

MEMORANDUM

Date: May 06, 2009
To: Water Right File 37-20930
From: nvandyke
Re: licensing

At the time of the field examination the springs/unnamed stream were running very low and rate measurement was not possible.

Mannings equation for circular conduit was used to estimate the rate of flow from the three points of diversion at 3.01cfs. It is important to note that Mannings equation is not ideal for this particular situation. However since there is very low potential head available in the diversion structures (buried culverts) and estimated rate exceeds permitted amount, Mannings equation will suffice.