

MEMORANDUM

TO: Water Rights File 63-33333
FROM: Sandra Thiel
DATE: November 12, 2013
SUBJECT: Overlapping water rights

SPF submitted an overlap analysis for water right 63-33333 with their field exam. Four water rights provide water to a place of use that covers several quarter quarters in T1N R2W Sections 26 and 27 in Canyon County. Water rights 63-3323, 63-3324 and 63-33149 combined cover 285 acres and have a diversion rate of 4.43 cfs.

Water right 63-33333 covers 24 additional acres. The overlap of all 4 rights includes 309 acres. All four water rights are diverted through the same system. Based on the measurements shown on page 2 of the SPF field exam the system capacity is the same as the diversion rate stated above, 4.43 cfs.

$4.43 \text{ cfs} / 309 \text{ acres} = 0.014 \text{ cfs per acre.}$

$0.014 \text{ cfs} * 24 \text{ acres} = 0.34 \text{ cfs}$

Recommend 0.34 cfs for water right 63-33333

$24 \text{ acres} * 4.5 \text{ headgate requirement} = 108 \text{ AF}$

$\text{Diversion Rate } 0.34 * \text{days in irrigation season } 260 * 1.9835 = 175.3$

Recommend 108 AF

The three existing water rights have a combined annual diversion volume of 1,282.5: $108 + 1,282.5 = 1,390.5$

Recommend a combined used limit of 1,390.5 AF for rights 63-3323, 63-3324, 63-33149 and 63-33333