publications?
A. Here are a few:

Six-volume, soft cover report is a study of environmental impacts of oil-shale development. Price is available from Supt. of Documents, U.S. Government Printing Office. Libraries in area have copies of the report.

FEA evaluated, in this series of reports, the energy outlook in the United States from 1974 to 1985, if no new actions were taken or if four different strategies were adopted. Included among sources of accelerated domestic production is oil shale. Fifty-page executive summary report; Cost is $2. FEA "Project Independence Blueprint Final Task Force Report, Potential Role of Oil Shale: Prospects and Constraints," 1974; Cost is $6.75.

"Oil Shale Environmental Studies and Selected Bibliography of Oil Shale Environmental References," March 1975. Address:

Cost: Rocky Mountain Oil and Gas Assn., Oil Shale Committee, 950 Petroleum Club Building, Denver, CO. 80202.


Hard-bound, cloth-cover, lithographed guidebook of the Piceance Creek Basin, Colorado, emphasizes oil shale. Contains 30 technical papers, multi-color energy resources/index map of the basin, oil-shale lease operations map, newly-compiled stratigraphic correlation chart of Colorado, photographs, other maps, original sketches. Cost is $23. Address: Rocky Mountain Assn. of Geologists, 416 Johnson Bldg., 509 17th St., Denver, CO. 80202.

"Colony Development Operation 1974/An Environmental Impact Analysis for a Shale Oil Complex at Parachute Creek, Colorado," three parts plus 17 appendices.

This report is on pioneering effort to delineate environmental impact of a particular shale oil development. Available at area libraries.

"Utah Process: Alternative Futures Project 1975-1990, Volumes I and II".
Two volumes, 700 pages of data that project population, employment and job-related migration for the state and its seven divisions, if different events occur. These events are grouped into alternative futures, including development of oil shale in the Uintah Basin. Cost to private agencies of the two reports is $14.50. No cost to public agencies. A summary report will soon be available, probably at no charge. Address: State Planning Coordinators' Office, Division of Technical Services, 455 East Fourth South, Room 300, Salt Lake City, Utah 84111.

Many government agencies put out special reports on oil shale. Usually, a listing of these publications is available on request. For example, reports from the Colorado Geological Survey include: "Tax Lead Time Study," 1974 ($2).

Q. Is all this information available at a central location?
A. Try the Oil Shale Environmental Advisory Panel library in the panel's Denver office. Open during business hours Monday through Friday. Literature is not catalogued and must be used on the premises. Address: Denver Federal Center, Bldg. 67, Rm. 690, W. 6th Ave. & Kipling, Denver, CO. 80225.

Other regional libraries that contain at least some basic oil-shale documents are named in the accompanying box. The Area Oil Shale Supervisor's Office (AOSO) sends copies of quarterly reports and Detailed Development Plans of the federal tracts lessees to the AOSSO itself is a repository of raw data on oil-shale development. Except for a relatively small amount of proprietary information, these records are open to public inspection. AOSSO address: Mesa Federal Building, 131 N. 6th, Suite 300, Grand Junction, CO. 81501.

Q. Are there films on oil shale?
A. Several oil-shale companies such as TOSCO and Arco have loan films available. Also, the University of Colorado Educational Media Center has produced a series of nine films on energy sources. One of these is "Oil Shale—The Rock That Burns," a 28-minute film that costs $10 total for three days rental. Address: CU Educational Media Center, Stadium Building, Boulder, CO. 80309.

Note: Be sure in placing orders with agencies that you specify the name and number of the publication. Prices are subject to change, and some publications may be out of print at the time you order.

Shale Country January 1976
Potpourri

A Cartoon Roundup

Shale fever does have its lighter side, at least as seen through the eyes of Ray Lewis, SHALE COUNTRY'S artist. Some observations from the past year . . .

The government and shale

The Navy gets into the act

Discovering oil shale in Rio Blanco

A look at shale in Scotland . . .

... and in Russia

No rest for shale country residents

Plans for the big birthday party
The Green River formation, a 16,500-square-mile area covering the connecting borders of Colorado, Utah and Wyoming, is the site of America's largest oil-shale deposit. For the people living in this region, the development of energy resources—not only oil shale, but also coal and uranium—could mean social and economic transformation in an area that has seen little change during the past years. As attention focuses on this region, many of its communities are in the limelight, and places such as Grand Junction, Colo., and Vernal, Utah, are becoming familiar nationwide. This map shows some of the key communities in the area: Rangely, Rifle, Meeker, Glenwood Springs, Roosevelt and Fort Duchesne, and some of the key shale projects, such as the federal lease tracts (C-a, C-b, U-a, U-b).