

MEMORANDUM

Date: January 09, 2019
To: Water Right File 22-14327
From: jcefalo
Re: Mitigation Plan

Applicants propose to mitigate for ground water Permit 22-14327 by holding their Lyons Creek water rights (22-7115, 22-7091 and 22-13454) unused. According to the Applicants, the Lyons Creek water, which would have been diverted for irrigation use, will sink in the Lyons Creek channel, offsetting any additional ground water diverted under Permit 22-14327. In addition, Applicants agree to limit their overall diversion of ground water under Permit 22-14327 and water right 22-13670 to the annual diversion volume listed on existing ground water right 22-13670 (925.3 acre-feet).

Applicant's diversion from Lyons Creek is located approximately six miles from the confluence of Lyons Creek and the Snake River. Outside of instream stockwater rights upstream of the Applicant's property, Applicants own the only water rights on Lyons Creek. I have visited the lower section of Lyons Creek in the summer of 2018 and confirmed that the creek was not reaching the Snake River at that time. Outside of high flow snow melt or thunderstorm events, Lyons Creek likely does not connect with the Snake River.

Using the USGS StreamStats tool, I found that the Lyons Creek drainage upstream of the subject property covers approximately nine square miles and receives an average of 17.6 inches of precipitation per year. Based on the topography and soil type within the drainage upstream of the Applicant's property, which is mostly undeveloped USFS land, the estimated mean annual flow of Lyons Creek at the Applicant's property is 2.4 cfs. This is consistent with the flow rates reported by the Applicants in the mitigation plan. They assert that base flow in the creek varies from 2 cfs in the Spring to 1 cfs in the Fall, with peak flows during the snowmelt runoff.

The Lyons Creek direct flow rights (22-7091 and 22-13454) authorize a diversion rate of 2.00 cfs. In addition, the Applicants capture and store up to 55 acre-feet of Lyons Creek water in their reservoir during the winter months. If the Applicants cease diverting and storing Lyons Creek water altogether, it will more than offset any additional ground water diversions occurring under Permit 22-14327. The proposed mitigation plan sufficiently protects against injury to existing water rights.

Permit 22-14327 will include a condition requiring the permit holder to hold water rights 22-7115, 22-7091 and 22-13454 unused as mitigation for the increased ground water diversion.