

# enVironS

UCD School of Law  
Environmental Law School

Vol. 11 No. 1/2  
June 1987

## Protecting the Canary -- Acid Rain in California

By Kathy A. Tonnessen

In the early days of the industry, coal miners would bring canaries with them when working underground. The birds served to warn the men of the build-up of colorless and odorless toxic gases that could cause sudden death.

An analogy can be made between coal mines and acid rain (and other forms of acid deposition: snow, mist, fog and dry gases and particles). The lakes, forests and soils of the Sierra Nevada and other mountainous regions in California are the sensitive canaries that will show the first signs of

Continued on Page Two

## ACID DEPOSITION: BACK TO SQUARE ONE AND BEYOND

By Stephen P. Winslow

Early air pollution control efforts resulted in an inadvertent backward step which aggravated the acid deposition problem. In the 1960s and early 1970s local governments and Congress mainly viewed air pollution as an urban health hazard. Local ordinances and the Clean Air Act Amendments of 1970 (the 1970 Act) focussed on reducing ambient concentrations of air pollutants in urban areas. Local efforts to reduce ambient concentrations resulted in schemes to disperse pollutants rather than reduce emissions. Industry and utilities constructed tall emission stacks to disperse pollutants in lieu of bona-fide pollution re-

duction devices. Tall stacks increased the ability acid deposition to carry into mountain areas and across the long distances of North America.

In the early 1970s scientific studies from throughout the world revealed the effects of acid deposition on forests and lakes. In West Germany, fir trees began to yellow and lose their needles. Today, over one-third of West German forests show some sign of damage. The term "waldersteben", literally translated as "forest death", is now a household word. Czechoslovakia, the Netherlands, France, Italy, Romania, Sweden and the Soviet Union have also reported forest damage.

Continued on Page Six

# Acid Rain in California

Continued from Page 1

damage from acid deposition. There is evidence that acid rain is falling throughout California but as yet there is no proof of damage to natural systems, crops, human health or materials from these acidic stresses.

Monitoring the sensitive mountain lakes and forests, and charting the acidity of wet and dry precipitation have been carried out in California by the Air Resources Board (ARB, California's air quality regulatory agency) since the passage of the Kapiloff Acid Deposition Act of 1982 by the state Legislature (Health and Safety Code, Chapter 6, Sections 39900-39915). The Legislature authorized this five-year research and monitoring program based on evidence that "acid deposition resulting from other than natural sources is occurring in various regions of California and that this deposition may have significant adverse effects on the environment, on the economy and on the public health ..." (Section 39901).

## Where We Are Now

December saw the release of the fourth "Annual Report to the Governor and the Legislature on the Air Resources Board's Acid Deposition Research and Monitoring Program." These annual reports chart the progress of the ARB in funding research on all aspects of the acid rain problem: Sources, transport of pol-



© Linda S. Gilbert

lutants, level of acid rain, effects of acid rain (both realized and potential), and ways of controlling the formation of acidic compounds.

Research and monitoring data collected so far illustrates the nature of the stress and sensitivity of the resources. Experimental simulations are filling in the details on how much acid rain needs to fall before undesirable effects can be chronicled, including loss of fisheries, loss of soil fertility, decreased crop yields, erosion of building materials, and increased morbidity and mortality among sensitive individuals.

By the program deadline of January 1, 1989, a voluminous data base will be available on the causes and effects of acid rain in California and the possible ways to control acid rain precursor emissions, such as sulfur oxides (SOx) and nitrogen oxides (NOx). But the final chapter regarding acid rain in California will not be written by that time. Continued monitoring and research will be needed to see trends in the

acidity of precipitation and to follow long-term changes in sensitive systems. California is fortunate that acidification has not yet changed the face of the state. But continued vigilance is essential to prevent damage to human health and natural systems. Even though the Kapiloff program does not mandate the regulation of acid rain, plans for future control measures need to be formulated now. California has the time to consider the array of possible acid rain standards (such as those recently passed in Minnesota, Wisconsin and New York). If levels of acidity in wet and dry precipitation increase or damage to sensitive resources is noticed, these control strategies can be quickly implemented -- the canary in the mine will have warned of the danger.

## The Acid Rain "Problem"

Acid rain (and all the other wet and dry forms of acidity) is not a new phenomenon. In the 1800s, Robert Smith observed that the unhealthy air of London was acidic. The more recent concern developed in the 1960s in western Europe, when it was noted that the "tall stacks" of coal-fired power plants were delivering acidic pollutants to regions in Scandinavia as lake pH levels fell and fisheries disappeared. When researchers looked in eastern Canada and the northeastern United States, the same bad news was reported: Acid rain and snow were falling, lakes and streams were becoming more acidic, biological populations were being lost.

Until recently, acid rain in the West was not considered

## Meeting the 1989 Deadline: Scientific Results



to be a problem because of the small number of pollution sources (smelters, refineries, power plants) and the presence of alkaline dust to neutralize atmospheric acidity. California led the way in describing a different type of acid rain, with acidity that comes from local sources, and that has a larger nitrate component, from automobiles and trucks. In California, dry particles and gases may be delivering large amounts of acids to urban areas and to areas within the Central Valley. Fogs of high acidity are found in both coastal and valley regions of the state.

### The California Response

The acid rain problem in the eastern part of the U.S. gave rise to the National Acid Precipitation Assessment Program (NAPAP). This 10-year research program is to be carried out by federal research agencies until 1990.

NAPAP does not adequately address concerns in the western U.S. Therefore, in 1982, the Assembly Select Subcommittee on Acid Precipitation in California heard testimony on the acid rain problem in California and recommended passage of the Kapiloff Acid Deposition Act of 1982.

The research and monitoring program is five years in duration and is projected to cost \$18 million. Fees levied on large polluters (power plants, refineries, industrial plants) and the state's motor vehicle fund will pay for the program.

The Air Resources Board was chosen to lead the effort, with assistance from other state agencies and a scientific advisory group. This responsibility fell to the ARB because of its pioneering research identifying the existence of acid rain in California and because of the air-pollution nature of the problem.

The Kapiloff Program includes an ARB in-house effort to monitor wet precipitation (rain and snow) and awarding scores of research contracts to state agencies, universities and public and private contractors to study all aspects of the problem in California. These data will be compiled, interpreted and presented in the final form to the Governor and Legislature by January 1989.

Important findings to be included in the overall assessment are:

1. Precipitation monitoring:

\* Acid rain is falling in many parts of the state, including sensitive regions of the Sierra Nevada; pHs have been recorded as low as 2.9 (5.6 being the pH of unpolluted rain). Acid snow is only measured during early and late season storms.

\* Acid fog has been measured along the coast and in the southern San Joaquin Valley, with the lowest reading at Corona Del Mar, south of Los Angeles, with a pH of 1.7. Local sources (urban emissions and oil field operations) appear to be responsible.

\* Dryfall of acidic gases and particles may contribute more acids to some areas than wet precipitation. The ARB program will soon put in place a network for measuring this dry deposition.

2. Aquatic systems:

\* Lakes and streams in the Sierra Nevada and north-eastern and northwestern ranges are among the most sensitive in the world to acid

# Acid Rain in California

Continued from Page Three

rain; these systems have little ability to neutralize acids in rain and snow because most lie on beds of granite, which does not neutralize acid.

\* Fisheries in low-alkalinity areas are at risk because of the possibility of episodic surface water acidification and increases in toxic aluminum concentrations in lakes and streams.

\* In some high elevation, granitic watersheds of the Sierra Nevada, loss of buffering capacity in lakes has been observed following acidic summer storms that originate in the Gulf of California; these changes in water quality have affected levels of nutrients and algal populations in these mountain lakes.

\* Experimental work, including addition of acids to artificial stream channels and enclosed lake bags, indicates that acid rain can alter biological populations that are essential to fish survival.

### 3. Terrestrial systems:

\* Loss of crop yield has been demonstrated for species exposed to acid fogs and mists under controlled conditions.

\* Soils of the Sierra Nevada are very sensitive to acid rain because of their chemical composition and lack of buffering capacity.

\* Tree damage has been documented in the Los Angeles area and the western slope of the Sierra Nevada due to ozone, a photochemical ox-

dant. It is suggested that acid rain may add to this stress.

### 4. Materials damage:

\* Most likely to be damaged due to acid rain, fog or dry fall is painted surfaces, representing billions of dollars of resources in urban areas.

Some of these findings have been surprises. No one expected to find such high levels in fogs, especially in some coastal areas. The acidic summer rain storms in the Sierra area hard to measure and so were not suspected to occur. The temporary loss of lake alkalinity after large summer rainstorms had not been measured previously in the Sierra because of difficulty in studying these remote systems. The role of snowmelt dilution in changing lake chemistry even when acid snow was not present was a valuable observation.

What has surprised researchers in many areas has been the high level of acidity in urban atmospheres, and in some remote areas, along with the apparent lack of observed effects. It would seem reasonable that in areas of high fog acidity that crops, trees and materials would show signs of damage. This has not been the case. It is reasonable to conclude that such comprehensive damage assessments and trend analyses require more than five years of research and monitoring.

### Regulation?

Both acid rain precursors, NO<sub>x</sub> and SO<sub>x</sub>, are currently regulated within California under the authority of the Air Resources Board. Standards have been set to protect

the public health; secondary standards are set to protect welfare values. Before more stringent regulations can be enacted and stricter standards set, it is critical that the cause and effect or source-receptor relationships be established between precursor emissions and damage to health, materials, crops and natural ecosystems. Once this connection is made, then two types of regulatory strategies can be considered: 1) establishing an ambient air quality standard or 2) formulation of a deposition standard that specifies the amount of acidic material that may be deposited annually in sensitive regions.

There is still an important link missing in the chain between research program results and regulatory action. That element is damage assessment. It cannot conclusively be stated how much acid flux will damage human health and sensitive systems in California. This information is required as the basis for a reasonable health or welfare-based standard. An arbitrary standard based on insufficient scientific information will be indefensible in the policy arena and may not achieve the level of protection desired.

The logical next step in this process is to capitalize on this well-designed research and monitoring program. California is in an enviable position of having no permanent acid rain damage, as yet. Continued deposition monitoring, lake and stream monitoring, epidemiological studies of sensitive human populations and research into possible mechanisms of damage will tell us

when damage begins to show up and what the probimate cause of that damage is. At that point, when the potential is made real, regulations can quickly be implemented before irreversible damage to the state's resources occurs. Knowing all the answers before action can be taken is not necessary before taking further control of acid precursors, but enough information is needed to regulate based on scientific evidence instead of popular conjecture.

### Conclusion

Several conclusions will presumably be made when the program is over -- that trends in

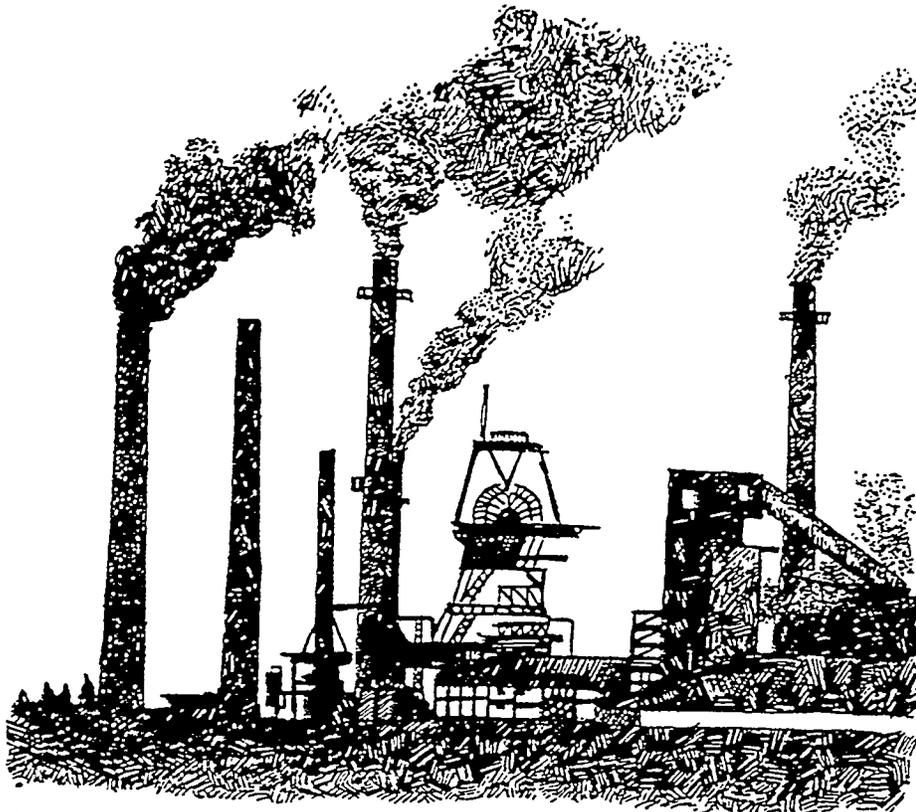
the acidity of inputs cannot be understood over such a short time interval, that natural system variation requires that more than five years of field data be collected and that the complexity of human health research argues for more time and research effort. What we will have at the end of the Kapi-loff program is a five-year snapshot. Unfortunately, the inputs of acids and the response of the receptors are dynamic variables.

Undoubtedly, there will be some who consider the data collected during the program sufficient to justify regulation of acid rain precursors SO<sub>x</sub> and NO<sub>x</sub>. However, without proof

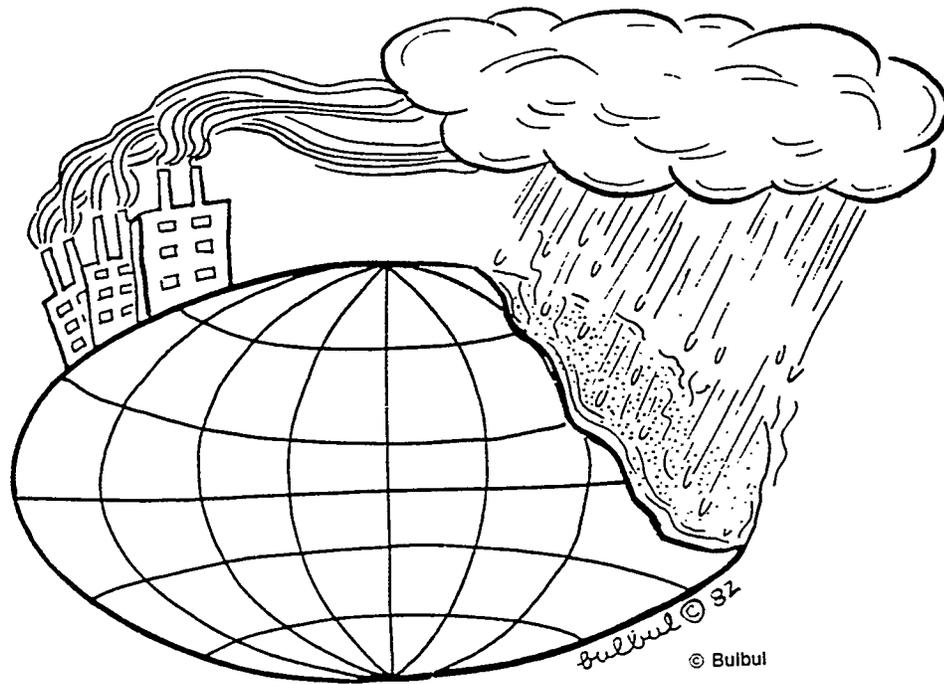
of effects and the economic valuation of the costs of these acid rain related losses, regulation of pollutant sources is premature. More time, more monitoring and research and continued vigilance are now needed.

We need to continue listening for the canary's warning before acting in a manner which may be ill-considered.

-----  
*Kathy A. Tonnessen is the coordinator of the Integrated Watershed Study at Sequoia National Park, which is funded by the Air Resources Board. She holds an M.S. and a Ph.D. from the University of California, Berkeley, Energy and Resources Group, in aquatic biology.*



© Pete McDonnell From "RESOURCES"



# Back to Square One and Beyond

Continued from Page 1

In North America, research efforts first turned to the areas in the northeastern United States and eastern Canada. Studies have shown forest damage from the Appalachians of Virginia and West Virginia northward into the Green and White Mountains of New England. Damage is most severe in the high elevation forests of New York, Vermont and New Hampshire. In the Green Mountains of Vermont more than half the spruce in one area had died by 1979. More than 2.5 million acres of land in North America receive rain ten times more acidic than normal. An Office of Technology Assessment report placed 19,500 lakes in the Eastern United States and Canada in danger of acidification.

A broader term, acid deposition, has come to describe instances when any acidic pollution returns to earth. Combustion of fuel initiates the environmental chain

which creates acid deposition. Sulfur in the fuel reacts with oxygen in the air to form  $\text{SO}_2$ . The high temperatures of combustion fuse nitrogen and oxygen into  $\text{NO}_x$ . Once in the air, the  $\text{SO}_2$  and  $\text{NO}_x$  gradually react with oxygen and sunlight to form sulfate and nitrate particulates. Wet deposition results when the sulfates and nitrates combine with moisture in the air to form acids. The acids then become part of clouds, fog, mist, snow, hail and rain. Acid rain can be ten to thirty times more acidic than normal rain. Dry deposition occurs when gravity or wind cause the sulfates and nitrates to settle directly out of the air. In the moist climates of the eastern United States wet and dry deposition occur in nearly equal amounts. In the dry climates of the West the amount of dry deposition may be as much as fifteen times that of wet deposition.

Wet deposition especially effects moist mountain

areas. Air cools as it rises over mountains causing cloud formation and ultimately rain. Some mountain areas receive three to four times the rain of nearby low-lying areas; therefore, they receive that much more wet deposition. Wet and dry deposition "burn" the leaves of trees and other vegetation resulting in stunted growth and greater susceptibility to disease and insects; seedlings are especially sensitive. The acids alter the nutrient balance of the soil by inhibiting forest floor decomposition. Toxic minerals such as aluminum leach out of the soil and enter the food chain of local wildlife.

Acidic runoff concentrates in streams and lakes poisoning aquatic life. A lake six times more acidic than normal rain can support only limited animal life. A lake ten times more acidic than normal rain will not support fish. Many lake-bottoms contain com-

pounds which naturally neutralize some of the effects of acidic runoff; these lakes can continue to support life until the compounds are depleted. However, granite-bottomed lakes have little if any neutralizing compounds so they are especially sensitive to acidic run-off.

Acid deposition also corrodes buildings and monuments. In Europe, monuments which have lasted hundreds of years have deteriorated more rapidly in recent decades due to acid attack. BMW recently stopped shipping cars through Jacksonville, Florida, because of acid deposition damage to exterior paint. Extensive research efforts are now considering the potentially unique aspects of acid deposition in the western United States. Damage to the needles of the evergreen forests in western mountain ranges may accumulate from year to year. Large snow accumulations may lead to massive acidic snowmelts. An EPA survey released in January of this year found that two-thirds of 19 western lakes could not neutralize acidic runoff. The lakes most vulnerable to acidification are located in Yosemite National Park, the Wasatch Mountains of Utah and the Alpine Lakes Wilderness of Washington state. California had the largest number of vulnerable lakes. Measurements of the acidity of the California lakes showed no actual acidification, however, the study was conducted in the late summer, a time of little rain or snowmelt.

Approximately 26.5 million tons of SO<sub>2</sub> and 21.3 million tons of NO<sub>x</sub> were emitted in the United States in 1980.



Ore-smelters, utility and industrial boilers accounted for 95 percent of the SO<sub>2</sub> emissions and nearly half of the NO<sub>x</sub> emissions. Transportation accounted for most of the other half of NO<sub>x</sub> emissions. In the East, the most likely source of emissions causing damage along the Appalachian chain and in Canada are midwestern industrial and utility boilers fired by the high-sulfur midwestern coal. Eight states in the upper and middle Midwest account for nearly half of the SO<sub>2</sub> emissions in the U.S. and nearly 60 percent of the emissions east of the Mississippi.

In the West, emission from enormous copper-ore smelters in Arizona and New Mexico threatened the Rocky Mountains prior to the 1980s. However, many of those smelters have shut down due to the drop in copper prices. Southwesterners feared that a smelter now being constructed in Mexico would create more acid deposition than the smelters which closed. The Mexican government allayed those fears

by agreeing to install controls to limit SO<sub>2</sub> emissions. In California, NO<sub>x</sub> accounted for nearly 75 percent of the total NO<sub>x</sub> and SO<sub>2</sub> emissions in 1980. Transportation accounted for two-thirds of the NO<sub>x</sub> emissions.

## II. Getting Back to Square One

### A. Overview of the Clean Air Act

The Clean Air Act provides the major statutory mechanisms dealing with acid deposition and other interstate air pollution. The Act substantially increased federal involvement in national air pollution control and at the same time preserved a strong reliance upon state responsibility. The Act indirectly limits interstate air pollution by directly limiting local air pollution concentrated in local air basins. The administrator of the Environmental Protection Agency (EPA) must identify and establish air quality standards (NAAQS) for pollutants which are harmful to the public health or welfare. Primary standards are designed to protect public health. Secondary standards are designed to protect public welfare. In obedience to the statutory mandate, the EPA set NAAQS for six pollutants, including SO<sub>2</sub> and NO<sub>x</sub>. The current standards do not consider the effects of acid deposition. A secondary standard would probably need to be developed to reduce acid deposition since it mostly affects public welfare.

Responsibility for meeting the NAAQS lies with the individual states. Each state devises a SIP (state implementation plan) and submits it to the EPA for approval. The EPA must approve the SIP if it meets

Continued from Page Seven

the eleven criteria specified by the Act. Those criteria include establishment of emission limitations, compliance schedules, air quality monitoring and enforcement programs. As of 1977, SIPs must also include restrictions on substantial interstate air pollution. If a state fails to submit a satisfactory plan the EPA can devise and implement one.

Once a SIP is approved, the state must meet the primary standards within three years and secondary standards within a reasonable time. Areas which achieve the NAAQS may be subject to provisions of Part C of the Act designed to prevent significant deterioration (PSD) of air quality in those areas. Part C establishes maximum "increments" by which a pollutant can exceed its "baseline" concentrations of that pollutant. Consequently, incremental emission increases are allowed so long as the maximum ambient concentrations of the pollutants do not exceed the baseline concentration increased by the maximum increment.

Areas which do not achieve the NAAQS are designated as "nonattainment" areas and are subject to the regulations of Part D of the Act. Part D requires stringent emission limitations to insure compliance with NAAQS as quickly as possible.

[This was taken in large part from Air Pollution Control District of Jefferson County, Kentucky v. United States Environmental Protection Agency, 739 F.2d 1071, 1074-1075 (6th Cir. 1984).]

## B. Domestic Acid Deposition

Congress began to make up the ground inadvertently lost by prior air pollution control efforts. The 1977 amendments to the Clean Air Act cured the most glaring oversights of the 1970 Act by banning dispersion techniques as a means to meet air quality standards. States have to exclude air quality improvements resulting from construction of stacks taller than good engineering practice. The amendments strengthened interstate air pollution control provisions and added international air pollution control provisions. However, the amended Clean Air Act fails to reduce acid deposition because it overemphasizes local air quality monitoring, focuses on individual rather than aggregate emissions and creates ineffective interstate air quality control regions.

### 1. Over-emphasis on Monitoring Near the Emission Source

The Clean Air Act contains an underlying assumption that pollutants concentrate in an air basin like dirty water in a bathtub. Generators of pollutants "stew in their own juices". Emission limits which increase the costs of living in an air basin are appropriate and politically palatable since the people who pay for reductions are also the people who benefit from them. As a result, the Clean Air Act directly regulates ambient concentrations of SO<sub>2</sub> and NO<sub>x</sub> in individual air basins for their effects on public health and welfare. However, local ambient monitoring ignores cumulative environmental impacts and

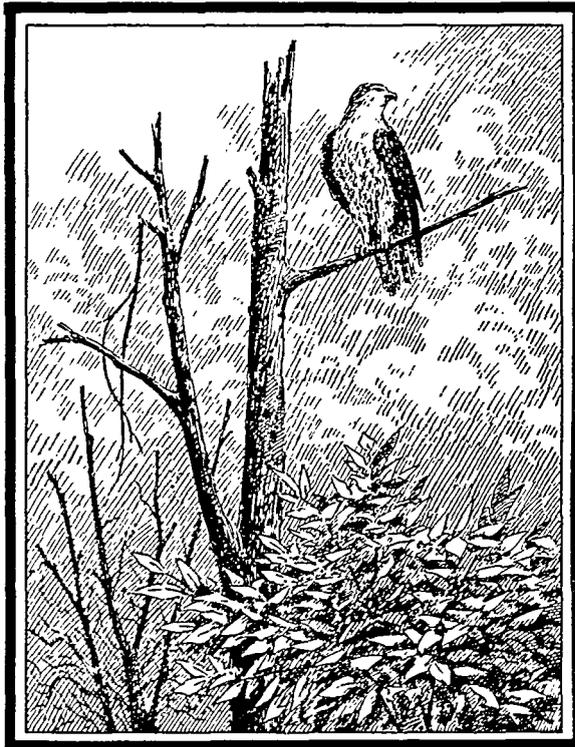
permits many emissions to escape regulation.

Consider the following hypothetical:

Cleaneticutt lies downwind from Smellinois in the country of Bi-State. Smellinois contains thirty plants located far from the border of Cleaneticutt which produce identical emissions of SO<sub>2</sub> and NO<sub>x</sub> (see figure 1). Cleaneticutt has no sources of SO<sub>2</sub> or NO<sub>x</sub> emissions.

Tall stacks emit SO<sub>2</sub> and NO<sub>x</sub> into strong wind streams, carrying the pollutants over the monitors in Smellinois, thus allowing Smellinois to meet the ambient standards. By the time the pollutants reach Cleaneticutt they have converted to sulfates, nitrates and acids. Monitoring in Cleaneticutt detects low concentrations of SO<sub>2</sub> and NO<sub>x</sub> but neglects to account for chemically converted SO<sub>2</sub> and NO<sub>x</sub>. Acid deposition damages Cleaneticutt's forests and kills young fish in the lakes subject to acidic runoff.

The current provisions of the Clean Air Act inadequately deal with the complex environmental processes which create acid deposition. Ambient standards and local monitoring fail to account for dispersion and conversion of pollutants, and the environmental forces which concentrate and accumulate acid deposition's impact in certain sensitive areas. Also, health effects and not acid deposition serve as the basis for current ambient SO<sub>2</sub> and NO<sub>x</sub> standards. Those standards have done little to decrease emissions although they have limited emission increases; between 1970 and 1980, SO<sub>2</sub>



emissions fell 13 percent while NOx emissions actually increased 12 percent. Emissions must be significantly decreased to reduce the impact of acid deposition. Bills currently before Congress call for at least a forty percent reduction in SO2 emissions. The Environmental Protection Agency could set new ambient standards based on the effects of acid deposition. However, EPA has consistently refused to promulgate new standards unless under Congressional or court order to do so.

Tall stacks continue to disperse acid deposition over great distances. Congress corrected the oversight which allowed polluters credit for dispersing emissions by constructing tall stacks. However, Congress exempted tall stacks constructed before 1970 and allowed the use or construction of newer tall stacks. Cleaneticutt will continue to suffer at the hands of Smellinois' polluters

since local ambient standards and monitoring fail to sufficiently reduce SO2 and NOx emissions.

## 2. Interstate Air Pollution Control

Congress has tried to move beyond local ambient monitoring to develop mechanisms for controlling interstate transport of pollutants. Initially, the Clean Air Act provided for intergovernmental co-operation to resolve interstate air pollution problems. Unfortunately, those provisions proved ineffective because they lacked any mechanism to resolve interstate disputes when co-operation failed. A polluting state was not required to take any action to limit interstate air pollution nor was it subject to sanctions of any kind.

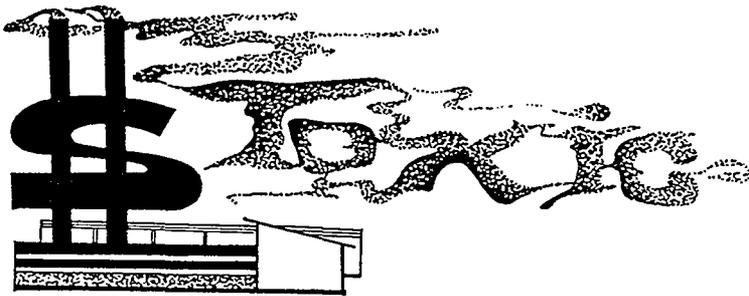
The 1977 amendments to the Clean Air Act allow EPA to resolve interstate disputes in limited circumstances. Polluting states must reduce emis-

sions from each source which substantially contributes to violations of ambient air pollution standards in another state. A substantial contribution occurs when an emission source causes a violation of NAAQS or PSD standards in another state given the other state's efforts to meet the standard. EPA can rewrite SIPs which fail to meet the interstate provisions of the Clean Air Act. States must notify neighboring states of new sources which may significantly contribute to NAAQS or PSD violations outside the state. Receptor states can petition the EPA if a polluting state fails to meet those obligations. The EPA then determines if the polluting state is in violation.

Unfortunately, the amendments are fraught with the same weaknesses as local ambient standards and local monitoring because they rely on those mechanisms to trigger either EPA or judicial review. Furthermore, the amendments contain a loophole allowing states to increase emissions statewide while looking at the interstate impact of the increase plant-by-plant. Courts have not required states to aggregate emissions to calculate interstate air pollution effects.

Consider the following hypothetical:

The situation remains the same as in the first hypothetical with the following changes: The Smellinois plants are distributed throughout the state (see figure 2). Cleaneticutt has one large plant which produces four times the SO2 emissions of an individual Smellinois plant. Prevailing winds carry Smellinois emissions towards Cleaneticutt, allowing



© Courtney Smith From "RE:SOURCES"

Continued from Page Nine

Smellinois to meet the ambient standard for SO<sub>2</sub> by 33 percent. Meanwhile, Cleaneticutt barely meets the ambient standard. Smellinois emissions account for two-thirds of the ambient SO<sub>2</sub> in Cleaneticutt while Cleaneticutt's account for one-third. The SO<sub>2</sub> eventually converts to acid deposition in Cleaneticutt.

Smellinois allows their plants to increase SO<sub>2</sub> emissions 33 percent so that ambient concentrations in Smellinois are just below the national standard. Cleaneticutt's air now exceeds the SO<sub>2</sub> standard by 33 percent due to the increased interstate air pollution from Smellinois.

Smellinois must look to see if any individual plant substantially contributes to an ambient standard violation in Cleaneticutt. Since ambient standard violations result from the total emissions of numerous sources, a single source is unlikely to cause a violation by itself. One court found that a

three percent interstate air pollution contribution by an individual plant was not substantial. The receptor state in that case presented a model which indicated the plant could by itself cause an ambient violation. The court deferred to EPA's model without investigating the large modelling discrepancy. The wide distribution of plants in Smellinois prevents long-range emission models from accurately determining whether individual Smellinois sources substantially contribute to ambient standard violations Cleaneticutt. Since each individual Smellinois plant may contribute only three percent to the Cleaneticutt violation, Smellinois need not require the plants to reduce emissions.

Cleaneticutt could argue that Smellinois should aggregate the emissions from all sources when determining their impact on interstate air pollution. The state of New York used that argument in a series of cases (State of New York v. Administrator, United States Environmental Protection Agency, 710

F.2d 1200, (6th Cir. 1983); State of New York v. United States Environmental Protection Agency, 716 F.2d 440 (7th Cir. 1983)). New York objected to increases in SO<sub>2</sub> emissions from individual plants in Tennessee and Illinois arguing that the EPA should calculate the aggregate interstate effect of emissions from all sources in an individual state. Both appeals courts rejected the argument. The courts ruled that the 1977 amendments required states to look at the impacts of individual sources not statewide emissions.

Therefore, even taking a situation in which the Clean Air Act directly limits ambient SO<sub>2</sub> concentrations, the Smellinois has not violated the Clean Air Act even when an ambient SO<sub>2</sub> standard violation results in Cleaneticutt.

### 3. Ineffectiveness of Interstate Air Quality Control Regions

The Clean Air Act allows EPA to create interstate air quality control regions in areas affected by interstate transport of air pollution. The term interstate air quality control region (AQCR) conjures up images of uniform standards throughout the region. A multi-state body might decide the appropriate emission levels to meet ambient standards. Therefore, states contained in interstate AQCR would be prevented from unilaterally setting emission limits in those regions. Wrong! The individual states set their own emission standards even in interstate AQCRs. Region-wide emission limits need not be set. Kentucky argued that interstate AQCRs should have uniform

emission standards in Air Pollution Control District of Jefferson County v. United States Environmental Protection Agency, 739 F.2d 1070 (6th Cir. 1984). Portions of Kentucky and Indiana were designated as an interstate AQCR. Initially, the states adopted identical emission limits for sulfur dioxide. The Kentucky portion continued to violate the NAAQS. Indiana then decided to increase the emission limit by five times the previous limit. Kentucky filed suit to require Indiana to return to the prior standard. Kentucky estimated that a single Indiana plant would cause ambient standard violations in Kentucky. The EPA estimated that the Indiana plant would contribute only three percent to any violations in Kentucky.

The Sixth Circuit found that the interstate AQCR designation could not legally obligate Indiana to set emission limits to reduce ambient concentrations in Kentucky. Only the interstate air pollution provisions of the Clean Air Act could create that legal obligation. The court deferred to EPA's estimate of the Indiana plant's effect and found that the plant's three percent contribution failed to constitute a substantial contribution to the ambient standard violations in Kentucky.

For the above reasons, the amended Clean Air Act leaves states impacted by acid deposition from other states with insufficient legal remedies. Those states must now rely on Congress to amend the Clean Air Act to provide them with relief.

### C. United States-Canadian Acid Deposition

Despite Canada's perception of acid deposition as a major issue in U.S.-Canadian relations, neither diplomacy or the international air pollution control provisions of the Clean Air Act have resolved the acid deposition problem in the Northeast.

#### 1. Diplomatic Efforts

In August 1980, the Canadian and U.S. governments signed a memorandum of intent establishing a co-operative effort to reduce transboundary air pollution. The governments specially recognized the problem of long-range air pollution and potential acidification of sensitive areas. The main thrust of the effort consisted of five technical work groups which would lay the scientific, engineering and legal foundation for future negotiations of a formal agreement on transboundary air pollution. In the meantime, the individual governments were to vigorously enforce existing laws and regulations which would reduce problems of transboundary air pollution.

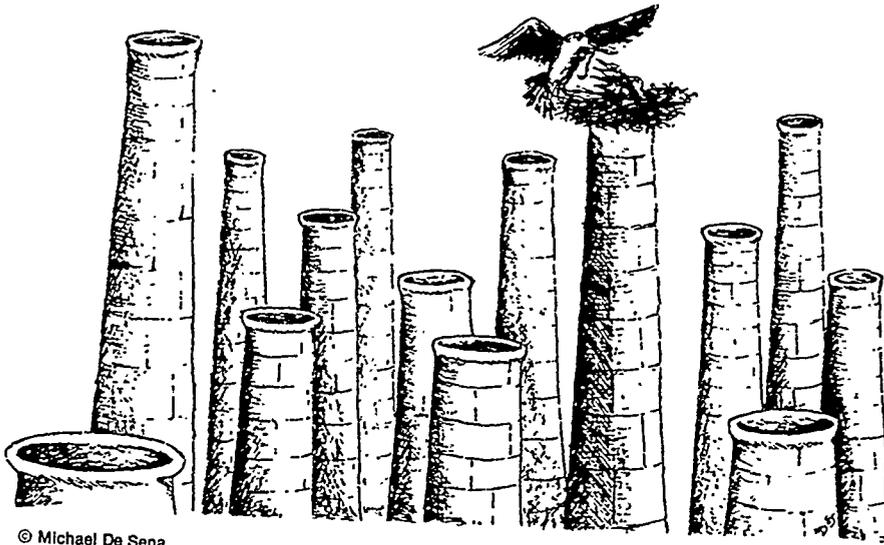
The framework laid out by the 1980 Memorandum has failed to produce any significant acid deposition reductions. Canada became upset with U.S. efforts to control acid deposition and asked the Reagan Administration how it intended to meet its obligations under the memo. The Reagan administration held the position that not enough information existed to warrant further controls on acid deposition. No treaty or agreement has been signed as called for by the 1980

memo.

The U.S.-Canadian acid deposition issue has created a number of political embarrassments for the Reagan administration. The Department of Justice labelled two Canadian documentaries on acid deposition foreign propaganda and required the films to carry a disclaimer. After an uproar, the Justice department reconsidered. But, in April 1987, the United States Supreme Court upheld the Justice Department action.

A second embarrassment occurred when former Reagan aid Micheal Deaver was hired by Canada to lobby the Reagan Administration on the acid deposition issue. Deaver appeared to be in violation of certain influence peddling laws and eventually stepped down as Canada's lobbyist.

Canadian Prime Minister Brian Mulroney has brought the issue of acid deposition "back to the front burner" of U.S.-Canadian relations. At Mulroney's insistence, in March 1985 the governments agreed to appoint envoys who would consult specifically on the problem of acid deposition. In January 1986, the envoys produced a joint report recognizing the link between SO<sub>2</sub> and NO<sub>x</sub> emissions in one country and acid deposition in the other. The report calls for a \$5 billion program to research innovative control technologies funded partially from existing U.S. government efforts for clean-coal technologies and partially from voluntary contributions from U.S. industry. The report did not seek strict limitations on emis-



© Michael De Sena

#### Continued from Page Eleven

sions because of the high costs of such reductions. President Reagan fully endorsed the report and agreed to seek full funding for the report's proposals in the future.

The report drew the ire of major environmental groups because it failed to call for any immediate emission reductions. A group of governors criticized the reports failure to include specific targets and timetables for future emission reductions.

#### 2. Legal Solutions

The Clean Air Act permits the EPA administrator to review international air pollution problems when presented with data from an international agency or requested by the Secretary of State. The Administrator must then determine if emissions in the United States endanger the public health or welfare in another country. If the Administrator makes such a finding, a formal notice must be

sent to the state in which emissions originate. The state must then revise their SIP to account for the affects of the international air pollution. The foreign government can directly comment on the SIP revisions at the state level. Those provisions will only take effect when the Administrator determines that the United States has reciprocal rights in the other country.

The District of Columbia Circuit is currently reconsidering a case brought under the international provisions of the Clean Air Act. In 1981, during the waning moments of the Carter administration, then EPA Administrator Douglas Costle sent letters to Congress stating his position that legislation recently passed by Canada constituted a reciprocal statute on international air pollution. Costle also found that acid deposition endangered the public welfare in the U.S. and Canada.

The Reagan administra-

tion denied that Costle's letters had any binding effect. Eight northeastern states, a Canadian province and four national environmental groups brought action to require the EPA to give emitting states formal notice under the international provisions of the Clean Air Act (State of New York v. Thomas, 613 F.Supp. 1472 (D.D.C. 1983)). The plaintiffs claimed to represent the 38 million people in the area acid deposition damages. Damages include the acidification of lakes and streams, accelerated corrosion of buildings, bridges, monuments and personal property, severe loss of visibility, declining soil and forest productivity, and adverse effects on human health.

The plaintiffs argued that Costle's letter constituted the findings required by the Clean Air Act. Therefore, the subsequent administrator had a mandatory duty to issue notices requiring SIP revisions. The district court agreed. The Court of Appeals of the District of Columbia Circuit reversed the district court's ruling in one of the last opinions written by Antonin Scalia before his elevation to the Supreme Court. Thomas v. State of New York, Slip op. no. 85-5970 (D.C. Cir, 1986). The D.C. Circuit held that Costle had to use notice and comment rulemaking when making the findings required to trigger the mandatory requirements of the Act.

In October 1986, the plaintiffs filed a petition for a rehearing. In that petition, the plaintiffs argue that only final agency action requires notice and comment rulemaking. Costle's findings are general

statements of policy not requiring notice and comment rule-making since the public can comment at state SIP hearings and EPA could review their initial policy after SIP provisions are adopted.

International air pollution control provisions may yet produce federal action to reduce acid deposition. However, a favorable decision in Thomas v. New York would only mean that EPA had established a general policy that acid deposition was an international problem. EPA may not have to require states to reduce emissions. If the appeals court ruling stands, the last hope for dealing with acid deposition under the Clean Air Act would be dashed.

### III. Beyond Square One

The weaknesses of the Clean Air Act have resulted in various efforts by the Reagan administration and Congress to deal directly with the acid deposition problem.

The Reagan administration wants to complete research into clean coal technology before further acid deposition legislation is passed. Eastern legislators have charged the administration with dragging its feet on the acid deposition issue. Even EPA has proposed stricter NOx emission standards for new industrial boilers in the meantime.

Both the House and Senate will consider acid deposition legislation this session. A House bill from last session, H.R. 4567, is scheduled to be reintroduced. That bill would have decreased SO2 and NOx emissions by 10 million tons in two phases ending in 1997. The

bill set limits on the amount of SO2 and NOx emissions allowed per BTU (British Thermal Unit: a measure of the heat producing capability of the fuel); however, no method of controlling emissions was specified. A surcharge on electricity rates throughout the country would have subsidized rates in areas which rate increases exceeded ten percent. The authors argued that such limits would have protected coal-mining jobs in the Midwest and provided the most cost-effective reductions in acid deposition. The bill's sponsors could not get enough votes to pass the bill out of committee last session. In the Senate, S. 31673, a bill similar to H.R. 4567, has been introduced. However, the Senate bill excludes the electricity rate subsidies, allows for interstate emissions trading and limits the reductions to 31 states east of the Mississippi. Another Senate bill, S. 30074 uses a dramatically different approach. The bill's main sponsor, Robert Stafford (D-VT) has labelled the bill, "The New Clean Air Act." Operation of plants which exceed the emission limits per BTU set in the bill would be severely curtailed beginning in 1988. The highest polluting plants could operate for the equivalent of three years. Moderately-polluting plants could operate the equivalent of ten years. After using up their operating time, the plants would be required to install the best demonstrated technology or close down. The bill also sets standards for auto and truck emissions. The president would be required to negotiate an agreement with Canada and

Mexico on transboundary air pollution. Monitoring of the effects of acid deposition would be increased, especially in the Sierra Nevada and the Rockies.

All the bills resolve the problems in the present Clean Air Act which prevent solution of the acid deposition problem. Fuel-based emission limits de-emphasize the current reliance on local monitoring. Nationwide or regionwide emission limits hold the states responsible for statewide emissions and equalize limits in interstate AQCR. Increased monitoring of the effects of acid deposition will allow the determination of the environmental effectiveness of the legislation.

The bills differ in the way they distribute the cost of reducing emissions and the amount of monitoring they perform to measure their effectiveness. H.R. 4567 distributes some of the cost of reducing acid deposition nationwide. In contrast, S. 316 and S. 300 place the cost solely on polluters.

The "bathtub" assumption of the Clean Air Act falls apart when considering acid deposition because of inter-regional effects. People located near the emission source may not receive the benefits of controlling acid deposition but will pay the costs of control through increased utility bills or job loss. Whether the burden of reducing acid deposition should be placed solely on the polluting states or on the entire country remains a major political stumbling block preventing solution of the problem.

### IV. Conclusion

Congress made up for

the unintentional backward step of earlier air pollution control efforts which aggravated the acid deposition problem by eliminating credits towards meeting air quality standards created by construction of dispersion mechanisms such as tall stacks.

Provisions of the Clean Air Act have yet to achieve any significant step towards reducing acid deposition. Local air quality monitoring has slightly reduced SO<sub>2</sub> emissions while limiting NO<sub>x</sub> emission increases. However, the current standards fail to consider the effects of acid deposition and

fail to account for conversion of SO<sub>2</sub> and NO<sub>x</sub>. Local monitoring may never prove effective in reducing acid deposition since it fails to account for the cumulative environmental impact of acid deposition caused by the environmental forces which concentrate that impact in certain sensitive areas. Interstate air pollution control provisions have failed because of a loophole allowing plant-by-plant consideration of the impacts of statewide emission increases. Interstate ACQR exist on paper but do not create any legal obligations to limit interstate air pollution such as acid deposition. International air pollution control provisions may yet pro-

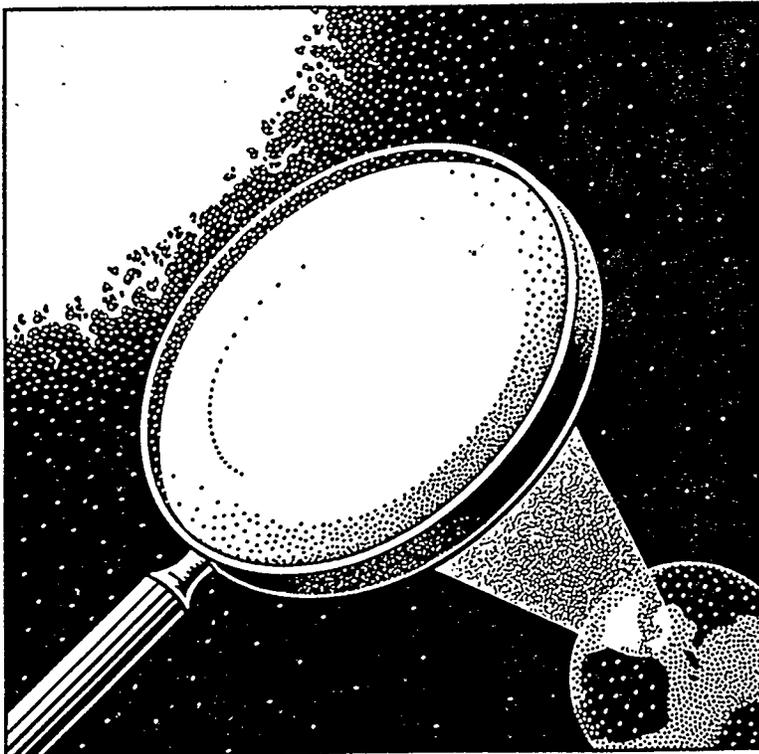
duce federal action to reduce acid deposition. However, a favorable decision in Thomas v. New York would only mean that EPA had established a general policy that acid deposition was an international problem. EPA may not have to require states to reduce emissions. Canada's pressure on the United States for acid deposition reductions has resulted in agreement on the problem but only a tentative step towards a real solution.

Meanwhile, Congress continues to struggle to take a step towards reducing acid deposition. Whether the burden of reducing acid deposition should be placed solely on the polluting states or on the entire country remains a major political stumbling block.

The resolve of the past ten years shows that acid deposition will not be ignored forever. As surely as a crawling infant learns to walk, inadvertant stumbles and back-peddling will not prevent future steps towards reducing acid deposition.

---

*Stephen P. Winslow is a second-year law student at U.C. Davis School of Law. He received a B.S. in chemical engineering from U.C. Berkeley and worked for the California Air Resources Board prior to entering King Hall. The author wishes to thank first-year law student John McCaull for doing some of the preliminary research for this article.*



© Mark S. Fisher

# Reproductive Toxins in the Workplace: Protection without discrimination

By Robin S. Kohn

## I. Introduction

Unless they could prove they were medically infertile, all women between the ages of 16 and 50 at the American Cyanimid Company's Willow Island, West Virginia, plant were told they would be removed from exposure to certain toxic chemicals -- even if it meant giving up their jobs.

In January 1978, this fetal protection policy (FPP) meant excluding women from eight out of the plant's ten departments and allowing a few to transfer to janitorial positions at about half the pay -- "subject to needs and wages."

The company's medical director had sparse data about the effects of these chemicals on women's reproductive capacities. He had virtually no data on the effects on sperm cells, or on the exposure by wives of male workers. However, he concluded that female workers in the first eight weeks of pregnancy were the most sensitive group and that limiting the pol-

icy to pregnant workers would not adequately protect these women or their fetuses.

As a result of the policy, five women underwent surgical sterilization. In early 1980, these women and others filed suit against American Cyanimid, claiming that the FPP violated Title VII of the Civil Rights Act of 1964. (42 U.S.C. sections 2000e-h (1982)). Three years later, the company settled for \$200,000. (See generally Reproductive Health Hazards in the Workplace, Office of Technology Assessment, December 1985, pp. 251-261; W. Williams, "Firing the Woman," 69 *Geo.L.J.* 641 (1981))

The American Cyanimid case illustrates a problem employers are facing more often today: How to protect women and potential fetuses from hazardous reproductive toxins without discrimination. American Cyanimid believed that it was complying with the Occupational Safety and Health Act of 1970 (OSHA, 29 U.S.C. sections 651-678

(1982)) by taking steps to protect women from dangerous chemicals such as lead, diamox, hydrazine sulfate and methotrexate, which cause birth defects and cancer in animals. In this male-dominated industry, they chose to exclude fertile women rather than to exclude the chemicals. As a result, they were sued.

The courts have begun to tackle the conflicting policy goals of: 1) Protecting women and potential fetuses, and 2) Preventing discrimination. As discussed below, challenges under both Title VII and state disability laws may eventually insure that all workers are entitled to a toxic-free environment.

## II. Background

### A. Toxics in the Workplace

In recent years, the public has become increasingly aware of the number of toxic substances all around. Sixty to ninety percent of all human cancers and high percentages of birth defects and reproductive disorders are now believed to

be environmentally caused. P. Logan and L. Davis, "Environmental and Occupational Health," The New Our Bodies Ourselves, New York, Simon & Schuster, 1980, p.77. The numbers of these toxics are increasing every day, in industries from chemical manufacturing to high tech computer chip makers.

Chemicals which affect workers' childbearing are classified as teratogens and mutagens. Teratogens are poisons such as lead, which harm the reproductive systems of both men and women, and may lead to menstrual disorders, birth defects, decreased libido or infertility. Mutagens, such as benzene and vinyl chloride, operate directly on the sex cells of exposed workers. They alter the chromosomal structure of the ovum and sperm, resulting in spontaneous abortion, miscarriage and birth defects. V. Andrade, "The Toxic Workplace," 4 Harv. Women's L.J. 74, (Spring 1981).

Unfortunately, there are many uncertainties about the effects of these chemicals on women, and even more uncertainties about their effects on men. Despite this, Congress has declared that OSHA's purpose and policy is, "to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources -- by encouraging ... efforts to reduce the number of safety and health hazards at ... places of employment." 29 U.S.C. section 651(b) (1982).

As a result of OSHA guidelines, come employers have found safe substitutes for hazardous chemicals, provided workers with personal protective clothing and equipment, improved ventilation and maintenance, and mechanized processes which involve exposure to dangerous chemicals. Others, such as American Cyanimid, have instituted FPPs.

#### B. Protective Labor Legislation

The practice of excluding women from hazardous work environments is not new. In Muller v. Oregon, 208 U.S. 412 (1908), the United States Supreme Court upheld a state law which limited the number of hours that a woman could work. Justice Brewer wrote, "that (women's) physical structure and her proper discharge of her maternal functions -- having in view not merely her own health, but the well-being of the race -- justify legislation to protect her from the greed as well as the passion of man." Id. at 422.

Until the 1964 passage of Title VII of the Civil Rights Act, protective legislation abounded. Title VII made gender-based discrimination illegal. Based on the 1972 Equal Employment Opportunity Guidelines, 29 C.F.R. section 1604.10 (1986), courts found policies that disadvantaged pregnant or fertile women to be discriminatory as well. However, in 1976, the Supreme Court upheld in General Electric Co. v. Gilbert, 429 U.S. 125 (1976), that pregnancy could be excluded from an employer's disability plan, holding that pregnancy is no prima facie gender-based discrimination

under Title VII.

The following year, in Nashville Gas Co. v. Satty, 434 U.S. 136 (1977), the Supreme Court indicated that a sick leave policy unavailable to women with pregnancy-related illnesses would have been valid had the employer offered evidence of a business necessity for its policy.

In response to Gilbert and Satty, Congress in 1978 amended Title VII by enacting the Pregnancy Discrimination Act, 42 U.S.C. section 2000e(k). The PDA provided that discrimination on the basis of sex included, inter alia, discrimination on the basis of pregnancy, childbirth and related medical conditions. This set up the framework for current legal challenges to FPPs, including that of the American Cyanimid case.

### III. Challenging FPPs: An Attempt to Provide a Toxic-Free Work Environment Without Discrimination

#### A. Title VII, The Pregnancy Discrimination Act

The first fetal protection case to reach a federal Court of Appeals was Wright v. Olin Corp., 697 F.2d 1172 (4th Cir. 1982). In 1978, after four years of planning, Olin Corp. adopted its "female employment and fetal vulnerability" program. This excluded any fertile women from jobs which "may require contact with and exposure to known or suspected abortifacient or teratogenic agents." Id. at 1182. Any woman aged five through 63 was assumed to be fertile unless Olin's medical doctors confirmed she was not. Since only one out of every 5,000



1984 © Donna J. Barr

women between the ages of 45 and 49 gives birth each year, and births between the ages of 50 and 69 are virtually nonexistent, the policy was grossly overinclusive, even if a fetal hazard existed. U.S. Department of Health Services, *Monthly Vital Statistics Report*, JVol. 32, No. 9, Supp., December 1983.

Olin rejected alternatives, such as substituting non-toxic materials or improving ventilation or personal protective equipment, as being infeasible.

The trial court ruled in favor of Olin, finding that the FPP was based on sound scientific evidence, and that it was instituted and maintained with no intent to discriminate on the basis of sex. The Fourth Circuit Court of Appeals remanded the case because the trial court had used the wrong test to determine whether the FPP violated Title VII.

The appellate court held

that the FPP, although expressed in facially gender-neutral terms, had a disparate impact on women, and therefore was prima facie discriminatory. Olin, as defendant, must rebut the presumption by proving "business necessity." Under this defense, the employer must prove by "the best available scientific evidence" that 1) significant risks of fetal harm would result from a mother's exposure; 2) the risk is substantially confined to female and not male workers; and 3) the FPP is effective in significantly reducing the risk. The employer's subjective motivation and good faith belief that the FPP is necessary are insufficient. Rather, the employer must show that there is a "considerable body of opinion that significant risk exists, and that it is substantially confined to women workers, that an informed employer could not responsibly fail to act on the assumption that this opinion might be the accurate

one." *Id.* at 1191.

According to *Olin*, the employer establishes a prima facie business necessity defense if he can prove the elements above. However, the plaintiff may now rebut this prima facie defense by showing "acceptable alternative policies or practices which would better accomplish the business purpose ... (of protecting against the risk of harm), or accomplish it equally well with a lesser differential .. impact (between women and men workers)." *Id.* at 1191; see also *Robinson v. Lorillard Corp.*, 444 F.2d 791 (4th Cir.), cert. dismissed, 404 U.S. 1006 (1971).

In *Hayes v. Shelby Memorial Hospital*, 726 F.2d 1543 (11th Cir. 1984), the *Olin* test was used and expanded. Here, a hospital X-ray technician was fired after she informed her employer that she was pregnant. The radiology department's medical director recommended that Hayes be

removed from all areas in which ionizing radiation was being used. The hospital claimed it fired her because it was unable to find alternative employment for her. The district court found that the hospital had violated Title VII and awarded Hayes \$8,000 in damages.

The Court of Appeals held that the hospital's policy of firing pregnant X-ray technicians was facially discriminatory (unlike Olin where the court found the policy to be facially gender-neutral). As a result, the only defense available to the hospital in Hayes was the statutory bonafide occupational qualification (BFOQ), which is much narrower than the business necessity defense. The BFOQ defense is available only when the employer can show that the excluded class is unable to perform duties "necessary to the normal operation of the particular business or enterprise." 42 U.S.C. section 2000e-2(e) (1982).

According to the appellate court, "the hospital never asserted that Hayes' pregnancy, at least until the final few weeks, would interfere with her ability to perform the duties of an X-ray technician. Nor did the hospital try to prove that a woman's fear for potential harm to her fetus might somehow affect job performance adversely. Therefore, under traditional BFOQ analysis, the defense is inapplicable to this case." Hayes at 1549. The hospital had not proven that Hayes' levels of exposure exceeded National Council on Radiation Protection and Measurement



(NCRP) standards for significantly safe levels.

The court affirmed the trial court's finding of liability, but not before discussing the business necessity defense. The court stated that had the hospital proved the policy was in fact gender-neutral, the broad business necessity defense would have applied. However, the court limited business necessity to an employer's genuine desire to promote the health of its employee's offspring. Avoidance of tort liability was not sufficient.

Finally, the court affirmed the trial court's finding that the hospital failed to consider acceptable alternatives, including transfer to another department or rearrangement of her duties in the radiology department.

These two cases illustrate the conflict employers face when they must choose between protecting women and their fetuses from toxic and hazardous substances, and complying with Title VII. As more FPPs are challenged under Title VII, employers will have an incentive to find "acceptable alternatives" before they choose to institute FPPs.

#### B. Challenging FPPs Under State Law

Instead of full trial in a federal court under Title VII, some women have chosen other routes to challenge FPPs. For example, a pregnant woman who has been transferred or fired because she works with reproductive toxins could apply for state disability benefits.

In a 1986 case before the California Unemployment Insurance Appeals Board (Case No. D-86-00021), Edith Patterson applied for disability benefits when she was transferred from her job in a semiconductor manufacturing facility after she became pregnant. Her employer, Siliconix Corp., asked that her personal physician certify that it was safe for her and her unborn child to work with certain toxic chemicals. These chemicals included glycol ethers and other solvents which have been linked to birth defects, fetal wastage, and sperm damage in test animals. A.Hawes, "Repro Hazards on the Job," the NLG Anti-Sexism Newsletter, Vol. 1, No. 4, March 1986. When her physician refused to certify that the chemicals were safe, Patterson's employer removed her from her position as a fabrication operator and trainer, and offered her a transfer with the 50 percent pay cut.

The administrative law judge denied benefit to Patterson because" 1) The risk of adverse pregnancy outcome was speculative, and 2) Patterson did not suffer from an existing physical illness such as a pregnancy complication. Cal. Unemp. Ins. Code section 2626 (West 1986) states: "An individual shall be deemed disabled on any day in which, because of his or her physical

or menal condition, he or she is unable to perform his or her regular or customary work." The judge interpreted this to exclude pregnancy as a physical or mental condition.

The appeals board reversed and awarded benefits to Patterson. The board concluded that because Patterson's doctor would not certify that it was safe for her to work with hazardous chemicals, she was transferred from her position. As a result, she could not "perform her regular or customary work," as defined in section 2626.

Because the language of the code is ambiguous and the decision of the board is unprecedented, Patterson's attorney Amanda Hawes and others are currently drafting legislation to codify the situation posed by Patterson's case as a ground for state disability benefits. They hope that pregnancy will be recognized -- just as chemical sensitivity currently is -- as a ground for benefits in a hazardous workplace. This approach, like Title VII challenges, is a method to encourage employers to remove toxic chemicals and not women from the workplace.

---

*Robin S. Kohn is a second-year law student at King Hall who is deeply concerned about environmental issues and women's rights. She holds a bachelor's degree from UC Davis in Environmental Policy Analysis and Planning, and she actively participated in the Proposition 65 (Toxics Initiative) campaign last fall. She is working for the Environmental Defense Fund in Berkeley this summer.*

## Is Any Land Sacred?

Native Americans, environmentalists join legal forces to protect the wilderness

By Dale Will

In a 1983 essay entitled "Good, Wild, Sacred," poet/environmentalist Gary Snyder commented, "The white Christian founders of the United States were probably not considering American Indian religions when they guaranteed freedom of religion, but interpretations by the courts ... have gradually come to give native practices some real status. Sacred has become a new land use category."

This predated and anticipated a July 22, 1986, decision by the Ninth Circuit of the U.S. Court of Appeals to prohibit logging and road construction in an area held sacred by three northern California Indian tribes. The decision, Northwest Indian Cemetary Protective Association v. Peterson, 795 F.2d 688 (9th Cir. 1986), represents the first time First Amendment protection of religious freedom has been invoked to defend wild lands.

(Editor's Note: The United States Supreme Court has recently agreed to hear arguments on this case.)

For years, environmen-

talists have struggled to present "intangible" (i.e. spiritual) values. Such sentiments are often central to the preservationist's perspective. And yet, when facing utilitarian arguments about natural resources, the preservationist is commonly forced to rely on mundane technicalities. The spiritual or religious element, often central to the preservationist's purpose, has remained unspeakable.

Until now.

Protection of religious freedoms lay at the heart of the Ninth Circuit's decision to enjoin construction of the Gasquet-Orleans (G-O) road across a pristine forest in northwest California. Protection of religion lay at the heart of its decision. Explaining its injunction, the court concluded unequivocally that "the government (road building and timbering) operations would virtually destroy the plaintiff Indians' ability to practice their religion ..." Northwest at 693.

Since long before the arrival of the white man in California, the Yurok, Karok and Tolowa Indian Tribes had considered sacred a series of mountain peaks collectively known as the "High Country."

Continued from Page 19

Located in the Siskiyou mountains of northwest California, the peaks were regarded by local tribes as holding the power of individual and communal renewal.

The traditional access to the area is along a rugged series of trails known as thkla-mah, "the stepping stones for ascent into the sky world." Of the ascent up the thkla-mah, one ethnographer has written, "those who train in doctoring must progress through a sequential regimen that encompasses a spiritual journey to the High Country." Dorothea J. Theodoratus, Cultural Resources of the Chimney Rock Section, Gasquet-Orleans Road, Six Rivers National Forest, 1979, pg. 72.

This association dates back at least as far as the initial European contact and perhaps as far as 10,000 years. The local tribes rely on the High Country as a source of knowledge, identity, and vision integral to their religions and communities.

In March 1982, the U.S. Forest Service announced its intention to traverse the sacred lands with the paved highway. Long in the works, the G-O Road would provide coastal access to the isolated Klamath region. Although lip-service was paid to expanding recreational use of the inland mountains, the road's primary beneficiary was to be the coastal timber industry.

The Forest Service had previously completed, at substantial expense, the northwestern and southeastern links. Construction within the High Country itself was delayed



1985 © Donna J. Barr

pending study of the cultural resource. Impact studies notwithstanding, Forest Service plans had been predetermined by the fact that placement of the previous construction virtually ruled out routing options which would avoid the sacred area.

Following the 1982 announcement, a coalition of Indian and environmental groups filed an administrative appeal charring that road building and logging within the High Country violated Indian religious rights as well as the National Environmental Policy Act (NEPA), the Federal Water Pollution Control Act, the Wilderness Act, water and fishing rights reserved for Native Americans, and Multiple Use Sustained Yield Act, and the Administrative Procedure Act. Economic analysis showed that, even excluding the long-term adverse impact on the forest and fisheries, the costs of the developments would outweigh related income. Following a denial of the appeal, the coalition filed suit in federal court.

Although active alliance of Native Americans and environmentalists has, somewhat surprisingly, been rare, the G-

O Road litigation synthesized the interests of both groups. Led by a collaboration of California Indian Legal Services and the Sierra Club Legal Defense Fund, the suit was also supported by a number of groups and individuals affiliated with tribal and environmental interests. The Native Americans held a religious claim of uncertain potential, while the environmentalists were to provide their expertise in portraying the delicacy of the Blue Creek watershed, its inability to sustain timber harvests and the limited public utility of the Forest Service's plans.

The religious arguments were pioneered in 1978 by members of the Cherokee tribe in a last-ditch effort to save lands doomed by the Tellico Dam. The legal approach taken by the Cherokee relied up on the Free Exercise Clause of the First Amendment. "Congress shall make no law respecting establishment or religion, or prohibiting the free exercise thereof ..." U.S. Const. amend. I.

The Sixth Circuit Court of Appeals ultimately acknowledged that "particular geo-

graphic locations figure more prominently in Indian religion and culture than in those of most other people.” Sequoyah v. TVA, 620 F.2d at 1163 (6th Cir. 1980). The Cherokee argued that the existence of, and access to, the threatened land was crucial to their free exercise of religion, and that the Tellico project unconstitutionally burdened that exercise. More generally, the Cherokee claimed that the First Amendment entitled them to the preservation of lands now owned and administered by the federal government.

Although unsuccessful, the Cherokee suit laid the basis for preservation of the High Country. Most crucially, the Sixth Circuit ruled that lack of a property interest in threatened public lands should not negate claims made upon those lands in the name of religious freedom. Sequoyah at 1164.

Although the U.S. Supreme Court has repeatedly held that religious “orthodoxy is not an issue,” Wisconsin v. Yoder, 406 U.S. 205 (1972), the site-specificity of Native American religion presents an unusual problem. The reverence of Native American religions for particular natural sites suggests that protection of their faith requires preservation of the sites themselves. The fact that much of this land is now in the hands of the federal government insures conflict between Indian religious interests and the governments’ authority to develop. The Sixth Circuit’s conclusion that religious rights might restrain the powers of the government ownership eventually became a cornerstone of the G-O Road decision.

The Cherokee’s lawsuit also announced a test for the “religiousness” of claims regarding public lands. According to established free exercise analysis, once it is shown that an interest is religious within the purview of the Constitution, the government may not burden the interest unless justified by a compelling state interest. Yoder at 214-215, and Sherbert v. Verner, 374 U.S. 398, 402-403 (1963). Because the free exercise clause may dramatically circumscribe certain government activity, stringent tests are invoked to weed out claims of inadequate religious pedigree. Applied to the question of public lands, the Sixth Circuit ruled that the Indians would have had to prove the “centrality or indispensibility of the Little Tennessee Valley to Cherokee religious observances.” Sequoyah at 1164. The difficulty of meeting this test was underscored by the Cherokee’s inability to prove that their ancestral lands, to be inundated by construction of the Tellico Dam, met the criteria.

Further development of First Amendment theory concerning public lands occurred in three additional decisions prior to Northwest. In two of these, the courts made it clear that whatever constitutional protect might be afforded public lands, no direct regulation of the public itself could be granted for religious reasons. One of the cases concerned the Rainbow Bridge National Monument in Utah, Bandoni v. Higgenson, 638 F.2d 172 (10th Cir. 1980), and the other regarded Bear Butte State Park in South Dakota, Crowe v. Gullet,

706 F.2d 856 (8th Cir. 1983).

In each case, the Native Americans had asked that tourist activity be regulated in light of the sacredness of the areas involved. Underlying the courts’ response was a constitutional axiom that protected rights of expression cannot be enforced by one group against another. Furthermore, the court’s tolerance of the idea of religious claims involving public lands can be attributed in part to the fact that the tribes are themselves members of the public. In attempting to control tourists, the tribes pitted themselves against “co-owners” of the lands in question. While these decisions left intact the possibility that the First Amendment might require the exclusion of offensive government activities, they also held that the First Amendment cannot restrain the public at large on public lands.

Bandoni was notable also in identifying a government interest of a sufficiently compelling magnitude to supersede any religious interest. The Navajo had also asked that the level of Lake Powell be lowered to resurface sacred sites submerged when the reservoir was filled. The sites were arguably “central and indispensable” to Navajo religion, and their flooding seemed to constitute a religious burden under the Sixth Circuit’s analysis. Without ruling directly on the issue, however, the court concluded that the government’s interest in maintaining the level of Lake Powell was of the “compelling” magnitude necessary to override the First Amendment under the two-step test.

Continued from Page 21

A third interim case concerned the expansion of a ski resort on San Francisco Peaks in northern Arizona. Wilson v. Block, 708 F.2d 735 (D.C. Cir. 1983). The importance of the Peaks to the traditional religion of both the Navajo and Hopi was affirmed by the court. The tribes claimed that the Peaks as a whole were sacred so that development anywhere on them infringed upon their religious rights.

In response, the Eleventh Circuit narrowed the Sequoyah criteria by requiring that lands eligible for First Amendment protection must be not only central to religious beliefs but also indispensable to specific practices. Since the particular site affected by the expansion was not shown to be indispensable for particular religious practices, the tribes were held to have failed to establish any threat to their religion. Wilson at 744. While representing a fourth loss for Indian interests, this holding provided the final analytical link for the Ninth Circuit's ruling on the G-O Road.

Studies commissioned by the Forest Service provided extensive proof of the central religious importance of the High Country. One study concluded, somewhat flamboyantly, that "empty beer cans and used condoms are about as appropriate on Doctor Rock (within the High Country) as they would be on the altar of a cathedral." Theodoratus at 74. Each of the several reports demonstrated at length the uniqueness of the area to both the belief and practice of local



Native American religions.

The Forest Service proposed to accommodate the situation by minimizing the visibility of the G-O Road itself, and by the provision of buffer strips where logging would be stopped within one-quarter mile of particular sites used for religious purposes. Responding to these "mitigation" proposals, the local tribes argued that although ceremonies and rituals occurred in specific places, the effectiveness of religious use depends on "(t)he quality of silence, (and) the aesthetic perspective," of the area at large. Theodoratus at 73. The tribes urged that true protection of their religion required the High Country to be regarded as sacred as a whole.

The basic test adopted by the Ninth Circuit was taken almost verbatim from Wilson:

The Indians have to show that the area at issue is indispensable and central to their religious practices and

beliefs, and that the proposed government action would seriously interfere with or impair those religious practices.

Northwest at 692.

The Ninth Circuit accepted the "sacred as a whole" notion. Northwest at 690. The idea had been given short shrift in Sequoyah, and was rejected outright in Crow and Wilson. This broad perspective tempered the reductionist Wilson requirement that protected land be used specifically for religious practice. Reviewing the Forest Service plans, the court considered whether the G-O Road and attendant logging would "seriously interfere with or impair religious practices" in the High Country. Its conclusion that the lands are "sacred as a whole" was tacit endorsement of the Indians' claim that any development in the area would burden their religious freedom.

After ruling in favor of the local tribes on the question of religious infringement, the court was unable to discern any compelling state interest which might have outweighed the religious interests. Here, environmental and economic analysis was key in demonstrating the limited overall utility of the Forest Service's plans. On this basis, injunctions against both road construction and logging within the High Country survived an appeal of the Ninth Circuit and a subsequent rehearing.

Last December, the Forest Service filed an appeal with the United States Supreme Court after receiving two exten-

sions from Justice Sandra Day O'Connor. The agency's objection centers on the Ninth Circuit's handling of the religious rights question. The Supreme Court has agreed to hear arguments on the case, but any hearing is at least a year off. The high court has previously refused to review free exercise claims regarding public lands.

Meanwhile, perhaps encouraged by the Ninth Circuit's approach, several tribes are looking to the First Amendment in seeking to defend their sacred lands. Although many Native Americans are reluctant to give detailed accounts of their religious practices, the hope of saving the irreplaceable religious and cultural resources embodied in these lands has prompted an increasing openness. When recent oil and gas leasing threatened Badger Two-Medicine roadless area in Montana, religious leaders of the Blackfeet tribe were quick to file an administrative appeal on religious grounds. Similar events recently occurred in New Mexico, where a power line bound for the Los Alamos nuclear weapons laboratory threatens to traverse sacred lands in the Jemez Mountains. Either of these conflicts could ultimately be resolved by First Amendment litigation.

The courts' willingness to recognize religious significance as a major factor in the disposition of public land prompts the question: Will only traditional and thus exclusively Native American claims be acknowledged?

An immediate answer is probably yes. The rigorous tests for religious pedigree will



likely prevent judicial acceptance of non-traditional environmental religiousness in the near future. Although the U.S. Supreme Court has been liberal in its definition of "religious" beliefs toward draft registration conscientious objectors, former Chief Justice Warren Burger's remarks in Yoder reflect a more stringent viewpoint:

Although a determination of what is a "religious" belief or practice may present a most delicate question, the very concept of ordered liberty precludes allowing every person to make his own standards in matters of conduct in which society as a whole has important interests ... as Thoreau rejected the social values of his time and isolated himself at Walden Pond ... his

choice was philosophical and personal rather than religious, and such belief does not rise to the demands of the Religion Clauses.

Yoder at 218.

Because perhaps the strongest fear of those opposed to the G-O Road decision was that it would open the floodgates to countless claims, the rigorous limitation of this use of the First Amendment was perhaps a crucial aspect in the development of the law so far chronicled. What saved the High Country, at least for now, is its proven indispensability to formal and regular religious practice. It would be difficult, it not impossible, to find another example outside the Native American community.

Bearing in mind these reservations, there is speculation about claiming a non-In-

dian religious right as a way to question government development of pristine public lands. If the Department of the Interior desired to build a dam within the Grand Canyon, it could be noted that photographer and naturalist Ansel Adams once remarked that "millions are drawn for spiritual experience" to the nation's parks. The objections of many people to a dam building plan would include a religious component. Under these circumstances, the Free Exercise Clause might provide an appropriate vehicle for the articulation of public concern.

A group of citizens could force the government to demonstrate overriding interests of any development threatening "sacred land." Class action might offer a means of affirming the pedigree of such a claim. In this hypothetical case, it is probably that thousands of U.S. citizens would feel accurately represented by a religious claim. So, a numerical threshold might replace other tests in establishing the credibility of the claim.

A more open use of the First Amendment regarding public lands would not halt development. Since a compel-

ling state interest could facilitate a government project (cf. Ban-doni), use of the Free Exercise Clause by the general public toward public lands would simply increase the government's burden in justifying proposed development.

Writing on behalf of Utah in protest of the U.S. Department of Energy's proposed nuclear waste dump site adjacent to Canyonlands National Park in Utah, Loretta Pickerall asked,

(What about) the park visitor's experience of lying spread-eagled on smooth slickrock, with a sense of complete isolation, contemplating the stars? Obviously, that experience consists of many intangible elements ... of aesthetics, psychology, philosophy, religion, history, and grounding in the earth.

Letter to the Department of Energy, April 28, 1984.

With such questions appearing the highest levels of policy debate, it is obvious that non-Indian religious concern for wild lands is growing.

In the meantime, Native American religious concern for wild lands is providing a strong point of consensus between Indians and environmentalists. The development of relevant law thus far has shown that the surest way for Native Americans to protect religious lands is to simply request they be left in a roadless or wilderness state. This goal, of course, is also sought by many environmentalist groups.

Describing the alignment concerning Badger Two-Medicine, Blackfoot activist George Kipp said environmentalists' "beliefs are very compatible to ours," adding that each group shares "respect for the Creator's creation." "A New Coalition Fights the Forest Service," High Country News, December 22, 1986.

We try.

---

*Dale Will received a BA with honors in Politics/Legal Studies from UC Santa Cruz in June 1984. Following an internship with the Environmental Defense Fund, he spent two years on the Land Education Staff at the Windstar Foundation in Snowmass, Colorado. He is currently studying law at King Hall, and is scheduled to graduate in 1989.*

# A 100-year Battle for Water

## Truckee River Disputes - Past and Future?

By Peggy Twedt

A land owner at Lake Tahoe, a developer in Reno-Sparks, a resident on the Pyramid Lake Paiute Indian Reservation, and a farmer in the Newlands Reclamation Project near Fallon.

What do they all have in common? A dependency on the Truckee River for the water to fill their needs. But who is entitled to that water and in what amounts is a matter of continuing dispute.

California and Nevada ratified the California-Nevada Interstate Compact, an agreement allocating the waters of Lake Tahoe and the Truckee, Carson, and Walker rivers between the two states, in 1970 and 1971, respectively. But Congress has never consented to the Compact, as Constitutionally required, due to opposition by the Pyramid Lake Paiute Indians and the Department of Interior. Even so, the two states have followed its allocation provisions for the past 16 years, according to state officials.

Last fall, Nevada Senator Paul Laxalt attempted to push the Compact through Congress as one of his last endeavors on Capitol Hill. At the end of September, Laxalt negotiated a



tentative agreement: Compact ratification subject to claims to water by the federal government and the Tribe; no claims by the federal government or the Tribe to California's allocation of Lake Tahoe water or its right to divert 10,000 acre-feet each year from the Truckee River Basin; the Tribe's promise to dismiss their lawsuit against California for its unappropriated water rights on the Truckee; \$50 million in federal funds for projects to restore the Pyramid Lake fishery; and transfer of the federal government's water rights for Fallon Naval Air Station to

Pyramid Lake.

Nevada rejected the compromise because it did not bind the Indians and the federal government to the Compact. In a press release of September 30, 1986, Laxalt announced withdrawal of the Compact from further Congressional consideration.

With Laxalt's retirement in January 1987, the Compact lost its most influential champion in the Senate. Laxalt noted in his press release that "in all likelihood, this matter will now be determined by the U.S. Supreme Court in litigation which the State of California is all but certain to bring."

This article focuses on the Truckee River, considers past events that stirred this controversy, reviews major lawsuits that have grown out of water use conflicts, and looks at future alternatives in light of the failed attempt to pass the Interstate Compact.

### BACKGROUND

The Truckee River originates in the high Sierra Nevada at Lake Tahoe which straddles the California - Nevada

border. This magnificent alpine lake, known worldwide for its exceptional clarity, serves as a resort area for people from around the world. Since the 1960s, increased residences, tourist accommodations, and recreational opportunities has created a corresponding increase in water usage.

Lake Tahoe also is a reservoir for downstream Truckee River water users. A dam at the Truckee River outlet in Tahoe City permits the use of the top six feet of the lake for water storage. As the Truckee River leaves the lake, it drops down the rugged Sierra, crosses into Nevada, and passes through rapidly growing Reno-Sparks.

The Truckee River then ends at Pyramid Lake, about 85 miles from Tahoe. Pyramid, a desert lake of considerable beauty, has both spiritual and economic value for the Pyramid Lake Paiute Indians. The Tribe derives more than half of their annual income from Pyramid Lake.

Several early events set the stage for the continuing water litigation. In 1859, the Department of Interior withdrew 500,000 acres of land, including Pyramid Lake, from the public domain. In 1874, President Grant then confirmed the land as Pyramid Lake Paiute Indian Reservation. The government established the reservation, in part, to allow the tribe to benefit from the Pyramid fishery.

The Reclamation Act of 1902 involved the federal government in irrigation projects. Very soon after, land was set aside for the Newlands Reclamation Project, southeast of the Reservation. While most of the Project land was in the Carson River basin, the Newlands Project was designed to divert water from both the Carson and Truckee Rivers for irrigation and storage. In 1903, the Bureau of Reclamation gained an easement for the use of Lake Tahoe Dam at the Truckee River outlet from Lake Tahoe to control the top six feet of Tahoe water for the Newlands Project. In 1905, the Bureau built the Derby Dam and Truckee Canal to divert water from the Truckee River to the Project. However, a need for more storage was evident and Lahontan Dam was built.

#### ORR DITCH DECREE AND ITS CONSEQUENCES

In 1913, the United States filed suit in federal court in Nevada over the rights to Truckee River water in Nevada. The government, while assuring water rights for the Project, also asserted rights for a small amount of water to irrigate lands on the Reservation. The government claimed 10,000 cubic feet of water per second (cfs) for the Project and 500 cubic feet per second for the Reservation. Through the Orr Ditch decree, the government sought to quiet title to the rights of all users on the river. United States v. Orr Ditch Company, Docket No. A3

(D.Nev. 1944) But, the suit escalated one of the longest-running water battles in the West.

The final decree adopted the Truckee River Agreement, a 1935 settlement negotiated and signed by the parties. That followed a 1926 temporary restraining order that awarded the Reservation an 1859 priority date in the Truckee River for 58.7 cfs (not to exceed 12,412 acre-feet annually of water) to irrigate 3,130 acres of bottom land and a maximum of 2,635 acres of benchland, contingent upon the Tribe receiving benchland allotments. The Project was allowed to divert, with a priority date of 1902, 1,500 cfs to irrigate (to the extent possible) 232,800 acres of land on the Newlands Project.

During the 1935 negotiations, the government pressed for an assured level of water rights for the Reservation to irrigate 2,745 acres of benchland, but did not follow the suggestions of some in the government that they seek water rights for all 19,000 acres of irrigable land on the Reservation. The government did not claim water rights for the Pyramid Lake fishery either. After initial resistance on the part of the Truckee-Carson Irrigation District (TCID), which took over operation of the Project in 1926, and the defendants, the final settlement provided for both claims for the Reservation. In 1944, nine years after the settlement and thirty-one years after its inception, the District Court entered a decree, adopting the settlement and bringing the



© Pete McDonnell From "RE-SOURCES"

Orr Ditch litigation to a close.

While the Project has never irrigated more than about 65,000 acres of bench and bottom land, the diversion of Truckee River water caused the Pyramid Lake level to drop more than 40 feet by 1938. Between 1920 and 1940, the surface area of the lake decreased by about 20,000 acres. The decline caused a delta to form at the mouth of the Truckee that hampered the Lahontan cutthroat trout and the cui-ui from reaching their spawning grounds in the Truckee River. The cutthroat trout became extinct and the rare cui-ui barely survived.

In 1948, Nevada stocked the lake with cutthroat trout, and a dam and a fishway were constructed. This initial success was followed by more expensive and elaborate restoration projects. In 1956, Congress' Washoe Project Act stated that

restoration of the Pyramid Lake fishery was in the national interest and appropriated funds towards this goal. The Act also authorized construction of Stampede Dam and Reservoir. In 1976, the Marble Bluff Dam and Fishway were completed, allowing fish access to spawning grounds in the Truckee River by bypassing the delta. The Tribe and the United States also operate hatcheries that are one source for restocking the lake with the Lahontan cutthroat trout and cui-ui. However, the cui-ui remains on the list of endangered species, while the Lahontan cutthroat trout is classified as a threatened species.

#### CALIFORNIA-NEVADA INTERSTATE COMPACT

As early as the 1940s, conflicts arose between California and Nevada in administering

water rights. However, it was not until 1955 that the California and Nevada legislatures established a commission to negotiate an interstate compact. Congress also authorized the negotiations and provided for a federal representative.

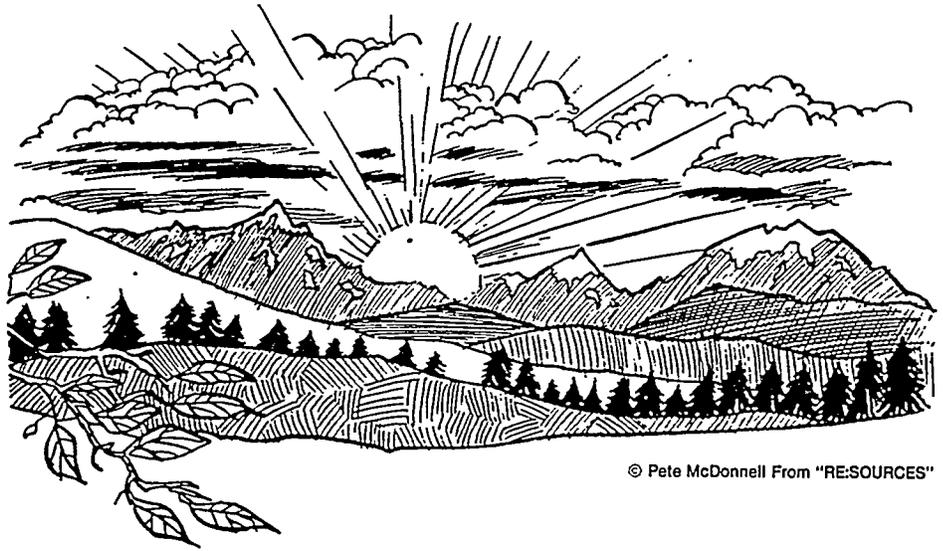
The California-Nevada Interstate Compact, after 13 years of negotiations, provides for the equitable distribution and use of the waters of Lake Tahoe and the Truckee, Carson, and Walker river basins.

The following provisions affect the allocation of waters of Lake Tahoe and the Truckee River: The total annual gross diversion from all sources in the Tahoe Basin shall not exceed 34,000 acre-feet, with 23,000 acre-feet allocated to California and 11,000 acre-feet allocated to Nevada. The Compact recognizes three transbasin diversions from the Tahoe Basin that existed

Continued from Page 27

as of December 31, 1959. The Compact then allocates the water of the Truckee River in the following order of relative priority as between the two states: (1) Water for use on the Pyramid Lake Paiute Indian Reservation according to the Orr Ditch decree, some 30,000 acre-feet annually; (2) California's right to divert 10,000 acre-feet per calendar year within the Truckee River Basin in California; (3) Sierra Valley Water Company's right to divert from the Little Truckee River a maximum of 60 cfs for irrigation each year; (4) Six thousand acre-feet of water annually from the conservation yield of Stampede Reservoir for California's use, subject to a contract with the United States; (5) California's ability to develop additional yields of water (not to exceed 10,000 acre-feet annually), either directly or by exchange, when its 16,000 acre-feet allocation is being used (Nevada may share in such additional yields by bearing a proportionate cost of development); and (6) Allocation to Nevada of all water in excess of the allocations to California.

Once the states ratified the Compact, the Department of the Interior joined the Tribe in opposing the agreement. A federal delegate attended the negotiations, but only Nevada and California are parties to the proposed Compact. The federal government and the Tribe objected to being bound to a Compact to which they were not



© Pete McDonnell From "RESOURCES"

parties. The Tribe viewed the Compact as premature since their federal reserved water rights were not yet resolved. Congressional approval of the Compact would preclude the Tribe from obtaining unappropriated waters in California, especially the 6,000 acre-feet from Stampede Reservoir and California's right to develop an additional 10,000 acre-feet. For these reasons and others, every administration since 1968 has opposed ratification of the Compact.

According to Robert Pelcyger, attorney for the Pyramid Lake Paiute Indians, every other water rights compact in the Western United States has included a provision stating the agreement would not adversely affect Native American water rights. But, Pelcyger noted, the California-Nevada compact conspicuously does not include such a provision.

#### PAST DISPUTES

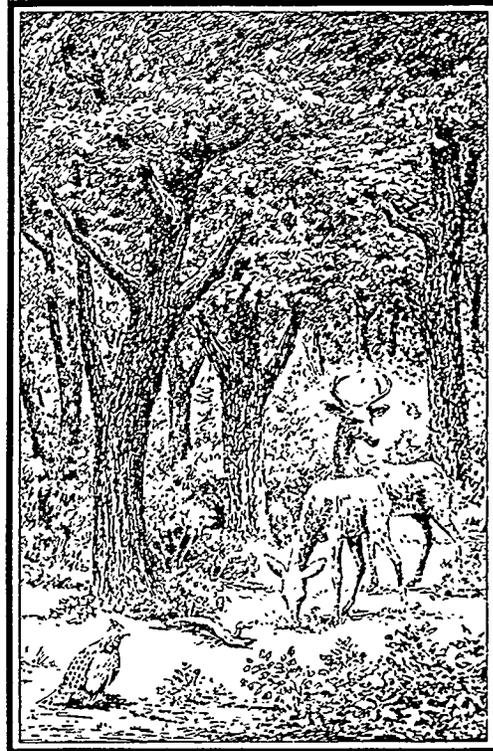
Despite the restoration efforts for the fishery starting in the 1940s, the level of Pyramid Lake continued to drop. The Tribe and the federal government then turned to the courts for help. In April 1973, the United States sought original jurisdiction in the United States Supreme Court for a declaration of the respective rights of California, Nevada, and the United States to water in the Truckee River. United States v. Nevada, 412 U.S. 534 (1973). The government alleged that when a reservation for the Pyramid Paiute Indians was created, there was an intent to reserve sufficient water to maintain a viable fishery on which the Indians could depend for livelihood. The government sought a prior right against all upstream uses that would maintain Pyramid Lake at its current level and prevent further deterioration in the lake and the river as a fish habitat.

The court, in a per curiam decision, denied without prejudice, the motion. The court stated: (1) There was no contro-

versy between California and Nevada with respect to the Truckee River; (2) The court exercises original jurisdiction sparingly, especially in a dispute between the United States and two states where the court's jurisdiction is not exclusive - the plaintiff had another adequate forum in which to settle its claims; (3) Any dispute between the United States and Nevada over the Orr Ditch decree is within the jurisdiction of the District Court.

The court wrote, "the United States would appear to have occasion to object to upstream diversions in California on the grounds of interference with its Pyramid Lake water rights only if the compact between the two states is not approved or Nevada, prior to such approval, disowns the agreed-upon division of the Truckee River water. In that event, a dispute between the two states may arise, and the United States would then perhaps have some ground to participate and assert that California's share must be reduced in order to accommodate a prior, long-established use by the United States in the State of Nevada."

In December 1973, the United States brought an action in the United States District Court in Reno. The federal government sought additional rights to the Truckee River for the Reservation and the Pyramid Lake Paiute Indians intervened. The government claimed not to dispute the rights in Orr Ditch, but it alleged



the decree determined only the Reservation's right to irrigation water, not the water now claimed for the Pyramid Lake fishery. The government filed against everyone claiming water rights to the Truckee River and its tributaries in Nevada, including everyone in the Orr Ditch litigation, their successors and approximately 3,800 farmers from the Newlands Reclamation Project.

The defendants raised res judicata as an affirmative defense, claiming the United States and the Reservation were precluded due to collateral bar. After an extensive trial, the district court sustained the defense and dismissed the complaint in its entirety. The Ninth Circuit Court of Appeals affirmed in part and reversed in part. United States v. Truckee-Carson Irrigation Dist., 649 F.2d 1286 (9th Cir. 1981). The

appellate court agreed that the Orr Ditch decree barred claims against the Orr Ditch defendants, their successors in interest, and subsequent appropriators who reasonably relied on the finality of the decree. However, the appellate court held that the Reservation was not precluded by res judicata from asserting rights against TCID because the government did not adequately represent the Reservation's interests in the Orr Ditch litigation. The Supreme Court unanimously affirmed in part and reversed in part, holding res judicata barred the government and the Reservation from litigating their claim against all the defendants. Nevada v. United States, 103 S.Ct. 2906 (1983). The high court, relying on a 1912 case for the principle that a ward is bound by representation provided by a guardian, held that the Reservation was bound by the



Continued from Page 29

Orr Ditch decree, along with the government. The court also considered which defendants to the 1973 suit could use the Orr Ditch decree as a defense. The court held that the Reservation and the Project landowners were sufficiently adverse to bind both to the Orr Ditch decree. Since the 1912 case on which the court relied has lost much of its vitality, (according to William C. Scott, The Continuing Saga of Pyramid Lake: Nevada v. United States, 24 Nat. Resources J. 1067, 1077-1081 (1984)) it's necessary to look elsewhere for the court's real reasoning. Justice Brennan's concurring opinion best sums up the court's feeling: "... thousands of small farmers in northwestern Nevada can rely on specific promises made to their forebears two and three generations ago, and solemnized in a judicial

decree, despite strong claims on the part of the Pyramid Lake Paiutes."

The Carson-Truckee Water Conservancy District, Sierra Pacific Power Company, and the State of Nevada initiated the next major controversy over Truckee River water rights. They sued the Secretary of Interior for refusing to sell water from Stampede Reservoir for municipal and industrial use in Reno-Sparks. The plaintiffs argued that Congress intended Stampede be used for reimbursable reclamation purposes such as irrigation, power generation and municipal water supply. Stampede was operated only for recreation, flood control and fishery development, especially for preserving the cui-ui and the Lahontan cutthroat trout. The Ninth Circuit affirmed all but one

of seven district court holdings. Carson-Truckee Water Conservancy Dist. v. Clark, 741 F.2d 257 (1984). The appellate court vacated the lower court's ruling that the Washoe Project Act requires the Secretary sell all water remaining after fulfilling his obligations under the Endangered Species Act and the Reservation's reserved water rights. The Court of Appeals also held: (1) The Endangered Species Act requires the Secretary to give priority to conservation of the cui-ui and the Lahontan cutthroat trout so long as they are endangered or threatened; and (2) The Secretary did not abuse his discretion in determining that there was no excess water to sell for M & I purposes while rejecting plaintiffs' alternate plan for operating Stampede.

From 1902 to 1981, the Pyramid Lake level dropped 70

feet. That year, the Tribe filed the California counterpart to United States v. Nevada and named as defendants all users of the waters of the Truckee River Basin in California. Pyramid Lake Paiute Tribe of Indians v. California, Civ. No. S-81-378 RAR (E.D. Cal.). In an interlocutory ruling, Judge Ramirez applied the reasoning of the res judicata decision to preclude the Tribe's claims against those who had relied on the Orr Ditch decree. However, the suit is still active against the State of California with regard to the waters of Lake Tahoe and the Truckee River and its tributaries in California, which have not yet been appropriated by others.

FUTURE DISPUTES?

In considering future alternatives, four players who have been involved in the ongoing dispute were interviewed: attorney James Markle of the California State Water Resources Control Board; attorney John Kramer of the California Department of Water Resources; Roland Westergard, director of the Nevada Department of Conservation and Natural Resources; and attorney Robert Pelcyger, representing the Pyramid Lake Paiute Indians. Five possible scenarios for the Truckee River controversy were mentioned. First, California and Nevada could continue to rely on the Interstate Compact with hopes Congress will eventually ratify it, but Laxalt's inability to gain approval leaves little

possibility of success. Second, the states could follow the status quo, relying on the allocations of the Interstate Compact without expecting ratification. But, the uncertainty from the lack of a legally binding resolution causes numerous problems. Presently, neither state is issuing water permits on the Truckee, Carson, or Walker rivers or at Lake Tahoe because the states need to know how much water they have a legal right to allocate. Third, litigation could continue on a piecemeal basis, but that involves much time and money without guaranteeing a final conclusion. The other alternatives - litigation brought by California before the U. S. Supreme Court or a negotiated settlement that would receive Congressional approval - are given the most serious consideration.

A U. S. Supreme Court decision on a California-Nevada lawsuit would provide resolution of the interstate issues. However, Nevada's in-state disputes would not be resolved. According to Pelcyger, the Reservation does not view the dispute as an equitable apportionment issue between the two states. Pelcyger feels the Reservation must have a vital role in any solution. If California files a suit to have the division performed by the Supreme Court, any decision may be influenced by the recent decision in Colorado v. New Mexico, 467 U.S. 310 (1984). In a comparable situation there, the court's decision favored the downstream state which had

senior appropriative rights. Going before the Supreme Court would also involve procedural concerns such as who would be necessary or indispensable parties; whether the United States would raise sovereign immunity if found to be an indispensable party; and whether the Supreme Court would accept original jurisdiction.

Settlement among all the interested parties would provide a conclusion to interstate and intrastate issues. The parties, while having to compromise, would still have a hand in the final agreement. Physical measures -- improvements for the Pyramid fishery and the Newlands Project -- could result from such a settlement. However, the poor track record of past negotiations doesn't instill optimism about future compromise. Nevada worries about the potential for one party reneging on an agreement and bringing a long and difficult process to naught. There's also the possibility Congress could amend a settlement to one party's advantage. In spite of the disadvantages of settlement, it appears to be the best course of action.

-----  
*Peggy Twedt lobbied in the Nevada Legislature on environmental and natural resource issues, which promoted her interest in studying law. When she graduates from the King Hall School of Law in 1988, she plans to return to Nevada and hopes to pursue a career in water law.*



## Staff

### Editor-in-chief

Marc Picker

### Editors

Steve Malloch

Lori Okun

Mary Scoonover

### Contributors

Robin Kohn

Kathy Tonnessen

Peggy Twedt

Dale Will

Steve Winslow

### Production

Steve Malloch

### Faculty Advisor

Harrison C. Dunning

**Environs**, a non-partisan natural resources law newsletter, is published by the Environmental Law Society of the University of California, Davis School of Law.

The views expressed herein are those of the authors, and do not necessarily reflect the position of the University of California, Davis, the School of Law, the Environmental Law Society, or of any employer or organization with which an author is affiliated.

## Environs

Environmental Law Society

King Hall

University of California

Davis, California 95616

Nonprofit Org.  
U.S. POSTAGE

**PAID**

Davis, CA 95616  
Permit No. 3