MEMORANDUM

TO: Muldoon Creek Water District (37-O) File

FROM: Corey Skinner

DATE: September 26, 2007

SUBJECT: Investigation of Muldoon Grazing Association Property

On September 5th and 6th, Jeff Cooper and I visited the Muldoon Creek area as a follow up to the August 10th water call filed by Gary Slette on behalf of his client, Muldoon Ranch Co LLC, and the August 16th response from IDWR (e-mail from Tim Luke). As part of our visit, we specifically looked into diversions from Copper Creek on property owned by the Muldoon Grazing Association. Note that allegations had been made by representatives of Muldoon Ranch Co that the Muldoon Grazing Association was diverting &/or using water from Copper Creek (tributary stream to Muldoon Creek). They had also made general allegations that the Muldoon Grazing Association was irrigating ground not in accordance with their water right(s) &/or priority dates. Note that the Idaho Secretary of State web page indicates that Michael Stevens (president), Guy Peterson (Vice- President), and Cheryl Bennett (Secretary) are the primary contacts for the Muldoon Grazing Association. David Coleman, a local attorney, had previously stopped by the office and indicated that he has represented the Muldoon Grazing Association in their legal matters.

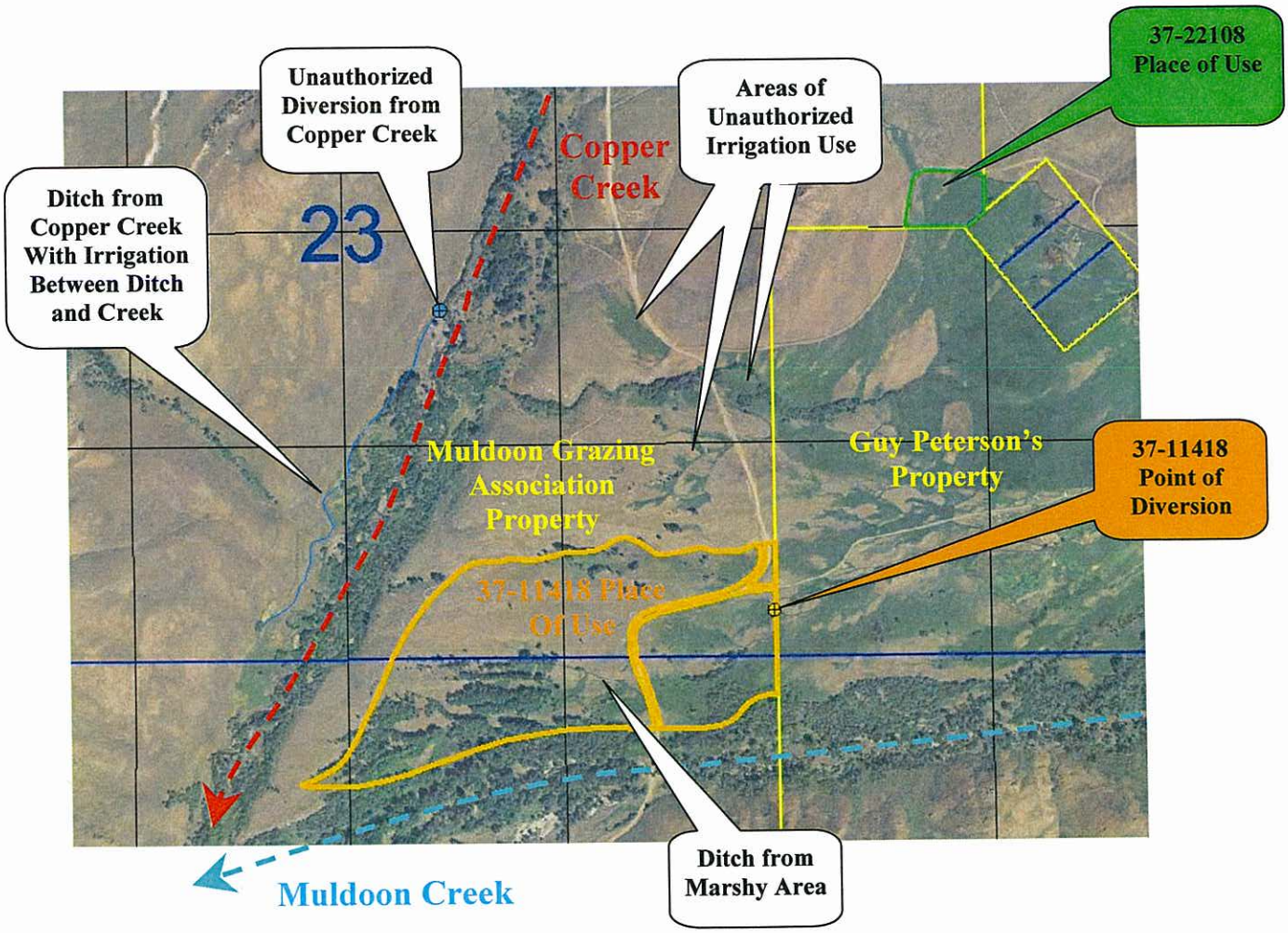
Jeff &/or I walked approximately two miles of the Copper Creek bottom running through portions of Sections 14, 23, and 26 (T03N, R21E) and observed a single diversion from the creek. This particular diversion consisted of an uncontrolled ditch, with no measuring device, on the west side of the creek, specifically located within the NWSE of Section 23 (T03N, R21E). This ditch basically paralleled the creek, at a higher elevation, and provided irrigation water for as much as four or five acres. During our visit a small amount of water (no more than 0.23 cfs) was being diverted through this particular ditch.

Jeff and I also observed a ditch running through the NENE of Section 26 (T03N, R21E) crossing the Muldoon Creek Road, just north of Muldoon Creek. This particular ditch has been an item of concern for representatives of Muldoon Ranch Co. This ditch collects water from a marshy area north of Muldoon Creek within the NENE of Section 26 and the NWNW of Section 25 (T03N, R21E). Irrigation of Guy Peterson's property may contribute to the marshy area located down gradient of his property. During our visit, it was observed that probably between 1.0 – 1.35 cfs was flowing through this ditch and being used for irrigation. The land being irrigated is part of the place of use of SRBA recommendation 37-11418 that allows for the use of wastewater diverted from a different location. It appears that there is no water right that allows for this water diversion (ditch).

Further examination of the Muldoon Grazing Association property indicated that there are areas to the north of the 37-11418 recommended place of use that appear to be irrigated from wastewater coming from Guy Peterson's property to the east that are not covered by any water rights. These areas are located specifically within the east ½ of the SE of Section 23 (T03N, R21E) and amount to approximately five to eight acres worth of irrigation not covered by water rights.

There is also a portion of Muldoon Grazing Association property located within the SESWNW of Section 24 (T03N, R21E) that is irrigated from Guy Peterson's diversion from Muldoon Creek (GPS Site Tag # A0011848) and upper diversion ditch (see 9/20/2007 memo discussing Guy Peterson's property) pursuant to SRBA recommendation 37-22108.

The following maps, photos, and comments document our September 5th and 6th observations relating the Muldoon Grazing Association property….



ABOVE: View on 9/6/2007 looking down Copper Creek showing the diversion ditch within the NWSE of Section 23 (T03N, R21E). The GPS coordinates for this location are 2506504, 1375080 (IDTM coordinates NAD83 projection). An estimate of the flow in this ditch was made using the "orange peel method" by timing a floating stick through a known length and average cross section for that length. The velocity through a 10-foot section of this ditch was 0.53 feet per second (19 seconds for a floating stick to travel the 10 measured feet). The average cross section was 0.44 square feet (32 inches wide x 2 inches deep). Since flow equals velocity multiplied by area, the flow through this ditch could have been as much as 0.23 cfs. (0.53 x 0.44). However, since the water flows the fastest at the surface and the middle of the ditch, the 0.23 cfs estimate is probably high. Using a standard reduction factor of 60% – 80% indicates that the **flow in this ditch was probably in the neighborhood of 0.14 cfs – 0.18 cfs.**

LEFT: View on 9/5/2007 looking up the diversion ditch shown in view above, only further downstream. Note the piles of earth along the ditch that have been excavated from the ditch.

ABOVE: View on 9/6/2007 looking down the ditch running through the NENE of Section 26 (T03N, R21E) crossing the Muldoon Creek Road, just north of Muldoon Creek. This particualr ditch collects water from a marshy area north of Muldoon Creek within the NENE of Section 26 and the NWNW of Section 25 (T03N, R21E). Irrigation of Guy Peterson's property may contribute to this marshy area located down gradient of his property. Examination of this marshy area did not reveal an obvious direct surface connection with Muldoon Creek. An estimate of the flow in this ditch was made using the "orange peel method" by timing a floating stick through a known length and average cross section for that length. The velocity through a 10-foot section of this ditch was 2.0 feet per second (5 seconds for a floating stick to travel the 10 measured feet). The average cross section was 0.83 square feet (2.0 feet wide x 5 inches deep). Since flow equals velocity multiplied by area, the flow through this ditch could have been as much as 1.67 cfs. (2.0 x 0.83). However, since the water flows the fastest at the surface and the middle of the ditch, the 0.23 cfs estimate is probably high. Using a standard reduction factor of 60% – 80% indicates that the **flow in this ditch was probably in the neighborhood of 1.0 cfs – 1.34 cfs.** Note the orange canvas dam diverting water from the ditch for irrigation of the surrounding area. This land is part of the place of use of SRBA recommendation 37-11418 that allows for the use of wastewater diverted from a different location. It appears that there is no water right that allows for the water diversion (ditch) shown in the view above.