Appendix E

Supplemental Figures and Tables for the Inspection Program

This Appendix contains additional figures and tables for the results of the fall 2013 Levee Inspections.

This page is intentionally left blank

The following figures supplement information contained in Sections 2 through 4 of the main report. In general, these figures present different ways of analyzing maintenance results such as plotting information separately for the Sacramento and San Joaquin river basins or plotting results by type of deficiency. Data shown in these figures and tables for the thirty-one Areas that were not inspected in 2010 are from fall 2009 data as discussed in the body of this report.

2013 Levee Maintenance Inspections

- Figure E-1 shows the levee maintenance inspection ratings grouped by Sacramento River, San Joaquin River, and Miscellaneous basins
- Figure E-2 shows the changes in ratings grouped by basin.
- Figure E-3 shows the percentage of miles of levees with deficiencies in the total system for each type of rated items. Vegetation deficiencies make up the vast majority of the miles in all years. In 2013 crown surface and animal control deficiencies were again significant contributors to the total length of levees with deficiencies.
- Figure E-4 shows the same information as Figure E-3 but is separated by basin. Encroachment issues with an Enforcement Issue Type are not included in these figures.
- Table E-1 shows the length, in miles, of Minimally Acceptable (M) and Unacceptable (U) issues for each category in the total system and the percentage of the total project length along which these lengths occur. Also shown in this table is the change in M and U lengths as well as the resultant change in the percent of total project lengths. Tables E-2, E-3, and E-4 show similar information to Table I-1 but only contain the lengths for the Sacramento River, San Joaquin River, and Miscellaneous basins, respectively.
- Figures E-5 and E-6 are maps of the Sacramento and San Joaquin systems, showing the location and rating of each LMA. To find the general location of an LMA, refer to Appendices A, B and C.

Figure E-1: Area Maintenance Rating Comparison for 2007 to 2013 by Basin

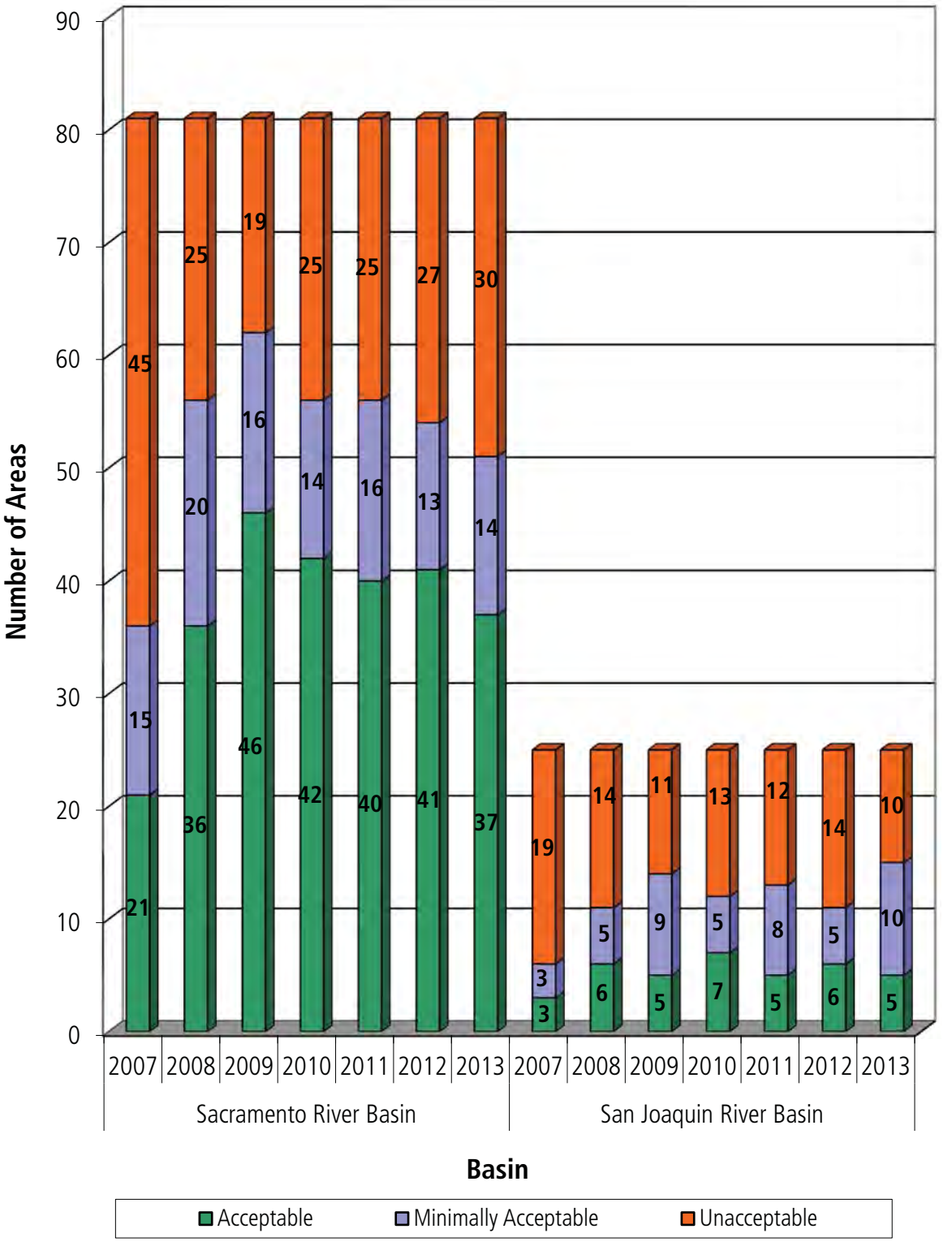


Figure E-2: Area Maintenance Rating Changes for 2007 to 2013 by Basin

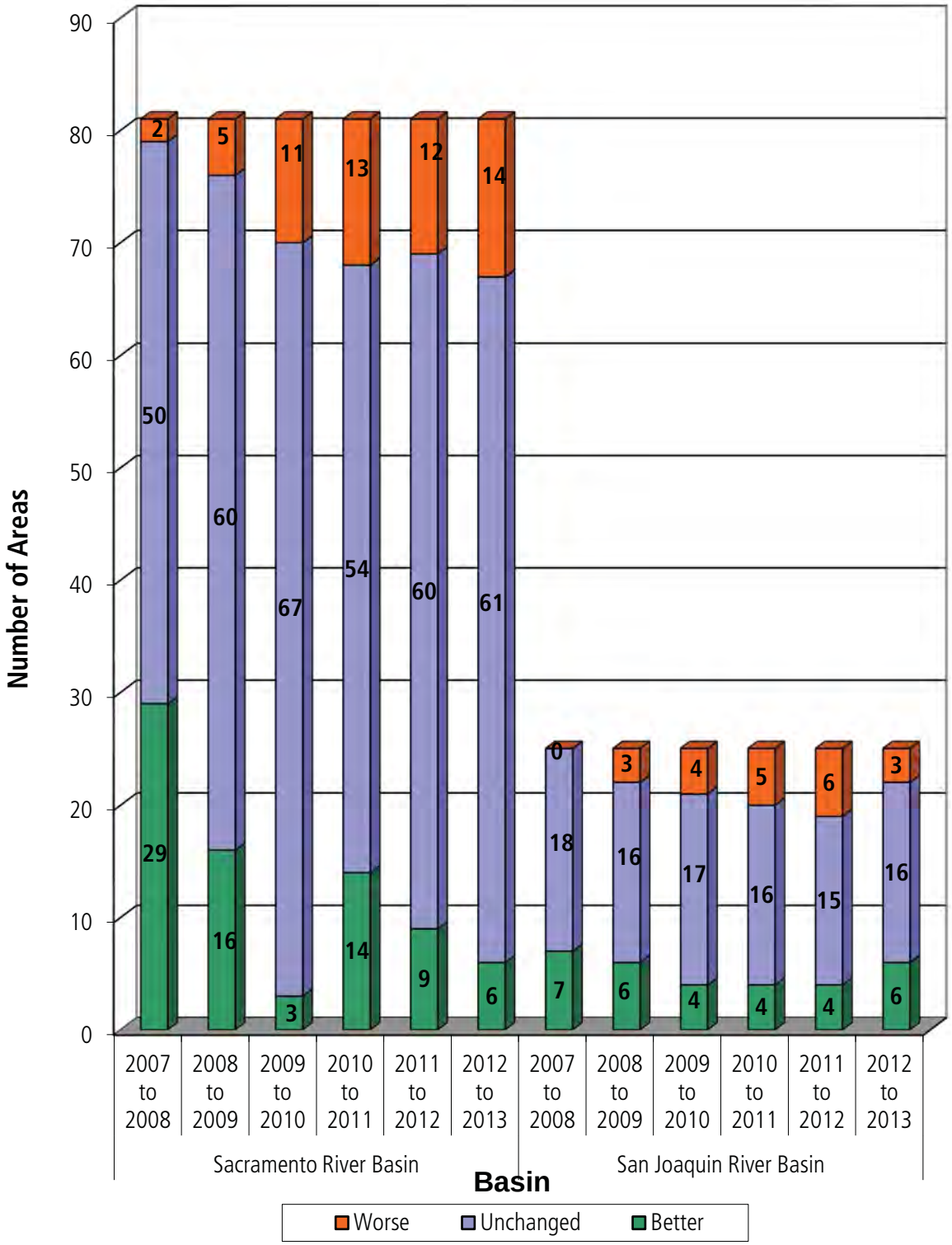


Figure E-3: Percentage of Total System Levee Miles with Maintenance Deficiencies

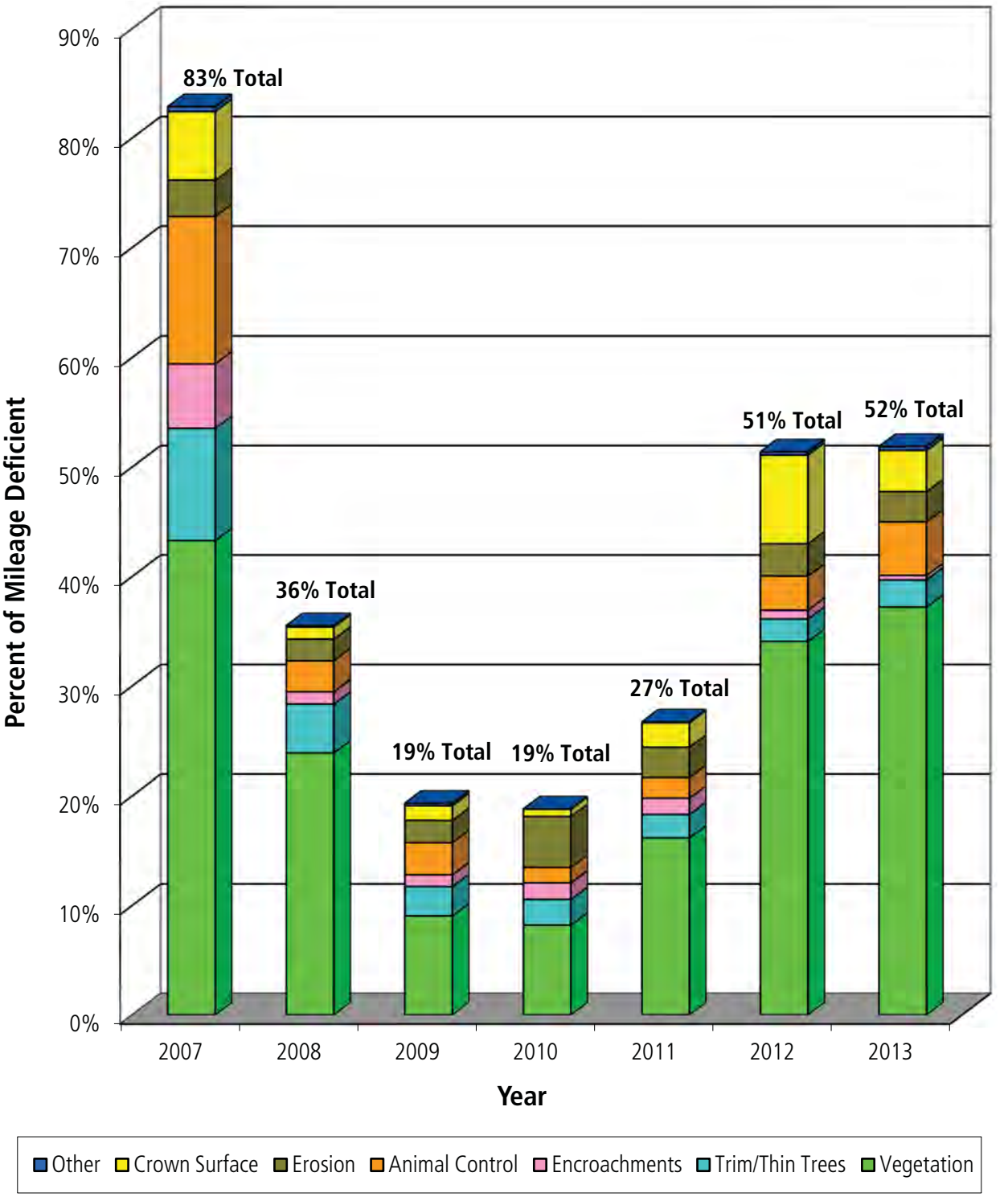


Figure E-4: Percentage of Levee Miles with Maintenance Deficiencies by Basin

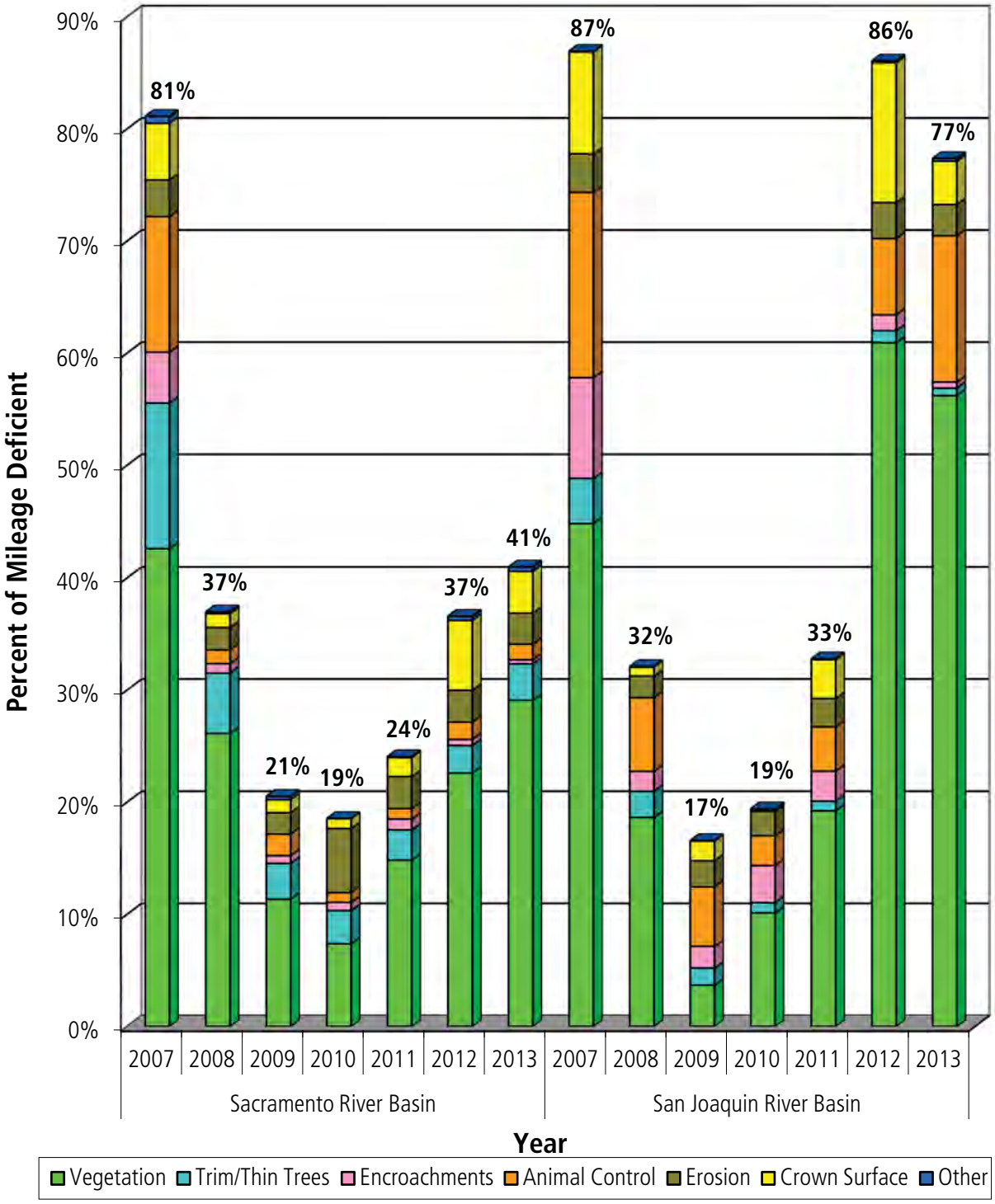


Table E-1: Total of Maintenance Issue Lengths for 2012 and 2013

Total Project Length: 1565.9 miles	Fall 2012				Fall 2013				2012 to 2013 Change			
Rated Item	M	U	M+4U	Threshold Percent	M	U	M+4U	Threshold Percent	M	U	M+4U	Threshold Percent
Vegetation	377.95	39.75	536.95	**34.07%**	273.7	78.16	586.34	**37.20%**	-104.25	38.41	49.39	**3.15%**
Trim/Thin Trees	15.82	4.1	32.22	**2.04%**	20.56	4.65	39.16	**2.48%**	4.74	0.55	6.94	**0.44%**
Encroachments	11.71	0.26	12.75	**0.81%**	5.8	0.17	6.48	**0.41%**	-5.91	-0.09	-6.27	**-0.40%**
Animal Control	40.64	2.12	49.12	**3.12%**	43.14	8.49	77.1	**4.89%**	2.5	6.37	27.98	**1.79%**
Erosion	24.07	5.6	46.47	**2.95%**	25.44	4.52	43.52	**2.76%**	1.37	-1.08	-2.95	**-0.19%**
Crown Surface	88.11	9.9	127.71	**8.10%**	59.33	0	59.33	**3.76%**	-28.78	-9.9	-68.38	**-4.37%**
Other	4.45	0.06	4.69	**0.30%**	5.18	0.08	5.5	**0.35%**	0.7	0.01	0.74	**0.05%**
Total	562.75	61.79	809.91	**51.38%**	433.15	96.07	817.43	**51.86%**	-129.63	34.27	7.45	**0.48%**

Table E-2: Sacramento River Basin Maintenance Issue Lengths for 2012 and 2013

Sacramento River Basin: 1094.08 miles	Fall 2012				Fall 2013				2012 to 2013 Change			
Rated Item	M	U	M+4U	Threshold Percen	M	U	M+4U	Threshold Percen	M	U	M+4U	Threshold Percen
Vegetation	150.4	24.77	249.48	**22.80%**	199.32	30.45	**321.12**	29.35%	48.92	5.68	71.64	**6.55%**
Trim/Thin Trees	13.16	3.5	27.16	**2.48%**	18.17	4.45	**35.97**	3.29%	5.01	0.95	8.81	**0.81%**
Encroachments	5.57	0.12	6.05	**0.55%**	3.54	0.12	**4.02**	0.37%	-2.03	0	-2.03	**-0.19%**
Animal Control	16.82	0.05	17.02	**1.56%**	14.31	0.29	**15.47**	1.41%	-2.51	0.24	-1.55	**-0.14%**
Erosion	20.71	2.66	31.35	**2.87%**	20.02	2.6	**30.42**	2.78%	-0.69	-0.06	-0.93	**-0.09%**
Crown Surface	30.13	9.67	68.81	**6.29%**	41.11	0	**41.11**	3.76%	10.98	-9.67	-27.7	**-2.53%**
Other	3.86	0.04	4.02	**0.37%**	4.05	0.07	**4.33**	0.40%	0.49	0.02	0.57	**0.05%**
Total	240.65	40.81	403.89	**36.92%**	300.52	37.98	**452.44**	41.35%	60.17	-2.84	48.81	**4.46%**

Table E-3: San Joaquin River Basin Maintenance Issue Lengths for 2012 and 2013

San Joaquin River Basin: 471.82 miles	Fall 2012				Fall 2013				2012 to 2013 Change			
Rated Item	M	U	M+4U	Threshold Percent	M	U	M+4U	Threshold Percent	M	U	M+4U	Threshold Percent
Vegetation	227.55	14.98	287.47	**60.93%**	74.38	47.71	265.22	**56.21%**	-153.17	32.73	-22.25	**-4.72%**
Trim/Thin Trees	2.66	0.6	5.06	**1.07%**	2.39	0.2	3.19	**0.68%**	-0.27	-0.4	-1.87	**-0.40%**
Encroachments	6.14	0.14	6.7	**1.42%**	2.26	0.05	2.46	**0.52%**	-3.88	-0.09	-4.24	**-0.90%**
Animal Control	23.82	2.07	32.1	**6.80%**	28.83	8.2	61.63	**13.06%**	5.01	6.13	29.53	**6.26%**
Erosion	3.36	2.94	15.12	**3.20%**	5.42	1.92	13.1	**2.78%**	2.06	-1.02	-2.02	**-0.43%**
Crown Surface	57.98	0.23	58.9	**12.48%**	18.22	0	18.22	**3.86%**	-39.76	-0.23	-40.68	**-8.62%**
Other	0.59	0.02	0.67	**0.14%**	1.13	0.01	1.17	**0.25%**	0.21	-0.01	0.17	**0.04%**
Total	322.1	20.98	406.02	**86.05%**	132.63	58.09	364.99	**77.36%**	-189.8	37.11	-41.36	**-8.77%**

Figure E-5: Map of 2013 Local Maintaining Agency Ratings; Northern Area

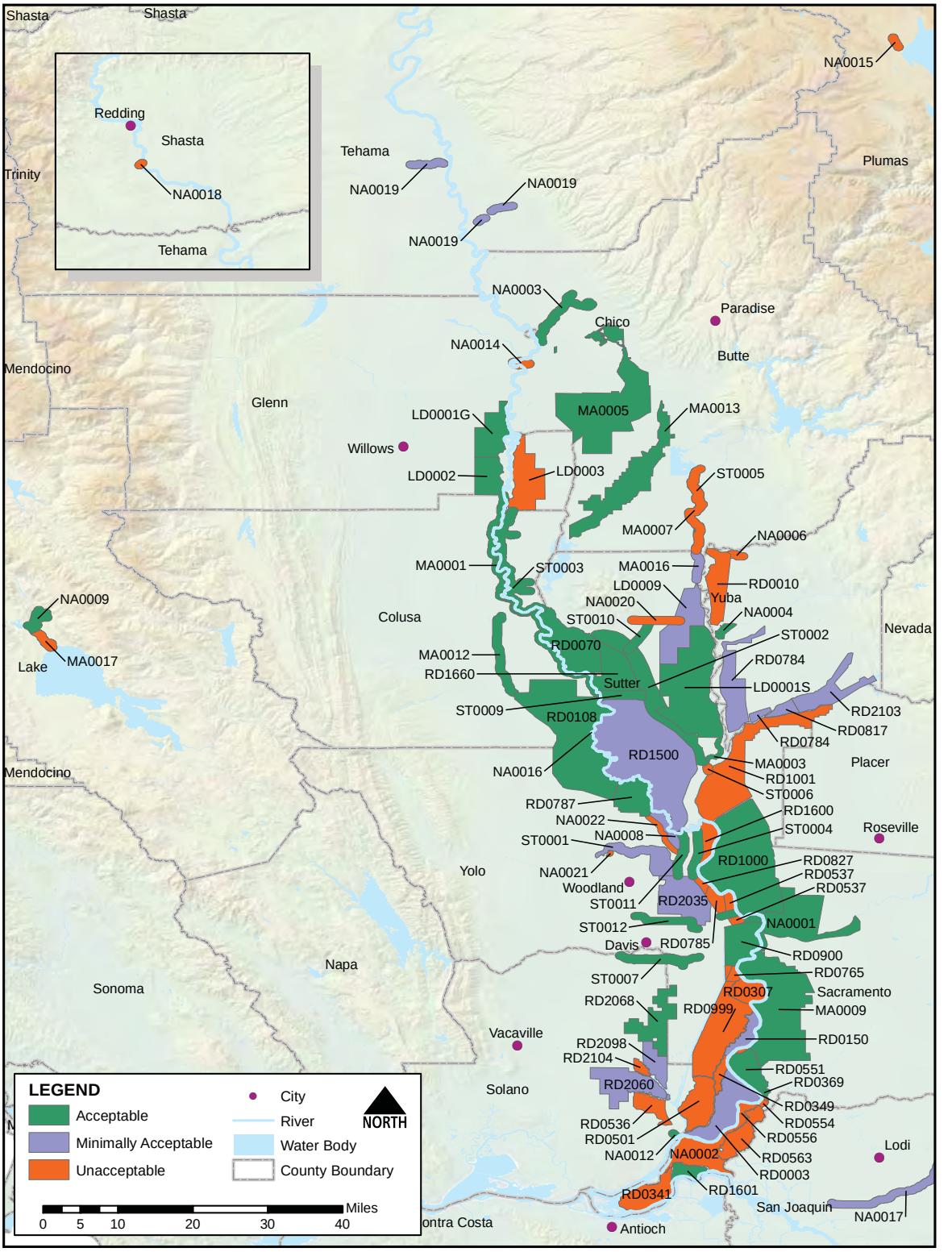
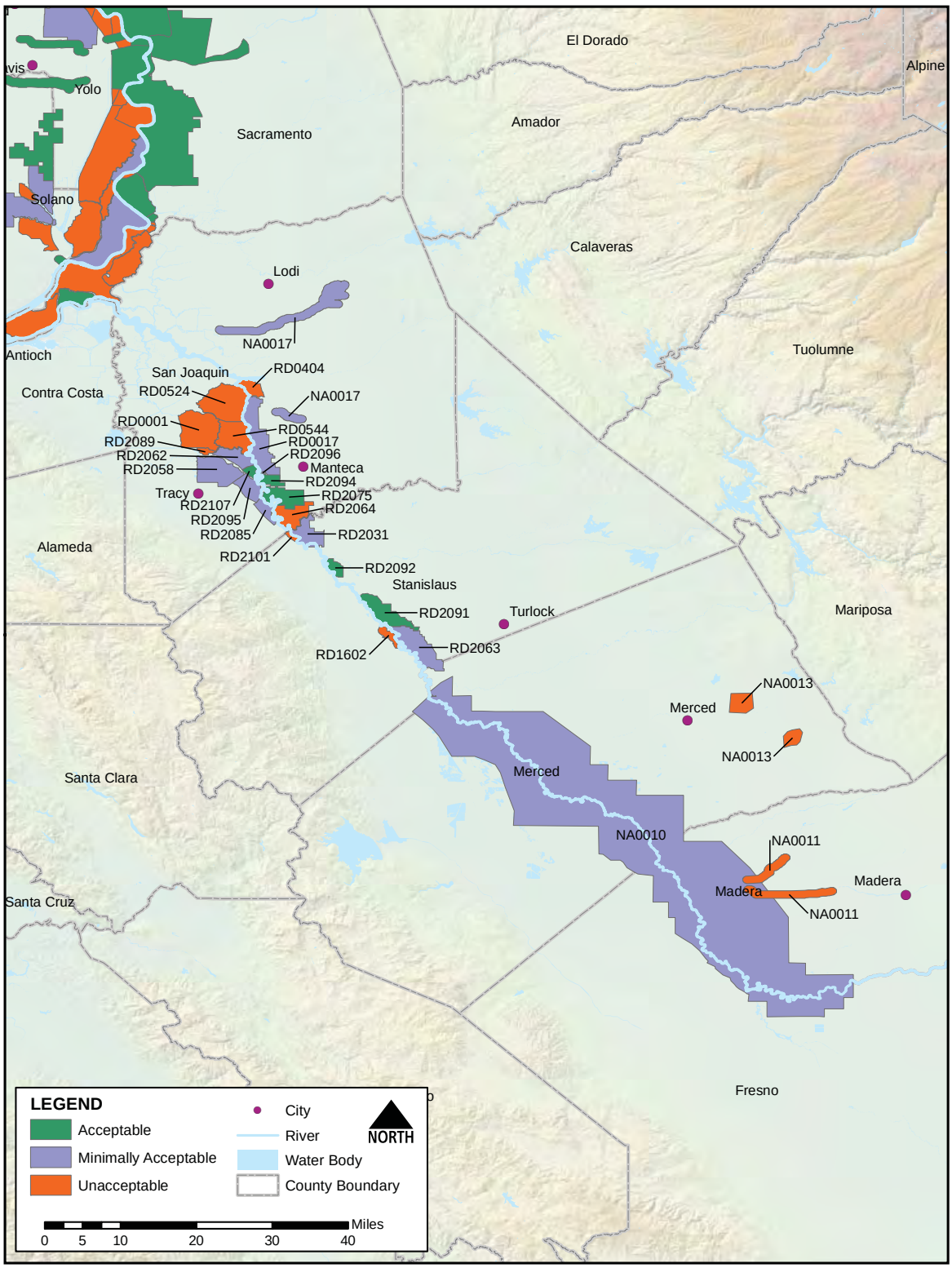


Figure E-6: Map of 2013 Local Maintaining Agency Ratings; Southern Area



This page is intentionally left blank