Yellowstone River Cultural Inventory—2006

Part IV: Laurel to Springdale

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The team also acknowledges the members and administrators of the local Conservation Districts for their assistance in identifying and recruiting participants. Additionally, members of the Resource Advisory Committee of the Yellowstone River Conservation District Council provided invaluable support. Finally, the team wishes to acknowledge the support given by the Yellowstone River Conservation District Council, the Technical Advisory Committee of the Yellowstone River Conservation District Council, Dr. Tarla Peterson from Texas A&M University, the Montana Department of Natural Resources and Conservation, the Montana Office of Natural Resources Conservation Service, and the US Army Corps of Engineers.

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Yellowstone River Cultural Inventory--2006 Preface

The Significance of the Yellowstone River

The Yellowstone River has a long history of serving human needs. Native Americans named it the Elk River because of its importance as a hunting environment. William Clark explored much of the river in the spring of 1806 and found it teaming with beavers. By 1906, the US Bureau of Reclamation was sponsoring diversion projects that tapped the river as a source of irrigation waters. The river then enabled "twentieth-century progress" and today it supports many nearby agricultural, recreational and industrial activities, as well as many activities on the Missouri River.

Management of the shared resources of the Yellowstone River is complicated work. Federal and state interests compete with one another, and they compete with local and private endeavors. Legal rights to the water are sometimes in conflict with newly defined needs, and, by Montana law, the public is guaranteed access to the river even though 84 percent of the riverbank is privately owned.

Interestingly, in spite of the many services it provides, the Yellowstone River in 2006 remains relatively free-flowing. This fact captures the imaginations of many people who consider its free-flowing character an important link between contemporary life and the unspoiled landscapes of the Great American West. As a provider, as a symbol of progress, as a shared resource, as a management challenge, and as a symbol of our American heritage, the Yellowstone River is important.

Purpose

The Yellowstone River Cultural Inventory—2006 documents the variety and intensity of different perspectives and values held by people who share the Yellowstone River. Between May and November of 2006, a total of 313 individuals participated in the study. They represented agricultural, civic, recreational, or residential interest groups. Also, individuals from the Crow and the Northern Cheyenne tribes were included.

There are three particular goals associated with the investigation. The first goal is to document how the people of the Yellowstone River describe the physical character of the river and how they think the physical processes, such as floods and erosion, should be managed. Within this goal, efforts have been made to document participants' views regarding the many different bank stabilization techniques employed by landowners. The second goal is to document the degree to which the riparian zone associated with the river is recognized and valued by the participants. The third goal is to document concerns regarding the management of the river's resources. Special attention is given to the ways

in which residents from diverse geographical settings and diverse interest groups view river management and uses. The results illustrate the commonalities of thought and the complexities of concerns expressed by those who share the resources of the Yellowstone River.

Identification of Geographic Segments

The Yellowstone River is over 670 miles in length. It flows northerly from Yellowstone Lake near the center of Yellowstone National Park in Wyoming. After exiting the park, the river enters Montana and flows through Paradise Valley toward Livingston, Montana, where it turns eastward. It then follows a northeasterly path across Montana to its confluence with the Missouri River in the northwestern corner of North Dakota.

Five geographic segments along the river are delineated for purposes of organizing the inventory. These five segments capture the length of the river after it exits Yellowstone National Park and as it flows through eleven counties in Montana and one county in North Dakota. The geographic delineations are reflective of collaborations with members of the Yellowstone River Conservation District Council and members of the Technical Advisory Committee and the Resources Advisory Committee.

Working from the confluence with the Missouri River towards the west, the first geographic segment is defined as Missouri River to Powder River. This geographic segment includes some of the least populated regions of the entire United States. This segment is dominated by a broad, relatively slow-moving river that serves an expansive farming community whose interests blend with those folks living along the seventeen miles of the Yellowstone River that traverse North Dakota. Here the Yellowstone River is also important as a habitat for paddlefish and Pallid sturgeon. At the confluence with the Missouri River, the size of the channel, significant flow and substantial sediment carried by the Yellowstone River makes its importance obvious to even the most casual of observers. Prairie, Dawson and Richland Counties of Montana are included in this segment, as well as McKenzie County, North Dakota.

The second geographic segment, Powder River to Big Horn River, is delineated to include the inflows of the Big Horn and Tongue Rivers as major tributaries to the Yellowstone River and to include the characteristics of the warm-water fisheries. This segment is delineated to recognize the significant agricultural activities of the area and the historical significance of the high plains cowboy culture. This segment includes Treasure, Rosebud and Custer Counties.

The third geographic segment, Big Horn River to Laurel, essentially includes only Yellowstone County, but it is a complex area. To begin, important out-takes near Laurel divert water to irrigations projects further east. Additionally, it is the one county along the length of the river with a sizable urban population. Billings is known as a regional center for agriculture, business, healthcare and tourism. This area is notable for its loss of agricultural bottomlands to urban development. Irrigation projects are important east of Billings, especially in the communities of Shepherd, Huntley and Worden. These communities and Laurel also serve as bedroom communities to Montana's largest city, Billings. It is in Yellowstone County that the river begins its transition to a warm-water fishery.

The fourth segment, Laurel to Springdale, ends at the northeastern edge of Park County, Montana. The river in this area is fast-moving and it supports coldwater fisheries. While there is little urban development in this segment, there are some rather obvious transformations occurring as agricultural lands near the river are being converted to home sites for retirees and vacationers. The geographic segment includes Sweet Grass, Stillwater, and Carbon Counties.

The last geographic segment is defined as Springdale to the boundary with Yellowstone National Park at Gardiner, Montana and is within the boundaries of Park County. The river leaves Yellowstone National Park and enters Montana at Gardiner. It flows in a northerly direction through Paradise Valley and is fast-moving. It supports a cold-water fishery that is well-known for its fly fishing potential. Near Livingston, Montana, the river turns easterly and broadens somewhat thus losing some of its energy. However, severe floods occurred in 1996 and 1997, and local groups have since spent many hours in public debates concerning river management.

Recruitment of Native Americans

Native Americans also have interests in the Yellowstone River. They are active in maintaining the cultural linkages between their histories and the local landscapes. For the purposes of this study a number of Native Americans from the Crow tribe and the Northern Cheyenne tribe were included. Native Americans were recruited by means of professional and personal contacts, either as referrals from state agency personnel, from Resource Advisory Committee members of the Yellowstone River Conservation District Council, or from other project participants.

Recruitment of Geographic Specific Interest Group Participants

The participants represent a volunteer sample of full-time residents of the towns and areas between the confluence of the Yellowstone and Missouri Rivers in North Dakota and the town of Gardiner, Montana at the north entrance to Yellowstone National Park. Participants were recruited from four major interest groups: agriculturalists, local civic leaders, recreationalists, and residentialists living near the river. A database of names, addresses and contact information was constructed for recruitment purposes. Nearly 800 entries were listed in the database, representing a relatively even contribution across the four major interest groups.

Individuals representing agriculture interests, including farmers and ranchers, were identified and recruited from referrals provided by the local Conservation Districts, the Yellowstone River Conservation District Council and the Montana Office of the Natural Resources Conservation Service.

Individuals holding civic leadership positions, including city mayors, city council members, county commissioners, flood plain managers, city/county planners, and public works managers, were identified and recruited through public records.

Individuals who use the Yellowstone River for recreational purposes, including hunters, fishers, boaters, floaters, campers, hikers, bird watchers, rock hunters, photographers, and others who use the river for relaxation and serenity, were identified and recruited from referrals provided by members of the Resource Advisory Committee. Participants were also identified and recruited by contacting various non-governmental organizations such as Ducks Unlimited, Trout Unlimited, the Audubon Society and by contacting local outfitting businesses.

The names of property owners holding 20 acres or less of land bordering the Yellowstone River, or within 500 feet of the bank, were obtained through a GIS search of public land ownership records. Twenty acres was used as a screening threshold to separate people who lived along the river corridor but whose incomes were from something other than agricultural practices (residentialists) from those who were predominantly farmers or ranchers (agriculturalists). The names were sorted by county and randomized. Recruitment proceeded from the county lists. Other people living very near the river and whose primary incomes were not generated by agriculture were also recruited. These additional participants may not have had property that technically bordered the river and/or they may have owned more than 20 acres. In all cases, the recruits did not consider agricultural as their main source of income.

Participants were recruited by telephone and individual appointments were scheduled at times and meeting places convenient for them. Many interviews were conducted in the early morning hours and the late evening hours as a means of accommodating the participants' work schedules.

Participants in Yellowstone River Cultural Inventory—2006							
	GEO SEG I: Missouri River to Powder River	GEO SEG II: Powder River to Big Horn River	GEO SEG III: Big Horn River to Laurel	GEO SEG IV: Laurel to Springdale	GEO SEG V: Springdale to Gardiner	TOTAL IN GROUP	
AGRICULTURAL	22	22	16	12	14	86	
CIVIC	14	14	18	14	8	68	
RECREATIONAL	15	16	16	13	16	76	
RESIDENTIAL	15	11	16	15	19	76	
GEOGRAPHIC SEGMENT TOTAL	66	63	66	54	57		
NATIVE AMERICAN						7	
PROJECT TOTAL						313	

A total of 313 people participated in the project, including 86 representatives from agriculture, 68 representatives in local civic roles, 76 representatives of recreational interests, 76 residentialists and seven Native Americans. A relatively equal representation was achieved in each geographic segment for each interest group.

Description of Interviews and Collection of Participant Comments

A master protocol was designed from questions provided by the US Army Corps of Engineers and approved by the Office of Management and Budget (OMB approval # 0710-0001; see example in the appendix to this volume). Questions were selected that would encourage participants to describe the local environs, their personal observations of changes in the river, their uses of the river and any concerns they may have had about the future of the river as a shared resource. Open-ended questions were used as a means of encouraging participants to speak conversationally.

The questions were adapted to the participants' interest groups. For instance, interviews with agriculturalists began with the question, "How many years have you been in operation here?" while local civic leaders where asked, "How many years have you lived in this community?" Similarly, agriculturalists were asked, "Are there any problems associated with having property this close to the river?" and local civic leaders were asked, "Are there any problems associated with having problems associated with having private or public properties close to the river?" The overriding objective of the approach was to engage the participants in conversations about the river, its importance and their specific concerns.

Participants were promised confidentiality, and open-ended questions were asked as a means of encouraging the residents to talk about the river, the local environs and their personal observations and concerns in their own words. All respondents were interested in talking about their perspectives, and they represented a variety of views of the river, including: farming, ranching, agricultural science, commercial development, recreation, civic infrastructure, environmental activism, historical views and entrepreneurial interests.

With only three exceptions, the interviews were audio-recorded and verbatim transcripts were produced as records of the interviews. In the other three cases, hand-written notes were taken and later typed into an electronic format. The total resulting interview data totaled approximately 2,700 pages of interview text.

Steps of Data Analysis

The content of the interview texts was distilled by way of analytical steps that would retain geographical and interest group integrity.

Segment-Specific Interest Group Analyses: Taking all audio-recordings, transcripts, and field notes as the complete data set, the research group first set out to determine the primary values and concerns for each geographic segment-specific interest group. The team began with the four interest groups from the segment Springdale to Laurel. Team

members read individual interview transcripts and determined a core set of values and concerns for the individuals represented. As a team, notes were compared and a combined outline of values and concerns was constructed for each interest group in the geographic segment. Quotes were then taken from each transcript in the set to illustrate the particular values and concerns.

Outlines of the interest group analyses for the Springdale to Laurel segment were then used as aids in constructing the interest group analyses in all other geographic segments. Care was taken to adapt the interest group analyses to highlight if, and when, the core values and concerns were different in each geographic segment. The Native American perspective was addressed as an individual analysis with attention to the specifics of those perspectives. Each of the 21 segment-specific interest group analyses was then illustrated with quotes from interviews.

21 Segment-Specific Interest Group Analyses							
	GEO SEG I: Missouri River to Powder River	GEO SEG II: Powder River to Big Horn River	GEO SEG III: Big Horn River to Laurel	GEO SEG IV: Laurel to Springdale	GEO SEG V: Springdale to Gardiner	TOTAL IN GROUP	
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GEOGRAPHIC SEGMENT TOTAL	66	63	66	54	57		
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Segment-Specific Geographic Summaries: A summary of the values and concerns for each geographic segment was constructed using the sets of four geographic-specific interest group analyses. Geographic summaries were written to reflect the concerns that crossed all interests groups of the segment, either as points of agreement or disagreement, and were illustrated with quotes from the four relevant interest group analyses.

5 Segment-Specific Geographic Summaries							
	GEO SEG I: Missouri River to Powder River	GEO SEG II: Powder River to Big Horn River	GEO SEG III: Big Horn River to Laurel	GEO SEG IV: Laurel to Springdale	GEO SEG V: Springdale to Gardiner	TOTAL IN GROUP	
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GEOGRAPHIC SEGMENT TOTAL	66	63	66	54	57		
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PROJECT TOTAL						313	

River-Length Interest Group Summaries: River-length interest group summaries were constructed for each of the four primary interest groups. For example, agricultural concerns from the five geographic segments were compared and quotes were taken from the segment-specific interest group reports to illustrate commonalities and differences. Similar reports were constructed for local civic leaders, recreationalists and residentialists.

	4 River-Length Interest Group Summaries							
	GEO SEG I: Missouri River to Powder River	GEO SEG II: Powder River to Big Horn River	GEO SEG III: Big Horn River to Laurel	GEO SEG IV: Laurel to Springdale	GEO SEG V: Springdale to Gardiner	TOTAL IN GROUP		
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Organization of the Reports

Overall Summary of the Yellowstone River Cultural Inventory—2006: An overall summary of the inventory was written as a means of highlighting the values and concerns that cross interest groups and geographic segments. The segment-specific geographic summaries and the river-length interest group summaries were used as the bases for the overall summary. This report is by no means comprehensive. Rather, it is written to encourage further reading in the reports of each geographic segment and in the interest group reports.

Part I: Missouri River to Powder River: This volume includes the geographic summary for Missouri River to Powder River and the four relevant interest group reports: agricultural, civic leader, recreational, and residential.

Part II: Powder River to Big Horn River: This volume includes the geographic summary for Powder River to Big Horn River and the four relevant interest group reports: agricultural, civic leader, recreational, and residential.

Part III: Big Horn River to Laurel: This volume includes the geographic summary for Big Horn River to Laurel and the four relevant interest group reports: agricultural, civic leader, recreational, and residential.

Part IV: Laurel to Springdale: This volume includes the geographic summary for Laurel to Springdale and the four relevant interest group reports: agricultural, civic leader, recreational, and residential.

Part V: Springdale to Gardiner: This volume includes the geographic summary for Springdale to the boundary with Yellowstone National Park and the four relevant interest group reports: agricultural, civic leader, recreational, and residential.

Research Team and Support Staff

The project was directed by Dr. Susan J. Gilbertz, Montana State University—Billings. She was aided in data collection and data analyses by Cristi Horton, Tarleton State University and Damon Hall, Texas A&M University. Support staff included: Amanda Skinner, Amber Gamsby, Beth Oswald, Nancy Heald, Beth Quiroz, Jolene Burdge, and John Weikel, all of Billings, Montana.

Laurel to Springdale: Geographic Segment Overview

Interviews in the geographic segment Laurel to Springdale were conducted May 22-26, 2006. A total of 54 interviews were conducted, including individuals with agricultural, civic, recreational, or residential interests as their primary concern.

Participants in Yellowstone River Cultural Inventory-2006							
	GEO SEG I: Missouri River to Powder River	GEO SEG II: Powder River to Big Horn River	GEO SEG III: Big Horn River to Laurel	GEO SEG IV: Laurel to Springdale	GEO SEG V: Springdale to Gardiner	TOTAL IN GROUP	
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Laurel to Springdale: Geographic Segment Summary

Two things come to mind right now. Although I believe in personal property rights...I believe, too, that...not everybody is going to get everything they want. It just has to be that way. (Stillwater County Local Civic Leader)

Introduction

In the study segment, Laurel to Springdale, three themes emerge as dominant across the four interest groups. One theme focuses on the changing riverbank profile as more and more residential homes are built on the river's edge. The second theme focuses on the river as a powerful and dynamic physical entity. The third is about the changing social profiles of their communities and how those changes influence user practices.

The Changing Riverbank Profile

Nearly without exception, the people of the Springdale and Laurel segment engage in discussions concerning changes they see happening along the riverbanks. Put simply, the riverbanks are becoming noticeably different as agricultural lands become sites for subdivisions or sites for exclusivity. Undoubtedly, the river's captivating beauty and physical forces are key reasons for residential development near the river's edge, but development is complicating conceptions of how to manage the power of the river.

Living near the river is an attractive idea, and those that do are quick to explain how much such locales add to the quality of their lives. Both residentialists and agriculturalists express the importance of living near the river:

The river to me is kind of mesmerizing, interesting. You never know what it is going to do. It is just nice to be watching it all the time. (*Stillwater County Agriculturalist*)

That Yellowstone River...is really...an exceptionally—well, I don't know quite how to put it, but it's really something....It's quite a deal. (*Stillwater County Agriculturalist*)

We border the Yellowstone. That is important to me,...that we live right along the river. It does affect your life....It is home. Just home, that's all. (*Sweet Grass County Agriculturalist*)

Paradise. It's just great, great living. Private and beautiful. We are so lucky and privileged to live here; it's just wonderful. We have about two and a half miles of riverfront, so we don't have any neighbors close, and it is just great....The river is

the reason we are here. It's the whole thing. There is constant action going on at the river, whether it's birds, or fishing, or deer, or whatever. There is always wildlife around which is our great love. We cultivate our land for wildlife. (*Sweet Grass County Residentialist*)

Everyday I walk down my hall, and I have a new picture window. And you know, it's just awesome. The colors in the fall are beautiful, [and] most of the time the sun's shining on the mountains. We can see Granite Peak, we can see all kinds of activity in the river with geese, and we just love it, it's just awesome....My heart just feels so good. This is our place. (*Stillwater County Residentialist*)

For many locals, the new residential developments expose and represent a shift in the economy of land values:

Land prices are going up all the time. It is tempting for people to sell....You can't buy the land and make it produce enough to make payments. That is changed in my lifetime. (*Sweet Grass County Agriculturalist*)

It's starting to look like home sites....There will be more houses all along, wherever they can buy small acreage....If [they] could get five or ten acres, if there's access to build a home, then I understand it's for sale, and they're going to subdivide it....The real estate man had called me up about it, says there's a guy from Atlanta, Georgia, who wants to build a house out there. (*Carbon County Agriculturalist*)

Everybody wants a little piece of land on the river, and then they build right on the river, which kind of sucks....You go up by Livingston, and you see the houses. I mean, house, after house, after house, after house, built right on the river. (*Sweet Grass County Recreationalist*)

It's people with lots of money coming in,...and [some are] pushing this planning so that the guy down the road that has a ranch [can] break a chunk off [for himself] so that he can stay on his place for the rest of his life, and give [what's left] to his kids. (*Sweet Grass County Recreationalist*)

You read about the romance of the Old West, and that's why a lot of these rich people come...for the romance. Well, there's romance in an old family farm, too. Their romance [the rich people's] won't buy you breakfast. (*Sweet Grass County Local Civic Leader*)

My daughter and son-in-law live on a ranch west of town here, and it's not a very big place....A realtor just appraised it at a million and a half....It's out of the question entirely for the kids to buy it. My wife and I have spent all of these years in agriculture, and just like most of the neighbors, whenever you do make a profit, you put it back into something else. So we got a million and a half dollars sitting up there, and nothing to show for it....How are the kids going to make a payment

and still be able to live there, too? And with an appraisal like that, the government won't let you give it away. You can't sell it for less than the appraisal...and [besides,] the last thing we want to do is sell the place. (*Sweet Grass County Local Civic Leader*)

Not only do residential owners shift land values, they often live in subdivisions that provide exclusive access rights and that shift the ways other locals can or cannot gain access to the river. The residentialists are openly thankful for the privileges provided by their subdivisions as these amenities add to the "paradise" quality of their experiences:

Well, our place right here, our subdivision owns about an acre and a half of common property right along the Yellowstone. So we have the opportunity to go down there anytime we want, and go down to the river....We have access to the river, and often we float from upriver to our common area and get out....It is just really nice having that access. (*Sweet Grass County Residentialist*)

This subdivision is unique in that there is a bridle path that follows the river for use by the owners in the subdivision. Anytime you have an easement like that, it is somewhat troublesome because there is no incorporated town out here. But if the towns grew enough, they could make a permanent easement, and everyone could use it. That is what bothers me....That bridle path was meant as a bridle path, and they shouldn't use it as access to the river. It may sound selfish, but I am paying taxes on it, and they don't. My liability covers only me, and if they got hurt, they could sue me. They wouldn't win, but they could still take me to court. That bothers me....A guy bought a bunch of the land, and is going to put in 100 houses [behind me, away from the river]. That is a huge impact. If those people think they are going to use the bridle path, I will have a problem with that. It was designed for this portion [of the subdivision], not the whole. So, the enforcement problem may be a real problem. (*Stillwater County Residentialist*)

Even in cases where the land is not subdivided into small parcels, new owners do not necessarily share access to the river's resources with locals. Rather, land is purchased as a block and held for limited private hunting and fishing:

They don't subdivide it, they just come in. They buy it up. They don't put any cows on it, they just let it sit there, and build a great big trophy house on it, and...the land isn't really being used for agriculture any more, it's either someone's personal hunting grounds or river access, you know. So, for me, you've kept people from living on it, so that those [wealthy] people can come in and block everybody off it. It doesn't happen all the time. (*Sweet Grass County Local Civic Leader*)

We have some [newcomers] that have moved in and their house is right next to the river, and then they want no one else to build next to the river. You know, 'I've got my little piece of heaven, but I don't want anyone else to be able to do that.' (*Sweet Grass County Local Civic Leader*) You can see huge, orange-painted signs, meaning 'Stay off. Private property.' And the thing is that is coming about. It is not the local people that are doing this. It is the people from out-of-state who are buying these parcels. [They] want that little island as their own, even though they can't access it, and they can't use it for agriculture. They just don't want anybody there. But, from an agriculture standpoint, when they show up to your house to go hunting, they expect you to allow them to do whatever they like. That is the problem with out-of-staters. They want it all for themselves and not let anybody use it. (*Carbon County Recreationalist*)

Deeper into the conversations are illustrations of the need to balance three dimensions of local life. First, locals are interested in the general economic prosperity of the community:

Development will always occur. [The community] is either going to...grow, or it will demise. You really can't maintain the status quo. If you aren't growing, you're probably going to go down. You can't maintain the status quo. (*Stillwater County Local Civic Leader*)

We are trying to figure where any new growth will happen. Most of it is happening west of town. We are looking at extension of power and annexation. The city is in the process of adopting a growth policy and looking at impact fees. Those are the fees charged to developers for the expansion of city services. (*Sweet Grass County Local Civic Leader*)

Second, locals express a great deal of concern for respecting private property rights:

Montanans don't like to be told what to do. (Stillwater County Agriculturalist)

It's your own property and you sell it to someone else. I guess they can do what they want with it. And most of the people that I know are good, but there can be some sour ones. (*Carbon County Agriculturalist*)

If I want to add a little addition on, I should be able to do it. But you can't just add on. You got to go pay for a permit. And that's the same thing with the ranch. You just can't, not that we were going to do anything, but we had a battle to get permission to build. Because I wanted to put the barn right back in basically the same spot that the barn was. And we fought, and they said, 'You can't have it where it was, it will wash out.' Well, I'm going to put it in cement in the ground. That old barn sat on a wooden foundation and it never floated away in the big flood. If I put this one in cemented foundation, that's going to float away? I mean, it's just stupidity. (*Sweet Grass County Agriculturalist*) Third, they are concerned that development should occur in a responsible manner and that attention should be paid to the potential impacts of development on the river:

It's very special to have this river here, and, of course, we want to protect it. We want to make sure that any housing developments follow the DEQ rules, [especially] septics should be placed according to DEQ. I guess I don't believe in setbacks. I think the property owners have the right to be as close to the river as they want, without damaging the river. If they do not damage the river, I think it's their property line. (*Stillwater County Local Civic Leader*)

To the extent that we have state statutes that specify, we do have minimum standards for the flood plain by state law. One of those is public health and safety; you can't permit something if it is a public health and safety threat. (*Sweet Grass County Local Civic Leader*)

Flood plains are sacred. We just cannot break in flood plains like we used to. There are some things...[that the law requires: that you have to have a three-foot differential, the land where you're going to build your house has to be at least three feet above where the water table is. Well, if that's based on a dry year, and you build your house and then you have average years again, or normal years, you might have a problem. The law doesn't account for that. (*Stillwater County Local Civic Leader*)

Oppositions to developing stricter regulations are not categorically accepted or rejected. Locals approach such ideas with trepidation but also with a willingness to consider how the community might dampen development at the river's edge:

I think that sort of thing is critical: to leave a fringe on the river undeveloped, to keep the water as pure as possible, to try to work on the tributaries, be sure the ranchers have adequate water, but don't have any more than they need at the times they need it. I think they're working on all that. But I think it'd be great to get people to sign a voluntary thing that we won't build within 200 feet of the river. (*Sweet Grass County Agriculturalist*)

Septic systems [are a concern]....They're too close together, and [too close to] their wells, and it's just a mess. And [there's] nothing you can do about it. Some were put in as, 'Oh, we're going to be using it for summer homes, so we'll just have storage. We'll just have a holding tank.' Well, it turned into year-round living, and a hole got poked in the tank, you know. So, probably, it's flowing out the bottom into Rock Creek...and there is not much we can do with them. Just don't want any more of them. We're trying to...put their feet to the fire, and say, 'Now, you've got a holding tank. We want records, public records.' So, we're working on that area. We don't allow any holding tanks any more. (*Carbon County Local Civic Leader*)

I'm not saying we're ready for [zoning]....Over time,...that may not be a bad idea....I think folks are more and more receptive. A lot of the people are coming in....It's a nice place to live, so they're coming from everywhere. You know, Californians,... Texans,...and they're drawn here because it's not like where they're coming from, yet they want to make it like where they're coming from....But they also have good ideas. They come from areas where they have more progressive local governments...and are wondering why [not here]? (*Stillwater County Local Civic Leader*)

Roads are probably the biggest thing. They take a relatively big part of the budget. Roads are something that everybody uses, and we have a lot of problems with them. We can't afford to do all of the graveling we need,...[and we can't afford] to replace all the bridges that should be replaced. (*Stillwater County Local Civic Leader*)

It's changing rapidly....I was talking today to a man selling his ranch who has two offers on it right now. And I think that a lot of people don't realize how quickly it's changing....I think Montana needs to decide, do they want tourists?...Montanans need to sit down and decide the future of Montana, plan it. What do they want it to be? Want it to be this? How do you keep it this way, or make it this way?...It's going the other way....[Montanan's have] got to be the author of the future. They've got the opportunity, now, because it hasn't been ruined like many places in America....Seize this opportunity, and do it together, work in a cooperative way, and work out the future. Well, that's a lot to say,...[and] hard to do. (*Sweet Grass County Agriculturalist*)

The changing riverbank profile generates a great deal of discussion among the people in the Laurel to Springdale segment of the study. There is an apparent desire to manage the development along the river's edge so that the historic agricultural sense of these communities is not wholly lost to a residential dominance. At issue are private rights, community prosperity, and deep concerns about developing rules for protecting the river. As the individual communities grow, there is recognition that a community consensus is unlikely but that rules are necessary.

The Yellowstone River is Dynamic and Powerful

While the Yellowstone River is an especially attractive site for residential development, many people are more impressed by its power. The river is known for its ability to flood and erode its banks. The floods of the mid-1990s are important illustrations for understanding the power of the river. Such events are reminders that the river is powerful, but they also serve as the impulse for wanting to control the river.

Local understandings of flood plains are complicated. Many people understand major floods are difficult to predict, challenging to control, and that they result in change:

It is meander-land, and nobody can own that....There were river changes in that '98 flood, and, of course, some islands were created, and it washed down banks....Some people lost acres and acres of land....I know of one group who ended up with an island, and they claim it's theirs, because the river ran right through their property and created an island....Nobody pays taxes on it....For example, if this is a lake, and the water comes up in high water years to cover most of [the land], you wouldn't think that would reduce your taxes, [and] it doesn't. Or, if it goes down, and you can farm this for a while, you still don't pay taxes on it. But, you can't claim it either;...its no-man's land....[It] used to be that the Corps of Engineers could come in and just change things at will, and that caused its own set of problems, here and there. I don't like the idea of changing the direction of the river....It has its own set of problems that come with it. It might help this guy who lost some acreage to reroute the water away, but it ultimately, someplace else, will cause a problem....I think rivers should meander wherever they naturally go. (*Sweet Grass County Local Civic Leader*)

[After] I took office, in the southern part of the county, there were some ice buildups and there were primarily summer homes, and they were concerned about flooding, so they called me, the new commissioner in their district, and said we've got this ice, come and help us out. It sounds like a reasonable request to me, [but] I'll have to ask and get back to you. I talked to our road and the other commissioners and, no, we can't do that. Really? Why? Well, three things. First, it's on private land and there's liability....Another one is the Fish and Game is responsible for the fish habitats [and] would have some problem if we took heavy equipment and messed around with the river. And the other thing [is]...an insurance company would look at this ice jam as a natural event, call it an act of God or something. So if we go in there with our equipment and undo that, we're just pushing the problem downstream and then it's our fault; it isn't an act of God, it's an act of the County Commissioners. So, we just would like to help people, but we can't, and when we explain why, they accept that. (*Stillwater County Local Civic Leader*)

I think in certain spots you can prepare a little bit for [floods], but nobody knows what's going to come and how big it's going to get. When it hits 37, or 38, or 40,000 [cubic feet per second], there's only so much you can do. At that point, you're not stopping it. You might try to do something to fix it or stop it from the next time, but it will do what it wants to. (*Sweet Grass County Recreationalist*)

Residentialists speak in a variety of terms concerning the possibility of flooding and erosion. While most will admit to certain eventualities, some hold that events capable of causing major destruction are unlikely within their own lifetimes. Those holding that view are referred to here as NIMLYs, individuals who understand that flooding can happen, but they generally hope, or assume, "Not In My Lifetime/Years."

Others are convinced that their particular locations are quite safe as compared to nearby locations, and many residential owners are frustrated by flood plain maps:

As far as flooding and such? No, we don't [worry]. The town's going to flood before we would. We're higher than that, so we don't have a problem with that. I think if we're going to flood, I'd better call Noah in because, you know, it's going to get pretty high. (*Stillwater County Residentialist*)

I don't know if during our time down here we will [see change]....But there again, it depends on the number of floods. That is going to have the biggest impact on it every time. If that happens there is something different every time....But I don't think we will see a major change. I don't expect a new channel to be going across the hills or something. If it does that, we will be out of here! We will be building a big boat with a lot of animals on it. And one thing down here where the river runs, there is that big hillside there, so if it is going to change, it isn't going to impact this way....It was a big flood we had in 1996, 1997, and we weren't living here prior to that, but we floated it a lot, and it didn't make huge changes. That was a good-sized flood. (*Sweet Grass County Residentialist*)

The last time they did a survey for the flood plain was probably over 20 years ago, and it is something that needs to be done and upgraded....If you look at the flood plain maps they have got, they show us in the flood plain, and that is wrong. We are not in the flood plain. We are too high for a flood plain, but that is the federal government. What are you going to do about it? As far as people building low, I don't think they should be allowed to build in the flood plain. All it does is cause problems for everybody concerned. And for people not in the flood plain, we are being penalized....If there are not enough regulations, or if they have not been reviewed, when the river changes over the years [the maps are not accurate]....Anybody along this side of the river is required, if you refinance, to have flood insurance, and you can't fight it. If you pay cash, you don't have to have it, but if you finance, [it is required]....I mean, there need to be regulations, and people need the proper insurance, but it needs to be looked at closer and more often. (*Stillwater County Residentialist*)

Based on years of experience, agriculturalists have a great deal of respect for the power of the river. Others, too, are fully cognizant of its power:

It's a big river. And at flood stage, it's really big. Like I said before, August to September, it gets really low...[but] I always liked that there was a source of water for the livestock. It never went dry. I don't think it ever has. (*Carbon County Agriculturalist*)

That river is a powerful force. It is a powerful, powerful thing. I don't care what man does, if [the river] decides it is going to go, it is going to go. (*Sweet Grass County Agriculturalist*)

I never know where my property line is at....The river takes a little every year. In real high water years, it's more aggressive. It takes fertile soil real fast....I'm not whining, I'm resigned....I've resigned myself to this in sadness. (*Stillwater County Agriculturalist*)

The river is going to do what it is going to do, and you have to live with it the best you can. (*Sweet Grass County Agriculturalist*)

Between our place and Laurel, the land spreads out and they can farm on that side of the river...and I know they've had trouble. They get flooded out. They're in the flood plain, and it gets real bad sometimes. It's a lot of trouble for them. (*Carbon County Agriculturalist*)

In some places [erosion] is tremendous. It depends on the topography and it depends on the river....In some places erosion is a problem; in other places, because of the rocky bottom ground, not so much....Can I say it is a huge problem in the county? No, but it is a problem in certain, specific areas. (*Sweet Grass County Local Civic Leader*)

One thing about the river right now, it is fast, and it is dangerous. People get on it, and they don't know what they are doing. [There are a] bunch of undercurrents. It will take a boat quick. (*Carbon County Recreationalist*)

We saw damage down here with ice. The ice just all of the sudden broke, and spread and knocked down trees....We had an ice jam, and it backed the river up, and it floated ice out all over this area. There were ice chunks, clear over to the bank, the size of Volkswagens. It happened while we were sleeping, and we didn't hear it, but we got up the next morning and were like, 'Holy crap.' (*Sweet Grass County Residentialist*)

The river took that island out in about a week and a half. It had 50 to 60 feet cottonwoods. It was just covered in trees. It just took it right out, you know. That is what the river does. We just expect it is going to happen. (*Stillwater County Residentialist*)

In terms of managing that power, a number of priorities emerge. For participants in the Civic category, the priorities center on roads, bridges, public safety and a desire for better flood plain maps:

Public safety has to be number one. Number two is probably...protection of property rights....I would put a high premium on property rights. (*Sweet Grass County Local Civic Leader*)

One of our obligations is to keep the roads and bridges open, and that would be for emergency services primarily but also, for...school buses. (*Stillwater County Local Civic Leader*)

The good old Yellowstone is a cantankerous old thing. That river is wonderful, but it's also wonderful to watch it. It's going to go wherever it wants to go. I'm kind of torn...because we have people [who] defy us to do any rip-rapping, or to save a public structure, or anything like that. We're not supposed to do that, I guess. That's what I'm hearing. But, darn it, you've got a two million dollar bridge sitting there, and the thing's washing out, you better do something. We can't shut all the traffic off....This bridge down here was in jeopardy. So, they brought in a lot of rock and fixed it. It's fine. We had it protected....We've, [also] had some subdividers that have gone on their own and put in some Mickey Mouse things, jetties. But it really didn't upset the river a whole lot; it's got a mind of its own. (*Stillwater County Local Civic Leader*)

I would like to see a lot better mapping on the Yellowstone River. Most of our maps are 1982 FEMA maps. Some of the Yellowstone has had some updating, and...that is helpful, but there needs to be some better mapping and better understanding of activities in the flood plain, and how to best undertake those, both from a safety issue and also trying to protect the resource. (*Sweet Grass County Local Civic Leader*)

For agriculturalists, the priority is the desire to protect productive land, which is tempered by a sense of futility:

Watching will convince you that nature will take its course....It has worked its way into my meadows...and I've lost productive ground. (*Stillwater County Agriculturalist*)

In some ways, the river is a pain in the neck. You go down there and it [has] taken off five acres. Every year...it just keeps taking more and more. And so, that's why I'd say it's a pain in the neck. Nothing you can do about it. Just watch it go. (*Sweet Grass County Agriculturalist*)

Well, it was about '96 or '97 when it flooded....All of this was under water because it was up about 30 feet. We couldn't get into our buildings or anything over here; it was all under water. We had about four feet of water....It damaged the trees in the meadow. It took three years to get it back in shape....We have probably lost 30 acres in that flood, and it is still taking ground. (*Sweet Grass County Agriculturalist*)

We see ice jams come instantly, like we had thrown a dam right across the river. The same year we saw the 500-year flood, 1998, that winter, we had two ice jams right behind our buildings and in three to five minutes, there were probably 50 acres with two feet of water and icebergs along. One wasn't too bad. The other one really did the job on us—tore out a lot of pens and stuff. I mean, the river is kind of amazing. And, when it forms ice in just 24 hours, ice will start stacking up and look like the Yukon River. (*Stillwater County Agriculturalist*)

Most people recognize that erosion is a natural process and difficult to control. Recreationalists often argue that attempts to control erosion are themselves problematic, but others will also argue that attempting to control the river may not be wise or economically feasible:

That guy spent tens of thousands of dollars rip-rapping it, to protect it. Since the flood, he has done more rip-rapping. (*Sweet Grass County Residentialist*)

When we're talking about the Yellowstone, we're not talking your normal Montana river. I mean...there's a lot of power in this bad boy....It will do what it wants. So...to keep it from eating stuff up, you've got to get pretty tough with it. (*Sweet Grass County Residentialist*)

I'm not sold on whether we should try to engineer the river with rip-rap....I think that's very unnatural. And, yes, [the river] will eat your property. It was eating into our land....but we never rip-rapped it. It's a natural thing. And I guess that's another thing: you got to let these streams be natural. I think you got to let them have their natural habitat, if you will. It's like an animal; a stream has a habitat, doesn't it? (*Sweet Grass County Agriculturalist*)

I don't see that the erosion itself is a huge problem, unless you are a farmer that is losing ground, which is big. I don't think there is much fighting [erosion]. I think rip-rap is a mistake. I think rip-rap is almost an arrogant way that man tries to control a force much bigger than himself. (*Sweet Grass County Recreationalist*)

In '97 to '98, [flooding] changed the Yellowstone River in a lot of places....Pools I used to fish in are not there. The islands I used to mushroom, are not there....[One] man wanted to armor it, and they wouldn't let him, and then when this big flood hit...I don't know how many acres it devoured at that one man's place. (*Carbon County Recreationalist*)

The issues involved in attempting to control the river are complex. One set of complexities is introduced when discussing rip-rap as a remedy. This method is considered effective, but at odds with the notion of a free-flowing river:

Certainly, I understand the people that have property, and they want to try to preserve their property, and I respect that. But the fact is, the Yellowstone is a wild river, and,...to me, it sort of comes with the territory....[We should] try to achieve [a] balance, and not be overly regulatory with citizens [as far as]...what they can and can't do with their property, but, on the other hand, realize that, hey, you're not just doing something that's going to perhaps impact a little piece of property; you're doing something that could have potential impact on a resource that has significant economic impact, [and] social impact...on a whole bunch of people. So, people need to understand [it is] a lot broader than their little piece of property on the river. (*Stillwater County Recreationalist*)

The Yellowstone is, just....It's really cool that it doesn't have a big dam somewhere....It's free....You can see where it starts, and where it ends, and there's nothing stopping it. (*Sweet Grass County Recreationalist*)

Free-flowing at whose cost? The people who want the river to run where it wants to run don't pay for it....I should be getting an award from the free-flowing folks because I've contributed a half-million in the form of lost land. (*Stillwater County Agriculturalist*)

It's the longest free-flowing river in North America, and there's nothing else like it....It's a natural fishery...and it's scenic and it's just an amazing place. The length, the variety, and the types of fishing are unsurpassed anywhere. (*Sweet Grass County Recreationalist*)

You know, there is a lot of agriculture that is being affected by what the river is doing....if it takes its course, it moves all over the place...It is going to do what it well pleases, but maybe we can stabilize it....We put a lot of rip-rap in since [the flood] I have been here. Probably close to 500 to 1000 feet worth of rip-rap and we have applied for more. (Sweet Grass County Agriculturalist)

The rip-rap and the ironclad are the most effective if it is done right....I am more for the agriculture and saving your property. (*Sweet Grass County Agriculturalist*)

The man who owned it before me...spent a great deal of money on it...But, you see, [my losses] all could have been avoided because right at the Yellowstone River Bridge, after the water would go down each year, there was debris and a few rocks, and we would go in with a back hoe and put it back where it was....Then the government made a practice where you couldn't remove that again, so the river swung, and just ate it out.... We should go back to the Army Corps of Engineers, and I should be reimbursed for that rock jetty, because, when I bought the property, that is supposed to be taken care of. And it's very expensive....Everything is so expensive....I don't plan to do anything. I don't have a great deal of faith in the Corps of Engineers. I think they should come out and justify what they did. (*Stillwater County Agriculturalist*)

We certainly have. There is a lot [of erosion] right down on the corner of the subdivision....I suppose [our neighbor] has lost about a quarter of the lot. The river makes a turn in there and just digs. A lot of that bank is leaving, and below there, too, because the owner had to have them rip-rap it along there....And certainly with the flood we have notice....And, that was major. That was major. (*Sweet Grass County Residentialist*)

Yellowstone River is the longest, free-flowing river in the United States, undammed. That is pretty neat, and to do too much to it, [such as rip-rapping], would be sad, too. To do too much, would take away from it....I don't know, just a thought there. (*Sweet Grass County Residentialist*) Additionally, many people understand that rip-rap potentially propagates erosion problems downstream:

When the river is flooding and eroding land it is trying to relieve itself. If you tighten up down here, someone downstream is going to get it. It is almost impossible to get permission to rip-rap. (*Sweet Grass County Residentialist*) [Rip-rap] can definitely have an effect downstream. It re-energizes the river. You definitely have to take a look at that....I'd be very concerned if I was a landowner downstream and somebody put in some rip-rap. They should definitely have a say, too, and there should be some remediation, if [those downstream] lose land as a result of rip-rap upstream. (*Sweet Grass County Recreationalist*)

You can see it takes some planning. If you rip-rap one side of the river it, it'll start eroding, and it makes channels, and it'll bleed off this side over here. (*Sweet Grass County Agriculturalist*)

Sometimes there is an embankment of some sort, whether it is rip-rap, or those barbs that go out into the river with the rock....Maybe the best thing would be to recognize that it is going to happen, and [that]....you can't fix every problem. Putting in some fake retaining wall or rip-rap may exacerbate it instead of fixing it. I am not advocating a specific solution. (*Sweet Grass County Local Civic Leader*)

The north side has a railroad track that has an affect on the hydraulics....Also, things done upstream have made a difference....[The river] works the course of least resistance. (*Stillwater County Agriculturalist*)

You can't go in and interfere with the river anymore. I agree that if you're going to go in and flood someone else, or hurt something—fix mine and flood you—that's not good....[But] when the road washed out a few years ago, they could have stopped that. (*Carbon County Agriculturalist*)

The river is the river, and you are not going to control it. If you are doing something here, it is going to affect something, or someone, down there. High school geology taught me that. (*Sweet Grass County Residentialist*)

Nonetheless, there is a sense that some projects are worth doing:

Projects should be based on merit....[But] the scale that would be effective will never be approved....The 'controlled stream' won't happen....The massive concept won't happen. (*Stillwater County Agriculturalist*)

This bridge here just south of Columbus, it used to have a lot of rip-rap on it. And, four or five years ago, when we had the high water, it took that rip-rap away. And it was big rip-rap. And now, I'd say it's underneath that bridge someplace....That whole bank—it's just a small piece of private property—but that's going to just

keep eroding away to the road. And that's a pretty important road....I think they have to have an aggressive rip-rap program. We've got infrastructure that needs to be protected....Let us get in there to protect [it]....[Let us] put some large rocks, rip-rap, in there to protect those things. Most ranchers cannot afford to rip-rap...and the river just eats away and takes away, but roads need to be protected. (*Stillwater County Local Civic Leader*)

Another issue involves questions regarding rip-rap and the health of the fisheries. Even among recreationalists there is no agreement regarding whether rip-rap does, or does not, impact the fisheries:

It's a real fine balance, in my opinion. I have the utmost respect for other interests....I know we have to work together. So I think that's why it's important that we do strike a balance in terms of some of the things people are looking at. For example, putting the rip-rap on the banks...may prevent erosion of their property and their interests, but, if its not done properly, it could have some sort of adverse impact on the fishery, which concerns me. And then it takes away from that pristine environment....I like the fact that,...in this section [of the river, in] very few places do you see any man-made changes to the river. It meanders, it's pretty natural, and, as you can see [today], it's really roaring....When it starts to lower itself down, some new side channels will [form], there'll be new obstructions,...new fish habitat, and so on. (*Stillwater County Recreationalist*)

It's such a meandering, naturally flowing river; it seeks all these little braids and channels and so on....I'm not sure, but my suspicion is that when you start to mess around with it too much, then it's going to perhaps eliminate or degrade some of that natural structure and...habitat. (*Stillwater County Recreationalist*)

I always figured rip-rap made habitat for the fish....They say it's [only for] the big fish, but you can have two people with the same study, one for one group and one for the other, and you will never have the same answer. (*Carbon County Recreationalist*)

They say rip-rap is bad for the fish and all that crap, and [then] you watch the guides take people where the rip-rap is. The fish love it in there. It is habitat for them. They can get under the rocks and hide. I don't understand [the objection]. (*Sweet Grass County Residentialist*)

Many land owners talk about the expenses involved in trying to stabilize a bank as "quite an investment":

I have no education on how to tame a river, how to keep a river in its boundaries. I think it can be done but it would take quite an investment...The last I heard, riprap was \$125 a foot. It doesn't take long to eat up a life savings. There is no guarantee. It has got to be something on a larger scale than an individual can do. The government will have to do it or nothing can be done. The county can just hold a little here and there....I am sure there is engineering out there that can fix it, but just putting a little bit here and there isn't going to do it. (*Sweet Grass County Agriculturalist*)

Had I substantial resources, there might have been things that could have been done....[But,] the scale is overwhelming....To restructure an old jetty and rip-rap was three to five times the cost of the land....I didn't have enough money because I had just bought the land. (*Stillwater County Agriculturalist*)

We have the permit and everything, but we didn't have the money to. [It] costs too much. (*Sweet Grass County Agriculturalist*)

I remember reading in the paper, after the 500-year flood in Livingston, there was a guy that went ahead and saved some ground. I can't remember how many miles it was, but it costs him \$600,000. That's what he put into it....He must have had a lot of money to invest, because it would take a long time to ever get it back. If it was for agriculture, I don't know if you ever would [regain that money]. (*Stillwater County Agriculturalist*)

Rip-rapping is the cheapest form of erosion control....Some people will use steel plates, and pound in bridge pilings, and make a wall if they are trying to protect a house. Concrete walls are very expensive. (*Sweet Grass County Residentialist*)

That guy spent tens of thousands of dollars rip-rapping it to protect it. Since the flood, he has done more rip-rapping. (*Sweet Grass County Residentialist*)

Also, the permitting process with regard to rip-rap generates lively discussions:

It's got to be a commission that balances everybody. I don't think it should be totally up to the Army Corps of Engineers, or anybody else that permits it. I think you really have to show a need and [show] why this river needs to be armored at this point. There's some very good reasons,...but [no one should] have *carte blanche* to go ahead and place rocks. (*Sweet Grass County Recreationalist*)

We've got a bunch of rip-rap that we got put in before all of the environmental regulations....I don't know...if we can even rip-rap now or not. It's a touchy situation....A lot of these...environmentalist seem to have a problem with it....They said it can create sediment problems....I think it all boils down to they think that if the stream wants to move, it should be able to,...even [if] some guy's paying the taxes on the land....If the river wants to take it all out, they don't care. I think that's the way they look at it. (*Sweet Grass County Residentialist*)

We did a little rip-rap on Bridger Creek last fall, and there were six or seven agencies involved in that permitting process. The county was involved in it. We were working for the county. They were trying to protect county roads. It took months. (*Sweet Grass County Residentialist*)

I think it's a good thing that it's hard to get the permits, but I think they just have to start addressing some different ideas on how to control the river during high water and how to keep a lot of the water in Montana instead of letting it go on down to the Mississippi to support barge traffic. (*Stillwater County Agriculturalist*)

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I've worried a time or two about some of these regulations that the government has on it to where you can't get some very simple things done in a timely fashion. By the time you wrestle with them, why, the condition has changed, or gotten worse, or whatever. That would be one of the complaints:....by the time you deal with all these government agencies, you can get a little bit goofy, you know. And then you get disgusted, and then you get discouraged, and then you quit,...[and] just say, 'The hell with it, they're going to do what they want to do anyway'....But there's got to be communication. There's absolutely got to be communication. And you['ve] got to have it from the engineer, and the hydrologist, and the old farmer/rancher, and grandma and grandpa, and everybody. And you got to talk about it, and discuss it, and see what you can come up with. That's just that simple. (*Stillwater County Agriculturalist*)

Oh, the regulations....The hoops you have to jump through to get a permit to do anything....I wish [the Corps of Engineers] were more accessible....We have a perfect example....We're having a problem on Bridger Creek with some people not complying with...stream regulations, and took them a long time to pay attention. But now they are coming. It just seems like it takes a lot to get them. (*Sweet Grass County Local Civic Leader*)

The use of weirs as an alternative to rip-rap was discussed only by a couple of people. They argue that weirs work well, but that they may not work in every situation:

Bendway weirs. They go into the upstream about a 45-degree angle maybe. You dig them in, and you run them back into the bank....When the high water comes, it flows over the top actually, and it pushes that stream [away from the bank]....[The weir] doesn't cause that scouring effect on the edge. Where, if you put rip-rap out on the edge of the bank, it tends to scour and get deeper and deeper next to the bank,...[the weirs are] much better than armoring. We've had experience with it—made a believer out of me. And these are high,...pretty fast-moving waters. Yeah, it's been used a lot over the years. I think a lot of people weren't really thinking they would work, but they do. They actually do work. If they're put in correctly, and you have a big enough rock, and they're dug in so they're in deep, and the angle is correct on them, [then] they sure do work....[And

they are] cheaper than armoring....You only have to have them every 150 or 300 feet, whatever it might be. So you just build them and we put in three or four....The first year, high water actually ran over them, but they survived. It worked good; it worked just the way it's supposed to. You know, everything doesn't work the same everywhere, but a combination maybe—I was sure impressed with them. (*Carbon County Local Civic Leader*)

Changing Social Profiles and User Practices

A third major discussion among locals is the apparent shift in community values concerning recreational access to the river via private property. Most residents of the area remember when the "old school rules" were abided by among property owners and recreationalists, meaning that recreationalists asked for permission to gain access, the landowner would grant permission, and in return the recreationalist would be respectful of the landowner.

Some Agriculturalists still operate according to the "old school":

All the time I have had it...everyone was welcome to come down and fish, the same way with deer hunting....I've always shared it. [It] never cost me anything to let them go down and fish....It was fine with me. (*Carbon County Agriculturalist*)

There are a lot of local people that use it. It isn't uncommon to see boats along here....We have had people ask to fish here that come from Billings or whatever....I figure if they are good enough to ask, they are good enough to use the river. We haven't had any problems. (*Sweet Grass County Agriculturalist*)

We're pretty liberal with letting people go down on our individual place. But then, the neighbors don't, so, consequently, you get the rush. You know, you get the people....You hate to see it, somebody with a couple little kids, driving clear to Livingston to wet a line. (*Stillwater County Agriculturalist*)

Many recreationalists also discuss the informal "rules" of sharing the river. They, too, notice that not all users are respectful of others or of the resources:

People are usually pretty congenial at the take out. I don't know...you just have to have some etiquette. You have to come from parents that taught you to give a shit. (*Sweet Grass County Recreationalist*)

All in all, the garbage, the campgrounds, everything is pretty neat and tidy....When I was a kid, I saw tires burning along the shore, beer cans. Oh, yeah, it is a lot more clean than it was 30 years ago. (*Carbon County Recreationalist*)

I have given this overcrowding thing a lot of thought. Generally, on weekends, I don't do guiding. If I have to, I get out early, and get in early. Everyone goes out

on the weekend to get away, and they take their dogs. When I first came here, the Yellowstone wasn't really used. Now there are people camping out. People need to take care of their waste. That is another issue. The one thing is, they have put potties in at access [sites], but how do you deal with it on an island? I don't know. There will be a lot more people camping out on that river. That is what I see in ten years. (*Sweet Grass County Recreationalist*)

However, property owners have dealt with abuses; and in response, some have posted their property as private, with the intention of not allowing public access:

[There's] the world-famous hand gesture....[And,] I've had trouble with vandalism. You know, people pouring water in my fuel tank...and being cursed at for taking water out of the river and killing the fish. (*Stillwater County Agriculturalist*)

We had no problem when I was younger. People didn't do that; they respected you. If they wanted to go fish, they came in and asked. You know, they respected people that they don't anymore....That's right; they would even come in to our place and ask if they could put their boat in. I mean, it was all done decently, and it isn't anymore....I mean, we had no problem with it. As long as they come in and ask permission and, you know, did things right. (*Sweet Grass County Agriculturalist*)

Fishers leave everything from defecation to beer cans....Public access does not come with respect....I defy you to keep the fence up that is posted with private-property signs. (*Stillwater County Agriculturalist*)

With the fishing access law, people cannot get to my property if they stay within the boundaries where they're supposed to, but...I catch them coming up, and that really makes me angry. If I decided to go into Billings and camp in someone's yard, you know what would happen? It's the same thing, and it is worse....They put their sanitary napkins on the bank. It's horrible, [dealing with] their garbage. (*Carbon County Agriculturalist*)

Some recreationalists are beginning to think in terms of controls:

It would be really nice if people would regulate themselves, but they just don't do that....I'm really not big on government getting hugely involved in things....Well, I definitely go for regulation, but there'd have to be some forethought. (*Sweet Grass County Recreationalist*)

We don't have to be so greedy. Put some self-limits. We have to start thinking as stewards, not as businessmen. (*Stillwater County Recreationalist*)

All I know [is] I want [to] get these stupid, big boats off the water....The way it used to be, the people you would see on the river were fishermen, not just people

running up and down the river. Now we have the jet skis on there, which I am seeing more and more up in my little turf....Twenty-five years ago...you never heard the sound of the jet boat, and, now, everybody seems to have a jet boat....Certain times of the year, there should be restrictions...[especially in] places where the [water] is real, real low. (*Carbon County Recreationalist*)

Locals position the shifting social dynamics in terms of legalities, while at the same time they lament the changes. Tension is apparent in these communities as they continue to advocate private property rights while they deal with community members that no longer know, respect, nor choose to engage with one another.

As far as out-of-towners locking their places up and not allowing any access, do I like that? No, but I think it is their legal right to do it. (*Sweet Grass County Local Civic Leader*)

At the same time, sympathies across interest groups are easily found:

It's landowners, and sportsmen, and everybody. Basically,...everybody has to work together to make a decision. Most of the time, it's the Army Corps of Engineers that makes the decision....They have a big hand in it...[There] should be more [people involved] than them,...[and] it should be more than the landowner, in a lot of cases, too. That's a tough one, too, even in Montana. Look at some of the old ranchers, 'It's my land, and I'll do what the hell I want with it.' And they're right in a way. It is a tough one. The use and everything has grown so much on the Yellowstone. Montana has gone from agricultural to basically tourism, and the Yellowstone is a huge part of that....But you don't want agriculture to go away, because that's what made Montana attractive in the first place....[We've] got to keep some of the wide-open spaces. (*Sweet Grass County Recreationalist*)

I think that preserving the agricultural aspect of the community is really important and a lot of it can be done through education. I don't think it is a win-lose situation....I think, for the most part, ranchers are pretty responsible. I think that they can do things better, but that is more of an educational process than intent to harm the resource. (*Sweet Grass County Local Civic Leader*)

I think even the people that live in Billings, and Yellowstone County to the east consider us their playground, which is fine. If I lived over there, I'd want to come over here, too. (*Stillwater County Local Civic Leader*) A little guy down on the river said, 'I have seen the elephant and heard the owl.'...He had been to town, he had seen the city, and he liked the rural part. (*Stillwater County Local Civic Leader*)

They want to do what's right. They want proper sewer and water system and they don't want to affect their neighbor's either. So they want to make it work; in most

cases some people don't, but most people do. Most people want to protect the environment. (*Stillwater County Local Civic Leader*)

Is the tax structure the way it should be? Or should the tourists pay more and give Montanans better...schools, roads, etc.? I think taxes are too low. And, under that argument, they should raise the taxes, and tax these new owners. Now, I hate to say this, but I know of municipalities that tax the non-resident owners more than the resident owners. Now I don't know whether that's legal, but they do. (*Sweet Grass County Agriculturalist*)

I think the State of Montana is changing a lot, because there are a lot of people coming in concerned about the river, concerned about the environment....And, I would have to say that you get some out-of-towners, like the people up and downstream from us that frankly have done a great job taking care of things, because they have enough money that they don't have to worry what the hay is selling for and what the cattle is selling for. (*Sweet Grass County Agriculturalist*)

I do think there's another side to it....[Outsiders] bring a lot of money into the community. And, like it or not, they cause property values to increase, meaning that if anybody wants to sell their property, they're going to get a good price for it. And, in many respects, [the new buyers] don't abuse the land. (*Sweet Grass County Agriculturalist*)

In the face of changing contexts, participants from all interests groups maintain a desire to see the issues addressed locally. Attention is paid to the notion that one answer will not fit every situation. Yet, it is apparent that guidelines for making local decisions would be appreciated. Three quotes from Sweet Grass County illustrate that persons in virtually all groups understand that local control will work best if it is guided by helpful information:

I am an advocate of local control. I think it should be a local thing....They know that community best. They understand the needs of the community and the different constraints. It should be a ground up focus. I don't think you can say it is 100 percent local. If you are dealing with a river like the Yellowstone, you are dealing with something that affects other states and areas....Local control should be primary, but not the only consideration. (*Sweet Grass County Local Civic Leader*)

It's a totally different river and environment five miles upstream of Livingston than it is five miles below Big Timber. It almost has to be a special case. I don't think you can adopt a policy for the whole river. It's a different fishery downstream. Below Forsyth and all that, it's an unbelievable warm water fishery...that probably isn't being utilized. Decisions being made down there shouldn't necessarily be the same decisions made up here. It has to be a case-bycase....For one thing, it's a lot bigger river down there. It's a lot flatter, less gradient. I don't think they have some of the rip-rap issues that we do, but, boy, I don't know. It's almost on a case-by-case basis. You really have to look at it. It's a tough one, especially since you're looking at the river all the way down. (Sweet Grass County Recreationalist)

Maybe there needs to be a type of educational thing....It is like building in New Orleans, and building below sea level, and then not expecting water to get in....But, you know, maybe that is something that needs to be done in addition to like building codes, etc. Yes, it would be lovely to have your home here, but a recommendation says 30 feet back, or whatever, because at some point in time, over a period of time, there is going to be some gradual wasting away of the property here. I don't know, maybe that is done. (*Sweet Grass County Residentialist*)

Any number of other conversations can be found within and across the interest group analyses. For instance, invasive and noxious weeds are a common concern, as are interests in wildlife and specific concerns regarding water quality. This summary addressed only the three dominant themes in hopes that the readers would be encouraged to further delve into the details of each interest groups' concerns.

Laurel to Springdale: Agricultural Interest Group Overview

Twelve interviews were conducted with individuals representing agricultural interests, including farmers and ranchers. Participants were recruited from referrals provided by the local Conservation Districts, the Yellowstone River Conservation District Council and the Montana Office of Natural Resources Conservation Service.

Participants in Yellowstone River Cultural Inventory-2006							
	GEO SEG I: Missouri River to Powder River	GEO SEG II: Powder River to Big Horn River	GEO SEG III: Big Horn River to Laurel	GEO SEG IV: Laurel to Springdale	GEO SEG V: Springdale to Gardiner	TOTAL IN GROUP	
AGRICULTURAL	22	22	16	12	14	86	
CIVIC	14	14	18	14	8	68	
RECREATIONAL	15	16	16	13	16	76	
RESIDENTIAL	15	11	16	15	19	76	
GEOGRAPHIC SEGMENT TOTAL	66	63	66	54	57		
NATIVE AMERICAN						7	
PROJECT TOTAL						313	

Laurel to Springdale: Agricultural Interest Group Analysis

I. Specifics of an Agricultural Perspective

A. Lifestyle and Way-of-Life

I like it here....I never wanted to do anything besides be a farmer or rancher. (*Carbon County Agriculturalist*)

This is a nice small town. I think the values of living in this area are pretty good compared to living in a big city. And it's what we like to do and what I've liked to do since I was a kid. (*Stillwater County Agriculturalist*)

This little place won't make a living. Everybody likes that life, but you wonder sometimes if it is really worth it. You stay so busy trying to really make it, to make ends meet. (*Stillwater County Agriculturalist*)

We enjoy watching the wildlife. The osprey, pelicans, geese, ducks....[There are] all kinds of birds down there on the river....We see bald eagles quite often, too, in trees along the river. The ospreys have been an exciting thing for the past three years. We look for them to come back every year. And they do. (*Sweet Grass County Agriculturalist*)

I can just kind of hermit-out here. (*Stillwater County Agriculturalist*)

[It's] just my livelihood, I guess. Now, like I say, I was born and raised here, and until I take my dirt nap that's where I plan to be. (*Stillwater County Agriculturalist*)

I think it's part of the American spirit that the land, as Thomas Jefferson said,...is the only pure thing. The only pure way to live was the agrarian existence, and he saw America as an agrarian society, and Alexander Hamilton saw it as a manufacturing city environment, [a] developed environment. Of course Jefferson was wrong. I mean, what developed was Hamilton's. But I still think there is this Jeffersonian spirit in America where the land is fundamental to their happy existence. That's what Jefferson in effect said, and it's changing, of course, isn't it? (*Sweet Grass County Agriculturist*)

[The river] is the difference....It's either you'd have a crop or you wouldn't have a crop. And, if it wasn't for irrigation water, you just wouldn't have a crop....We're in a semiarid desert region, you know, and so it's the irrigation water that makes the difference. (*Stillwater County Agriculturalist*)

Oh, yeah, we [go to the river], well, at least on a weekly basis....My wife, she was down yesterday with the grandson, and then she was down the day before, and she just loves to
go down there, and sit down there all day....You know, [I] call her on her cell phone tell her to get home, fix supper or something like that. (*Stillwater County Agriculturalist*)

Of course they all talk about nature—nature and this, that, and the other thing. But, you know, we're a part of nature anymore, too. You know, rattlesnakes and us, and everybody's got to get along. (*Stillwater County Agriculturalist*)

When farmers 'got their irrigating boots on,' that's their attitude. You know, if you shut his head gate off, you got a problem. (*Stillwater County Agriculturalist*)

It's a perfect little place and just leave it alone. (Sweet Grass County Agriculturist)

B. Land Should be Productive

I am not a scenic person....I will say it is just another hill to me but there are people that it means a lot to....I am not begrudging them, but if I can't use it, why it is just there? (*Sweet Grass County Agriculturalist*)

Production would be one way to describe my place....alfalfa, grains, things like that. (*Sweet Grass County Agriculturalist*)

I know...right where King Avenue exchanges there used to be a big 80- or 90-acre hay field there, and that guy would level that with a huge level on a big bud tractor, and now it's that land where...the Outback Steakhouse and Wells Fargo Bank and all of that is. It just makes me sick to think of how many hours he spent leveling that and first thing they did was come in and make humps and bumps and ponds and everything else. (*Sweet Grass County Agriculturalist*)

Watching will convince you that nature will take its course....It has worked its way into my meadows...and I've lost productive ground. (*Stillwater County Agriculturalist*)

Especially around Billings I hate to see all that good farm land is being paved over and houses built on it. There's going to come a time when they need that land for food production I think. (*Sweet Grass County Agriculturalist*)

There are a lot of people that are buying land on the Yellowstone now, not so much say from Big Timber down, but from Big Timber up. A lot of them are buying the land and they're not doing anything with it. Either irrigating it or not much at all, letting it just go back to wild....It ties up a lot of land that used to be available for leases or for grazing or something like that. And it makes that much more competition for the land that is available to lease. And it drives the price up a lot. Sometimes it doesn't even pay to lease it. (*Stillwater County Agriculturalist*)

C. Rural Ideals

I've become covetous of our privacy....[I want] an uninterrupted viewscape,...a refuge that helps us restore our soul...[and] a sense of natural things that are not disturbed. (*Stillwater County Agriculturalist*)

If you like to hunt and fish and use the out-of-doors, the river is really important. And if it's all rip-rapped, and a bunch of jet skis and everything are going up and down it, to me that would really spoil the whole thing.....There's [still] a lot of solitude out here, although there's less now than there used to be....[Can] we make a living on the place? Probably not...[In the past] machinery was cheaper, and hey didn't have to put fertilizer on everything, which is expensive. Gas is expensive, you know. (*Stillwater County Agriculturalist*)

The land is valuable, very valuable, but I don't want to get rid of it....I think that I should have the right to keep my property. I really do. People that get a lot [in town] or maybe buy an acre, are so proud—they brag about it. Well, what does it feel like to have 35 acres taken from you? (*Stillwater County Agriculturalist*)

There used to be a lot of city people that had either grown up on a ranch or worked on a ranch during the summer, and they understood about agriculture a little bit....I think agriculture is loosing its clout along the Yellowstone. (*Stillwater County Agriculturalist*)

D. Individual Rights are Important

Montanans don't like to be told what to do. (*Stillwater County Agriculturalist*)

It's your own property and you sell it to someone else. I guess they can do what they want with it. And most of the people that I know are good, but there can be some sour ones. (*Carbon County Agriculturalist*)

If I want to add a little addition on, I should be able to do it. But you can't just add on. You got to go pay for a permit. And that's the same thing with the ranch. You just can't, not that we were going to do anything, but we had a battle to get permission to build. Because I wanted to put the barn right back in basically the same spot that the barn was. And we fought, and they said, 'You can't have it where it was, it will wash out.' Well, I'm going to put it in cement in the ground. That old barn sat on a wooden foundation and it never floated away in the big flood. If I put this one in cemented foundation, that's going to float away? I mean, it's just stupidity. (*Sweet Grass County Agriculturalist*)

I think we need really good agricultural zoning around here, but I don't think that's going to happen. I just don't think the old ranchers will ever accept zoning, someone telling them what they can do with their land. (*Sweet Grass County Agriculturalist*)

[Concerning public access,]...the courts took our riverbank without compensation. (*Stillwater County Agriculturalist*)

We can't do anything with our rip-rap until August 15th because there is an eagle's nest across the road, and we can't disturb the eagle's nest. But, the damn eagle's nest is above the railroad. What is our construction over here going to do? But you can't do anything from, I think, April 15th to August 15th because you will scare the eagles. (*Sweet Grass County Agriculturalist*)

E. Outsiders Have Obvious Wealth and Different Values

There's so much money-pressure anymore for the folks who are out of town and got the bucks and they think they can do just about anything they want to. (*Stillwater County Agriculturalist*)

For some people, they can afford acreage like that and keep it for themselves for hunting and fishing....They put a gate across the road and locked it up. I called them...but they said they were going to let it go green....They've probably got enough wealth that they don't need that rent...[but the] people that went down there for years, they're disappointed, really disappointed they can't get to the river to fish....If they own it, I guess they don't have to give access. (*Carbon County Agriculturalist*)

I think the recreationists tend to think we don't respect the land or honor the land or agriculture people and they think they know a lot about it. But we manage it as it's our living. (*Stillwater County Agriculturalist*)

I think the State of Montana is changing a lot, because there are a lot of people coming in concerned about the river, concerned about the environment....And, I would have to say that you get some out-of-towners, like the people up and downstream from us that frankly have done a great job taking care of things, because they have enough money that they don't have to worry what the hay is selling for and what the cattle is selling for. (*Sweet Grass County Agriculturalist*)

I do think there's another side to it....[Outsiders] bring a lot of money into the community. And, like it or not, they cause property values to increase, meaning that if anybody wants to sell their property, they're going to get a good price for it. And, in many respects, [the new buyers] don't abuse the land. (*Sweet Grass County Agriculturalist*)

I think a community can have expectations, and can convey those expectations to new owners. And some of the locals want them to divide land up, get more tax money, but they don't realize that they're just transferring money from hand to hand. You get the tax money here, but you have to build more schools and more roads here for the people who are paying the tax, so where do you stop? (*Sweet Grass County Agriculturalist*)

So many of these ranches change hands. One guy has it two or three years and he is gone. The next owner is in Chicago. You don't get to know your neighbors. There is a tremendous turnover of wealthy people buying and selling. It is hard to keep track. We don't associate with them like when I was a kid. (*Sweet Grass County Agriculturalist*) Free-flowing at whose cost? The people who want the river to run where it wants to run don't pay for it....I should be getting an award from the free-flowing folks because I've contributed a half-million in the form of lost land. (*Stillwater County Agriculturalist*)

But there a lot of agencies that want [the river] to takes it own course. Let nature take its course. It *is* doing it. (*Sweet Grass County Agriculturalist*)

II. Agricultural Descriptions of the River

A. The Yellowstone is Big and Powerful, but Abundance is Threatened

It's a big river. And at flood stage, it's really big. Like I said before, August to September, it gets really low...[but] I always liked that there was a source of water for the livestock. It never went dry. I don't think it ever has. (*Carbon County Agriculturalist*)

That river is a powerful force. It is a powerful, powerful thing. I don't care what man does, if [the river] decides it is going to go, it is going to go. (*Sweet Grass County Agriculturalist*)

There are about two of those big sandstone rocks left. If the river wasn't so high, you could stand on them....And I wonder where those [other] big rocks went. Where did my big tree go? It was just massive. Whoever's yard that landed in, it sure made a mess. (*Stillwater County Agriculturalist*)

It's a force; it's a force to deal with. (Stillwater County Agriculturalist)

The thing about the Yellowstone River, with such force that it has, with the snow pack that it can contain, and one thing or another, is that even some of these things that you can do, it can undo them. (*Stillwater County Agriculturalist*)

It seems to me that, with more population all the time, it's going to put a lot of pressure on the water that's in there. I think these big cities, and their primaries and all that—they use a huge amount of water. Maybe the river's big enough; I don't know. (*Carbon County Agriculturalist*)

It's clear. We would water our livestock at the Yellowstone a lot. (*Carbon County Agriculturalist*)

B. Ambivalent Sentiments about the River's Character

Absolutely beautiful....It is a wild and uncontrolled river. (*Stillwater County Agriculturalist*)

It is a trashy river. After that flood, there were refrigerators and picnic tables [in the river]. After the boat float goes down, it is a nightmare and you have everything from

beer cans to convertibles....So, it has its own problems. I know it is an old damn river but it needs some attention somehow. (*Sweet Grass County Agriculturalist*)

What is so interesting about the river [is that] sometimes, you glorify it and sometimes you think, boy, that is a monster. I just learn to accept what it does. If you worry about it, you can't do anything, especially when it is really doing stuff, everybody is helpless. Once it is on a rampage, you can't control it then. And you could put in a lot of work ahead of time and it still does what it wants to do. It tears out what you put in. (*Stillwater County Agriculturalist*)

I think the important thing is to recognize the importance of the Yellowstone River, nationally, but mainly for the future of Montana and its people. (*Sweet Grass County Agriculturalist*)

The river is a nuisance....The river is beautiful to look at if it's not eating at you. I pay taxes on something I'm losing. (*Stillwater County Agriculturalist*)

In some ways the river is a pain in the neck. You go down there and it [has] taken off five acres. Every year...it just keeps taking more and more. And so, that's why I'd say it's a pain in the neck. Nothing you can do about it. Just watch it go. (*Sweet Grass County Agriculturalist*)

We border the Yellowstone. That is important to me,...that we live right along the river. It does affect your life....It is home. Just home, that's all. (*Sweet Grass County Agriculturalist*)

The river to me is kind of mesmerizing, interesting. You never know what it is going to do. It is just nice to be watching it all the time. (*Stillwater County Agriculturalist*)

That Yellowstone River...is really...an exceptionally—well, I don't know quite how to put it, but it's really something....It's quite a deal. (*Stillwater County Agriculturalist*)

III. Living with the Yellowstone River

A. Memories of '96 – '97 Flooding, Ice Jams and the Power of the River

Well, it was about '96 or '97 when it flooded....All of this was under water because it was up about 30 feet. We couldn't get into our buildings or anything over here; it was all under water. We had about four feet of water....It damaged the trees in the meadow. It took three years to get it back in shape....We have probably lost 30 acres in that flood, and it is still taking ground. (*Sweet Grass County Agriculturalist*)

When I moved here, you couldn't see the river. By our turn off, it was over against the rock ridge. Since the flood, the whole channel has changed. I wouldn't touch what it is

going to look like in ten years. This may be an island again in ten years. You just don't know. (*Sweet Grass County Agriculturalist*)

Then, about 1998, we had those ice jams and they kind of jarred the rocks loose....Not knowing what was going to happen, maybe we could have done something, [maybe] added more rock. I don't think it would have helped. But it loosened those up and when the flood came, it wiped the jetty out. That was a pretty firm jetty. It lasted from the early '50s to the '90s. So, it lasted a pretty long time. (*Stillwater County Agriculturalist*)

The river is stronger than I am. I used to think I could fix it up....It was so pretty before, honest. It had meadows and trees, and I had it all cleaned up, but it's gone. But I said I wasn't going to do it again, but I've kind of cleaned up....I spent 12 years cleaning it up. It had a rock jetty, and after the flood came, the big flood, it ruined everything. It took 35 acres....I don't think you can stop it....I stood and looked and I thought 'that's just coming straight towards me,' and I was right. It was like you can't imagine....I'm not kidding you; it was kind of eerie....You see the river come, it was like somebody's mad at me—just cut me out. Have to laugh about it....But you shouldn't have a government organization that takes your money and then doesn't work. And they're well-paid and no one is responsible or accountable. (*Stillwater County Agriculturalist*)

A few years ago the river had been cutting quite a bit and they had an ice jam and it deepened the channel and it was pretty stable for a while. Now it is back to ripping and tearing and getting wider and shallower out here....It was more stable in this stretch out here until 1997 when it flooded. (*Sweet Grass County Agriculturalist*)

In the winter, because the river ran right behind our place, we would get ice from ice jams which would flood our place. The river would then flood, and we would wear hip boots all winter. (*Sweet Grass County Agriculturalist*)

But the other thing nobody ever thinks about is what goes on in the winter time with the ice....I mean, we knew about the floods when we built here, but we didn't know about the ice. The ice to me is a lot scarier. Well, like this last winter, November, the river froze....Everything backed up; the main channel on the other side of that island completely jammed up with ice. And then it got warm so all at once all the ice was breaking free. And in the middle of the night it must have really jammed because when we woke up in the morning, all the ice was gone, but the ice was piled maybe five or six feet higher than the top of our barbed-wire fences out there. And if I had been awake at the time, I would have been scared to death. (*Sweet Grass County Agriculturalist*)

We see ice jams come instantly, like we had thrown a dam right across the river. The same year we saw the 500-year flood, 1998, that winter, we had two ice jams right behind our buildings and in three to five minutes, there were probably 50 acres with two feet of water and icebergs along. One wasn't too bad. The other one really did the job on us—tore out a lot of pens and stuff. I mean, the river is kind of amazing. And, when it forms ice in just 24 hours, ice will start stacking up and look like the Yukon River. (*Stillwater County Agriculturalist*)

B. The River Takes What it Wants Via Erosion

I never know where my property line is at....The river takes a little every year. In real high water years, it's more aggressive. It takes fertile soil real fast....I'm not whining, I'm resigned....I've resigned myself to this in sadness. (*Stillwater County Agriculturalist*)

The river takes what it wants. I don't know how you can stop it....Part of my property is across the river [now], which is inaccessible to me or any good, and I can watch from my farm as people go get what they want. They get rocks for their flowerbeds, and that's just how it is. I pay taxes on those rocks. (*Stillwater County Agriculturalist*)

The river is going to do what it is going to do, and you have to live with it the best you can. (*Sweet Grass County Agriculturalist*)

Between our place and Laurel, the land spreads out and they can farm on that side of the river...and I know they've had trouble. They get flooded out. They're in the flood plain, and it gets real bad sometimes. It's a lot of trouble for them. (*Carbon County Agriculturalist*)

If you don't control it, all this bottom ground they call river frontage from the river to where it starts up the hill [will erode away]. Pretty soon, Montana ain't gonna be beautiful anymore. It will be down the river....It may take 200 years to do it, but it could do it. (*Sweet Grass County Agriculturalist*)

Continuously, every year [the banks change] a little bit....On our particular place...in the last 20 years, we've actually gained a little ground, where our neighbors on either side of us have lost a little ground. And why that is, I'm just not exactly sure. But that's just the way...the water flow was, or is. (*Stillwater County Agriculturalist*)

It floods, and houses go down because the ground gives out. People build because they want to live close to the river. Well, the ground gives out. (*Sweet Grass County Agriculturalist*)

My neighbor accused the other neighbor of stealing his fence, and I said, 'You're standing on the top wire, on the silt'....It's a continual thing, maybe of 27 posts there's two left, and the rest is gone....Now I think it's about ready to wash out my corner posts. I see the gate the last time I was down there, hanging over there. (*Stillwater County Agriculturalist*)

What could I do? What should have I done? (Stillwater County Agriculturalist)

People need to leave the river alone, and put up with whatever it does. Because if you lived with it for as long as we have, it changes, and there's no way of getting around it. I don't care how much messing around they do in it, it's going to do its own thing. (*Sweet Grass County Agriculturalist*)

C. A Desire for Control and a Sense of Futility

There are good projects that the Corps can and should do....Philosophically, as I look back 30 years, I'm not sure we could have stopped the natural shift of the river....Nature has its way....It sounds contradictory because the best design at the time might not work. (*Stillwater County Agriculturalist*)

You just live with...[the Yellowstone River]. You can kind of control the fire but you can't control the earth. I don't care what you do, you can't control the water. A fire may switch back on itself but a river is just going to go. (*Sweet Grass County Agriculturalist*)

I think there could be some small dams and things like that to slow the run off, and maybe support some of the streams a little better. You know, the smaller streams. And I think that would help control a lot of it. (*Sweet Grass County Agriculturalist*)

We need some stream bank stabilization in this area. That is all there is to it....[The river] will erode roads and bridges, etc. There is quite a difference in the way it is now from the way it was. (*Sweet Grass County Agriculturalist*)

The dam is a way to control the water, but I personally don't want to see a dam on it, especially if it's up above me. If they're going to build one, then build her on down the way. Hopefully this place would remain an area that would benefit the wildlife, and we can get along without setting right on the river's bank, you know; we can live without doing that. (*Stillwater County Agriculturalist*)

They need to study the stream bank preservation stuff that can be done to keep the river where it belongs, I guess. (*Sweet Grass County Agriculturalist*)

The river should be left ...in it's natural flow...[to go] where it goes. I agree [with] putting rip-rap along the side where you're not changing the flow of the river....You know all you're doing is protecting your land; the water flows the same. You're not sticking it out any, you're just putting it against your bank to keep it from eroding, but you're not changing the channel. (*Sweet Grass County Agriculturalist*)

IV. Controlling the River with Rip-rap

A. Rip-rap Seems to Work in Some Places

The rip-rap and the ironclad are the most effective if it is done right....I am more for the agriculture and saving your property. (*Sweet Grass County Agriculturalist*)

The man who owned it before me...spent a great deal of money on it....But, you see, [my losses] all could have been avoided because right at the Yellowstone River Bridge, after the water would go down each year, there was debris and a few rocks, and we would go in with a back hoe and put it back where it was....Then the government made a practice where you couldn't remove that again, so the river swung, and just ate it out.... We

should go back to the Army Corps of Engineers, and I should be reimbursed for that rock jetty, because, when I bought the property, that is supposed to be taken care of. And it's very expensive....Everything is so expensive....I don't plan to do anything. I don't have a great deal of faith in the Corps of Engineers. I think they should come out and justify what they did. (*Stillwater County Agriculturalist*)

Projects should be based on merit....[But] the scale that would be effective will never be approved....The 'controlled stream' won't happen....The massive concept won't happen. (*Stillwater County Agriculturalist*)

You know, there is a lot of agriculture that is being affected by what the river is doing....If it takes its course, it moves all over the place....It is going to do what it well pleases, but maybe we can stabilize it....We put a lot of rip-rap in since I have been here. Probably close to 500 to 1000 feet worth of rip-rap and we have applied for more. (*Sweet Grass County Agriculturalist*)

I think that you could spot control some of that, if they would let you in there to do, you know, a particular project. I mean, not major, not to change the river completely...but just kind of hit here and there and give it a little guidance. You know, I think that would help. (*Stillwater County Agriculturalist*)

I'm not sold on whether we should try to engineer the river with rip-rap....I think that's very unnatural. And, yes, [the river] will eat your property. It was eating into our land....but we never rip-rapped it. It's a natural thing. And I guess that's another thing: you got to let these streams be natural. I think you got to let them have their natural habitat, if you will. It's like an animal; a stream has a habitat, doesn't it? (*Sweet Grass County Agriculturalist*)

B. Rip-rap and the Potential for Shifting the Problem of Erosion to Elsewhere

The north side has a railroad track that has an affect on the hydraulics....Also, things done upstream have made a difference....[The river] works the course of least resistance. (*Stillwater County Agriculturalist*)

You can't go in and interfere with the river anymore. I agree that if you're going to go in and flood someone else, or hurt something—fix mine and flood you—that's not good....[But] when the road washed out a few years ago, they could have stopped that. (*Carbon County Agriculturalist*)

You can see it takes some planning. If you rip-rap one side of the river it, it'll start eroding, and it makes channels, and it'll bleed off this side over here. (*Sweet Grass County Agriculturalist*)

Secondly, it just changes the direction of the water and turns it....I'm saying that knowing that we've got a half-mile of rip-rapping that's been here since 1950. You know,

I'm sure it's protected the place, but I don't know what's it's done downstream. It may be partly responsible for what's gone on down along that corner. (*Sweet Grass County Agriculturalist*)

The most problems we've had have occurred since the people started messing with the river above us....They've made ditches, they've dug in the river, and it's changed the channel completely. And this happened before the flood....They just take it upon themselves to do what they want to do on their property. The main river used to run right beside our place. Now we get the overflow. It's made channels clear on the other side. (*Sweet Grass County Agriculturalist*)

We have a lot of nice river bottom down here and I suspect it will be gravel bar depending upon too many more floods. The river is making a big 'S' and it keeps digging here and it is rip-rapped over by the road and now it comes down in a big curve and that is what takes the dirt away. (*Sweet Grass County Agriculturalist*)

They rip-rapped the whole thing, and it...[sped] up the river [so] that it created a whole wet land where ever it wasn't rip-rapped you know, and it came out, and that's what the rip-rapping does. You know, before there was any of that, it had spread out a little bit everywhere, and it would fill channels and fill sloughs along the way. And I think that filling those sloughs and the channels, during high water is what helps to recharge the river in the wintertime. Because the river in the wintertime is lower than I've ever seen it last year. And it just seems like it keeps getting lower. And I think a lot of that's due to those sloughs and things not getting filled from flooding. (*Stillwater County Agriculturalist*)

C. Rip-rap and Difficulties Getting Permits

It's getting so difficult to get your permits, and this that and the other thing, that it's a little difficult to implement some of the plans that you might have or you think would work. (*Stillwater County Agriculturalist*)

I think it's a good thing that it's hard to get the permits, but I think they just have to start addressing some different ideas on how to control the river during high water and how to keep a lot of the water in Montana instead of letting it go on down to the Mississippi to support barge traffic. (*Stillwater County Agriculturalist*)

So, yes, there has to be some control as to how it's done, and [yet] not turned off completely. I don't think the bank stabilization should be shut down completely, but it is going to come to that. (*Sweet Grass County Agriculturalist*)

I've worried a time or two about some of these regulations that the government has on it to where you can't get some very simple things done in a timely fashion. By the time you wrestle with them, why, the condition has changed, or gotten worse, or whatever. That would be one of the complaints:....by the time you deal with all these government agencies, you can get a little bit goofy, you know. And then you get disgusted, and then

you get discouraged, and then you quit,...[and] just say, 'The hell with it, they're going to do what they want to do anyway'....But there's got to be communication. There's absolutely got to be communication. And you've got to have it from the engineer, and the hydrologist, and the old farmer/rancher, and grandma and grandpa, and everybody. And you got to talk about it, and discuss it, and see what you can come up with. That's just that simple. (*Stillwater County Agriculturalist*)

D. Rip-rap is Costly and Few Can Afford it at an Effective Scale

Had I substantial resources, there might have been things that could have been done....[But,] the scale is overwhelming....To restructure an old jetty and rip-rap was three to five times the cost of the land....I didn't have enough money because I had just bought the land. (*Stillwater County Agriculturalist*)

We have the permit and everything, but we didn't have the money to. [It] costs too much. (*Sweet Grass County Agriculturalist*)

I have no education on how to tame a river, how to keep a river in its boundaries. I think it can be done but it would take quite an investment...The last I heard, rip-rap was \$125 a foot. It doesn't take long to eat up a life savings. There is no guarantee. It has got to be something on a larger scale than an individual can do. The government will have to do it or nothing can be done. The county can just hold a little here and there....I am sure there is engineering out there that can fix it, but just putting a little bit here and there isn't going to do it. (*Sweet Grass County Agriculturalist*)

I remember reading in the paper, after the 500-year flood in Livingston, there was a guy that went ahead and saved some ground. I can't remember how many miles it was, but it costs him \$600,000. That's what he put into it....He must have had a lot of money to invest, because it would take a long time to ever get it back. If it was for agriculture, I don't know if you ever would [regain that money]. (*Stillwater County Agriculturalist*)

I had a local contractor come down and look at it, and he said it costs a hundred dollars a foot to put rip-rap or stream bank preservation in there. And then there's no guarantee it's going to stay there. (*Sweet Grass County Agriculturalist*)

E. Rip-rap and the Question of Fish

The rip-rap, they say, is going to scare the fish. The big fish are going to lie on the side of it and the little fish are going to come by. They are going to get them. That was the explanation I got. (*Sweet Grass County Agriculturalist*)

Well, it's not nearly as attractive, and you know it changes the fish habitat, too....Well, depending on the time of year. If it gets very hot, they need the rapids....And you do get fish that will kind of hide in the big rocks of the rip-rapping. It just kind of turns the Yellowstone into a big irrigation ditch in my opinion. (*Sweet Grass County Agriculturalist*)

F. Rip-rap and the Question of Aesthetics

I know everyone is against rip-rap but the one we...[have] is a pretty high tech rip-rap system. You would hardly even know it is there....Basically what we are doing will hardly be noticeable. It will have a mat over it and trees planted....It will be effective, hopefully....I guess you would say it is supposed to beautify the river so if you are floating down the river you say, 'Boy, how did that form that way?' Not, 'What damn fool put that rock in there!' (*Sweet Grass County Agriculturalist*)

[The current rip-rap] sure beats car bodies...used along the river. The people that are floating down don't want to see car bodies. You got to have a little scenic. (*Sweet Grass County Agriculturalist*)

Well, number one, it's pretty ugly. (Sweet Grass County Agriculturalist)

Some people don't like the looks of it but 90 percent of the time when they go down the river they are two-thirds shot and they wouldn't know what it looks like anyway especially during the boat float....You can go in and throw in some rock but we just put some in down by the riverfront which is no big deal and I have seen bricklayers not do as cute a job as I did with the track hoe—just lay them in there and they just look like they are natural just all laid in there nice and even. (*Sweet Grass County Agriculturalist*)

V. The Public Demand for Access is More and More Problematic

A. Abiding by "Old School" Rules of Accommodation

All the time I have had it...everyone was welcome to come down and fish, the same way with deer hunting....I've always shared it. [It] never cost me anything to let them go down and fish....It was fine with me. (*Carbon County Agriculturalist*)

There are a lot of local people that use it. It isn't uncommon to see boats along here....We have had people ask to fish here that come from Billings or whatever....I figure if they are good enough to ask, they are good enough to use the river. We haven't had any problems. (*Sweet Grass County Agriculturalist*)

We're pretty liberal with letting people go down on our individual place. But then, the neighbors don't, so, consequently, you get the rush. You know, you get the people....You hate to see it, somebody with a couple little kids, driving clear to Livingston to wet a line. (*Stillwater County Agriculturalist*)

Trespass[ing] might be a problem, but I don't have that problem....Hell, if people want to fish, I don't care. I've never put up a 'No Fishing' sign or a 'No Hunting' sign. (*Sweet Grass County Agriculturalist*)

B. Access and Abuses

We had no problem when I was younger. People didn't do that; they respected you. If they wanted to go fish, they came in and asked. You know, they respected people that they don't anymore....That's right; they would even come in to our place and ask if they could put their boat in. I mean, it was all done decently, and it isn't anymore....I mean, we had no problem with it. As long as they come in and ask permission and, you know, did things right. (*Sweet Grass County Agriculturalist*)

Fishers leave everything from defecation to beer cans....Public access does not come with respect....I defy you to keep the fence up that is posted with private-property signs. (*Stillwater County Agriculturalist*)

I think, [in] the past ten years, the recreational use has really increased. And not just for fishing, but for hunting, too, on islands, and gaining access to your property and poaching from boats and stuff, whether it's waterfowl, deer, elk or mushrooms it seems like. (*Stillwater County Agriculturalist*)

What drives me nuts is a people problem....People have—and they're getting worse absolutely no respect for private property....They shoot game from rafts....We can't patrol and we shouldn't have to. (*Stillwater County Agriculturalist*)

I used to love the river when I was a child, but now it brings in recreationists....They build campfires on [my] property. I found a bunch of marijuana,...And sometimes I wonder if I'm safe there. We had...an ex-con; he lived down there for six months....And last summer, in the middle of the night, I got a call that a girl on those motor skis had come off, [and] could the search and rescue go down there? I immediately said, 'Yes.' [Well,] they left the gates open with the cows. They couldn't do anything right....Not everyone, I don't mean that everyone's bad. (*Stillwater County Agriculturalist*)

With the fishing access law, people cannot get to my property if they stay within the boundaries where they're supposed to, but...I catch them coming up, and that really makes me angry. If I decided to go into Billings and camp in someone's yard, you know what would happen? It's the same thing, and it is worse....They put their sanitary napkins on the bank. It's horrible, [dealing with] their garbage. (*Carbon County Agriculturalist*)

I can understand that the river is a force of nature you can't do anything about. The human nature is what you can't...understand. They tell you now, pack it in, pack it out, and there's a lot of good people. I'm not saying everyone's that way, but there's always a few that have no respect for anything. And I'm sure you've seen it. (*Sweet Grass County Agriculturalist*)

There again, you'll have another person who'll kind of look after the one who's chucking the beer cans. You'll have another one pick them up, so there's that kind of deal. (*Stillwater County Agriculturalist*)

[There's] the world-famous hand gesture....[And,] I've had trouble with vandalism. You know, people pouring water in my fuel tank...and being cursed at for taking water out of the river and killing the fish. (*Stillwater County Agriculturalist*)

I don't like to hear the loud...jet boats....We go there for the peace and the quiet and tranquility. They're disturbing all the natural habitat....[Also,] there are a lot of the people that don't obey the laws. You're not supposed to go above the high water line...[but] they pull off and...go wherever they want to go. They don't care. I understand you've got to stop and go to the bathroom once in a while. That's a different thing....[But] garbage laying all over [is different]....And we've had people take things....There's no respect for the law. There's no respect for anyone who owns any property. (*Sweet Grass County Agriculturalist*)

It's the people that are the biggest problem, not the river. It's nature; there's nothing you can do about that, and it's going to come down whether you want it to or not. (*Sweet Grass County Agriculturalist*)

C. Denying Access: Avoiding Abuses and Liabilities; Generating Income

It isn't about trespass; it's about respect. (Stillwater County Agriculturalist)

We don't allow big game hunts down on our place anymore. And one of the reasons is that a couple of houses are fairly close to our property. (*Stillwater Agriculturist*)

The first year I was here, I didn't know the area and I let people in to rifle hunt. Since that time, I just confined it down to bow hunters. You've got to be pretty careful where you're going to shoot or you're going to be shooting at somebody's house or the interstate or something. I don't want that liability. (*Sweet Grass County Agriculturalist*)

I have one...I let hunt, and I finally said, 'You need to do some work.' And he said, 'I'll help you with anything.' And he didn't show, and didn't show. Next year he called and said, 'Can I go?' I said, 'Yeah, but you owe me for two times, now.' I caught him in there last year. So, I'm not going to let people hunt. If you want to hunt and fish, go buy your own place. They've made it that way. (*Stillwater County Agriculturalist*)

My hunting rights are leased out,...mainly whitetail and turkeys. Maybe sometime in the future it will be for elk if they become more of a resident herd, but right now, they just come in during the summer time and eat up all my alfalfa in the fall. (*Stillwater County Agriculturalist*)

We have clients that come down and hunt on the place. (*Sweet Grass County Agriculturalist*)

VI. Life-forms of the River

A. Wildlife

Oh, we've got any amount of blackbirds, robins, sparrows. Just about any thing you want out there, we've got it. We've got two sets of eagles that share a cliff dwelling there. They stay...there every year....And there's a golden eagle and a set of bald eagles, also. Then we got all the ducks, and geese, and what have you. We've got these swans, now, here the last few years. And those...with the big bill, that catch all the fish....We saw 12 pelicans....about two weeks ago. Oh, we got lots of turtles, fish of all sorts: carp, trout, suckers....We've got whitetail deer. Last fall we had a little black bear, and we get a few elk that cross through there. Usually, the elk come in, and they'll calve out there in the spring. We even had a moose or two. And they pretty-much are the same thing—they come across from the Clarks Fork Valley, and calve out there, and go back over and up toward Yellowstone Park, by that drainage area. And we've got pheasants, and, oh, very nearly anything you can call wildlife. (*Stillwater County Agriculturalist*)

The type of animals that are there, that hang in there, I mean that's where they want to be. You know, evidently it has everything that they need. Especially where the ducks and geese [stay]....Although they do migrate some; we've got some I know that just stay there because we've got them year round. (*Stillwater County Agriculturalist*)

I support the herd. I just don't get to harvest any of them....We have 80 acres of hayfield down there, and it's all into alfalfa. In one night I saw 77 whitetail, 55 mule deer, and 38 head of elk on there. So, I was wondering why it wasn't growing faster....By fall, I think the mountain lion, or something, moved in, and it chased them all out of there....Yeah, we found two or three carcasses that were buried, and that's usually a lion. And then the wildlife left pretty quick....We've even had lynx down here. (*Stillwater County Agriculturalist*)

B. Cottonwoods

When these erosions begin to take place, these big cottonwood trees that are along the Yellowstone River start to hang out over the water, and another year or two they will get washed out and when they tip over, they come out with roots and all, and there's where you cause a lot of erosion right there. If they were to come along and catch those trees as they get in the leaning position, a year or two ahead, and stump them off, and either float the tree on down the river somewhere or hook onto it and drag it out, and deposit it somewhere, they wouldn't lose near the ground that they can lose now....Like I say, when those big cottonwoods go over, they cause a lot of turmoil....They bring out a lot of that old mud and dirt and everything just goes on down the river. (*Stillwater County Agriculturalist*)

Well, you know, if you look at our trees, they're all mature trees. Go down along the river there, there aren't any young trees anymore. Because the only time you get any natural cottonwood reproduction is during the flood years. The seeds come down, they flow down, they get imbedded in the mud from the floods, and that's how you get the

cottonwood stands....Flooding is necessary for the regeneration of the cottonwoods. That's a good reason why not to do anything, from my point-of-view. A lot of people disagree with me. (*Sweet Grass County Agriculturalist*)

And right now, the cottonwoods are seeded and the entire place is cottonwoods, and I am not going to do anything about it....Cottonwoods reseed with the flood, and it's almost solid cottonwoods now....I'm going to have all those cottonwoods. I just say I'm growing firewood for my grandson. The weed man is concerned, says you need to spray those. Why? I'm not putting money into those; it's hopeless. (*Stillwater County Agriculturalist*)

Well, [cottonwoods] give a lot of shade, and, at one point in time [we used them]. For instance, our old barn, the floor in it is made out of, probably four-inch slabs of cottonwood....It's in the old barn, in the old horse barn...And then from the fact of shade, and this type of thing, and habitat for the birds and one thing and another....And like I say, at that time way back it was used for lumber, and fence lumber, slab lumber. A lot of our corral fences were slab lumber, cottonwood and this type of thing. But, right at this point –in time, lumber-wise, they're not a thing of value, so to speak. (*Stillwater County Agriculturalist*)

C. Exotic Invasive Plants—Noxious Weeds

Any body of water is a weed source. So, it's just a given that that's the way it is and it's not a problem necessarily, but it's something that you just got to deal with continuously. (*Sweet Grass County Agriculturalist*)

The flood of '97 brought in the weeds,...foreign weeds....If you don't cut them every year, they just turn into a weed patch....It is basically a place for spotted knapweed and leafy spurge. Every time there is high water there is a new batch brought down. (*Sweet Grass County Agriculturalist*)

Well, if you don't graze it, it will just be more brush. I feel that way about it....The sheep, they used to clear brush,...mainly to control leafy spurge, which is a bad weed. (*Carbon County Agriculturalist*)

Spurge destroys everything else....Knapweed is hard to find, for me, until it blooms....I'm using Cimarron. I haven't used it before, but it's supposed to sterilize the seeds. I have a thing with weeds. I have it under control....[Sometimes] the bears kept me from spraying up there. I can't get by her babies. (*Stillwater County Agriculturalist*)

I have to tell you, the first 20 years I spent a lot of time spraying, but you never seem to get ahead. So the sheep we're putting in now will be eating the spurge. Frankly, the spurge beetles we put out in some parts of the ranch have gotten rid of 95 percent of the spurge; in other parts of the ranch, I can't tell that they've made any difference. And I'm sure it's just a difference in habitat. The island right across this channel right here, we can look at it when we get done, but this time of year there would just be a field of yellow

with all the spurge. And we've put some beetles over there, and it got rid of 90 percent of it. I don't quite understand why it worked there and it doesn't other places. But biocontrols make a huge difference. Not only that, they're really cheap. (*Sweet Grass County Agriculturalist*)

VII. Visions of the Future

A. Visions of Change

[Did you sell the land for agricultural purposes?] No, [for] recreation....They just leave things natural, not disturb anything, and not farm anything....It doesn't bother me any. (*Carbon County Agriculturalist*)

It's starting to look like home sites....There will be more houses all along, wherever they can buy small acreage....If [they] could get five or ten acres, if there's access to build a home, then I understand it's for sale, and they're going to subdivide it....The real estate man had called me up about it, says there's a guy from Atlanta, Georgia, who wants to build a house out there. (*Carbon County Agriculturalist*)

I think it's going to grow; more and more people are moving into the area....People are moving out of the cities to find decent property, get out of the rat race and come out here and develop this. There's a lot of construction going on in this county, but the population doesn't increase that much. They're mostly people that are putting in second homes. They'll come here in the summer for awhile and then they're gone. These people over here are building five brand new houses....They're only here just every once in awhile. They fly in their jet, stay for a weekend, and then they're gone. There's a lot of that going on. (*Sweet Grass County Agriculturalist*)

I hate to see the way it's going up, not just up here, but when you get down to Billings, and it seems like Billings just keeps creeping west farther and farther, taking valuable farm land and really putting some people out of business just because of zoning. And, all of the sudden, they were in agriculture trying to grow crops and they're having to pay taxes and you know they are a lot higher than they used to be, and they just can't afford it. (*Stillwater County Agriculturalist*)

See, that'll make it worse for me, and the less land we have to absorb moisture, which we don't get anymore, now as we start paving, then that makes it worse, too. I think probably the parts that man is trying to interfere with made it worse, too. It doesn't work....I think it will get worse, because there's no place to absorb the runoff as we build up. Some fool will build near it. Anywhere near it where you could see it, that's too close. I had some people want to trade me their yellow house in town for that pasture, and they were going to build on it. (*Stillwater County Agriculturalist*)

Recreation is coming on faster and faster; every year there...[are] more boats. In fact, I wonder sometimes if it's going to get to where it has so many boats in some places that they'll have restrictions for motors, and it'll be just float boats. I think maybe in the

future, something might happen like that, just because of the impact and the noise. I don't know if it will, but I look for something like that maybe to happen. (*Stillwater County Agriculturalist*)

Land prices are going up all the time. It is tempting for people to sell....You can't buy the land and make it produce enough to make payments. That is changed in my lifetime. (*Sweet Grass County Agriculturalist*)

I would kind of hope that it wouldn't change a lot. I hope that they keep the building and residential developments away from it. A certain distance, anyway. (*Stillwater County Agriculturalist*)

There are other things out there besides agriculture that they need to be worrying about. The Conservation Districts, including Sweet Grass County, have always been just concerned with just irrigation practices, diversion dams, and rip-rapping. They've never looked at it from any other point of view. (*Sweet Grass County Agriculturalist*)

Well, I think the county commissioners...have to realize that there's a lot of money that's in the county because of recreation and not just agriculture....The tourists are coming because of the scenery and the recreation and, frankly, part of the beauty of the land are these big unspoiled ranches. But the ranchers aren't being able to make a living on it. So, somehow or other they have to be able to cash in on the recreation too....Most of the old ranchers look at...the people who are interested in recreation as being a bunch of environmentalists, which is kind of a dirty word around here. (*Sweet Grass County Agriculturalist*)

It's changing rapidly....I was talking today to a man selling his ranch who has two offers on it right now. And I think that a lot of people don't realize how quickly it's changing....I think Montana needs to decide, do they want tourists?...Montanans need to sit down and decide the future of Montana, plan it. What do they want it to be? Want it to be this? How do you keep it this way, or make it this way?...It's going the other way....[Montanan's have] got to be the author of the future. They've got the opportunity, now, because it hasn't been ruined like many places in America....Seize this opportunity, and do it together, work in a cooperative way, and work out the future. Well, that's a lot to say,...[and] hard to do. (*Sweet Grass County Agriculturalist*)

I think the attachment to the land is what's going to save Montana from overdevelopment. It's what's going to be the thing that will make more people to give donations to conservation easements or try to protect their land or try to sell it to someone they don't think is going to kill it—that kind of thing. (*Sweet Grass County Agriculturalist*)

Is the tax structure the way it should be? Or should the tourists pay more and give Montanans better...schools, roads, etc.? I think taxes are too low. And, under that argument, they should raise the taxes, and tax these new owners. Now, I hate to say this, but I know of municipalities that tax the non-resident owners more than the resident owners. Now I don't know whether that's legal, but they do. (*Sweet Grass County Agriculturalist*)

B. Management Priorities

I think that sort of thing is critical: to leave a fringe on the river undeveloped, to keep the water as pure as possible, to try to work on the tributaries, be sure the ranchers have adequate water, but don't have any more than they need at the times they need it. I think they're working on all that. But I think it'd be great to get people to sign a voluntary thing that we won't build within 200 feet of the river. (*Sweet Grass County Agriculturalist*)

Being an Ag individual,...of course I'd want agriculture to have a priority. But I do know from when I was on a Conservation District, that drinking water comes first, then Ag water, which kind of makes sense, too. (*Stillwater County Agriculturalist*)

A lot of people are switching to center pivots and sprinklers that have no recharge to the ground water. It will put on just enough to feed the crop, and a lot of the moisture they do put on goes up in the air to evaporation. That's all water that should go on the ground, I guess. Normally we would irrigate with flood irrigation. (*Stillwater County Agriculturalist*)

I don't know if those programs [for rip-rap] are available anymore. Well, if you signed up, you could sign up with the local ASCS office, and jump through the hoops and their engineer would come out and look at the project. They would do all the cost analysis. Then they would cost share it a certain percentage. (*Sweet Grass County Agriculturalist*)

I really do believe in protecting the river as far as pollution goes....I haven't gone right up to the stream bank and sprayed weeds. I've got sprinkler irrigation so I don't have any waste water from my irrigation that goes back into the river....Everybody's got to have water. It gets messed up and it's not good...because wildlife and everything is affected by it. I think that it is our lifeline for everybody....If there was an individual that was polluting the river, intentionally or whatever, water quality probably would be higher priority than their property right. I would think at least equal....It concerns everybody if somebody's messing up the water; nobody has the right to do that. (*Sweet Grass County Agriculturalist*)

Laurel to Springdale: Local Civic Leaders Overview

Fourteen interviews were conducted with individuals holding civic leadership positions, including city mayors, city council members, county commissioners, flood plain managers, city/county planners, and water/wastewater treatment managers. Participants were identified through public records.

Participants in Yellowstone River Cultural Inventory-2006						
	GEO SEG I: Missouri River to Powder River	GEO SEG II: Powder River to Big Horn River	GEO SEG III: Big Horn River to Laurel	GEO SEG IV: Laurel to Springdale	GEO SEG V: Springdale to Gardiner	TOTAL IN GROUP
AGRICULTURAL	22	22	16	12	14	86
CIVIC	14	14	18	14	8	68
RECREATIONAL	15	16	16	13	16	76
RESIDENTIAL	15	11	16	15	19	76
GEOGRAPHIC SEGMENT TOTAL	66	63	66	54	57	
NATIVE AMERICAN						7
PROJECT TOTAL						313

Laurel to Springdale: Local Civic Leaders Analysis

I. Community Complexities

A. Thinking in Terms of Priorities

Two things come to mind right now. Although I believe in personal property rights,...I believe, too, that...not everybody is going to get everything they want. It just has to be that way. (*Stillwater County Local Civic Leader*)

Public safety has to be number one. Number two is probably...protection of property rights....I would put a high premium on property rights. (*Sweet Grass County Local Civic Leader*)

Montana has a lot of small communities....I don't think they will survive unless they invest a lot of time and you start to use the Yellowstone as an asset. You have to get [the young people] to come back instead of leave. There are some really neat communities. I think those along the Yellowstone have a better chance than those away from it. I grew up in a community that I loved enough that I wanted to come back to it. I would hope that my kids and grandkids would have that opportunity....I just would like to see all our communities...keep the Yellowstone as pristine a river as they can. I really think we need to utilize it more. (*Stillwater County Local Civic Leader*)

I think we're going to see a lot of change because we have endless amounts of subdivisions going in. That brings a lot of problems with it. And they're wonderful people. We have doctors, and veterinarians, and all kinds of people living out in the hills here. They just want to be left alone, but they're going to get terribly bored after a couple of years. And we just wait for that, so we can put them to work as a volunteer. They're really wonderful people. (*Stillwater County Local Civic Leader*)

I do have a concern for the next ten years....We're losing our ranching community to subdivisions, and many of those were subdivided without proper roads, proper review, without water. They're hauling water. (*Stillwater County Local Civic Leader*)

In regard to this Yellowstone River study, years ago they got a grant, somebody did, [and] people began looking after the Yellowstone. I went to a couple of their meetings, and I couldn't believe what I was seeing. There were a bunch from DNRC [Department of Natural Resources and Conservation] and those groups—that was all that was at the table—there were people from the university, people from the City of Billings, the fishing people, Ducks Unlimited, all these nonprofit groups. They had a token rancher there who lived 30 miles north of Big Timber and he didn't even live on the Yellowstone. On the way home I thought, 'What kind of a deal is going on here?' I made a list of all the folks who lived on the Yellowstone River, and checked, and not one of them were called. Yet, they were setting the future of those people. (*Stillwater County Local Civic Leader*)

I want people to get along so that, in the end, we have a free-flowing Yellowstone River that behaves itself—if that's possible. But I really believe in people respecting others' thoughts, and not doing things just because the law is on their side, or [because] they can [afford] a lawyer. They can threaten people and get away with it....There isn't a problem that can't be solved if we work on it and reach a little consensus, but some people are so ticked-off that they won't come to the table. They know that they won't be treated properly....There's enough of these high rolling dudes in the country that they intimidate folks....Meanwhile, the river runs. I'm going to start a new soap opera series and call it *As the Still Water Ripples*. I tell you, we could keep that thing running for years. (*Stillwater County Local Civic Leader*)

Oh, yeah, sure we can [have management]. You know, private property rights are hard to...step on,...but there's sometimes when, maybe, you have to do something, or [you have to] mitigate,...or hope, or give them a carrot, or whatever. (*Carbon County Local Civic Leader*)

[We] try to protect the people that have been here with their agriculture. You know, irrigation ditches. Things that have been there will be there. And [we] try to make sure that nothing infringes on that. (*Carbon County Local Civic Leader*)

We own five acres down by the river, and they want to tax you really high even if you don't develop on it, because it is near the river. That is not necessarily an asset. It could disappear. (*Stillwater County Local Civic Leader*)

B. Roads and Bridges are Central Concerns

Roads are probably the biggest thing. They take a relatively big part of the budget. Roads are something that everybody uses, and we have a lot of problems with them. We can't afford to do all of the graveling we need,...[and we can't afford] to replace all the bridges that should be replaced. (*Stillwater County Local Civic Leader*)

Well, the river keeps washing the roads out...and we're trying to get...funding to...keep [the river] away from the road. It's very frustrating trying to deal with the different agencies that don't want to see any rip-rap or any protection. They want to let the river go wild. But that sounds good, but it doesn't really work in real life....We know how to fix it....We could fix it, but...you have to get permission, [and]...they won't allow you to put rip-rap in it. (*Sweet Grass County Local Civic Leader*)

One of our obligations is to keep the roads and bridges open, and that would be for emergency services primarily but also, for...school buses. (*Stillwater County Local Civic Leader*)

The road washed on the Clarks Fork. We had to haul a lot of rip-rap in, and, what we did was, we just armored the bank...a little bit, and put a couple of those weirs in, the Bendway [weir]. We did that in two different places to save the road. The Clarks Fork is a wild river. (*Carbon County Local Civic Leader*)

If they would have listened to the old-timers they could have saved a few billion dollars and kept the Joliet Road from washing out. They put in a dike with big boulders and logs, and it diverted the river. Eventually, it eroded, and the county didn't pay attention to it, and it washed the road out and took farm ground out. That is the problem that is inherent everywhere. They like to use, and ultimately abuse, the assets. You have to invest time, and money, and effort to help the river survive. (*Stillwater County Local Civic Leader*)

When this lady developed this huge holding out here, 4,500 acres, she just kind of put in a narrow little road that's rocky and it's like negotiating the Yellowstone River when the water's down. It's rough, terrible. You can't get emergency vehicles in, you can't get people out and when we have a fire, we really worry. (*Stillwater County Local Civic Leader*)

The good old Yellowstone is a cantankerous old thing. That river is wonderful, but it's also wonderful to watch it. It's going to go wherever it wants to go. I'm kind of torn...because we have people [who] defy us to do any rip-rapping, or to save a public structure, or anything like that. We're not supposed to do that, I guess. That's what I'm hearing. But, darn it, you've got a two million dollar bridge sitting there, and the thing's washing out, you better do something. We can't shut all the traffic off....This bridge down here was in jeopardy. So they brought in a lot of rock and fixed it. It's fine. We had it protected....We've, [also] had some subdividers that have gone on their own and put in some Mickey Mouse things, jetties. But it really didn't upset the river a whole lot; it's got a mind of its own. (*Stillwater County Local Civic Leader*)

C. Flooding and Safety Concerns

In '97, when we had high water, it was about six inches over the road. That caused a problem down here. I have had it surveyed. There is just a low spot in the road. It came really close to trying to take out the bridge. Maybe seven, eight or nine years ago, they were dumping huge boulders to try to stop that from happening because they were afraid of losing the bridge. If you look at the river, it is coming straight at the bank. That is a tremendous amount of force in that area. If the bridge washes out that is catastrophic for these people. Stillwater Mine, agriculture, even getting to work for people would be a burden. The road they built has already gone to pits. (*Stillwater County Local Civic Leader*)

[Ice jams] cause flooding....They dammed it up, and [the water's] going to go somewhere....[In the past we would] blow them up....I don't think they hardly do that anymore...because it could just move the ice jam down to the neighbors. (*Sweet Grass County Local Civic Leader*)

In the winter you can have ice jams that will block things, and there can be flooding in the wintertime as a result of that. Or damage from the ice itself. It's something that concerns us, and we are looking out for it every winter and every spring. (*Stillwater County Local Civic Leader*)

Some ranchers and farmers [might be] flooded. I don't know if they are or not but that's the potential, and some years they do. (*Stillwater County Local Civic Leader*)

Well, the river's pretty darn high now, and this is the time of year when we can easily get calls from people playing on the river in their jet boat, and...somebody's overboard. And our county has to initiate a search and rescue effort with our sheriff's department. (*Stillwater County Local Civic Leader*)

I don't think people should build too close to the river, for their own safety. By the same token, I am a strong believer that the river belongs to the people, and they should have access to it. It is limited access now. (*Stillwater County Local Civic Leader*)

They're demanding county services,....[but the people in subdivisions] don't want us around normally. They don't want to pay these 'high' taxes,...[when, really,] our taxes are cheap. (*Stillwater County Local Civic Leader*)

Subdivisions are fine, but they've got to think a little bit and not depend on local government to bail them out or...to come and get them. (*Stillwater County Local Civic Leader*)

We don't have any setbacks here. In my view, the reason we don't is that,...once you get beyond safety,...whether 300 feet or three miles, setting an arbitrary number doesn't give you flexibility. Some people want to address it for more of an aesthetic point of view. It is strong in this county. That is a local issue. You aren't dealing with the public safety, or resource damage [due to] bank channelization. You are dealing, very much, with local issues and [with] what importance people put on specific criteria in their community. (*Sweet Grass County Local Civic Leader*)

D. Water Quality Concerns

Septic systems [are a concern]....They're too close together, and [too close to] their wells, and it's just a mess. And [there's] nothing you can do about it. Some were put in as, 'Oh, we're going to be using it for summer homes, so we'll just have storage. We'll just have a holding tank.' Well, it turned into year-round living, and a hole got poked in the tank, you know. So, probably, it's flowing out the bottom into Rock Creek...and there is not much we can do with them. Just don't want any more of them. We're trying to...put their feet to the fire, and say, 'Now, you've got a holding tank. We want records, public records.' So, we're working on that area. We don't allow any holding tanks any more. (*Carbon County Local Civic Leader*)

We try to be real careful on the subdividing....Of course, the 'perc' tests [determine] both: how the water flows through...[and] how high the water table is. The testing is supposed to be done over a year's time, so you have your whole season....[Regarding septic systems in] wetlands, we try to, naturally, stay away from that because that's a DNRC or a DEQ situation. (*Carbon County Local Civic Leader*)

There's also problems with cattle contaminating in the river, because they drink at the river...And that's a problem all over Montana. Livestock feeding or drinking in the river, and, of course, the sewage runs in. (*Stillwater County Local Civic Leader*)

It's better if the cattle are not running in the stream. You know, that just makes sense. Erosion-wise,...I don't think they really do any harm, except where there's an overgrazing situation....It's like anything else, it's not bad, unless it's overdone. (*Carbon County Local Civic Leader*)

Probably the biggest problem, no matter where you live, is the runoff from agriculture, either from runoff with the pesticides...[or] runoff from the cattle waste. And if it's a private property, they have to be aware that [runoff from their] private lands can get into the river systems. (*Sweet Grass County Local Civic Leader*)

Fortunately, fast-running waters are self-cleaning....We use the water and [we] make sure we take care of the sewage and [we] don't pollute the river. It has been years since we have flooded enough to cause problems. (*Stillwater County Local Civic Leader*)

E. Growth is Necessary and Demands Some Caution

Development will always occur. [The community] is either going to...grow, or it will demise. You really can't maintain the status quo. If you aren't growing, you're probably going to go down. You can't maintain the status quo. (*Stillwater County Local Civic Leader*)

We'll grow at a rate of two or three percent a year. Maybe a little bit more because some of that becomes geometric after a time....[The growth will affect the river] indirectly only....As [our] infrastructure improves, and things grow, this county will just have more visitors, more tourists, and more people from surrounding areas coming to visit and play on the river. (*Stillwater County Local Civic Leader*)

We are trying to figure where any new growth will happen. Most of it is happening west of town. We are looking at extension of power and annexation. The city is in the process of adopting a growth policy and looking at impact fees. Those are the fees charged to developers for the expansion of city services. (*Sweet Grass County Local Civic Leader*)

I would like to see the continuation of the small businesses, the economic base that we have now. Columbus could be bigger, but I would hate to see it four times the size it is, in this little valley. [There] are two areas of new building in the city limits, recently,...[but] most [of the growth] has been out in the trees....Columbus, the town, has grown by 400

people in ten years, [yet] there are 2,000 [new] people within a ten mile radius. (*Stillwater County Local Civic Leader*)

There is a guy from Portland...looking at this area [as a place] to build 200 homes. That is going to County Planning, first, for a subdivision [ruling]....We have to know if the system will handle [200 new homes]. (*Stillwater County Local Civic Leader*)

It's very special to have this river here, and, of course, we want to protect it. We want to make sure that any housing developments follow the DEQ rules, [especially] septics should be placed according to DEQ. I guess I don't believe in setbacks. I think the property owners have the right to be as close to the river as they want, without damaging the river. If they do not damage the river, I think it's their property line. (*Stillwater County Local Civic Leader*)

II. Sympathies for Historic and Newer Activities

A. Farmers are Historic Base and Generally Good for the River

Ranching and farming:...that's probably the oldest base. The Stillwater Mine... is wellreceived by most people....I don't want to imply that [the residents] are mostly ranchers, probably not—they're probably in the minority....[And] now, it's expanded beyond agriculture and mining....Recreation is growing, and I think there's a correlation with that and the subdivisions, the population growth that we're experiencing. It's a low percentage, but it's growing, and probably at a rate that we can manage, so that's good. (*Stillwater County Local Civic Leader*)

I think that preserving the agricultural aspect of the community is really important and a lot of it can be done through education. I don't think it is a win-lose situation....I think, for the most part, ranchers are pretty responsible. I think that they can do things better, but that is more of an educational process than intent to harm the resource. (*Sweet Grass County Local Civic Leader*)

[The] ranch population, they've been here, but they're dwindling off. The kids still want the place,...but it's awfully hard....And I do notice a difference—those [ranch] people really cared. They didn't want to destroy our streams, or pollute them, or anything like that. They respected it. And now we've got a group of people who also respect it, but with a different set of values....They're coming here from another state [where] they found out what it's like when something happens to pollute the stream, or when sewage runs in there, or whatever it might be. They come here with that bit of knowledge, and their values based on that, so they're demanding a different use of the stream. [Also, they want] more access, better places to dump their cans and garbage, and all that sort of thing....I just think there's a difference in values and a difference in cultures. (*Stillwater County Local Civic Leader*)

There was an independency that was so important, and a hard-work ethic, and a real caring attitude toward the land, the ecosystems. If there hadn't been, they wouldn't have

survived. They tried to eke out a living, and it was very tough. They did the best they could with nothing....I think our values go back to some of those things, a real caring way to eke out a living. So there's an economic side to it. (*Stillwater County Local Civic Leader*)

If you have more development, you're going to have less agriculture, and less irrigation. And the flood irrigation recharges the aquifer. So, if you have more development, [you have] less farming, and less water going into the aquifer. (*Stillwater County Local Civic Leader*)

I know it's the last free-flowing river in the United States, but [keeping the water in Montana] would be one thing I would like to see....Water is so precious here....It's sad that they didn't do it in the past....If it was for power thing, maybe it would happen—but not for agriculture. (*Stillwater County Local Civic Leader*)

B. Desires to Experience Nature are Understandable

[There's] fishing, the peacefulness of the river....Like right now it's high and muddy, in a month it'll be calming down, clearing up, and then in the fall, you get your brown trout spawning and, you know, lots of different things going on. You have your big geese out now, which just hatched, cranes, and everything out here now. It's a beautiful place to visit. I think we're lucky here. It's so close; we're right here. (*Sweet Grass County Local Civic Leader*)

[It's used for] boating and fishing, primarily. There are a lot of photographers, but they're doing that in conjunction with something else. They're just on the river, enjoying the scenery, or they're fishing from the shore or from a boat. (*Stillwater County Local Civic Leader*)

I think even the people that live in Billings, and Yellowstone County to the east consider us their playground, which is fine. If I lived over there, I'd want to come over here, too. (*Stillwater County Local Civic Leader*)

A little guy down on the river said, 'I have seen the elephant and heard the owl.'...He had been to town, he had seen the city, and he liked the rural part. (*Stillwater County Local Civic Leader*)

They want to do what's right. They want proper sewer and water system and they don't want to affect their neighbor's either. So they want to make it work; in most cases, some people don't, but most people do. Most people want to protect the environment. (*Stillwater County Local Civic Leader*)

If you lived somewhere where you didn't have rivers then maybe you would realize how valuable they can be. It never stops and you have the wildlife that needs the river and a lot of the cover that rivers provide. It is what it has always been. Nature and we have to live in harmony as much as we can for everybody's benefit and everything. You can't

always look at it...financially. Is it financially profitable for you to do something that may harm the river? You can't do things to harm the river. (*Stillwater County Local Civic Leader*)

C. Boat Floaters Generate Revenues and Liabilities

We have had a boat float; it was called the Mayors' Boat Float that started way back. It was sponsored by the mayors from Livingston to Billings. That put a lot of people on the river. Columbus was actually a stop and it got out of hand....The kids wanted to come and party and we weren't able to cope with it. It wasn't the floaters, it was the spectators....The Old Time Fiddlers...they wanted them to get a million dollar liability policy to use the park....I wish there was a way that a town could manage that. (*Stillwater County Local Civic Leader*)

But there are some differences of opinion that I hear, especially when the water's low, and you hear complaints....That's the only time there's a problem....When the water's low, that's the time when you start hearing stuff....Well, the fisherman come long distances and pay a great deal of money to fish, and if you tell them that they can't fish during certain hours of every day, then they're upset....They spent money to get a good fish in the Yellowstone River, and by golly, they should be able to get one. (*Sweet Grass County Local Civic Leader*)

We have lost money here in Columbus because we lost the boat float. That was our own fault. It brought too many people partying but it was a tremendous source of income. (*Stillwater County Local Civic Leader*)

D. Recreational Access Problems

Access to the river is very important, but in places, I guess especially this bridge in Reed Point, there has to be cooperation between the county, the landowner, and the recreationist, as to what we can provide. What counties are legally required to provide, and sometimes that's not clear. I don't see 'No Trespassing' signs where the fence meets the bridge. I've never seen that, so access to the water through that way is possible. (*Stillwater County Local Civic Leader*)

[One] family, they had it for years and years. Well, in fact, I think it was probably from homestead days, and they allowed a certain amount of fishermen to access the Yellowstone...through their property. Well, it sold, and that's no longer available because [the new] folks didn't want to give access, and they don't have to. So...there was an area that used to be accessed, that it's gone. And, the new people that come in, they more or less locked the gate, and they're very territorial. (*Carbon County Local Civic Leader*)

I would like to see nice fishing access, accesses developed that Montana Fish, Wildlife and Parks might have to spend some money to preserve the appreciation of the river. And good parking....They need to step up and get some good spots, and they're going to have to pay for them. (*Stillwater County Local Civic Leader*)

Part of it is the public needing to police themselves, [but] there have been some places that have been shut down without provocation....I think there are more and more fishing access sites and recreational groups realize these problems and are trying to establish cooperative working relationships. (*Sweet Grass County Local Civic Leader*)

One way [the river is important] is for agriculture...and the other is recreation. I like to float the river. I like to fish the river. Another important thing to me is the property rights of the people that go right up to the river, that their rights are honored....I think they have to respect each other, where they're all coming from. Agriculture is trying to make a living, and it's very difficult....We all want to use the river, but sometimes the recreationist is not respectful of the river....There's garbage and feces....They don't take care of it. Property owners see that happening occasionally. (*Stillwater County Local Civic Leader*)

I think people in Montana and this area would like to have the river accessible to the public, and not have a lot of private ownerships. We have good accessibility now with the fish accesses and whatever, but I think that most people in this area would like to not see too many homes near the river. (*Sweet Grass County Local Civic Leader*)

III. Attentiveness to Legal Frameworks

A. Thinking Like an Official

We're responsible for all of the Montana statutes, whether we know them or not. (*Stillwater County Local Civic Leader*)

I fully support the laws that we do have....The river itself and the water quality and quantity needs to be protected. (*Stillwater County Local Civic Leader*)

Flood plains are sacred. We just cannot break in flood plains like we used to. There are some things...[that the] law requires: you have to have a three-foot differential, the land where you're going to build your house has to be at least three feet above where the water table is. Well, if that's based on a dry year, and you build your house and then you have average years again, or normal years, you might have a problem. The law doesn't account for that. (*Stillwater County Local Civic Leader*)

For example, [with] a bridge, you go through a permitting process. You make an application to the flood plain administrator and you will require a 310 permit and you may need one from DNRC and Fish, Wildlife and Parks. You are likely to need a permit from the Army Corps of Engineers. This is one aspect and primarily the local area. We look at the FEMA maps and see if it is zoned for that area. What is the base flood elevation? What effect will it have on the base flood elevation? We prohibit anything that will increase the base flood elevation by more than one-half foot or more. It depends on

what kind of materials is used, what kind of rip-rap, what kind of channelization, what kind of fill material. We require an engineer certification. It is a process of gathering the plans, gathering the engineering analysis, the hydrology analysis, and the information from DNRC if they have it and then site inspection and review and then issuing a permit. Those permits are issued on condition of certain requirements. (*Sweet Grass County Local Civic Leader*)

My biggest concern is it is so hard to keep businesses in Columbus where they are profitable and stay in business. When that happens, a lot of the lifestyle that used to revolve around the smaller communities starts to disappear. It is hard to stay in the community, even if you like it, if there is no employment....There were big businesses that wanted to come and we didn't invite them. We need to change that attitude. The city council and the city and county government both will start changing their attitudes and policies to invite and help businesses try to make it....We sit in too nice of a place for it to keep deteriorating. I don't know how we will do it and how it will affect the river. We have lost a lot of opportunities with the Yellowstone. (*Stillwater County Local Civic Leader*)

The Conservation District, they issue [the permit] for any activity within the flood plain. They have certain jurisdiction and they have beds and banks. Flood plain is broader. Usually there will be a 310 and a flood plain permit required. It could happen that they need a 310 permit and no flood plain because the base flood elevation is low enough that we are not concerned with the 100-year issue. (*Sweet Grass County Local Civic Leader*)

There are laws, but they aren't enforced. We lose a lot of water. There are people that say we have water rights. There are a lot of mistakes in the past that have been made with regard to that. Most of that watershed is on federal lands, I would imagine. If that is the case, then it is everybody's water. In a way you can say it is everybody's water. You go back to laws that have been forever and need to be changed and you won't see that in my lifetime. I think the old-timers care more about it. They would get out and work and spend weekends trying to correct something they saw that was wrong. (*Stillwater County Local Civic Leader*)

B. Local Values and Local Control

What happens sometimes is the state legislatures will say counties should do this, however if they want to apply it locally, they have to pass an ordinance. What that allows you to do is enforce it. Without the ordinance, even though it's a state statute, if somebody's violating it, we can't send the sheriff out. (*Stillwater County Local Civic Leader*)

I am an advocate of local control. I think it should be a local thing....They know that community best. They understand the needs of the community and the different constraints. It should be a ground up focus. I don't think you can say it is 100 percent local. If you are dealing with a river like the Yellowstone, you are dealing with

something that affects other states and areas....Local control should be primary, but not the only consideration. (*Sweet Grass County Local Civic Leader*)

This county does not have zoning at this point....I'm not opposed to zoning, per se, if it's done properly. I think there's a lot of people here who are outright opposed to zoning,...but I don't know if we're at the point where we need that. There are good things as a result of zoning....I don't know if I would predict that for the next ten years, but there will come a time when zoning will be needed and people will be clamoring for it. So I would say future generations will have it better in that regard. So, if you buy property in a certain area, you can kind of predict some stability. (*Stillwater County Local Civic Leader*)

I'm not saying we're ready for [zoning]....Over time,...that may not be a bad idea....I think folks are more and more receptive. A lot of the people are coming in....It's a nice place to live, so they're coming from everywhere. You know, Californians,... Texans,...and they're drawn here because it's not like where they're coming from, yet they want to make it like where they're coming from....But they also have good ideas. They come from areas where they have more progressive local governments...and are wondering why [not here]? (*Stillwater County Local Civic Leader*)

When you are dealing with regulations in a local community, I think there needs to be some minimum standards that would apply across the board so you can't have something happening in one community that would be detrimental to another community. Beyond the minimum standards, you have to let the local governments make some judgment. I think in many different areas those voluntary considerations can be beneficial. It has to be a combination. You can't have the local stuff in a vacuum because it affects other areas. You have to take into consideration the needs of the community. (*Sweet Grass County Local Civic Leader*)

Locals can often [offer] the best solutions because they have a vested interest in the land, in the community. They have, often, known each other for a long time. We have a lot of non-residents that live here three months at a time, [but] when locals sit around and have a cup of coffee, talk things over, they will often lead to the best results. It is a long, drawn-out process, and I think that is one of the better ways to go about things. You can talk to your neighbor, even if they are different than you are. (*Sweet Grass County Local Civic Leader*)

Keep the feds out of it. It should be done on a local basis. The people that have the most clout in the county are the county commissioners. They are local people. For the most part they know what has happened. They are accessible. They are common sense individuals. They should really have the final say on it. Community planners...[are] part of it....[It's] like designing a sewer system. You could get a local guy [to] do it for \$100,000. No, you have to get engineers and all the other stuff, and pretty soon it is two million. (*Stillwater County Local Civic Leader*)

Some of these things have gotten so expensive to do. We have done it to ourselves in a lot of ways. The state can be involved but when the fed gets involved, the feds see that one route is supposed to cover everything. There are so many strings attached with federal bucks. (*Stillwater County Local Civic Leader*)

That's one thing that affects the river itself is the ability for people downstream, in Iowa, Missouri, Louisiana, places like that, to dictate what we do with our water here....They claim previous water rights; all they want it for is to float their barges so they can move their product less expensively. And I don't think that's a good enough reason to tell somebody, 'You release your water to us.' That lowers our dams; it hurts our fish populations. (*Sweet Grass County Local Civic Leader*)

IV. Regulating Activities On and Near the River

A. Flood Plain Maps are Credible Means of Regulating

It is meander-land, and nobody can own that....There were river changes in that '98 flood, and, of course, some islands were created, and it washed down banks....Some people lost acres and acres of land....I know of one group who ended up with an island, and they claim it's theirs, because the river ran right through their property and created an island....Nobody pays taxes on it....For example, if this is a lake, and the water comes up in high water years to cover most of [the land], you wouldn't think that would reduce your taxes, [and] it doesn't. Or, if it goes down, and you can farm this for a while, you still don't pay taxes on it. But, you can't claim it either;...its no-man's land....[It] used to be that the Corps of Engineers could come in and just change things at will, and that caused its own set of problems, here and there. I don't like the idea of changing the direction of the river....It has its own set of problems that come with it. It might help this guy who lost some acreage to reroute the water away, but it ultimately, someplace else, will cause a problem....I think rivers should meander wherever they naturally go. (*Sweet Grass County Local Civic Leader*)

To the extent that we have state statutes that specify, we do have minimum standards for the flood plain by state law. One of those is public health and safety; you can't permit something if it is a public health and safety threat. (*Sweet Grass County Local Civic Leader*)

We're actually still working at it...but it's fairly good. We've got pretty good history on Rock Creek and not bad on the Clarks Fork, so it's not too bad. The Yellowstone— ...they've been working on that, too....Yeah, I think it's mapped fairly good. (*Carbon County Local Civic Leader*)

A lot of the summer homes that I'm talking about are quite old. And they were built where we wouldn't allow it today, they are in flood plains. It was [done] at a point where nobody cared. There were no regulations, no statutes, no ordinances. It was your property, [and] you do what you want. (*Stillwater County Local Civic Leader*)

I think the flood plain is...expansive along the Yellowstone....We've got maps that would show that, and it's all elevation relative to high water mark that occurs over so many years back. I think we probably depend heavily on the state for that information, so we would have maps. (*Stillwater County Local Civic Leader*)

They discourage building in the flood plain. It has been years since I have seen any problems with flooding on the river. A lot is taken out for irrigation and that controls it somewhat as long as it doesn't get out of hand....That irrigation that runs the whole west side of Billings comes from here. (*Stillwater County Local Civic Leader*)

B. The Practical Limits of Flood Plain Regulations

A lot...is determined by our growth policies.....This county is traditional and conservative enough that a lot of people would oppose [a setback requirement]...for practical reasons....There's a lot of stretches...where they have their cabin between the road and the river...[so] you have to be relatively close to the river. (*Stillwater County Local Civic Leader*)

If you get flooded out and lose your home, why would you rebuild there? Because it only happens every 100 years? Can you get insurance? No. I do think that if you are going to take the risk, *you* should do it....As long as you handle your sewage properly, and you know that you can't get insurance, and the feds aren't going to have to bail you out, if you want to do it and it isn't hurting anybody else, you can do it and take the risk. That is what our country is built on—...people that were risk takers....Your home is your castle. You should be able to do that. (*Stillwater County Local Civic Leader*)

I would leave the river alone and let it do what it needs to do because, when you start changing different things in nature, you're going to lose something else. That's why we have the trees there; it's just the way it's supposed to be. That's my opinion. (*Sweet Grass County Local Civic Leader*)

C. Updated Maps Would be Helpful

I would like to see a lot better mapping on the Yellowstone River. Most of our maps are 1982 FEMA maps. Some of the Yellowstone has had some updating, and...that is helpful, but there needs to be some better mapping and better understanding of activities in the flood plain, and how to best undertake those, both from a safety issue and also trying to protect the resource. (*Sweet Grass County Local Civic Leader*)

Primarily, the problem is, [the maps] are so inaccurate. They are this blanket, 'Here is where we think it is.' I shouldn't say they are always inaccurate because sometimes we have information submitted in a site specific area and they are right on. They don't take into consideration differences in topography. When they were done it was based on information that was from 1982. They couldn't go every 200 yards down the river. Since then, there is a lot more information. They are useful, but they could be more useful by being more site-specific. (*Sweet Grass County Local Civic Leader*)

There needs to be better mapping and more compilation of the flood plain. With the flooding of '96 and '97, there is more information that wasn't there in 1982. More of a site-specific analysis....From the planning perspective...[we need] a better understanding of the hydrology, ecology, the geomorphology,...the safety features, irrigation facilities, bridges and abutments, a better understanding of the river and how the river changes, and the kind of things you need to anticipate. (*Sweet Grass County Local Civic Leader*)

D. Attention to Erosion and Changes on the River

In some places [erosion] is tremendous. It depends on the topography and it depends on the river....In some places erosion is a problem; in other places, because of the rocky bottom ground, not so much....Can I say it is a huge problem in the county? No, but it is a problem in certain, specific areas. (*Sweet Grass County Local Civic Leader*)

Big rocks, rip-rap, [stops] the erosion. It stops the soil from washing away. They are available. Today they ...have fork lifts and grapplers. The river doesn't get as high as it used to....The railroad is a big, huge dike that keeps it out of this side....[But] when it was flooding and running high, it would change its course. That hasn't happened in ten years. (*Stillwater County Local Civic Leader*)

If [erosion occurs] by a bridge or public facility, you have safety issues, issues with the health of the water, and sedimentation issues. What is the cause? Is it caused naturally or by some sort of use of the banks? If it is a use of the banks, is it something you can mitigate to some extent? If it is natural, you probably can't do much about it. You have to recognize the different factors. Some are man-made and some are naturally occurring. (*Sweet Grass County Local Civic Leader*)

I'm thinking about the irrigation head gates to the river right now. The river is always changing, and sometimes...[farmers], in order to protect their head gate and get the water they need for irrigation,...need to get into the river, so to speak, to [perhaps] clear a gravel bar up against their ditch. So, they need to be able to get out there and clear that away for irrigation. (*Stillwater County Local Civic Leader*)

Where they built the silversmith's, they raised it out of the flood plain. That would be a great spot to erode. There is a pretty sharp curve there. That is the only one I am aware of that was a problem. (*Stillwater County Local Civic Leader*)

I am not personally aware [of erosion problems]. The river fluctuates so much that it's bound to occur at times, but I'm not personally aware if we have it and where that might be....I suppose there would be a certain amount of erosion that could occur naturally...and that might be because the vegetation is not there. That could be due to several things. It could be that it's over utilized by a combination of livestock and wildlife. It could be because of the drought cycle we're in. Some of the plants that took a lot more precipitation aren't getting it so they die. It could be...[a] physical disturbance immediately along the riverbank....where it's private land. Today in this state, folks have

a lot of latitude of what they do. There are undoubtedly some controlling statutes there. (*Stillwater County Local Civic Leader*)

My grandfather [dealt with erosion] years ago....You can see the curve where the bank erosion was. There might be some abutment out there that they used to try and stop that. That is the only one that I am aware of. [They used] car bodies, lots of car bodies. Not anymore...because they are unsightly. You still see them in spots. There was a time that they thought the car bodies would cover up and fill up with silt and rocks and they didn't. (*Stillwater County Local Civic Leader*)

This bridge here just south of Columbus, it used to have a lot of rip-rap on it. And, four or five years ago, when we had the high water, it took that rip-rap away. And it was big rip-rap. And now, I'd say it's underneath that bridge someplace....That whole bank—it's just a small piece of private property—but that's going to just keep eroding away to the road. And that's a pretty important road....I think they have to have an aggressive rip-rap program. We've got infrastructure that needs to be protected....Let us get in there to protect [it]....[Let us] put some large rocks, rip-rap, in there to protect those things. Most ranchers cannot afford to rip-rap...and the river just eats away and takes away, but roads need to be protected. (*Stillwater County Local Civic Leader*)

I am saying where it is a man-made problem, it should be mitigated. For example, if erosion is occurring because the cattle are watering at the river, can you reroute the cattle. Is it that bad?...I don't think people should be told you absolutely cannot let your cattle go to the creek. That is ridiculous. That is the way most cattle are watered in the state. You have to look at the kinds of costs you impose on people when you require these types of things....You have to look at the cause of it. What are the remedies? Are the remedies worse? (*Sweet Grass County Local Civic Leader*)

Sometimes there is an embankment of some sort, whether it is rip-rap, or those barbs that go out into the river with the rock....Maybe the best thing would be to recognize that it is going to happen, and [that]....you can't fix every problem. Putting in some fake retaining wall or rip-rap may exacerbate it instead of fixing it. I am not advocating a specific solution. (*Sweet Grass County Local Civic Leader*)

[We have] a few subdivisions along the river. I guess I can only think of one in Stillwater County....You know, it's not easy to build along the river, because it moves all the time, so it can take your house away. (*Stillwater County Local Civic Leader*)

E. Alternatives to Rip-rap

You have to look for the spots that are a potential danger and you really have to do something to [keep the river] where it is now. That probably means some really big boulders going in, some rip-rap, but it shouldn't stop there. You have to support it behind there. Make sure there is good growth of trees. If that is all you are going to do, you have to look at it. Someone that really understands erosion needs to study it and make recommendations to the county or cities. (*Stillwater County Local Civic Leader*)

It's a free-flowing river, so no dams or anything. I'd have liked to have seen dams years ago....[but a dam] probably won't happen [now]....What I see should have been done on the Yellowstone is off-river storage. There was a couple different places around Laurel area, Park City area, that could have been used as a dam, and just use it as a high water [storage]....But you won't see any on-stream storage on the Yellowstone or the Clarks Fork, either one. The days of the dam are gone, I guess. (*Carbon County Local Civic Leader*)

Bendway weirs. They go into the upstream about a 45-degree angle maybe. You dig them in, and you run them back into the bank....When the high water comes, it flows over the top actually, and it pushes that stream [away from the bank]....[The weir] doesn't cause that scouring effect on the edge. Where, if you put rip-rap out on the edge of the bank, it tends to scour and get deeper and deeper next to the bank,....[the weirs are] much better than armoring. We've had experience with it—made a believer out of me. And these are high,....pretty fast-moving waters. Yeah, it's been used a lot over the years. I think a lot of people weren't really thinking they would work, but they do. They actually do work. If they're put in correctly, and you have a big enough rock, and they're dug in so they're in deep, and the angle is correct on them, [then] they sure do work....[And they are] cheaper than armoring....You only have to have them every 150 or 300 feet, whatever it might be. So you just build them and we put in three or four....The first year, high water actually ran over them, but they survived. It worked good; it worked just the way it's supposed to. You know, everything doesn't work the same everywhere, but a combination maybe—I was sure impressed with them. (*Carbon County Local Civic Leader*)

F. Timeliness of Permit Process is Questioned

Oh, the regulations....The hoops you have to jump through to get a permit to do anything....I wish [the Corps of Engineers] were more accessible....We have a perfect example....We're having a problem on Bridger Creek with some people not complying with...stream regulations, and took them a long time to pay attention. But now they are coming. It just seems like it takes a lot to get them. (*Sweet Grass County Local Civic Leader*)

I wish they would be more responsive when there was an emergency. We've had some rip-rap that's been washed out in two spots by the Grey Bear Fishing Access. We would like to have got it repaired before flood season. And we still haven't heard back on our permits....[The river] just washed out two pieces probably: one was probably about 15 feet long and the other one was probably 20 feet long. But there's a good chance with high water now it will probably all be gone....So it's one of those deals where we could have got to it right away when we found out it was...and part of that is our problem for not really looking at it close enough until we started thinking about high water. (*Sweet Grass County Local Civic Leader*)

Well, if you've violated the law, it doesn't take...[the Corps of Engineers] too long to get here. If you really need them for a permit, sometimes it takes forever. (*Sweet Grass County Local Civic Leader*)
V. A Common Sense Approach

A. Maintaining a Balance within the Community

What shakes out first is public health and safety. I would say you are balancing those other factors. Beyond public health and safety, I wouldn't give a number to any of the others. I am not suggesting that if an irrigation project required rip-rap [that you shouldn't do it]....You look at the pros and cons in any kind of planning [and] I think you are looking at a potential for impacts and how they can be mitigated, rather than a choice of either/or. It is a balancing act. (*Sweet Grass County Local Civic Leader*)

It should be a live and let live area...[to] make it easier. I would love to see more 'Park Here' signs instead of 'No Parking.' There is a fine line between doing it right and doing it too right. You [need to] get a feel for the community. (*Stillwater County Local Civic Leader*)

[People here are] still somewhat conservative in their mindset, but pretty independent people, good work ethic, a pleasant community [with] a lot of cooperation and participation, whether it is putting together a new library or the new hospital. There is a lot of interest into protecting our historical background, and our cultural resources, and [its] a balanced place to be from. I have lived here a long time. (*Sweet Grass County Local Civic Leader*)

To some extent, [with] any decisions made by any permitting agency or any board when dealing with planning, you weigh all those factors. You have to. Whether it is in the back of your mind or a particular line item issue, I think individuals...look at those factors and decide what to do or how to operate. That is a common sense approach. (*Sweet Grass County Local Civic Leader*)

We're a team that has to work together. We strive hard for consensus, but realize at the same time we won't always get that. I think we have enough respect for each other, and want to maintain a high level of trust among us to where we know that we have to....But, more often than not, we do get the consensus, because we value that. We try. Sometimes it may not happen. (*Stillwater County Local Civic Leader*)

I guess at one time we had some terrible thieves in the area, butchering cattle, stealing cattle and horses, and whatever they could get their hands on. So, we formed the Stillwater Protective Association. It meant nothing, didn't have by-laws, but we had the ability to paint signs, and all they said was 'Stillwater Protective Association.' Scared the holy jiminy out of the whole country because we'd put them on our gateposts [and] on our pickups. Anybody who would carry one. We had a series of meetings....[We] called the leader in each [individual] community, and said, 'Would you gather your neighbors, and make some cookies, we'll be at the house at seven o'clock, Tuesday?' [Then they asked,] 'What are you doing?'... 'Well, we want to look at the thievery in the county.' We had a 98 percent turnout in rural Stillwater County doing that. I called it, the Kitchen Table Deal. Kind-of another model. But, boy, those were productive meetings. They

looked after themselves because they knew the sheriff was getting old and he couldn't look after them. So, they looked after themselves, and the stealing went down to nothing. It really worked, but that was when we had those [individual] communities. (*Stillwater County Local Civic Leader*)

Irrigation in this county is a huge deal. From the county's perspective, we are trying to construct facilities that are safe for the river, in terms of fish habitat, etc., but [also] trying to protect the agriculture users. They are a huge part of this community. Some people say they don't care about Ag, they care about the 'viability of the river.' Once you get past the base minimum standards, those are local decisions. I think a locality can choose to be more protective....I understand that can be messy, but I can't think of anything that isn't [messy] when you are doing grassroots planning. You can't exist in a vacuum and say that it has no effect on anyone else. You can't say that with the Yellowstone. You can't have this over-arching 'we know what is best for you.' (*Sweet Grass County Local Civic Leader*)

I like to have all of the interested stakeholders work together and try and come up with something that they can walk away with something that is workable....I think every interested group out there needs to get educated about the other party's point of view....[and,] depending on any given situation, there may be one group that needs more education than the other or they need a better understanding of what the other's constraints are....DNRC did a study that showed that the lower part of the valley is much worse off than the flood irrigated areas because the aquifer didn't recharge....Conservation easements:...do they protect the land or not?...Is grazing beneficial or harmful? There are valid points on both sides....Out-of-state landowners [should know] what to expect coming into a community....[Give] education to recreationists about some of their bad habits, [like] not cooperating with landowners [and] recognizing that they have an impact on the resource, too. (*Sweet Grass County Local Civic Leader*)

The Stillwater Protective Association is a member of the larger group that—I don't know everything about that, but there's a lot of ranchers on that, there's a lot of ranchers that see them as an environmental group, and therefore bad, but there are a lot of ranchers on that, and I think it's kind of middle of the road. They see opportunities to conserve our natural resources, but not preserve them, not lock things up. I guess the Stillwater Protective Association is the group that has worked hard with the mine....They have what they call the Good Neighbor Agreement, which is a wonderful document, and it's been used in other parts of the country. [Other] mines have used it as a prototype. (*Stillwater County Local Civic Leader*)

The impact on the river....I think if Columbus can grow and they can use common sense with the growth that is one thing with the council. They grew up here and they all have common sense. (*Stillwater County Local Civic Leader*)

More than anything else I think...we live in a society that creates a lot of pressure and tension. People work 24/7, almost just to try and make ends meet, and they need a way to

get away. Right down here [at our park,]...all summer long, you will see people there come in just to get away and replenish the soul. I just feel as along as you set reasonable policies I think you can let people have access to even your smaller tributary areas that feed the Yellowstone. (*Stillwater County Local Civic Leader*)

I hate to see the environmentalists go to extremes on certain issues and that happens. (*Stillwater County Local Civic Leader*)

B. Addressing Subdivisions, Laws and Taxes

I think the city will continue to struggle with subdivision. Whether they should or shouldn't be allowed. We only have one zoning district outside of the city limits and it is voluntary. We are going to put our land into a zoning district and in this district you can't carve off less than 160 acres. By voluntary, I mean when they created that district that carved out anyone that didn't want to be part. County or city can come in and say we are going to zone. Outside of the city limits Sweet Grass County is un-zoned except for that one area. I think in ten years there may be more zoning, either private, although there has been more discussion if there would be interest in county zoning for a certain distance. I am not advocating or suggesting it is a bad or good idea. I am just saying that these are being discussed. I don't know that I know what I think of it yet. (*Sweet Grass County Local Civic Leader*)

You just have different policies in the county, in the state, in the city, and pass regulation that is for the best of the community, and then people will fill in around that, you know what I mean? It is a growth plan....The main concern would be in the county where ranches are being sold off and then people are coming in and buying up ranches and building on the land there, which I think is... a real sensitive area that needs to be really looked at for the long term of the county here....Once you have an area and it gets overpopulated, your road, your water, your police, your fire, your schools, everything is affected by people, population. And when you need to present more services, taxes go up. It's like a snowball going downhill and it's hard to stop. The more people you have, the more services you need, and then you wind up with more vehicles, and that process happens. We've all seen it happen in different areas in the United States over the past 100 years. Beautiful areas that all the sudden are still beautiful, but just over populated, where it's hard to go there anymore. (*Sweet Grass County Local Civic Leader*)

[After] I took office, in the southern part of the county, there were some ice build-ups and there were primarily summer homes, and they were concerned about flooding, so they called me, the new commissioner in their district, and said we've got this ice, come and help us out. It sounds like a reasonable request to me, [but] I'll have to ask and get back to you. I talked to our road and the other commissioners and, no, we can't do that. Really? Why? Well, three things. First, it's on private land and there's liability....Another one is the Fish and Game is responsible for the fish habitats [and] would have some problem if we took heavy equipment and messed around with the river. And the other thing [is]...an insurance company would look at this ice jam as a natural event, call it an act of God or something. So if we go in there with our equipment and undo that, we're

just pushing the problem downstream and then it's our fault; it isn't an act of God, it's an act of the County Commissioners. So, we just would like to help people, but we can't, and when we explain why, they accept that. (*Stillwater County Local Civic Leader*)

I think within ten years we will have a sales tax. People want no new taxes, period, and I don't want more taxes but I think that we've got two legs of a three-legged stool. A sales tax would provide that third leg...and property tax...It probably wouldn't be a case overnight, initially a sales tax and totally eliminate one of the others...and I think any state has a lot of tourism is foolish not to have it...but that requires an education. They have to see...you can't afford not to have a sales tax. (*Stillwater County Local Civic Leader*)

I don't think every piece of land should be subdivided, but yet, [with]... private property rights, there is a fine balance....I don't think you should be able to subdivide good resource land into small acres and have houses on it. I think there's some way you could work around that, maybe subdivide undesirable resource land and still accomplish the same thing. Like if a rancher needs to for financial reasons, to keep doing what he's doing, he should be allowed to do some of that, but I just think chopping up good resource land is not the right thing to do. (*Sweet Grass County Local Civic Leader*)

I do like our new subdivision regulations that we allow for people that might be in jeopardy of losing their ranch. It allows them to sell off some acreage. (*Sweet Grass County Local Civic Leader*)

And I guess I should clarify. I'm not for subdividing everything either, but I just believe that personal property rights are that person's. Whoever owns the land should be able to decide what to do with it. That's my opinion. (*Sweet Grass County Local Civic Leader*)

Because I just think people, maybe with the education, they won't build along the river. I just don't see...the Yellowstone [as being] like the Stillwater, where people can get right next to it....The Stillwater is pretty stable and doesn't change that much, but the Yellowstone does....Probably the State of Montana, maybe the Army Corps of Engineers, maybe the Fish Wildlife and Parks [should provide that education]. (*Stillwater County Local Civic Leader*)

VI. Evidence of Changing Local Values

A. Challenges to the Local Idea

As far as out-of-towners locking their places up and not allowing any access, do I like that? No, but I think it is their legal right to do it. (*Sweet Grass County Local Civic Leader*)

Look at Billings, for example. The Yellowstone River runs through there, and I can remember 35 to 40 years ago, when I was out there hunting....The town was about 15,000, 20,000 at the most, and now it's over 100,000 if you include all the suburbs. And

all of those thousands and thousands of acres that were providing...food—...nobody's worried about that because they think they can import it. But I guarantee, one little war would end that in a hurry. And they've taken this land...and put cement on it, for God's sakes. (*Sweet Grass County Local Civic Leader*)

The way the ranches go and the farmers go, there's not a lot of money in it. It'd be hard to see what this town would really look like if [the miners] didn't come in...ten or 12 years ago. Because with their money they brought homes...The mine gives a lot of money to the schools and different projects that go on here, and it's basically what made this community what it is today. The bonding of that industry and the ranch industry. (*Sweet Grass County Local Civic Leader*)

You read about the romance of the Old West, and that's why a lot of these rich people come...for the romance. Well, there's romance in an old family farm, too. Their romance [the rich people's] won't buy you breakfast. (*Sweet Grass County Local Civic Leader*)

What we have to remember is, the generation that really cared about the environment and really cares about protecting their places against the elements, is the generation that is dying-off. I call this [current] generation the convenience generation. They are going to do what they want because it is convenient to them. They do not care what it does to anybody else, or the environment, or anything. They could destroy a lot. They care about nothing. When you see the t-shirts that say 'It's all about me,' that is not much of a lie. That is so different from the generation that built this area and developed this area. The community spirit isn't here, like it used to be. It is in pockets, but not like it was. (*Stillwater County Local Civic Leader*)

My daughter and son-in-law live on a ranch west of town here, and it's not a very big place....A realtor just appraised it at a million and a half....It's out of the question entirely for the kids to buy it. My wife and I have spent all of these years in agriculture, and just like most of the neighbors, whenever you do make a profit, you put it back into something else. So we got a million and a half dollars sitting up there, and nothing to show for it....How are the kids going to make a payment and still be able to live there, too? And with an appraisal like that, the government won't let you give it away. You can't sell it for less than the appraisal...and [besides,] the last thing we want to do is sell the place. (*Sweet Grass County Local Civic Leader*)

We bought my husband's ranch from his father at, what was at that time, probably a hugely reduced amount. It was enough for them to retire...at that time. And we're doing the same on the next generation....We have to get it appraised, and we're going into the gifting...[with] a limited family partnership so that our son and my brother can buy our share out. And we'll be able to retire and have a little bit of an income. (*Sweet Grass County Local Civic Leader*)

My dad is at a point where he wants to retire, and there's not enough money off the income of the ranch to allow him to retire. I have two brothers that want to stay in

agriculture, so the only way we can do that is to sell the ranch here and...buy a bigger ranch somewhere else. (*Sweet Grass County Local Civic Leader*)

I just hope my family can get a chance to appreciate the river like I have, and get a chance to float it and fish it, and look at everything that I've seen. That's what I would like to see happen to the river....[But] I could [also] see big corporations buying up property along the river, and it not being agriculture anymore. (*Stillwater County Local Civic Leader*)

B. Newcomers

'Welcome to Culture-Shock-Big-Timber'....Most of the counties in Montana have a code of the west. It is a document...[and] we have one being put together primarily by the Cottonwood Resource Council. It is a 'what-to-expect-when-you-buy-property-in-thiscounty' document. A number of counties have them. They are trying to educate people on what to expect, weather-wise, service-wise, [and] neighborly things. You had better know what your water rights are before you start taking it....Here is what to expect; here is how to behave yourself. (*Sweet Grass County Local Civic Leader*)

I think that, in some respects, local people have a greater appreciation for water. It is the life blood of an agricultural community. It is aesthetic for out-of-staters more than something they need for their livelihood....In general, they are looking at aesthetics and they are not doing a lot to protect the resource. They can say because we built our house back and we are going to clean up this irrigation dam that is better for the river. It isn't if you are still going to put a pond there and are going to put fish that will get into the river....The ranchers that don't have easements on the property are incredible stewards of the land because they depend on it for a living. And I think they get short-shifted and short recognition sometimes. (*Sweet Grass County Local Civic Leader*)

Newcomers immediately put up 'No Trespassing' signs, 'No Hunting' signs, 'No Fishing' signs, 'Stay Off My Property' signs. Maybe they have never had land this beautiful, and they want to not share with anyone. They come in, and don't know the country, and don't know where to build or buy. After they pack water for two years, they put the place up for sale. (*Stillwater County Local Civic Leader*)

Small tract owners....We have people who bought their 40 acres and don't have a clue what to do with it because they've lived in town all their life. So what do we end up with—a whole bunch of weeds. Don't allow anybody on it, 'This is mine. Let's not graze it, let's not do anything with it so the fireman will have something to look after.' That's really real out here. They don't allow any grazing or anything to use that tall grass that's out there waiting to burn. That's hard for me. We need to harvest things if we expect them to grow. I've watched an awful lot of pastures [and] when they're managed right, you get good strands of grass and a good ecosystem. And if you don't manage it, you've got a mess. And we have subdivisions that are a mess, although we've had a really active weed department, and they finally realized that there are other ways of controlling these weeds, biological, do little with livestock, spray the perimeters so we don't spread it over

the neighbors. If somebody is highly allergic, or their value system says I don't want anything to do with pesticides, far be it for us to suggest to use it. Let's give them a few bugs and they're tickled to death. We've got a real diversified sort of a weed management system, or we don't call it weed management, it's plant management. (*Stillwater County Local Civic Leader*)

I basically retired...and moved here. It was October...and I'm in my front room, the wind's howling, it's 31 degrees out, and I think I'm going to go crazy, so I went down to the IGA store and got a job there. So [now] I know everybody in town—just by sight, not by name, and I've worked there for three years....That was a good way to be introduced to the town, where everybody knows everybody....So I was accepted well here, and the town's changed from what I understand. It used to be a ranch/farm community, and I don't know when the mine came in...[but] I think there was a problem then....I think that took time for people to get used to...and now they have a lot of people retiring. There's a lot of people moving here from the south and east, and west. (*Sweet Grass County Local Civic Leader*)

C. Empty Castles and Trophy Houses

They don't subdivide it, they just come in. They buy it up. They don't put any cows on it, they just let it sit there, and build a great big trophy house on it, and...the land isn't really being used for agriculture any more, it's either someone's personal hunting grounds or river access, you know. So, for me, you've kept people from living on it, so that those [wealthy] people can come in and block everybody off it. It doesn't happen all the time. (*Sweet Grass County Local Civic Leader*)

We have some [newcomers] that have moved in and their house is right next to the river, and then they want no one else to build next to the river. You know, 'I've got my little piece of heaven, but I don't want anyone else to be able to do that.' (*Sweet Grass County Local Civic Leader*)

I expect more development to happen. People love it out in the hills. They're building new homes and have their piece of the rock and a castle. They love it here. We'll have changes in the infrastructure, more pavement, a stronger hospital system, not the kind that does all the surgery and stuff, but to bring people in and help them heal up after the folks in Billings have looked after them for a while. (*Stillwater County Local Civic Leader*)

I have a real concern, because mom and dad move up here and build a \$500,000 house. Do the kids want that? I talk to a guy that runs a landfill that buries tires the other day, and he had an interesting concept about this country. Way back when, the Spaniards and the French folks came over here and gathered up all our gold and silver and hauled it home. They were very rich so they built these huge castles. Now, many of them are empty. I equated that to our castles. What do they even do with them? They're trying to earn a living and raise their kids. How do you pay the taxes on these things? How do you keep the lights on? Do they really want them or are we going to end up with a bunch of places for retreats? It makes you wonder. They're beautiful, big homes, huge things, million and a half, two million? And for us, that's a castle. Especially when most of us were raised in these little old farmhouses. Those things really ring my bell because I don't know where we're going and I guess I'm too old to really worry about it. (*Stillwater County Local Civic Leader*)

I just feel development is probably our biggest worry. And [we need to] be careful of how we do our developing. I'm not so much worried about what the farmer or rancher has done over the years, because he's done pretty well taking care of things. That's his life. But...we've got some old subdivisions...on Rock Creek [that were built] in the '70s, and they're terrible. (*Carbon County Local Civic Leader*)

I had a lady...[who] bought into this subdivision, and they're from Chicago, and,...according to the subdivision rules, you have to fence yourself away from the road because it was open grazing,...but she called and said that the neighbor had his cows out there on the road. And I said that's the way it is there, open grazing, open range. I said 'You gotta fence your land. That's the way it is in the subdivision rules.' There was dead silence, and she said, 'Well, there will be poop on the road.' I said, 'Welcome to the west.' I didn't know what else to say. (*Carbon County Local Civic Leader*)

D. Concerns Regarding Conservation Easements

Some [conservation easements] say that the family can build one house. I mean, they limit how many dwellings there can be on the land. (*Sweet Grass County Local Civic Leader*)

[Conservation easements] pretty much stop any development. I don't agree with conservation easements because it takes away the power of the future generations to make a decision...for no further subdivision. Some of them expand on that to no further development of any kind, either gravel or mineral or oil or gas or timber or feedlots. It just goes on and on....[The people who set up conservation easements]...have moved in from somewhere else, most of them. (*Sweet Grass County Local Civic Leader*)

Most [conservation easements] are done for the wrong reason. They are done for tax perks....For [land worth] \$100 an acre, put a conservation easement on it, and all of a sudden, it's only worth \$50 an acre because it can't be subdivided. So they take that \$50 as a tax write-off....So they buy land at a...cheaper [cost] than what you or I could because we pay \$100 an acre....[For us,] it doesn't do any good,...because you're not in that high of a tax bracket where it's going to save you. (*Sweet Grass County Local Civic Leader*)

The proximity to the river is a huge factor in driving up land prices....We see more conservation easements. So, the river is certainly driving value for conservation easements. (*Sweet Grass County Local Civic Leader*)

There are a lot of old time ranchers who don't have any intention of changing their practices or selling, who may or may not have conservation easements on their

property....The out-of-state people are less likely to give access than local people. (Sweet Grass County Local Civic Leader)

E. One Comment on Coalbed Methane

One thing that we will have within the next ten years is coalbed methane development. That's coming, and, personally, it can be a good thing. It can be a good thing for the county tax base....We've heard a lot of horror stories about things that have happened in Wyoming...[but] we can learn from those mistakes.... One of my main concerns right now is that private land owners may not have enough say in the how the disturbed land is reclaimed....Also, water quality and quantity is the major issue there; that's the main concern. Now some will say you can take that water. When they're going after the gas that's in that coal, the gas comes up in the water, the gas bubbles up, they capture the gas, and then there's the water. They've got to do something with that. They either pump it back in the ground or give it to ranchers for livestock, and livestock can drink it, and probably you and I could drink a glass of it. It might taste a little strange, but it probably wouldn't hurt us. It might not even taste that bad, but if you poured it on your alfalfa, it would just kill it. There's things like that, and that's what a farmer or rancher doesn't want to contend with. So, I was going back because coalbed methane will be here in a big way within the next ten years. And, personally, I don't mind it....I could certainly live without that development. But, if it has to happen...if it's done reasonably...[it will be okay]. (Stillwater County Local Civic Leader)

VII. Valuing the Yellowstone River

A. The River Supports the Community

Probably the most important thing is that I'd like to see the Yellowstone River stay unpolluted and not over-taxed by people, and managed in a way where it can...be managed. It's doing well as far as I know now, but not overused or polluted. That's my main concern about it. (*Sweet Grass County Local Civic Leader*)

I like water. It's just part of the whole thing here. It's part of the thing that makes it a good place to live. You take the river away, it would be a much different place. That's what it [the river] means to me. I don't think it should be messed with. They should leave it alone—which they're not going to do. (*Sweet Grass County Local Civic Leader*)

First of all, it is magnificent. Second, it is support for ecology and the lifestyle. It is important for agriculture, and recreation, and certainly for fisheries, and obviously for a whole host of reasons that have to do with the environment and ecology. (*Sweet Grass County Local Civic Leader*)

Big Timber is quaint: no stop lights in the town, beautiful views and [it's] where the two rivers come together—the Boulder and the Yellowstone. It is wonderful during the summer and fall, and winters are questionable. (*Sweet Grass County Local Civic Leader*)

I have an appreciation for rivers everywhere, whether they're used in commerce or recreation, or in this instance here, irrigation is very important....Water is the lifeblood. Irrigation is big, recreation is big, and that's whether you're floating it in a raft or fishing it or taking pictures. (*Stillwater County Local Civic Leader*)

I live in the most beautiful part of the county.....Truly the prettiest part....The diversity, the natural beauty, the natural resources, the custom and culture of the people here....We're blessed with a lot of natural resources here. (*Stillwater County Local Civic Leader*)

It's very important, because I believe in irrigated agriculture. I believe in cattle ranching, and that has been our major source of water in the area, for irrigation purpose and also recreation. It's a big recreational stream, huge....Scenic beauty for one thing, and it is a fishable stream. It's a navigable stream when it comes to floating or rafting, or whatever they do best on it. I guess the Yellowstone is the closest recreational point for a heavily populated area. Billings has about 140,000 people in the surrounding area and a lot of them come here for weekend and evening use. It's close to town and they just come up and enjoy our wonderful mosquitoes and everything else that comes with a nice stream. (*Stillwater County Local Civic Leader*)

I like to hike along the Yellowstone, picnic along the Yellowstone, just observe it, drive many, many times to the bridge just to observe it during different times of the year. Like right now, it's at flood stage, which is phenomenal to watch. But other times of the year we can predict....We've been in about a five- to seven-year drought here, so we watch the river because some of the people have to stop using water right off the river when it drops to a certain level, to maintain fish water. So, it's a predictor of our weather. It's a predictor if our ranches can irrigate, it's a predictor of...I don't know...the things that happen from here all the way down, a weathervane in it's own way. (*Sweet Grass County Local Civic Leader*)

A lot of farmers and ranchers use irrigation water from it [the river]. Livestock drink from it. Basically, it's the center of the whole community....Everyone's kind of drawn to the river. (*Sweet Grass County Local Civic Leader*)

Yellowstone is a lot more public....Anything you do on Yellowstone is a major political thing....I think it's because it's...[a] national treasure....It's the longest free-flowing river in the United States, and you know that's always brought up anytime....It's just made public. (*Sweet Grass County Local Civic Leader*)

It is very important to the irrigation and the valley....It's right through the heart of Sweet Grass county. (*Sweet Grass County Local Civic Leader*)

There's gotten to be several fishing guides....Floating and fishing in the summer months has gotten to be big deal around here. (*Sweet Grass County Local Civic Leader*)

B. The River Supports Memories and Lifestyle

I just like to see the different turns in the river, the wildlife, the deer and the moose, haven't seen an elk, all the birds that live along the river. I like to see how the railroad has meshed along the river, because we'll be floating and every once in a while the train will go by and we'll wave and they'll honk at us. (*Stillwater County Local Civic Leader*)

This ranch has been in my wife's family forever. You know, when I go out there on the weekends and irrigate or build a fence, I'm irrigating out of a ditch that my wife's great grandfather built over a hundred years ago. Or I'm fixing fences that he put up over a hundred years ago, or a barn that he built over a hundred years ago. And they did things the hard way. I mean, when they first started, and this was long before they had electricity, they cut hay with a scythe. They didn't even have the horse-drawn type—that was later. When I start feeling sorry for myself, like I'm overwhelmed with all these things to do, if I think about that, it helps. They probably had more chores done before breakfast than I get done all day....I like the county. I'm here because I married [a woman] whose family had this neat ranch. That brought me to the area, but, of course, I've got quite a few friends here, and I like the area. (*Stillwater County Local Civic Leader*)

When you grew up back in the '40s and '50s, you found yourself almost always with family and friends picnicking on the Yellowstone or the Stillwater with family. You knew all your cousins. You got together and fried chicken and the kids played baseball in the pastures. It was a lot of fun. (*Stillwater County Local Civic Leader*)

I love to go and sit by the river...because it is relaxing. The birds, the water....snakes, which I don't like, but the wildlife, the deer, and the animals that the river supports. Just the fact that you can skip a rock across it or whatever. It is a relaxing place to be. (*Stillwater County Local Civic Leader*)

C. The River is Easily Taken for Granted

It wasn't just the beauty; it can be such an asset to the state. I think that is something that people really need to look at a little closer than they do. They ignore it and [the] taking care of it is ignored to a certain degree. (*Stillwater County Local Civic Leader*)

People need to be grateful for what they've got and do what you can to help preserve it. (*Stillwater County Local Civic Leader*)

Just the fact that it is there. Cities not far from us are on smaller rivers have rivers that have dried up. We take it for granted but it is always there. (*Stillwater County Local Civic Leader*)

The most important [thing] to me, aside from the river, is the well-being of the town, basically. There are so many factors with that. The economic well being....Keeping it going....We don't want the river to be polluted [but to] stay like it is...good for fish, picnicking....Just be there. (*Stillwater County Local Civic Leader*)

Laurel to Springdale: Recreational Interest Group Overview

Thirteen interviews were conducted with individuals who use the Yellowstone River for recreational purposes, including hunters, fishers, boaters, floaters, campers, hikers, bird watchers, rock hunters, photographers, and others who use the river for relaxation and serenity. Participants were recruited from referrals provided by members of the Resource Advisory Committee of the Yellowstone River Conservation District Council. Participants were also identified and recruited by contacting various organizations such as Ducks Unlimited, Trout Unlimited, and the Audubon Society and by contacting local outfitting businesses.

Participants in Yellowstone River Cultural Inventory-2006						
	GEO SEG I: Missouri River to Powder River	GEO SEG II: Powder River to Big Horn River	GEO SEG III: Big Horn River to Laurel	GEO SEG IV: Laurel to Springdale	GEO SEG V: Springdale to Gardiner	TOTAL IN GROUP
AGRICULTURAL	22	22	16	12	14	86
CIVIC	14	14	18	14	8	68
RECREATIONAL	15	16	16	13	16	76
RESIDENTIAL	15	11	16	15	19	76
GEOGRAPHIC SEGMENT TOTAL	66	63	66	54	57	
NATIVE AMERICAN						7
PROJECT TOTAL						313

Laurel to Springdale: Recreational Interest Group Analysis

I. Valuing the Yellowstone River

A. The "Remarkable" Yellowstone River

It's a pretty remarkable river. With ten years of drought, you don't hear of problems on the Yellowstone. It's like an old survivor. It's being well used now [and it] can continue very easily. (*Sweet Grass County Recreationalist*)

It's a beautiful river, beautiful. It's a beautiful river. The country around it,...the mountains....When I came back from [out-of-state] and I came around the corner, and the sun...was shining, and the mountains, and the river was flowing, and...it was like I gasped, and then I sighed. Home. (*Sweet Grass County Recreationalist*)

It is [important] for scenic purposes and for recreation. I use it for trapping, mushroom hunting, deer shed hunting, boating, fishing. It is great. It is nice to have a natural swimming hole next to you. (*Carbon County Recreationalist*)

First of all, [the Yellowstone River] is a link to our historical past and...our cultural heritage here in the west. And I'm very much personally oriented towards that concept,...the historical significance....We're floating right down the same river that Captain Clark came down 200 years ago. I think that's important in preserving our western cultural heritage. (*Stillwater County Recreationalist*)

I believe the Yellowstone River is an unusual river. For one thing, it's an un-dammed river. It starts in Yellowstone National Park. It has much different terrain. At the start of it there's a lake [and] the canyons, [then] the rich farmland and the beauty south of Livingston. Then we get into the prairie, and end up into North Dakota. It has a multitude of interests for a lot of people. It isn't all the same. It's a river of variation. And it's a river that's dangerous, but it's peaceful, also. [It is good] to be around the river, to watch that body of water moving away, and to see it usually clear, except in the spring. It's a treasure in itself. (*Carbon County Recreationalist*)

You get on this river and she will carve out a new experience every year. (*Stillwater County Recreationalist*)

Big and daunting....It is bigger than most people are used to, and it is not wader-friendly. That is different from most trout streams. (*Sweet Grass County Recreationalist*)

B. The River as a Refuge

It is the only place I gain my sanity when I need to, and I don't need a bunch of people on it. (*Carbon County Recreationalist*)

[The river is] relaxing to me, it is. That's how I get away. If I'm going to get away, that's where I go. (*Sweet Grass County Recreationalist*)

[The Yellowstone River] is why I came to Montana. I was 18, living in New Hampshire, and I saw the movie *Yellowstone Concerto*....It was kind of an informational movie with classical music....I bought a motorcycle that spring, learned how to ride it, and went 'home' [to Montana]. (*Sweet Grass County Recreationalist*)

The tranquility, the quietness,...actually knowing somebody [lives] over there and, yet, you can still [sit] on the bank and fish, and you don't *have* to see anybody. You won't see anybody. (*Carbon County Recreationalist*)

Even though you're flowing down a river valley that is pretty-much paralleled the entire way by a major interstate highway and a railroad,...it still provides an experience of solitude. The natural environment. That's what I try to convey, too, when I'm using the river commercially. I try to convey that experience to my clients. It's not just about going out and catching a bunch of fish, or whatever. It's seeing the eagle's nest, or seeing the eagles, or seeing the other wildlife, or just experiencing the outdoors and having conversation about the uses of the river, or [conversations about] the historical significance of the river as you float along. Those kind of things. (*Stillwater County Recreationalist*)

C. Free-Flowing and Natural

Leave it alone. Don't dam it....It will take care of itself. (Sweet Grass County Recreationalist)

The Yellowstone is, just....It's really cool that it doesn't have a big dam somewhere....It's free....You can see where it starts, and where it ends, and there's nothing stopping it. (*Sweet Grass County Recreationalist*)

I love it. I mean, I've used it my whole life. And I don't think it would be as grand if it wasn't the way it is....I think of this dam [idea], and think of what you would cover up. Think of the beautiful country you would cover up. I mean, for God's sakes. (*Sweet Grass County Recreationalist*)

Get an appreciation for it...[as] the longest un-dammed river on the continent of North America....And talk about the diverse interests: agriculture, and recreation, and things of that nature. (*Stillwater County Recreationalist*)

It's the longest free-flowing river in North America, and there's nothing else like it....It's a natural fishery...and it's scenic and it's just an amazing place. The length, the variety, and the types of fishing are unsurpassed anywhere. (*Sweet Grass County Recreationalist*)

It's a volume of water, clear, pristine. It's moving rapidly and it's always refreshing and there's never stagnant water. It's a live stream and it's full of energy....You can't say pure, but it is pretty close. (*Carbon County Recreationalist*)

It's just magic because it's an un-dammed river. They almost had a dam in at one point. I saw the map of where the water would have backed up—unbelievable. We'd have a huge lake, but a lake with the life of about 70 years. It would have soaked it in so fast. It's a remarkable river and if somebody wanted to, he could go float 700 miles and see everything from the sharp mountains to the plains below. (*Sweet Grass County Recreationalist*)

It's important to me [that the river is un-dammed]. I don't know how important it is to other people, but it's important to me. It's more natural. Tail-waters are regulated fisheries, and very fun to fish, but not quite natural. (*Sweet Grass County Recreationalist*)

D. The River's Resources

The unique thing about the Yellowstone is, in order to have a successful fishery, you need to have a ripple and a run and a flat. It is a series of things that happen to the river. When you rip-rap the river, you get a series of jagged turns, big holes, and no ripples, no runs, no flats....It makes everything deep, and it doesn't allow that river to flatten out and create the ripples and runs....From a fishing standpoint, you are much more successful in a ripple, run, or tail-out situation. (*Sweet Grass County Recreationalist*)

The fishing is more challenging on this stretch than anywhere else on the Yellowstone because you are...in a transition area. [Below] Laurel...there is more of a catfish, a sauger, a walleye-type of fishery. Above Columbus is trout fishing. So we are in a transition,...[and] our section is a more challenging area. To catch a lot of fish, you've got to know what you are doing. And that is what draws me to it. (*Carbon County Recreationalist*)

The first thing is, if the water get too low, and too hot in the summer time, [it] poses a real threat to the fish habitat and their survival....Water that's being taken out, or returned, creates a problem....From the recreation standpoint, ensuring that we have an adequate fishery [is important]....Trying to ensure that the water flow and water quality is maintained [is important]. (*Stillwater County Recreationalist*)

The river is where life begins for bugs, fish, and birds. You see pelicans come by in the spring. They are going to the Missouri. When fall comes, the teals show up. You know that weather is going to start changing because the teals are here. It is like reading a book. When the hatches start coming off....it is a prolific place. I can't say I ever get tired of it. Knowing that there are some huge fish in there....It is clean enough to grow fish like this.

Back east, they grow all of them in hatcheries. One of the greatest things is the Yellowstone has all wild fish. A lot of places, they don't get this. It is like going to a game reserve and shooting birds, versus getting your dog out and going hunting. There is no fascination with a refuge. (*Sweet Grass County Recreationalist*)

Probably the most important problem, or challenge, is...just trying to preserve the resource as we have it. I think, currently [the river] is...in a pretty good state....New growth and development are just a natural way that things develop, but hopefully we can do so responsibly and still preserve the use of the river and the resources....so we can [still] enjoy going down the river....Preserving the fishery is important to me...[and] floating down the river [when] you may not see another boat all day long. (*Stillwater County Recreationalist*)

I was on the growth policy task force, and it is a complicated issue. This is where those trophy homes come in. I believe someone has the right to build whatever kind of home they want. They have the property, and the money, and they are creating jobs for people. On the other hand, I think the river is a public domain, and it is in the interest of all the people to protect it, particularly the edges because people can't develop there. If you have no regulations, people could build their porch out halfway across the river. You have to regulate what is too close. (*Sweet Grass County Recreationalist*)

I think of the riparian zone is...out to the change of vegetation...[When you get to] dryland farming...[and] grasses....you are out of the riparian zone. The flood plain is in the corridor. Everything that has a different type of vegetation than the rest of the valley is the riparian zone. Water is affecting what will grow there even if it doesn't get water every year....It includes the flood plain in most places. There are odd places where it just flattens, and the flood plain officially goes out a half mile. I don't consider that all riparian. (*Sweet Grass County Recreationalist*)

My dad and I argue all the time. He's a religious man, and he says God gave us dominion over the earth. And I say, 'Dad, I know the Bible says that, but that doesn't mean we have the right to use it, and abuse it, any way we see fit.' (*Sweet Grass County Recreationalist*)

[One] invasive species...is a gold-eye. It tends to establish itself in lake-like places. It migrates to warmer water. They look like a piranha; they are an awful, little fish. I am sure they are very vicious. They are very competitive. (*Sweet Grass County Recreationalist*)

A lot of the fish spawn at the tributaries, and so the Yellowstone itself isn't a huge spawning area. You have to take all of this into consideration when you are putting restrictions on things. (*Carbon County Recreationalist*)

I enjoy, [the river]...from the standpoint as a fly fisherman....But, then, I also get paid as a professional guide, so I derive commercial interest from it as well. So I think I have a lot of the different interests that bring me to the river. (*Stillwater County Recreationalist*)

E. Dangers and High Water

It takes a lot of lives. There's an undertow, and they used to use old car parts and stuff for protecting banks, and you can get tangled and drown. (*Sweet Grass County Recreationalist*)

One thing about the river right now, it is fast, and it is dangerous. People get on it, and they don't know what they are doing. [There are a] bunch of undercurrents. It will take a boat quick. (*Carbon County Recreationalist*)

Usually, after high water, you have dangerous places on the water....A couple of years ago we had a big deal,...and a guy [with me] will never float again. He has floated his whole life....If someone had the resources, [it would be good] to go out on the first of July, and screen the river, and make sure there are no dangerous places. Fish and Game wardens are great about getting feedback to you,...[but with] a lot more people floating, [there is] a lot more potential for accidents. Two things happen. It is the big water and the waves that get them, or the water gets low and muddy, and they can't see. They will jump in the water, and they can't see. Head injuries are a big deal. I would say those are issues that you probably need to consider down the road. (*Sweet Grass County Recreationalist*)

II. Access Dilemmas: Demands, Limits and Controls

A. Increasing Uses and Overcrowding

I see definite overcrowding, I see Fish and Game having to make some adjustments in fish limits. They're going to have to make some sort of adjustments...with how many outfitters who come into an area....Something to kind of weed people out of that. (*Sweet Grass County Recreationalist*)

I think it's going to be used more and more....More recreation. Agriculture is always there with the irrigation and water use. There's more floaters, [and] there's more fisherman, all the time. It's not just the Yellowstone; it's everywhere. Montana is a big destination spot. You get a lot of people in here to fish it all the time. I don't think the use of it is going to change, it's just going to be more and more. (*Sweet Grass County Recreationalist*)

As far as the traffic, the traffic is multiplying every year times two. From a recreational standpoint, I would expect in ten years to see three to four times the traffic. There are already a lot of people using this resource. (*Sweet Grass County Recreationalist*)

[The Yellowstone River] is probably the main source of how we make our living....We run fly fishing expeditions. It also has attracted a lot of people to the community.... Probably 85 percent of my clients have moved here because of the fishing in the area. So, it's huge. (*Sweet Grass County Recreationalist*) I honestly don't believe that...floating...and the fly fishing industry [have] as huge of an impact...as motorboat people. [Motorboat people] tend to be people that take [the fish]At the end of the day, if you have 20 fly fishing boats with two people in [each boat], you might come up with two fish that were injured and that were killed that day. (*Sweet Grass County Recreationalist*)

I have to say, it's really different now compared to when I was young....Probably over the last ten years, it has increased dramatically. Motorboat use has become huge. (*Sweet Grass County Recreationalist*)

After I retired and moved back here, there were so many floaters coming down that I kind of quit fishing the river....They come through your fish hole. (*Sweet Grass County Recreationalist*)

B. The Importance of Public Access Laws

I am not talking about condos, or a subdivision, but I can tell you right now that there are people flocking to this country. They are spending everything they have to buy Montana. They can't own the rivers. They will get lawyers, and try to own the rivers, but they can't. The stream access is what separates us from others. (*Sweet Grass County Recreationalist*)

See, the river has changed over the last couple of years....[If some parcel of land] is on your deed, and the river has moved,...[it may be public now]. There are some BLM islands [that,]...20 years ago,...were ours. Now you have to really watch yourself. (*Carbon County Recreationalist*)

That's something that's pretty special about Montana—the streams access—compared to other states. If somebody has to go fishing, it's a pretty easy thing for them to do on the Yellowstone. (*Sweet Grass County Recreationalist*)

Montana has just great stream access, and I think that's really something...[I] fervently hope we preserve. (*Stillwater County Recreationalist*)

The stream access law...ruffled a lot of peoples' feathers. I think it is still right. We should all be allowed to use the river. (*Carbon County Recreationalist*)

The other thing that's very important...is this Montana Stream Access....People that come here for the fishing experience, in particular, are used to much more restrictive fishing experiences. So I explain to them the fact that...Fish, Wildlife and Parks has great programs, and access sites that allow you to get to the river, [and]...that once you're there on the river, legally, then you have the right and freedom to maneuver around the river up to the high-water marks unabated. That's a lot different than a lot of states, and that's pretty significant, I think. (*Stillwater County Recreationalist*)

The average high water mark is where the determination has been made that private land stops and flood plains begin. They mapped this all out in the past five years. What is the flood plain? It changes annually,...so the high water mark is a negotiable item. It changes from year to year. So, they did map it out, and there was some clarity. It isn't the 100 year flood or 500 year flood: it is the average from all the years. Basically, you can see where the high water mark is when you are fishing because of the logs and debris that came down in high water have deposited in a place where you can see. (*Sweet Grass County Recreationalist*)

You can go up and down the stream, anywhere you want. And you do not own the water in the State of Montana....We took some folks fishing, and...the next day I got a phone call, 'I know [your clients] got some fish, and I'd like to know where they caught their fish....I also want you guides to know that when you float through this water that doesn't mean they can stop and catch my fish.' Now, this was on an answering machine, thank heavens, because, ...whew, you know. My guides knew where those fish were before [that caller] even knew where Big Timber, Montana was....[That caller] came here, and floated with us through everybody else's property, and caught fish on everybody else's property, but now....You have to, you know, gently work in some awareness. (*Sweet Grass County Recreationalist*)

The Yellowstone is important because it binds us as a community. It is public water. The biggest thing that binds people in this country are the public lands. None of the politicians talk about it, or if they do it is casually. It is not tops on the priority list, [but] I think...what makes our country and Montana, unique, is the fact that, so far, this is not the rich-boy club. Even the millionaires...have to drink the bitter beer if the guy walking through their place gained access legally. It gives access for the common people. (*Sweet Grass County Recreationalist*)

I can think of a situation where a guy across the river bought a place for fishing. He bought a couple miles of it. The guy on the other side of the river was letting whoever wanted to come and go fishing. [The new owner] didn't like that, so he got a buddy to come in and buy the land on the other side of the river. So now, you can't access the river from either side. A lot of that's happening. (*Sweet Grass County Recreationalist*)

You know there's the fine line. Say I'm an outfitter that has a hundred days in the National Forest....I can sell [those days] as use in the National Forest. How do you do that when that's a National Forest?...You're making a living off of national [resources]. People who have a permit in the National Forest...can charge huge amounts of money. (*Sweet Grass County Recreationalist*)

The tributaries, the backwaters, the swamp, the sloughs. Nobody has rights to those, as far as I am concerned....Those are sensitive areas. Riparian areas shouldn't be treadedup....[Those are] nesting habitat. (*Carbon County Recreationalist*)

C. Problems with Access

Every time you improve [a public access site], it invites more and more users, and, sometimes, it causes more problems than good. You get erosion, particularly when people start to slide their boats into the water, digging into the bank....You can see it is beaten up. I don't launch boats down there anymore. (*Sweet Grass County Recreationalist*)

Access is a big deal on the Yellowstone. There are sections of this river that you can't get on without camping overnight. Access can be 20-some or 30 miles between access points. With jet boats, it is not a problem; they can just zip, zip. Nothing against the jet boaters, but that upper area is so much more eroded due to jet boat traffic. (*Stillwater County Recreationalist*)

You can see huge, orange-painted signs, meaning 'Stay off. Private property.' And the thing is that is coming about. It is not the local people that are doing this. It is the people from out-of-state who are buying these parcels. [They] want that little island as their own, even though they can't access it, and they can't use it for agriculture. They just don't want anybody there. But, from an agriculture standpoint, when they show up to your house to go hunting, they expect you to allow them to do whatever they like. That is the problem with out-of-staters. They want it all for themselves and not let anybody use it. (*Carbon County Recreationalist*)

The Californian [said], 'We got out of there because of all the politics, and all that.' And the first thing they do is they go to your river board meeting, and they say, 'This is how we did it in California.' That is the first thing out of their mouths. Well, that isn't the way we do it. And the thing is, now, they are getting into the public offices where they can actually change things to make it their way. The locals sit by and just....I mean, it is our own fault. We are just sitting by, letting them do it....The town of Red Lodge is an example. [Newcomers] don't want any new infrastructure, or new businesses, or anything like that in Red Lodge, because they moved there because of the 'little tourist town' that they have. Locals need the money to stay alive, [but the new people already] have their money. (*Carbon County Recreationalist*)

I think they've done a good job of developing access sites. We're always trying to get more, just trying to ease the pressure, and spread it out a little more. We're trying to get some more down in this area from Columbus to Park City, and we're working with Fish Wildlife and Parks to hopefully do that in the future. (*Stillwater County Recreationalist*)

D. Decorum: Respecting Others and the Resources

People are usually pretty congenial at the take out. I don't know...you just have to have some etiquette. You have to come from parents that taught you to give a shit. (*Sweet Grass County Recreationalist*)

There's some conflicts sometimes, but I think, as a general rule, they work fairly well together. I think, as a general rule, it's a pretty good group to have on the river. There's pretty good watch-dogs all the way around....[If someone is] dumping something in the river that shouldn't be there, we're probably the first ones to see it.... At the end of the day, you have to make everybody compatible, and everybody might have to give a little bit. It is a multi-use thing. (*Sweet Grass County Recreationalist*)

All in all, the garbage, the campgrounds, everything is pretty neat and tidy....When I was a kid, I saw tires burning along the shore, beer cans. Oh, yeah, it is a lot more clean than it was 30 years ago. (*Carbon County Recreationalist*)

An unspoken [rule is,] if we're out there floating, and somebody's fishing, we try to go on around them. We cut them slack, and not whoop and holler, and jump in the river. We wave at each other as we're going by....It's been that way here for a long time....We're usually all pretty courteous. (*Sweet Grass County Recreationalist*)

One of the things we do is we are strictly 'catch and release.' [And,]...in the summertime, when the water is hot, we are done fishing at noon. If the temperature is at a certain point,...you catch fish, and [even if] you put them back, they die. So we don't do that....That was something that took us probably two years to figure out....[Now] that we are 'catch and release' only...we do not impact the fishery. (*Sweet Grass County Recreationalist*)

I have given this overcrowding thing a lot of thought. Generally, on weekends, I don't do guiding. If I have to, I get out early, and get in early. Everyone goes out on the weekend to get away, and they take their dogs. When I first came here, the Yellowstone wasn't really used. Now there are people camping out. People need to take care of their waste. That is another issue. The one thing is, they have put potties in at access [sites], but how do you deal with it on an island? I don't know. There will be a lot more people camping out on that river. That is what I see in ten years. (*Sweet Grass County Recreationalist*)

E. Systems of Control

We don't have to be so greedy. Put some self-limits. We have to start thinking as stewards, not as businessmen. (*Stillwater County Recreationalist*)

You know how Montanans *love* regulation. My hope is [that] it will always self-level. It will get so crowded out there that people will take up golf, or take up something else because it is no longer enjoyable. (*Stillwater County Recreationalist*)

First of all, [think of the river] as a resource for a fishery, not just as a business. Unfortunately, in the past, the forest service has tied their businesses to the resources, and said, 'Without the business, the resource would be nothing.' I think the opposite without the resource, your business would be nothing. That means protecting your resource. At times, they have shut down the river because it has been too warm for fishing. I think that is a good idea, and they maintain the fishery to some degree. (*Sweet Grass County Recreationalist*)

A lot of these people, potentially, will be building houses on the river. I teach them about the ecosystem, the economy, the effects that various things have on it, and the perspectives of the people that live here. I try to give them a lot of information in a gentle way....I use examples while we are going down, both pro and con. Like, 'See how nice that one blends in and is back away?' And, 'I can't believe someone would build right there in the flood plain. I would bet they get wiped out. I bet they can't even get insurance.' This one, down the bend here, it has two big picture windows, and as we go along I always comment, 'People with glass houses shouldn't build next to the river.' I think that gives them the subtle idea that maybe people would be throwing stones at those. (*Sweet Grass County Recreationalist*)

It would be really nice if people would regulate themselves, but they just don't do that....I'm really not big on government getting hugely involved in things....Well, I definitely go for regulation, but there'd have to be some forethought. (*Sweet Grass County Recreationalist*)

All I know [is] I want [to] get these stupid, big boats off the water....The way it used to be, the people you would see on the river were fishermen, not just people running up and down the river. Now we have the jet skis on there, which I am seeing more and more up in my little turf....Twenty-five years ago...you never heard the sound of the jet boat, and, now, everybody seems to have a jet boat....Certain times of the year, there should be restrictions...[especially in] places where the [water] is real, real low. (*Carbon County Recreationalist*)

I've wrestled with how can you tell people you can go make a living on the river and fly fish, but you can't bring your motorboat....I don't want to...categorize people, but...there's just something [about] the quiet and the stillness, and just floating and seeing the birds....When you're floating in the drift boat, it's a completely different experience....But I don't know how you deal with that. (*Sweet Grass County Recreationalist*)

It needs to be protected from overuse by the boaters....Maybe they're getting it now, but an outfitter can come in from Gallatin, or anywhere, and float the river. And you're down there fishing along the stream, and you're not the boater, and it's kind of disturbing to see so many boats, one right after the other, coming down....The use of the river by boats gets a little out of control. (*Carbon County Recreationalist*)

I have a real struggle with the summertime overcrowding,...and it's sort of an outfitter issue. When you're an outfitter, and you have a certain area that you use, and the [water gets low in the] area that you're working out of,...then you, all of the sudden, pack up 40 boats and take them some place else, which has happened the last few years. That's been kind of hard for me to digest....Bozeman has become so overcrowded...[with] outfitters putting out 20 guides a day....[Then] one guide decides to come down here and go

fishing, and catches good fish, and goes and tells everybody....And there's really no control over that....I don't really like a lot of control, so how do you tell them they can't? (*Sweet Grass County Recreationalist*)

I think there has to be self-regulation, too. We have outfitters that are putting out 30 to 40 guides a day. That is a bit of an over-use by any one person. I would like to spread them all over the state. (*Stillwater County Recreationalist*)

I guess it would depend on who manages that river. If they're going to send somebody in from out-of-state, somebody from Washington, D.C., I don't look for the river to stay the same....I don't want to see somebody from Washington, D.C., or someplace, coming and telling me what to do with our river. I think the government gets involved in too many things that they should stay out of, and our river is one of them. I think it should be left for people to use. I find anytime that they start getting into that kind of stuff, they start closing it off, just like our forest service. (*Sweet Grass County Recreationalist*)

We have our Montana Fish, Wildlife, and Parks that pretty much controls what is happening up and down the river recreation-wise. I imagine they will keep that control. (*Sweet Grass County Recreationalist*)

The hunting can be dramatically regulated for safety reasons. I would go with anything that the Fish and Game and safety people felt was important. As much as I like to be able to hunt, it takes a second seat because of the potential for injury. (*Sweet Grass County Recreationalist*)

You have to put in for a lottery to float down the Smith River. I am not convinced that is a great system. I think it is better to limit than to allow something to be so overused that no one gets the value out of it. A quota system is something I can accept, [but] I don't really like financially-based regulating....It is supposed to be for all the people, not just for those who can afford it. (*Sweet Grass County Recreationalist*)

I definitely like the 'no-motorized' [idea]. Nobody likes to see a jet boat go by when they're fishing. (*Sweet Grass County Recreationalist*)

We need a use-permit for the Yellowstone and the money should go to rehab [the problems that we create]. (*Carbon County Recreationalist*)

[What if] a bunch of 16 year-olds want to go inner tube the river? They have to have a five-dollar fee to inner tube the river? No. That is there for everybody to use. (*Carbon County Recreationalist*)

III. Shifting Scenery: Development Along the Riverbanks

A. Homes on the Riverbank

Everybody wants a little piece of land on the river, and then they build right on the river, which kind of sucks....You go up by Livingston, and you see the houses. I mean, house, after house, after house, built right on the river. (*Sweet Grass County Recreationalist*)

What is unique about the Yellowstone is everything is undeveloped. When you float, you only see a handful of houses. That is the most unique thing. It flows through all this beautiful agricultural land, and the ranchers are satisfied with being ranchers. [But] the millionaires show up and want a house right on the river. It is a slap in the face to humanity. It is happening all over. You can't legislate aesthetics. Maybe that is true, but without aesthetics, you are fishing in someone's front yard. On the Stillwater, you are fishing in someone's front yard all the way down. It is a development dynamic that hasn't taken place [on the Yellowstone]. (*Sweet Grass County Recreationalist*)

I continue to see people moving in here, buying property....I think there will be some chunking up....[This] is a subdivision that has a common lot on the Yellowstone, and then there's [a subdivision] right next to it that just started, and then there's [a subdivision] up from [the second]. It was a family ranch that sold, and now the guy's putting 85 houses in there....And one thing cool about it [is] there's a nice common ground on the river that they're not building on, so that's nice. They're building back from the river. (*Sweet Grass County Recreationalist*)

In ten years, I think [this area] will be fairly similar to the way it is today with a ten percent increase in the trophy homes....Where I live, they are building a trophy home. Not me personally. I think [the construction of trophy homes] has created a lot of jobs for the community, so a lot of people will say this is great. It is allowing us to stay here and make a living, but there are a lot of people that resent it. (*Sweet Grass County Recreationalist*)

Probably the biggest thing that has hurt the river is people wanting to build too close to it. You have to keep them out of the flood plain, that's for sure. The law kind of states that, but some will go anyway....You don't want to mark people too far back, [but] you have to have some rules to say, 'OK, there's a boundary that you need to respect.' (*Carbon County Recreationalist*)

We're seeing transition demographics....Between here and Big Timber,...what do you see? You see agricultural property along the river, hay meadows, and so forth. Those people that are the farmers and ranchers, as they get older, there's a shift, you know. Kids aren't staying on the farms and ranches, they're going to college, or they're moving to the cities to get jobs. The people on the farms and ranches are, at some point, going to retire or whatever. I guess, what I'm saying is, that I think it's just a matter of time before there [will] be some sort of significant development that's going to take place in terms of

commercial development on the river. Now, that's not necessarily all bad, and it's going to have to be done properly, with an eye towards insuring that we don't have any adverse impact....But I think that we can reasonably expect within ten years that there's going to be some piece of agricultural property that's going to get sold off and developed,...whether it's tract homes, or subdivision, or whether it's a resort of some sort. I wouldn't be at all surprised. (*Stillwater County Recreationalist*)

Even in-state folks [are] buying along the river....It's a more prestigious piece of land. (*Sweet Grass County Recreationalist*)

Housing divisions along the river [are a problem]. Housing is too close,...[and], the thing is, it is going to multiply twice as fast as it is right now. [Where] there are ten houses, there will be 30. It is going to multiply....There are houses everywhere. (*Carbon County Recreationalist*)

[Housing along the banks] affects wildlife, it affects the river banks, it affects the beauty....There is a place up the Boulder, bought by two guys from New York, nicest guys in the world. Right on the bank of the river. You know, little stairs out...and, gosh, I suppose if I had enough money, I might want to do that, but I think I'd build back....I think, maybe, look ahead. (*Sweet Grass County Recreationalist*)

It's people with lots of money coming in,...and [some are] pushing this planning so that the guy down the road that has a ranch [can] break a chunk off [for himself] so that he can stay on his place for the rest of his life, and give [what's left] to his kids. (*Sweet Grass County Recreationalist*)

Recreationalists aren't really happy seeing a house right above them, or a row of houses, and looking on their back decks and patios as they are recreating. And people sitting on their back decks watching the river, or watching people recreate don't always appreciate...people who are having fun [and getting] loud....It is a great little view, but everyone is in view. And people that buy on rivers have to realize that...there are more people recreating. (*Stillwater County Recreationalist*)

Anglers [are bothered by the houses] a little bit. Floaters...are bothered the most. The anglers seem like they are here for fish and don't have time to look at the scenery. (*Sweet Grass County Recreationalist*)

I can't say that this is the prettiest stretch in the area. If you want beauty and pretty, go up to Yellowstone Park, Gardiner, stuff like that. Here,...you see 50 houses next to [the river]. As far as I'm concerned, it is not that pretty. (*Carbon County Recreationalist*)

B. Housing Developments Threaten Water Quality

They shouldn't build on the banks of the river. Their septic systems can contaminate the river. (*Sweet Grass County Recreationalist*)

You go down the Stillwater and they have sewer problems like crazy because the sanitarian let them build too close to the river. There is no way it can not violate the water table. It has happened several times with this community [because] the sanitarian, who got fired over there...came over here. They allow people to build right on the river, and they allow them to pump their sewage up the hill so they can pass a perk test. That is not in the interest of the community or the resource....I think it [comes down to], basically, how well you know the sanitarian. I know he is congenial with some, and not so much with others. As far as septic law is concerned,...I know you have to have your septic system 100 or 150 yards away from your well. Other than that, it is where [the sanitarian] determines you can get perked. It is really a gray area. It is violating the water table on the Stillwater. Every time we allow someone to build on the flood plain, it is a public liability, from a water quality standpoint, from an erosion standpoint, and a liability for FEMA when the sanitarian allowed that to happen. (*Sweet Grass County Recreationalist*)

The longevity of the Yellowstone and making sure of our water quality [are both important]....I honestly think we could make it better. We have irrigation upon irrigation, [and] that...water is coming out and going back in. You should have to send water from a field that is maybe not as clean, [and]...run it through a panel, or something, to clean it up. I don't know the solution. I am not a scientist, and I don't want to make it hard on the Ag community. Sometimes they put garbage water back in there after taking palatable water out. The wild fisheries in the states are evaporating. Colorado has had whirling disease so bad that a lot of their natural fisheries had to be helped by the state. I would say, when I am dead and gone, that river is going to be rolling like it is today. (*Sweet Grass County Recreationalist*)

C. Inadequate Weed Management

In Paradise Valley, there's a lot of out-of-state homes with a lot of weeds on them. Maybe people don't even know about, or aren't here enough to take care of [them]. And that keeps spreading the problem, especially on the river corridor. If somebody upstream has weeds, you're always going to have them. It is a problem. [The spraying program] is a ten-year program, so if somebody's willing to stick with it for eight to ten years, and in combination with some of the biological beetles, and everything else, you can stop it.... It takes everybody doing it, not just a few people. (*Sweet Grass County Recreationalist*)

If you don't have livestock, weeds tend to be a problem. People don't want livestock on their parcel of the river, but they won't spray it. See, it is a catch-22 situation. At least if you have livestock in there, they knock it down, and the seeds won't go everywhere. The Yellowstone has a tremendous area of leafy spurge, and it is just growing rampant, and we can't stop it....Education is the main thing. They don't know....[With] the smaller parcel [the weeds are] not getting them in the pocketbook like it would the rancher. They come into the state and say, 'Look at the pretty purple flowers.' (*Carbon County Recreationalist*)

It's the wrong kind of people that are buying the land around us....I mean, the guy comes out and says, 'Get off my land.' Well, [I said,] 'I'm on the stream access.' [He said,] 'It

doesn't make a difference. I own this piece of property.' They are going to make you move, and I don't have the money to fight. I mean, I'm thinking of several different ranches the guy bought just...because he wanted that stretch of river. He isn't going to want anybody even on his high watermark. (*Carbon County Recreationalist*)

D. Setbacks: Benefits and Impediments

They are building now right in the high water areas....I even see it where they are letting people build on the flood plains. They are permitting them....There should be a map set up [to designate] where you can and cannot build. Or within so many yards. It affects us all as far as insurance, higher rates. I mean, the people that live here know what the river can do, but the people that can afford these places are building right next to the river because they want the pristine beauty of living on the river. (*Carbon County Recreationalist*)

A few years ago, they were doing a master plan. I recommended that they take half of the setback of a Wild and Scenic River, which is 300 feet. [I was] thinking we could find some compromise. In one weekend, the commissioners flushed half of what the community recommended down the toilet. I don't think you can find anything in the master plan that says anything about a setback. We had some...'Don't tell me what to do with my property' attitudes. I sympathize with that idea, but when your actions influence someone downstream....Look, if you were to punch a well in down here, and somebody uphill punches one, and all of the sudden your well is gone. He doesn't know it, but he is impacting what you had....Basically what the county commissioners represent are the agriculture people. Some of them do belong to NPRC, and are standup people as far as water quality and doing things right, others are, 'Do whatever you want.' (*Sweet Grass County Recreationalist*)

We have so much recreational use of the river now, and the floating, and what not. People from a big city, or populated area, they like to float down the river and see nothing but trees and wildlife....These big, fancy homes along the river, to them it is disturbing. To me, I just think they're crazy. A million-dollar home for three weeks of the year...,It's a changing world. So I think we have to protect the river from encroachment from housing. (*Carbon County Recreationalist*)

I worry about some of the houses and things right on the river....One of the things I hate is the big RV park in the middle of Paradise Valley right on the river. Supposedly, they have services, [but]...I'd like to make sure they're not polluting the river. There's been problems with places in California where rivers basically die because of the number of septic systems near the river. Pumping that many nutrients into the river [leads to] high, high algae growth, and it will kill all your bug life. So, it's definitely a concern. (*Sweet Grass County Recreationalist*)

The Wild and Scenic Act, where I was familiar with it was in Washington state, gives you a certain buffer zone where you can't build next to the river, no subdivisions, no new

[buildings]....If you have an existing foundation, or existing cabin, you could use that, but no new stuff....I don't know the exact distances. (*Carbon County Recreationalist*)

I would rather see [setbacks of] 500 feet....There was a guy down-river that had his whole house go into the river....You shouldn't build that close to the river. That is where the setback comes in. If it is back far enough, and the river does change, it has room to change. Instead of saying, 'The river is going to take away my house,...[so] I am going to change the river.' (*Sweet Grass County Recreationalist*)

Along every river, there are people right there. So there has got to be an understanding that if you are going to live *on* the river, you have to live *with* the river. A setback is nice. They have done that on several waters. (*Stillwater County Recreationalist*)

I think that if you leave people alone, without rules, the corridor will change...because this is where they want to build. They want to change it, to cut the trees down [so they can] see the water, but the trees help armor the shore. It's just a multitude of things. (*Carbon County Recreationalist*)

IV. Ideas About Erosion and Rip-rap

A. Erosion is Not Necessarily a Problem

There's definitely erosion....I can't say if that's just the natural flow of things, [or] if there is certain things that people have done to the river that have caused those sort of things. There's been huge changes....Some people moved in from California, and they wanted the stream to run a certain way so they could build this little pond. They flat-out moved the county road—the county road. And then there was a huge flood up there, and people are going to...get sued because...[some think the flooding] happened because these people changed the flow of the river....I'm of the mind that natural things do natural things, and that's what happens when you get lots of water. If you're not intelligent enough to know that a river has a mind of its own, and you build too close to the river, those things can happen. (*Sweet Grass County Recreationalist*)

I've seen the devastation that took place south of Livingston on the Yellowstone because [the river] got behind the rip-rap, and then it took acres and acres away. And, to me, it took a lot of the beauty....[The river] takes a long time to heal, but it will. A free-flowing stream is one thing, but...there's no more erosive practice than nature itself. And if you want to see [a free-flowing river], and you're not interfering with private property, that's okay, but I think we still need to help people protect their property from over-extension of the river. (*Carbon County Recreationalist*)

I don't see that the erosion itself is a huge problem, unless you are a farmer that is losing ground, which is big. I don't think there is much fighting [erosion]. I think rip-rap is a mistake. I think rip-rap is almost an arrogant way that man tries to control a force much bigger than himself. (*Sweet Grass County Recreationalist*)

It's a real fine balance, in my opinion. I have the utmost respect for other interests....I know we have to work together. So I think that's why it's important that we do strike a balance in terms of some of the things people are looking at. For example, putting the riprap on the banks...may prevent erosion of their property and their interests, but, if its not done properly, it could have some sort of adverse impact on the fishery, which concerns me. And then it takes away from that pristine environment....I like the fact that,...in this section [of the river, in] very few places do you see any man-made changes to the river. It meanders, it's pretty natural, and, as you can see [today], it's really roaring....When it starts to lower itself down, some new side channels will [form], there'll be new obstructions,...new fish habitat, and so on. (*Stillwater County Recreationalist*)

In '97 to '98, [flooding] changed the Yellowstone River in a lot of places....Pools I used to fish in are not there. The islands I used to mushroom, are not there....[One] man wanted to armor it, and they wouldn't let him, and then when this big flood hit...I don't know how many acres it devoured at that one man's place. (*Carbon County Recreationalist*)

To try and tame a big river to not erode is silly....[You might use] hay bales, straw bales, plants to catch the sediment....Straw bales are a temporary fix to keep the sediments. Replanting has the long term effect. (*Sweet Grass County Recreationalist*)

The Spring Creek's are part of a public thing. They're a private fishery, but their value to the Yellowstone is very big, too. I use them a lot, too. So, I have personal interests in there. I think they should be protected, but they were affected by old rip-rap and armoring of the bank in the past, so where do you draw the line?...They're all valuable to the local economy and valuable to the river system. Eighty percent of the rainbows are within ten miles of...Spring Creek....It's where all the fish go. They're very valuable and should be protected, but I don't know where to draw the line. (*Sweet Grass County Recreationalist*)

B. Rip-rap and Its Effects

I don't think rip-rap is a good thing. But it's not a bad thing either, most of the time. (*Sweet Grass County Recreationalist*)

I'm not going to say I'm against rip-rap, but it should be judged and approached carefully. There's one place in Paradise Valley where I thought they rip-rapped a fairly stable bank, and the bank immediately below there now is kind of in trouble, and I think you really have to be careful where you rip-rap, and why. Be careful....[If] the next bank down starts eroding and you rip-rap that one, soon you have a big, armored channel. You can take a look right through Livingston—that's all armored, and the speed of the river right through Livingston is very fast, especially now at flood stage, but it's very fast compared to the other sections of the river. (*Sweet Grass County Recreationalist*)

I'm of the belief that proper rip-rapping is good; it armors it. You have to be careful whenever you work with the water that what you do here does not send it over...there. The river has its own means of equalizing....But if we wait for nature to take its other

way, people lose too much land....One thing, you don't want to re-channel it. You just try to stop it from taking more land....With rip-rap, you have to place them, you have to work on it, you have to bed them down, then it becomes a reasonable armor. It can mess up [if not done properly]. We have a lot of scientific data on the rip-rap....Natural is great, but I don't see very many women looking natural....Just a little touch, here and there, sure does improve things. (*Carbon County Recreationalist*)

Rip-rap is what I am afraid of....It is just taking away the wetlands, side edges, the rearing ponds, the place where a lot of things happen in the ecosystem. And the rip-rap is like building a ditch. You don't have...the little wet spots, the things for the little fish to hide in and rest....The otters, and everything else, comes in through there. When you rip-rap like that, you increase the force of the river coming down, and it will move stuff and it will keep moving. It will force the guy down below to rip-rap if it changes the course the little bit....[Now] he's got to rip-rap, too, so we are losing all these side wetlands that is really important to the ecosystem. (*Stillwater County Recreationalist*)

It takes an arm and a leg and an act of God to do anything as far as rip-rapping in the stream. I know one lady,...after the last flood came through, she paid beau coups bucks to keep that river where it was. (*Sweet Grass County Recreationalist*)

People are moving down along the river, and they are putting houses, there, and they are trying to save their property. You can't blame them, but the river has changed course dramatically for years, through the rip-rap....I think a lot more people are moving down to the river and wanting the safety of rip-rap. They see it around, and everybody is safe behind the rip-rap. (*Stillwater County Recreationalist*)

Certainly, I understand the people that have property, and they want to try to preserve their property, and I respect that. But the fact is, the Yellowstone is a wild river, and,...to me, it sort of comes with the territory....[We should] try to achieve [a] balance, and not be overly regulatory with citizens [as far as]...what they can and can't do with their property, but, on the other hand, realize that, hey, you're not just doing something that's going to perhaps impact a little piece of property; you're doing something that could have potential impact on a resource that has significant economic impact, [and] social impact...on a whole bunch of people. So, people need to understand [it is] a lot broader than their little piece of property on the river. (*Stillwater County Recreationalist*)

[Rip-rap] can definitely have an effect downstream. It re-energizes the river. You definitely have to take a look at that....I'd be very concerned if I was a landowner downstream and somebody put in some rip-rap. They should definitely have a say, too, and there should be some remediation, if [those downstream] lose land as a result of rip-rap upstream. (*Sweet Grass County Recreationalist*)

I'm not in favor of rip-rapping to save somebody's house who built right on the flood plain. If you build there, you take the chance. But there are some spots where I think it's appropriate: where somebody's losing a lot of land, where the river is just spreading....Maybe that's an argument for fixing [a specific place] when it blew out in

'97. A lot of that may have been caused by the old rip-rap [upstream]. It just didn't give that river anywhere to spread out. It backed up enough where it blew a new channel....It's a toss up all the time; you have to weigh good and bad. (*Sweet Grass County Recreationalist*)

Down here...[are] a bunch of rocks that are two to three feet in diameter. They are just all piled in there. They are working for that guy, but they are pushing the river to his neighbor on the other side. The more you try to hold a river in, the more problems you are causing for your neighbors down- or across-stream. (*Sweet Grass County Recreationalist*)

It's such a meandering, naturally flowing river; it seeks all these little braids and channels and so on...I'm not sure, but my suspicion is that when you start to mess around with it too much, then it's going to perhaps eliminate or degrade some of that natural structure and...habitat. (*Stillwater County Recreationalist*)

I always figured rip-rap made habitat for the fish....They say it's [only for] the big fish, but you can have two people with the same study, one for one group and one for the other, and you will never have the same answer. (*Carbon County Recreationalist*)

C. Please, No Junk as Rip-rap

To me, it's the big boulders...I. don't want to see junk in there....I don't want to go along and see somebody's old wrecked car in the river to hold the banks. (*Sweet Grass County Recreationalist*)

I like [big rocks] better than using old concrete, and stuff like that. Keep it as natural looking as you can. And you know, barbs and everything, they end up not looking natural. If you can do some landscaping, in turn with the rip-rap, you can have a pretty nice looking bank....[Use] willows and trees to create a stable bank rather than creating an armored bank....The river's a moving, living thing, so you're always going to have an instability...someplace. (*Sweet Grass County Recreationalist*)

At least they don't use old cars anymore. It doesn't really bother me, [but] I'm glad they don't do it now. It's almost become part of history. There's a '56 Ford in the bank! I'm really glad they don't do it now. If you had a chance, it'd be nice to remove some of them, but they're part of the town....They call it the 'Drive-in on the Big Horn,' where there's 50, 60, 70 cars, but I'm glad they don't do it anymore. (*Sweet Grass County Recreationalist*)

Yeah, stone is fine. We don't need the old cars anymore. And it worked. We are more advanced. As far as I am concerned, let's make it look more natural. I don't want to see pictures like down south where they cement everything around. I did see the cars for so long it almost looked natural. (*Carbon County Recreationalist*)

D. Alternatives to Rip-rap

If you want to redirect the water, rip-rapping is not the only way. You could create a [broader] situation....When the river gets big, it is best to have three channels. If the river splits up, that is when it does its best work, from a fishery standpoint. When it comes down in the summertime, and it splits up into two channels, then that is perfect, too, because you have lost your high-water channel. One big channel is not going to look good from a fishing standpoint. It creates a big lake, or big trench, and it isn't conducive to fishing. (*Sweet Grass County Recreationalist*)

The resources of the riparian zone...would be the flora and fauna on the flood plain. I think, you could follow...the cottonwoods. They are of ultimate importance to the river, but without a flooding situation, they don't regenerate. And so, the cottonwoods are very important. We have beaver problems, and some people don't want to kill the beavers; they want to save the beavers. A few beavers are good, not a lot. Once they take the cottonwood down, it is a short time before [the bank] gets eroded and...is gone. And junipers—let's not forget the juniper. It is the most amazing vegetation on the river. It can grab amongst the rock and start growing right out of the rocks. There isn't a lot on the Yellowstone but there is on the Boulder. You can't wash it out, even in high water. Those roots hang on so tight....The beavers don't bother them so much. So [cottonwoods and junipers] are my two friends. (*Sweet Grass County Recreationalist*)

We sloped, with a little bit of dirt, and put some grass clumps in there—some snake grass [and] Bermuda grass, and then we put willows in there. Last year, we had one of the biggest floods we had ever had, and it held up just fine. I have done some on my property, but I put small sandstone, small, and [I] mixed dirt in with it, and it held tremendously. (*Carbon County Recreationalist*)

With people moving in, a lot of people are fencing off the riparian area, [and it] is growing back. They're fencing it off, and...that's helped a lot as far as with the erosion to the banks. (*Sweet Grass County Recreationalist*)

We have a grant project...[for] the Yellowstone River and the Clarks Fork River for removing the salt cedar. But now, this is the last year on the project....For all the salt cedar we removed, we are reintroducing the native species, the willows, the cottonwoods, just so we don't get the erosion problems. (*Carbon County Recreationalist*)

E. The Value of Local Knowledge

I realize...there's certain things that, maybe at the local level, we don't necessarily have control of....But these rivers have been existing for a long time, and we've been coexisting with them, now, for quite a while, and we've seen a lot of change....So hopefully, we can come up with some sensible things, and I think it's always nice if it can be done through the groups and the citizens rather than it being something that gets generated from the top down....[If it comes from the citizens it] makes it a little more palatable to people. (*Stillwater County Recreationalist*) It's got to be a commission that balances everybody. I don't think it should be totally up to the Army Corps of Engineers, or anybody else that permits it. I think you really have to show a need and [show] why this river needs to be armored at this point. There's some very good reasons,...but [no one should] have *carte blanche* to go ahead and place rocks. (*Sweet Grass County Recreationalist*)

Just so things go forward [on a] scientific basis,...not emotion because emotion is a very dangerous tool. I believe, whether it's the river, whether it's anything, you get emotion involved, and reality goes out the window. (*Carbon County Recreationalist*)

It's landowners, and sportsmen, and everybody. Basically,...everybody has to work together to make a decision. Most of the time, it's the Army Corps of Engineers that makes the decision....They have a big hand in it...[There] should be more [people involved] than them,...[and] it should be more than the landowner, in a lot of cases, too. That's a tough one, too, even in Montana. Look at some of the old ranchers, 'It's my land, and I'll do what the hell I want with it.' And they're right in a way. It is a tough one. The use and everything has grown so much on the Yellowstone. Montana has gone from agricultural to basically tourism, and the Yellowstone is a huge part of that....But you don't want agriculture to go away, because that's what made Montana attractive in the first place....[We've] got to keep some of the wide-open spaces. (*Sweet Grass County Recreationalist*)

It's a totally different river and environment five miles upstream of Livingston than it is five miles below Big Timber. It almost has to be a special case. I don't think you can adopt a policy for the whole river. It's a different fishery downstream. Below Forsyth and all that, it's an unbelievable warm water fishery...that probably isn't being utilized. Decisions being made down there shouldn't necessarily be the same decisions made up here. It has to be a case-by-case....For one thing, it's a lot bigger river down there. It's a lot flatter, less gradient. I don't think they have some of the rip-rap issues that we do, but, boy, I don't know. It's almost on a case-by-case basis. You really have to look at it. It's a tough one, especially since you're looking at the river all the way down. (*Sweet Grass County Recreationalist*)

Let's start with who would be on the board. Get knowledgeable people on board to make those decisions. There are some excellent stream reclamation people in this community. I would definitely get one of those guys....They know a lot about fisheries, and they know a lot about reclamation....They need to account for county property or state property. Down there, where the bridge is, they spent millions of dollars on the bridge. If they don't do something about that they will have [another useless] old bridge. You saw that bridge...that goes nowhere. The policy would have to consider the roads, but, most of all, alternative ideas to rip-rapping are essential. (*Sweet Grass County Recreationalist*)

I've traveled around in the west quite a bit, and I've spent a lot of time in other states....By and large, Montana does it better than anybody else...in terms of the management of the resource....Montana, being historically an agriculture, mining, and timber state, a commodities resource state, you have a lot of long-standing interests that

exert pressure....The State of Montana derives tremendous commercial economic impact from the use of the river, through tourism and tourism-related industry,...the fishing and outfitting, and guiding industry, and so on. So I think it's important that everybody gets a chance to weigh-in on the resources. I was just reading something in the paper this morning, and I thought it was a good comment....Something...[like], 'If you don't plan for the future, then the future's just going to dictate itself to you.' So I think it's wise that we try to look ahead. (*Stillwater County Recreationalist*)

I think you have to include more than just the government people. There are a lot of older ranchers that know a lot about the river. I think it is who you incorporate in the policy-making that would make the biggest difference. An outfitter, a reclamation specialist,...a white-water individual, and the experts that work for the government. (*Sweet Grass County Recreationalist*)

It seems like it is everybody's [experimental area]. The Conservation Districts, years ago, they were dumping cars for rip-rap. Now cars are not all right. Now cement is not all right. The Corps of Engineers stepped in, and started doing their little deals, and found out they didn't work. It is everybody's experimental place, to find out how to actually stabilize banks. Sometimes it is best to slope them off, add some willows [and] do it naturally, versus doing big huge projects. I am glad they quit using cars. I am glad they quit using cement with iron in it. Nobody wants to get stuck with rebar....If you want the prettiest, or the longest free-flowing river,...you need to keep some of that crap out of there. (*Carbon County Recreationalist*)

I think that it's reasonable to assume there probably could be, over time, more and more rivers having to [be regulated]. I think that most of us have a natural resistance to being overly regulated. I think that's why a lot of people live here, and want to live here, because they want to have less government regulation...over their lives. That's one important aspect. They don't want the government telling them how to recreate....With that said, I'm not sure how you get around that....I think if you just sit idly back, and just don't do anything...things will just deteriorate, and then you'll be just totally worse off....Nobody really wins on that deal. So, I'm not a big proponent of [regulation], but I see that it's probably an inevitable thing...when you have a lot of competing interests. (*Stillwater County Recreationalist*)

V. Sympathies and Concerns

A. Agriculture, Economies and Land Prices

You can't just...tell a guy who's been farming and ranching for, oh, 50 or sixty years that the water to irrigate his grass, to feed his cows is—[that] it's more important that I have [water] for the fish and the river....I mean, how do you?...This has been such an agricultural place for so long. (*Sweet Grass County Recreationalist*)

Most of them are very wealthy that purchase property. They come to visit, and then they'll come back, and they'll buy a ranch for two million dollars. And that farm family

who's struggled their whole life, moves to town and builds a house—you know, easy street. But I don't know how cool that is. It'd be nice to have the property in the family forever. (*Sweet Grass County Recreationalist*)

I know he's losing more and more hayfields all the time....I'd rather have him stabilize the bank, and keep a bunch of silt from going into the river, than trying to protect the houses built right along that thing. (*Sweet Grass County Recreationalist*)

I've lived here my whole life,...[and,] as for agriculture,...I grew up on a little ranch on the north of town on Big Timber Creek....Water is huge here. (*Sweet Grass County Recreationalist*)

Land prices are going up. Farmers can't afford not to sell. You can't buy a piece of ground that will support the farmers. (*Carbon County Recreationalist*)

Agriculture is on its way out, especially with fuel prices and everything the way it is. Which is a sad thing, because who is going to raise the food for the country? (*Carbon County Recreationalist*)

Will agriculture still exist at the level it does? I suppose it will to a certain extent. We'll still have recreation, whether it's boating and fishing....I think we'll still continue to enjoy it. I kind of think people are pretty mindful of that, I really do. Realizing that we got a good thing, and it's important that we try to keep it in reasonable shape so we continue to use it, and those who follow on can continue to enjoy it and use it. (*Stillwater County Recreationalist*)

To a degree, if I was a farmer, and [my land] was being washed out, I would want to riprap. (*Sweet Grass County Recreationalist*)

Another plan is to try to fence the rivers off....You can't have it all one way or all the other way. We need to learn how to use it properly. (*Carbon County Recreationalist*)

B. Local Values

Being able to heat people's homes [by building a power plant near the river]...is probably a higher value use of the resource than fishing and boating, and, conceivably, even [higher than] using it for irrigating hay meadows....I guess, if push came to shove, then probably...it would be looked at in terms of that old thing, 'the greater good.' (*Stillwater County Recreationalist*)

Big Timber had about ten or 12 guys....They were called the 'Red Neck Express,'...and they would go to Helena, and they would fight [various issues]....It's a western way of thinking: I own the land and everything that's on it, and every good thing that goes through it, [including] the elk [and] the deer. (*Sweet Grass County Recreationalist*)
There are some good things [that the newcomers bring]....One guy employs...college kids coming home for the summertime. He keeps them busy, pays them well. I have a friend whose daughter is...making \$12 an hour, where the standard rate in Big Timber for babysitting is two bucks an hour....One guy [asks me,] 'Can you make me a chicken dinner?' And he knows it's expensive....it's like \$150. I mean, I have to stop everything, and go shopping, and cook dinner....It's absolutely ridiculous. But he's more than happy to pay. (*Sweet Grass County Recreationalist*)

C. Concern: Agricultural Runoff

It is a delicate area—the whole ecosystem along the river. The government, and the laws, and the regulation, can stretch their arms so far....[According to the law,] you can't spray certain chemicals on [fields] because that will end up in the water ways. Well, they are doing that....Fertilizers are really bad for our waterways, but we're still doing that. (*Carbon County Recreationalist*)

Most of us are very conservation-minded....Most fly fisherman are...more protective of the resources than farmers and ranchers, as far as the stuff they put on their fields to irrigate....I always take a big bag, and we just fill the bag [with trash]. (*Sweet Grass County Recreationalist*)

Limiting the building along the shores is my big worry, and the amount of livestock [runoff from] feedlots. [Feedlots] need to be back a little bit. But, you know, I fished below a feedlot...[and] I got that huge catfish. (*Carbon County Recreationalist*)

D. Concern: Water Rights

Water rights are huge, huge. It's huge....There's a guy,...he's owned that place for several years....He had some of the oldest water rights...and he sold them, or gave them, or deeded them, or I'm not sure how it worked, to the Fish and Game....So some people up above don't have enough water to water their fields, [but] his water gets down, and he's using it for the fish. (*Sweet Grass County Recreationalist*)

Irrigation has a long history of legal rights to water. That is fairly important, as it is historical, but some of those days are past. If we are going to allow a few people to have rights because they have had rights for so long at the expense of the masses, we are into a feudal situation. Just because they have been there for so long, and have those rights, doesn't mean they should have them forever....I think it is fair to compensate people if you have to take away some of those water rights, within reason. (*Sweet Grass County Recreationalist*)

E. Concern: Ice Jams and Floods

Ice jams can be a real issue. If they are big enough, they can probably cause as much damage as anything there is. They gouge the river, kill everything in the path. (*Sweet Grass County Recreationalist*)

During the flood years of '96 and '97...lots of people lost lots of ground as the river changed courses. It just took, and gave, one side to the other....The ice jams in the winter will move holes around...and cut up [islands]. Ice jams do a lot of things as far as carving the river. (*Stillwater County Recreationalist*)

I think in certain spots you can prepare a little bit for [floods], but nobody knows what's going to come and how big it's going to get. When it hits 37, or 38, or 40,000 [cubic feet per second], there's only so much you can do. At that point, you're not stopping it. You might try to do something to fix it or stop it from the next time, but it will do what it wants to. (*Sweet Grass County Recreationalist*)

F. Concern: Coalbed Methane

The coalbed methane situation is...one of the big deals going on in Montana, and a lot of people...downriver are really concerned about that because they are not sure [what the effects might be]. (*Stillwater County Recreationalist*)

Laurel to Springdale: Residential Interest Group Overview

Fifteen interviews were conducted with property owners holding 20 acres or less of land bordering the Yellowstone River, or within 500 feet of the bank. Names were obtained through a GIS search of public land ownership records. These names were randomized within counties. Other people living very near the river and whose primary incomes are not generated by agriculture were also recruited.

Participants in Yellowstone River Cultural Inventory-2006						
	GEO SEG I: Missouri River to Powder River	GEO SEG II: Powder River to Big Horn River	GEO SEG III: Big Horn River to Laurel	GEO SEG IV: Laurel to Springdale	GEO SEG V: Springdale to Gardiner	TOTAL IN GROUP
AGRICULTURAL	22	22	16	12	14	86
CIVIC	14	14	18	14	8	68
RECREATIONAL	15	16	16	13	16	76
RESIDENTIAL	15	11	16	15	19	76
GEOGRAPHIC SEGMENT TOTAL	66	63	66	54	57	
NATIVE AMERICAN						7
PROJECT TOTAL						313

Laurel to Springdale: Residential Interest Group Analysis

I. Living Near the River

A. Appreciating Scenery, Wildlife, and Serenity

Paradise. It's just great, great living. Private and beautiful. We are so lucky and privileged to live here; it's just wonderful. We have about two and a half miles of riverfront, so we don't have any neighbors close, and it is just great....The river is the reason we are here. It's the whole thing. There is constant action going on at the river, whether it's birds, or fishing, or deer, or whatever. There is always wildlife around which is our great love. We cultivate our land for wildlife. (*Sweet Grass County Residentialist*)

Everyday I walk down my hall, and I have a new picture window. And you know, it's just awesome. The colors in the fall are beautiful, [and] most of the time the sun's shining on the mountains. We can see Granite Peak, we can see all kinds of activity in the river with geese, and we just love it, it's just awesome....My heart just feels so good. This is our place. (*Stillwater County Residentialist*)

You can look at the river, and you can walk along it. It's so peaceful, you know, it gives you such a sense of peace and serenity that you can't match anyplace else....We can just go and have a nice afternoon walking along the river....I used to sit here, and just get tears,...and I still do, you know, because it's wonderful. It's wonderful to be able to enjoy it. (*Stillwater County Residentialist*)

The beauty of our surroundings. You have all the wildlife, the birds. It's just fun to see all of that down at the river. The different birds,...the pelicans,...eagles nesting....It's kind of a sanctuary....It's a habitat....The blue heron's nest, and the rookery. And it's unbelievable...the number of blue herons....There's a lot of bald eagles on the Yellowstone. I think that's a wonderful quality. (*Sweet Grass County Residentialist*)

Well, I've been here all my life,...and when you're around something all the time, you learn to appreciate [it]. You know the beauty, and what it offers, and what it gives....You get to enjoy being here, and...it makes you want to stay around. (*Sweet Grass County Residentialist*)

I will say that if we have ever talked about leaving, or moving, it is the river in my backyard that keeps me here. I love my backyard,...and being able to see water is important to me. (*Sweet Grass County Residentialist*)

There is a lot of wildlife out here....We see deer, turkeys, pheasants....bears, cougars...mountain lions, elk. There was a moose here....A big bull came across the

river....The river is like a corridor for animals to travel, and they will move great distances along it....They actually use it like a highway, so you see a lot of different animals come through....Geese, ducks, sandhill cranes, two pair of bald eagles, and a couple pair of osprey....We have feeders up, [and we've seen]....,probably, 30 species that we identified in a book. We are not bird watchers, per se, but we just write down what we see, and we kind of expect them when they come. (*Stillwater County Residentialist*)

When we started floating on a raft, I gained a much greater appreciation of the Yellowstone River because you just see it from a different angle. You're part of it; you're in the midst of it. You're seeing all the birds; you're seeing all the people fishing. You're picnicking on an island and finding petrified wood and agates, just enjoying the beauty of how it is out here. No phones. There's mountains, and there's blue sky, and there's all this beautiful scenery along the way....I developed a new appreciation. (*Sweet Grass County Residentialist*)

We enjoy walking along it. We enjoy fishing in it. We enjoy walking along and picking rocks. We enjoy watching the deer. I mean, they cross from there to over here. It's wonderful seeing them and the beaver splashing....We've seen eagle,...with the spotting scope, and we're watching them tear the meat off fish, and it's just wonderful. I don't know how many different things we've seen. We've seen unusual birds that are not probably common to this area. (*Stillwater County Residentialist*)

[The geese] come up here in the yard even. Yeah, and walk around out here. [We] have them on the pictures...out in the yard, here, just walking around in. And we learned something that we haven't found in the bird books. They grow a feather, during mating season,...like a little ponytail right back, here. And...after they've hatched the young ones, that feather is gone. (*Stillwater County Residentialist*)

B. The River as Taken for Granted

I just take it for granted....It is just there. It is a part of everyday life. We don't play on it a lot. Occasionally, but not very often. I am not a fisherman. We float it once in a great while. Go down and picnic once in awhile. I can't say it is important to me....It is not something I have to deal with on a day-to-day basis. I view it more as recreation than anything. (*Sweet Grass County Residentialist*)

I don't fish. I'll probably take my two little ones fishing when they get older, so they get to learn. I don't know how to swim, so I don't get in the water too much....[When] you're born and raised with it, you kind of take a lot of stuff for granted. A lot of people from here, for us, it's an everyday thing. (*Stillwater County Residentialist*)

You can live here all your life, but maybe never have that appreciation for the river because you never spend any time on it. You take it for granted. If you never take advantage of it, you never have that appreciation. (*Sweet Grass County Residentialist*)

C. Keep the Yellowstone Natural

Personally, I like knowing that the Yellowstone has no dams, and I am all for keeping it that way....Part of me says the river was there, first, and if you are going to live in a place like that, you should know before you do it....Probably, if I was buying a house lot, I wouldn't buy there. I wouldn't build a house there or in the flood plain, if there was a potential for more damage. The river will eventually go a different way. (*Sweet Grass County Residentialist*)

As long as it stays natural, that's the best. No dams, no changes. Just leave it...like it is today. I mean, I wouldn't like to see anybody going out there and building something in the islands, or anything else....I like to watch the river come up in the spring and go back to normal. And just, you know, wait for [William] Clark to come down.(*Stillwater County Residentialist*)

I think it is important to keep it a dam-free river. I think that is important. I think it is important that they protect the species of fish that are living there, and their habitat, and do what they can to keep it a great recreational river. Plus, it is used for agriculture. That is real big around here, too. Continue to serve those purposes that it has [served in the past,] and keep it clean. (*Sweet Grass County Residentialist*)

I think it is a pretty neat part of Montana history. And where it originates in Yellowstone Park, and is still free-flowing, I think it is important to protect that. I think it makes our part of Montana special. It is a huge piece of who we are as a state. (*Sweet Grass County Residentialist*)

Don't put a dam on it. Don't mess with the river. Keep it for recreation. (*Stillwater County Residentialist*)

D. The River as Shared Element of Life

Everybody thinks we're all entitled to the river. It belongs to all of us, so that's what's hard. It doesn't belong to me, or to you. We all feel that we should have easy access to it, [but] I don't know how you get everyone to play together well. (*Sweet Grass County Residentialist*)

I will live here while I am still able to maintain the property....I like the freedom. I like the wildlife. I am trying to maintain the watershed. We like trees....We like to sit outside. We like the fresh air and the quietness. We lived in Billings for 30 years....We like the elbow room. We like the birds. We will stay here for as long as we can. I am concerned about the future, and people that live along the river. Make sure that the river is protected when people build along the river....I am not a tree hugger, but I think there is a happy medium. You have to use natural resources, and you have to protect them. (*Stillwater County Residentialist*) Being an agricultural state, the river is very important all the way down....They've used it to irrigate croplands for years and years. I know...[because] I did a lot of crop insurance....We're such a great food source, for ourselves and other countries. I really think agriculture should have as much [water] as any. (*Stillwater County Residentialist*)

Every July they have the annual boat float, which is a celebration of Lewis and Clark, but it is typically a big drunk. It used to be really wild, and it has tamed down. Not as many [participate] as...[did] 25 years ago. They leave the fairgrounds in the morning, and for a couple of hours you can hear them whooping and hollering. It is kind of fun. (*Sweet Grass County Residentialist*)

The kayakers come and knock on the door and ask for access to the river....There are some teenagers in town that have discovered where we have a campfire down by the river, and they made it their party zone. It is not a huge problem. (*Sweet Grass County Residentialist*)

Maybe a canoe will pull over when the water is lower. They will stop, or a fishing boat will come over, or they will go on the other side of the river in the sand bars. It's okay....I have gone down and talked to people, and we wave at them when they go by. If they are having trouble, we want to help. And you always check. If we hear yelling,...we will go down and check that they are not in trouble. It is not like they can't be on there, we don't care. It's their river too. (*Stillwater County Residentialist*)

We realize that if someone is on the river they can get off and get out as long, as they stay within the high water mark....They can come along, and stop and fish along the bank, as long as it is at, or below, the high water mark. That is the law....[But,] as I understand it, there are some rich people that are trying to take it away. (*Sweet Grass County Residentialist*)

Fish and Game suggested that, due to the conflict...he would patrol the area....This worked well until he was no longer working for the Fish and Game....Then people began camping and leaving their trash everywhere, and encroaching on us....[They] were not considerate of private property. (*Sweet Grass County Residentialist*)

Well, there's always going to be a conflict between the fisherman and the recreationalists....There's a lot of people that boat upstream with inboard motors. They zip around, and it bothers the people that are fishing. There's people here who make a living guiding fisherman, [and they say,] 'Hey, we're trying to fish over here.' And [sometimes] you've got a family out floating the river, having fun, making noise, splashing around, and somebody's over here trying to fish. (*Sweet Grass County Residentialist*)

I can see both sides: the people wanting on the river, and the private landowners next to [the river] that don't want people going through their land to get on the river. I like to use the river, but I also understand that people don't want you driving through their bull pasture, and leaving the gates open, and driving all over their pasture, and killing the grass and stuff. The best I can see is public access in spots along the river, so you can get

down there, and then you can use it. You can use it next to a private land, as long as you get on it legally, which I agree with. Some people think that you shouldn't be able to use that river next to their land, but I don't agree with that. I think it's a public river. But, as far as any change, I don't know what could be done to make it better. I know there are problems. (*Sweet Grass County Residentialist*)

Boy, if there is any water around here, there are people using it. (*Sweet Grass County Residentialist*)

E. Ruralness of Subdivisions

A lot of [living in the subdivision] is to have space, clean air, clean water. A lot of people like to have their five or ten acres so they can have a horse, or a couple animals, or a little bit of space to move....Everyone wants their five or ten acres, especially the people who come in from out-of-state. They live in a city, and they come out here, and they think it's beautiful—we've got clean air and clean water, which a lot of the United States doesn't have. And they think that is an asset. (*Stillwater County Residentialist*)

At first, I guess, I was a little hesitant, because it was five miles from town, and [I wondered] what was it going to be like? But it was the best thing that ever happened. It was great when our son was home....He had great times down at the river. They would build forts, and go fishing, go swimming. I mean, they would spend hours down there. It was the perfect playground. It was great....I don't know if when we purchased the lot we realized how important it would be. (*Sweet Grass County Residentialist*)

I don't really have a lot of desire to live in a great big place. [This is] a great place to raise a family....The clean air, clean water, that's a big plus, anywhere. (*Stillwater County Residentialist*)

I grew up here. I like it. I like the river, and I like the mountains. It is a good place to live. It is a good place to raise our kids....It is home to me....We live here for the lifestyle, I guess. That is really the bottom line. (*Sweet Grass County Residentialist*)

The biggest problem is deer. They are everywhere, river or no river....They eat everything in our yard, and strip the bark off the trees with their antlers....I love to look out and see them, but they will come up and eat flowers on the deck. (*Sweet Grass County Residentialist*)

Actually, the fact that [our home] is out of town is what we really like, and we wanted to get [our children] somewhere where they could not be running around town [and] we wouldn't know where they were. And this is really a beautiful area. (*Sweet Grass County Residentialist*)

The previous owners planted 120 trees, and I added another 20. Most of them were fruit and nut trees. So, we have got quite a few trees on the place. It was a hayfield before it

was subdivided, so there was nothing here, it was just barren ground. (*Stillwater County Residentialist*)

II. Affordable Privilege

A. A Private Commons

Well, our place right here, our subdivision owns about an acre and a half of common property right along the Yellowstone. So we have the opportunity to go down there anytime we want, and go down to the river....We have access to the river, and often we float from upriver to our common area and get out....It is just really nice having that access. (*Sweet Grass County Residentialist*)

This subdivision is unique in that there is a bridle path that follows the river for use by the owners in the subdivision. Anytime you have an easement like that, it is somewhat troublesome because there is no incorporated town out here. But if the towns grew enough, they could make a permanent easement, and everyone could use it. That is what bothers me....That bridle path was meant as a bridle path, and they shouldn't use it as access to the river. It may sound selfish, but I am paying taxes on it, and they don't. My liability covers only me, and if they got hurt, they could sue me. They wouldn't win, but they could still take me to court. That bothers me....A guy bought a bunch of the land, and is going to put in 100 houses [behind me, away from the river]. That is a huge impact. If those people think they are going to use the bridle path, I will have a problem with that. It was designed for this portion [of the subdivision], not the whole. So, the enforcement problem may be a real problem. (*Stillwater County Residentialist*)

Between us and the river is common area. And nobody can build, and nobody can live there, and it is available to everyone in the subdivision. (*Sweet Grass County Residentialist*)

We did get a great deal on the lot,...[and now] property prices have multiplied four or five times....Yes. Now we kick ourselves that we didn't buy two lots! (*Sweet Grass County Residentialist*)

We don't make a lot of money, but we aren't hurting. (*Sweet Grass County Residentialist*)

B. Interrupting Ruralness and Diminishing Privileges

We didn't want to start trouble [with the boat floaters], but we don't want them to destroy things. We had the illusion that the local law enforcement would help enforce the rules, and that was wrong. If you questioned 90 percent of the people in this state, they are not aware of it. Anybody we talked to, the title company, the realtor, they won't tell you those things. In town, it is different. (*Stillwater County Residentialist*)

Another thing, when boats go by, and they've got a pretty big-sized wake,...there is nothing to slow down any wakes,...and [the wake] can wash away the shore more than...it should....But that is just a normal thing. You can't get away from that. The other thing, we have been very fortunate [because] there is no personal watercraft used on this river to speak of. They are obnoxious. There [were] a few last year, and the last couple years. They just go round-and-round, in circles, and make so much damn noise, but fortunately there is not a whole lot to do....[When] fishing boats go up and down the river, people sight-seeing, whatever,...no big deal. (*Stillwater County Residentialist*)

[With] so many houses and congestion, I'd like to see them away from the river, and back so that when you are here, you don't see all that. I say that as I sit here 50 feet from the river in our house! (*Sweet Grass County Residentialist*)

C. Public Access Verses Private Property

The thing we do see right now is that the common property is supposed to be limited access, limited to the people who live here in the subdivision. Well, more and more people are coming from town,...or you will see them driving down here with their kayaks and rafts, thinking there is access to get down to the river. I think that is going to be more of an issue for us....How do we deal with that?...More and more people are going to be trying to use our space down here along the river....I think [it] is a class three rapids.....It is on the map now, and these kayakers can see it from the interstate.....I mean, I don't think I would deny them access if they would just do what they came to do, and not impact the area....If they are responsible and pick up their trash...[but] we are going to be putting up some more signs, because people don't necessarily [do what they came to do]....It is a great place....We have a camp area with a campfire ring, [and] a lot of people want to enjoy that, and you cannot blame them. But I think we will probably see more of a demand like that, people who want access to the river. (*Sweet Grass County Residentialist*)

Mainly what I get is people asking if they can put their boats in down there, and I always say, yes. I mean, why not, it's not my river. I think some people that live in some of these [subdivisions] think that's their river,...[I] tell them, 'Park your car, here, because our neighbor down there does not like it. So just park your car here.' I think he thinks he's in the middle of nowhere. That's where the problem lies. (*Stillwater County Residentialist*)

There is nothing easy about [public access]. It will get more and more complex as time goes on. You will have a greater influx of people from metropolitan areas in here. (*Sweet Grass County Residentialist*)

The people that don't live along the river don't respect it. (*Stillwater County Residentialist*)

This is private subdivision property down on the river, but it got put on a website that it was a public access to the river....There were a lot of kayakers from Minnesota coming out and kept wanting access to the rive there, which is not exactly what we

wanted....They put up signs saying that it is private property, and not a public access, and for a while they put up a gate, and closed the gate. I think they had a chain there, but I don't think it was padlocked....I don't think it is a problem anymore. I think it has been noted that it is not a public access. (*Sweet Grass County Residentialist*)

We let people fish....We have a sign that says, 'You can walk in and fish the hole....Access is for fishing only'....[But,] sometimes you catch some clown in there trying to hunt, or...picking mushrooms...And you know the sign says, 'For walk-in fishing only,'...but some people don't seem to take a hint....I had one guy from out-of-state, he pulled his camper in here, and set up camp right over here....He said, 'It's public.' I said, 'No, not here.' He got off in a huff, 'Montanan's ain't very friendly. Everybody says Montanan's are friendly, but you sure the hell ain't.' (*Sweet Grass County Residentialist*)

I really do believe that river is for everybody to enjoy. It's not my personal [property]...It's not my river. And I hate to see where other people are not allowed down there. I know we [the subdivision] have 'No Trespassing' signs all over, but I would not put those signs up, and I would take them down because I don't feel that way. I think if people want to go down there and fish, or put their boat in, or get their boat out, I don't see a problem. (*Stillwater County Residentialist*)

A lot of guides [are] on the river now, just this last year. Five years ago, we might have occasionally seen one, but this last year, we have had 15 to 20 guide boats a day come by. We see them every day. They all come by about the same time, every day. There gets to be a lot of them, and then they get feeling real possessive of the river. They can be real rude to land owners, and the general public, too, because they don't want anybody bothering them and their clients, fishing their water. I would hope Fish and Game would put some control on those....My son guided; I have nothing against guides, ...but you've got to realize it is not your river, and you need to be courteous to the general public. (*Sweet Grass County Residentialist*)

HUSBAND: Another thing that is grinding people bad: rich people buying up this land along the river, and shutting it off to hunting and fishing. That is a big issue. WIFE: As a subdivision, we don't allow access to the river. HUSBAND: If somebody asks, we would let them down there. WIFE: Not just someone off the street. HUSBAND: No, [but we would] if we know them. It isn't a public access; it is private land. We wouldn't deny access. WIFE: We do to outsiders. If someone comes from Billings, and wants to fish, we would tell them no. HUSBAND: That is our policy to keep it kind of private. The Fish and Game need to have all the accesses they can get. They need to maintain them, and clean them. There are a lot of rich people buying land and shutting it off. Public access is important. (*Sweet Grass County Residentialist*)

D. Covenants as Protections and the Complexities of Management

Subdivisions are governed by a set of covenants....Have the people who own the subdivision, who own that property, make some good sensible decisions on...this is what

you have to put in, or this is how far from the river you have to build. (Sweet Grass County Residentialist)

We were having problems next door. They decided to be hateful, and they put a gate on the bridle path, and locked it, and put a 'No Trespassing' sign. Other people brought it to the homeowner's attention that they didn't want the gate,....[but] they will have to file a civil lawsuit...to get them to take it down. Or the association has to go against them, and nobody would do anything. It was a civil thing. Unless there is criminal activity, it is a civil lawsuit. Each line on the covenant stands on its own. Those people next door have turkeys and chickens. They aren't supposed to have them. Manure is not good for the river. It goes into the groundwater. They shouldn't have those....It is against the covenants,...[and] it is a federal fly-way for birds. It is a wild river. There is a reason you can't have poultry. (*Stillwater County Residentialist*)

The [subdivision] covenants are to protect the environment, the land...They put a bridle path in as an easement so they can subdivide it and everybody can enjoy the river, the water, the land....Those people did not read [the covenants]. Other people did not....It started with motorcycles. They were racing down by the river...and we wanted it stopped because they were destroying property. We have a real erosion problem where they were riding on the banks of the ditches....We were going to take them to court....I took a petition around because nobody else wanted to do it. We didn't have to take them to court....The dust was unbelievable. When the wind would blow, all you could see was a white cloud. And the noise carries. We are 30 acres away from them, and our windows rattled. Let them go do it somewhere where there aren't homes. (*Stillwater County Residentialist*)

I think it has to be compromise....If we want to protect the river, there...[are] measures we have to take, but, at the same time, we want people to be able to enjoy it....I'd hate to see the river become something controlled to where we're just letting outfitters down to fish, and nobody else can go on the river. I would be sad if it came to that....[I would rather have] people taking the initiative, and saying, 'Okay, we'll run this.'...People have to assume some responsibility, and they have to be educated on what we're doing and how it impacts the land, and how we can work together so we can enjoy it.... It's going to have to be a give and take thing, especially as we become more populated. It's got to be a give and take their goals and objectives are, but if that's what they're wishing to promote, that would be wonderful. (*Sweet Grass County Residentialist*)

When you have more people, you need more water. How do you share that with the agriculture? That's going to be one of the big questions....What happens to agriculture? I know in Billings a lot of that Ag land is being bought up and is being subdivided. Is the amount [of water] they use less or more in those subdivisions versus what farming would use? What is the trade off there?...I think that would be as big a concern as any. (*Stillwater County Residentialist*)

All through Montana history, you could do what you wanted. But now you have to have a permit for everything. So that's changed. (*Stillwater County Residentialist*)

That's one of those things where the local or state know as much [about regulating subdivisions], or more so, as the federal government. (*Stillwater County Residentialist*)

Life isn't fair. You've got to do the best you can with the situation. It doesn't matter what we do, or where we're at, we can't choose our neighbors. I think you have to try to make the best of the situation...best for all. You're never going to please everybody, no matter how you do it. (*Stillwater County Residentialist*)

III. The River as a Physical Element

A. Living with the River

While we are here and living along it, we want to try and control it because we want to protect our property. If no one lived along it, we wouldn't have a problem, nobody would care. (*Sweet Grass County Residentialist*)

The river splits into two channels right there, and the one makes a big bend, and it comes, BAM, right into the bank. (*Sweet Grass County Residentialist*)

Whenever that happens, and we do have floods here, there are always those houses, and homes, and land, that are threatened along the way. You know, maybe, for those homeowners, in particular, there are things that could be done, because, you know, that periodically, there is going to be flooding; it is just the nature of the beast. It shouldn't be a surprise to those people. There are things you can be doing in the off-years to protect your property. You shouldn't have to worry about losing your home into the river. (*Sweet Grass County Residentialist*)

There is no way to manage the river, [except for] a dam at the high water point. (*Sweet Grass County Residentialist*)

I don't really see there being change. I wouldn't think that there would be that much change right along here [on the river]. See, there's a highway right along the other side of that river that takes you to Absarokee. Yeah, they're rebuilding that, so I'm sure they're going make sure [the river] stays where it's at. The railroad is not going to let it go, and the highway's not going let it go....I don't see very much change. (*Stillwater County Residentialist*)

B. Stories of Destruction

We saw damage down here with ice. The ice just all of the sudden broke, and spread and knocked down trees....We had an ice jam, and it backed the river up, and it floated ice out all over this area. There were ice chunks, clear over to the bank, the size of

Volkswagens. It happened while we were sleeping, and we didn't hear it, but we got up the next morning and were like, 'Holy crap.' (*Sweet Grass County Residentialist*)

The river took that island out in about a week and a half. It had 50 to 60 feet cottonwoods. It was just covered in trees. It just took it right out, you know. That is what the river does. We just expect it is going to happen. (*Stillwater County Residentialist*)

If you own property along the river, you expect erosion, you expect change....I wouldn't want property along the river, and if I did, I would have to look at it really carefully. It is horribly expensive to try and protect it. To me, it is a detriment to own land along the river. (*Sweet Grass County Residentialist*)

We certainly have. There is a lot [of erosion] right down on the corner of the subdivision....I suppose [our neighbor] has lost about a quarter of the lot. The river makes a turn in there and just digs. A lot of that bank is leaving, and below there, too, because the owner had to have them rip-rap it along there....And certainly with the flood we have notice....And, that was major. That was major. (*Sweet Grass County Residentialist*)

You can attempt to control it, but when you have a flood, like in '96 and '97....We hauled rocks that were huge, and [now] they are sitting out in the middle of the river, and the ground that they protected is gone. You can control it somewhat. (*Sweet Grass County Residentialist*)

C. NIMLYs: "Not In My Lifetime/Years" (Folks convinced the river can change, but...)

As far as flooding and such? No, we don't [worry]. The town's going to flood before we would. We're higher than that, so we don't have a problem with that. I think if we're going to flood, I'd better call Noah in because, you know, it's going to get pretty high. (*Stillwater County Residentialist*)

I don't know if during our time down here we will [see change]....But there again, it depends on the number of floods. That is going to have the biggest impact on it every time. If that happens there is something different every time....But I don't think we will see a major change. I don't expect a new channel to be going across the hills or something. If it does that, we will be out of here! We will be building a big boat with a lot of animals on it. And one thing down here where the river runs, there is that big hillside there, so if it is going to change, it isn't going to impact this way....It was a big flood we had in 1996, 1997, and we weren't living here prior to that, but we floated it a lot, and it didn't make huge changes. That was a good-sized flood. (*Sweet Grass County Residentialist*)

Tremendous amounts [of erosion]. Acres and acres of land—gone. Gone...in various areas, all up and down the river. I would say hundreds of acres lost. And some gained....This area, right through here, isn't a problem for erosion, except for right down-

country where the river takes a turn to the left and that land was damaged....I don't think the river has ever changed course right here. When Clark came through here 200 years ago, it was going through right here. Elsewhere it goes all over the place. (*Sweet Grass County Residentialist*)

I might not be around, then, so I don't care. (Stillwater County Residentialist)

I know we had some flood-type waters a few years ago,...but that's probably about the only erosion that's been discussed in the 18 years I've been here. (*Stillwater County Residentialist*)

D. Flood Plain Maps are Restricting but Potentially Credible

The last time they did a survey for the flood plain was probably over 20 years ago, and it is something that needs to be done and upgraded....If you look at the flood plain maps they have got, they show us in the flood plain, and that is wrong. We are not in the flood plain. We are too high for a flood plain, but that is the federal government. What are you going to do about it? As far as people building low, I don't think they should be allowed to build in the flood plain. All it does is cause problems for everybody concerned. And for people not in the flood plain, we are being penalized....If there are not enough regulations, or if they have not been reviewed, when the river changes over the years [the maps are not accurate]....Anybody along this side of the river is required, if you refinance, to have flood insurance, and you can't fight it. If you pay cash, you don't have to have it, but if you finance, [it is required]....I mean, there need to be regulations, and people need the proper insurance, but it needs to be looked at closer and more often. (*Stillwater County Residentialist*)

[Flood plain mapping] needs to be done because it hasn't been done for a long time. The river has changed channels because it is a wild river, and the flood danger in some areas is no longer existent, whereas in other areas it might have come up. And the bad part is, people may not be aware they are in a flood channel....I must have called 50 people, and what I found out was, 'Yeah, it needed to be redone, but we don't know when we are going to redo it. You are still in a flood plain.' That is about the end of it. I say, I am not. I am 20 feet above the river. Well, you know it has to be remapped. When are you going do it, I don't know. (*Stillwater County Residentialist*)

E. Private Commons as (Consciously?) Functioning Flood Plains

That area down there is 22 or 23 acres of common ground. It is in the flood plain, so you wouldn't want to build there anyway....In '96 and '97 we had a 500-year flood, and I don't know who the hell knows what that means, but it was the worst flooding that had been seen in human history. Most of that flat was covered with water. It was pretty destructive. It didn't affect us right here. (*Sweet Grass County Residentialist*)

And then 1996 and 1997, back-to-back. Our whole common property was under water, so it was pretty major. (*Sweet Grass County Residentialist*)

F. Rip-rap is a Known Solution, but Expensive and Difficult to Get Permits

That guy spent tens of thousands of dollars rip-rapping it to protect it. Since the flood, he has done more rip-rapping. (*Sweet Grass County Residentialist*)

I think [rip-rap] is the common method you see around here. I don't know what other things they would do. I don't know what the other options really are. That is what you see around here, especially if there is potential flood stage; you see a lot of rip-rap being spread around. (*Sweet Grass County Residentialist*)

When we're talking about the Yellowstone, we're not talking your normal Montana river. I mean...there's a lot of power in this bad boy....It will do what it wants. So...to keep it from eating stuff up, you've got to get pretty tough with it. (*Sweet Grass County Residentialist*)

People don't want to have their lives regulated to hell. (Stillwater County Residentialist)

Rip-rapping is the cheapest form of erosion control....Some people will use steel plates, and pound in bridge pilings, and make a wall if they are trying to protect a house. Concrete walls are very expensive. (*Sweet Grass County Residentialist*)

There are places along the river, if you float the river, where you can still see car bodies. They haven't been made to take them out, which is sad....They don't allow it anymore, but there are places where you will see the whole rear end of a car sticking out, or a hood, or a top. It's definitely a car. (*Sweet Grass County Residentialist*)

We've got a bunch of rip-rap that we got put in before all of the environmental regulations....I don't know...if we can even rip-rap now or not. It's a touchy situation....A lot of these...environmentalist seem to have a problem with it....They said it can create sediment problems....I think it all boils down to they think that if the stream wants to move, it should be able to,...even [if] some guy's paying the taxes on the land....If the river wants to take it all out, they don't care. I think that's the way they look at it. (*Sweet Grass County Residentialist*)

We did a little rip-rap on Bridger Creek last fall, and there were six or seven agencies involved in that permitting process. The county was involved in it. We were working for the county. They were trying to protect county roads. It took months. (*Sweet Grass County Residentialist*)

They said...we couldn't put rock on the bank....We could put a trench behind the bank, and fill it with rock. So, that is what we did to it. You can get away with doing that. You can fill a trench with rock, and let the river eat its way to it. It is stupid. (*Sweet Grass County Residentialist*)

And [rich people] don't want to lose [land], either. There is a guy down-country who is rich beyond rich, and he is having a hell of a time getting permission to rip-rap. (*Sweet Grass County Residentialist*)

If someone sits down with a true environmentalist, and actually hear what they believe, and why they think this way,...[that person finds out] they don't have a specific plan....They [just] seem to be against anything that nature doesn't do itself. I don't understand their thinking. It is so bizarre. (*Sweet Grass County Residentialist*)

G. Rip-rap and the Potential for Unexpected Consequences

I heard that when people rip-rap...they are causing more damage to somebody down river, or on the other side. (*Sweet Grass County Residentialist*)

The river is the river, and you are not going to control it. If you are doing something here, it is going to affect something, or someone, down there. High school geology taught me that. (*Sweet Grass County Residentialist*)

If you start changing things, and start changing water routes,...those are all unknown....If we start messing with the water supply, are we going to have groundwater? Are we going to have the other things that we [want]? (*Stillwater County Residentialist*)

When the river is flooding and eroding land it is trying to relieve itself. If you tighten up down here, someone downstream is going to get it. It is almost impossible to get permission to rip-rap. (*Sweet Grass County Residentialist*)

People that work in those types of positions in government are so far removed from the reality. They think that if you drive a bulldozer in that river, and you change something it completely upsets the ecosystem. That is bull. You can't begin to hurt it because it changes itself. In a day that river can move more gravel from one side to the other than you could in a lifetime with ten bulldozers....Experience and working around the river, and doing that sort of thing—I don't have a degree—but, it is just common sense. I have watched that river for years, and I have seen what it can do, and what it does do....I don't see how you can really hurt anything in that river with those machines. You don't want to bulldoze it out like a bowl, all the way down,...but I know dang good and well the fish are going to be swimming, and you aren't going to kill them. They will tell you it is harmful. I don't believe that....I have seen them do it, and the fish are fine. (*Sweet Grass County Residentialist*)

WIFE: Common sense tells me that if you are running big machinery in the river, there is a possibility of damage. HUSBAND: What? WIFE: Well, if you are running diesel and gasoline...HUSBAND: Yeah, there is a risk of contamination, but if you dumped 100 gallons of diesel fuel in that river it wouldn't affect nothing. WIFE: It would affect something. The fish that live right where you dumped it. HUSBAND: Maybe. (*Sweet Grass County Residentialist*)

Yellowstone River is the longest, free-flowing river in the United States, un-dammed. That is pretty neat, and to do too much to it, [such as rip-rapping], would be sad, too. To do too much, would take away from it....I don't know, just a thought there. (*Sweet Grass County Residentialist*)

They say rip-rap is bad for the fish and all that crap, and [then] you watch the guides take people where the rip-rap is. The fish love it in there. It is habitat for them. They can get under the rocks and hide. I don't understand [the objection]. (*Sweet Grass County Residentialist*)

IV. Other Problems

A. Subdivision Life, Septic Systems and Water Quality

Homeowners [should] know the impact that their septic system has on the river—this is what it can do, over time. (*Sweet Grass County Residentialist*)

You get people [in the subdivision] that think they are farmers and ranchers, and they are going to flood irrigate. Many things happen when you flood....[I was worried they would] flood my septic system, and I would have to go in and put an above ground septic system. I went to the lawyer and did some research and found out...that if you don't use [a ditch easement] for so many years [they can't use it]....Water hasn't been through here for 30 years. They are done....Who in the hell wants their septic flooded? That is the stupid thing about leaving water rights with the subdivision. Wells are a different situation. Water rights for flood irrigation should not be left with a subdivision. I think they should go back and get rid of them....People come in, and put in a septic system, and Joe Blow wants to start flood irrigating, and he is above [us]. It won't affect him, but he will get everyone downstream, and he doesn't give a damn. That is human nature. (*Stillwater County Residentialist*)

I think a lot of steps are being taken in the building area with new types of septic systems. I know this new subdivision, over here, is requiring a new pressure-hose septic system which isn't as hard on the land....[With] the old septic systems, the stuff comes out and your drain field is basically level. You don't get a rapid flow, so it just kind of goes. I would think there is a possibility of stuff getting into ground water. The new ones are pressure-hosed, that shoots it all at one time and you get quick evaporation, or something. I'm not sure....Any new system that is better is something that ought to be required. (*Sweet Grass County Residentialist*)

I think they have to be real careful with septic, and things like that polluting the river. I think they are already doing that. I don't think we could build here today, and have a septic system. I don't think we could ever get away with it, or ever get approval. (*Sweet Grass County Residentialist*)

Keep the water...clean, and useable for the needs of the people. Where it is needed by agriculture, [use it] without waste. (*Stillwater County Residentialist*)

B. Out-of-Staters Change the Local Context

I know some people sell their places in California, live on the interest, and come here and have just as nice a house for a fraction of the cost. (*Stillwater County Residentialist*)

It used to be people that lived along the river were farmers and ranchers. Now it is rich people that live there....The rich people...are taking a lot of Ag land out of production. You have extremely wealthy people buying these ranches more for toys. They are not interested in cattle production, hay production. It is just a toy, 'I have a ranch along the Yellowstone. I am cool.' (*Sweet Grass County Residentialist*)

Rich guys that bought these places and who don't care about production of hay are just giving the rights away...to the Fish and Game, which scares me. I don't like that,...because I think we are going to lose our water rights to the Fish and Game. (*Sweet Grass County Residentialist*)

You don't come into Montana and tell Montanans how to do things....There is a bar in a small town north of here that has a sign that says 'Welcome to Montana. We don't give a shit how you did it back home. Have a nice day.'...If I was going to buy a place in Arkansas, and farm [the place], I am damn sure not going to go down there and tell them how to do that. I am going to ask them how to do that. There was a guy that came up here from Georgia, and he was going to show everybody how you could raise six crops of hay in Montana....He is back in Georgia [now]. (*Sweet Grass County Residentialist*)

C. Safety: Debris and Undercurrents

The biggest problem on the Yellowstone are the undercurrents. There's a lot of undercurrents, so you don't see a lot of kids swimming in it....I don't think it's used recreationally as much as all the little rivers and tributaries that come into the Yellowstone. (*Stillwater County Residentialist*)

Lot of times when people drown in the river, this is one of the first spots they'll look....There's a hole, there, and a body will come down and sit right on the bottom.....I don't know why they mess around. It's the same story every year....They jump off bridges and swim through the river, but there's under-tow like crazy in there....Boy, you wouldn't catch me swimming. (*Sweet Grass County Residentialist*)

D. Un-informed Buyers

Some rivers overflow their boundaries. That is a natural process....Getting people to understand that [is the problem]....Maybe part of that is [lack of] education. (*Sweet Grass County Residentialist*)

Maybe there needs to be a type of educational thing....It is like building in New Orleans, and building below sea level, and then not expecting water to get in....But, you know, maybe that is something that needs to be done in addition to like building codes, etc. Yes,

it would be lovely to have your home here, but a recommendation says 30 feet back, or whatever, because at some point in time, over a period of time, there is going to be some gradual wasting away of the property here. I don't know, maybe that is done. (*Sweet Grass County Residentialist*)

Well you know, I think that it is a Montana law that the public has access to the river. It is not a federal law. Well, we are from Montana, so we know that....I have no idea what other states have for access laws....I think education would probably be the best thing because out-of-state landowners don't understand that the people do have access to the river....So if they were better informed, before they bought....[It should be] something that real estate people would tell them when they are looking at land. Just let them know that this river going through your property *is* a public river, and it has public users. (*Sweet Grass County Residentialist*)

E. Outfitting and Regulations Seem Unfair

You have a guy making a good living on public water. I am not sure I like that. They aren't paying anything for it. Taxpayers are providing the fish. (*Sweet Grass County Residentialist*)

I have been told you can't operate a motorized boat above Springdale to the bridge above. That is what I have been told....[But] they can down here. Why? See what I mean, there is no explanation for it. It is just control. That is all I can see. (*Sweet Grass County Residentialist*)

F. Exotic and Invasive Plants

[The weeds] are very hard to control. The spotted knapweed, you can spray down there, and it will control it some. But the leafy spurge,...you cannot spray [for] near a water table, so we have put some beetles there—you know, the biological control. But it doesn't seem to be doing a lot....It is one of those things that, until they control it up river, you are not going to get rid of it down river....The water will bring more seeds down, and it spreads....It probably doesn't affect [our recreation]. We just know that it is there, and it is nasty, and it shouldn't be there, so it kind of bugs you. But, as far as actual use of the river, it doesn't affect it all. Now, if you were a cattleman, the cows won't eat it, and it will compete with the grass. (*Sweet Grass County Residentialist*)

It just got to be such a mess of weeds with really no food value for wildlife. They would walk through it, but they wouldn't stay in it; there wasn't much to eat. That is why we took it out. Sprayed it, burned it, and replanted it with non-alfalfa grass. (*Sweet Grass County Residentialist*)

Spotted knapweed, leafy spurge, Russian knapweed. You name it, if it's got a seed, it's been brought down the river....Seems to be getting worse every year....You got guys up river that they don't take care of it. (*Sweet Grass County Residentialist*)

I don't know if it's affecting parts of Yellowstone, but I know the salt cedar we're reading about consumes so much of the water it affected the water flow in Utah. And then the Russian Olives...are just taking over....I don't know if they can ever do anything to overcome that. (*Stillwater County Residentialist*)

G. Property Values and Economic Dynamics

There has to be a clause for people like ourselves who have been here and never have any intention of selling it. This land has appreciated so much since we got it. I just got a new tax notice today, and they have about doubled the value of this home out here. You can only afford that for so long, especially the people that have grown up here and farm along the river. They have to be protected some way on taxes. And sure, when these big guys come in, and spend all that money, they should set new bases,...but to keep jacking taxes up on a farm that has been here forever because now the people next door have millions is not fair. It will drive the small farmers away. [They] can't afford to stay here or to pass the land on to their kids. My opinion. (*Sweet Grass County Residentialist*)

You get greedy people....[They] buy a piece of property, put about 15 home sites on it, [and sell] them for a lot of money. It is pretty tempting. I was talking to a realtor in Big Timber last week....She had a guy from Hawaii call and said he wanted ten or 15 acres on the Yellowstone River....Buy it for me, and my budget is up to one million dollars for ten or 15 acres. So how does a local, say someone from Billings, try to come up here and find a little place to have a home on the river? You can't anymore. (*Sweet Grass County Residentialist*)

So when you start putting these huge subdivisions in,...the sky's the limit on how much this stuff's going to be worth here in ten years....I don't really want to see a bunch of houses, you know. (*Sweet Grass County Residentialist*)

I think...as more and more people want to live along the river, and develop along the river, and how much do you really want to develop along the river. It's up against the people in agriculture who have places along the river....One thing that is hard, it's change. Gosh, these ranchers have always lived along the river, and all the sudden they can't refuse the prices they get for property....It's not like it used to be, it's change, and that's something that's difficult, that "C" word. (*Sweet Grass County Residentialist*)