

MEMORANDUM

To: Water Right File No(s). 27-7577

From: Aaron Marshall

Date: October 18, 2007

Re: License Processing, Application for Amendment

Water right 27-7577, when licensed at a rate of 7.28 cfs, will have a rate per acre of 0.0258 cfs per acre. The right overlaps the place of use for the following recommended claims. Those claims recommended for a rate greater than 0.0258 cfs per acre were considered when determining the flow rate for right 27-7577.

WR#	Flow Rate Per Acre	Overlapping Acreage	Flow Total for Rec. Claim
27-3C	0.0175 cfs/acre		
27-37F	0.003 cfs/acre		
27-11939	0.005 cfs/acre		
27-10344	0.02 cfs/acre		
27-11940	0.02 cfs/acre		
27-10756	0.02 cfs/acre		
27-3G	0.077 cfs/acre	1.3 acres	0.10 cfs
27-10505	0.0526 cfs/acre	3.5 acres	0.20 cfs
27-10341	0.045 cfs/acre	1.5 acres	0.09 cfs
27-10296	0.028 cfs/acre	28.0 acres	0.87 cfs
TOTAL		34.3 acres	1.26 cfs

The place of use for water right 27-7577 is 282.3 acres, when appropriated at a rate of 0.0258 cfs per acre, equals a total flow rate of 7.28 cfs. In order to ensure that the overlapping acreage recommended at a rate greater than 0.0258 cfs per acre retains that rate, the following calculations were necessary to determine the combined flow rate for right 27-7577 and the overlapping recommended claims.

Decrease the flow rate by the overlapping acreage total: $282.3 \text{ acres} - 34.3 \text{ acres} = 248.0 \text{ acres}$
Calculate the corresponding flow rate for 27-7577: $248.0 \text{ acres} \times 0.0258 \text{ cfs/acre} = 6.40 \text{ cfs}$
Calculate **combined flow rate** by adding in total from overlapping rec. claims: $6.40 \text{ cfs} + 1.26 \text{ cfs} = 7.66 \text{ cfs}$

Calculate total volume for 27-7577: $282.3 \text{ acres} \times 4.0 \text{ AF/acre} = 1129.2 \text{ acre-feet}$

27-7577 TOTAL

Acreage	Flow Rate	Combined Flow Rate	Volume
282.3 acres	7.28 cfs	7.66 cfs	1129.2 acre-feet

Combined use limits will be applied based on all of the overlapping recommended claims. Some of the claim numbers above overlap partially, not completely, with water right 27-7577. The non-overlapping acreage calculated from the place of use shapes from the above claim numbers is totaled at 5.9 acres. The combined use limit condition for acreage under water right 27-7577 will be:
 $282.3 \text{ acres} + 5.9 \text{ acres} = 288.2 \text{ acres}$

See attached place of use maps.



