Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: Yellowstone Mountain Club
PO Box 161097
Big Sky, MT. 59716

2. Type of action: Application for Beneficial Water Use Permit, # 30027281-41H

3. Water source name: 5 wells

4. Location affected by project: Sections 1 & 2 T7S R2E and Sec 35 & 36 T6S R2E, Madison County

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met. Yellowstone Mountain Club proposes to divert 57 GPM up to 31.7 acre-feet from 5 wells located in Sections 1 & 2 T7S R2E, and Section 36 T6S R2E, Madison County. A total of 70 homes, each with a .25 acre lawn, will be supplied from these wells.

6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction) Madison County Planning Office, Montana Department of Environmental Quality, Montana Natural Heritage Program, Montana Department of Fish, Wildlife & Parks.

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity *- Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

Determination: The source of water is five wells, which are not listed as chronically or periodically dewatered by the DFWP.

Water quality *- Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

Determination: These wells are not listed on the DEQ, 303 (d) list. Groundwater quality should not be affected.

Groundwater *- Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

Determination: This project is appropriating groundwater from a depths ranging from 412 to 629 feet. Aquifer testing by PBS & J indicate sufficient water available for this request. It is unknown if the source of water is sustainable.

DIVERSION WORKS - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

Determination: The drilling of these wells should have no channel impacts, or impacts on riparian areas or barriers. The diversion works consist of wells drilled according to the requirements of the Board of Water Well Contractors, by a licensed well driller. Well construction will be to specifications required for municipal water supplies.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species *- Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

Determination: A study was conducted by Dr. Harold Picton, retired Montana State University Professor, and Dr. Robert Eng, Retired Department Head of the Fish & Wildlife program at MSU. Their study began in the early 1970's and was updated in 1993. They found that elk, moose, mule deer, mountain goats and black bear exist within the proposed Yellowstone Mountain Club subdivision. A female grizzly bear with cubs are known to reside in the general area. Wolves from Yellowstone National Park have also been observed in the area. A migration plan for the subdivision was laid out in the Morrison-Maierle environmental assessment. I talked with Kurt Alt, MDFWP biologist. He has been working with Dr. Picton, and Dr. Eng. Mr. Alt has complete confidence in their work, and their recommendations. He said that Dr. Picton has spent 25 years with the Interagency Grizzly Bear Study Team. Mr. Alt agreed with the proposals for grizzly Bear education, and bear proof trash storage and removal. He was concerned that the ban on hunting in the Yellowstone Mountain Club, and the Big Sky area has increased the elk population. These elk migrate out the Jack Creek drainage in the winter, and are causing some problems for Madison Valley ranches. The proposed wells should not create a barrier to wildlife migration, but the proposed development may. This overall development may adversely affect the grizzly bear or wolf populations. The Natural Heritage Program was contacted. The Canada Lynx, Grizzly Bear, and Olive-sided Flycatcher may be found within the project area. If the

wells are hydrologically connected to the South Fork West Fork of the West Gallatin River the Westslope Cutthroat Trout could be impacted.

Wetlands - *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: It is unknown if there are existing wetlands within the project site.

Ponds - *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: This proposed project does not include any ponds.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

Determination: The drilling of these wells will not degrade soil quality, alter soil stability, or moisture content. There is no saline seep located within the Yellowstone Mountain Club.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

Determination: The existing vegetative cover will be disturbed due to construction in the area. The exposed soil could contribute to the establishment of noxious weeds in the disturbed areas. It is expected that the developer will replant the disturbed area. This project is located on private land, and weed control is the responsibility of the landowner.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: There should be no impact on air quality due to the drilling of these five wells. It is unknown what affect the development will have on air quality.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

Determination: The Montana Historical Preservation Office has been contacted. They believe that because the five wells have been drilled any cultural properties that may have in the area have already been impacted. They did not comment on the construction of 70 new homes over the next 20 years.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: The long term affects of removing 31.7 acre feet of water is unknown. No additional impacts on the environmental resources have been identified.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: The Madison County Planning Office approved the third phase of this subdivision in November, 2004.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: I talked with Recreational Land Use Specialist, Nancy Halstrom, employed by the Gallatin National Forest. By agreement with the Yellowstone Mountain Club, the existing USFS trails, which traversed private land, are being relocated. This proposed new development will not restrict recreational or wilderness access or activity.

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: This project should not have an impact on human health.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*
Yes___ No **X**___ *If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

Determination: Private property rights are not impacted by this proposed action.

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) *Cultural uniqueness and diversity?* This development will bring additional wealthy people to the area.

(*b*) *Local and state tax base and tax revenues?* It is unknown what additional taxes will be collected.

(c) *Existing land uses?* The existing land use will be changed. Open space will be transformed into a 70 family subdivision. New roads and development will change the nature of the area as it now exists.

(*d*) *Quantity and distribution of employment?* New construction will bring new workers to the area.

(e) *Distribution and density of population and housing?* Affordable housing is not available for workers in the area. The closest commute for workers is from Gallatin Gateway, Four Corners, or West Yellowstone. The population may increase with 70 new homes. For most Yellowstone Mountain Club members, this is a second or third home.

(f) *Demands for government services?* Additional demand for police protection, and other governmental services may be needed.

(g) *Industrial and commercial activity?* Additional commercial activity may occur in the area.

(h) *Utilities?* There will be additional demand for utilities.

(i) *Transportation?* Traffic on Hwy # 191 will increase as construction workers commute between their homes, and their work at the Yellowstone Mountain Club. With 70 new homes more people will be driving to Bozeman, or West Yellowstone. This highway is already one of the most dangerous in the state.

(j) *Safety?* The already bad safety issues related to driving Highway # 191 will be exacerbated.

(k) *Other appropriate social and economic circumstances?* The building economy will benefit from this development. More people being relocated to the area usually brings with it more social problems.

2. ***Secondary and cumulative impacts on the physical environment and human population:***

Secondary Impacts No secondary impacts have been identified.

Cumulative Impacts No cumulative impacts have been identified.

3. ***Describe any mitigation/stipulation measures:*** No mitigation measures have been identified at this time.

4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider: The no action action alternative would be to not permit these wells. If allowed it is possible that each lot owner could drill their own well.***

PART III. Conclusion

1. Preferred Alternative Use community wells to supply this subdivision.

2 Comments and Responses No comments have been received to date.

3. ***Findings***

*Yes___ No_**X**__ Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: Significant impacts have not been identified. An EIS is not required for this action.

Name of person(s) responsible for preparation of EA:

Name: Jan R Mack
Title: Water Resources Specialist
Date: June 13, 2007