When Congress passed the Surface Mining and Reclamation Act two years ago, one of the prime beneficiaries of the law appeared to be land reclamation contractors. The new legislation required coal companies in the U.S. to meet much stricter environmental standards than those previously imposed by individual states, and the lack of expertise at small and medium-sized companies seemingly promised opportunities for revegetation firms.

Though some firms have received additional work as a by-product, the new law has not yet generated the large amount of work that the contractors expected. In fact, some reclamation firms have suffered financially since the new law’s regulations have significantly raised the cost of Appalachian coal, forcing some small companies out of business. “There’s not many companies left around,” says Randall Blackburn, president of Coalfields Reclamation in Betsy Lane, KY. His sales have decreased in the past two years.

There are signs, however, that mining is increasing in other parts of the country, and in some instances, so is the amount of reclamation work offered to independent contractors. Bob Person, general manager of Finn Equipment Co., an erosion control equipment manufacturer in Cincinnati, said sales of his equipment have increased in recent months due to new mining in Oklahoma, Arkansas, Missouri and Illinois.

The federal government’s program to reclaim abandoned mines, those lands mined before any flood control projects are a specialty of American Hydrograss Inc., of Houston, TX. Workmen hydraulically mulch flood control levees at a Du Pont Chemical plant (left) and at the Houston Lighting and Power Co. American Hydrograss owner John Thomas has established 15 experimental plots to test different grasses on flood-prone land in the Houston area.
states required reclamation, has also not proved fruitful up to this point. The U.S. Office of Surface Mining (OSM), the agency charged with administering the new federal law, has been funding projects for the past several months. But few of these projects have actually required substantial revegetation.

Though this program may become the backbone of employment for reclamation contractors within the next couple of years (it calls for spending more than $100 million annually), another program may provide more immediate benefits. The Rural Abandoned Mine Program (RAMP), administered by the U.S. Soil Conservation Service, intends to reclaim land on rural sites.

About $10 million has been appropriated for these projects for the upcoming year. Contracts have already been signed for three projects in Texas totaling $167,000. Another contract, signed in Kentucky, will allocate $450,000 to a non-profit group to reclaim land for recreation use, and SCS officials say the project will require extensive regrading and revegetation.

Otherwise, contractors will need to continue to develop their existing markets. Though many contractors feel the potential business in these areas does not mean expansion, there may not be a drop in such projects, either. The Washington Department of Transportation, for instance, plans to award contracts to provide erosion control on about 600 acres and spend another $2.5 million in landscaping during the coming year.

The most successful reclamation contractors, however, have relied on innovative business and marketing ideas to increase their sales during the past couple of years.

Owen Jones, president and general manager for Contract Grass Co., Inc., Marietta, Ga., said the company's owner decided about one year ago to pursue jobs that require large equipment and more land, thereby generating higher profits, than the smaller jobs they had previously bid on.

Jones said the company was experiencing stiff competition from smaller firms and farmers who would undercut their bids by as much as 50 percent. The firm also decided that it must fight price increases by improving its own productivity. "The only way we could do that was with better machinery," Jones says. "I decided we'd be mechanized, while other reclamation contractors were labor-intensive." He claims that productivity has jumped 300 percent because of these equipment purchases.

The firm increased the number of hydro-seeders from one to three and transports the equipment over longer distances, thereby increasing the number of jobs it could bid on. A second straw-mulcher was added and other tractors with more than 100 horsepower replaced smaller ones.

The change in business philosophy has increased annual sales to about $700,000, Jones says. The firm is treating land disturbed by airport construction, disposal areas for waste materials generated by power plants, federal building programs that have expanded waterways and canals, and sites for new railroad construction.

The competition has dropped because not as many firms can handle the more complex problems of these jobs. "These projects have large acreage, rough terrain and hilly country. Every project has cuts and fills," Jones says.

Along with the new equipment purchases, Jones says the company decided not to bid on jobs where the firm would sub-contract from a general contractor or take a job that offers "marginal profits."

Jones opposes those jobs offered by general contractors since he feels the revegetation firm is financing the general contractor. "The general contractor usually gets a front-end advance and we don't get paid until 30-60 days after the job is done. We're financing him and we don't think he does anything for us in return," Jones admits that the philosophy has occasionally been costly. "We lost some big jobs over that."

But the larger jobs, those that provide handsome profits, allow the firm to make certain it can provide more than adequate revegetation results. "We've never had a problem delivering a final, good grassing job," Jones says.

The new kinds of equipment have enabled the firm to pursue jobs that involve more than just planting grass. One project covering several hundred acres will require planting 70,000 shrub and tree seedlings for wildlife cover though Jones must guarantee a 70 percent survival rate. "We do have specialists working for us who have done that kind of work," he says.

Mine reclamation work also interests Jones, and he initiated a meeting last month with officials at one Alabama mine to convince them he should do their reclamation work.

Jones feels his firm can do the work for less money than the mine company. The key factor, however, is getting enough work to keep his machines busy. He figures that at least 1,000 acres per year would be necessary to pay off an additional investment of between $200,000 and $300,000 for new equipment needed for the mined land.

Bulldozers and harrows are necessary, Jones says, to perform seedbed preparation at the mines. "The soil is so tough, you can't use rubber tires. Un-

Heavy duty rig enables The Grass Man of Marietta, GA, to seed mountainous, hard-to-reach areas.
till the firm achieves the 1,000-acre goal, Jones will sub-contract work where they need heavy equipment. He is not pleased that the new federal law requires reclamation immediately following mining, since he has to make more trips to the mines just to restore 10 to 15 acres.

While Jones and some other reclamation contractors see surface mine reclamation as the new frontier, contractors in Appalachia, who have earned their living for the past several years from greening the mines, are looking for ways to cut costs on these jobs and expand into other markets.

Ken Faerber (pronounced Fay-ber), president of The Green Mountain Co., Charleston, W. Va., reclaims more than 15 underground mines and is also looking into other non-traditional kinds of reclamation.

Reclamation inspectors from the Office of Surface Mining have issued violation notices to underground mine operators for failure to obey regulations on haul roads, drainage and other areas, Faerber said. So he has tried to construct drain pipes and perform more grading and excavation in order to help them meet the federal government's rules.

The U.S. Environmental Protection Agency is also gearing up to monitor the disposal of "hazardous wastes," the by-products of chemicals and other materials that can pollute water sources. Faerber says this will require the contractor to sample the overburden at the disposal site, perform leachate tests and insure the quality of ground water. This kind of work may begin to form a new kind of reclamation contractor, Faerber feels.

"We just can't look at reclamation as going out there and putting down grass. That's just an after fact.

Faerber still does plenty of work on surface coal mines, but is using different methods to apply seed and mulch to keep that part of his business lucrative. He often seeds mines by helicopter when the disturbed land is more than 50 acres, saying it is cheaper for the coal operator than if seed is applied with a hydroseeder. This includes a re-fertilization program to aid germination since the seed is dropped onto land void of nutrients. Costs of application of seed by helicopter vary. Applying seed without any mulch is the least expensive method, and adding a latex mulch is the most costly.

Faerber recommends the use of liquid latex mulches, saying they aid germination on "critical" areas. He says it is not "cost-competitive with wood fiber mulch until the contractor needs to apply between 1,000 to 2,000 pounds per acre of wood fiber.

Handling the liquid latex mulch is also a problem, since the liquid is delivered only in five-gallon and 55-gallon barrels. The latter size is "kind of hard to get on top of a hydroseeder," he quips. Yet it will "stick to darn near anything" and helps establish grass during the initial application.

A third contractor has also found a way to analyze another kind of spoiled land and turn its restoration into a profitable business.

John Thomas, owner of American Hydrograss Inc., Houston, Tex., forged into the reclamation business by approaching oil refineries and petrochemical plants with the idea of growing grass on their land.

Besides selling companies such as Exxon, Gulf Oil and Diamond Shamrock on the aesthetic appearance of a reclaimed area, Thomas showed them that it is cheaper than paying for cement or other construction materials. But growing vegetation on these sites actually involves reclaiming them, and has presented problems.

"Our biggest problem is the soil structure," Thomas says. "A lot of the sites where the plants now stand used to be dumping grounds for certain kinds of chemicals.

"There's also a tremendous salt problem in some areas. The high concentration has meant possibly going with another kind of seed in some situations."

Thomas said soil samples are taken at each site to determine salt content and other factors. Occasionally, new topsoil must be hauled in to give seed a growing medium, and there have even been sites where the soils won't support plant growth.

Direct contracts with the oil companies for these jobs, which usually cover between 2-10 acres, have increased his company's sales "substantially" during the past year, he says.

Though his competition has increased about five percent during the past year, Thomas is also working as a consultant to some of these firms, even when they win a contract he would have liked.

Thomas feels the smaller firms might overlook some details about performing a job. "Though the area where the job is might have a water source, it may need to be sampled because it's not salt-free. This has happened a number of times." Thomas is also a supplier of seed, fertilizer and wood fiber mulches.

Though Tony Haley, an equipment specialist for Caterpillar Tractor Co., Peoria, Ill., has predicted that mining in Texas will experience the biggest immediate jump in mining (from 19 million tons in 1978 to a projected 50 million next year), Thomas says he doesn't foresee a move into mine reclamation.

"The distance of the mine fields puts us pretty well away from mining," he says. "There are conditions here that require us to stay put." He says he often can sign a contract "overnight," especially if a hurricane or other bad weather is expected, and the site needs to be seeded immediately.

Thomas worked to establish his business in the local area. He became involved in another kind of revegetation after attempts by some government officials to place revegetation standards on new housing construction became imminent.

Heavy rains eroded property from new homes on Houston's west side last summer, and many residents blamed the city for failing to maintain a 40-foot parcel of flood control ditches.

After talking with some of the home builders, Thomas established 15 experimental plots to test different grasses on the flood-prone land. Though the Harris County Flood Control District has delayed the approval of a revegetation plan thus far, primarily because of recent changes in its administrative structure, Thomas feels a plan will soon be adopted.

If some specifications for revegetation are approved, Thomas feels his work with the developers will give him the first chance at this new business.