

Steve Kilbreath
Montana Department of Environmental Quality
Subdivision Section
March 9, 2011

Testimony for HB 28.

Mr. Chairman and Members of the Committee my name is Steve Kilbreath and I represent the Montana Department of Environmental Quality. I am the Section Supervisor for the Subdivision Section; we are responsible for review of all subdivisions in the State under the Sanitation in Subdivisions Act. We review the water, wastewater, storm drainage and solid waste facilities in all subdivisions with lot sizes less than 20 acres. My program probably issues the most ground water mixing zones of any DEQ program due to the volume of subdivision that we approve.

I am here today to support HB 28.

- HB 28 is a very simple bill that came out of the WPIC that requires new mixing zones stay within the external boundary of the subdivision they are located in. This bill is really the same as new section 5 of SB-9 that you heard from Senator Keane for mixing zones associated with leaking underground storage tanks.
- A ground water mixing zone is defined as a portion of an aquifer where initial dilution of a discharge takes place and where water quality standards may be exceeded. In other words a mixing zone is an area that contamination is allowed as long as the groundwater meets certain water quality standards at the down-gradient end of the mixing zone.
- Standard mixing zones for septic systems are concerned with nitrogen and range from 100 to 500 feet in length and are controlled by lot size and type of wastewater system. Source specific mixing zones are available as an option.
- By rule drinking water wells may not be placed in mixing zones. A new septic system may or may not be placed in a mixing zone depending on whether nitrogen limits are exceeded by cumulative impacts. When we look at mixing zones we evaluate how all of the systems impact each other in a cumulative nature.
- There is a wealth of science and information regarding contaminant transport related to septic system mixing zones. The rules for nondegradation and mixing zones came from the 1993 legislature and were established by a DEQ nondeg core team consisting of engineers, geologists, and hydrogeologists that utilized all the published scientific literature. These rules were later modified by a nondeg task force consisting of DEQ, counties and consultants. The bottom line is that mixing zones are based on site specific conditions related to soils, aquifer type, gradient, hydrogeology, and background nitrate levels.

- By keeping mixing zones confined to the subdivision or having an easement you have solved two problems.
 - You are protecting public health by eliminating new wells being drilled in the mixing zone and guaranteeing that certain water quality standards are met at the edge of the subdivision.
 - No neighbors will have mixing zones placed on their lots without their approval so you will be protecting private property rights.

- I am here to answer any questions.

STATE PROJECT NO. FIGURE
 MT 4406011 9

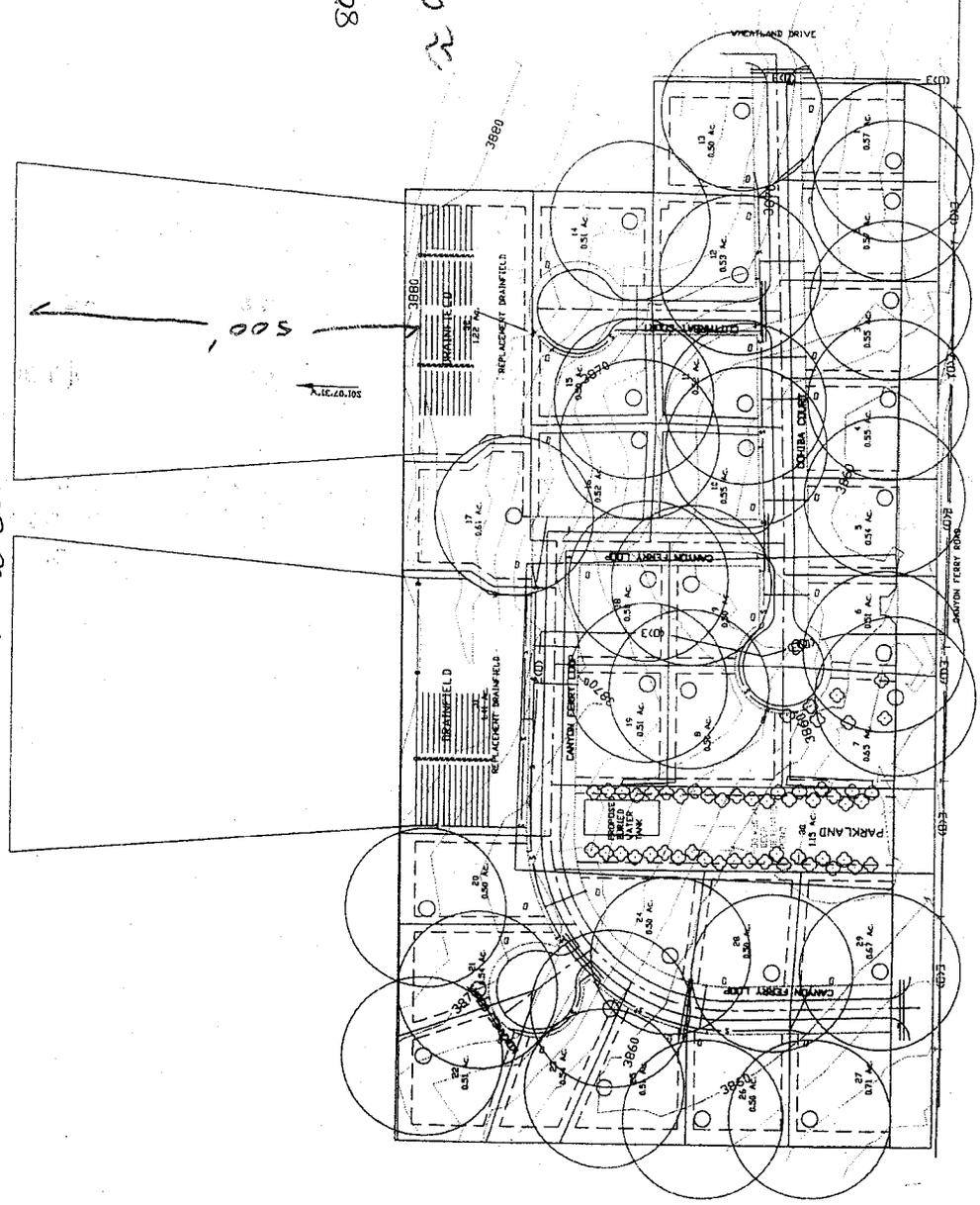
LEGEND:

- RDV EASEMENT (60')
- PROPERTY EASEMENT (10' INTERIOR LOTS, 20' BACK LOTS)
- ROAD CL
- EDGE OF GRAVEL ROAD
- FENCE
- EXISTING ROADS
- UNDERGROUND TELEPHONE
- SEWER LINES
- EXISTING TELEPHONE
- PEDESTAL
- EXISTING SIGN
- EXISTING POWER BOX
- EXISTING MAILBOX
- QUARTER SECTION
- SECTION CORNER
- TREE/BUSH
- SEPTIC TANK

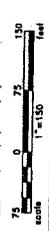
800 x 490 = 8.99 ac

~ 29.0 ac on neighboring lot

~ 200' →



DRAFT



MOUNTAIN WEST VILLAGE SUBDIVISION
 MOUNTAIN WEST CONSTRUCTION & DEVELOPMENT
 LEWIS AND CLARK COUNTY, EAST HELENA, MT

DBEC INC
 Design, Build, and Consulting, Inc.
 1000 N. 1st St., Helena, MT 59601
 (406) 261-1111

WATER AND SEWER
 T10N, R2W, SW1/4 &
 SE1/4, S15

DESIGNED BY: CHAS. BY
 CONSULTING INC. (C.B.)
 DATE: 10/16/06

DBEC INC 2006

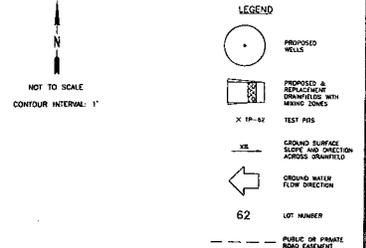
EMERALD RIDGE MAJOR SUBDIVISION

LEWIS AND CLARK COUNTY, MONTANA
LOCATED IN THE SW¼ OF SECTION 32
TOWNSHIP 11 NORTH RANGE 2 WEST

LOT LAYOUT
SHEET INDEX



**MORRISON
MAIERLE, INC.**
An Employee-Owned Company



NOTES:

1. REFERENCE PRELIMINARY PLAT LOCATED IN APPLICATION PACKET FOR LOT DIMENSIONS.
2. AREAS SHOWN DEPICT NET LOT AREAS EXCLUDING PUBLIC ROAD EASEMENTS WHICH AFFECT LOTS 1 THROUGH 4. ALONG LAKE HELDRA DRIVE. ALL OTHER SUBDIVISION ROADS ARE PRIVATE ROADS.
3. EXISTING WELLS ARE LOCATED IN THE PARK, LOT 1, LOT 22, LOT 41, AND LOT 57. IF ANY OF THESE WELLS ARE CONVERTED TO A POTABLE WATER SUPPLY, A TOTAL COLIFORM ANALYSIS MUST BE CONDUCTED WHEN THE WELL IS PUT INTO USE, AND THE RESULTS FORWARDED TO DEQ IN ACCORDANCE WITH AMM 17.36.335.
4. THE EXISTING WELL ON LOT 22 CAN BE EITHER DEEPEINED AND COMPLETED TO SERVE AS THE LOT 22 WELL, OR THE EXISTING WELL CAN BE ABANDONED AND A NEW WELL DRILLED 10' TO THE NORTHWEST.
5. ALL WELLS AND DRAINFIELDS MUST BE LOCATED WITH A MINIMUM 10 FOOT SETBACK DISTANCE FROM ALL PROPERTY BOUNDARIES AND ROAD EASEMENTS.

RECEIVED

JAN 13 2005

MT DEQ PUBLIC WATER
& SUBDIVISIONS BUREAU

APPROVED
Montana Department of
Environmental Quality
Permitting and Compliance Division
MAS 03-08-05
Reviewer Date

