

February 1, 2005

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Department of Water Resources
Southern Region

Mr. Allen Merritt
Idaho Department of Water Resources
1341 Fillmore Street, Suite 200
Twin Falls, Idaho 83301

RE: Water Right Application for Bluegrouse Ridge Subdivision, Blaine County, Idaho

Mr. Merritt:

Enclosed you will find an Application for Permit in the name of Seaboard Properties, Inc. together with a check for \$100.00 for the filing fee. The purpose of this application is to provide additional diversion rights for a community water system serving 17 household connections. The Applicant has an existing water right for 0.22 cfs, Permit No. 37-08877, attached as Exhibit A. The project location is shown on a Vicinity Map attached as Exhibit B.

The water system will supply water for domestic, irrigation, and fire suppression uses to 17 household connections located on 16 lots. One lot is a community housing unit with two houses located on it. The system will consist of one 8" community well (water source), a 4" water main from the well to the fiberglass storage tanks; a booster pump station containing a chlorination circuit, fire suppression pump, and domestic pumps; and an 8" distribution system that will provide individual water service to each household connection and to the fire hydrants. There is no surface water sources proposed for this system. The well source will be metered at the well head and the flow from the storage tanks into the distribution system will be metered as well. Domestic (w/irrigation) water usage will be metered at each service connection so that the Homeowners Association will be able to track water usage by each user. A Facilities Map showing the location of the well, water mains, storage tanks, and booster pump house is attached as Exhibit C.

Domestic water use was interpolated by using a table that was provided to us by IDWR and is attached as Exhibit D. This table shows recommended domestic diversion flow rates versus the number of households served. An exponential relationship between the domestic diversion rates and number of household connections shown on the table was determined by logarithmic regression to produce the following formula:

$$\text{Diversion rate (cfs)} = 0.0437 \times \text{number of connections}^{0.52242}$$

therefore the total diversion rate for this project is

$$0.19 \text{ cfs} = 0.0437 \times 17 \text{ connections}^{0.52242}$$

Irrigation flows were calculated by multiplying the number of connections times 0.02 cfs per acre as shown on the same IDWR table. Each connection can irrigate up to 1/2 acre of land which results in 8.5 total irrigated acres.

Irrigation diversion rate = ¹⁶17 connections x 0.02 cfs/acre x 1/2 acre/connection = 0.17 cfs

The Applicant is also requesting that an additional 0.04 cfs of water be allocated for common area irrigation under Idaho Code 42-111(1)(b) for "other uses". A copy of the Statute is attached as Exhibit E. This common area will include existing landscaping at the entrance to the subdivision and along the access road, and a small park area to benefit the Homeowners. The total common area to be irrigated is approximately 14,300 sq.ft.

To summarize, the domestic and irrigation diversion requirements for the subdivision are as follows:

Domestic	= 0.19 cfs
Irrigation	= 0.17 cfs ¹⁶
<u>Other Uses</u>	= 0.04 cfs
Total	= 0.40 cfs ³⁹

This brings the total water diversion required for the subdivision to 0.4 cfs. The Applicant has an existing water right for 0.22 cfs and is hereby making application for a second water right for the remaining 0.18 cfs.

³⁹
- 0.22
= 0.17
There are also fire flow requirements of 1,250 gpm for 2 hours (150,000 gallons) required by the Fire Chief for Wood River Fire and Rescue. To meet these fire flow requirements, 140,000 gallons of water storage capacity will be needed in the form of underground fiberglass tanks. A copy of the letter from the Wood River Fire and Rescue is attached as Exhibit F. It is our understanding from conversations with Mr. Corey Skinner of your office that this use does not require a water right.

Please call if you require additional information or have any questions at (208) 788-1705 ext 12.

Sincerely;



David A. Richards, PE

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