

MEMO

To: 97-7448 Myers

From: Sandy Hemenway

Date: 1/26/2011

REF: Licensing Review Memo

The Permit to Appropriate was approved on 8/22/2005 for Domestic 0.04 cfs 1/1-12/31 (domestic/1), Stockwater 0.02 cfs 1/1-12/31 (for 8 horses), and Irrigation 0.06 cfs 4/1-10/31 (for 3-acres), and a total diversion of 0.12 cfs. The proof was due on or before 8/1/2006, and was received by the Department on 8/31/2005.

The **field exam conducted on 8/1/2006** found a spring, using a 48 inch diameter by 12 ft deep pipe to collect water with an overflow where the measurement was taken; a 3/4 inch discharge to 100 ft of 3/4 inch PVC to a 1500 gallon storage tank then an unknown size pipe going to the house, barn, and for irrigation (3/4 inch hose with portable sprinklers). 1/9/2007 notes in the file state: The diversion rate was measured at the spring. The spring output is the limiting factor and the pumping system design rate is not applicable. Irrigation is done with a 5/8-inch garden hose & portable sprinklers. The **Physical Address** is 689 W Whiskey Rd. Priest River, ID 83856. There are **no POU/POD Overlaps**.

POU Shapefile was calculated as 1.7-acres on ArcMap, after removing the driveway, and buildings.

RECOMMENDATIONS:

CFS

(1) A physical measurement was taken during the 8/1/2006 field exam, from the overflow at the spring:

5 gallons in 150 seconds = $(5 \text{ gal.} \times 60 \text{ sec}) / 150 \text{ sec} = 2 \text{ gpm}$

$2 \text{ gpm} \times 0.00223 = 0.00446 = 0.01 \text{ cfs}$

(2) Pipe conversion equation: $3/4 \text{ inch discharge to storage tank, and } 3/4 \text{ inch hose used to irrigate } 5 \times 3.1416 \times [90.75/12]^2 = 0.015339844 = 0.01 \text{ cfs}$

RECOMMEND:

Domestic 0.01 cfs

Stockwater 0.01 cfs

Irrigation 0.01 cfs

Total Diversion 0.01 cfs

Volume

Domestic (internal, since irrigation included w/irrigation use) = 0.6 af

Stockwater:

$\text{Vir} = (8 \text{ head} \times 12 \text{ gpd/head} \times 365) / 325850 = 0.10 \text{ af}$

$\text{Vdr} = 0.01 \text{ cfs} \times 365 \times 1.9835 = 7.2 \text{ af}$

$V = 0.1 \text{ af}$

Irrigation:

$\text{Vir} = 1.7 \text{ acres} \times 3.0 = 5.1 \text{ af}$

$\text{Vdr} = 0.01 \times 214 \text{ days} \times 1.9835 = 4.24 = 4.2 \text{ af}$

$V = 4.2 \text{ af}$

Capacity of System is $0.01 \times 365 \times 1.9835 = 7.2 \text{ af}$

RECOMMEND

Domestic 0.6 af

Stockwater 0.1 af

Irrigation 4.2 af

Total Annual Volume 4.9 af

 **Check Administrative Area Results**   

Click On Item For More Information

Season Of Use 4/1 - 10/31 = 214 days
Headgate Requirement 3
Consumptive Use 2
msf_upstream Priest River (97-07380)
msf_upstream
Source Water Plumes PRIEST RIVER CITY OF
Administrative Basin 96
Administrative Basin 97



No Details Available For This Record 