



File Code: 1560

Date: December 18, 2007

Madison County Commissioners
David Schulz, Chairman
PO Box 278
Virginia City MT 59755

Dear Commissioners Schulz, Ross and Hart:

Please accept these comments concerning the proposed Bradley Creek Subdivision. Due to the extended fire season, we were not able to comment earlier. The Forest Service has direct and indirect involvement with the effects of this subdivision. Direct concerns involve Forest Service fire suppression responsibility on Bureau of Land Management land near and adjacent to this subdivision. Indirect effects include wildlife and water quality issues. I will address each of these areas of concern separately.

1. Fire Suppression

The Forest Service provides primary fire suppression for Bureau of Land Management land adjacent to and in close proximity to the Bradley Creek Development. The Northern Rockies' 2007 fire season was an eye opener for the cost of protecting development in contrast to protection of open land. Fires that involved urban interface were significantly more expensive than other fires. Without question, complexities associated with wildland-urban interface can dramatically increase fire suppression costs. This situation is not unique to National Forest System (NFS) lands.

In the Norris Hill area, the costs associated with wildland fire suppression would be shared with agencies responsible for suppression. Most of the cost of suppression would be borne by Madison County and the State of Montana. The Federal Government would be responsible for those relatively small areas in Forest Service management. The 2006 Montana Department of Natural Resources and Conservation Fire Cost Report (enclosed) recognized that:

The results in this report show that wildland fires on state protection in Montana occur more often in the Wildland Urban Interface (WUI) than in less populated non-WUI areas. A majority of those fires are human-caused and are controlled while they are small. However, when they escape into a larger fire, the results also show that the suppression costs are much higher in the WUI than the unpopulated wildland areas.

In addition to the cost of suppression, there is the issue of fire fighter safety. The north side of Norris Hill is notoriously windy. A fire starting anywhere south of this development would quickly spread into the development. Fire fighters attempting to evacuate homes and protect structures would be at risk from rapidly advancing fire. The density of proposed



homesites in this development would exacerbate the problem.

2. Wildlife

On Page 24 of the Preliminary Plat Subdivision Application under effects to Wildlife Habitat this sentence is found:

The site is not known to be major breeding area for wildlife, rich in wildlife species or critical winter habitat but for severe winter elk habitat.

Clearly, this misleading statement puts in question the credibility of the entire wildlife analysis. I have personally observed antelope breeding and fawning on this property. Montana Fish, Wildlife and Parks (FWP) describes the area as year round habitat for a variety of wildlife and game species. In addition, FWP recognizes the Norris Hill area as critical elk winter range based on extensive radio telemetry work, which represents the best site-specific elk data available for this area. This statement also appears to disregard the Wildlife Conservation Society's 2006 *Wildlife Conservation Assessment of the Madison Valley* (Conservation Assessment). This comprehensive assessment describes habitat attributes for 15 focal species representing habitats of all species of wildlife native to the area, and recognized the Norris Hill area as important linkage habitat between the Madison and Tobacco Root mountain ranges. The Conservation Assessment is the best available science for landscape level wildlife issues for this part of Montana.

The Forest Service is concerned with conservation of wildlife habitat in the Bradley Creek area because habitat fragmentation is one of the primary threats to wildlife movement between mountain ranges. Wildlife movement between mountain ranges, in this case the Madison Mountain Range and Tobacco Root Mountains, is critical to maintain genetic diversity, allow species to re-colonize available habitat, and provide seasonal movement to and from winter range. The ecological health of the entire Greater Yellowstone Ecosystem, not only the two mountain ranges mentioned above, is at risk when critical linkage areas are permanently lost or disrupted.

The area involved in this development is consistently shown as important to wildlife movement in the Conservation Assessment. Wildlife movement both north and south and east and west will be adversely impacted by this development. Providing critical winter movement corridors may address elk winter range issue, but it does not address movement of forest carnivores or other wildlife that move between these mountain ranges. The Conservation Assessment rates this area as high for total effective landscape connectivity value.

The Conservation Assessment indicates the area included in this development as high connectivity values for the following focal species: (Please keep in mind that these focal species represent the other native species to the Madison Valley.)

- Elk-Core Habitat and High Connectivity
- Grizzly Bear-High Connectivity
- Pronghorn-Core Habitat and High Connectivity
- Wolverine-High Connectivity

The location and density of this development, situated in a critical linkage area, represents fragmentation of habitat and could be a substantial barrier to many key species of wildlife.

3. Water Quality

The Forest Service is concerned that this development will increase the delivery of sediment to Bradley Creek and Burnt Creek, both of which are tributaries to Hot Springs Creek. Hot Springs Creek is listed on the Montana Department of Environmental Quality's list of impaired water bodies. The development of the list of impaired water bodies by the state is a requirement of the federal Clean Water Act. In the foreseeable future, a Total Maximum Daily Load (TMDL) of non point source pollutants will be developed for this stream. Typically, through thorough analysis, the level of human induced pollutants is identified.

Essentially, a TMDL is a budget for non-point source pollutants for a particular stream. The TMDL also prescribes a goal for reducing pollutants. As you are certainly aware, Hot Springs Creek originates on NFS land in the Tobacco Root Mountains. We are concerned that pollutants entering Hot Springs Creek via Bradley and Burnt creeks as a result of this development will transfer TMDL compliance to activities on NFS lands, and that activities such as mining, livestock grazing and recreation on NFS lands could be further curtailed.

Our concern for Water Quality is a very real issue considering that this development as proposed will commit 70 acres to roads (please note the 70 acres represents right of way for roads but does not include the area effected by driveways), 13 acres (please note that in a December 13, 2007 letter from Tom Henesh to Dave DeGrandpre this figure is questioned and 2.5 acres stated as the wetlands disturbed.) of wetlands will be disrupted and 17 lots (601 acres) will allow recreation livestock grazing in or near streams. The cumulative effect of the roads, stream crossings, disrupted wetlands, and ranchettes would undoubtedly increase pollutants in these tributaries.

The proposed covenants limit stocking to one animal per 10 acres on lots greater than 20 acres. We have seen numerous examples in the Madison Valley where ranchettes have been over grazed by recreational livestock. Forest Service stocking rate suggests a horse needs 31 pounds of feed per day. If two horses are kept on a 20 acre property for six snow free months, they would need 10,800 pounds of forage. In order to accommodate these animals, the property would have to produce 540 pounds of usable feed per acre (1080 pounds per acre at a 50% utilization rate). These 20 acre lots are mostly upland vegetation that does not produce this amount of forage in total. Regardless of the amount of upland forage livestock will congregate in the wetlands overgrazing those areas first. The potential for overgrazing is high. The result of over grazing is loss of native vegetation, erosion, sedimentation of streams and noxious weeds.

The following table displays the possible stocking rate by lot. The lots listed are those impacting riparian areas or streams in phases 1, 2 and 3 of the development.

Lot number	Size acres	Stocking	Lot Number	Size	Stocking
44	29	2	122	22	2
45	21	2	129	36	3
66	52	5	139	23	2
67	50	5	140	24	2
68	42	4	141	24	2
69	69	6	142	25	2
70	25	2	143	41	4
71	21	2	144	45	4
			145	61	6
Total	309 acres	28 animals		301 acres	27 animals
Grand Total	610 acres	56 animals			

4. Recommendation

We feel the Bradley Creek development with its 147 lots is too dense when considering the impact on fire suppression, wildlife and water quality. We suggest a density that maximizes conservation of open space and capitalizes on the amenities values of the area including scenic vistas, wildlife, and privacy.

Thank you for considering these comments. If you have any questions, please feel free to contact me.

Sincerely,

s/Mark A. Petroni

MARK A. PETRONI
District Ranger