

**GV
54
.18
159
1969**



REPORT OF ENVIRONMENTAL QUALITY SUB-COMMITTEE
OF THE GOVERNOR'S COMMITTEE ON CONSERVATION
OF IOWA'S OUTDOOR RESOURCES

Dr R L Morris, Chairman
Senator Alden J Erskine
Mr Addison Parker
Senator Donald S McGill
Dr Arnold Haugen
Mr Eugene C Kragenbrink
Mr Ries E Tuttle
Mr Henry Bradshaw
Mr C M Naser

Submitted 12/13/69

ENVIRONMENT AND QUALITY OF LIFE

Dr Arnold Haugen

Quality life for man is closely associated with the quality of his total environment. History has taught us that when past civilizations misused their environment, their nations fell from positions of leadership and well being. Citizens of many such lands are now poorly fed, poorly housed, poorly clothed, and afflicted with many health problems. Man is not a creature above his environment, nor is he entitled to rule for personal gain his environment as if he were a supreme and independent being. The trend of thinking that every American use our resources as he pleases, deplete his environment of many of its components and let nature take care of his waste products has resulted in environmental ills that are now beginning to plaque Americans: the time has come for united action to reverse trends in our misuse of our resource heritage.

The Governor's Committee is seriously concerned about restoring and maintaining environmental conditions of a quality that will continue to provide enriched quality of life for our citizens of both today and of generations to come. Concerted effort must be made to safeguard, and, where practically possible, to restore the quality of air, water, soils, woods, wildlife, natural areas and the esthetic features of our environment.

Over 70% of Iowa's people are now "bottled up" in cities where they are suffering from an increasing need for wholesome outdoor recreation. With shortening work weeks and increased leisure time there is an ever-increasing need for opportunity for healthful environmental conditions in which to relax from work and recreate for physical and mental rewards and spiritual enrichment. We have the technology, but do we have the foresight and will

to cure our many environmental ills? We hope so. The welfare of future generations of Iowans depends on our foresight and will to safeguard our total environment today. The natural quality of our environment will also depend on our willingness to curtail human population growth through voluntary means. If the prediction of 400 million people in the U.S. by the year 2000 becomes a reality, then much quality of life as we know it today will have been sacrificed for all time.

Growth for growth's sake, as is commonly promoted by Chamber of Commerce groups, is not a universal good. With growth also comes more autos to emit exhaust, more industrial vats to be dumped, more toilets to flush, more over-crowding of public facilities, and more people to deface the countryside, all exacting a toll from our environmental quality. Industrial growth in Iowa should be geared to favor the non-polluting type of industry and to provide work needed by our own citizens without having to import out-of-state labor. Small, non-polluting industries in small towns would seem a goal that would favor retention of our environmental quality.

Preservation of Natural Areas

Preservation of our fast-disappearing natural features is one of the most urgent problems in Iowa today. Little remains of our primeval landscape because so much of the state has been converted to agriculture and commercial uses. Continued support needs to be provided the Iowa State Preserves System established in 1965 as a result of efforts by a preceding Governor's Committee on Conservation of Iowa's Outdoor Resources. Features needing preservation include samples of glacial features, outcrops, dunes, waterfalls, caves, fossil-bearing formations, soil types, various types of prairie areas, wetlands -- marshes and lakes, bogs, streams, springs, and

special types of preserves -- biological, archeological, forest, wildlife and school natural areas. Preservation of the Upper Iowa River in the National Wild and Scenic Rivers System is recommended. Legislative appropriations should be made for orderly acquisition and preservation of such rare areas.

The committee also urges that the Hawkeye Naturama on Big Creek be developed in accordance with the appropriation therefore by the 62nd General Assembly and that such additional funds be appropriated as may be necessary to make this project an invaluable educational and conservation resource to the people of Iowa.

The Governor's Committee urges support of the principal of Green Belt development as currently being proposed by the Central Iowa Regional Planning Commission.

Where disturbance has not gone too far, we do have techniques whereby nature can be assisted in partial restoration. Ecologists have knowledge on how to use native prairie plants to restore certain physical, biological and chemical aspects of Great Plains soils. Native grasses can and should be reestablished along stretches of Iowa's highways, as a sort of living museum of native Iowa plant life. Roadside strips of such native plant life will need little or no mowing, thereby reducing maintenance costs and at the same time will provide improved nesting cover for pheasants.

Allevating Pollution of Iowa's Esthetic Heritage

Iowa, in the language of the Indian, is reported to mean the Beautiful Land. In many respects, it still is a beautiful land. However, the heavy and often inconsiderate hand of man has brought about ugly, man-made scars that are still growing and defiling our landscape. Witness the junkyards that are stacking skeletons of cars higher and higher, and usually where

highway travelers are forced to view them. Billboards, like the spots of measles, or more like the rash of hives, are cluttering and defiling our roadsides and streets with ever-increasing size. Garbage and trash is scattered thoughtlessly to further offend us. Our landscape, once the most beautiful in the nation, has been scarred by gaping gullies and sheet erosion thereby exposing less productive subsoils. Such occurrences are indications of misuse of our precious land resources. How can we find a measure of relief from the people who, for personal gain, force such esthetic pollution upon the citizens of Iowa?

Stronger zoning laws and their enforcement on the state, region, county and city levels are needed. A state and/or federal supported grants and aids program can be useful to help cities and counties purchase existing offensive junkyard areas and to convert the sites into green open space areas. The relocating of new junkyards must then be controlled by adequate zoning and screening (hiding) regulations. Because federal billboard regulations have been "watered down", Iowa should enact new and stiffer billboard control laws of its own. The barn-sized billboards now appearing in distant fields along interstate highways should be outlawed. If they can't be outlawed, then billboards should be controlled and where provided for in legitimate areas they should be licensed and taxed on a square-foot size basis. Tax rates should be higher on those with lights. Income from licensing and taxing of the signs should be earmarked to help support a state-level office of Environmental Beautification.

Improved methods of garbage and trash disposal must be explored.

Disposal of such refuse along roadsides, in or near streams, or in flood plains where high water may wash the refuse downstream must be regulated with stiffer penalties for offenders.

The office of Coordinator of Environmental Beautification, if established, can have a real influence for a more beautiful Iowa through coordinating effort with citizen groups, garden clubs, cities, counties, the state highway commission, and industry. United effort can salvage our resource heritage of beauty. The alternatives to this proposal will bequeath only ugliness -- and ugliness breeds despair, boredom, and destroys human spirit.

Emphasis must be increased to preserve stretches of esthetic river-frontages, including such frontages in towns and adjacent to bridges on public roads. It is important that we provide green areas or belts and "vest pocket" parks in cities and towns. Their proper distribution, so as to be readily available to pedestrians, is of great importance.

The loss of beauty of much of our landscape must be arrested and compensated for by increased application of soil conservation practices.

WATER QUALITY AND WATER POLLUTION CONTROL IN IOWA

R L Morris, PhD, Iowa City, Iowa

Man's total exposure to environmental hazards involves the aqueous, atmospheric and sensory elements of his daily life. It affects him at work, play and at rest. Our species, in fact, is a function of this environment and is constantly changing as a result of these subtle but important pressures.

Water pollution, air pollution, noise pollution and hazardous exposures to man in his work place, along with the quality of food he ingests comprise the major physical, chemical and biological pressures on our species. All of these factors are influenced by numerous philosophical aspects of our life but will not be discussed herein.

Pollution can be defined as any situation produced by unnatural material or physical conditions which renders a phase of the environment unacceptable for its intended uses.

This implies that some contaminant is present in a concentration beyond the tolerable limit. This tolerable limit can vary dependent upon the requirements of the user, be he man, mammal, plankton, or aquatic invertebrates. It is almost universal practice to set standards based on the most critical requirements in areas where multiple use is intended.

The requirements for water quality with few exceptions such as disease producing bacteria, are more restrictive for aquatic life than for man, industry or agriculture. For instance, a minimum of 5.0 parts per million of oxygen in water is necessary for fish, while for the other intended uses, oxygen is actually detrimental. Therefore, practically all standards of water quality are based on the protection of the aquatic environment which automatically protects the other important and intended uses.

In Iowa the Water Pollution Control Commission has wisely adopted a single standard of stream quality for all surface waters except a few which the Iowa State Conservation Commission has proclaimed as unsuited naturally for aquatic habitat. These few streams are small feeder streams and/or those which are dry significant portions of the year and therefore can not support a continual fish population.

The water quality standards adopted by the Iowa Water Pollution Control Commission are predicated to insure a high quality water acceptable for the multiple intended uses and are essentially identical with other states and the federal government. The actual measured quality of Iowa surface waters indicates that we are in an enviable position with respect to most yardsticks of quality compared to other states except those in wilderness areas. As a result, we have a widespread and varied fish population and many excellent public water supplies of surface water source.

Iowa has the highest percentage of municipal sewage treatment plants in the nation although it is obvious that some of these are overloaded, improperly operated and maintained, with a few which should have higher degrees of treatment designed into them. We know the location of these plants and the Water Pollution Control Commission is taking vigorous steps to upgrade these deficiencies. It will take much money to do this job and the federal government and the state will have to assist the cities in meeting the financial load imposed by cleaner water demands. New data arising from limnology studies on the Mississippi and other rivers indicate the need for additional treatment facilities in several municipal-industrial complexes.

Industry too must clean up its discharges and many are currently doing this either voluntarily or under orders by the Iowa Water Pollution Control Commission.

It is known where industrial and municipal discharges exist and their effects can be measured and corrected. The real unknown quantity is the pollutorial load from agriculture. It is quite probable that the organic and bacterial load on our streams from Iowa farms far outstrip the combined effect from municipal and industrial sources. Input of pesticides, phosphorous, nitrogenous materials along with oxygen demanding plant and animal waste materials cause many adverse conditions in our streams every year -- including actual fish kills due to oxygen depletion following water run-off which leaches the soil surface.

While there are about 1000 industrial and municipal sources of significance the 150,000 farmsteads in Iowa collectively producing wastes poses a staggering problem of identification and control. Soil conservation practices must be improved so that rainfall is retained where it falls to a larger extent than at present, and driven into the ground water table. We, therefore, strongly support HF17 in its attempt to stimulate improved soil conservation practices.

The Iowa Water Pollution Control Commission utilizes the technical services of the Iowa State Department of Health for engineering and the State Hygienic Laboratory for field and laboratory evaluation of the effects of discharged wastes on the receiving streams. It is essential that the Iowa legislature separately fund these two organizations adequately so their two vital functions in water pollution control can be fulfilled.

A program of continual surveillance of the aqueous environment is essential so that we know whether we are maintaining the quality specified by standards. This requires sophisticated programs by scientists trained in chemistry, physics and biology using complex and expensive equipment. Currently, the State Hygienic Laboratory has twelve (12) fulltime men involved in the field and laboratory phases of water quality

surveillance expending approximately \$125,000 annually in carrying out this responsibility. These funds are shared by Iowa legislative appropriation and federal water pollution control funds.

The Iowa State Department of Health provides the engineering services required which includes sewage plant plan review, plant inspection for both municipalities and industries, which includes delineation of waste types and strengths, guidance and counsel on plant operation and enforcement.

The engineering phases of water pollution control are vitally important in order to provide treatment of discharges which will be compatible to the receiving stream. Engineers are scarce and Iowa has not had a sufficient number to fulfill the needed assignments even though sufficient funds are available. Inability to pay competitive salaries under merit system grade levels has hindered the maintenance of an adequate engineering staff which has seriously affected the Iowa effort.

A broad surveillance program by the Water Pollution Control Commission covers evaluation of such materials as pesticides, detergents, phosphorous, and nitrogen nutrients, dissolved oxygen, heavy metals, bacterial organisms significant to public water supply, total organic load and many other constituents.

Pesticide levels are well within the criteria ranges specified by the Federal Water Pollution Control Administration report of the National Technical Advisory Committee issued 4/1/68.

In as much as DDT is a highly durable chlorinated hydrocarbon of wide environmental distribution, it is recommended that its use be discontinued in Iowa except for necessary public health practice in the prevention of disease. It is little used in agriculture and its termination should cause no economic problems.

Many other toxic, durable hydrocarbon pesticides are used extensively in Iowa agriculture. It is recommended that vigorous steps be taken to find other ways of farm pest control and that research to develop farm chemicals of shorter persistence, greater pest selectivity and lower toxicity be stepped up.

All possible efforts should be made by manufacturers to develop insect control methods and materials that do their job but do not leave long term residuals which become a problem in man, mammals, fish and birds by biological magnification.

Infinite care should be taken so that emotional programs to ban specific pesticides do not result in use of even more toxic materials that have escaped attention.

Every effort to phase out the excessive and improper use of all toxic agricultural chemicals should be made, but over reaction in this problem might swing the pendulum too far the other way. Man and other species have tolerance to pesticides and it is imperative that we find materials and methods which permit economic benefits without ecological damage.

Detergents are not a problem in the Iowa environment, especially since the advent of "soft" detergents which are destroyed on passage through a modern sewage plant.

Vigilance must be maintained on the contributions of nuclear power plants to our rivers and the State Hygienic Laboratory has conducted a radioisotope program since 1956. Expanded attention will be devoted to the Palo, Princeton, Cordova and southern Missouri River areas as these plants approach and commence operation. Properly designed and operated nuclear power plants contribute some radiation input to the environment, but their levels are well within tolerable concentrations according to present national and

internationally accepted standards. The known adverse effects of air pollution from fossil fuel plants is far greater than the possible minimal risk of slight increases in radiation from nuclear power reactors.

Current legislation provides an excellent organizational structure to effect water pollution control, the strong laboratory and limnology program should be maintained and the proper salary climate should be created so that an adequate engineering staff can be developed and held. Iowa has a head start on most states with respect to water quality and we must strive to maintain this quality.

We are including a legal review of HF 17 which brings out many salient points regarding this piece of proposed legislation.

DICKINSON, THROCKMORTON, PARKER, MANNHEIMER & RAIFE

ATTORNEYS AND COUNSELLORS AT LAW

FLEMING BUILDING

DES MOINES, IOWA 50309

AREA CODE 515

TELEPHONE 288-7203

L. CALL DICKINSON
ROBERT B. THROCKMORTON
ADDISON M. PARKER
ROBERT E. MANNHEIMER
JOHN H. RAIFE
JOHN R. MACKAMAN
L. CALL DICKINSON, JR.
DWIGHT W. JAMES
LYNN KARL VORBRICH
BERNARD D. HENELY
RICHARD J. HOWES
PHILIP A. McBLAIN

November 24, 1969

Dr. Robert Morris
State Hygenic Laboratory
Medical Building
Iowa City, Iowa 52240

Re: H.F. 17

Dear Bob:

This Bill establishes six "conservancy districts". Their exact boundaries are to be set by the natural resources council; but in general:

The Northeast Conservancy District comprises land drained by the Upper Iowa, Wapsipinicon, Yellow, Turkey and Maquoketa Rivers;

The Iowa-Cedar River Conservancy District consists of land drained by the Iowa, Cedar and Blue Earth Rivers;

The Skunk River Conservancy District consists of land drained by the Skunk River;

The Des Moines River Conservancy District consists of land drained by the Des Moines River;

The Southern Iowa Conservancy District consists of land drained by the Fox, Wyaconda, Fabius, Chariton, Thompson, Grand, Platte, Nodaway, Tarcio and Nishnabotna; and the

Western Iowa Conservancy District consists of lands draining directly into the Missouri River, except those in the Southern Iowa Conservancy District.

Dr. Robert Morris
Page two

The governing body of each district is a Board of five Directors appointed by the Governor with the consent of the Senate, serving staggered terms of five years each.

Each District Board supervises the District water resources and may, with the approval of the Natural Resources Council ("Council") promulgate and enforce rules and regulations deemed necessary to achieve the objectives of the Act. These objectives in general are to protect the public interests in the soil and water resources of this State for future generations and promote, and where necessary, compel conservation and proper control and use of soil and water resources. The District Board is to prepare and implement a plan for submission to the Council for the latter's approval not later than July 1, 1972. The plan is the program for the District and may be amended with the consent of the Council. The plan is to be consistent with the comprehensive state-wide water resources plan established by the Council pursuant to existing law. A district plan will normally provide for internal improvement for control and protection of water resources. Planned priorities shall conform to the Council's state-wide plan as far as practicable. First priority will be to work at or near sources of the principal streams in the district or their tributaries; but funds shall not be spent for functions or improvements the responsibility of other political subdivisions and within their abilities or which primarily benefit the land upon which they are constructed as against other lands in the district. Each District Board and its agents may enter upon private land, after thirty (30) day's notice, to determine the desirability of an internal improvement upon the land; but no contract for the improvement shall be let unless the State Soil Conservation Committee shall recommend and the Board finds adequate protection against siltation by existing soil conservation practices or those which would be developed as a part of the internal improvement. If such finding cannot be made, the Board is to undertake to effect development of soil conservation practices needed by cooperation with and assistance to governing bodies of political subdivisions or initiation of establishment of, or repair or maintenance within, a sub-district of a soil conservation district, a soil conservation and flood control district, a drainage district, a levy district, a sanitary district or other appropriate special district.

Soil erosion resulting in or contributing to damage by siltation of any internal improvement of a conservancy district is declared a nuisance and action may be brought to enjoin or abate the same as is provided with nuisances generally.

Each Conservancy District Board is to adopt an annual budget in the manner provided the adoption of budgets by local governing authorities. A budget is subject to approval of the Council. Public hearings on the budget are provided for. Notice of the budget is to be published.

Dr. Robert Morris
Page three

The County Auditor in the county where the Board's office is located is to obtain valuations from the other county auditors of all the counties in the district of their taxable properties and is then to compute a uniform millage levy over the entire district sufficient to raise the amount required to be raised by local taxation under the budget. The Board of Supervisors of each county shall then levy the millage so certified on all taxable, real and tangible property in the county, or that portion thereof lying with the conservancy district. The levy is not to be over 1 mill.

The Board may issue bonds for construction, enlargement, etc., of any internal improvement. The levy to pay therefor shall be part of the 1 mill levy. The Board is to provide for the assessment of an annual levy sufficient to pay interest and principal within a period not to exceed 20 years. Refunding bonds are provided for where desirable to assure the annual levy will remain not more than 1 mill.

The governing board of every drainage and levy district is to conform to the rules and regulations of the conservancy district in which the drainage or levy district is located and take notice of the district plan. Provision is made for coordination, through the Council, of the activities and experiences of each of the soil conservancy districts. Each district board is to be notified by the Council, and may therefore appear at hearings in connection with, any application to divert, store or withdraw surface or underground waters, put in a dam, or of any proposed order establishing encroachment limits and zoning regulations on the flood plain in any district. Likewise as to flood control applications to the Council.

Soil Conservation Districts are empowered to take notice of the conservancy district plan and to conform to the rules and regulations of the conservancy district wherein is the soil conservation district. A conservancy district or board may petition for a soil conservation subdistrict in the same manner as may landowners within that subdistrict. The petition must be signed by all the conservancy district directors.

The foregoing summary relates mainly to water conservation and control, the principal objective of the conservancy district.

In addition, however, the Bill substantially changes the voluntary nature of soil conservation practices. It would amend the soil conservation statute by making it the duty of owners of real property in this state to establish and maintain soil conservation practices, i.e., planting of perennial grasses, legumes, shrubs or trees, or annual or biennial crops, use of strip cropping, contour plowing, minimum or mulch tillage or other cultural practices, and construction of terraces, to control, prevent or minimize erosion by wind or water. Soil conservation district commissioner

Dr. Robert Morris
Page four

with approval of the State Soil Conservation Committee, may adopt, amend and repeal reasonable regulations deemed necessary to prevent or control soil erosion in the district and may enforce such regulations. Regulations may classify land on the basis of topography, soil characteristics, use and other factors and may require specified soil conservation practices or combinations thereof or that the amount of soil lost from particular classes of land by erosion be held within specified limits. Regulations are to be published and hearings thereon are provided for.

Soil conservation district commissioners, upon complaint that soil erosion is occurring in violation of the regulations, may, if they find such a violation, order the undertaking of soil erosion control measures in accordance with the regulations. The order shall require commencing the work not more than 6 months after mailing notice of the order. If the work is not commenced by the date specified or is not thereafter diligently pursued, or if it is not performed in accordance with the regulations, or if the person to whom the order is directed says that he will not or cannot do it, then the conservation district commissioners may arrange to have the work done. The cost of thereof becomes a lien on the land, due and payable in full before the property tax delinquency date next succeeding plus interest at 5%. If the cost exceeds \$500, it may be paid not to exceed 10 instalments if the landowner requests. Funds so collected redeem the warrants issued for the work. The commissioners and their agents may enter upon any land in the soil conservation district without consent to discharge their duties. If the Board of Conservancy district informs soil conservation district commissioners that the conservancy district cannot proceed with construction of an internal improvement because of want of protection against siltation due to failure to maintain soil conservation practices, the soil conservation district commissioners determine which lands or being eroded and proceed in the same manner as when they get a complaint. If the soil conservation district commissioners fail or refuse to control the soil erosion preventing the conservancy district from building the internal improvement, the conservancy district directors themselves may arrange for the establishment of necessary soil conservation practices by the same procedure as provided for soil conservation district commissioners.

Counties are authorized to construct, operate and maintain flood and erosion control projects, or furnish the money and other assistance in connection therewith, participated in by conservancy districts.

Dr. Robert Morris
Page five

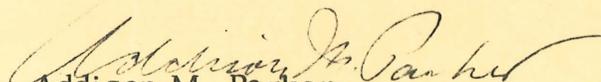
Soil conservation and flood control districts established by counties may be requested by a conservancy district. It is to be noted that this amendment eliminates the Board of Supervisors' power to establish soil conservation in mining areas and provide for replacement of surface soil as nearly as practicable to its original position in strip mining.

By making siltation a nuisance, by permitting internal improvements to control and preserve water supplies and quality without regard to landowners desires, by providing taxing authority, and by making soil conservation practices mandatory, this proposal goes a long way to put teeth into a water and soil conservation program in this state. This does not mean, however, that there are not some caveats to be noted.

First, the Bill gives general authority to conservancy boards, with approval of the Natural Resources Council, to make and enforce such rules and regulations as "deemed necessary to achieve the objectives of this Act" as set forth at the beginning of this letter. In Lewis Consolidated School District vs. Johnston, 256 Iowa 236, 127 N. W. 2d 118 (1964) the State School Board was empowered to prescribe curricular standards recommended by the State Superintendent "in accordance with law, and as it may find desirable to aid in carrying out the provisions of the Iowa School Laws". The court held that, in effect, this allowed the administrative agency to do whatever it thought would further the purposes of the law and set up whatever standards it deemed it necessary so to do. That, said the court, runs afoul of the rule that legislators may not delegate legislative authority in such a way as to give undefined discretion to an administrative agency. Similarly, H. F. 17 may delegate regulatory authority without adequate standards prescribed by the legislature within the ambit of which the regulations are to be made.

Second, there may be an infirmity in the taxing authority granted the Board of the conservancy district. In State vs. Mayor of Des Moines, 103 Iowa 76 (1897) the court held that the legislature could not delegate the power to tax, beyond the control of the City Council, to the Library Board since it was composed of persons not elected by and responsible to the people. Whether this principle is still of full force, my research has not yet uncovered; but the Bill does accord an unelected public body the right to require the Board of Supervisors to levy the millage required by the budget and presumably provided for in the budget without any discretion.

Very truly yours,


Addison M. Parker

AIR AND NOISE POLLUTION IN IOWA

Gene Kragenbrink

The quality and character of life in Iowa has long been regarded by most Iowans as among the highest and best in the nation. Such a quality environment is in large part attributable to our rural and agricultural land use. The open country-side with its farms and fields, lakes, rivers and streams, affords Iowans a quality of living which is far above that of the congested cities and major metropolitan areas of the nation.

For many people in Iowa the rural life is the "good life". To them it offers advantages and amenities which the city resident can only dream about but seldom enjoy. Although the advantages of a quality living environment would seemingly be in favor of the rural resident, yet for many and diverse reasons we see a steady and growing migration of the population towards the cities and metropolitan centers of the state. Today the balance of population in the state is considered to be roughly fifty-five percent urban and forty-five percent rural. Communities above 2500 are considered to be urban.

During the past decade, but much more acutely in the last few years, our cities and urban areas have been faced with a vast array of growing and difficult problems. Be it the problems of crime, schools, taxes, transportation, pollution, you name it

and our cities have been faced with it. Each problem brings with it unique problems, especially of a social or economic nature. In many instances where there are problems to be solved, the problem has been identified, studied, solutions considered, and with progress being made.

And yet today, many lowan's face a subtle but growing conservation problem. It is a special problem to our cities and metropolitan areas, due largely to the location of major business, industry, and inevitably, the concentrated populations which make up our urban centers. By our own doing we have subjected ourselves to a deterioration and degradation of the very environment in which we must work, play, and earn our day to day living. Slowly but surely the growing problem of air pollution looms as a threat and a detriment to our quality of life and living.

There are, of course, many types of air pollution - - - dust, fumes, smoke of various types, soot, gases, vapors, odorous substances from a variety of sources, as well as other particulate matter. Just as there are many kinds of air pollutants, so also there are many sources and polluters; automobiles, trucks and planes, commercial and industrial plants, heating and power plants and stations, refuse and open burning, as well as many more. Each source, and each to a varying degree, contributes a variety of harmful contaminants to the air we breathe and upon which we are dependent for life, living, and general well-being.

There can be no disputing the harmful effect of impure air. Polluted air contributes to health problems and property damage. Just as important, it has a tendency to defile the human spirit in ways that a civilized society cannot permit. Clean air must be considered a necessity, not a luxury.

The problem of air pollution requires concern and attention by the business community, government, and the private citizen. Business and industry must see to it that they carry at least their fair share of the responsibility - - and recognize their legal as well as social duty. State government must establish and enforce standards of air quality when these yardsticks are scientifically available.

Finally, it is the individual, the private citizen, who must exert his personal and individual influence if we are to achieve progress in the improvement of the quality of our air. Economic factors and legislation cannot do the job in themselves, for without public support and public pressure, the job will not be done.

We know the problem. The price of doing nothing is more than we can afford.

Noise - - - "sound, especially of a loud, harsh, discordant or disagreeable nature; a loud clattering combination of noises regarded as annoyingly excessive." (Webster's Dictionary)

Sociologists are not the only persons to recognize and report that people are subject to many and varied pressures in

today's society. The concerned conservationist has known this fact for some time. The "noise" problem is growing more pronounced as time goes by. Therefore, as a matter of environmental concern, this committee deems it our responsibility and duty to identify "sound and noise pollution" as one of our principal concerns. It merits study and analysis by local, state, and national authorities. To wit: note the current concern by federal agencies over the super-sonic jet airplanes and their unmistakable contribution to the sound problem.

Man is a complex individual. He reacts to a variety of influences. There are many things which can inspire him, motivate, entertain, annoy, or depress him. These influences, whether favorable or unfavorable, in one way or another affect his outlook, attitude, efficiency, even his physical and mental well being. Excessive noise, from whatever source, is a detriment to the stability and psychological well being of the individual.

Today there are many sources of "excessive sound". We recommend the expenditure of public funds to identify and measure sources and types of sound pollutants, their deleterious effects on human beings, and the development of legislative means to control the problem.

A quality environment must include opportunity for occasional solitude and quiet reflection. A quality environment must be spared the excessive sounds of "noise pollution".

IOWA WILDLIFE

Ries Tuttle

Wildlife is a renewable resource that is limited primarily by habitat of sufficient quality and quantity to sustain it. In Iowa the quantity of habitat has been seriously reduced in the last decade, chiefly through changing agricultural procedures. Habitat quality also has suffered in areas, particularly due to widespread use of pesticides and various chemical land treatments. These latter problems will be treated with by another committee.

Since habitat is the key to the restoration of our diminishing wildlife, every effort should be made to expand it in areas that will not interfere with the economy of the state--in fact, it should enhance the economy by providing additional recreation and income and by saving our most valuable asset, the land.

Because 97 per cent of the acreage in Iowa is privately owned it means that most of the habitat must be provided on private land. Through continued education and financial assistance by the Soil Conservation Service, the State Conservation Commission and other agencies, landowners should be encouraged to plant field corners and untillable land with vegetation that will provide cover and food for the species of wildlife--non game birds and animals as well as game species--that are commonly found in the area.

More attention should be paid to the protection and improvement of our streambanks to control erosion and prevent pollution. Indiscriminate spraying of secondary roadsides should be halted in an effort to save native vegetation. In many instances, planting of roadsides with selected native cover plants will control noxious plants.

Hundreds of miles of secondary roads and lanes along with railroad rights of way are being abandoned annually. Most of these are going under the plow. But many of them could be obtained without cost to the state. They would provide unexcelled wildlife "islands" and at the same time could be used for scenic bridle, cycling and hiking trails. The costs of fencing should be considered the "purchase" price of the areas rather than a non-returnable financial burden.

Private hunting preserves, which are becoming more popular each year, can help in producing game for the gun but they can never provide hunting for everyone.

The late Aldo Leopold, a native Iowan, often called the "father of modern game management", in his profound book "Game Management" 35 years ago wrote: "No conceivable system of private preserves and public shooting grounds, however, could adequately accommodate the growing army of urban citizens who like to hunt. The non-shooting landholder must also be induced to manage his game. The only conceivable motive which might activate a sufficient number of non-shooting landholders is the financial motive."

Probably the greatest asset to wildlife in Iowa, particularly in northern Iowa where tree groves and hedges have been removed, would be a series of shelter belts of trees and shrubs that would reduce wind erosion--a very serious problem with increased fall plowing--and at the same time reduce water evaporation from farm fields. The value of shelter belts is obvious in providing winter cover for wildlife as well as nesting areas.

But we cannot expect the landowner to take valuable ag land out of production just for the "good of the cause" although he would reap some benefits. He is a business man and is dependent upon the production of that land. Consequently--and this would

take legislation and public money--he should be reimbursed annually by federal and/or state funds in an amount equal to the crop that would have been produced upon that land at the current market price.

This would be similar to soil bank programs since it would take land out of production and at the same time conserve soil and water on adjoining lands.

This proposal obviously is over-simplified and would take a great deal of research, planning and execution. But it faces up to the fact that we cannot expect the farmer to simply be a "good fellow" in providing recreation for the rest of us.

In a sense, habitat is also the key factor in human environment. Again, Leopold, in discussing the "good life", asks whether we are "too poor in purse or spirit to apply some of it to keep the land pleasant to see, and good to live in?"

And, he continues, "Every countryside proclaims the fact that we have, today, less control in the field of conservation than in any other contact with surrounding nature. We patrol the air and the ether, but we do not keep filth out of our creeks and rivers. We stand guard over works of art, but species representing the work of aeons are stolen from under our noses. We stamp out the diseases of crops and livestock, but we do not know what ails the grouse, or the ducks, or the antelope. In a certain sense we are learning more rapidly about the fires that burn in the spiral nebulae than those that burn in our forests. We aspire to build a mechanical cow before we know how to build a fishway, or control a flood, or handle a woodlot so it will produce a covey of grouse."

