

Big Hole



Watershed Committee

Land Use Planning in the Big Hole

Forum 1 Report ~ Spring 2009

Community Planning for Watershed Land Use

**Please join us for
Forum 2:**

Monday, June 29

6:30 pm—9:00 pm

Wisdom

Community Center

Tuesday, June 30

11:30 am—2:00 pm

Lunch will be provided

Wise River

Community Center

Tuesday, June 30

6:30 pm—9:00 pm

Twin Bridges

Montana Room,

Twin Bridges School

Anyone who has traveled outside our region in recent years is reminded that in southwest Montana we have a treasure in our midst: the Big Hole River. Citizens in the Big Hole understand we are caretakers of a jewel. The citizens of the Big Hole can celebrate more than the physical landscape. The community can also take pride in the cultural landscape. This is a community that reaches across ideological and political boundaries in a spirit of collaboration and thoughtful problem-solving. Citizens in the Big Hole have wrestled with some hefty challenges over the years and achieved successes that are the models for many other communities throughout the state and even the nation. In this process, the community has learned how to work together respectfully, developed trust, and shown their willingness to listen to and address all sides of many complicated issues.

One of the many challenges we face today is the issue of growth, development, and land use planning. In the Big Hole, all we have to do is look over the hill to the Gallatin or to the Bitterroot to see one possible future for our valley. It is not a future we want for our land, our children, or our community. A vital ranching heritage accompanied by the support of scientists, environmentalists, and outfitters have worked together to protect the Big Hole Basin from the sprawling development faced by nearly



Photo courtesy of Craig Fellin

every other mountain valley in the West and has supported the Big Hole's status as a premier Blue Ribbon trout fishery. However, word is out that the Big Hole is the last "pristine" valley in Montana. The fate of the Big Hole watershed is at a critical juncture and, not surprisingly, residents are discussing the need for a new chapter of proactive and collaborative stewardship.

Of course this is not a new issue. Citizens in the watershed initially tackled the issue of land use planning in the watershed in 2001. A locally-led community process engaged the citizens of the four counties along the Big Hole that, in 2005, resulted in the adoption of a land-use plan for the entire Big Hole from its headwaters above Jackson to its mouth near Twin Bridges. This unique model is recognized in Montana and around the nation as a model for progressive planning.

As with any great endeavor, it is always appropriate to circle back, evaluate past successes, and use those lessons to chart a course for the future. To that end, a series of educational forums will be presented in communities throughout the watershed this spring and early summer. These forums will inform our community about valuable scientific and policy knowledge regarding floodplain functions and their relationship to development along our rivers.

More important, this information is being brought to our community to support an informed discussion about our opportunities and challenges in keeping the Big Hole a special place. We want to hear about what you cherish and we hope you will participate in creating a roadmap for the future of this beautiful landscape.

(continued on back page...)

The purpose of the Big Hole Watershed Committee is to seek understanding of the river and agreement among individuals and groups with diverse viewpoints on water use and management in the Big Hole watershed.

Forum 1: Mapping Floodplains, Avulsions, and Channel Migrations

On the evenings of April 20, 22, and 23, friends and neighbors gathered in Wise River, Jackson, and Twin Bridges to listen to Karin Boyd, geomorphologist at Applied Geomorphology, Inc.

Karin began with a focus on flooding, bank erosion, and channel migration—including ecological benefits and investment risks that are incurred when developing along the floodplain and channel migration zone. She pointed out that although her presentation would not cover water quality, biological diversity and habitat complexity, or soils development, that they are important topics to consider in the future. She also touched on the effects of

different floodplain irrigation practices, beavers, and ice jams.

Karin covered river movement through avulsions and channel migrations. These migrations create open bars that are colonized by young vegetation, provide spawning gravels and habitat-forming woody debris. Rivers are managed as either channels or corridors. Rivers that are managed as corridors address risks to property and human safety and allow for dynamic river systems

The remainder of the presentation focused on floodplain mapping. Mapping the channel migration zone (CMZ) and the avulsion potential zone

(APZ) in addition to the floodplain allows for better management of the entire floodplain corridor.

Floodplain maps were created for the Big Hole in 2005 that show the APZ and CMZ using older technology. These maps could be updated using currently available data. Also possible is new LIDAR (Light Detection and Ranging) technology which offers imagery that is more clear and concise for potential avulsions and migrations. There are grants that are available to acquire mapping with LIDAR data.

Discussion followed each presentation. Generally, people felt that the Big Hole already has some good

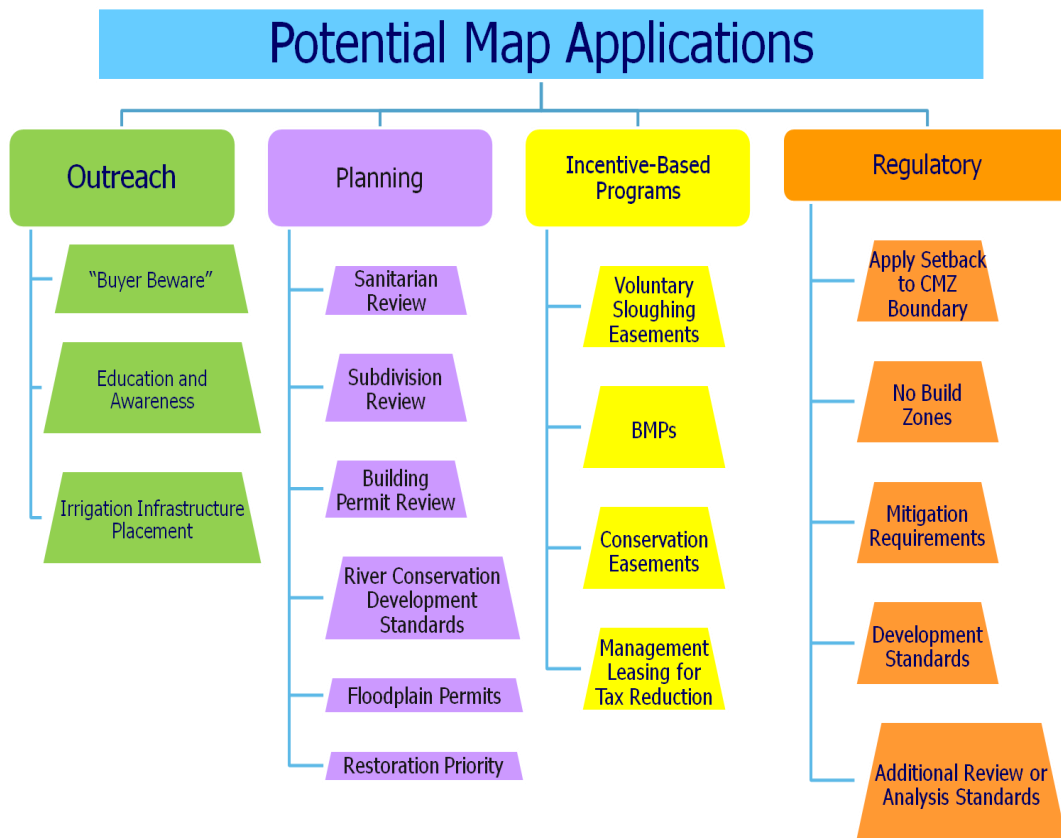
baseline information, however they are interested exploring ways of bringing the maps up to date. There was discussion regarding the need for more consistent management along the river and in exploring approaches that would compensate landowners for good management. An example of an incentive-based program is the 'sloughing easement' under development on the Yellowstone.



Wise River and Twin Bridges Land Use Forums



Photographs by Emma MacKenzie



Whether the community chooses to use existing mapping or to update the mapping of the Big Hole River corridor, the above chart by Karin Boyd represents a number of possibilities for how those maps can be used

Land Use Planning Forum 2 How are floodplains managed?

Join us for our second community conversation about the long-term management of the Big Hole River corridor. We are looking for solutions and strategies which are flexible, community-based, and offer reasonable alternatives.

Our speakers will be Traci Sears, State Floodplain Coordinator for the Department of Natural Resources and Conversation, and Cheryl Consort, Hydrogeologist at the Montana Department of Environmental Quality.

Traci will discuss the layers of legal standards from the point of views of FEMA, flood insurance requirements, state regulations, and local governing agencies and how those programs relate to development along the floodplain. Sorting through the various levels of management can be daunting, but also is necessary for understanding how the Big Hole is managed.

Management does not only occur above ground. New

developments bring new groundwater demands such as domestic wells and septic systems. How do wells and septic systems affect water quantity and quality? Who decides where and when they can be installed?

Cheryl will provide information on recent trends and studies that have detailed the impacts of groundwater and surface water related to well and septic developments.

These forums will be held on Monday, June 29 and Tuesday June 30.

The Big Hole River Floodplain

These are some of the questions we are considering in these forums:

- What is valuable to us about the Big Hole?
- How do we want the Big Hole to look in 5 ... 10 ... 50 years?
- What tools are available to our community to reach our goals?
- What are the risks to existing infrastructure?
- What are the risks associated with new development?
- How might we identify and manage these risks?

**Big Hole
Watershed
Committee**



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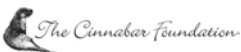
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Community Planning for Watershed Land Use

by Noorjahan Parwana, Director of the Big Hole Watershed Committee.

The Big Hole is a gem that will only gain value with time – if we can continue to work together to discover and implement our common vision for the future. People are going to come. We know this. Our community still has a chance to create an environment that enhances the landscape of the Big Hole rather than degrades it. And we have the experience in working together to craft that future. We invite all who love the Big Hole to lend your voice and your ideas to this important effort.

Please join us at the educational forums sponsored by the Big Hole Watershed Committee. These meetings will be held from 6:30 pm –

9:00 pm at the Wise River Community Center on Monday, April 20th; the Jackson Hot Springs Lodge on Wednesday April 22nd; and The Twin Bridges School Montana Room on Thursday, April 23rd. The topic will be the science of floodplain functions and new approaches to mapping and managing floodplains.

A second set of forums will be held in June to discuss water quality and quantity.

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