

EXHIBIT 1
DATE 3-8-13
HB HJ15

March 8th, 2013

To: Chairman Jerry Bennett and Members of the House Natural Resources Committee
From: Tim Davis, Water Resources Division Administrator, DNRC

RE: Response to House Natural Resources Committee request for state water information made during the HJ15 hearing held on March 6, 2013

This memo is in response to the Committee's request for information including a "30,000 foot" response to the items listed in Representative Fiscus' handout to the committee during the March 6, 2013 hearing. We have included information related to the number of applications we have received over the last five years and the average time to review those applications. You will note that our review time has dropped by approximately 33% from 2008 to 2012. We have also included the existing statutory language under MCA 85-1-203 that directs the Department to prepare the State Water Plan for the 2015 Legislature.

Average Annual Atmospheric Moisture (acre-feet/year)

This information is based on 19" average precipitation and assuming 60% falls as snow.

A. Snowfall	89,400,00
B. Rain	59,600,000
C. Total	149,000,000

Average In-Stream Flow Exiting the State (acre-feet/year)

Approximately 41 million acre-feet of surface-water flow leaves Montana on average each year. Of this water, about one-third (about 15 million acre-feet per year) originates in Wyoming and the Canadian Provinces of Alberta, British Columbia, and Saskatchewan and flows into Montana. The remaining two-thirds (about 26 million acre feet per year) originates within Montana. Water enters Montana from Wyoming in the Headwaters of the Yellowstone and Missouri River drainages. Most of the flow of the Kootenai River originates in British Columbia. Tributaries to the Milk and Missouri River that originate in Alberta and Saskatchewan bring relatively small amounts of water into Montana. The largest amounts of water leaving Montana, about 24 million acre-feet per year, flow from the Clark Fork and Kootenai Rivers into Idaho. About 16 million acre-feet also leave the state annually via the Missouri and Yellowstone Rivers, which flow into North Dakota. About 1 million acre-feet per year of water also leave the state to the north into Alberta via the St. Mary, Belly, and Waterton Rivers.

Basin	Average Volume of Water Exiting the State (acre-feet/year)
A. Missouri	8,600,000
B. Yellowstone	7,400,000
C. Clark Fork	16,300,000
D. Kootenai	8,000,000
E. St. Mary	999,000
F. Little Missouri	110,000
G. Bedrock Aquifers	85,000

Groundwater Inventory / Identify Aquifers

The Montana Bureau of Mines and Geology (MBMG) maps the distribution of and document the water quality and physical properties of Montana's aquifers through the Ground-Water Assessment Program (GWAP). Data are housed in the Ground-Water Information Center database and presented through maps published by the Ground-Water Characterization Program (GWCP). The following are data products produced by GWCP:

1. Descriptive overview and or data compilations
2. Hydrogeologic Framework
3. Hydrologic Unit Thickness / Depth / Altitude maps
4. Potentiometric maps
5. Patterns of water level fluctuations
6. Water quality
7. Groundwater Resource Development

GWCP work has been completed or is in progress in the following areas and counties:

1. Lower Yellowstone River – Dawson, Fallon, Prairie, Richland and Wibaux counties
2. Flathead Lake – Flathead and Lake counties
3. Middle Yellowstone River – Treasure and Yellowstone counties
4. Lolo-Bitterroot – Mineral, Missoula and Ravalli counties
5. Upper Clark Fork River – Deer Lodge, Granite, Powell and Silver Bow counties
6. Carbon-Stillwater – Carbon and Stillwater counties
7. Cascade-Teton – Cascade and Teton counties
8. Gallatin-Madison – Gallatin and Madison counties

Domestic Well Inventories (number)

Domestic wells listed in GWIC –
149,773

Permitted Wells in State (number)

Water rights with well listed as means of diversion in DNRC water rights database –
147,567

Identify Major Use*** (A through F are from Estimated Use of Water in the United States in 2005 – USGS, G is from DNRC water right database) (acre-feet/year)

D. Irrigation	10,800,000
E. Public Supply	99,000
F. Self supplied	26,000
G. Evaporation	86,000,000
H. Livestock	44,000
I. Industrial	75,000
J. Thermoelectric	101,000
K. Senior Water Rights*	402,500,000
L. Irrigation Districts**	180,900,000

*less than half of water rights in the DNRC database have volumes – most without volumes are small wells

**irrigation district water rights include federal irrigation districts

***does not include all major uses of water including hydropower, instream flow, etc.

Permit & Change Application Processing Timelines 2008-2012

2008

Average Processing Timeline: 13 months

2009

Average Processing Timeline: 11.5 months

2010

Average Processing Timeline: 9.5 months

2011

Average Processing Timeline: 8.8 months

2012

Average Processing Timeline: 8.7 months

2008-2012 Totals

Permits Received:	153	Number Requiring Mitigation: 8
Changes Received:	107	
Total Received:	260	

85-1-203. State water plan. (1) The department shall gather from any source reliable information relating to Montana's water resources and prepare from the information a continuing comprehensive inventory of the water resources of the state. In preparing this inventory, the department may:

- (a) conduct studies;
- (b) adopt studies made by other competent water resource groups, including federal, regional, state, or private agencies;
- (c) perform research or employ other competent agencies to perform research on a contract basis; and
- (d) hold public hearings in affected areas at which all interested parties must be given an opportunity to appear.

(2) The department shall formulate and adopt and amend, extend, or add to a comprehensive, coordinated multiple-use water resources plan known as the "state water plan". The state water plan may be formulated and adopted in sections, with some of these sections corresponding with hydrologic divisions of the state. The state water plan must set out a progressive program for the conservation, development, utilization, and sustainability of the state's water resources and propose the most effective means by which these water resources may be applied for the benefit of the people, with due consideration of alternative uses and combinations of uses.

(3) Sections of the state water plan must be completed for the Missouri, Yellowstone, and Clark Fork River basins, submitted to the 2015 legislature, and updated at least every 20 years. These basinwide plans must include:

(a) an inventory of consumptive and nonconsumptive uses associated with existing water rights;

(b) an estimate of the amount of surface and ground water needed to satisfy new future demands;

(c) analysis of the effects of frequent drought and new or increased depletions on the availability of future water supplies;

(d) proposals for the best means, such as an evaluation of opportunities for storage of water by both private and public entities, to satisfy existing water rights and new water demands;

(e) possible sources of water to meet the needs of the state; and

(f) any legislation necessary to address water resource concerns in these basins.

(4) (a) The department shall create a water user council in both the Yellowstone and Missouri River basins that is inclusive and representative of all water interests and interests in those basins. For the Clark Fork River basin, the department shall continue to utilize the Clark Fork River basin task force established pursuant to 85-2-350.

(b) The councils in the Missouri and Yellowstone River basins consist of representatives of existing watershed groups or councils within the basins.

(c) Each council may have up to 20 members.

(d) Each water user council shall make recommendations to the department on the basinwide plans required by subsection (3).

(5) Before adopting the state water plan or any section of the plan, the department shall hold public hearings in the state or in an area of the state encompassed by a section of the plan if adoption of a section is proposed. Notice of the hearing or hearings must be published for 2 consecutive weeks in a newspaper of general county circulation in each county encompassed by the proposed plan or section of the plan at least 30 days prior to the hearing.

(6) The department shall submit to the environmental quality council established in 5-16-101 and to the legislature at the beginning of each regular session the state water plan or any section of the plan or amendments, additions, or revisions to the plan that the department has formulated and adopted.

(7) The legislature, by joint resolution, may revise the state water plan.

(8) The department shall prepare a continuing inventory of the ground water resources of the state. The ground water inventory must be included in the comprehensive water resources inventory described in subsection (1) but must be a separate component of the inventory.

(9) The department shall publish the comprehensive inventory, the state water plan, the ground water inventory, or any part of each, and the department may assess and collect a reasonable charge for these publications.

(10) In developing and revising the state water plan as provided in this section, the department shall consult with the environmental quality council established in 5-16-101 and

solicit the advice of the environmental quality council in carrying out its duties under this section.