APPENDIX E

Photo Comparison of the Russian River

Photograph comparison of flows

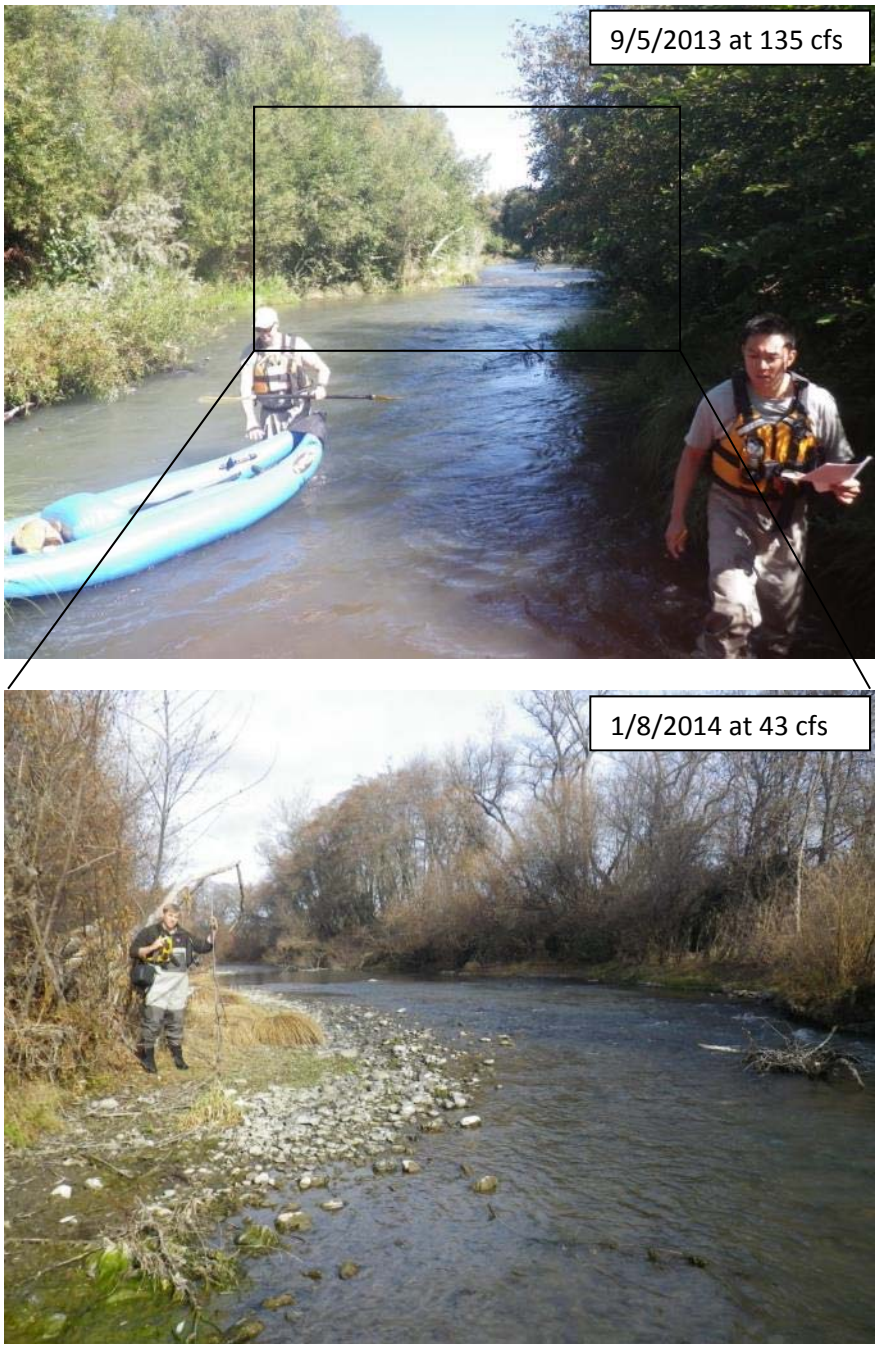


Figure 1 A riffle near the confluence of the west and east branch of the Russian River. The upper photo was taken on September 5, 2013 at 135 cfs. The lower photo was taken on January 8, 2014 at 43 cfs.

9/5/2013 at 135 cfs

1/8/2014 at 43 cfs

Figure 2 A series of photos from near the confluence of the East and West branch of the Russian River. The upper photo was taken on September 5, 2013 at 135 cfs. The middle photo was taken on January 8, 2014 at 43 cfs. The lower photo was taken on January 23, 2014 at 28 cfs.

Figure 3 A series of photos from near the confluence of the west and east branch of the Russian River. The upper photo was taken on January 8, 2014 at 43 cfs. The lower photo was taken on January 23, 2014 at 28 cfs.

Figure 4 A series of photos of the Russian River taken near Hopland, CA. The upper photo was taken on August 8, 2013 at 120 cfs. The lower photo was taken on May 30, 2013 at 82 cfs.

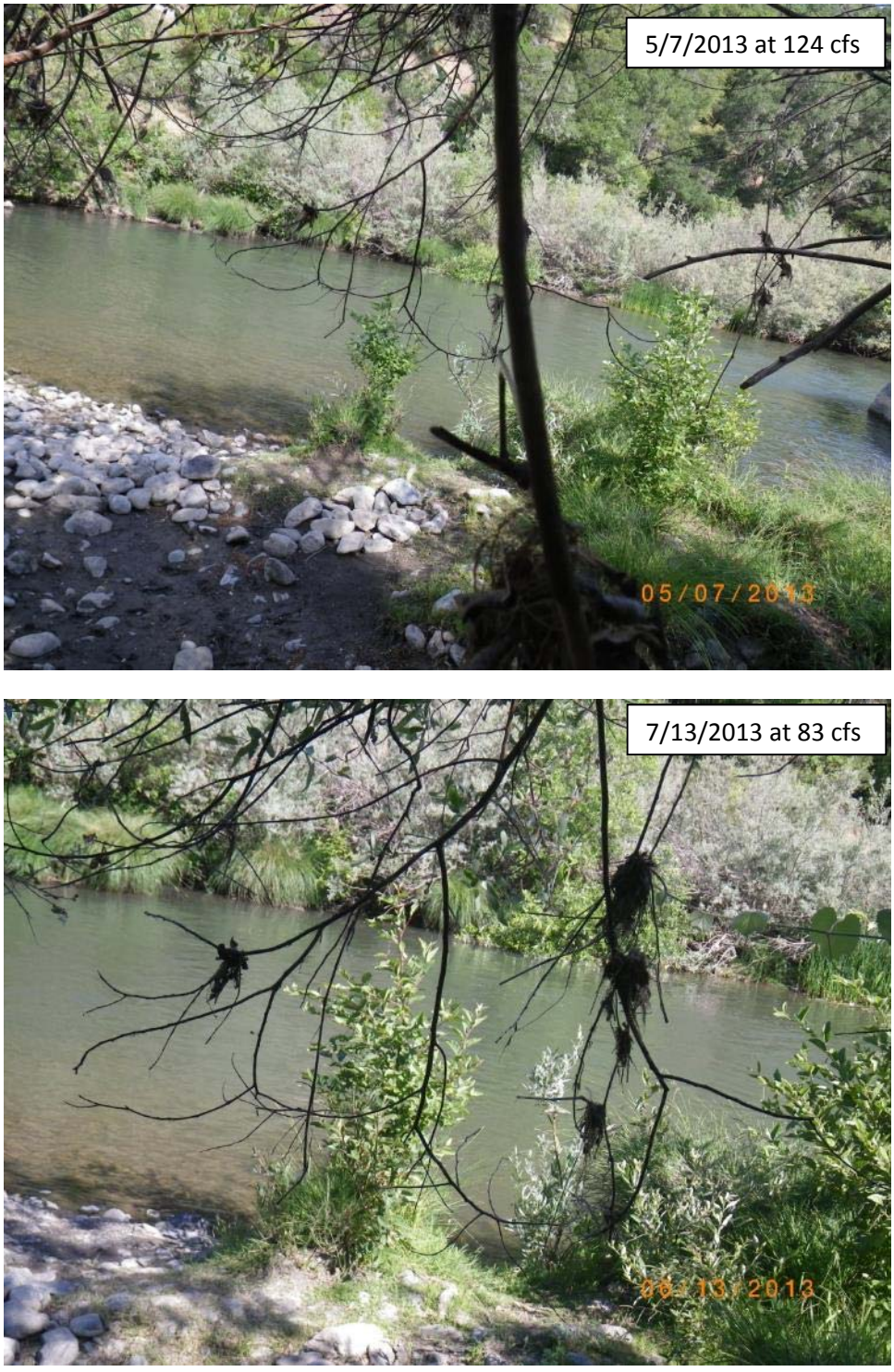


Figure 5 A series of photos of the Russian River taken near Cominsky station, CA. The upper photo was taken on May 7, 2013 at 124 cfs. The lower photo was taken on July 13, 2013 at 83 cfs.

Bushnell
51°F / 11°C
FS
12/03/2014 16:00:00

Bushnell
55°F / 13°C
FS
12/01/2014 16:00:00

Figure 6 A series of photos taken near Hopland. Daily average flow was 2,390 cfs on December 3, 2013, 249 cfs on December 1, 2014, 134 cfs on November 30, 2014, and 70 cfs on November 26, 2014 when gaged at the USGS gage at Cloverdale, CA.

3/27/2014 at 261 cfs
Bushnell
Camera Name 29.66In→ 56℉
03-27-2013 12:50:39

3/27/2014 at 241 cfs
Bushnell
Camera Name 29.61In↑ 46℉
03-27-2013 07:05:24

3/28/2014 at 221 cfs
Bushnell
Camera Name 29.68In 55°F
03-28-2013 16:43:14

3/26/2014 at 195 cfs
Bushnell
Camera Name 29.43In 54°F
03-26-2013 16:44:17

3/26/2014 at 186 cfs
Bushnell
Camera Name 29.41In→ 62℉
03-26-2013 14:29:08

3/26/2014 at 175 cfs
Bushnell
Camera Name 29.41In→ 64℉
03-26-2013 13:14:03

Figure 7 A series of photos of the Russian River taken near Cominsky station, CA with a time lapse camera. Flows ranged from 132 cfs to 261 cfs.

Figure 8 A series of photos of the Russian River taken near Crocker Road taken on November 26, 2013 at 51 cfs and on November 10, 2015 at 98 cfs.

Figure 9 A series of photos of the Russian River taken near Washington School Road taken on November 26, 2013 at 113 cfs and on January 7, 2014 at 46 cfs.

Figure 10 A series of photos of the Russian River taken downstream of Mayakama Creek taken on May 6, 2015 at 157 cfs and on May 26, 2015 at 106 cfs.

10/17/11 at 233 cfs

10/3/11 at 158 cfs

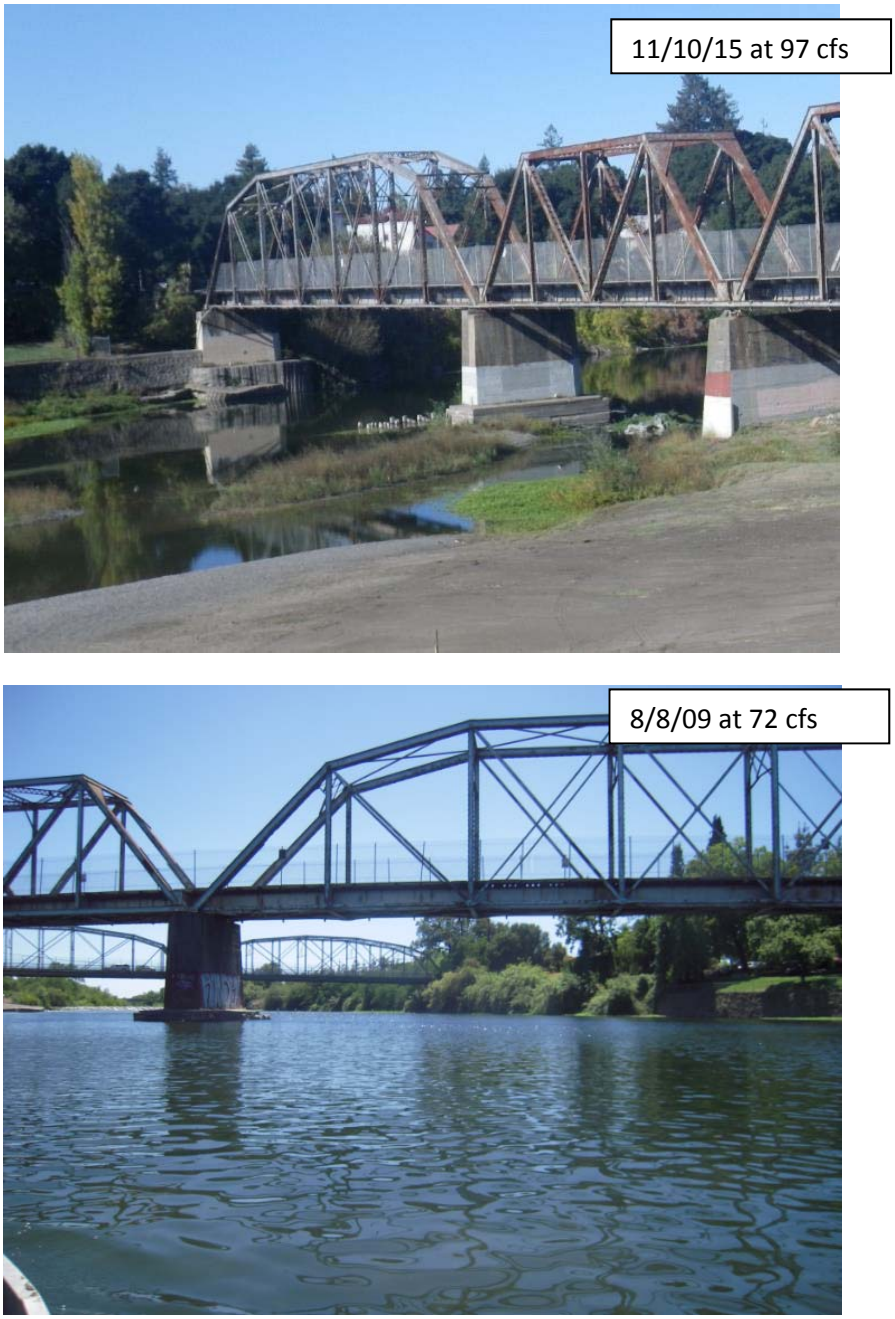


Figure 11 A series of photos of the Russian River taken at Trowbridge near Healdsburg, CA. The first photo was taken facing upstream on October 17, 2011 at 233 cfs. The second picture was taken facing upstream on October 3, 2011 at 158 cfs. The third photo was taken facing upstream on November 10, 2015 at 97 cfs. The fourth picture was taken facing downstream on August 8, 2009 at 72 cfs when a flash board dam at Memorial Beach was in place which increased water surface elevation.

2/06/14 at 40 cfs

2/07/14 at 60 cfs

2/08/14 at 130 cfs

2/08/14 at 185 cfs

2/08/14 at 200 cfs

2/08/14 at 250 cfs

Figure 12 A series of photos of the Russian River taken downstream of Trowbridge near Healdsburg, CA. Flow ranged from 40 cfs to 300 cfs.

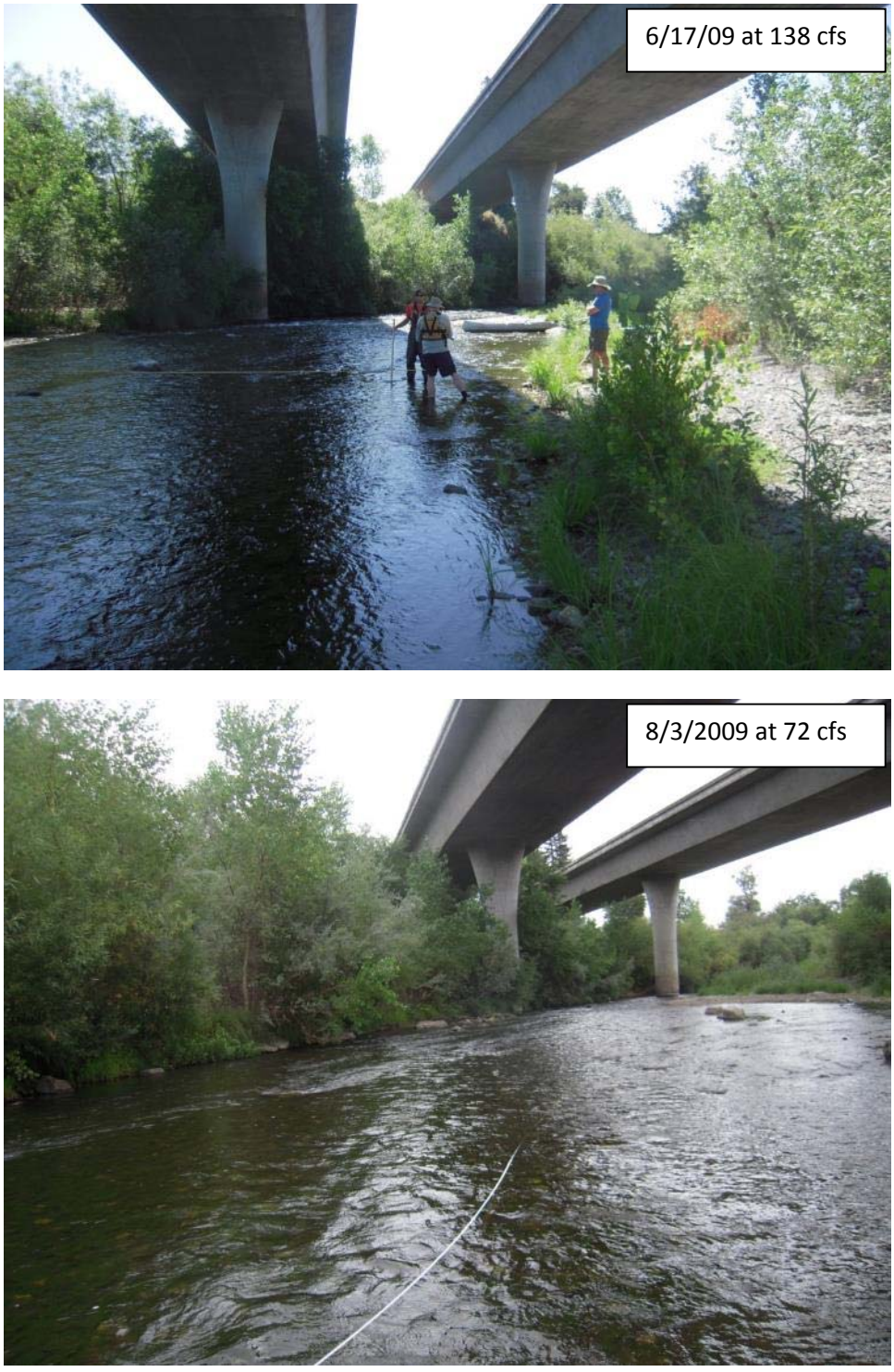


Figure 13 A series of photos of the Russian River taken under the Highway 101 Bridge near Healdsburg, CA. The upper photo was taken on June 17, 2009 when flow was 138 cfs. The lower photo was taken on August 3, 2009 when flow was 72 cfs.

Figure 14 A series of photos of the Russian River taken under the Highway 101 Bridge near Healdsburg, CA. The upper photo was taken on June 17, 2009 when flow was 138 cfs. The lower photo was taken on August 3, 2009 when flow was 72 cfs.

Figure 15 A series of photos of the Russian River taken downstream of the Highway 101 Bridge near Healdsburg, CA. The upper photo was taken on June 17, 2009 when flow was 138 cfs. The lower photo was taken on August 3, 2009 when flow was 72 cfs.

Figure 16 A series of photos of the Russian River taken downstream of Burks Canoe near Forestville, CA. The upper photo was taken on June 18, 2009 when flow was 173 cfs. The lower photo was taken on July 29, 2009 when flow was 80 cfs.

Figure 17 A series of photos of the Russian River taken downstream of Burks Canoe near Forestville, CA. The upper photo was taken on June 18, 2009 when flow was 173 cfs. The lower photo was taken on July 29, 2009 when flow was 80 cfs.

Figure 18 A series of photos of the Russian River taken downstream of Burks Canoe near Forestville, CA. The upper photo was taken on June 18, 2009 when flow was 173 cfs. The lower photo was taken on July 29, 2009 when flow was 80 cfs.

10/18/2011 at 298 cfs

10/3/2011 at 180 cfs

Figure 19 A series of photos of the Russian River taken downstream the Vacation beach dam near Guerneville, CA. Flow ranged from 298 cfs to 79 cfs.

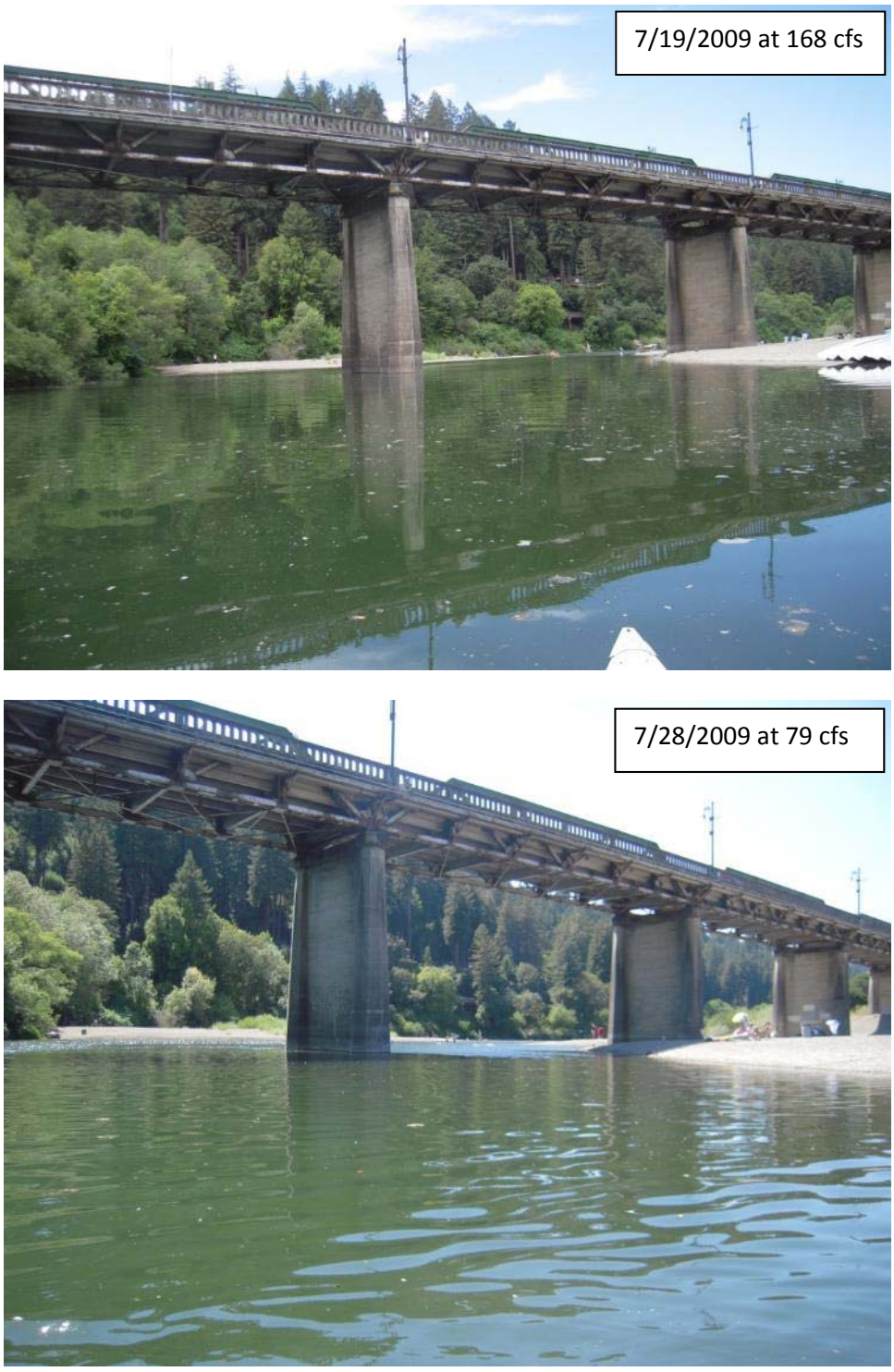
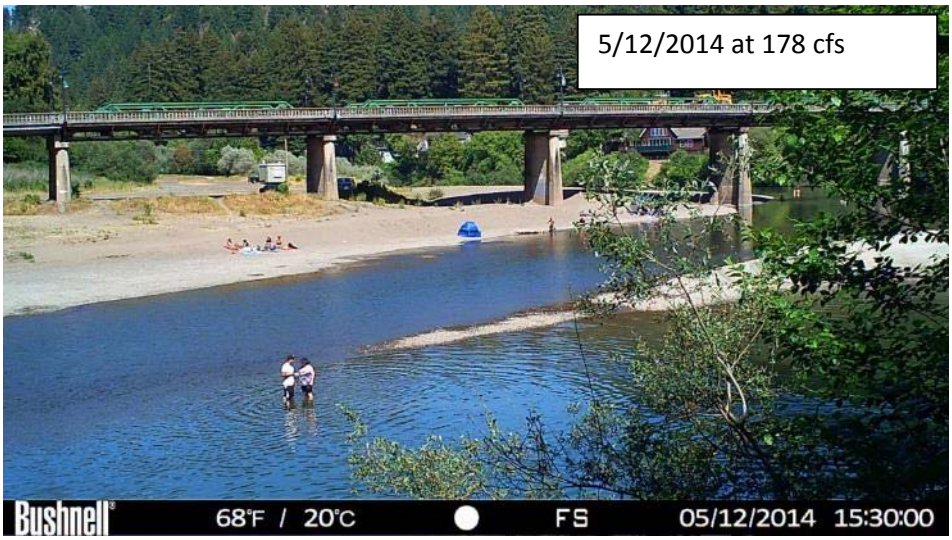


Figure 20 A series of photos of the Russian River taken upstream of the Bohemian Highway Bridge near Monte Rio, CA. The upper photo was taken on June 19, 2009 when flow was 168 cfs and the River mouth was closed causing water surface elevation to be higher than if the river mouth was open. The lower photo was taken on July 28, 2009 when flow was 79 cfs.

5/6/2014 at 222 cfs
Bushnell
60°F / 16°C
FS
05/07/2014 15:30:00

5/9/2014 at 200 cfs
Bushnell
57°F / 14°C
FS
05/09/2014 15:30:00


5/12/2014 at 178 cfs
Bushnell
68°F / 20°C
FS
05/12/2014 15:30:00

5/14/2014 at 158 cfs
Bushnell
73°F / 23°C
FS
05/14/2014 15:30:00

5/16/2014 at 138 cfs
Bushnell
68°F / 20°C
FS
05/16/2014 15:30:00

5/19/2014 at 117 cfs
Bushnell
59°F / 15°C
FS
05/19/2014 15:30:00

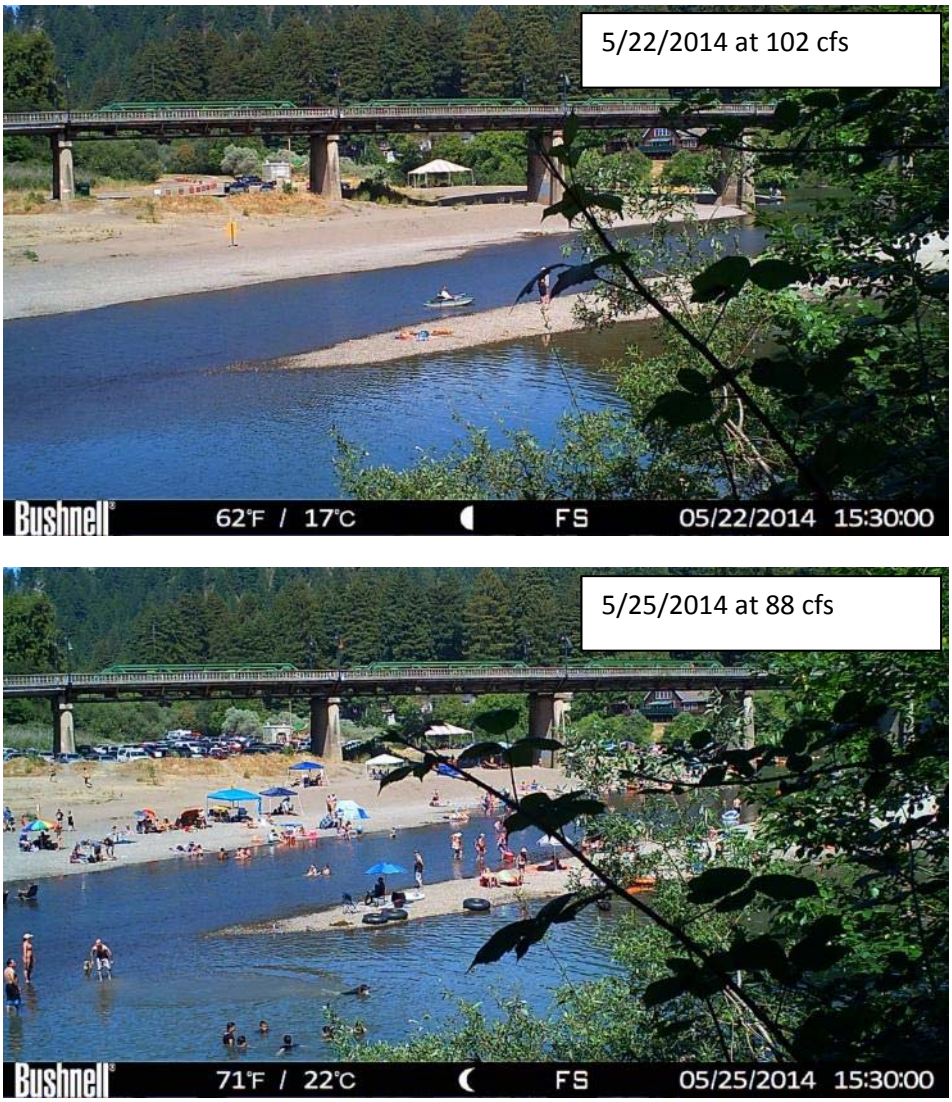


Figure 21 A series of photos of the Russian River taken downstream of the Bohemian Highway Bridge near Monte Rio, CA. Flow ranged from 222 cfs to 88 cfs.

Figure 22 A series of photos of the Russian River taken downstream of the boat ramp near Monte Rio, CA. The upper photo was taken on May 7, 2013 when flow was 263 cfs. The lower photo was taken on July 16, 2013 when flow was 77 cfs.

Figure 23 A series of photos of the Russian River taken downstream of the boat ramp near Monte Rio, CA. The upper photo was taken on May 14, 2013 when flow was 166 cfs. The lower photo was taken on July 16, 2013 when flow was 77 cfs.

Figure 24 A series of photos of the Russian River taken downstream of the boat ramp near Monte Rio, CA. The upper photo was taken on May 7, 2013 when flow was 263 cfs. The lower photo was taken on July 16, 2013 when flow was 77 cfs. The mouth of the Russian River was open during both photos.

Figure 25 A series of photos of the Russian River taken at Willow Creek near Jenner, CA. The upper photo was taken on May 7, 2013 when flow was 263 cfs. The lower photo was taken on July 16, 2013 when flow was 77 cfs. The mouth of the Russian River was open during both photos.

Figure 26 A series of photos of the Russian River taken at Willow Creek near Jenner, CA. The upper photo was taken on May 14, 2013 when flow was 166 cfs and the Russian River mouth was open. The lower photo was taken on July 25, 2013 when flow was 141 cfs and the mouth of the Russian river was closed causing water surface elevation to be higher than during open river mouth conditions.

Figure 27 A series of photos of the Russian River taken near the Jenner boat ramp near Jenner, CA. The upper photo was taken on May 7, 2013 when flow was 263 cfs. The lower photo was taken on July 4, 2013 when flow was 95 cfs. The river mouth was open when both photos were taken.

Figure 28 A series of photos of the Russian River taken near the Jenner boat ramp near Jenner, CA. The upper photo was taken on May 14, 2013 when flow was 166 cfs and the Russian River mouth was open. The lower photo was taken on July 25, 2013 when flow was 141 and the river mouth was closed causing the water surface elevation to be higher than under open mouth conditions.

5/16/2014 at 137 cfs

5/18/2014 at 123 cfs

5/22/2014 at 95 cfs

7/20/2013 at 85 cfs

Figure 29 A series of photos of the mouth of the Russian River near Jenner, CA. Flow ranged from 137 cfs to 77 cfs.

Figure 30 A series of photos of the mouth of the Russian River taken near Jenner, CA. The upper photo was taken on October 19, 2013 when flow was 100 cfs and the Russian River mouth was open. The lower photo was taken on October 14, 2013 when flow was 98 and the river mouth was closed causing the water surface elevation to be higher than under open mouth conditions.

Figure 31 A series of photos of the mouth of the Russian River taken near Jenner, CA. The upper photo was taken on July 12, 2014 at 1:20 pm near high tide when flow was 120 cfs and the Russian River mouth was open. The lower photo was taken on July 12, 2014 at 7:26 am near low tide when flow was 120 cfs and the river mouth was open.