

Palmer, Cherie

From: Palmer, Cherie
Sent: Wednesday, January 04, 2012 1:20 PM
To: 'Scott King'
Subject: RE: Integrow Malt Mitigation Plan

Thank you Scott, I will try to get to this in the next week or so. Happy new year!

Cherie

From: Scott King [mailto:SKing@spfwater.com]
Sent: Friday, December 30, 2011 3:26 PM
To: Palmer, Cherie
Subject: Integrow Malt Mitigation Plan

Hello Cherie,

Could you please review and comment on the attached documents. The first is a draft mitigation plan for Integrow Malt. I believe we've covered all the points in the mitigation plan checklist and others that we've discussed previously. Integrow Malt would like IDWR's approval of the proposed approach before finalizing their agreement with Idaho Irrigation District.

Also attached is a draft letter from the City of Idaho Falls. Also please comment on this document.

Thank you,
Scott

Scott N. King, P.E.
Supervising Engineer
SPF Water Engineering, LLC
300 E Mallard Drive, Suite 350
Boise, Idaho 83706
Phone: (208) 383-4140
Fax: (208) 383-4156
sking@spfwater.com
www.spfwater.com

Integrow Malt LLC
Mitigation Plan for Water Right No. 25-13978

Integrow Malt diverts ground water for industrial use as authorized by IDWR water right permit no. 25-13978.

1. Integrow Malt diverts ground water from two wells located on Integrow Malt property. Water use is both non-consumptive and consumptive. Mitigation is required for both consumptive and non-consumptive uses to protect existing surface and ground water rights pursuant to the Eastern Snake River Plain Area Moratorium Order (April 30, 1993).
2. Mitigation proposed for non-consumptive water use:
 - a. The majority of Integrow Malt's water use is non-consumptive. Based on records submitted with the February 2, 2010 Beneficial Use Field Report, the non-consumptive fraction is approximately 79 percent of total diversions.
 - b. After Integrow Malt's use of fresh water, the non-consumptive use portion is discharged to the City of Idaho Falls (Idaho Falls) sewer collection system where it is treated by Idaho Falls. Effluent treated by Idaho Falls is discharged to the Snake River about one-mile northwest of Integrow Malt's facility. Idaho Falls has provided a letter acknowledging their collection, treatment, and discharge of Integrow Malt waste water. Idaho Falls' letter also provides the City's intent to continue discharging treated effluent to the Snake River without reuse for other consumptive uses.
 - c. Return of the non-consumed portion of diverted water to the Snake River provides mitigation to downstream water users for the non-consumptive portion of water diverted by Integrow Malt.
 - d. Integrow Malt measures and records the quantity of water discharged to the City's waste water collection system, and will report these measurements to IDWR.
3. Mitigation proposed for consumptive water use:
 - a. Consumptive use is a fraction of Integrow Malt's total water use. Based on the records submitted with the February 2, 2010 Beneficial Use Field Report, the non-consumptive fraction is approximately 21 percent of total diversions.
 - b. Integrow Malt measures both its total ground water diversions and discharge to Idaho Falls' sewer collection system. Consumptive water use is calculated by subtracting discharges to Idaho Falls' sewer system (the non-consumptive fraction) from total ground water diversions.
 - c. Integrow Malt owns 158 shares of water in Idaho Irrigation District (IID). These shares are sufficient for irrigation of 158 acres.
 - d. Integrow Malt's records of past water use indicate typical annual consumptive use is approximately 158 acre-feet.
 - e. Integrow Malt will provide current-year mitigation for consumptive water use based on the prior-year's record of actual consumptive use.

- f. Integrow Malt and IID have entered into an agreement whereby IID authorizes Integrow Malt to use shares owned by Integrow Malt for mitigation.
- g. Water District 01 has verbally confirmed that IID's natural flow and storage rights are very senior in priority. Deliverability of IID storage rights has historically been very secure, including during periods of low water supply.
- h. Integrow Malt, in coordination with IID, provide the following methods for mitigating Integrow Malt's consumptive water use:
 - i. IID will release storage flows to meet Integrow Malt's annual consumptive water use. Storage releases will be provided under water right nos. 1-2068J, 1-4055E, 1-10043B and/or 1-10044D. Refer to IID's agreement to provide mitigation for Integrow Malt (attached). Storage releases are offered as the primary method for mitigating Integrow Malt consumptive water use. Storage releases are anticipated to total approximately 158 acre-feet annually, which is an estimate based on historic records of consumptive use, and will be adjusted annually based on the prior-year's actual consumptive use as identified in section 3. e above.
 - ii. In the event that IID is unable to provide storage releases due to inadequate storage supplies or for other reasons, IID will cease diverting the portion of Integrow Malt's shares required for meeting the balance of Integrow Malt's mitigation requirements. Integrow Malt will cease irrigating on a one-acre per one-share basis for each share that is required for mitigation. The number of acres required for non-irrigation, and associated shares not diverted, shall be calculated based on the prior-year's actual consumptive use as identified in section 3. e above. Consumptive crop water use will be based on IDWR's accepted standard, which is currently the University of Idaho's ET_{Idaho} data. The Idaho Falls FAA Arpt climate station is in close proximity to Integrow Malt and therefore provides the appropriate data set for determining crop consumptive use requirements. Barley is a typical crop grown on Integrow Malt property. Therefore, the appropriate ET_{Idaho} crop type is "Spring Grain (irrigated)," which has a precipitation deficit of 608 mm/yr (1.99 ft/yr) per acre based on the 2009 update of ET_{Idaho} . Based on the anticipated approximate annual mitigation requirement of 158 acre-feet, 79 acres and associated shares would be required for non-irrigation and non-diversion ($158 \text{ acre-feet} \div 1.99 \text{ ft/year} = 79 \text{ acres}$). Approximately 45 acres of Integrow Malt ground is not irrigated (due to buildings, parking areas, etc) while about 115 acres are cropped. Therefore, the anticipated number of acres required for non-irrigation are available with a satisfactory factor of safety for annual variability in consumptive use determined per section 3. e above. IID natural flow water rights available for this mitigation option include 1-75,

1-76, 1-312, 1-368, 1-369, and 1-370. Integrow Malt will coordinate with IID to identify if non-diversion will be utilized to meet all or a portion of Integrow Malt's mitigation requirements. Integrow Malt and IID will notify IDWR prior to the beginning of the irrigation season if non-diversion mitigation will be provided during that year's irrigation season.

- iii. IID is developing ground water recharge facilities that may in the future meet some or all of Integrow Malt's consumptive use mitigation requirements. As these facilities are developed and demonstrated to provide acceptable mitigation, Integrow Malt may submit an amended mitigation plan to IDWR seeking to authorize use of alternative mitigation measures.

December 1, 2011 (DRAFT)

SPF Water Engineering, LLC
Attn: Scott King, P.E.
300 E Mallard Drive, Suite 350
Boise, ID 83706

RE: Grupo Modelo/Integrow Malting Plant

Dear Mr. King:

The City of Idaho Falls currently receives and treats wastewater collected from the Grupo Modelo malting plant located off South 15 West (Jameston Road) located within the corporate limits of the City of Idaho Falls. The Idaho Falls Waste Water Treatment Plant (WWTP) discharges to the Snake River and currently has no plans to pursue discharging treated wastewater to any other receiving water.

Water rights associated with wastewater discharge from the WWTP are held by the City of Idaho Falls.

Should you have any questions regarding this matter please don't hesitate to contact me at (208) 612-8259.

Sincerely,

Chris H Fredericksen, P.E.
Engineering Administrator