Lower American River Erosion Monitoring

**Purpose**
- FEMA certification
  - Supplement ARFCD operation and maintenance plan
  - Ensure that requirements for maintenance of certified levees is met
- Review previously identified sites
- Identify new sites

**Process**
- Visually inspect levees from drift boats
- Inspect sites on foot where possible
- Inspection from RM 12.0 to Sacramento River confluence
- Inspection includes Sacramento River RM 60.5 to RM 60.0 (left bank)
Lower American River Erosion Monitoring

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow on date of survey</td>
<td>1,060 cfs (10/24/14)</td>
<td>500 cfs (10/28/15)</td>
</tr>
<tr>
<td>Peak flow since previous survey</td>
<td>2,540 cfs (6/9/14)</td>
<td>3,760 cfs (7/20/15)</td>
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</tbody>
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- Limited and infrequent high water events
- Last flow greater than 4,000 cfs was late 2012
- Flows have not exceeded 10,000 cfs since 2011
- Peak flow since initial 2005 inspection was 36,300 cfs (12/31/2005)
LAR RM 8.8R

10/24/2014

10/28/2015
LAR RM 2.7L

10/24/2014

10/28/2015
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Conclusions

- No high water events since 2014 inspection
- Minimal change in site characteristics compared to 2014 inspection
- Minimal degradation observed since 2014 inspection is primarily a result of:
  - Recreational activities
  - Surface water runoff
  - Rodent burrows in poorly-vegetated, non-cohesive soils
- Primary causes of erosion observed in recent years:
  - Recreational activities
  - Surface water runoff
  - Unconsolidated, erodible, non-cohesive soils
  - Poorly-vegetated banks
  - Bank undercutting