

Riparian and Wetland Setbacks

Providing Montana's Rivers and
Stream Room to Roam



Why are Riparian Areas Important?

- Less than 5% of Montana's land area is made up of Rivers, Streams or Wetlands
- Rivers, Streams and Wetlands support over 75% of Montana's fish, wildlife and plants



Healthy Riparian Vegetation Promotes Healthy River Channels

Riparian vegetation is an integral and important component of a healthy stream environment. Trees, shrubs, grasses, and other plants help to stabilize banks, regulate water temperature and nutrient levels, filter sediment, and provide cover and food for fish and other organisms.

Riparian Vegetation is Crucial in Stabilizing Some Channels

Riparian vegetation along otherwise unconfined stream channels is especially significant for maintaining a stable stream corridor. Streams with high bedload transport rates are very sensitive to upstream changes in water and sediment supply. The channel may move laterally, eroding the banks. Floodplain vegetation slows lateral movement and reduces overbank flood velocities.



Clearing Riparian Areas is Costly:

Land management activities that reduce riparian vegetation (such as home building and livestock grazing) can cause bank erosion even during low flows. When this occurs, a series of channel adjustments may lead to a change in channel type, for example from a single threaded channel to a multiple threaded, over-widened, braided channel. Accelerated bank erosion and channel migration are seen in more sensitive channel types.

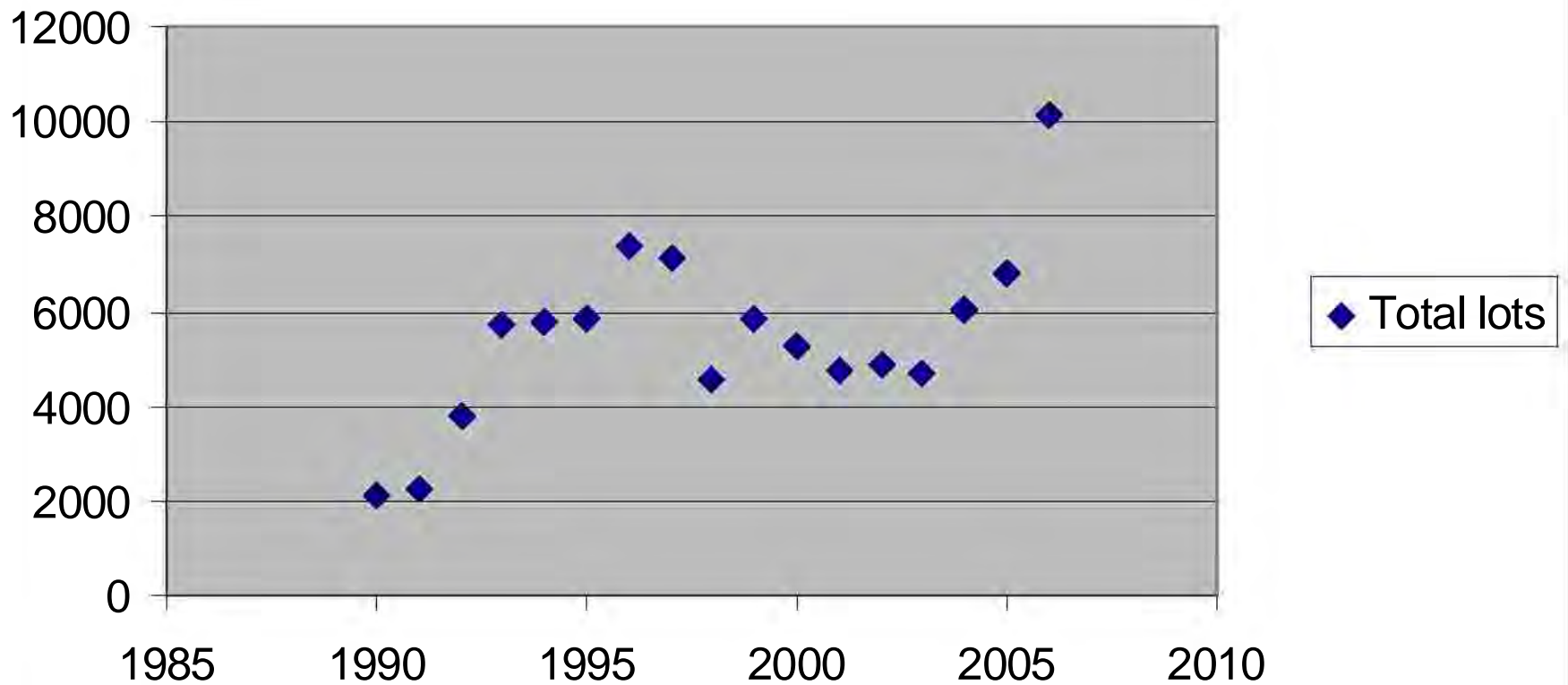


“In many areas along the West Gallatin River, housing and large scale subdivision activities are encroaching dramatically upon the stream channel. Each new house, with its large investment represents a constraint upon where the water can be allowed to encroach. In many places the congestion is so bad that there is simply no way that the stream can deposit its gravels and shift as it has for thousands of years without causing undue hardship on these types of development. Oftentimes, the individual who invests substantial portions of their life savings in these developments find that the river can indeed be cruel. If large scale economic losses are to be prevented in the future, it seems that something must be done to control this type of river encroachment.”

Effects of Geology, Runoff and Land use on the Stability of the West Gallatin River System, - Dr. Don Reichmuth, June 1983

How Much Development is There?

New subdivision lots reviewed by DEQ



The Question Isn't: Where do We Want to Build?



9.5+- acres with 415' of BULL RIVER FRONTAGE! Borders National Forest, part pasture, mostly wooded. Completely fenced, new foundation ready for home, small cabin, barn, stable & corrals.



Water Galore! 30+- acres w/year round trout stream and spring fed tributaries run through property. USFS borders 2 sides. 2bd fixer-upper cabin, shale pit on property w/great views & access, private!

The Next Question is: How will We Build?



Fall 2003



Spring 2004

Siting is Everything



New house
location

Flood of 1983



This structure is located above the 100-year floodplain, but dangerously close to an actively moving channel.

Consider Voluntary Setbacks

Building Away from the Water has Benefits

- Setbacks Reduce Flooding
- Setbacks Reduce Pollution
- Setbacks Protect Fish and Wildlife Habitats
- Setbacks Provide Economic Benefits
- Setbacks Provide Recreation Benefits and Privacy



PUBLIC SUPPORT FOR STRONGER REGULATIONS

- **2002 poll by GYC and Montana Smart Growth Coalition found 83 percent of residents in Beaverhead, Carbon, Gallatin, and Park counties supported limiting development in flood and fire prone areas**
- **2002 Upper Yellowstone River Task Force study found 59 percent of Park County residents oppose development in the Yellowstone River's floodplain: only 18 percent disagreed**

REGULATORY SCENARIOS WE MODELED



- Ban on construction in 100-year floodplain or 150-foot setback
 - Ban on construction in 100-year floodplain or 300-foot setback
 - Ban on construction in 100-year floodplain or 600-foot setback
-

** Either the 100-year floodplain or the numerical setback would occur, whichever is greater at a given location*

SUMMARY OF RESULTS OF THE NUMBER OF LOTS AFFECTED BY SETBACK REGULATIONS,

County	150-ft setback	300-ft setback	600-ft setback
Dawson	6 (0.16%)	8 (0.15%)	12 (0.23%)
Park	110 (1.61%)	126 (1.85%)	159 (2.33%)
Sweet Grass	16 (0.53%)	19 (0.63%)	26 (0.86%)
Yellowstone	165 (0.83%)	175 (0.88%)	232 (1.16%)





WHY THIS REPORT WAS CONDUCTED

- **Convince local decision makers of the need for a strong regulatory approach to floodplain development**
- **Inform local decision makers of the real, on-the-ground implications of several regulatory scenarios**
- **Provide information for citizens groups who want to enact better floodplain protections in their counties**
- **Better protect the Yellowstone River from threats posed by riverside development**

When You Build your New Home, Remember

- Your enjoyment and well-being depends on clean water and maintaining a natural environment
- Your outdoor lifestyle depends on access to healthy wild fish populations, abundant wildlife, and the recreational activities that define the Montana experience

Please Consider

- Building on higher ground and leaving riparian and wetland areas intact
- Building at least 300 feet from rivers, streams and wetlands
- Building outside the 100-year floodplain
- Installing septic systems outside riparian areas
- Joining your local watershed group or asking your county commissioners to adopt rules and regulations that preserve, protect, and restore streamside areas
- Providing this information to your neighbors, your builder, or your real estate agent



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