

INTRODUCTION

(Continued)

Organization

Participants and issues were organized according to five major topic areas, which were suggested from replies to a questionnaire mailed to prospective symposium participants in August, 1986. These topics were:

1. water quality;
2. river corridor development and land use;
3. river recreation and tourism;
4. river structural developments; and
5. water supply and allocation.

Participants selected the topics which interested them most and were assigned to panel discussion groups based on these interests and the organization they represented. This was necessary to establish balanced panels with a variety of views. Because of the large number of participants, thirteen panels were organized, three each for water quality, river corridor development and land use, and water supply and allocation, and two panels each for river recreation and tourism and river structural developments. Panel organization and assignments are shown in Appendix C.

Panel leaders were recruited from faculty and staff of Texas universities and from the National Park Service. Panel leaders led the discussion and were tasked to have their panels answer four questions on their assigned topic area and prepare both written and oral reports on their discussions. The questions were:

1. What are the issues related to the major topic area?
2. How does each issue affect you or the group you represent?
3. What other kinds of information or data, if any, are needed about issues or to help resolve the issues?
4. What are some alternatives for minimizing or resolving the issues?

Participation

Two hundred fifteen persons attended the symposium (see Appendix B). They represented a wide spectrum of groups, interests, and views, including:

- citizens and citizen groups;
- landowners;
- recreation and canoe clubs;

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TEXAS RIVERS SYMPOSIUM

INTRODUCTION

Background

Along with the state's rapid growth in recent years, there has been an increasing public concern about Texas' rivers. A 1986 public opinion survey of Texans by the Texas Parks and Wildlife Department highlighted this concern. When questioned about their recreation preferences, 61 percent of all survey respondents said that, of all areas they would like to visit, they would most like to go to a river or stream. Furthermore, 74 percent felt that pollution of streams in Texas was a problem, and over half, 51 percent, agreed that destruction of natural resources was also a problem.

The demands placed upon our rivers have increased with population growth. Threats and pressures from pollution, erosion, development, overuse, drought, etc., have become more apparent. The needs for water for cities, agriculture, industry, recreation, and other sectors frequently conflict. Arguments continue over dam building--to build reservoirs to store water or save the rivers? Water scarcity and recent droughts in parts of the state have magnified these concerns. Against this background, the Texas Parks and Wildlife Department began further study of statewide river issues.

Many of the river issues and recommendations were identified in the public input phase of developing the *Texas Outdoor Recreation Plan (TORP)*, the state's five-year plan for meeting public recreation needs. The *1986-1987 Action Program* outlines actions the department plans to implement the *TORP* recommendations, one of which was to conduct a symposium in 1986 to solicit public input on river issues.

Symposium Objectives

The 1986 Texas Rivers Symposium was held November 20-21, 1986 at the Sheraton Crest Hotel, Austin, Texas to obtain broad public input on rivers, river issues, and the impacts of those issues in Texas. Specific objectives were to:

- Define the issues affecting Texas rivers.
- Determine the impacts of the issues on the different interest groups.
- Encourage and improve communication and understanding among all groups and explore opportunities for cooperation.
- Obtain public input on river issues.
- Assess information needs on rivers and river issues.
- Provide a basis for the Texas Parks and Wildlife Department to make recommendations for the *1990 Texas Outdoor Recreation Plan*.

SPEAKERS' REMARKS

(Continued)

Mr. Robert L. Armstrong
(Continued)

So I'm very excited about what the Parks and Wildlife Department is undertaking to do here because one of the rules I've found that needs to be followed is that when you have a potential controversy or when you have problems, the best thing you can do is get the affected people involved.

And when you get the affected people involved, then you begin to get something happening that we hope will be positive, that we think will be progressive, that we think will handle the problems, and that's the way we ought to do it in this state rather than somebody just having an idea and trying to force it on somebody else. So in the spirit of looking at these problems--and they're long-range problems--in a cooperative manner, in bringing our best intellect and our best judgment to bear on them, I think we ought to start this symposium, and finish it, hoping that we'll have a work product that we can be proud of.

Why are we here? Well, I think we're here because of a number of varied reasons. As long as you have this many varied interest groups, you're going to have varied reasons for being here. Some of us are here because we have an interest in the future. Some of us are here because we have a vested interest, whether it be our jobs, where we come from, what we're doing, or what we perceive to be in our best interest. We come to protect it. Some of us are here because we're users of these resources, whether that be as a sportsman, as a recreationist, as somebody that uses water in agriculture, or somebody that manages water for a living. Maybe some of us are here just to protect our "turf", and that's understandable. We all see that from time to time in government and in the private sector. That's not necessarily bad, because maybe we understand our "turf" better than somebody else does. And it couldn't hurt us to talk to them and see what they're trying to do or what they want to do and maybe we can work something out. I think that is the background of most of the people who are here. You may be interested to know that we did a breakdown of the categories that we started out with, which were water quality; river corridor development and land use; river recreation and tourism; river structural developments--dams, reservoirs, canals, channels and so forth; and then water supply and allocation. When you selected what you wanted to work on, it was interesting to us that we had an almost even division of interest in those five categories. No one outweighed the others. So we have a very even distribution of interest groups here. Everybody is interested in these five categories which tells us that we probably picked the five best categories, when we started out. We will set up the panels accordingly.

When I think of rivers, I think of the river that we're right by. One of my early recollections in childhood was when my daddy had a Ford dealership down here on First Street. He took me down to the office to show me the river. And the river was in the office. That was before we built the dams, and the Colorado would come up over First Street. I think there used to be a marker down there that showed how high the river had been in the early thirties. Then we discovered Senator Wirtz, and we discovered a fellow by the name of Lyndon Johnson, and we began a period of changing this whole idea of rivers. I think the first user of these rivers was God. He used them for drainage, basically. And the second users were the early settlers, who used them basically for transportation. And then we began to have what I call

INTRODUCTION

(Continued)

Participation (Continued)

- environmental and conservation organizations;
- farmers and ranchers;
- private industry;
- river authorities, water districts, and utilities;
- navigation and special districts;
- recreation and tourism businesses;
- chambers of commerce;
- city and county governments;
- councils of government;
- state and federal governments; and
- academic institutions

The variety of backgrounds and interests stimulated discussion and enabled participants to appreciate different viewpoints. These views are evident in the diversity of the issues, impacts, and alternatives.

SPEAKERS' REMARKS

(Continued)

Mr. Robert L. Armstrong
(Continued)

looked like they had something on their minds. And so the ladies decided that they would run for it. They discovered that the males were faster. And then they said that maybe we'd better dodge, and they discovered that the males were quicker. And so at that point, they said maybe what we'd better do is hide. And with that they stuck their heads in the sand. And here came these two male ostriches up behind them right to the point where they were and they stopped, looked around, and said, "Where did they go?"

The point I want to make is that sometimes you can't just stick your head in the sand and hope something nice will happen. In any event, what the poll shows is that the people of Texas do think that we ought to be doing something, and not just hoping that something nice will happen. So I think that it is significant that we get the kind of turnout that we have here, because it indicates to me that you are ready to do something. And so with that in mind let's go ahead and look at some other things that are going on around the state.

We expect, as I am sure you have heard from every politician that has talked to you over the last while, that we are going to have over three million more people in this state by the turn of the century. As we have more people, we are going to need more water for various purposes. People are going to want to use recreation facilities in more numbers than they have in the past. And so population growth, as I have said from time to time in my political life back in the old dark days, causes most of the problems that we have to deal with when you really think about it. And this is no exception. As the population grows we have to pay attention to things we didn't have to pay attention to before. We have to start planning when we didn't plan before. We have to start to manage resources that we didn't have to manage before we started growing like this.

We have also had a massive reservoir growth. The reservoir growth has gone from eleven, which we built in the twenties, to a total of 767 reservoirs in the state of Texas right now. We have at this point 5,700 reservoirs which have ten acres or more, a published survey says. And you might say, "How does that affect us?" Well, it affects somebody that is interested in rivers because every one of those 5,700 small dams impounds water that used to get to the river, but doesn't get to the river now. It might also affect the beach, I'm told, because the nice, normal flow of the sand that would have been washed down doesn't wash down anymore. And that causes certain things to occur that we are seeing on the beaches of the state involving erosion and that kind of thing. There may be people who argue that it's good that we don't have that kind of erosion upstream to get the sand to the beaches. But, nonetheless, we don't have as many beaches being replenished, as we used to have, which is due in part to the reservoirs we have constructed.

Eighty-nine percent of the land in Texas is private land. We are not like other states in the West where many of these rivers flow through a lot of public land. There, perhaps it is easier to manage without checking with so many people. We find in Texas that we affect people when we do something with rivers. And so consequently, we have a landowner factor. Those landowners go to the legislature. Those landowners, I hope, are here - some of them - so that we can see what their concerns are.



SPEAKERS' REMARKS

Following are the highlights and texts of remarks made by opening session speakers, the Honorable Bob Armstrong, Commissioner, Texas Parks and Wildlife Department and Ms. Catherine Perrine, the League of Women Voters of Texas; and the closing luncheon speaker, Mr. Max Sherman, Dean, Lyndon B. Johnson School of Public Affairs.

OPENING SESSION

Mr. Johnny L. Buck

Welcome to the 1986 Rivers Symposium, which is being sponsored by the Texas Parks and Wildlife Department and the League of Women Voters of Texas. I feel it is appropriate, especially in our sesquicentennial year, that both native Texans and Texans by choice are here to undertake a topic as broad and diverse as our Texas rivers. I think it is commendable that each of you and the communities or areas you represent are here today. Certainly the problem for us to address is what the issues are affecting our rivers and what are some solutions.

The symposium count, so far, is 187 registered participants. And to point out the diversity that exists, I would like to give you some figures. We have six river authorities, three water districts, three federal agencies, five counties, twelve municipalities, eight conservation groups, three councils of government, five corporations, three chambers of commerce, nine canoe clubs and outfitters, and fifteen public interest and landowner groups. We also have the Texas Water District and River Authority Study Committee of the legislature, and about six state agencies represented here today. This may have expanded slightly with some additional registrants, but the base is large and diversified.

To start the symposium and set the tone, I would like to introduce our opening speaker. He is a businessman and attorney, a rancher, a recreationist, a former state representative, a former Texas land commissioner, and he is currently serving as Commissioner of the Texas Parks and Wildlife Department - Mr. Robert L. Armstrong.

Mr. Robert L. Armstrong

Well good morning. Thank you, Johnny. As I look out I see a number of old friends and a lot of new faces. There are many of you who have been in what I call the "river business" for a long, long time, and I'll be "preaching to the choir" to some of you. I guess I'll also be talking to some people for the first time and, let me tell you, I view myself today as wearing a great number of hats. I've been in the business of preaching conservation for a long time. At the same time I'm a private landowner. And sometimes conservation objectives and private land ownership don't always go together. I think we're finding out that they do more and more, because what you are really doing is looking at stewardship. I also am a river user. I have floated a river within the last month, the Rio Grande it happened to be. I have done that at various points in my life and on very many rivers all over the United States. I also have been in the public sector for part of my life in an effort to bring some good practices of land management to the public lands of the state of Texas.

SPEAKERS' REMARKS

(Continued)

Mr. Robert L. Armstrong
(Continued)

I have noted with some interest the fact that, as the federal government has gotten out of some of the business of spending money for pollution control and for doing things that they used to do traditionally, we have come along sometimes just at the basic citizen level and picked up some of the slack.

The "Adopt a Highway" program I think is very interesting. We have a new "Adopt a Beach" program, where citizens who live in a community say, "If nobody is going to come out here and clean our beach, we'll do it because we want a clean area." I notice when I drive out through Leander the kids in that high school pick up the litter on the highway themselves. We have this beach program which is being heavily supported by some of the people in the oil and gas industry who are saying, "Hey, we are not the ones who are doing this, it's the guys in basic shipping," but the point is, people are willing to do something to clean it up. I think people would be more than willing, if the area warrants, to do the same thing on rivers.

And so I guess what we need to do is decide then what our management goals should be in the future. We are basically saying to you, "Let's get in here and work on this together." Why we are here is set out in the basic leaflet that we sent out to you.

We are here to define the issues that affect the rivers of Texas. We are here to determine the impacts of those issues on the different interest groups, all of whom I think are represented here. We are here to encourage and improve communication and understanding among all the groups, and explore those opportunities that we might have for improvement and cooperation. We are here to get public input from you on river issues. We are here to assess the information needs that we have, and those that are being met and not met, so that we can do something about getting the information that we need. And we are here to provide us at Parks and Wildlife with the input that we need so that we can make recommendations under our *1990 Texas Outdoor Recreation Plan*.

As you know, we quit just following our nose at Parks and Wildlife. We have had two basic efforts, the first one not so well known. In 1969, Parks and Wildlife started its first effort at planning--to ask what are our needs, what is our role, and what should it be? We had a great effort made again to produce a new plan in 1985. It is one of the better efforts that I have seen by anybody's state to find out what is going on and to find out what we need to do and plan for the future. And we will reevaluate and update that plan in 1990, and hopefully again in 1995 and the year 2000.

We really appreciate your coming to help us and to give us the input we need, and I hope that you leave here feeling that this was a worthy investment of your time

SPEAKERS' REMARKS

(Continued)

Mr. Robert L. Armstrong
(Continued)

the management phase and we began to use a term called "harnessing" this power. We harnessed it for flood control. We harnessed it for water supply, whether it be for municipal, agricultural, or industrial. We started some minimal, as it's turned out by today's standards, hydroelectric generation. It wasn't minimal at those times. It brought some power to the people who wouldn't have had it before that. And we began to shift, as we grew in population, into using some of these rivers for recreational use. As we carried this harnessing to its, I hope, logical conclusion, and we built the dams that the federal programs were willing to finance, and the state worked on, and the municipal people wanted, and the river authorities wanted, we reached a point where some people began to say, "We may be running out of rivers, as rivers, and what are we going to do about that, or should we do something about that, and where are these rivers that are still free-flowing and still unpolluted and still clear?" And so now, people have evidenced an interest that perhaps there may be a change in the recreational outlook from the past where we thought a lake was our only river recreation to perhaps that a river itself would be something we wanted to look at in this state as a valuable resource. This is a factor that we deal with at Parks and Wildlife and part of what we will deal with in this symposium today.

What do the people think about what we're doing? We have done some polling to see if we were on the right track, and to see what it was the people wanted. And the preliminary results of an opinion survey that we did in August said that if you ask the people of Texas what areas they would like to go to or visit, 61 percent of them said they would most like to go to a river or a stream. And 74 percent agreed with the statement that pollution of rivers and streams is a problem in Texas. Only 9 percent thought that pollution of those rivers and streams wasn't a problem in Texas. Sixty-six percent of the people said that more public recreation areas are needed along rivers and streams. Most politicians start paying attention when you get to 55 percent. When you get to 60 percent they really pay attention. When you tell them 66 percent say that, I think you can expect, whether you agree or disagree or not, that somebody in that legislature is going to be interested in the fact that two thirds of their constituents think that these areas are needed. When asked their opinion about protection of the environment, the people in modern day Texas responded as follows: 73 percent thought the federal government should do more; 74 percent thought the state should do more; 84 percent thought local government should do more; and 87 percent thought private industry should do more to protect the environment.

So I think you have a basic feeling that the public would like for something to be done.

You also have a shade of that feeling that shows us that most people would rather see it at a local level, or more people would rather see it at a local level, although a very high percent don't see anything wrong with the federal government or the state doing it. But they darn sure want somebody to do it.

I used to tell a story about - I used to call it the "Chauvinist Ostrich" story - these two lady ostriches that were running down the desert and they looked over their shoulders and there were two male ostriches who began to follow them, and they

SPEAKERS' REMARKS

(Continued)

Ms. Catherine Perrine
(Continued)

Back in the 1950s, the U.S. League began to study water development, particularly river basin planning. One thing that we don't think about so much in Texas is the fact that most of the rivers in the United States are not self-contained within one state. It's much harder to plan for a river like the Missouri and decide how it should be used and how clean it should be than it is to plan for most of our Texas rivers. We may have controversies between users of the lower Colorado River and the upper Colorado, but we don't have other states involved. The national League has been an advocate of basinwide planning for water resources. In the 1960s the national League got interested in water quality issues and became a strong supporter of what is now known as the Clean Water Act and of the Safe Drinking Water Act.

In Texas we began our first state water study soon after the adoption of the first comprehensive state water plan. Because we move deliberately, we reached our consensus after the vote on the \$3 1/2 billion bond issue to finance the plan had already been taken. You may recall that it was an extremely close vote, which I think can be interpreted as saying that the people of Texas weren't quite willing to pay for a water system that would move very large amounts of water from east to west, which was the main feature of that plan.

Our main conclusion after studying the water plan was that it needed to look more at possibilities for water management, more efficient use, conservation, and less extensive moving of water. The plan that was adopted by the Water Development Board in September of 1984 does emphasize these issues of management and conservation to a much greater extent than the earlier plan had done.

In the late 1970s, the Texas League undertook a study of groundwater issues. As most of you know, about 60 percent of the water that we use in Texas comes from wells, which tap our aquifers, and not from rivers; but these groundwater issues are very directly related to river issues. As you know, some of our aquifers are being depleted. If we pump out more water every year than Mother Nature puts in, the water supply can't last through decade after decade of that sort of groundwater use. And that sort of use has been going on in portions of many of our major aquifers.

In some parts of Texas, there's a very direct physical connection between the aquifers and the rivers. That's especially true in the Edwards area, where the base flow of the Guadalupe is almost entirely dependent on the flows of the San Marcos and Comal Springs; and the flows of these springs are directly affected by the quantity of groundwater that's pumped by the city of San Antonio and other cities as far west as Uvalde, by farmers and ranchers, by industries, and others.

One thing that you learn if you bump around the water business for a decade or so is that there is no limit to the complexity and interrelations of water issues. One of the great benefits of discussions in a widely based group like this is that you start thinking about things you've never thought about before.

For example, as short a time as a decade ago, you could hardly pick up an article about the construction of a reservoir without reading that it would impound and make available for use water that would otherwise be wasted to the Gulf. Well,

SPEAKERS' REMARKS

(Continued)

Mr. Robert L. Armstrong
(Continued)

I have been involved in fusses over river access, the Guadalupe particularly, where we had some difficulties between the landowners and the recreationists. Some people have suggested that we'd be better off if we had access points which were managed with a park person there who would control what went down that river, than if you had people going down the river without any kind of supervision involved. We want to know what you want us to do, if you want us to do anything.

I want to talk about what we have. We have 13,000 miles of rivers and streams as major waterways in the state of Texas. About 25-30 percent of that actually is composed of the Rio Grande, the Red, and the Brazos. Then you have the finger rivers, that start with the Sabine and move over to the Rio Grande, and that would include all of the ones that we normally think about - the Nueces, Trinity, and Guadalupe. And many of these, as you know, are the subject of the river authorities, which do a lot of management. I see that we have quite a few of those folks here. But of that 13,000 miles, we have some not so good statistics about the condition those rivers are in.

Almost 10 percent were not fishable or swimmable in 1981.

Now, that is a little bit tedious when you start thinking about this kind of resource. And one out of ten miles you can't put a line in or swim in. I don't think it is as bad as it used to be in Houston when you could set the ship channel on fire. I don't think we have a river you can set on fire now. But I do think that it is pretty fierce to contemplate the fact that ten percent are so polluted. I would have to say that a lot of this goes back to the old saw, "We have seen the enemy, and the enemy is us." I'm not proud of what Austin is doing to Bastrop. We have grown so fast we haven't handled our effluent of this city very well. I can remember when people told me that the best bass fishing, particularly the best fly rod bass fishing in Texas, was down from Austin on the Colorado. And most of those people who told me that don't get on the river today. And that's only happened within a decade. But that was the decade that Austin was in the absolute explosive category. And I guess maybe one of the down sides of the economy being bad is that it is bad, but one of the up sides of the economy being bad, from our point of view, is maybe we've got a chance to catch up with some of the problems that explosive growth caused.

Speaking of the economy, yesterday I heard about the farmer who was talking to the oil man and he said, "I'm telling you things are bad. I'm telling you I'm desperate. If agriculture prices don't go up, I'm going to go out and rob the bank." And the oil man said, "Let me tell you something. If oil prices don't go up, I just did!"

I will just run through for a minute some of the things that we hope that we can do. We first of all are here because we recognize that problems exist. And, as I said at the outset, I hope we can bring our best efforts to bear on the problem, and have a resolution that really constitutes curing problems and making some progress, and hopefully providing some opportunities that maybe we haven't had before. I think that as the people watch what is happening to their state, they are willing to do some things.

SPEAKERS' REMARKS

(Continued)

Ms. Catherine Perrine
(Continued)

downstream from Euphoria." Perhaps those who have plenty of water don't know that people fight about sewage effluent as a water resource that they want the right to use.

That really is going to be one of the issues in the future in Texas--rights to secondhand water.

The lawyers weren't going to let the afternoon go by without getting in their two cents worth, so Euphoria's attorney demanded enforcement of the Wagstaff Act, which is a portion of our Texas Water Code that says that in times of shortage cities have the right to use water regardless of who has the permit. (That's oversimplified.) He wanted the state to assure water supplies for Euphoria as the impending drought approached.

Before long, the engineers called for the resolution anticipated by the planner of the game: management of the reservoirs as a system to make more water available. It is true that this can be done by drawing on downstream reservoirs before using water from those upstream.

But nobody said to keep the river flowing downstream from the last user except Bob, who was there to play the role of the environmentalist. He pointed out that water should be left in the river whenever possible, but this consideration didn't get added to the computer program.

The main value of games is that they let us look at alternative futures. The more clearly our choices are presented to us, along with the implications of these choices, the more likely we will be to reach rational decisions.

We're going to have to get into more detailed planning of our Texas water resources in the future than we have in the past.

The most useful thing that can come out of today's meeting is some agreement on the balance of things we need to consider determining the quality and the allocations of our water, land uses along the river corridors, recreational uses of the rivers, and structural controls that should be built on the rivers. This symposium is a golden opportunity for us to open our minds to other people's points of view, and I trust that that will be taking place for the next twenty-four hours.

SPEAKERS' REMARKS

(Continued)

Mr. Robert L. Armstrong
(Continued)

and a worthy project for us to undertake. I would be remiss if I did not thank the Texas League of Women Voters for their participation. There are so many times when they just look at something that may not be financially remunerative but still needs to be done, and they jump in there and fill that gap just because that gap needs filling or this or that thing needs doing. And so we are very happy to be joint sponsors of this with them and we thank you very much for your participation. Hope you have a great conference and we get done what we need to get done. Thank you.

Mr. Johnny L. Buck

Thank you, Mr. Armstrong. Representing the League of Women Voters of Texas is Ms. Catherine Perrine. She has an impressive list of credentials, but I won't go into them now, except to note her work with the League of Women Voters of Texas, which includes serving as Water Director from 1977 to the present; president of the League of Women Voters of Dallas in 1967-1969; a member of the steering committee for a Southwest Regional Flood Plain Conference; and as a member of the Committee on Finance of the Governor's Water Task Force from 1981-1982. She has worked with Texas A&M, the Texas Water Commission, and with all aspects of water, of which she is very knowledgeable. I would like to introduce to you Ms. Catherine Perrine.

Ms. Catherine Perrine

Thank you very much. When Mr. Joel Seffel invited some of us from the League to meet with him last summer about this conference and the potential for our cosponsoring it, the proposal sounded too good to be true. He said, "We'll do all the work," and they have. The quality and size of this crowd is a tribute to them.

I hadn't quite figured out why we were included; then I got to thinking. Certainly it wasn't because we know more about rivers than the Parks and Wildlife Department. Perhaps it was because we have a reputation for getting into areas where there's controversy.

We are a nonpartisan organization so far as candidates are concerned, but we do sponsor debates between candidates, and we put out voters guides where candidates from each side can express their points of view. Also, we've been interested since our inception in trying to get the facts to the folks about governmental issues.

The League grew out of the women's suffrage movement. Once women got the vote in the early 1920s, what was there left for the suffrage movement to do? Well, to learn how to use the vote. So we have tried to provide unbiased information on issues, as well as candidates, to citizens who are interested in those issues.

We have dabbled a few times in water. The League is as complicated as government. We have a U.S. League that picks out a couple of issues that it's going to study every biennium, and the League of Women Voters of Texas selects issues that it will study each two years. In Texas we have about forty local Leagues that choose annually the local issues that they will look at.

SPEAKERS' REMARKS

(Continued)

Mr. Max Sherman
(Continued)

I reached back for an old book that I commend to you, *More Water for Texas*, written by Walter Prescott Webb in 1952. Many of the things that were referred to in the various panel reports today Dr. Webb talks about in this book. In fact, in talking about the water problem of Texas, they even laid out a plan for the state. Senator Johnson in 1949 asked the Corps of Engineers and the Department of the Interior to look at the problem of water in the state of Texas. They did a very exhaustive study. Dr. Webb put it in terms a layman could understand.

We forget that rivers are ditches that are designed to capture rainwater and to let that rainwater run down to some outlet which in the state of Texas is the Gulf. There are ten of those rivers that empty into the Gulf. They run almost parallel from the northwest to the southeast. It's on a tilted plain. There are two rivers, the Red and the Canadian, that do not empty into the Gulf. We are fortunate to have a wonderful, marvelous water system in the state.

As some of your comments this morning indicated, we have managed to mess them up fairly well. Only when we have a crisis are we concerned with the environment. We do not seem to have the ability to look ahead.

If we do not deal with the little problems, the major catastrophes of pollution or drought will return again.

With this in mind let me remind you of the context in which we work in this state. It is very encouraging that there are representatives of mayors' offices of several of the larger cities in the state because those of us in the rural areas and those of us in the communities along the rivers, those of us in the areas where there are more pronounced water problems will not be able to solve these problems without the help of the cities. We have got to elicit the support of people who come from many other segments of the community. I'll give you a case in point.

When I went to the state senate in 1971, one of my colleagues was Barbara Jordan. We are colleagues again at the LBJ School. Barbara and I had almost identical committee assignments. It occurred to me as a freshman, very naive, very unsophisticated about the world of politics, that I had better learn something about the problems of the Fifth Ward of Houston if I wanted Barbara to be interested in the problems of water in West Texas. During those years, there were people who did not have those same problems who became involved and tried to help. I think the package of bills that passed in the Texas legislature in the last regular session could not have passed had there not been that kind of effort. But when this type of meeting takes place, we've got to reach out to the people in the heavily compacted districts and the cities of this state. Texas has just over sixteen million people. Projections are that, by the end of the century, our population will be in the neighborhood of 22 to 24 million people. We will become the second most populated state in the nation. We have three of the top ten cities: Houston, Dallas, and San Antonio. We have more standard metropolitan areas than any other state. We have large concentrations of people. We have sixty inches of rain in East Texas and under ten inches, maybe

SPEAKERS' REMARKS

(Continued)

Ms. Catherine Perrine
(Continued)

there's been a new outlook on what "wasted to the Gulf" means in the last ten years. The last session of the legislature reinforced the requirement that the Water Commission, in allocating permits for reservoirs close to the Gulf, should consider the effects of these impoundments on the water that flows to the Gulf. Now we talk not just about the Gulf, but also the bays and estuaries that are at the mouths of the rivers and are the mixing zones for the fresh water from the rivers and the saline ocean water. We know now that if we upset that balance too much, the baby shrimp won't have a suitable place to grow up in, and that production of oysters may fall dramatically. We don't just have to figure out what is the most water that can be made available for humans to use, but also what the effect of using the water will be on the environment.

In hotels I usually draw a room that looks out over the parking garage, the alley, and the trash dumpsters; but I was really lucky last night; I had a room looking out over Town Lake. I come from Dallas, where the Trinity River is 90 percent effluent 90 percent of the time as it trickles through the center of the city. We don't look out and see somebody taking a kayak up and down the river and having a marvelous time early in the morning.

Early permits didn't say that you've got to leave a little water flowing down the river so that people can paddle their kayaks. And this is going to be an interesting issue.

Bob certainly hit the nail on the head: we do have a limited resource. Our rivers aren't growing and we aren't getting any new rivers as we get new people, so we will have to allocate the uses and protect the quality of the rivers that we have to meet future needs in a way that isn't going to leave too many people feeling too unhappy.

A couple of weeks ago we both participated in an interesting little exercise called a drought simulation workshop that some LBJ School people had put together. Dr. Dan Sheer, former Potomac River Commission director, who is now a water management consultant, programmed a computer to illustrate conflicts among water users that would take place during a drought. He used a good bit of imagination in creating this scenario. It's fun to argue about a drought that's not real. You can feel a lot more relaxed when you know that it's just a game you're playing for one Saturday afternoon and that you're not going to be thirsty the next morning.

There were three irrigation districts that were headed up by David Freeman, John Specht, and John Hinojosa, the rivermaster for the Rio Grande. And there was the city of Euphoria, with Frank Cooksey as mayor. These were all located on the Longhorn River, which had one major tributary, the Shorthorn, and a little tributary, the Prong. Each of the entities had an engineering advisor, who knew how to work the numbers in the computer, and a legal advisor.

The first problem arose when one of the engineers told the consultant, "You haven't taken into account the sewage effluent from Euphoria, and we're

SPEAKERS' REMARKS

(Continued)

Mr. Max Sherman
(Continued)

last year at this conference was the Arizona Water Management Code. The precipitating cause of that legislation occurred when the city of Tucson realized that it was going to run out of water. There were mining and agricultural claims that had first call on the water. They were in court. There was litigation. The city of Tucson, which is the second largest city in that state, was going to be without water. And the political leadership of the state said we can't have that. They dealt with that issue under the leadership of Governor Babbitt, and pulled all of the special interest groups together. At first, the agricultural interests were not willing to make concessions. Because it was so critical, those interests decided that they could make concessions. They worked out a system to make water rights transferable in a much easier way than anyone thought could have happened in the western part of the United States. They required conservation practices. It came out of crisis. I hope that in Texas we do not wait until we face an imminent crisis.

The other lesson from the Ford experience is something that didn't happen. As a West Texan coming from the Panhandle where land is abundant and the wind blows away the pollution, one is not conscious of the problems that exist in more heavily populated areas. As chairman of natural resources, I learned about subsidence on the Gulf Coast. I learned about surface mining and uranium mines. I developed a heightened sense of concern for the environment. Out of all those applications there was only one finalist that dealt with a serious environmental issue. In the little town of Salina, California, the people had determined that they needed to reclaim the swamps. They designed a system to use the effluent to gradually reclaim the area. There were no other projects dealing with the environment or the issues that you identified today.

I hope that Texas has some of those innovations to clean up what we have messed up, to give us a chance to plan ahead so that all the people will have access to the water if we conserve it and use it wisely.

If we have a political problem we must start early. We're just starting into the new session. We've just come out of an election. You're not going to be able to concentrate on electing people in 1986. You've got to be thinking about 1988. Start trying to get people who are environmentally sensitive, who are conscious of water, to consider running for office if they're not there. There may be people who are already there. It's not going to happen accidentally. You've got to offer support, you've got to encourage them, and if they're sitting on those committees in the legislature or city council, then they'll be responsive to the kinds of questions that your panels raised today.

I commend you on the one hand, but I think if there's anything that I heard out of all these panels, it has to be a call for action to say that we can't just leave them here. We've got to pick it up. We've got to run with the ball. We've got to pay attention to the politics which is going to make it possible to implement many of these suggestions.

SPEAKERS' REMARKS

(Continued)

CLOSING LUNCHEON SPEAKERS

Mr. Wilson E. Dolman, III

On behalf of Parks and Wildlife, I'd like to thank everybody who has participated in this symposium. By all reports, it's been extremely successful.

My main function here today is to introduce Mr. Max Sherman, our concluding speaker. He is currently the dean of the LBJ School of Public Affairs here in Austin and has been since 1983. Prior to that, he was special counsel to Governor Mark White for the state for a brief period of time. Before that, from 1977 to 1982, he was the president of West Texas State University, which is located out where his old district used to be. West Texas State is one of the major educational institutions in that part of the world. And for three terms, he represented the 31st Senatorial District of Texas, which is largely the Panhandle. And during that time, he was chairman of the Senate Natural Resources Committee. In addition, he is chairman of the Governor's Task Force on Hazardous Waste Management. It is our good fortune and my pleasure to introduce to you Mr. Max Sherman.

Mr. Max Sherman

Bill, thank you very much. Let me first extend my congratulations to the Texas Parks and Wildlife Department and League of Women Voters for sponsoring this symposium. It is long overdue.

When I first went to the Texas Senate in 1971, my deskmate was Senator Don Kennard. If you do not know Don Kennard and his commitment to the rivers and environment of this state, I would commend to you some of the legislation he passed and later some of the projects that he worked on when he was at the LBJ School. He was a person with a strong commitment to the state. He was willing to stick his neck out and try to do something about it to make it work. As Don expanded my knowledge of the wonders of Texas, neither of us knew that the next year I would be asked by Lieutenant Governor Hobby to become chairman of the Senate Committee on Natural Resources, which has under its jurisdiction water, agriculture, oil and gas, and environmental concerns. All the things that your reports touched on this morning, with the exception of funding, came under the jurisdiction of that committee. I was also fortunate to be on the Senate Finance Committee so I had a chance to see the funding part of it.

As I listened to the discussion this morning, I concluded that

much of the problem is political. The issues crisscross many different segments of our society. However, in 1986, we're asking some of the same questions that we've been asking for forty years. We're no further along. We're just as confused.

We still need definition. We're not sure how to fund it; we're not sure how to pay for it. We're not sure how to even attack the problems. We have not learned a great deal from the history of the state of Texas.

ISSUES SUMMARY

(Continued)

Information, Research, and Public Education

There were many issues that stressed the need for information and research in river-related issues and problems. To effectively regulate and manage rivers, more research is needed in current river corridor land uses, pollution, water supply, and other issues. There is also a need for clear, consistent definitions of river terminology.

The panels frequently cited the need for broad public education about river issues such as water quality, conservation, and supply. Several panels suggested offering such instruction in the public schools. Public education about rivers should also include elected officials, managers, and decision-makers. Education of recreationists and landowners on the law and one another's rights might reduce the number of disputes on rivers.

Laws, Law Enforcement, and Legal Rights

Many law enforcement problems on rivers stem from the violations of the rights of both landowners and recreationists. Recreationists frequently refuse to recognize private property rights and abuse their rights as recreationists. Landowners do not always recognize the public's right to travel on public waterways. Other legal issues center on the need for adequate law enforcement, flexibility in law enforcement, and better enforcement of existing laws and regulations, especially with regard to water quality and water rights. It was also suggested that the liability laws relating to river recreation and recreation businesses be reformed.

Water Supply

The panels named a number of issues relating to water supply. Many of these issues concerned providing adequate water supplies in future years as limited existing supplies are being threatened by increasing demand and pollution. A closely related problem is the depletion of aquifer ground water supplies as withdrawals exceed replenishment.

Planning and Coordination

Among the planning issues, the panels cited two types of needs: 1. comprehensive land use planning to guide river corridor development and protect rivers, and 2. long-range planning for future water supplies. Better planning and coordination on river problems and issues should also be a priority.

Recreation and Tourism

The river recreation and tourism industries should be recognized and encouraged as important industries with significant economic impacts. They should have input on public issues and agency decisions that may affect them, such as decisions about public recreation developments and in-stream flows. Those in the recreation and tourism business must work to solve any problems brought on by their clients, such as trespassing, traffic congestion, or vandalism. Otherwise, their industries may face opposition from some citizens.

There is an increasing need for more public recreational access to rivers. More access would increase public recreational opportunities and may reduce trespassing.



ISSUES SUMMARY

The river issues reported by the thirteen panels revealed certain themes which appeared repeatedly throughout the discussions. Although it is somewhat arbitrary to put river issues into categories because the issues are so interrelated, it is useful to organize them to highlight the major points.

The panels named a total of forty-one issues for the five topic areas. For discussion purposes, these were grouped into eight broad categories and summarized here.

River Corridor Protection and Development

There were a number of issues related to the balance between protection of river corridors versus development. The difficulty is deciding and agreeing on what the balance should be. Developments afford many positive benefits and improve the quality of life. Dams and reservoirs, urban areas, housing, flood prevention structures, and other kinds of development are necessary and serve many useful purposes, but they must be compared against adverse impacts on the rivers, wildlife, agriculture, and environment. Other adverse effects from development are the increased dangers of flooding. While the need for river corridor development is apparent, there is also a need for protecting rivers and preserving free-flowing, natural streams.

Agency Roles and Coordination

Defining the role of regulatory agencies and improving coordination among them were frequently cited as issues. The panels pointed out the overlapping authorities and the lack of coordination among the agencies which regulate rivers and water. In many cases, agency roles are not clearly defined. This results in much frustration for the public and the entities which must deal with the agencies. There is also a need for stability and consistency in establishing river policies and regulations. Besides better coordination, the panels wanted the agencies adequately funded to properly carry out their regulatory and management responsibilities.

There were also some comments directed to the private sector. It was suggested that the river recreation and tourism industries should have a more coordinated, centralized management approach to better market attractions and target the right markets.

Pollution and Water Quality

Water quality came up in many of the panel discussions because it affects most uses of rivers, and the kinds of uses, in turn, affect water quality. Most panels agreed that point and non-point source pollution are adversely affecting all the state's rivers to varying degrees, but disagreed widely on how clean the water should be, what standards to set, and at what cost. Many felt that existing water quality standards are inadequate and poorly enforced. The lack of standards for non-point source pollution is also a large problem in Texas.



PANEL REPORT SUMMARIES

The following are composite summaries of the panel reports by topic area. The summaries were prepared from written reports submitted by the panels, the oral presentations at the general session, and any notes turned in. The panel reports were combined for brevity and to eliminate redundancy. Although some of the material has been combined, re-written, and synthesized, every effort was made not to omit or overlook any issues, impacts, suggestions, comments, or recommendations by any panel.

These summaries are based entirely on input received from symposium participants. Neither the Texas Parks and Wildlife Department nor the League of Women Voters contributed to, or influenced, the panels' reports, except where department employees or league members participated officially as panel members.

The reports are part of the department's public input process and will be used to help develop the *1990 Texas Outdoor Recreation Plan*.

WATER QUALITY

(Continued)

ISSUES

There is overlapping authority and little coordination among agencies regulating water quality.

The public is not informed about most water quality issues.

The Rio Grande is being polluted by raw sewage from Mexico and pesticides from both sides of the river.

Information Needs

DISCUSSION

Panel members were concerned about the lack of coordination among agencies regulating water quality, such as the Texas Parks and Wildlife Department, Texas Water Commission, Health Department, Railroad Commission, Agriculture Department, and Environmental Protection Agency. There is insufficient coordination and information exchange among them. Their authorities and responsibilities overlap, and they lack the funds to effectively enforce standards.

This lack of coordination results in ineffective, inefficient efforts to improve water quality. Agency efforts may in some areas be redundant, non-existent in others. This leads to confusion and frustration for the public.

Most panelists strongly endorsed increased public education and information on water quality issues. There is a general lack of public awareness on most water quality issues, and only an informed public can make wise, responsible decisions. Equally as important is the need to educate political leaders and elected officials on these issues. Education on such topics as water quality, pollution, supply, and conservation should begin in the public schools.

Without the awareness and understanding of water quality issues, the public is unwilling to spend money on the problems or pressure public officials to do something. And uninformed people may pollute unknowingly or engage in unsafe, unwise practices in the use of water.

Panel members from the Rio Grande areas had strong feelings about the issues affecting that river. They pointed to the severe problems due to illegal pesticide use on both sides of the river and raw sewage and industrial discharges into the river from Mexico. A treaty between Mexico and the United States governing such discharges is not enforced. The state is powerless to act because Mexico will only deal with the federal government on such issues.

Pollution of the Rio Grande affects the drinking water and public health, and can cause increased infant mortality and disease rates. Fish, wildlife, and agriculture are adversely affected, and industries such as tourism could be seriously harmed.

- More public information on water quality, policies, supply, and conservation.
- More sharing, distribution, and exchange of information.
- Technical information and training for sewage plant operators in smaller communities.

WATER QUALITY

(Continued)

Information Needs (Continued)

- Waste load evaluations on all significant stream segments.
- Water quality data base.
- Research to learn more about:
 - best management practices,
 - what other states are doing to fight pollution,
 - the means of controlling non-point source pollution,
 - new technology for water treatment and reuse,
 - the relative amounts of pollution contributed by different sources, and
 - the effects of pollution, landfills, and septic tanks on rivers.

Alternatives

- Review the adequacy of existing standards and increase their scope where necessary.
- Establish standards for non-point source pollution.
- Adopt additional standards for toxins and pesticides.
- Ensure all standards are applied uniformly and consistently throughout the state.
- Conduct environmental studies of rivers and river basins to determine pollution tolerances.
- Collect more data to assess the impacts of point source pollution on species diversity, fish tissue, sediments, and benthic communities.
- Fund water quality research from Texas Water Commission pollution fines.
- Increase funding for water quality research and monitoring.
- Evaluate the cumulative effects of pollutants in streams and sediments.
- Investigate the side effects of chemicals used for water treatment.
- Improve inspection, testing, and enforcement.
- Improve identification of small point sources of pollution.
- Enforce water quality laws and regulations throughout the watershed, not only in stream segments.
- Grant river authorities increased authority to deal with local water quality problems.
- Increase civil penalties for severe violators of water quality laws rather than pursue criminal penalties.

WATER QUALITY

(Continued)

Alternatives (Continued)

- Screen point sources of pollution for toxins.
- Establish buffer areas along streams that would be left natural and undeveloped.
- Require more use of retention ponds to control runoff and erosion.
- Include non-point source pollution in water quality management programs.
- Consolidate all water quality functions into one agency to encourage "one-stop shopping" for permits and regulatory information and to facilitate emergency response.
- The state should apply to the Environmental Protection Agency for delegation of National Pollution Discharge Elimination System (NPDES) authority to avoid duplication in the regulatory process.
- Establish a regulatory coordination system to consider all types of water problems in addition to water quality.
- Improve inter-agency and intra-agency coordination.
- Plan adequately for growth in river basins and watersheds.
- Encourage regional wastewater treatment facilities over small package treatment plants.
- Establish statewide watershed planning.
- Establish and expand water quality education programs, and educate the general public and elected officials on water quality problems, solutions, and goals.
- Establish water quality instruction in all public schools.
- Use the resources of the U.S. Soil Conservation Service and the agricultural extension service to improve water quality education.
- Publish water quality indexes and the results of local monitoring.
- All agencies with responsibilities for water quality should assume a higher public profile and provide better information.
- Find new, creative ways to finance solutions to water quality problems.
- The state should recognize the scope and severity of pollution problems on the Rio Grande and help find ways to mitigate or solve the problems.



RIVER CORRIDOR DEVELOPMENT AND LAND USE

ISSUES

There is a need for more information on river corridor land use and development to effectively plan and regulate river use.

There are no clear, consistent definitions of "river" or "river corridor."

The general public lacks an awareness of water use, conservation, and river issues.

A balance should be maintained between river corridor development versus water quality and quantity, but there is disagreement on what the balance should be and how to accomplish it.

DISCUSSION

Most panelists agreed on the need for studies and more information on river corridor use to effectively plan, regulate, and coordinate development. Such needs include information on the existing river corridor and flood plain uses, types of development occurring, and river corridor characteristics. Good management of resources and river development requires accurate, timely information.

Another type of information need is for clear, consistent definitions for such key terms as "river" and "river corridor." Such definitions would ensure that all parties are communicating clearly and "speak the same language" regarding various river uses. Without clear definitions, communication is more difficult, and the coordination or regulation of development cannot be effectively accomplished.

The panels also cited a need for more public education and information. One panel felt there was a general lack of public awareness about water usage and conservation. They felt the public should have a broader education on river use and development issues in general. If the public is not well informed about such issues, it cannot make the right decisions nor elect the best people to decision-making positions.

The panels brought up the question of what the balance should be between water quality versus development. Although "balance" means different things to different people, is there some point at which we can have river corridor development and still maintain water quality? In many cases, one depends on the other. Water quality and pollution affect the type of development that occurs and development affects water quality and quantity. Other issues which impact water quality and development considerations are aesthetics, or the visual attractiveness of the river corridor; maintaining instream flows; and preserving agricultural, scenic, natural, and habitat areas.

Other fundamental issues relating to water quality were questions about priorities and how to obtain clean water. What are the priorities for water use and what is the fairest way to set them? Equally as important, and often controversial, are the alternatives for achieving and maintaining water quality. These include zoning legislation, water conservation, ground water regulation, and river protection programs.

RIVER CORRIDOR DEVELOPMENT AND LAND USE

(Continued)

ISSUES

There is no clear delineation of government agency roles in river corridor development and use.

Comprehensive land use planning, design standards, and benchmarks are needed to guide river corridor development and protect rivers.

There is a lack of public recreational access to rivers.

There are conflicts between landowners and river recreationists because the rights of both are being violated.

DISCUSSION

Many of the panelists felt there is inadequate coordination of planning and regulation among agencies responsible for overseeing river corridor development. Furthermore, there is no clear delineation of the roles of the various government agencies, especially in regard to leadership. Someone must be in charge and say who does what. Information held by different agencies should be exchanged more often and coordinated better. The panels also wanted the agencies adequately funded so they can effectively carry out their regulatory and coordination responsibilities. The lack of clear role delineation, proper coordination, and funding leads to confusion of authority and ineffective regulation of the state's rivers. It results in less protection for fish, wildlife, wetlands, and recreation.

All three panels strongly endorsed comprehensive plans, studies, and guidelines for river corridor development. Improper development can adversely impact rivers, ecosystems, plants, and wildlife. Proper planning with meaningful goals and public input can minimize the adverse effects and still permit growth and development.

Some panels advocated even stronger measures for regulating development. These included corridor design guidelines for land use, cost-benefit ratios for various kinds of land uses in specific environments, and standards for runoff, habitat protection, sanitation, etc.

The three panels all cited the lack of public river access as an issue and recognized the public right to river access for recreation. The lack of access can lead to trespassing, law enforcement problems, and conflicts with landowners. Uncontrolled public access, on the other hand, can result in other problems, such as littering, traffic congestion, and vandalism. Continuing conflicts between recreationists and property owners aggravate the problems and reduce the chances of reaching an understanding.

As more people recreate on the rivers, the conflicts increase between landowners and recreationists. Many of the conflicts are because of misunderstandings or misinformation. Recreationists and the general public must recognize and respect private property rights, which they sometimes disregard by trespassing, littering, and vandalizing private property. Landowners must respect the right of the public to use and travel on the public waterways. Unless there is better understanding and communication between the two sides, the conflicts, incidents, and hostility will continue. The gap between these groups will widen and solutions to the problem will be more difficult to attain.

RIVER CORRIDOR DEVELOPMENT AND LAND USE

(Continued)

ISSUES

The danger of flooding is increasing with increasing urbanization and development.

Agricultural land, natural and scenic areas, and wildlife habitat are being lost to development and urbanization along rivers.

Information Needs

DISCUSSION

While the danger of flooding already exists in many areas, it is an even greater threat in urban areas. The danger is greater because of more runoff (due to impervious cover), greater population density, and flood plain development. Solutions to the flooding problem, such as dams and channelization, are often damaging to the stream. Failure to solve the flooding problem will result in the increased loss of lives and property. Structural solutions to flooding will result in the loss or destruction of more streams. Neither solution is acceptable when the problem can be solved and the streams can be preserved by proper planning and limiting or regulating urban river corridor development.

Some of the most desirable land for agriculture, recreation, and wildlife is often found along river corridors. Such land can also be prime development property, thus there are conflicts between preservation and development, and economic factors frequently determine the type of river corridor use. Uncontrolled, unregulated development along rivers can lead to the indiscriminate destruction and loss of valuable corridor lands. This can, in turn, affect entire ecosystems, plant life, wildlife species, and uses downstream. Sound, sensible planning that recognizes the natural values of river corridors will allow both preservation and development for economic purposes.

- List of priority rivers and river segments for protection.
- Scientific, land use, and cultural resource data on rivers.
- Analyses of appropriate potential uses of river corridors to include public access and minimum flow needs.
- River goals and objectives for Texas.
- Information on proposed developments and projects on rivers.
- Comprehensive river basin and watershed management plans.
- Hundred-year flood plain maps based on fully developed land use.
- Annual data on the urbanization of river basins.
- Landowner attitudes toward rivers and river goals.
- Recreation patterns, participation, activities, habits, spending, and destinations of river users.

RIVER CORRIDOR DEVELOPMENT AND LAND USE

(Continued)

Information Needs (Continued)

- Broad public input on rivers and water quality.
- Economic impact data on rivers and economic models that relate river uses, land values, tax revenues, retail sales, facility costs, etc., to establish value benchmarks for various types of river uses.
- Cost/value assessments for river resources such as habitats, wetlands, tributaries, etc., to determine their intangible values.

Alternatives

- Improve enforcement and implementation of existing flood plain regulations and ordinances relating to river corridors.
- Increase the number of law enforcement personnel.
- Strengthen existing legislation and propose new legislation for flood plain and river corridor land use planning.
- Improve the permitting process for public river access.
- Change unenforceable rules relating to river use.
- The federal government should develop coordinated goals and guidelines for rivers.
- The state should establish and coordinate a "river basin authority" for comprehensive planning and implementation.
- Approve ordinance-making powers for counties for development, land use, and growth in rural areas.
- Coordinate public flood plain policy with financial institutions.
- Establish river task forces to provide forums for communication between citizens and government.
- Broaden citizen involvement in the river planning process.
- Develop watershed management plans that include meaningful public input.
- Establish a state planning office to coordinate multi-jurisdictional plans.
- Base the hundred-year flood plain on fully developed land use.
- Improve coordination and cooperation among agencies regulating river corridor development and use.

RIVER CORRIDOR DEVELOPMENT AND LAND USE

(Continued)

Alternatives (Continued)

- Encourage and develop incentives for private sector participation in the public process.
- Survey river users to determine access needs.
- Institute river user fees to finance law enforcement on rivers.
- Provide "pocket parks" with parking and vehicular barriers at trail heads.
- Provide linear greenbelts in urban areas.
- Establish specific land development standards, e.g., parallel buffer roads, access, easements, etc.
- Improve, coordinate, and regulate public river access statewide and provide appropriate supervision and enforcement.
- Consider intermittent as well as perennial streams in access questions.
- Develop stream segment resource profiles and development criteria for different designations, e.g., wildlife, scenic, historic, etc.
- Quantify resource values for intangibles, such as historic, cultural, and scenic values.
- Determine adequate, not tolerable, standards for water quality and provide funding to enforce them.
- Encourage tax incentives or disincentives to prevent the loss of agricultural, natural, scenic, and habitat areas.
- Identify critical areas in comprehensive plans.
- Encourage conservation easements.
- Establish development standards.
- Support legislation to enable the Texas Parks and Wildlife Department to review impact studies.
- Support the Texas Rivers Conservation Act to establish a system of river preservation.
- Provide instruction for public schools, teachers, and higher education in conservation, environmental science, and ecology.
- Utilize the services of the mass media and extension service to educate the public.

RIVER CORRIDOR DEVELOPMENT AND LAND USE (Continued)

Alternatives (Continued)

- Educate public officials and political leaders on river development and land use issues.
- Educate river users on the environment and private property rights.
- Use existing funds more effectively and efficiently.
- Develop new funding sources for river planning, management, and protection.
- Lobby for more federal and state funding.
- Maintain existing base flood elevations for reclamation projects.
- Develop a statewide warning system for flood-prone areas.
- Encourage ordinances that preserve flood plains for open space and secondary uses, such as agriculture.



RIVER RECREATION AND TOURISM

ISSUES

Rivers and river corridors statewide should be protected and preserved.

There is a lack of centralized management and coordinated planning for rivers and river tourism.

There should be adequate funding for river conservation and management.

Adequate law enforcement is needed to protect the rights of landowners and recreationists.

DISCUSSION

Both panels strongly endorsed the issue of river protection and preservation. They felt that certain segments of the state's rivers should be kept natural, free-flowing, and protected from dams, channelization, etc. The panels favored establishing a system to identify and designate river segments to be protected, and implement the means of protecting them.

Unless they are protected and preserved, more of our state's rivers will be damaged or lost due to dams, channelization, pollution, etc. A system of river protection will ensure that at least the most desirable river segments are saved and protected.

There is a need for a centralized system for river planning and management. Many different agencies - federal, state, and local - regulate and manage rivers, but they do not coordinate well and their authorities may overlap, conflict, or leave gaps. The tourism industry should also have a more centralized management approach to market the resources, target the right markets, and promote the attractions.

River protection will not be completely effective without coordinated, centralized river planning and management. The quality of the rivers will suffer. The public may lose confidence in our ability to manage rivers and refuse to support future efforts. The lack of a centralized, unified approach to tourism may cause marketing efforts to be misdirected, and business may not be as profitable as it might.

Proper river management and protection require adequate funding. Agencies must have sufficient funds to enforce laws and regulations, coordinate, and plan. When budgets for these services are limited, new funding sources should be explored.

Inadequately funded agencies cannot properly supervise or regulate rivers. Law violations will increase and public rights may be infringed upon. The quality of the rivers will also suffer, and the damage may not be correctable.

The two panels agreed on the need for adequate law enforcement on rivers. Proper law enforcement with sufficient personnel helps ensure the protection of private property rights, legal access to rivers, public safety, and orderly traffic control.

Inadequate law enforcement on our rivers can result in recreationist-landowner conflicts, destruction of natural resources and property, unsafe river conditions, law-breaking, congestion, and a loss of quality in the recreation experience. Failure to enforce laws could give the recreation and tourism industries a bad name, and cause resentment of visitors by local citizens.

RIVER RECREATION AND TOURISM

(Continued)

ISSUES

The river recreation and tourism industries should be consulted on decisions that affect them.

More public recreational access to rivers is needed.

River recreation and tourism should be recognized and promoted as important industries, but accompanying problems must be solved.

There is a need to educate the public on proper river behavior.

DISCUSSION

The river recreation and tourism industries should have a say in decisions that affect their business, such as reservoir water releases, construction of public recreation facilities, river corridor development, water quality, etc. Such factors can significantly impact these industries, but they are not always consulted.

Failure to allow the recreation and tourism industries input in decisions affecting them may result in decisions contrary to their interests. This could harm the recreation business, detract from the quality of the recreation experience, or deprive people of recreation opportunities. Tourism and recreation are important industries and should receive equal consideration with other interests.

There should be adequate public access to the state's rivers. Adequate access means public facilities and services adjacent to the river and roads to and from the access points. One panel commended the Texas Parks and Wildlife Department for providing state parks on rivers, but suggested the department should also provide exits downstream. In citing the need for more public access, both panels supported law enforcement and protection of landowner rights.

The lack of public access could result in increased law-breaking to gain river access. The demand for river recreation is unlikely to decrease because of limited access, so trespassing and infringement of landowner rights may increase. Increased littering and abuse of natural resources and private property can also result from the lack of access. Other impacts include decreased recreation opportunities and overcrowded access points.

River recreation and tourism are important industries that can contribute significantly to an area's economic health. These industries can contribute economic diversity, create jobs, and generate tax revenues. However, the industries must also be sensitive to those opposed to tourism and more visitors. The industries must also solve problems they may bring on, such as congestion, law enforcement, trespassing, abuse of natural resources, etc.

Failure to regard tourism and recreation as important, viable industries could result in the loss of their benefits to other areas. The loss of jobs and tax revenues, and a less diversified economy could have serious impacts on an area or community. Failure to be sensitive, or placate opposition, to tourism will lead to an unhealthy business climate and negative attitudes toward tourists.

Public education was cited as a need by both panels. The general public, especially river recreationists, should be educated on environmental ethics, water safety, private property rights, and basic water law. Many of the problems that occur

RIVER RECREATION AND TOURISM

(Continued)

ISSUES

There is a need to educate the public on proper river behavior.
(Continued)

Liability laws relating to recreation should be reformed.

Information Needs

Alternatives

DISCUSSION

on rivers are because of ignorance or misinformation. Education could solve many of such problems.

A public uninformed about the law, safety, and the rights of others could result in more law violations and property vandalism. The lack of knowledge of water safety is of particular concern, as many accidents and deaths occur on waterways due to ignorance of basic safety practices.

There is a pressing need for tort reform, especially with regard to recreational liability. The laws should be changed to limit the recreational liability of people such as landowners and recreation businesses. The liability problems are growing, and Texas should follow the example of other states which recently enacted laws to limit recreational liability.

Tort reform must be initiated or the liability crisis will continue. There will be more lawsuits and higher insurance rates, which some individuals and businesses won't be able to afford, and some may be forced to close. Costs to the consumer will rise, and recreation opportunities will decrease with fewer recreation providers.

- Studies of the economic impacts of river recreation and tourism to demonstrate the positive benefits of these industries.
- Public input on rivers, river recreation, and tourism.
- Legal opinions on issues relating to private property and river recreationist rights.
- Information on the supply of private river recreation facilities.
- Market data on river recreation and tourism.
- Public distribution of information on river and property law.
- What the concerns of the different interest groups are.

- Establish river education programs in the public schools.
- Seek input from, and work with, Mexico to resolve pollution and other problems along the Rio Grande. Explore the possibility of providing foreign aid for a sewage treatment plant at Laredo.

RIVER RECREATION AND TOURISM

(Continued)

Alternatives (Continued)

- Implement the cooperative concept of river management by both public and private sectors.
- Establish local river districts.
- Limit damage awards for recreation liability suits.
- The Texas Parks and Wildlife Department Commission should make rivers a top priority.
- Establish an on-going Texas Rivers Advisory Board.
- Support legislation for a statewide rivers system.
- Designate a rivers system even in the absence of a management system.



RIVER STRUCTURAL DEVELOPMENTS

ISSUES

River structural development issues depend first, on the type of structure and second, on the type of activity or phase of development.

Specific issues relate to all types of structural projects.

DISCUSSION

Specific issues relating to river structural developments depend on the type of structure:

- dams and impoundments;
- channelization, dredging, and bank stabilization;
- fills; and
- obstructions;

and on the type of activities required to build them:

- planning and design;
- construction;
- operation; and
- regulation.

The specific issues that relate to all types of structural projects are:

- the need for the project, e.g., for residential, industrial, agricultural, and energy purposes;
- the design criteria;
- the placement or location of the project;
- flood protection;
- the project's costs and benefits;
- non-structural alternatives to the project, e.g., conservation, etc.;
- environmental impacts, including aesthetics;
- the recreational impacts and aspects of the project;
- ownership and who pays for the project;
- erosion control;
- streamflow regulation;
- upstream and downstream effects;
- mitigation and the loss of habitats;
- regulations governing the project and use of it;
- storage capacity;
- flood plain uses;
- coordination and cooperation among agencies involved;
- agricultural impacts and aspects; and
- responsibility after construction.

Specific issues should be considered early in the planning phase of the project. Consideration of the specific issues enables the parties to see all aspects of the project, positive and negative, and this may determine whether or not the project is built.

RIVER STRUCTURAL DEVELOPMENTS

(Continued)

ISSUES

**Specific issues relate to all types of structural projects.
(Continued)**

Environmental considerations and the need for free-flowing, natural rivers must be balanced against the needs for river structural developments.

There is a need to consider entire life cycle, or all the relevant project development costs, and to set fair and reasonable amounts on these costs.

DISCUSSION

Impacts of specific development issues also depend on the type of structure and development activity. Generally, the impacts include:

- environmental and ecosystem effects;
- water quality;
- conservation;
- water supply and availability;
- fish and wildlife;
- recreation;
- costs and economic effects;
- agriculture;
- flood plains; and
- responsibility and accountability.

River structural developments are justified for many reasons. They add to the quality of life and provide numerous benefits. However, the benefits must be compared against adverse impacts to the rivers. Panel members listed three criteria that all projects should meet:

- The project must be ecologically sound and there must be a demonstrated need for it.
- There must be public and political support.
- The project must have adequate funding.

Failure to consider the environmental aspects of development and the need for natural rivers may result in the loss of, or damage to, rivers, natural resources, or environments. The damage may be long-term or irreversible. Developments can also be on a sound basis and fully justified. Structural development and river conservation are not always incompatible, but trade-offs and compromises may be necessary.

All relevant costs must be considered in evaluating river developments and costs must be determined fairly and realistically. Both dollar, or economic, and resource costs should be considered. Many costs, such as the cost of lost habitat or the value of erosion control, are difficult to estimate.

Project costs must be examined to fully evaluate the worth and feasibility of a project. Will it accomplish what it is supposed to at the given price? What must be given up or compromised? Accurate cost information is necessary to evaluate alternatives, trade-offs, total costs, advantages, and disadvantages. Sound, correct decision-making is impossible without good cost information.

RIVER STRUCTURAL DEVELOPMENTS

(Continued)

Information Needs

- Accurate, timely population projections and water demand forecasts.
- Data on the type of structural development:
 - structural design,
 - costs and economic benefits,
 - environmental impacts,
 - uses, and
 - regulations governing planning, construction, and operation.
- The "true" price of water.
- More detailed analysis of project alternatives, such as conservation and other non-structural alternatives.
- Knowing who speaks for whom on water issues.
- Better techniques to analyze impacts and measure mitigation.
- Data and information on:
 - ground water depletion,
 - water needs for various alternative energy sources,
 - water use for consumptive and non-consumptive purposes,
 - use of cooling lakes as habitats,
 - natural resources in river corridors, and
 - river users.
- Research on valuing the aesthetic qualities of rivers.
- More exchange and dissemination of information.

Alternatives

- Improve communication among the various interest groups during the early stages of the project:
 - resolve conflicts by compromise and negotiation,
 - both developers and environmentalists should be more open-minded.
- Emphasize conservation and preservation techniques in planning structural developments.
- Improve techniques for evaluating project impacts and measuring mitigation.
- Provide adequate funding to collect and analyze project impact data.
- Improve agency coordination.

RIVER STRUCTURAL DEVELOPMENTS

(Continued)

Alternatives (Continued)

- Develop reservoirs for multiple purposes:
 - water supply and conservation,
 - hydropower generation, and
 - recreation, including providing public parks and access.
- Encourage river preservation and improvement by:
 - emphasizing aeration to improve water quality,
 - encouraging scenic easements, and
 - supporting the proposed Texas Rivers Conservation System legislation.
- Encourage water conservation:
 - set realistic prices for water, which include the cost of resources lost and actual cost of the service,
 - meter agricultural use,
 - reuse water, and
 - promote xeriscape landscaping.
- Consider non-structural alternatives to structural developments:
 - acquire flood plains, and
 - increase use of retention ponds.



WATER SUPPLY AND ALLOCATION

ISSUES

There is a need to determine how to best serve the public interest with existing water resources.

There should be more stability in water policy and regulation.

To ensure future water needs are met, water resource inventories and advance planning for additional supplies should be undertaken.

There is a need for continuing education and research in water supply and allocation matters.

DISCUSSION

A key question in water supply and allocation is how to best serve the public interest with existing water resources. This involves other questions about conservation, existing water uses, and proper balances between human and natural system needs. Closely related to these issues is the need to protect water quality because water quality affects water supply.

How water is used and managed for the public interest determines the impact on the resources. The wise use of resources, conservation, protection, and prioritization of use, will ensure full use of water reserves in the best public interest. Capable, technically skilled management and coordination also impact the public interest in water resources. Another type of impact is educational. How well the public and elected officials are informed about water resources and issues will determine how well the public's needs are met.

Water regulation and policy setting should be consistent and stable, but flexible enough to adjust to varying conditions across the state. Better coordination and cooperation among regulatory agencies (local, state, federal) and consistent terminology are also needed for stability. Evolution of the law and institutions through continuous feedback and evaluation should lead to improved regulations.

Stability of water regulation and policies ensures consistent water management. Without this stability, there is confusion, inefficiency, and lack of public confidence. Better agency coordination will prevent duplication and overlapping authority.

A complete inventory of existing water resources should be done to assess surface and ground water supplies. This will tell us what water we have, where, and how long it will last. Advance planning for future water supplies should include projecting future needs and determining how, when, and where to meet these needs.

Inventorying current water supplies helps to tell us what will be needed in the future. The impact of advance planning is to ensure that we have enough water in future years when we need it.

Education is necessary to make the general public more aware of water supply issues, laws, and regulations. Research in water supply and quality should be on-going and adequately funded. Better exchange and dissemination of information among agencies, government, and the private sector should also be encouraged.

An uninformed public may be misled or fail to understand water supply issues and problems. Wrong decisions may result. Research in the areas of water supply and resources will provide information to help us better manage these resources. Improving information exchange will prevent duplication of research.

WATER SUPPLY AND ALLOCATION

(Continued)

ISSUES

Laws and policies regarding water rights and allocation should be more flexible.

Limited water supplies are threatened by increasing demand and pollution.

DISCUSSION

Laws and regulations governing water rights and allocation are sometimes unfair, inconsistent, and inflexible. Under the Wagstaff Act of the Texas Water Code, water use priorities are set during times of drought. While municipal uses have a high priority, for example, not all municipal uses are critical. Thus, agriculture uses may suffer while water is used for lawns and pools.

Laws and regulations that are unfair, inconsistent, and inflexible are inefficient, may be disregarded, and will not accomplish their purpose. Water supplies will not go to the most critical needs or will be inadequate for the intended use.

Current water supplies must meet increasing demands, but face growing threats from pollution. Pollution, in effect, reduces supply. Water supply and demand are also related to other issues, including:

- water conservation,
- cost, price, and willingness to pay for water,
- water use priorities,
- ground water management, including recharge, reuse, permitting, and conjunctive use,
- reservoir versus in-stream uses,
- conflicting demands for water,
- over-allocation of water supplies, and
- directing growth by controlling water availability.

The supply and availability of water impact everyone because water is needed for life, health, safety, economic reasons, etc. Water supply and demand affect reservoir development. Economic and population growth require adequate water supplies. Reservoirs are built to meet these needs, but there are frequently adverse environmental effects including the loss of free-flowing streams. Another direct impact of limited supply and increasing demand is that water users will face higher water costs, changing priorities, more conservation, and more regulations. It is also likely that clean water will have a higher priority as a means of increasing water supplies.

WATER SUPPLY AND ALLOCATION

(Continued)

ISSUES

The appropriate role of the Texas Parks and Wildlife Department in water supply and allocation matters must be clarified.

Enforcement of water quality and water rights laws and regulations is inadequate and inequitable.

Coordination of water uses should be improved.

Tributary aquifers are being depleted because withdrawals exceed replenishment.

DISCUSSION

The Texas Parks and Wildlife Department's role in water supply issues should be more clearly defined. This role should be a limited, or advisory, role, not policy making. The department should also be made accountable for its actions such as, for example, when required releases from reservoirs do not impact estuaries. Some panelists questioned whether the department considered priorities other than recreation. Others felt the department focused too narrowly on fish and wildlife and overlooked the best interests of the general public.

Failure to clarify the department's role in water supply matters will result in continuing confusion and misunderstanding of that role by others. Clarifying the department's responsibilities should also make that agency more accountable for its decisions and actions.

Water rights and water quality regulations and laws are inadequately enforced. Some regulations are inequitable and inconsistent. Many people lack the proper permits. Others violate regulations, but frequently are not discovered. Policing every river is impossible. Enforcement is difficult and funds are limited.

Insufficient enforcement will result in continued disregard of laws and regulations. Water supplies cannot be effectively planned or managed. Environmental imbalances may result. Inequitable enforcement means water will not be allocated according to needs and priorities.

Better coordination of water use, withdrawals, and dam releases are always important, and are critical when demand is growing and supplies are limited. The need to better coordinate water use is closely allied with the need to coordinate regulatory agencies.

Improved coordination of water use will make the system of allocating water more efficient. It will help ensure that all receive the water they need and that priority needs are met first. Better coordination will impact all water users. They will feel less frustration with the system and learn to appreciate other types of needs.

Withdrawals from tributary aquifers for wells, irrigation, domestic uses, etc., in many areas exceed replenishment rates. As this occurs, water tables drop. Eventually, these tables may become so low they cannot return to previous levels. Deeper, more costly wells must be drilled as the ground water is depleted. Spring and other ground water feeding streams dry up and stream flows are diminished. There is less water for downstream and in-stream uses and there are adverse effects on bays and estuaries.

WATER SUPPLY AND ALLOCATION

(Continued)

ISSUES

A proper balance must be maintained between the need for mitigation and the cost of mitigation.

DISCUSSION

Although mitigation helps maintain ecosystems and provide habitats, it adds significantly to reservoir construction and operating costs. The benefits of mitigation must be compared to these costs to determine a proper balance.

The additional costs of reservoirs because of mitigation are paid by the developers and are ultimately passed on to water users, consumers, and taxpayers. Many users may receive few, or no, benefits from mitigation.

Information Needs

- Better management information, better dissemination, and better use of existing information.
- Improved, more reliable information on:
 - fish and wildlife needs;
 - habitat values and economic factors;
 - hydrology;
 - enhancement to natural resources as a result of development; and
 - water availability and usage.
- More knowledge about the total water supply problem to be able to define jurisdiction.
- More research on water management and conservation.
- Expanded, upgraded priority system.
- Better water quality reporting systems.
- Continuing evaluation of water supply impacts.
- Public input on:
 - positive and negative impacts of water projects on fish and wildlife; and
 - the demand for fish and wildlife, but recognize the costs, trade-offs, and conflicts.
- Inventory and research data on:
 - lesser known aspects of water resources, such as biota and river estuaries ecology; and
 - statewide river resources.
- Expanded gauging system.

WATER SUPPLY AND ALLOCATION

(Continued)

Alternatives

- Better education:
 - Conduct staff training in management and water issues in general; and
 - Provide public education on water issues in basic, understandable language.
- Improve coordination among agencies involved with water management, regulation, supply, allocation, and quality.
- Clarify agency authorities granted by the legislature.
- Mandate agency performance and hold agency heads accountable.
- Research and data collection related to water supply issues should be coordinated, on-going, and adequately funded.
- Income from fines and permits should go to the Texas Water Commission for continuing research instead of returning it to general revenues.
- The Texas Parks and Wildlife Department should:
 - function as an advisory, not policy making, body;
 - seek a non-adversarial role in development projects;
 - suggest alternatives when water yields are diminished due to fish and wildlife protection; and
 - participate financially in contracts for water purchases in proposed projects.
- Improve water conservation to allow enough water for fish and wildlife needs.
- The state should actively develop, promote, and coordinate water conservation programs.
- Regulate tributary aquifers.
- In monitoring and allocating water supplies:
 - require metering of all withdrawals by water users;
 - consider base flow needs in all future water permits and specify, during the permit process, the conditions, rate, and timing of water withdrawals;
 - implement a "water master" program for monitoring water use and users;
 - expand the stream gauging system; and
 - consider differences in regional needs in managing water supplies.
- Continuously review water supply and allocation priorities.

APPENDIXES

APPENDIX A

SYMPOSIUM ANNOUNCEMENT
AND AGENDA

1986 TEXAS R
NOVEMBER

NOVEMBER 20-21, 1986
SHERATON CREST HOTEL
AUSTIN, TEXAS

**SPONSORS: TEXAS PARKS AND WILDLIFE DEPARTMENT
AND
THE LEAGUE OF WOMEN VOTERS OF TEXAS**

interested citizens	river authorities
landowners	navigation and special districts
recreationists	business and industry
farmers and ranchers	government
recreation and tourism	conservation groups
industries	academic institutions

Sheraton Crest Hotel
111 East First Street
Austin, Texas 78701
Tel. (512) 478-9611

AGENDA



NOVEMBER 20-21, 1986

SHERATON CREST HOTEL

AUSTIN, TEXAS

SPONSORS:

**TEXAS PARKS AND WILDLIFE DEPARTMENT
AND THE LEAGUE OF WOMEN VOTERS OF TEXAS**

WEDNESDAY, NOVEMBER 19, 1986

3:00 p.m. to 7:00 p.m. Symposium registration

THURSDAY, NOVEMBER 20, 1986

7:30 a.m. Symposium registration
(Refreshments available in foyer)

9:00 a.m. to 10:00 a.m. Opening general session

Honorable Bob Armstrong, Commissioner
Texas Parks and Wildlife Department

Catherine Perrine
League of Women Voters of Texas

10:00 a.m. to 5:00 p.m. Panel workshops — Lunch on your own
(Refreshments available in foyer at 1:00 p.m.)

6:00 p.m. to 8:00 p.m. Cocktail reception — No-host cash bar

FRIDAY, NOVEMBER 21, 1986

8:00 a.m. to 10:00 a.m. Panel workshops
(Refreshments available in foyer)

10:00 a.m. to Noon General session — panel reports

Noon to 1:30 p.m. Luncheon and speaker:

Max Sherman
Dean
Lyndon B. Johnson School of Public Affairs
The University of Texas at Austin

Conclude

APPENDIX B

LIST OF PARTICIPANTS

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APPENDIX C

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3. Jim Hunt
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4. Charlie Jungmichel
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5. Laura Keever
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9. Gary McCoig
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10. Arthur W. Nagel
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11. Harry O'Bryant
Lyndon B. Johnson National Historical Park
12. David Pimentel
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13. Phil Price
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I. Water Quality

Panel B Room 923

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 Yeargan's River Bend Camp
2. Kathryn Briley
 Dames and Moore
3. Chester Critchfield
 Heart O' Texas Pack and Paddle Club
4. Dr. Dianne M. Freeman
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5. Al Hays
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7. Sandra Hunt
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9. Tom Remaley
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11. Bill R. Smith
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12. Steve Stagner
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13. Jack W. Tatum
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14. Greg Vick
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I. Water Quality

Panel C Room 1023

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2. Dr. James Boswell
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3. Mike Gonzales
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4. G. Glen Jones
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10. Randy M. Palachek
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11. Arturo Saldana
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12. Robert P. Sterk
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II. River Corridor Development and Land Use

Panel A Room 423

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2. Helen Ballew
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3. James W. Carrico
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4. H. P. Cooper
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5. Lisa Flood
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7. Vernon G. Henry
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13. Patrick Reardon
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14. David H. Riskind
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15. C. W. (Bill) Ruth
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III. River Recreation and Tourism

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 2. Mark Evans
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 12. Chuck Nance
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 14. Jane Pulaski
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 15. Joe Riddell
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 16. William A. Rollwage
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 17. Charles B. Voll
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 18. Clifford L. Williams
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3. Jack M. Bixby
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10. Michael Harold Plachy
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12. Ty Probasco
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13. Enrique (Henry) Trevino
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14. Betty Walls
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15. David Whatley
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16. Larry Wild
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3. Sam F. Collins
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V. Water Supply and Allocation

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Texas State Soil and Water Conservation Board
5. David R. Gattis
Freese and Nichols, Inc.
6. Albert J. Gray
Sabine River Authority
7. William P. C. Hudson
Brownsville City Water Board
8. Richard Macaulay
Fayette Center for Research
9. J. Henry Neason
Lavaca-Navidad River Authority
10. John Earl Smith
Texas Farm Bureau
11. John Waddell
North Texas Municipal Water District

V. Water Supply and Allocation

Panel C Colorado Room

Leader Robert Potter
National Park Service

1. Jacqueline S. Hardee
Texas Water Commission
2. Bill Hinkson
Edwards Aquifer Research and Data Center
3. David Mintz
State Senator Richard Anderson
4. Fred R. Ore
U.S. Bureau of Reclamation
5. Doris Parker
Vinson and Elkins
6. Fred Pfeiffer
San Antonio River Authority
7. Betty Lou Rushing
Rivers and Lakes Action Council
8. Marsha W. Slaughter
City of Austin, Water and Wastewater Utility
9. Deborah Stewart-Alvarez
Institute for Corridor Studies
10. Rex Wahl
Texas Natural Heritage Program

APPENDIX D

SYMPOSIUM EVALUATIONS SUMMARY

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SYMPOSIUM EVALUATIONS SUMMARY

Symposium participants received evaluation forms to comment on the symposium and make suggestions. Sixty-two evaluations were returned, and these will be used to plan future river conferences. The comments and suggestions are summarized here by topic:

Symposium Format

- General session speakers - The three speakers received many favorable remarks. Eighty-nine percent of those returning the forms said the speakers were "good", "very good", "excellent", "informative" or "effective." Three percent said the speeches were too long. Another 3 percent said the speeches should have been more structured and focused. One person wanted the speakers to provide more perspective on the topic, and another said there should have been more discussion of Texas Parks and Wildlife Department involvement in rivers.
- Panels and panel speakers - A majority of the respondents, 82 percent, commented favorably on the panel format and panel leaders. They felt the panel leaders did an excellent job and said the panels were good to excellent, well planned, effective, challenging, diverse, or informative. Eleven percent said the panels were not diverse and that they were unstructured, unplanned, or too limited. Three percent of the participants said the panels should have been combined for each topic, and another 3 percent felt the private sector was insufficiently represented.
- Panel reports session. - Sixty percent of the critiques said the panel reports session was fair to very good, well-organized, or informative. Ten percent said the session was too repetitious, and one person said it was poor. Three percent of the respondents said the panel reports should have been combined for each topic, and 5 percent complained about insufficient time to prepare the reports.
- Symposium length and timing - Nineteen percent of the respondents said the length of the symposium was about right. However, 11 percent felt there was not enough time and that two full days should have been allotted. Thirty-five percent liked the time of year, but a few, 3 percent, said October was a better month.

Some participants, 15 percent, favored weekdays for the symposium, but 11 percent would have preferred weekends. Generally, it appeared that those who attended as part of their job favored weekdays, while those who attended as private citizens or those not employed outside the home preferred weekends.

- Location - Austin was the preferred location for the symposium by 61 percent of the respondents. Five percent liked San Antonio, and 16 percent suggested other locations or changing the location annually. One suggestion was to have the symposium at Texas Parks and Wildlife Department headquarters to reduce registration fees.

SYMPOSIUM EVALUATIONS

SUMMARY

(Continued)

Symposium Format (Continued)

- Information and registration materials. - Fifty-eight percent said the information mailed out and the registration materials were good or excellent. Five percent said the materials were too vague, the issues should have been more focused, or the symposium objectives should have been better explained. One respondent preferred to have the agenda mailed earlier. Six percent liked the registration list and felt it was a very useful item.

Sheraton Hotel Facilities

- Most participants, 63 percent, said the Sheraton facilities were adequate or good. There were complaints about inadequate parking, slow restaurant service, and crowded meeting rooms. Three percent thought the hotel facilities were inadequate and one person said the room rates were too high.

General

- Do you feel this meeting was useful and accomplished its purpose? If not, how could it be improved?

Sixty-three percent of the respondents said the meeting accomplished its purpose. Six percent complained that the purpose of the meeting was too broad and vague, the issues needed more focus, or the topic areas were too general. Six percent reserved judgment to see what the Texas Parks and Wildlife Department would do with the results.

- Should future such meetings on rivers be held? If so, how often? What should be the purpose of the meetings?

Thirty-nine percent of the respondents wanted annual meetings, while another 23 percent said there should be other meetings, but did not say how frequently. Five percent said the meetings should be held every six months, 10 percent said every two years, and 2 percent suggested every five years. Eight percent suggested holding the meeting in a different region of the state each time.

- What other comments or suggestions do you have about the rivers symposium?

Fifteen percent said the symposium was successful and well done. Three percent of the participants felt their comments were overlooked or ignored during the symposium. Many of the other comments generally fell into three broad categories: issues, involvement, and information.

One respondent said there was too much time spent defining the issues instead of discussing them. Three percent said too little, or no, attention was given to the issues of water quality, water conservation, or the Texas Rivers Conservation System.

SYMPOSIUM EVALUATIONS

SUMMARY

(Continued)

General (Continued)

Regarding involvement, 5 percent suggested there should be more public input and broader public involvement on river issues. Three percent commented that the Texas Water Commission and the Texas Water Development Board should have been involved. Another 3 percent recommended that the legislature be brought into the symposium process and that other agencies be encouraged to become involved with rivers.

Most of the remaining comments pertained to obtaining and providing information on rivers and issues. Three percent of the participants wanted such information available at the beginning of the symposium.