US FISH AND WILDLIFE SERVICE
"GREEN INTERVIEW" WITH ROBERT BURWELL, DIRECTOR
CONSERVATION ISSUES OF THE FUTURE Sr #3
[Recorded radio broadcast]

UNIDENTIFIED SPEAKER: This afternoon we are very fortunate to have with us Mr. Charles Griffith, Conservation Education officer of our Regional office in Minneapolis who will be interviewing our Regional Director Mr. Bob Burwell concerning some of the conservation problems of the future. It is a great pleasure to meet, and to introduce to you at this time Mr. Griffith, Chuck?

MR. GRIFFITH: Thanks Bill. Our guest today is Mr. Robert W. Burwell, Regional Director of the Federal Bureau of Sport Fisheries and Wildlife. We have asked Mr. Burwell to sit in with us today and discuss some of the real conservation problems of the future that we face, not as a governmental agency, but as private citizens. All of us, every day, see more and more evidence that Americans, while proud of the accomplishments and the affluence of this nation are not satisfied with what has been happening to the environment around us. Could you elaborate on this Mr. Burwell?

MR. BURWELL: Yes, I think I can Chuck. For two hundred years America has measured itself against a goal of more people, more products and more prosperity. During the last decade the consequences of the nation's achievements began to become apparent to the general public, I think. And today, the American people don't like what they see or hear or taste or smell. These are the consequences of those achievements. And the result is that today America is in the throes of an upheaval that is probably far more significant than most of us realize. I don't think that I am alone in this view.

MR. GRIFFITH: Is this upheaval something really new in human history?

MR. BURWELL: No, not really. But to understand what is happening, we need first to understand why it is happening. Let me quote an opinion of Admiral [Hyman G.] Rickover. Admiral Rickover has this to say; "We've been brought to this critical situation by the scientific technological revolution, and can only extricate ourselves by a change of direction in thought and action so drastic that it would rate the term 'counter-revolutionary'". "To the historian", he goes on to say, "this is a familiar sequence of events. During revolutions social, political, or technical, long established patterns of living are swiftly and radically altered by concentration on the attainment of a single objective without regard to cost. Eventually, the cost is revealed and if it is too high, there is a counter-revolution. Few laymen, as yet, have any conception of the true price we pay for the marvels of technology, although the mass media are now full of stories of poisoned water and air and soil; of depleted resources and of over crowding, all clearly the consequences of technology and calling for remedial action." Admiral Rickover went on to say, "What chiefly delays public recognition of the costs of the scientific technological

revolution is the universal popularity of it's objective, which is material abundance and an easing of man's earthly lot through the mastery of nature." This accounts for what Mr. W. H. Ferry calls, "the stupid love affair" of the general public with technology. "Breaking up the love affair", he said, "doesn't not mean abandoning technology, but replacing infatuation with an understanding of technology's toxic quality, and finding ways to direct it to humane ends."

MR. GRIFFITH: This infers then, that man in developing this technology to provide for his physical needs, may have created a whole series of social problems, is that correct?

MR. BURWELL: Yes, in a sense. And another well known American, Walter Ruther, has this to say on that point; "the twentieth century technological revolution has given us the tools of automation and economic abundance with which we can conquer man's ancient enemies poverty, ignorance and disease. And we can free the human family from material poverty. We have mastered the scientific and technical productive know-how to satisfy man's material needs. We must now make a effort to master the human, social and moral know-how essential to achieve man's higher purpose and relate him to nature as he searches for fulfillment." In concluding Mr. Ruther said, "We are heading for a society where men are more concerned with the quality of their goals, than with the quantity of their goods". Another example of a prominent American's feelings would be these of the Under-Secretary of the Interior Russell Train. Mr. Train said a few weeks ago in St. Louis, "Our belief in the individuals relative freedom to exploit and otherwise modify his environment for his own benefit evolved in a simpler, less crowded age. And man's technological powers were far less, and when the environment was capable of absorbing and cleansing itself of most adverse impacts. This state of affairs simply no longer exists. We must," said Mr. Train, "take a far stricter view, now and in the future, of the duties of the individual, including businesses, towards the environment. The time has come", he said, " to treat crimes against the environment on a par with crimes against society. Crimes against the environment strike at the very future of man."

MR. GRIFFITH: What about American youth in all of this, are they concerned?

MR. BURWELL: Everything we see and read points to the fact that American youngsters, from grade school all the way up to colleges and universities, are concerned with what we are doing collectively, to this world. Let me give you a quote, again; this one from a letter I received last week from a student at the University of North Dakota at Grand Forks. This was written on the letterhead of his Fraternity, Tau Kappa Epsilon. My office was told of the organization of an official group on the campus called Students for Environmental Defense. "Among our objectives," this young man said, "are education of the public on the principals of ecology, informing the public of environmental problems, demonstration the concern of young people about the quality of our environment and the active pursuit of positive solutions to environmental problems".

MR. GRIFFITH: This statement indicates then, that the attitude of Americans at all levels may be changing towards this nation's natural resources and the environment that these resources support. Does this show a direct conflict between the ecologists who are primarily concerned with environmental relationships, and our advanced technology?

MR. BURWELL: No, not really. I might put it this way; we can't pretend that technology doesn't exist. If we look at the issue squarely, the fact is that we are all dependent upon a life support system, which is partly industrial and partly ecological. Unfortunately I think we have reached the stage where the ecological portion of our life support system is endangered by the industrial portion. We can preserve both portions of our life support system only if the variety of disciplines, and diverse points of view can get together and work together effectively.

MR. GRIFFITH: This cooperation, which you say is so necessary if we are to rebuild a healthy environment in this nation would appear to be a job involving all of us. What can we do then, as individuals or as businessmen, as educators, or as a governmental agency to accomplish this?

MR. BURWELL: Perhaps this need for cooperation by all of us, at all levels is the basic conservation problem facing us in the 1970s. I think so. And the problems are as difficult as they are numerous. Today, in 1970, the list of influences that degrade the national environment is familiar and it is discouraging. Our human population growth will double in the lifetime of many of us. This means that every month enough people are brought into this world to populate a city the size of Chicago. Just to dispose of the waste from this number of people is a staggering environmental problem. The variety of soil, air, and water pollutants is almost endless. There are chemical fertilizers, pesticides, fossil fuel combustion, disposal of radioactive wastes, thermal power, feedlot wastes, those are a few. Then, to that you can add such things as draining and filling of estuaries, the deposit of industrial wastes, the dredging of stream courses, and the drainage of prairie potholes and marshes. I think that it's against this background of important environmental influences, most of them brought about by technology, that we should determine where and how we should attempt to recover a quality environment, and what should be our role in this effort. At this point, Chuck, maybe you'd let me relate a story to help explain what I mean by the term, "ecology"?

MR. GRIFFITH: Fine.

MR. BURWELL: A few years ago, a plague struck a small, isolated village in Bolivia. Before it could be identified, and it turned out to be Hemorrhagic Fever, the plague killed almost all of the children in the village.

MR. GRIFFITH: What brought about this tragedy?

MR. BURWELL: Well, a study of events gave the answer. It seems that earlier in the year, the village had been sprayed with a pesticide to eliminate certain insects. In the following months, there was a mysterious die off of the house cats that had roamed through the village for years. It developed that following the extensive spraying the cats in prowling through the vegetation in the back alleys got the pesticide on their fur. Being cats, they continued their habits of licking themselves clean. Following the die off of the cats, the village's normally modest population of mice just erupted. Mice were everywhere. The stain and odor of their urine was present in every village hut. What proved to be the carrier of the virus of Hemorrhagic Fever? It was carried in the urine of the mice, deposited where the children slept, ate and played.

MR. GRIFFITH: It was a real tragedy then.

MR. BURWELL: Yes, especially so when the first step started with the best of intentions. This story is just a simple lesson in ecology. It illustrates what the word means; the mutual relationships of the biotic in the environment. It warns us that processes are more than just isolated cause and effect linkages. It demonstrates that the world around is much more complicated than we once thought it was. And it tells us that man can't travel any longer with impunity down a narrow road of a single interest.

MR. GRIFFITH: This example occurred of course in a remote village in Bolivia. And it's very remote to us, the situation, and the occurrence. This doesn't mean that it can't happen here in some other way that may be just a subtle. Do most of us who are just ordinary citizens play any part in what happens to our environment?

MR. BURWELL: Yes we do, whether we recognize that we play a part or not. In the process of living and in the process of carrying out our jobs, every day we influence the ecology of the environment in which we exist. For most of us, there is a compelling motivation to alter our environment at some time and in some place. Individually, I may spray my back yard for mosquitoes. You may plant a [unintelligible]. Some lady may put a combination weed killer and fertilizer on her lawn. This man over here may clear the aquatic vegetation from the lake in front of his cabin. And similarly, our organizations and agencies act to change the environment but on a much bigger scale of course. For example, the Corps of Engineers constructs a reservoir to regulate stream flows, or the Soil Conservation Service installs measures to reduce erosion and runoff on an entire watershed. My Bureau may create an expansive marsh to produce ducks. The State Health Department may conduct a campaign to control rats in an entire city. The City of Winona may undertake Dutch elm disease control, for example. Or, the city's Chamber of Commerce may be successful in obtaining a new manufacturing plant. And in the last ten years or so the impact of ecological communities has been compounded by the collective action of Federal, State and local agencies, as for example, the Missouri Basin Project and the upcoming twelve-foot channel project on the Mississippi River. At this point, let me say Chuck, that I don't maintain that these examples of our actions are bad.

I simply note that these actions are going on. And there will be similar actions in the future, as long as men see an opportunity to apply technology. So, this being so, those of us who would influence the environment have a responsibility to except and develop what might be called 'ecological thinking'. I don't mean just biologically, but in relation to all of the factors and variable of the complex problem of protecting our environment.

MR. GRIFFITH: What about government then? You've talked about a need to consider not only the biological, but I assume you infer the social and the political and economic; where does government fit in to all of this?

MR. BURWELL: Well, to those of us in government, I would offer this suggestion. It no longer makes sense for single purpose agencies to go it alone on natural resource problems. We are all aware of the compartmentalized nature of natural resource responsibilities in many local and state governments as well as at the federal level. This has been the root of many of our mistakes and troubles in the past. The Congress, and the State Legislatures and those who advise them tend to think of natural resources as separate and isolated, and to solve problems by the same categories. Thus, flood control is assigned to the Corps of Engineers. Soil conservation is assigned to the Soil Conservation Service. Waterfowl is assigned to my Bureau. And water use is assigned to the Minnesota Division of Waters, and so on. Admitting that some steps have been taken to promote coordination of natural resource interests, which is a trend toward ecological considerations; it can't be denied that government has yet to understand the real importance of ecology in our lives. Thus, it has developed that the Congress and the State Legislatures out of reverence for the specialists; that is the engineer, the physical scientist, the economist, and so on, has left the task to him not only of analysis but the actual determination of public objectives and values.

MR. GRIFFITH: Doesn't this lead then, this reliance on these specialists, to a very narrow point of view being expressed in some of these programs which are changing environment?

MR. BURWELL: Absolutely Chuck. From a public service point of view, those that are most incapable of ecological thinking are those individuals and agencies whose interests and objective are very narrow. And their problems are amenable to precise and quantitative and emotionally satisfactory solutions. And the psychological orientation calls for unequivocal black and white answers to problems. Now, these are the single purpose people whose skills are indispensable. But such people should not be trusted to decide for the public what its policies and objectives may be. To make my point still another way, I would say that generally, a scientist, as a scientist is capable of making scientific decisions. An engineer, as an engineer is capable of making valid engineering decisions. But they're the specific [components] of each specialist's ends. The same of course is true of a psychologist or an economist or a lawyer. But this is not to say that an engineer or a business man, for example, can't also be a top notch ecologist who

practices his profession efficiently, but also practices it in relation to the complexities of the real world, the general welfare, and the future good of mankind. I believe that those of us who work for governmental agencies are capable of inventing systems for improved cooperation and coordination. But the will to do so is another matter. If the public is informed, and if it gets angry enough about avoidable waste of natural resources, and opportunities foregone about conflicting action programs by different agencies and about operations which produce new serious problems while working on others, we are apt to find ourselves, and I am speaking about government officials, we are apt to find ourselves replaced by persons who understand and appreciate the need for an ecological approach to the management of natural resources.

MR. GRIFFITH: What about the role of the business community in all of this? Obviously, they have some responsibilities too, in changing their attitudes.

MR. BURWELL: I think so too Chuck. To the business community I would say this; start now to act on environmental problems. If you fail to plan, and act now you may be faced pretty soon, with a case of reacting to what you will be forced to do by law or by public opinion. Keep in mind that some of the best managed and most efficient corporations in the nation are learning, too late, what it means to answer a general public that is angry and frustrated because of environmental contamination or the threat of it.

MR. GRIFFITH: I am going to ask one more question Bob, before time runs out. And that is this; what part does the university then, the people that are turning out these specialists and hopefully turning out some of the generalists that we also need for this broader perspective, what are they doing to help solve this problem, this challenge?

MR. BURWELL: Well, I hope Chuck that the universities realize our great need for individuals who are not only well grounded in their chosen profession, as an engineer, as a forester, as a lawyer, these people must have their feet on the ground somewhere to be employable. But at the same time, task of the university is to make certain that these individuals in addition to this basic technical training, also receive enough course work in areas such as the humanities and the social sciences in order to be able to relate their profession to the needs and the well being of mankind. This is an important step, if we are to produce people within this country with the breadth of thinking and with an appreciation of their heritage and an ability to help in the solution of these environmental problems that we have been talking about.

MR. GRIFFITH: I might add one other thing that I think all of us need in making an approach to these problems; and that is the quality of humility. The recognition that other people can be right [correct] too, and have just as deep an interest in a particular thing as we do.

MR. BURWELL: I think that is a sage observation.

MR. GRIFFITH: Well, thanks a lot Bob, for sharing your thoughts and concerns with us today. Our guest has been Robert W. Burwell, Regional Director of the Federal Bureau of Sport Fisheries and Wildlife. Now, back to your announcer.