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West Virginia Begins Requiring Subsidence Control

by Richard diPreto

Underground coal mines in West Virginia are removing the support for the surface of thousands of acres every year, as they have for decades. In the course of this removal, they alter the natural flow of ground and surface waters in addition to causing damage to structures. These surface effects of underground coal mines are addressed by the Federal Surface Mine Control and Reclamation Act of 1977 (SMCRA). One of the more significant ways the Act attempts to ameliorate the impact of underground mining is to require submission and approval of a subsidence control plan by operators. These plans require: 1. a survey of structures and renewable resource lands along with an opinion on subsidence damage prospects; 2. a general description of the technique of coal removal; 3. location and extent of areas of planned subsidence, anticipated effects and damage prevention measures; 4. description of geologic and hydrologic conditions affecting subsidence and damage; and 5. mitigative and remedial measures, except where operator "possesses the right to subside without liability."

As most **Voice** readers are probably aware, the Federal Government administered SMCRA in West Virginia through its regulations until it satisfied itself that the State had a program in place which was at least as effective as the Federal program. At that time (1981), the State achieved "primacy" in implementing SMCRA. Because of a complex series of events involving decisions by the former Director of DNR David Callaghan and litigation by the coal industry at the State and Federal levels, no West Virginia mines have been required to file subsidence control plans unless permitted after July 15, 1983. This means, for instance, that a mine permitted in 1982 without a subsidence control plan would be allowed to operate without filing one until its 5-year permit renewal in 1987. According to a spokesman for the coal industry, there are approximately 900 mines in West Virginia in this position.

CHANGES

All this is changing thanks to the courage of a Monongalia County couple, Gene and Ginger Brookover, who this fall challenged Consolidation Coal Company and the DNR on the issue of subsidence control plans. Their modern white brick house which they built themselves is located on 1.6 acres at the edge of Consol's

6-west longwall panel of the Osage No. 3 mine. Their land straddles Jakes Run, a perennial tributary of Dunkard Creek of the Monongahela River in western Monongalia County.

Because of extensive damage that they had witnessed occurring in their community as a series of longwall panels marched up the watershed, they refused to sign a standard subsidence damage contract offered by Consol. Instead they sued under the citizen's suit provisions of the law, represented by Joshua Barrett of DiTrapano and Jackson, and Patrick McGinley, a WVU law professor. The types of damage and effect on their community that they witnessed included:

- domestic water wells drained and/or contaminated by methane;
- houses sagging, cracking and accumulating methane;
- their daughter's school structurally damaged and also threatened by methane in its two water wells;
- the capture of the stream by the mine (at a depth of almost 500 feet) in front of the school resulting in complete dewatering for a period of weeks;
- the death of catchable size fish in the dried up stream (the DNR was called in by a landowner who discovered the kill by the smell);
- the explosion of one house;
- dewatering of springs used to water livestock;
- pooling of water upstream from the areas over gate entries resulting in flooding of bottom ground;
- increasing frustration but also increasing fatalism on the part of community members, perhaps the most insidious effect of all.

Consol attempted to remedy the stream dewatering problems, first by using bentonite and grout in the stream bed and later by scraping and lining the stream bed with a black plastic sheet which would later be removed. The Brookovers objected to the emplacement of the liner in the stretch of the run on their property but Consol, operating on a questionable permit from the Public Lands Corporation, went ahead.

Consol minimizes the importance of private water wells because the area has a Public Service District but the fact remains that groundwater is a valuable resource. Its destruction is a diminution of the value of the surface property. The drilling of gas wells could be more difficult in the future. Livestock farming and irrigation could be made impossible.

Consol has no permit from the DOH to undermine the Jakes Run public road and no agreement with the Monongalia County Board of Education with regard to the damage at the school. No finding was made by then Director of DNR Callaghan that mining near or adjacent to a school would not cause material damage as required by regulations.

Testifying for Consol at one of the hearings in this case, Callaghan stated: "The fact of it is, subsidence has never been a major problem in West Virginia. It has never been regarded as a major part of this entire regulatory program. With some few exceptions throughout the State, subsidence just has not been a problem."

Apparently, the types of conditions listed above, which are not confined to Jakes Run, only become problems in the minds of Callaghan and Consol when citizens demand that they be treated as such and that the law requiring advance planning be enforced. Consol routinely files subsidence control plans for the Pennsylvania portions of four West Virginia mines which are almost identical to Osage No. 3.

The attorneys for the Brookovers presented no witnesses in this case. On the basis of their cross examination of Consol's and DNR's witnesses,

Judge Andrew MacQueen of Kanawha County issued an injunction prohibiting the operation of the longwall panel under the Brookover property. Later, he imposed a condition of dissolution of his injunction: Consol was to submit, and DNR was to approve, a subsidence control plan for the portion of the mine near the Brookover's property. Public review, hearing and comment were to be accelerated because of concern for over 300 employees Consol chose to idle. The plan, which is more a legal argument than a technical document and is totally inadequate, has been submitted, the hearing held and public comment received. By the time this goes to press, the decision will probably have been rendered.

Although unfortunately produced in a crisis atmosphere, the requirement of a subsidence control plan, particularly for a longwall panel, is a step in the right direction. This case has triggered a review of West Virginia's program by OSM. It is up to us to see that OSM's oversight is effective and that West Virginia's subsidence control plan requirements, as they develop, are as adequate as they can be to protect the future ability of our communities to support themselves.

Make Ski Tracks To Meeting

Wax up those skis and send reservations now for the Winter Meeting of the West Virginia Highlands Conservancy. On January 19th and 20th, WVHC members will gather at the Alpine Springs Motel at Bowden.

With the field trip, which begins Saturday at noon, folks will get a first taste of the new outings schedule now in the works under the direction of committee chair John Purbaugh. Cross country skiing should be at its best, and Purbaugh will lead skiers through some beautiful territory.

We're planning a presentation on Corridor H for the Saturday evening program, followed by some ad hoc committee meetings and a social hour. The Board of Directors meeting will begin Sunday morning at 9:00.

Since the hotel isn't your standard Ramada Inn, you'll have to act early to get reservations for one of its rooms. Some will have to share double rooms, but a few singles are available—first come, first serve. The cost is \$11 per person. Lodging for

children under three is free. (Other accommodations can be arranged in the area if we overflow.)

Saturday dinner at the Lodge is available for \$7, Sunday breakfast for \$4, and Sunday lunch for \$5. Those wanting to come earlier can make arrangements for Friday night lodging directly with the hotel. All arrangements for Saturday night lodging and the three meal reservations have to be made with the Conservancy. (Reservation form in this issue.)

As before, we can only refund reservation costs if someone takes your place and we meet the costs of the weekend.

If you haven't come to a WVHC meeting before and snow is your natural medium, why not try us. Ski rentals may be available if you don't have your own equipment, and some of our number will be glad to give appropriate tips on safe falls, telemark turns and how to make those sticks glide.

But reserve now for the best spot.

VOICES

Opinion from members

Some Observations On The Elections

by Perry Bryant

On November 6th the American people, by an overwhelming majority, reelected President Reagan. The President, with the worst environmental record of any modern day president, was supposed to sweep into office like-minded Congressmen and Senators. It didn't happen.

For example, while Iowa voters were electing Ronald Reagan, they were also electing Tom Harkin over incumbent Sen. Roger Jepsen to a six-year Senate seat. Not only did Jepsen have one of the worst voting records in the Senate on environmental issues and Harkin one of the best in the House of Representatives, but Harkin is also a fighter on environmental concerns, particularly on pesticide misuse and soil erosion control.

Other notable gains in the U.S. Senate include Gore of Tennessee and Carry of Massachusetts. Gore is expected to play a key role in shaping the reauthorization of Superfund and other laws dealing with toxics. Carry strongly supports acid rain legislation.

Not all went well in the 33 U.S. Senate races, though. Unfortunately, Jesse Helms was reelected despite a strong challenge by Gov. James Hunt. Despite Hunt's loss, the Senate has played a key role in blocking reauthorization of some of the nation's most important environmental laws: Superfund, the Clean Water Act, and the Safe Drinking Water Act, for example. With the addition of Harkin, Gore and Carry, hopefully, some of this will change.

Overall, the House of Representatives will be slightly less supportive of conservation concerns, according to Steve Pearlman, a politically astute staff member of the League of Conservation Voters (LCV), the largest environmental PAC in the country. "We lost about five seats in the House. But out of 435 that is negligible. The projected coattails of President Reagan never really materialized."

In West Virginia two Congressmen with strong environmental backing won reelection easily. Bob Wise, endorsed by the LCV, Sierra Club's SC-COPE, and the West Virginia-Citizens

Don't Sign Without Advice

by Richard DiPreto

The case brought by Gene and Ginger Brookover against Consolidation Coal over subsidence problems has helped a long submerged problem gain more public attention. The problem is this: What should a landowner do when a coal company representative comes with a paper to sign?

The fact is, land agents for coal companies do not inform people of the rights they have under state and federal law. Although an agent may try to persuade an owner it won't make any difference if he doesn't sign because the coal company has its rights, that signature can mean thousands of dollars to the coal company.

People should not accept the claims of the company that they have the "right to subside without liability."

Political Action Committee (CitPAC), won by an astounding 68% of the vote. Harley Staggers, Jr., also supported by the same groups, won by a 57 to 43% margin over Cleve Benedict. Both Wise and Staggers have consistently backed conservation measures in Congress, and conservationists can look forward to working with them over the next two years.

At the state level the elections produced similar results. Out of 58 candidates endorsed by CitPAC, 42 won. The election of Jim Humphreys, Bonnie Brown, Lee Feinberg, Tom Knight and Charlotte Pritt (all Delegates from Kanawha County) was welcome news.

Other important House of Delegates victories included Chuck Chambers and Sue Davis of Cabell County, Joe Albright of Wood County, Jim McNeely of Mercer County, Shelby Leary of Monongalia County, and Paul Prunty and Ben Springston of Marion County.

There were some disappointments in the House races as John Doyle lost his bid for a second term from the Eastern Panhandle and several newcomers failed to unseat incumbents (notably Sue Hubbard of Cabell County, David Ice of Wood, Bill Reger of Ohio County and Tom Berlin of Lewis County.)

In the State Senate, Conservancy member Tod Kaufman won a four-year term as did Mac Jerrell of Cabell County. Both are expected to play key roles in shaping conservation laws during the upcoming legislative sessions. The biggest loss in the State Senate was Bill Neely's unsuccessful bid in Harrison and Lewis Counties.

It's probably fair to say a strong stand for protection of resources doesn't work against candidates. Big issues of nuclear arms, national security, and the nation's economy tend to obscure environmental issues at the presidential level. We can be grateful the 1984 election didn't drive the movement underground, but instead left us with strong advocates at both the state and federal levels—advocates within the Congress and the State Legislature. That has to mean a lot of people were listening.

They ought to be aware that signing these agreements exempts the coal company from liability after the agreed repairs are made. Owners should also not allow gas wells to be plugged without substantial compensation.

In the Brookover hearing, their counsel publicly urged landowners not to enter into agreements without thorough review by competent counsel familiar with coal mining law and regulations. A title search may clear up owners' rights to their specific piece of property. And if they don't own the coal, they should know exactly what they can do to protect their investment in the surface and the structures on it.

The best counsel to landowners is caution, and a healthy dose of skepticism.

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George Nominated To Coal Council

WVHC President Larry George has been nominated for appointment to the National Coal Council by 4th District Congressman Nick Joe Rahall.

The only conservationist nominated so far, and one of the few representatives from outside the coal industry, if appointed, George will serve a three-year term on the advisory panel. Rahall also nominated UMW President Rich Trumka to the council. Twenty-three nominations have been made, with the council to eventually

consist of about a hundred members.

The National Coal Council reviews transportation, mining production, marketing, research and environmental concerns and advises on coal policy.

According to George, "It's crucial that conservationists hold a leading role in shaping the nation's coal policy and the National Coal Council may provide this forum if the President and Secretary Hodel will allow it to do so."

NEWS BRIEFS

ACID RAIN IN THE NEWS

New Scrubbing Technology a Bright Spot

A Pennsylvania engineer is developing a device to take the acid out of acid rain. Instead of the old scrubbing method, which involves passing exhaust gases through a limestone-based spray to neutralize sulfur dioxide, Westinghouse engineer Ira Kanter plans to use electricity.

Although he won't divulge specifics, the new technique uses an electric arc to charge the gas molecules and make them unstable. The unstable molecules can be caused to react with each other to create new and possibly useful compounds. In experimental work, Kanter has produced substances which could become the basis for fertilizer.

The device is similar to a process developed by a Japanese company, Ebara International Corp., but federal officials hope Kanter's technique will be cheaper and require less electricity.

The old process scrubs only sulfur dioxide, not nitrogen oxides, while the Kanter process cleans both. It is one of five new processes being developed under Department of Energy grants, and the only one using electricity rather than chemicals to remove the acid-producing oxides.

reported in *The Pittsburgh Post-Gazette*, 10/1/84

Death in the Smokies

On its 50th birthday this year, the 5,200,000-acre Great Smoky Mountains National Park may not have much to celebrate. The nation's most popular wilderness preserve, authorities say, is facing ecological disaster. The prime suspect is acid rain.

According to Dr. Robert Bruck, a North Carolina State University plant pathologist, trees which should live 400 years are dying after 45 years. "We've got to have answers," he said. "Acid rain is part of the phenomenon but we cannot say definitely by any means that acid rain is causing the problem."

Fish kills of over 100,000 trout have occurred at adjacent trout farms, half of them since February. The chief of resource management at the park, Stu Coleman said, "We have identified the effects of air and water pollution as our No. 1 problem. But it's one of those things you just don't know what to do about."

The park was established in 1934.

reported in *The Wheeling Intelligencer*, nda

Drawing Eyes to Acid Rain Issue

They knew people threatening to jump from tall buildings tend to draw a crowd. So to draw a crowd to think about acid rain, Greenpeace planned an impressive jump—from the top of the smokestack at the James M. Gavin Power Plant at Chesire, Ohio. Ironically, General Gavin was once a paratrooper. He probably would have appreciated the stunt.

Robin Lee Heid, an ex-paratrooper from Denver, made the jump October 2nd. Heid and John Myers climbed the stack about dawn, equipped with particulate filter masks, intending to unfurl a giant banner reading "Stop Acid Rain Now" and later parachute to the Ohio River, where a boat waited to pick them up.

But when Myers rappelled down the stack to hang the banner and worked for two hours without his mask, the emissions made him ill. He decided not to jump.

Coordinating the media event through 2-way radios, the two stayed atop the stack until the planned 1:20 jump, though winds and Myers' illness forced them to display the banner horizontally on a railing just below the top of the stack. On schedule, Heid leaped from the stack, dropped about 200 feet and opened the chute. He drifted into a grove of pine trees and was arrested. Myers climbed down and surrendered to authorities.

The Gavin plant was chosen for the jump because the Environmental Protection Agency listed it in 1980 as the largest point-source of sulfur dioxide emissions in the nation.

Heid served in the Army's 82nd Airborne Division, the same unit commanded by General Gavin during World War II. "This jump was in honor of General Gavin as much as in opposition to the policies of this plant," Heid said.

reported in *The Huntington Herald-Dispatch*, 10/3/84

Government Scientists Echo Administration Position

Two scientists from separate government agencies made the case for more research into acid rain and air pollution in the first two meetings of the Acid Rain Seminar Series sponsored by the WVU Division of Forestry.

Dr. Leon Dochingher of the U.S. Forest Service said he agreed with the Reagan administration's position that more evidence is needed before taking concrete steps to control acid rain.

"I believe acid rain is the most serious environmental problem of the century," he said, but argued, "we don't know that (scrubbers) would work."

Dochingher warned that the United States trailed far behind in acid rain research, and that we know "surprisingly little" about the chemistry of acid rain. He did agree the effects on aquatic life were well documented.

Dr. Richard Phipps, a plant ecologist with the U.S. Geological Survey, termed present acid rain research inconclusive and suggested, "the problem of ozone is more important than previously thought while acid rain may not be as important...."

Discussing tree growth studies done in West Germany and others in northern Virginia, both of which showed recent declines in growth rates, Phipps claimed the reasons for the changes were still unclear. "Atmospheric pollutants are just one of many factors that limit tree growth," he said.

The third seminar in the series is scheduled for Thursday, December 6. reported in *The Morgantown Dominion-Post*, 10/25/84

POLLUTION SURVEY

A Conservation Foundation survey measuring pollution production and control ranked states on production of hazardous wastes, sulfur dioxide emissions and particulate pollution. It also compared government and industry expenditures to clean up pollution. While the study seemed to produce some surprising results, all data was worked out to per capita amounts. The per capita system tended to exaggerate both pollution and control efforts for states with small populations, regardless of the proportion of chemical, electrical, or other products produced within their borders.

West Virginia and Wyoming led in per capita emissions of sulfur dioxide, while North Dakota, Montana and Nevada led in particulate emissions.

On the cleanup end, West Virginia also stood among leaders in business contribution to pollution control, while the state of Alaska topped the governmental support for cleanup efforts.

reported in *The Huntington Herald-Dispatch*, 10/6/84

HYDRO ON THE TYGART?

Two applications to produce power at the Tygart Lake Dam have been filed with the Federal Energy Regulatory Commission (FERC). The proposals by Noah Corporation and the city of Grafton follow on the heels of three alternatives for power generation developed by the Army Corps of Engineers.

According to John Reed of the Corps, the general policy from Washington is to let private interests develop hydropower. The Corps plan has been put "on a back burner."

FERC has authorized a comparative analysis of the two private applications. Before a license could be issued, the Corps would have to review the application. The project would have to remain consistent with flood control, recreation and wildlife management purposes.

reported in *The Morgantown Dominion-Post*, 10/21/84

(Editor's Note: A special thanks to our loyal clippers, who've scoured their papers for stories of interest to environment-watchers. Help came from Dan O'Hanlon (Huntington), Doug Mowrey (Pittsburgh), Lois Rosier (Morgantown), Marilyn Costain (Wheeling), and Patti Mulkeen-Corley (Charles Town). We've room for more folks, too.)

OSM Evaluates WV Mining

by John McFerrin
Mining Committee Chair

The Federal Office of Surface Mining has released its annual report on the West Virginia Surface Mining program. Although West Virginia has primary responsibility for administering and enforcing the surface mining law, the federal OSM performs annual evaluations of West Virginia's performance as part of its oversight responsibility.

The report praises the West Virginia authorities for progress they have made in improving both the regulatory and abandoned mine lands programs. In the opinion of OSM, West Virginia has made the most improvement in dealing with underground mine operators. In the past, West Virginia's inexperience in regulating this type of mining had caused problems. During the period covered by this report the West Virginia authorities had taken steps to alleviate those problems.

The Office of Surface Mining did, however, note several remaining problems with the West Virginia program. Several deficiencies that were noted are:

—Some sites may not yet be covered by performance bonds. (Performance bonds are required to assure that sites are properly reclaimed.)

—Agencies such as those responsible for local planning and public water supplies have not received the required notification of permit applications.

—Hydrologic and geologic information in applications was incomplete.

—The Special Reclamation Fund (established to pay for reclamation when bond money is inadequate) may not be adequate to cover the cost if a large mine must be reclaimed by that fund.

—West Virginia Department of Natural Resources is not inspecting some mines frequently enough.

—Enforcement is inadequate for toxic materials and water monitoring, failure to abate violations, mining without a permit, exceeding the 250 ton prospecting limit, and taking appropriate action when companies exhibit a pattern of violations.

—Civil penalties are not being imposed as West Virginia Statutes and regulations require.

The Federal Office of Surface Mining considers West Virginia to have a "strong program." Although the report urges West Virginia to take action to correct the problems cited, the report indicates no intention of action by OSM to require West Virginia to do so.

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HYDROPOWER: The Parad

Small-Scale Hydropower—Alternative Energy?

(Editor's note: This issue brings you the third part of a four-part series on hydropower. The first two parts, published in the July and August issues, explained the fundamentals of hydropower technology, a brief history of hydropower development, and a review of the impact of power consumption trends on plans and project development. If you've missed part of the series, we'll be happy to send the missing segments.)

Until the early sixties, hydropower technology and development rolled along largely on its "successes"—big dams producing large amounts of cheap and reliable power. The bureaucracy built around dam construction added a bit of a push. With the government putting up the capital, the big western dams which provided flood control, irrigation and electricity appeared to be the ideal power source.

Large-scale development got a further push in the mid-sixties from enormous growth projections for electricity consumption, numbers which planners expected to double every eleven to sixteen years well into the 21st century.

But this fever for grand hydro development cooled during the seventies as capital costs skyrocketed, energy demand slowed, and conventional sources expanded to create large excess capacity. Some big dam projects were shelved, others headed off by public pressure, and the rush for large-scale hydropower development slowed to a trickle.

Legislation for Change

Meanwhile, the energy crisis also sparked interest in alternatives to

petroleum. Water, the imminently 'clean' and 'free' source, could not be ignored. To identify potential sources, the Carter administration in 1977 asked the U.S. Army Corps of Engineers to survey existing dams which might be rejuvenated to produce electricity. They turned up 50,000 of them.

Inspired by the Corps' study, Congress took a step in 1978 which paved the way for a shift in hydropower development trends. Enacting the Public Utility Regulatory and Policy Act (PURPA), Congress moved to stimulate alternative energy sources and producers and to adjust the energy market picture so these new kids on the block could compete with existing giant public utilities.

A keystone of the act for small producers was the requirement that large utilities buy power produced through small operations. The instant market and distribution system allowed innovators in wind, solar and other technologies to survive. At the same time, it created conditions which encouraged communities to take another look at their rivers and existing dams, with an eye for turning them into power.

Besides guaranteeing a market, PURPA also earmarked federal funds to stimulate small hydropower. The Department of Energy awarded grants for feasibility studies at 54 existing dam sites around the country, and provided 25% of construction and operation costs at eight demonstration projects.

Tax credits for alternative energy development provided additional incentives for private development, and municipalities found further incentives through their power to sell tax-free industrial development bonds.

All of a sudden, thousands of old dams built in the 19th and early 20th centuries for town water supplies, industrial uses, mills and logging took on a new appeal. People quickly translated the small dams' capacities into number of barrels of oil saved. Since many of the nation's existing small dams were located in New England, the equation made perfect sense. There seemed to be no drawbacks.

A 1981 article in *Kiwanis Magazine*, "The Rebirth of Hydro Power," stated the case with unflagging optimism. Writer Mildred Jailer quoted Winston Hickman, manager of the Small Hydro Power Program at the Idaho National Engineering Laboratory: "Now that energy prices have sky-rocketed, the small site has become economically viable. With the program zeroed in on existing dams, we can get power on line with the least amount of environmental impact."

Jailer concluded her report enthusiastically: "If the 50,000 dams that the Corps of Engineers has identified were revitalized, and each turned out an average of only 1,000 kilowatts, that would add up to 50 million kilowatts....That, no matter how you look at it, would be a lot of electricity, all generated without air pollution and without costly imported oil."

Licensing

Congress wanted to clear the administrative way for small scale hydro development, to allow these "low-impact" projects to avoid the protracted licensing process required of the big dams. By setting provisions in the Energy Security Act to allow

the Federal Energy Regulatory Commission (FERC) to exempt certain projects, they hoped to speed the work of getting these new power sources on line.

They categorized the exemptions in three groups:

- pre-existing dams retrofitted or modified for hydropower to produce 5 MW of power or less;

- "natural water feature systems" used to produce power (5 MW or less existing, 1.5 MW for new systems);

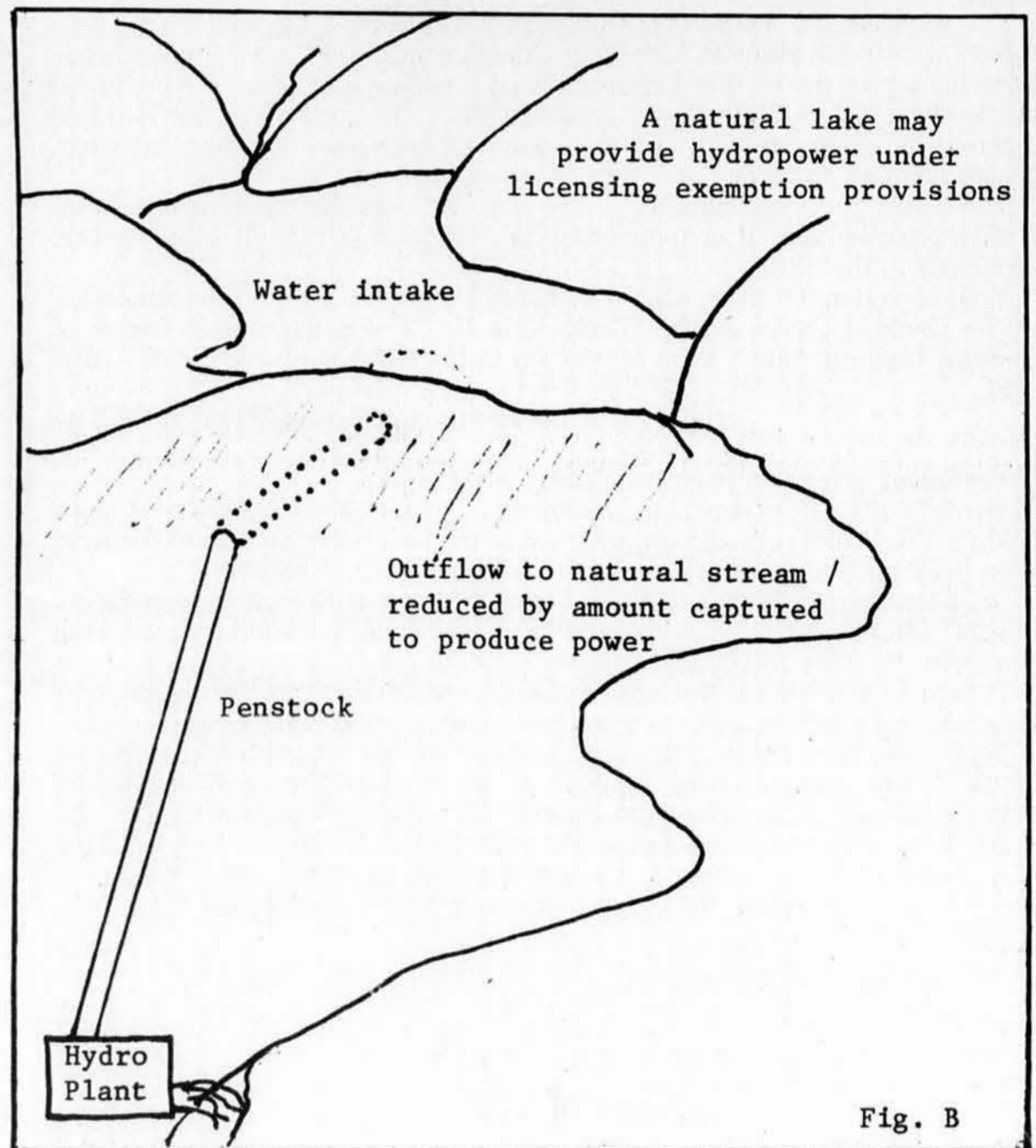
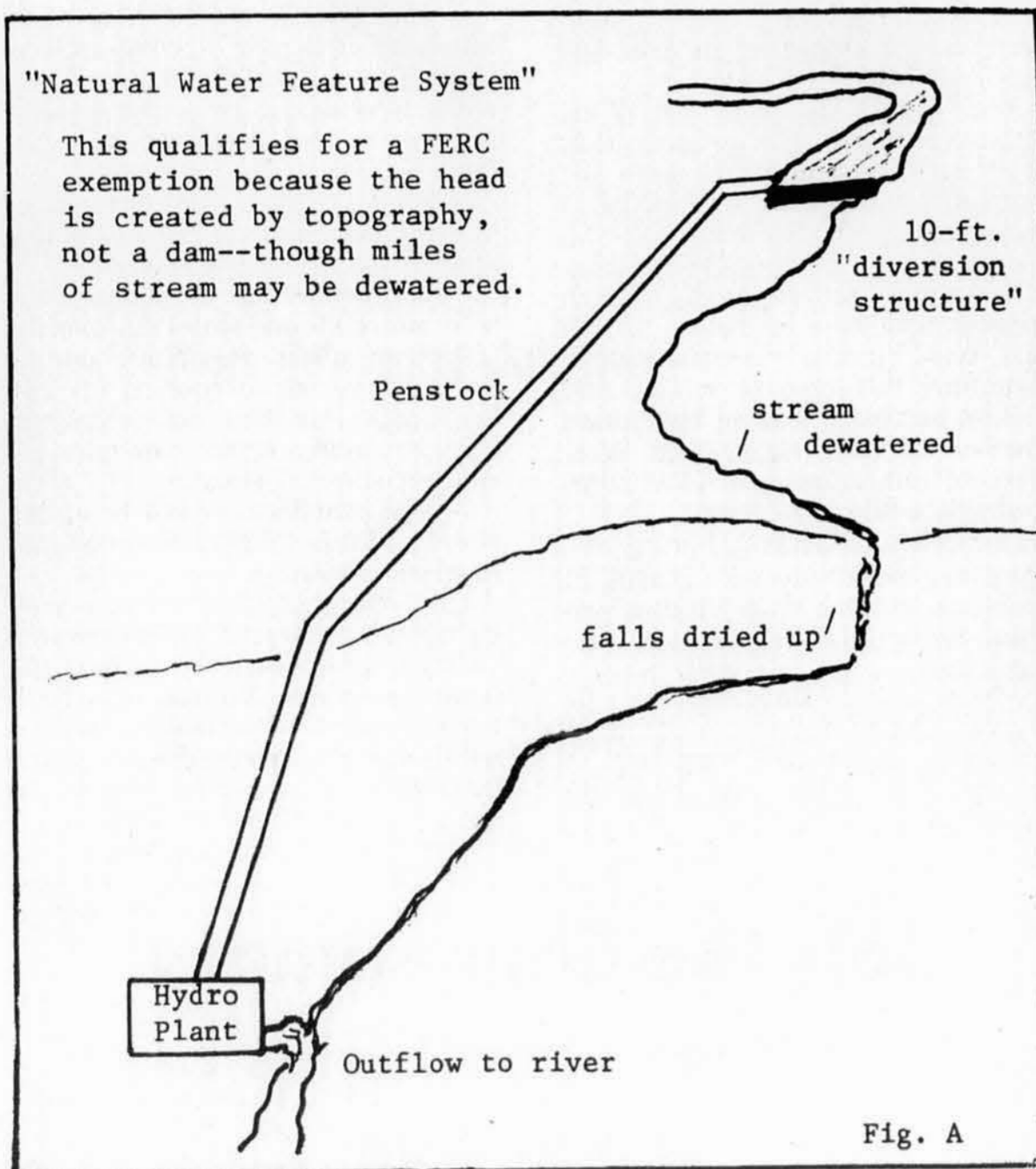
- conduits retrofitted for hydropower.

A five megawatt dam would, in many cases, have about 50 feet of head (the vertical distance between surface water level and turbine), so the exemptions covered dams one could hardly think of as small intrusions on a stream.

Pre-Existing Dams

In the interest of deregulation, FERC adopted a broad interpretation of the 'pre-existing' designation. According to Chris Meyer, Counsel at the Water Resources Program of the National Wildlife Federation and participant in the 1984 River Conservation Conference, FERC has allowed projects to qualify under the exemption at sites where dams once existed, but which had been reduced to rubble.

Only recently has FERC slightly narrowed the definition, at least in its response to an inquiry by Rep. Richard Ottinger, Chairman of the Subcommittee on Energy and Conservation of Power. The 68-page document, dated February 17, 1984, cites the statutory definition of an existing dam as "one which was completed on



Box Of Clean Energy: Part III

or before April 20, 1977, and which does not require any construction or enlargement of impoundment structures (other than repairs or reconstruction) in connection with the installation of any small hydroelectric power project."

As to the question of whether a breached dam could qualify, the FERC admitted it "had not formally addressed this issue." The agency cited the report of a Congressional conference committee report on PURPA legislation which said "existing dam should be strictly construed to mean...existing impoundment." For the first time apparently, the Commission implied total reconstruction of a breached dam should not be allowed without the full licensing procedure.

Conduit Facilities

Another channel for exemptions from the lengthy procedures developed for hydroelectric projects which took advantage of man-made conduits rather than dam construction to produce the required head. To be eligible for exemption, the conduit had to be built and operated for the distribution of water for agricultural, municipal or industrial consumption, with the ultimate outflow at the point of use.

Most conduit projects are in the west, where irrigation and a number of cities have already established conduits which could be retrofitted.

"Natural Water Feature Systems"

The third exemption comes with a "natural water feature," referred to in Section 408(b)(2) of PURPA, a term which allowed significantly larger numbers of projects to qualify under less stringent standards. The FERC defined natural water features as "a natural configuration, such as a 'natural lake, waterfall, or the gradient of a natural stream,' which can be utilized for the generation of electricity without the need for a 'dam and man-made impoundment.'"

But the FERC allows far more intrusion than the term 'natural water feature' implies. In other words, as long as the gradient of the stream provides the necessary head rather than a dam, the project may be able to qualify. To get the water to follow the conduit route rather than the stream, project builders are allowed to build a diversion structure. This allowable diversion structure may include any structure 10 feet high or less (even if it spans a river).

Why is this not a dam? According to FERC, a dam is not merely a structure for impounding water. A dam becomes a dam when "the impoundment supplies all, or the substantial part of the total hydroelectric pressure (head) developed for such generation."

Although a diversion structure may have less impact on the upstream area (a large lake cannot be created by a 10-foot dam), it can have a serious impact downstream. The channel below the diversion structure can be virtually dewatered by the diversion of flow into a penstock. (Fig. A)

Outflows from natural lakes can suffer a similar fate if sufficient water is diverted through submerged intake lines. By definition, natural lakes take advantage of a natural depression between the inflowing and out-flowing streams. In a fully natural setting, outflow should equal inflow. If water is drained from the lake through a penstock and released at some point further downstream, the lake's natural outflow is reduced by an equivalent amount. The entire stretch of the natural river between the outflow and the hydro plant may be totally altered by this "natural water feature system" project. (Fig. B)

In the west, where water rights are a source of constant litigation, the problem of water diversion is further complicated by planned projects which transfer the water from one watershed to another during the diversion process.

A Piece of the Action

After the passage of PURPA, companies, towns, and others wasted no time in getting in line for a piece of the small hydro action. The first stage of getting a license, whether under the usual regulations or under an exemption status, is to apply. Application to the FERC insures the applicant's place in line, and in the meantime he can refine his plans and alter his application as he gets closer to agency review.

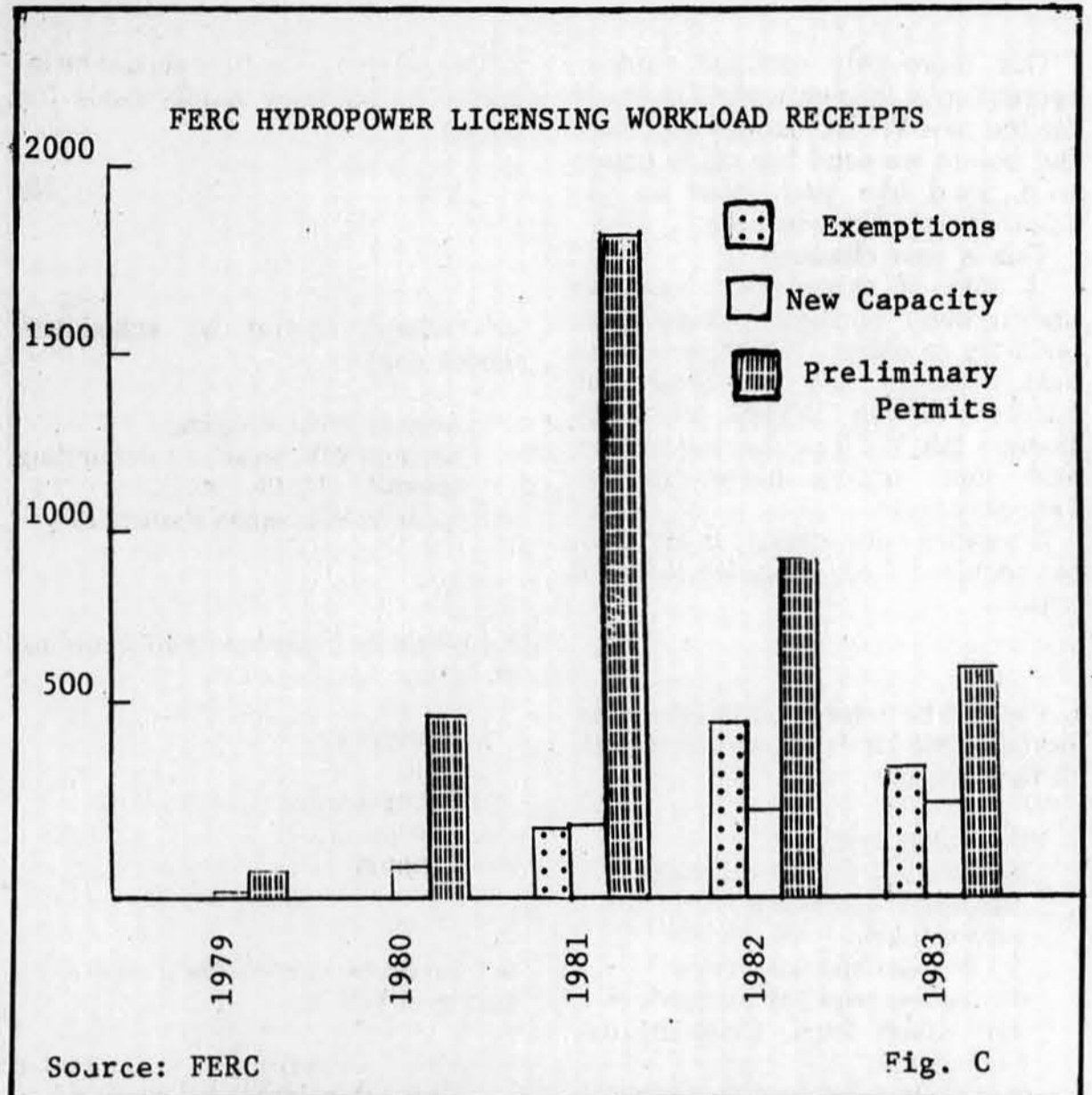
The total number of applications for preliminary permits, new capacity licenses and amendments, and exemptions increased an amazing 2000% in just two years following PURPA's enactment. (Fig. C)

Of course, the FERC was the first to feel the brunt of the new applications in its increased work load. In a cover letter to the Ottinger subcommittee, FERC Chairman Raymond J. O'Connor reflected on his response to the problem:

"The internal processing problems resulting from the dramatic increase in actions filed with the Commission are being addressed. Reallocations of FERC staff have been made in an attempt to expedite the processing of the increased volume of filings. As part of the burden reduction program, the Commission has reviewed the application filing requirements for permits and licenses and made substantial modifications or reductions to ease the burden placed upon applicants and to reduce the Commission processing time without jeopardizing the due process rights of all interested parties."

Just how does the FERC handle the licensing process? Perhaps it would be simplest to quote their own document in answer to that question. The answer applies only to small hydro projects, although there may be parallels for large projects.

"The offices involved in the processing of hydroelectric applications are the Office of the General Counsel (OGC) and the Office of Electric Power Regulation (OEPR). The processing of applications is the responsibility of the Division of Hydropower Licensing (DHL), in OEPR. The Division is comprised of three entities:



Project Management, Hydropower Analysis, and Environmental Analysis." (Fig. D)

"The processing of applications for preliminary permit, exemption, and license is similar. When submitted, an application for a hydroelectric project is reviewed by OGC and OEPR to determine if it complies with the filing requirements of the Commission's regulations. Upon completion of this initial review, OEPR informs the applicant that the application is either:

- (1) acceptable for filing;
- (2) deficient, in which case revisions are requested; or
- (3) patently deficient, in which case the application is rejected."

If the application is accepted, public notice is given, and agencies are asked to comment if the project is over 5 MW. The FERC may grant a public hearing, but is not required to do so. Unless a project is "a major Federal action affecting the quality of the human environment"—in which case the OEPR prepares a draft and

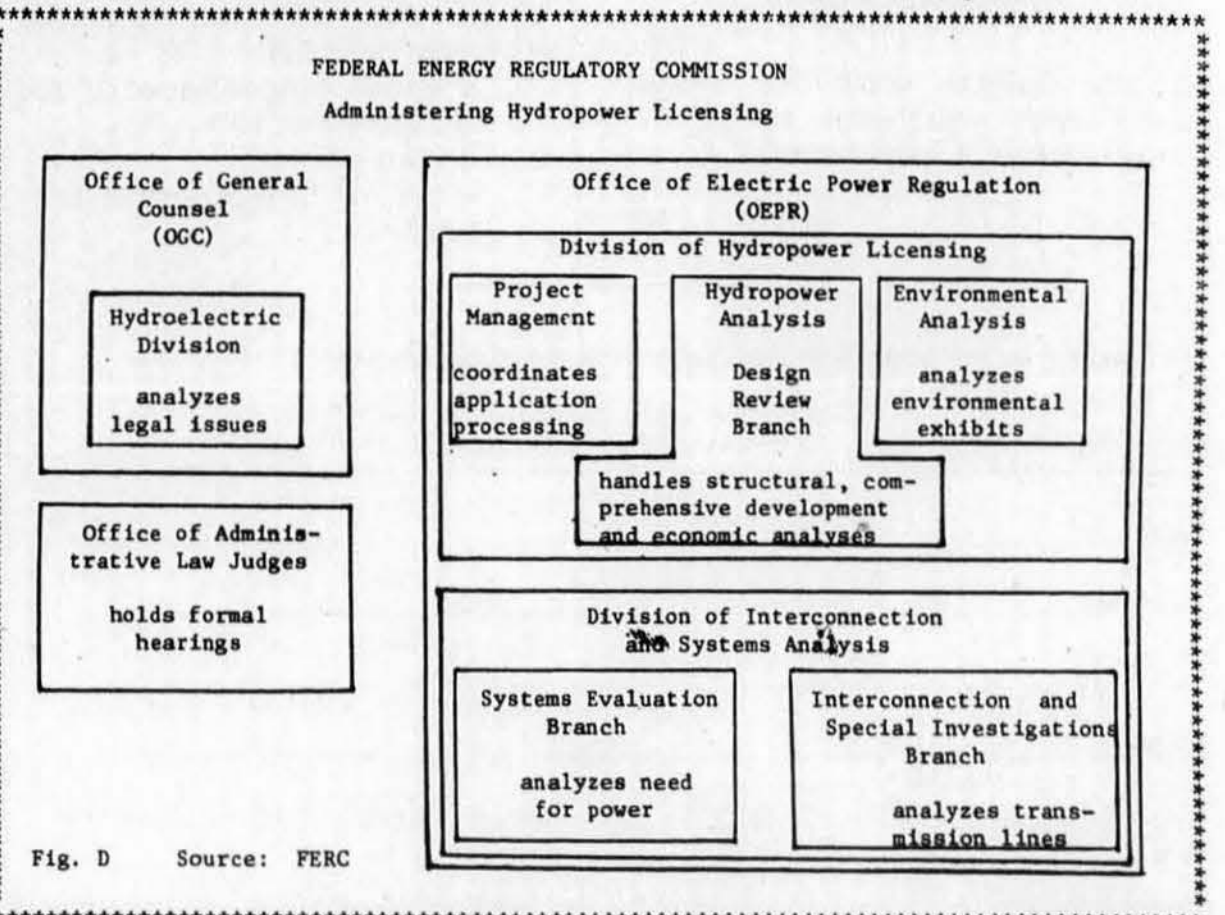
final environmental impact statement—the agency can go ahead with licensing.

Most of the applications for preliminary permits, exemptions and licenses are acted on by the director of the OEPR—96% of permits and exemptions, 86% of licenses. The rest are acted on by the Commission itself.

Possibly the most worrisome of the FERC authorizations for hydropower projects on the current scene are the large number of exemptions granted. The exemptions generally receive a poorer scrutiny, are not necessarily referred to state agencies for comment, and are approved under a more accelerated time schedule. The deed may be done before the public realizes the potential for damage.

In 1978, no exemptions were granted. Beginning with two in 1979, 12 in 1980, and 53 in 1981, the exemption approvals jumped to 238 in 1982 and 224 in 1983. While both applications and exemptions have again

Continued on Page 8



The Compleat Outing Survey

Landowners, Industry Seem Satisfied With Rights Bill

by Skip Johnson

The Surface Owners Rights Bill, which gave surface owners a greater voice in oil and gas drilling on their property, has resulted in a substantial improvement, Delegate Joe Albright, D-Wood, said November 14th following hearings on the legislation.

The bill, which was passed in 1983, has been under review by a joint interim committee, of which Albright is chairman.

Albright said comments by landowners have led him to believe that "by and large the bill is doing what we wanted it to do." He said industry generally appears satisfied with it, also.

One area of disagreement, however, is location of drill sites. "There is no requirement that wells be drilled on the side of a pasture field, for example, rather than in the middle," Albright said. "But that was something we had to give up to get a bill."

He said industry's contention is that the period of time involved in resolving disputes over well sites would be too long, and that the damage section of the bill provides a means for landowners to recoup losses for roads and other surface disturbance.

A possible weakness in the damage provision cropped up in the interim hearings, Albright said. A landowner related that when they couldn't reach agreement on damages with an out-of-state drilling firm, the company took the matter to federal court.

According to the provision, the two parties can settle between

themselves, go to independent arbitration or go to court. The landowner complained to the interim committee that being required to pursue the matter into federal court was too great an inconvenience.

Albright said complaints were received that too few reclamation plans are being reviewed on site by Soil Conservation District personnel. "One plan was approved requiring water to run uphill," Albright said.

He forecast "perhaps a modest amount of correction or cleanup" in the legislation during the 1985 session. "But I don't think there is cause for any major changes," he said.

Rex Burford, secretary-treasurer of the West Virginia Oil and Gas Association, believes the surface owners' bill has been successful, with reservations. "I'm not trying to minimize the fact there are still problems in a few situations," he said.

Burford agreed on-site inspection of reclamation plans needs to be stepped up. "But I think that with a year's experience, this aspect is improving."

He said surface owners "have a misconception that they can force a well to be located where they want it, regardless of geology and other factors."

The damage provision is the major sleeper in the bill and is just beginning to be discovered by landowners, Burford said. "Landowners don't have to prove willful damage any more," he said, "and that's a major step."

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Cranberry Minerals Bought

As part of the continuing resolution passed in the closing days, the 98th Congress authorized payment of \$14.7 million to the Chessie System for title to the entire mineral estate underlying the Cranberry Wilderness and the outlying Backcountry.

The agreement completes the process of securing protection from development for West Virginia's largest wilderness area. The Cranberry Wilderness covers some 35,000 acres, including a rare wetlands ecosystem, and harbors the largest breeding population of black bear in the state.

Earlier this year Pocahontas County received \$2 million for the taxes which would be lost as a result of wilderness designation. The agreement to support compensation to industry and local governments for their economic interests in the area when the area was under consideration for wilderness designation marked a turning point in the fight to protect Cranberry.

The West Virginia Highlands Conservancy led the fight to protect the area, beginning with a proposal in 1969 and culminating with Congressional passage of the bill in 1982.

Winter Meeting

Reservations

I'm Coming—Sign me up for:

Sat. lodging at \$11__
 Sat. dinner at \$7__
 Sun. breakfast at \$4__
 Sun. lunch at \$5__
 Total Enclosed__

Name _____

Address _____

Phone _____

Please specify any special arrangements for rooms (sgl., dbl., share with)

Mail to WVHC, Suite 201, 1206 Virginia St. East, Charleston, WV 25301.

Our thoroughly outfitted outdoor recreationist (shown within) is ready for the new WVHC outings schedule. But before we send him off to points wild, we'd like your input on the what/where/when/who/how.

This is your chance!

If 60% of respondents want an underground mushroom expedition, we'll try to oblige. We know a mandate when we see one. Send your surveys to the WVHC office by **January 5th**. We'll publish the results, and some outing plans, in the February issue.

Revealing your identity is optional, but required if you volunteer to lead a trip.

1. I would be interested in attending the following kinds of outings: (Check all that apply)

- day hikes, easy
- day hikes, average difficulty
- day hikes, strenuous
- winter hikes
- 2-3 day backpacking trips
- day canoe trips, ok for novices
- day canoe trips, Class III experience
- overnight canoe/camping trips
- kayaking trips, intermediate
- kayaking trips, expert
- caving trips, beginner
- caving trips, expert
- cross-country ski trips, easy
- cross-country ski trips, strenuous
- fishing trips, warm water
- fishing trips, cold water
- field study trips
 - bird
 - wildlife
 - forestry
 - wetlands
 - wild flower
 - stream/river
 - other _____
- issue-oriented field study trips
 - water pollution
 - deep mining
 - strip mining
 - river conservation
 - Canaan Valley
 - wilderness
 - Corridor H
 - gas drilling
 - other _____

2. The outings committee should assist with equipment rental arrangements (e.g. skis, canoes)

Yes No

3. The outings committee should be involved in planning group meals for outings.

Yes No

4. Outings should be scheduled: (check one)

- only in West Virginia
- some in WV, some in surrounding states
- most in WV, some elsewhere

5. I would be likely to attend an outing in:

- Kentucky
- Ohio
- Pennsylvania
- Maryland
- Virginia

6. I would be most likely to attend an outing in WV in:

- the eastern panhandle Grant/Pendleton and east)
- the central highlands (Preston south to Pocahontas)
- the southern highlands (Greenbrier south to Mercer)
- the northern panhandle
- central West Virginia

7. Outings should be open to:

- members only
- the general public

8. When participation has to be limited, reservations should be:

- on a first come, first serve basis
- members only, non-members for remaining spots

9. I think outing fees should be: (check one under each letter)

- a. just enough to cover the cost of the outings program
- a source of income to WVHC conservation work
- b. the same for all
- lower for members than non-members

10. I would be interested in leading an outing of this type:

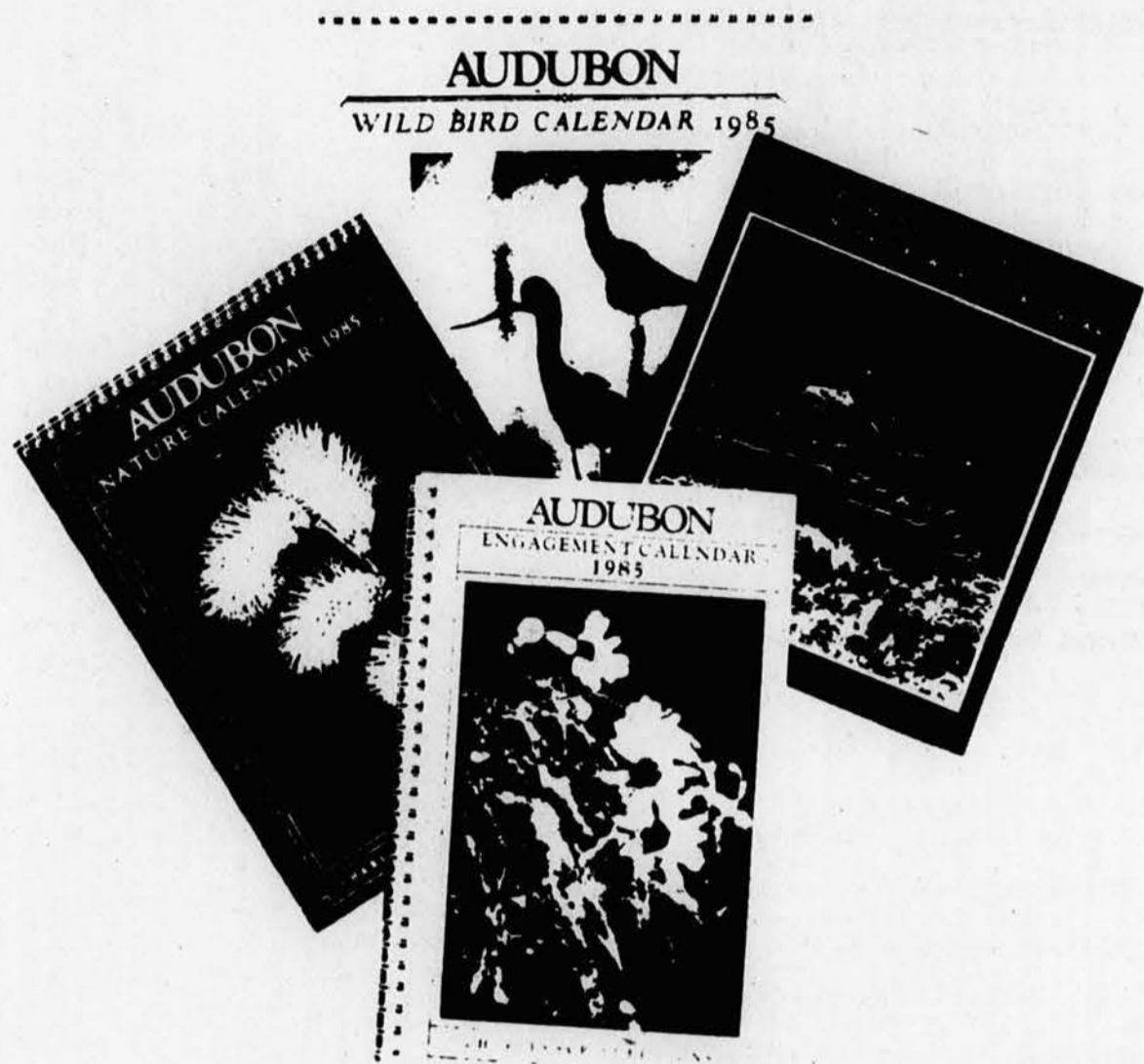
Name _____

Address _____

Phone _____

Clip and mail to WVHC, Suite 201, 1206 Virginia Street, East, Charleston, WV 25301.

Just a few left for Christmas....



Only a few of the Audubon calendars remain, but we can still ship before Christmas, and we'll ship direct to your faraway friends.

Do something lasting, and help the Conservancy too. Order today.

Postage free—now til New Years!

- ____ Engagement Calendars
 - ____ Nature Calendars
- \$6.95 each

Total enclosed _____

Return this order blank and your check to: WVHC, Suite 201, 1206 Virginia St., East, Charleston, WV 25301

booksbooksbooksbooksbooksbooksbooksbooksbooksbooks

Available from The West Virginia Highlands Conservancy:
Copies

Care of the Wild, Jordan and Hughes
An excellent guide to home emergency care for wild animals. (Reviewed in August, 1984 Voice)
_____ @ \$8.95 paper
_____ @ \$13.95 hardcover

Hiking Guide to Monongahela National Forest and Vicinity, WVHC

Invaluable for hikers—includes trail descriptions, topo maps. 240 pages, with Dolly Sods, Otter Creek and Cranberry.
_____ @ \$7.00 paper (ppd.)

A Citizen's Guide to River Conservation, Diamant, Eugster & Duerksen

The how-to manual for people who want to save their beloved rivers.
_____ @ \$7.95 paper
Postage and handling (Except for Hiking Guide) \$1.50
Total Enclosed _____

Order your copies of important wildlife and conservation books from the WVHC. Send your check or money order and this order blank to: West Virginia Highlands Conservancy, Suite 201, 1206 Virginia Street, East, Charleston WV 25301. Allow 3-4 weeks for delivery.

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The Highlands Voice

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started to decline since 1983, the quantum leap in that year is cause for concern, if not for alarm.

After the License, Then What?

Hydroelectric licenses run for a long period of time—generally 50 years. They have to, to make projects economically feasible. But the long-term license is not likely to be revoked, and if the licensee begins a project, the people and the stream wildlife will have to make do with the consequences.

Next month, in the last part of the series, we'll examine those consequences. Part IV will bring you excerpts of a study by David Olson and

Richard Roos-Collins of Friends of the River Foundation—“The Environmental Effects of Hydroelectricity.” They have graciously given their consent to use this document and the **Voice** is pleased to use it as a conclusion to this study of hydropower issues.

¹Mildred Jailer, “The Rebirth of Hydro Power, **Kiwanis Magazine**.

²Ibid.

³Ibid.

⁴Federal Energy Regulatory Commission, **Response to House Subcommittee on Energy Conservation and Power**, February 17, 1984, (xerox), p. 19.

⁵Ibid, p. 17.

⁶Ibid, p. 18.

⁷Ibid, cover letter.

⁸Ibid, p. 20.