

MEMORANDUM

TO: Shelley Keen
FROM: Aaron Marshall 
DATE: February 25, 2010
SUBJECT: Water Right No. 63-10034 Spatial Overlap Analysis

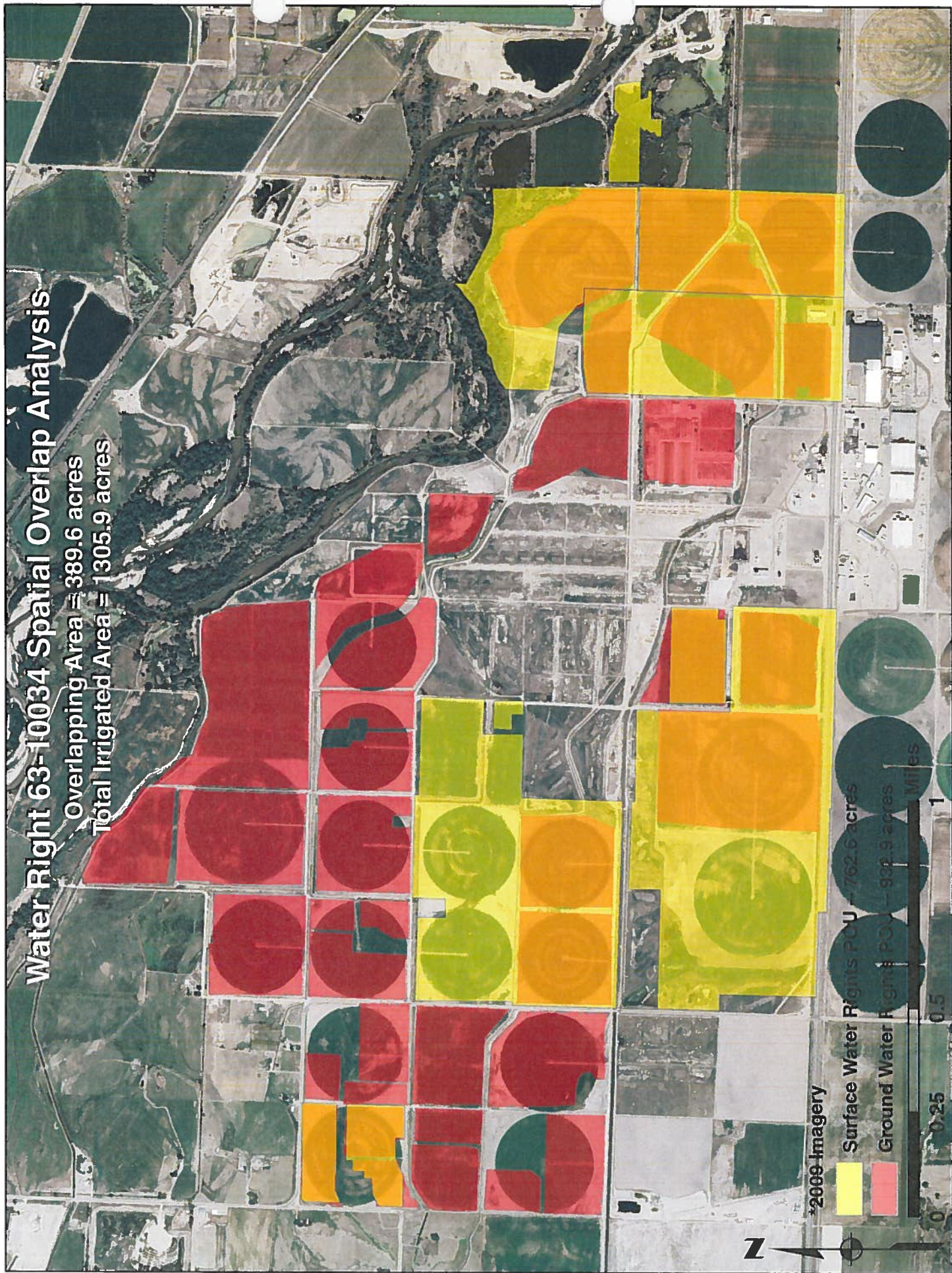
As requested, I used ArcMap to analyze the overlap between ground water right 63-10034 with surface water rights 63-290, 63-2239, 63-2241, 63-2386, 63-2425, and 63-2657. The GIS shape associated with the draft license record for water right 63-10034 covers 932.9 acres. The GIS shapes associated with the irrigation portion of the aforementioned surface water rights covers 762.6 acres – slightly larger than the combined 758 acres authorized for irrigation. I combined the water right place of use shapes using the ArcMap union tool and computed a total area of 1,305.9 acres. The resulting overlap is 389.6 acres ($932.9 + 762.6 - 1,305.9 = 389.6$). See attached maps.

Perhaps the license for water right 63-10034 should contain a condition that limits all of the overlapping ground water and surface water rights, when combined, to irrigation of **1,306 acres**.

Water Right 63-10034 Spatial Overlap Analysis

Overlapping Area = 389.6 acres

Total Irrigated Area = 1305.9 acres



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