

Save Minnesota's Wetlands

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THE MOST PRICELESS resource of a nation is its people, who depend on water and the products of soil and water for their very existence.

By properly administering what remains of our soils and waters, with which our country was so lavishly blessed, not only could our people continue to be the best housed, the best clothed and the best fed on the face of the earth, but our recreational facilities and our wildlife resources also could attain proportions unparalleled in the life of any major civilized country.

In the face of exploitation, that has been practiced by certain ruthless groups and individuals since the dawn of history, such a program would require the superlative in stewardship of every citizen who places the welfare of his country above and beyond his personal desires or ambitions. Furthermore, if we—the people—had the foresight, the wisdom, the initiative and the courage to demand of our duly elected representatives, the formulation and the prosecution of a long term program designed to assure the systematic restoration of the soils that have been depleted, and the desirable water areas or streams that have been destroyed or polluted,

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it is our confirmed belief that 500 million Americans of the future could be equally as well—if not better—clothed and housed and fed as the 165 millions are at present.

Since the preceding statements are not self-evident to the average citizen, who primarily associates conservation with game and fish, a certain amount of elaboration is essential to their clarification. Therefore, let us begin with the soil as it pertains to agriculture.

Soil is conserved when it is protected from the ravages of erosion and replenished with those elements necessary to assure sustained yields of the products which it is most capable of producing.

In view of the fact that this definition has been accepted by some of our leading agricultural authorities and soil conservationists, let us examine the records in order to determine how far we have wandered from its concepts.

Although our country, exclusive of its territories, occupies less than two per cent of the earth's surface, it originally contained approximately one-tenth of the world's arable lands, or 640,000,000 acres, that were coated with topsoil and which, under proper care, were capable of producing sustained yields of food and fiber for man and beast. But today, in the

164th year of our existence under a constitutional form of government, we discover that the situation has changed materially. Through improper agricultural practices, 240 million acres of this priceless segment of our national wealth have been stripped of their topsoil — the lifegiving element that is created at the rate of one inch in 500 to 5,000 years, depending on conditions — and subsequently have been abandoned. Furthermore, under the stepped-up agricultural program, that has been expanding since the outbreak of World War II, and shows no signs of abatement, there are thousands of acres so exhausted, so shopworn and so topsoil threadbare, that the care of experts will be required to save them from the scrapheap.

THE STORY OF HOW these losses occurred is entirely too long to relate in an article of this nature. Nevertheless, some of the contributing factors are briefly outlined as follows:

The horses of yesteryear didn't have sufficient strength to pull the plow up one side of a hill and down the other. Consequently, and through necessity, plowing was done on the same level or contour and in like manner the row crops were planted and cultivated. Under this old-fashioned system of farming, water run-off was retarded and soil losses were held to a minimum. The stream beds were not clogged with silt nor were disastrous floods an everyday occurrence. In those days the wise farmer admitted that if you are on the level with your land it will be on the level with you.

The advent of modern farm machinery practically changed this situation overnight. Square minded plowing across the contours and parallel to the fence lines, regardless of the ultimate results, became the order of the day. This made a tin roof of the rolling lands from which topsoil disappeared like snow beneath a summer



sun. Many timbered slopes that guarded the springs, the streams and the rich lowlands, were denuded and plowed, and after they lost their treasure of duff and had become scarred and gullied, they were turned over to the sheep and cattle to finish the job.

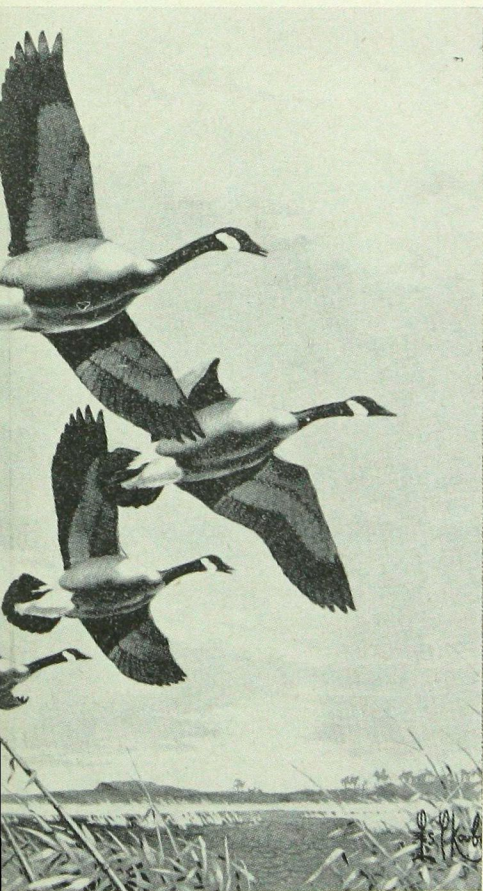
Be assured that this is no exaggera-

tion. Right here in Minnesota, we can take you to former garden spots, where the waters were crystal clear and teeming with trout, and the valley lands were fertile and deep. But today these same lands are buried beneath tons of rubble and silt and the water courses are in such condition that restoration will require another 20 or 30 years.

But there were still fairer fields to conquer. With World War I in progress, grain prices soaring, and ample power to do the job, the wonderful pasture lands of the great plains that had supported buffalo by the millions, were ripped to pieces despite the protests of agronomists who knew the penalty for such actions. In most instances, those who broke the virgin lands scoffed at the idea of plowing a strip and leaving a strip of grass.

There was little thought of the future, for we had not yet learned the importance of working with nature rather than against her. While a country still is in its adolescence, few people realize that nature is our most severe task mistress and our greatest ally. No man has ever been wise enough to cheat her, to wrong her or defraud her without paying the penalty, for sooner or later she demands retribution in the fullest measure with compound interest.

True to form, she never forgot the power plowman of the great plains. Many years later, the area from Texas to Minnesota was visited by the worst drought in our history. Dust storms followed each other in rapid succession, but the most memorable one occurred in May, 1934. It banked



the mineral soils against buildings and covered fences, crop lands and pasture lands. But the lighter, finer particles of the topsoil, the life giving elements, were carried into the heavens, that were darkened with the wealth of the ages, most of which was blown away and irretrievably lost to the benefit of man.

In the course of this one dust storm, it was estimated that three hundred million tons of soil were displaced. With this figure in mind, we wondered whether or not any estimates had been made of the terrific soil losses attributable to water erosion, and were astounded to learn that the accepted loss, twenty years ago, approximated three billion tons annually. If this soil were loaded in coal cars, it would make a train approximately 476,000 miles long, that could girdle the earth at the equator about eighteen and one-half times. In spite of the efforts of the United States Soil Conservation Service, which revived contour plowing among other practices, the annual water erosion loss still approximates three billion tons. In other words, it has been arrested but not diminished and it never will be until stewardship is the rule and not the exception among those who are privileged to occupy and administer one of our most treasured possessions — the soil.

The preceding accounts in part for our 240 million acres of depleted lands. However, if authentic and detailed information is desired, by all means secure a copy of Russell Lord's masterpiece, "To Hold This Soil," which is known as miscellaneous pub-

lication No. 321 of the U. S. Department of Agriculture. After you have read and re-read this remarkable record, you will fully realize that no stretch of the imagination can depict how disastrous this situation could have become if the Soil Conservation Service had not been initiated some twenty years ago.

Water is conserved, when it is retained at its source or retarded in its progress, so that it may serve man and beast to the limits of its capacities in an unpolluted condition before it passes from the land.

In spite of the fact that this definition adequately covers the principal factors relative to water conservation, what should be done in this field and what happens in actual practice, lead one to conclude that in general, we haven't the slightest conception of the tremendous value of our enormous water heritage. This statement is borne out by the fact that since the turn of the century, but exclusive of the drought period of the early thirties, the wholesale destruction of water areas through drainage has been accorded little more than passing attention. A recent record, compiled principally from information included in the Minnesota Gazetteer of Meandered Lakes (1928), indicates that one hundred thirty five lakes aggregating 53,408 acres were destroyed under existing drainage laws during the period 1900 to 1929, inclusive.

Since the beginning of World War II, the advocates of drainage have had a field day. The improvement in power machinery made it possible for

them to drain the waters from an entire township in a matter of days, where formerly a similar undertaking required months or even years. When certain conservation-minded individuals protested the destruction of the waters of our public domain, the ditchers and drainers concentrated their efforts on privately owned pot-holes, marshes, bogs and non-meandered lakes.

Evidently the beneficial functions of these small areas were entirely disregarded. During the heat of summer, through evaporation and vegetative transpiration, they supply moisture to the clouds which falls here and elsewhere in the form of rain. Minnesota's mean average evaporation from shallow water areas of this type has been estimated at thirty inches per year.

In late fall, the receding waters leave in their wake a network of seams and crevices that cover shores and banks. Through these the rising waters from spring thaws and rains find their way into the surrounding subsoil and eventually percolate into the earth to replenish the underground reservoirs which supply well water for cities, towns, villages and farms.

During the winter, when blizzards sweep the prairies, the emergent vegetation of these areas and the dense stands of weeds, grasses and sedges that normally surround them, furnish a quality of winter cover for upland game that is far superior to any plantings ever established on the uplands. Intensive research conducted on six sample townships of southwestern

Minnesota, in the heart of the best pheasant range, substantiates this statement.

THIRTY-FOUR YEARS ago, when pheasants first were released in this district, the natural marsh cover brought them through the cold weather and aided them in becoming established. When those initial releases were made, the countryside still was dotted with small water areas that were neither grazed nor plowed to the water's edge, nor were they burned off periodically. Under such favorable habitat conditions, abnormal losses of penreared birds was unheard of. Today, however, when even a ten acre pothole is a rarity and cover in these districts is at a premium, the winter losses of the 34th generation of rugged, acclimated birds is known to have reached an astounding peak of 59 per cent in the course of a few blizzardy months.

The marsh areas also are the principal producers of waterfowl and furbearers. When unmolested or restored, they usually possess all of the desirable elements that constitute an ideal habitat — namely — food, all varieties of cover and house building materials for muskrats.

Last but not of least importance is the manner in which these small areas assist in flood control. Their present elimination in Minnesota at the rate of approximately 19,500 per year, a maze of drainage ditches crisscrossing the agricultural districts and extending their tentacles at an alarming rate, and 120,000 miles of highways and roads that are ditched on one or both sides, are the prime contributing

factors that aggravate flood conditions, make floods a common occurrence and cause staggering property losses in the lowlands. If a complete elaboration of these statements is desired, consult the farmers in the Minnesota River Valley between New Ulm and Redwood Falls and they will tell you in no uncertain terms what they think of drainage and how it is slowly but surely destroying their holdings.

Some 18 years ago, the United States Department of Agriculture encouraged the destruction of farm crops in order to reduce surpluses and to raise the prices of farm commodities. From this costly experience, we should have learned a basic lesson in administration, but unfortunately, we rarely, if ever, profit from our mistakes.

In his most recent speech, President Eisenhower emphasized the fact that under the present price support system, the federal government now controls \$6,800,000,000 worth of surplus farm commodities and that their storage alone is costing the taxpayers \$32,000 per hour. In the face of this official statement, and with billions of dollars worth of our farm products being scattered over the face of the earth under the foreign aid policy; with agricultural exports reduced by 30 per cent and with every available storage space filled to overflowing with farm commodities, the Department of Agriculture still is encouraging the destruction of our small water areas through partially subsidizing their drainage under the pretext of creating much needed additional agri-

cultural acreage for our expanding population.

Two of our foremost agricultural experts have publicly stated that if all of the plow and pasture lands in the United States were administered in accordance with practices advocated by the United States Soil Conservation Service, the minimum annual increase in production would amount to 25 per cent. Therefore, may we suggest that from the \$74,000,000,000 federal budget, of which \$54,000,000,000 are used for defense and foreign aid, sufficient appropriations be granted the Soil Conservation Service to prosecute its program to the limit, so that it will not become necessary to create additional agricultural lands. Such action possibly may have the effect of diverting the attention of the ditchers and drainers from the further destruction of our wetlands.

Furthermore, if the United States Department of Agriculture wants to do a real constructive job in the interest of our posterity, it should instantly formulate and launch a long term program for the systematic rehabilitation of the 240,000,000 acres that have been depleted of their topsoil and tossed into the discard. Such lands should not be put into competition with present productive holdings, but they should be kept in reserve for our expanding population and for an international emergency, which may be nearer at hand than we suspect.

If the present 74 billion dollar annual federal budget cannot finance this program by reducing federal aid to those countries that are experienc-

ing agricultural recovery, then the taxpayers should support this land rehabilitation project as a patriotic service.

If the programs mentioned in the preceding were properly launched and vigorously prosecuted, those storage facilities for surplus farm commodities, the bins, the tanks and the make-shift warehouses — monstrous monuments of mismanagement — that are scattered throughout the length and breadth of our agricultural districts, would disappear from the face of the earth and at least a small segment of our priceless water heritage could be saved.

A Chinese philosopher once said, "It is better to light a candle than to curse the darkness." On September 17, 1951, the Bureau of Wildlife Development of the Division of Game and Fish, took the philosopher's advice by formulating a Pittman-Robertson project for the purpose of acquiring, through outright purchase, 209,000 acres of desirable privately owned potholes, marshes, bogs and non-meandered lakes in 900 townships of 65 counties of the agricultural districts. The revised expenditure necessary to the attainment of this first objective is estimated at \$6,500,000.

During the first year, it looked as though the project were doomed to failure, for not a single option was secured. Nevertheless, it achieved certain results whose value cannot be measured in dollars and cents, for the people of Minnesota finally were becoming conscious of the value of water and sensitive to the necessity of conserving it.

By January 1, 1954, so many purchase options for wetlands were being sent in by the fieldmen, and other commitments had so depleted our budgeted funds, that we believed it would be necessary to curtail operations until additional allotments were made available at the close of the fiscal year. It was then that the Chinese philosopher again prompted us to light a bigger and better candle. This flame, though still feeble, may some day prove to have been a blessing in disguise.

Minnesota's waters were being destroyed while other states were spending billions of dollars to secure this priceless resource in sufficient quantities to satisfy the wants of their people and their industries. Recently, in New York City, no guest was served water with a meal unless it was demanded. A bill introduced in the present Congress by a representative from Texas appropriated 8½ million dollars to test the feasibility of diverting water from the Missouri River basin into the drouth-stricken areas of the southwest. Professor Athelstone C. Spillhaus, a noted authority of Minnesota's Institute of Technology, recently stated that with the atomic age for industry just around the corner and water resources diminishing, the time will come when not one drop of water can be permitted to flow off the land into the oceans.

Realizing that the sportsmen, who spearheaded most of our worth-while conservation projects and have paid for them without assistance from the taxpayers, and with the full knowledge that the game funds available would

be insufficient to meet the requirements of the acquisition objectives of the program in time to save the most desirable water areas from drainage, we made a small contribution to launch a Save Minnesota's Wetlands Fund. Since the program was initiated for the benefit of the greatest number of people for all time, and since it transcends in importance both hunting and fishing, we believed that all citizens should contribute to it just as they do annually to the many public agencies that have to do with safeguarding the people's welfare. We have not been disappointed in the response, for although the fund was not officially established until June 21, 1954, the contributions are steadily increasing and are being made by people from every section of the state and every walk of life. This is indeed encouraging, for it clearly demonstrates that the majority of our citizens, when they are fully acquainted with the facts, are willing to contribute to any program that will make their state and their country strong and will keep them strong.

The third candle was lighted when the Legislative Advisory Committee appropriated \$100,000 from the Bureau of Game's contingency fund for the specific purpose of purchasing desirable wetlands. This action was not taken on the spur of the moment; on an occasion prior to its favorable action, the committee had rejected a similar request. To give credit where credit is due, it must be admitted that this group explored every angle of the wetlands proposition and based its actions purely on its findings. It is

our sincere hope that the foresight and the wisdom of its actions will be fully justified as time goes on.

On July 15, 1954, 11,325 acres of desirable wetland areas had been purchased or optioned for purchase in 25 counties of the agricultural districts at a cost of \$340,000. Our field men have an additional number of tract options aggregating in excess of 300 acres, and our duck lake crews have completed the final surveys of 18,000 acres and preliminary surveys of 12,000 acres preparatory to their subsequent acquisition, if and when funds are made available for this purpose.

Recently we celebrated the 178th anniversary of the signing of the Declaration of Independence. The 56 patriots who formulated and affixed their signatures to this precious document, which assures us life, liberty and the pursuit of happiness, pledged their lives, their fortunes and their sacred honor to the cause of freedom.

If the time should ever come when citizens of this calibre are in the minority and not in the majority, as they are at present in these United States, the mightiest Republic the world has ever known, which accords to its people greater individual sovereignty and rights and privileges and opportunities than ever have been recorded in the history of mankind, will deteriorate into a third or fourth rate nation. However, this can never come to pass so long as men have the courage to honestly and publicly voice protests against any action which they believe to be detrimental to the best interests of their country.