Laws for a Better Environment

Seminar Conducted by

WATER RESOURCES RESEARCH INSTITUTE

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Preface

Improvement and protection of the quality of the environment have become national policy. This has resulted in executive, legislative, and judicial activity at all levels of government on an increasing scale. The amazing growth of this area of jurisprudence makes it difficult to keep abreast of the latest developments --- not only for the concerned citizen but for members of the legal profession as well.

To call attention to some of the basic considerations, a series of weekly seminars was held at Oregon State University. The discussions were attended by faculty members, students, representatives of federal and state agencies, and the general public. The papers presented are embodied in this publication for the benefit of a wider audience.

Obviously, it is not possible to cover in a single series all of the ramifications of environmental law --- as it exists now and the developing pattern for the future. It seems quite certain that laws and the courts will become even more potent factors in the struggle to achieve a better quality of life. Congress has declared in the National Environmental Policy Act of 1969 "that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment". Part of this responsibility calls for greater awareness of the interacting roles played by lawyers, judges, governmental agencies, and citizen groups in dealing with polluters and pollution.

Robert M. Alexander,
Director

Corvallis, Oregon

January 1972

The Institute

The Water Resources Research Institute was established at Oregon State University in 1960 by the State Board of Higher Education. It is designed to foster, encourage, and facilitate research and education related to all factors which affect the quantity and quality of water available for beneficial use. Membership includes personnel on campus who are engaged in water resources research and teaching, as well as those from other institutions of higher learning in the state who participate in the Institute's program.

Staff members provide both classroom and research instruction, and a graduate minor in water resources may be pursued by students majoring in one of numerous departments. At present, there are about 200 graduate students engaged in water-oriented programs in approximately 20 member departments.

Extensive facilities are available for both faculty and students. These include forested watershed lands and associated field equipment, soils laboratories, growth chambers, water and waste treatment plants, experimental waste treatment facilities, freshwater and marine science laboratories, experimental streams, a computing center, a hydraulics laboratory, a radiation center, and technical libraries.

Research assistantships and fellowships are available through many of the member departments. The Institute provides support for selected portions of the research and training program in water resources in Oregon. It works very closely with individuals and organizations off campus in helping to solve the state's water problems.

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Presented September 30, 1971 by ROBERT M. ALEXANDER, Director, Water Resources Research Institute, Oregon State University.

New Federalism and Populism - Interfaces of Law and the Environment

The law is a principal cog in the environmental movement. It's where a great deal of the action is. This paper is concerned with two facets of this law and environmental quality interface -- facets that appear to me to be particularly significant and interesting. These are (1) a modified pattern of federalism and (2) a more, positive, activist role being played by the judicial system in fostering environmental considerations. As the environmental movement, as a social movement, shifts from what the sociologists term the "consensus" to the "conflict" stage, law can be expected to become an even more vital cog.

The pattern of federalism in this country, as it relates to public health and welfare, of which air and water pollution control and other environmental quality control efforts are a part, has been undergoing significant shifts, particularly in the past six years. The relationship of federalism to law, of course, is that the basic law of the land, the Constitution, is involved. By federalism we're talking about the structure and operational pattern of our government involving a federal system encompassing and integrating states and their sub-jurisdictions.

The second interface concerns the role that is now being given to the judicial system to help forge new social ground rules to provide an additional avenue for citizen participation in governmental decisions to give a basis for pressure on administrative agencies to foster the public interest, rather than narrower vested interests, and to goad the legislative and executive branches of government into action where it appears that the wheels are moving too slowly. I am suggesting, as the title of this paper indicates, that it's a new populism, using this term as derived from the Latin, vox populi, the voice of the people.

The pattern of federalism which we are now seeing with air and water pollution control is new as far as this public health and welfare field is concerned. But it has been a typical pattern of governmental operation in the past in such fields as agriculture, education and transportation. The federalism of which we are speaking is that of the federal government becoming a major participant in activities which were formerly handled by state and local governments. Federal entry into the air and water pollution field has been through legislation enunciating a national purpose or social goal, providing policy direction, and making grant funds available. The legislation has either provided for the states to set quality standards of a given stringency or, as with air pollution now, national quality standards are set by the federal government. In either situation, the state was obligated to provide for implementation or suffer federal "take over". Compliance was also fostered by the federal "power of the purse". Withholding or withdrawal of grant funds was a potential threat. As an aside, it should be noted that the threat has seldom been invoked. Pressure from the state's Congressmen has resulted in reinstatement of the funds. But, the significant point is that air and water pollution control programs have, in the past six years, moved into the cooperative federalism arena. And the typical style of social goals and objectives being set and grant funds provided at the federal level with implementation and management provided by state and local governments has been adopted.

In considering this altered pattern of federalism in air and water pollution control, certain background would appear to be helpful. Thus, the first step will be a brief review of the development of federalism in the United States and of significant recent trends and issues in federalism generally. The second step will be that of further amplification of the pattern that we have seen developing in the air, water and other environmental fields and the significance of this pattern to the general environmental movement.

In providing a basis for understanding better the "new federalism" as it relates to the environmental field, the significant features of American federalism as it has been developed since the founding of our nation will be briefly traced in the points which follow:

1. The basic pattern of American federalsim -- of intergovernmental relations -- was hammered out as a compromise between those of our founding fathers who wanted a strong central government, and those who favored "states rights" under limited federal power. The pattern of federalism that emerged from the efforts and compromise of our early leaders was unique -- unprecedented. It rested upon the proposition that each citizen

belongs to two communities, his state and his nation; that these two levels should be thoroughly distinguished and each provided with its own government; and that the component states must play a distinctive role in the functioning of the central government. In the debate that culminated in our compromised pattern of federalism, as reflected in our Constitution, one faction, the federalists, had been most solicitous of the prerogatives of the states as set forth in their New Jersey Plan. Federal legislative powers were to be greatly restricted. The federal judiciary would review both state and federal legislation. The opposing faction, the nationalists, through their Virginia Plan, had favored a much stronger central government with legislative representation based on population. And the federal legislature would have had the power "to negative" all state laws that were contravening the federal Constitution.

2. In the federalism structure created, the federal government and the states would have levels of administration, presumably operating independently. Functions would be divided. The federal government would exercise those functions specifically assigned to it; all others would be left to the states. These latter unspecified functions constitute the important "residual or reserved powers" of the states. This division of functions was the basis of the theory of dual federalsim developed by statesmen and students of government, which persisted until the late 1930's. The theory was built upon clear lines of demarcation between the federal government and the states. As Daniel Elazar has noted, dual federalsim "came to mean separation between the various levels of government in their dealings with governmental problems. Each level had its own particular responsibilities, which were generally its exclusive province".[1] In this concept each sovereignty had its exclusive area of authority and jurisdiction with few powers held concurrently. But it should be noted that among these few concurrent powers are such vital ones as the power to levy and collect taxes.

3. A strict adherence to dual federalism and its lines of demarcation and division of functions proved to be far less clearcut in practice than the Constitutional wording and the theory of dual federalsim implied. As Carl Friedrich has indicated, "due to judicial interpretation and the breadth of terms employed to describe federal functions, such as interstate commerce", the opposite of dual federalsim has been produced, "namely a basis for steadily expanding federal powers."[2] Elazar has

stressed that a system of shared activities "that embodied its own type of dualism in which cooperation between governments, not demarcation of spheres of action, was the key."[1] Clearly, sharing of functions, responsibilities and powers has been the typical case. In practice, as Morton Grodzins has stressed, cooperation has existed throughout in our system. The analogy of our governmental structure as a three layer cake - federal, state, and local - should, he believes, be changed to that of a marble cake reflecting functions that are mixed and muddled throughout.[3] The American approach of a pragmatic, ad hoc, issue-by-issue, problem solving method clearly fostered cooperation, whether formal or informal in nature.

4. The practice of the federal government enacting legislation which depends on state action for its implementation and effectiveness began early in our system. For example, federal regulation of navigable waters, initiated by the first Congress in 1789, provided that all pilots in U.S. waters would obey state laws.[4] This pattern has been extended in many other ways, including for example, the traditional feature now in federal licensing of requiring that all state rules be met before the license can be issued.

5. Much of the concern for and the debate about "states rights" and "federal usurpation of power" was, in the past, really related to an overall philosophy of government. It was motivated more as a justification for a laissez-faire pattern of government -- the least government being the best. The issues are now shifting more to the nature of federalism itself. Key sub-issues are who is to be responsible for important policy decisions and the extent to which federal guidelines and grants distort state priorities and limit the state's discretion to adjust to local needs.

6. The role of the federal government in raising revenues to finance public activities, including those at the state level through granting programs, has become a major aspect of American federalism. The federal income tax, cleared for use by the Sixteenth Amendment in 1913, is now the predominant governmental revenue source. It must be regarded as the basic financial cornerstone on which the new pattern of cooperative federalism has been built. The other significant feature is the federal grant pattern to state and local governments. As an indication of the rapid growth here, such grants have

gone up five fold, from 5 to 25 billion dollars, in the twelve years between 1958 and 1970.[5] The initial method was categorical grants for specific projects and programs, heavily based on sharing of financing. The issue of most current significance is whether at least some categorical grants will be replaced by block grants or revenue sharing. And if this is done, how will it change the decision process at the state and local level?

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9. The initial real thrust of our modern cooperative federalism pattern was in President Woodrow Wilson's "New Freedom". The next major surge came with the "New Deal" of the 1930's. The granting pattern had been "legitamized" during the preceding decade through court decisions and an altered public attitude. The stage was set for cooperative federalism to become fully implemented during the depression and vigorous depression-

antidoting program which was initiated. As is well recognized, the New Deal period under President Franklin Roosevelt was characterized by positive government. "Keynesian medicine" in the form of fiscal and monetary policy -- of economic planning and programming -- was introduced. And government became involved in social spheres not previously considered appropriate. In this process all levels of government, federal, state and local, were moving into spheres that increased the overlap in functions and responsibilities that were obviously less significant in the earlier, less complex, laissez-faire era. The pattern of the federal government setting the basic guidelines and objectives and furnishing much of the revenues, with state and local governments providing implementation, management and feedback became the significant mode of action. It was an aspect of the pattern which Don Price recognized in noting that we had been able to "decentralize administration even while centralizing our policies".[6] It must be recognized that the establishment of national purpose has not been devoid of inputs from state and local sources. These are provided in many ways, including Congressional delegations and ties in professional organizations between personnel from various public and private levels.

10. As society has become progressively more complex and government has expanded to deal with the social problems emerging from this complexity, we have experienced a dramatic growth in government. This is reflected both in the expenditure level of the public sector, as well as the expansion of governmental units and of the bureaucracy generally. It should be noted that public expenditures and growth of bureaucracy have not moved in unison, in that contracting for government needs by the private sector has become of major import. The urban, industrial, science, and technology revolutions that have moved ahead so dramatically in the last two decades have been significant factors in the need for expanded government. These intertwined and interrelated revolutions have brought a vast array of new social problems. The many interdependencies that have been introduced from these social revolutions have necessitated both more government as well as a centralization of government. A national pattern has been increasingly required, including policy direction and forcing of action to meet constitutionally indicated responsibilities by the states.

11. A factor in recent trends in federalism is the premise that most state and local governments are weak and ineffectual.

Not only have they not been meeting the responsibilities reserved to them in the Constitution, it is considered, but a major overhaul, in the least, is required to correct the situation. This premise has been the basis of centralizing policy direction and the increasing use of categorical grants with "strings attached". Strengthening state and local government is a prime basis for considering revenue sharing and shifting more program implementation to the enhanced state and local units.

12. A feature of modern times, relating to the new federalism, is that the former barrier between the public and private sectors -- between the "estates", to use the framework of Don Price[5] -- are breaking down. All segments are now more intimately involved in the political milieu, the process of government. This newest pattern, termed by some as "creative federalsim", involves all segments being enlisted to work together on a pragmatic basis to find solutions to complex problems. The federal largesse in grants and contracts has been opened up to private, as well as to a new breed of quasi-public organizations, such as the Rand Corporation.

13. In summarizing the development of our present pattern (and process) of federalsim, as Elazar indicates, "the powers of the federal government have been broadened (or restored according to some) into areas previously the sole responsibility of the states, leading to cooperation between the two levels of government (and now involving new private and quasi-public segments) in the implementation of new programs. The programs involve the inevitable sharing of the same functions, with arrangements for joint financing and, generally, some type of federal supervision".[1]

Our attention will turn back now to some specifics of the new pattern of federalism as it is reflected in the environmental movement. Activities of the federal government dating from the Public Health Service Act of 1912 had centered on research, surveys and technical assistance particularly as water quality affected human health. The Rivers and Harbors Act of 1899 really had little significance in pollution control until it was rediscovered during the past several years. The initial intentioned pollution control legislation, the Federal Water Pollution Control Act (PL 845 - 80th Congress) of 1948 was drawn fully on the premise of the water pollution field being the exclusive responsibility of state and local governments. It provided for supplementing

state and interstate efforts in technical services with enforcement covering only interstate situations with the state's approval. Amendments in 1956 strengthened enforcement provisions and introduced the federal granting pattern. Incorporation of the new pattern of federalism involving national purpose and major financing, with states providing implementation and management, came with the passage of the Water Quality Act amendment in 1965. Key debate behind the passage of this act was whether or not national standards should be set. The compromise legislation enacted provided that states, subject to federal approval, were to establish acceptable standards, equal to certain minimal levels.

With the growing national problem of air pollution, a similar pattern was followed. Initial controls were at the local level, authorized under city ordinances, nearly exclusively on smoke emission levels and their density. As the problem intensified, state enforcement programs, starting in the 1950's began to be enacted. Then in 1967 the new pattern of cooperative federalism which we have been describing was spawned with the passage of the Clean Air Act amendments encompassed in the Air Quality Act of 1967. The approach and features of this Act were based heavily on the earlier water quality pattern.

The next step in adoption of cooperative federalism in the environmental field, first put into practice in air pollution control, was the provision for national quality standards. These were provided for air pollution in the amendments of 1970 to the Clean Air Act. Indications point to some pattern to provide for national standards in the water quality field being adopted by the federal Congress in the near future.

The next extension of this new federal-state-local pattern of cooperative federalism will be in land use control. Both major bills currently being considered for a "national land use policy" are based on the concept of the federal government providing the guidelines, making state participation mandatory primarily through the power of the purse, but with actual planning and implementation left to the state and local governments. It is significant to note that the debate now centers, not on whether this approach is sound, but on the details of how it will be structured.

The justification and basis for the application of the pattern of cooperative federalism that had emerged earlier to deal with other problems of society is now well established and is being increasingly adapted to the environment field. A summary review of those points which seem to me to be most important will be made to conclude the consideration of this first of the two areas of law and environmental quality interface.

ΔΔ We have moved from a traditional to a modern society. Burgeoning patterns of urbanization, industrialization and impacts of the scientific and technological revolutions have resulted in a complex mesh of interdependencies that cut across the boundary lines of the many governmental jurisdictions that make up our governmental system. Many of the problems resulting are not only national in scope, but are international. Thus, at least a national approach has been regarded as necessary.

ΔΔ Many state and local governments had demonstrated a lack of incentive or ability to meet their responsibilities under the Constitution in this public health and welfare field. Thus, a primary feature of the new federalism is that of forcing those states that had been derelict to meet their responsibilities, as well as providing them with the resources with which to do it.

ΔΔ The method adopted through federal legislation starting with the Water Quality Act of 1965, was the pattern of cooperative federalism that had been employed on an increasing basis since 1913. It involved centralizing policy, but decentralizing implementation. Incidentally, it closely follows the approach employed in other federal systems of government such as that of Germany.

The second major interface between law and the environment to be considered in this paper, is that of the role into which the judicial system is moving in the environmental quality control field to enhance populist democracy and help set new social groundrules. Law is not new to the environmental field; but it is being used in new ways. The establishment of rights and then the enforcement of these rights through a legal system, has long been a cornerstone of social order. When rights could not be protected against harm from environmental pollution through negotiations between the parties concerned, then the formal route of adversary proceedings in the courts or enforcement action by a regulatory agency of government established to protect citizen rights, could be enlisted.

The courts have been called upon traditionally to deal with pollution matters through the torts of nuisance and trespass, including assistance to regulatory agencies in the enforcement to their rules relating to water, land and air quality. But some basic changes are involved in the role now being played by the courts. Those who initiate the suits are private citizens whose "interests" appear little different from those of the public generally. They bring action to enforce rights which are theirs as members of the general public, rather than through

the conventional pattern of being a property owner protecting traditional economic interests. And of even more significance, governmental bureaucracies which had been established earlier to protect the public interest are often now the defendants in these suits. Under fire are not only such regulatory and development agencies as the Federal Power Commission and Corps of Engineers, but also such highly regarded conservation movement spawned agencies as the U. S. Forest Service.

In the past, suits of this type usually were dismissed without consideration. The government was immune from suit because of the old doctrine of sovereign-immunity based on the notion that "the King can do no wrong". This basis of dismissal now carries little weight. The other dismissal basis was the lack of "standing" on the part of private citizens to represent a public interest as against a vested interest in which their injury was specific and quantifiable. The fear regarding standing was that if the barriers were lowered, the courts would be overwhelmed with crank suits on the part of an emotionally stirred up public. Such suits were also regarded as not needed in serving the public interest. Legislatures and Agencies of government stood ready to handle matters of this kind. Standing, as a constraint to public interest suits, is losing much of its validity through precedents from recent court cases and through legislative authorizations. We are now seeing class action suits being initiated in the environmental quality field. In such suits, one or more persons sue as representatives of an entire class of injured persons.

An attempt will now be made to set forth in summary fashion what appear to be some of the most important and interesting facets of the second law and environmental quality interface being considered.

ΔΔ A balancing of equities has been a fundamental principal of our system of civil jurisprudence. Words such as "reasonable" and "substantial" have been typical, with the courts attempting throughout to balance "utility of conduct" against "gravity of harm". In this context, the courts have been accused of being, in the past, an instrument of a laissez-faire economic and political system. One classic case often cited, decided by a Tennessee court in 1904, permitted two copper smelting companies to continue processing by open fire reduction even though smoke and SO_2 emissions were massive and caused major air pollution. The complainants were not allowed injunctive relief because "the law must make the best arrangement it can between the contending parties, with a view to preserving to each one the largest measure of liberty possible under the circumstances". One legal observer has commented that liberty, here, apparently

meant freedom for industry to create a wasteland if they paid for it. While the balancing of equities is still a fundamental legal concept, we are now seeing a recognition of many more interests on the part of those suffering harm from pollution.

ΔΔ Courts will continue to have a vital traditional role to play in the environmental quality field. They must continue to provide guidelines through "bench mark" cases, particularly where the regulatory machinery has not been provided; they must be available to back up -- give additional teeth to -- a public regulatory agency; and they must provide a recourse for parties that consider they were dealt with unfairly by a regulatory or other public agency. Courts, it is recognized, are uniquely equipped to resolve specific disputes and to redress an imbalance by awarding damages or preventing harm by issuing an injunction. But courts have limitations, some intended and others not, on how far they can go in dealing with environmental problems generally. They do not appropriate funds, have no mechanisms for planning, are ill-equipped to supervise an ongoing conflict, and have limitations in obtaining and using technical expertise. Among other limitations, court decisions typically render fairly rigid requirements giving little recognition to economic efficiency. It is extremely difficult through legal proceedings to deal with multiple source pollutional problems or with secondary pollutants produced in the environment. Proof, where no single activity causes the harm, is difficult to establish. And courts do not initiate action; they only consider cases brought to them. Nor do they maintain surveillance or monitoring or seek to prevent pollution. [7]

ΔΔ The burden of proof in pollution control in general has rested, in the past, with those suffering harm -- not the polluters. And this was fully the case in legal action regarding environmental quality conflicts. But recent environmental litigation cases reflect a change in judicial attitudes here, too. In one classic case, for example, (Texas Eastern Transmission Co. vs. Wildlife Preserve, N. J.), the court ruled that since the private non-profit wildlife organization, initiating a suit against land condemnation, was pursuing public conservation goals, it should not be required to carry as heavy a burden of proof as the ordinary property owner when protesting that condemnation was arbitrary. In essence, the court said that the burden of proof should shift, to a considerable extent, at least, to the company.

ΔΔ In public interest environmental suits a new concept of social purpose is introduced. In action against public regulatory and other administrative agencies what is involved is a great deal more than overexertion of administrative discretion or acting in an arbitrary or capricious manner. The charge being made to the courts is to determine whether the agency is operating in the public interest -- not whether it has misread its statutory mandate. As Joseph Sax has indicated, "it is agencies' perspective and point of view which is under attack".[8] It must be recognized that governmental agencies concerned with environmental resource matters have traditionally been created to serve fairly narrow interests, with limited objectives. They've been accused of having "tunnel vision". Their employees have been trained as professionals and are brought in to apply this expertise to the agencies' mission. The chameleonic quality of taking on the color of the substantive program to which the agency is assigned is often charged, and with some validity. It is difficult under these circumstances to inject new approaches without major outside influence. Recognition of these factors are causing the courts to reassess the extent to which they defer to the expertise of the professionals of administrative agencies in rendering decisions regarding environmental resources.

ΔΔ What's really involved is a method of forcing narrowly oriented governmental agencies to consider a broader spectrum of factors such as environmental amenities in their decision-making process. It is a basis of opening up the decision process for a wider range of choices; a system permitting citizens to inject their social values into the decision process on a basis other than the ballot box or opinion polls. Traditional agencies are ill-suited, as we've noted, to do this alone. In specific examples, a highway department in the Robbins case in Massachusetts was forced to recognize the aesthetics of marshland and wildlife preserves; in the pioneering Hudson case, the issue was whether or not a regulatory agency, in this case the Federal Power Commission, had given adequate consideration, in granting a license to Consolidated Edison to construct a hydroelectric generating project, to the harm that would be done to the natural beauty and national historic shrines of the Hudson Valley.

ΔΔ Another way of viewing the broadening of perspective and the consideration of consequences through public interest environmental law suits, is that they help implement a needed systems approach. The science of ecology stresses the interrelationship

of all segments of the ecosystem. Harm to one link in the food chain, for example, can have vital impacts on higher order species, including, of course, man himself. An additional means, along with direct regulation, environmental impact statements, technology assessment and various incentive patterns, is brought in to help force the recognition of a wider range of consequences of agency actions. It is little different from the programs to cause a recognition of all costs or externalities on the part of private organizations in pollution control efforts.

ΔΔ It is recognized that certain public interest cases have been initiated to serve more as a public forum to debate issues and enter scientific evidence of environmental harm, as much as to obtain a favorable court decision. It is well recognized that this was a prime motive for the Environmental Defense Fund suit regarding use of DDT in Minnesota. And the evidence is most clear, too, that this case was highly effective in injecting into the public record evidence and judgments that fostered subsequent citizen and governmental action.

ΔΔ The courts are being employed to spur legislative and executive action. It is a role comparable to that played in civil rights; the Supreme Court's 1954 decision against public school segregation has been considered the catalyst to subsequent public reaction and major legislative and executive activity. Such suits can also serve as a moratorium to delay activities judged potentially harmful, to permit consideration by duly elected officials. An example is the case of Parker vs. United States, in which local citizens filed a suit to prevent the U. S. Forest Service from going ahead with a timber sale on a potential wilderness site, claiming the right to a judicially declared moratorium until Congressional action could be obtained. Without question, the legislative process was spurred.

Certain fundamental issues in the broader social sphere are raised by public interest suits. Among the most critical is whether judicial bodies are being able unduly substituted for the legislative and executive segments of government that are charged, in our system, with providing social groundrules. Some legal students argue that the courts are really playing a neutral role here -- are not guilty of "judicial legislation." Instead, it is argued, they are sought out as an instrumentality to enhance the process of democratic government. In this role they assist the legislative and executive branches in accomplishing their

mission, rather than replacing it. One of the most prominant students of environmental law, Joseph Sax, concluded a recent paper with the statement that, "it may seem ironic that courts are needed to help make the legislative process work more effectively; the citizens must come to the least democratic of the branches of government to make democracy work. But that is one of the intriguing questions now being explored under the label of environmental litigation". [8]

Another issue is how far we should go in using the legal framework to insure the "rights" of all citizens to a clean environment, including the preservation of natural amenities. The legal tools being considered to more rapidly bring in the new rights concept are the Ninth Amendment to the Constitution and the public trust doctrine. The Ninth Amendment provides that the enumeration of certain rights elsewhere in the Constitution does not deny other rights retained by the people. The Public Trust Doctrine holds that the government has the responsibility to protect the land, all once held in trust for the people, from abuse even though it is now in private ownership. The general acceptance of either of these legal tools on any extensive scale in environmental cases would not only be a factor in court action, but force a further speed-up in rule setting and enforcement by legislative and executive branches of government.

A final issue is the desirability of blanket federal legislation to grant standing to citizens to further remove constraints to public interest suits. The critical question is whether we should move more slowly, with precedents established in the traditional common law tradition.

The purpose of this paper has been to give an overview of trends and issues in two interfaces of law and the environmental movement. Of necessity it has been fragmentary, but hopefully it has provided certain insight to a facet of the broad social movement that is underway relative to the quality of our environment.

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Presented October 14, 1971 by CHAPIN D. CLARK, School of Law, University of Oregon, Eugene, Oregon.

Water Law Doctrine - Some Basic Considerations

This seminar audience is composed of persons of varied backgrounds who are specializing in different disciplines. This aggravates the problem of what to cover when the assigned topic is water law. We could use the agency approach and spend the hour discussing the activities of the Bureau of Reclamation or the Corps of Engineers, for example, or we could emphasize a problem approach and discuss public rights to the use of water or inter-regional water diversion proposals or any number of other topics. Or we could discuss decision processes under the law.

As an early lecturer in this seminar series, I have decided to discuss water law doctrines and the distribution of legal authority in a federal system to manage water resources. This is a big order in an hour and a half lecture, so it will necessarily be a skeletal outline. My hope is it will provide at least a partial framework to assist in better understanding some of the lectures which follow in this series.

The word "doctrine" refers to riparian and appropriation water rights which govern the aquisition, exercise, transfer and loss of water rights by private individuals and corporations. Doctrine implies to some extent a by-gone era when water law was primarily a branch of property law. These doctrines are based upon the factual assumption that private persons or persons grouped together as a legal entity are competing to obtain private rights to utilize a scarce, free and essentially fixed amount of water. It is true that doctrine was king during the settlement of the west when this assumption was dominant---when private property law governed in a rather crude way the allocation of water to competing miners, irrigators, and other entrepreneurs.

We have experienced a period of rapid transition during which these doctrines hold decreasing importance. The resolution of private disputes between water users and claimants has given way in legal importance to public planning and investment and conservation of our water resources. The important questions revolve around how and under what circumstance to invest millions of public dollars in multi-purpose water projects or water quality programs. Important decisions are made less by the courts in interpreting doctrine and more by legislatures and administrative agencies in funding water projects and establishing regulatory procedures. These decisions are implemented by large water management agencies whose activities closely resemble public utilities. To use an example in my home community, a suburban homeowner outside Eugene is not concerned with whether he can appropriate water from a stream as a "property" right, but instead whether the Eugene Water and Electric Board will extend its contract service to him outside the city limits. He looks not to the courts and doctrine for a solution but to legislative halls and public water management agencies.

Having recognized that we are in a period of transition, it remains important in an introductory lecture to sketch our legal heritage in regard to property systems in water and to outline the powers of the federal and state governments over water resources. Further lectures can build on this base, just as the law must build on this base in resolving newer problems.

ACQUISITION AND REGULATION OF PRIVATE RIGHTS TO THE USE OF WATER

Riparian Rights

The riparian doctrine was established in the eastern states and in England during the early part of the 19th Century. It is a body of principles which govern private rights to the enjoyment of water. It should be observed that this doctrine developed:

1. In geographical areas where water is plentiful for human needs;
2. At a time when the uses to which man put water were limited to transportation and domestic consumption---irrigation, mining, and industrial uses were quite small and hydroelectric power was not even a dream;
3. By courts on a case by case basis as part of the common law of property in the solution of disputes between private litigants. That is, water law doctrine was gradually formulated by judges to resolve existing problems, and not by legislators who anticipated water use conflicts and stated the law as a comprehensive judgment of how and by what principles their conflicts should be resolved.

Two basic theories of the riparian doctrine may be identified, although the court opinions, even in one state, may confuse or overlap the two theories.

Continuous Flow Theory

Under this theory, each owner of land has the right to have the streams or lakes which border or are upon his land remain substantially in their natural state, free from any diminution in quantity or quality. Each riparian may use the water so long as he uses it only on riparian lands and such use does not sensibly affect the water remaining for lower riparians. Because the emphasis is on the right to the continued flow of the stream in its natural state, a lower riparian need not show actual damages in order to enjoin an upper riparian whose use sensibly affects the quantity or quality of the stream.

This "state of nature" theory seems self-contradictory in predicating human use without depletion and it obviously cannot meet the water demands of modern society. Although this theory has been modified or abandoned in nearly all jurisdictions, it cannot be said to be merely a historical relic, as a recent Connecticut case illustrates. (Dimmock v. City of New London, 245 A. 2d 569, Conn. 1968)

Reasonable Use Theory

Each landowner may put the water to use on riparian land so long as the use does not interfere with the reasonable use of other riparians. The emphasis is on the effect the use has on other riparians, not on the effect the use has on the stream. Thus a lower riparian has no court action unless he can show unreasonable use by the upper riparian and damage to himself.

Illustration of the Riparian Doctrine

As a hypothetical case, assume that A has operated a gristmill on Clear Creek for forty years. He uses the flow for power purposes and for stock watering. The growing city of Metro above A on Clear Creek has gradually increased the diversion of Clear Creek to supply its inhabitants with water to the point that in dry seasons Clear Creek is too low to power A's gristmill. A sues Metro for money damages.

The principles of the riparian doctrine which would be applied to decide A's case are:

1. A is a riparian because his land abuts Clear Creek. His water right is part and parcel of his land. He does not own the corpus of

the water. His right is a usufruct, the right to the continued flow of Clear Creek subject to reasonable use by others.

2. A's usufruct does not depend on the time he acquired the mill. His use of the creek for forty years is irrelevant.

3. A's usufruct is not to any definite quantity of water. His right does not depend on use and is not lost by non-use.

4. A's and Metro's rights are equal. This does not mean that each is entitled to one-half of the creek, but rather that their rights are equal.

5. Reasonableness is the measure of A's and Metro's right to the use of Clear Creek. (We are not concerned with Metro's right to condemn A's usufruct, which would require Metro to Compensate A. Here Metro is resisting any payment to A.)

6. Metro may be selling water to persons who are not riparians or who are out of the watershed of Clear Creek. In some states this may be unreasonable per se as to A, a lower riparian.

7. Natural uses are preferred by the riparian doctrine. Thus, A's watering of his stock as a "natural" use may be preferred over commercial users of the municipal water supply. Or domestic consumption by Metro inhabitants may be preferred over A's use of Clear Creek to power his gristmill.

8. A's theory is that Metro has unreasonably interfered with his usufruct (property right) and should respond in damages. Thus, the court in applying the riparian doctrine must decide what is "reasonable" under the circumstances, what is the watershed, what are "natural" uses which are preferred, and, perhaps, who are non-riparian users.

OBSERVATIONS ABOUT THE RIPARIAN DOCTRINE

The usufruct depends ultimately upon what is reasonable in relation to neighboring uses. What is reasonable as to one neighbor may not be reasonable in relation to another. Indefiniteness is bred into the doctrine because what is reasonable is a relative thing depending upon different and changing circumstances.

It is essentially a two party doctrine since the court's decree binds only those who are parties to the litigation. Because all riparians have rights in common in the watercourse, to be really effective the decree should adjust all water rights in relation to each other. Judicial allocation is piece-meal in response to uncompromised disputes.

The doctrine may result in the waste of a given water supply. This is especially true in those cases where in order to prevent the running of the statute of limitations a lower riparian who uses no water seeks to enjoin an upper riparian's use which might otherwise ripen into a prescriptive right (use which runs through the period of the statute of limitations).

The doctrine preserves legally the natural advantage of landholding adjacent or bisected by a stream and makes it difficult to obtain a water right on non-riparian land, however desirable. Note that the initial allocation of water (even if inchoate or as yet unused) goes to the "haves"--- those who already own land. The concept of pooling supplies in a community system is alien to the riparian doctrine.

Although a legal right to a quantified amount of water may be recognized in a judicial apportionment, it can be argued that the doctrine affords little security of investment to water projects because of the later claims of riparians, changed conditions, or the present claims of those persons not joined in the apportionment decree. Rationing under scarcity is often pro-rated. Economic efficiency plays little role because if all users on a common source are cut back, say 30%, some will miss the marginal water very much and some very little.

EXTENT OF THE RIPARIAN DOCTRINE AND NEW DEVELOPMENTS IN THE EAST

The 31 states in the eastern portion of the United States adhere to some form of the riparian doctrine. Until recently, water supplies were adequate in the eastern United States and these states had taken little action in the water management field, either of a developmental or a regulatory nature. In the past fifteen years, the picture has changed markedly. Cyclical drought conditions, pollution problems, and developmental pressures associated with growth and industrialization have combined to stimulate many studies and some innovation in Eastern water law. Several states, such as Iowa, have established a permit system. In the East, however, these permits function less to allocate water than to provide systematic information for state water planning. They do not afford priority of right based on "first in time, first in right" as do western states' permits based on the prior appropriation doctrine.

This permit system has borrowed certain concepts from the western appropriation doctrine, however, such as beneficial use and loss of right by non use.

Eastern laws in recent years have taken a variety of forms, legalizing the diversion of water beyond riparian boundaries, restraining the use of water within certain areas, licensing and regulating well drilling,

protecting lake levels and minimum flows, sanctioning extraordinary water usage by favored industries, issuing permits to public water supply agencies, regulating sand and gravel extraction, and so on.

Despite the variety of new laws, only about five states in the East (New Jersey, Iowa, Florida, Indiana, and Minnesota) can be said to have strong regulations over both surface and ground water supplies. More states in the East can be expected to follow suit in the future with legislation which increasingly regulates private rights and vests considerable control over water supplies in a state administrative agency. It will be interesting to see the unfolding accommodation which must take place between the law of riparian rights and state management programs.

DEVELOPMENT OF WATER LAW IN THE WESTERN UNITED STATES

California Doctrine — State Theories of Control Over Waters

The discovery of gold in California in 1848 resulted in a mass migration of would-be miners. It is estimated that 100,000 persons arrived in California in the summer of 1849 to seek their fortunes. The miners engaged in placer mining which required the diversion of water into ditches and sluiceways. There was virtually no law and no authority in the early mining camps. Mining districts were soon formed by miners, and rules were established and enforced by self-help. These rules recognized the right of miners to appropriate stream water on a "first come" basis. Thus the riparian doctrine was rejected out of necessity by the California miners because:

1. water was in short supply, especially in the dry summer months;

2. many mines to which sluiceways were run were located on non-riparian lands;

3. many miners were actually quasi-trespassers on the federal domain and had no status as "riparian owners" of the land; and

4. the miners demanded protection of the labor and capital expended in developing mining operations by insisting on a definite priority system of water rights.

The result was that the custom of miners gave birth to the appropriation system of water rights when custom became law through the sanction of court decisions. The first in point of time to put the water to a beneficial use, without limitation of the place of use to riparian land,

came to be recognized as the first in right, and the right thus protected was exclusive insofar as the quantity of water put to a beneficial use was concerned. The courts soon recognized that valid appropriations for purposes other than mining (e. g., for irrigation or power) could be made.

The principles established during this mining period have been summarized as follows by former Chief Justice Lucien Shaw of the California Supreme Court in "The Development of the Law of Waters in the West," 10 Calif. L. Rev. 443, 451:

> The waters of these streams on the public lands of the United States were all subject to appropriation at any time by any person who proposed to devote the water so taken to a beneficial use. The making of a diversion with such intent and for such purpose would vest in the diverter, at once, the right to use the water. No length of time of such use was essential to the acquisition of the right. The water was treated as property having no owner. The rights of the United States as riparian owner of the abutting lands were completely ignored. With respect to contending appropriators of water from the same stream, he who was first in time was considered superior in right. Such right vested by relation as of the time when the appropriator began the actual work of constructing his diversion works and ditch for that purpose, provided the work was done in such a manner as to be visible and to manifest to others his intent and purpose to prosecute the work to completion, and provided further, that he did so and actually took and used the water. The right so obtained was a right to only so much of the water as was beneficially used. The owner of such right was entitled at any time to change the place of diversion or the place of use, if the rights of others were not impaired thereby.

What kind of "title" to the water could the miners on the public domain expect to acquire? The law could have taken various directions. For example, the federal government could have followed the law of Spain and Mexico, and in parting with title to the surface, retained the mineral and water rights. However, Congress enacted a law in 1866, especially upon demand of western congressmen, recognizing the possession of the miners as lawful and sanctioning the claims to minerals and to water rights in the streams of the public lands. Section 9 of the Mining Law of 1866 (now codified at 30 U. S. C. § 51) provides:

> Whenever by priority of possession, rights to the use of water for mining, agriculture, manufacturing, or other purposes have vested and accrued, and the same are recognized

and acknowledged by the local customs, laws and decisions of courts, the possessors and owners of such vested rights shall be maintained and protected in the same.

By a supplementary act of 1870 it was provided that all homesteads and all patents granted for public lands should be subject to rights then or thereafter acquired as specified in the act of 1866.

An even stronger enunciation of the appropriation doctrine occurred in the Desert Land Act of 1877 (codified at 43 U.S.C. § 321). This law was passed for the purpose of reclaiming arid land and encouraging the settlement of the west. It is estimated that 10 million acres were settled under this act. It provided for the sale of 640 acre tracts (later 320) at $1.25 per acre to any person who would irrigate the land within three years of entry. The act provided:

> The right to the use of water by the person so conducting the same, on or to any tract of desert land of 640 acres, shall depend upon bonafide appropriation. . . and all surplus water over and above such actual appropriation and use, together with the water of all lakes, rivers and other sources of water supply upon the public lands and not navigable, shall remain and be held free for the appropriation and use of the public for irrigation, mining and manufacturing purposes subject to existing rights.

The purpose of these early federal statutes was primarily to settle controversies between the federal government and miners and other water users on the public domain. It cannot be said that Congress purported to establish by these early statutes a comprehensive system of water law on the vast public lands of the West. Nevertheless, these statutes over the years have (1) served in considerable measure as the legal basis of the appropriation system in western states, (2) been construed as a recognition by Congress of state control over the waters on public domain lands, and (3) strengthened the early contention of the western states that Congress granted an "ownership" interest in the waters of non-navigable streams on the public domain to the states (this contention has little meaning after the Pelton Dam case, discussed later).

Early water law related substantially to the use of water taken from streams on the public domain for mining and other purposes. The scene shifted in the 1870's to the agricultural valleys in California. Henry Miller, the cattle king of the San Joaquin Valley, claimed as a lower riparian the use of the overflow waters of the Kings River to irrigate his alfalfa and wild hay crops. The upper riparians claimed the water as appropriators. Up until then many persons thought that riparian rights were not important. However, by act of April 13, 1850, the California

legislature had declared "that the common law of England, so far as it was in harmony with the state and federal constitutions, should be the rule of decision in the state." And the riparian doctrine was part of the common law. Finally in 1886 the California Supreme Court decided in the great case of Lux v. Haggin, 69 Cal. 263, 4 Pac. 919, 10 Pac. 674, that riparian rights existed in California.

The distinguishing features of the "California doctrine" as set forth in this case may be summarized:

1. Beginning in 1850 all rights to the unappropriated waters of non-navigable streams on the public lands were recognized as being in the federal government.

2. When the federal government thereafter issued a patent to riparian lands, the water rights, which the government owned as a result of ownership of that particular land, passed to the patentee along with the land, subject to appropriative rights under 3. below.

3. When a beneficial use of water was made by diversion on public lands in California, the appropriator acquired from the federal government an appropriation water right by virtue of a grant or confirmation under the federal acts of 1866, 1870 and 1877.

4. California by virtue of its sovereignty could determine the rights that appertained to federal ownership of property, as well as to private ownership. The water rights of the federal government were determined by state law and through California's adoption of the common law, riparian rights were created in the federal government as a landowner. Although both court decisions and the federal statutes affirmed private appropriative rights on public lands, a patent of federal land granted under any statute other than the Desert Land Act was said to carry with it a grant of riparian rights, subject only to such existing appropriative rights.

Regardless of the validity of this logic, the result of this theoretical justification of western water law is that "California Doctrine" states in the west recognized both riparian and appropriative rights. These states interpreted the federal acts as granting the right to appropriate water on the public domain.

Many of these states which recognized a dual system of water law (California, Oregon, Washington, North Dakota, South Dakota, Nebraska, Kansas, and Oklahoma) also enacted statutes which recognized appropriation, especially for irrigation. The attempt to marry inconsistent water law doctrines in these states was a misfortune. The resulting legal

problems still plague some states. (a recent example is Wasserburger v. Coffee, 141 N. W. 2d 738, Nebraska, 1966).

It should be emphasized that there is today no precise similarity among the water law systems in these states. In general, they have found it necessary over the years either to restrict riparian rights or to abrogate them completely in favor of appropriation.

The union of riparian and appropriative rights in California led to many complex problems and may partially explain the preference in that state for public water projects rather than private ones. California water law has undergone many refinements and no attempt is made to discuss them here except to mention the constitutional amendment of 1928, abrogating any semblance of the continuous flow theory and limiting riparian rights to such water as shall be reasonably required for the beneficial use to be served.

Colorado Doctrine — State Theories of Control

While it is usually recognized that the appropriation system had its beginnings in this country in the mining camps of California, it was the Supreme Court of Colorado which first set forth a thorough theoretical justification of the appropriation doctrine. The case was Coffin v. Left Hand Ditch Company, 6 Colo. 443 (1882), a landmark in western water law. A lower riparian on the St. Vrain River lost his case against an upper appropriator who diverted part of the river into another watershed for irrigation purposes.

Those states which followed the Coffin case rationale are referred to as "Colorado doctrine" states (Arizona, Idaho, Montana, Nevada, New Mexico, Utah and Wyoming). In short, they rejected riparian rights completely, and recognized only priority of use as the basis for acquiring a water right.

The characteristic features in the Great Basin states of the "Colorado doctrine" as stated in the Coffin case may be summarized as follows:

1. Because of limited rainfall and arid conditions of the soil, the common law riparian doctrine was unsuitable and was never applicable in Colorado.

2. As a consequence, ownership of so-called riparian lands whether by individuals or a government carried with such ownership no water rights.

3. The only way in which a water right may be acquired in Colorado is by appropriation (application of the water to a beneficial use). Existing appropriations may be transferred by purchase, inheritance, condemnation or prescription.

4. A water right comes into existence as a property interest only by appropriation. This right is acquired pursuant to state law.

5. Because the federal government never owned any water rights in Colorado merely by virtue of being owner of public lands in that state, it had no "title" to water rights that it could grant to the State or to individual appropriators on public land. Even a grantee of the United States can have no riparian rights, which never existed in Colorado.

6. The acts of Congress of 1866, 1870 and 1877 merely constituted gratuitous recognition of appropriation rights that had been acquired under state law.

Reflecting the legal thought of the 19th Century, the Coffin case emphasized appropriation as a part of property law under which private rights must be protected by the judiciary. Two aspects of the Coffin rationale have not stood the test of time---the failure to recognize the public interest in state control of water resources and the rejection of any proprietary interest in the federal government over the waters flowing upon or adjacent to federal lands. (These aspects are discussed later).

Characteristics of the Appropriation Doctrine

Speaking in general terms, the following characteristics of the appropriation doctrine may be identified:

1. Priority of appropriation gives superiority of right. This may be expressed "first in time, first in right." Thus, in sharp contrast to riparian rights, the rights of appropriators are not equal.

2. To qualify as an appropriator one must actually put the water to a beneficial use. In the sonorous language of the Reclamation Act of 1902 "the basis, the limit and the measure of the water right of the prior appropriator is the beneficial use to which he puts water." Thus, again in contrast to the riparian doctrine, the appropriator has a right to a specific quantity of water in accordance with his priority rating, if nature supplies the resource.

3. Appropriator may use the water on riparian and non-riparian lands alike, without distinction.

4. One need not own any land at all to be an appropriator. Thus, in sharp distinction to the riparian system, the usufruct is not part and parcel of the ownership of land. As a practical matter, of course, a water appropriation often coincides with the ownership of land (for example, land which is irrigated) to which the appropriation may be appurtenant under state law.

5. The appropriation doctrine makes no distinction between "natural" and "artificial" uses. Some states do, however, specify preferences in deciding competing claims, for example, for domestic over agricultural uses, and agricultural over manufacturing uses.

Elements of an Appropriative Right

Although the details of the law of appropriation vary from state to state in the western United States, certain basic elements involved in an appropriative right may be identified:

1. The quantity of water appropriated and applied to a beneficial use.

2. The time, period or season when the right to the use exists. One may be entitled to divert a given quantity continuously throughout the year or during a portion of the year, or at intervals.

3. The place on the watercourse where the right of diversion attaches. The rule is sometimes stated that to constitute a valid appropriation there must be an actual diversion of the water from the natural source of supply. However, some court decisions have upheld appropriations without the necessity of mechanical diversion, such as stock watering directly from a stream.

4. The nature or purpose of the use, such as power or irrigation.

5. The place where the right of use may be exercised, for example, location of irrigated land or site of a power plant. Most states permit a change in the place of use (or change in the use itself, or a change in diversion point) without loss of priority so long as existing water rights are not prejudiced thereby.

6. The priority date of the appropriation. Perhaps the essence of the doctrine of prior appropriation is the exclusive right to divert water from a watercourse at a time when the water supply available is not sufficient for the needs of all those holding rights to its use. The exclusive right depends upon the date of the appropriation, the first in time being the first in right. As the volume of water drops, the diversion gates of

the appropriators are closed, if legal theory is adhered to, in the reverse order of their priorities. It is important to recognize that the priority does not depend upon the location of one's point of diversion. The first appropriator may be at the headwaters of the stream or its mouth or anywhere in between, and later appropriators are junior regardless of whether their points of diversion are upstream or downstream from the senior appropriator.

Oregon Doctrine—State Theories of Control

During the 35 years or so prior to the enactment by the legislature in 1909 of the Oregon "water code" the common law doctrine of riparian rights was considered and applied by the Oregon Supreme Court in many decisions. The rule of "continuous flow" was acknowledged, subject, however, to the limitation that riparians were permitted a reasonable use of the stream flow for irrigation purposes. This limitation of the continuous flow theory in favor of irrigation was the first step in the gradual erosion in Oregon of the classic common law riparian doctrine.

As early as 1880 (Lewis v. McClure, 8 Or. 273) the Oregon Supreme Court recognized that settlers on public lands as the first possessors might acquire, pursuant to local custom, a vested appropriative right in accordance with the Act of Congress of 1866. Thus, appropriators on streams running through public lands could acquire a special property interest therein, recognized by the Act of 1866, as against all persons acquiring water rights subsequent in time, whether claiming as riparians or appropriators. In short, riparian rights in Oregon were subject to valid prior appropriations on the public domain.

It was not until 1909 that a case was before the Oregon Supreme Court which presented the question of the effect of the Desert Land Act of 1877, upon riparian rights. This act, quoted supra, provided that all surplus water over and above actual appropriations (as to all sources of water supply on public lands and not navigable) should "remain and be held free for the appropriation and use of the public for irrigation, mining and manufacturing purposes . . . ." The case, Hough v. Porter, 51 Or. 318, stated that the effect of this legislation was to dedicate to the public all rights of the government with respect to nonnavigable waters on the public domain for the three purposes named in the act.

After March 3, 1877, any citizen could divert and acquire a water right to the unappropriated waters on public lands, such right to be determined by priority. This interpretation necessitated the abrogation of the riparian doctrine as to all federal lands in Oregon settled upon or entered or patented after March 3, 1877. That is, the dedication of the water to the public by the federal government in the act of 1877 applied to all public

lands, not simply to lands settled under the act of 1877 itself. Because the act of 1877 referred to only three purposes (irrigation, mining and manufacturing), it was interpreted as not affecting the riparian right to the use of water for domestic purposes, including the watering of stock essential to the sustenance of the settlers on the public domain.

In summary, the Oregon Supreme Court recognized that federal patents to lands issued prior to 1877 carried with them riparian rights, but under the Desert Land Act Congress "reserved" for the benefit of the public, for later acquisition by appropriation, all nonnavigable waters flowing through the public domain. Thus federal patents to lands in Oregon issued after 1877 carried no riparian rights, except for purposes of domestic use. This interpretation of the Desert Land Act (that it substantially abrogated riparian rights and was binding on the states) is apparently unique to Oregon and is certainly in contrast to California and Colorado decisions. In any event, it effectively curtailed riparian rights in Oregon as to those public lands settled upon or patented after 1877.

This interpretation of the Desert Land Act was followed by the United States Supreme Court in 1935. California Oregon Power Co. v. Beaver Portland Cement Co., 295 U.S. 142 (1935). The two companies were squabbling over the use of the Rogue River---the petitioner who was using no water claiming as a riparian under an 1885 patent and the respondent claiming under a state permit as an appropriator. In sweeping language the court stated that the Desert Land Act effected a severance of all waters upon the public domain, not theretofore appropriated, from the land itself, that a patent issued after March 3, 1877 under any of the land laws of the United States (not simply the Desert Land Act itself) carried with it, of its own force, no riparian right to water, and that following the Desert Land Act, all nonnavigable waters then a part of the public domain became publici juris, subject to the plenary control of the states with the right in each state to determine to what extent the rule of appropriation or the riparian rule should obtain. (Only on this last point the right of each state to decide its water law did the U.S. Supreme Court disagree with the Oregon Supreme Court in Hough v. Porter.)

Since his patent was issued after 1877, the petitioner had no federally recognized claim to a riparian right. The Supreme Court ducked the issue of whether a state recognized claim to riparian rights (recognized by some early Oregon decisions) could be constitutionally abrogated in retroactive fashion by the Oregon Supreme Court or the Oregon legislature in the 1909 water code. (The water code eliminated inchoate or "unused" riparian rights). Thus, the conclusion in Oregon stands that post-1877 patents carry no riparian rights and in any event, the water code of 1909 recognized vested rights only to the extent of "application of water to a beneficial use prior to February 24, 1909." This statutory abrogation of the

inchoate riparian right had been upheld by the Oregon Supreme Court in 1924 in the Hood River Case, 114 Or. 112.

The upshot is that Oregon follows the law of appropriation as to uses of water and that there is little or no basis for asserting an unused riparian right. The many pre-1909 water rights determined and decreed in the statutory adjudication proceedings which have been completed with respect to about 70% of the streams in the state have been based on beneficial use, not land ownership. For the sake of simplicity and certainty, Oregon is fortunate that it abandoned a dual system of water rights fairly early in its history. The principal legal problem of moving from riparianism to appropriation---what to do with unused riparian rights---was solved in Oregon by simply extinguishing them.

Despite the sweeping language of the opinion, it should be noted that the California Oregon Power Co. case did not concern the proprietary interests of the United States in the waters on its own lands. This issue will now be discussed.

Reserved Water Rights of the United States

A third system of water rights, held by the United States, is superimposed over the riparian and appropriative systems. This is the "reserved" water right of the United States, created by withdrawal of public land from entry and settlement. This right is proprietary in nature and is important primarily in the west where the federal government still owns a vast quantity of land. The reserved right should not be confused with federal power over water which stems from the commerce clause or other powers delegated in the Constitution to the national government.

The reservation doctrine gained a foothold in 1908 in Winters v. United States, 207 U. S. 564. The question was whether the creation of the Fort Belknap Indian Reservation in accordance with an 1888 treaty with the Assiniboine Tribes in Montana entitled the Indians to the use of the waters of the Milk River, which bordered the reservation, to the exclusion of upstream white settlers. Although the parties were at odds with respect to whether the major part of the use of the water by the Indians had commenced earlier or later than the white settlers, the court paid no attention to this issue.

The decision noted that this semi-arid land was set apart for the Indians and that water was essential to their livelihood. Thus, from the circumstances of the Treaty, the Court implied a reservation of water to the Indians and stated "The power of the Government to reserve the waters and exempt them from appropriation under the state laws is not denied, and could not be." The Court further rejected the contention that the

admission of Montana to the Union after the 1888 Treaty destroyed the implied reservation of water for the Indians.

Many Indian water rights cases involve the interpretation of treaties. However, the general tendency of the federal courts in dealing with water on Indian reservations is to consider the law of appropriation on public land to rest upon the federal acts rather than state law, to assume that the creation of the reservation impliedly repealed the federal acts as to waters thereon, and to restore the proprietary rights of the United States (which the "California doctrine" gives as a riparian proprietor, not limited to the amount of water in actual use at any specific time.) The clear implication of the Winters case that the United States may have riparian rights, unrelated to state law, because of its status as a proprietor of land is contrary to the "Colorado doctrine."

The reservation doctrine was extended beyond Indian reservations some 47 years later in firm and dramatic fashion by the U.S. Supreme Court. Although not involving the consumptive use of water as in the Winters case, the famous Pelton Dam decision arose in Oregon. Federal Power Commission v. Oregon, 349 U.S. 435 (1955). In 1951, the FPC decided to grant a license to the Portland General Electric Company to construct and operate the Pelton project on the Deschutes River. The project included a concrete dam and a powerhouse. The FPC found that the project was needed to meet a severe power shortage in the Pacific Northwest. A re-regulating dam downstream would assure even streamflow, measures satisfactory to the FPC would be taken to protect anadromous fish, and the project called for no permanent diversion of water and would be subject to all existing water rights.

The Oregon Hydroelectric Commission denied a license to Portland General Electric Company because the Oregon Fish Commission refused to issue a permit to the Company. Oregon was concerned with the fishery problem and challenged the authority of the FPC to issue its license for the project without the consent of the state.

The decision noted that the authority to issue licenses in relation to public lands and reservations of the United States stems from the Property Clause of the constitution which gives Congress the power to "dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States". The federal jurisdiction in this case was derived from the ownership or control by the United States of the reserved lands on which the project was to be located. The western terminus of the dam was to occupy lands on the Warm Springs Indian Reservation and the eastern terminus was to be on U.S. lands reserved for power purposes since 1909.

Thus, the Court concluded there was no question as to the constitutional and statutory authority of the FPC to grant a valid license on reserved lands provided, as required by the Federal Power Act, the use of the water did not conflict with the vested right of others. No such vested rights were involved. "To allow Oregon to veto such use, by requiring the State's additional permission, would result in the very duplication of regulatory control precluded by the First Iowa decision," the court stated.

It was assumed throughout the litigation that the Deschutes was not "navigable waters" of the United States. Oregon argued that the Desert Land Act of 1877 (and the acts of 1866 and 1870) had severed for purposes of private acquisition, soil and water rights on nonnavigable streams on federal lands, and provided that such water rights were to be acquired under state law. That is, by the three acts Congress had separated the title to the lands from the water and delegated to the States the power to control the use of these waters. This is an entirely respectable argument, based upon the California Oregon Power Co. case.

The Supreme Court, however, read the three acts out of the case by stating they applied only to public lands while the dam was to be located on reserved lands. "Public lands" are lands subject to private appropriation and disposal under public land laws. "Reservations" are not so subject and include national forests, military and Indian reservations, and other lands withdrawn from settlement. The bulk of the federal land in the west is reserved for some purpose.

The Pelton decision caused something of a furor because it appeared, at least arguably, to yank the underpinnings from 100 years of state water law by emasculating the Desert Land Act as interpreted in the California Oregon Power Co. case. Mr. Justice Douglas began his dissent, "I would not suppose the United States could erect a dam on a nonnavigable river without obtaining its water rights in accordance with state law." He noted earlier cases in which the United States had struggled without success before the Supreme Court to be rid of the rule of law that made its water rights on nonnavigable streams of the West dependent on state law.

Further, the Pelton Dam project could not find constitutional sanction under the commerce clause, where admittedly Oregon's sovereignty would give way, because the dam was not shown to affect interstate commerce or to affect navigation or flood control on the Columbia River into which the Deschutes flowed. Finally he pointed out that the lands in question should remain "public lands" within the meaning of the Desert Land Act despite subsequent "reservations" for power sites. The legislation under which these "reservations" were made did not purport to change in any way the provision of the Desert Land Act that pertains to water

rights. The lands remained "public lands," he argued, save only that settlers could no longer locate on them. Congress could "reserve" the waters but it should not be loosely implied by the court.

Efforts of western Congressmen to enact a western water rights settlement act to restore state rights in some measure have been unsuccessful to date. Mr. Lewis A. Stanley, former Oregon State Engineer, explained his position before the Senate Interior Committee in 1961 as follows:

> Let me explain to you how the State of Oregon is hurt by the Pelton Dam decision and why the laws should be changed so that the doctrine stated therein should not remain.
>
> First, Oregon's system of water right titles has been in effect for more than 50 years. Under our laws many thousands of water rights have been granted and a great many of these rights are for diversions of impoundments on reserved lands of the United States.
>
> If the United States owns the water on these reserved lands, the water rights heretofore acquired are invalid because the Federal Government cannot be compelled to recognize such rights.
>
> Second, the legislative assembly of the State has from time to time withdrawn from appropriation the waters of certain streams flowing through reserved lands of the United States. Some of these withdrawals are for the benefit of certain municipalities by preserving for them water for the future; some are for preservation of scenic waterfalls, and some for protection of fishery and recreational values determined to be of paramount importance.
>
> If the Pelton Dam decision is to be the law, the intent and desire of the people of Oregon, as expressed by the legislature, can be flouted at any time by the Federal Power Commission. Even though a stream is nonnavigable and located wholly within the State, the Federal Power Commission can authorize a licensee to build a hydroelectric project on that stream, over the objections of the State.
>
> Here I would like to insert that the Federal Power Commission has power to authorize withdrawals on practically every stream in the State of Oregon. Probably 90 per cent or more of the water supplies of Oregon originate on the reserved lands of the United States.
>
> If we do not have any control of the water rights on reserved lands, we have no right at all.

Third, the legislature in 1955, created a State Water Resources Board and gave it broad authority over the programing of use of the unappropriated waters of the State. The programs heretofore prepared by the board have provided that some streams flowing through the reserved lands of the United States should not be used for power development.

Unless Congress moves to sustain the authority of the State in these matters, Federal Power Commission can hold the board actions for naught, and authorize licensees to build hydroelectric projects on these streams.

Fourth, unless the Congress corrects this situation, we must have a dual system of water rights, those granted by the State and those by the Federal Government.

We already have that situation on the Deschutes River, where the Federal Power Commission purports to grant water rights for the Pelton Dam project.

How can such dual systems be administered?

("Federal-State Water Rights," Hearings before the Committee on Interior and Insular Affairs, U.S. Senate, 87th Congress, June 15 and 16, 1961, at page 62.)

The position of the FPC was well stated in response to Mr. Stanley at these same hearings (p. 72) by John G. Mason, General Counsel, FPC, as follows:

As we see the thing the problem is divided into two phases: One is, that if there is a vested State water right, somebody has a water right under State law, is he going to be paid for it as a result of either development authorized directly by Congress or a development authorized indirectly by Congress through a license under the Federal Power Act?

With respect to those licensed under the Federal Power Act, the law is very clear that the licensee must pay for any vested water rights he interferes with or takes over or uses.

Now, the other problem seems to me to be the one that Mr. Stanley spoke about. The real complaint he had is, who is going to control ultimately the federally authorized development? Are the States going to have authority to control it?

That is Mr. Stanley's position. Or is the Federal Government going to control federally authorized developments as the law presently is, as expressed in the First Iowa and Pelton cases.

Those are the two issues involved. As the Commission in reporting on past bills has pointed out, we have no problem of compensation.

In the Pelton case there were no State water rights being interfered with. As a matter of fact, the Commission required the licensee to build a re-regulating dam downstream from the main power dam for the purpose of re-regulating flows so that the natural unregulated flow of the river could be maintained notwithstanding power development.

That cost $4 million or $5 million.

There were other measures taken. All the things that the State requested were granted. The only thing unresolved was who was going to have the final say as to who was going to ultimately issue the final license, the State of Oregon or the Federal Power Commission.

The Commission went to the Supreme Court in the Pelton case which interpreted the law to say that the final authority was delegated to the Federal Power Commission by Congress.

With respect to the question of who is going to control the comprehensive development of the national resources referred to in First Iowa and also the Pelton case, so far Congress has followed consistently for 40 years a comprehensive national plan for water development as expressed in the Federal Power Act. If that policy is to be continued in effect, then the Federal Government, through the Federal Power Commission, must have the final say-so or ultimate control as to comprehensive development.

Our experience over the years certainly has been that if ultimate control is vested in the States we then have 48 or 50 authorities which have the final say-so on national planning for water power development rather than a single one.

There are many projects where one side of the dam is in State A, the other side of the dam is in State B.

If one State has a law which would act to limit a dam to 25 feet and the other State said the dam had to be 100 feet high, under those circumstances there could not be comprehensive development of water resources.

To the Commission the problem is just as simple as that. The Commission has made an effort to stay out of the legal argument as to who owns what. It points out that this comprehensive plan of regulation, as expressed in the Federal Power Act, has been successfully operated for 40 years and urges that, whatever you do, don't disturb basically that system by putting control into the individual States.

The teeth of the reserved right were shown in Arizona v. California, 373 U.S. 546 (1963). The Supreme Court confirmed an allocation from the Colorado River for five Indian Reservations of the amount of water necessary to irrigate all irrigable acreage and also for a national forest, a national recreation area, and wildlife refuges of the amount of water necessary to fulfill the purposes of these reservations.

Following a lengthy period of federal acquiescence in state created water rights on federal lands (except for Indian Reservation), the various agencies of the federal government, notably the Forest Service, now rely on the reservation doctrine as the source of proprietary interests in the waters within or bordering on the federal reservation. Although direct conflicts with state officials have been sporadic, the doctrine does have operative consequences. The priority date of the reserved right is the date the reservation was created. However, it does not depend upon application to beneficial use and in this regard, is similar to an inchoate riparian right. In times of shortage it is like an appropriative right which takes place on the priority date. For example, assume Clear Creek runs through a national forest created in Oregon in 1908. All downstream appropriations under state law after 1908 are subject in legal theory to the federal inchoate lien on their supply. And water rights in the national forest on Clear Creek are not created or exercised in accordance with state law.

Although the substantial interest of the United States in the waters on federal reservations cannot be denied, it is perhaps regrettable that this interest was defined in full blossom so late in our history, by implication and by ad hoc court decisions which leave a checkered legal history. Following a recent U.S. Supreme Court decision in U.S. v. District Court for Eagle County, 39 L.W. 4333 (1971), it may be possible for states to insist on a quantification of the federal reserved right in state adjudication proceedings. The story of the reserved right is still unfolding.

State Administration of Water Rights

Around the turn of the century, most western states enacted water administration codes. Classical prior appropriation---"divert and use"---had a fairly short life insofar as the laissez faire aspects of the doctrine are concerned. But the water codes built on the judge-made law of prior appropriation and recognized existing vested rights, so the charge was primarily in administrative control rather than in substantive norms. The public's interest in water resources and the complexities of private rights were too dominant for water law to continue merely as a branch of the common law of property.

Oregon Water Code of 1909 - Permit System

The 1909 water code specified that "all waters within the state from all sources of supply belongs to the public" (ORS 537. 110). Prospectively, it limited the acquisition of water rights to appropriation for beneficial use in accordance with the administrative procedures outlined in the code. "No person shall use, store or divert any water until after the issuance of a permit to appropriate such waters." ORS 537. 130 (2).

All appropriators initiated after February 24, 1909 became a matter of public record because they had to be approved by the State Engineer. He issues a water right certificate to the permit holder upon completion of the water project and proof of beneficial use. In addition to serving the important function of recording water claims in a central agency, the permit system affords at least a degree of state control over the acquisition and exercise of water rights. The State Engineer can issue a permit on conditions, cancel a permit for not diligently prosecuting a project to completion, give a preference for muncipalities in the issuance of permits, or refuse to issue a permit if the proposed use conflicts with existing rights or is not in the public interest. If the application is determined not to be in the public interest, it is referred under present Oregon law to the State Water Resources Board for a hearing and determination. ORS 537. 170.

If the owner of a water right does not use water for a period of five successive years, the right is declared "abandoned" by a statute (ORS 540. 610) and the State Engineer can initiate proceedings to cancel the right of record. In addition, any transfer of a water right must be approved by the State Engineer, ORS 540. 510.

These and other powers over surface waters are essentially duplicated in the 1955 Ground Water Act, although with more teeth because of the State Engineer's added powers once a "critical ground water area" is determined. ORS 537. 505 et. seq.

Adjudication Proceedings

The 1909 water code defined a water right (including riparian rights) essentially in terms of appropriation doctrine by recognizing vested water rights as those involving the "actual application of water to beneficial use prior to February 24, 1909." ORS 539. 010 In regard to these rights, the water code provided that they be asserted and established in adjudication proceedings to be conducted by a board of control (later, by the State Engineer) subject to review and determination by a circuit court. The main purpose of the adjudication proceedings is to "restore the title" of a stream ---to reduce water rights initiated or existing prior to 1909 to a written court record, allocating definite quantities of water with a priority date to those who prove their claims.

These proceedings are conducted largely at public expense and are closely supervised by the State Engineer's office. Today, about 70 percent of the area of the state has been adjudicated in 81 proceedings. It is important to complete the adjudication of these valuable early rights, not only to establish a record to preserve vanishing evidence but also for the orderly administration of all water rights.

Water Management Districts

Another role played by the states in water resources is to provide enabling legislation for a variety of quasi-public organizations designed to undertake water management functions (irrigation, drainage, flood control, domestic water supply, power, etc). These organizations are most often used in areas where no existing governmental unit (for example, a municipality) has both the legal capacity and the device to perform such functions. Ten different types of water management districts are recognized by Oregon law. There are, for example, about 75 irrigation districts in Oregon. This is the most common entity with which the Bureau of Reclamation contracts in the development of a federally assisted reclamation projects.

Administration

The State Engineer is given broad authority to administer the laws relating to appropriation, diversion and use of public waters of the state, including ground water; to enforce the distribution of water according to legal rights; and also to compile and publish records of streamflow, reservoir storage, precipitation and snow pack. To assist in the carrying out of these responsibilities, the state is divided into 15 "watermaster" districts generally following river basin boundaries. The supervision of water distribution and the collection of hydrologic data have suffered somewhat in execution over the years because of inadequate state funding.

State Planning for Future Development

It was 50 years after Oregon became a state that the legislature enacted the 1909 water code providing for administrative supervision over water rights. Almost another 50 years passed before the legislature created a state agency with broad powers to plan and control the future development of the state's water resources in the public interest. The State Water Resources Board was created in 1955 against a hodge-podge backdrop of water legislation and state agencies concerned with some limited aspect of water resources. The legislature declared in 1955 that it was in the public interest that a coordinated, integrated state water resources policy be formulated and carried out by a single state agency (the Board) giving consideration to the multiple use concept.

The Board is charged with the duty of studying the water resources of the state, which has been done along river basin lines, and then formulating programs for the use of unappropriated water. These river basin investigations have yielded valuable data and maps. The water use programs, based on the investigations, may include the classification of waters for the highest and best use, the withdrawal of certain waters from future appropriation, the setting of minimum stream flows, and the establishment of preferences for future uses. The program statements must follow the statutory guidelines and when approved by the Board, become state policy to which all state agencies must adhere. (Existing water rights are recognized.)

The Board has other responsibilities---to make certain decisions in resolving conflicts over the use of water, to carry out state participation in federal flood control projects, to identify flood plains and reservoir sites, to coordinate state activities relating to river basin planning, and so on. Oregon is fortunate that its political leadership recognized the need nearly 20 years ago for a state agency with broad authority to study and plan for the future conservation and development of the state's water resources. The state's interests extend beyond the supervision of proprietary rights and beyond enabling legislation to permit local exploitation of supplies by public or quasi public groups. These broader public interests in water resources, outside of the water quality area, fall primarily within the jurisdiction of the Board.

FEDERAL POWERS

Introduction

Federal water policy is a unit in name only. From a pyramid of statutes for over 100 years, a number of policies and programs for national development have emerged. Each addition has reflected a pressing need current at that time. In this federal legislative evolution we can identify the peaks --- since 1824, the activities of the Army Engineers to improve navigation; the Reclamation Act of 1902 to assist in "winning the west" through irrigation; the Federal Power Act of 1920 to supervise and license nonfederal hydroelectric dams; the Flood Control Act of 1936 in recognition of a national responsibility to control floods; separate congressional authorization for huge multiple purpose projects, such as the Boulder Canyon Project Act and the Tennessee Valley Authority; and a series of recent federal Acts to preserve water quality, including the odd resurrection of the 1899 Refuse Act as the basis for a waste discharge permit system administered by the Corp of Engineers.

Although the Corps of Engineers and the Bureau of Reclamation have been the dominant development and construction agencies, there are literally dozens of other federal agencies which have some responsibility for water resources. Thus, the responsibility for a national water resources policy has been fragmented among a variety of mission oriented agencies, created at different times to administer separate congressional programs. The increasing concern for the environment has highlighted the relatively narrow focus of the decision making process, the difficulty in assessing alternatives in this fragmented process, and the basic fact that the federal government is not well structured at present to consider complex environmental issues.

Attempts have been made to respond to some of these problems. Federal agencies now have a legislative mandate under the National Environmental Policy Act of 1969 to consider the consequences of their proposed actions upon the environment. The Water Resources Planning Act of 1965 created a cabinet level Water Resources Council to coordinate river basin plans and maintain a continuing study of water supply requirements. Several river basin commissions have also been established under this Act (including one in the Northwest) to serve as agencies for the coordination of federal, state, local, and nongovernmental plans for the development of water and related land resources. Legislative steps have thus been taken for greater environmental protection and greater centrality of planning.

Perhaps the greatest impact upon federal projects relating to water resources will come with the approval and implementation of proposed new criteria for the evaluation of such projects. These criteria were released on December 21, 1971 in the Federal Register. The proposed discount rate for project evaluation is seven percent---a rate which if applied, would undoubtedly knock out many projects now in the planning stages by the Engineers, the Bureau of Reclamation and the Soil Conservation Service. Traditional benefit-cost analysis would be altered under the proposal because environmental quality is an "account" against which projects are evaluated. Another "account" is National economic development. A third "account" might be accepted-regional development. The Water Resources Council, the Office of Management and Budget, and water development interests, as well as environmental groups, are all in the thick of the controversy over the establishment of new criteria for federal water project evaluation.

Constitutional Considerations

The Constitution does not give the federal government any specific power over the nation's water resources. Such power is founded upon the general powers expressly delegated to Congress, e.g., under the Commerce Clause, and such powers as may reasonably be applied from those granted. Enabling authority must be found for federal undertakings regarding water resources development among those constitutional powers conferred by the

people. In general, however, the Constitutional powers of Congress as interpreted by the Supreme Court are entirely adequate to permit Congress to deal with the Nation's water problems. This is especially true now that the Court has recognized the power to tax and provide for the general welfare as a distinct power. It is no longer necessary to resort to a strained interpretation of the power over Navigation under the Commerce Clause, as was done at an earlier time when the power of the National government to make internal improvements on non-federal lands was contested and in doubt. U.S. v. Genlach Live Stock Co. 339 U.S. 725 (1950).

It is basic learning that the federal government is paramount in its sphere of delegated authority under the Supremacy Clause of the Constitution. Thus from a strictly legal viewpoint there are no federal-state conflicts over water management. If the federal government has the power, it prevails. From this beginning, however, we quickly move into legal disputes between the federal governments and the states which revolve around the interpretation of federal legislation. To what extent did Congress intend to exercise power and oust the states? To what extent did it provide for coordinate or subordinate power in the states? Issues of this sort have been the grist for a number of U.S. Supreme Court opinions. In interpreting the Federal Power Act, the Boulder Canyon Project Act, and the reclamation laws in recent years, the court has consistently come down in favor of the federal government, thereby depriving the states of a veto over federally authorized projects or a dual role in decision making or a subjection of water rights to state law. Perhaps this is sound in terms of the execution of national policy, but the point is that the Court has done this in the face of statutory provisions under which Congress recognized state interests and state laws. Illustrative cases are FPC v. Oregon, 349 U.S. 435 (1955) (upholding an FPC license to Portland General Electric to build the Pelton Dam on the Deschutes River despite the objection of Oregon---there was no need to obtain "water rights" from Oregon, despite a stipulation that the Deschutes is non-navigable, because the dam was to be located on federal "reserved" lands); First Iowa Hydro-Electric Coop v. FPC, 328 U.S. 152 (1946) (saying that Iowa could not veto a federally licensed dam despite failure of the applicant to comply with local law as obstensibly required by the Federal Power Act); City of Tacoma v. Tax payers of Tacoma, 357 U.S. 320 (1958) (permitting the city of Tacoma under an FPC license to construct two dams for a power project and to condemn a state fish hatchery over the objection of the State of Washington); city of Fresno v. California, 372 U.S. 627 (1963) (construing Section 8 of the Reclamation Act which requires the federal government to comply with state laws pertaining to the control, use or distribution of water to mean that state law only defines any property interests taken by the government in the execution of a reclamation project for which compensation must be paid); and Arizona v. California, 373 U.S. 546 (1963) (giving the same interpretation to similar language in the Boulder Canyon Project Act, thereby permiting the Secretary of the Interior to ignore state law in contracting for the sale of water). From these cases

it is clear that the Court believes that the decision making power in water resource management should be an exclusive federal function.

THE COMMERCE POWER - FEDERAL CONTROL OF NAVIGABLE WATERS

Article 1, Section 8 (3) of the Constitution, the Commerce Clause, is the most important historical basis for the United States' assertion of control over waters. It provides: "Congress shall have power to regulate commerce with foreign nations and among the several states..." Other constitutional powers (Property clause, Treaty making power, etc.) will not be discussed here.

In the early history of our country the waterways provided a principal means for conducting commerce. In fact, the need for central control of commerce among the colonies was an important factor leading to the Constitutional Convention. Thus, it is not surprising that an early case held that the Commerce Clause included navigation Gibbons v. Ogden G. Wheat. 448 (1821). Much of the early federal activity in water resources development could not have taken place had it not been for the decisions that the regulation of commerce embraced navigation and that navigability included inland waters, not simply those waterways subject to the "ebb and flow of the ocean tide" as in England.

The U.S. Supreme Court gave an expanded definition of navigability in the Appalachian Power case. 311 U.S. 377 (1940) by saying an FPC license was required for a private power generating dam on the New River in West Virginia because the New River, perhaps not navigable in fact for its entire length, could be made navigable by reasonable improvements. In Oklahoma v. Atkinson Co. 313 U.S. 508 (1941) Oklahoma objected to the federal construction of the Denison Dam on the Red River which was conceded to be non-navigable. The Court overrode the state objections, saying "the power of flood control extends to the tributaries of navigable streams. For just as control over the non-navigable parts of a river may be essential or desirable in the interests of the navigable portions, so may the key to flood control on a navigable stream be found in whole or in part in flood control on its tributaries." These and other decisions make clear that congressional power over surface streams is virtually unlimited under the Commerce Clause, even without reference to other powers.

This paramount power of the United States and its exercise in a variety of federal water programs is laid over state laws and state programs in a federal system. For intrastate waters the paramount power of the United States has not been a serious deterrent to state development. Except for perhaps California, the lack of state resources and pressing demands upon the tax dollar have prevented states from engaging in large scale water projects. Another serious deterrent to state activity is undoubtedly the fact that apportioning the waters of interstate streams through an

interstate compact or an equitable apportionment by the U.S. Supreme Court is difficult to achieve, and single state projects without such apportionment put the investments at risk. Turning the deterrent coin over, financial incentive does exist for states to participate in federally funded programs. The result may be a federal project which pre-empts a later opportunity for a state or private project. But the federal government has rarely, if ever, come along with a project which destroys a state or municipal project.

This brief discussion of federal powers should be kept distinct from the federal proprietary claims under the "reservation" theory discussed above.

Presented October 21, 1971 by FRANK J. BARRY, School of Law, University of Oregon, Eugene.

Role of the Federal Government in Natural Resources Law

The United States was born in 1776 when the Continental Congress, an association of British Colonies, united for the purpose of establishing their independence. At this time the union itself owned no property and had no natural resources. There was private land, of course, and the British Crown owned the lands which were not owned by anyone else.

The Continental Congress agreed on a system by which each Colony would supply a certain quota of troops for the Revolutionary War. As the war went on this got to be a heavy burden for the Colonies, especially those which did not have large areas of unsettled or unclaimed land within their boundaries. Maryland, for example, had almost no such land. Virginia, on the other hand had a huge grant extending across the Appalachians and into the Ohio Valley, the Old Northwest. Pennsylvania, New York and especially Georgia, also had large holdings of Western lands. These Colonies could offer scrip to their recruits which would entitle them, after the war had ended, to go out on the western land and select a homestead on which they could make a living.

During the war and afterward as the difficulties in getting troops and honoring their claims increased, the landless Colonies, led by Maryland, argued that all of the Western lands should be ceded to the central government for the purpose of making them available for the payment of the national debt, including the debt to persons who had served in the military services. Accordingly, in 1787, shortly before the adoption of the Constitution of the United States of America, the Congress enacted the Northwest Ordinance. The subject matter of the ordinance was the Western lands of Virginia, which were to be ceded to the common government. In due course, and on roughly the same terms, Georgia and other colonies ceded their western lands also.

As late as 1845 many thought that the Constitution did not permit the Federal Government to own lands permanently, except such lands as were referred to in Art. I, Sec. 8, Clause 17. This provision refers to the District of Columbia, and lands needed for "forts, magazines, arsenals, dock-yards, and other needful buildings." The ownership of the Northwest Territory and other western lands was rationalized as an ownership in trust, for the purpose of paying the national debt by the sale of such lands to settlers. When the national debt was paid off it was conceived that the lands remaining would be ceded to the States in which they were situated.

The Public Domain

The national debt was paid off, from time to time, but no such cession was ever made. The lands became known as the public domain, or public lands, and the Congress continued to deal with them. Meanwhile, they grew greatly in extent. During the 19th Century, from 1803, with the Louisiana Purchase, until the acquisition of Alaska from Russia in 1867, all of continental United States had been acquired and had become a part of the territory of the United States.

As they were acquired, the western lands, except for those which had already been granted to private persons by the prior sovereigns, became the property of the United States. The Supreme Court has held that the title of the United States to such lands is of the same quality as the title of any other private owner--it is a "fee simple absolute", but not limited by the eminent domain of any other government. All of the lands so acquired from other nations, or sovereigns, and not yet disposed of, are the public lands of the United States.

There are no public lands in the original thirteen Colonies. Legally, title to Crown lands passed to each of the Colonies individually upon the Declaration of Independence. Since that event occurred before a property owning entity such as the United States existed, title passed directly to the Colony within whose boundary the land lay. There are no public lands in Texas, either. Texas had secured its independence from Mexico prior to its admission to the United States. Title to the lands owned by Mexico therefore passed to Texas, an independent nation. When Texas was admitted to the Union there was no cession of state lands to the Federal Government.

While it is clear that the public lands belong to the United States, there was a strong frontier tradition that the people on the land, or the States within which it lay, had some sort of superior claim. This belief is still quite common. Whatever the origin of the tradition, it must owe something to a populist interpretation of the intellectual concepts generated in

the 17th and 18th Centuries respecting Freedom and Democracy. The Colonial looked west after the American Revolution and thought in terms of going out there and claiming his share of America.

The earliest laws passed by the Congress for the disposition of public lands were laws by which grants were made to States and directly to canal companies, and railroad companies, to encourage development. Scrip was used at the end of a war to provide veterans with claims on the public lands. But many people went west, simply staked a "claim", and started making a home in the wilderness. These people were dealt with from time to time with pre-emption laws by which their claims were legalized.

Congress apparently had not considered the possibility that some minerals might be found in the public lands. The Northwest Ordinance provided that "one-third part of all gold, silver, lead and copper mines..." were reserved from all grants of land made by Congress. This was consistent with the law of most European countries, including England. Valuable lead mines in the Ohio Valley were the objects of special attention early in the 19th Century, but until the discovery of gold in California, Congress paid very little attention to minerals.

Congress enacted its first general mining law in 1866. This was later modified and improved in 1872. The 1872 law was unique in history; it gave all the minerals outright to miners, without reservation of any royalty or public share. If the miner wanted the land in which the minerals were found he could buy it for $2.50 or $5.00 per acre, depending on the character of the deposit. The 1872 Act is still the law today for most solid minerals. The price per acre set in 1872 remains the price miners must pay for the land a hundred years later.

General pre-emption laws were passed in the early 1850's. They provided for the occupation, improvement and sale of agricultural lands. The per-acre prices were low, sometimes less than $1. In 1862 the Homestead Act was passed. This provided for free land in tracts of not more than 160 acres. The Act was designed to assure that the land was to be obtained only by bona fide farmers. However, a commutation provision of the Act permitted a patent to be issued for a price before the improvement and cultivation requirements were complete. Within a few years most of the arable land, which could be made productive without irrigation, was disposed of. It was obvious that special laws would have to be made for the arid lands.

The Desert Land Act was passed in 1877. It provided for sales of land at $1.25 per acre. The acreage limitation was increased to 320. Improvement requirements included the development of a water supply. The

provisions in the Homestead Act to assure that the land did not go to speculators had not been adequate and such provisions were made more strict in the Desert Land Act. Corporations could not hold Desert Land Entries, groups could not hold them; every farmer was to operate independently, although he could join with his neighbors to develop a common irrigation system. Much land was disposed of under the Desert Land Laws, but most of it was near sources of water. Much more land would not be irrigated unless rather large projects were built at costs beyond the capacity of the entrymen to pay.

Land Development and Water

The development of land now clearly included the development of water. In 1866, in the same Act as that referred to above dealing with mining, Congress provided for the recognition of water rights on public lands. The law which prevailed in England and in the Eastern part of the United States and was peculiarly adapted to the rainfall in those regions was known as the riparian law. Over-simplified, the riparian doctrine provided that the ownership of land carries with it the right to the water on the land. Since rainfall was plentiful almost all tracts of land had some sort of water on them or running by them. In the arid West, however, miles of land separated water sources. Spain, a somewhat arid country, had developed a system by which water could be appropriated for a beneficial use and the appropriator could thereby acquire a water right superior to later users. The owner of a water right did not have to own land contiguous to the source. Since much of the arid lands of western United States were better served by such a system and since the appropriation doctrine had been in force when much of the arid area had been under the jurisdiction of Mexico before the Treaty of Guadelupe Hidalgo (1848), the Americans in the West had behaved as though the appropriation doctrine was the law. The 1866 Act confirmed titles to water rights under that system prior to the date of the Act and in 1877, a provision in the Desert Land Act made possible the appropriation of water from the non-navigable waters on arid public lands.

The entrymen on desert lands were not successful in reclaiming them. Wresting a livelihood in the wilderness was difficult enough even when water was readily available, but irrigated land had to be leveled (whereas land watered by rain did not) and the cost of transporting water any but short distances was excessive.

Congress attempted to get the States to pay the cost of developing arid lands. In 1894, the Carey Act provided for a grant of 1,000,000 acres to each of the arid land States to aid in the reclamation of arid lands. This

was an experiment and it was not a success. The States could not afford to pay the great cost either.

In 1902 Congress passed the Reclamation Act. This provided for the sale of public lands and the creation of a fund to be used for the reclamation of arid lands. By this Act the Government entered the business of selling water rights with land. No doubt, it was expected that most of the reclamation projects would be on public lands, but in practice, since farmers who needed water were on private lands and since farmers have votes, the projects authorized by Congress have been primarily for the benefit of private lands.

The proceeds from the sale of public lands were insufficient to finance the projects and from time to time the reclamation fund has been supplemented by appropriations and by contributions from other sources, such as, for example, 52% of the revenues under the Mineral Leasing Act of 1920.

The land limitation, anti-speculative provisions of the Reclamation Act are much stricter than these of the Homestead Act and the Desert Land Act, but they have not been proof against the ingenuity of the lawyers for the speculator and the large land owner. Most of the benefits from the Reclamation Act now flow into the pockets of holders of huge tracts of land, many of whom are absentee owners.

Conservation Efforts of the Federal Government

Water is becoming a more precious resource. Projections indicate that the United States will be hard pressed to meet its certain needs over the next thirty or forty years. Congress, in 1968, enacted a law creating a National Water Commission which will study the problem and various proposed solutions.

Forests were so plentiful that no one could have anticipated that they would ever be in danger of depletion. As in the case of other natural resources the forest products industry has moved West with the development of the country. In the earlier years most of the forests of the east were cut down; in the 1830's, 1840's, 1850's and 1860's, most of the forests in the upper Middle West were cut down. While Eastern forests have largely regrown, the upper Middle West has not recovered. Now the largest remaining stands of virgin timber are in the Far West, particularly the Northwest.

The floods of the thirties and forties in the lower Mississippi Valley have been attributed to the fact that the great pine forests of the upper Middle West were destroyed in the last century. There were efforts

afoot in those days to conserve this resource, but they were largely unsuccessful. These forests were not sold. They were systematically looted. There were regular laws under which they could have been acquired by the timber industry, but the industry leaders of those days would rather help themselves. Congress enacted laws to prevent this theft, but vigorous enforcement in the field often resulted in official disapproval of the enforcers.

Today the administration of the forests is much improved. Sales are regularized and an effort is made to limit annual cut to the biological capacity of the forest for regeneration. While it is extremely difficult to get the necessary figures from which to make accurate determinations, it appears certain that America's forests have been overcut during the past decade by as much as 15%.

The dams constructed under the Reclamation Act stored water which could be made to generate electric power when it was released. Accordingly, in 1906 the Reclamation Service was authorized to install generators to be used to power pumps to supplement water supplies and to be sold if in surplus. The Federal Government has thus entered the business of generation, transmission and marketing of electric power. Corps of Engineers flood control dams in the Mississippi Valley and elsewhere, are used for the generation of electricity and the electricity is marketed by the Southwest Power Administration. A Southeast Power Administration handles power generated at Corps' dams in Northern Georgia and the Southeastern Region generally. Congress authorized the establishment of the Tennessee Valley Authority in 1933. The TVA has become a permanent establishment in the Tennessee Valley and adjacent areas. The Bonneville Power Administration markets a substantial amount of the power in the Northwest. The Bureau of Reclamation's power generation and transmission activities match in importance its water business.

The Commerce Clause of the Constitution gives Congress ultimate authority over navigable waterways. Accordingly, the Government has an interest in the use of waters which affect waters over which Congress has such jurisdiction. In 1890 the creation of any obstruction in such waters was prohibited by Congress. Thereafter and until 1920 only Congress could authorize the construction of dams on nabigable rivers or the flow which affected navigability. Unfortunately, the authorization of dams on rivers became the subject of "log-rolling" and in 1920 Congress created the Federal Water Power Commission (now the Federal Power Commission, FPC) to make the necessary investigations and issue licenses, when appropriate, to applicants.

The Federal Power Commission is required to determine the manner in which to develop a water-way to provide the greatest public benefits and to consider all factors necessary for a proper judgment. In the

past it has operated in this area with a relatively free hand, except where conflicting applications had been made to the same dam site. However, in recent years protests have been heard that the Commission must also give careful consideration to such questions as whether no development might be the more appropriate alternative. The Commission has been revising its procedures and its philosophy to conform its conduct to judicial interpretations of the Federal Power Act which have upheld these complaints of the environmentalists.

In 1920, with respect to certain minerals including oil, gas, compounds of potassium and sodium, etc., Congress enacted the Mineral Leasing Act and removed them from the operation of the 1872 Mining Law. The production of these minerals from public lands requires the issuance of a lease, which is discretionary in the Department of the Interior. Royalties must be paid to the Government (most of which are paid into the Reclamation Fund and to the States). In 1955 Congress enacted the Common Varieties Act by which common varieties of sand, gravel, clay, stone, etc., were removed from the list of minerals locatable under the 1872 Act. These common varieties are available only at the discretion of the Secretary of the Interior and are sold for a price.

Prior to 1934 the public domain had been used as open range for grazing livestock. This meant that there was no regulation, of, or charge for, grazing. Needless to say it was only a matter of time until some limitation had to be put on this use of public lands. They were already heavily overgrazed in 1934. Accordingly, under the authority of the Taylor Grazing Act, all public lands were classified, much was classified as suitable for grazing and the lands were closed to entry under the public land laws (except the mining laws). The Secretary of the Interior was authorized to lift a withdrawal and permit an entry if he found the land to be valuable for a higher purpose than grazing. The result of this was that public lands were closed to entry, except under the mining laws, until the Secretary would permit entry. Now, to get a desert land entry or a homestead entry, an applicant must first make a petition to have the lands classified for the desired purpose. However, miners may still go out on the public lands, prospect for minerals, locate mining claims and help themselves to the minerals (except mineral leasing and common variety minerals) without permission of the agency which has the managing responsibility for the lands. If they desire, and if their claims qualify, they can still get patents on such lands for $2.50 and $5.00 per acre.

Since the end of World War II there has been a growing concern for the environment. So much damage has been done to the air, land and water, that citizens have seen that there is a risk that there will be a significant reduction in the quality of life. We talk today, as our fathers never talked, of clean air, clean water and natural beauty, as resources. The Congress

has reflected this concern and the Federal Government has begun to play a role in the preservation of these environmental values.

It is too early to say what course will finally be taken with respect to this new concern. Heretofore, the value judgment of the American people has been that anything which could produce useful goods was worthwhile; any productive activity was virtuous. Now, it appears that productivity itself may be destroying everything worthwhile. Some see a danger to man's survival. The conflict of these two values, the quality of life, on the one hand, and the production of material goods, on the other, will require a severe readjustment of our society. It is impossible to predict what form that readjustment will take. It is certain, however, that the problems presented are national problems and that the Federal Government will play the principal role in their solution.

Presented October 28, 1971 by PHILIP J. ENGELGAU, Department of Justice, Salem, Oregon.

Navigability of Lakes and Streams in Oregon

Concern has been expressed regarding the extent to which the State of Oregon may claim title to the beds of numerous lakes within the State. Many such lakes might properly be classified as navigable, although many have not been used for navigation purposes. Does the State, by reason of its sovereignty, have title to the beds of such lakes?

Upon the admission of Oregon to the Union, it obtained the title to lands underlying navigable waters within its boundaries, as incident to the transfer to the State of local sovereignty. Shively v. Bowlby, 152 U.S. 1 (1893). Thus, upon its admission into the Union in 1859, Oregon acquired fee title to the beds of all navigable streams and bodies of water within its boundaries. We are presently concerned with what standards are applicable in determining which lakes would be considered navigable.

In each instance it is a question of fact whether or not a lake is navigable in the sense that, upon admission to the Union, the State acquired title to its bed. Navigability for such purpose is determined according to federal law. United States vs. Oregon, 295 U.S. 1, P. 14 (1935). Since title to the beds of navigable streams and bodies of water originated from the United States, to avoid the application of diversified standards, the laws of the various states do not apply.

As a test, the Federal Courts have required more than the mere utility of a body of water for boating or recreation by the public. Rather, they have applied a more commercial concept of navigation in which they consider the use of a body of water, or its susceptibility for use, as a highway of commerce over which trade and travel may be conducted.

An early statement of the federal test of navigability was made in The Daniel Ball, 77 U.S. 577 (1870), involving the Grand River in the State of Michigan. The court stated:

> "A different test must, therefore, be applied to determine the navigability of our rivers, and that is found in their navigable capacity. Those rivers must be regarded as public navigable rivers in law which are navigable in fact. And they are navigable in fact when they are used, or susceptible of being used, in their ordinary condition, as highways for commerce over which trade and travel are or may be conducted in the customary modes of trade and travel on water. And they constitute navigable waters of the United States within the meaning of the Acts of Congress, in contradistinction from the navigable waters of the state." 77 U.S. at p. 563.

The court considered the following in determining that the river was navigable:

1. The river was in fact used as a highway of commerce for transporting cargoes and passengers.

2. The length of that portion of the river being so used was 40 miles.

3. The river had sufficient capacity to float large vessels.

4. The river connected with Lake Michigan making it part of a long, continueous avenue for commerce and travel.

In that case, little doubt existed as to the navigability of Grand River because of its size and its use.

A somewhat different situation existed, however, in United States v. Holt State Bank, 270 U.S. 49 (1925). This case involved Mud Lake in the State of Minnesota, which was comparable in some characteristics to Oregon's Malheur and Harney Lakes in southeastern Oregon.

The area involved was land which at one time had been covered by the lake. Prior to the institution of the suit, the lake had been drained for land reclamation purposes. It had covered approximately 5,000 acres and averaged only three to six feet in depth. Much of the area was swampy. Travel thereon had been difficult and was limited to small boats, but the court found that in earlier days it had been somewhat extensively used for such purpose.

Of great siginificance was the fact that the lake was traversed by a navigable river which connected with other navigable streams. The court held that the lake had been navigable and that the State of Minnesota was thereby the owner of the land which it formerly covered.

In its decision, the court in substance applied the test set forth in The Daniel Ball, supra. It stated:

> "The rule long since approved by this court in applying the constitution and laws of the United States is that streams or lakes which are navigable in fact must be regarded as navigable in law; that they are navigable in fact when they are used, or are susceptible of being used, in their natural or ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water; and further that navigability does not depend on the particular mode in which such use is or may be had - whether by steamboats, sailing vessels or flat boats - nor on an absence of occasional difficulties in navigation, but on the fact, if it be a fact, that the stream in its natural or ordinary condition affords a channel for useful commerce." 270 U.S. at P. 56.

United States v. Oregon, 295 U.S. 1 (1935), involved a quiet title suit brought by the United States affecting the beds of Malheur Lake, Harney Lake and other smaller bodies of water in southeastern Oregon. The state endeavored to show that the lakes were navigable under the federal law, but did not succed in doing so.

The decision cites various findings of fact which were determinative of the issue of navigability. Some of the court's findings were:

1. The lakes are extremely shallow (a few inches to approximately two or three feet deep).

2. Because of the flat character of the terrain, an increase in the volume of water does not measurably affect the depth of the lakes but merely the area covered.

3. Although in some areas water is deep enough for boats there are no continuous channels to form a way for travel.

4. The lakes are not connected to any streams or outlets which can be used for navigation.

5. At no time had they been used for travel except by small boats utilized for seasonal bird hunting.

Upon making such findings the Special Master concluded:

> "Neither trade nor travel did then or at any time since has or could or can move over said Divisions, or any of them, in their natural or ordinary condition according to the customary modes of trade or travel over waters; nor was any of them on February 14, 1859, nor has any of them since been used or susceptible of being used in the ordinary condition of any of them as permanent or other highways or channels for useful or other commerce." 295 U.S. at P. 15.

In U.S. v Utah, 283 U.S. 64 (1931), it was found that certain portions of the Colorado River, and some of its tributaries, were navigable under the federal rule. The history of the river was considered, although the court specifically stated that the lack of use in the past is by no means controlling. The court also considered the length of the river, the frequency of sand bars and riffles, ice conditions, flood conditions, width, depth and the use made of the river. With regard to the question of use, the court said:

> "The extent of existing commerce is not the test. The evidence of the actual use of streams, and especially of extensive and continued use for commercial purposes, may be most persuasive, but where conditions of exploration and settlement explain the infrequency or limited nature of such use, the susceptibility to use a highway of commerce may still be satisfactorily proved. 283 U.S. at P. 82.

While the decisions previously discussed quite consistently apply the phrase "susceptible of being used, in their ordinary condition" as a factor in determining navigability, in United States v. Appalachian Electric Power Co., 311 U.S. 376 (1940), the Supreme Court stated that a stream is navigable if reasonable improvements would make it navigable. The Court somewhat modified the meaning of the term "natural and ordinary condition" as follows:

> "To appraise the evidence of navigability on the natural condition only of the waterway is erroneous. Its availability for navigation must also be considered. 'Natural and ordinary condition' refers to volume of water, the gradients and the regularity of the flow. A waterway, otherwise suitable for navigation, is not barred from that classification merely because artificial aids must make the highway suitable for use before commercial navigation may be undertaken." 311 U.S. at P. 407.

The court considered 1) the physical characteristics of the river; 2) the types and numbers of vessels which had used the river for travel; 3) the number of rapids and falls; 4) the effect of improvements; 5) the volume of water; and 6) the general route of the river as compared to the location of nearby cities and towns.

Upon consideration of the various opinions herein cited, it appears that there is no set formula which can be applied in determining navigability. In United States v. Utah, supra, the court said:

> "Each determination as to navigability must stand on its own facts." 283 U.S. at P. 87.

Another such statement is made in the Applachian case, supra:

> "The legal concept of navigability embraces both public and private interests. It is not to be determined by a formula which fits every type of stream under all circumstances and at all times. Our past decisions have taken due account of the changes and complexities in the circumstances of a river. We do not purport now to lay down any single definitive test. We draw from the prior decisions in this field and apply them, with due regard to the dynamic nature of the problem, to the particular circumstances presented by the New River.

> To these circumstances certain judicial standards are to be applied for determining whether the complex of the conditions in respect to its capacity for use in interstate commerce render it a navigable stream within the consitutional requirements." 311 U.S. at 404.

It is apparent that no blanket statement can be made relative to the state's ownership of the beds of lakes. Each case must be determined on its own set of facts. It is probable that in most instances the state would encounter difficulty in proving navigability of lakes in the federal sense because of the importance placed by the federal courts on the requirement of the use of a body of water, or its susceptibility of use, as a highway of commerce for trade and travel. This is especially so because most of such lakes do not connect with streams or other bodies of water which form avenues of commerce of any significant length. This does not necessarily mean, however, that these lakes cannot be considered navigable because the foregoing factor is only one of the considerations involved. For instance, among other uses, it is of general knowledge that many Oregon lakes are and have been used for log rafting and log transportation purposes and thus have served, or are susceptible of serving, a commercial purpose of significant importance to a leading industry of the state.

It should be kept in mind that the foregoing cases deal only with the question of "navigability" as affecting fee title to the beds of streams and lakes. There is a noncommercial test of navigability which is applied by state courts for purposes of determining public rights of navigation, fishing, recreation and other such uses in lakes or streams. In other words, although a lake or stream may not be navigable in the federal sense of its being suitable as a highway of commerce and, therefore, title to the bed is not in the state, under state law the public may nonetheless have a right to use the waters thereof. This public right is referred to as the "jus publicum", and its extent is determined by the laws of the state.

In Guilliams v. Beaver Lake Club, 90 Or. 13, 19, 175 P. 437, (1918), the Oregon Supreme Court made the following classification of streams and other bodies of water:

> "(1) Those in which the tide ebbs and flows, which are technically denominated navigable, in which class the sovereign is the owner of the soil constituting the bed of the stream, and all right to it belongs exclusively to the public. (2) Those

which are navigable in fact for boats, vessels or lighters. In these the public has an easement for the purposes of navigation and commerce, they being deemed public to use the water for the purposes of transportation and trade. (3) The streams which are so small and shallow that they are not navigable for any purpose, the public has no right to whatever. (4) To this list may be added our larger rivers susceptible of a great volume of commerce where the title to the bed of the stream remains in the state for the benefit of the public."

The foregoing classifications were considered and applied in Luscher v. Reynolds, 153 Or. 625, 56 P. 2d 1158 (1936), which involved title to the bed of Blue Lake, a small lake in Multnomah County. The court held that it was not a navigable body of water in the sense that title to the bed passed to the state. However, the court did determine that the public has a paramount right to the use of its waters for navigation and commerce. In so doing, it applied a broad definition of "commerce" to include pleasure boating and recreational use. The court stated:

"We think Blue Lake comes within the above second classification where title to the bed is in the adjacent owners, subject however to the superior right of the public to use the water for purposes of commerce and transportation. 'Commerce' has a broad and comprehensive meaning. It is not limited to navigation for pecuniary profit. A boat used for the transportation of pleasure-seeking passengers is, in a legal sense, as much engaged in commerce as is a vessel transporting a shipment of lumber. There are hundreds of similar beautiful, small inland lakes in this state well adapted for recreational purposes, but which will never be used as highways of commerce in the ordinary acceptation of such terms. As stated in Lamprey v. State, 52 Minn. 181 (53 N.W. 1139, 38 Am. St. Rep. 541, 18 L.R.A. 670), quoted with approval in Guilliams v. Beaver Lake Club, supra, 'To hand over all these lakes to private ownership, under any old or narrow test of navigability, would be a great wrong upon the public for all time, the extent of which cannot, perhaps be now even anticipated.' Regardless of the ownership of the bed, the public has the paramount right to the use of the waters of the lake for the purpose of transportation and commerce." 153 Or. P. 653, 636.

I cite the foregoing Oregon decisions because the classifications made therein would have a significant effect on the determination of public rights of navigation in most lakes within the State. While I have expressed some skepticism as to the State's ability to establish fee ownership to the beds of some smaller lakes, there is little question that under the foregoing tests, the public has the right to use the waters of most of Oregon's lakes for boating, fishing and other forms of recreation.

Presented November 4, 1971 by ARNOLD B. SILVER, Oregon Department of Justice, Portland, Oregon.

Legal Tools in Achieving Environmental Quality Control

The 1971 Legislative Assembly enacted significant new legislation regarding the powers and authority of the Department of Environmental Quality in controlling and abating pollution in Oregon. This legislation not only strengthened the Department's existing powers but also added important new enforcement tools. These statutes are designed to enable the state to progress beyond maintaining a reasonable level of air and water quality, but also to restore air and water quality to a level satisfactory to the public health, welfare and safety.

The purpose of this paper is to briefly describe the legal tools available to the state of Oregon in achieving and restoring environmental quality. It is of necessity not comprehensive but is designed to acquaint the public with a general overall view of environmental authority.

PRESENT STATUTORY SCHEME

The present statutory scheme enacted by the Legislature contemplates that the Department prior to using its enforcement powers will generally endeavor to promote a conciliatory and cooperative approach to solving air and water pollution. In air pollution control, the legislative mandate is quite specific.

ORS 449.815 provides that prior to instituting any form of enforcement proceedings, the Department shall first investigate the alleged violation and then by conference, conciliation and persuasion endeavor to eliminate the source or cause of air pollution which resulted in the violation. If the conference fails, the Department is then authorized to commence an administrative hearing upon notice, giving the alleged polluter an opportunity to present his side of the case. The final

order of the Department is subject to judicial review. Since the adoption of the new Administrative Procedures Act (Chapter 734, Oregon Laws 1971) the review is conducted by the Court of Appeals rather than the circuit court of the county in which the petitioner resides.

The legislative direction is less specific in the field of water pollution control. ORS 449.097 merely requires the Commission to determine whether or not a person is violating any of its rules or regulations. To that end it may investigate, hold hearings and make general or specific orders.

For practical reasons, however, Department staff has attempted to first resolve a water pollution control problem by conference and conciliation prior to going into the formal administrative hearing. All orders entered by the Department of Environmental Quality may be enforced by appropriate judicial proceedings.

INJUNCTION

The 1971 Legislature strengthened considerably the powers of the Department to obtain an injunction for violation of environmental protection statutes or rules. Until the new legislation was enacted the Department could only obtain an injunction prior to its entering an administrative order whenever threatened or existing pollution materially contributed to an emergency which required immediate action to protect the public health and safety or welfare. There, of course, were many instances where the Department would have liked to obtain an injunction to prevent pollution, but were not able to show that the pollution would have materially contributed to an emergency which required immediate action to protect the public health, safety or welfare.

With this specific problem in mind, the Legislature amended the injunction statutes. ORS 449.820 was amended by Chapter 249, Oregon Laws 1971, to permit the Department to obtain an injunction to restrain threatened or existing pollution in the air of this state whenever such pollution or threat of pollution requires action to protect the public health, safety or welfare. In other words, it is no longer necessary to prove the pollution will materially contribute to an emergency which requires immediate action.

For some reason, however, the Legislature did not amend the water pollution control statute relating to injunctions and as a result the state is still obligated to show threatened pollution materially contributes to an emergency which requires immediate action. See ORS 449.100.

I am sure that this problem will be presented to the 1973 Legislature for correction. It should be also stressed that the Department may seek an injunction prior to holding an administrative hearing whenever in its judgment it is necessary to protect the environment of the state.

In other words, it is not absolutely necessary to first hold a hearing and then seek judicial enforcement of the order. In an appropriate case an injunction may be sought prior to formal entry of an administrative order.

In addition to its general injunctive powers, ORS 449. 717 allows the Commission to seek an injunction for the violation of specific statutes relating to air quality. These statutes are ORS 449. 702, 449. 722, and 449. 925 and 449. 990. The Department may also seek an injunction for violation of specific water quality statutes as provided in ORS 449. 975. These statutes are ORS 449. 083, 449. 150, 449. 395 and 449. 400.

CRIMINAL

ORS 449. 990 sets forth criminal penalties applicable to violation of pollution control statutes and regulations of the Department. These violations are usually misdemeanors and are punishable upon conviction by a fine or imprisonment in the county jail or by both fine and imprisonment.

PERMITS

Oregon has had a waste discharge permit law relating to water quality since 1967. This law is codified as ORS 449. 083. Basically the law prohibits the discharge of wastes into waters of the state or the construction of sewage treatment plants without a permit from the Department. The statute also provides for revocation or modification of these permits and for hearings by a person who feels that he has been aggrieved by the Department's action.

In 1971, the Legislature also provided that permits should also be required for air contamination sources, as well as water contamination sources. Pursuant to Chapter 446, Oregon Laws 1971, a person may no longer discharge air contaminants into the atmosphere, nor construct any contamination source without a permit issued by the Department of Environmental Quality. It is, however, necessary for the Department by regulation to indicate which sources of air contamination must obtain a permit.

In the field of solid waste, the 1971 Legislature by Chapter 643 completely rewrote solid waste management requirements. Under a comprehensive and detailed Act, it provides for permits for solid waste management and the operation of disposal sites. As a result, a person who wishes to emit air contaminants or discharge wastes into the waters of the state or operate a disposal site must first obtain a permit from the Department of Environmental Quality. Thus, a comprehensive statutory permit system has been enacted covering the basic aspects of environmental protection.

SPECIFIC 1971 LEGISLATION

We have touched briefly upon general legislation granted to the Department of Environmental Quality for protection of the state's environment. We will now turn to some specific and important aspects of the new legislation which bear discussion.

1. Chapter 563, Oregon Laws 1971 prohibited the open burning of fields for grass seed or grain crops after January 1, 1975. Until this time, the Department of Environmental Quality and growers must work cooperatively together to manage smoke resulting from the burning of fields to minimize its effects on air quality.

2. Chapter 454, Oregon Laws 1971, relates to motor vehicle air pollution and grants considerable powers to the Department to control the emission of air contaminants from these movable sources. It must be remembered that the control of air contamination from new motor vehicles is primarily the responsibility of the federal government. However, once an automobile is sold it is considered by the United States to be a used motor vehicle. As a result, the State of Oregon is vitally interested in the control of contaminants from motor vehicles. The Act in general provides the Department is to certify what systems may be utilized for the control of motor vehicle air contaminants and additionally what factory-installed systems are authorized in Oregon. The Department may additionally designate certain counties of the state in which pollution control systems must be utilized and exempt other counties, if justified. The Act also provides for research, training of personnel and testing laboratories, also to be authorized by the Department.

3. Under Chapter 297, Oregon Laws 1971, slash burning is primarily the responsibility of the State Forester. However, the State Forester and the Department of Environmental Quality must approve a plan for the management of smoke in forest areas. Violation of regulations of the State Forester adopted pursuant to the plan may be punishable by fine or imprisonment, or both.

4. Chapter 424, Oregon Laws 1971, permits the Department of Environmental Quality and regional air pollution authorities to regulate, limit, control or prohibit by regulation motor vehicle operation and traffic as necessary for the control of air pollution which presents an imminent and substantial danger to the health of persons. In essence, this is an emergency bill which clearly recognizes the inherent dangers from motor vehicle emissions and carbon monoxide.

5. Chapter 609, Oregon Laws 1971, created the Nuclear and Thermal Energy Council. The Council is authorized to regulate and control the location and operation of thermal power plants or nuclear installations. Without a certificate from this Council, no new power plant or installation is authorized in the State of Oregon. This is a significant piece of legislation designed not only to protect the public interest, but also a sincere attempt to regulate nuclear energy for the betterment of the citizens of the state.

6. Chapter 667 is a small Act with great implications. Basically the Act provides that no synthetic cleansing agent shall be sold for use in this state unless the agent will normally decompose when acted upon by biological means or will degrade in a secondary sewage treatment plant. All agents that are sold in this state must be labeled as to the percentage of phosphorus by weight. The Act also requires the Department to adopt rules and regulations governing the labeling requirements imposed by the statute.

7. Chapter 524 is a strict liability bill related to the discharge of oil into the waters of the state. A person who violates any provisions of the statute shall incur in addition to any other penalties provided by law a penalty in the amount of $20,000 for every violation. (The amount to be determined by the Director of the Department.) Additionally, the person who has violated the Act is responsible for cleaning up any oil which enters the waters of the state. The bill is a specific attempt to prevent oil pollution of the waters of Oregon similar to that which occurred in Santa Barbara and Puget Sound.

8. Another significantly major Act is Chapter 699 which relates to environmental hazardous waste. In essence this bill provides that no one may dispose of or store any form of hazardous wastes defined as residues from pesticides, radioactive material or residue from industry classified as hazardous by the Department or their containers unless they are disposed of on a site approved by the Department and upon land owned by the State of Oregon.

This is a significant piece of legislation because it places the authority over the disposal of a major portion of environmentally hazardous wastes under the jurisdiction of one agency. As a result, a proliferation of disposal sites in Oregon will be unlikely and each proposed site must meet the requirements of the Department of Environmental Quality.

9. Another major piece of legislation is the so-called "civil penalty bill", Chapter 420. This bill was sponsored by the Department of Environmental Quality and basically provides that any person who violates the conditions of any permits, or any rules of the Department, or any statutes administered by the agency are subject to a civil penalty not to exceed the amount of $500 per day for each violation. The Department is authorized to adopt a schedule and classification of particular violations and the amounts of the penalty therefore.

Regional authorities are also authorized to enforce the schedule within their jurisdictions. The legislation is significant because it allows an administrative agency to levy a penalty rather than going directly to court and asking the court to enforce a criminal violation with resulting fine.. The penalty as levied becomes a lien on the property owned by the alleged polluter and subject to foreclosure proceedings. There are of course safeguards provided for anyone charged with violating the statute in the form of hearings and judicial review.

10. Chapter 452 established for the first time within the Department of Environmental Quality the authority to regulate noise, including aircraft. The Department may adopt noise standards, the violation of which is punishable by fine or imprisonment, or both. Additionally, the Department is authorized to hold hearings and issue orders pertaining to violation of its standards.

11. Up to this point we have talked mainly about "the club" approach to the control of the environment. The next two Acts relate to "the carrot" approach in environmental protection. ORS 449.605 to 449.645 allows tax credits for industries who install or construct pollution abatement facilities for the control of water and air pollution. This also is a totally different approach to the control of pollution hazards and is of benefit to those industries who attempt to protect the public interest. It penalizes those persons who do not install needed pollution abatement facilities by denying to them tax credit. Although the bill has been criticized as a reward to a polluter from the state, it is the judgment of most people who work closely with this bill that it has served as a valuable vehicle to protect the interest of Oregon in preserving and restoring the state's environment.

12. Last, but not least, is the pollution control bond program authorized by Article XI-H of the Oregon Constitution and its implementing Acts. Basically the Act provides for the loaning of money to municipalities for the construction of needed waste treatment facilities.

At the present time the implementing Acts limit the Department to loaning funds for facilities for the control of water pollution and solid waste pollution. At some future time the implementing legislation may also include air pollution control facilities. The constitutional amendment was needed to permit the state to lend its credit to municipal governments which is prohibited by other Articles of the Oregon Constitution.

Although the Department's program is now getting under way, it is significant that the money committed for the control of waste control facilities has already been pledge almost to the full extent presently possible. This program, it is believed, will also contribute greatly to the protection of the state's environment by providing funds to cities to construct needed waste treatment facilities.

Presented November 11, 1971 by WILLIAM H. RODGERS Jr., School of Law, University of Washington, Seattle, Washington.

Development of Environmental Law

My principal charge in talking to you today, to discuss the evolution of environmental law, is easily met. In broad outline, the substantive legal principles governing the correction of environmental insults have not changed materially for centuries. Nuisance law hundreds of years old forbade unreasonable intrusions upon the use and enjoyment of another's property. The law never had much trouble with the culprit who wished to throw sulfuric acid in your backyard. Although today we tend to attach a few numbers to the types of invasions we consider "reasonable" in terms of air or water quality standards, I believe it useful for non-lawyers to consider the continuity of these legal principles.

Let me offer a few examples: one of the earliest air pollution cases was decided in the 16th century.[1] The facts essentially were these: the city fathers of an old English town were content to allow pigs to run loose in the city streets, with the consequence that a great stench began to interfere with the use and enjoyment of the property of a number of persons.

A group of irate citizens went before the chancellor where they secured a writ directing the city officials to correct the situation, upon penalty of contempt. Despite, no doubt, the familiar claims that technology was unavailable to restrain healthy hogs determined to run loose, the legal compulsion did the trick. No suggestion that the problem could be met by increasing the height of the stack on the piggery.

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[1] Reported in Z. Chafee & E. Re, Cases & Materials on Equity 716-17 (65th. ed. 1967)

No problem with a complex chemical analysis of the pollutant involved. An easily recognizable offensive odor, instead, was thought to require resort to the best technology to put a halt to the offense.

During the nineteenth century, nuisance litigation and other legal strictures led to many changes in technology, including the eventual abandonment of soft coal burning in brick kilns. My favorite example from the statutory field was the British Alkali Act of 1863, which required a 90 percent reduction in HCL gas discharges from alkali works.

The act, in short order, encouraged the development of sophisticated gas-scrubbing towers, producing a by-product of hydrochloric acid. For a short time, the acid was dumped at sea, but then markets developed, and recycling was underway. Also, the legislation appears to have stimulated invention in chlorine processes.

PRIMITIVE LEGAL MEASURES

Still another example of primitive legal pressures prompting techn ological breakthroughs is found in the story of the smelter at Ducktown, Tennessee. Even today, the Ducktown smelter is cited as one of the best controlled in the country. What put Ducktown at the head of the list was a decision by company management, made at the turn of the century, to increase the height of the stack on the Ducktown smelter. The unfortunate consequence was that a generous supply of sulfur oxides ended up in the State of Georgia. This jurisdictional accident led to protracted litigation ultimately decided by the United States Supreme Court in 1915.

The court restrained the smelter from releasing into the atmosphere more than twenty tons of sulfur per day during summer months which presumably was the time meteorogical conditions were adverse. Twenty tons a day during this age would be an inconceivably stringent standard for many major SO_2 sources, who find twenty tons or more per hour more to their liking.

The Ducktown decree also affirmed a series of principles beyond the fondest expectations of many of today's radical environmental advocates: (1) an independent academic expert--I believe from Vanderbilt University-- was appointed to supervise the decree and report on

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[2] Georgia v. Tennessee Copper Co., 206 U.S. 230 (1907), 237 U.S. 474 (1915), 237 U.S. 678 (1915), 240 U.S. 640 (1916).

progress: (2) unrestricted access to the stack for monitory purposes was required: (3) tests of the environmental impact were ordered undertaken, at the expense of the defendant and the results to be made available to the public. Most important, the Ducktown decree, we are told, resulted in technological breakthrough in the lead chamber process for producing saleable sulfuric acid from smelter stack gases.

Note the contempoary ring of the Ducktown controversy. The use of the independent academic advisory finds its parallel in statutes like the recent Washington State Thermal Power Plant Siting Act,[3] thought by some to be innovative because it calls for "independent consultants" to evaluate the impact of a proposed site.

The effort to find out about what was going up the stack in Ducktown set a theme renewed in recent years with the efforts of federal officials to inventory industrial water wastes.[4] And the idea of an impact statement became routine practice with the passage of the National Environmental Policy Act in 1969.

To conclude with a recent chapter, litigation affecting the aluminum industry and its flouride emissions in the Pacific Northwest has the aluminum cases to show that when you're dumping effluent on somebody's property and it hurts him, a legal remedy is available whatever the theory. A functional approach looks at the hurt and the reasons for recovery, instead of the theories--nuisance. trespass, negligence. negligence on a resipas loquiter theory, strict liability. The aluminum cases allowed recovery on many different theories, with a predictable result on the state of the art for capturing florides from aluminum smelters.

I could go on documenting scores of cases in which primitive legal theories had a significant impact on the correction of environmental insults--air, water and noise pollution, land-use planning, and so on.

But at some point, you ask, it sounds a trifle hollow for lawyers to be talking about the utility of time-tested principles useful for cleaning up the environment when in fact it is clear that the

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[3] Rodgers, Siting Power Plants in Washington State, 47 Wash. L. Rev. 9 (1971)

4 See house Comm. on Gov'r. Operations, The Critical Need for a National Inventory of Industrial Wastes (Water Pollution Control and Abatement, H. Rep. No. 1579, 90th Cong. 2d. Sess. (1968).

law had very little to do with halting the degradation of the environment and, even today, can claim but a handful of victories in the legal renaissance that has accompanied the spectacular increase in awareness of environmental problems within recent years. "If the law is so useful" the question goes, "how do you explain massive and wholesale degradation in the face of legal principles you've alleged to be so prevalent?"

My response, I hope, will shed some light on what I believe are principal areas of concern environmental lawyers will confront over the next few years.

THE BARRIERS: LEGAL, ECONOMIC & POLITICAL

An employee of one of the defendants in the aluminum cases offered what I consider to be a classic statement of the problem of "externalities" in environmental litigation. "It's cheaper to pay claims," he said, "than control fluorides." According to the economists' explanation of the polluting enterprise, the other fellow pays some of the costs. Unless these costs are brought home to the polluting enterprise, it will not take into account fully the damage inflicted as a cost of doing business, and we will not achieve an optimum level of control. Bringing the costs home to where they belong is principally the responsibility of the lawyer.

Stating the issue is easier than getting the job done, There are, first of all, enormous problems of proof for the party who has the burden, invariably the plaintiff in the nuisance cases I've mentioned. The "risk" or the "hurt", which if the risk fulfilled, may not hit a group with an economic interest with sufficient severity to justify the expense and inconvenience of a lawsuit. Third, the likely defendant may not be the party best able to modify the harmful technology. Add to these a pack of other procedural problems, including the inevitable difficulty of suing large corporations, which polluters often are , and it is understandable why the courts have not always been a ready haven for rectifying environmental wrongs.

You will b egin to appreciate the dimensions of the difficulty if you ever--as I have --speak to a group of farmers urging them to abandon chlorinated hydrocarbon pesticides, like DDT, in favor of the "hotter" organophosphates. I believe that the correct decision for society is to compel the man in the field and the company supplying him to replace DDT with chemicals that are more expensive, less effective and more toxic to the applicator.

This madness begins to make sense when you plug into the equation the "externalities," like contamination of marine sources, losses of certain species of raptors, and the minimal but finite risk to human health caused by the accumulation of DDT compounds in the lipids of persons throughout the world. But this madness never makes sense to the applicator. He will resist efforts to make him consider the externalities to his utmost.

ECONOMIC PREFERENCES

Another facet of the economic problem in the pollution equation are the gross inequities we enforce encouraging continued reliance on polluting technologies. My favorite example here is to compare the economic health of the majors in the petroleum industry, those fifty billion dollar plus heavyweights, with the "re-refiners," a poverty stricken segment of the industry that has seen capacity cut in half over the last ten years.

Used oil presents an enormous pollution problem in the country, and one of the reasons is the economic advantage we offer to the exploiters of the raw material, in the form of depletion allowances and other incentives, as opposed to the absolute neutrality we offer the poverty-stricken refiners. No sporadic law suit can overcome the built-in economics favoring the virgin oil.

Turning around these priorities and a thousand others like them will require a reordering of hard won economic preferences, inevitably through legislation. Generally, the way we lawyers would deal with the used oil problem is to tell the scavengers: "don't dump it here." In 1899 the Congress decreed that "refuse" of any kind or description should not be dumped into navigable waters without first securing a permit from the Corps of Engineers.

Only this year we will have legislation bringing ocean dumping within the purview of the Environmental Protection Agency's responsibilities. Sometimes we can expect technological advances from our crude prohibitions.

Sometimes also, however, we must face up to the awkward economics of alternative technologies. Various proposals to tax shipments of oil are obviously efforts to import the costs of clean-up, precautions and disposal into the decision to produce the raw material.

Behind economic advantages, invariably, you will find political power. With environmental law we are often involved in distinguishing

between acceptable and unacceptable technologies, or in determining what type of investment will best minimize the externalities. For the source with the questionable technology or the one who is forced to make an investment to protect against somebody else's losses, you can be sure expenditures are not often cheerfully undertaken . Taking from Peter to pay Paul in our society is a sure way to inspire political controversies.

RAW POLITICAL POWER

Politics invariably is an important equation in the evolution of environmental legal principles. The rock-bottomed insults are flagrant conflicts of interest, which are not unknown among many environmental decision-makers, a conclusion documented recently by Gladwin Hill in the New York Times.

Let me offer a few further examples of the use of raw political power in environmental controversies: during 1970 an initiative campaign to ban non-returnable beverage containers in Washington State was buried in a last minute public relations campaign, costing hundreds of thousands of dollars, financed by beer, soft drink and can manufacturing interests.[5] Violations of campaign reporting laws in Washington were duplicated at the same time in California where heavy spending by special interests beat down an initiative measure that would have made possible the diversion of gas tax monies, heretofore devoted to highway building and maintenance, for rapid transit purposes. It seems that $95,000 in anonymous contributions arrived during the waning hours of the campaign. A lawsuit subsequently filed by the Secretary of State later smoked out the contributors--Mobil, Gulf and Standard Oil of California.

I understand that these giants may end up paying fines of $1000 for each transgression. Fining Standard Oil of California $1000 is about the same as fining a man with a $20,000 annual income something less than a nickel. I offer these cases as examples of how existing technologies, the automobile as we know it and the disposable beverage container, will be defended by the economic strength and political guile of those who prefer existing technologies.

Sometimes the politicking takes the form of continuous public relations campaigns. Perhaps the best example is Keep America Beautiful (KAB), the national litter organization financed by various segments

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[5] For details, see Rodgers, Ecology Denied: The Undermaking of a Majority, Washington Monthly, Feb. 1971, p. 39.

of the beer, soft drink and packaging industries. KAB sows its message far and wide, proclaiming the three "E's" of the litter problem--education, enforcement and equipment (more trash barrels).

Plead with the litterer, punish him and pick up after him become the only ways to look at the problem. It goes without saying that policy initiatives looking instead at the packaging preferences of the manufacturer are wholly out of line with the views of KAB.

ADMINISTRATIVE AGENCIES

More subtle are the political influences taking place within administrative agencies less than eager to offend their constituencies. The rewritten document, abandoned study, pre-selected research contractor, modified regulation are all casualties of this process. Not too long ago it took me five months to extract from the National Air Pollution Control Administration (NAPCA) minutes of the meetings of two little known advisory groups--the Primary Nonferrous Smelting Industry Liaison Committee and the Pulp & Paper Industry Advisory Committee, both convened to give advice to NAPCA as it went about preparing comprehensive economic and engineering systems analysis studies of the polluting problems of those respective industries.

That the advisory committees had some impact on the final published product is perhaps best illustrated by the minutes of the pulp and paper advisory committee. I am happy to report there is no more pollution in the pulp and paper industry: a motion was made within the committee to strike the word "pollution" wherever it appeared in the final report and replace it with a more neutral word like "emission!"

The high point of influence from within has been achieved by the National Industrial Pollution Control Council (NIPCC), established by executive order early in 1970. NIPCC has served as a principal entrée for various industries interested in "tempering" environmental initiatives proposed by the government.

The Executive Director of NIPCC frankly describes his organization as " a place in government where a lot of business people vent their frustrations. " For the skeptics, let me rest by citing the Nader Reports on pesticides, air and water pollution and land development in California to support the proposition that bread and butter politics too often is the decisive factor in the evolution of regulatory policies affecting the environment.

To this point, I have argued that the law for some time has discouraged the mine run of environmental insults we customarily group under the heading of air, water and noise pollution. If somebody throws sulfuric acid in your face or scatters flourides in your backyard, you have no great substantive legal problem. You will have procedural problems, which include the difficulties in proving your case.

I also have presented the proposition that hard economics, backed by still harder politics, make difficult--and often impossible- the vindication of legal principles centuries old. Thus, overcoming these barriers are seen as fertile areas of legal reform; the economic and political reform are central to accomplishing the legal reform.

A lawyer should be the last to tell you that achieving environmental quality assumes a technological revolution of deep significance: The breeder reactor, elimination of the internal combustion engine, new technologies for the copper, steel, pulp and paper and pesticides industries, to mention a few examples. Sometime the law explicitly insists upon technological excellence by the use of phrases calling for use of the "best technology" in certain anti-pollution endeavors.

The broad challenge for the law, as I see it, is to serve as an instrument for assuring that our current technological capabilities do not remain obscure under a political or economic strait jacket and that future technologies are rapidly developed.

Let me offer, in conclusion, a few broad areas in which the environmental lawyer will be making significant contributions in future years.

(1) the informational need

Predicting the impact of new technologies and tracking down the effects of the old poses unprecedented informational challenges. The National Environmental Policy Act of 1969 is basically a disclosure statute, requiring a full assessment of alternatives before the project proceeds. The disclosure of all environmental studies of significant projects will be a recurring theme, and one that might catch by surprise many consulting firms who perform proprietary research for major industries. Full disclosure as a functional principle will be heard again and again on major land use planning decisions.

Along with disclosure of the scientific case will come disclosure of political activity that might affect the outcome. The leading example of pending legislation on this subject is Senator Metcalf's bill which would require public representation on all advisory committees, like NIPCC.[6]

(2) the representational need

The breakdown of legal principles, to which I have made reference, are in part a failure of lawyers to take the cases which don't generate the fees. The public interest law movement is a response to the need for lawyers to vindicate rights sound in principle but starved in practice. Another example of an attempt to close the representational gap is publicly sponsored advocacy.

The Washington State Thermal Power Plant Siting Act, which mandates a "counsel for the environment" to represent the public interest during siting hearings, is a good example. Another reflection of this impulse is seen at the federal level in the various proposals for an independent consumer agency to represent consumer interests in cases where individuals are not likely to be disposed to protect rights individually insignificant but important in combination.

(3) the research need

Greater legal attention will be given to questions of the research dollar which will dictate the direction of our advances. How funds are allocated, to whom and under what conditions is an area deserving legal scrutiny. I suspect we will see more cases like the smog conspiracy case, which, simply put, ended in a consent decree enjoining members of the automobile industry and their trade association from conspiring to delay the introduction of pollution control technology.

(4) the need for incentives

Saying garbage can't be dumped here, or billboards erected there, historically has been the law's response to an environmental problem. Gradually, the law will trade in its bludgeons for a range of incentives, taxes, shifting of economic priorities, modification of transportation rates to encourage needed new technologies and the abandonment of the old.

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[6] S. 2064, 92d Cong., 1st. Sess.

The law simply will have to take a harder look at the economic order than it has in the past. I will conclude where I began: the law has always been quite optimistic and sensitive in the environmental arena. The problems arise in making the law work, making it something more than a hypocritical expression of unobtainable ends.

Presented November 18, 1971 by JON L. JACOBSON, School of Law, University of Oregon, Eugene, Oregon.

Some Suggestions for Estuary Management in Oregon

In an Oregon State University Marine Advisory Program publication entitled "Crisis in Oregon Estuaries," it is pointed out that estuaries have certain public aspects: recreational, as scientific laboratories, and as biological nurseries. Estuaries are also places where more and more people are coming to live. A basic question thus arises: How to reconcile the increasing demand for coastal living space with the need to preserve the public aspects of estuaries.

The present management framework is objectionable for two basic reasons: (1) It is an unwieldy jumble of federal, state and local agencies and authorities. (2) It tends to provide insufficient protection for the public interests in estuaries vis-a-vis the bordering landowners' interests. Two "legal" points are important to remember in respect to this latter objection: (a) Private property is not really "private", since it is subject to zoning and condemnation powers, exercisable for the benefit of the general public. (b) Navigable waters (including estuaries) and the lands underlying them are subject to a "public trust" concept; that is, a common-law doctrine --not yet completely defined in Oregon--makes all estuaries and underlying lands, whether "owned" by private individuals or by the state, subject to public rights of navigation, fishing and recreation. Illinois Central Ry. v. Illinois, 146 U.S. 387 (1892); Wilbour v. Gallagher, 462 P. 2d 214 (Wash. 1969); Oregon Attorney General Opinion No. 686 (1971).

Needed: (1) A more balanced plan for estuary management and (2) streamlined management machinery. A political problem must be recognized: There is presently "vested" local control of estuary-affecting uses.

Some Features of a Suggested Estuary Management Plan

A basic plan for estuary management of all fourteen estuaries, to be implemented by the legislature, could be developed. Such a plan should be based on extensive studies of the relevant scientific, economic, social and environmental factors, and might include the following features:

(1) Estuarine preserves, where there would be no development allowed. Sand Lake estuary and the Salmon River estuary are two likely candidates in Oregon.

(2) Relatively broad statutory standards for each non-preserve estuary, based on individual estuary factors. The end result might be a spectrum of management standards, ranging from near-preserves to full development. The standards for each estuary could focus on the following: (a) water quality standards; (b) prohibited uses and practices; (c) fill-percentage limitations; (d) broad zoning guidelines; (e) etc.

(3) In addition, broad policies for all estuaries might be adopted by the legislature. For example, (a) that long-term values are preferred over short-term values; (b) similarly, that renewable-resource uses (e.g., fisheries, recreation, esthetics) be given preference over non-renewable-resource uses (e.g., oil drilling, mining); (c) that irreversible environmental or ecological damage be prevented.

Some Features of Suggested Management Machinery

A more streamlined management scheme might include the following features:

(1) Jurisdiction of the regulatory agencies should be broadly defined, by function rather than geography, to cover all activities that materially affect estuaries' physical and biological characteristics. Such activities would include many land-use activities and upstream uses.

(2) A state-level Estuary Agency (or Coastal Zone Agency) representing all interests and needed expertise, should be formed for the following purposes: (a) to establish the estuarine preserves designated in the over-all management plan; (b) to monitor compliance with the statutory standards (referred to above) by local Estuary Authorities; (c) to review periodically the statutory standards and submit recommendations for changes to the legislature.

The state Estuary Agency should be given the eminent domain (acquisition) power and the zoning (regulatory) power necessary for the accomplishment of its purposes.

(3) There might then be established a series of local Estuary Authorities, (or Regional Coastal Authorities), one for each estuary also broadly representative, whose purposes would include the following: (a) to adopt Estuary Plans for multiple uses within the broad statutory standards (taking statutorily specified interests and factors into consideration), with the Plans to be approved by the State Estuary Agency after public hearing and consultation with other appropriate state and federal agencies.

A local Estuary Authority should require a permit for any use that would measurably alter or affect the physical or biological characteristics of the estuary (notably: filling over a certain amount; dredging; dumping; construction of boat marinas; agriculture; mining; etc.). Applicants for permits should be required to submit alternative proposals and, unless this would cause undue financial hardship to prepare, a statement of the expected impact of the proposed use on other uses of the estuary. Investigation and consultation with other appropriate state and federal agencies should be required of the Estuary Authority before it makes its decision on any permit. A public hearing might be required prior to a decision on whether to grant a permit for any of certain specified uses; and there might be a provision for review of permit decisions to the State Estuary Agency and then to the courts.

Conclusion

The suggestions made here are not comprehensive by any means; they are intended simply to present a basic framework for a compromise between the present fractured system of largely local management and a unified state or federal management system, with a view also toward a better balance of legitimate interests.

Presented December 2, 1971 by PETER S. HERMAN, Senior Counsel, Department of Justice, Salem, Oregon.

The Public Trust Doctrine in Oregon

This article is the result of the writer's frustration from reading the case of Illinois Central R. Co. v. Illinois, 146 U.S. 387 (1892) [hereinafter cited as Illinois Central] in which the court held that state legislation granting submerged lands to a private railroad was invalid. Although it is a familiar legal principle that a state legislature's power is plenary unless limited by some provision in the federal or state constitutions, the Supreme Court in Illinois Central pointed to no constitutional provision invalidating the legislation in question. Rather, it relied on the Public Trust Doctrine to find a limitation on the legislature.

Nevertheless it is the writer's belief that a court cannot validly strike down legislation without a constitutional basis to support its action. Accordingly it is the purpose of this article to see if any constitutional basis can be found to support the Public Trust Doctrine.

DISCUSSION

We are living in an age of diminishing natural resources and public concern over what to do about it. This concern is perhaps most keenly felt where navigable waters are involved. The need to preserve this vital resource for the public was the motive power for the delineation of the so-called Public Trust Doctrine by the United States Supreme Court in Illinois Central R.R. v. Illinois, 146 U.S. 387 (1892).

The facts of that case were that in 1869 the Illinois legislature by statute made an extensive grant of submerged lands to the Illinois Central. The grant included about one square mile of land underlying Lake Michigan and covered virtually the whole commercial waterfront of the city of Chicago. In 1873 the legislature repealed the statutory grant,

and the State of Illinois filed a lawsuit against the railroad to determine rights of the state and the railroad in the submerged lands of Lake Michigan.

The holding of the court was (1) the state was the owner in fee simple of the submerged lands underlying Lake Michigan, (2) the act of 1869, if not absolutely void, was at least voidable, and the state at all times had the right to resume ownership, possession and control of the land which was the subject of the grant, and (3) the 1873 statute repealing the grant of 1869 was valid and effective to restore the state to the same control, dominion and ownership over the lands in question it had previous to the 1869 law.

It is important to point out that the court in reaching these conclusions did not rely on any constitutional provision, but rather looked to both the common law of England and its modifications in this country. The court noted that the doctrine of the crown's ownership and dominion over submerged lands was based upon the necessity of preserving to the public the use of navigable waters from private interruption and encroachment (146 U.S. at 436-437). The court then proceeded to examine the validity of the grant, noting that if the act were valid, it placed under the control of the railroad nearly the whole of the submerged lands of the harbor of Chicago (146 U.S. at 450-451). It then stated the question for decision to be whether the legislature could thus deprive the state of its ownership of the submerged lands and of the consequent control of its waters (146 U.S. at 452).

In answering this question in the negative, the court enunciated the Public Trust Doctrine, stating that the state's title to submerged lands

> ". . . is a title different in character from that which the State holds in lands intended for sale. It is different from the title which the United States holds in the public lands which are open to pre-emption and sale. It is a title held in trust for the people of the State that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties." (146 U.S. at 452) (emphasis supplied)

The court indicated that parcels of these trust lands could be granted for purposes in aid of navigation and commerce, such as for the erection of wharves, docks and piers. And grants could also be made

of parcels which being occupied did not substantially impair the public interest in the lands and waters remaining (146 U.S. at 452).

But the court stated that such legitimate uses of parcels of trust lands were of an entirely different character than the grant before it. That grant amounted to a total abdication of state control over the lands under the navigable waters of an entire harbor. Such abdication, the court said, was not consistent with the trust under which the state holds such lands. That trust requires the state to preserve the waters over the lands for the use of the public. The trust can only be carried out if the state has the management and control of the lands underlying the navigable waters. In fact, the state can no more abdicate its trust over these submerged lands in which the whole people are interested than it can abdicate its police powers, excepting only those grants of parcels which are in aid of navigation and commerce or where the grant does not impair the public interest in what reamins (146 U.S. at 452-455).

Succinctly stated, the court declared that the state's title to lands under navigable waters was burdened with a trust which required the state to manage and control the submerged lands to insure that the public could enjoy navigation, commerce and fishing in the waters over the lands without interference by private parties. The court therefore held that the trust could not be alienated, saying:

> "The ownership of the navigable waters of the harbor and of the lands under them is a subject of public concern to the whole people of the State. The trust with which they are held, therefore, is governmental and cannot be alienated, except in those instances mentioned of parcels used in the improvement of the interest thus held, or when parcels can be disposed of without detriment to the public interest in the lands and waters remaining. This follows necessarily from the public character of the property, being held by the whole people for purposes in which the whole people are interested. (146 U.S. at 455-456) (emphasis supplied)

As noted earlier, the court did not rely on any constitutional provision in enunciating the Public Trust Doctrine. Its basis was simply the fact that the harbor of Chicago was of immense value to the people of the entire state and its vast and constantly growing commerce. The grant of the harbor lands, therefore, was so totally inimical to the public welfare that the statutory grant if not void, was at least voidable and could be revoked and the exercise of the trust resumed at any time (146 U.S. at 454-455).

The court clearly acknowledged that it could not cite any precedent concerning a grant similar to that which was before it and which had been held invalid.

The court did rely upon an old New Jersey case, Arnold v. Mundy, 6 N.J. L. Rep. 1, (1 Halsted) (1821). In that case the court held that a plaintiff who had brought a trespass action for damages for oysters taken from plaintiff's oyster bed located in the bed of a navigable river had no valid right of action against the defendant. The plaintiff in proving title had relied upon a grant by the original 24 proprietors of East New Jersey who were the governing body of East New Jersey. The New Jersey court held that these proprietors could not validly make a grant of submerged lands under navigable waters and grant an exclusive right of fishery to the plaintiff. In 6 N.J. L. Rep. 1 at 78 the court stated:

> ". . . but still this power, [to dispose of and regulate submerged lands under navigable waters], which may be thus exercised by the sovereignty of the state, is nothing more than what is called the jus regium, the right of regulating, improving, and securing for the common benefit of every individual citizen. The sovereign power itself, therefore, cannot,consistently with the principles of the law of nature and the constitution of a well ordered society, make a direct and absolute grant of the waters of the state, divesting all the citizens of their common right. It would be a grievance which never could be long borne by a free people." (emphasis supplied)

Thus the New Jersey's Supreme Court declared the grant invalid because it was inconsistent with the "law of nature"[1] and the "constitution of a well ordered society". Perhaps what the court meant by "inconsistent with the constitution of a well-oredered society" was that government of a free people is founded upon the consent of the governed and a state's constitution is an expression of the people's consent to be governed for their own welfare; and if something is done by the government that is clearly inimical to the people's welfare then it is explicityly or impliedly prohibited by the constitution. While the New Jersey court had no specific article in the Constitution of New Jersey of 1776 to rely upon, the

1. The phrase "law of nature" was defined in Wrightman v. Wrightman, 4 N.Y. Ch. Rep. (Johnson) 343 (1820 as;

> ". . .those fit and just rules of conduct which the Creator has prescribed to man, as a dependent and social being; and which are to be ascertained from the deductions of right reason, though they may be more precisely known, and more explicitly declared by devine revelation." (4 N.Y. Ch. Rep. at 348)

preamble to that Constitution clearly indicated that one of the basic underlying social purposes of that document was to adopt for the people of New Jersey,

> ". . . such government as shall best conduce to their own happiness and safety, and the well being of America in general; . . ." (N.J. S.A. First Constitution of New Jersey, Preamble, p. 599)

Thus, essentially the basis of the New Jersey court's holdings in the Mundy case was the same basis as that of the court in the Illinois Central case, namely that a grant of the bed of navigable waters was void because contrary to the public welfare.

Section 1 of Article I of the Oregon Constitution contains an explicit statement of the basic underlying purpose of that document and also sets forth what appears to be a competent legal basis for application of the Public Trust Doctrine in Oregon where appropriate. That provision provides:

> "We declare that all men, when they form a social compact are equal in right: that all power is inherent in the people, and all free governments are founded on their authority, and instituted for their peace, safety and happiness; and they have at all times a right to alter, reform, or abolish the government in such manner as they may think proper." (emphasis supplied)

It is, of course, a fundamental principle of law that a state Constitution does not confer power on the legislature, but is a limitation on power and therefore it is competent for the legislature to enact any law not expressly or impliedly forbidden by the the state Constitution or prohibited by the Constitution of the United States. State ex rel. Chapman v. Appling, 220 Or. 41, 47, 348 P2d 759 (1960). It is this author's opinion that Art. I, Sec. 1, of the Oregon Constitution can be viewed as an implicit prohibition against legislative or administrative action that is clearly contrary to the public welfare.

In fact the Oregon Supreme Court in Portland v. Public Service Commission, 89 Or. 325 at 333, 173 P. 1178 (1918) held that the general welfare of the people is one of the objectives of government and is set forth in Article I, Section 1 of the Constitution. Thus if government is instituted to promote the general welfare of the people, necessarily governmental action which is contrary to the people's welfare is void.

At this point we have advanced the proposition that the Public Trust Doctrine may be supported by the general welfare clause in Art. I, Sec. 1, Ore. Const. The issue then arises, when may a court apply the Public Trust Doctrine under Art. I, Sec. 1, and invalidate legislative or administrative action disposing of publicly owned natural resources or the public interest in such resources?[2]

We believe the answer can be found by examining how the courts treat an analogous area of the law, the police power.

The police power is the power to make all laws which in contemplation of the Constitution promote the public welfare. It includes the whole sum of inherent sovereign power which the state possesses and which, within constitutional limitations, the state may exercise for the promotion of the order, safety, health, morals and general welfare of society. Christian v. LaForge, 194 Or. 450, 461, 242 P2d 797 (1952) (quoting from Union Fishermen's Co. v. Shoemaker, 98 Or. 659, 673, 193 P. 746 (1921).

Since the exercise of the state's police power necessarily restricts or encroaches upon the exercise of private rights protected by the state and federal constitutions, such as the freedom of contract or the freedom to use one's property as one pleases, the courts are frequently called upon to examine the validity of police power legislation. In doing so the courts apply what has been termed the judicial test of reasonableness. In Christian v. LaForge, supra, 194 Or. at 461 the court said:

> "However, it is a well-established rule that when courts are called upon to apply the judicial test of reasonableness to an act adopted by the legislature, they will accord to the

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[2] Even where the state does not own tidelands, the public still retains a right of use of the waters over the tidelands for purposes of navigation, commerce, fishery and recreation. 35 Op. Att'y Gen. 844 (1971); Harrison v. Pacific Ry. & Nav. Co., 72 Or. 553, 558, 144 P. 91 (1914); Grant v. Oregon Navigation Co., 49 Or. 324, 328, 90 P. 178 (1907); Lewis v. City of Portland, 25 Or. 133, 159, 35 P. 256 (1893); Shively v. Bowlby, 152 U.S. 1, 57 (1894). The legislature in ORS 541.625 (2), as amended by Laws of 1971, ch 754, has authorized fills of tidelands under certain circumstances. Naturally a fill would permanently dispose of the filled tidelands and the navigable waters over them.

> lawmaking body a large discretion in determining not only what the interests of the public require, but also what measures are necessary for the protection of such interests. As was said in Union Fishermen's Co. v. Shoemaker, supra, at page 675:
>
> "'The legislature, it is true, is not the final judge of the limitations of the police power, and, since the legislative action must be reasonably necessary for the public benefit, the validity of all police regulations depends upon whether they can ultimately pass the judicial test of reasonableness; and yet, it is also true that it is the legislative function primarily to determine the necessity or expediency of measures adopted.'"

In applying this test, however, the courts accord a broad measure of discretion to the legislature saying that "'debatable questions as to reasonableness are not for the courts but for the legislature...'". Goldblatt v. Town of Hempstead, 369 U.S. 590, 595 (1962).

We suggest therefore, using the analogy of the police power, that the courts can apply the Public Trust Doctrine to invalidate legislative or administrative action disposing of public resources whenever such action clearly exceeds the bounds of reasonableness, that is, clearly is in conflict with the public welfare and therefore in conflict with the fundamental premise of the Oregon Constitution as set forth in Article I, Section 1.

CONCLUSION

The Public Trust Doctrine as formulated in Illinois Central in reality is just an elaborate statement of the proposition that all legislation must be consistent with the public welfare. Nevertheless the doctrine has considerable force as an expression of the limits on the right of government to dispose of or alienate vital natural resources owned by the state or in which the public has some interest or right of use.

We suggest that the Public Trust Doctrine may continue to be used in Oregon with Art. I, Sec. 1, Ore. Const. as its foundation. While the doctrine historically has been utilized to protect lands underlying

navigable waters, we submit that the Public Trust Doctrine may appropriately be applied to any natural resource which the state owns and in which the public has a vital interest. [3] In any such case the courts can, utilizing as precedent judicial analysis of the many applications of the police power, examine legislative or administrative action disposing of such resources to determine whether a particular disposition or allocation of such resource is clearly inconsistent with the public welfare and, therefore, inconsistent with Art. I, Sec. 1, Ore. Const. And while the court can not substitute its own judgment for that of the legislature or the agency administering the legislation, nevertheless it is not inappropriate for the court to determine under Art. I, Sec. 1, whether the public interest had been furthered by the government. [4]

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3 For an exhaustive article on this whole subject matter; see Sax, The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention, 68 Mich. L. Rev. 473.

4 Examples of Oregon cases declaring the Public Trust Doctrine are Winston Bros. Co. v. State Tax Com., 156 Or. 505, 511, 62 P2d 7 (1937) cert. den. 301 U.S. 689, Gatt v. Hurlburt, 131 Or. 554, 560-561, 562, 284 P. 172 (1930), Corvallis & Eastern R. Co. v. Benson, 61 Or. 359, 369-370, 372, 121 P. 418 (1912), Lewis v. City of Portland, 25 Or. 133, 159, 35 P. 256 (1893), Corvallis Sand & Gravel Co. v. State Land Board, 250 Or. 319, 333-337, 439 P2d 575 (1968). All of these cases recognize that there is some limitation on the state's right to dispose of its tidelands or submerged lands. None of these cases, however, point to any constitutional provision as imposing the limitation. Thus the trust is found to exist as a matter of common law precedent only.

Presented December 9, 1971 by NELSON H. GRUBBE, Acting Chief, Enforcement Branch, EPA, Seattle, Washington.

The Environmental Protection Agency Role

Discussions concerning environment have become very popular in the past few years. President Nixon described this decade as the "Environmental 70's." Many organizations, both public and private, are giving a great deal of attention to the environment. Environmental law is developing at a rapid pace. Recent cases and recent legislation give new emphasis to environmental protection. The ultimate worldwide regulations must include a means of population control. Our review today however will be on the interim measures of protection here at home.

The President's Council on Environmental Quality described the situation as follows:

> "Much of the current concern over environmental problems has sprung from a negative reaction to the degradation we have inflicted upon our surroundings. Much of it has sprung from a fear that we will destroy ourselves if environmental insults go unchecked. These reactions and fears are legitimate--environmental degradation degrades us, and the possibility of an ecological "doomsday", although often exaggerated, does exist."

Industrialists tell us that there has been an overreaction to the Prophets of Doom -- that the concern for the environment is a passing fad. (Environmental Quality, The Second Annual Report of the Council on Environmental Quality, August 1971). Scientists tell us however that much needs to be done in this field.

People are the greatest hazard to the environment. People have changed the natural environment to improve their way of life. Without our modern technology, including medicine, electricity, pesticides, etc., ours would be a poor environment indeed. Protection, then, of the natural environment does not mean a halt to progress or developments. It means placing the adverse effects in the light of scientific scrutiny and to require adequate safeguards.

This is expensive -- it is a heavy burden upon the government, upon industry, and upon the benefactors of the development. It is easier to apply to a new installation than to an existing one. It is easier to incorporate protection plans into future land use regulations than to change the present uses. The economic conflict of profits vs. environment is in center stage of the environmental arena. The laws necessary to protect the environment can be no better than the scientific basis for the particular development.

CONGRESSIONAL ACTIONS

The United States government has been concerned with the environment from its beginning. The Constitution authorizes Congress to provide for the "general welfare." (Article I, Section 8) Congress has long debated the regulation of the "commons" -- the air, the water, public land. In the regulations of commerce among the several States, Congress enacted the Rivers and Harbors Act of 1899. In an effort to protect the water from oil spills, Congress passed legislation in 1924. General water quality legislation followed in 1948. Air control was exercised several years ago. The United States is just now entering the field of noise regulation.

Beginning in 1970, all of these conservation measures gained new emphasis. On January 1, the NEPA made environmental protection a consideration of every federal activity. The policy of Congress was to,

> "....assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings."

A very lofty policy indeed. The focus of environmental consideration was asserted by the creation of the Council on Environmental Quality.

In April 1970, Congress enacted the Water Quality Improvement Act (33 USC 1161). Oil spills could bring damage judgments up to $14 million. Failure to notify the government of a spill could subject a company to a fine of $10,000. Hazardous materials was also dealt with. The States were given for the first time the right to review and to veto a proposed federal permit (33 USC 1171). In December 1970, the President created by a reorganization order the Environmental Protection Agency. More about that later.

On the last day of the year, the Clean Air Act of 1970 became law. New policies and guidelines to assure everyone of the right to breathe clean air. The implementation of this act is to be commenced early next year. Automobile manufacturers are required to reduce harmful emissions by 90% from their 1976 models. Fuels for automobiles and aircraft will be strictly regulated.

All of this to protect the environment.

DECREASE THE WASTE LOAD

Can or will the law give us a better environment? Much of what the new legislation does is to give direction to the Executive Branch of the government. The decisions of that Branch will have much to do with how good your environment will be tomorrow.

What are the chances for an improvement in air quality? The technical standards set by the Administrator of EPA will have a bearing on this. Will the ocean be the next lake to suffer eutrophication? The permits authorizing discharges will have a direct bearing upon the swimmobility of the ocean waters. The industrial and municipal waste load now being discharged into the water must be decreased. If it continues to increase, the water cannot provide the many benefits we expect from it.

Environmental law merely gives us a means of protection. Actual protection must come from the executives who supervise the technicians, the lawyers, and the administrators in this regulatory function.

MULTIPLE FUNCTIONS ASSUMED

EPA is a new development in the regulatory field. We have experienced for some time administrative regulation in transportation, commerce, communication, banking, and other matters of public interest. Under the President's authority to reorganize his Branch of the government, the federal functions in Air, Water, Pesticides, Solid Waste, Radiation, and Noise were transferred to this new agency.

EPA is to be the federal standard-setting agency. Radiation tolerances, air quality requirements, solid waste disposal practices, pesticide certification and water criteria are all a part of the functions of this new organization. The Environmental Health Service of HEW and the Federal Water Quality Administration of Interior were transferred to the new agency. These two bureaus were the nucleus of the present structure.

My experience in the agency has been related to the federal statutes concerning water, so I may not have a good overview of the other divisions in the office. The national headquarters presently certifies pesticide labeling. Radiation standards are being reviewed at headquarters.

Research leading to noise regulations is also handled at the national level. Solid waste disposal is assisted in this region by grants for planning and technical assistance in closing unsanitary garbage dumps.

Air requirements for stationary sources are being worked out with the States at this time. National Ambient Air Quality criteria has been established on six parameters. The implementation to meet this is to be submitted by the States to EPA by February 1, 1972.

Water quality concern has been expressed by the Federal Water Pollution Control Act (33 USC 1151). Water quality standards were established by each State in 1967. These standards consisted of classification of streams, water quality criteria and an implementation plan that included treatment needs of a specific discharger and a time schedule for construction. WQS were then approved by the federal government and constitute the over-all plan of abatement for water pollution.

The Act provides in Section 10 (33 USC 1160) for enforcement by the United States whenever there is non-compliance of the water quality standards. An enforcement conference is the first step in abatement.

The State and federal agency after public notice hold a formal conference to hear reports of the condition of the water and the recommendations for improvement. If these recommendations are not then followed, a quasi-judicial hearing is held before a Review Board of five members. If the recommendations of this Board are not followed, the federal agency can seek injunctive relief in the courts.

An additional tool for water quality upon navigable waters is the Refuse Act of 1899 (33 USC 407). Pursuant to the authority of this Act, the Secretary of Army, through the Corps of Engineers, will issue permits to industrial dischargers. We have within our Regional Office a Permit Branch to review applications to make recommendations to the Corps. We have sought the aid of the courts in cases involving discharge of mercury into the water.

The State has the first opportunity to regulate for water quality. Federal efforts include assistance by money grants to municipalities, in technical support and planning. The success story in water quality management has been here on the Willamette River. Strict regulations, based upon scientific knowledge and bold enforcement was evidenced on the Willamette.

Primary and secondary treatment facilities are installed or nearly so on every municipality and industry discharging into the Willamette. Proof of the beneficial effect upon this type of regulation is the return of the salmon to the river. The long lines of sports fishermen around Oregon City attest to this.

THREE CONFERENCES HELD

Three federal enforcement conferences have been held in this region. To wit, Lower Columbia, Lower Snake, and Puget Sound. The federal and State agencies conducted an extensive water and biological study in Puget Sound. Treatment needs for pulp mills have been established. We are working now to encourage the pulp companies to expedite construction. Sewage from the Seattle area is discharged without secondary treatment.

A recent water quality matter on the Columbia is that of the new Harvey Aluminum plant above the John Day Dam. A permit application is pending before the Corps of Engineers. The State of Washington has issued a waste discharge permit. The State of Oregon is concerned about the possible adverse effect upon the environment.

Accurate scientific knowledge of the effect of the discharge upon marine organisms is not yet available. Harvey requests the right to discharge up to 2,000 lbs. of oil and grease each day into the river. The outfall is located nearby at the top of the fish ladder. Legal protection must be based on scientific criteria.

A recent development is that of the application of Section 102 of the NEPA. The Act provides,

> "All agencies of the federal government shall . . . include in every recommendation or report on proposals for legislation and other major federal actions significantly affecting the quality of the human environment a detailed statement. . ."
> 42 USC 4332 (2)

The Act further provides that each detailed statement must discuss the environmental impact of the proposed action and contain an analysis of the proposal. This statement must be furnished to the President and made available to the public. (42 USC 4332(2)(c))

A significant body of case law is being developed on the application of this requirement. A recent Court of Appeals decision from the District of Columbia held that the Act applied to interim licenses proposed to be issued by the Atomic Energy Commission. The court emphasized the importance of the requirement.

> "The apparent purpose of the "detailed statement" is to aid in the agencies' own decision-making process and to advise other interested agencies and the public of the environmental consequences of planned federal action."

> "Of course, all of these Section 102 duties are qualified by the phrase "to the fullest extent possible." We must stress as forcefully as possible that this language does not provide an escape hatch for footdragging agencies; it does not make NEPA's procedural requirements somehow "discretionary." Congress did not intend the Act to be such a paper tiger. Indeed, the requirement of environmental

consideration "to the fullest extent possible" sets a high standard for the agencies, a standard which must be rigorously enforced by the reviewing courts."

(Calvert Cliffs Coordinating Committee, Inc. vs. U. S. Atomic Energy Commission, CA, DC, July 23, 1971.

In late October of this year, the Sierra Club and an organization called Save Our Sound filed suit against the Corps of Engineers in an effort to stop the issuance of a Refuse Act discharge permit to the Atlantic Richfield Company. This matter is still pending.

The trend is toward more federal concern and federal regulation to protect the environment.

During the past year, EPA has commenced more enforcement actions. EPA has increased its staff to review the actions of the State. EPA has become actually involved in water quality management through the Refuse Act permit program. Pending legislation such as S. 2770 directs more federal control. As the need grows for restricting the use of the air and water for disposal regulations will increase.