

## ATTACHMENT 1 Water Availability

To demonstrate the reasonable likelihood that unappropriated water is available for diversion, streamflow during the requested diversion season (November 1 to March 31) is estimated at each POD by prorating USGS streamflow data at the gage on Capell Creek (USGS 11453700 CAPELL C TRIB NR WOODEN VALLEY CA). Gage data is from the USGS website (waterdata.usgs.gov). For purposes of this preliminary analysis it is assumed that precipitation above the PODs and gage are equal. The following formula is used:

$$Q_2 = Q_1 \times (A_2/A_1)$$

Where  $Q_2$  = Seasonal Flow (AF) @ POD

$Q_1$  = Seasonal Flow (AF) @ gage

$A_2$  = Watershed area (ac.) above POD

$A_1$  = Watershed area (ac.) above gage

### Seasonal Unimpaired Flow @ POD #1:

$$\begin{aligned} Q_1 &= 515.3 \text{ AF} \\ A_2 &= 6.9 \text{ ac.} \\ A_1 &= 556.8 \text{ ac.} \\ Q_2 &= 515.3 (6.9/556.8) \\ &= 6.4 \text{ AF} \end{aligned}$$

### Seasonal Unimpaired Flow @ POD #2:

$$\begin{aligned} Q_1 &= 515.3 \text{ AF} \\ A_2 &= 10 \text{ ac.} \\ A_1 &= 556.8 \text{ ac.} \\ Q_2 &= 515.3 (10/556.8) \\ &= 9.3 \text{ AF} \end{aligned}$$

Face value rights of senior diverters above the PODs are deducted from the seasonal flow to determine the amount of unappropriated water available:

POD #1 – Reservoir #2 under Application 31715, which has a capacity of 4.5 AF, is upstream from this project.

6.4 AF – 4.5 AF = 1.9 AF available for diversion @ POD #1

POD #2 – Reservoir #2 under Application 31715 and Reservoir #1 under this application, which has a capacity of 0.3 AF, are upstream from POD #2:

9.3 AF – 4.8 AF = 4.5 AF available for diversion @ POD #2

Based on the above calculations it is reasonable to conclude that unappropriated water is available for diversion.