



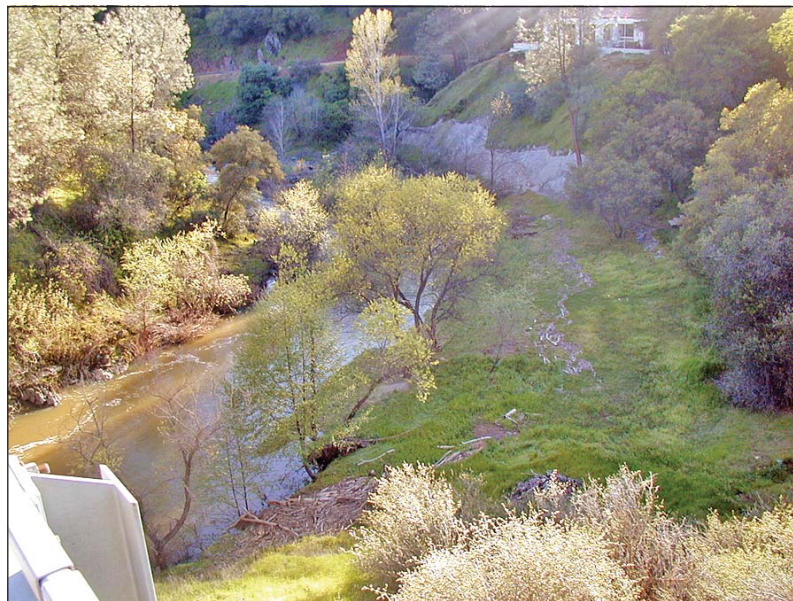
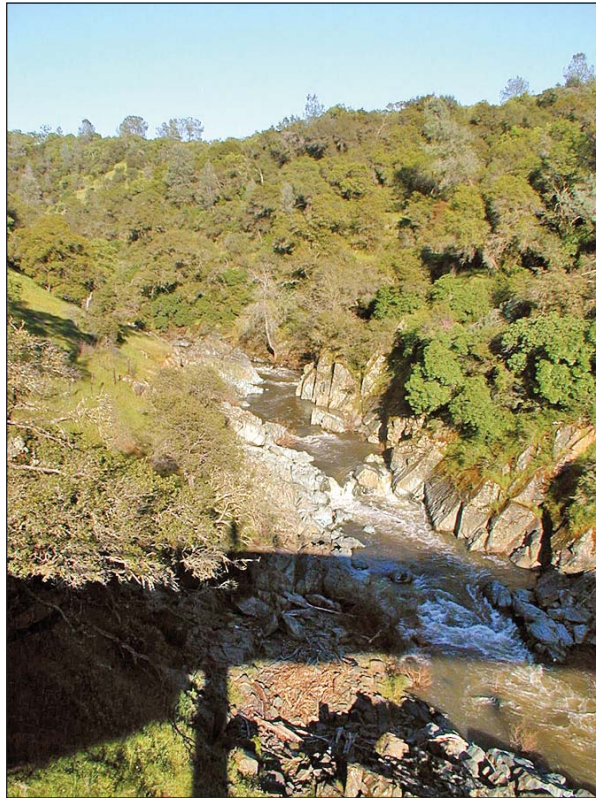
SCR-13. Lower Sullivan Creek, looking upstream from same vantage point on Algerine Road bridge during late summer (top photo) and early spring (bottom photo). Moderate to low confinement at this point, floodplain development is more apparent. Plane-bed/pool-riffle morphology.





SCR-14. Tributary to Sullivan Creek, looking upstream (top) and downstream (bottom) from road. Example of an aggraded valley, channel features are very non-distinct (if present at all in some areas); such areas have likely been experiencing net storage of fluvial sediments and colluvial material. The transition between the valley fill and the hillside is readily visible just below the trees on the right-hand side of the bottom photo.





SCR-19. Lower Sullivan near its mouth, looking upstream (top) from the Jacksonville Road bridge. The channel has again incised down to the bedrock and is highly controlled in this upstream reach. Downstream of the bridge (bottom) the gradient flattens and floodplain development is more obvious (note: the line of driftwood on the right is about the midpoint of the floodplain, between the top of bank and the terrace).





CCR-4. Small tributary to Curtis Creek, looking upstream (top). Morphology is similar to SCR-5, in that this is a headwater-type cascade or partially colluvial channel. However, there is much less storage of fine sediments compared to SCR-5 and, in general, compared to all of the small tributaries draining the northern half of the upper Sullivan Creek watershed (though concentrated flow from the upstream culvert has likely contributed to flushing out stored sediment).



CCR-3. Tributary to Curtis Creek. Plane bed morphology, stable bed consists of highly embedded cobbles and small boulders. Channel is shallow and wide and heavily armored.









CCR-2. Curtis Creek at Standard Park. Large deposits of sand, gravel, and cobbles. No flow in channel, severely transport-limited with regard to overall substrate. Channel morphology is pool-riffle, but appearance is almost braided in some areas, underscoring the transport-limited characteristic. Indicative of highly variable flow-regime, periodic large flows appear to be resulting in recent channel aggradation. A pebble-count was conducted at the section in the bottom photograph.



CCR-1. Curtis Creek at the mobile home park. Morphology, which is generally step-pool and pool-riffle, is similar to that of Sullivan Creek at a similar elevation and point in the watershed (i.e., at SCR-11), yet more storage of silts and sand compared to Sullivan Creek. Lack of even gradation of bed material and presence of large, remnant boulders likely prevents formation of plane-bed morphology.





CCR-6. Looking downstream from Lime Kiln Road bridge. Curtis Creek cascades down from the reach just upstream of bridge and widens in this area downstream, which is lower gradient and exhibits more depositional features such as the short stretch of floodplain.





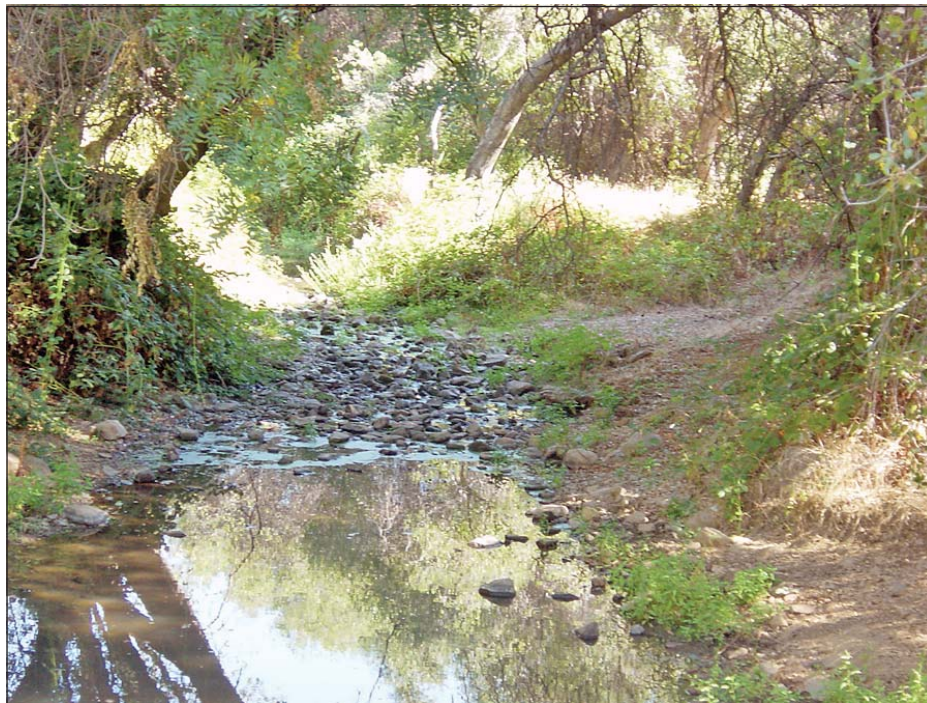
CCR-7. Small tributary to Curtis Creek. Large nick-point and scour-pool has formed a channel within what was simply just a colluvial swale (looking upstream). Runoff is likely being concentrated by a ditch which parallels Lime Kiln road nearby. The nick-point exposes a profile comprised of large, angular cobbles and gravels embedded within a sandy matrix (possibly deposited by a debris flow or landslide). The material is not being moved very far.





CCR-5. Tributary to Curtis Creek, looking upstream from Lime Kiln Road. In general, we begin to observe a marked transition in channel/valley type downstream of Lime Kiln Road, primarily along the mainstems of both Curtis Creek and Sullivan Creek. Much evidence for channels that are transport-limited and have experienced aggradation (but may, or may not, be beginning to incise). Geology map shows a Qal (quaternary alluvium) deposit immediately upstream of this site; the deposit is also described as containing colluvium, landslide debris, and mine tailings, locally.





CCR-9. Larger tributary to Curtis Creek, looking downstream. Plane-bed and pool morphology.





CCR-10. Mainstem of lower Curtis Creek, looking upstream from Algerine Road bridge during late summer (top) and early spring (bottom). Note fan formation emanating from canyon and aggrading out onto valley and channel; highly armored cobbles mark the primary flowpath. Combination of valley widening and back-water effect from bridge likely increased the tendency for large cobble deposition in this area. Floodplain and terrace development becomes more obvious in this lower reach.





CCR-10. Mainstem of lower Curtis Creek, looking downstream from Algerine Road bridge during late summer. Downstream, the channel has incised some two to three feet into the valley and may be in the process of separating itself from the full extent of the current floodplain.