Subject: Comments for HB 262

EXHIBIT
DATE 1-29-07
HB 262

Greetings Mr. Chairman and Committee Members,

This is Shawna Floyd, Smith Valley CGA petitioner and the same who testified before you on HB 205 and HB 203 last week.

A. I urge you to support HB 262 today for the following reasons:

1. Permit system works – See personal story below in Para. C.
2. Additional and better tool than a CGA to protect senior water rights one well or subdivision at a time without requiring years of regional research that may never happen due to money and personnel limitations.
3. Offers "real time" protection for senior water rights and unsuspecting new home owners. (Developers sell and move on but the young couple is left with a water battle if the water was not adequate in the first place.)
4. Takes pressure off CGA requests.
5. Preserve neighborhood peace and prevent personal lawsuits by disgruntled Smith Valley CGA opponents, for example.

B. I also ask you to think of all citizens that may be impacted by a neighbors new well and apply this permit process to <u>any areas</u> that have questionable water availability such as Horse Creek, North Hills and Sypes Canyon temporary CGAs <u>and all areas</u> that Montana Bureau of Mines and Geology finds at risk of contamination or water shortages (Exhibit A = MBMG Montana Groundwater Assessment Atlas 2 June 2004 pgs 69-71. states this about Smith Valley in Flathead County.)

C. Our neighborhood story: Five new water right permit applications were filed with DNRC requesting WRs for 45 houses on five new wells. Six offsite families lost water, including a rancher's cattle and a pump burned out during initial pump tests of these five new wells. Bill Uthman, DNRC hydrologist, heard the complaints of these offsite neighbors and he requested longer pump test data for these permits.

The developer never supplied this data. When these six impacted neighbors found out the permit process offered them the opportunity to file an objection to the permit, they informed the developer at a community meeting that they would exercise this option. The developer let these permits expire and they have been terminated by DNRC (Exhibit B = DNRC records for well permits #30006939 – 6943.) Here, we see the power of the permit process working to protect senior rights without the huge undertaking of a CGA.

The developer told us that if we were going to object, he would file for individual or exempt wells and apply to DEQ for shared well approval in the four minor subdivisions he was developing. That is what he did. Instead of 5 wells permitted for 45 houses, he was directed to drill 10 additional wells for 20 lots with the original 5 now called test wells. These first five now have irrigation water rights filed on them.

DEQ didn't know about DNRC's (Bill Uthman) request for longer pump test data so he almost approved them on an 8 hour test. I called him and sent Uthman's letter to John Herrin of DEQ and he then requested the longer data too. Schwarz Engineering conducted the pump test. It was suppose to last 24 hours but they had to shut down in 10 because of the 40 ft drop in offsite wells. DEQ set minimum well depths and maximum irrigation limits in the approval but these are unenforceable without costly litigation for senior water users.

In other words, the permit system worked in our area but the way around it was the individual exemption well.

In the meantime, 54 petitioners researched options to protect our water challenged region and was told the only tool was a CGA. In the end, that didn't work either since it relies on the need for wealthy citizens to work together as one, conducting water characterization over several years and then performing as attorneys to get the data into the record with DNRC Hearing Examiners. Even then, it is up to the HE whether any control measures are implemented.

In closing, I urge you to **support HB 262 with amendments suggested in Para. B.**

Thank you again for listening to my testimony on Jan 24 and for accepting this email and attachments for input on HB 262. I would be happy to answer any questions and further explain our experience with the CGA process.

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Montana Ground-Water Assessment Atlas 2

Ground-Water Resources of the Flathead Lake Area: Flathead, Lake, Missoula, and Sanders Counties, Montana

Part A*—Descriptive Overview and Water-Quality Data

Montana Bureau of Mines and Geology
Since 1919
Earth Science Information

by

John I. LaFave
Larry N. Smith
Thomas W. Patton

*The atlas is published in two parts: Part A contains a descriptive overview of the study area, along with water-quality data and an illustrated glossary to introduce and explain many specialized terms used in the text; Part B contains the 11 maps referenced in this document. The maps offer expanded discussions about many aspects of the hydrogeology of the Flathead Lake area. Parts A and B are published separately and each map in Part B is also available individually.

information, but the well is located near the mapped edge of local unconsolidated deposits and is probably completed near their contact with bedrock. Annual water-level fluctuations are generally about 5 ft and quarterly medians show that the lowest levels occur in July and the highest levels occur in January. Water levels in this well declined steadily at 4.5 ft/yr (60 ft) between 1983 and 1996. In 1997 the water level began to rise, recovered more than 30 ft between April and October, and peaked in July 1998. Since then, water levels have dropped more than 20 ft. The similarity between the water-level records in this well and well 77922, located 1.7 mi to the north, indicates that water levels in the deep alluvial aquifer near well 133911 are strongly controlled by recharge to adjacent bedrock uplands; it may also be possible that this well is actually completed in the bedrock aquifer.

In an intermediate aquifer at a depth of 138 ft (well 6271) annual water-level fluctuations are about 50 ft (fig. 57); quarterly medians show that the lowest levels occur in July and the highest levels occur in January. Although the annual pattern may be influenced by undocumented pumping in the measured well, the median water levels apparently show a pumping water-level response where levels drop during the late summer and recover during the fall and winter. The record from this well does not show the recharge response characteristic of the bedrock aquifer, and the lack of any decreasing or increasing trend suggests that ground-water recharge and discharge are in balance.

Water Quality

Based on analytical results from 15 ground-water samples from wells completed in bedrock and 17 from wells completed in intermediate and deep alluvial aquifers (appendix C), ground water in the Flathead Lake perimeter subarea is good quality and meets U.S. EPA public drinking water supply standards for natural constituents. The predominant ions are calcium, bicarbonate, magnesium, and sodium; dissolved-constituents concentrations in water from all the aquifers are generally less than 700 mg/L.

Analytical results for water samples from bedrock aquifers show more variation than do results from the unconsolidated aquifers. Calcium and sodium concentrations vary the most (fig. 57). The dissolved-constituents concentrations in water from bedrock aquifers (median concentration 425 mg/L) are greater than concentrations in water from unconsolidated deep and intermediate aquifers (median concentration 335 mg/L).

Nitrate

Nitrate was detected in 13 of 21 samples (62 percent) from bedrock aquifers. One sample, collected in 1984 from a well about 1 mi southwest of Somers, had a concentration of 12.2 mg/L, greater than the U.S. EPA health standard of 10 mg/L for constituents in public drinking water supplies. Another sample, collected in 1996, had a concentration of 9.2 mg/L, very close to the health standard. In the remaining 19 samples the highest reported concentration was 1.9 mg/L; the median nitrate concentration in water samples from bedrock was 0.3 mg/L.

In samples from the deep alluvial and intermediate aquifers nitrate was detected in 15 of 19 analyses (79 percent); however, the maximum concentration detected was 1.3 mg/L and the median concentration was 0.2 mg/L.

Radon

Radon in household air has been linked to lung cancer, and a minor source of the gas can be well water. The U.S. EPA estimates that less than 2 percent of radon in household air comes from radon in water. Results from water samples collected for radon from four bedrock wells ranged from 1,082 to 3,720 pCi/L, with a median concentration of 1,565 pCi/L (appendix D).

Smith

The largest part of the Smith subarea is the broad, flat-floored, 10-mi-long Smith Valley drained by Ashley Creek, which flows east-northeast into the Kalispell subarea (fig. 2). West of the Smith Valley, the middle portion of the subarea is drained by the headwaters of the Little Bitterroot River; the western portion of the subarea is drained by McGregor Creek. Topography and drainage within the Smith subarea were heavily modified by a west-southwest-flowing tongue of the Flathead glacier and a series of tongues of a glacier that flowed east out of the Kootenai River drainage. Bedrock underlies the subarea at depths as great as 400 ft in the valleys (Part B, map 7).

Aquifers

Sand and gravel at land surface were deposited either as glacial outwash or by modern streams (reported on 30 percent of well logs). Most of the shallow alluvial deposits (shallow aquifers) are in the Smith Lake, Ashley Lake, and Marion areas. Localized areas of alluvium (intermediate aquifers) lie beneath or within till, but above bedrock. Twenty to 300 ft of clay and sandy silt occur upstream of Smith Lake, near the town of Marion, near Little Bitterroot Lake, and near Lake Rogers (reported on 12 percent of well logs in these areas). The clayey deposits near Smith Lake are inter-

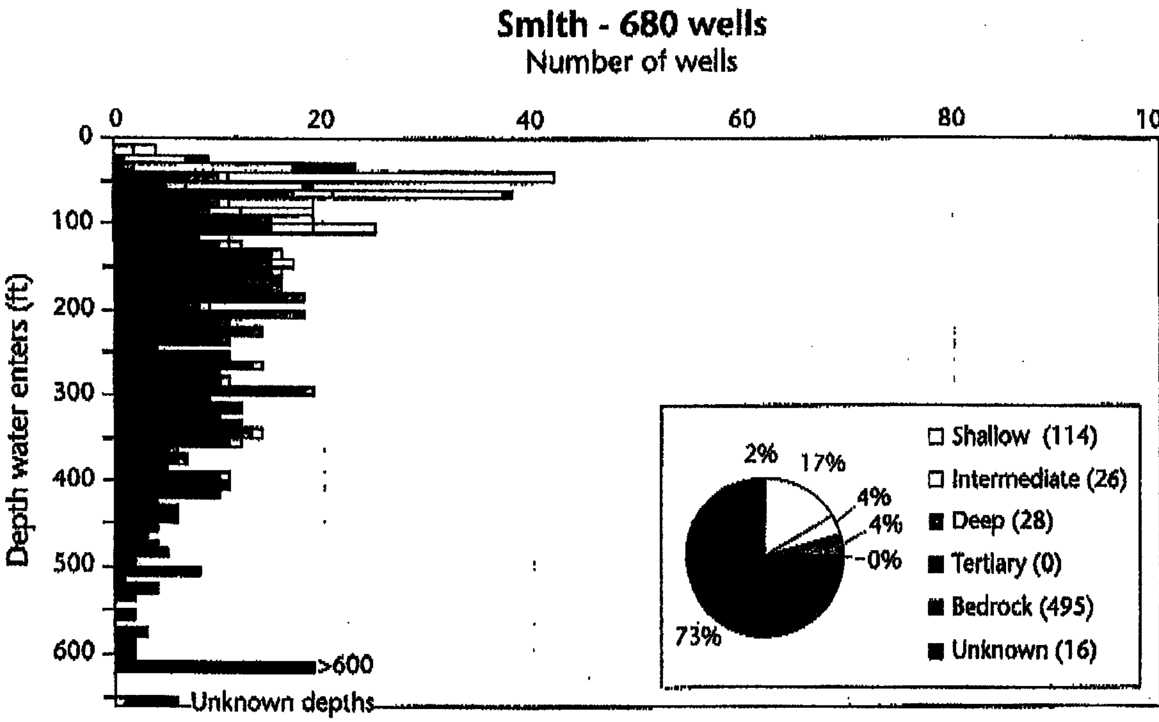

Figure 58. Most wells completed in shallow aquifers in the Smith subarea are less than 100 ft deep; the depths of wells completed in bedrock are variable and result from great topographic relief and variations in the depth of water-bearing fractures. The inset pie chart shows that most of the wells in the Smith subarea are completed in bedrock.

preted to be deposits of ancestral Flathead Lake. The clay and silty sand near Little Bitterroot and Rogers Lakes may be either deposits of small lakes dammed behind local terminal moraines or Tertiary sedimentary rocks. Till overlies bedrock in most of the stream valleys in the subarea and mantles most of the hills surrounding the valleys. Till was encountered in 70 percent of all wells in the Smith subarea and had a median thickness of 40 ft.

Bedrock aquifers have been developed by 73 percent of wells (about 500 of 680) completed in the Smith subarea. Shallow aquifers serve 114 wells (17 percent). Intermediate and deep alluvial aquifers (fig. 58) host only about 8 percent (54 wells). The median reported yield from the shallow and deep alluvial aquifers is 30 gpm. Although wells completed in intermediate aquifers have a similar range of reported yields, the median is only 15 gpm. The median reported yield from bedrock aquifers is 10 gpm (fig. 59a).

Some shallow aquifers have been penetrated by wells as deep as 138 ft, but the median well depth in the shallow aquifers is 44 ft. Well logs show that in intermediate and deep aquifers the median well depth is 132 ft below land surface, but a few wells are as much as 390 ft deep (fig. 58). Bedrock aquifers contain wells that range from 33 to more than 1,300 ft, but the median depth is 280 ft. The wide range of depths for wells completed in bedrock aquifers reflects varied topography and the highly varied depths to water-producing fractures in the bedrock. Reported water levels for shallow, intermediate, and deep alluvial aquifers are all similar and the median depth to water is about 25 ft below land surface. Water levels in the bedrock aquifer range from flowing at the land surface (10 wells) to 280 ft below land surface; the median depth to water in bedrock is 45 ft.

The rate of ground-water development to supply water to residences and seasonal homes in the Smith subarea has increased markedly since 1990; about 60 percent of wells have been installed since then and most are completed in bedrock. Installation of shallow alluvial wells also increased between 1995 and 2000 (fig. 59b). The rapid rate of development coupled with the predominance of bedrock and shallow alluvium as the major aquifers creates the potential for contamination from septic systems. Because water can move rapidly along cracks and fractures in shallow bedrock aquifers, and because the shallow alluvial aquifers are unconfined, both are sensitive to contamination from surface sources.

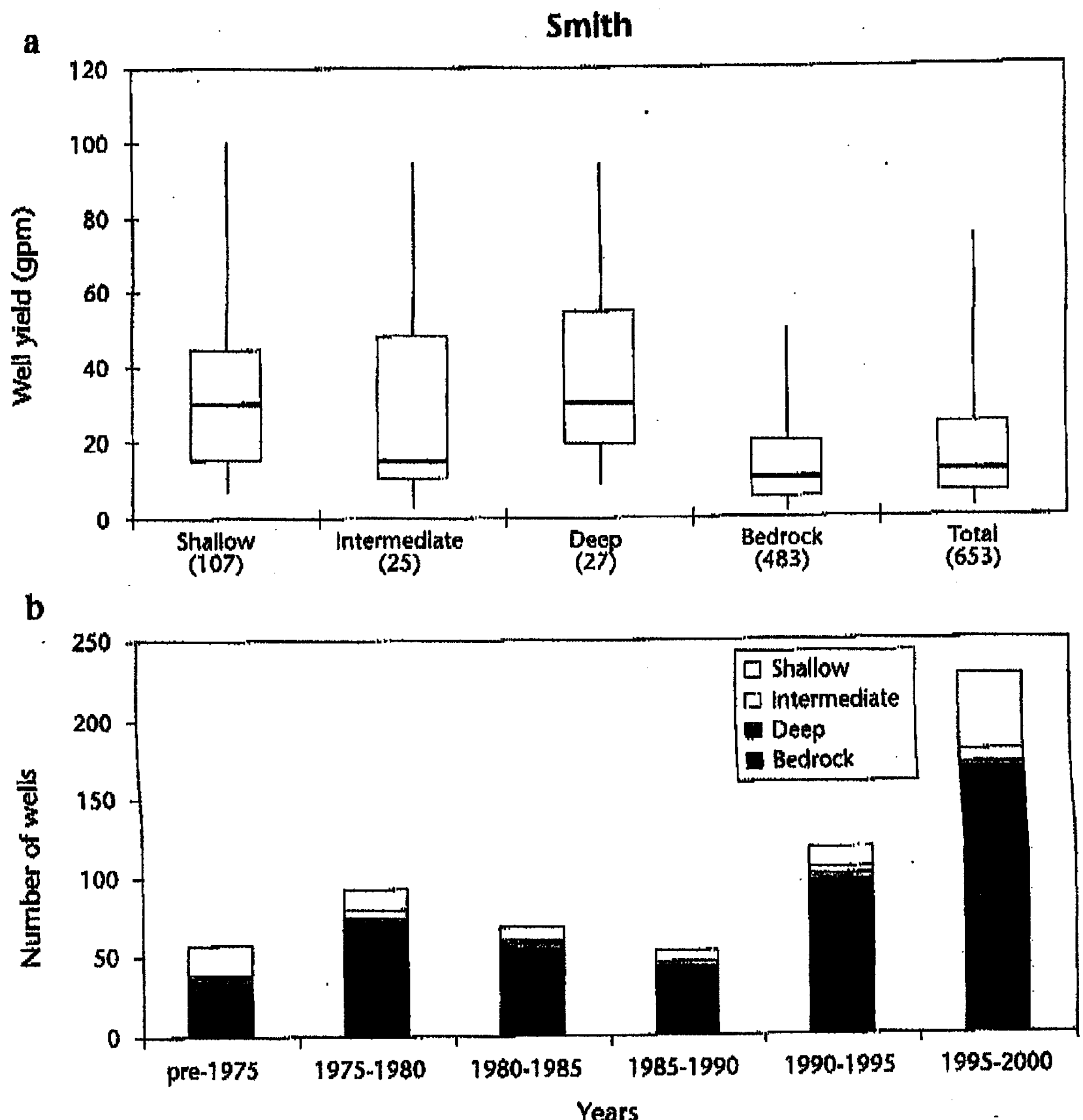

Figure 59. (a) Although yields from all the aquifers in the Smith subarea are suitable for domestic purposes, they are generally higher from the shallow, intermediate, and deep alluvial aquifers than from the bedrock. See fig. 24 for an explanation of the plots. (b) There has been a sharp increase in the number of wells installed in the Smith subarea since 1990, reflecting the development of residential and seasonal homes. Most new wells are being completed in bedrock.

Water Quality

The five chemical analyses of ground water from the Smith subarea demonstrate some of the highest quality of ground water in the entire Flathead Lake study area (appendix C). The three samples from basin-fill aquifers had dissolved concentrations less than 100 mg/L; concentrations in the two bedrock samples ranged from 171 to 240 mg/L. The lack of appreciable amounts of soluble minerals in the basin-fill sediments and the surrounding bedrock from which they are sourced most likely accounts for the high-quality water.

Jocko

The Jocko subarea is a northwest-trending valley bordered on the northeast by a steep

Action Edit Query Inquiry Create and Maintain Code Table Updates Reports Record Help

Number 30006939 | BasinType 76LJ 600 | Description APPLICATION FOR BENEFICIAL WATER USE PERMIT | Date/Time Received 07/17/2003 16:55

Affected Application: Number | Basin | Type

Flow Rate: Maximum | Unit — Volume: Maximum — Acres: Maximum

Transfer Application Number to Water Right

Applicant | Events | Location | Regional Office | Water Rights | Notice List | Objections | Change Description | Related Applications

Event	Date/Time	Response Due	Comments
FORM RECEIVED	07/17/2003 16:55		
DEFICIENCY LETTER SENT	11/03/2003 00:00		
TERMINATED / DENIED / REVOKED	02/20/2004 00:00		NO RESPONSE TO DEFICIENCY LETTER WAS

Create and Maintain Applications and Change Authorizations - WR1-CN7599 - 03/07/2006 12:31 PM

Action Edit Query Inquiry Create and Maintain Code Table Updates Reports Record Help

Number 30006940 | BasinType 76LJ 600 | Description APPLICATION FOR BENEFICIAL WATER USE PERMIT | Date/Time Received 07/17/2003 16:56

Affected Application: Number | Basin | Type

Flow Rate: Maximum | Unit — Volume: Maximum — Acres: Maximum

Transfer Application Number to Water Right

Applicant | Events | Location | Regional Office | Water Rights | Notice List | Objections | Change Description | Related Applications

Event	Date/Time	Response Due	Comments
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DEFICIENCY LETTER SENT	11/03/2003 00:00		
TERMINATED / DENIED / REVOKED	02/20/2004 00:00		NO RESPONSE TO DEFICIENCY LETTER WAS

Create and Maintain Applications and Change Authorizations - WR1-CN7599 - 03/07/2006 12:31 PM

Action Edit Query Inquiry Create and Maintain Code Table Updates Reports Record Help

Number 30006941 | BasinType 76LJ 600 | Description APPLICATION FOR BENEFICIAL WATER USE PERMIT | Date/Time Received 07/17/2003 16:57

Affected Application: Number | Basin | Type

Flow Rate: Maximum | Unit — Volume: Maximum — Acres: Maximum

Transfer Application Number to Water Right

Applicant | Events | Location | Regional Office | Water Rights | Notice List | Objections | Change Description | Related Applications

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TERMINATED / DENIED / REVOKED	02/20/2004 00:00		NO RESPONSE TO DEFICIENCY LETTER WAS

Create and Maintain Applications and Change Authorizations - WR1-CN7599 - 03/07/2006 12:31 PM

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Affected Application: Number Basin Type

Flow Rate: Maximum Unit — Volume: Maximum — Acres: Maximum

Applicant | Events | Location | Regional Office | Water Rights | Notice List | Objections | Change Description | Related Applications

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Affected Application: Number Basin Type

Flow Rate: Maximum Unit — Volume: Maximum — Acres: Maximum

Applicant | Events | Location | Regional Office | Water Rights | Notice List | Objections | Change Description | Related Applications

Event	Date/Time	Response Due	Comments
FORM RECEIVED	07/17/2003 17:00		
DEFICIENCY LETTER SENT	11/03/2003 00:00		
TERMINATED / DENIED / REVOKED	02/20/2004 00:00		NO RESPONSE TO DEFICIENCY LETTER WAS