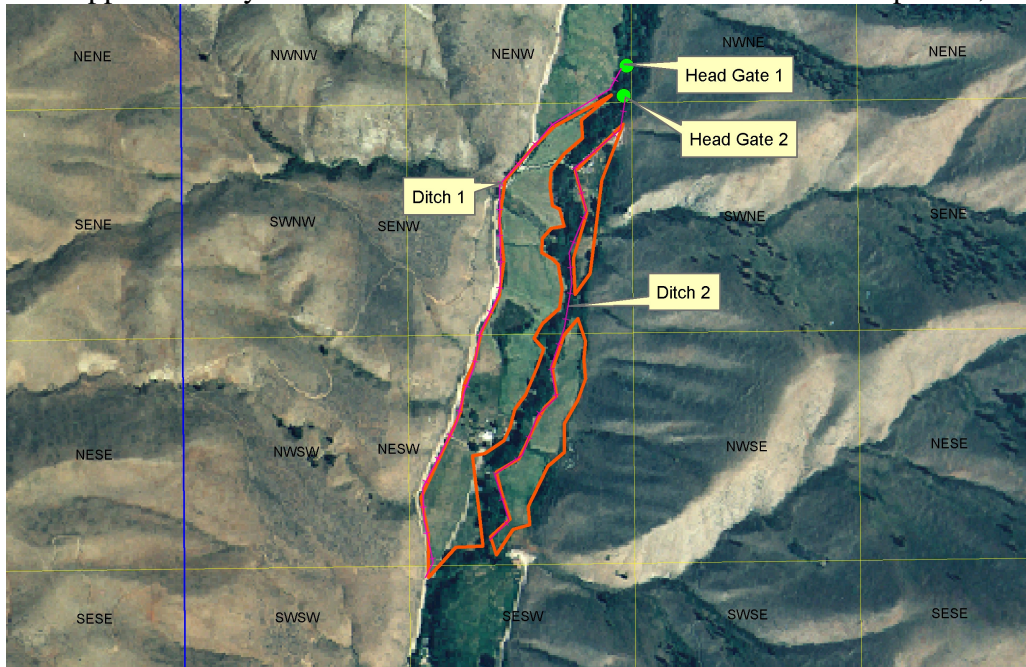


Split Memo

Water right 75-14036 was split into water rights 75-14516 and 75-14517. The purpose of this split is to partition the two water rights between an 1899 priority and a 1909 priority. The 1909 is based upon a land patent which describes the acres irrigated in 1909. Submitted with this patent were three affidavits, and in these documents there are statements regarding irrigated acres and hay produced. Specifically that 2-2 ½ tons of hay per acre were produced with an average of 40 tons per year. From this information I deduced that the approximate irrigated acres during the initial season of settlement would be approximately 20 acres. I met with Kord Smith at 8:30 am on April 29, 2008.



During this meeting Mr. Smith assisted me diagramming the place of use for the original homestead based upon the location of the original ditches. The original ditches were inferred base upon the topography of the land being irrigated as well as the maturity of the vegetation lining the ditches. This Place of Use is shown in the Figure Above. The resulting acreage was 24.5 acres. In 1899 the only method of irrigation used on this location was flood. The duty of water required to irrigate sandy loam soil with flood irrigation is 0.03 cfs/acre. Thus a total diversion of $(0.03 \text{ cfs/acre} * 24.5 \text{ acres} =) 0.72 \text{ cfs}$ would have been diverted in 1899. During the following 10 years the remainder of the land described in the patent was developed. This additional development would constitute the 1909 priority date. The place of use reported in the land patent was for 49 acres. Through the utilization of GIS I was able to determine that this acreage was actually 46.4 acres. Water right 75-14036 has a place of use for 21.9 acres within the original 46.4 acre place of use or 47.2% and thus is entitled to this same quantity of the 1899 water. As a result water right 75-14516 has a priority of 1899 and a diversion rate of 0.34 cfs, and water right 75-14517 has a priority of 1909 and a priority of 1909. It should be noted that existing water rights on the ditch have a priority date of 6-28-1899; water right 75-14516 was given a priority of 6-29-1899 in order to make this right junior to prior established rights.