Method of Documenting dry reaches during the base flow period in the Scott River Watershed

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The two primary sources utilized to document the dry reaches of the Scott River and tributaries in the low gradient portion of the Scott Valley were aerial imagery captured during the summer months by the USDA - National Agriculture Imagery Program (NAIP) and direct observations by landowners and resource professionals.

The NAIP imagery captured in 2005 was first used to digitize the dry reaches in ArcGIS. The 2005 imagery captured the reaches of the Scott River streams that are dry during an average water year. The NAIP imagery from 2014 (a very dry water year) was used to corroborate the dry reaches documented using the 2005 imagery. The main limitation to the NAIP imagery as a tool for documenting the dry reaches during the base flow month of August is the different timing of acquisition of the imagery in the different years. The images are generally captured before the base flow study period.

Direct observations by landowners and resource professionals were utilized to document the dry reaches during the years of drought (dry water year) in the Scott Valley. Observations based on the critically dry years of WY2001, WY2009 and WY2014 were used to digitize the dry reaches during a dry water year.

Interviews were performed with multiple long term landowners of stream reaches in the Scott Valley to determine if the stream becomes dry during average and dry water years. Resource professionals working in the watershed were interviewed to document the dry reaches in dry, average and wet water years.



