Appendix 5.1

Accessibility Statement

For accessibility assistance with this document, please contat Sonoma County Water Agency, Environmental Resources at (707) 526-5370, Fax to (707) 544-6123 or through California Relay Service by dialing 711.

APPENDIX 5.1: Dry Creek Habitat Enhancement Project

Effectiveness Monitoring Data

Collected 2017

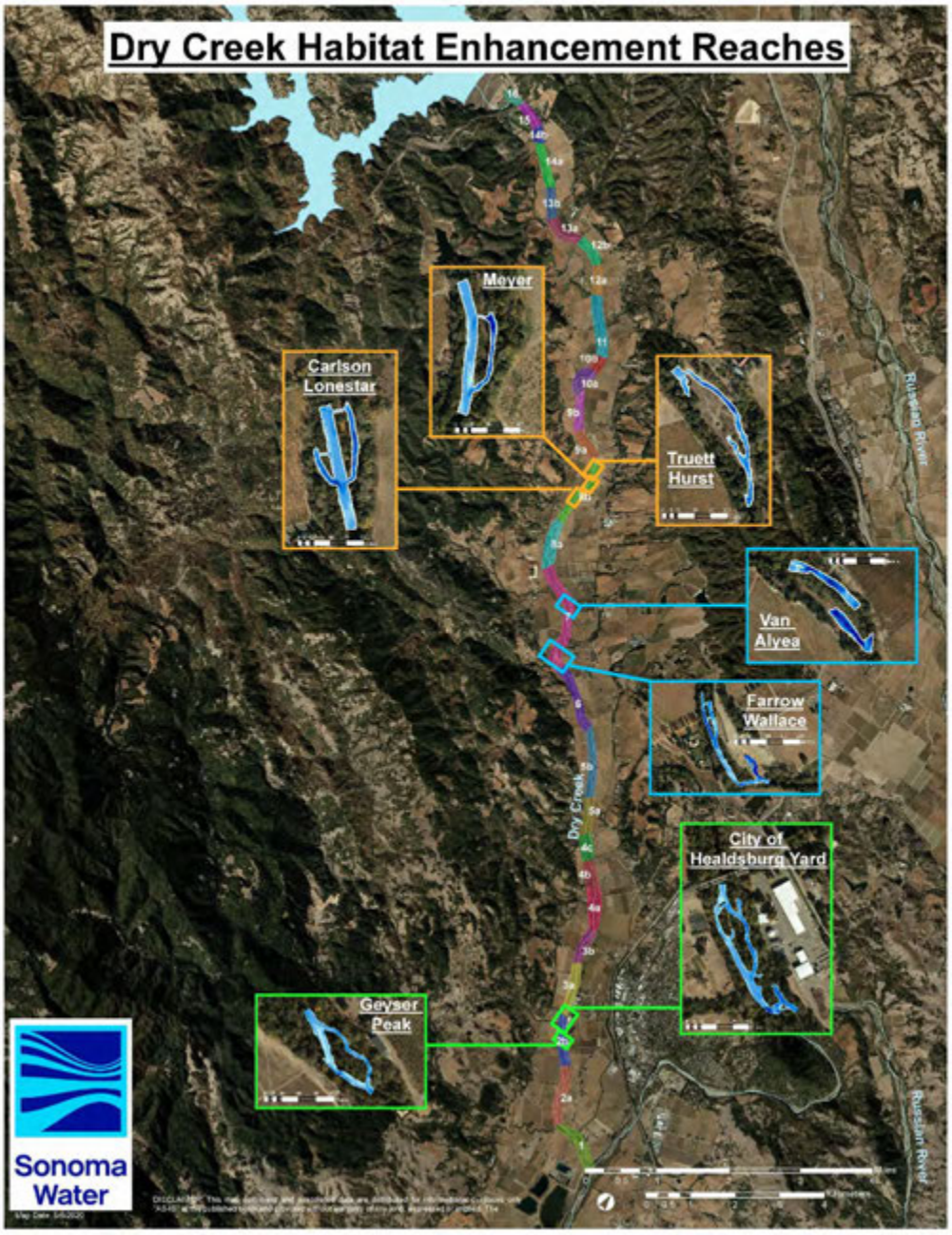


Table of Contents

LIST OF TABLES III

LIST OF FIGURES VII

CARLSON, LONESTAR PRE-ENHANCEMENT, MAY 2017 1

DEPTH AND VELOCITY 3
HABITAT TYPES AND SHELTER VALUES 9
HABITAT UNIT, SITE, AND REACH RATINGS 12
FEATURE AND HABITAT UNIT CHECKLISTS 17

CITY OF HEALDSBURG YARD PRE-ENHANCEMENT, JUNE 2017 20

DEPTH AND VELOCITY 21
HABITAT TYPES AND SHELTER VALUES 27
HABITAT UNIT, SITE, AND REACH RATINGS 30
FEATURE AND HABITAT UNIT CHECKLISTS 35

CARLSON, LONESTAR POST-ENHANCEMENT, SEPTEMBER 2017 38

DEPTH AND VELOCITY 40
HABITAT TYPES AND SHELTER VALUES 46
FEATURE, HABITAT UNIT, SITE, AND REACH RATINGS 49
FEATURE AND HABITAT UNIT CHECKLISTS 60

CITY OF HEALDSBURG YARD POST-ENHANCEMENT, SEPTEMBER 2017 67

DEPTH AND VELOCITY 68
HABITAT TYPES AND SHELTER VALUES 74
FEATURE, HABITAT UNIT, SITE, AND REACH RATINGS 77
FEATURE AND HABITAT UNIT CHECKLISTS 90

TRUETT HURST POST-EFFECTIVE FLOW, JULY 2017 101

DEPTH AND VELOCITY 103
HABITAT TYPES AND SHELTER VALUES 109
FEATURE, HABITAT UNIT, SITE, AND REACH RATINGS 112
FEATURE AND HABITAT UNIT CHECKLISTS 124

MEYER POST-EFFECTIVE FLOW, JULY 2017 132

DEPTH AND VELOCITY 133
HABITAT TYPES AND SHELTER VALUES 139
FEATURE, HABITAT UNIT, SITE, AND REACH RATINGS 142
FEATURE AND HABITAT UNIT CHECKLIST 152

VAN ALYEA POST-EFFECTIVE FLOW, APRIL 2017 157

DEPTH AND VELOCITY 158
HABITAT TYPES AND SHELTER VALUES 164
FEATURE, HABITAT UNIT, SITE, AND REACH RATINGS 167
FEATURE AND HABITAT UNIT CHECKLISTS 177

FARROW, WALLACE POST-EFFECTIVE FLOW, AUGUST 2017 182

DEPTH AND VELOCITY 183
HABITAT TYPES AND SHELTER VALUES 189
FEATURE, HABITAT UNIT, SITE, AND REACH RATINGS 192
FEATURE AND HABITAT UNIT CHECKLISTS 204

GEYSER PEAK POST-EFFECTIVE FLOW, JULY 2017 213

DEPTH AND VELOCITY 214
HABITAT TYPES AND SHELTER VALUES 220
FEATURE, HABITAT UNIT, SITE, AND REACH RATINGS 223
FEATURE AND HABITAT UNIT CHECKLISTS 235

TRUETT HURST POST-REPAIR, OCTOBER 2017 242

DEPTH AND VELOCITY 244
HABITAT TYPES AND SHELTER VALUES 250
FEATURE, HABITAT UNIT, SITE, AND REACH RATINGS 253
FEATURE AND HABITAT UNIT CHECKLISTS 266

MEYER POST-REPAIR, OCTOBER 2017 277

DEPTH AND VELOCITY 278
HABITAT TYPES AND SHELTER VALUES 284
FEATURE, HABITAT UNIT, SITE, AND REACH RATINGS 287
FEATURE AND HABITAT UNIT CHECKLISTS 297

GEYSER PEAK POST-REPAIR, OCTOBER 2017 302

DEPTH AND VELOCITY 303
HABITAT TYPES AND SHELTER VALUES 309
FEATURE, HABITAT UNIT, SITE, AND REACH RATINGS 312
FEATURE AND HABITAT UNIT CHECKLISTS 323

List of Tables

TABLE 1. AREAS AND PERCENTAGES OF: WETTED AREA, OPTIMAL DEPTH AND VELOCITY, AND OPTIMAL HYDRAULIC HABITAT WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, MAY 2017. 3
TABLE 2. HABITAT, TYPES, SHELTER VALUE, PERCENT COVER, AND SHELTER SCORE FOR MAIN CHANNEL HABITAT UNITS WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, MAY 2017. 9
TABLE 3. HABITAT UNIT RATINGS FOR THE CARLSON, LONESTAR ENHANCEMENT REACH MAY 2017. 13
TABLE 4. PRE-ENHANCEMENT AVERAGE FEATURE, HABITAT UNIT, SITE, AND REACH RATINGS FOR THE CARLSON, LONESTAR ENHANCEMENT REACH, MAY 2017. 15
TABLE 5. PRE-ENHANCEMENT ADAPTIVE MANAGEMENT PLAN TARGETED CHECKLIST FOR THE CARLSON, LONESTAR ENHANCEMENT REACH, MAY 2017. 18
TABLE 6. PRE-ENHANCEMENT ADAPTIVE MANAGEMENT PLAN FULL CHECKLIST FOR THE CARLSON, LONESTAR ENHANCEMENT REACH, MAY 2017. 19
TABLE 7. AREAS AND PERCENTAGES OF: WETTED AREA, OPTIMAL DEPTH AND VELOCITY, AND OPTIMAL HYDRAULIC HABITAT WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, JUNE 2017. 21
TABLE 8. HABITAT, TYPES, SHELTER VALUE, PERCENT COVER, AND SHELTER SCORE FOR MAIN CHANNEL HABITAT UNITS WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, JUNE 2017. 27
TABLE 9. HABITAT UNIT RATINGS FOR THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, JUNE 2017. 31
TABLE 10. PRE-ENHANCEMENT AVERAGE FEATURE, HABITAT UNIT, SITE, AND REACH RATINGS FOR THE FOR THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, JUNE 2017. 33
TABLE 11. PRE-ENHANCEMENT ADAPTIVE MANAGEMENT PLAN TARGETED CHECKLIST FOR THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, JUNE 2017. 36
TABLE 12. PRE-ENHANCEMENT ADAPTIVE MANAGEMENT PLAN FULL CHECKLIST FOR THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, JUNE 2017. 37
TABLE 13. AREAS AND PERCENTAGES OF: WETTED AREA, OPTIMAL DEPTH AND VELOCITY, AND OPTIMAL HYDRAULIC HABITAT WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017. 40
TABLE 14. HABITAT, TYPES, SHELTER VALUE, PERCENT COVER, AND SHELTER SCORE FOR HABITAT UNITS WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017. 46
TABLE 15. POST-ENHANCEMENT FEATURE RATINGS FOR THE CARLSON, LONESTAR ENHANCEMENT REACH SEPTEMBER 2017. 50
TABLE 16. POST-ENHANCEMENT HABITAT UNIT RATINGS FOR THE CARLSON, LONESTAR ENHANCEMENT REACH SEPTEMBER 2017. 55
TABLE 17. POST-ENHANCEMENT AVERAGE FEATURE, AVERAGE HABITAT UNIT, SITE, AND REACH RATINGS FOR THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017. 57
TABLE 18. ADAPTIVE MANAGEMENT PLAN TARGETED CHECKLIST FOR THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017. 61
TABLE 19. ADAPTIVE MANAGEMENT PLAN FULL CHECKLIST FOR THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017. 64
TABLE 20. AREAS AND PERCENTAGES OF: WETTED AREA, OPTIMAL DEPTH AND VELOCITY, AND OPTIMAL HYDRAULIC HABITAT WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 68
TABLE 21. HABITAT, TYPES, SHELTER VALUE, PERCENT COVER, AND SHELTER SCORE FOR HABITAT UNITS WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 74
TABLE 22. POST-ENHANCEMENT FEATURE RATINGS FOR THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 78
TABLE 23. POST-ENHANCEMENT HABITAT UNIT RATINGS FOR THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 85

TABLE 24. POST-ENHANCEMENT AVERAGE FEATURE, AVERAGE HABITAT UNIT, SITE, AND REACH RATINGS FOR THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 87
TABLE 25. ADAPTIVE MANAGEMENT PLAN TARGETED CHECKLIST FOR THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 91
TABLE 26. ADAPTIVE MANAGEMENT PLAN FULL CHECKLIST FOR THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 96
TABLE 27. AREAS AND PERCENTAGES OF: WETTED AREA, OPTIMAL DEPTH AND VELOCITY, AND OPTIMAL HYDRAULIC HABITAT WITHIN THE TRUETT HURST ENHANCEMENT REACH, JULY 2017. 103
TABLE 28. HABITAT, TYPES, SHELTER VALUE, PERCENT COVER, AND SHELTER SCORE FOR HABITAT UNITS WITHIN THE TRUETT HURST ENHANCEMENT REACH, JULY 2017. 109
TABLE 29. POST-EFFECTIVE FLOW FEATURE RATINGS FOR THE TRUETT HURST ENHANCEMENT REACH JULY 2017. 113
TABLE 30. POST-EFFECTIVE FLOW HABITAT UNIT RATINGS FOR THE TRUETT HURST ENHANCEMENT REACH JULY 2017. 119
TABLE 31. POST-EFFECTIVE FLOW AVERAGE FEATURE, AVERAGE HABITAT UNIT, SITE, AND REACH RATINGS FOR THE TRUETT HURST ENHANCEMENT REACH, JULY 2017. 121
TABLE 32. ADAPTIVE MANAGEMENT PLAN TARGETED CHECKLIST FOR THE TRUETT HURST ENHANCEMENT REACH, JULY 2017. 125
TABLE 33. ADAPTIVE MANAGEMENT PLAN FULL CHECKLIST FOR THE TRUETT HURST ENHANCEMENT REACH, JULY 2017. 128
TABLE 34. AREAS AND PERCENTAGES OF: WETTED AREA, OPTIMAL DEPTH AND VELOCITY, AND OPTIMAL HYDRAULIC HABITAT WITHIN THE MEYER ENHANCEMENT REACH, JULY 2017. 133
TABLE 35. HABITAT, TYPES, SHELTER VALUE, PERCENT COVER, AND SHELTER SCORE FOR HABITAT UNITS WITHIN THE MEYER ENHANCEMENT REACH, JULY 2017. 139
TABLE 36. POST-EFFECTIVE FLOW FEATURE RATINGS FOR THE MEYER ENHANCEMENT REACH, JULY 2017. 143
TABLE 37. POST-EFFECTIVE FLOW HABITAT UNIT RATINGS FOR THE MEYER ENHANCEMENT REACH, JULY 2017. .147
TABLE 38. POST-EFFECTIVE FLOW AVERAGE FEATURE, AVERAGE HABITAT UNIT, SITE, AND REACH RATINGS FOR THE MEYER ENHANCEMENT REACH, JULY 2017. 149
TABLE 39. ADAPTIVE MANAGEMENT PLAN TARGETED CHECKLIST FOR THE MEYER ENHANCEMENT REACH, JULY 2017. 153
TABLE 40. ADAPTIVE MANAGEMENT PLAN TARGETED CHECKLIST FOR THE MEYER ENHANCEMENT REACH, JULY 2017. 155
TABLE 41. AREAS AND PERCENTAGES OF: WETTED AREA, OPTIMAL DEPTH AND VELOCITY, AND OPTIMAL HYDRAULIC HABITAT WITHIN THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017. 158
TABLE 42. HABITAT, TYPES, SHELTER VALUE, PERCENT COVER, AND SHELTER SCORE FOR HABITAT UNITS WITHIN THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017. 164
TABLE 43. POST-EFFECTIVE FLOW FEATURE RATINGS FOR THE VAN ALYEA ENHANCEMENT REACH APRIL 2017. ..168
TABLE 44. POST-EFFECTIVE FLOW HABITAT UNIT RATINGS FOR THE VAN ALYEA ENHANCEMENT REACH APRIL 2017. 172
TABLE 45. POST-EFFECTIVE FLOW AVERAGE FEATURE, AVERAGE HABITAT UNIT, SITE, AND REACH RATINGS FOR THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017. 174
TABLE 46. ADAPTIVE MANAGEMENT PLAN TARGETED CHECKLIST FOR THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017. 178
TABLE 47. ADAPTIVE MANAGEMENT PLAN FULL CHECKLIST FOR THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017. 180

TABLE 48. AREAS AND PERCENTAGES OF: WETTED AREA, OPTIMAL DEPTH AND VELOCITY, AND OPTIMAL HYDRAULIC HABITAT WITHIN THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017. 183
TABLE 49. HABITAT, TYPES, SHELTER VALUE, PERCENT COVER, AND SHELTER SCORE FOR HABITAT UNITS WITHIN THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017. HABITAT UNITS 1, 4 AND 5 DID NOT HAVE SHELTER ASSESSED. 189
TABLE 50. POST-EFFECTIVE FLOW FEATURE RATINGS FOR THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017.....193
TABLE 51. POST-EFFECTIVE FLOW HABITAT UNIT RATINGS FOR THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017.....199
TABLE 52. POST-EFFECTIVE FLOW AVERAGE FEATURE, AVERAGE HABITAT UNIT, SITE, AND REACH RATINGS FOR THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017. 201
TABLE 53. ADAPTIVE MANAGEMENT PLAN TARGETED CHECKLIST FOR THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017.....205
TABLE 54. ADAPTIVE MANAGEMENT PLAN FULL CHECKLIST FOR THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017.....209
TABLE 55. AREAS AND PERCENTAGES OF: WETTED AREA, OPTIMAL DEPTH AND VELOCITY, AND OPTIMAL HYDRAULIC HABITAT WITHIN THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017.....214
TABLE 56. HABITAT, TYPES, SHELTER VALUE, PERCENT COVER, AND SHELTER SCORE FOR HABITAT UNITS WITHIN THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017.....220
TABLE 57. POST-EFFECTIVE FLOW FEATURE RATINGS FOR THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017.224
TABLE 58. POST-EFFECTIVE FLOW HABITAT UNIT RATINGS FOR THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017. 230
TABLE 59. POST EFFECTIVE FLOW AVERAGE FEATURE, HABITAT UNIT, SITE, AND REACH RATINGS FOR THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017. 232
TABLE 60. ADAPTIVE MANAGEMENT PLAN TARGETED CHECKLIST FOR THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017.....236
TABLE 61. ADAPTIVE MANAGEMENT PLAN FULL CHECKLIST FOR THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017. 239
TABLE 62. AREAS AND PERCENTAGES OF: WETTED AREA, OPTIMAL DEPTH AND VELOCITY, AND OPTIMAL HYDRAULIC HABITAT WITHIN THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017. 244
TABLE 63. HABITAT, TYPES, SHELTER VALUE, PERCENT COVER, AND SHELTER SCORE FOR HABITAT UNITS WITHIN THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017.....250
TABLE 64. POST-REPAIR FEATURE RATINGS FOR THE TRUETT HURST ENHANCEMENT REACH OCTOBER 2017. 254
TABLE 65. POST-REPAIR HABITAT UNIT RATINGS FOR THE TRUETT HURST ENHANCEMENT REACH OCTOBER 2017. 261
TABLE 66. POST-REPAIR AVERAGE FEATURE, AVERAGE HABITAT UNIT, SITE, AND REACH RATINGS FOR THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017. *REACH RATING DOES NOT INCLUDE SITE 1, WHICH WAS NOT FULLY ASSESSED.....263
TABLE 67. ADAPTIVE MANAGEMENT PLAN TARGETED CHECKLIST FOR THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017.....267
TABLE 68. ADAPTIVE MANAGEMENT PLAN FULL CHECKLIST FOR THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017.....272
TABLE 69. AREAS AND PERCENTAGES OF: WETTED AREA, OPTIMAL DEPTH AND VELOCITY, AND OPTIMAL HYDRAULIC HABITAT WITHIN THE MEYER ENHANCEMENT REACH, OCTOBER 2017.....278
TABLE 70. HABITAT, TYPES, SHELTER VALUE, PERCENT COVER, AND SHELTER SCORE FOR HABITAT UNITS WITHIN THE MEYER ENHANCEMENT REACH, OCTOBER 2017.....284

TABLE 71. POST-REPAIR FEATURE RATINGS FOR THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 288
TABLE 72. POST-REPAIR HABITAT UNIT RATINGS FOR THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 292
TABLE 73. POST-REPAIR AVERAGE FEATURE, AVERAGE HABITAT UNIT, SITE, AND REACH RATINGS FOR THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 294
TABLE 74. ADAPTIVE MANAGEMENT PLAN TARGETED CHECKLIST (SITES 1, 2) FOR THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 298
TABLE 75. ADAPTIVE MANAGEMENT PLAN FULL CHECKLIST FOR THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 300
TABLE 76. AREAS AND PERCENTAGES OF: WETTED AREA, OPTIMAL DEPTH AND VELOCITY, AND OPTIMAL HYDRAULIC HABITAT WITHIN THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 303
TABLE 77. HABITAT, TYPES, SHELTER VALUE, PERCENT COVER, AND SHELTER SCORE FOR HABITAT UNITS WITHIN THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 309
TABLE 78. POST-REPAIR FEATURE RATINGS FOR THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 313
TABLE 79. POST-REPAIR HABITAT UNIT RATINGS FOR THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 318
TABLE 80. POST-REPAIR AVERAGE FEATURE, HABITAT UNIT, SITE, AND REACH RATINGS FOR THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 320
TABLE 81. ADAPTIVE MANAGEMENT PLAN TARGETED CHECKLIST FOR THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 324
TABLE 82. ADAPTIVE MANAGEMENT PLAN FULL CHECKLIST FOR THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 327

List of Figures

FIGURE 1. MEASURED WATER DEPTH WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, MAY 2017.....4
FIGURE 2. OPTIMAL WATER DEPTH FOR FRY (0.5-2.0 FT) AND PARR (2.0-4.0 FT) WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, MAY 2017. 5
FIGURE 3. MEASURED WATER VELOCITY WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, MAY 2017. 6
FIGURE 4. OPTIMAL WATER VELOCITY FOR FRY AND PARR (< 0.5 FT/S) WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, MAY 2017. 7
FIGURE 5. OPTIMAL HYDRAULIC HABITAT FOR FRY (<0.5 FT/S, 0.5-2.0 FT) AND PARR (<0.5 FT/S, 2.0-4.0 FT) WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, MAY 2017. 8
FIGURE 6. HABITAT UNIT NUMBER AND TYPE WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, MAY 2017. 10
FIGURE 7. HABITAT UNIT SHELTER SCORES WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, MAY 2017.11
FIGURE 8. HABITAT UNIT RATINGS FOR THE CARLSON, LONESTAR ENHANCEMENT REACH, MAY 2017. 14
FIGURE 9. PRE-ENHANCEMENT SITE AND REACH RATING FOR THE CARLSON, LONESTAR ENHANCEMENT REACH MAY 2017.....16
FIGURE 10. MEASURED WATER DEPTH WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, JUNE 2017. 22
FIGURE 11. OPTIMAL WATER DEPTH FOR FRY (0.5-2.0 FT) AND PARR (2.0-4.0 FT) WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, JUNE 2017.....23
FIGURE 12. MEASURED WATER VELOCITY WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, JUNE 2017. 24
FIGURE 13. OPTIMAL WATER VELOCITY FOR FRY AND PARR (< 0.5 FT/S) WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, JUNE 2017. 25
FIGURE 14. OPTIMAL HYDRAULIC HABITAT FOR FRY (<0.5 FT/S, 0.5-2.0 FT) AND PARR (<0.5 FT/S, 2.0-4.0 FT) WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, JUNE 2017. 26
FIGURE 15. HABITAT UNIT NUMBER AND TYPE WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, JUNE 2017. 28
FIGURE 16. HABITAT UNIT SHELTER SCORES WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, JUNE 2017. 29
FIGURE 17. HABITAT UNIT RATINGS FOR THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, JUNE 2017.....32
FIGURE 18. PRE-ENHANCEMENT SITE AND REACH RATING FOR THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, JUNE 2017. 34
FIGURE 19. MEASURED WATER DEPTH WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017. 41
FIGURE 20. OPTIMAL WATER DEPTH FOR FRY (0.5-2.0 FT) AND PARR (2.0-4.0 FT) WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017. 42
FIGURE 21. MEASURED WATER VELOCITY WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017. 43
FIGURE 22. OPTIMAL WATER VELOCITY FOR FRY AND PARR (< 0.5 FT/S) WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017. 44
FIGURE 23. OPTIMAL HYDRAULIC HABITAT FOR FRY (<0.5 FT/S, 0.5-2.0 FT) AND PARR (<0.5 FT/S, 2.0-4.0 FT) WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017. 45
FIGURE 24. HABITAT UNIT NUMBER AND TYPE WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017. 47

FIGURE 25. HABITAT UNIT SHELTER SCORES WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017. 48
FIGURE 26. ENHANCEMENT SITES AND FEATURES WITHIN THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017. 53
FIGURE 27. FEATURE RATINGS FOR THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017. 54
FIGURE 28. HABITAT UNIT RATINGS FOR THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017..... 56
FIGURE 29. POST ENHANCEMENT SITE RATINGS FOR THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017. 58
FIGURE 30. POST-ENHANCEMENT REACH RATING FOR THE CARLSON, LONESTAR ENHANCEMENT REACH, SEPTEMBER 2017. 59
FIGURE 31. MEASURED WATER DEPTH WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 69
FIGURE 32. OPTIMAL WATER DEPTH FOR FRY (0.5-2.0 FT) AND PARR (2.0-4.0 FT) WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 70
FIGURE 33. MEASURED WATER VELOCITY WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 71
FIGURE 34. OPTIMAL WATER VELOCITY FOR FRY AND PARR (< 0.5 FT/S) WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 72
FIGURE 35. OPTIMAL HYDRAULIC HABITAT FOR FRY (<0.5 FT/S, 0.5-2.0 FT) AND PARR (<0.5 FT/S, 2.0-4.0 FT) WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 73
FIGURE 36. HABITAT UNIT NUMBER AND TYPE WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 75
FIGURE 37. HABITAT UNIT SHELTER SCORES WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 76
FIGURE 38. ENHANCEMENT SITES AND FEATURES WITHIN THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 83
FIGURE 39. FEATURE RATINGS FOR THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. ..84
FIGURE 40. HABITAT UNIT RATINGS FOR THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 86
FIGURE 41. POST ENHANCEMENT SITE RATINGS FOR THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 88
FIGURE 42. POST-ENHANCEMENT REACH RATING FOR THE CITY OF HEALDSBURG YARD ENHANCEMENT REACH, SEPTEMBER 2017. 89
FIGURE 43. MEASURED WATER DEPTH WITHIN THE TRUETT HURST ENHANCEMENT REACH, JULY 2017..... 104
FIGURE 44. OPTIMAL WATER DEPTH FOR FRY (0.5-2.0 FT) AND PARR (2.0-4.0 FT) WITHIN THE TRUETT HURST ENHANCEMENT REACH, JULY 2017. 105
FIGURE 45. MEASURED WATER VELOCITY WITHIN THE TRUETT HURST ENHANCEMENT REACH, JULY 2017. 106
FIGURE 46. OPTIMAL WATER VELOCITY FOR FRY AND PARR (< 0.5 FT/S) WITHIN THE TRUETT HURST ENHANCEMENT REACH, JULY 2017. 107
FIGURE 47. OPTIMAL HYDRAULIC HABITAT FOR FRY (<0.5 F/S, 0.5-2.0 FT) AND PARR (<0.5 F/S, 2.0-4.0 FT) WITHIN THE TRUETT HURST ENHANCEMENT REACH, JULY 2017. 108
FIGURE 48. HABITAT UNIT NUMBER AND TYPE WITHIN THE TRUETT HURST ENHANCEMENT REACH, JULY 2017. .110
FIGURE 49. HABITAT UNIT SHELTER SCORES WITHIN THE TRUETT HURST ENHANCEMENT REACH, JULY 2017. 111
FIGURE 50. ENHANCEMENT SITES AND FEATURES WITHIN THE TRUETT HURST ENHANCEMENT REACH, JULY 2017. 117
FIGURE 51. FEATURE RATINGS FOR THE TRUETT HURST ENHANCEMENT REACH, JULY 2017..... 118

FIGURE 52. HABITAT UNIT RATINGS FOR THE TRUETT HURST ENHANCEMENT REACH, JULY 2017. 120
FIGURE 53. POST-EFFECTIVE FLOW SITE RATINGS FOR THE TRUETT HURST ENHANCEMENT REACH, JULY 2017. ...122
FIGURE 54. POST-EFFECTIVE FLOW REACH RATING FOR THE TRUETT HURST ENHANCEMENT REACH, JULY 2017. 123
FIGURE 55. MEASURED WATER DEPTH WITHIN THE MEYER ENHANCEMENT REACH, JULY 2017.....134
FIGURE 56. OPTIMAL WATER DEPTH FOR FRY (0.5-2.0 FT) AND PARR (2.0-4.0 FT) WITHIN THE MEYER ENHANCEMENT REACH, JULY 2017. 135
FIGURE 57. MEASURED WATER VELOCITY WITHIN THE MEYER ENHANCEMENT REACH, JULY 2017. 136
FIGURE 58. OPTIMAL WATER VELOCITY FOR FRY AND PARR (< 0.5 FT/S) WITHIN THE MEYER ENHANCEMENT REACH, JULY 2017. 137
FIGURE 59. OPTIMAL HYDRAULIC HABITAT FOR FRY (<0.5 FT/S, 0.5-2.0 FT) AND PARR (<0.5 FT/S, 2.0-4.0 FT) WITHIN THE MEYER ENHANCEMENT REACH, JULY 2017. 138
FIGURE 60. HABITAT UNIT NUMBER AND TYPE WITHIN THE MEYER ENHANCEMENT REACH, JULY 2017. 140
FIGURE 61. HABITAT UNIT SHELTER SCORES WITHIN THE MEYER ENHANCEMENT REACH, JULY 2017. 141
FIGURE 62. ENHANCEMENT SITES AND FEATURES WITHIN THE MEYER ENHANCEMENT REACH, JULY 2017. 145
FIGURE 63. FEATURE RATINGS FOR THE MEYER ENHANCEMENT REACH, JULY 2017.....146
FIGURE 64. HABITAT UNIT RATINGS FOR THE MEYER ENHANCEMENT REACH, JULY 2017. 148
FIGURE 65. POST-EFFECTIVE FLOW SITE RATINGS FOR THE MEYER ENHANCEMENT REACH, JULY 2017.....150
FIGURE 66. POST-EFFECTIVE FLOW REACH RATING FOR THE MEYER ENHANCEMENT REACH, JULY 2017. 151
FIGURE 67. MEASURED WATER DEPTH WITHIN THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017. 159
FIGURE 68. OPTIMAL WATER DEPTH FOR FRY (0.5-2.0 FT) AND PARR (2.0-4.0 FT) WITHIN THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017.....160
FIGURE 69. MEASURED WATER VELOCITY WITHIN THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017. 161
FIGURE 70. OPTIMAL WATER VELOCITY FOR FRY AND PARR (< 0.5 FT/S) WITHIN THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017. 162
FIGURE 71. OPTIMAL HYDRAULIC HABITAT FOR FRY (<0.5 FT/S, 0.5-2.0 FT) AND PARR (<0.5 FT/S, 2.0-4.0 FT) WITHIN THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017. 163
FIGURE 72. HABITAT UNIT NUMBER AND TYPE WITHIN THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017. 165
FIGURE 73. HABITAT UNIT SHELTER SCORES WITHIN THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017. 166
FIGURE 74. ENHANCEMENT SITES AND FEATURES WITHIN THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017. 170
FIGURE 75. FEATURE RATINGS FOR THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017. 171
FIGURE 76. HABITAT UNIT RATINGS FOR THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017.....173
FIGURE 77. POST-EFFECTIVE FLOW SITE RATINGS FOR THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017. 175
FIGURE 78. POST-EFFECTIVE FLOW REACH RATING FOR THE VAN ALYEA ENHANCEMENT REACH, APRIL 2017.....176
FIGURE 79. MEASURED WATER DEPTH WITHIN THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017.184
FIGURE 80. OPTIMAL WATER DEPTH FOR FRY (0.5-2.0 FT) AND PARR (2.0-4.0 FT) WITHIN THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017. 185
FIGURE 81. MEASURED WATER VELOCITY WITHIN THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017. 186
FIGURE 82. OPTIMAL WATER VELOCITY FOR FRY AND PARR (< 0.5 FT/S) WITHIN THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017. 187
FIGURE 83. OPTIMAL HYDRAULIC HABITAT FOR FRY (<0.5 FT/S, 0.5-2.0 FT) AND PARR (<0.5 FT/S, 2.0-4.0 FT) WITHIN THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017.....188
FIGURE 84. HABITAT UNIT NUMBER AND TYPE WITHIN THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017. 190
FIGURE 85. HABITAT UNIT SHELTER SCORES WITHIN THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017. 191

FIGURE 86. ENHANCEMENT SITES AND FEATURES WITHIN THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017.....197
FIGURE 87. FEATURE RATINGS FOR THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017.....198
FIGURE 88. HABITAT UNIT RATINGS FOR THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017. 200
FIGURE 89. POST-EFFECTIVE FLOW SITE RATINGS FOR THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017. 202
FIGURE 90. POST-EFFECTIVE FLOW REACH RATING FOR THE FARROW, WALLACE ENHANCEMENT REACH, AUGUST 2017. 203
FIGURE 91. MEASURED WATER DEPTH WITHIN THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017. 215
FIGURE 92. OPTIMAL WATER DEPTH FOR FRY (0.5-2.0 FT) AND PARR (2.0-4.0 FT) WITHIN THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017. 216
FIGURE 93. MEASURED WATER VELOCITY WITHIN THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017.....217
FIGURE 94. OPTIMAL WATER VELOCITY FOR FRY AND PARR (< 0.5 FT/S) WITHIN THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017. 218
FIGURE 95. OPTIMAL HYDRAULIC HABITAT FOR FRY (<0.5 FT/S, 0.5-2.0 FT) AND PARR (<0.5 FT/S, 2.0-4.0 FT) WITHIN THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017. 219
FIGURE 96. HABITAT UNIT NUMBER AND TYPE WITHIN THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017.....221
FIGURE 97. HABITAT UNIT SHELTER SCORES WITHIN THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017 222
FIGURE 98. ENHANCEMENT SITES AND FEATURES WITHIN THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017. 228
FIGURE 99. FEATURE RATINGS FOR THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017. 229
FIGURE 100. POST-EFFECTIVE FLOW HABITAT UNIT RATING FOR THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017. 231
FIGURE 101. POST-EFFECTIVE FLOW SITE RATINGS FOR THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017.....233
FIGURE 102. POST-EFFECTIVE FLOW REACH RATING FOR THE GEYSER PEAK ENHANCEMENT REACH, JULY 2017. .234
FIGURE 103. MEASURED WATER DEPTH WITHIN THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017. ...245
FIGURE 104. OPTIMAL WATER DEPTH FOR FRY (0.5-2.0 FT) AND PARR (2.0-4.0 FT) WITHIN THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017. 246
FIGURE 105. MEASURED WATER VELOCITY WITHIN THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017. 247
FIGURE 106. OPTIMAL WATER VELOCITY FOR FRY AND PARR (< 0.5 FT/S) WITHIN THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017. 248
FIGURE 107. OPTIMAL HYDRAULIC HABITAT FOR FRY (<0.5 F/S, 0.5-2.0 FT) AND PARR (<0.5 F/S, 2.0-4.0 FT) WITHIN THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017. 249
FIGURE 108. HABITAT UNIT NUMBER AND TYPE WITHIN THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017. 251
FIGURE 109. HABITAT UNIT SHELTER SCORES WITHIN THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017. POST-REPAIR SHELTER DATA WAS ONLY COLLECTED FOR SIDE CHANNEL HABITAT UNITS. 252
FIGURE 110. ENHANCEMENT SITES AND FEATURES WITHIN THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017. 259
FIGURE 111. FEATURE RATINGS FOR THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017.....260
FIGURE 112. HABITAT UNIT RATINGS FOR THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017. 262
FIGURE 113. POST-REPAIR SITE RATINGS FOR THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017. 264
FIGURE 114. POST-REPAIR REACH RATING FOR THE TRUETT HURST ENHANCEMENT REACH, OCTOBER 2017. 265
FIGURE 115. MEASURED WATER DEPTH WITHIN THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 279

FIGURE 116. OPTIMAL WATER DEPTH FOR FRY (0.5-2.0 FT) AND PARR (2.0-4.0 FT) WITHIN THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 280
FIGURE 117. MEASURED WATER VELOCITY WITHIN THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 281
FIGURE 118. OPTIMAL WATER VELOCITY FOR FRY AND PARR (< 0.5 FT/S) WITHIN THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 282
FIGURE 119. OPTIMAL HYDRAULIC HABITAT FOR FRY (<0.5 FT/S, 0.5-2.0 FT) AND PARR (<0.5 FT/S, 2.0-4.0 FT) WITHIN THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 283
FIGURE 120. HABITAT UNIT NUMBER AND TYPE WITHIN THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 285
FIGURE 121. HABITAT UNIT SHELTER SCORES WITHIN THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 286
FIGURE 122. POST-REPAIR ENHANCEMENT SITES AND FEATURES WITHIN THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 290
FIGURE 123. FEATURE RATINGS FOR THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 291
FIGURE 124. HABITAT UNIT RATINGS FOR THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 293
FIGURE 125. POST-REPAIR SITE RATINGS WITHIN THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 295
FIGURE 126. POST-REPAIR REACH RATING FOR THE MEYER ENHANCEMENT REACH, OCTOBER 2017. 296
FIGURE 127. MEASURED WATER DEPTH WITHIN THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 304
FIGURE 128. OPTIMAL WATER DEPTH FOR FRY (0.5-2.0 FT) AND PARR (2.0-4.0 FT) WITHIN THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 305
FIGURE 129. MEASURED WATER VELOCITY WITHIN THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 306
FIGURE 130. OPTIMAL WATER VELOCITY FOR FRY AND PARR (< 0.5 FT/S) WITHIN THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 307
FIGURE 131. OPTIMAL HYDRAULIC HABITAT FOR FRY (<0.5 FT/S, 0.5-2.0 FT) AND PARR (<0.5 FT/S, 2.0-4.0 FT) WITHIN THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 308
FIGURE 132. HABITAT UNIT NUMBER AND TYPE WITHIN THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 310
FIGURE 133. HABITAT UNIT SHELTER SCORES WITHIN THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 311
FIGURE 134. ENHANCEMENT SITES AND FEATURES WITHIN THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 316
FIGURE 135. FEATURE RATINGS FOR THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 317
FIGURE 136. POST-REPAIR HABITAT UNIT RATING FOR THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 319
FIGURE 137. POST-REPAIR SITE RATINGS FOR THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 321
FIGURE 138. POST-REPAIR REACH RATING FOR THE GEYSER PEAK ENHANCEMENT REACH, OCTOBER 2017. 322

Pre-enhancement 2017

Carlson, Lonestar Pre-enhancement, May 2017

Depth and Velocity

Table 1. Areas and percentages of: wetted area, optimal depth and velocity, and optimal hydraulic habitat within the Carlson, Lonestar enhancement reach, May 2017.

Carlson, Lonestar Pre-enhancement May 2017	Wetted area (ft^2)	Optimal depth (ft^2)			Optimal velocity (ft^2)	Optimal habitat (ft^2)		
		0.5 – 2.0 ft	2.0 – 4.0 ft	Total	< 0.5 ft/s	0.5 – 2.0 ft < 0.5 ft/s	2.0 – 4.0 ft < 0.5 ft/s	Total
Main channel area	47,690	39,430	2,998	42,428	5,765	2,784	232	3,016
Main channel % of wetted area	100%	83%	6%	89%	12%	6%	0%	6%

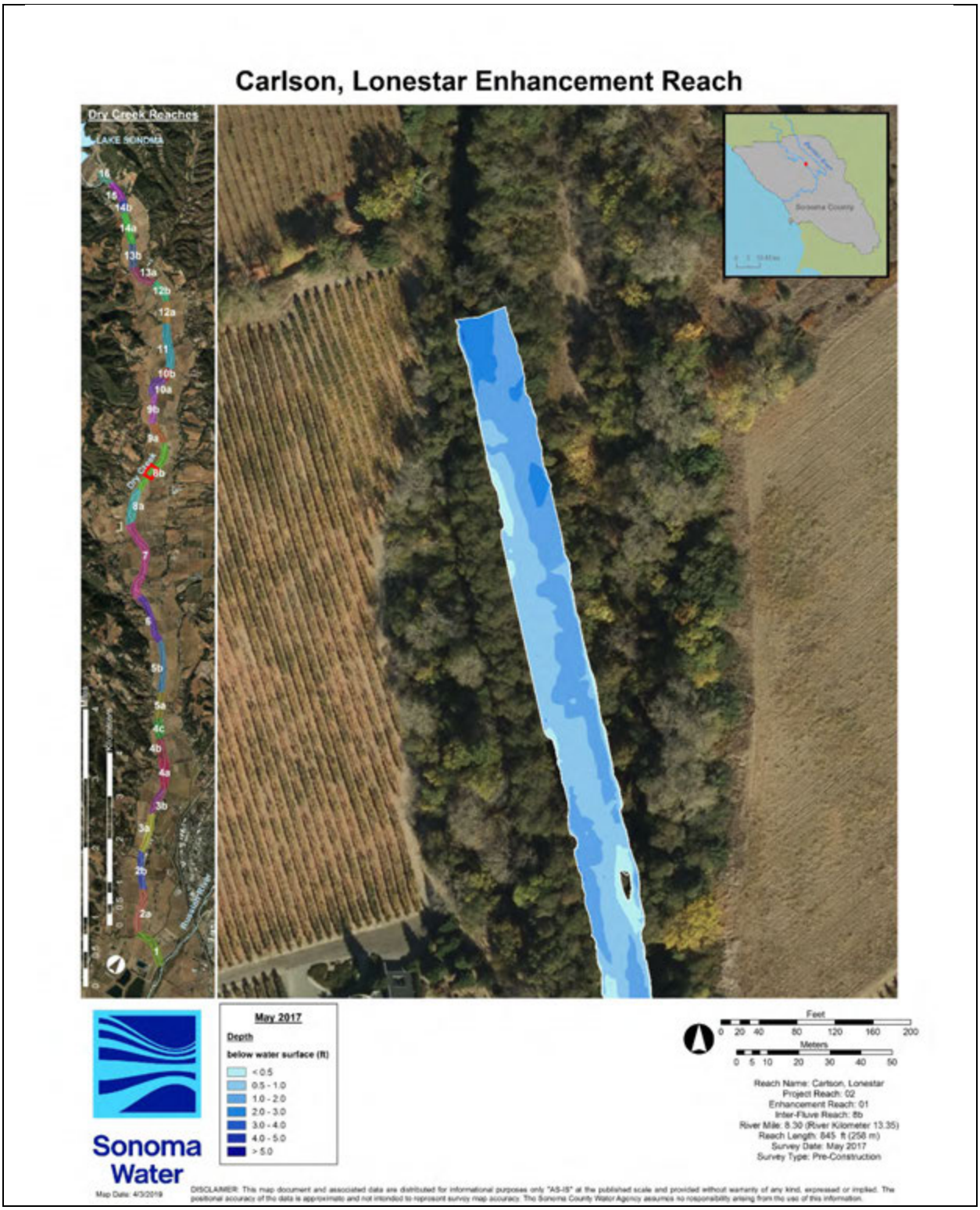


Figure 1. Measured water depth within the Carlson, Lonestar enhancement reach, May 2017.

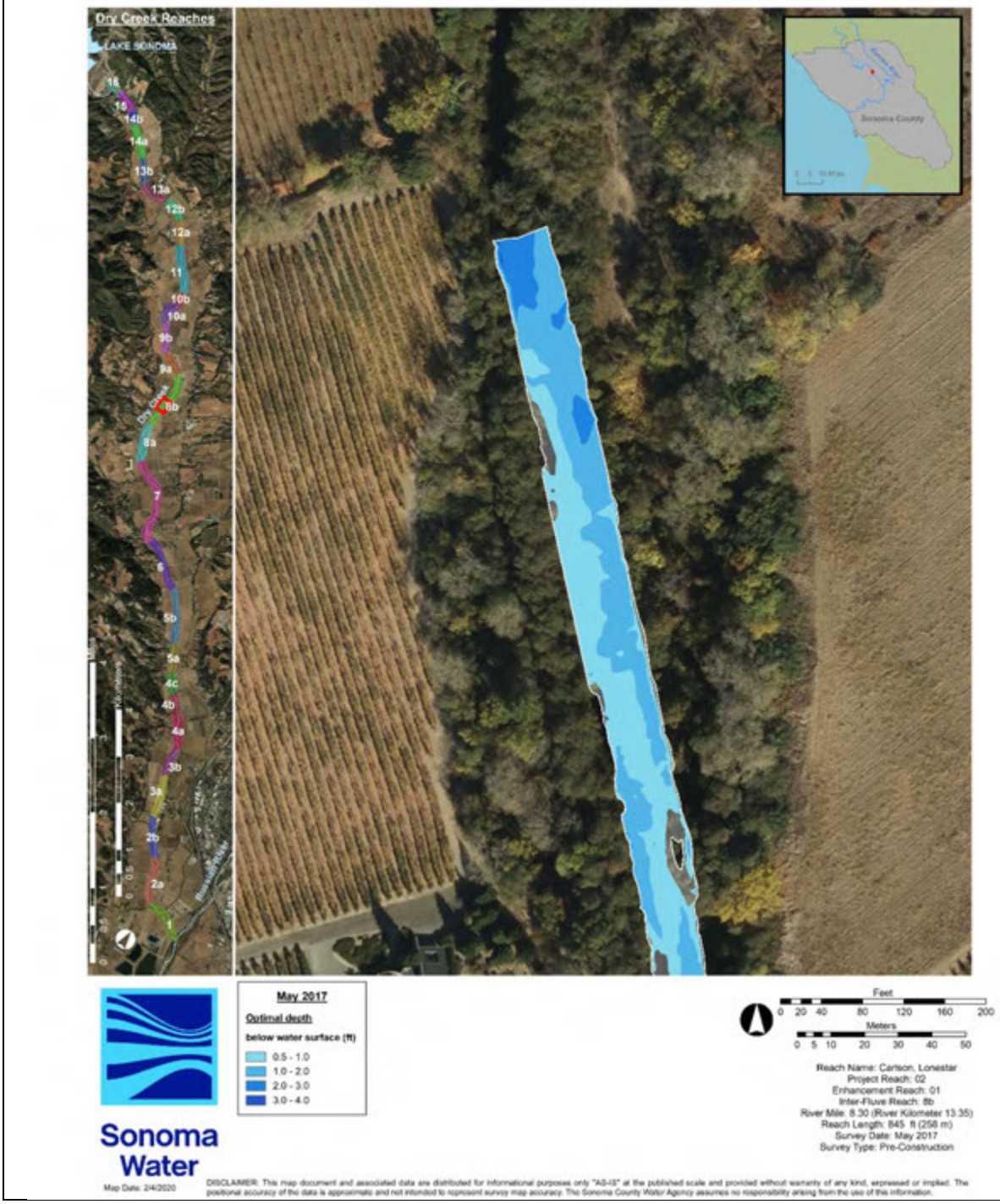


Figure 2. Optimal water depth for fry (0.5-2.0 ft) and parr (2.0-4.0 ft) within the Carlson, Lonestar enhancement reach, May 2017.

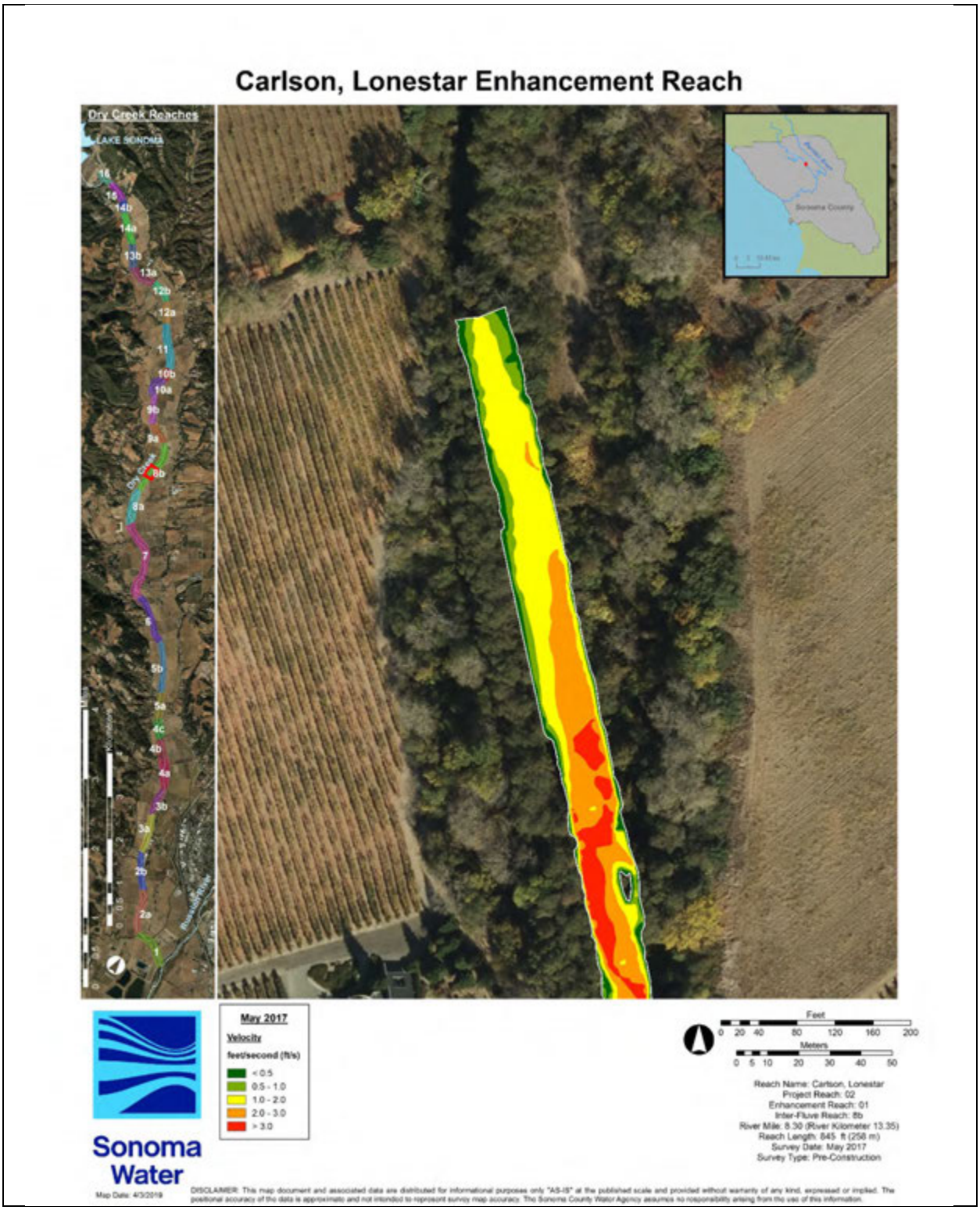


Figure 3. Measured water velocity within the Carlson, Lonestar enhancement reach, May 2017.

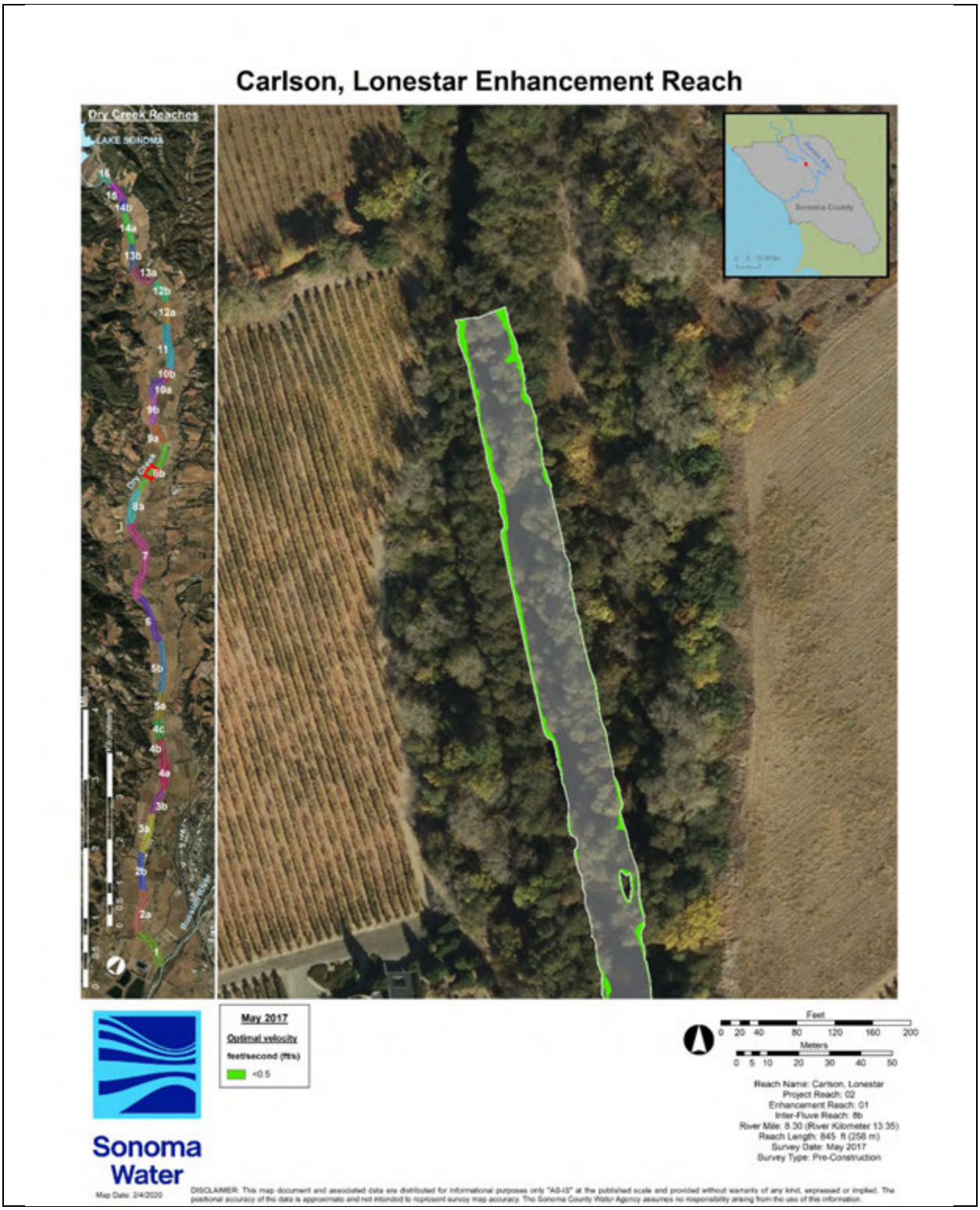


Figure 4. Optimal water velocity for fry and parr (< 0.5 ft/s) within the Carlson, Lonestar enhancement reach, May 2017.

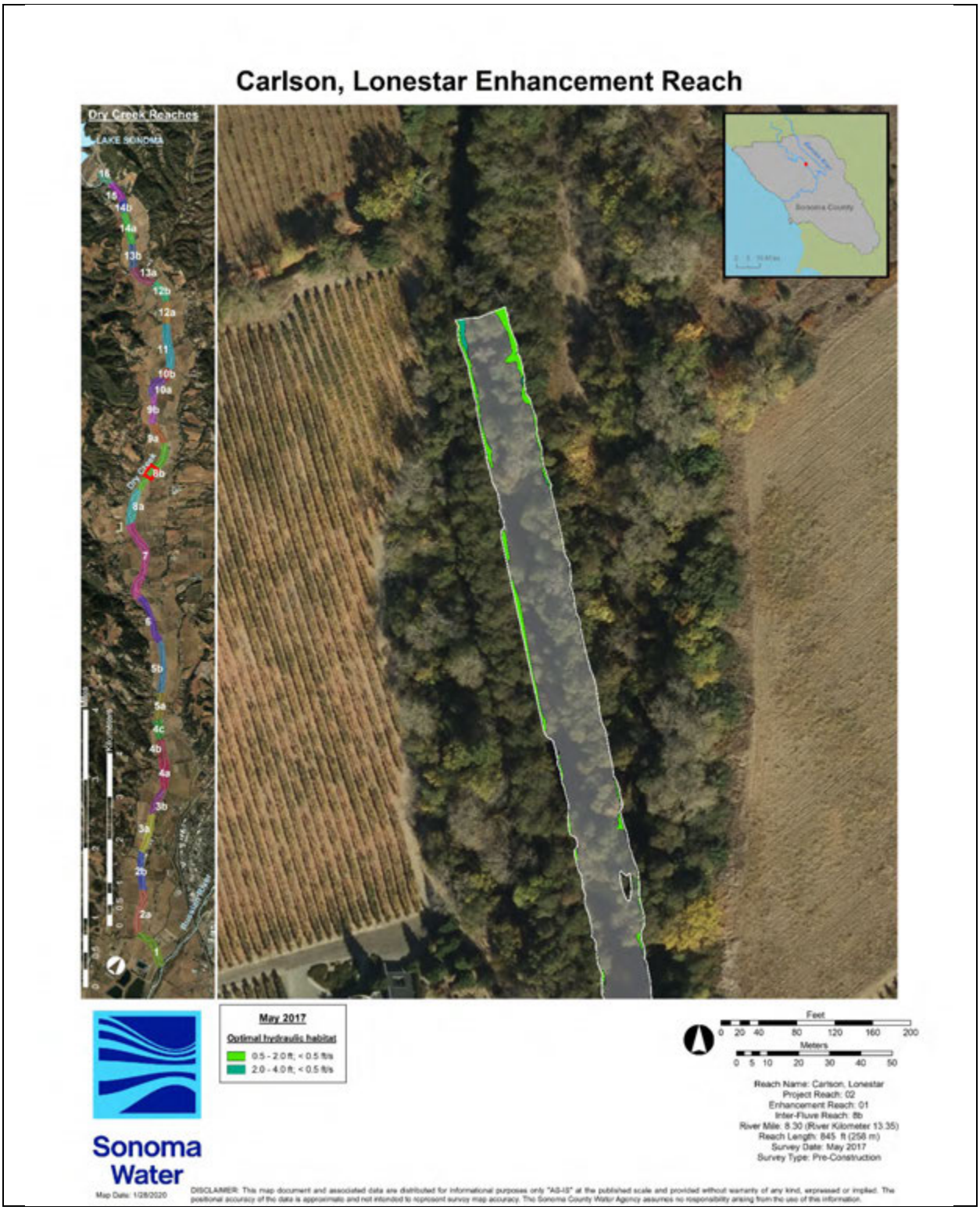


Figure 5. Optimal hydraulic habitat for fry (<0.5 ft/s, 0.5-2.0 ft) and parr (<0.5 ft/s, 2.0-4.0 ft) within the Carlson, Lonestar enhancement reach, May 2017.

Habitat Types and Shelter Values

Table 2. Habitat, types, shelter value, percent cover, and shelter score for main channel habitat units within the Carlson, Lonestar enhancement reach, May 2017.

Pre-enhancement (May 2017)				
Habitat Unit #	**Habitat Type**	**Shelter Value**	**Percent Cover**	**Shelter Score**
HU01	Riffle	2	5	10
HU02	Flatwater	2	5	10
HU03	Pool	3	20	60

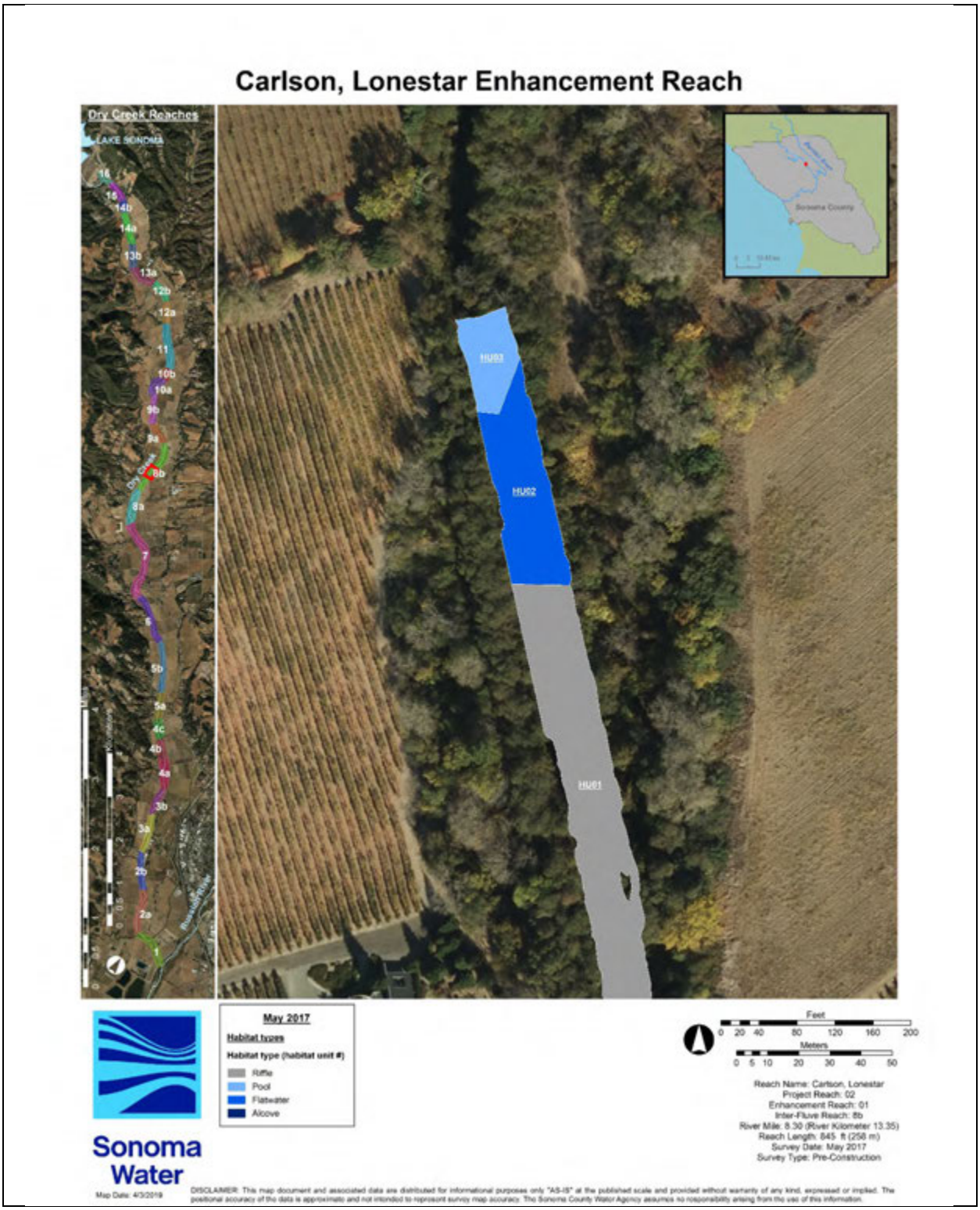


Figure 6. Habitat unit number and type within the Carlson, Lonestar enhancement reach, May 2017.

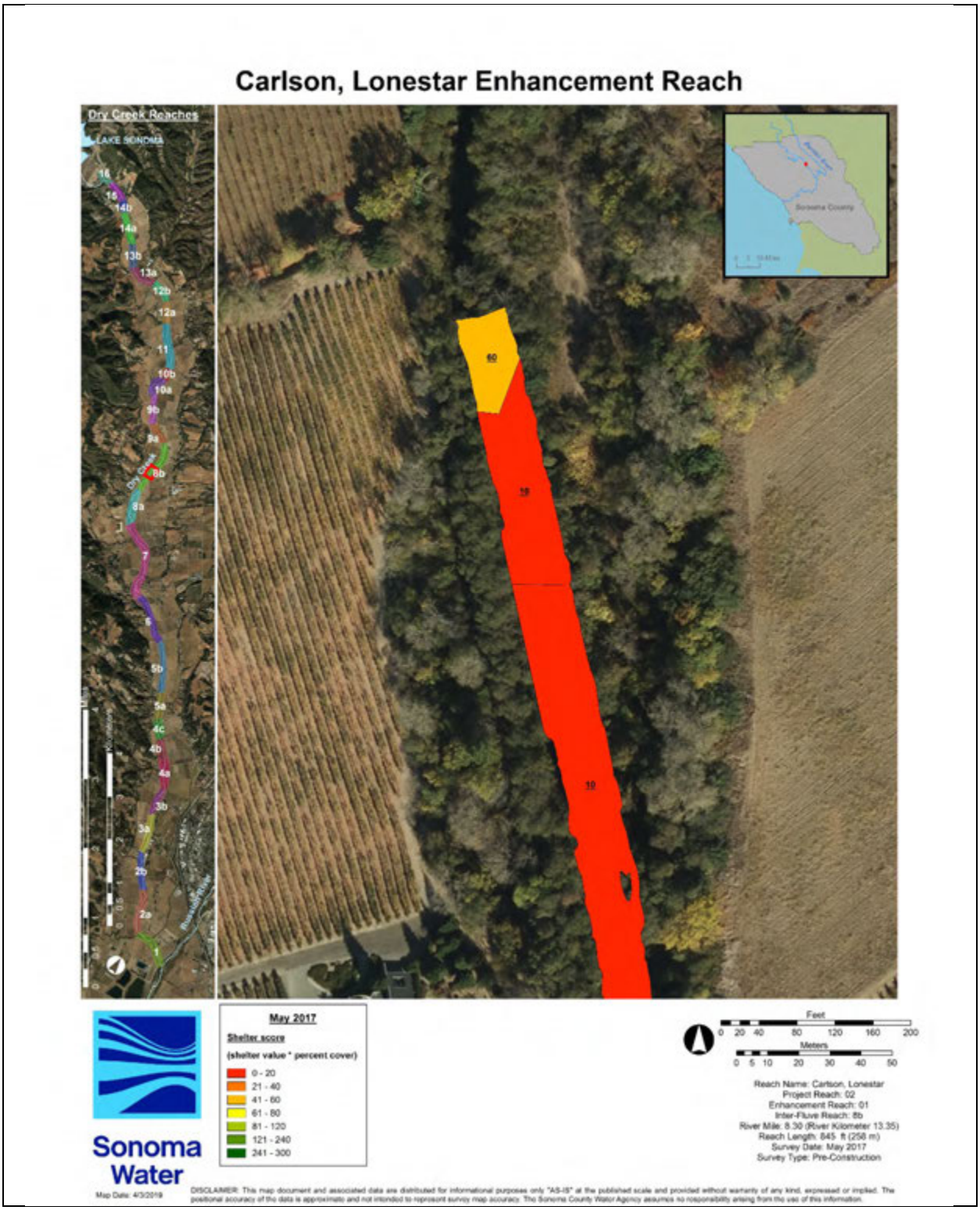


Figure 7. Habitat unit shelter scores within the Carlson, Lonestar enhancement reach, May 2017.

Habitat Unit, Site, and Reach Ratings

Table 3. Habitat unit ratings for the Carlson, Lonestar enhancement reach May 2017.

	Project Reach	2	2	2
	Enhancement Reach	1	1	1
	Colloquial Name	CL	CL	CL
	mmddyy	53117	53117	53117
	Survey Type	PRE	PRE	PRE
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**
	Habitat Type	Riffle	Flatwater	Pool
	PROJECT SITE NUMBER	**1**	**1**	**1**
	Project Site Type	MainChan	MainChan	MainChan
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	86%	84%	56%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	7%	43%
		2	2	3
		5	5	20
		10	10	60
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	11%	12%	20%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	5%	6%	15%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	4%
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	4
		4	4	5
		0	0	2
		0	0	2
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	2
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	1
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**
HABITAT UNIT RATING	Habitat unit quantitative rating (out of 35)	9	9	20
	Habitat unit qualitative rating: Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7)	Poor	Poor	Fair

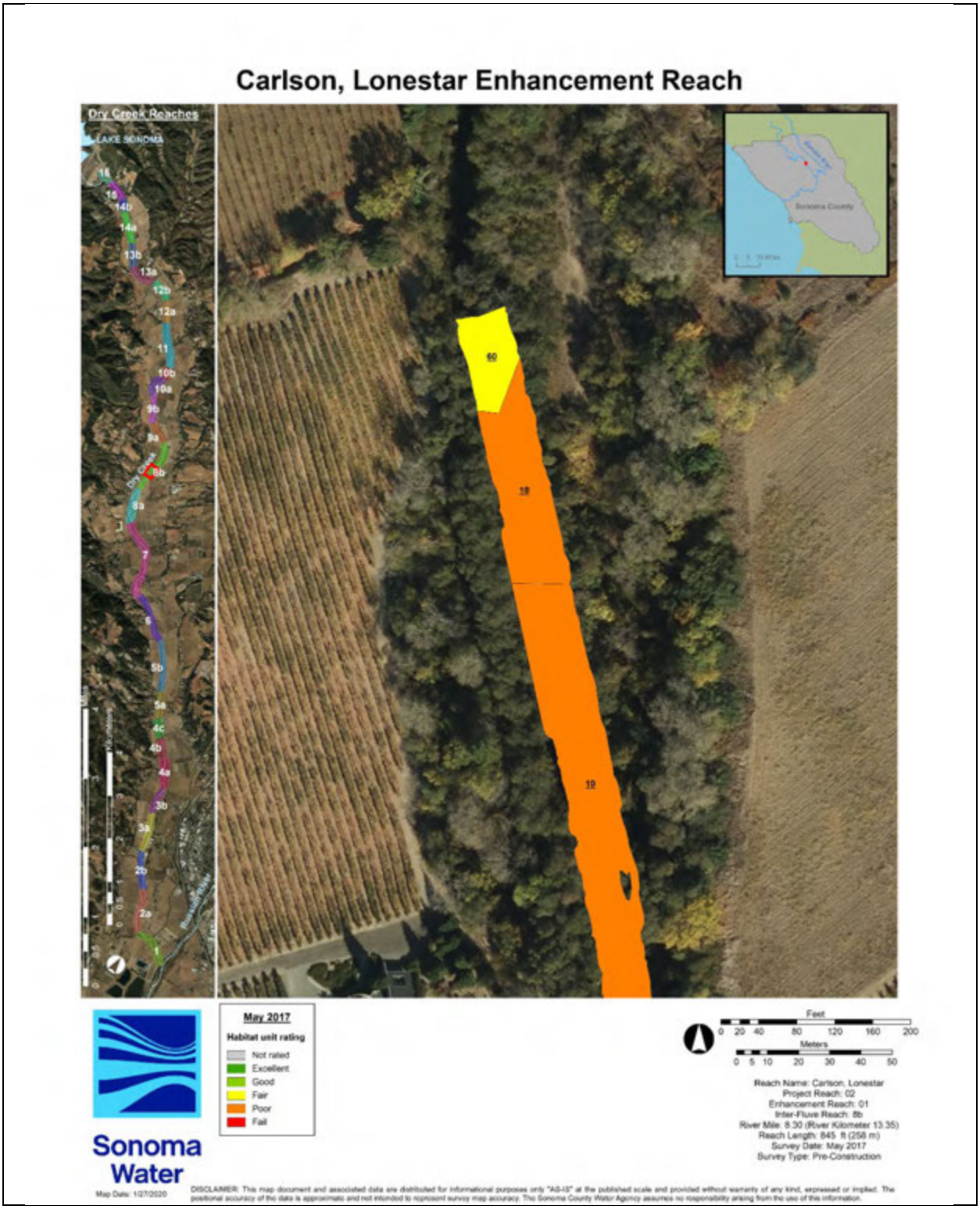


Figure 8. Habitat unit ratings for the Carlson, Lonestar enhancement reach, May 2017.

Table 4. Pre-enhancement average feature, habitat unit, site, and reach ratings for the Carlson, Lonestar enhancement reach, May 2017.

	Project Reach	2
	Enhancement Reach	1
	ENHANCEMENT REACH NAME	**CL**
	mmddyy	53117
	Survey Type	PRE
	PROJECT SITE NUMBER	**1**
	Project Site Type	MainChan
	PROJECT SITE NUMBER	**1**
SITE AVERAGE FEATURE RATING	Site average feature quantitative rating (out of 15; bold indicates excluded from site rating)	0
	Site average feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3), Not rated (not used to rate site)	Not rated
	PROJECT SITE NUMBER	**1**
SITE AVERAGE HABITAT UNIT RATING	Site average habitat unit quantitative rating (out of 35; bold indicates excluded from site rating)	13
	Site average qualitative rating Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7), Not rated (not used to rate site)	Poor
	PROJECT SITE NUMBER	**1**
SITE RATING	Site quantitative rating (sum of site average feature and habitat unit ratings) (out of 50; bold indicates rating excludes feature or habitat unit rating and scoring out of 15 or 35)	13
	Site qualitative rating: Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7)	Poor
	ENHANCEMENT REACH NAME	**CL**
ENHANCEMENT REACH RATING	Enhancement reach quantitative rating (average of site ratings) (out of 50)	13
	Enhancement reach qualitative rating: Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7)	Poor

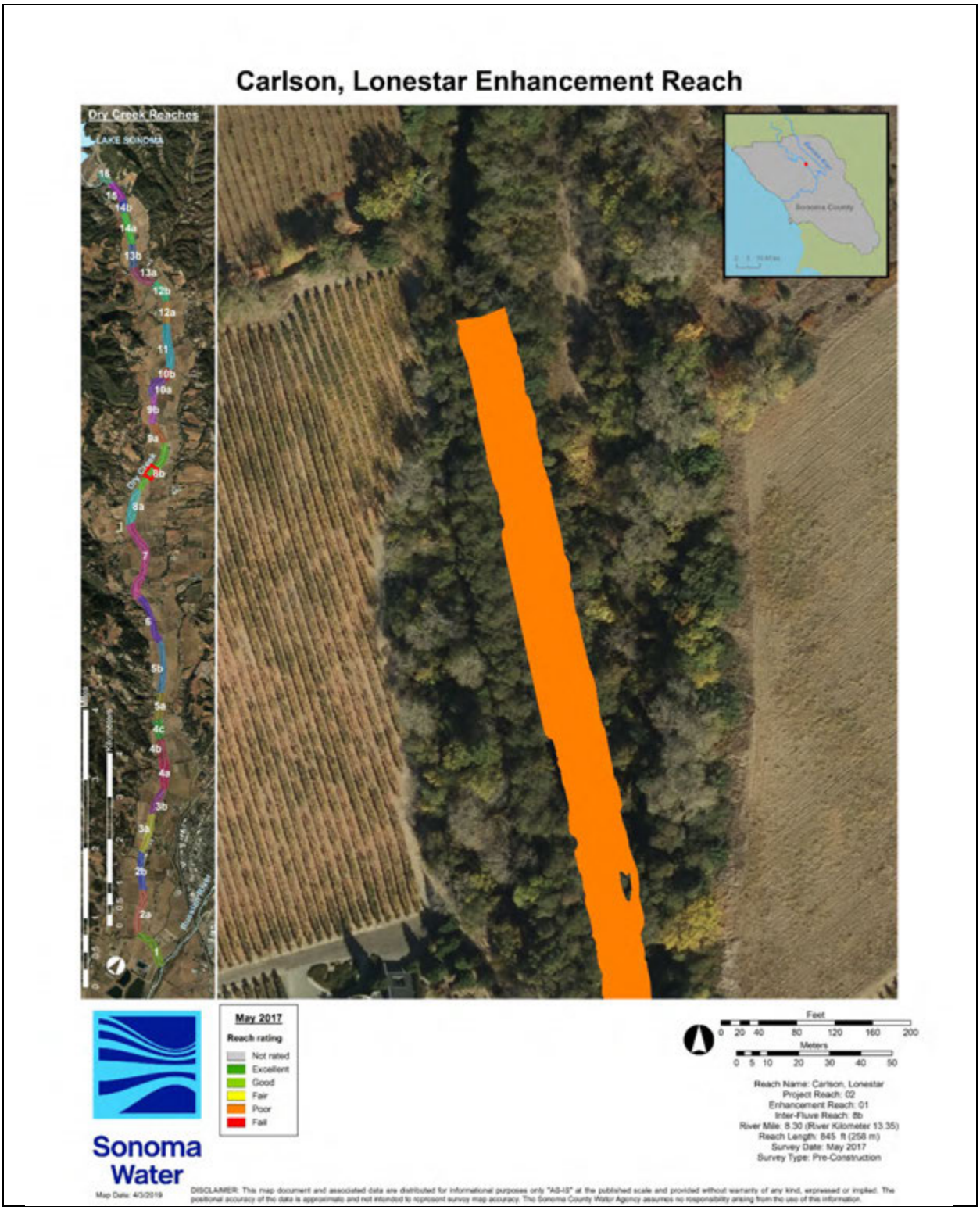


Figure 9. Pre-enhancement site and reach rating for the Carlson, Lonestar enhancement reach May 2017. Dark green = Excellent, light green = Good, yellow = Fair, orange = Poor, red = Fail.

Feature and Habitat Unit Checklists

Table 5. Pre-enhancement Adaptive Management Plan targeted checklist for the Carlson, Lonestar enhancement reach, May 2017.

	Project Reach	2	2	2
	Enhancement Reach	1	1	1
	Colloquial Name	CL	CL	CL
	mmddyy	53117	53117	53117
	Survey Type	PRE	PRE	PRE
	Project Site Number	1	1	1
	Project Site Type	MainChan	MainChan	MainChan
	Project Feature Number	NA	NA	NA
	Feature Type Code	NA	NA	NA
	Habitat Unit	HU01	HU02	HU03
	Habitat Type	Riffle	Flatwater	Pool
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	NA
5a	Are problems with the **feature** visible?	NA	NA	NA
6a	Is the **feature** still in its original location?	NA	NA	NA
6b	Is the **feature** still in its original position?	NA	NA	NA
6d	Is the **feature** still in its original orientaton?	NA	NA	NA
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	NA
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NA	NA	NA
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	86%	84%	56%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	7%	43%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	2	2	3
15.	Percent of **habitat unit** covered by shelter: %	5	5	20
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	10	10	60
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NA
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	NA
25.	Did the **feature** achieve the targeted velocity?	NA	NA	NA
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	11%	12%	20%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	5%	6%	15%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	4%
	FEATURE NUMBER	**NA**	**NA**	**NA**
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**
	SITE NUMBER	**1**	**1**	**1**
	ENHANCEMENT REACH NAME	**CL**	**CL**	**CL**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	0
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	0
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	0
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	0	0
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	0
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	4
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	4	4	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	0	2
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	2
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	2
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	1
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0

Table 6. Pre-enhancement Adaptive Management Plan full checklist for the Carlson, Lonestar enhancement reach, May 2017.

	Project Reach	2	2	2
	Enhancement Reach	1	1	1
	Colloquial Name	CL	CL	CL
	mmddyy	53117	53117	53117
	Survey Type	PRE	PRE	PRE
	Project Site Number	1	1	1
	Project Site Type	MainChan	MainChan	MainChan
	Project Feature Number	NA	NA	NA
	Feature Type Code	NA	NA	NA
	Habitat Unit	HU01	HU02	HU03
	Habitat Type	Riffle	Flatwater	Pool
1.	Length of targeted treatment (ft)	NA	NA	NA
2.	Width of targeted treatment: (ft)	NA	NA	NA
3.	Estimate area of the targeted **feature**: (ft^2)	0	0	0
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	NA
5a	Are problems with the **feature** visible?	NA	NA	NA
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NA	NA	NA
6a	Is the **feature** still in its original location?	NA	NA	NA
6b	Is the **feature** still in its original position?	NA	NA	NA
6c	If yes: LBK, MDC, RBK, SPN, OTH	NA	NA	NA
6d	Is the **feature** still in its original orientaton?	NA	NA	NA
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	NA	NA	NA
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	RIF	FLT	POO
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	NA
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NA	NA	NA
10.	Mean water depth in **habitat unit**: ft	0.9	1.2	1.9
11a	Maximum water depth in **habitat unit**: ft	2.2	2.9	3.4
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	26622.0	10083.1	2725.3
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	13.8	874.0	2109.7
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	26635.8	10957.1	4835.0
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	86%	84%	56%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	7%	43%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	86%	91%	98%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NO	NO	NO
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	NA	NA	NA
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NA	NA	NA
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	2	2	3
15.	Percent of **habitat unit** covered by shelter: %	5	5	20
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	TVG	TVG	TVG
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	SWD	SWD	SWD
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	10	10	60
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	2	1	2
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	1	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NA
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	OTH	OTH	OTH
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	NA
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NA	NA	NA
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NA	NA	NA
24.	Targeted velocity/range in the **habitat unit**. (ft/sec)	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NA	NA	NA
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	4.3	2.8	1.4
26c	Measured mean velocity (ft/sec) in **habitat unit**	2.0	1.3	0.9
27.	Area of **habitat unit** within targeted velocity: (ft^2)	3361.4	1414.1	989.4
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	11%	12%	20%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NA	NA	NA
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	SND	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	COB	GRV	NON
31.	If an objective, did the **feature** achieve the targeted substrate composition?	NA	NA	NA
32.	% Canopy Measurement:	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	1392.2	709.2	914.8
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	1389.0	670.3	725.0
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	3.2	38.9	189.8
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	5%	6%	19%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	5%	6%	15%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	4%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO

City of Healdsburg Yard Pre-enhancement, June 2017

Depth and Velocity

Table 7. Areas and percentages of: wetted area, optimal depth and velocity, and optimal hydraulic habitat within the City of Healdsburg Yard enhancement reach, June 2017.

City of Healdsburg Yard Pre-enhancement June 2017	Wetted area (ft^2)	Optimal depth (ft^2)			Optimal velocity (ft^2)	Optimal habitat (ft^2)		
		0.5 – 2.0 ft	2.0 – 4.0 ft	Total	< 0.5 ft/s	0.5 – 2.0 ft < 0.5 ft/s	2.0 – 4.0 ft < 0.5 ft/s	Total
Main channel area	50,285	37,515	6,185	43,700	10,539	4,780	793	5,573
Main channel % of wetted area	100%	75%	12%	87%	21%	10%	2%	11%

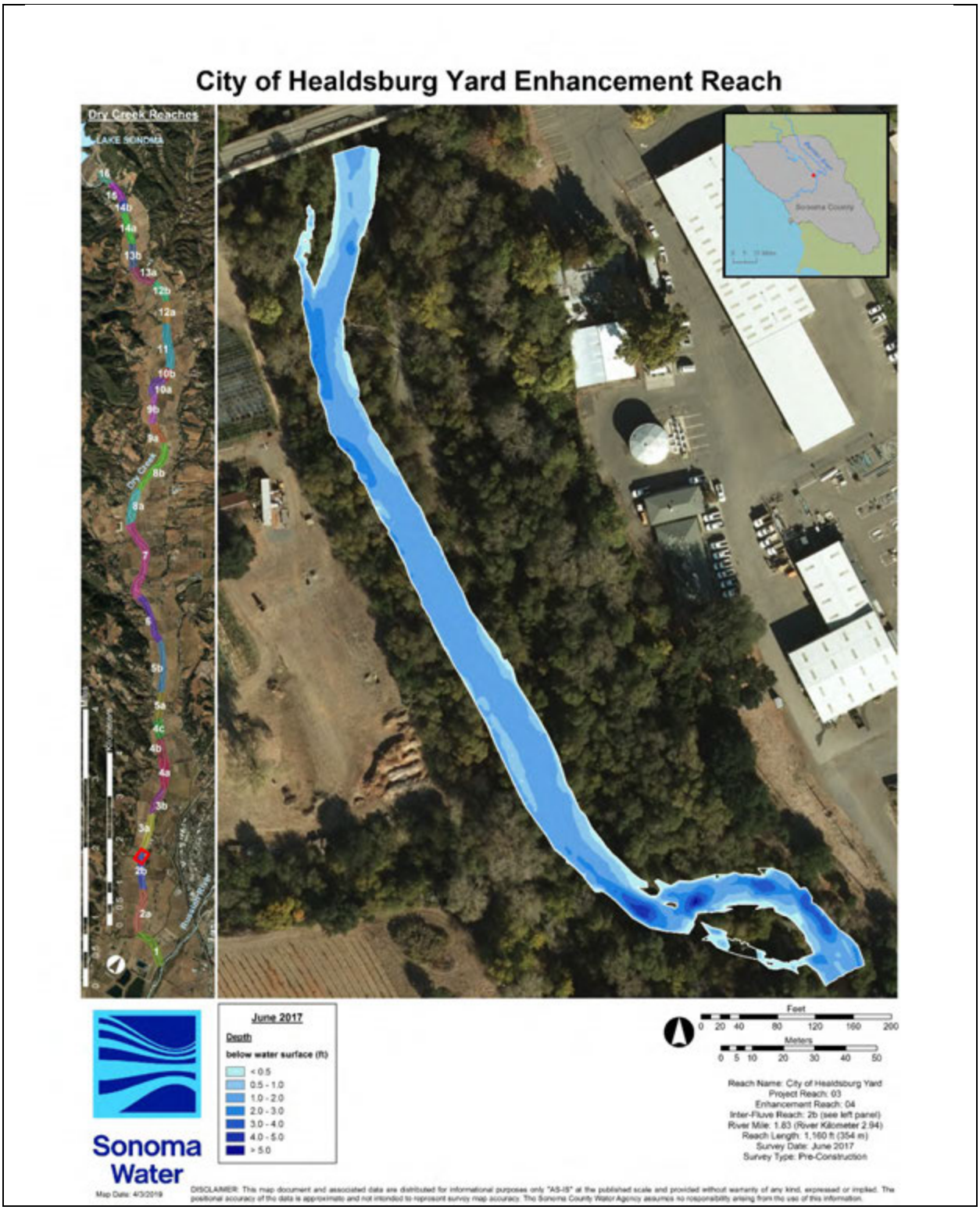


Figure 10. Measured water depth within the City of Healdsburg Yard enhancement reach, June 2017.

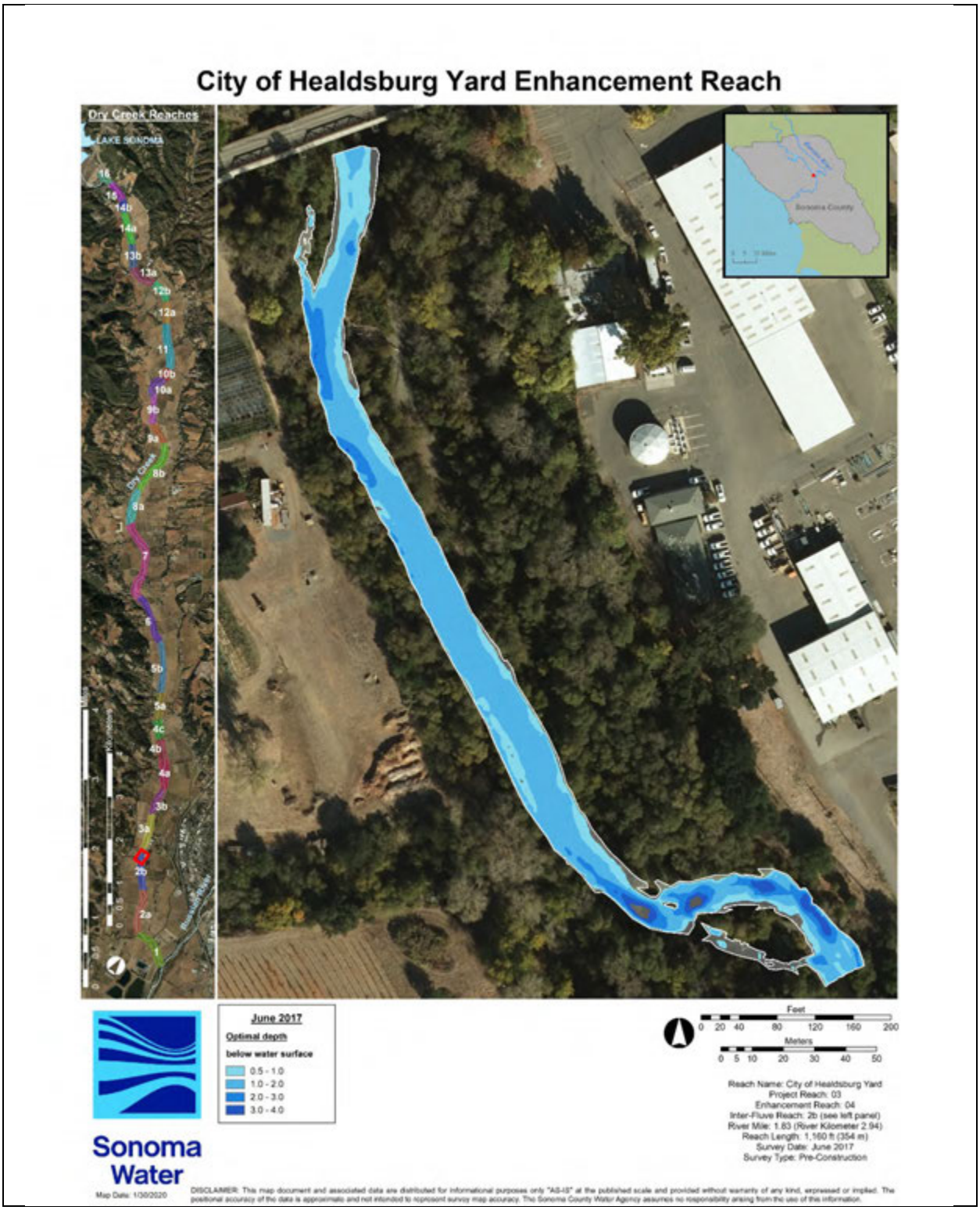


Figure 11. Optimal water depth for fry (0.5-2.0 ft) and parr (2.0-4.0 ft) within the City of Healdsburg Yard enhancement reach, June 2017.

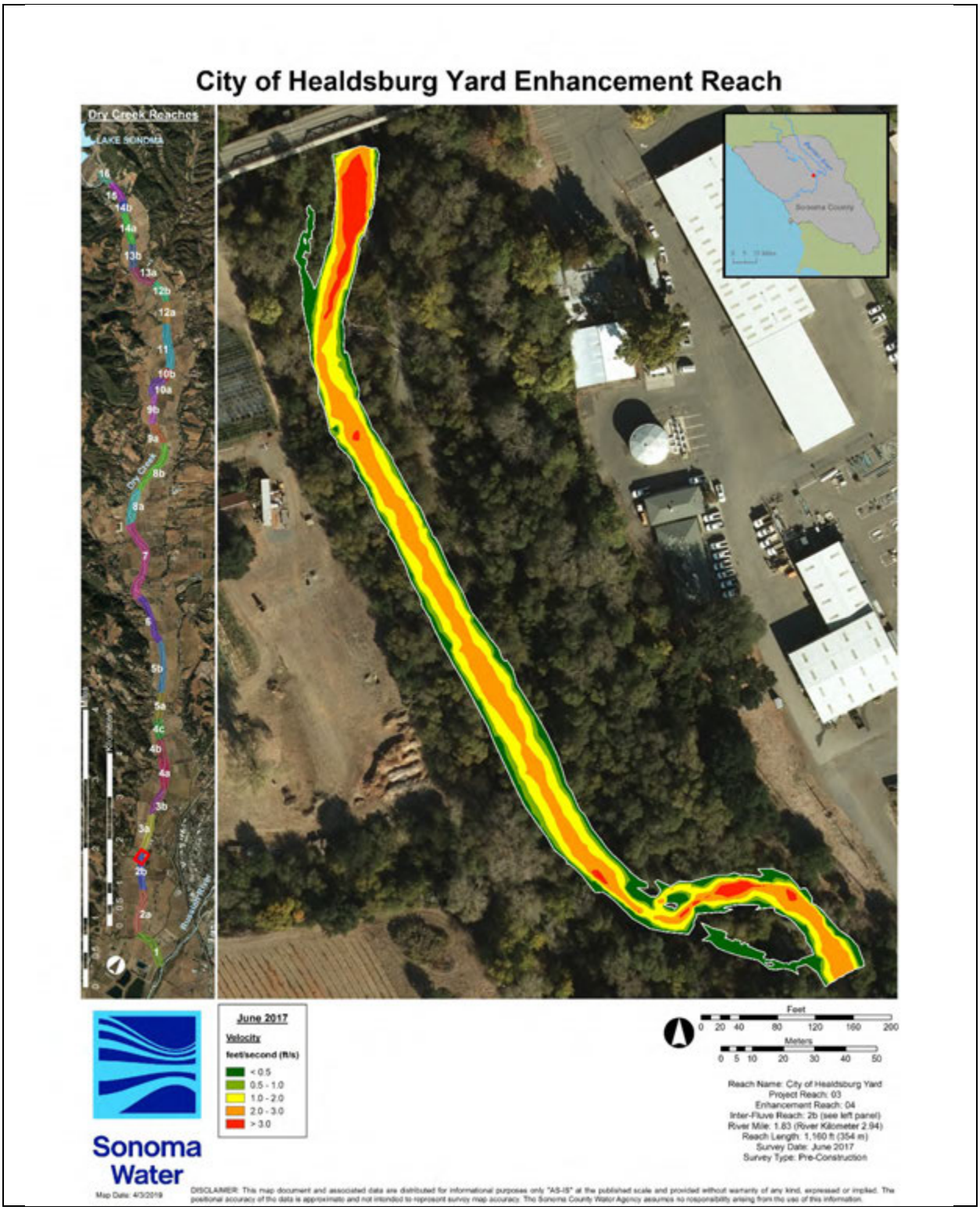


Figure 12. Measured water velocity within the City of Healdsburg Yard enhancement reach, June 2017.

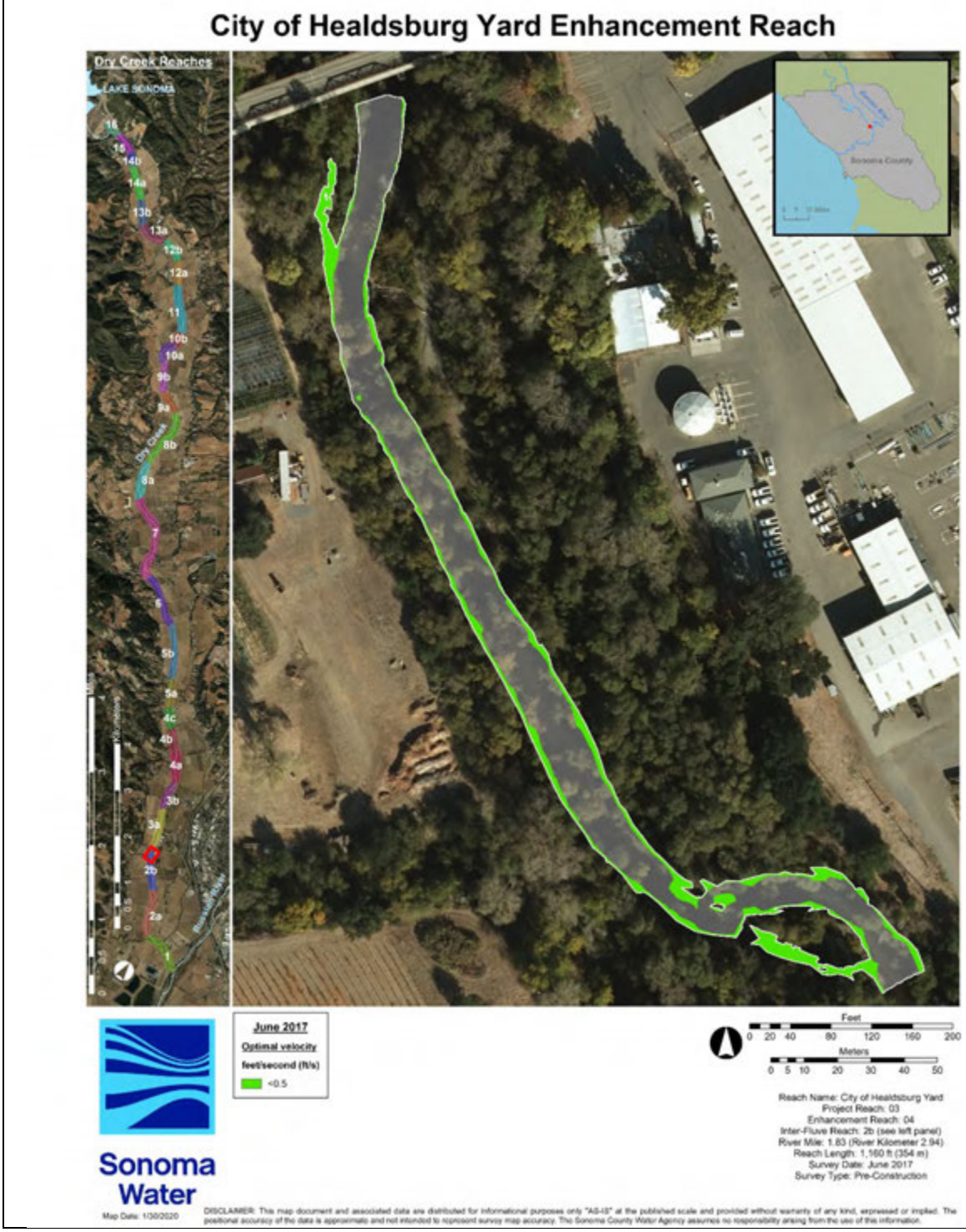


Figure 13. Optimal water velocity for fry and parr (< 0.5 ft/s) within the City of Healdsburg Yard enhancement reach, June 2017.

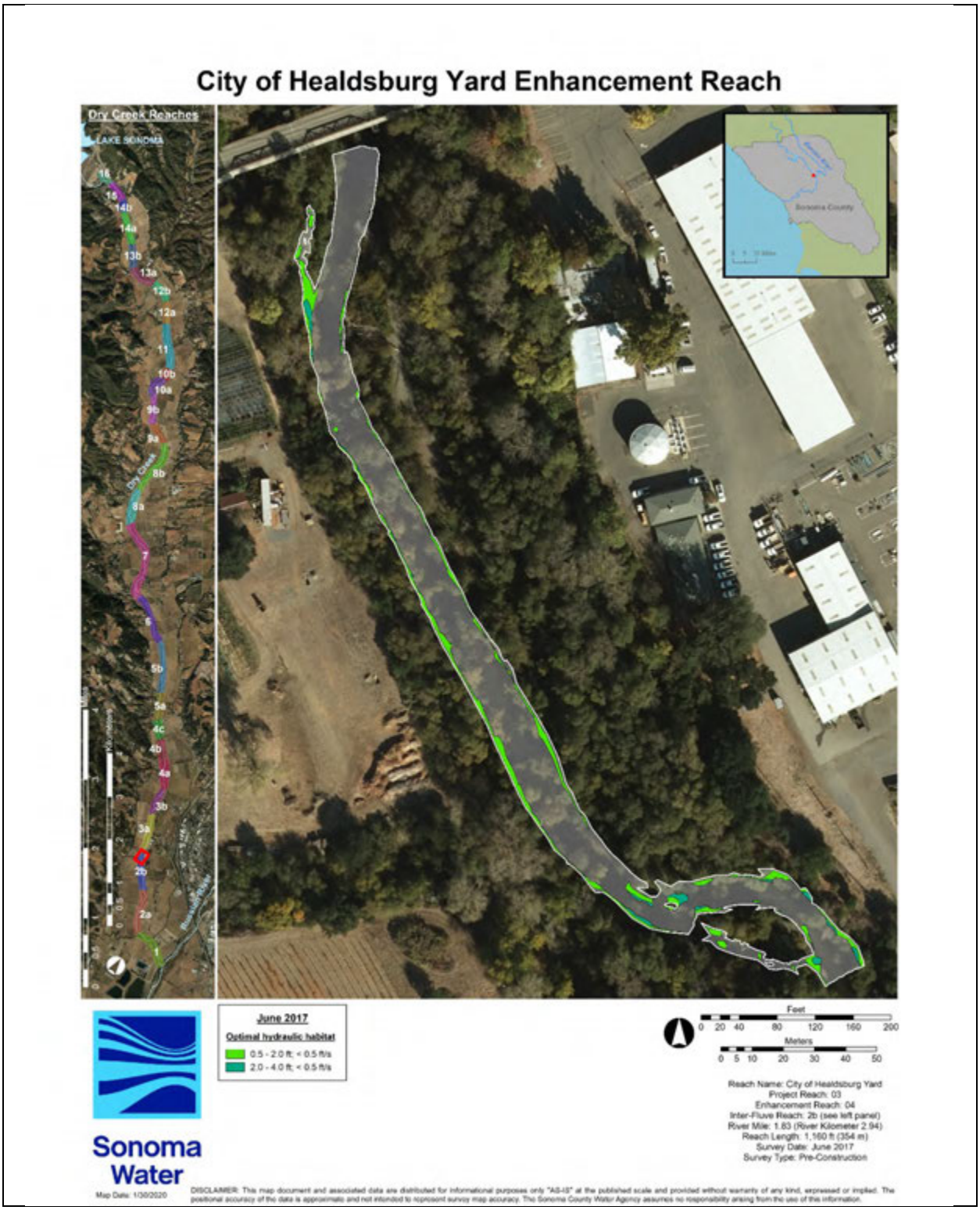


Figure 14. Optimal hydraulic habitat for fry (<0.5 ft/s, 0.5-2.0 ft) and parr (<0.5 ft/s, 2.0-4.0 ft) within the City of Healdsburg Yard enhancement reach, June 2017.

Habitat Types and Shelter Values

Table 8. Habitat, types, shelter value, percent cover, and shelter score for main channel habitat units within the City of Healdsburg Yard enhancement reach, June 2017.

Pre-enhancement (June 2017)				
Habitat Unit #	**Habitat Type**	**Shelter Value**	**Percent Cover**	**Shelter Score**
HU01	Pool	3	30	90
HU02	Pool	2	25	50
HU03	Riffle	2	40	80
HU04	Pool	2	30	60
HU05	Flatwater	2	15	30
HU06	Riffle	1	25	25
HU07	Flatwater	3	45	135
HU08	Pool	2	10	20
HU09	Flatwater	3	15	45
HU10	Riffle	3	15	45
HU11	Flatwater	3	30	90

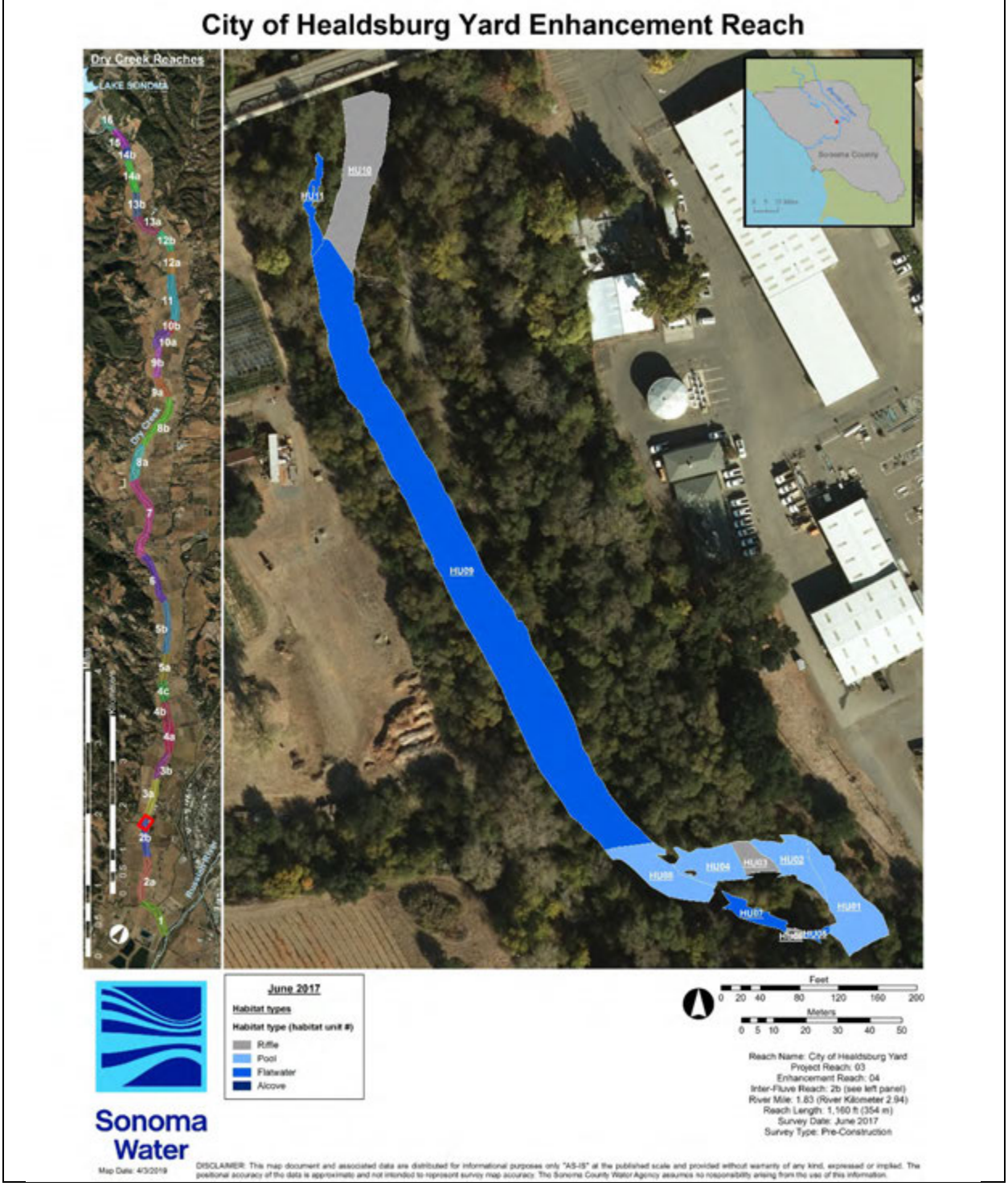


Figure 15. Habitat unit number and type within the City of Healdsburg Yard enhancement reach, June 2017.

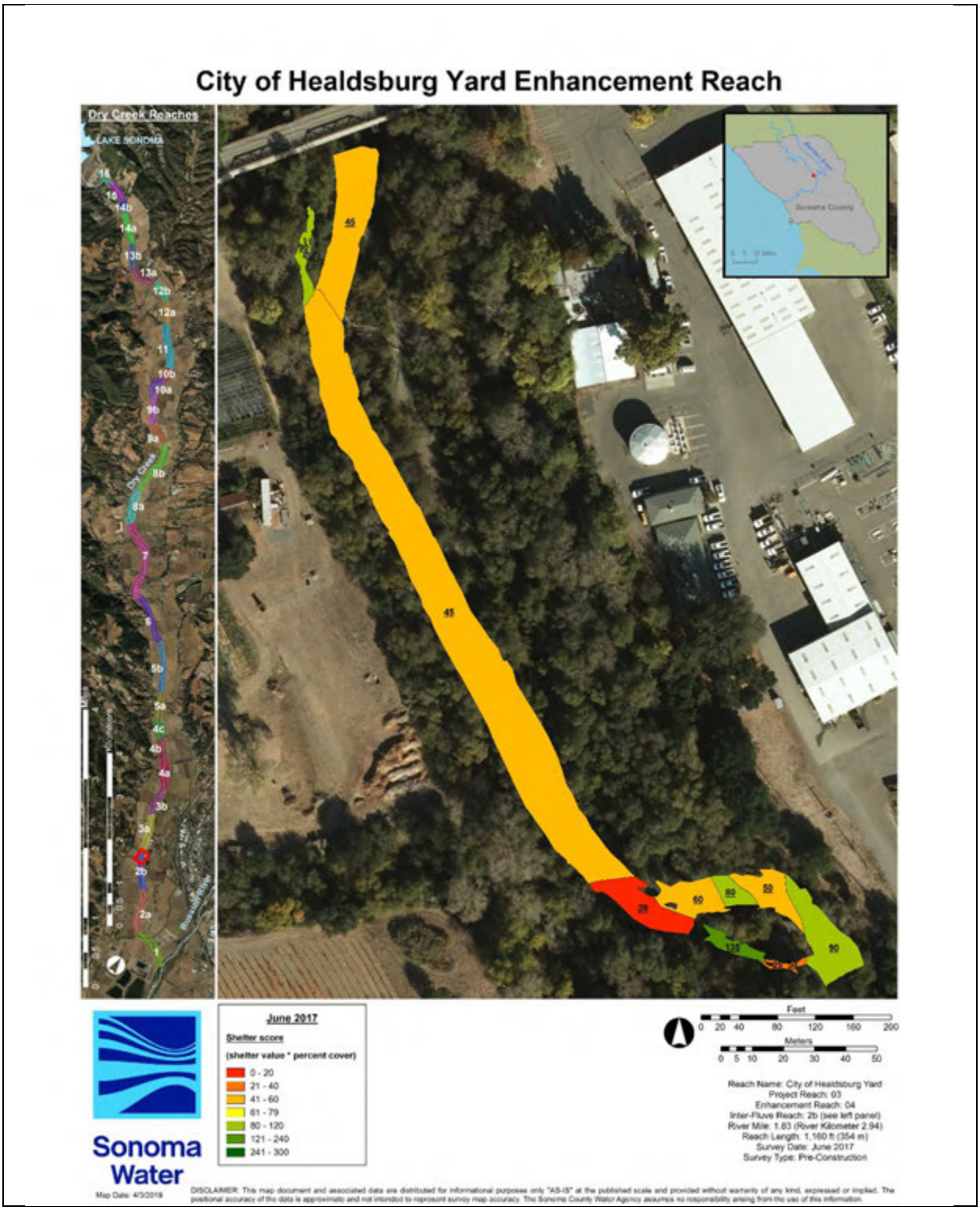


Figure 16. Habitat unit shelter scores within the City of Healdsburg Yard enhancement reach, June 2017.

Habitat Unit, Site, and Reach Ratings

Table 9. Habitat unit ratings for the City of Healdsburg Yard enhancement reach, June 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	mmddyy	61217	61217	61217	61217	61217	61217	61217	61217	61217	61217	61217
	Survey Type	PRE	PRE	PRE	PRE	PRE	PRE	PRE	PRE	PRE	PRE	PRE
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU09**	**HU10**	**HU11**
	Habitat Type	Pool	Pool	Riffle	Pool	Flatwater	Riffle	Flatwater	Pool	Flatwater	Riffle	Flatwater
	PROJECT SITE NUMBER	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	64%	45%	77%	45%	9%	0%	18%	38%	86%	78%	45%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	31%	33%	2%	37%	0%	0%	0%	40%	8%	2%	2%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	2	2	2	2	1	3	2	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	30	25	40	30	15	25	45	10	15	15	30
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	90	50	80	60	30	25	135	20	45	45	90
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	23%	28%	13%	33%	100%	96%	100%	34%	16%	7%	100%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	12%	10%	1%	13%	9%	0%	18%	14%	9%	1%	45%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	6%	1%	0%	8%	0%	0%	0%	6%	1%	0%	2%
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU09**	**HU10**	**HU11**
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	0	0	1	3	4	4	4
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	3	0	3	0	0	0	3	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	4	4	4	4	3	5	4	5	5	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	2	2	3	2	1	2	3	1	1	1	2
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	3	1	3	2	0	0	4	0	1	1	3
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	2	1	3	4	4	4	3	1	0	4
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	0	1	0	0	1	1	0	0	4
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU09**	**HU10**	**HU11**
HABITAT UNIT RATING	Habitat unit quantitative rating (out of 35)	20	17	15	19	9	9	18	15	12	11	22
	Habitat unit qualitative rating: Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7)	Fair	Fair	Fair	Fair	Poor	Poor	Fair	Fair	Poor	Poor	Good

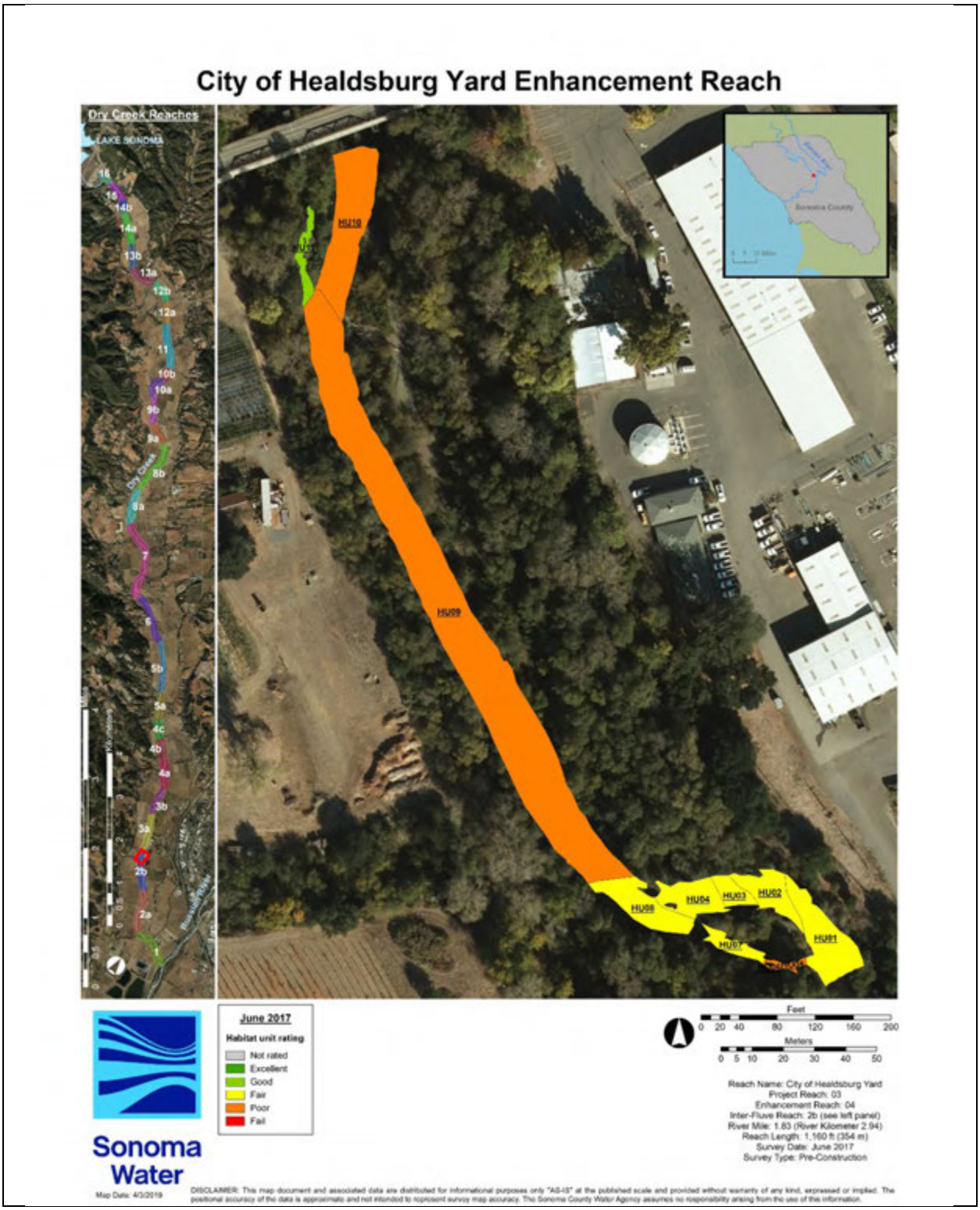


Figure 17. Habitat unit ratings for the City of Healdsburg Yard enhancement reach, June 2017.

Table 10. Pre-enhancement average feature, habitat unit, site, and reach ratings for the for the City of Healdsburg Yard enhancement reach, June 2017.

	Project Reach	3
	Enhancement Reach	4
	ENHANCEMENT REACH NAME	**CH**
	mmddyy	61217
	Survey Type	PRE
	PROJECT SITE NUMBER	**1**
	Project Site Type	MainChan
	PROJECT SITE NUMBER	**1**
SITE AVERAGE FEATURE RATING	Site average feature quantitative rating (out of 15; bold indicates excluded from site rating)	0
	Site average feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3), Not rated (not used to rate site)	Not rated
	PROJECT SITE NUMBER	1
SITE AVERAGE HABITAT UNIT RATING	Site average habitat unit quantitative rating (out of 35; bold indicates excluded from site rating)	15
	Site average qualitative rating Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7), Not rated (not used to rate site)	Fair
	PROJECT SITE NUMBER	**1**
SITE RATING	Site quantitative rating (sum of site average feature and habitat unit ratings) (out of 35; bold indicates rating excludes feature or habitat unit rating and scoring out of 15 or 35)	**15**
	Site qualitative rating: Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7)	Fair
	ENHANCEMENT REACH NAME	**CH**
ENHANCEMENT REACH RATING	Enhancement reach quantitative rating (average of site ratings) (out of 35)	15
	Enhancement reach qualitative rating: Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7)	Fair

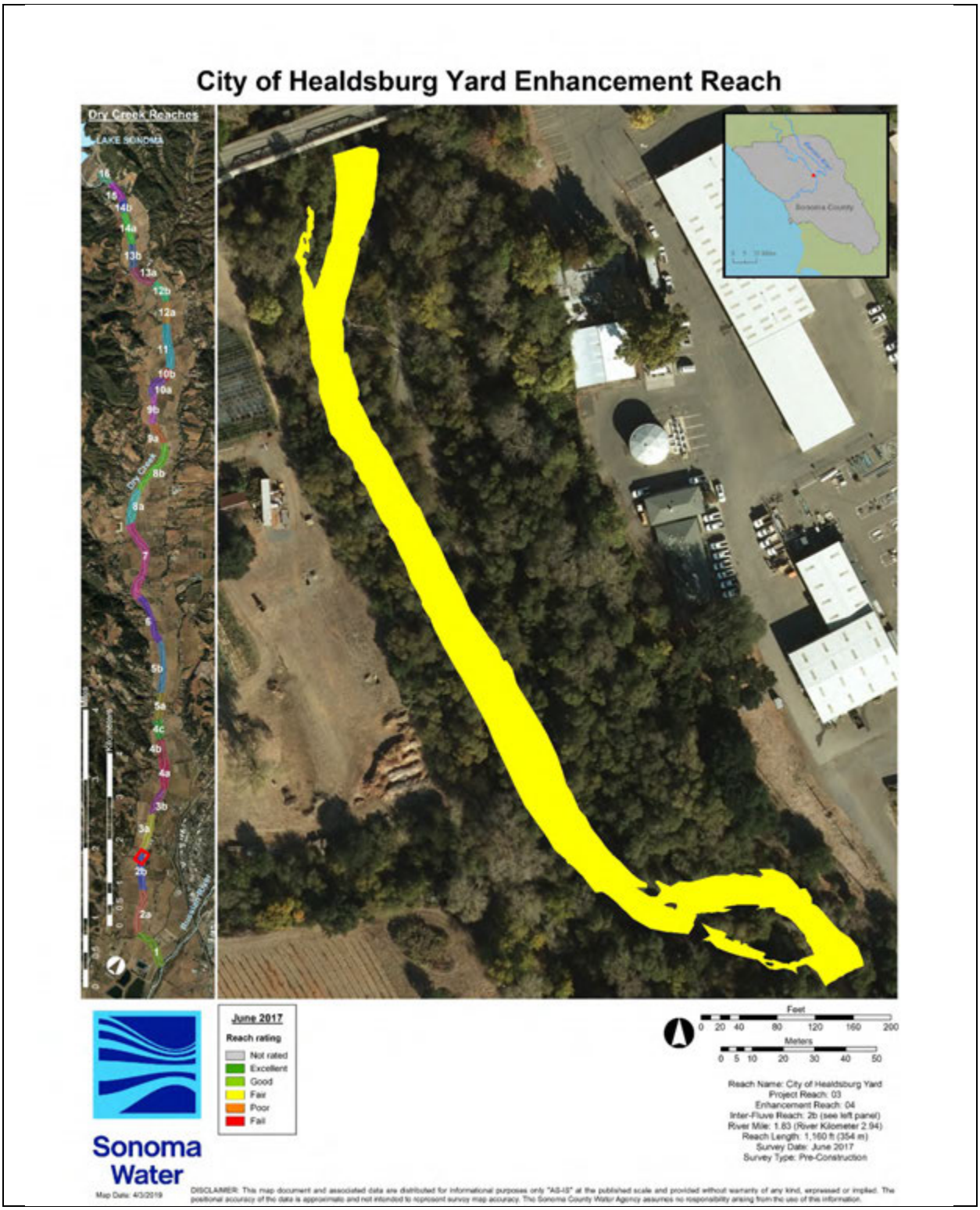


Figure 18. Pre-enhancement site and reach rating for the City of Healdsburg Yard enhancement reach, June 2017.

.

Feature and Habitat Unit Checklists

Table 11. Pre-enhancement Adaptive Management Plan targeted checklist for the City of Healdsburg Yard enhancement reach, June 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	mmddyy	61217	61217	61217	61217	61217	61217	61217	61217	61217	61217	61217
	Survey Type	PRE	PRE	PRE	PRE	PRE	PRE	PRE	PRE	PRE	PRE	PRE
	Project Site Number	1	1	1	1	1	1	1	1	1	1	1
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan
	Project Feature Number	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Feature Type Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Habitat Unit	HU01	HU02	HU03	HU04	HU05	HU06	HU07	HU08	HU09	HU10	HU11
	Habitat Type	Pool	Pool	Riffle	Pool	Flatwater	Riffle	Flatwater	Pool	Flatwater	Riffle	Flatwater
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5a	Are problems with the **feature** visible?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6a	Is the **feature** still in its original location?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6b	Is the **feature** still in its original position?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6d	Is the **feature** still in its original orientaton?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	64%	45%	77%	45%	9%	0%	18%	38%	86%	78%	45%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	31%	33%	2%	37%	0%	0%	0%	40%	8%	2%	2%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	2	2	2	2	1	3	2	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	30	25	40	30	15	25	45	10	15	15	30
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	90	50	80	60	30	25	135	20	45	45	90
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
25.	Did the **feature** achieve the targeted velocity?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	23%	28%	13%	33%	100%	96%	100%	34%	16%	7%	100%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	12%	10%	1%	13%	9%	0%	18%	14%	9%	1%	45%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	6%	1%	0%	8%	0%	0%	0%	6%	1%	0%	2%
	FEATURE NUMBER	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU09**	**HU10**	**HU11**
	SITE NUMBER	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
	ENHANCEMENT REACH NAME	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	0	0	0	0	0	0	0	0	0
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	0	0	1	3	4	4	4
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	3	0	3	0	0	0	3	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	4	4	4	4	3	5	4	5	5	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	2	2	3	2	1	2	3	1	1	1	2
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	3	1	3	2	0	0	4	0	1	1	3
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	2	1	3	4	4	4	3	1	0	4
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	0	1	0	0	1	1	0	0	4
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0

Table 12. Pre-enhancement Adaptive Management Plan full checklist for the City of Healdsburg Yard enhancement reach, June 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	mmddyy	61217	61217	61217	61217	61217	61217	61217	61217	61217	61217	61217
	Survey Type	PRE	PRE	PRE	PRE	PRE	PRE	PRE	PRE	PRE	PRE	PRE
	Project Site Number	1	1	1	1	1	1	1	1	1	1	1
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan
	Project Feature Number	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Feature Type Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Habitat Unit	HU01	HU02	HU03	HU04	HU05	HU06	HU07	HU08	HU09	HU10	HU11
	Habitat Type	Pool	Pool	Riffle	Pool	Flatwater	Riffle	Flatwater	Pool	Flatwater	Riffle	Flatwater
1.	Length of targeted treatment (ft)											
2.	Width of targeted treatment: (ft)											
3.	Estimate area of the targeted **feature**: (ft^2)	0	0	0	0	0	0	0	0	0	0	0
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5a	Are problems with the **feature** visible?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6a	Is the **feature** still in its original location?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6b	Is the **feature** still in its original position?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6c	If yes: LBK, MDC, RBK, SPN, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6d	Is the **feature** still in its original orientaton?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	POO	POO	RIF	POO	FLT	RIF	FLT	POO	FLT	RIF	FLT
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10.	Mean water depth in **habitat unit**: ft	1.7	1.5	1.0	1.8	0.3	0.1	0.4	1.9	1.3	0.9	0.6
11a	Maximum water depth in **habitat unit**: ft	4.1	3.9	2.2	5.4	1.0	0.6	1.9	4.7	3.3	3.1	2.6
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	2411.4	908.6	699.2	962.9	18.0	0.5	162.7	1072.9	25929.0	4930.8	419.1
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	1173.9	657.7	13.7	783.9	0.0	0.0	0.0	1132.1	2289.0	115.7	18.6
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	3585.3	1566.3	712.9	1746.8	18.0	0.5	162.7	2205.0	28218.0	5046.5	437.7
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	64%	45%	77%	45%	9%	0%	18%	38%	86%	78%	45%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	31%	33%	2%	37%	0%	0%	0%	40%	8%	2%	2%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	95%	78%	78%	82%	9%	0%	18%	78%	94%	80%	47%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:											
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	2	2	2	2	1	3	2	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	30	25	40	30	15	25	45	10	15	15	30
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	LWD	TVG	TVG	TVG	TVG	TVG	RTW	TVG	TVG	TVG	TVG
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	TRW	NON	SWD	SWD	LWD	UCB	TVG	SWD	BOL	NON	SWD
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	90	50	80	60	30	25	135	20	45	45	90
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	2	0	0	2	0	0	0	0	1	0	1
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	1	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	UNK	NON	NON	UNK	NON	NON	NON	NON	UNK	NON	UNK
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	UNK	NON	NON	UNK	NON	NON	NON	NON	UNK	NON	UNK
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	3.5	4.6	4.0	4.1	0.3	0.8	0.2	3.5	3.5	4.7	0.6
26c	Measured mean velocity (ft/sec) in **habitat unit**	1.6	1.5	2.1	1.2	0.0	0.2	0.0	1.2	1.5	2.4	0.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	863.3	556.8	116.6	699.8	205.0	133.8	917.1	955.4	4687.4	470.0	934.1
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	23%	28%	13%	33%	100%	96%	100%	34%	16%	7%	100%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	GRV	GRV	SND	GRV	GRV	GRV	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	UNK	UNK	UNK	UNK	UNK	UNK	SLC	UNK	UNK	UNK	UNK
31.	If an objective, did the **feature** achieve the targeted substrate composition?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	680.4	231.2	8.7	454.0	18.0	0.5	162.7	544.9	2943.1	91.9	437.7
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	471.8	202.8	8.7	283.3	18.0	0.5	162.7	387.7	2733.8	91.9	419.1
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	208.6	28.4	0.0	170.7	0.0	0.0	0.0	157.2	209.4	0.0	18.6
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	18%	12%	1%	21%	9%	0%	18%	19%	10%	1%	47%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	12%	10%	1%	13%	9%	0%	18%	14%	9%	1%	45%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	6%	1%	0%	8%	0%	0%	0%	6%	1%	0%	2%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
38.	Are additional restoration treatments recommended at this **site**?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Post-enhancement 2017

Carlson, Lonestar Post-enhancement, September 2017

Depth and Velocity

Table 13. Areas and percentages of: wetted area, optimal depth and velocity, and optimal hydraulic habitat within the Carlson, Lonestar enhancement reach, September 2017.

Carlson, Lonestar Post-enhancement September 2017	Wetted area (ft^2)	Optimal depth (ft^2)			Optimal velocity (ft^2)	Optimal habitat (ft^2)		
		0.5 – 2.0 ft	2.0 – 4.0 ft	Total	< 0.5 ft/s	0.5 – 2.0 ft < 0.5 ft/s	2.0 – 4.0 ft < 0.5 ft/s	Total
Main channel area	36,476	29,122	3,529	32,651	6,158	3,145	931	4,076
Side channel area	18,593	6,213	8,913	15,126	17,700	5,434	8,803	14,237
Total area	**55,069**	**35,335**	**12,443**	**47,778**	**23,858**	**8,579**	**9,735**	**18,313**
Main channel % of wetted area	66%	80%	10%	90%	17%	9%	3%	11%
Side channel % of wetted area	34%	33%	48%	81%	95%	29%	47%	77%
Total % of wetted area	**100%**	**64%**	**23%**	**87%**	**43%**	**16%**	**18%**	**33%**

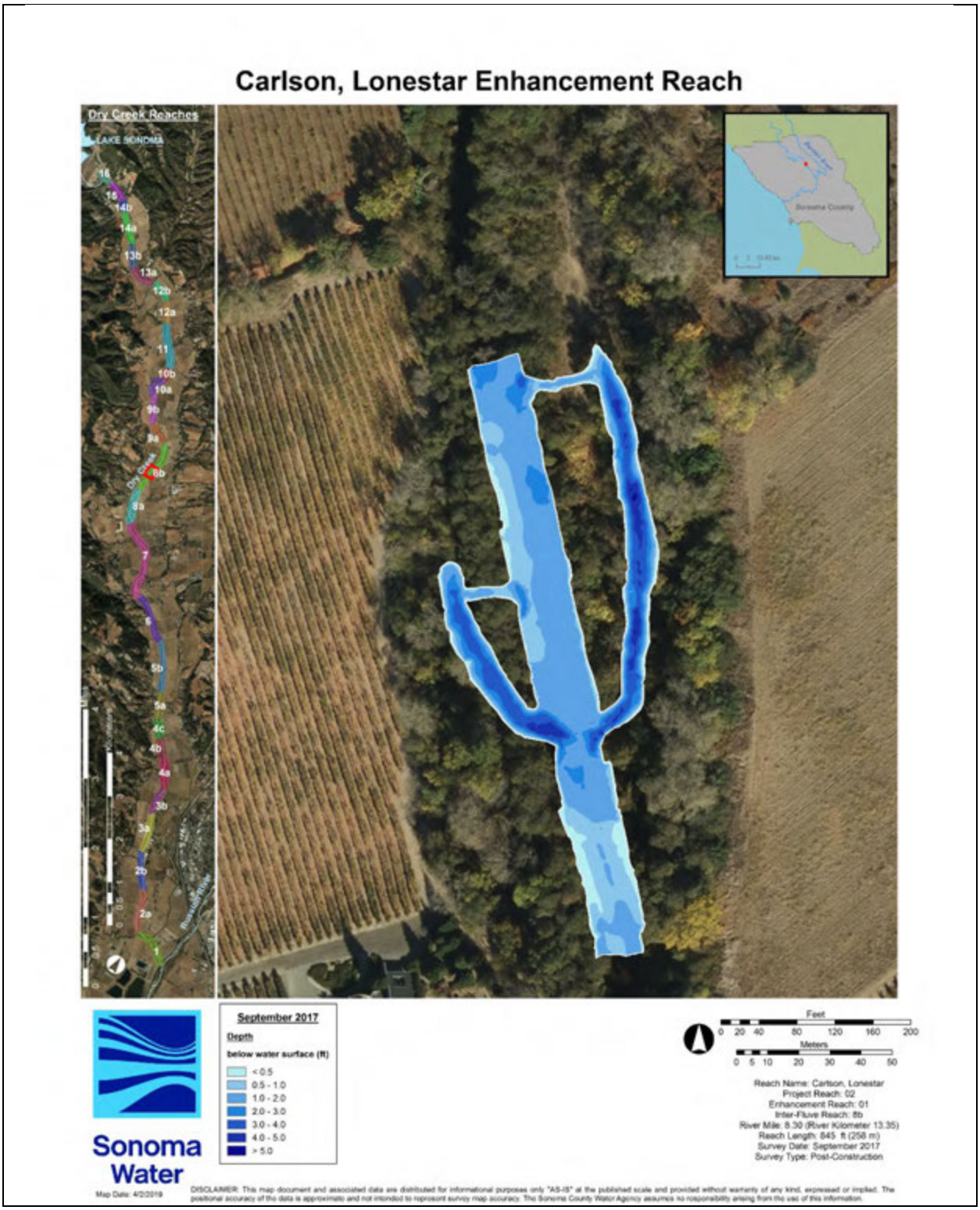


Figure 19. Measured water depth within the Carlson, Lonestar enhancement reach, September 2017.

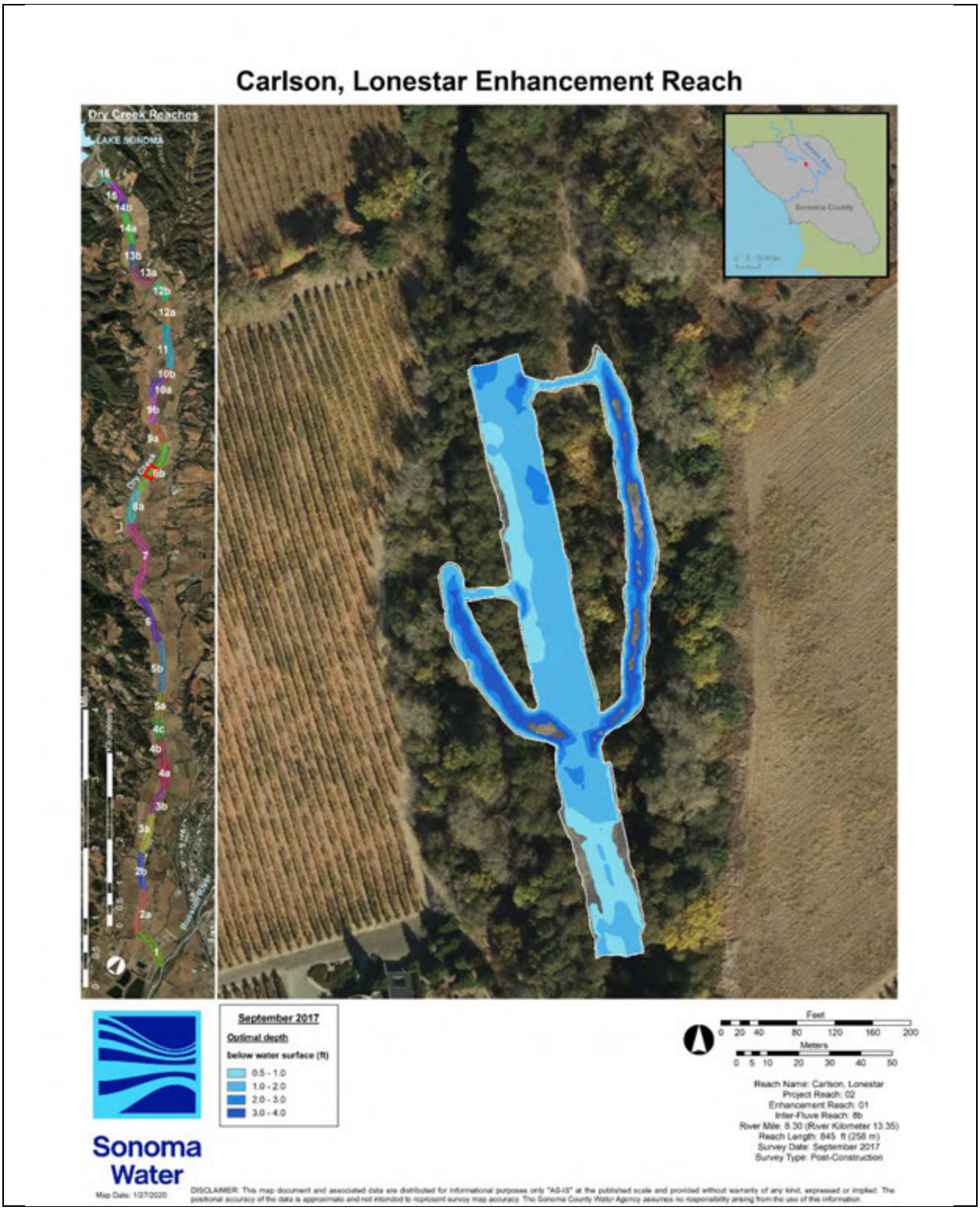


Figure 20. Optimal water depth for fry (0.5-2.0 ft) and parr (2.0-4.0 ft) within the Carlson, Lonestar enhancement reach, September 2017.

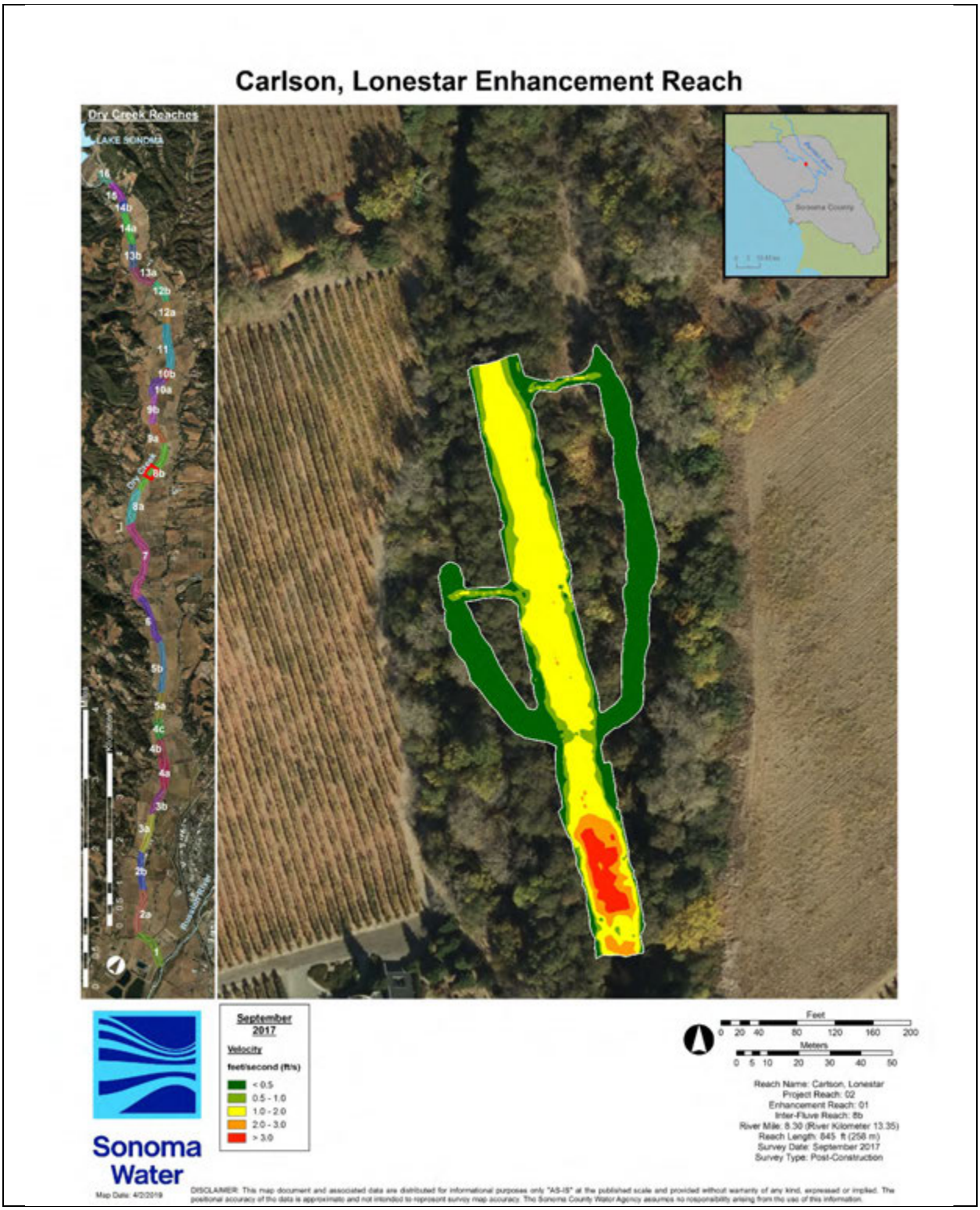


Figure 21. Measured water velocity within the Carlson, Lonestar enhancement reach, September 2017.

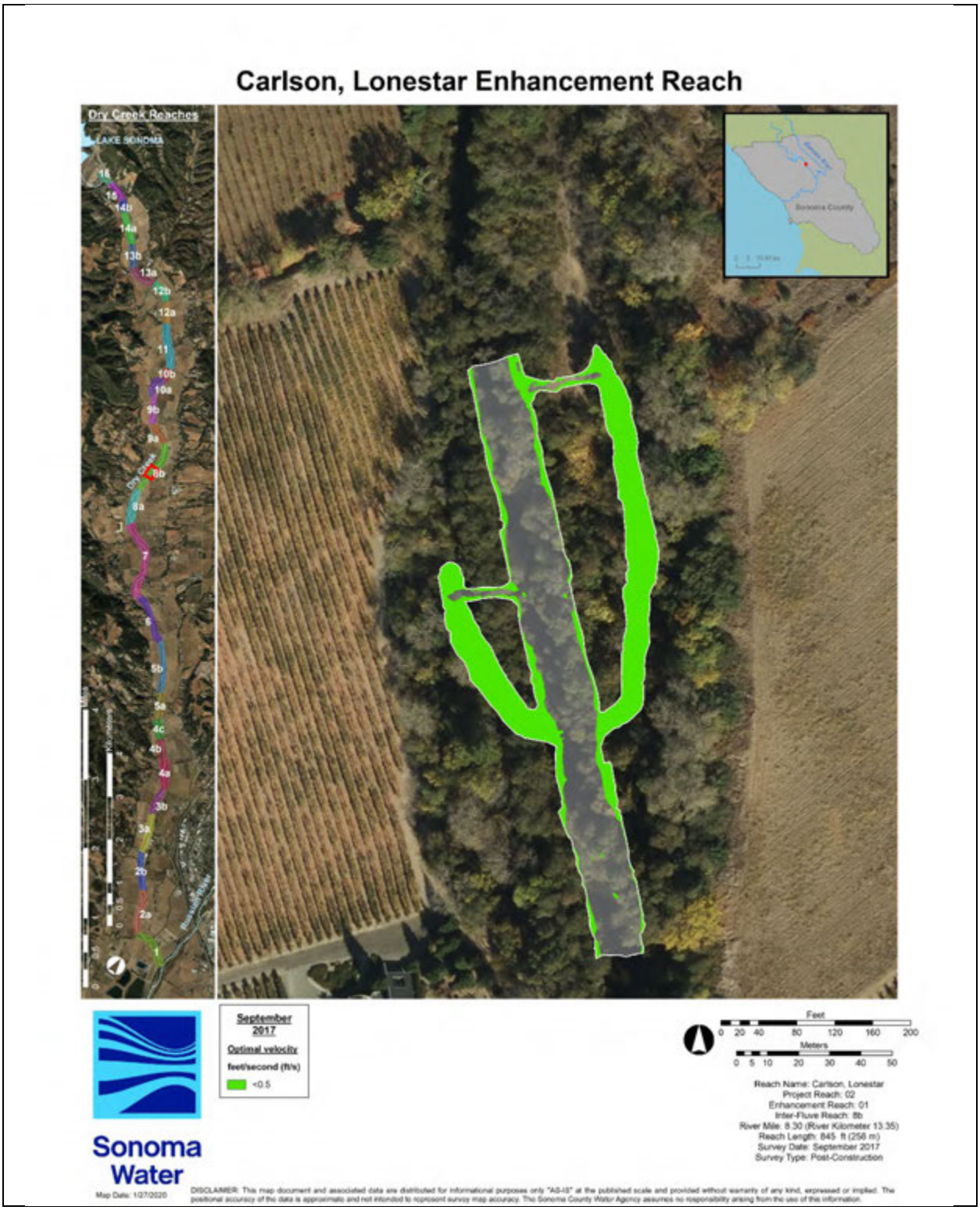


Figure 22. Optimal water velocity for fry and parr (< 0.5 ft/s) within the Carlson, Lonestar enhancement reach, September 2017.

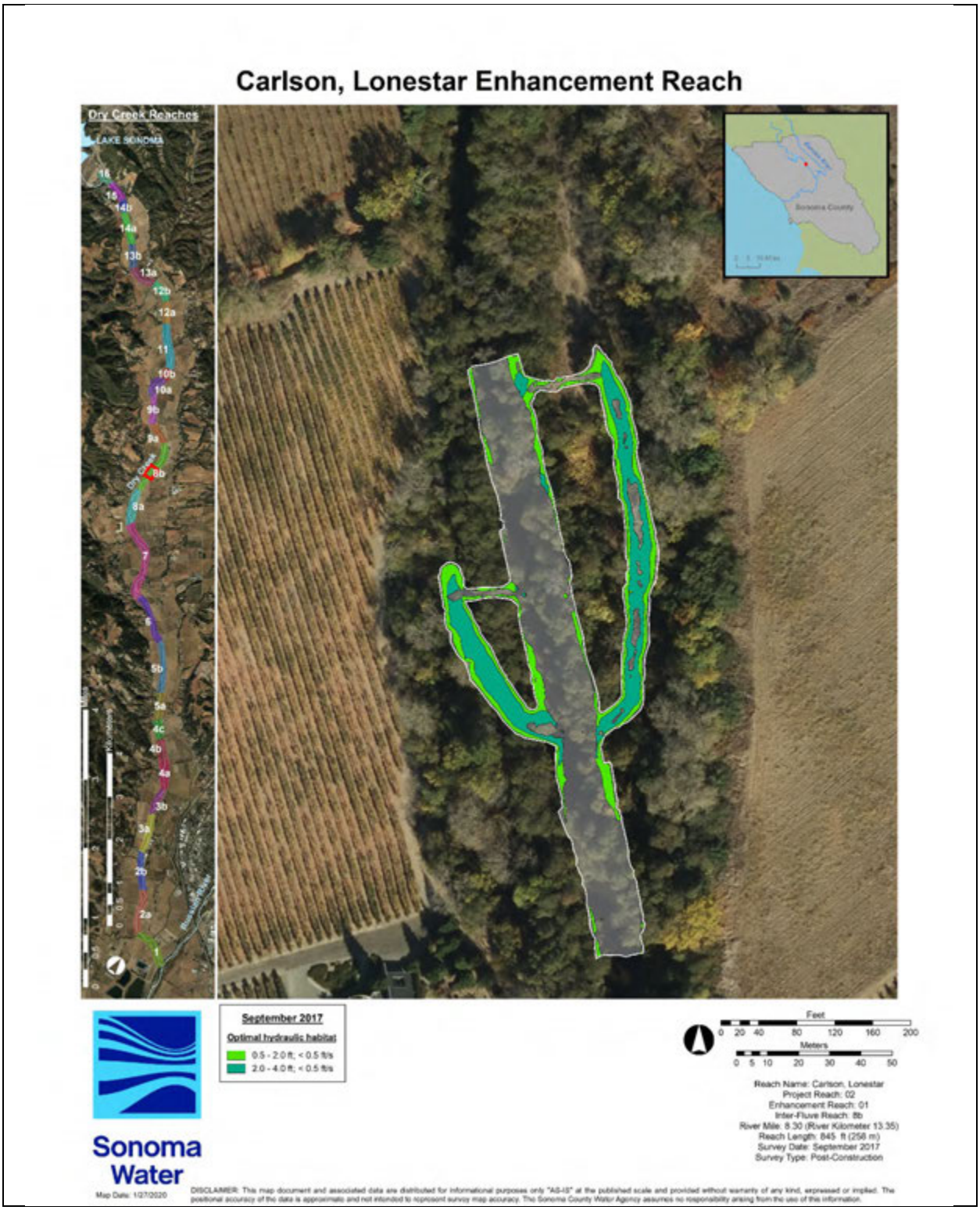


Figure 23. Optimal hydraulic habitat for fry (<0.5 ft/s, 0.5-2.0 ft) and parr (<0.5 ft/s, 2.0-4.0 ft) within the Carlson, Lonestar enhancement reach, September 2017.

Habitat Types and Shelter Values

Table 14. Habitat, types, shelter value, percent cover, and shelter score for habitat units within the Carlson, Lonestar enhancement reach, September 2017.

Post-enhancement (September 2017)				
Habitat Unit #	**Habitat Type**	**Shelter Value**	**Percent Cover**	**Shelter Score**
HU02	Riffle	2	45	90
HU03	Flatwater	3	15	45
HU04	Alcove	3	50	150
HU05	Alcove	3	55	165
HU06	Flatwater	3	30	90
HU07	Flatwater	3	45	135

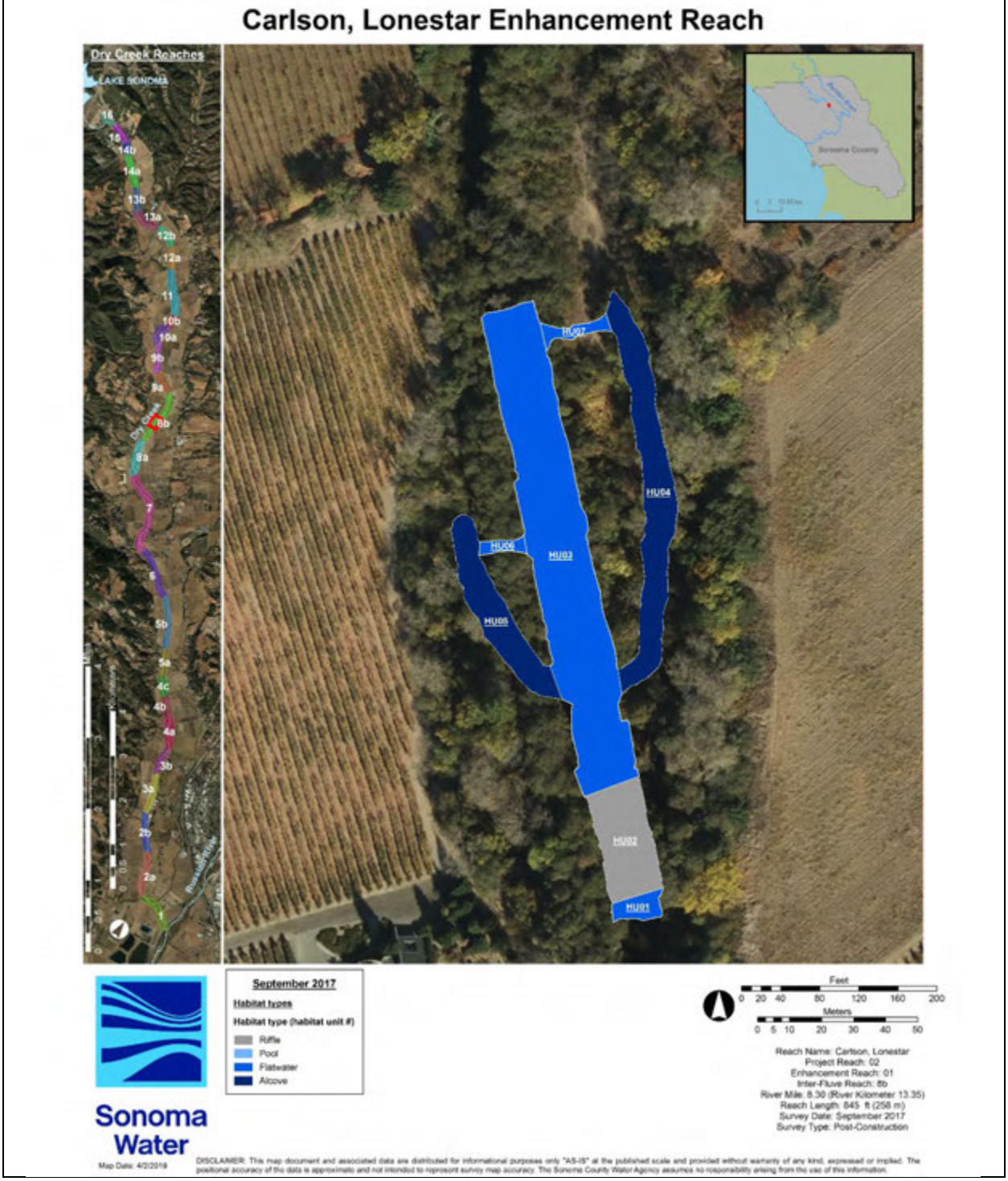


Figure 24. Habitat unit number and type within the Carlson, Lonestar enhancement reach, September 2017.

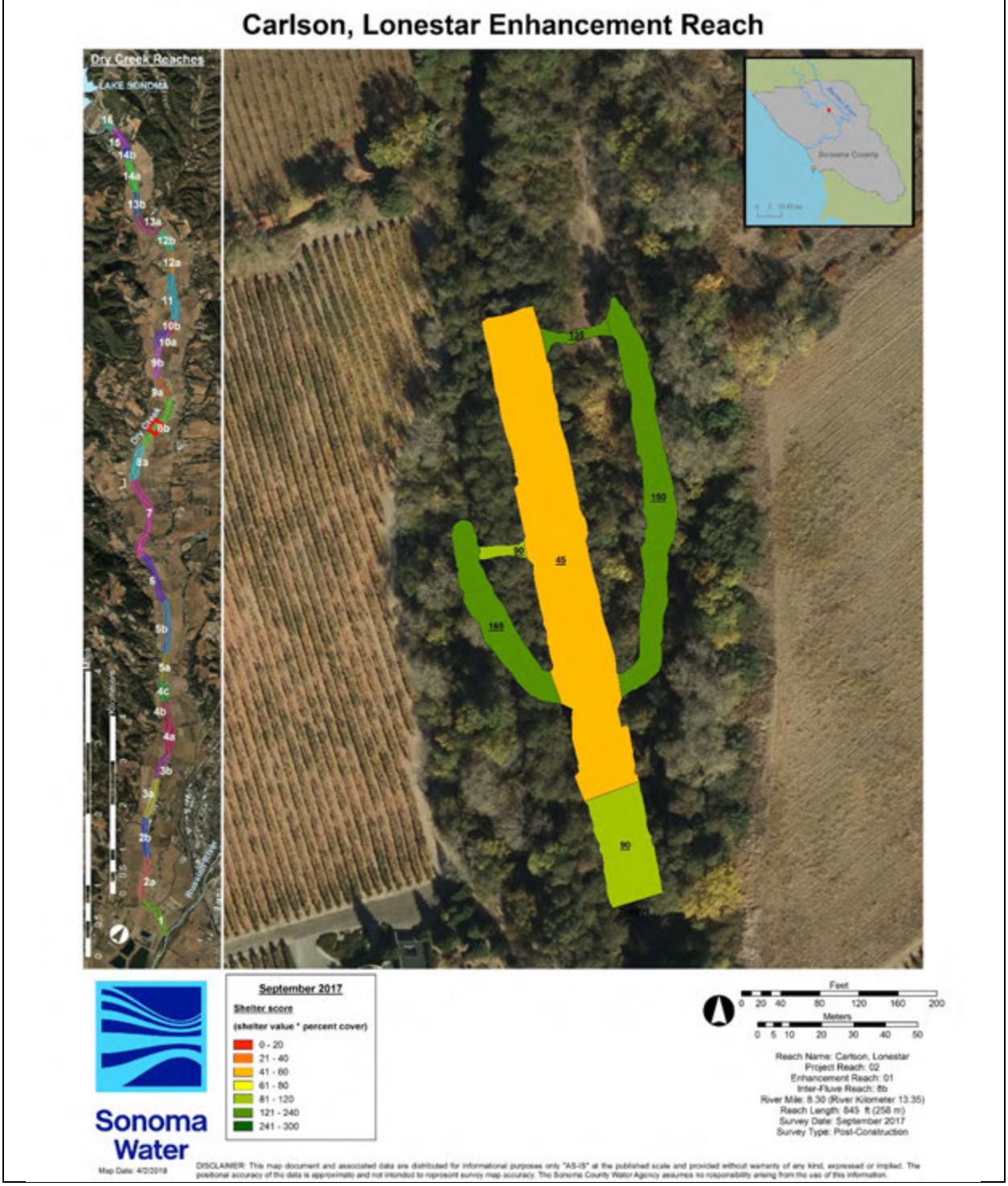


Figure 25. Habitat unit shelter scores within the Carlson, Lonestar enhancement reach, September 2017.

Feature, Habitat Unit, Site, and Reach Ratings

Table 15. Post-enhancement feature ratings for the Carlson, Lonestar enhancement reach September 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Colloquial Name	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
	mmddyy	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S1-01	S1-02	S1-03	S1-04	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S2-07	S2-08	S2-09	S2-10	S2-11	S2-12	S2-13	S2-14
	Feature Type Code	R	PW	PW	PW	LJ	FW	BCW	HW	HW	BCW	HW	HW	BCW	BCW	TP	BCW	ISW	FW
	Habitat Unit	HU03	HU03	HU03	HU03	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU07	HU07
	Habitat Type	Flatwater	Flatwater	Flatwater	Flatwater	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Flatwater	Flatwater
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA	NA	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	NA	YES	YES	NA
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	PROJECT FEATURE NUMBER	**S1-01**	**S1-02**	**S1-03**	**S1-04**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**	**S2-10**	**S2-11**	**S2-12**	**S2-13**	**S2-14**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	1	0	1	1	1	1	1	1	1	1	0	1	1	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	PROJECT FEATURE NUMBER	**S1-01**	**S1-02**	**S1-03**	**S1-04**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**	**S2-10**	**S2-11**	**S2-12**	**S2-13**	**S2-14**
FEATURE RATING	Feature quantitative rating out of 15	13	13	13	13	14	13	14	14	14	14	14	14	14	14	13	14	14	13
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

Table 15. Post-enhancement feature ratings for the Carlson, Lonestar enhancement reach September 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Colloquial Name	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
	mmddyy	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S3-01	S3-02	S3-03	S3-04	S3-05	S3-06	S3-07	S3-08
	Feature Type Code	FW	HW	FW	FW	FW	FW	FW	FW	FW	FW	LJ	BCW	HW	BCW	HW	HW	HW	BCW
	Habitat Unit	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU05	HU05	HU05	HU05	HU05	HU05	HU05	HU05
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	NA	YES	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	PROJECT FEATURE NUMBER	**S2-15**	**S2-16**	**S2-17**	**S2-18**	**S2-19**	**S2-20**	**S2-21**	**S2-22**	**S2-23**	**S2-24**	**S3-01**	**S3-02**	**S3-03**	**S3-04**	**S3-05**	**S3-06**	**S3-07**	**S3-08**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	1	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	PROJECT FEATURE NUMBER	**S2-15**	**S2-16**	**S2-17**	**S2-18**	**S2-19**	**S2-20**	**S2-21**	**S2-22**	**S2-23**	**S2-24**	**S3-01**	**S3-02**	**S3-03**	**S3-04**	**S3-05**	**S3-06**	**S3-07**	**S3-08**
FEATURE RATING	Feature quantitative rating out of 15	13	13	13	13	13	13	13	13	13	13	14	14	14	14	14	13	14	14
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

Table 15. Post-enhancement feature ratings for the Carlson, Lonestar enhancement reach September 2017.

	Project Reach	2	2	2
	Enhancement Reach	1	1	1
	Colloquial Name	CL	CL	CL
	mmddyy	90517	90517	90517
	Survey Type	POS	POS	POS
	PROJECT SITE NUMBER	3	3	3
	Project Site Type	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S3-09	S3-10	S3-11
	Feature Type Code	ISW	BCW	FW
	Habitat Unit	HU06	HU06	HU02_D
	Habitat Type	Flatwater	Flatwater	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	NA
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES
	PROJECT FEATURE NUMBER	**S3-09**	**S3-10**	**S3-11**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1
	PROJECT FEATURE NUMBER	**S3-09**	**S3-10**	**S3-11**
FEATURE RATING	Feature quantitative rating out of 15	14	14	13
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Excellent

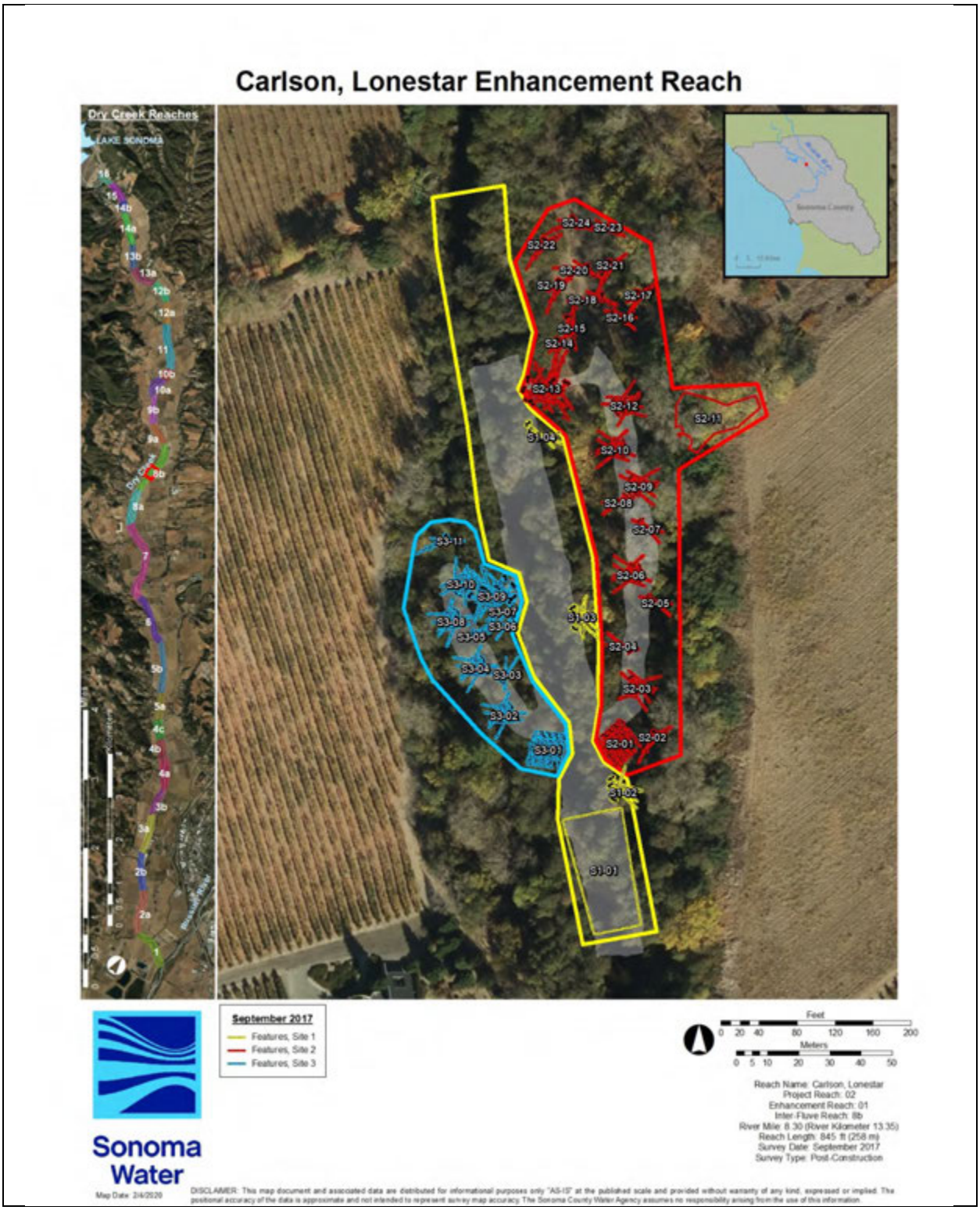


Figure 26. Enhancement sites and features within the Carlson, Lonestar enhancement reach, September 2017.

.

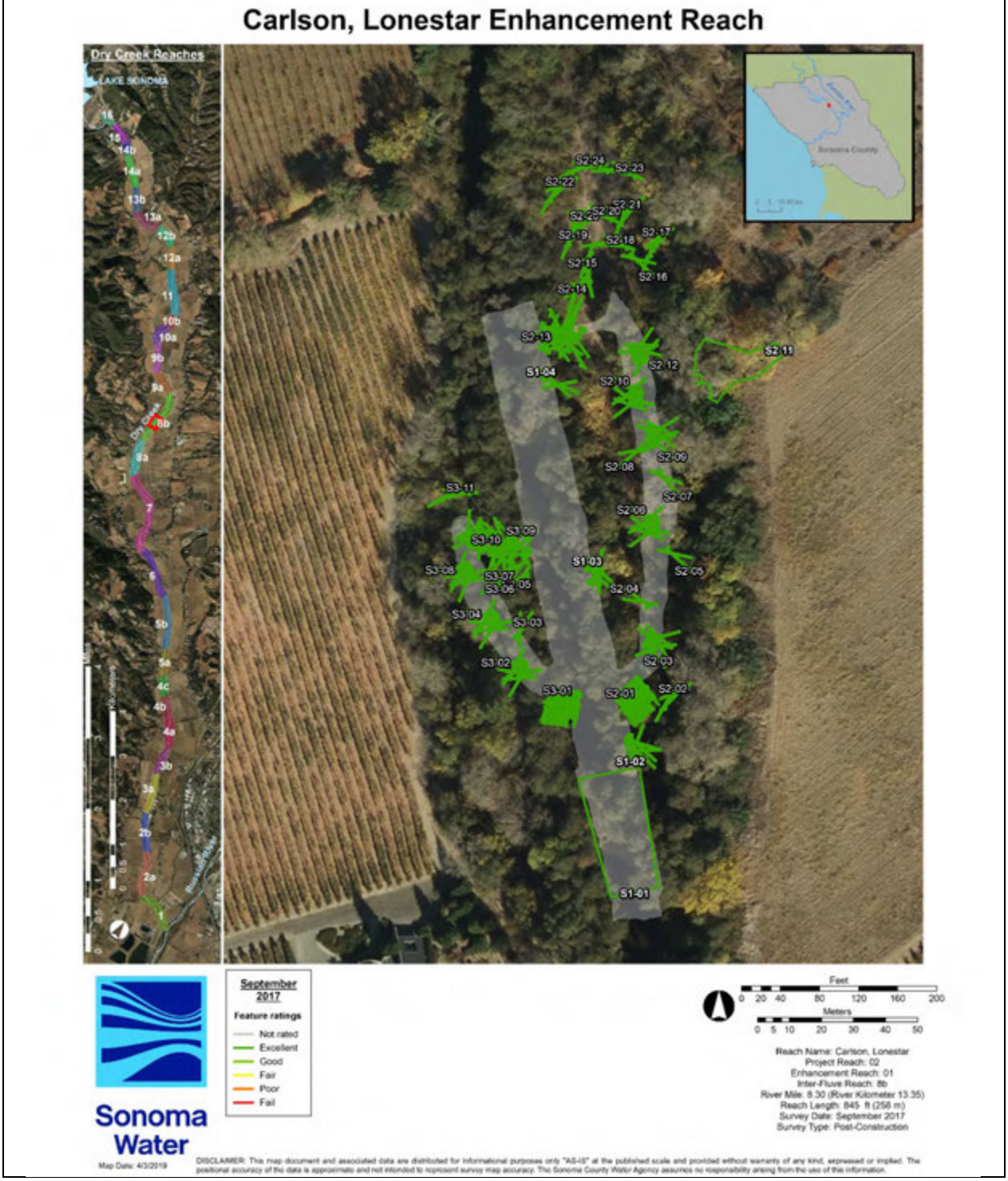


Figure 27. Feature ratings for the Carlson, Lonestar enhancement reach, September 2017.

Table 16. Post-enhancement habitat unit ratings for the Carlson, Lonestar enhancement reach September 2017.

	Project Reach	2	2	2	2	2	2	2	2	2
	Enhancement Reach	1	1	1	1	1	1	1	1	1
	Colloquial Name	CL	CL	CL	CL	CL	CL	CL	CL	CL
	mmddyy	90517	90517	90517	90517	90517	90517	90517	90517	90517
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU01_D**	**HU02_D**
	Habitat Type	Flatwater	Riffle	Flatwater	Alcove	Alcove	Flatwater	Flatwater	Dry	Dry
	PROJECT SITE NUMBER	**1**	**1**	**1**	**2**	**3**	**3**	**2**	**2**	**3**
	Project Site Type	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	94%	72%	82%	29%	31%	82%	77%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	12%	49%	57%	0%	1%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	2	3	3	3	3	3	0	0
15.	Percent of **habitat unit** covered by shelter: %	0	45	15	50	55	30	45	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	90	45	150	165	90	135	0	0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	12%	7%	19%	100%	97%	50%	57%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	7%	2%	10%	28%	30%	32%	34%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	3%	49%	55%	0%	1%	0%	0%
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU01_D**	**HU02_D**
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	2	3	4	4	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	1	4	4	0	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	4	5	5	5	5	5	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	3	1	3	3	2	3	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	3	1	5	5	3	4	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	0	1	4	4	4	4	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	1	2	3	3	3	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	4	4	0	0	0	0
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU01_D**	**HU02_D**
HABITAT UNIT RATING	Habitat unit quantitative rating (out of 35)	5	14	14	29	31	21	23	0	0
	Habitat unit qualitative rating: Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7)	Not rated	Fair	Fair	Excellent	Excellent	Good	Good	Not rated	Not rated

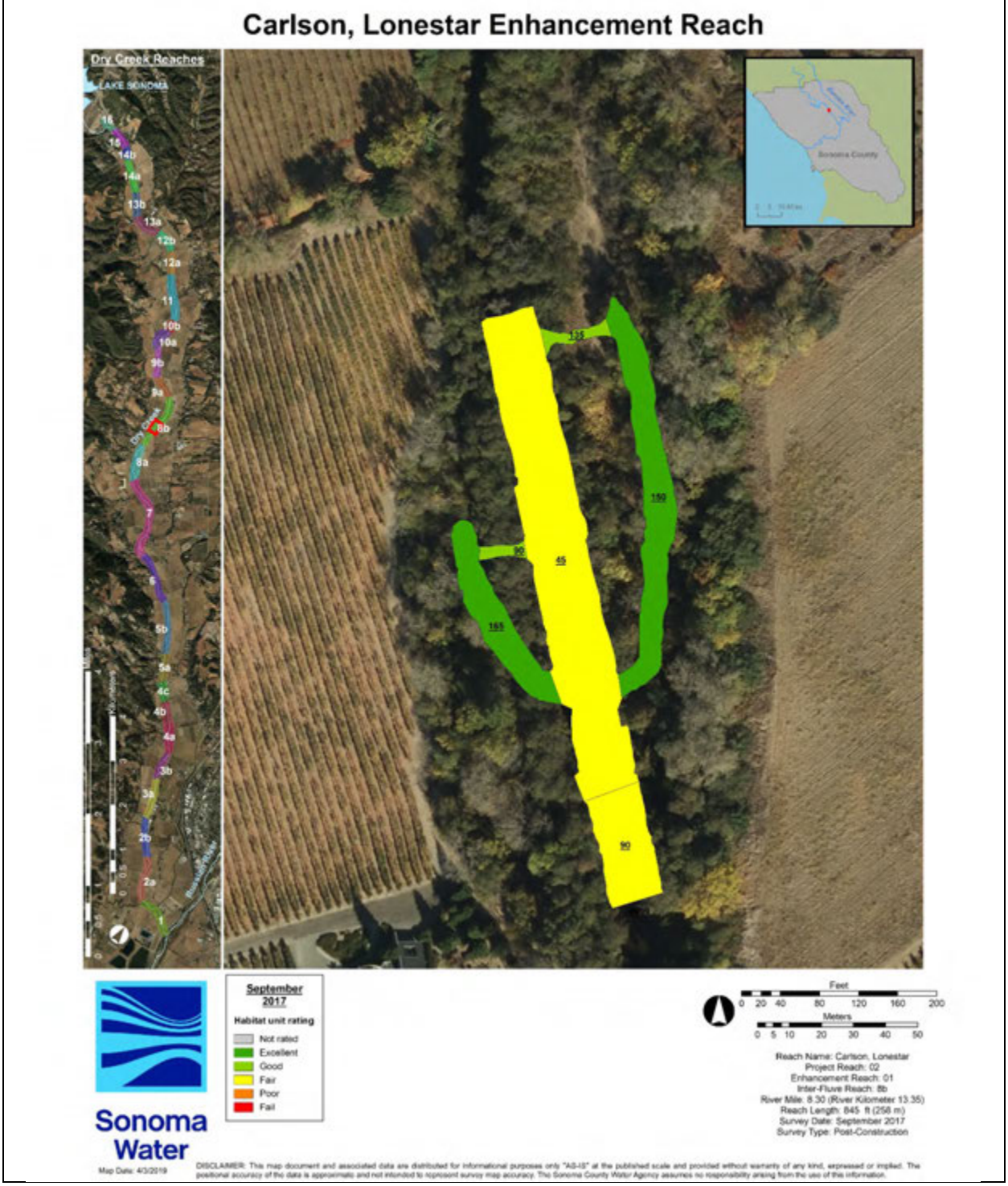


Figure 28. Habitat unit ratings for the Carlson, Lonestar enhancement reach, September 2017.

Table 17. Post-enhancement average feature, average habitat unit, site, and reach ratings for the Carlson, Lonestar enhancement reach, September 2017.

	Project Reach	2	2	2
	Enhancement Reach	1	1	1
	ENHANCEMENT REACH NAME	CL	CL	CL
	mmddyy	90517	90517	90517
	Survey Type	POS	POS	POS
	PROJECT SITE NUMBER	1	2	3
	Project Site Type	MainChan	SideChan	SideChan
	PROJECT SITE NUMBER	1	2	3
SITE AVERAGE FEATURE RATING	Site average feature quantitative rating (out of 15; bold indicates excluded from site rating)	13	13	14
	Site average feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3), Not rated (not used to rate site)	Excellent	Excellent	Excellent
	PROJECT SITE NUMBER	1	2	3
SITE AVERAGE HABITAT UNIT RATING	Site average habitat unit quantitative rating (out of 35; bold indicates excluded from site rating)	14	26	26
	Site average qualitative rating Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7), Not rated (not used to rate site)	Fair	Good	Good
	PROJECT SITE NUMBER	1	2	3
SITE RATING	Site quantitative rating (sum of site average feature and habitat unit ratings) (out of 50; bold indicates rating excludes feature or habitat unit rating and scoring out of 15 or 35)	27	39	40
	Site qualitative rating: Excellent (>=40), Good (>=30), Fair(>=20), Poor (>=10), Fail (<10)	Fair	Good	Excellent
	ENHANCEMENT REACH NAME	CL		
ENHANCEMENT REACH RATING	Enhancement reach quantitative rating (average of site ratings) (out of 50)	33		
	Enhancement reach qualitative rating: Excellent (>=40), Good (>=30), Fair(>=20), Poor (>=10), Fail (<10)	Good		

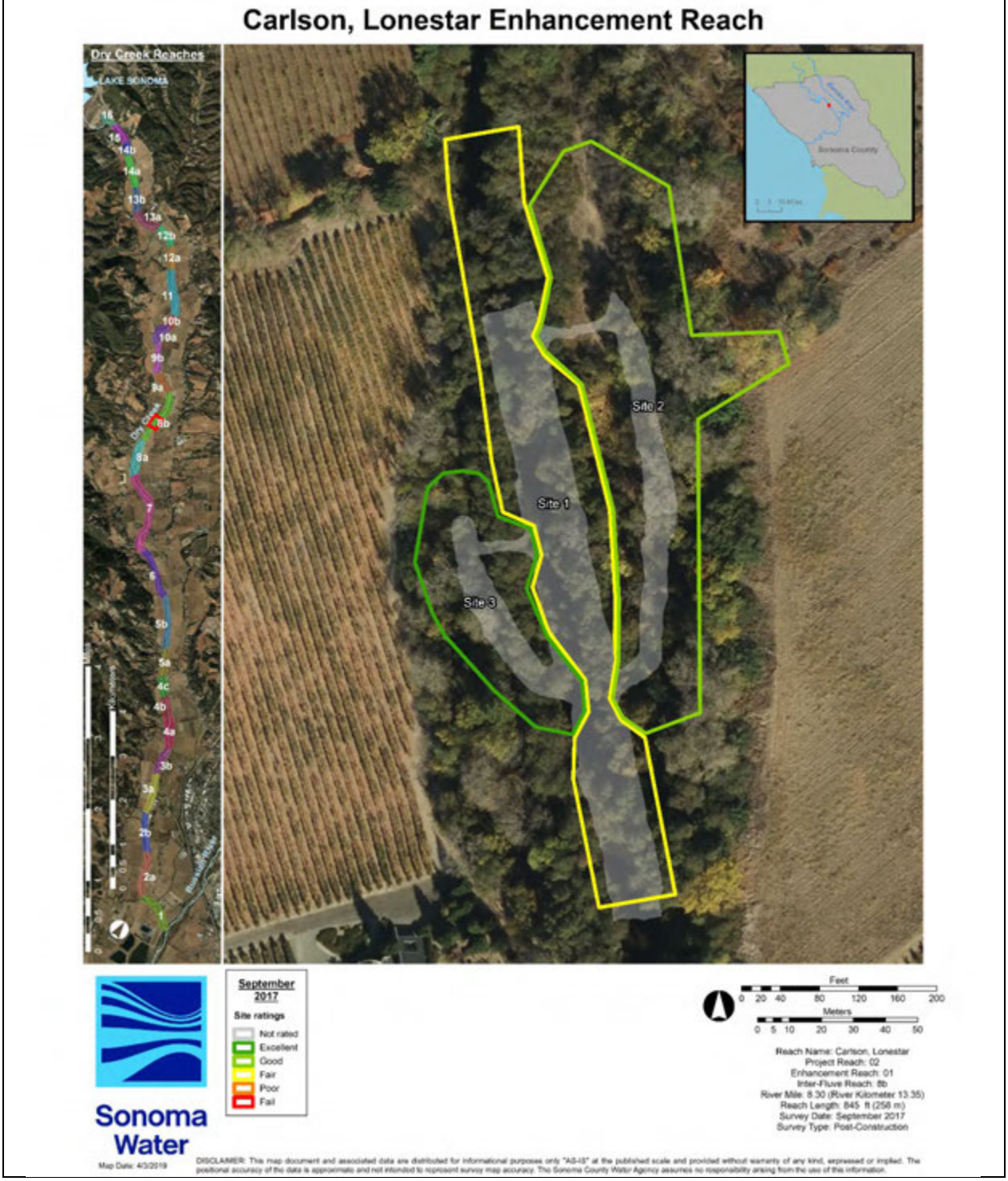


Figure 29. Post enhancement site ratings for the Carlson, Lonestar enhancement reach, September 2017.

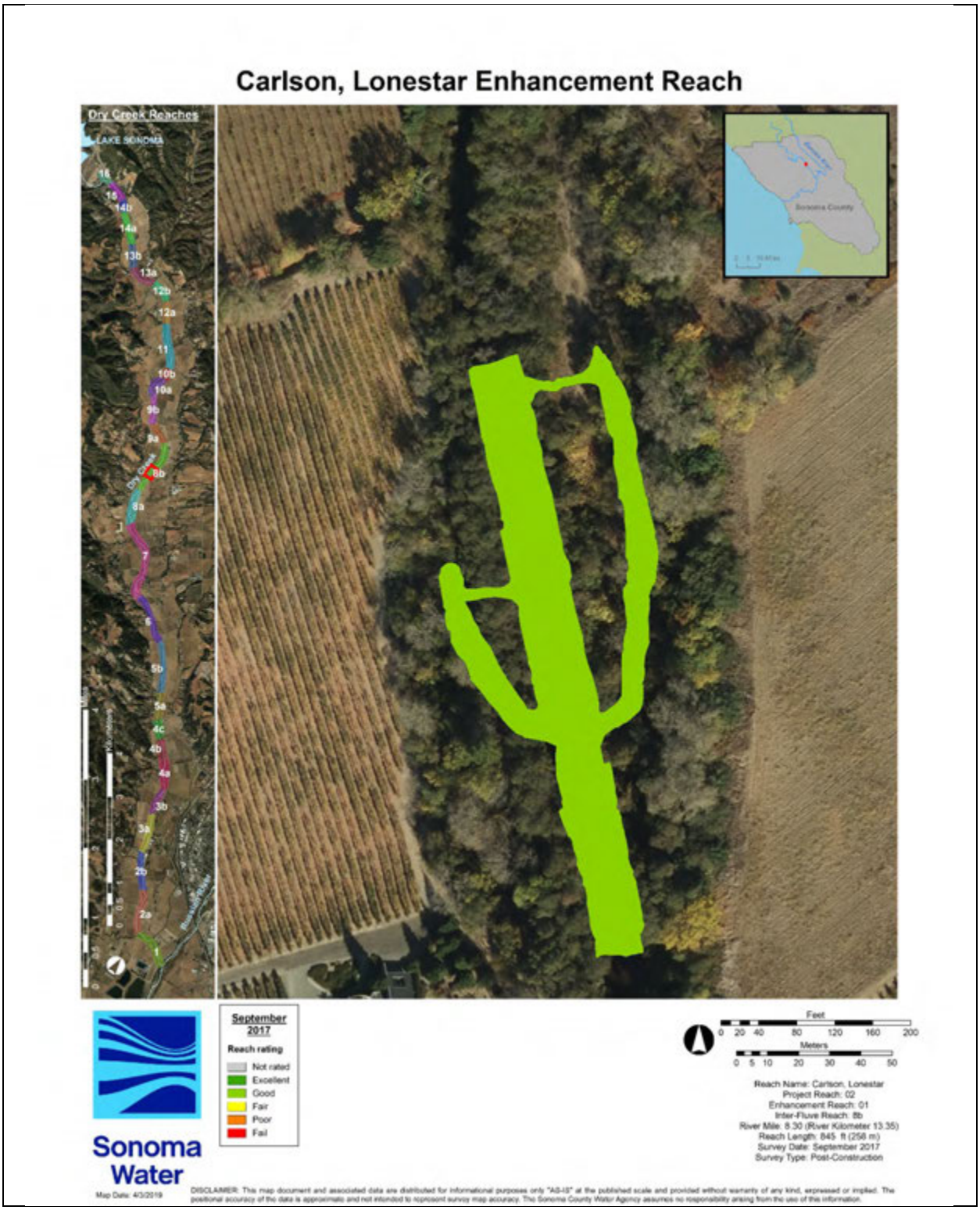


Figure 30. Post-enhancement reach rating for the Carlson, Lonestar enhancement reach, September 2017.

Feature and Habitat Unit Checklists

Table 18. Adaptive Management Plan targeted checklist for the Carlson, Lonestar enhancement reach, September 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Colloquial Name	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
	mmddyy	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	NA	NA	S1-01	S1-02	S1-03	S1-04	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S2-07	S2-08	S2-09	S2-10	S2-11	S2-12	
	Feature Type Code	NA	NA	R	PW	PW	PW	LJ	FW	BCW	HW	HW	BCW	HW	HW	BCW	BCW	TP	BCW	
	Habitat Unit	HU01	HU02	HU03	HU03	HU03	HU03	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	
	Habitat Type	Flatwater	Riffle	Flatwater	Flatwater	Flatwater	Flatwater	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	
5a	Are problems with the **feature** visible?	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
6a	Is the **feature** still in its original location?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
6b	Is the **feature** still in its original position?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
6d	Is the **feature** still in its original orientaton?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	94%	72%	82%	82%	82%	82%	29%	29%	29%	29%	29%	29%	29%	29%	29%	29%	29%	29%	
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	12%	12%	12%	12%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
15.	Percent of **habitat unit** covered by shelter: %	0	45	15	15	15	15	50	50	50	50	50	50	50	50	50	50	50	50	
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA	NA	NA	NA	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	NA	YES	
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	90	45	45	45	45	150	150	150	150	150	150	150	150	150	150	150	150	
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
25.	Did the **feature** achieve the targeted velocity?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	12%	7%	19%	19%	19%	19%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	7%	2%	10%	10%	10%	10%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	3%	3%	3%	3%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	
	FEATURE NUMBER	**NA**	**NA**	**S1-01**	**S1-02**	**S1-03**	**S1-04**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**	**S2-10**	**S2-11**	**S2-12**	
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU03**	**HU03**	**HU03**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	
	SITE NUMBER	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	
	ENHANCEMENT REACH NAME	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	4	4	2	2	2	2	2	2	2	2	2	2	2	2	
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4	4	
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	3	1	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	0	1	
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	3	1	1	1	1	5	5	5	5	5	5	5	5	5	5	5	5	
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	0	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4	4	
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	4	4	4	4	4	4	4	4	4	4	4	4	

Table 18. Adaptive Management Plan targeted checklist for the Carlson, Lonestar enhancement reach, September 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Colloquial Name	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
	mmddyy	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S2-13	S2-14	S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S3-01	S3-02	S3-03	S3-04	S3-05	S3-06
	Feature Type Code	ISW	FW	FW	HW	FW	FW	FW	FW	FW	FW	FW	FW	LJ	BCW	HW	BCW	HW	HW
	Habitat Unit	HU07	HU07	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU05	HU05	HU05	HU05	HU05	HU05
	Habitat Type	Flatwater	Flatwater	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	77%	77%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	31%	31%	31%	31%	31%	31%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	57%	57%	57%	57%	57%	57%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	45	45	0	0	0	0	0	0	0	0	0	0	55	55	55	55	55	55
17a	If an objective, did the **feature** increase instream shelter rating?	YES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	NA
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	135	135	0	0	0	0	0	0	0	0	0	0	165	165	165	165	165	165
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	57%	57%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	97%	97%	97%	97%	97%	97%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	34%	34%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%	30%	30%	30%	30%	30%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	55%	55%	55%	55%	55%	55%
	FEATURE NUMBER	**S2-13**	**S2-14**	**S2-15**	**S2-16**	**S2-17**	**S2-18**	**S2-19**	**S2-20**	**S2-21**	**S2-22**	**S2-23**	**S2-24**	**S3-01**	**S3-02**	**S3-03**	**S3-04**	**S3-05**	**S3-06**
	HABITAT UNIT NUMBER	**HU07**	**HU07**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU05**	**HU05**	**HU05**	**HU05**	**HU05**	**HU05**
	SITE NUMBER	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**3**	**3**	**3**	**3**	**3**	**3**
	ENHANCEMENT REACH NAME	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**	**CL**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	4
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	0	0	0	0	0	0	0	0	0	0	5	5	5	5	5	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	3	3	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	4	4	0	0	0	0	0	0	0	0	0	0	5	5	5	5	5	5
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	4
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	3	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	4

Table 18. Adaptive Management Plan targeted checklist for the Carlson, Lonestar enhancement reach, September 2017.

	Project Reach	2	2	2	2	2
	Enhancement Reach	1	1	1	1	1
	Colloquial Name	CL	CL	CL	CL	CL
	mmddyy	90517	90517	90517	90517	90517
	Survey Type	POS	POS	POS	POS	POS
	Project Site Number	3	3	3	3	3
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S3-07	S3-08	S3-09	S3-10	S3-11
	Feature Type Code	HW	BCW	ISW	BCW	FW
	Habitat Unit	HU05	HU05	HU06	HU06	HU02_D
	Habitat Type	Alcove	Alcove	Flatwater	Flatwater	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	31%	31%	82%	82%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	57%	57%	0%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	0
15.	Percent of **habitat unit** covered by shelter: %	55	55	30	30	0
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	NA
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	165	165	90	90	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	97%	97%	50%	50%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	30%	30%	32%	32%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	55%	55%	0%	0%	0%
	FEATURE NUMBER	**S3-07**	**S3-08**	**S3-09**	**S3-10**	**S3-11**
	HABITAT UNIT NUMBER	**HU05**	**HU05**	**HU06**	**HU06**	**HU02_D**
	SITE NUMBER	**3**	**3**	**3**	**3**	**3**
	ENHANCEMENT REACH NAME	**CL**	**CL**	**CL**	**CL**	**CL**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	3	4	4	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	5	5	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	3	3	2	2	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	5	5	3	3	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	3	3	3	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	0	0	0

Table 19. Adaptive Management Plan full checklist for the Carlson, Lonestar enhancement reach, September 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Colloquial Name	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
	mmddyy	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	NA	NA	S1-01	S1-02	S1-03	S1-04	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S2-07	S2-08	S2-09	S2-10	S2-11	S2-12
	Feature Type Code	NA	NA	R	PW	PW	PW	LJ	FW	BCW	HW	HW	BCW	HW	HW	BCW	BCW	TP	BCW
	Habitat Unit	HU01	HU02	HU03	HU03	HU03	HU03	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04
	Habitat Type	Flatwater	Riffle	Flatwater	Flatwater	Flatwater	Flatwater	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
1.	Length of targeted treatment (ft)			100	30	30	22	40	11	30	23	30	32	15	19	26	28	55	28
2.	Width of targeted treatment: (ft)			45	40	13	17	40	22	30	31	25	33	32	30	24	35	85	32
3.	Estimate area of the targeted **feature**: (ft²)			4500	1200	390	374	1600	242	900	713	750	1056	480	570	624	980	4675	896
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6a	Is the **feature** still in its original location?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	NA	NA	SPN	LBK	LBK	LBK	LBK	LBK	LBK	RBK	LBK	RBK	LBK	RBK	LBK	RBK	OTH	LBK
6d	Is the **feature** still in its original orientaton?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	NA	NA	DNS	MUL	MUL	MUL	MUL	OTH	MUL	DNS	UPS	MUL	PRP	PRP	MUL	MUL	OTH	MUL
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	FLT	RIF	FLT	FLT	FLT	FLT	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	1.1	0.7	1.4	1.4	1.4	1.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
11a	Maximum water depth in **habitat unit**: ft	2.4	1.8	6.0	6.0	6.0	6.0	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	1118.1	4594.6	24527.3	24527.3	24527.3	24527.3	3165.1	3165.1	3165.1	3165.1	3165.1	3165.1	3165.1	3165.1	3165.1	3165.1	3165.1	3165.1
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	4.7	0.0	3529.5	3529.5	3529.5	3529.5	5442.9	5442.9	5442.9	5442.9	5442.9	5442.9	5442.9	5442.9	5442.9	5442.9	5442.9	5442.9
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	1122.8	4594.6	28056.7	28056.7	28056.7	28056.7	8608.1	8608.1	8608.1	8608.1	8608.1	8608.1	8608.1	8608.1	8608.1	8608.1	8608.1	8608.1
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	94%	72%	82%	82%	82%	82%	29%	29%	29%	29%	29%	29%	29%	29%	29%	29%	29%	29%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	12%	12%	12%	12%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	95%	72%	93%	93%	93%	93%	78%	78%	78%	78%	78%	78%	78%	78%	78%	78%	78%	78%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft²:			4500	270	50	70	400		400	135	90	530	90	100	300	360		400
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	0	45	15	15	15	15	50	50	50	50	50	50	50	50	50	50	50	50
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	UNK	BOL	LWD	LWD	LWD	LWD	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	UNK	BUB	TVG	TVG	TVG	TVG	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA	NA	NA	NA	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	NA	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	90	45	45	45	45	150	150	150	150	150	150	150	150	150	150	150	150
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	UNK	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA					STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA					STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NA	NA	YES	YES	YES	YES	DEC	NA	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	NA	DEC
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	2.9	5.3	3.1	3.1	3.1	3.1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
26c	Measured mean velocity (ft/sec) in **habitat unit**	1.6	2.4	1.1	1.1	1.1	1.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
27.	Area of **habitat unit** within targeted velocity: (ft²)	138.9	468.4	5689.6	5689.6	5689.6	5689.6	10991.4	10991.4	10991.4	10991.4	10991.4	10991.4	10991.4	10991.4	10991.4	10991.4	10991.4	10991.4
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	12%	7%	19%	19%	19%	19%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	UNK	GRV	GRV	GRV	GRV	GRV	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	UNK	COB	COB	COB	COB	COB	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV
31.	If an objective, did the **feature** achieve the targeted substrate composition?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	77.9	97.8	3978.2	3978.2	3978.2	3978.2	8555.0	8555.0	8555.0	8555.0	8555.0	8555.0	8555.0	8555.0	8555.0	8555.0	8555.0	8555.0
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	77.9	97.8	3047.1	3047.1	3047.1	3047.1	3112.4	3112.4	3112.4	3112.4	3112.4	3112.4	3112.4	3112.4	3112.4	3112.4	3112.4	3112.4
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0.0	0.0	931.2	931.2	931.2	931.2	5442.6	5442.6	5442.6	5442.6	5442.6	5442.6	5442.6	5442.6	5442.6	5442.6	5442.6	5442.6
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	7%	2%	13%	13%	13%	13%	77%	77%	77%	77%	77%	77%	77%	77%	77%	77%	77%	77%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	7%	2%	10%	10%	10%	10%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	3%	3%	3%	3%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%	49%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NA	NA	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Table 19. Adaptive Management Plan full checklist for the Carlson, Lonestar enhancement reach, September 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Colloquial Name	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
	mmddyy	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517	90517
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S2-13	S2-14	S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S3-01	S3-02	S3-03	S3-04	S3-05	S3-06
	Feature Type Code	ISW	FW	FW	HW	FW	FW	FW	FW	FW	FW	FW	FW	LJ	BCW	HW	BCW	HW	HW
	Habitat Unit	HU07	HU07	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU05	HU05	HU05	HU05	HU05	HU05
	Habitat Type	Flatwater	Flatwater	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
1.	Length of targeted treatment (ft)	45	33	32	16	13	16	23	17	19	17	16	16	40	30	32	37	15	20
2.	Width of targeted treatment: (ft)	50	18	17	32	16	30	14	18	20	30	28	28	40	27	17	36	35	30
3.	Estimate area of the targeted **feature**: (ft^2)	2250	594	544	512	208	480	322	306	380	510	448	448	1600	810	544	1332	525	600
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	SPN	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	RBK	RBK	LBK	RBK	LBK	LBK
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	MUL	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	MUL	MUL	DNS	MUL	UPS	UPS
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	FLT	FLT	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	ALC	ALC	ALC	ALC	ALC	ALC
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2	2.2
11a	Maximum water depth in **habitat unit**: ft	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	4.9	4.9	4.9	4.9	4.9
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	701.2	701.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1864.1	1864.1	1864.1	1864.1	1864.1	1864.1
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	11.8	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3458.4	3458.4	3458.4	3458.4	3458.4	3458.4
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	713.0	713.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5322.6	5322.6	5322.6	5322.6	5322.6	5322.6
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	77%	77%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	31%	31%	31%	31%	31%	31%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	57%	57%	57%	57%	57%	57%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	78%	78%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	88%	88%	88%	88%	88%	88%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	670												350	340	50	380	75	35
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	45	45	0	0	0	0	0	0	0	0	0	0	55	55	55	55	55	55
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	RTW	RTW	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	RTW	RTW	RTW	RTW	RTW	RTW
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	BOL	BOL	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	SWD	SWD	SWD	SWD	SWD	SWD
17a	If an objective, did the **feature** increase instream shelter rating?	YES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	NA
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	135	135	0	0	0	0	0	0	0	0	0	0	165	165	165	165	165	165
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	DEC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	DEC	DEC	DEC	DEC	DEC	NA
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
27.	Area of **habitat unit** within targeted velocity: (ft^2)	519.4	519.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5893.3	5893.3	5893.3	5893.3	5893.3	5893.3
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	57%	57%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	97%	97%	97%	97%	97%	97%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	SND	SND	SND	SND	SND	SND
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	GRV	GRV	GRV	GRV	GRV	GRV
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	323.7	323.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5170.9	5170.9	5170.9	5170.9	5170.9	5170.9
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	311.8	311.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1821.9	1821.9	1821.9	1821.9	1821.9	1821.9
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	11.8	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3349.0	3349.0	3349.0	3349.0	3349.0	3349.0
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	36%	36%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	86%	86%	86%	86%	86%	86%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	34%	34%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%	30%	30%	30%	30%	30%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	55%	55%	55%	55%	55%	55%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Table 19. Adaptive Management Plan full checklist for the Carlson, Lonestar enhancement reach, September 2017.

	Project Reach	2	2	2	2	2
	Enhancement Reach	1	1	1	1	1
	Colloquial Name	CL	CL	CL	CL	CL
	mmddyy	90517	90517	90517	90517	90517
	Survey Type	POS	POS	POS	POS	POS
	Project Site Number	3	3	3	3	3
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S3-07	S3-08	S3-09	S3-10	S3-11
	Feature Type Code	HW	BCW	ISW	BCW	FW
	Habitat Unit	HU05	HU05	HU06	HU06	HU02_D
	Habitat Type	Alcove	Alcove	Flatwater	Flatwater	Dry
1.	Length of targeted treatment (ft)	24	27	45	28	21
2.	Width of targeted treatment: (ft)	28	28	45	35	40
3.	Estimate area of the targeted **feature**: (ft^2)	672	756	2025	980	840
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NA	NA	NA	NA	NA
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	LBK	RBK	SPN	LBK	OTH
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	UPS	MUL	MUL	MUL	PRP
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	ALC	ALC	FLT	FLT	DRY
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	2.2	2.2	0.8	0.8	0.0
11a	Maximum water depth in **habitat unit**: ft	4.9	4.9	1.3	1.3	0.0
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	1864.1	1864.1	482.9	482.9	0.0
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	3458.4	3458.4	0.0	0.0	0.0
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	5322.6	5322.6	482.9	482.9	0.0
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	31%	31%	82%	82%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	57%	57%	0%	0%	0%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	88%	88%	82%	82%	0%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	YES	YES	YES	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	40	375	570	425	
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	0
15.	Percent of **habitat unit** covered by shelter: %	55	55	30	30	0
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	RTW	RTW	LWD	LWD	NON
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	SWD	SWD	BOL	BOL	NON
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	NA
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	165	165	90	90	0
18a	Large woody debris count in **habitat unit**: D >1", L 6-20'	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1", L >20'	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	DEC	DEC	NA	DEC	NA
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	1.5	1.5	1.5	1.5	0.0
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.1	0.1	0.5	0.5	0.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	5893.3	5893.3	296.3	296.3	0.0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	97%	97%	50%	50%	0%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	GRV	GRV	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	SND	SND	SND
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	5170.9	5170.9	187.9	187.9	0.0
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	1821.9	1821.9	187.9	187.9	0.0
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	3349.0	3349.0	0.0	0.0	0.0
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	86%	86%	32%	32%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	30%	30%	32%	32%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	55%	55%	0%	0%	0%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NO

City of Healdsburg Yard Post-enhancement, September 2017

Depth and Velocity

Table 20. Areas and percentages of: wetted area, optimal depth and velocity, and optimal hydraulic habitat within the City of Healdsburg Yard enhancement reach, September 2017.

City of Healdsburg Yard Post-enhancement September 2017	Wetted area (ft^2)	Optimal depth (ft^2)			Optimal velocity (ft^2)	Optimal habitat (ft^2)		
		0.5 – 2.0 ft	2.0 – 4.0 ft	Total	< 0.5 ft/s	0.5 – 2.0 ft < 0.5 ft/s	2.0 – 4.0 ft < 0.5 ft/s	Total
Main channel area	50,330	36,802	7,768	44,570	17,351	10,035	3,080	13,115
Main channel alcove area	5,007	1,250	1,957	3,207	4,999	1,242	1,957	3,200
Side channel alcove area	2,318	1,452	476	1,928	2,318	1,452	476	1,928
Side channel area	15,717	7,155	6,645	13,800	7,108	3,686	1,789	5,474
Total area	**73,373**	**46,659**	**16,847**	**63,506**	**31,776**	**16,414**	**7,303**	**23,717**
Main channel % of wetted area	69%	73%	15%	89%	34%	20%	6%	26%
Main channel alcove % of wetted area	7%	25%	39%	64%	100%	25%	39%	64%
Side channel alcove % of wetted area	3%	63%	21%	83%	100%	63%	21%	83%
Side channel % of wetted area	21%	46%	42%	88%	45%	23%	11%	35%
Total % of wetted area	**100%**	**64%**	**23%**	**87%**	**43%**	**22%**	**10%**	**32%**

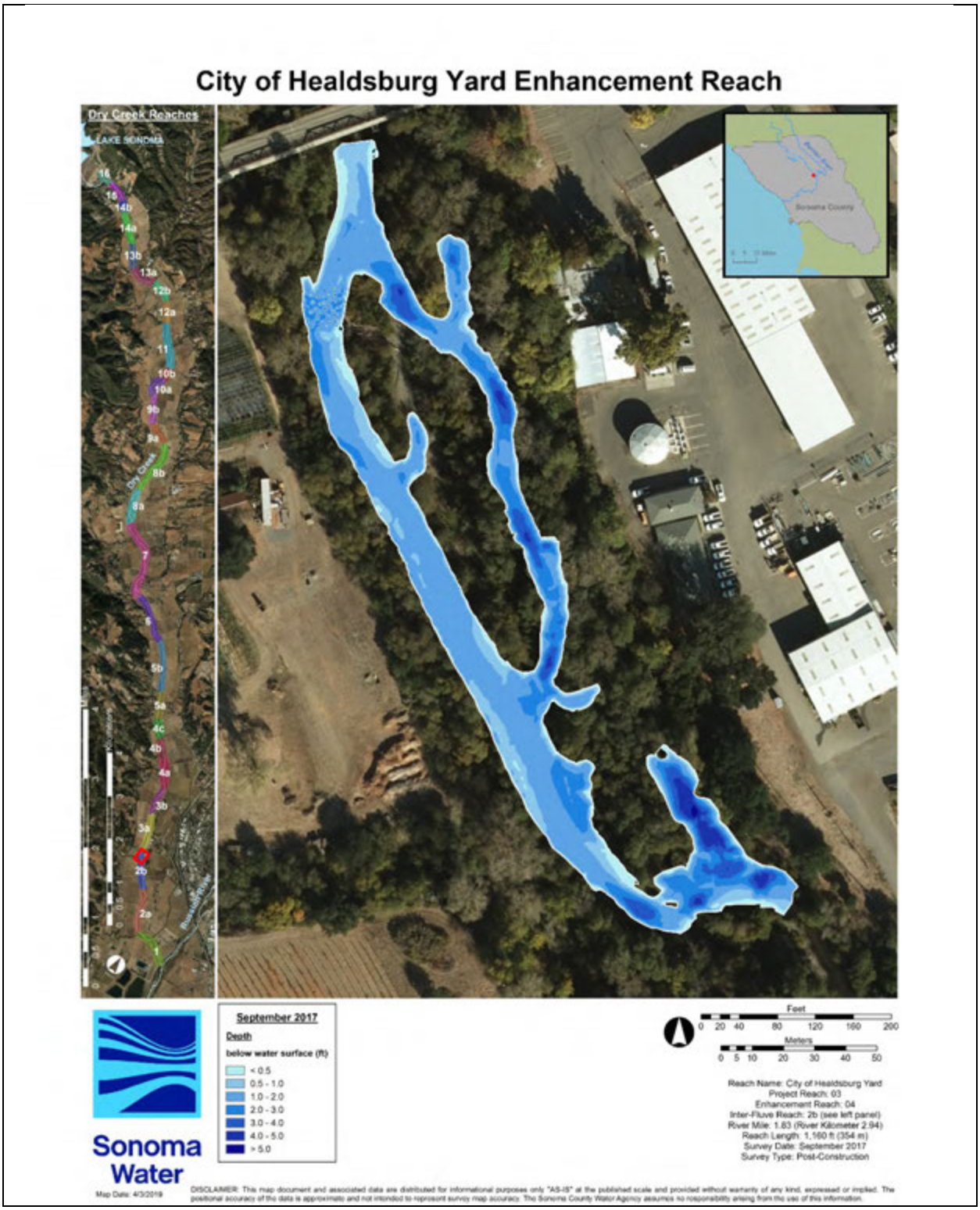


Figure 31. Measured water depth within the City of Healdsburg Yard enhancement reach, September 2017.

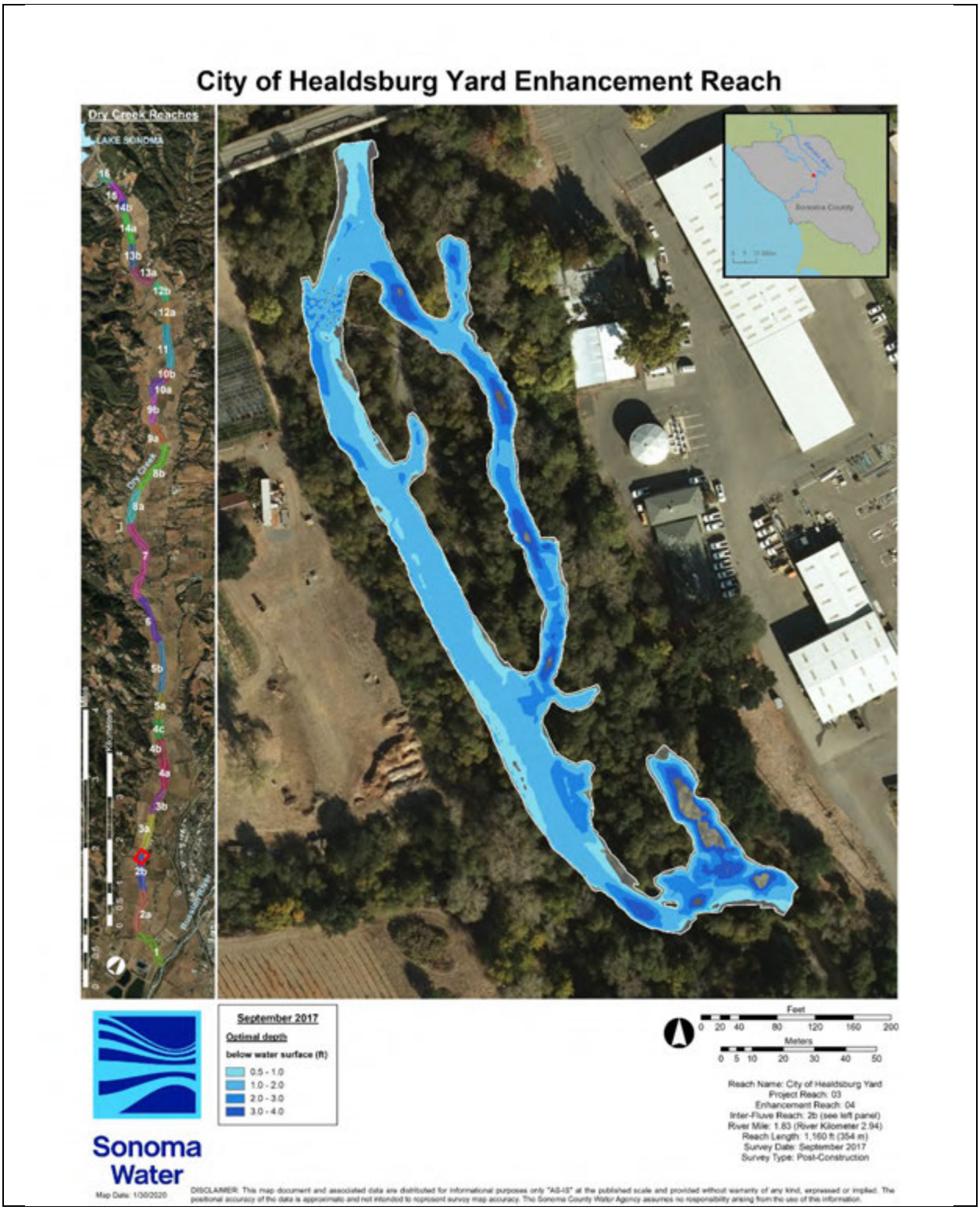


Figure 32. Optimal water depth for fry (0.5-2.0 ft) and parr (2.0-4.0 ft) within the City of Healdsburg Yard enhancement reach, September 2017.

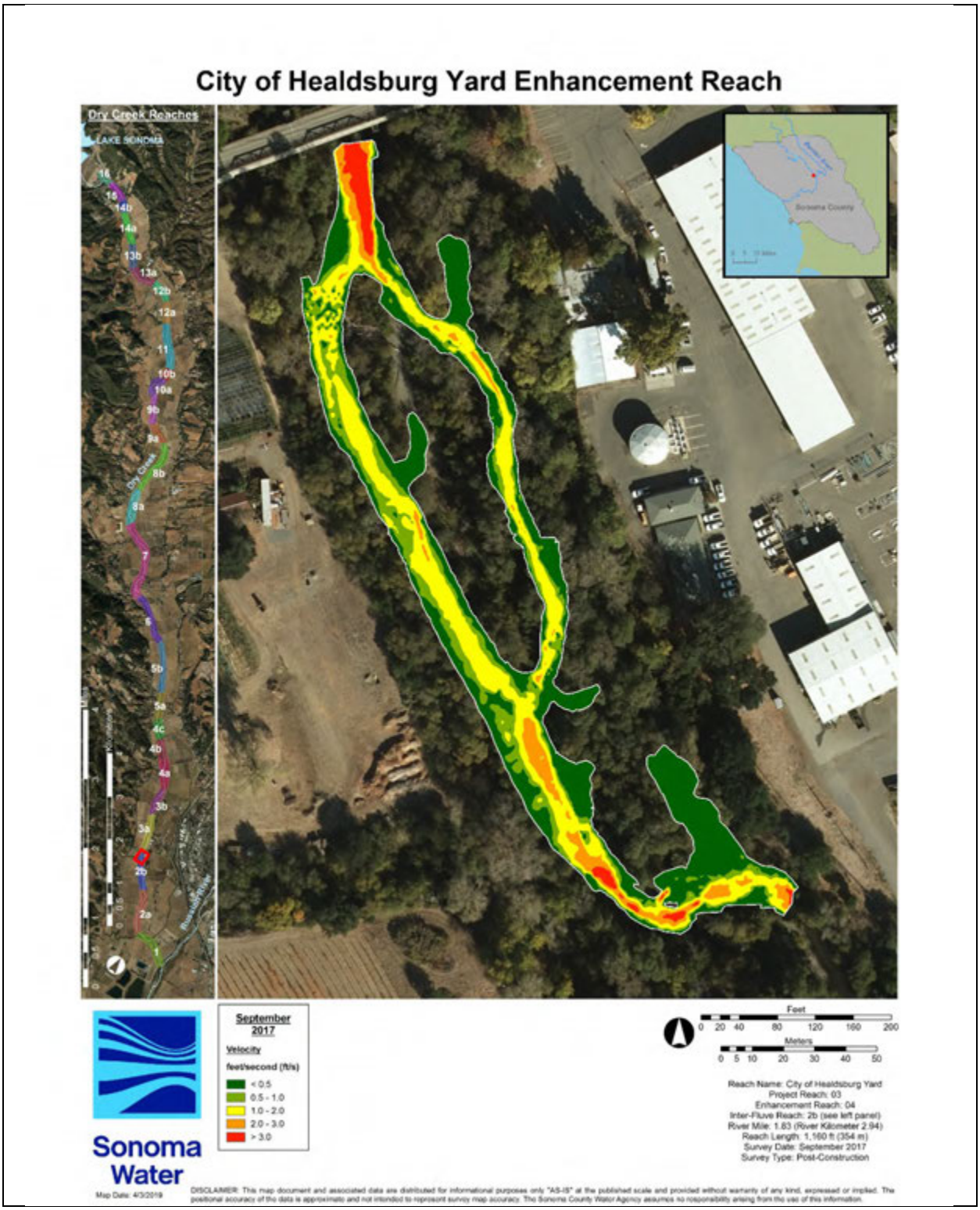


Figure 33. Measured water velocity within the City of Healdsburg Yard enhancement reach, September 2017.



Figure 34. Optimal water velocity for fry and parr (< 0.5 ft/s) within the City of Healdsburg Yard enhancement reach, September 2017.

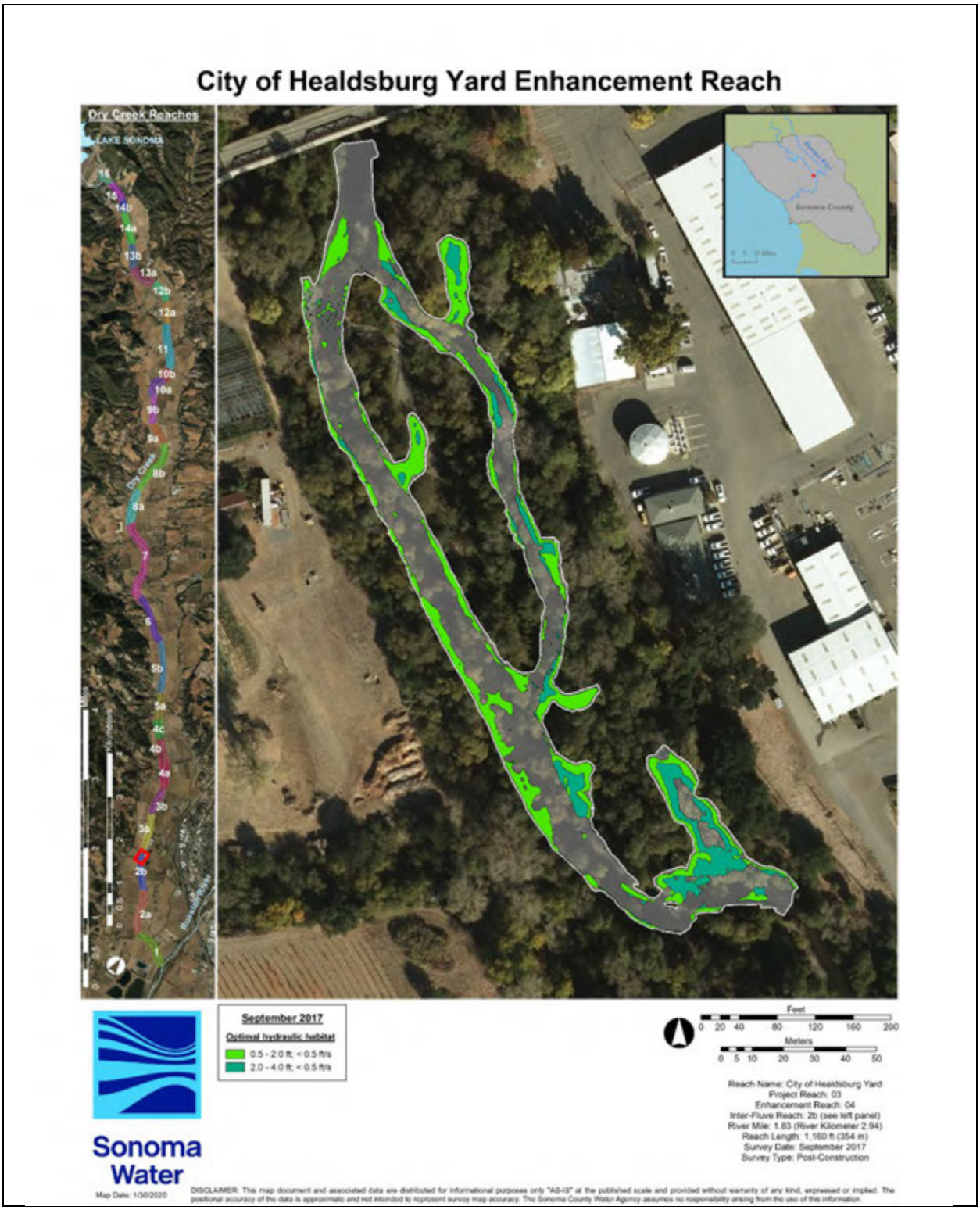


Figure 35. Optimal hydraulic habitat for fry (<0.5 ft/s, 0.5-2.0 ft) and parr (<0.5 ft/s, 2.0-4.0 ft) within the City of Healdsburg Yard enhancement reach, September 2017.

Habitat Types and Shelter Values

Table 21. Habitat, types, shelter value, percent cover, and shelter score for habitat units within the City of Healdsburg Yard enhancement reach, September 2017. Main channel alcove HU 15 did not have habitat level attributes assessed.

Post-enhancement (September 2017)				
Habitat Unit #	**Habitat Type**	**Shelter Value**	**Percent Cover**	**Shelter Score**
HU01	Pool	0	0	0
HU02	Alcove	3	30	90
HU03	Pool	3	20	60
HU04	Pool	3	45	135
HU05	Flatwater	3	25	75
HU06	Alcove	3	50	150
HU07	Flatwater	3	30	90
HU08	Alcove	3	20	60
HU09	Pool	3	30	90
HU10	Pool	3	10	30
HU11	Alcove	3	40	120
HU12	Alcove	3	10	30
HU13	Flatwater	3	25	75
HU14	Flatwater	2	5	10
HU15	Alcove	0	0	0

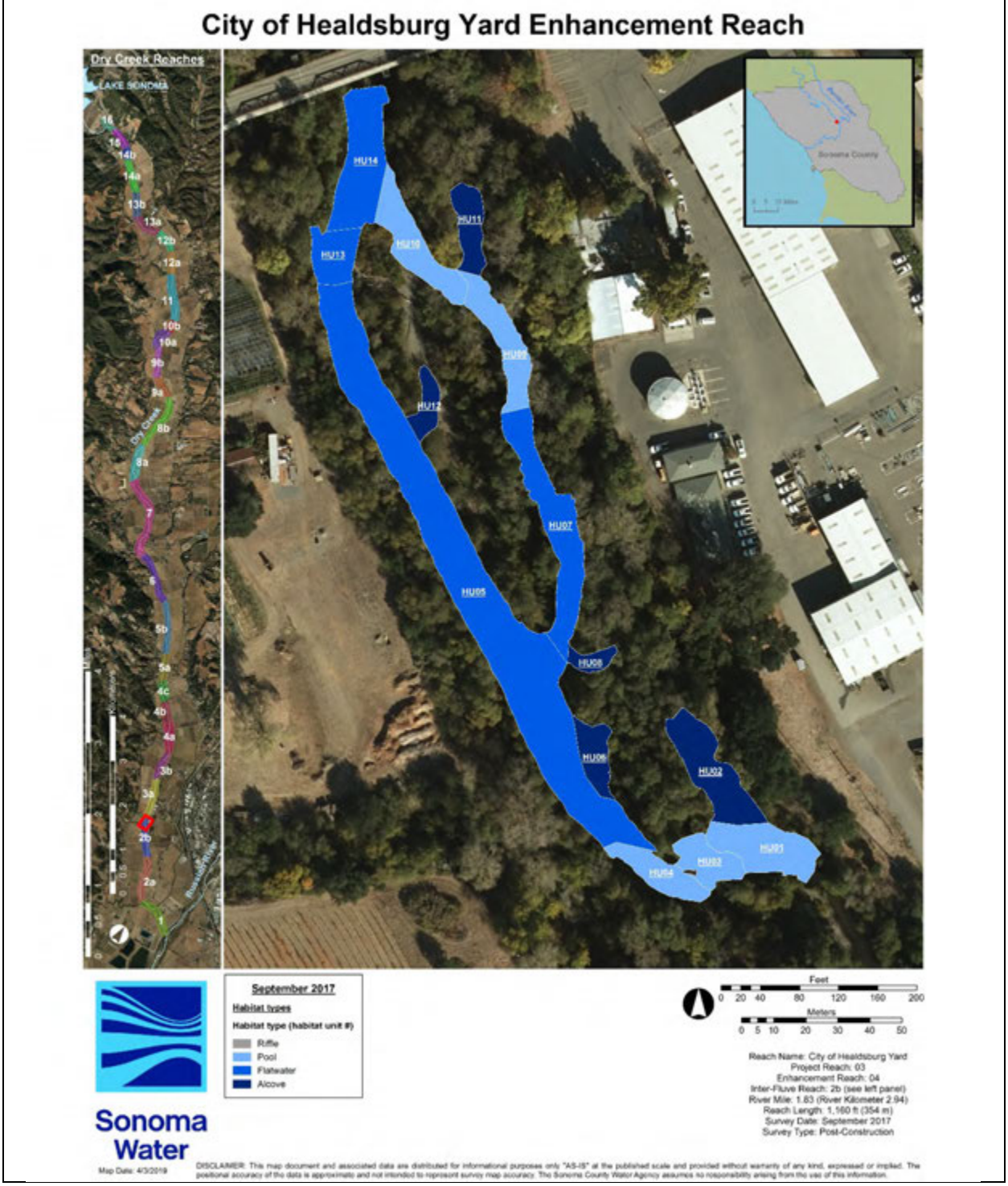


Figure 36. Habitat unit number and type within the City of Healdsburg Yard enhancement reach, September 2017.

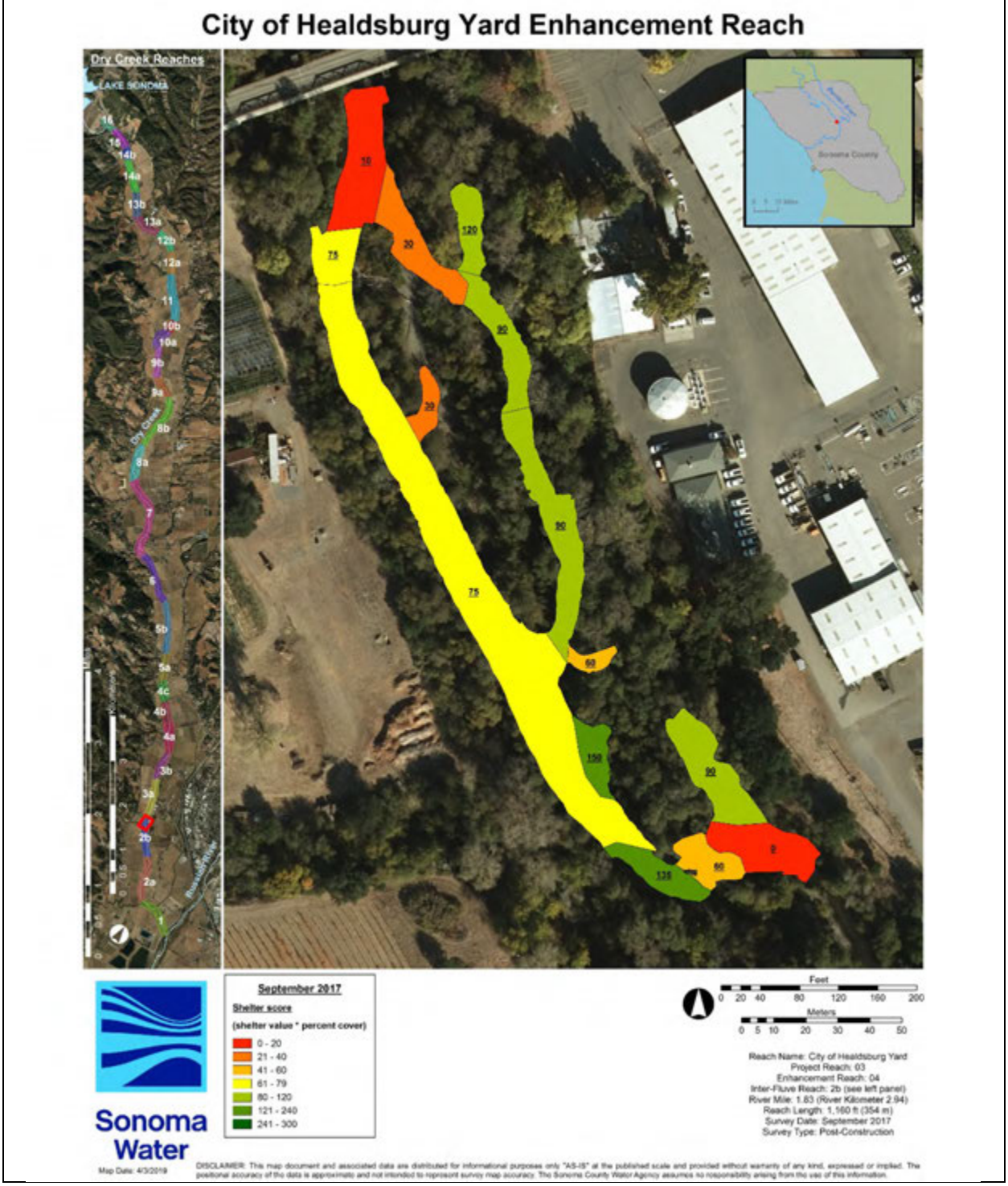


Figure 37. Habitat unit shelter scores within the City of Healdsburg Yard enhancement reach, September 2017.

Feature, Habitat Unit, Site, and Reach Ratings

Table 22. Post-enhancement feature ratings for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	mmddyy	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan
	PROJECT FEATURE NUMBER	S1-01	S1-02	S1-03	S1-04	S1-05.1	S1-05.2	S1-06	S1-07	S1-08	S1-09	S1-10	S1-11	S1-12	S1-13	S1-14	S1-15	S1-16	S1-17
	Feature Type Code	LWS	LWS	HW2	HW1	LW	LW	HW1	TT	LWS	TT	HW1	TT	TT	TT	HW1	HW1	HW2	TT
	Habitat Unit	HU03	HU06	HU06	HU06	HU06	HU06	HU06	HU05	HU05	HU05	HU05	HU05	HU05	HU05	HU12	HU12	HU12	HU05
	Habitat Type	Pool	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Alcove	Alcove	Alcove	Flatwater
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	GOOD	EXCL	EXCL	GOOD	GOOD	GOOD	EXCL	EXCL	EXCL	GOOD
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	PROJECT FEATURE NUMBER	**S1-01**	**S1-02**	**S1-03**	**S1-04**	**S1-05.1**	**S1-05.2**	**S1-06**	**S1-07**	**S1-08**	**S1-09**	**S1-10**	**S1-11**	**S1-12**	**S1-13**	**S1-14**	**S1-15**	**S1-16**	**S1-17**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5	5	5	5	5	5	4	5	5	4	4	4	5	5	5	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	PROJECT FEATURE NUMBER	**S1-01**	**S1-02**	**S1-03**	**S1-04**	**S1-05.1**	**S1-05.2**	**S1-06**	**S1-07**	**S1-08**	**S1-09**	**S1-10**	**S1-11**	**S1-12**	**S1-13**	**S1-14**	**S1-15**	**S1-16**	**S1-17**
FEATURE RATING	Feature quantitative rating out of 15	14	14	14	14	14	14	14	14	13	14	14	13	13	13	14	14	14	13
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

Table 22. Post-enhancement feature ratings for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	mmddyy	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3
	Project Site Type	MainChan	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S1-18	S2-01	S2-02	S2-03	S2-04.1	S2-04.2	S2-05	S2-06	S2-07	S2-08	S2-09	S2-10	S2-11	S2-12	S3-01	S3-02	S3-03.1	S3-03.2
	Feature Type Code	BF	HW2	HW1	HW2	HW1	HW1	HW1	HW1	HW2	HW1	HW1	HW1	HW2	LW	HW1	HW1	PW	PW
	Habitat Unit	HU13	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU08	HU08	HU07	HU07
	Habitat Type	Flatwater	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Flatwater	Flatwater
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	PROJECT FEATURE NUMBER	**S1-18**	**S2-01**	**S2-02**	**S2-03**	**S2-04.1**	**S2-04.2**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**	**S2-10**	**S2-11**	**S2-12**	**S3-01**	**S3-02**	**S3-03.1**	**S3-03.2**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	PROJECT FEATURE NUMBER	**S1-18**	**S2-01**	**S2-02**	**S2-03**	**S2-04.1**	**S2-04.2**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**	**S2-10**	**S2-11**	**S2-12**	**S3-01**	**S3-02**	**S3-03.1**	**S3-03.2**
FEATURE RATING	Feature quantitative rating out of 15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

Table 22. Post-enhancement feature ratings for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	mmddyy	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S3-03.3	S3-04	S3-05	S3-06	S3-07	S3-08.1	S3-08.2	S3-09	S3-10	S3-11	S3-12.1	S3-12.2	S3-12.3	S3-13	S3-14	S3-15	S3-16	S3-17
	Feature Type Code	PW	HW1	LWS	R	HW1	HW2	HW2	HW1	HW1	HW1	PW	PW	PW	R	HW2	TT	LW	HW1
	Habitat Unit	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU09	HU01_D	HU01_D	HU09
	Habitat Type	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Pool	Dry	Dry	Pool
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	PROJECT FEATURE NUMBER	**S3-03.3**	**S3-04**	**S3-05**	**S3-06**	**S3-07**	**S3-08.1**	**S3-08.2**	**S3-09**	**S3-10**	**S3-11**	**S3-12.1**	**S3-12.2**	**S3-12.3**	**S3-13**	**S3-14**	**S3-15**	**S3-16**	**S3-17**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	PROJECT FEATURE NUMBER	**S3-03.3**	**S3-04**	**S3-05**	**S3-06**	**S3-07**	**S3-08.1**	**S3-08.2**	**S3-09**	**S3-10**	**S3-11**	**S3-12.1**	**S3-12.2**	**S3-12.3**	**S3-13**	**S3-14**	**S3-15**	**S3-16**	**S3-17**
FEATURE RATING	Feature quantitative rating out of 15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

Table 22. Post-enhancement feature ratings for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	mmddyy	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove
	PROJECT FEATURE NUMBER	S3-18.1	S3-18.2	S3-18.3	S3-19	S3-20	S3-21	S3-22	S3-23.1	S3-23.2	S3-23.3	S3-24	S4-01	S4-02	S4-03	S4-04	S4-05	S4-06	S4-07
	Feature Type Code	PW	PW	PW	R	HW1	HW2	LWS	PW	PW	PW	ALJ	HW1	HW2	LW	HW1	HW1	HW1	HW1
	Habitat Unit	HU09	HU09	HU09	HU09	HU10	HU10	HU10	HU10	HU10	HU10	HU10	HU11	HU11	HU11	HU11	HU11	HU11	HU11
	Habitat Type	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	PROJECT FEATURE NUMBER	**S3-18.1**	**S3-18.2**	**S3-18.3**	**S3-19**	**S3-20**	**S3-21**	**S3-22**	**S3-23.1**	**S3-23.2**	**S3-23.3**	**S3-24**	**S4-01**	**S4-02**	**S4-03**	**S4-04**	**S4-05**	**S4-06**	**S4-07**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	PROJECT FEATURE NUMBER	**S3-18.1**	**S3-18.2**	**S3-18.3**	**S3-19**	**S3-20**	**S3-21**	**S3-22**	**S3-23.1**	**S3-23.2**	**S3-23.3**	**S3-24**	**S4-01**	**S4-02**	**S4-03**	**S4-04**	**S4-05**	**S4-06**	**S4-07**
FEATURE RATING	Feature quantitative rating out of 15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

Table 22. Post-enhancement feature ratings for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3
	Enhancement Reach	4	4	4
	Colloquial Name	CH	CH	CH
	mmddyy	91317	91317	91317
	Survey Type	POS	POS	POS
	PROJECT SITE NUMBER	5	5	5
	Project Site Type	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S5-01	S5-02	S5-03
	Feature Type Code	HW1	HW1	HW1
	Habitat Unit	HU15	HU15	HU15
	Habitat Type	Alcove	Alcove	Alcove
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES
	PROJECT FEATURE NUMBER	**S5-01**	**S5-02**	**S5-03**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1
	PROJECT FEATURE NUMBER	**S5-01**	**S5-02**	**S5-03**
FEATURE RATING	Feature quantitative rating out of 15	14	14	14
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Excellent

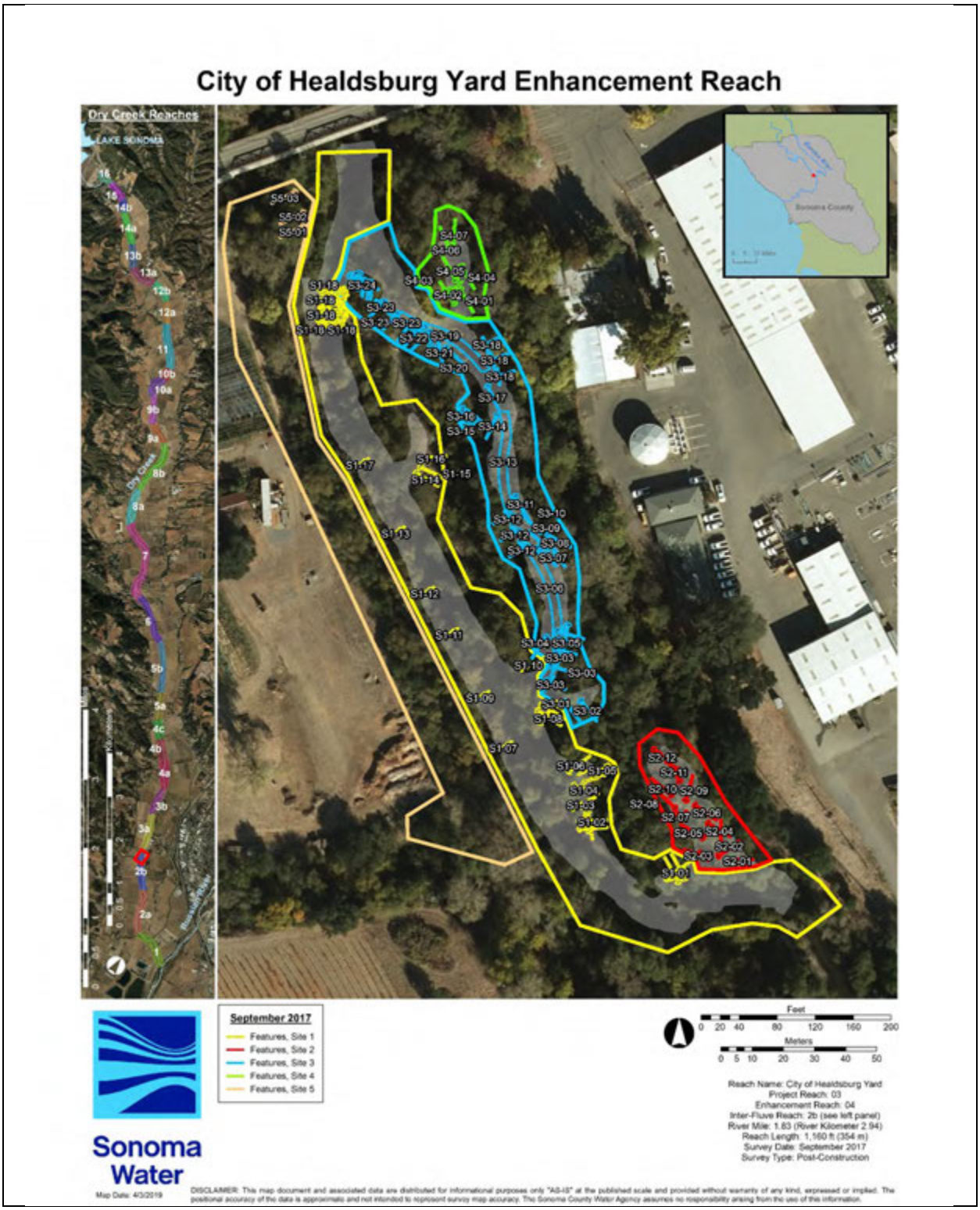


Figure 38. Enhancement sites and features within the City of Healdsburg Yard enhancement reach, September 2017.

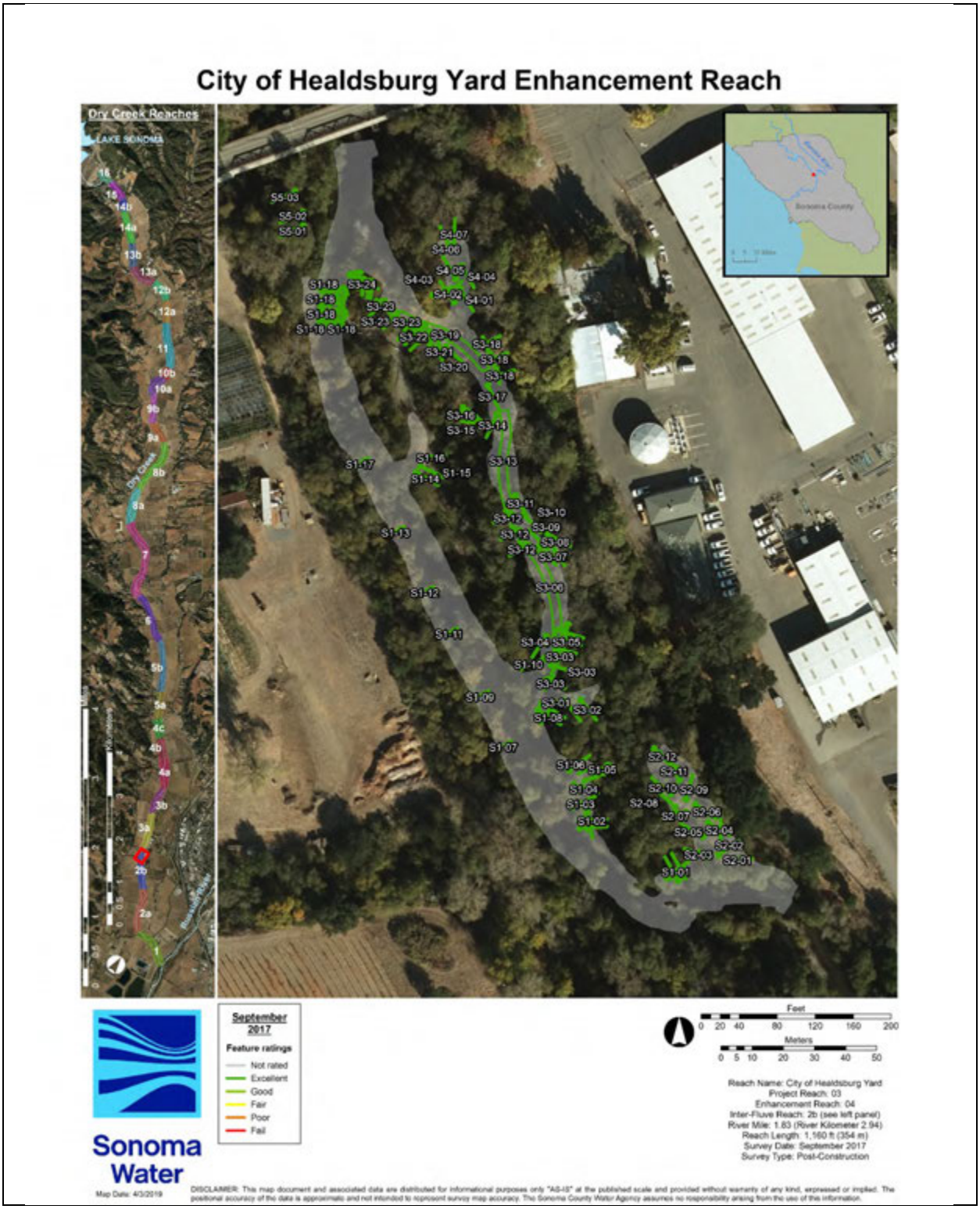


Figure 39. Feature ratings for the City of Healdsburg Yard enhancement reach, September 2017.

Table 23. Post-enhancement habitat unit ratings for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	mmddyy	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU09**	**HU10**	**HU11**	**HU12**	**HU13**	**HU14**	**HU01_D**	**HU15**
	Habitat Type	Pool	Alcove	Pool	Pool	Flatwater	Alcove	Flatwater	Alcove	Pool	Pool	Alcove	Alcove	Flatwater	Flatwater	Dry	Alcove
	PROJECT SITE NUMBER	1	2	1	1	1	1	3	3	3	3	4	1	1	1	3	5
	Project Site Type	MainChan	MC Alcove	MainChan	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SC Alcove	MainChan	MainChan	MainChan	SideChan	SideChan
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	39%	25%	42%	49%	85%	37%	38%	74%	46%	52%	63%	74%	72%	78%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	47%	39%	44%	39%	7%	52%	50%	2%	42%	39%	21%	6%	15%	1%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	3	3	3	3	3	3	3	3	3	3	3	3	2	0	0
15.	Percent of **habitat unit** covered by shelter: %	0	30	20	45	25	50	30	20	30	10	40	10	25	5	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	90	60	135	75	150	90	60	90	30	120	30	75	10	0	0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	45%	100%	54%	26%	28%	82%	42%	100%	40%	44%	100%	100%	28%	24%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	11%	25%	22%	13%	20%	34%	20%	74%	20%	23%	63%	74%	17%	14%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	26%	39%	23%	2%	1%	37%	12%	2%	11%	12%	21%	6%	2%	0%	0%	0%
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU09**	**HU10**	**HU11**	**HU12**	**HU13**	**HU14**	**HU01_D**	**HU15**
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	2	4	4	4	3	3	4	4	4	4	4	4	4	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	3	4	3	0	4	4	0	4	3	2	0	1	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	5	5	5	5	5	5	5	5	5	5	5	5	4	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	2	2	3	2	3	2	2	2	1	3	1	2	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	3	2	4	2	5	3	2	3	0	4	0	2	0	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	2	2	4	4	4	3	4	4	4	2	2	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	2	2	1	1	3	1	4	1	2	4	4	1	1	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	3	2	0	0	3	1	0	1	1	2	0	0	0	0	0
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU09**	**HU10**	**HU11**	**HU12**	**HU13**	**HU14**	**HU01_D**	**HU15**
HABITAT UNIT RATING	Habitat unit quantitative rating (out of 35)	14	24	25	22	16	30	23	21	23	20	28	18	17	11	0	0
	Habitat unit qualitative rating: Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7)	Fair	Good	Good	Good	Fair	Excellent	Good	Good	Good	Fair	Excellent	Fair	Fair	Poor	Not rated	Not rated

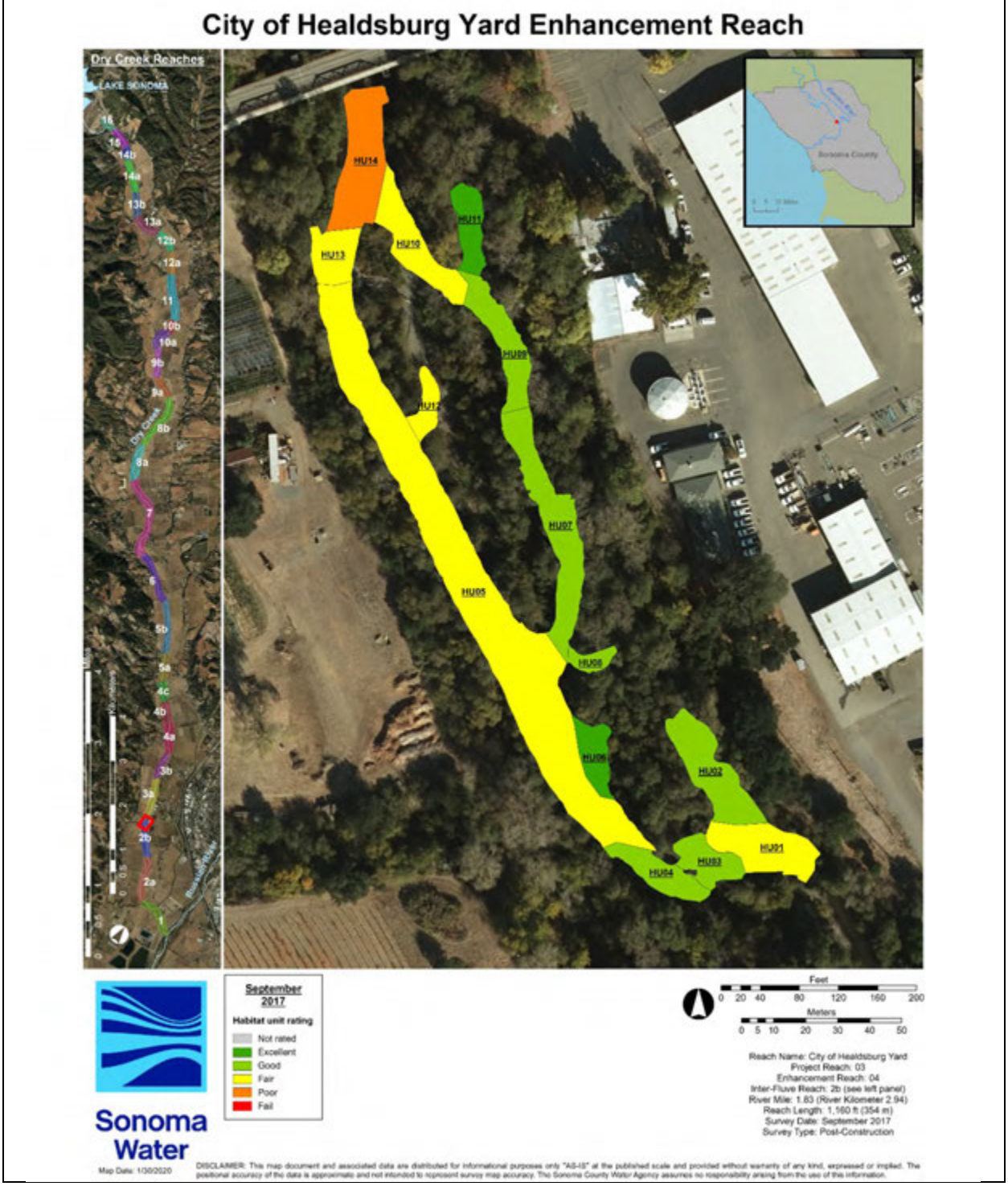


Figure 40. Habitat unit ratings for the City of Healdsburg Yard enhancement reach, September 2017.

Table 24. Post-enhancement average feature, average habitat unit, site, and reach ratings for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4
	ENHANCEMENT REACH NAME	**CH**	**CH**	**CH**	**CH**	**CH**
	mmddyy	91317	91317	91317	91317	91317
	Survey Type	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	**1**	**2**	**3**	**4**	**5**
	Project Site Type	MainChan	MC Alcove	SideChan	SC Alcove	SideChan
	PROJECT SITE NUMBER	**1**	**2**	**3**	**4**	**5**
SITE AVERAGE FEATURE RATING	Site average feature quantitative rating (out of 15; bold indicates excluded from site rating)	14	14	14	14	14
	Site average feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3), Not rated (not used to rate site)	Excellent	Excellent	Excellent	Excellent	Excellent
	PROJECT SITE NUMBER	1	2	3	4	5
SITE AVERAGE HABITAT UNIT RATING	Site average habitat unit quantitative rating (out of 35; bold indicates excluded from site rating)	19	24	22	28	0
	Site average qualitative rating Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7), Not rated (not used to rate site)	Fair	Good	Good	Excellent	Not rated
	PROJECT SITE NUMBER	**1**	**2**	**3**	**4**	**5**
SITE RATING	Site quantitative rating (sum of site average feature and habitat unit ratings) (out of 50; bold indicates rating excludes feature or habitat unit rating and scoring out of 15 or 35)	33	38	36	42	14
	Site qualitative rating: Excellent (>=40, 12), Good (>=30, 9), Fair(>=20, 6), Poor (>=10, 3), Fail (<10, 3)	Good	Good	Good	Excellent	Excellent
	ENHANCEMENT REACH NAME	**CH**				
ENHANCEMENT REACH RATING	Enhancement reach quantitative rating (average of site ratings) (out of 43)	33				
	Enhancement reach qualitative rating: Excellent (>=34), Good (>=26), Fair(>=17), Poor (>=9), Fail (<9)	Good				

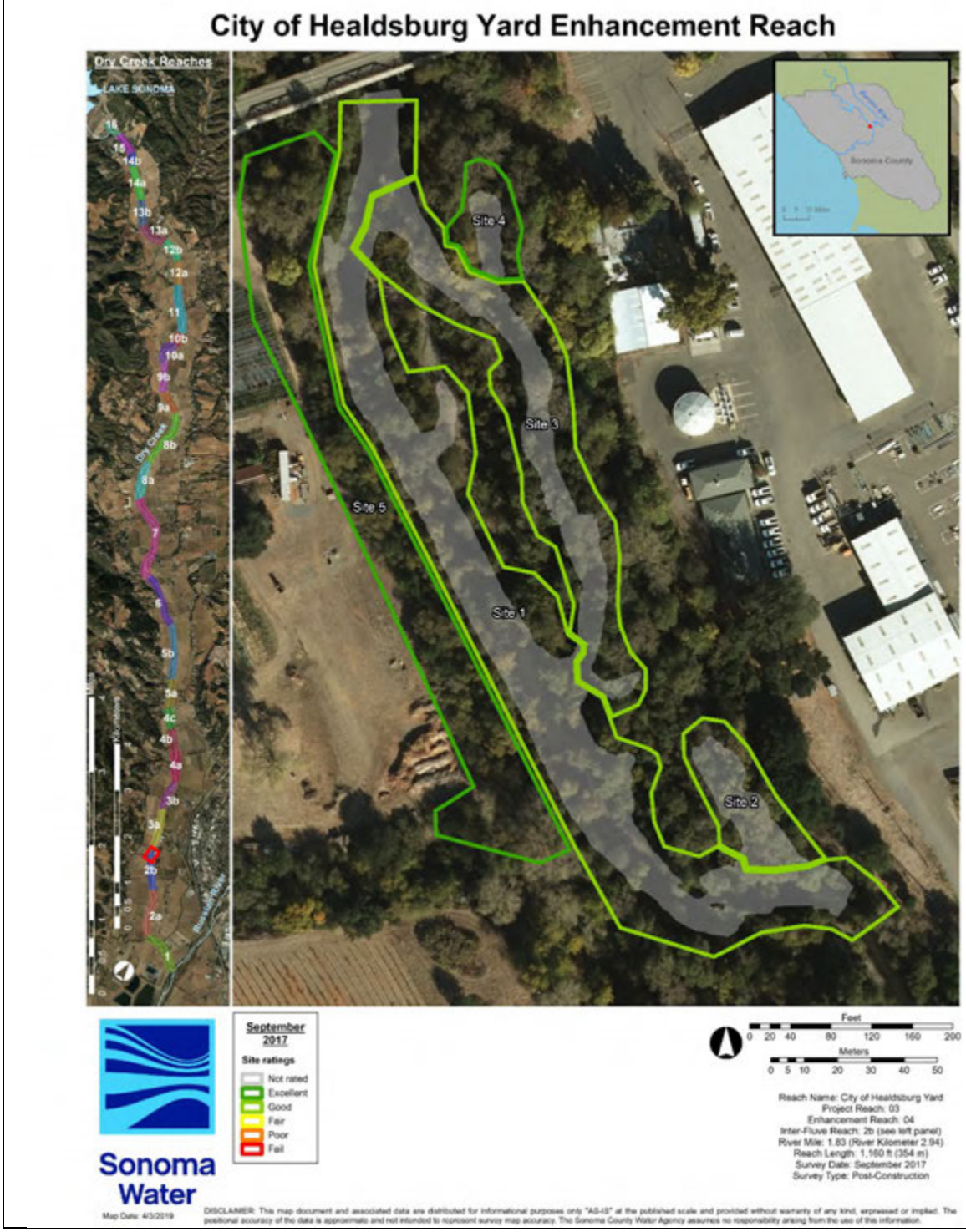


Figure 41. Post enhancement site ratings for the City of Healdsburg Yard enhancement reach, September 2017.

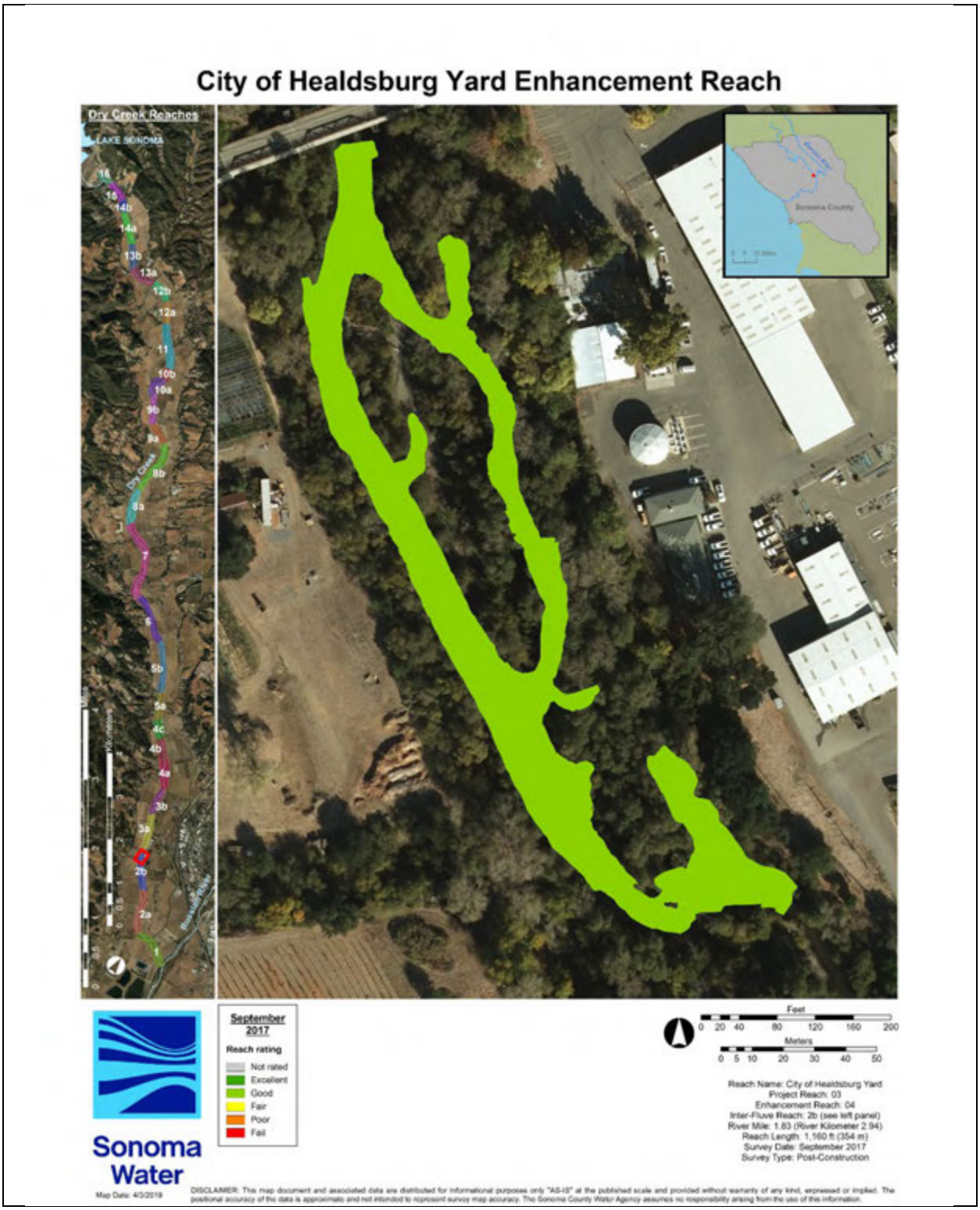


Figure 42. Post-enhancement reach rating for the City of Healdsburg Yard enhancement reach, September 2017.

Feature and Habitat Unit Checklists

Table 25. Adaptive Management Plan targeted checklist for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	mmddyy	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan
	Project Feature Number	NA	NA	NA	S1-01	S1-02	S1-03	S1-04	S1-05.1	S1-05.2	S1-06	S1-07	S1-08	S1-09	S1-10	S1-11	S1-12	S1-13	S1-14
	Feature Type Code	NA	NA	NA	LWS	LWS	HW2	HW1	LW	LW	HW1	TT	LWS	TT	HW1	TT	TT	TT	HW1
	Habitat Unit	HU01	HU04	HU14	HU03	HU06	HU06	HU06	HU06	HU06	HU06	HU05	HU05	HU05	HU05	HU05	HU05	HU05	HU12
	Habitat Type	Pool	Pool	Flatwater	Pool	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Alcove
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	NA	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	GOOD	EXCL	EXCL	GOOD	GOOD	GOOD	EXCL
5a	Are problems with the **feature** visible?	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	39%	49%	78%	42%	37%	37%	37%	37%	37%	37%	85%	85%	85%	85%	85%	85%	85%	74%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	47%	39%	1%	44%	52%	52%	52%	52%	52%	52%	7%	7%	7%	7%	7%	7%	7%	6%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	0	45	5	20	50	50	50	50	50	50	25	25	25	25	25	25	25	10
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	135	10	60	150	150	150	150	150	150	75	75	75	75	75	75	75	30
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	45%	26%	24%	54%	82%	82%	82%	82%	82%	82%	28%	28%	28%	28%	28%	28%	28%	100%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	11%	13%	14%	22%	34%	34%	34%	34%	34%	34%	20%	20%	20%	20%	20%	20%	20%	74%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	26%	2%	0%	23%	37%	37%	37%	37%	37%	37%	1%	1%	1%	1%	1%	1%	1%	6%
	FEATURE NUMBER	**NA**	**NA**	**NA**	**S1-01**	**S1-02**	**S1-03**	**S1-04**	**S1-05.1**	**S1-05.2**	**S1-06**	**S1-07**	**S1-08**	**S1-09**	**S1-10**	**S1-11**	**S1-12**	**S1-13**	**S1-14**
	HABITAT UNIT NUMBER	**HU01**	**HU04**	**HU14**	**HU03**	**HU06**	**HU06**	**HU06**	**HU06**	**HU06**	**HU06**	**HU05**	**HU05**	**HU05**	**HU05**	**HU05**	**HU05**	**HU05**	**HU12**
	SITE NUMBER	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
	ENHANCEMENT REACH NAME	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	0	5	5	5	5	5	5	5	5	4	5	5	4	4	4	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11e	% area of **hab unit** wthin 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	4	4	4	3	3	3	3	3	3	4	4	4	4	4	4	4	4
11f	% area of **hab unit** wthin 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	3	0	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	3	0	2	3	3	3	3	3	3	2	2	2	2	2	2	2	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	4	0	2	5	5	5	5	5	5	2	2	2	2	2	2	2	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28.	% area of **hab unit** wthin targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	2	2	4	4	4	4	4	4	4	2	2	2	2	2	2	2	4
36e	% area **hab unit** wtth < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	1	2	3	3	3	3	3	3	1	1	1	1	1	1	1	4
36f	% area **hab unit** wtth < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	0	0	2	3	3	3	3	3	3	0	0	0	0	0	0	0	0

Table 25. Adaptive Management Plan targeted checklist for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	mmddyy	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	SideChan
	Project Feature Number	S1-15	S1-16	S1-17	S1-18	S2-01	S2-02	S2-03	S2-04.1	S2-04.2	S2-05	S2-06	S2-07	S2-08	S2-09	S2-10	S2-11	S2-12	S3-01	
	Feature Type Code	HW1	HW2	TT	BF	HW2	HW1	HW2	HW1	HW1	HW1	HW1	HW2	HW1	HW1	HW1	HW2	LW	HW1	
	Habitat Unit	HU12	HU12	HU05	HU13	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU08	
	Habitat Type	Alcove	Alcove	Flatwater	Flatwater	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	GOOD	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	74%	74%	85%	72%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	74%	
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	6%	6%	7%	15%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	2%	
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
15.	Percent of **habitat unit** covered by shelter: %	10	10	25	25	30	30	30	30	30	30	30	30	30	30	30	30	30	20	
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	30	30	75	75	90	90	90	90	90	90	90	90	90	90	90	90	90	60	
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	100%	100%	28%	28%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	74%	74%	20%	17%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	74%	
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	6%	6%	1%	2%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	2%	
	FEATURE NUMBER	**S1-15**	**S1-16**	**S1-17**	**S1-18**	**S2-01**	**S2-02**	**S2-03**	**S2-04.1**	**S2-04.2**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**	**S2-10**	**S2-11**	**S2-12**	**S3-01**	
	HABITAT UNIT NUMBER	**HU12**	**HU12**	**HU05**	**HU13**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU08**	
	SITE NUMBER	**1**	**1**	**1**	**1**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**3**	
	ENHANCEMENT REACH NAME	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	2	2	2	2	2	2	2	2	2	2	2	2	2	4	
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	1	3	3	3	3	3	3	3	3	3	3	3	3	3	0	
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	2	
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	2	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	4	
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	0	

Table 25. Adaptive Management Plan targeted checklist for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	mmddyy	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S3-02	S3-03.1	S3-03.2	S3-03.3	S3-04	S3-05	S3-06	S3-07	S3-08.1	S3-08.2	S3-09	S3-10	S3-11	S3-12.1	S3-12.2	S3-12.3	S3-13	S3-14
	Feature Type Code	HW1	PW	PW	PW	HW1	LWS	R	HW1	HW2	HW2	HW1	HW1	HW1	PW	PW	PW	R	HW2
	Habitat Unit	HU08	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU09
	Habitat Type	Alcove	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Pool
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	74%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	46%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	2%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	42%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	20	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	60	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	100%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	40%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	74%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	2%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	11%
	FEATURE NUMBER	**S3-02**	**S3-03.1**	**S3-03.2**	**S3-03.3**	**S3-04**	**S3-05**	**S3-06**	**S3-07**	**S3-08.1**	**S3-08.2**	**S3-09**	**S3-10**	**S3-11**	**S3-12.1**	**S3-12.2**	**S3-12.3**	**S3-13**	**S3-14**
	HABITAT UNIT NUMBER	**HU08**	**HU07**	**HU07**	**HU07**	**HU07**	**HU07**	**HU07**	**HU07**	**HU07**	**HU07**	**HU07**	**HU07**	**HU07**	**HU07**	**HU07**	**HU07**	**HU07**	**HU09**
	SITE NUMBER	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**
	ENHANCEMENT REACH NAME	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Table 25. Adaptive Management Plan targeted checklist for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	mmddyy	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SC Alcove	SC Alcove	SC Alcove	SC Alcove
	Project Feature Number	S3-15	S3-16	S3-17	S3-18.1	S3-18.2	S3-18.3	S3-19	S3-20	S3-21	S3-22	S3-23.1	S3-23.2	S3-23.3	S3-24	S4-01	S4-02	S4-03	S4-04
	Feature Type Code	TT	LW	HW1	PW	PW	PW	R	HW1	HW2	LWS	PW	PW	PW	ALJ	HW1	HW2	LW	HW1
	Habitat Unit	HU01_D	HU01_D	HU09	HU09	HU09	HU09	HU09	HU10	HU10	HU10	HU10	HU10	HU10	HU10	HU11	HU11	HU11	HU11
	Habitat Type	Dry	Dry	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Alcove	Alcove	Alcove	Alcove
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	46%	46%	46%	46%	46%	52%	52%	52%	52%	52%	52%	52%	63%	63%	63%	63%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	42%	42%	42%	42%	42%	39%	39%	39%	39%	39%	39%	39%	21%	21%	21%	21%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	0	0	30	30	30	30	30	10	10	10	10	10	10	10	40	40	40	40
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	90	90	90	90	90	30	30	30	30	30	30	30	120	120	120	120
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	40%	40%	40%	40%	40%	44%	44%	44%	44%	44%	44%	44%	100%	100%	100%	100%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	20%	20%	20%	20%	20%	23%	23%	23%	23%	23%	23%	23%	63%	63%	63%	63%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	11%	11%	11%	11%	11%	12%	12%	12%	12%	12%	12%	12%	21%	21%	21%	21%
	FEATURE NUMBER	**S3-15**	**S3-16**	**S3-17**	**S3-18.1**	**S3-18.2**	**S3-18.3**	**S3-19**	**S3-20**	**S3-21**	**S3-22**	**S3-23.1**	**S3-23.2**	**S3-23.3**	**S3-24**	**S4-01**	**S4-02**	**S4-03**	**S4-04**
	HABITAT UNIT NUMBER	**HU01_D**	**HU01_D**	**HU09**	**HU09**	**HU09**	**HU09**	**HU09**	**HU10**	**HU10**	**HU10**	**HU10**	**HU10**	**HU10**	**HU10**	**HU11**	**HU11**	**HU11**	**HU11**
	SITE NUMBER	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**4**	**4**	**4**	**4**
	ENHANCEMENT REACH NAME	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	4	4	4	4	4	3	3	3	3	3	3	3	2	2	2	2
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	0	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	0	2	2	2	2	2	1	1	1	1	1	1	1	3	3	3	3
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	3	3	3	3	3	0	0	0	0	0	0	0	4	4	4	4
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	1	1	1	1	1	2	2	2	2	2	2	2	4	4	4	4
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2

Table 25. Adaptive Management Plan targeted checklist for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH
	mmddyy	91317	91317	91317	91317	91317	91317
	Survey Type	POS	POS	POS	POS	POS	POS
	Project Site Number	4	4	4	5	5	5
	Project Site Type	SC Alcove	SC Alcove	SC Alcove	SideChan	SideChan	SideChan
	Project Feature Number	S4-05	S4-06	S4-07	S5-01	S5-02	S5-03
	Feature Type Code	HW1	HW1	HW1	HW1	HW1	HW1
	Habitat Unit	HU11	HU11	HU11	HU15	HU15	HU15
	Habitat Type	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NO	NO	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	63%	63%	63%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	21%	21%	21%	0%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	40	40	40	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	120	120	120	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	100%	100%	100%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	63%	63%	63%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	21%	21%	21%	0%	0%	0%
	FEATURE NUMBER	**S4-05**	**S4-06**	**S4-07**	**S5-01**	**S5-02**	**S5-03**
	HABITAT UNIT NUMBER	**HU11**	**HU11**	**HU11**	**HU15**	**HU15**	**HU15**
	SITE NUMBER	**4**	**4**	**4**	**5**	**5**	**5**
	ENHANCEMENT REACH NAME	**CH**	**CH**	**CH**	**CH**	**CH**	**CH**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5	5	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	0	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	2	2	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	5	0	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	3	3	3	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	4	4	4	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	0	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	0	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	2	2	0	0	0

Table 26. Adaptive Management Plan full checklist for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	mmddyy	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan
	Project Feature Number	NA	NA	NA	S1-01	S1-02	S1-03	S1-04	S1-05.1	S1-05.2	S1-06	S1-07	S1-08	S1-09	S1-10	S1-11	S1-12	S1-13	S1-14
	Feature Type Code	NA	NA	NA	LWS	LWS	HW2	HW1	LW	LW	HW1	TT	LWS	TT	HW1	TT	TT	TT	HW1
	Habitat Unit	HU01	HU04	HU14	HU03	HU06	HU06	HU06	HU06	HU06	HU06	HU05	HU05	HU05	HU05	HU05	HU05	HU05	HU12
	Habitat Type	Pool	Pool	Flatwater	Pool	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Alcove
1.	Length of targeted treatment (ft)				12	18	15	15	36	36	15	30	17	30	12	30	30	30	8
2.	Width of targeted treatment: (ft)				26	17	8	14	46	46	8	10	18	10	10	10	10	10	10
3.	Estimate area of the targeted **feature**: (ft^2)				312	306	120	210	1656	1656	120	300	306	300	120	300	300	300	80
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	NA	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	GOOD	EXCL	EXCL	GOOD	GOOD	GOOD	EXCL
5a	Are problems with the **feature** visible?	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NA	NA	NA	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	NA	NA	NA	LBK	LBK	LBK	LBK	LBK	LBK	LBK	RBK	LBK	RBK	LBK	RBK	RBK	RBK	LBK
6d	Is the **feature** still in its original orientaton?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	NA	NA	NA	PRP	PRP	PRP	UPS	PRP	PRP	DNS	DNS	UPS	DNS	DNS	DNS	DNS	DNS	PRP
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	POO	POO	FLT	POO	ALC	ALC	ALC	ALC	ALC	ALC	FLT	FLT	FLT	FLT	FLT	FLT	FLT	ALC
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	2.0	1.8	1.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
11a	Maximum water depth in **habitat unit**: ft	4.7	4.1	2.2	5.1	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.4
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	1755.5	1288.8	4710.9	997.1	752.2	752.2	752.2	752.2	752.2	752.2	24503.6	24503.6	24503.6	24503.6	24503.6	24503.6	24503.6	1018.3
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	2109.3	1031.9	60.3	1067.4	1060.0	1060.0	1060.0	1060.0	1060.0	1060.0	1981.1	1981.1	1981.1	1981.1	1981.1	1981.1	1981.1	84.4
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	3864.8	2320.7	4771.3	2064.5	1812.2	1812.2	1812.2	1812.2	1812.2	1812.2	26484.7	26484.7	26484.7	26484.7	26484.7	26484.7	26484.7	1102.7
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	39%	49%	78%	42%	37%	37%	37%	37%	37%	37%	85%	85%	85%	85%	85%	85%	85%	74%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	47%	39%	1%	44%	52%	52%	52%	52%	52%	52%	7%	7%	7%	7%	7%	7%	7%	6%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	86%	87%	79%	86%	89%	89%	89%	89%	89%	89%	92%	92%	92%	92%	92%	92%	92%	80%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2				250	175	55	60	135	195	40	150	152	150	42	150	150	150	35
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	0	45	5	20	50	50	50	50	50	50	25	25	25	25	25	25	25	10
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	TVG	TVG	TVG	TVG	SWD	SWD	SWD	SWD	SWD	SWD	TVG	TVG	TVG	TVG	TVG	TVG	TVG	RTW
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	SWD	NON	RTW	RTW	RTW	RTW	RTW	RTW	RTW	SWD	SWD	SWD	SWD	SWD	SWD	SWD	NON
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	135	10	60	150	150	150	150	150	150	75	75	75	75	75	75	75	30
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA															
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA															
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	3.5	4.1	4.7	4.2	2.0	2.0	2.0	2.0	2.0	2.0	4.3	4.3	4.3	4.3	4.3	4.3	4.3	0.1
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.9	1.5	2.0	0.9	0.3	0.3	0.3	0.3	0.3	0.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	2031.1	702.9	1434.7	1299.9	1678.0	1678.0	1678.0	1678.0	1678.0	1678.0	8151.0	8151.0	8151.0	8151.0	8151.0	8151.0	8151.0	1375.2
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	45%	26%	24%	54%	82%	82%	82%	82%	82%	82%	28%	28%	28%	28%	28%	28%	28%	100%
29.	Were there any unintended effects of **feature** on velocity If Y, comment	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	COB	COB	SLC	SLC	SLC	SLC	SLC	SLC	GRV	GRV	GRV	GRV	GRV	GRV	GRV	SLC
31.	If an objective, did the **feature** achieve the targeted substrate composition?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	1651.6	416.5	846.0	1068.1	1450.9	1450.9	1450.9	1450.9	1450.9	1450.9	6116.3	6116.3	6116.3	6116.3	6116.3	6116.3	6116.3	1102.7
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	509.7	357.0	819.9	517.8	686.9	686.9	686.9	686.9	686.9	686.9	5714.2	5714.2	5714.2	5714.2	5714.2	5714.2	5714.2	1018.3
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	1142.0	59.5	26.0	550.3	764.0	764.0	764.0	764.0	764.0	764.0	402.1	402.1	402.1	402.1	402.1	402.1	402.1	84.4
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	37%	16%	14%	44%	71%	71%	71%	71%	71%	71%	21%	21%	21%	21%	21%	21%	21%	80%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	11%	13%	14%	22%	34%	34%	34%	34%	34%	34%	20%	20%	20%	20%	20%	20%	20%	74%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	26%	2%	0%	23%	37%	37%	37%	37%	37%	37%	1%	1%	1%	1%	1%	1%	1%	6%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NA	NA	NA	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Table 26. Adaptive Management Plan full checklist for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	mmddyy	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	SideChan
	Project Feature Number	S1-15	S1-16	S1-17	S1-18	S2-01	S2-02	S2-03	S2-04.1	S2-04.2	S2-05	S2-06	S2-07	S2-08	S2-09	S2-10	S2-11	S2-12	S3-01
	Feature Type Code	HW1	HW2	TT	BF	HW2	HW1	HW2	HW1	HW1	HW1	HW1	HW2	HW1	HW1	HW1	HW2	LW	HW1
	Habitat Unit	HU12	HU12	HU05	HU13	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU08
	Habitat Type	Alcove	Alcove	Flatwater	Flatwater	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
1.	Length of targeted treatment (ft)	8	8	30	50	7	11	19	12	12	10	11	7	7	15	7	15	22	10
2.	Width of targeted treatment: (ft)	10	10	10	35	25	12	18	11	11	14	13	18	14	10	14	9	34	10
3.	Estimate area of the targeted **feature**: (ft^2)	80	80	300	1750	175	132	342	132	132	140	143	126	98	150	98	135	748	100
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	GOOD	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	LBK	LBK	RBK	SPN	LBK	LBK	RBK	LBK	LBK	RBK	LBK	RBK	RBK	LBK	RBK	LBK	RBK	LBK
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	PRP	PRP	DNS	OTH	UPS	UPS	DNS	DNS	PRP	DNS	UPS	PRP	DNS	DNS	DNS	DNS	DNS	UPS
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	ALC	ALC	FLT	FLT	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	1.2	1.2	1.2	1.4	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	1.0
11a	Maximum water depth in **habitat unit**: ft	2.4	2.4	2.9	3.0	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	3.0
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	1018.3	1018.3	24503.6	1776.0	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	638.0
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	84.4	84.4	1981.1	373.4	1957.4	1957.4	1957.4	1957.4	1957.4	1957.4	1957.4	1957.4	1957.4	1957.4	1957.4	1957.4	1957.4	18.8
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	1102.7	1102.7	26484.7	2149.4	3207.1	3207.1	3207.1	3207.1	3207.1	3207.1	3207.1	3207.1	3207.1	3207.1	3207.1	3207.1	3207.1	656.9
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	74%	74%	85%	72%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	74%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	6%	6%	7%	15%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	2%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	80%	80%	92%	87%	64%	64%	64%	64%	64%	64%	64%	64%	64%	64%	64%	64%	64%	76%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	35	35	150	1000	70	60	80	60	60	120	62	65	60	60	60	60	185	55
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	10	10	25	25	30	30	30	30	30	30	30	30	30	30	30	30	30	20
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	RTW	RTW	TVG	BOL	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	SWD	TVG	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	30	30	75	75	90	90	90	90	90	90	90	90	90	90	90	90	90	60
18a	Large woody debris count in **habitat unit**: D >1", L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1", L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH					STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH					STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	YES	YES	YES	YES	YES	YES	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.1	0.1	4.3	2.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.2
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	0.0	1.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	1375.2	1375.2	8151.0	678.0	4998.8	4998.8	4998.8	4998.8	4998.8	4998.8	4998.8	4998.8	4998.8	4998.8	4998.8	4998.8	4998.8	864.4
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	100%	100%	28%	28%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	SND	GRV	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SLC	SLC	GRV	BOL	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	NR
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	1102.7	1102.7	6116.3	462.8	3199.8	3199.8	3199.8	3199.8	3199.8	3199.8	3199.8	3199.8	3199.8	3199.8	3199.8	3199.8	3199.8	656.9
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	1018.3	1018.3	5714.2	410.9	1242.4	1242.4	1242.4	1242.4	1242.4	1242.4	1242.4	1242.4	1242.4	1242.4	1242.4	1242.4	1242.4	638.0
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	84.4	84.4	402.1	51.9	1957.4	1957.4	1957.4	1957.4	1957.4	1957.4	1957.4	1957.4	1957.4	1957.4	1957.4	1957.4	1957.4	18.8
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	80%	80%	21%	19%	64%	64%	64%	64%	64%	64%	64%	64%	64%	64%	64%	64%	64%	76%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	74%	74%	20%	17%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	74%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	6%	6%	1%	2%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	2%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Table 26. Adaptive Management Plan full checklist for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	mmddyy	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S3-02	S3-03.1	S3-03.2	S3-03.3	S3-04	S3-05	S3-06	S3-07	S3-08.1	S3-08.2	S3-09	S3-10	S3-11	S3-12.1	S3-12.2	S3-12.3	S3-13	S3-14
	Feature Type Code	HW1	PW	PW	PW	HW1	LWS	R	HW1	HW2	HW2	HW1	HW1	HW1	PW	PW	PW	R	HW2
	Habitat Unit	HU08	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU07	HU09
	Habitat Type	Alcove	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Pool
1.	Length of targeted treatment (ft)	10	18	18	18	7	15		13	12	12	13	13	18	15	15	15		13
2.	Width of targeted treatment: (ft)	10	10	10	10	10	13		12	18	18	12	12	11	12	12	12		12
3.	Estimate area of the targeted **feature**: (ft^2)	100	180	180	180	70	195		156	216	216	156	156	198	180	180	180		156
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	LBK	LBK	LBK	LBK	RBK	LBK	SPN	LBK	LBK	LBK	LBK	LBK	LBK	RBK	RBK	RBK	SPN	RBK
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	UPS	PRP	PRP	PRP	PRP	PRP	OTH	UPS	UPS	UPS	UPS	UPS	UPS	PRP	PRP	PRP	OTH	UPS
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	ALC	FLT	FLT	FLT	FLT	FLT	FLT	FLT	FLT	FLT	FLT	FLT	FLT	FLT	FLT	FLT	FLT	POO
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9
11a	Maximum water depth in **habitat unit**: ft	3.0	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	638.0	2641.3	2641.3	2641.3	2641.3	2641.3	2641.3	2641.3	2641.3	2641.3	2641.3	2641.3	2641.3	2641.3	2641.3	2641.3	2641.3	1719.5
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	18.8	3444.6	3444.6	3444.6	3444.6	3444.6	3444.6	3444.6	3444.6	3444.6	3444.6	3444.6	3444.6	3444.6	3444.6	3444.6	3444.6	1565.8
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	656.9	6085.9	6085.9	6085.9	6085.9	6085.9	6085.9	6085.9	6085.9	6085.9	6085.9	6085.9	6085.9	6085.9	6085.9	6085.9	6085.9	3285.4
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	74%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	46%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	2%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	42%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	76%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	55	85	85	85	25	160		75	45	45	75	75	75	75	100	75		45
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	20	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD	SWD
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	60	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	DEC	DEC	DEC	DEC	DEC	DEC	INC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	INC	DEC
24.	Targeted velocity/range in the **habitat unit**. (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.2	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.5
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9
27.	Area of **habitat unit** within targeted velocity: (ft²)	864.4	2940.4	2940.4	2940.4	2940.4	2940.4	2940.4	2940.4	2940.4	2940.4	2940.4	2940.4	2940.4	2940.4	2940.4	2940.4	2940.4	1493.3
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	100%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	40%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	NR	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	656.9	2194.3	2194.3	2194.3	2194.3	2194.3	2194.3	2194.3	2194.3	2194.3	2194.3	2194.3	2194.3	2194.3	2194.3	2194.3	2194.3	1150.0
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	638.0	1359.5	1359.5	1359.5	1359.5	1359.5	1359.5	1359.5	1359.5	1359.5	1359.5	1359.5	1359.5	1359.5	1359.5	1359.5	1359.5	733.3
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	18.8	834.7	834.7	834.7	834.7	834.7	834.7	834.7	834.7	834.7	834.7	834.7	834.7	834.7	834.7	834.7	834.7	416.7
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	76%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	31%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	74%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	2%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	11%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Table 26. Adaptive Management Plan full checklist for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	mmddyy	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317	91317
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SC Alcove	SC Alcove	SC Alcove	SC Alcove
	Project Feature Number	S3-15	S3-16	S3-17	S3-18.1	S3-18.2	S3-18.3	S3-19	S3-20	S3-21	S3-22	S3-23.1	S3-23.2	S3-23.3	S3-24	S4-01	S4-02	S4-03	S4-04
	Feature Type Code	TT	LW	HW1	PW	PW	PW	R	HW1	HW2	LWS	PW	PW	PW	ALJ	HW1	HW2	LW	HW1
	Habitat Unit	HU01_D	HU01_D	HU09	HU09	HU09	HU09	HU09	HU10	HU10	HU10	HU10	HU10	HU10	HU10	HU11	HU11	HU11	HU11
	Habitat Type	Dry	Dry	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Alcove	Alcove	Alcove	Alcove
1.	Length of targeted treatment (ft)	18	17	12	18	18	18		18	12	17	13	13	10	21	11	11	35	15
2.	Width of targeted treatment: (ft)	17	32	9	12	12	12		6	8	17	10	10	10	33	14	10	14	12
3.	Estimate area of the targeted **feature**: (ft^2)	306	544	108	216	216	216		108	96	289	130	130	100	693	154	110	490	180
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	RBK	RBK	LBK	LBK	LBK	LBK	SPN	RBK	RBK	RBK	RBK	RBK	RBK	MDC	LBK	RBK	RBK	LBK
6d	Is the **feature** still in its original orientation?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	DNS	DNS	UPS	PRP	PRP	PRP	OTH	UPS	PRP	PRP	PRP	PRP	PRP	MUL	UPS	DNS	UPS	UPS
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	DRY	DRY	POO	POO	POO	POO	POO	POO	POO	POO	POO	POO	POO	POO	ALC	ALC	ALC	ALC
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	0.0	0.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.4	1.4	1.4	1.4
11a	Maximum water depth in **habitat unit**: ft	0.0	0.0	4.7	4.7	4.7	4.7	4.7	4.4	4.4	4.4	4.4	4.4	4.4	4.4	3.3	3.3	3.3	3.3
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	0.0	0.0	1719.5	1719.5	1719.5	1719.5	1719.5	2156.2	2156.2	2156.2	2156.2	2156.2	2156.2	2156.2	1451.6	1451.6	1451.6	1451.6
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	0.0	0.0	1565.8	1565.8	1565.8	1565.8	1565.8	1616.1	1616.1	1616.1	1616.1	1616.1	1616.1	1616.1	476.2	476.2	476.2	476.2
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	0.0	0.0	3285.4	3285.4	3285.4	3285.4	3285.4	3772.3	3772.3	3772.3	3772.3	3772.3	3772.3	3772.3	1927.8	1927.8	1927.8	1927.8
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	46%	46%	46%	46%	46%	52%	52%	52%	52%	52%	52%	52%	63%	63%	63%	63%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	42%	42%	42%	42%	42%	39%	39%	39%	39%	39%	39%	39%	21%	21%	21%	21%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	0%	0%	88%	88%	88%	88%	88%	91%	91%	91%	91%	91%	91%	91%	83%	83%	83%	83%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	0	130	45	85	85	85		50	50	135	80	80	80	215	45	40	259	60
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	0	0	30	30	30	30	30	10	10	10	10	10	10	10	40	40	40	40
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	SWD	SWD	SWD	SWD	SWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	SWD	SWD	SWD	SWD
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	90	90	90	90	90	30	30	30	30	30	30	30	120	120	120	120
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NA	NA	DEC	DEC	DEC	DEC	INC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
24.	Targeted velocity/range in the **habitat unit**. (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.0	0.0	2.5	2.5	2.5	2.5	2.5	4.2	4.2	4.2	4.2	4.2	4.2	4.2	0.4	0.4	0.4	0.4
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	0.0	0.0	1493.3	1493.3	1493.3	1493.3	1493.3	1810.4	1810.4	1810.4	1810.4	1810.4	1810.4	1810.4	2317.7	2317.7	2317.7	2317.7
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	40%	40%	40%	40%	40%	44%	44%	44%	44%	44%	44%	44%	100%	100%	100%	100%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	NR	NR	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	SND	SND	SND	SND
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	NR	NR	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SLC	SLC	SLC	SLC
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0.0	0.0	1150.0	1150.0	1150.0	1150.0	1150.0	1473.3	1473.3	1473.3	1473.3	1473.3	1473.3	1473.3	1927.8	1927.8	1927.8	1927.8
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0.0	0.0	733.3	733.3	733.3	733.3	733.3	954.8	954.8	954.8	954.8	954.8	954.8	954.8	1451.6	1451.6	1451.6	1451.6
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0.0	0.0	416.7	416.7	416.7	416.7	416.7	518.5	518.5	518.5	518.5	518.5	518.5	518.5	476.2	476.2	476.2	476.2
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0%	0%	31%	31%	31%	31%	31%	35%	35%	35%	35%	35%	35%	35%	83%	83%	83%	83%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	20%	20%	20%	20%	20%	23%	23%	23%	23%	23%	23%	23%	63%	63%	63%	63%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	11%	11%	11%	11%	11%	12%	12%	12%	12%	12%	12%	12%	21%	21%	21%	21%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Table 26. Adaptive Management Plan full checklist for the City of Healdsburg Yard enhancement reach, September 2017.

	Project Reach	3	3	3	3	3	3
	Enhancement Reach	4	4	4	4	4	4
	Colloquial Name	CH	CH	CH	CH	CH	CH
	mmddyy	91317	91317	91317	91317	91317	91317
	Survey Type	POS	POS	POS	POS	POS	POS
	Project Site Number	4	4	4	5	5	5
	Project Site Type	SC Alcove	SC Alcove	SC Alcove	SideChan	SideChan	SideChan
	Project Feature Number	S4-05	S4-06	S4-07	S5-01	S5-02	S5-03
	Feature Type Code	HW1	HW1	HW1	HW1	HW1	HW1
	Habitat Unit	HU11	HU11	HU11	HU15	HU15	HU15
	Habitat Type	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
1.	Length of targeted treatment (ft)	12	15	15	10	10	10
2.	Width of targeted treatment: (ft)	10	6	8	20	20	20
3.	Estimate area of the targeted **feature**: (ft²)	120	90	120	200	200	200
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	NON	NON	NON	NON	NON
5a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES
5b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES
5c	If yes: LBK, MDC, RBK, SPN, OTH	RBK	RBK	LBK	RBK	RBK	RBK
5d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	DNS	DNS	DNS	PRP	PRP	PRP
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	ALC	ALC	ALC	ALC	ALC	ALC
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment:	NO	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	1.4	1.4	1.4	0.0	0.0	0.0
11a	Maximum water depth in **habitat unit**: ft	3.3	3.3	3.3	0.0	0.0	0.0
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	1451.6	1451.6	1451.6	0.0	0.0	0.0
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	476.2	476.2	476.2	0.0	0.0	0.0
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	1927.8	1927.8	1927.8	0.0	0.0	0.0
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	63%	63%	63%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	21%	21%	21%	0%	0%	0%
11g	% Area of **habitat** unit within 0.5–4.0 ft depth	83%	83%	83%	0%	0%	0%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	YES	YES	YES	YES	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft²:	50	50	40	100	100	100
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment:	NO	NO	NO	NO	NO	NO
14	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	40	40	40	0	0	0
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	RTW	RTW	RTW	NON	NON	NON
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	SWD	SWD	SWD	NON	NON	NON
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	120	120	120	0	0	0
18a	Large woody debris count in **habitat unit**: D >1", L 6-20'	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1", L >20'	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON
20	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (site): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	DEC	DEC	DEC	DEC	DEC	DEC
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.4	0.4	0.4	0.0	0.0	0.0
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	0.0	0.0	0.0	0.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft²)	2317.7	2317.7	2317.7	0.0	0.0	0.0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	100%	100%	100%	0%	0%	0%
29.	Were there any unintended effects of **feature** on velocity If Y, comment	NO	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	SND	NR	NR	NR
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SLC	SLC	SLC	NR	NR	NR
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	1927.8	1927.8	1927.8	0.0	0.0	0.0
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	1451.6	1451.6	1451.6	0.0	0.0	0.0
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	476.2	476.2	476.2	0.0	0.0	0.0
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	83%	83%	83%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	63%	63%	63%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	21%	21%	21%	0%	0%	0%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NO	NO

Post-effective Flow 2017

Truett Hurst Post-effective Flow, July 2017

Depth and Velocity

Table 27. Areas and percentages of: wetted area, optimal depth and velocity, and optimal hydraulic habitat within the Truett Hurst enhancement reach, July 2017. Side channel area is comprised of an alcove located in the former side channel.

Truett Hurst Post-effective flow July 2017	Wetted area (ft^2)	Optimal depth (ft^2)			Optimal velocity (ft^2)	Optimal habitat (ft^2)		
		0.5 – 2.0 ft	2.0 – 4.0 ft	Total	< 0.5 ft/s	0.5 – 2.0 ft < 0.5 ft/s	2.0 – 4.0 ft < 0.5 ft/s	Total
Main channel area	49,859	36,551	11,606	48,157	11,579	6,477	835	7,312
Side channel area	10,682	5,298	1,662	6,960	10,191	6,656	1,787	8,443
Total area	**60,541**	**41,849**	**13,268**	**55,117**	**21,770**	**13,133**	**2,622**	**15,755**
Main channel % of wetted area	82%	73%	23%	97%	23%	13%	2%	15%
Side channel % of wetted area	18%	50%	16%	65%	95%	62%	17%	79%
Total % of wetted area	**100%**	**69%**	**22%**	**91%**	**36%**	**22%**	**4%**	**26%**

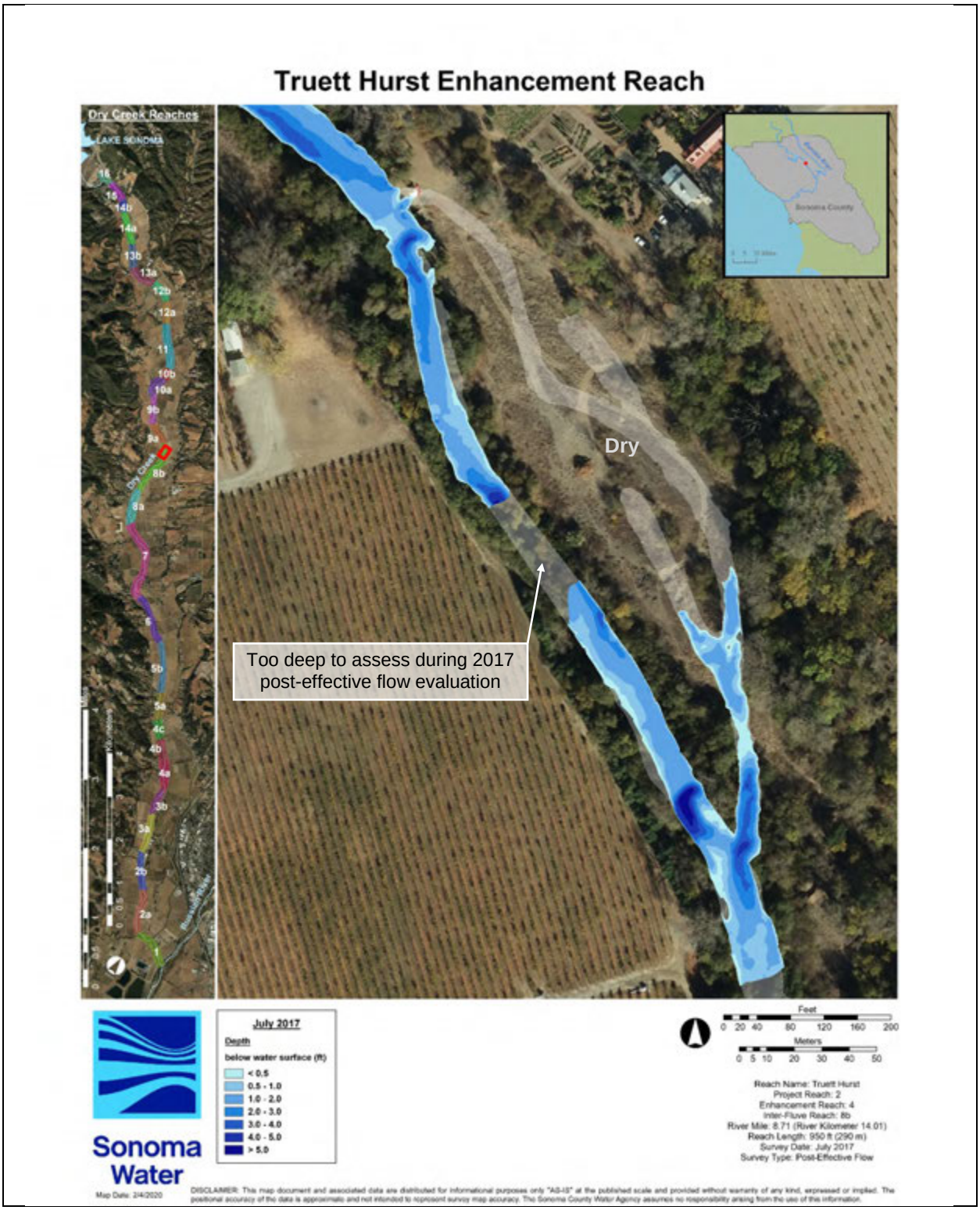


Figure 43. Measured water depth within the Truett Hurst enhancement reach, July 2017.

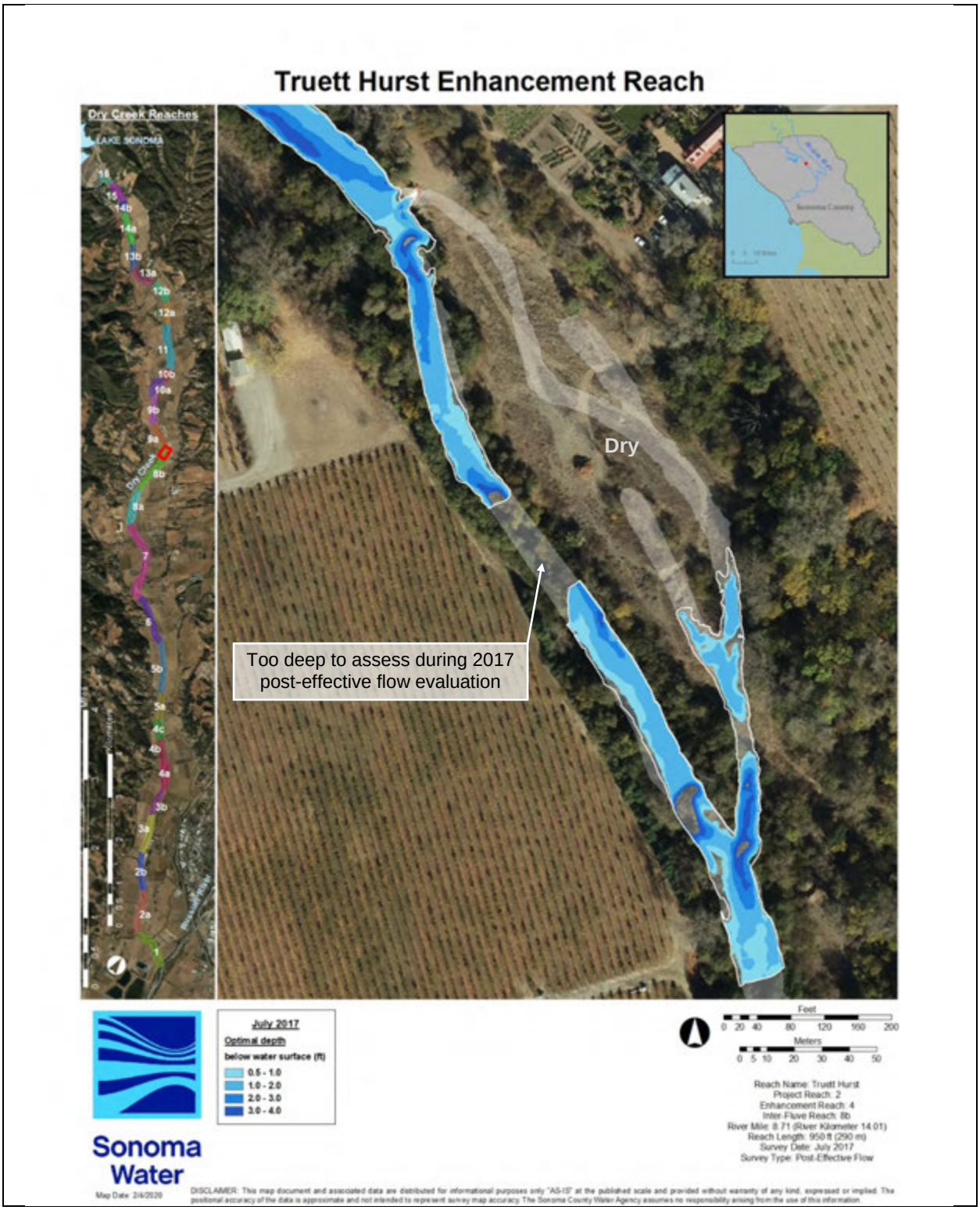


Figure 44. Optimal water depth for fry (0.5-2.0 ft) and parr (2.0-4.0 ft) within the Truett Hurst enhancement reach, July 2017.

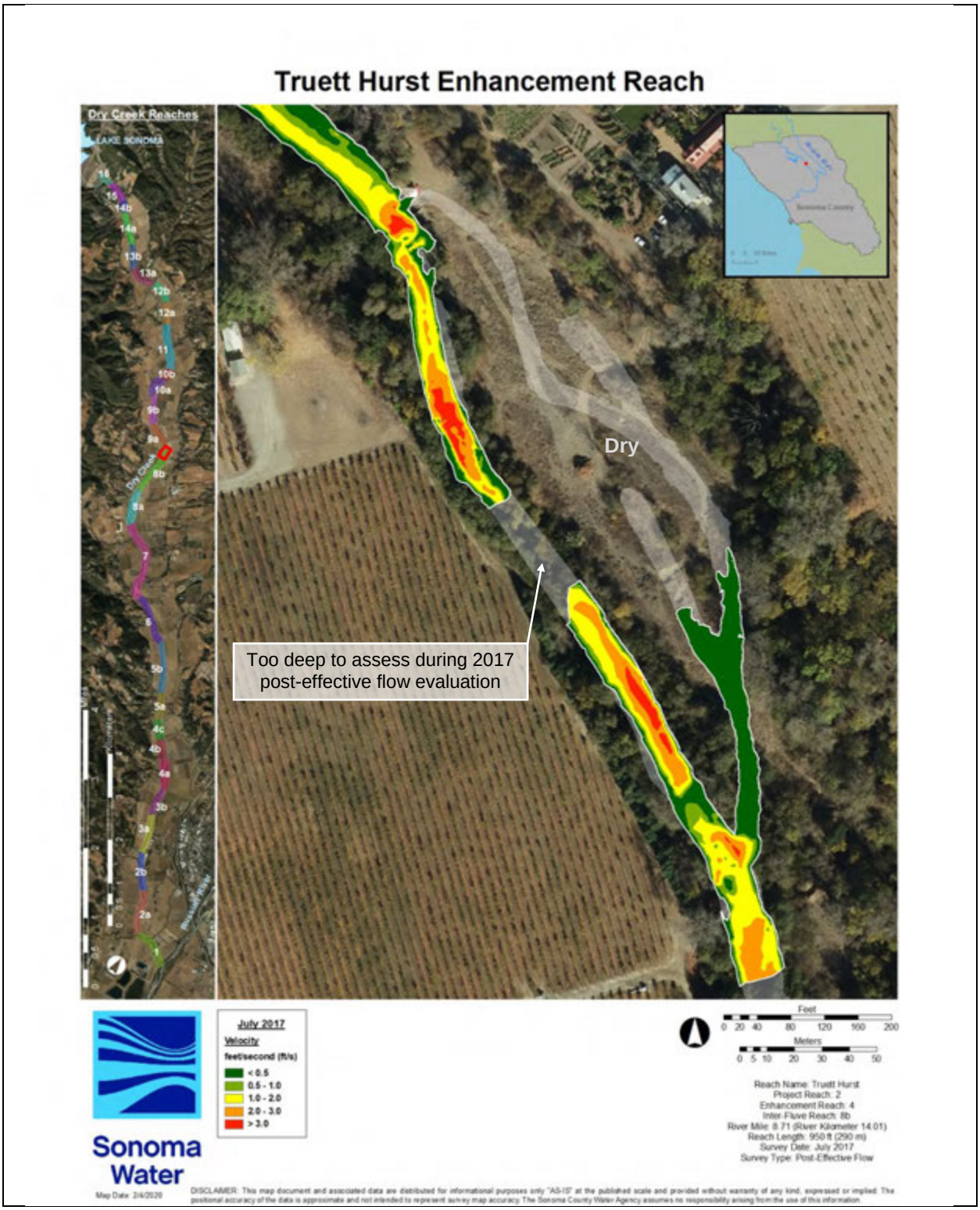


Figure 45. Measured water velocity within the Truett Hurst enhancement reach, July 2017.

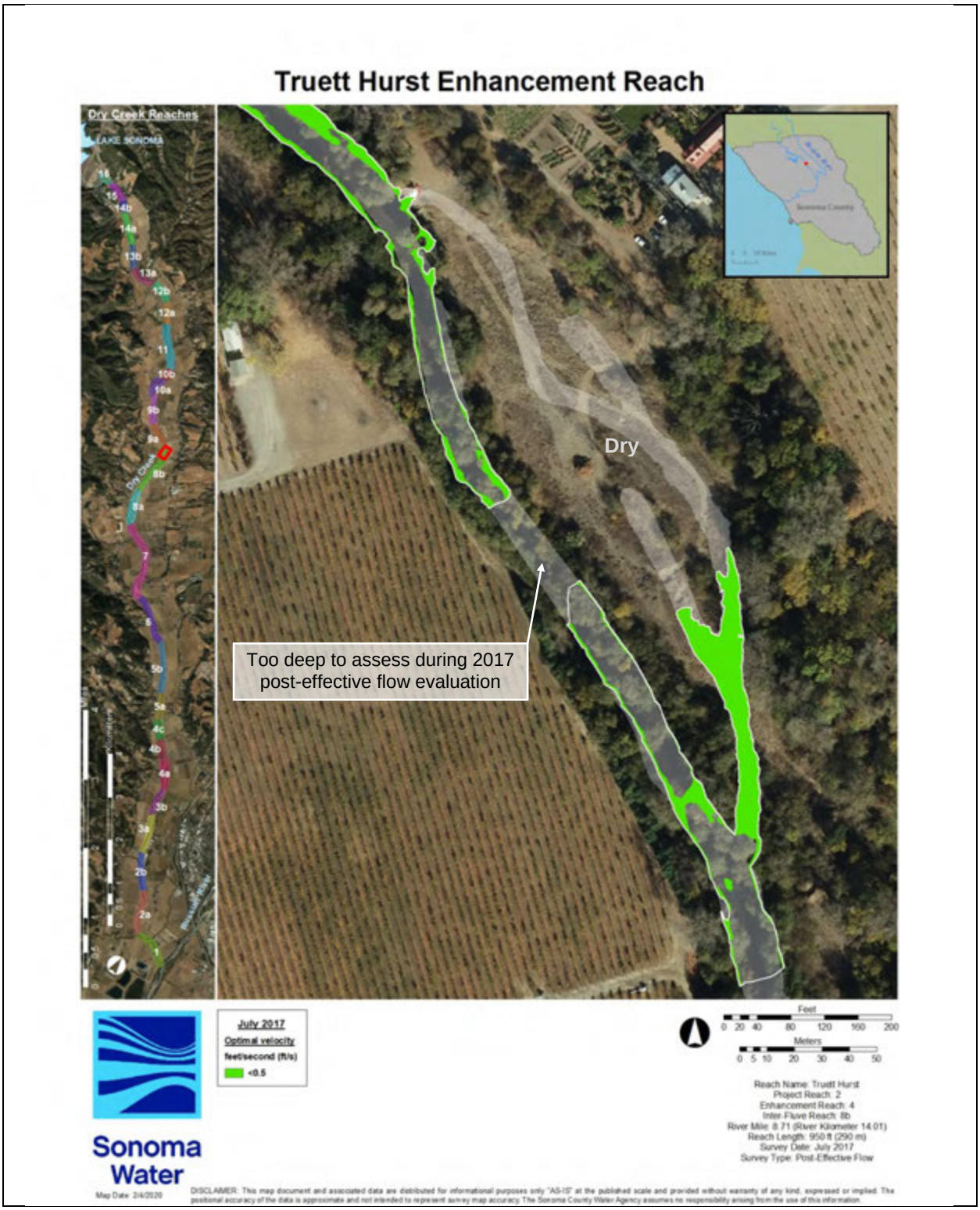


Figure 46. Optimal water velocity for fry and parr (< 0.5 ft/s) within the Truett Hurst enhancement reach, July 2017.

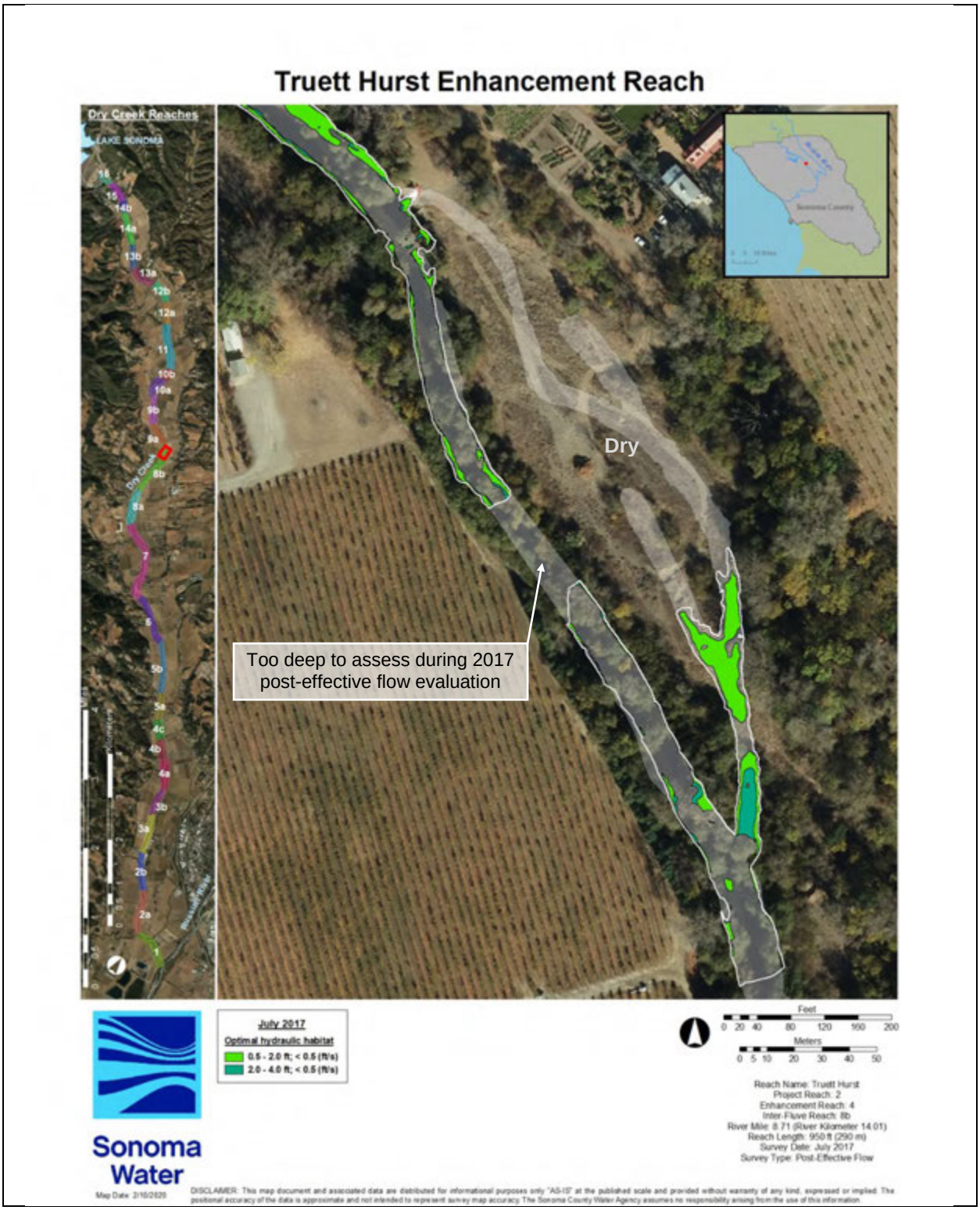


Figure 47. Optimal hydraulic habitat for fry (<0.5 f/s, 0.5-2.0 ft) and parr (<0.5 f/s, 2.0-4.0 ft) within the Truett Hurst enhancement reach, July 2017.

Habitat Types and Shelter Values

Table 28. Habitat, types, shelter value, percent cover, and shelter score for habitat units within the Truett Hurst enhancement reach, July 2017.

Post-effective flow (July 2017)				
Habitat Unit #	**Habitat Type**	**Shelter Value**	**Percent Cover**	**Shelter Score**
HU01	Pool	3	15	45
HU02	Pool	3	20	60
HU03	Alcove	3	20	60
HU04	Riffle	2	10	20
HU05	Flatwater	2	40	80
HU06	Pool	3	50	150
HU07	Riffle	3	20	60
HU08	Flatwater	3	40	120
HU09	Pool	1	25	25
HU10	Flatwater	2	10	20

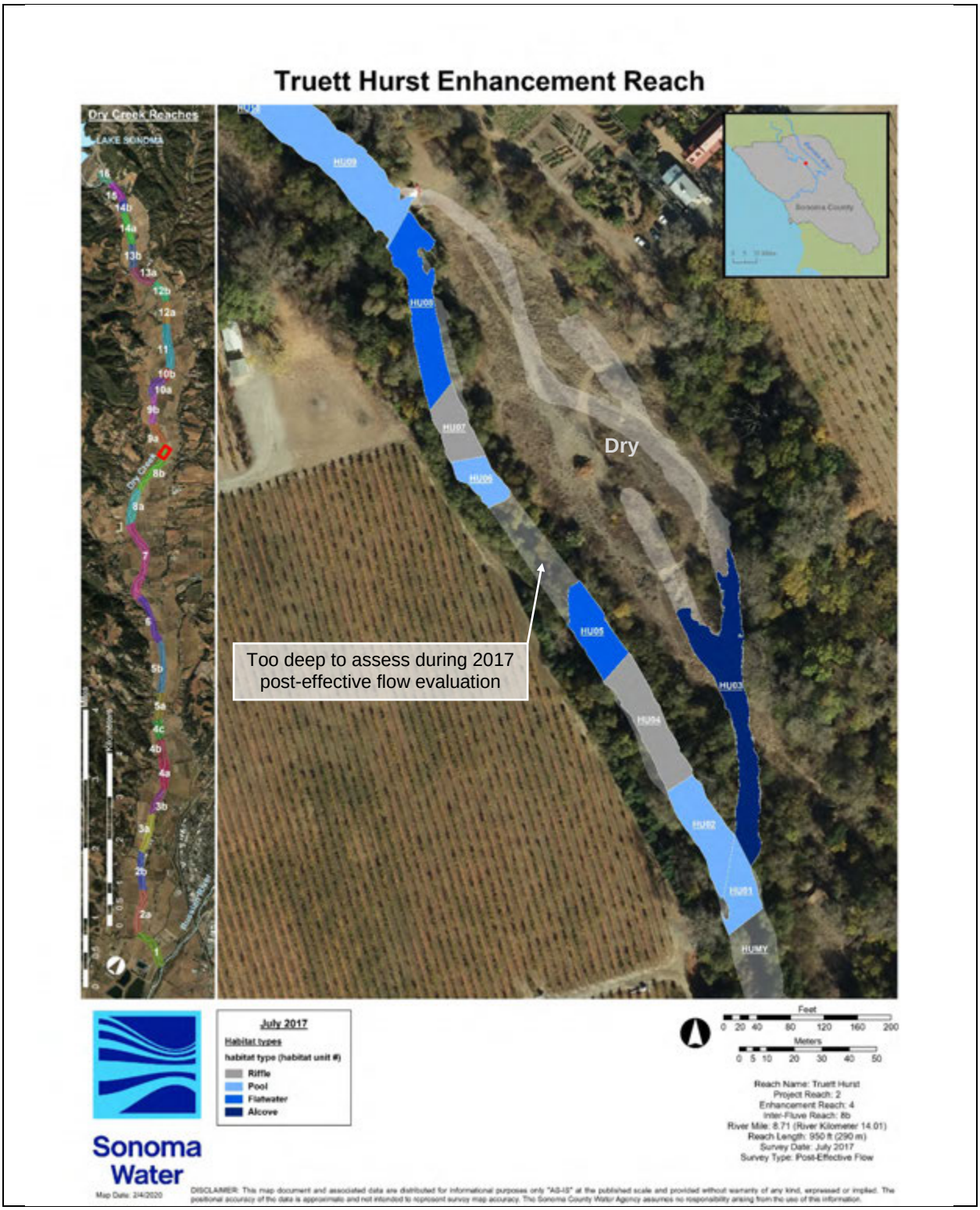


Figure 48. Habitat unit number and type within the Truett Hurst enhancement reach, July 2017.

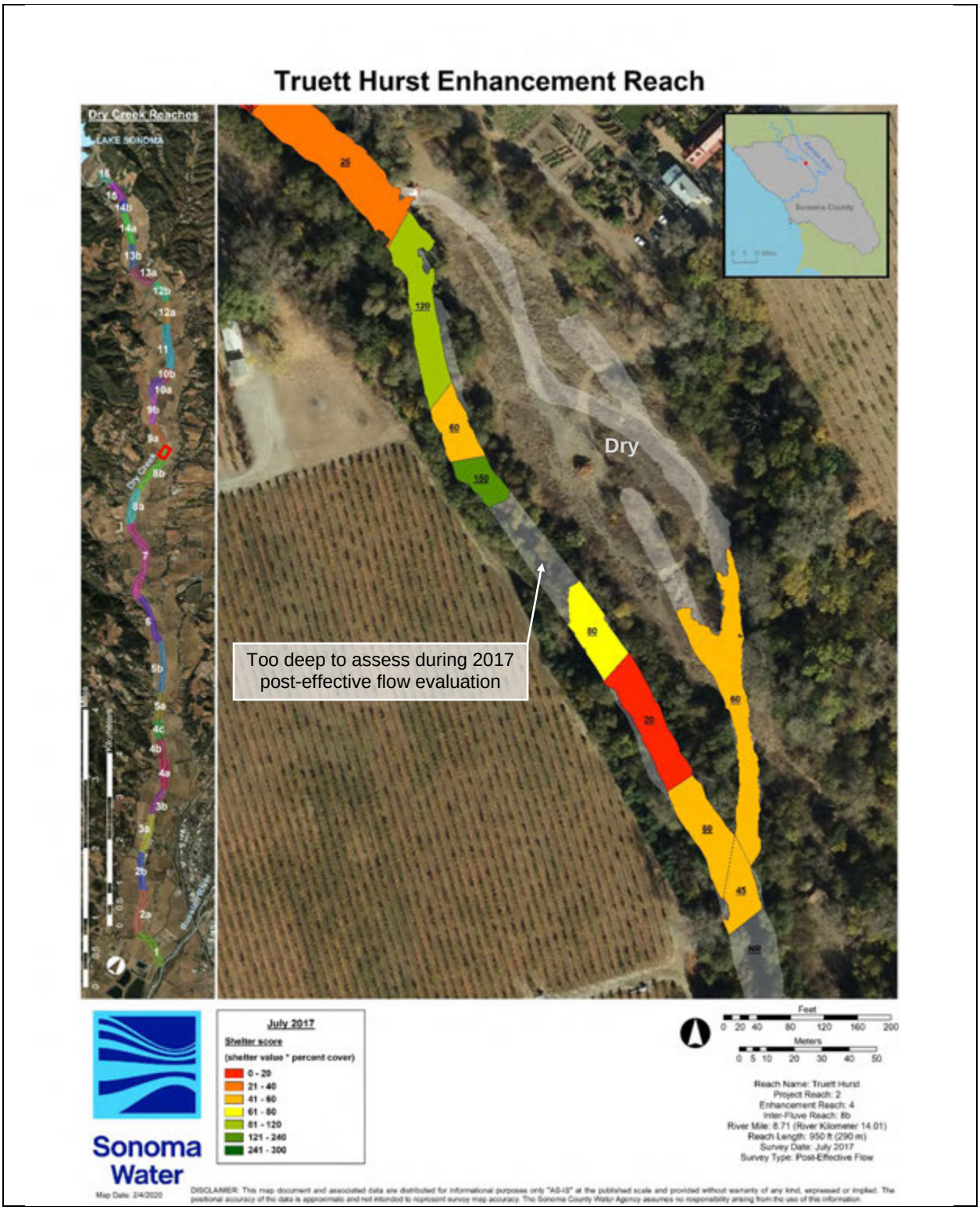


Figure 49. Habitat unit shelter scores within the Truett Hurst enhancement reach, July 2017.

Feature, Habitat Unit, Site, and Reach Ratings

Table 29. Post-effective flow feature ratings for the Truett Hurst enhancement reach July 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	NA	NA	NA	NA	NA	NA	NA	NA	NA	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S2-07	S2-08	S2-09
	Feature Type Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	BCW	HW	HW	SCW	R	HW	HW	SCW	SCW
	Habitat Unit	HU10	HU09	HU08	HU07	HU06	HU05	HU04	HU02	HU01	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2
	Habitat Type	Flatwater	Pool	Flatwater	Riffle	Pool	Flatwater	Riffle	Pool	Pool	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	NA	NA	NA	NA	NA	NA	NA	GOOD	GOOD	GOOD	GOOD	POOR	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	YES	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	NO	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	YES	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	NO	YES	YES	YES	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	NO	NO	NO	NA	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	NO	YES	YES	YES	YES
	PROJECT FEATURE NUMBER	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	0	0	0	0	0	0	0	4	4	4	4	2	4	4	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1
	PROJECT FEATURE NUMBER	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**
FEATURE RATING	Feature quantitative rating out of 15	0	0	0	0	0	0	0	0	0	14	13	13	13	6	13	13	13	13
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Excellent	Excellent	Excellent	Excellent	Fair	Excellent	Excellent	Excellent	Excellent

Table 29. Post-effective flow feature ratings for the Truett Hurst enhancement reach July 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S2-10	S2-11	S2-12	S2-13	S2-14	S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25	S2-26	S2-27
	Feature Type Code	HW	HW	HW	SCW	SCW	SCW	HW	HW	HW	R	HW	HW	FW	SCW	SCW	HW	R	HW
	Habitat Unit	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D
	Habitat Type	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Dry	Dry	Dry	Dry	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	FAIL	GOOD	UNKN	UNKN	UNKN	UNKN	UNKN	FAIL	UNKN
5a	Are problems with the **feature** visible?	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	NO	UNK
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	NO	UNK
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	NO	UNK
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	NO
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	NO	NO	NO	NO	NO	NO	NO
25.	Did the **feature** achieve the targeted velocity?	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA
	PROJECT FEATURE NUMBER	**S2-10**	**S2-11**	**S2-12**	**S2-13**	**S2-14**	**S2-15**	**S2-16**	**S2-17**	**S2-18**	**S2-19**	**S2-20**	**S2-21**	**S2-22**	**S2-23**	**S2-24**	**S2-25**	**S2-26**	**S2-27**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	4	4	4	4	4	4	4	4	1	4	0	0	0	0	0	1	0
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PROJECT FEATURE NUMBER	**S2-10**	**S2-11**	**S2-12**	**S2-13**	**S2-14**	**S2-15**	**S2-16**	**S2-17**	**S2-18**	**S2-19**	**S2-20**	**S2-21**	**S2-22**	**S2-23**	**S2-24**	**S2-25**	**S2-26**	**S2-27**
FEATURE RATING	Feature quantitative rating out of 15	13	11	8	8	8	8	8	8	8	4	8	1	0	0	0	0	1	1
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Good	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Poor	Fair	Fail	Fail	Fail	Fail	Fail	Fail	Fail

Table 29. Post-effective flow feature ratings for the Truett Hurst enhancement reach July 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove
	PROJECT FEATURE NUMBER	S2-28	S2-29	S2-30	S2-31	S2-32	S2-33	S2-34	S2-35	S2-36	S2-37A	S2-37B	S2-37C	S2-38	S3-01	S3-02	S3-03	S3-04	S3-05
	Feature Type Code	HW	HW	HW	FW	HW	FW	SCW	SCW	SCW	ISW	ISW	ISW	R	BCW	HW	BCW	HW	BCW
	Habitat Unit	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU03_3	HU03_3	HU03_3	HU02_D	HU02_D
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Backwater	Backwater	Backwater	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	UNKN	UNKN	GOOD	POOR	FAIR	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	FAIL	GOOD	GOOD	UNKN	UNKN	UNKN
5a	Are problems with the **feature** visible?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6a	Is the **feature** still in its original location?	YES	UNK	UNK	YES	NO	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	UNK	UNK
6b	Is the **feature** still in its original position?	YES	UNK	UNK	YES	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	UNK	UNK
6d	Is the **feature** still in its original orientaton?	YES	UNK	UNK	YES	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	UNK	UNK	UNK
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	YES	YES	YES	YES	YES	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO	NO	NO
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	NO	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	NO	NO	NO
25.	Did the **feature** achieve the targeted velocity?	NO	NO	NO	NA	NO	NA	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO	NO	NO
	PROJECT FEATURE NUMBER	**S2-28**	**S2-29**	**S2-30**	**S2-31**	**S2-32**	**S2-33**	**S2-34**	**S2-35**	**S2-36**	**S2-37A**	**S2-37B**	**S2-37C**	**S2-38**	**S3-01**	**S3-02**	**S3-03**	**S3-04**	**S3-05**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	0	0	4	2	3	4	4	4	4	4	4	1	4	4	0	0	0
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	0	0	1	0	1	1	1	1	1	1	1	0	1	1	1	0	0
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	0	0	1	0	0	1	1	1	1	1	1	0	1	1	1	0	0
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	0	0	1	0	0	1	1	1	1	1	1	0	1	1	0	0	0
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	0	0	1	0	1	1	1	1	1	1	1	0	1	1	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1	0	0	0
	PROJECT FEATURE NUMBER	**S2-28**	**S2-29**	**S2-30**	**S2-31**	**S2-32**	**S2-33**	**S2-34**	**S2-35**	**S2-36**	**S2-37A**	**S2-37B**	**S2-37C**	**S2-38**	**S3-01**	**S3-02**	**S3-03**	**S3-04**	**S3-05**
FEATURE RATING	Feature quantitative rating out of 15	9	0	0	8	2	5	12	12	12	11	11	8	1	11	11	2	0	0
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Good	Fail	Fail	Fair	Fail	Poor	Excellent	Excellent	Excellent	Good	Good	Fair	Fail	Good	Good	Fair	Fail	Fail

Table 29. Post-effective flow feature ratings for the Truett Hurst enhancement reach July 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	3	3	3	4	4	4	4	4	4	4	4
	Project Site Type	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove
	PROJECT FEATURE NUMBER	S3-06	S3-07	S3-08	S4-01	S4-02	S4-03	S4-04	S4-05	S4-06	S4-07	S4-08
	Feature Type Code	HW	FW	P	BCW	HW	HW	HW	HW	HW	HW	FW
	Habitat Unit	HU02_D	HU02_D	HU02_D	HU03_D	HU03_D	HU03_D	HU03_D	HU03_D	HU03_D	HU03_D	HU03_D
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	FAIR
5a	Are problems with the **feature** visible?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6a	Is the **feature** still in its original location?	YES	YES	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	YES
6b	Is the **feature** still in its original position?	YES	YES	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	YES
6d	Is the **feature** still in its original orientation?	YES	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
25.	Did the **feature** achieve the targeted velocity?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
	PROJECT FEATURE NUMBER	**S3-06**	**S3-07**	**S3-08**	**S4-01**	**S4-02**	**S4-03**	**S4-04**	**S4-05**	**S4-06**	**S4-07**	**S4-08**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	0	0	0	0	0	0	0	0	0	3
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	0	0	0	0	0	0	0	0	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	0	0	0	0	0	0	0	0	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	0	0	0	0	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	0	0	0	0	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
	PROJECT FEATURE NUMBER	**S3-06**	**S3-07**	**S3-08**	**S4-01**	**S4-02**	**S4-03**	**S4-04**	**S4-05**	**S4-06**	**S4-07**	**S4-08**
FEATURE RATING	Feature quantitative rating out of 15	8	2	0	0	0	0	0	0	0	0	7
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Fair	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fair

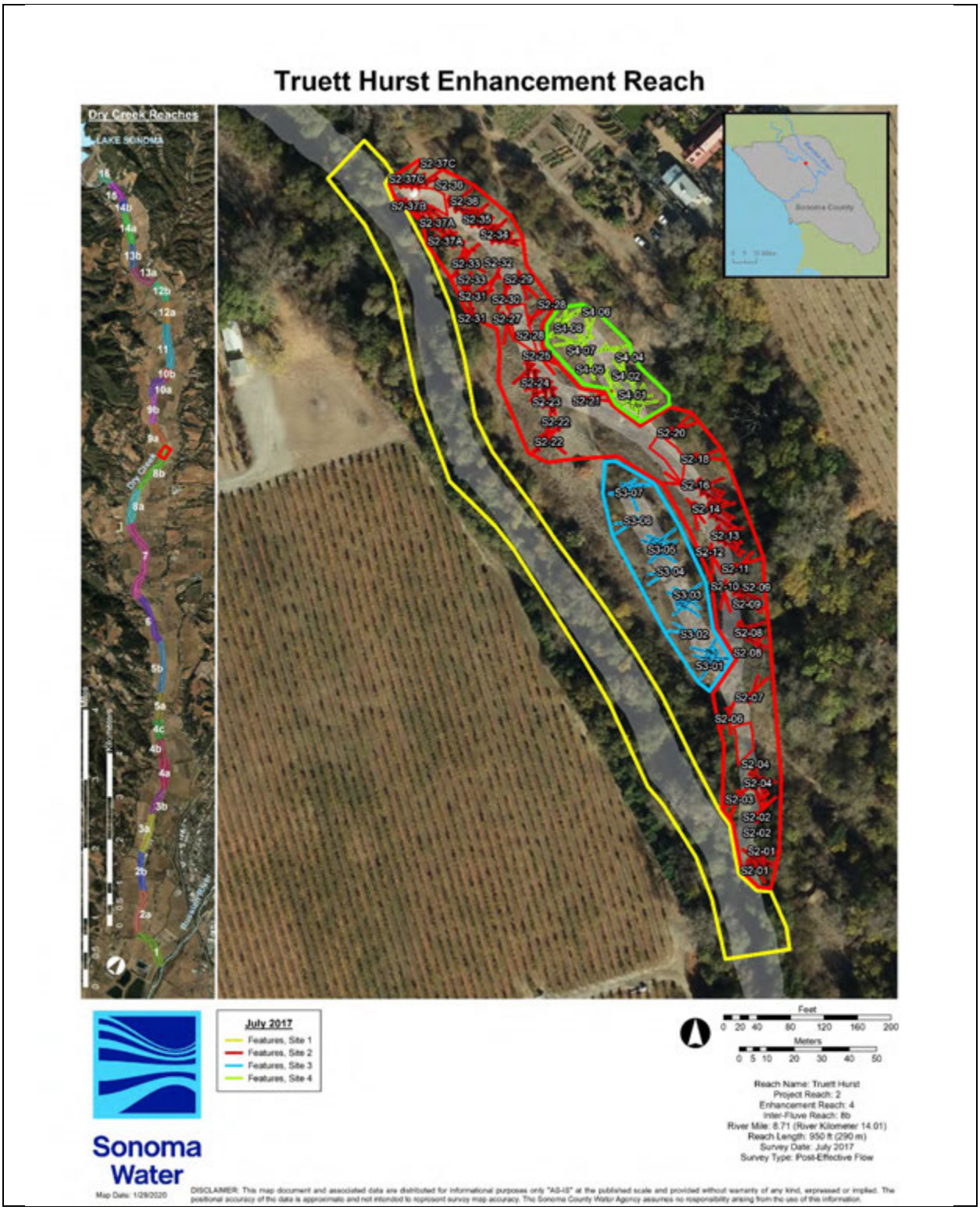


Figure 50. Enhancement sites and features within the Truett Hurst enhancement reach, July 2017.

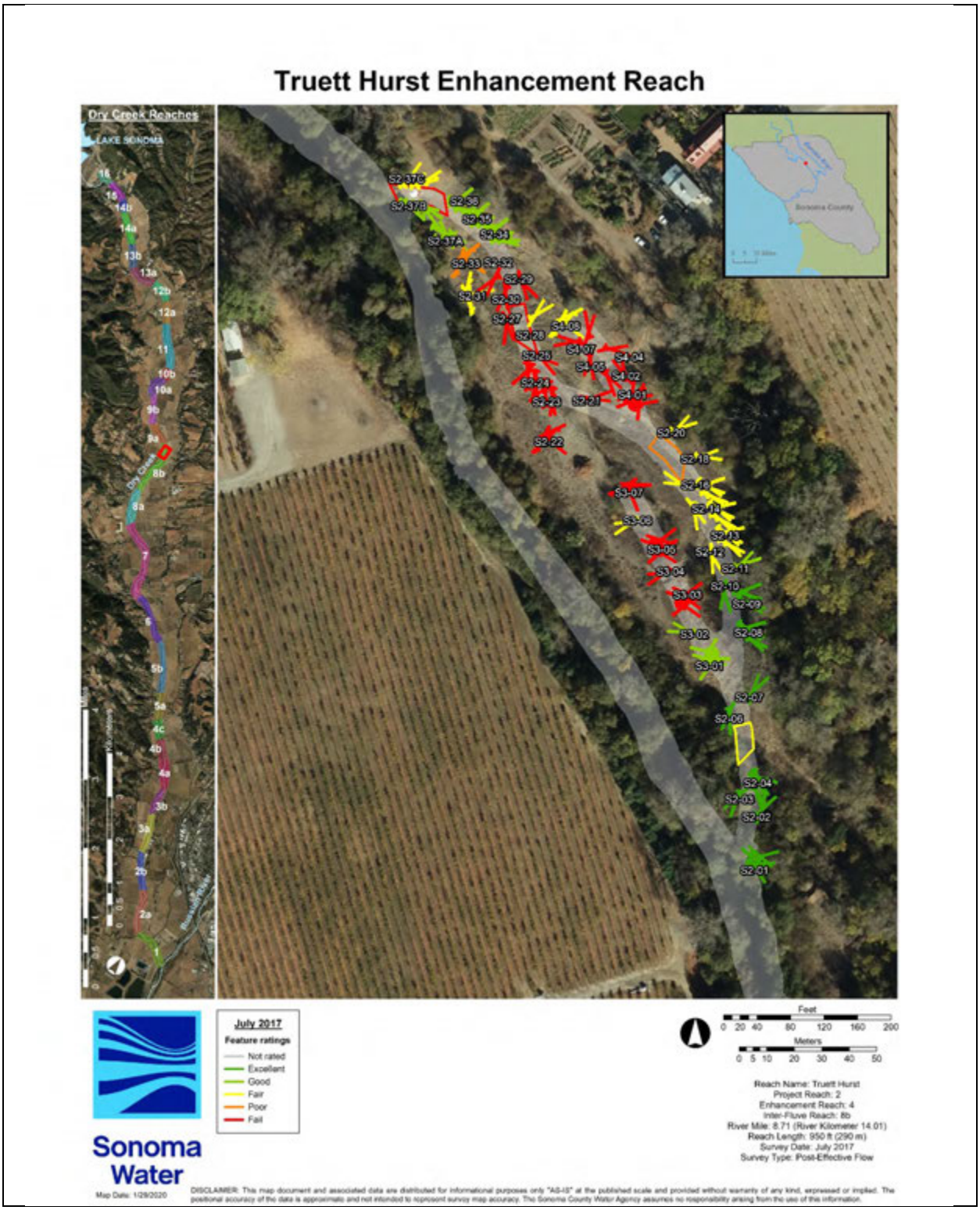


Figure 51. Feature ratings for the Truett Hurst enhancement reach, July 2017. Gray = not rated, dark green = Excellent, light green = Good, yellow = Fair, orange = Poor, red = Fail.

Table 30. Post-effective flow habitat unit ratings for the Truett Hurst enhancement reach July 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03_2**	**HU03_3**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU09**	**HU10**	**HU01_D**	**HU02_D**	**HU03_D**
	Habitat Type	Pool	Pool	Backwater	Backwater	Riffle	Flatwater	Pool	Riffle	Flatwater	Pool	Flatwater	Dry	Dry	Dry
	PROJECT SITE NUMBER	1	1	2	3	1	1	1	1	1	1	1	2	3	4
	Project Site Type	MainChan	MainChan	SideChan	SC Alcove	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	SideChan	SC Alcove	SC Alcove
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	46%	43%	64%	64%	85%	72%	47%	87%	53%	56%	143%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	46%	19%	20%	20%	0%	21%	33%	0%	36%	38%	8%	0%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	2	2	3	3	3	1	2	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	15	20	20	20	10	40	50	20	40	25	10	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	45	60	60	60	20	80	150	60	120	25	20	0	0	0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	13%	33%	95%	95%	12%	13%	39%	16%	21%	34%	18%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	8%	9%	62%	62%	3%	5%	23%	8%	11%	26%	10%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	6%	17%	17%	0%	1%	5%	0%	1%	2%	0%	0%	0%	0%
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03_2**	**HU03_3**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU09**	**HU10**	**HU01_D**	**HU02_D**	**HU03_D**
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	4	4	4	4	4	4	4	0	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	1	2	2	0	2	3	0	3	3	0	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	5	5	4	4	5	5	5	3	4	0	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	1	2	2	2	1	3	3	2	3	2	1	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	1	2	2	2	0	3	5	2	4	0	0	0	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	3	4	4	1	1	3	1	2	3	1	0	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	4	4	0	0	2	0	1	2	1	0	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	1	1	0	0	0	0	0	0	0	0	0	0
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03_2**	**HU03_3**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU09**	**HU10**	**HU01_D**	**HU02_D**	**HU03_D**
HABITAT UNIT RATING	Habitat unit quantitative rating (out of 35)	16	17	24	24	10	17	25	14	22	17	11	0	0	0
	Habitat unit qualitative rating: Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7)	Fair	Fair	Good	Good	Poor	Fair	Good	Fair	Good	Fair	Poor	Fail	Fail	Fail

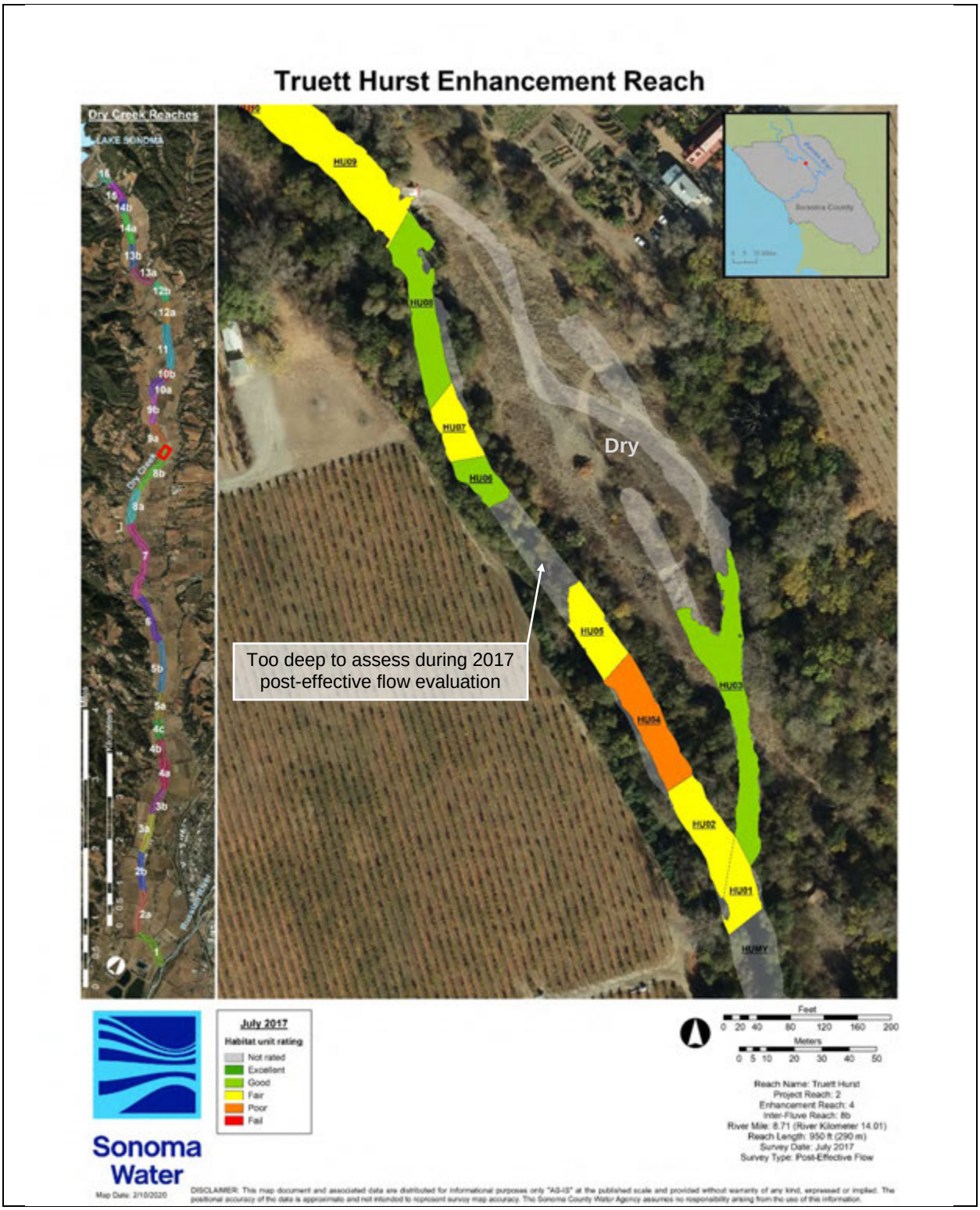


Figure 52. Habitat unit ratings for the Truett Hurst enhancement reach, July 2017.

Table 31. Post-effective flow average feature, average habitat unit, site, and reach ratings for the Truett Hurst enhancement reach, July 2017.

	Project Reach	2	2	2	2
	Enhancement Reach	4	4	4	4
	ENHANCEMENT REACH NAME	TH	TH	TH	TH
	mmddyy	70517	70517	70517	70517
	Survey Type	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	1	2	3	4
	Project Site Type	MainChan	SideChan	SC Alcove	SC Alcove
	PROJECT SITE NUMBER	1	2	3	4
SITE AVERAGE FEATURE RATING	Site average feature quantitative rating (out of 15; bold indicates excluded from site rating)	0	7	4	1
	Site average feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3), Not rated (not used to rate site)	Not rated	Fair	Poor	Fail
	PROJECT SITE NUMBER	1	2	3	4
SITE AVERAGE HABITAT UNIT RATING	Site average habitat unit quantitative rating (out of 35; bold indicates excluded from site rating)	17	12	12	0
	Site average qualitative rating Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7), Not rated (not used to rate site)	Fair	Poor	Poor	Fail
	PROJECT SITE NUMBER	1	2	3	4
SITE RATING	Site quantitative rating (sum of site average feature and habitat unit ratings) (out of 50; bold indicates rating excludes feature or habitat unit rating and scoring out of 15 or 35)	17	19	16	1
	Site qualitative rating: Excellent (>=40), Good (>=30), Fair(>=20), Poor (>=10), Fail (<10)	Poor	Poor	Poor	Fail
	ENHANCEMENT REACH NAME	TH			
ENHANCEMENT REACH RATING	Enhancement reach quantitative rating (average of site ratings) (out of 46)	13			
	Enhancement reach qualitative rating: Excellent (>=37), Good (>=28), Fair(>=19), Poor (>=9), Fail (<9)	Poor			

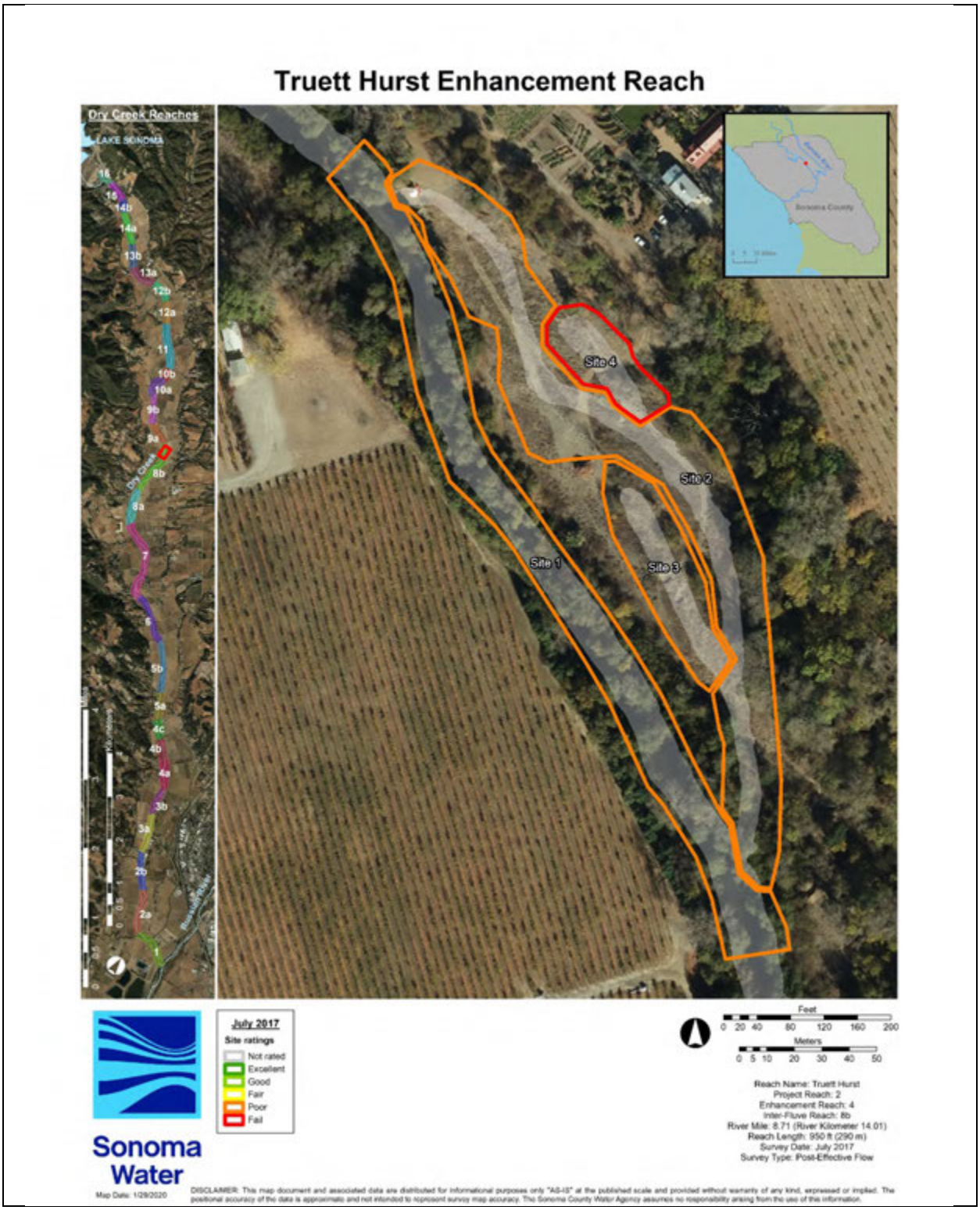


Figure 53. Post-effective flow site ratings for the Truett Hurst enhancement reach, July 2017.

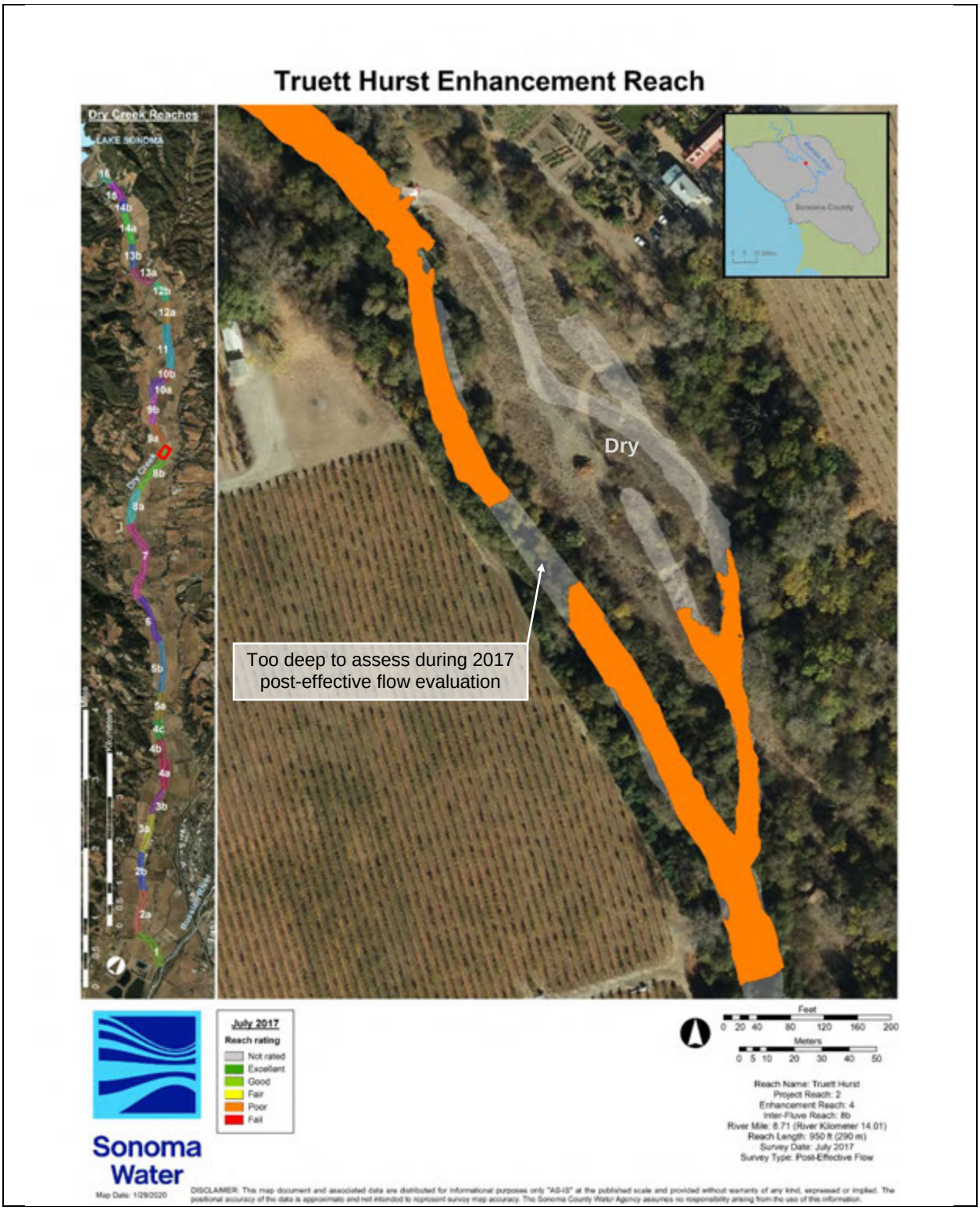


Figure 54. Post-effective flow reach rating for the Truett Hurst enhancement reach, July 2017.

Feature and Habitat Unit Checklists

Table 32. Adaptive Management Plan targeted checklist for the Truett Hurst enhancement reach, July 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	NA	NA	NA	NA	NA	NA	NA	NA	NA	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S2-07	S2-08	S2-09
	Feature Type Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	BCW	HW	HW	SCW	R	HW	HW	SCW	SCW
	Habitat Unit	HU01	HU02	HU04	HU05	HU06	HU07	HU08	HU09	HU10	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2
	Habitat Type	Pool	Pool	Riffle	Flatwater	Pool	Riffle	Flatwater	Pool	Flatwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	NA	NA	NA	NA	NA	NA	NA	GOOD	GOOD	GOOD	GOOD	POOR	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	YES	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	NO	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	YES	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	46%	43%	85%	72%	47%	87%	53%	56%	143%	64%	64%	64%	64%	64%	64%	64%	64%	64%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	46%	19%	0%	21%	33%	0%	36%	38%	8%	20%	20%	20%	20%	20%	20%	20%	20%	20%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	2	2	3	3	3	1	2	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	15	20	10	40	50	20	40	25	10	20	20	20	20	20	20	20	20	20
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	NO	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	45	60	20	80	150	60	120	25	20	60	60	60	60	60	60	60	60	60
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	NO	NO	NO	NA	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	NO	YES	YES	YES	YES
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	13%	33%	12%	13%	39%	16%	21%	34%	18%	95%	95%	95%	95%	95%	95%	95%	95%	95%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	8%	9%	3%	5%	23%	8%	11%	26%	10%	62%	62%	62%	62%	62%	62%	62%	62%	62%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	6%	0%	1%	5%	0%	1%	2%	0%	17%	17%	17%	17%	17%	17%	17%	17%	17%
	FEATURE NUMBER	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU09**	**HU10**	**HU03_2**	**HU03_2**	**HU03_2**	**HU03_2**	**HU03_2**	**HU03_2**	**HU03_2**	**HU03_2**	**HU03_2**
	SITE NUMBER	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**
	ENHANCEMENT REACH NAME	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	0	0	0	0	0	0	0	4	4	4	4	2	4	4	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientation? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	1	0	2	3	0	3	3	0	2	2	2	2	2	2	2	2	2
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	4	4	5	5	5	3	4	5	5	5	5	5	5	5	5	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	1	2	1	3	3	2	3	2	1	2	2	2	2	2	2	2	2	2
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	1	2	0	3	5	2	4	0	0	2	2	2	2	2	2	2	2	2
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	3	1	1	3	1	2	3	1	4	4	4	4	4	4	4	4	4
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	2	0	1	2	1	4	4	4	4	4	4	4	4	4
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1

Table 32. Adaptive Management Plan targeted checklist for the Truett Hurst enhancement reach, July 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S2-10	S2-11	S2-12	S2-13	S2-14	S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25	S2-26	S2-27
	Feature Type Code	HW	HW	HW	SCW	SCW	SCW	HW	HW	HW	R	HW	HW	FW	SCW	SCW	HW	R	HW
	Habitat Unit	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D
	Habitat Type	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Dry	Dry	Dry	Dry	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	FAIL	GOOD	UNKN	UNKN	UNKN	UNKN	UNKN	FAIL	UNKN
5a	Are problems with the **feature** visible?	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	NO	UNK
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	NO	UNK
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	NO	UNK
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	64%	64%	64%	64%	64%	64%	64%	64%	64%	64%	64%	0%	0%	0%	0%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%	0%	0%	0%	0%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	20	20	20	20	20	20	20	20	20	20	20	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	60	60	60	60	60	60	60	60	60	60	60	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	NO	NO	NO	NO	NO	NO	NO
25.	Did the **feature** achieve the targeted velocity?	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	0%	0%	0%	0%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%	0%	0%	0%	0%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	0%	0%	0%	0%	0%	0%	0%
	FEATURE NUMBER	**S2-10**	**S2-11**	**S2-12**	**S2-13**	**S2-14**	**S2-15**	**S2-16**	**S2-17**	**S2-18**	**S2-19**	**S2-20**	**S2-21**	**S2-22**	**S2-23**	**S2-24**	**S2-25**	**S2-26**	**S2-27**
	HABITAT UNIT NUMBER	**HU03_2**	**HU03_2**	**HU03_2**	**HU03_2**	**HU03_2**	**HU03_2**	**HU03_2**	**HU03_2**	**HU03_2**	**HU03_2**	**HU03_2**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**
	SITE NUMBER	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**
	ENHANCEMENT REACH NAME	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	4	4	4	4	4	4	4	4	1	4	0	0	0	0	0	1	0
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	5	5	5	5	5	5	5	5	5	0	0	0	0	0	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0

Table 32. Adaptive Management Plan targeted checklist for the Truett Hurst enhancement reach, July 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove
	Project Feature Number	S2-28	S2-29	S2-30	S2-31	S2-32	S2-33	S2-34	S2-35	S2-36	S2-37A	S2-37B	S2-37C	S2-38	S3-01	S3-02	S3-03	S3-04	S3-05
	Feature Type Code	HW	HW	HW	FW	HW	FW	SCW	SCW	SCW	ISW	ISW	ISW	R	BCW	HW	BCW	HW	BCW
	Habitat Unit	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU03_3	HU03_3	HU03_3	HU02_D	HU02_D
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Backwater	Backwater	Backwater	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	UNKN	UNKN	GOOD	POOR	FAIR	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	FAIL	GOOD	GOOD	UNKN	UNKN	UNKN
5a	Are problems with the **feature** visible?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6a	Is the **feature** still in its original location?	YES	UNK	UNK	YES	NO	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	UNK	UNK
6b	Is the **feature** still in its original position?	YES	UNK	UNK	YES	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	UNK	UNK
6d	Is the **feature** still in its original orientaton?	YES	UNK	UNK	YES	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	UNK	UNK	UNK
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	YES	YES	YES	YES	YES	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	64%	64%	64%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	20%	20%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	0	0
15.	Percent of **habitat unit** covered by shelter: %	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20	20	0	0
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60	60	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	NO	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	NO	NO	NO
25.	Did the **feature** achieve the targeted velocity?	NO	NO	NO	NA	NO	NA	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO	NO	NO
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	95%	95%	95%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	62%	62%	62%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%	17%	17%	0%	0%
	FEATURE NUMBER	**S2-28**	**S2-29**	**S2-30**	**S2-31**	**S2-32**	**S2-33**	**S2-34**	**S2-35**	**S2-36**	**S2-37A**	**S2-37B**	**S2-37C**	**S2-38**	**S3-01**	**S3-02**	**S3-03**	**S3-04**	**S3-05**
	HABITAT UNIT NUMBER	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU03_3**	**HU03_3**	**HU03_3**	**HU02_D**	**HU02_D**
	SITE NUMBER	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**3**	**3**	**3**	**3**	**3**
	ENHANCEMENT REACH NAME	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	0	0	4	2	3	4	4	4	4	4	4	1	4	4	0	0	0
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	0	0	1	0	1	1	1	1	1	1	1	0	1	1	1	0	0
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	0	0	1	0	0	1	1	1	1	1	1	0	1	1	1	0	0
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	0	0	1	0	0	1	1	1	1	1	1	0	1	1	1	0	0
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	5	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	0	0	1	0	1	1	1	1	1	1	1	0	1	1	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1	0	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0

Table 33. Adaptive Management Plan full checklist for the Truett Hurst enhancement reach, July 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	NA	NA	NA	NA	NA	NA	NA	NA	NA	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S2-07	S2-08	S2-09
	Feature Type Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	BCW	HW	HW	SCW	R	HW	HW	SCW	SCW
	Habitat Unit	HU01	HU02	HU04	HU05	HU06	HU07	HU08	HU09	HU10	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2
	Habitat Type	Pool	Pool	Riffle	Flatwater	Pool	Riffle	Flatwater	Pool	Flatwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater
1.	Length of targeted treatment (ft)										35	30	32	40	40	36	35	45	46
2.	Width of targeted treatment: (ft)										31	29	29	30	31	18	18	31	27
3.	Estimate area of the targeted **feature**: (ft^2)										1085	870	928	1200	1240	648	630	1395	1242
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	NA	NA	NA	NA	NA	NA	NA	GOOD	GOOD	GOOD	GOOD	POOR	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	YES	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NON	NON	NON	NON	OTH	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA	OTH	OTH	OTH	OTH	SPN	RBK	LBK	LBK	LBK
6d	Is the **feature** still in its original orientaton?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA	MUL	DNS	UPS	UPS	OTH	UPS	DNS	UPS	UPS
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	POO	POO	RIF	FLT	POO	RIF	FLT	POO	FLT	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	NO	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	YES	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	2.0	2.1	1.1	1.4	2.0	0.9	1.7	1.8	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
11a	Maximum water depth in **habitat unit**: ft	4.6	6.5	2.2	4.0	5.2	2.5	4.8	4.1	2.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	1407.3	2167.5	4969.9	2972.5	1088.1	2769.1	3829.6	6475.5	10871.9	5297.9	5297.9	5297.9	5297.9	5297.9	5297.9	5297.9	5297.9	5297.9
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	1381.0	956.8	6.1	880.8	767.2	15.3	2595.2	4384.2	619.1	1662.1	1662.1	1662.1	1662.1	1662.1	1662.1	1662.1	1662.1	1662.1
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	2788.3	3124.3	4976.0	3853.3	1855.3	2784.3	6424.8	10859.7	11491.0	8985.4	8985.4	8985.4	8985.4	8985.4	8985.4	8985.4	8985.4	8985.4
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	46%	43%	85%	72%	47%	87%	53%	56%	143%	64%	64%	64%	64%	64%	64%	64%	64%	64%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	46%	19%	0%	21%	33%	0%	36%	38%	8%	20%	20%	20%	20%	20%	20%	20%	20%	20%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	92%	63%	86%	93%	81%	88%	89%	93%	151%	84%	84%	84%	84%	84%	84%	84%	84%	84%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	YES	YES	YES	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:										300	230	180	580	1180	270	180	400	400
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	2	2	3	3	3	1	2	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	15	20	10	40	50	20	40	25	10	20	20	20	20	20	20	20	20	20
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	TVEG	TVEG	TVEG	TVEG	TVEG	TVEG	TVEG	SWD	NON	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	LWD	SWD	OTH	SWD	BOL	BOL	LWD	BUB	NON	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	NO	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	45	60	20	80	150	60	120	25	20	60	60	60	60	60	60	60	60	60
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	1	3	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
18b	Large woody debris count in **habitat unit**: D >1', L >20'	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	NO	NO	NO	NA	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	INT	INT	NON	NON	NON	UNK	UNK	UNK	UNK	INT	INT	INT	INT	INT	INT	INT	INT	INT
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	YES	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NA	NA	NA	NA	NA	NA	NA	NA	NA	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	NO	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	3.4	3.2	4.0	2.8	3.6	5.4	3.6	3.9	5.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
26c	Measured mean velocity (ft/sec) in **habitat unit**	1.3	1.0	1.9	1.4	1.1	2.2	1.4	0.9	1.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
27.	Area of **habitat unit** within targeted velocity: (ft^2)	397.7	1666.2	711.3	540.5	894.6	498.5	1509.0	4000.7	1360.5	10191.4	10191.4	10191.4	10191.4	10191.4	10191.4	10191.4	10191.4	10191.4
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	13%	33%	12%	13%	39%	16%	21%	34%	18%	95%	95%	95%	95%	95%	95%	95%	95%	95%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	YES	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	SND	SND	SND	SND	SND	SND	SND	SND	SND
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	COB	COB	NR	COB	COB	SND	COB	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV
31.	If an objective, did the **feature** achieve the targeted substrate composition?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	243.3	755.9	182.0	272.0	645.7	249.0	849.1	3326.8	788.5	8442.9	8442.9	8442.9	8442.9	8442.9	8442.9	8442.9	8442.9	8442.9
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	239.5	456.2	182.0	227.2	529.0	247.6	771.7	3054.7	769.6	6655.9	6655.9	6655.9	6655.9	6655.9	6655.9	6655.9	6655.9	6655.9
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	3.8	299.7	0.0	44.8	116.7	1.4	77.4	272.1	18.9	1787.0	1787.0	1787.0	1787.0	1787.0	1787.0	1787.0	1787.0	1787.0
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	8%	15%	3%	7%	28%	8%	12%	29%	10%	79%	79%	79%	79%	79%	79%	79%	79%	79%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	8%	9%	3%	5%	23%	8%	11%	26%	10%	62%	62%	62%	62%	62%	62%	62%	62%	62%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	6%	0%	1%	5%	0%	1%	2%	0%	17%	17%	17%	17%	17%	17%	17%	17%	17%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA	NON	NON	NON	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES

Table 33. Adaptive Management Plan full checklist for the Truett Hurst enhancement reach, July 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S2-10	S2-11	S2-12	S2-13	S2-14	S2-15	S2-16	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25	S2-26	S2-27
	Feature Type Code	HW	HW	HW	SCW	SCW	SCW	HW	HW	HW	R	HW	HW	FW	SCW	SCW	HW	R	HW
	Habitat Unit	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU03_2	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D
	Habitat Type	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Backwater	Dry	Dry	Dry	Dry	Dry	Dry	Dry
1.	Length of targeted treatment (ft)	37	20	40	35	31	26	36	20	18	40	22	17	31	36	33	26	39	32
2.	Width of targeted treatment: (ft)	15	23	18	32	31	35	21	36	37	30	38	35	37	31	28	35	25	22
3.	Estimate area of the targeted **feature**: (ft²)	555	460	720	1120	961	910	756	720	666	1200	836	595	1147	1116	924	910	975	704
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	FAIL	GOOD	UNKN	UNKN	UNKN	UNKN	UNKN	FAIL	UNKN
5a	Are problems with the **feature** visible?	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	BBB	BBB	BBB	BBB	BBB	BBB	BBB	STR	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	NO	UNK
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	NO	UNK
6c	If yes: LBK, MDC, RBK, SPN, OTH	RBK	LBK	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	UNK	UNK	UNK	UNK	UNK	OTH	UNK
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	NO	UNK
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	UPS	PRP	PRL	UPS	UPS	UPS	PRL	DNS	PRP	OTH	PRP	UNK	UNK	UNK	UNK	UNK	OTH	UNK
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	DRY	DRY	DRY	DRY	DRY	DRY	DRY
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	NO
10.	Mean water depth in **habitat unit**: ft	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11a	Maximum water depth in **habitat unit**: ft	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	5297.9	5297.9	5297.9	5297.9	5297.9	5297.9	5297.9	5297.9	5297.9	5297.9	5297.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	1662.1	1662.1	1662.1	1662.1	1662.1	1662.1	1662.1	1662.1	1662.1	1662.1	1662.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	8985.4	8985.4	8985.4	8985.4	8985.4	8985.4	8985.4	8985.4	8985.4	8985.4	8985.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	64%	64%	64%	64%	64%	64%	64%	64%	64%	64%	64%	0%	0%	0%	0%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%	0%	0%	0%	0%	0%	0%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	0%	0%	0%	0%	0%	0%	0%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO	NO	NO	NO	NO
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft²	400	125	400	550	550	550	400	275	70	1200	50	0		0	0	0	0	0
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	YES	NO	YES	YES	YES	YES	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	20	20	20	20	20	20	20	20	20	20	20	0	0	0	0	0	0	0
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	NON	NON	NON	NON	NON	NON	NON
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	NON	NON	NON	NON	NON	NON	NON
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	60	60	60	60	60	60	60	60	60	60	60	0	0	0	0	0	0	0
18a	Large woody debris count in **habitat unit**: D >1", L 6-20'	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1", L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	INT	INT	INT	INT	INT	INT	INT	INT	INT	INT	INT	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	NO	NO	NO	NO	NO	NO	NO
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	DEC	DEC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft²)	10191.4	10191.4	10191.4	10191.4	10191.4	10191.4	10191.4	10191.4	10191.4	10191.4	10191.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	0%	0%	0%	0%	0%	0%	0%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES	NA
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	NO	NO	NO	NO	NO	NO	NO
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	8442.9	8442.9	8442.9	8442.9	8442.9	8442.9	8442.9	8442.9	8442.9	8442.9	8442.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	6655.9	6655.9	6655.9	6655.9	6655.9	6655.9	6655.9	6655.9	6655.9	6655.9	6655.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	1787.0	1787.0	1787.0	1787.0	1787.0	1787.0	1787.0	1787.0	1787.0	1787.0	1787.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	79%	79%	79%	79%	79%	79%	79%	79%	79%	79%	79%	0%	0%	0%	0%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%	0%	0%	0%	0%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%	0%	0%	0%	0%	0%	0%	0%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT
38.	Are additional restoration treatments recommended at this **site**?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Table 33. Adaptive Management Plan full checklist for the Truett Hurst enhancement reach, July 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove
	Project Feature Number	S2-28	S2-29	S2-30	S2-31	S2-32	S2-33	S2-34	S2-35	S2-36	S2-37A	S2-37B	S2-37C	S2-38	S3-01	S3-02	S3-03	S3-04	S3-05
	Feature Type Code	HW	HW	HW	FW	HW	FW	SCW	SCW	SCW	ISW	ISW	ISW	R	BCW	HW	BCW	HW	BCW
	Habitat Unit	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU03_3	HU03_3	HU03_3	HU02_D	HU02_D
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Backwater	Backwater	Backwater	Dry	Dry
1.	Length of targeted treatment (ft)	31	33	34	50	31	40	27	28	27	26	22	25	40	30	18	27	20	33
2.	Width of targeted treatment: (ft)	32	20	17	15	30	38	40	40	40	39	45	45	20	28	33	31	32	30
3.	Estimate area of the targeted **feature**: (ft^2)	992	660	578	750	930	1520	1080	1120	1080	1014	990	1125	800	840	594	837	640	990
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	UNKN	UNKN	GOOD	POOR	FAIR	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	FAIL	GOOD	GOOD	UNKN	UNKN	UNKN
5a	Are problems with the **feature** visible?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	BBB	BBB	BBB	OTH	OTH	OTH	BBB	BBB	BBB	STR	STR	BBB	BBB	BBB	NON	BBB	BBB	BBB
6a	Is the **feature** still in its original location?	YES	UNK	UNK	YES	NO	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	UNK	UNK
6b	Is the **feature** still in its original position?	YES	UNK	UNK	YES	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	UNK	UNK
6c	If yes: LBK, MDC, RBK, SPN, OTH	LBK	UNK	UNK	RBK	RBK	RBK	LBK	LBK	LBK	RBK	RBK	RBK	OTH	OTH	OTH	OTH	UNK	UNK
6d	Is the **feature** still in its original orientaton?	YES	UNK	UNK	YES	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	UNK	UNK	UNK
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	PRP	UNK	UNK	OTH	OTH	OTH	UPS	UPS	UPS	MUL	MUL	UPS	OTH	MUL	DNS	UNK	UNK	UNK
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	ALC	ALC	ALC	DRY	DRY
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	YES	YES	YES	YES	YES	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES
10.	Mean water depth in **habitat unit**: ft	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	1.2	0.0	0.0
11a	Maximum water depth in **habitat unit**: ft	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	4.9	4.9	0.0	0.0
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5297.9	5297.9	5297.9	0.0	0.0
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1662.1	1662.1	1662.1	0.0	0.0
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8985.4	8985.4	8985.4	0.0	0.0
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	64%	64%	64%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	20%	20%	0%	0%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	84%	84%	84%	0%	0%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NO	NO	NO	NA	NO	NA	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	NO
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	0	50	0		0		0	0	0		0	0	800	700	200	750	0	0
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	YES	YES	YES	NO	YES	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	YES	YES	YES
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	0	0
15.	Percent of **habitat unit** covered by shelter: %	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20	20	0	0
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	RTW	RTW	RTW	NON	NON
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	LWD	LWD	LWD	NON	NON
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60	60	0	0
18a	Large woody debris count in **habitat unit**: D >1", L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
18b	Large woody debris count in **habitat unit**: D >1", L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	INT	INT	INT	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	AGG	AGG	AGG	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	NO	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	NO	NO	NO
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NA	NA	NA	NA	NA	NA	DEC	DEC	DEC	DEC	DEC	DEC	INC	DEC	DEC	NA	NA	NA
24.	Targeted velocity/range in the **habitat unit**. (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NO	NO	NO	NA	NO	NA	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO	NO	NO
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	0.0	0.0
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10191.4	10191.4	10191.4	0.0	0.0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	95%	95%	95%	0%	0%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	YES	YES	YES	NO	YES	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	NO	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	NO	YES	NO	NO	NO	NO
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8442.9	8442.9	8442.9	0.0	0.0
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6655.9	6655.9	6655.9	0.0	0.0
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1787.0	1787.0	1787.0	0.0	0.0
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	79%	79%	79%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	62%	62%	62%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%	17%	17%	0%	0%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT
38.	Are additional restoration treatments recommended at this **site**?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Table 33. Adaptive Management Plan full checklist for the Truett Hurst enhancement reach, July 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517	70517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	3	3	3	4	4	4	4	4	4	4	4
	Project Site Type	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove
	Project Feature Number	S3-06	S3-07	S3-08	S4-01	S4-02	S4-03	S4-04	S4-05	S4-06	S4-07	S4-08
	Feature Type Code	HW	FW	P	BCW	HW	HW	HW	HW	HW	HW	FW
	Habitat Unit	HU02_D	HU02_D	HU02_D	HU03_D	HU03_D	HU03_D	HU03_D	HU03_D	HU03_D	HU03_D	HU03_D
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
1.	Length of targeted treatment (ft)	21	25		38	30	25	15	30	30	15	35
2.	Width of targeted treatment: (ft)	36	41		38	18	20	35	18	16	36	40
3.	Estimate area of the targeted **feature**: (ft^2)	756	1025		1444	540	500	525	540	480	540	1400
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	FAIR
5a	Are problems with the **feature** visible?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	STR
6a	Is the **feature** still in its original location?	YES	YES	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	YES
6b	Is the **feature** still in its original position?	YES	YES	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	OTH	OTH	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	DRY
6d	Is the **feature** still in its original orientaton?	YES	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	PRP	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	PRP
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
10.	Mean water depth in **habitat unit**: ft	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11a	Maximum water depth in **habitat unit**: ft	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
12a	Targeted depth or range (ft) **in habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	0	0		0	0	0	0	0	0	0	0
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	0	0	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by sheller: %	0	0	0	0	0	0	0	0	0	0	0
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	0	0	0
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
22.	Were there any unintended effects on the stream channel at **the feature**? If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
29.	Were there any unintended effects of **feature** on velocity If Y, comment	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT
38.	Are additional restoration treatments recommended at this **site**?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Meyer Post-effective Flow, July 2017

Depth and Velocity

Table 34. Areas and percentages of: wetted area, optimal depth and velocity, and optimal hydraulic habitat within the Meyer enhancement reach, July 2017.

Meyer Post-effective flow July 2017	Wetted area (ft^2)	Optimal depth (ft^2)			Optimal velocity (ft^2)	Optimal habitat (ft^2)		
		0.5 – 2.0 ft	2.0 – 4.0 ft	Total	< 0.5 ft/s	0.5 – 2.0 ft < 0.5 ft/s	2.0 – 4.0 ft < 0.5 ft/s	Total
Main channel area	32,044	26,323	594	26,916	3,574	1,381	1	1,382
Side channel area	2,883	1,062	1,397	2,459	2,032	833	776	1,609
Total area	**34,927**	**27,385**	**1,991**	**29,376**	**5,607**	**2,214**	**777**	**2,991**
Main channel % of wetted area	92%	82%	2%	84%	11%	4%	0%	4%
Side channel % of wetted area	8%	48%	85%	71%	29%	27%	56%	37%
Total % of wetted area	**100%**	**78%**	**6%**	**84%**	**16%**	**6%**	**2%**	**9%**

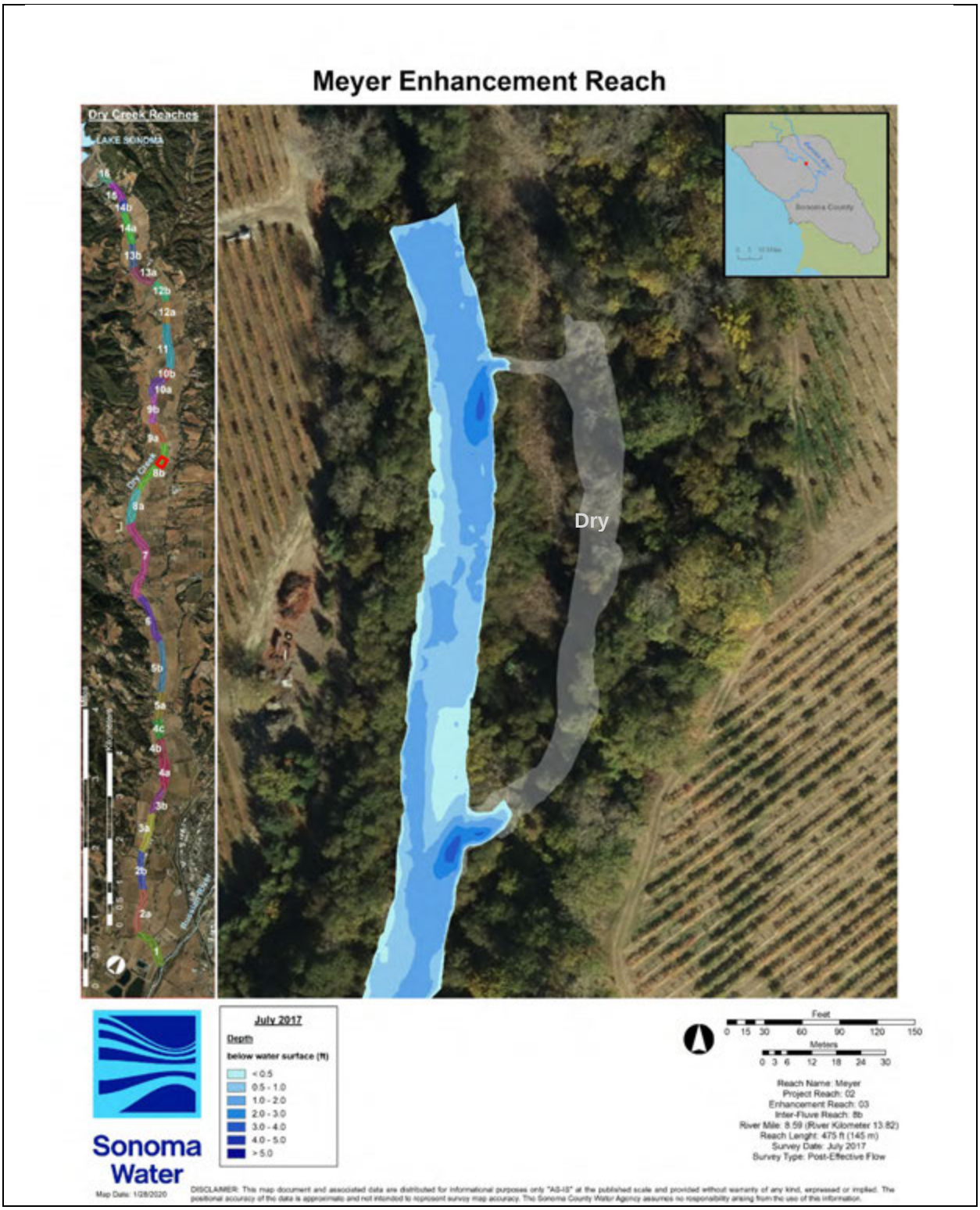


Figure 55. Measured water depth within the Meyer enhancement reach, July 2017.

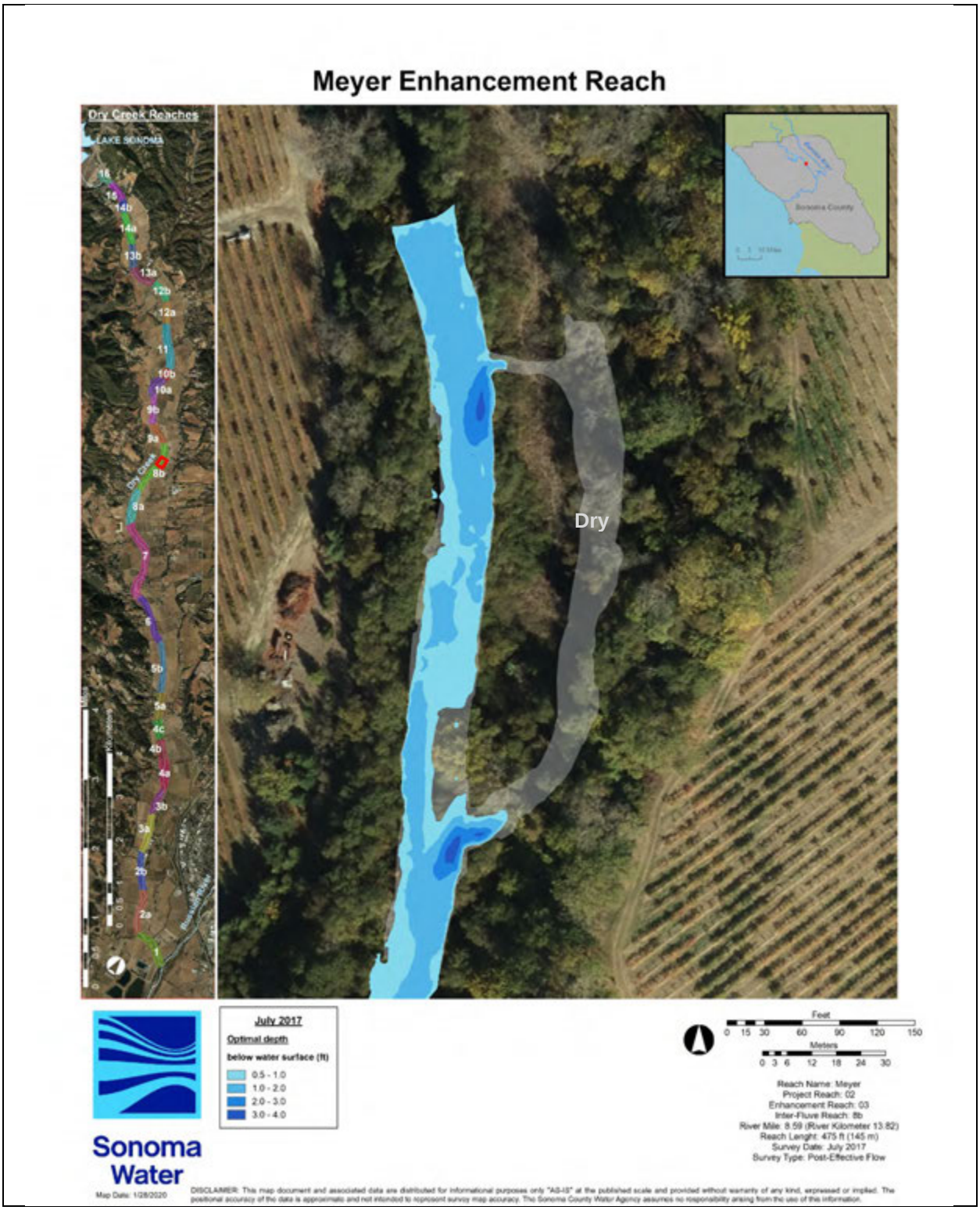


Figure 56. Optimal water depth for fry (0.5-2.0 ft) and parr (2.0-4.0 ft) within the Meyer enhancement reach, July 2017.

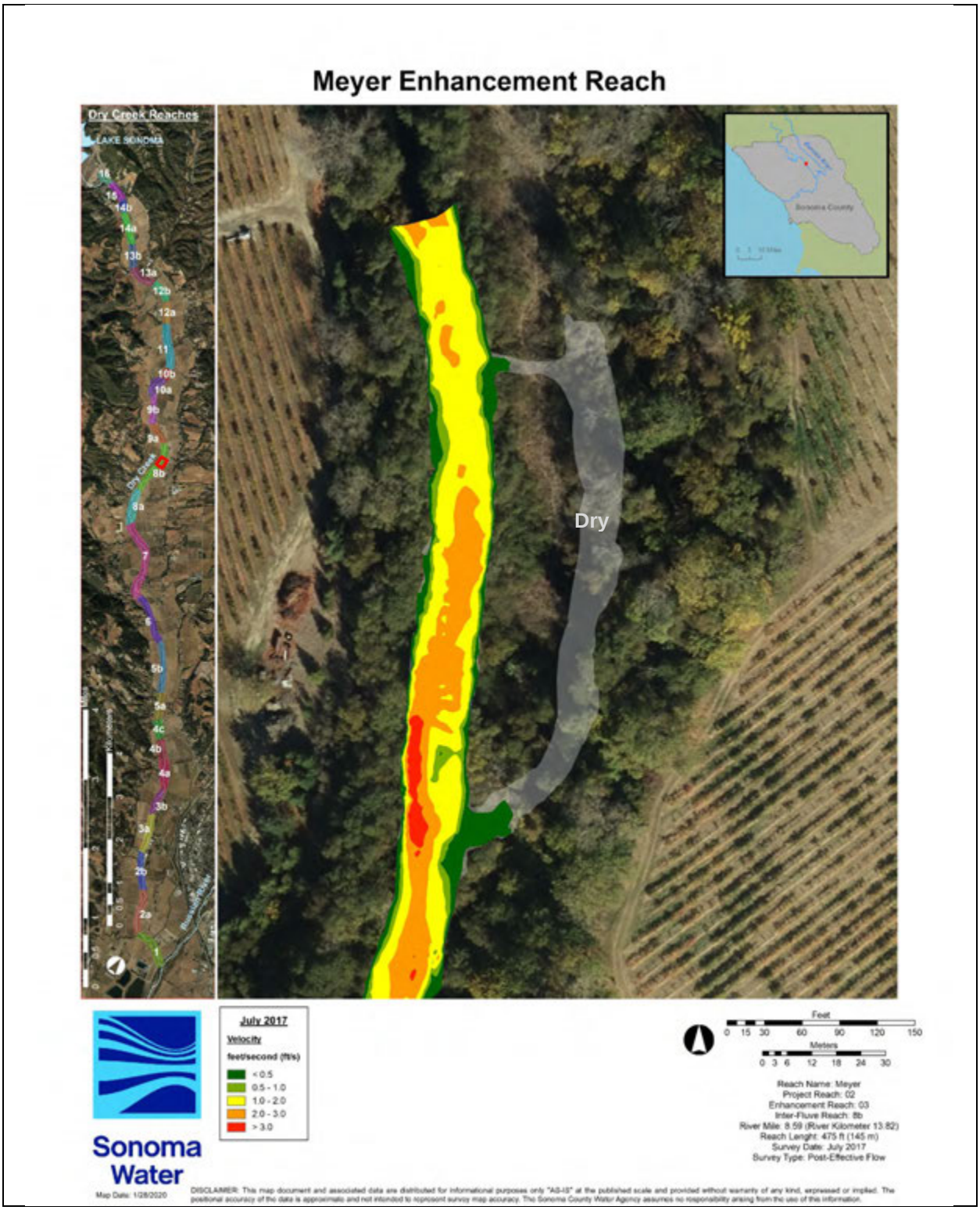


Figure 57. Measured water velocity within the Meyer enhancement reach, July 2017.

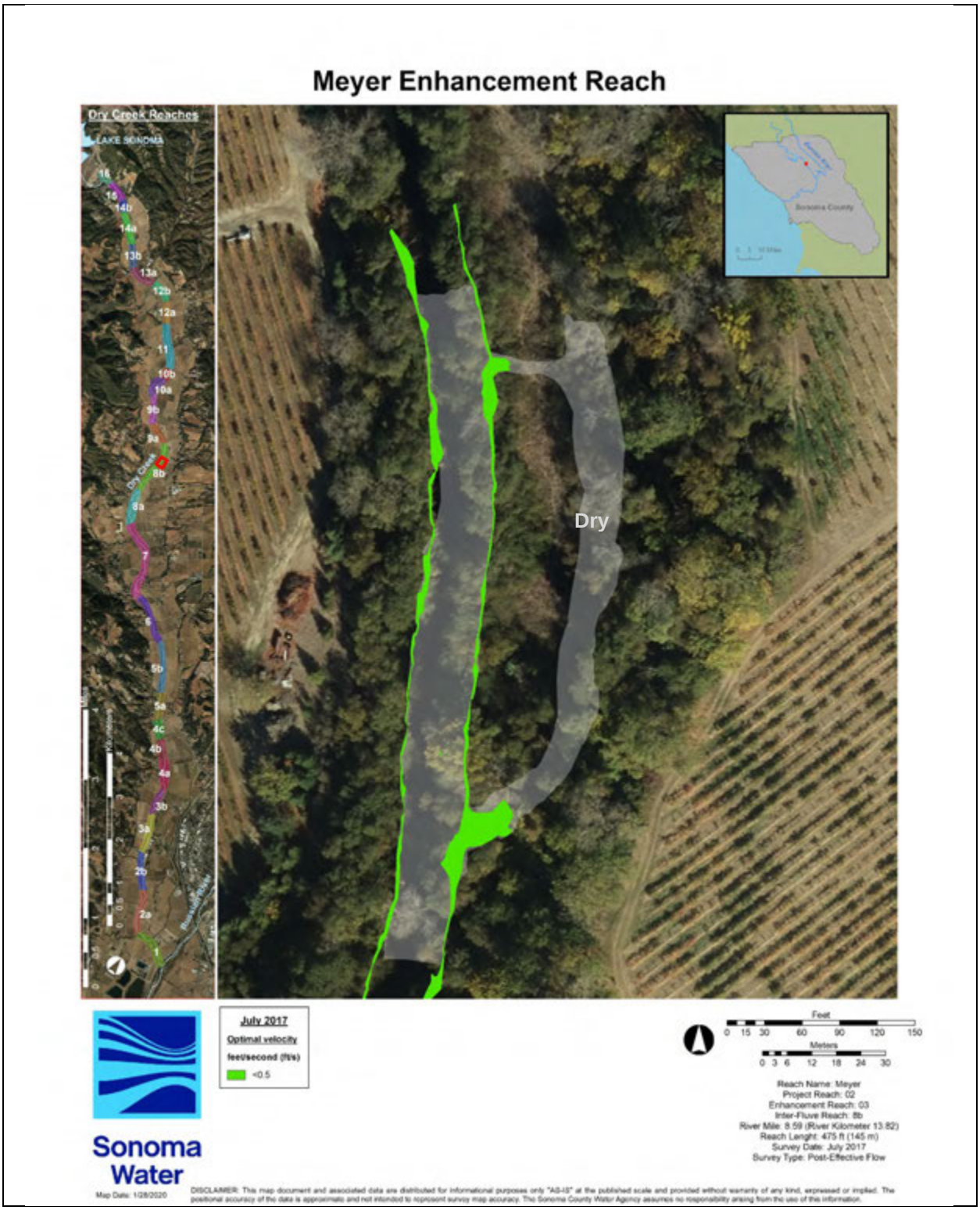


Figure 58. Optimal water velocity for fry and parr (< 0.5 ft/s) within the Meyer enhancement reach, July 2017.

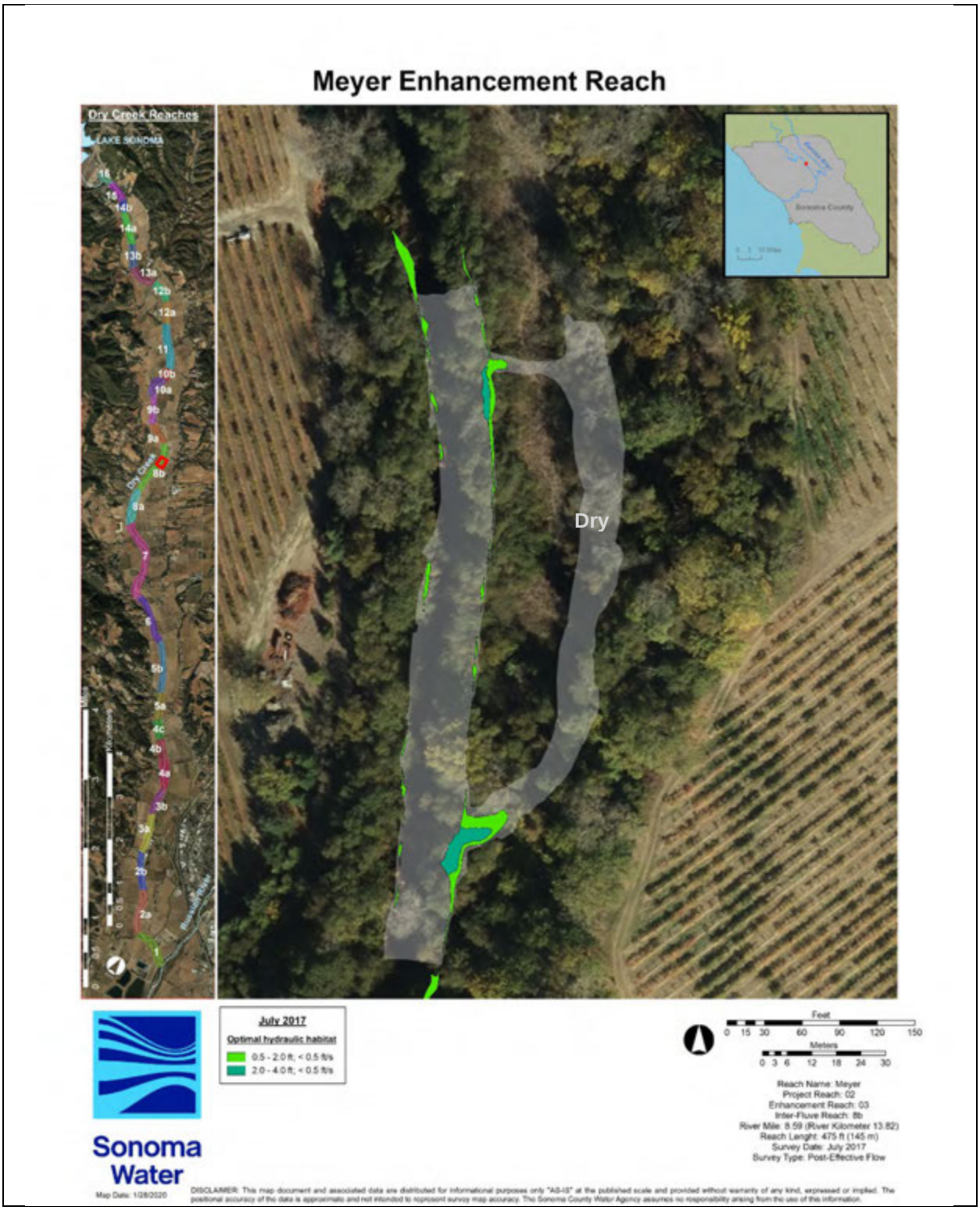


Figure 59. Optimal hydraulic habitat for fry (<0.5 ft/s, 0.5-2.0 ft) and parr (<0.5 ft/s, 2.0-4.0 ft) within the Meyer enhancement reach, July 2017.

Habitat Types and Shelter Values

Table 35. Habitat, types, shelter value, percent cover, and shelter score for habitat units within the Meyer enhancement reach, July 2017.

Post-effective flow (July 2017)				
Habitat Unit #	**Habitat Type**	**Shelter Value**	**Percent Cover**	**Shelter Score**
HU01	Riffle	2	10	20
HU02	Pool	3	20	60
HU03	Flatwater	3	10	30
HU04	Pool	3	20	60

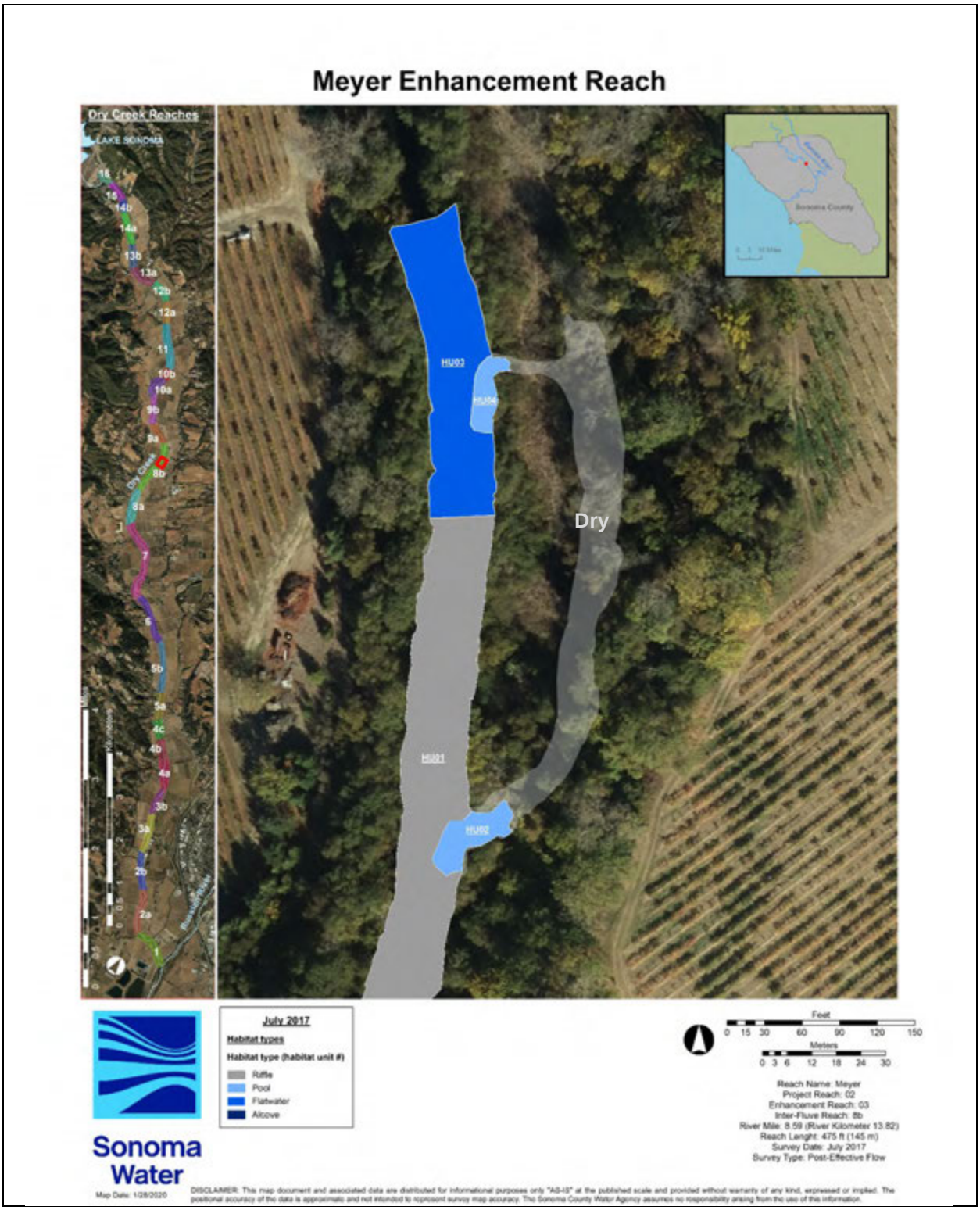


Figure 60. Habitat unit number and type within the Meyer enhancement reach, July 2017.

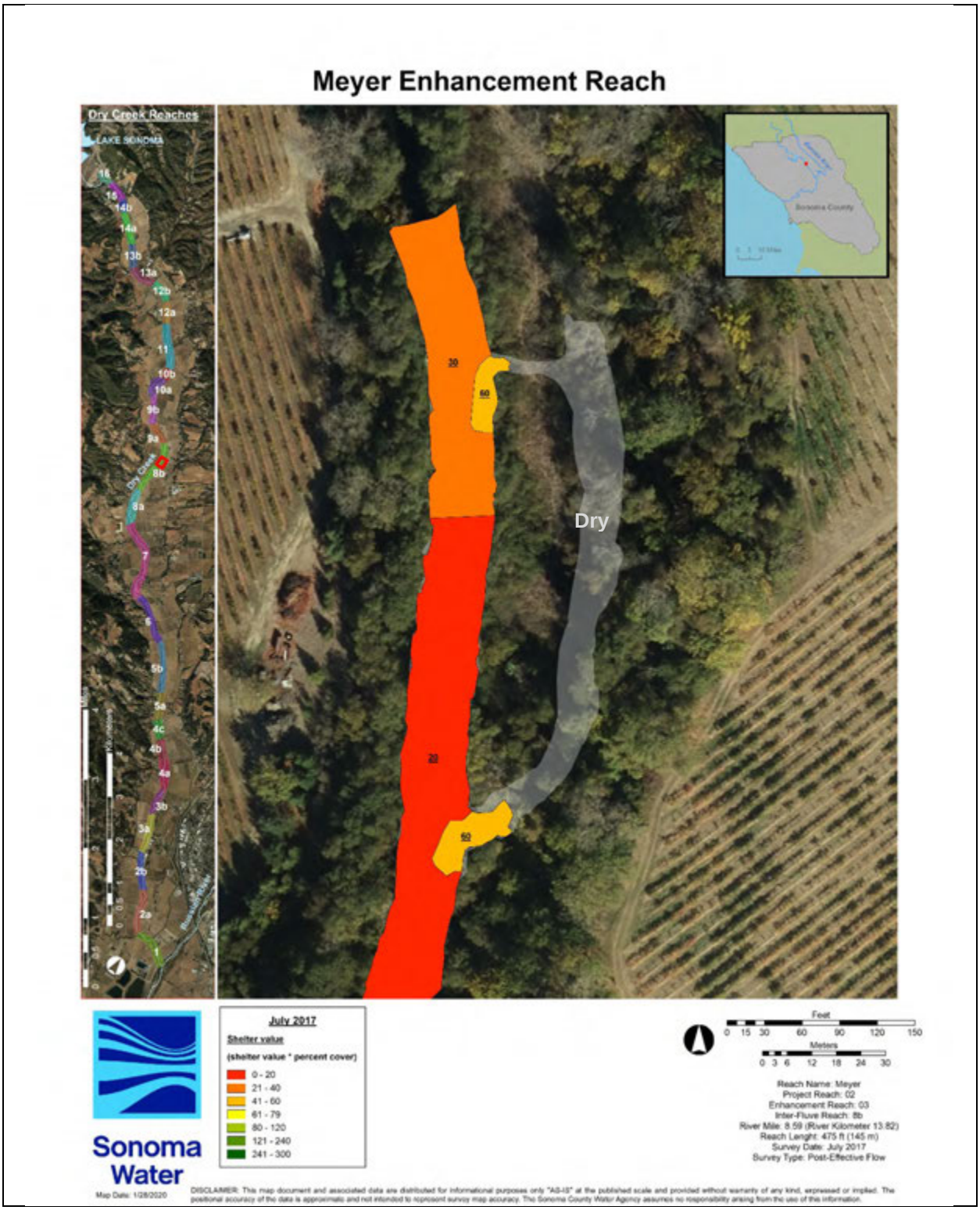


Figure 61. Habitat unit shelter scores within the Meyer enhancement reach, July 2017.

Feature, Habitat Unit, Site, and Reach Ratings

Table 36. Post-effective flow feature ratings for the Meyer enhancement reach, July 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY
	mmddyy	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	NA	NA	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S2-07	S2-08	S2-09	S2-10	S2-11	S2-12	S2-13	S2-14	S2-15	S2-16
	Feature Type Code	NA	NA	LJ	HW	BCW	HW	HW	HW	BCW	BCW	BCW	BCW	HW	HW	HW	HW	SCW	ALJ
	Habitat Unit	HU03	HU01	HU02	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU04	HU04
	Habitat Type	Flatwater	Riffle	Pool	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Pool	Pool
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	GOOD	GOOD	GOOD	FAIR	EXCL	EXCL
5a	Are problems with the **feature** visible?	NA	NA	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
6a	Is the **feature** still in its original location?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NA	NA	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
25.	Did the **feature** achieve the targeted velocity?	NA	NA	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
	PROJECT FEATURE NUMBER	**NA**	**NA**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**	**S2-10**	**S2-11**	**S2-12**	**S2-13**	**S2-14**	**S2-15**	**S2-16**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	5	5	5	5	5	5	5	5	5	5	4	4	4	3	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	PROJECT FEATURE NUMBER	**NA**	**NA**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**	**S2-10**	**S2-11**	**S2-12**	**S2-13**	**S2-14**	**S2-15**	**S2-16**
FEATURE RATING	Feature quantitative rating out of 15	0	0	13	8	8	8	8	8	8	8	8	8	7	7	7	6	8	13
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Not rated	Not rated	Excellent	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Excellent

Table 36. Post-effective flow feature ratings for the Meyer enhancement reach, July 2017.

	Project Reach	2	2	2	2	2	2
	Enhancement Reach	3	3	3	3	3	3
	Colloquial Name	MY	MY	MY	MY	MY	MY
	mmddyy	71217	71217	71217	71217	71217	71217
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22
	Feature Type Code	BCW	HW	HW	BCW	FW	FW
	Habitat Unit	HU01_D	HU01_D	HU04	HU01_D	HU01_D	HU01_D
	Habitat Type	Dry	Dry	Pool	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	UNKN	GOOD	GOOD
5a	Are problems with the **feature** visible?	YES	YES	NO	YES	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	YES	YES	YES	UNK	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	NO	YES	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	YES	YES	NO	YES	YES	YES
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	YES	NO	NO	NO
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NO	NO	NO	NO	NO	NO
25.	Did the **feature** achieve the targeted velocity?	NO	NO	YES	NO	NO	NO
	PROJECT FEATURE NUMBER	**S2-17**	**S2-18**	**S2-19**	**S2-20**	**S2-21**	**S2-22**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5	0	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	1	0	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	0	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	1	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	1	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	1	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	1	0	0	0
	PROJECT FEATURE NUMBER	**S2-17**	**S2-18**	**S2-19**	**S2-20**	**S2-21**	**S2-22**
FEATURE RATING	Feature quantitative rating out of 15	8	8	13	2	8	8
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Fair	Fair	Excellent	Fail	Fair	Fair

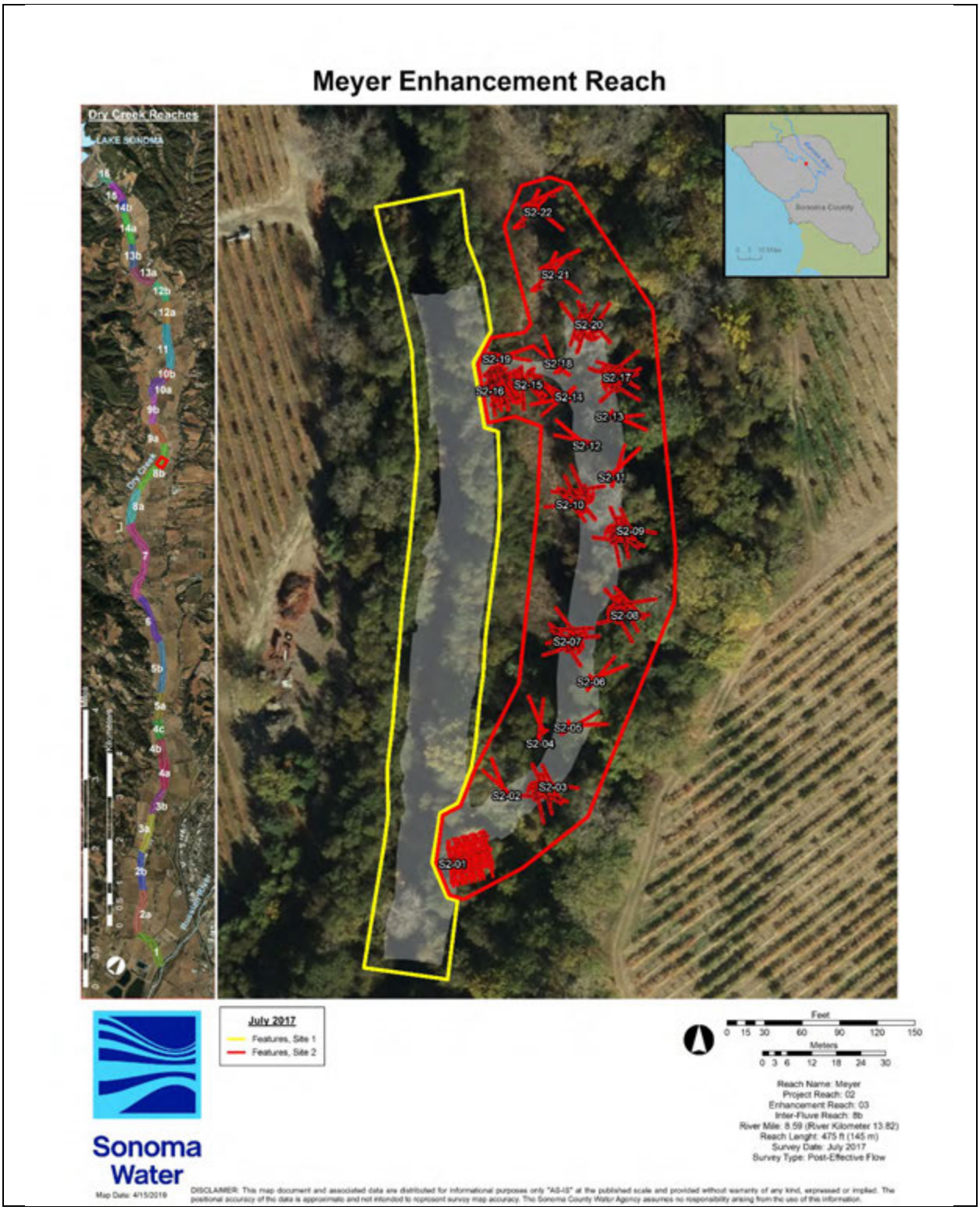


Figure 62. Enhancement sites and features within the Meyer enhancement reach, July 2017.

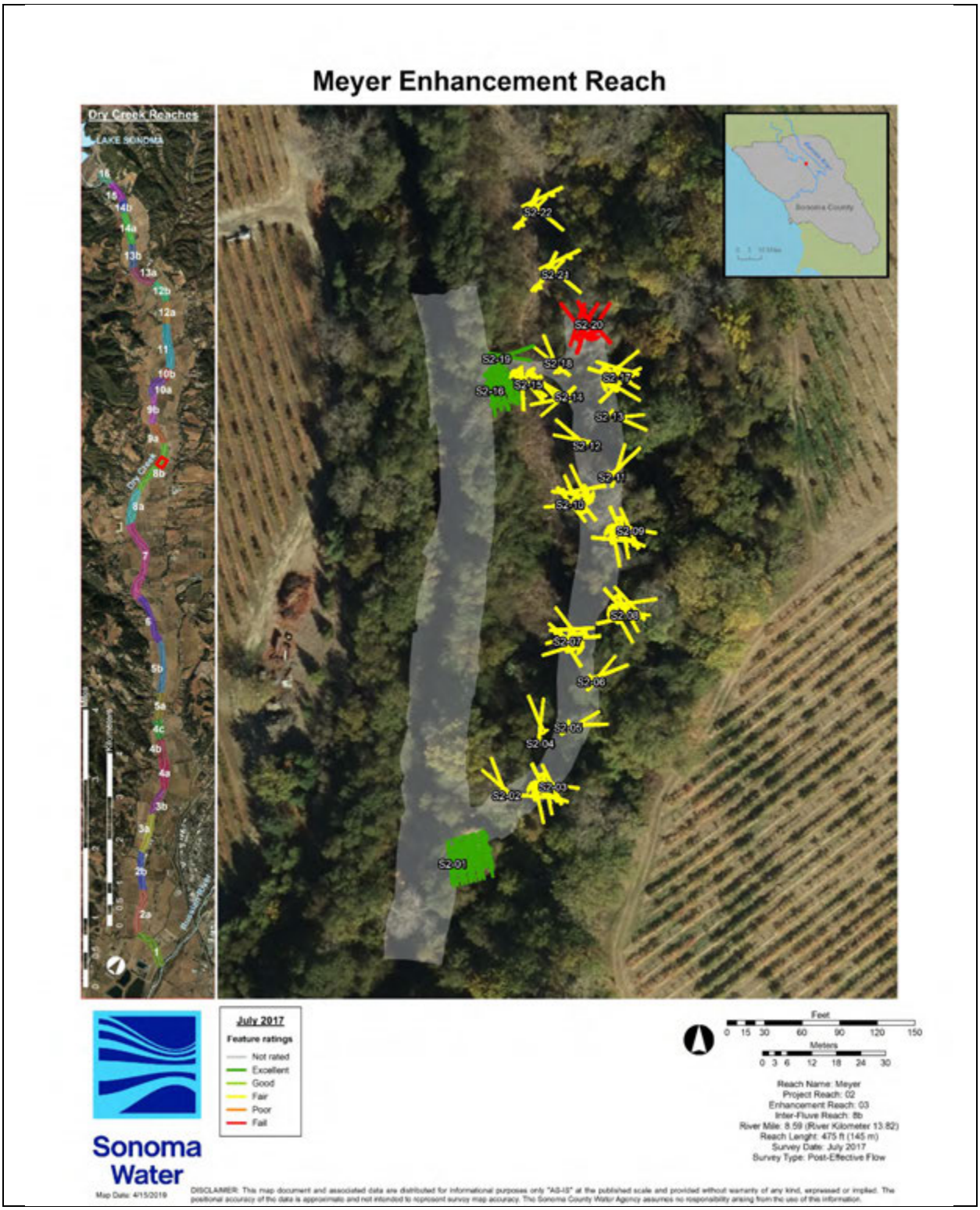


Figure 63. Feature ratings for the Meyer enhancement reach, July 2017.

Table 37. Post-effective flow habitat unit ratings for the Meyer enhancement reach, July 2017.

	Project Reach	2	2	2	2	2
	Enhancement Reach	3	3	3	3	3
	Colloquial Name	MY	MY	MY	MY	MY
	mmddyy	71217	71217	71217	71217	71217
	Survey Type	PEF	PEF	PEF	PEF	PEF
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU01_D**
	Habitat Type	Riffle	Pool	Flatwater	Pool	Dry
	PROJECT SITE NUMBER	**1**	**2**	**1**	**2**	**2**
	Project Site Type	MainChan	SideChan	MainChan	SideChan	SideChan
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	80%	40%	87%	32%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	1%	43%	3%	57%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	2	3	3	3	0
15.	Percent of **habitat unit** covered by shelter: %	10	20	10	20	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	20	60	30	60	0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	10%	79%	13%	57%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	3%	30%	6%	28%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	32%	0%	19%	0%
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU01_D**
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	3	4	3	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	4	0	4	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	4	5	5	5	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	1	2	1	2	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	2	0	2	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	4	1	4	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	2	0	2	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	3	0	1	0
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU01_D**
HABITAT UNIT RATING	Habitat unit quantitative rating (out of 35)	10	25	11	23	0
	Habitat unit qualitative rating: Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7)	Poor	Good	Poor	Good	Fail

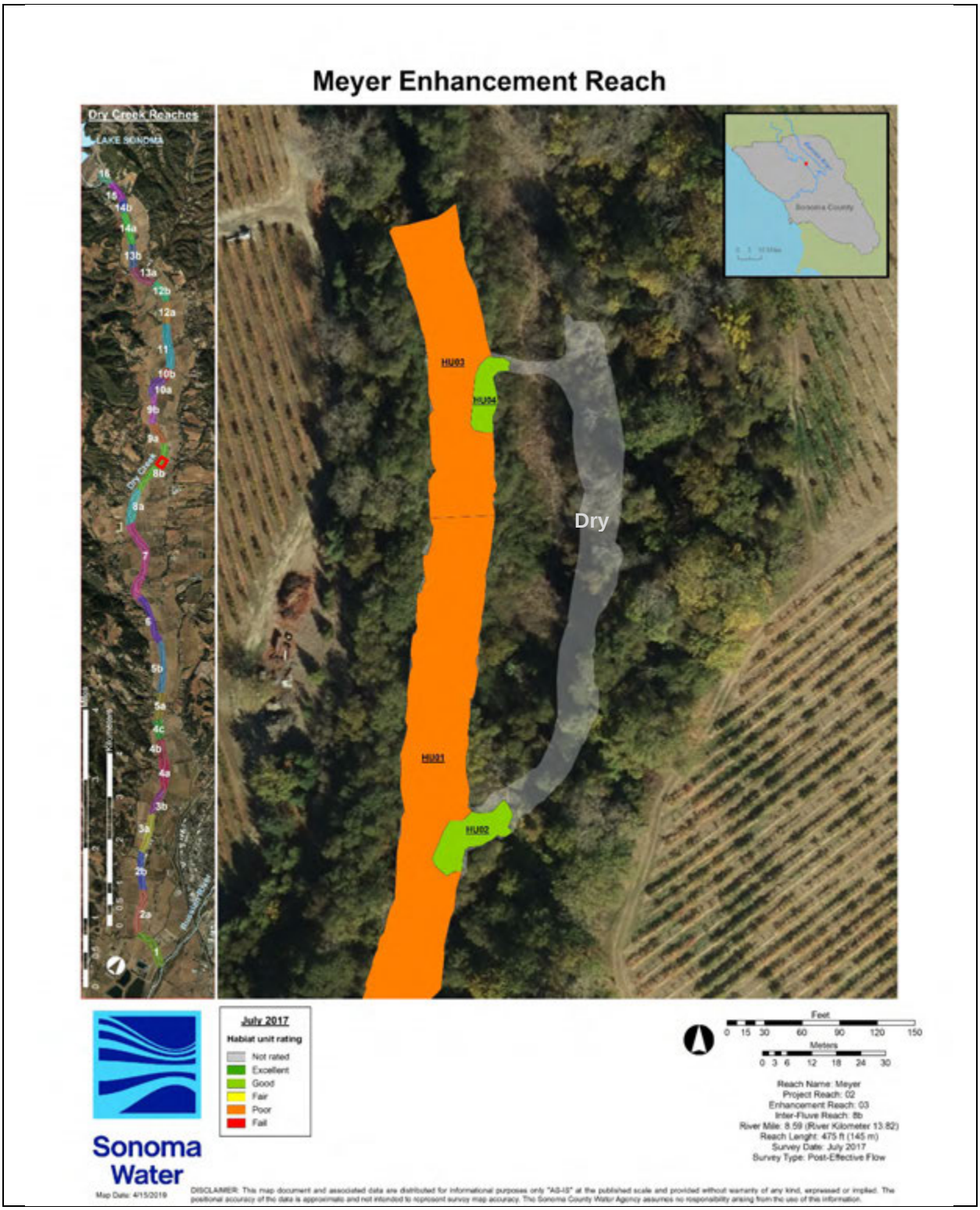


Figure 64. Habitat unit ratings for the Meyer enhancement reach, July 2017.

Table 38. Post-effective flow average feature, average habitat unit, site, and reach ratings for the Meyer enhancement reach, July 2017.

	Project Reach	2	2
	Enhancement Reach	3	3
	ENHANCEMENT REACH NAME	**MY**	**MY**
	mmddyy	71217	71217
	Survey Type	PEF	PEF
	PROJECT SITE NUMBER	**1**	**2**
	Project Site Type	MainChan	SideChan
	PROJECT SITE NUMBER	**1**	**2**
SITE AVERAGE FEATURE RATING	Site average feature quantitative rating (out of 15; bold indicates excluded from site rating)	0	8
	Site average feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3), Not rated (not used to rate site)	Not rated	Fair
	PROJECT SITE NUMBER	1	2
SITE AVERAGE HABITAT UNIT RATING	Site average habitat unit quantitative rating (out of 35; bold indicates excluded from site rating)	11	16
	Site average qualitative rating Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7), Not rated (not used to rate site)	Poor	Fair
	PROJECT SITE NUMBER	**1**	**2**
SITE RATING	Site quantitative rating (sum of site average feature and habitat unit ratings) (out of 50; bold indicates rating excludes feature or habitat unit rating and scoring out of 15 or 35)	11	24
	Site qualitative rating: Excellent (>=28, 40), Good (>=21, 30), Fair(>=14, 20), Poor (>=7, 10), Fail (<7, 10)	Poor	Fair
	ENHANCEMENT REACH NAME	**MY**	
ENHANCEMENT REACH RATING	Enhancement reach quantitative rating (average of site ratings) (out of 43)	17	
	Enhancement reach qualitative rating: Excellent (>=34), Good (>=26), Fair(>=17), Poor (>=9), Fail (<9)	Fair	

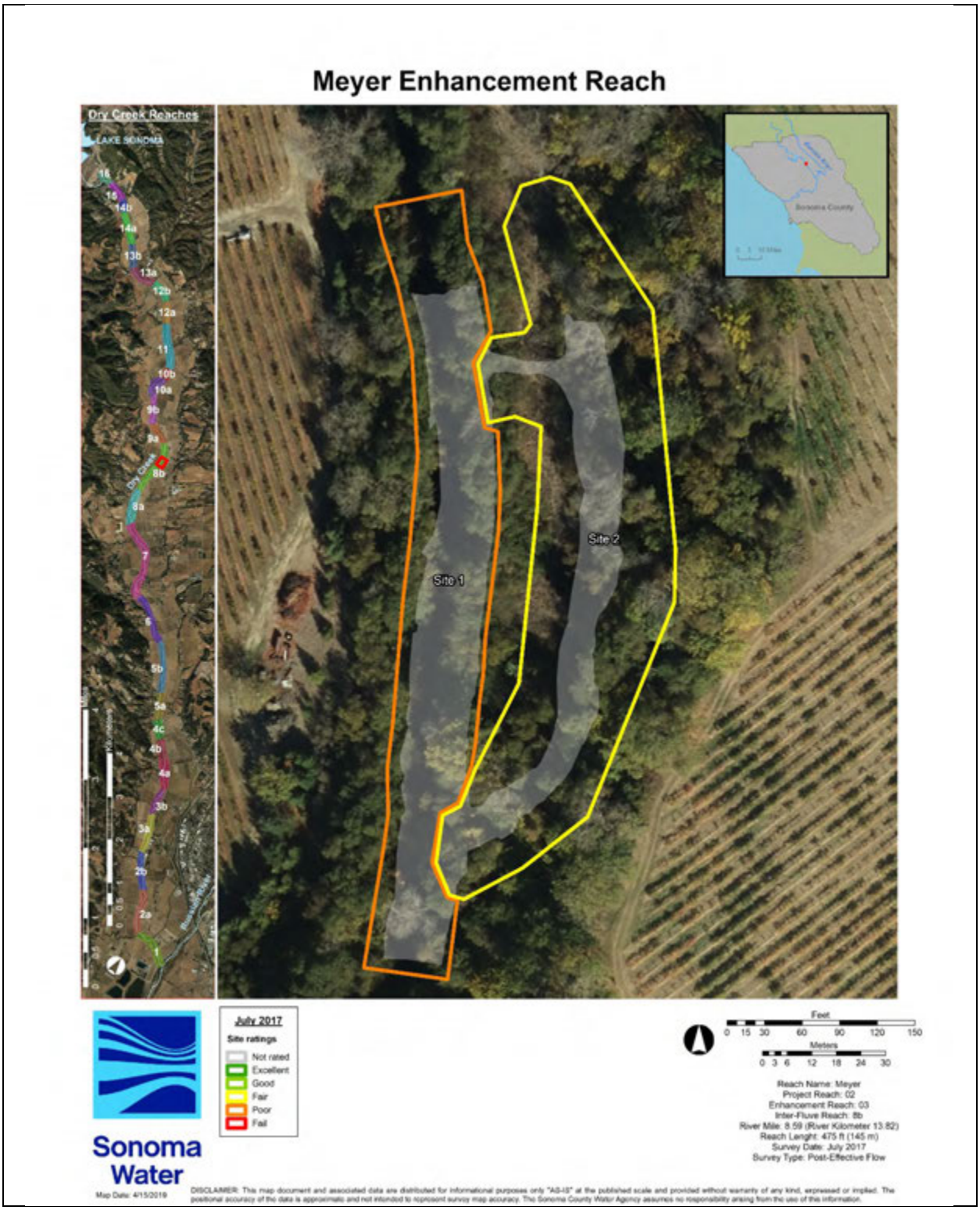


Figure 65. Post-effective flow site ratings for the Meyer enhancement reach, July 2017.

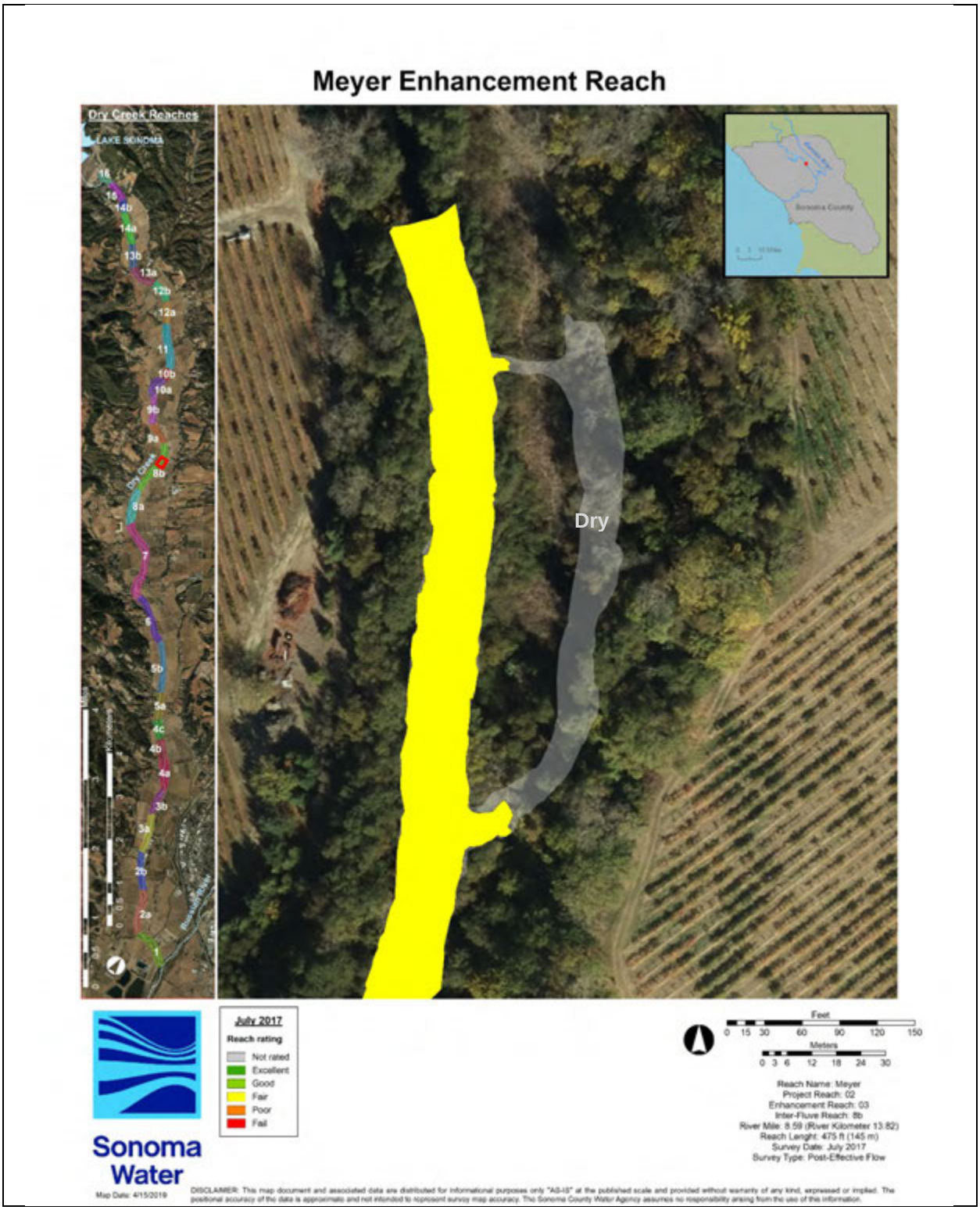


Figure 66. Post-effective flow reach rating for the Meyer enhancement reach, July 2017.

Feature and Habitat Unit Checklist

Table 39. Adaptive Management Plan targeted checklist for the Meyer enhancement reach, July 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY
	mmddyy	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	NA	NA	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S2-07	S2-08	S2-09	S2-10	S2-11	S2-12	S2-13	S2-14	S2-15	S2-16
	Feature Type Code	NA	NA	LJ	HW	BCW	HW	HW	HW	BCW	BCW	BCW	BCW	HW	HW	HW	HW	SCW	ALJ
	Habitat Unit	HU01	HU03	HU02	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU04	HU04
	Habitat Type	Riffle	Flatwater	Pool	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Pool	Pool
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	GOOD	GOOD	GOOD	FAIR	EXCL	EXCL
5a	Are problems with the **feature** visible?	NA	NA	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
6a	Is the **feature** still in its original location?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NA	NA	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	80%	87%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	32%	32%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	1%	3%	43%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	57%	57%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	2	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
15.	Percent of **habitat unit** covered by shelter: %	10	10	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	20	30	60	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
25.	Did the **feature** achieve the targeted velocity?	NA	NA	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	10%	13%	79%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	57%	57%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	3%	6%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	28%	28%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	32%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	19%	19%
	FEATURE NUMBER	**NA**	**NA**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**	**S2-10**	**S2-11**	**S2-12**	**S2-13**	**S2-14**	**S2-15**	**S2-16**
	HABITAT UNIT NUMBER	**HU01**	**HU03**	**HU02**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU04**	**HU04**
	SITE NUMBER	**1**	**1**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**
	ENHANCEMENT REACH NAME	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	5	5	5	5	5	5	5	5	5	5	4	4	4	3	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientation? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	4	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1

Table 39. Adaptive Management Plan targeted checklist for the Meyer enhancement reach, July 2017.

	Project Reach	2	2	2	2	2	2
	Enhancement Reach	3	3	3	3	3	3
	Colloquial Name	MY	MY	MY	MY	MY	MY
	mmddyy	71217	71217	71217	71217	71217	71217
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22
	Feature Type Code	BCW	HW	HW	BCW	FW	FW
	Habitat Unit	HU01_D	HU01_D	HU04	HU01_D	HU01_D	HU01_D
	Habitat Type	Dry	Dry	Pool	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	UNKN	GOOD	GOOD
5a	Are problems with the **feature** visible?	YES	YES	NO	YES	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	UNK	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	NO	YES	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	YES	YES	NO	YES	YES	YES
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	32%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	57%	0%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	3	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	0	0	20	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	YES	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	60	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NO	NO	NO	NO	NO	NO
25.	Did the **feature** achieve the targeted velocity?	NO	NO	YES	NO	NO	NO
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	57%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	28%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	19%	0%	0%	0%
	FEATURE NUMBER	**S2-17**	**S2-18**	**S2-19**	**S2-20**	**S2-21**	**S2-22**
	HABITAT UNIT NUMBER	**HU01_D**	**HU01_D**	**HU04**	**HU01_D**	**HU01_D**	**HU01_D**
	SITE NUMBER	**2**	**2**	**2**	**2**	**2**	**2**
	ENHANCEMENT REACH NAME	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5	0	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	1	0	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	0	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	1	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	1	0	0	0
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	3	0	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	4	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	0	5	0	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	0	2	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	1	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	2	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	1	0	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	4	0	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	2	0	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	1	0	0	0

Table 40. Adaptive Management Plan targeted checklist for the Meyer enhancement reach, July 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY
	mmddyy	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217	71217
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	NA	NA	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S2-07	S2-08	S2-09	S2-10	S2-11	S2-12	S2-13	S2-14	S2-15	S2-16
	Feature Type Code	NA	NA	LJ	HW	BCW	HW	HW	HW	BCW	BCW	BCW	BCW	HW	HW	HW	HW	SCW	ALJ
	Habitat Unit	HU01	HU03	HU02	HU01 D	HU01 D	HU01 D	HU01 D	HU01 D	HU01 D	HU01 D	HU01 D	HU01 D	HU01 D	HU01 D	HU01 D	HU01 D	HU04	HU04
	Habitat Type	Riffle	Flatwater	Pool	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Pool	Pool
1.	Length of targeted treatment (ft)			30	40	30	34	20	30	28	30	30	30	30	30	15	33	20	33
2.	Width of targeted treatment: (ft)			35	20	33	20	31	35	30	33	32	35	26	28	35	30	30	30
3.	Estimate area of the targeted **feature**: (ft^2)			1050	800	990	680	620	1050	840	990	960	1050	780	840	525	990	600	990
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	GOOD	GOOD	GOOD	FAIR	EXCL	EXCL
5a	Are problems with the **feature** visible?	NA	NA	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NA	NA	NON	STR	STR	STR	STR	STR	AGG	STR	STR	STR	STR	STR	STR	STR	STR	STR
6a	Is the **feature** still in its original location?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	NA	NA	LBK	RBK	LBK	LBK	LBK	LBK	RBK	LBK	LBK	RBK	LBK	RBK	LBK	RBK	RBK	RBK
6d	Is the **feature** still in its original orientaton?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	NA	NA	MUL	PRP	MUL	DNS	DNS	DSN	MUL	MUL	MUL	MUL	DNS	PRP	PRP	PRP	MUL	MUL
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	RIF	FLT	POO	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	POO	POO
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NA	NA	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
10.	Mean water depth in **habitat unit**: ft	0.9	1.1	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
11a	Maximum water depth in **habitat unit**: ft	2.6	2.6	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	3.5
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	16370.3	9952.4	705.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	356.2	356.2
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	237.2	356.5	767.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	630.4	630.4
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	16607.5	10308.9	1472.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	986.6	986.6
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	80%	87%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	32%	32%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	1%	3%	43%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	57%	57%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	81%	90%	83%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	89%	89%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NA	NA	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:			428	116	290	20	100	55	220	270	450	200	90	75	110	65	100	255
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NA	NA	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	2	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
15.	Percent of **habitat unit** covered by shelter: %	10	10	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	TVG	TVG	RTW	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	LWD	LWD
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	AVG	SWD	LWD	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	RTW	RTW
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	20	30	60	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60
18a	Large woody debris count in **habitat unit**: D >1", L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1", L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NA	NA	DEC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	DEC
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NA	NA	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	4.1	2.9	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7
26c	Measured mean velocity (ft/sec) in **habitat unit**	1.8	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5
27.	Area of **habitat unit** within targeted velocity: (ft^2)	2098.8	1475.7	1402.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	630.5	630.5
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	10%	13%	79%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	57%	57%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NA	NA	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	COB	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND
31.	If an objective, did the **feature** achieve the targeted substrate composition?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	719.6	662.2	1097.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	511.3	511.3
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	719.0	662.2	528.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	304.2	304.2
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0.6	0.0	569.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	207.1	207.1
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	4%	6%	62%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	46%	46%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	3%	6%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	28%	28%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	32%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	19%	19%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NA	NA	NON	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	NON
38.	Are additional restoration treatments recommended at this **site**?	NA	NA	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO

Table 40. Adaptive Management Plan targeted checklist for the Meyer enhancement reach, July 2017.

	Project Reach	2	2	2	2	2	2
	Enhancement Reach	3	3	3	3	3	3
	Colloquial Name	MY	MY	MY	MY	MY	MY
	mmddyy	71217	71217	71217	71217	71217	71217
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22
	Feature Type Code	BCW	HW	HW	BCW	FW	FW
	Habitat Unit	HU01_D	HU01_D	HU04	HU01_D	HU01_D	HU01_D
	Habitat Type	Dry	Dry	Pool	Dry	Dry	Dry
1.	Length of targeted treatment (ft)	28	36	13	35	38	38
2.	Width of targeted treatment: (ft)	31	18	37	32	40	40
3.	Estimate area of the targeted **feature**: (ft^2)	868	648	481	1120	1520	1520
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	UNKN	GOOD	GOOD
5a	Are problems with the **feature** visible?	YES	YES	NO	YES	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	STR	STR	STR	BBB	NON	NON
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	LBK	LBK	LBK	LBK	LBK	LBK
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	UNK	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	MUL	PRP	UPS	NA	PRP	PRP
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	DRY	DRY	POO	DRY	DRY	DRY
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	NO	YES	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	YES	YES	NO	YES	YES	YES
10.	Mean water depth in **habitat unit**: ft	0.0	0.0	2.0	0.0	0.0	0.0
11a	Maximum water depth in **habitat unit**: ft	0.0	0.0	3.5	0.0	0.0	0.0
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	0.0	0.0	356.2	0.0	0.0	0.0
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	0.0	0.0	630.4	0.0	0.0	0.0
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	0.0	0.0	986.6	0.0	0.0	0.0
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	32%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	57%	0%	0%	0%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	0%	0%	89%	0%	0%	0%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NO	NO	YES	NO	NO	NO
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	320	100	85	250		
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	YES	YES	NO	YES	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	3	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	0	0	20	0	0	0
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	LWD	NON	NON	NON
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	RTW	NON	NON	NON
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	YES	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	60	0	0	0
18a	Large woody debris count in **habitat unit**: D >1", L 6-20'	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1", L >20'	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NO	NO	NO	NO	NO	NO
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	YES	YES	YES	YES	YES	YES
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NA	NA	DEC	NA	NA	NA
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NO	NO	YES	NO	NO	NO
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.0	0.0	1.7	0.0	0.0	0.0
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	0.0	0.5	0.0	0.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	0.0	0.0	630.5	0.0	0.0	0.0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	57%	0%	0%	0%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	YES	YES	NO	YES	YES	YES
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	GRV	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	SND	SND	SND	SND
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0.0	0.0	511.3	0.0	0.0	0.0
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0.0	0.0	304.2	0.0	0.0	0.0
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0.0	0.0	207.1	0.0	0.0	0.0
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0%	0%	46%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	28%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	19%	0%	0%	0%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	MNT	MNT	NON	MNT	MNT	MNT
38.	Are additional restoration treatments recommended at this **site**?	YES	YES	NO	YES	NO	NO

Van Alyea Post-effective Flow, April 2017

Depth and Velocity

Table 41. Areas and percentages of: wetted area, optimal depth and velocity, and optimal hydraulic habitat within the Van Alyea enhancement reach, April 2017.

Van Alyea Post-effective flow April 2017	Wetted area (ft^2)	Optimal depth (ft^2)			Optimal velocity (ft^2)	Optimal habitat (ft^2)		
		0.5 – 2.0 ft	2.0 – 4.0 ft	Total	< 0.5 ft/s	0.5 – 2.0 ft < 0.5 ft/s	2.0 – 4.0 ft < 0.5 ft/s	Total
Main channel area	39,771	14,495	17,677	32,172	14,067	4,606	6,171	10,777
Main channel alcove area	20,545	3,104	7,223	10,327	20,545	3,104	7,223	10,327
Total area	**60,316**	**17,599**	**24,900**	**42,499**	**34,612**	**7,710**	**13,394**	**21,104**
Main channel % of wetted area	66%	36%	44%	81%	35%	12%	16%	27%
Main channel alcove % of wetted area	34%	15%	35%	50%	100%	15%	35%	50%
Total % of wetted area	**100%**	**29%**	**41%**	**70%**	**57%**	**13%**	**22%**	**35%**

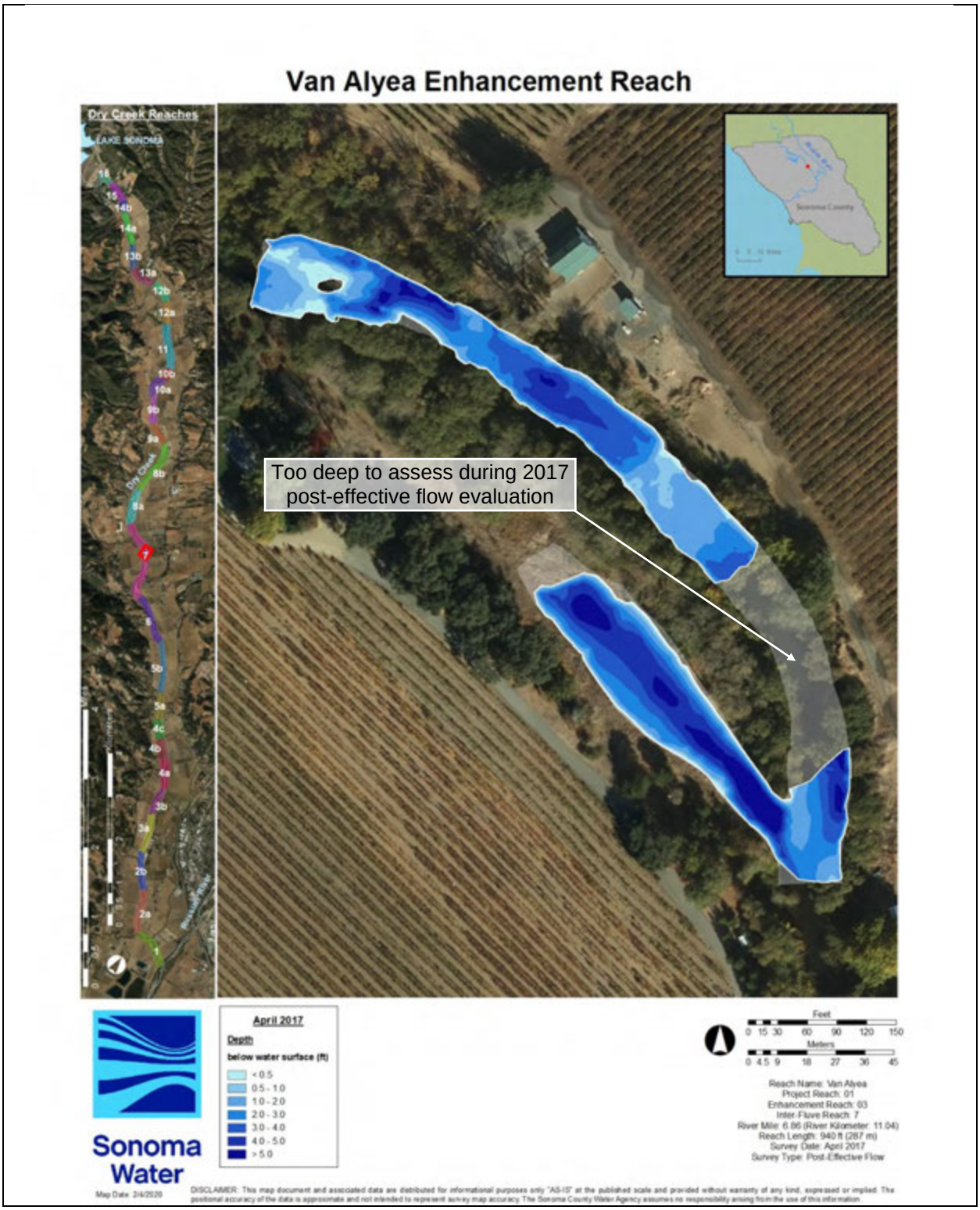


Figure 67. Measured water depth within the Van Alyea enhancement reach, April 2017.

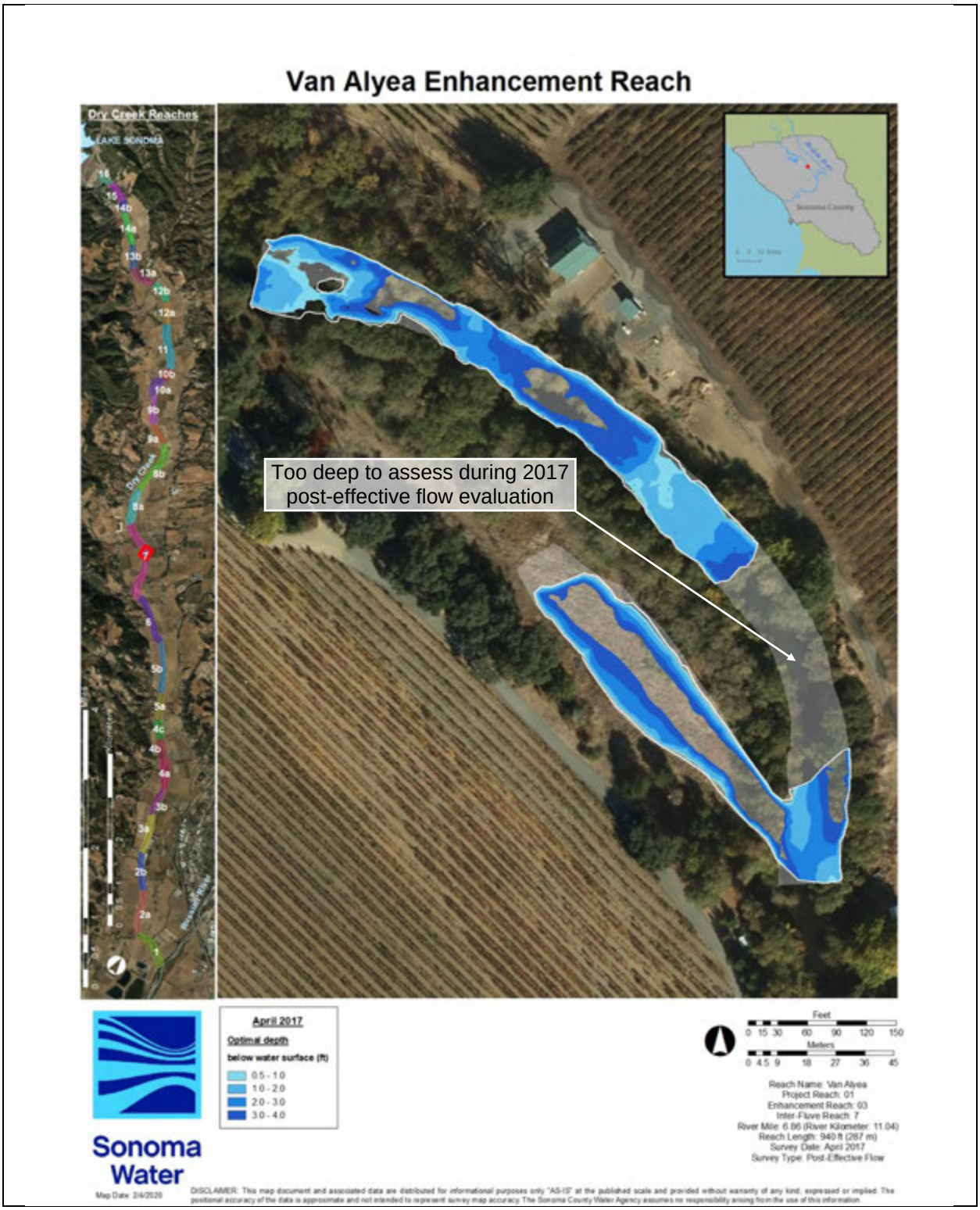


Figure 68. Optimal water depth for fry (0.5-2.0 ft) and parr (2.0-4.0 ft) within the Van Alyea enhancement reach, April 2017.

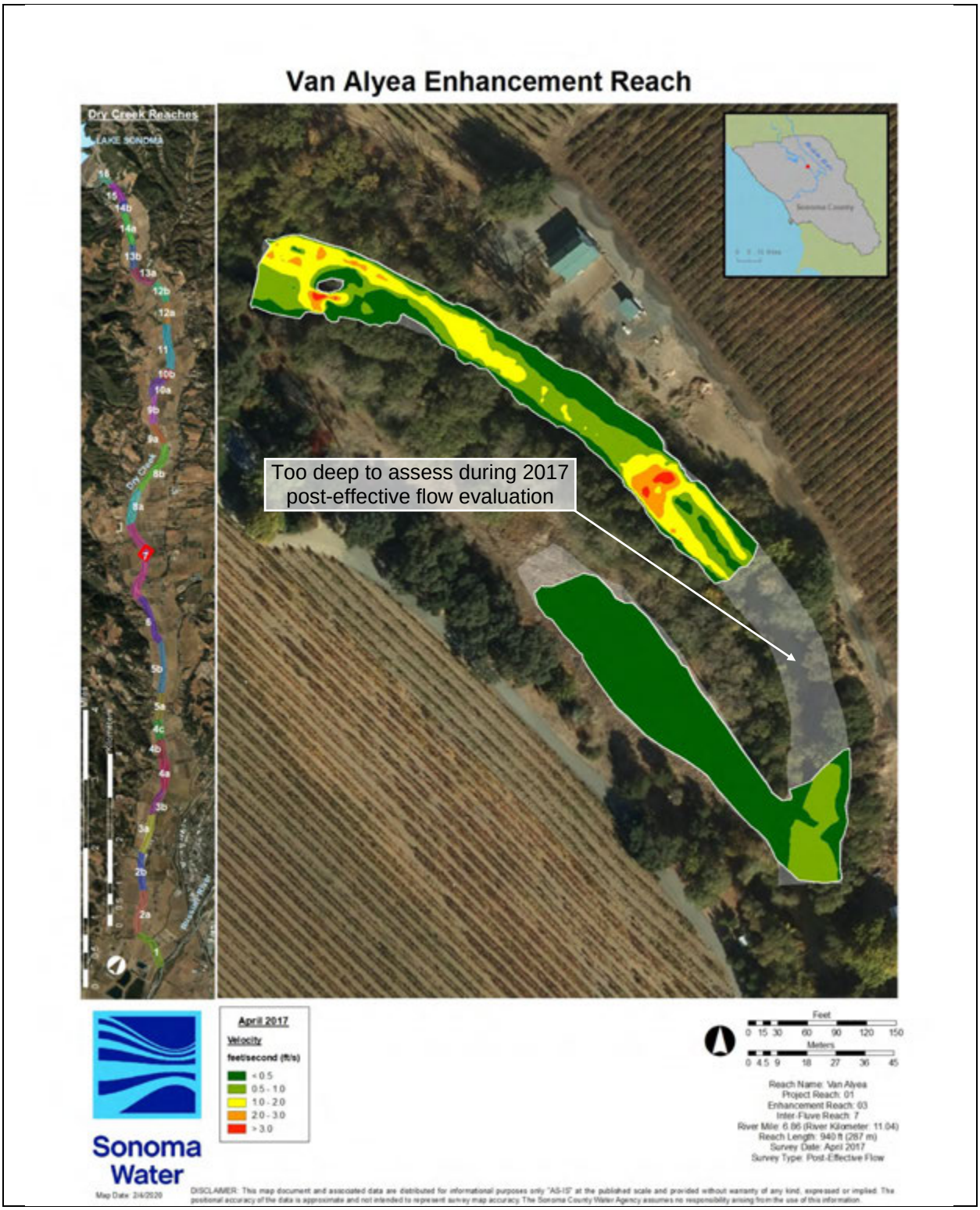


Figure 69. Measured water velocity within the Van Alyea enhancement reach, April 2017.

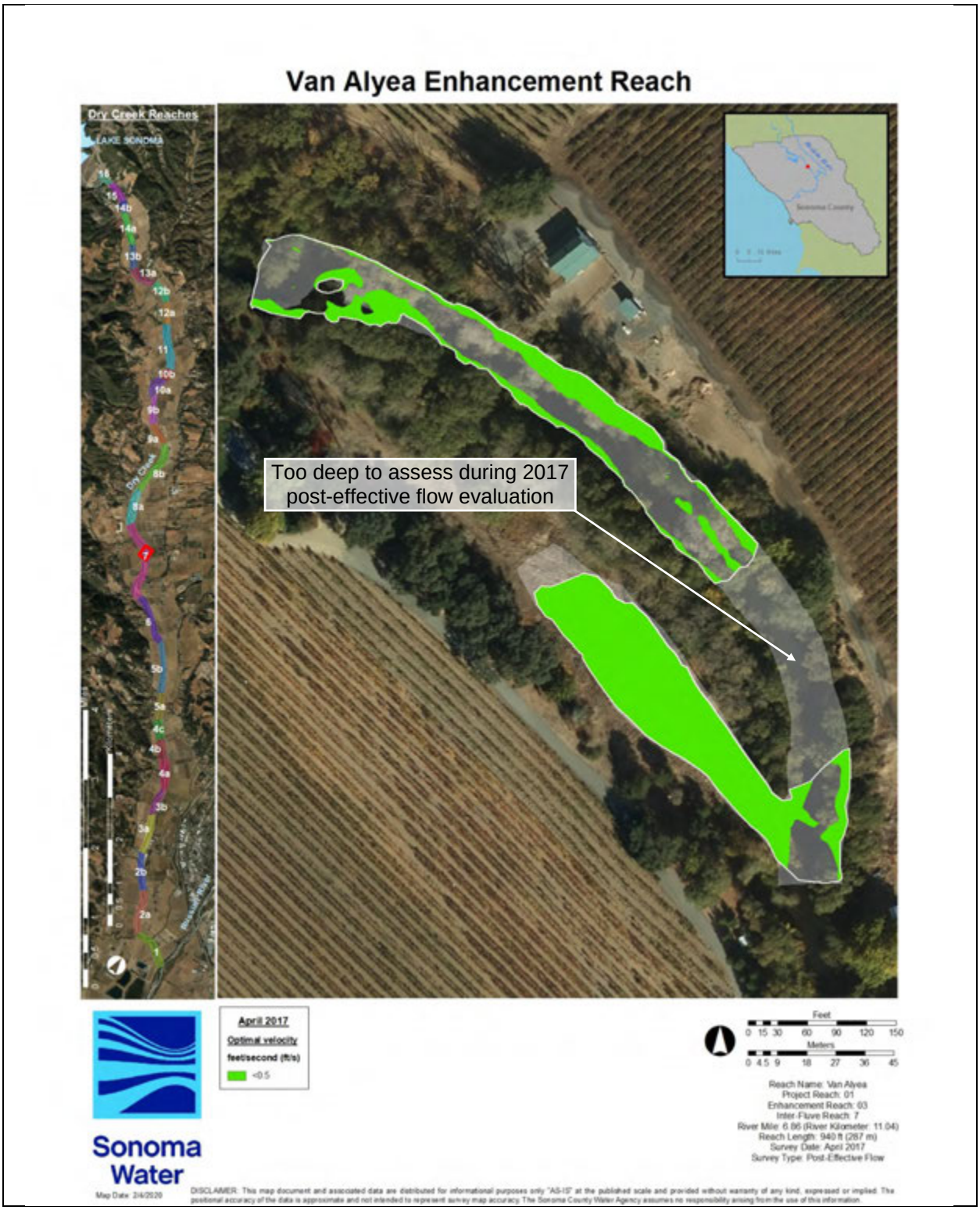


Figure 70. Optimal water velocity for fry and parr (< 0.5 ft/s) within the Van Alyea enhancement reach, April 2017.

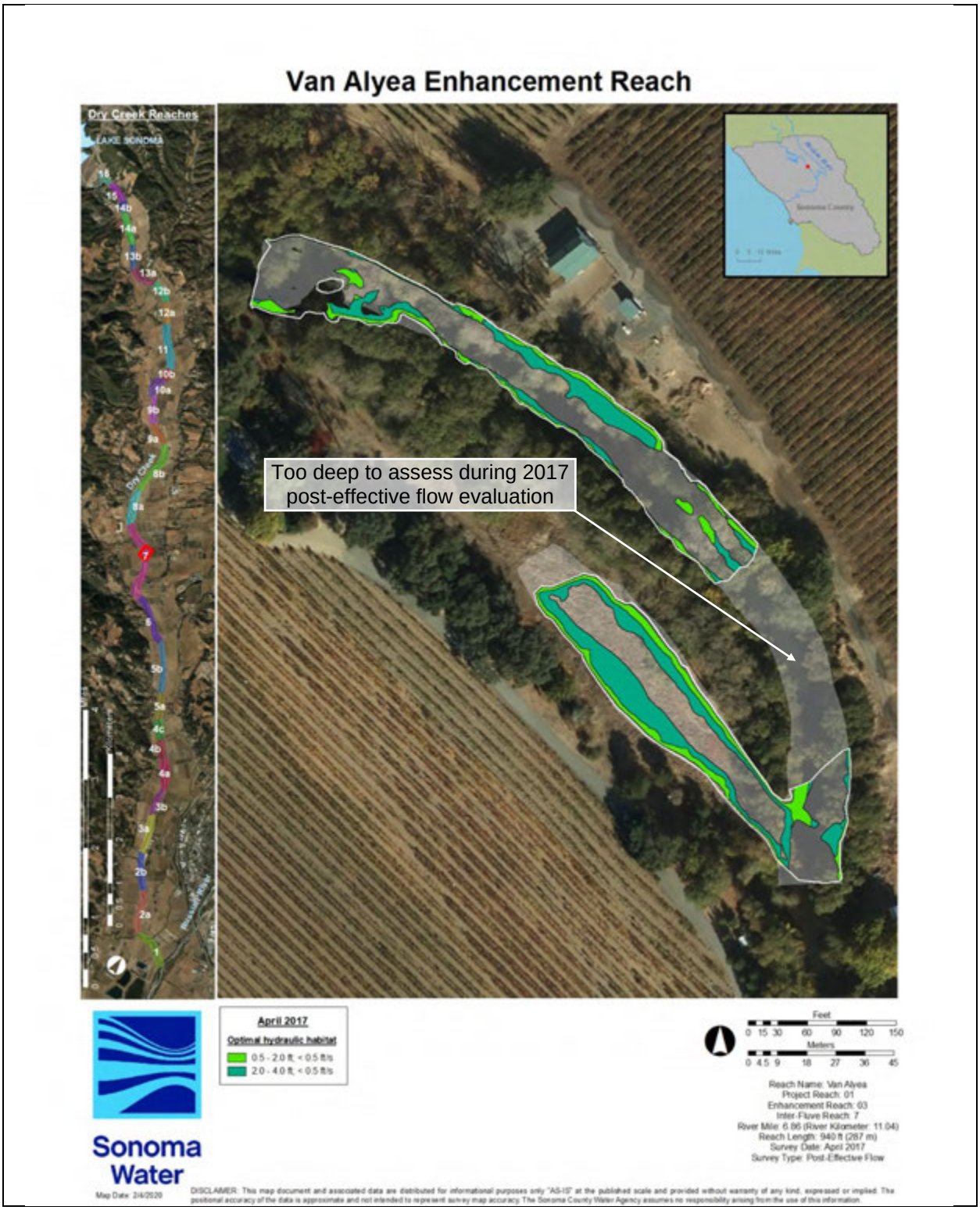


Figure 71. Optimal hydraulic habitat for fry (<0.5 ft/s, 0.5-2.0 ft) and parr (<0.5 ft/s, 2.0-4.0 ft) within the Van Alyea enhancement reach, April 2017.

Habitat Types and Shelter Values

Table 42. Habitat, types, shelter value, percent cover, and shelter score for habitat units within the Van Alyea enhancement reach, April 2017.

Post-effective flow (April 2017)				
Habitat Unit #	**Habitat Type**	**Shelter Value**	**Percent Cover**	**Shelter Score**
HU01	Pool	3	25	75
HU02	Alcove	3	30	90
HU03	Riffle	2	40	80
HU04	Pool	3	15	45
HU05	Pool	3	30	90
HU06	Flatwater	3	35	105
HU07	Riffle	1	5	5
HU08	Flatwater	2	10	20

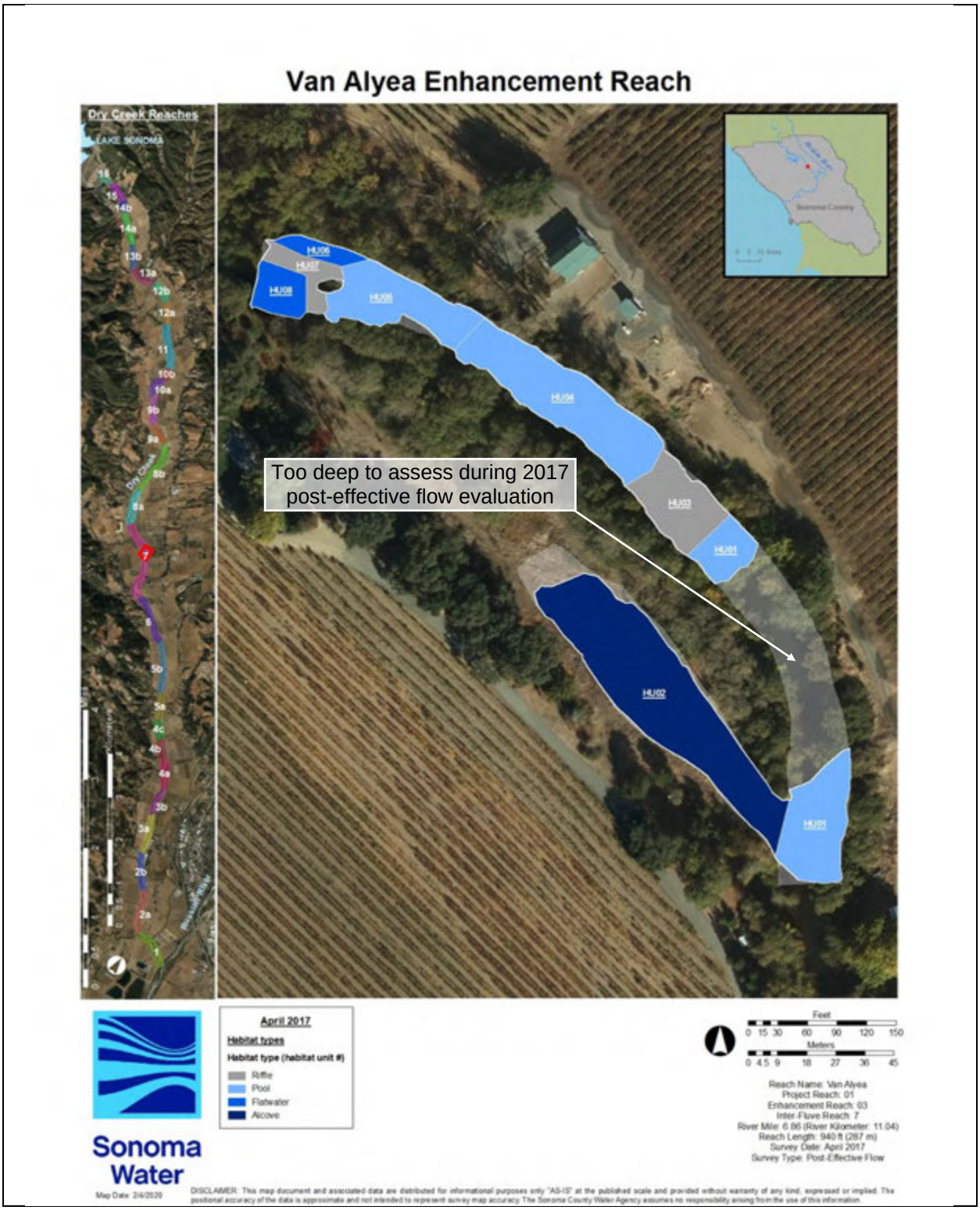


Figure 72. Habitat unit number and type within the Van Alyea enhancement reach, April 2017.

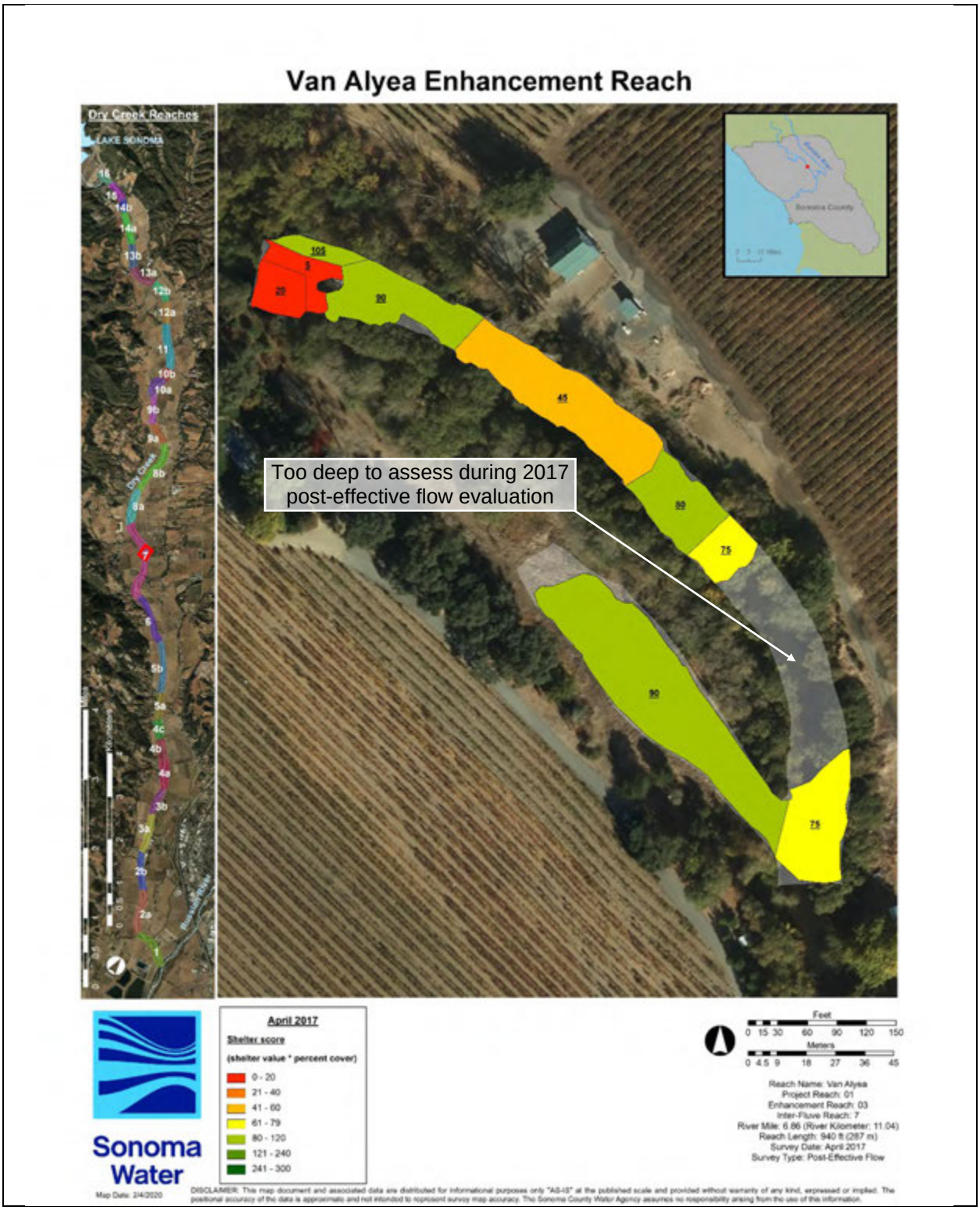


Figure 73. Habitat unit shelter scores within the Van Alyea enhancement reach, April 2017.

Feature, Habitat Unit, Site, and Reach Ratings

Table 43. Post-effective flow feature ratings for the Van Alyea enhancement reach April 2017.

	Project Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA
	mmddyy	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	3	3
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MC Bank FP	MC Bank FP	MC Bank FP	MC Bank FP	MC Bank FP	MC Bank FP	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove
	PROJECT FEATURE NUMBER	S1-01	S1-02	S1-03	S1-04	S1-05	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S3-01	S3-02	S3-03	S3-04	S3-05	S3-06	S3-07
	Feature Type Code	LWD	LWD	LWD	TER/FLP	RIF	Logjam	FPW	FPW	FPW	FPW	FPW	FPW	FPW	LWD	LWD	LWD	LWD	LWD
	Habitat Unit	HU05	HU04	HU04	HU01	HU03	HU05_1	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU01_D	HU01_D	HU01_D	HU01_D	HU02	HU02	HU02
	Habitat Type	Pool	Pool	Pool	Pool	Riffle	Pool	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Alcove	Alcove	Alcove
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	EXCL	GOOD	FAIR	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	UNKN	UNKN	EXCL	FAIR	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	YES	YES	NO	NR	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES	YES
	PROJECT FEATURE NUMBER	**S1-01**	**S1-02**	**S1-03**	**S1-04**	**S1-05**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S3-01**	**S3-02**	**S3-03**	**S3-04**	**S3-05**	**S3-06**	**S3-07**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	4	4	5	4	3	4	4	4	4	4	4	4	0	0	5	3	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	1	1	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1
	PROJECT FEATURE NUMBER	**S1-01**	**S1-02**	**S1-03**	**S1-04**	**S1-05**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S3-01**	**S3-02**	**S3-03**	**S3-04**	**S3-05**	**S3-06**	**S3-07**
FEATURE RATING	Feature quantitative rating out of 15	14	14	13	14	13	11	12	13	13	13	13	12	12	0	0	14	12	14
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Fail	Fail	Excellent	Excellent	Excellent

Table 43. Post-effective flow feature ratings for the Van Alyea enhancement reach April 2017.

	Project Reach	1	1	1	1	1	1	1	1	1
	Enhancement Reach	3	3	3	3	3	3	3	3	3
	Colloquial Name	VA	VA	VA	VA	VA	VA	VA	VA	VA
	mmddyy	42717	42717	42717	42717	42717	42717	42717	42717	42717
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	3	3	3	3	3	3	3	3	3
	Project Site Type	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove
	PROJECT FEATURE NUMBER	S3-08	S3-09	S3-10	S3-11	S3-12	S3-13	S3-14	S3-15	S3-16
	Feature Type Code	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	Logjam
	Habitat Unit	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02
	Habitat Type	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	FAIR	EXCL	FAIR	EXCL	EXCL	FAIR	EXCL	EXCL	GOOD
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES
	PROJECT FEATURE NUMBER	**S3-08**	**S3-09**	**S3-10**	**S3-11**	**S3-12**	**S3-13**	**S3-14**	**S3-15**	**S3-16**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	3	5	3	5	5	3	5	5	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1
	PROJECT FEATURE NUMBER	**S3-08**	**S3-09**	**S3-10**	**S3-11**	**S3-12**	**S3-13**	**S3-14**	**S3-15**	**S3-16**
FEATURE RATING	Feature quantitative rating out of 15	12	14	12	14	14	12	14	14	13
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

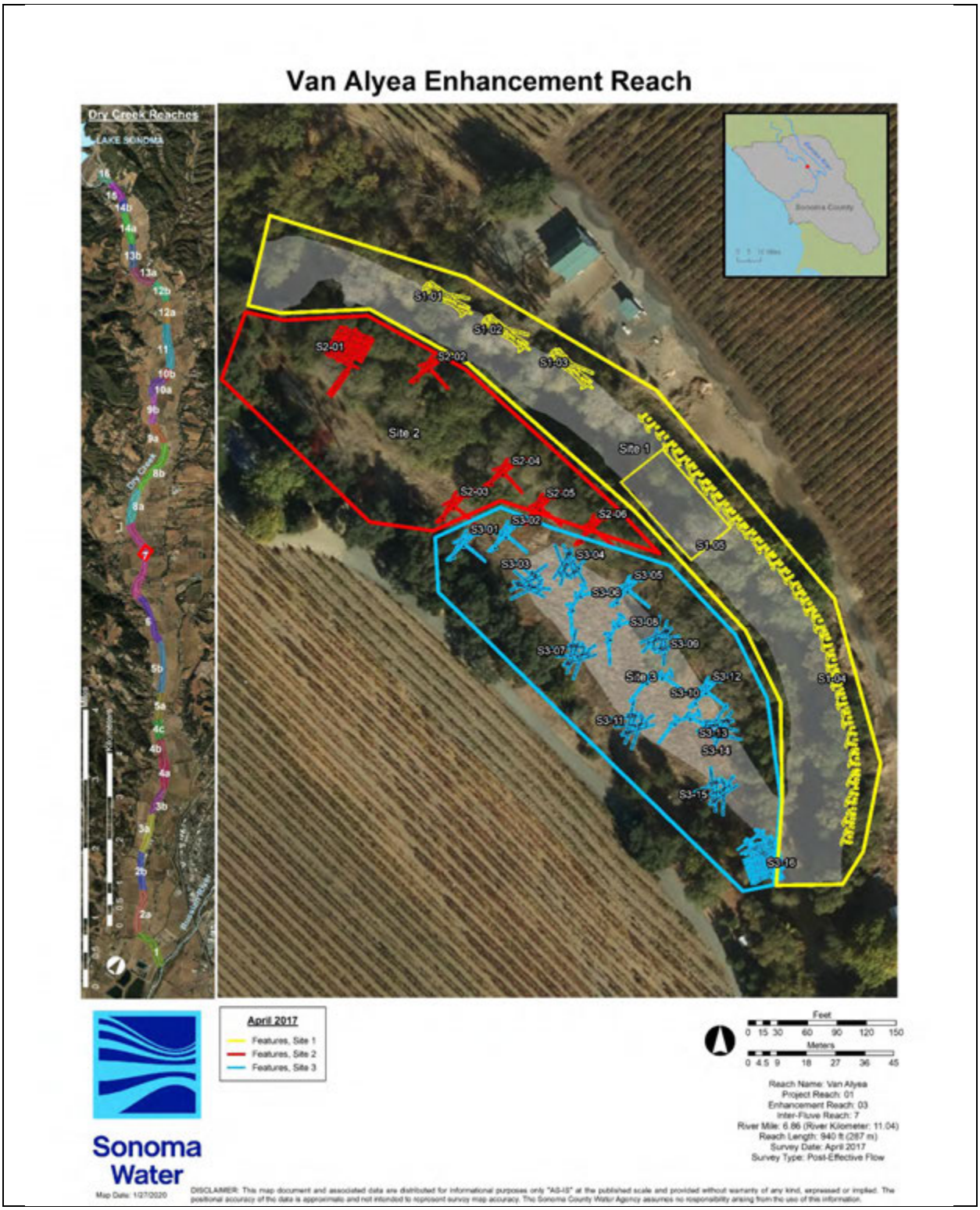


Figure 74. Enhancement sites and features within the Van Alyea enhancement reach, April 2017.

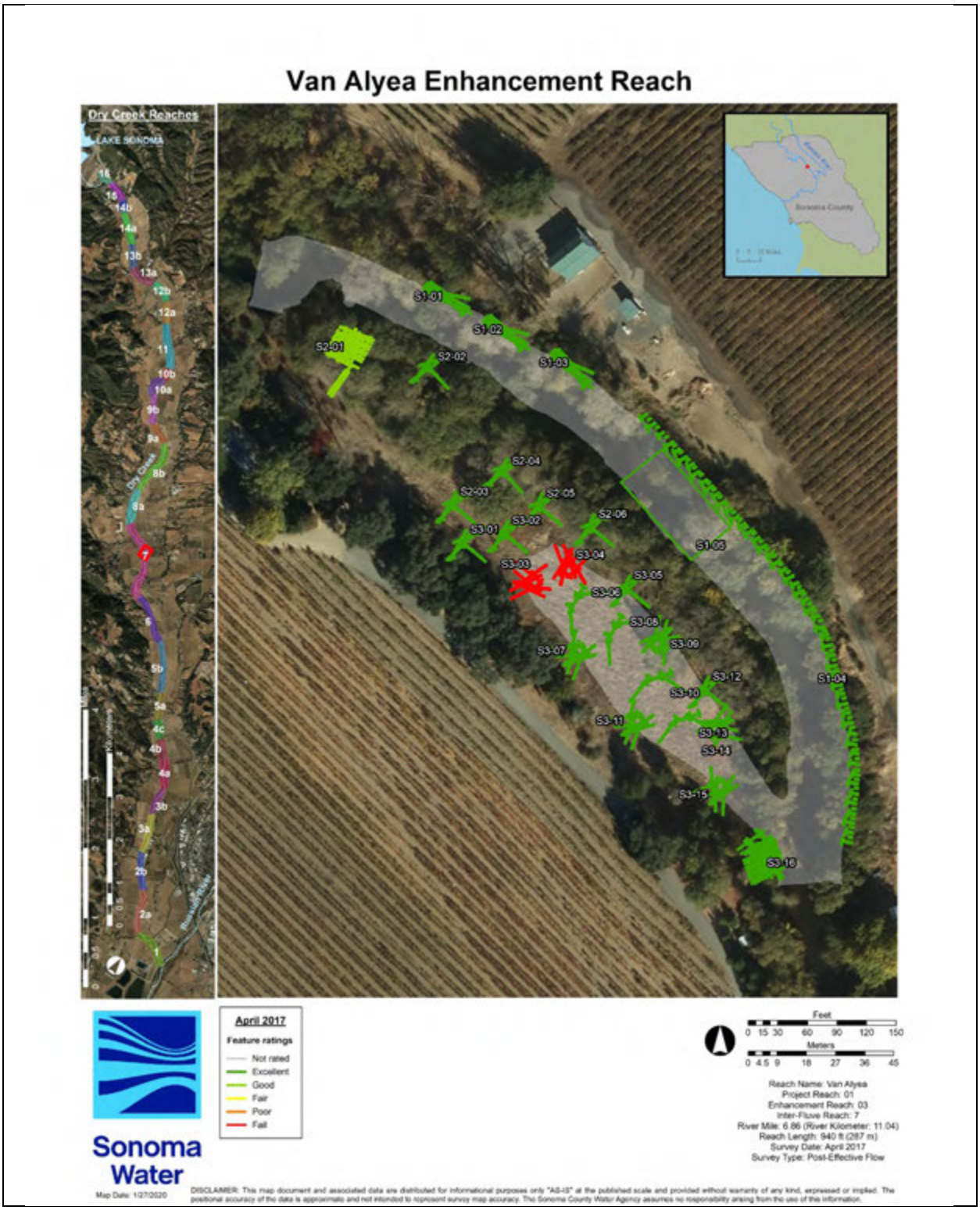


Figure 75. Feature ratings for the Van Alyea enhancement reach, April 2017.

Table 44. Post-effective flow habitat unit ratings for the Van Alyea enhancement reach April 2017.

	Project Reach	1	1	1	1	1	1	1	1	1	1	1
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA
	mmddyy	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU01_D**	**HU02_D**	**HU05_1**
	Habitat Type	Pool	Alcove	Riffle	Pool	Pool	Flatwater	Riffle	Flatwater	Dry	Dry	Pool
	PROJECT SITE NUMBER	**1**	**3**	**1**	**1**	**1**	**1**	**1**	**1**	**3**	**2**	**2**
	Project Site Type	MainChan	MC Alcove	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MC Alcove	MC Bank FP	MC Bank FP
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	25%	15%	94%	15%	26%	40%	47%	78%	0%	0%	26%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	61%	35%	0%	64%	44%	55%	1%	15%	0%	0%	44%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	2	3	3	3	1	2	0	0	3
15.	Percent of **habitat unit** covered by shelter: %	25	30	40	15	30	35	5	10	0	0	30
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	75	90	80	45	90	105	5	20	0	0	90
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	39%	100%	17%	45%	46%	14%	13%	20%	0%	0%	46%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	13%	15%	12%	11%	16%	6%	2%	12%	0%	0%	16%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	18%	35%	0%	27%	16%	4%	0%	1%	0%	0%	16%
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU01_D**	**HU02_D**	**HU05_1**
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	1	4	1	2	4	4	4	0	0	2
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	3	0	4	4	4	0	1	0	0	4
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	4	5	5	5	3	4	0	0	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	2	2	3	1	2	2	0	1	0	0	2
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	2	3	3	1	3	4	0	0	0	0	3
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	4	1	4	4	1	1	1	0	0	4
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	1	1	1	0	0	1	0	0	1
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	3	0	2	1	0	0	0	0	0	1
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU01_D**	**HU02_D**	**HU05_1**
HABITAT UNIT RATING	Habitat unit quantitative rating (out of 35)	20	22	16	19	22	20	8	12	0	0	22
	Habitat unit qualitative rating: Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7)	Fair	Good	Fair	Fair	Good	Fair	Poor	Poor	Not rated	Not rated	Good

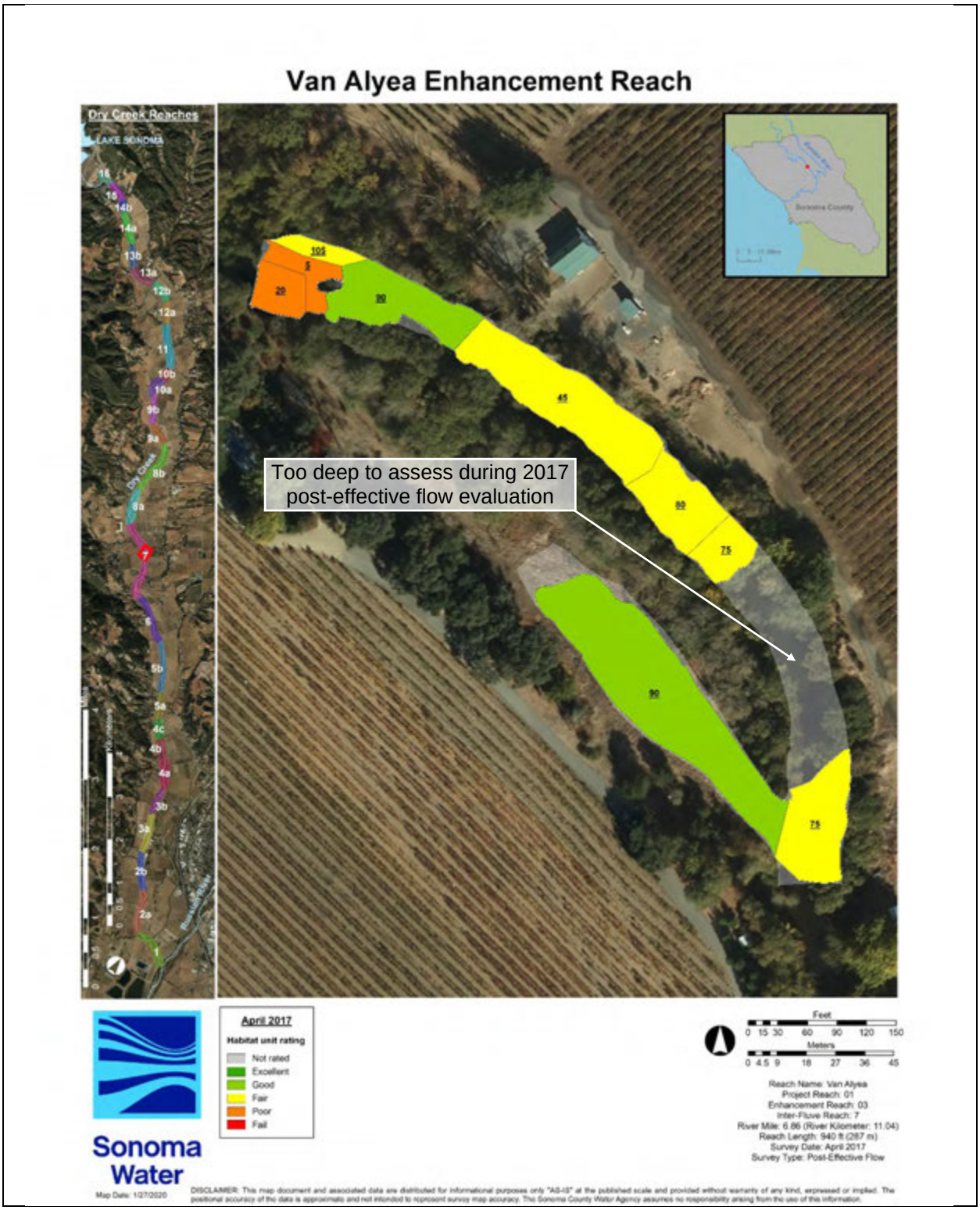


Figure 76. Habitat unit ratings for the Van Alyea enhancement reach, April 2017.

Table 45. Post-effective flow average feature, average habitat unit, site, and reach ratings for the Van Alyea enhancement reach, April 2017.

	Project Reach	1	1	1
	Enhancement Reach	3	3	3
	ENHANCEMENT REACH NAME	VA	VA	VA
	mmddyy	42717	42717	42717
	Survey Type	PEF	PEF	PEF
	PROJECT SITE NUMBER	1	2	3
	Project Site Type	MainChan	MC Bank FP	MC Alcove
	PROJECT SITE NUMBER	1	2	3
SITE AVERAGE FEATURE RATING	Site average feature quantitative rating (out of 15; bold indicates excluded from site rating)	14	13	11
	Site average feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3), Not rated (not used to rate site)	Excellent	Excellent	Good
	PROJECT SITE NUMBER	1	2	3
SITE AVERAGE HABITAT UNIT RATING	Site average habitat unit quantitative rating (out of 35; bold indicates excluded from site rating)	17	22	22
	Site average qualitative rating Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7), Not rated (not used to rate site)	Fair	Good	Good
	PROJECT SITE NUMBER	1	2	3
SITE RATING	Site quantitative rating (sum of site average feature and habitat unit ratings) (out of 50; bold indicates rating excludes feature or habitat unit rating and scoring out of 15 or 35)	30	35	33
	Site qualitative rating: Excellent (>=40), Good (>=30), Fair(>=20), Poor (>=10), Fail (<10)	Good	Good	Good
	ENHANCEMENT REACH NAME	VA		
ENHANCEMENT REACH RATING	Enhancement reach quantitative rating (average of site ratings) (out of 50)	33		
	Enhancement reach qualitative rating: Excellent (>=40), Good (>=30), Fair(>=20), Poor (>=10), Fail (<10)	Good		



Figure 77. Post-effective flow site ratings for the Van Alyea enhancement reach, April 2017.

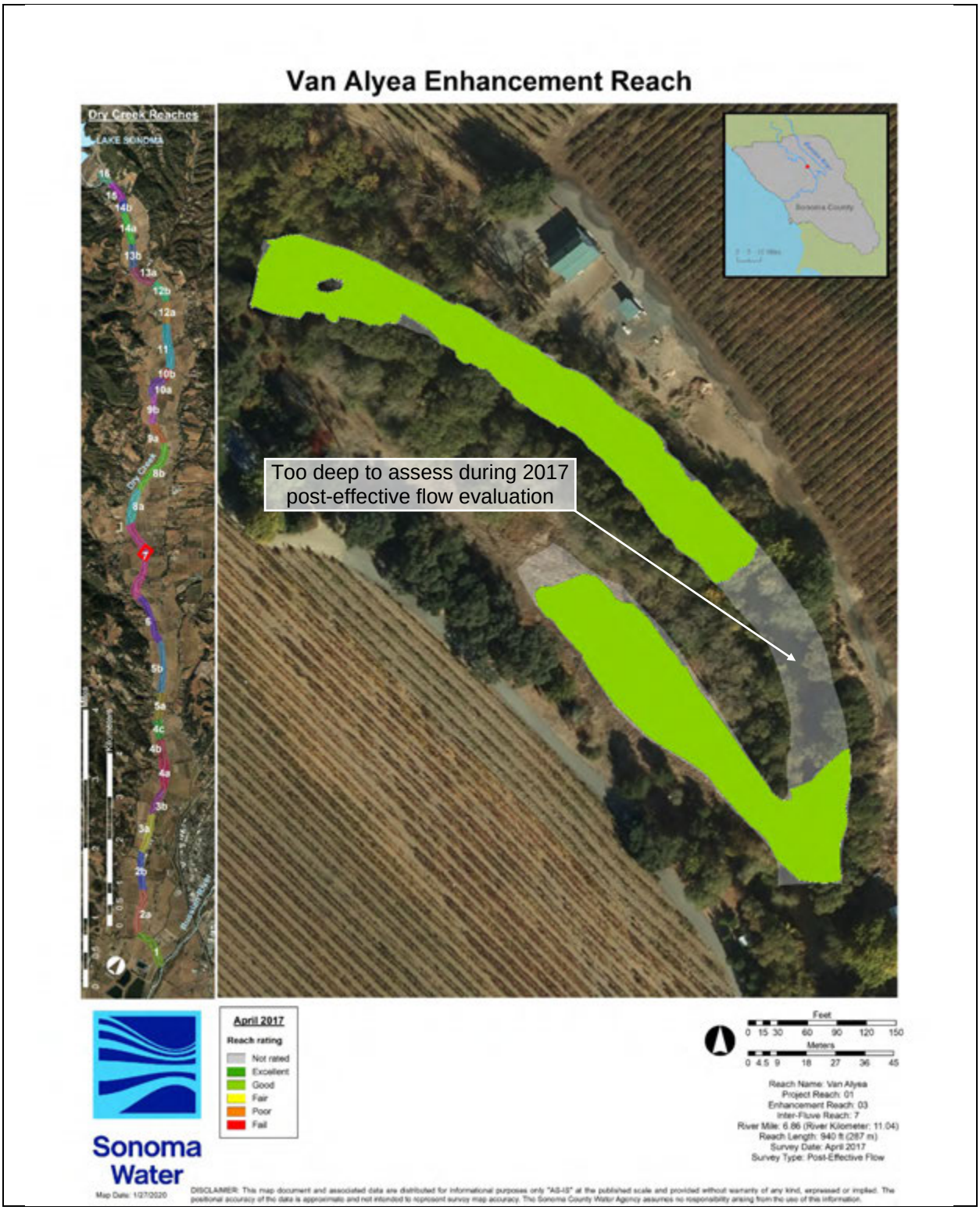


Figure 78. Post-effective flow reach rating for the Van Alyea enhancement reach, April 2017.

Feature and Habitat Unit Checklists

Table 46. Adaptive Management Plan targeted checklist for the Van Alyea enhancement reach, April 2017.

	Project Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA
	mmddyy	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	1	1	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MC Bank FP	MC Bank FP	MC Bank FP	MC Bank FP	MC Bank FP	MC Bank FP	MC Alcove	MC Alcove	MC Alcove	MC Alcove
	Project Feature Number	NA	NA	NA	S1-01	S1-02	S1-03	S1-04	S1-05	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S3-01	S3-02	S3-03	S3-04
	Feature Type Code	NA	NA	NA	LWD	LWD	LWD	TER/FLP	RIF	Logjam	FPW	FPW	FPW	FPW	FPW	FPW	FPW	LWD	LWD
	Habitat Unit	HU06	HU07	HU08	HU05	HU04	HU04	HU01	HU03	HU05_1	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU01_D	HU01_D	HU01_D	HU01_D
	Habitat Type	Flatwater	Riffle	Flatwater	Pool	Pool	Pool	Pool	Riffle	Pool	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	NA	GOOD	GOOD	GOOD	EXCL	GOOD	FAIR	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	UNKN	UNKN
5a	Are problems with the **feature** visible?	NA	NA	NA	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES
6a	Is the **feature** still in its original location?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
6b	Is the **feature** still in its original position?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
6d	Is the **feature** still in its original orientaton?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NA	NA	NA	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	40%	47%	78%	26%	15%	15%	25%	94%	26%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	55%	1%	15%	44%	64%	64%	61%	0%	44%	0%	0%	0%	0%	0%	0%	0%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	1	2	3	3	3	3	2	3	0	0	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	35	5	10	30	15	15	25	40	30	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	105	5	20	90	45	45	75	80	90	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NA	YES	YES	NO	NR	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO
25.	Did the **feature** achieve the targeted velocity?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	14%	13%	20%	46%	45%	45%	39%	17%	46%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	6%	2%	12%	16%	11%	11%	13%	12%	16%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	4%	0%	1%	16%	27%	27%	18%	0%	16%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	FEATURE NUMBER	**NA**	**NA**	**NA**	**S1-01**	**S1-02**	**S1-03**	**S1-04**	**S1-05**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S3-01**	**S3-02**	**S3-03**	**S3-04**
	HABITAT UNIT NUMBER	**HU06**	**HU07**	**HU08**	**HU05**	**HU04**	**HU04**	**HU01**	**HU03**	**HU05_1**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**
	SITE NUMBER	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**2**	**2**	**2**	**2**	**2**	**3**	**3**	**3**	**3**
	ENHANCEMENT REACH NAME	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	0	4	4	4	5	4	3	4	4	4	4	4	4	4	0	0
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	0	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	0	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	2	1	1	2	4	2	0	0	0	0	0	0	0	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	0	1	4	4	4	4	0	4	0	0	0	0	0	0	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	3	4	5	5	5	5	4	5	0	0	0	0	0	0	0	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	2	0	1	2	1	1	2	3	2	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	4	0	0	3	1	1	2	3	3	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	1	4	4	4	3	1	4	0	0	0	0	0	0	0	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	1	2	2	1	0	1	0	0	0	0	0	0	0	0	0

Table 46. Adaptive Management Plan targeted checklist for the Van Alyea enhancement reach, April 2017.

	Project Reach	1	1	1	1	1	1	1	1	1	1	1	1
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA
	mmddyy	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	3	3	3	3	3	3	3	3	3	3	3	3
	Project Site Type	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove
	Project Feature Number	S3-05	S3-06	S3-07	S3-08	S3-09	S3-10	S3-11	S3-12	S3-13	S3-14	S3-15	S3-16
	Feature Type Code	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	Logjam
	Habitat Unit	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02
	Habitat Type	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	FAIR	EXCL	FAIR	EXCL	FAIR	EXCL	EXCL	FAIR	EXCL	EXCL	GOOD
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	30	30	30	30	30	30	30	30	30	30	30	30
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	90	90	90	90	90	90	90	90	90	90	90	90
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
	FEATURE NUMBER	**S3-05**	**S3-06**	**S3-07**	**S3-08**	**S3-09**	**S3-10**	**S3-11**	**S3-12**	**S3-13**	**S3-14**	**S3-15**	**S3-16**
	HABITAT UNIT NUMBER	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**
	SITE NUMBER	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**
	ENHANCEMENT REACH NAME	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**	**VA**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	3	5	3	5	3	5	5	3	5	5	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	3	3	3	3	3	3	3	3	3	3	3
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	5	5	5	5	5	5	5	5	5	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	2	2	2	2	2	2	2	2	2	2	2	2
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	3	3	3	3	3	3	3	3	3	3	3	3
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	4	4	4	4	4	4	4	4
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	3	3	3	3	3	3	3	3	3	3	3

Table 47. Adaptive Management Plan full checklist for the Van Alyea enhancement reach, April 2017.

	Project Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA
	mmddyy	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	1	1	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MC Bank FP	MC Bank FP	MC Bank FP	MC Bank FP	MC Bank FP	MC Bank FP	MC Alcove	MC Alcove	MC Alcove	MC Alcove
	Project Feature Number	NA	NA	NA	S1-01	S1-02	S1-03	S1-04	S1-05	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S3-01	S3-02	S3-03	S3-04
	Feature Type Code	NA	NA	NA	LWD	LWD	LWD	TER/FLP	RIF	Logjam	FPW	FPW	FPW	FPW	FPW	FPW	FPW	LWD	LWD
	Habitat Unit	HU06	HU07	HU08	HU05	HU04	HU04	HU01	HU03	HU05_1	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU01_D	HU01_D	HU01_D	HU01_D
	Habitat Type	Flatwater	Riffle	Flatwater	Pool	Pool	Pool	Pool	Riffle	Pool	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
1.	Length of targeted treatment (ft)				50	50	50	620	115	30	25	25	25	25	25	25	25	50	50
2.	Width of targeted treatment: (ft)				25	25	25		60	60	60	60	60	60	60	60	60	50	50
3.	Estimate area of the targeted **feature**: (ft^2)				1250	1250	1250	0	6900	1800	1500	1500	1500	1500	1500	1500	1500	2500	2500
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	NA	GOOD	GOOD	GOOD	EXCL	GOOD	FAIR	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	UNKN	UNKN
5a	Are problems with the **feature** visible?	NA	NA	NA	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NA	NA	NA	NON	NON	NON	NON	NON	SCU	NON	NON	NON	NON	NON	NON	NON	BBB	BBB
6a	Is the **feature** still in its original location?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
6b	Is the **feature** still in its original position?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
6c	If yes: LBK, MDC, RBK, SPN, OTH	NA	NA	NA	LBK	LBK	LBK	LBK	LBK	RBK	RBK	LBK	LBK	LBK	LBK	RBK	LBK	UNK	UNK
6d	Is the **feature** still in its original orientaton?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	NA	NA	NA	PRL	PRL	PRL	PRL	PRL	MUL	PRP	MUL	MUL	MUL	MUL	MUL	MUL	UNK	UNK
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	FLT	RIF	FLT	POO	POO	POO	POO	RIF	POO	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NA	NA	NA	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES
10.	Mean water depth in **habitat unit**: ft	2.1	0.6	1.4	2.8	3.0	3.0	2.7	1.3	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11a	Maximum water depth in **habitat unit**: ft	4.4	2.4	2.9	5.9	5.2	5.2	6.0	2.1	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	559.6	985.0	1924.4	1794.8	1839.7	1839.7	2342.6	5049.0	1794.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	762.5	29.1	370.1	3059.7	7656.2	7656.2	5795.5	3.5	3059.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	1322.1	1014.0	2294.5	4854.5	9495.9	9495.9	8138.1	5052.5	4854.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	40%	47%	78%	26%	15%	15%	25%	94%	26%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	55%	1%	15%	44%	64%	64%	61%	0%	44%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	95%	48%	93%	70%	79%	79%	85%	94%	70%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:				1250	1250	1250	0	6900	1800	1500	1500	1500	1500	1500	1500	1500	2500	2500
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NA	NA	NA	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	1	2	3	3	3	3	2	3	0	0	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	35	5	10	30	15	15	25	40	30	0	0	0	0	0	0	0	0	0
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	TVG	TVG	BOL	LWD	TVG	TVG	RTW	BUB	LWD	NON	NON	NON	NON	NON	NON	NON	NON	NON
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	SWD	SWD	TVG	RTW	LWD	LWD	TVG	BOL	RTW	NON	NON	NON	NON	NON	NON	NON	NON	NON
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	105	5	20	90	45	45	75	80	90	0	0	0	0	0	0	0	0	0
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0	0	8	0	0	2	1	8	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	7	2	2	0	0	7	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NA	YES	YES	NO	NR	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	EXH	NON	NON	INT	INT	INT	OTH	UNK	INT	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA	STB	STB	STB	STB	STB	WID	WID	STB	STB	STB	STB	AGG	AGG	AGG	AGG
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA												STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA												AGG	AGG	AGG	AGG
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NA	NA	NA	NO	NO	NO	NO	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NA	NA	NA	DEC	DEC	DEC	DEC	NA	DEC	DEC	NA	NA	NA	NA	YES	YES	NA	NA
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	3.0	4.6	1.7	3.7	2.5	2.5	2.0	5.3	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26c	Measured mean velocity (ft/sec) in **habitat unit**	1.3	1.5	0.7	0.7	0.6	0.6	0.6	1.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	191.4	281.6	487.0	3148.9	5341.3	5341.3	3727.5	889.6	3148.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	14%	13%	20%	46%	45%	45%	39%	17%	46%	0%	0%	0%	0%	0%	0%	0%	0%	0%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	GRV	GRV	GRV	COB	GRV	NA	NA	NA	NA	NA	NA	NA	NA	NA
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	COB	COB	BOL	UNK	SND	SND	SND	BOL	UNK	NA	NA	NA	NA	NA	NA	NA	NA	NA
31.	If an objective, did the **feature** achieve the targeted substrate composition?	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	139.5	37.0	316.4	2226.2	4518.4	4518.4	2889.9	649.4	2226.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	83.4	37.0	293.7	1086.0	1262.2	1262.2	1194.1	649.4	1086.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	56.1	0.0	22.7	1140.2	3256.2	3256.2	1695.8	0.0	1140.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	10%	2%	13%	32%	38%	38%	30%	12%	32%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	6%	2%	12%	16%	11%	11%	13%	12%	16%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	4%	0%	1%	16%	27%	27%	18%	0%	16%	0%	0%	0%	0%	0%	0%	0%	0%	0%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NA	NA	NA	NON	NON	NON	NON	NON	NON	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT
38.	Are additional restoration treafments recommended at this **site**?	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES

Table 47. Adaptive Management Plan full checklist for the Van Alyea enhancement reach, April 2017.

	Project Reach	1	1	1	1	1	1	1	1	1	1	1	1
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA	VA
	mmddyy	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717	42717
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	3	3	3	3	3	3	3	3	3	3	3	3
	Project Site Type	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove
	Project Feature Number	S3-05	S3-06	S3-07	S3-08	S3-09	S3-10	S3-11	S3-12	S3-13	S3-14	S3-15	S3-16
	Feature Type Code	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	Logjam
	Habitat Unit	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02
	Habitat Type	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
1.	Length of targeted treatment (ft)	25	30	50	30	50	30	50	25	30	50	50	50
2.	Width of targeted treatment: (ft)	60	60	50	60	50	60	50	60	60	50	50	45
3.	Estimate area of the targeted **feature**: (ft^2)	1500	1800	2500	1800	2500	1800	2500	1500	1800	2500	2500	2250
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	FAIR	EXCL	FAIR	EXCL	FAIR	EXCL	EXCL	FAIR	EXCL	EXCL	GOOD
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	LBK	MDC	RBK	MDC	LBK	MDC	RBK	LBK	MDC	LBK	RBK	RBK
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	MUL	UPS	MUL	UPS	MUL	UPS	MUL	MUL	UPS	MUL	MUL	MUL
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
11a	Maximum water depth in **habitat unit**: ft	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	3104.0	3104.0	3104.0	3104.0	3104.0	3104.0	3104.0	3104.0	3104.0	3104.0	3104.0	3104.0
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	7223.3	7223.3	7223.3	7223.3	7223.3	7223.3	7223.3	7223.3	7223.3	7223.3	7223.3	7223.3
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	10327.3	10327.3	10327.3	10327.3	10327.3	10327.3	10327.3	10327.3	10327.3	10327.3	10327.3	10327.3
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	1500	1800	2500	1800	2500	1800	2500	1500	1800	2500	2500	2250
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	30	30	30	30	30	30	30	30	30	30	30	30
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	AVG	AVG	AVG	AVG	AVG	AVG	AVG	AVG	AVG	AVG	AVG	AVG
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	90	90	90	90	90	90	90	90	90	90	90	90
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	STB	AGG	STB	AGG	STB	AGG	AGG	STB	AGG	AGG	AGG
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	STB	AGG	STB	AGG	STB	AGG	AGG	STB	AGG	AGG	AGG
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	20544.8	20544.8	20544.8	20544.8	20544.8	20544.8	20544.8	20544.8	20544.8	20544.8	20544.8	20544.8
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
29.	Were there any unintended effects of **feature** on velocity If Y, comment	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SLC	SLC	SLC	SLC	SLC	SLC	SLC	SLC	SLC	SLC	SLC	SLC
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	10327.3	10327.3	10327.3	10327.3	10327.3	10327.3	10327.3	10327.3	10327.3	10327.3	10327.3	10327.3
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	3104.0	3104.0	3104.0	3104.0	3104.0	3104.0	3104.0	3104.0	3104.0	3104.0	3104.0	3104.0
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	7223.3	7223.3	7223.3	7223.3	7223.3	7223.3	7223.3	7223.3	7223.3	7223.3	7223.3	7223.3
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	MNT	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Farrow, Wallace Post-effective Flow, August 2017

Depth and Velocity

Table 48. Areas and percentages of: wetted area, optimal depth and velocity, and optimal hydraulic habitat within the Farrow, Wallace enhancement reach, August 2017.

Farrow, Wallace Post-effective flow August 2017	Wetted area (ft^2)	Optimal depth (ft^2)			Optimal velocity (ft^2)	Optimal habitat (ft^2)		
		0.5 – 2.0 ft	2.0 – 4.0 ft	Total	< 0.5 ft/s	0.5 – 2.0 ft < 0.5 ft/s	2.0 – 4.0 ft < 0.5 ft/s	Total
Main channel area	14,337	9,236	3,125	12,361	3,399	1,101	957	2,058
Main channel alcove area	18,624	7,455	7,183	14,638	13,254	5,554	3,847	9,401
Side channel area	12,434	5,228	3,824	9,052	11,117	4,693	3,176	7,869
Total area	**45,396**	**21,918**	**14,132**	**36,051**	**27,770**	**11,348**	**7,981**	**19,328**
Main channel % of wetted area	32%	64%	22%	86%	24%	8%	7%	14%
Main channel alcove % of wetted area	41%	40%	39%	79%	71%	30%	21%	50%
Side channel % of wetted area	27%	42%	31%	73%	89%	38%	26%	63%
Total % of wetted area	**100%**	**48%**	**31%**	**79%**	**61%**	**25%**	**18%**	**43%**

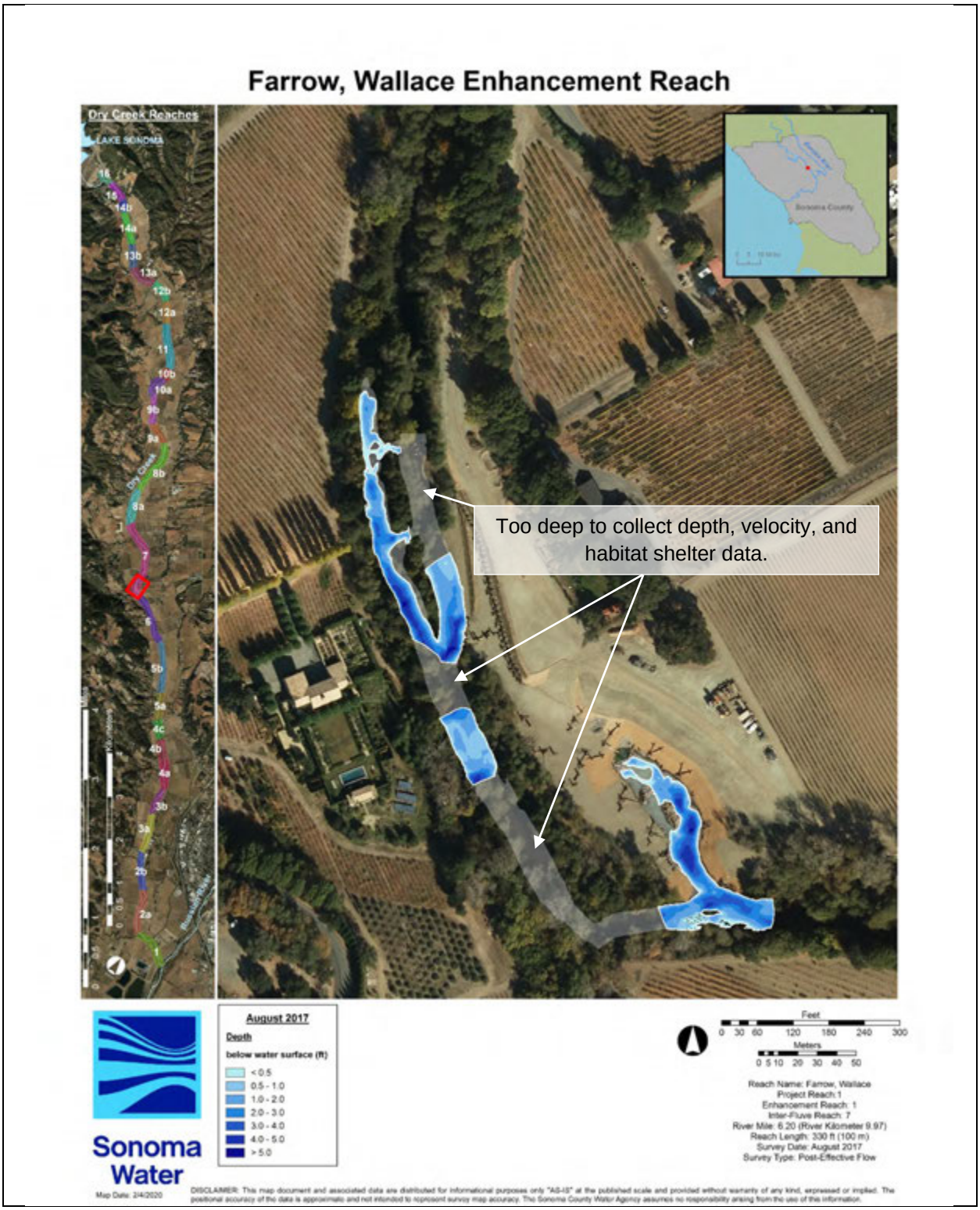


Figure 79. Measured water depth within the Farrow, Wallace enhancement reach, August 2017.

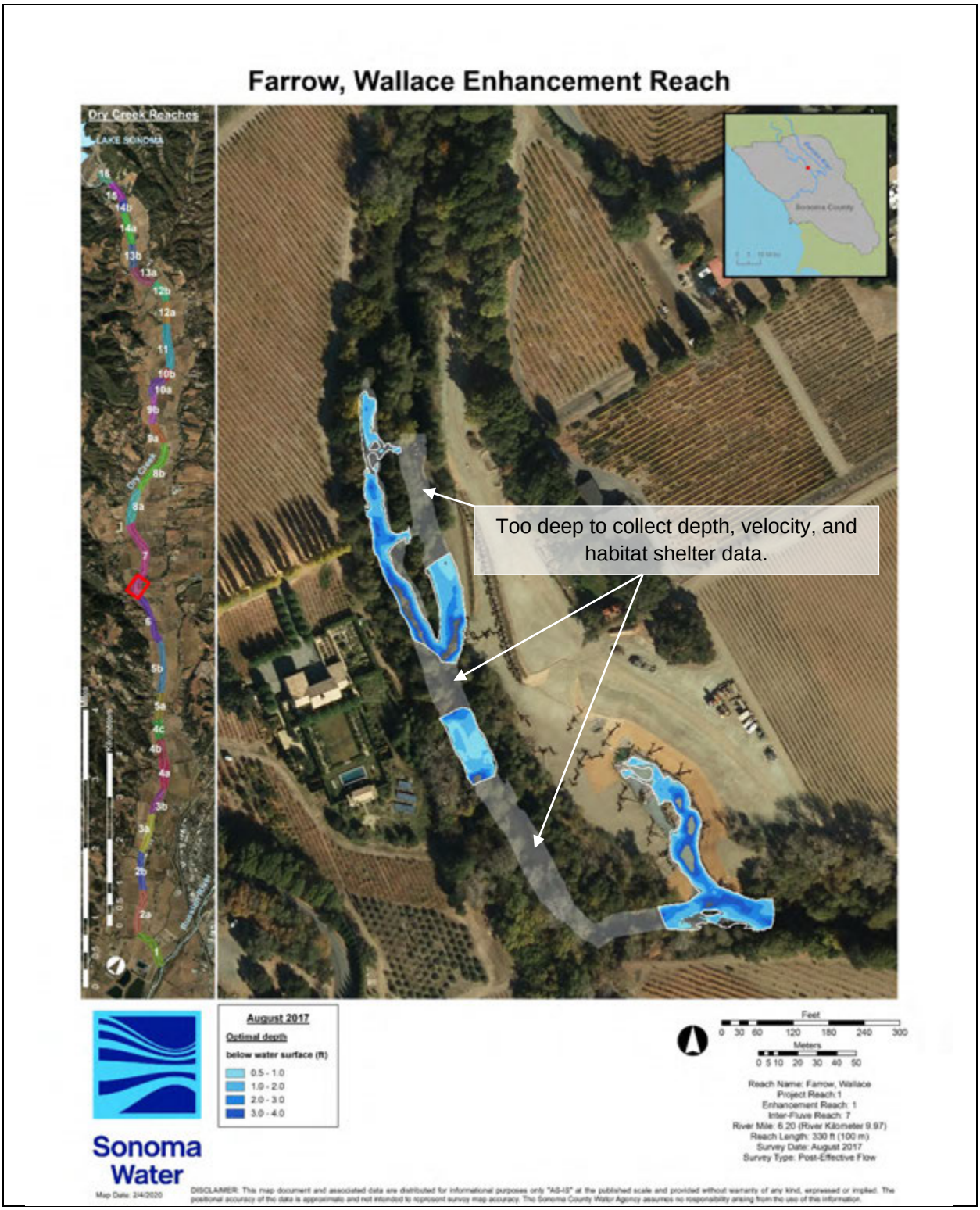


Figure 80. Optimal water depth for fry (0.5-2.0 ft) and parr (2.0-4.0 ft) within the Farrow, Wallace enhancement reach, August 2017.

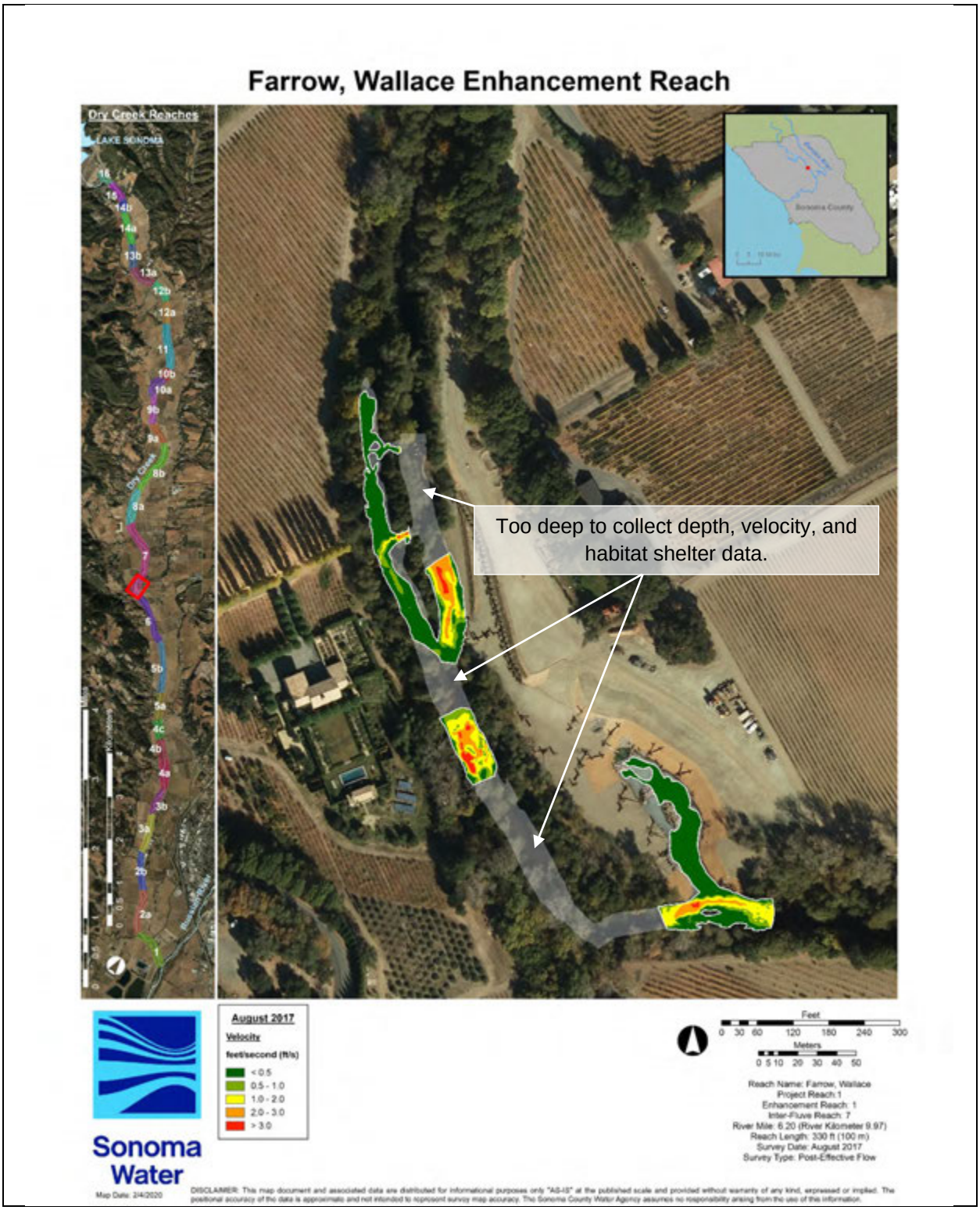


Figure 81. Measured water velocity within the Farrow, Wallace enhancement reach, August 2017.

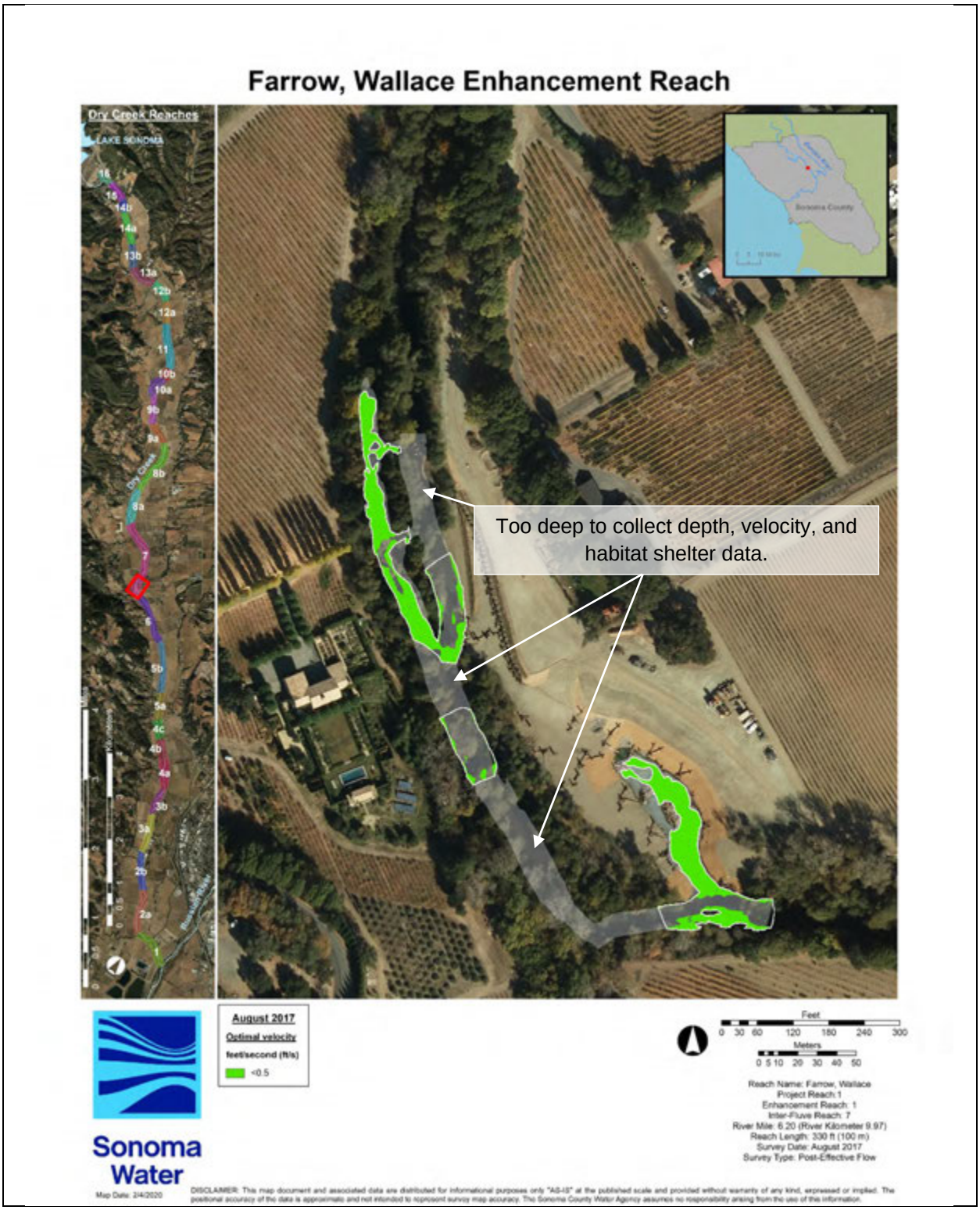


Figure 82. Optimal water velocity for fry and parr (< 0.5 ft/s) within the Farrow, Wallace enhancement reach, August 2017.

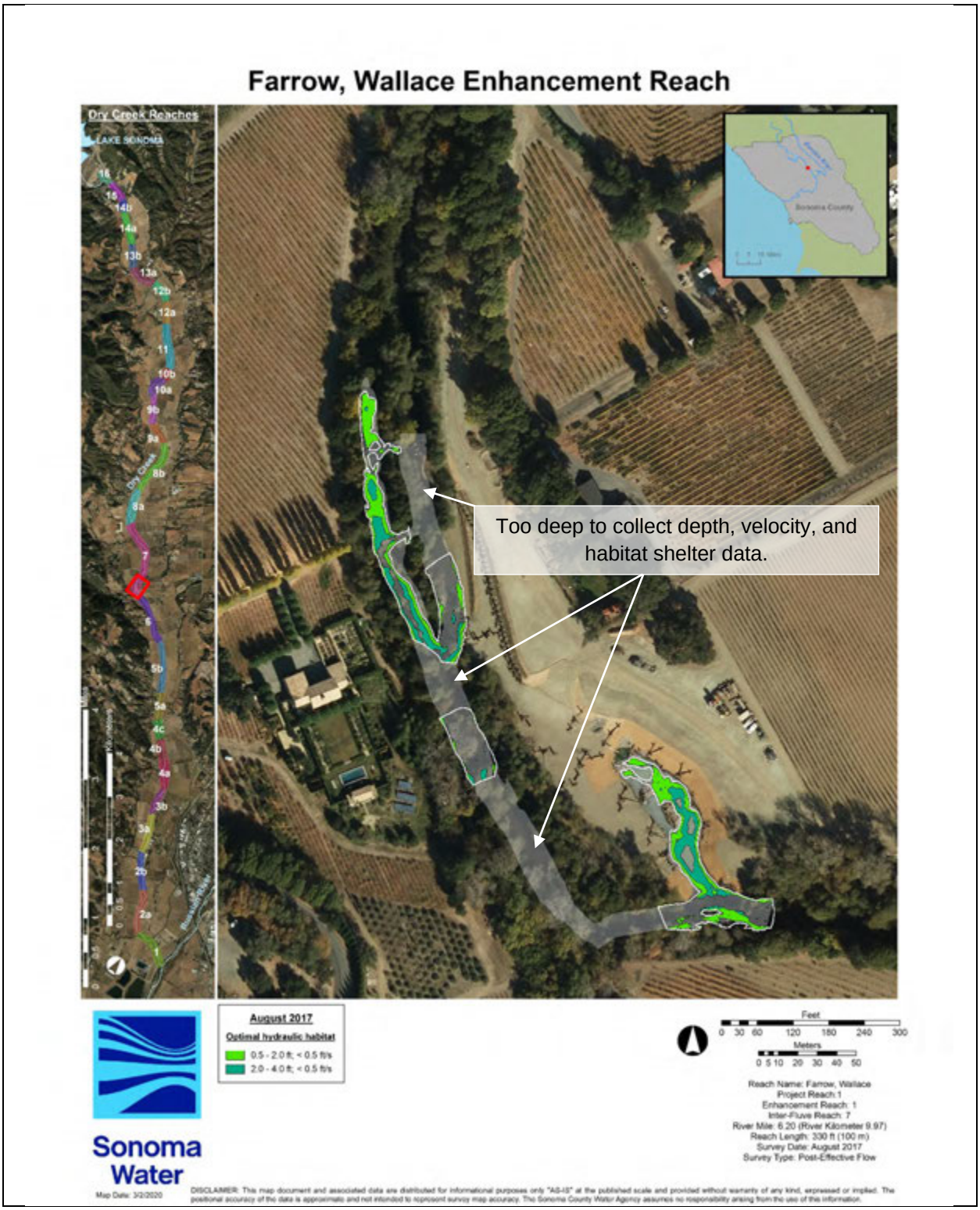


Figure 83. Optimal hydraulic habitat for fry (<0.5 ft/s, 0.5-2.0 ft) and parr (<0.5 ft/s, 2.0-4.0 ft) within the Farrow, Wallace enhancement reach, August 2017.

Habitat Types and Shelter Values

Table 49. Habitat, types, shelter value, percent cover, and shelter score for habitat units within the Farrow, Wallace enhancement reach, August 2017. Habitat units 1, 4 and 5 did not have shelter assessed.

Post-effective flow (August 2017)				
Habitat Unit #	**Habitat Type**	**Shelter Value**	**Percent Cover**	**Shelter Score**
HU01	Flatwater	0	0	0
HU02	Alcove	3	90	270
HU03	Flatwater	3	15	45
HU04	Alcove	0	0	0
HU05	Riffle	0	0	0

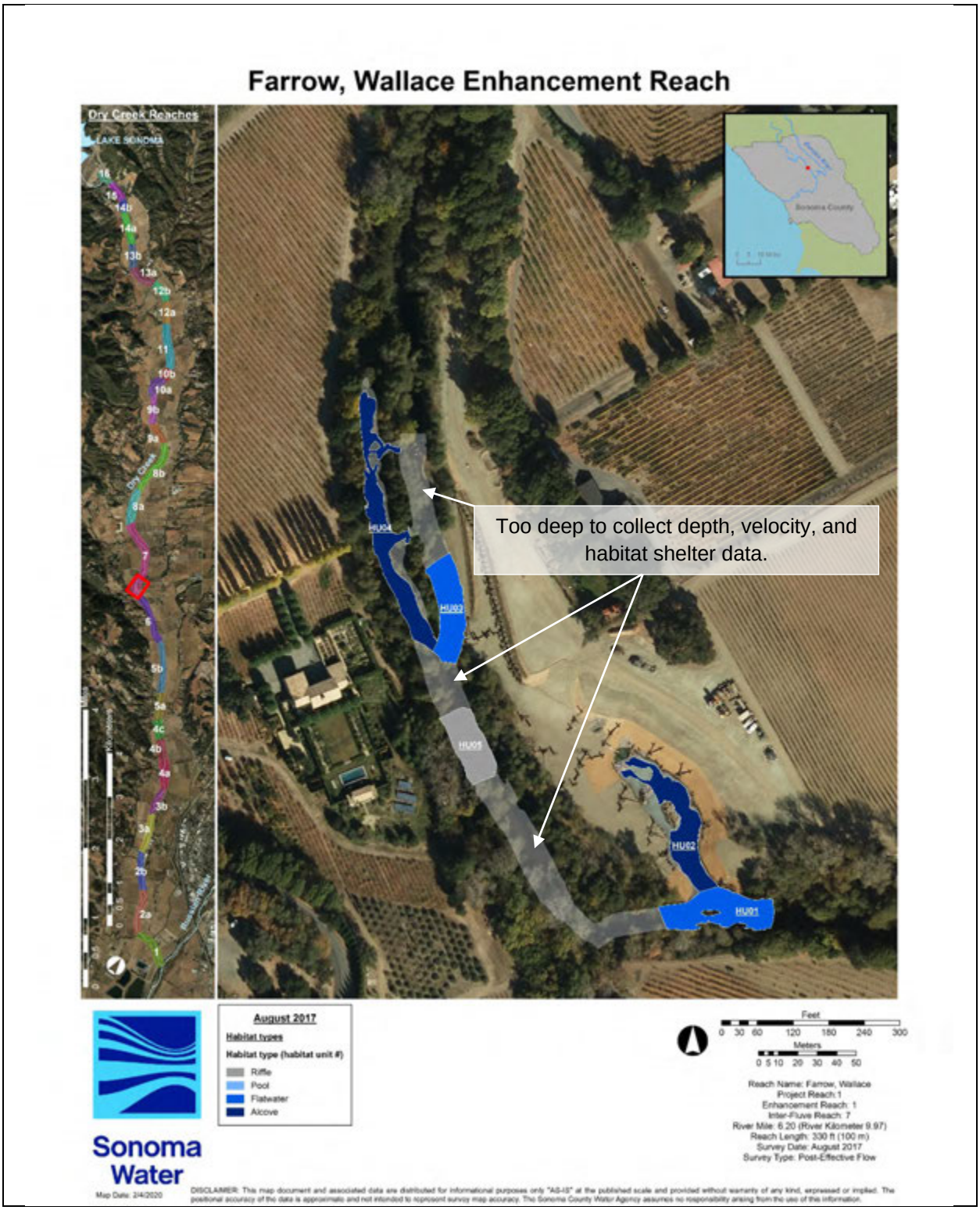


Figure 84. Habitat unit number and type within the Farrow, Wallace enhancement reach, August 2017.

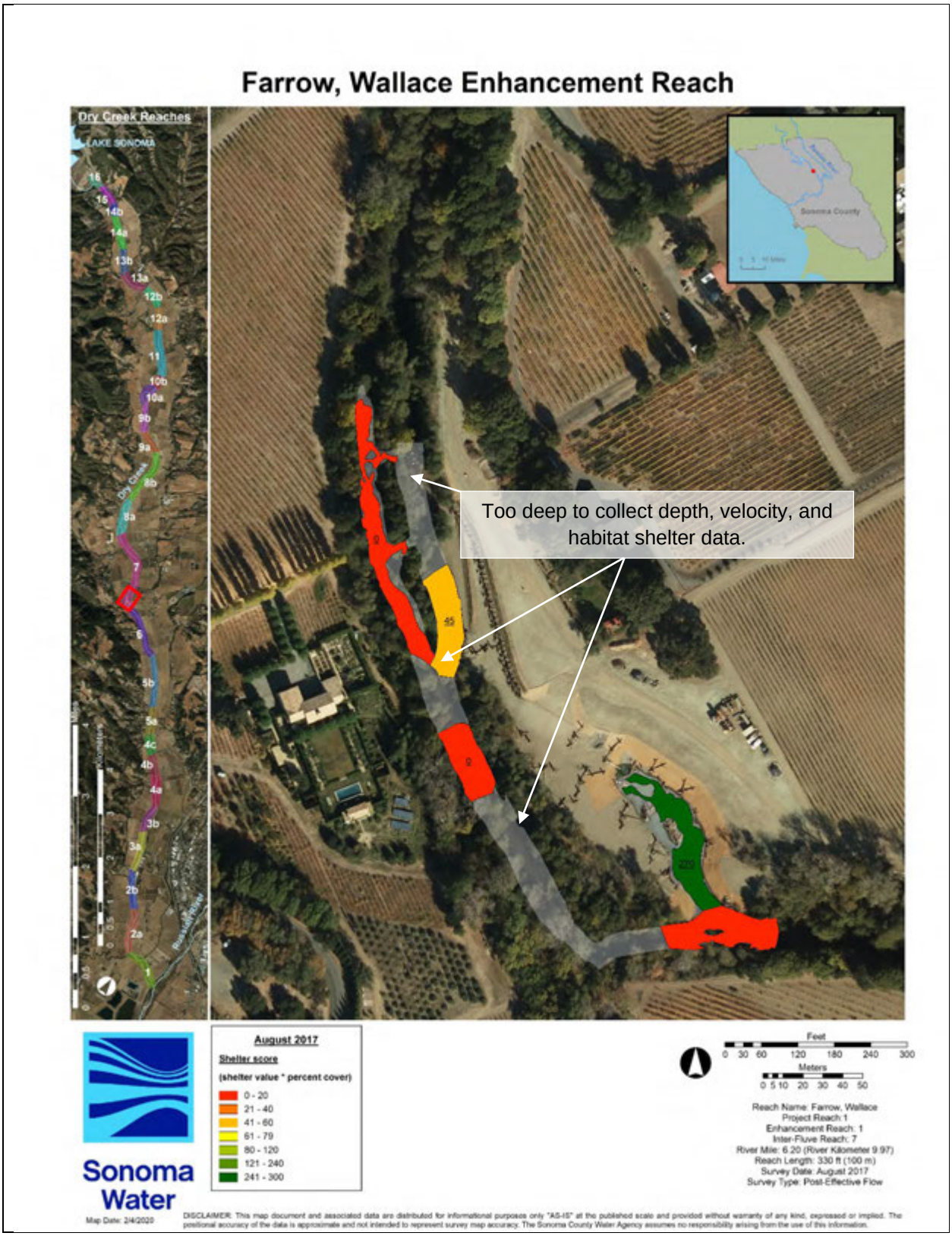


Figure 85. Habitat unit shelter scores within the Farrow, Wallace enhancement reach, August 2017.

Feature, Habitat Unit, Site, and Reach Ratings

Table 50. Post-effective flow feature ratings for the Farrow, Wallace enhancement reach, August 2017.

	Project Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Enhancement Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Colloquial Name	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW
	mmddyy	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Project Site Type	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove
	PROJECT FEATURE NUMBER	S1-01	S1-02	S1-03	S1-04	S1-05	S1-06	S1-07	S1-08	S1-09	S1-10	S1-11	S1-12	S1-13	S1-14	S1-15	S1-16	S1-17	S1-18
	Feature Type Code	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD
	Habitat Unit	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	EXCL	EXCL	GOOD	EXCL	EXCL	EXCL	EXCL	GOOD	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	PROJECT FEATURE NUMBER	**S1-01**	**S1-02**	**S1-03**	**S1-04**	**S1-05**	**S1-06**	**S1-07**	**S1-08**	**S1-09**	**S1-10**	**S1-11**	**S1-12**	**S1-13**	**S1-14**	**S1-15**	**S1-16**	**S1-17**	**S1-18**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	4	4	4	4	4	4	4	4	5	5	4	5	5	5	5	4	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	0	1	1	1	1	0	1	1	0	1	1	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	PROJECT FEATURE NUMBER	**S1-01**	**S1-02**	**S1-03**	**S1-04**	**S1-05**	**S1-06**	**S1-07**	**S1-08**	**S1-09**	**S1-10**	**S1-11**	**S1-12**	**S1-13**	**S1-14**	**S1-15**	**S1-16**	**S1-17**	**S1-18**
FEATURE RATING	Feature quantitative rating out of 15	13	13	13	12	12	13	13	13	11	14	14	8	14	14	14	14	13	14
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Excellent	Excellent	Fair	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

Table 50. Post-effective flow feature ratings for the Farrow, Wallace enhancement reach, August 2017.

	Project Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Enhancement Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Colloquial Name	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW
	mmddyy	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	1	1	1	1	1	1	1	1	1	2	3	3	3	3	3	4	4	4
	Project Site Type	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MC Bank FP	MC Bank FP	MC Bank FP
	PROJECT FEATURE NUMBER	S1-19	S1-20	S1-21	S1-22	S1-23	S1-24	S1-25	S1-26	S1-27	NA	S3-01	S3-02	S3-03	S3-04	S3-05	S4-01	S4-02	S4-03
	Feature Type Code	LWD	LWD	Boulder field	LWD	LWD	LWD	LWD	LWD	LWD	NA	BC	BC	BC	BC	BC	LWD	LWD	LWD
	Habitat Unit	HU02	HU02	HU01	HU01 D	HU01 D	HU01 D	HU01 D	HU01 D	HU01 D	HU02 W	HU01 W	HU01 W	HU01 W	HU01 W	HU01 W	HU02 D	HU02 D	HU02 D
	Habitat Type	Alcove	Alcove	Flatwater	Dry	Dry	Dry	Dry	Dry	Dry	Multiple	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	NR	GOOD	GOOD	UNKN	UNKN	UNKN	UNKN	NA	NR	NR	NR	NR	NR	NR	NR	NR
5a	Are problems with the **feature** visible?	NO	NO	NR	NO	NO	NO	NO	NO	NO	NA	NR	NR	NR	NR	NR	NR	NR	NR
6a	Is the **feature** still in its original location?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
6b	Is the **feature** still in its original position?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
6d	Is the **feature** still in its original orientation?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NR	NO	NO	NO	NO	NO	NO	NA	NR	NR	NR	NR	NR	NR	NR	NR
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NR	NO	NO	NO	NO	NO	NO	NA	NR	NR	NR	NR	NR	NR	NR	NR
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
25.	Did the **feature** achieve the targeted velocity?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
	PROJECT FEATURE NUMBER	**S1-19**	**S1-20**	**S1-21**	**S1-22**	**S1-23**	**S1-24**	**S1-25**	**S1-26**	**S1-27**	**NA**	**S3-01**	**S3-02**	**S3-03**	**S3-04**	**S3-05**	**S4-01**	**S4-02**	**S4-03**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	PROJECT FEATURE NUMBER	**S1-19**	**S1-20**	**S1-21**	**S1-22**	**S1-23**	**S1-24**	**S1-25**	**S1-26**	**S1-27**	**NA**	**S3-01**	**S3-02**	**S3-03**	**S3-04**	**S3-05**	**S4-01**	**S4-02**	**S4-03**
FEATURE RATING	Feature quantitative rating out of 15	14	14	0	13	13	9	9	9	9	0	0	0	0	0	0	0	0	0
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Not rated	Excellent	Excellent	Good	Good	Good	Good	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated

Table 50. Post-effective flow feature ratings for the Farrow, Wallace enhancement reach, August 2017.

	Project Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Enhancement Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Colloquial Name	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW
	mmddyy	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S5-01	S5-02	S5-03	S5-04	S5-05	S6-01	S6-02	S6-03	S6-04	S6-05	S6-06	S6-07	S6-08	S6-09	S6-10	S6-11	S6-12	S6-13
	Feature Type Code	TER	FLP	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD
	Habitat Unit	HU03_D	HU03_D	HU03	HU03_D	HU03	HU04_D	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04
	Habitat Type	Dry	Dry	Flatwater	Dry	Flatwater	Dry	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	PROJECT FEATURE NUMBER	**S5-01**	**S5-02**	**S5-03**	**S5-04**	**S5-05**	**S6-01**	**S6-02**	**S6-03**	**S6-04**	**S6-05**	**S6-06**	**S6-07**	**S6-08**	**S6-09**	**S6-10**	**S6-11**	**S6-12**	**S6-13**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	PROJECT FEATURE NUMBER	**S5-01**	**S5-02**	**S5-03**	**S5-04**	**S5-05**	**S6-01**	**S6-02**	**S6-03**	**S6-04**	**S6-05**	**S6-06**	**S6-07**	**S6-08**	**S6-09**	**S6-10**	**S6-11**	**S6-12**	**S6-13**
FEATURE RATING	Feature quantitative rating out of 15	13	13	13	13	13	0	0	0	0	0	0	0	0	0	0	0	0	0
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Excellent	Excellent	Excellent	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated

Table 50. Post-effective flow feature ratings for the Farrow, Wallace enhancement reach, August 2017.

	Project Reach	1	1
	Enhancement Reach	1	1
	Colloquial Name	FW	FW
	mmddyy	81417	81417
	Survey Type	PEF	PEF
	PROJECT SITE NUMBER	6	7
	Project Site Type	SideChan	MainChan
	PROJECT FEATURE NUMBER	S6-14	S7-01
	Feature Type Code	LWD	onstructed Rif
	Habitat Unit	HU04_D	HU05
	Habitat Type	Dry	Riffle
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NR	GOOD
5a	Are problems with the **feature** visible?	NR	NO
6a	Is the **feature** still in its original location?	NR	YES
6b	Is the **feature** still in its original position?	NR	YES
6d	Is the **feature** still in its original orientation?	NR	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	NR	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NR	NO
17a	If an objective, did the **feature** increase instream shelter rating?	NR	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NR	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NR	YES
25.	Did the **feature** achieve the targeted velocity?	NR	YES
	PROJECT FEATURE NUMBER	**S6-14**	**S7-01**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	1
	PROJECT FEATURE NUMBER	**S6-14**	**S7-01**
FEATURE RATING	Feature quantitative rating out of 15	0	13
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Not rated	Excellent

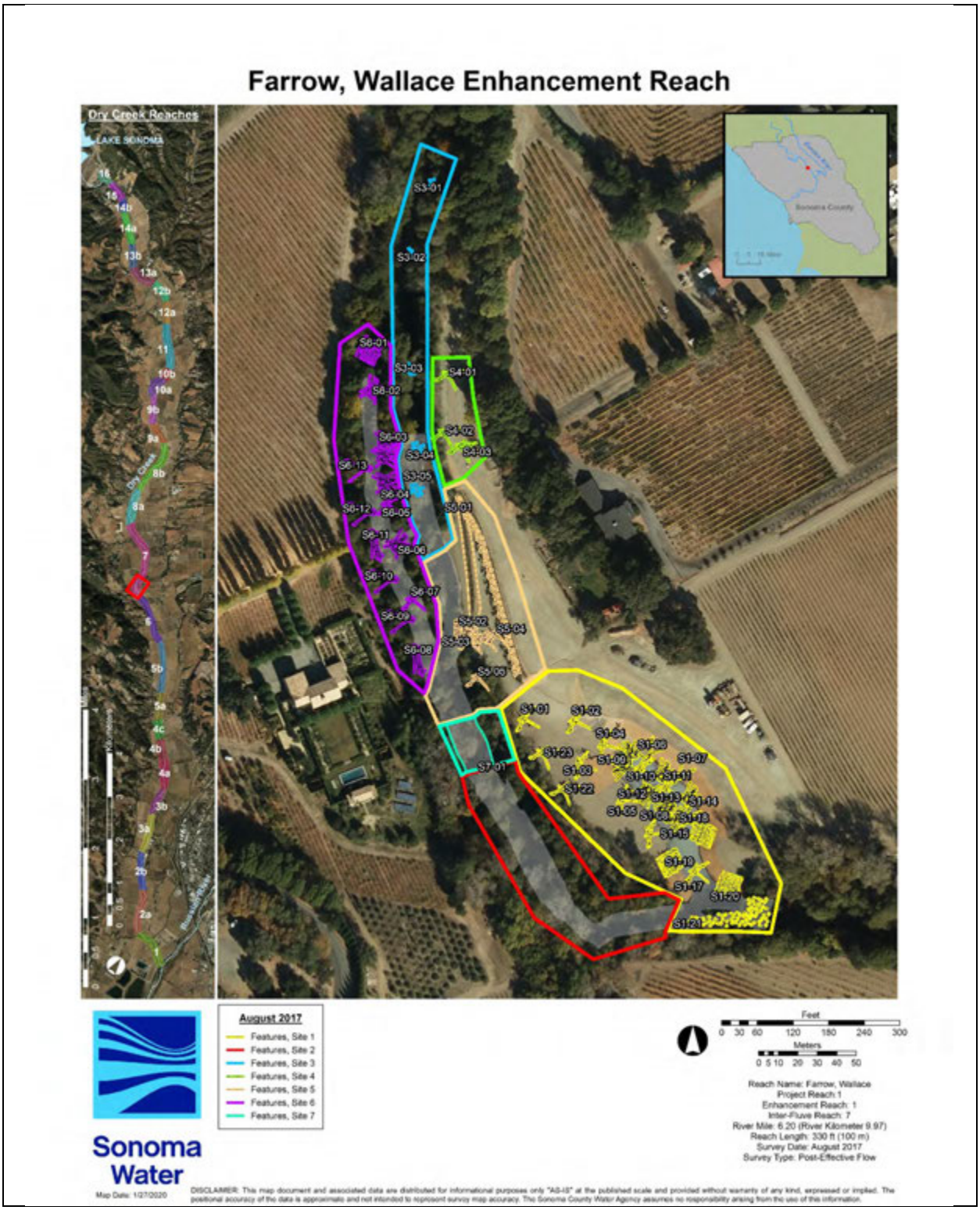


Figure 86. Enhancement sites and features within the Farrow, Wallace enhancement reach, August 2017.

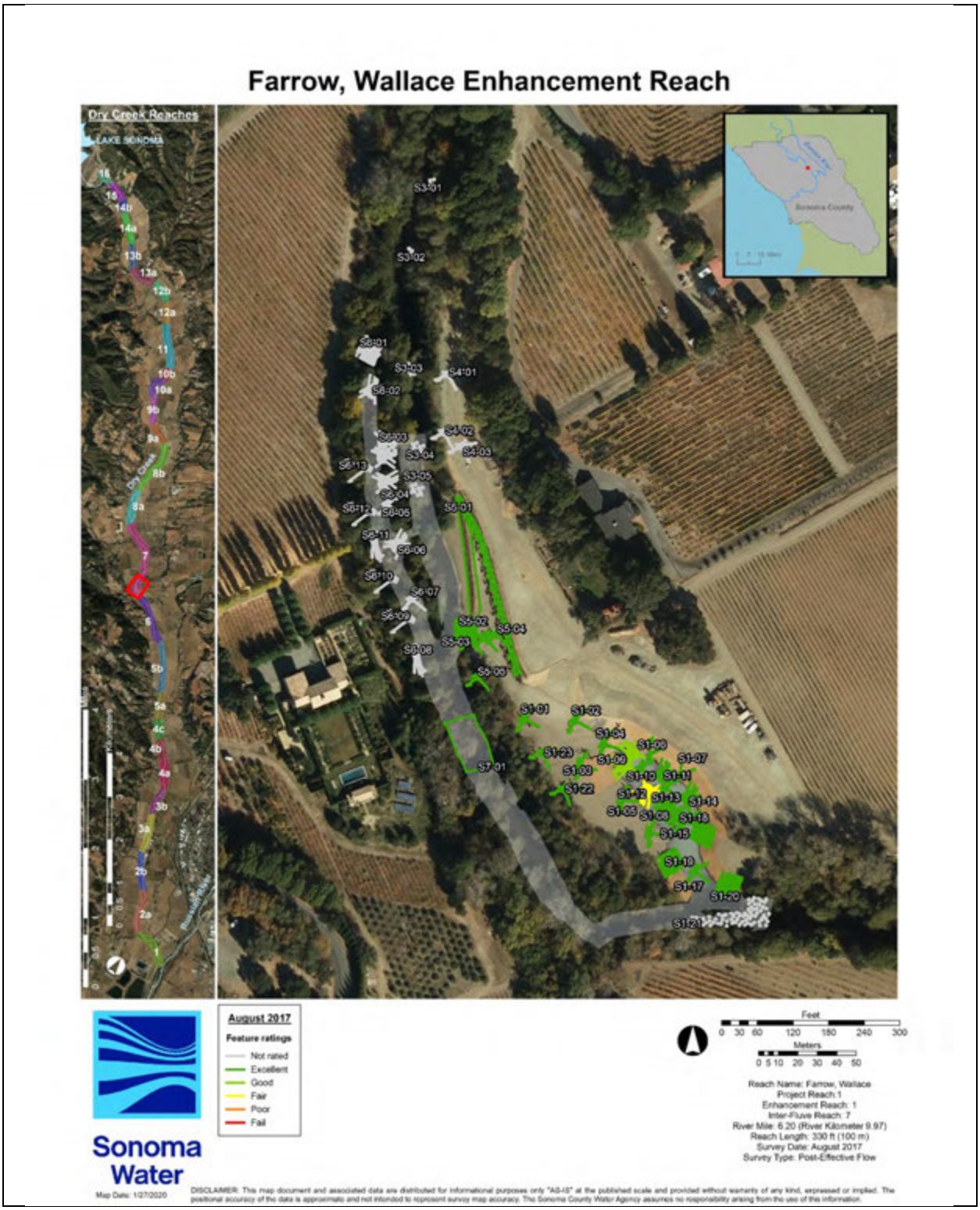


Figure 87. Feature ratings for the Farrow, Wallace enhancement reach, August 2017.

Table 51. Post-effective flow habitat unit ratings for the Farrow, Wallace enhancement reach, August 2017.

	Project Reach	1	1	1	1	1	1	1	1	1	1	1
	Enhancement Reach	1	1	1	1	1	1	1	1	1	1	1
	Colloquial Name	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW
	mmddyy	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU01_D**	**HU02_D**	**HU03_D**	**HU04_D**	**HU01_W**	**HU02_W**
	Habitat Type	Flatwater	Alcove	Flatwater	Alcove	Riffle	Dry	Dry	Dry	Dry	Flatwater	Multiple
	PROJECT SITE NUMBER	**1**	**1**	**5**	**6**	**7**	**1**	**4**	**5**	**6**	**3**	**2**
	Project Site Type	MC Alcove	MC Alcove	MainChan	SideChan	MainChan	MC Alcove	MC Bank FP	MainChan	SideChan	MainChan	MainChan
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	42%	38%	56%	42%	75%	0%	0%	0%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	42%	35%	26%	31%	17%	0%	0%	0%	0%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	3	3	0	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	0	90	15	0	0	0	0	0	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	270	45	0	0	0	0	0	0	0	0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	43%	100%	32%	89%	13%	0%	0%	0%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	21%	38%	11%	38%	4%	0%	0%	0%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	6%	35%	9%	26%	4%	0%	0%	0%	0%	0%	0%
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU01_D**	**HU02_D**	**HU03_D**	**HU04_D**	**HU01_W**	**HU02_W**
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	3	4	4	4	0	0	0	0	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	3	2	3	1	0	0	0	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	5	5	0	0	0	0	0	0	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	5	1	0	0	0	0	0	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	5	1	0	0	0	0	0	0	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	3	4	1	0	0	0	0	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	3	1	3	0	0	0	0	0	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	3	0	2	0	0	0	0	0	0	0
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU01_D**	**HU02_D**	**HU03_D**	**HU04_D**	**HU01_W**	**HU02_W**
HABITAT UNIT RATING	Habitat unit quantitative rating (out of 35)	14	31	17	16	6	0	0	0	0	0	0
	Habitat unit qualitative rating: Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7)	Fair	Excellent	Fair	Fair	Fail	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated

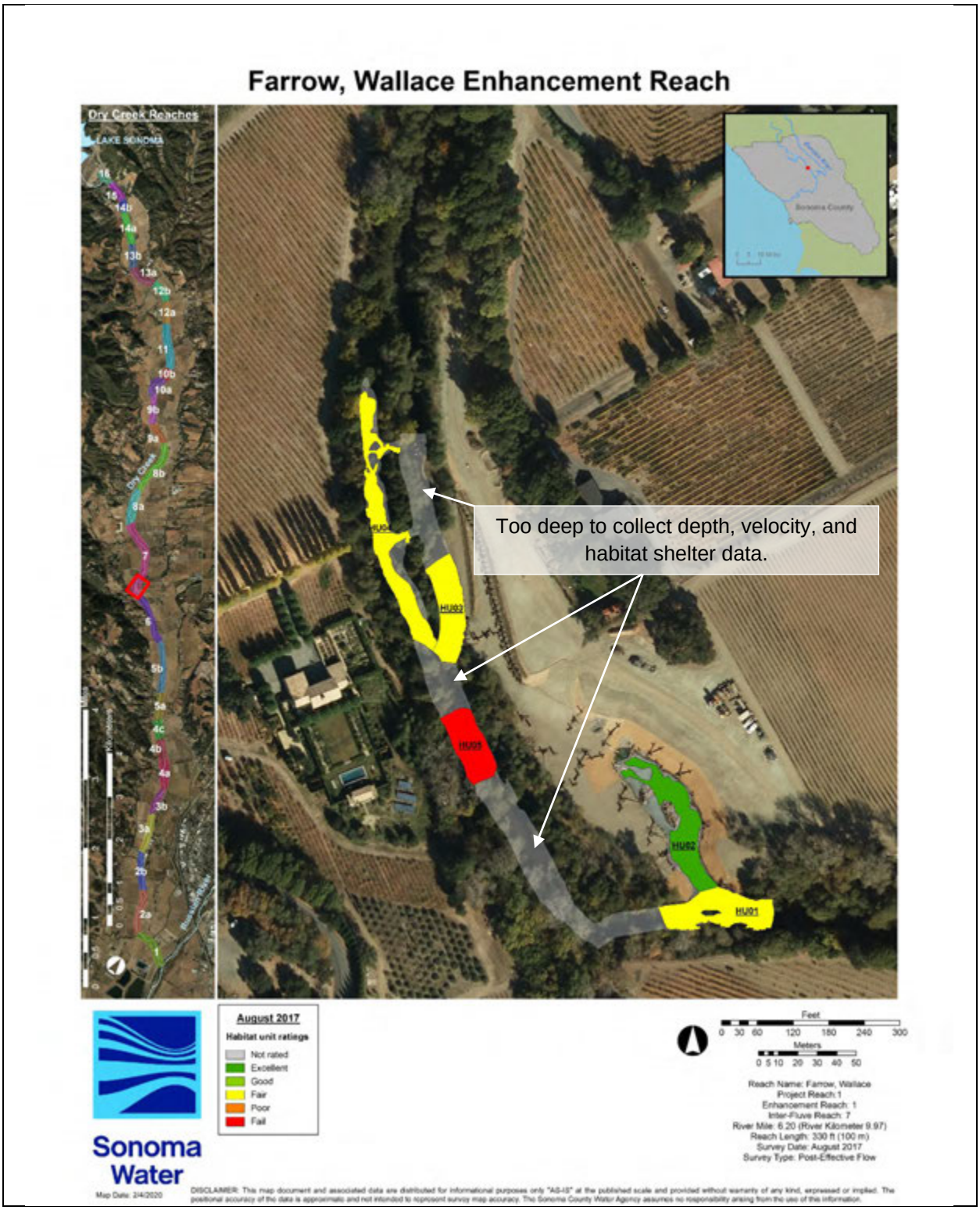


Figure 88. Habitat unit ratings for the Farrow, Wallace enhancement reach, August 2017.

Table 52. Post-effective flow average feature, average habitat unit, site, and reach ratings for the Farrow, Wallace enhancement reach, August 2017.

	Project Reach	1	1	1	1	1	1	1
	Enhancement Reach	1	1	1	1	1	1	1
	ENHANCEMENT REACH NAME	FW	FW	FW	FW	FW	FW	FW
	mmddyy	81417	81417	81417	81417	81417	81417	81417
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	1	2	3	4	5	6	7
	Project Site Type	MC Alcove	MainChan	MainChan	MC Bank FP	MainChan	SideChan	MainChan
	PROJECT SITE NUMBER	1	2	3	4	5	6	7
SITE AVERAGE FEATURE RATING	Site average feature quantitative rating (out of 15; bold indicates excluded from site rating)	12	0	0	0	13	0	13
	Site average feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3), Not rated (not used to rate site)	Excellent	Not rated	Not rated	Not rated	Excellent	Not rated	Excellent
	PROJECT SITE NUMBER	1	2	3	4	5	6	7
SITE AVERAGE HABITAT UNIT RATING	Site average habitat unit quantitative rating (out of 35; bold indicates excluded from site rating)	23	0	0	0	17	16	6
	Site average qualitative rating Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7), Not rated (not used to rate site)	Good	Not rated	Not rated	Not rated	Fair	Fair	Fail
	PROJECT SITE NUMBER	1	2	3	4	5	6	7
SITE RATING	Site quantitative rating (sum of site average feature and habitat unit ratings) (out of 50; bold indicates rating excludes feature or habitat unit rating and scoring out of 15 or 35)	35	0	0	0	30	16	19
	Site qualitative rating: Excellent (>=40, 28), Good (>=30, 21), Fair(>=20, 14), Poor (>=10, 7), Fail (<10, 7)	Good	Not rated	Not rated	Not rated	Good	Fair	Poor
	ENHANCEMENT REACH NAME	FW						
ENHANCEMENT REACH RATING	Enhancement reach quantitative rating (average of site ratings) (out of 46)	25						
	Enhancement reach qualitative rating: Excellent (>=37), Good (>=28), Fair(>=19), Poor (>=9), Fail (<9)	Fair						

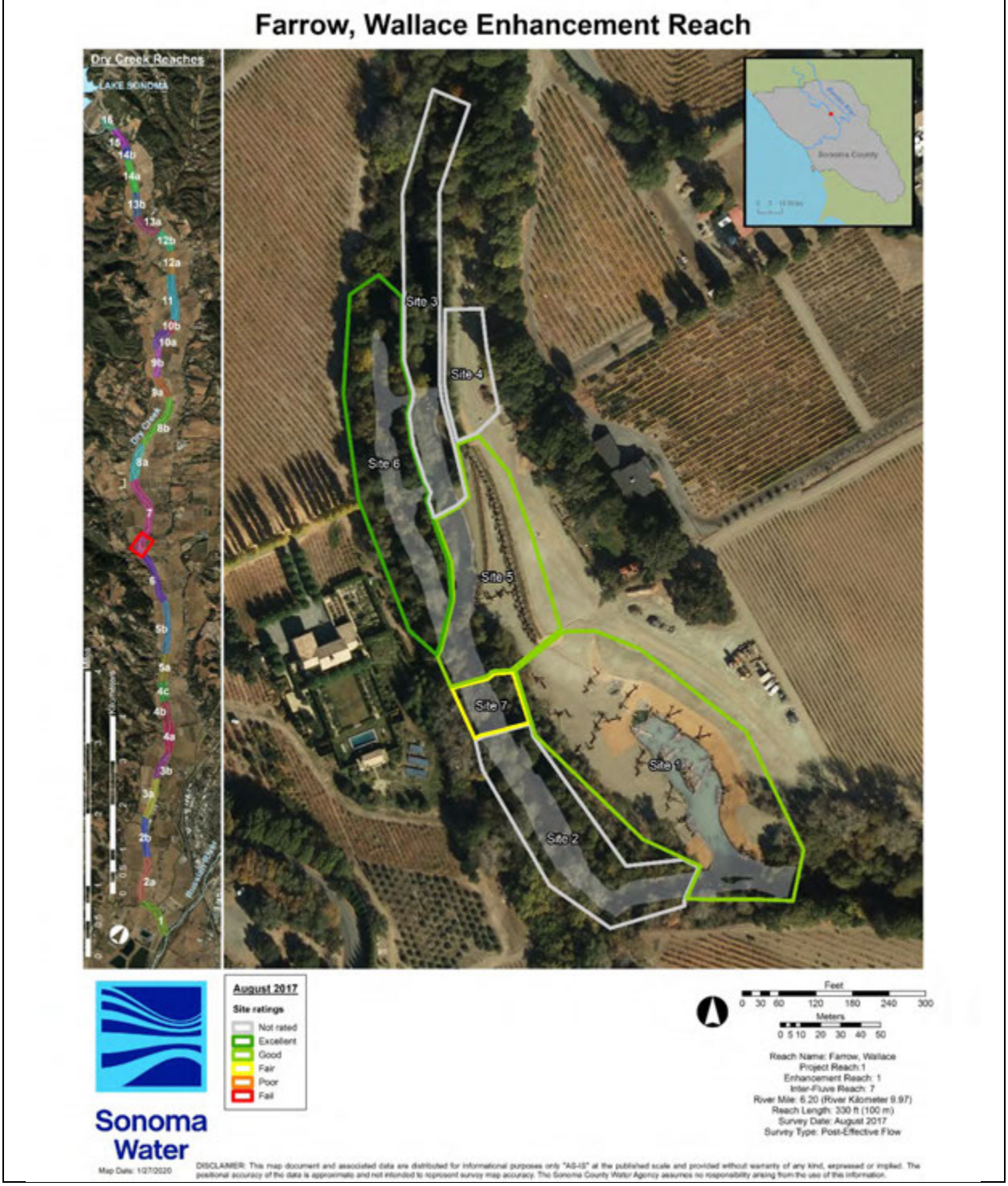


Figure 89. Post-effective flow site ratings for the Farrow, Wallace enhancement reach, August 2017.

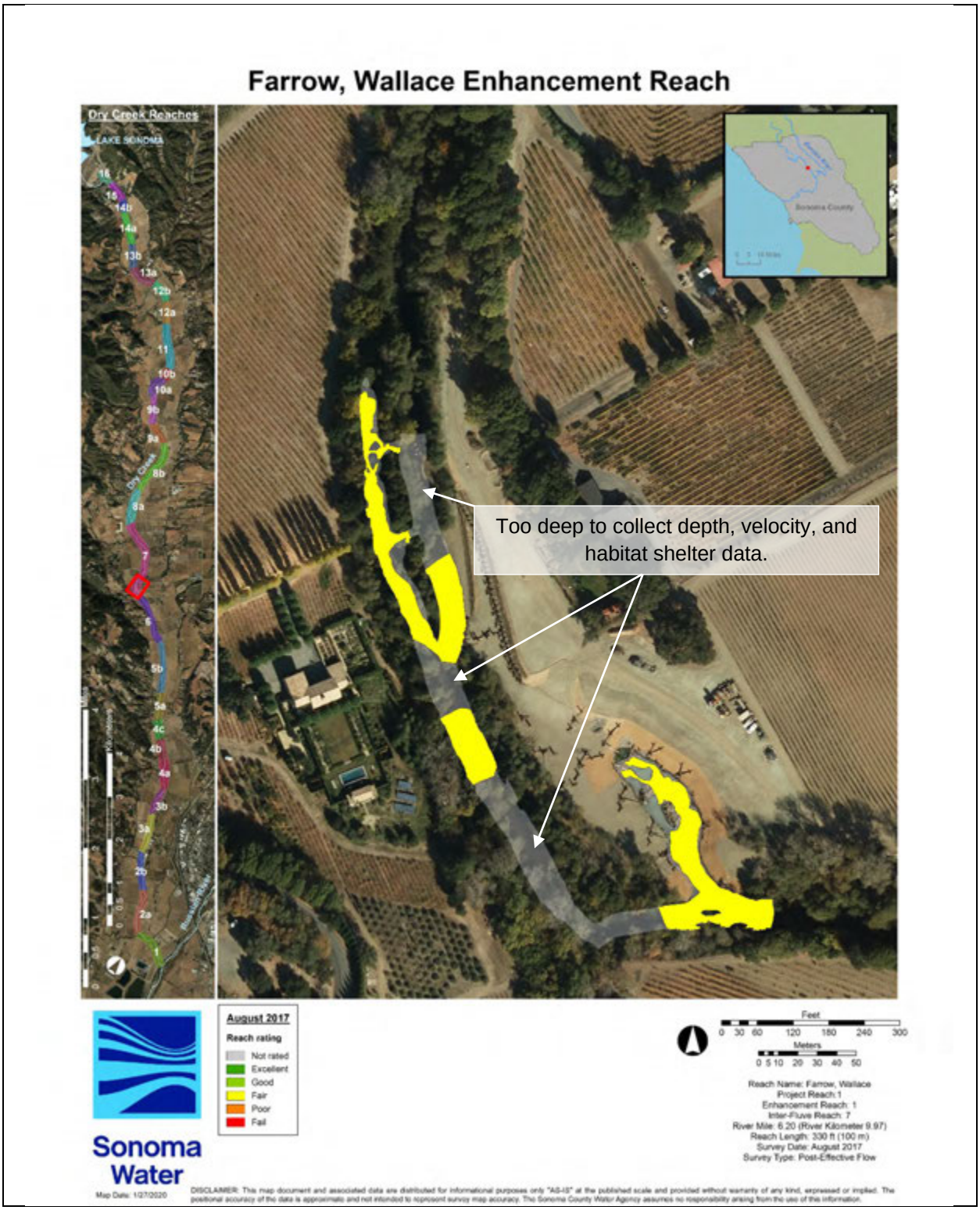


Figure 90. Post-effective flow reach rating for the Farrow, Wallace enhancement reach, August 2017.

Feature and Habitat Unit Checklists

Table 53. Adaptive Management Plan targeted checklist for the Farrow, Wallace enhancement reach, August 2017.

	Project Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Enhancement Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Colloquial Name	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW
	mmddyy	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Project Site Type	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove
	Project Feature Number	S1-01	S1-02	S1-03	S1-04	S1-05	S1-06	S1-07	S1-08	S1-09	S1-10	S1-11	S1-12	S1-13	S1-14	S1-15	S1-16	S1-17	S1-18
	Feature Type Code	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD
	Habitat Unit	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	EXCL	EXCL	GOOD	EXCL	EXCL	EXCL	EXCL	GOOD	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NO	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	90	90	90
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	270	270	270	270	270	270	270	270	270	270
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
	FEATURE NUMBER	**S1-01**	**S1-02**	**S1-03**	**S1-04**	**S1-05**	**S1-06**	**S1-07**	**S1-08**	**S1-09**	**S1-10**	**S1-11**	**S1-12**	**S1-13**	**S1-14**	**S1-15**	**S1-16**	**S1-17**	**S1-18**
	HABITAT UNIT NUMBER	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02**
	SITE NUMBER	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
	ENHANCEMENT REACH NAME	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	4	4	4	4	4	4	4	4	5	5	4	5	5	5	5	4	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
6d	Is the **feature** still in its original orientation? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	0	1	1	1	1	0	1	1	0	1	1	1	1	1	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	0	0	0	0	0	0	0	5	5	5	5	5	5	5	5	5	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	0	0	0	0	0	0	0	5	5	5	5	5	5	5	5	5	5
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	5	5	5	5	5	5	5	5	5	5
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	4	4	4	4	4	4	4	4	4	4
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3

Table 53. Adaptive Management Plan targeted checklist for the Farrow, Wallace enhancement reach, August 2017.

	Project Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Enhancement Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Colloquial Name	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW
	mmddyy	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	1	1	1	1	1	1	1	1	1	2	3	3	3	3	3	4	4	4
	Project Site Type	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MC Bank FP	MC Bank FP	MC Bank FP
	Project Feature Number	S1-19	S1-20	S1-21	S1-22	S1-23	S1-24	S1-25	S1-26	S1-27	NA	S3-01	S3-02	S3-03	S3-04	S3-05	S4-01	S4-02	S4-03
	Feature Type Code	LWD	LWD	Boulder field	LWD	LWD	LWD	LWD	LWD	LWD	NA	BC	BC	BC	BC	BC	LWD	LWD	LWD
	Habitat Unit	HU02	HU02	HU01	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU02_W	HU01_W	HU01_W	HU01_W	HU01_W	HU01_W	HU02_D	HU02_D	HU02_D
	Habitat Type	Alcove	Alcove	Flatwater	Dry	Dry	Dry	Dry	Dry	Dry	Multiple	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	NR	GOOD	GOOD	UNKN	UNKN	UNKN	UNKN	NA	NR	NR	NR	NR	NR	NR	NR	NR
5a	Are problems with the **feature** visible?	NO	NO	NR	NO	NO	NO	NO	NO	NO	NA	NR	NR	NR	NR	NR	NR	NR	NR
6a	Is the **feature** still in its original location?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
6b	Is the **feature** still in its original position?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
6d	Is the **feature** still in its original orientaton?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NO	NO	NR	NO	NO	NO	NO	NO	NO	NA	NR	NR	NR	NR	NR	NR	NR	NR
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	38%	38%	42%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	35%	35%	42%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by shelter; %	90	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	270	270	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NR	NO	NO	NO	NO	NO	NO	NA	NR	NR	NR	NR	NR	NR	NR	NR
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
25.	Did the **feature** achieve the targeted velocity?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	100%	100%	43%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	38%	38%	21%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	35%	35%	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	FEATURE NUMBER	**S1-19**	**S1-20**	**S1-21**	**S1-22**	**S1-23**	**S1-24**	**S1-25**	**S1-26**	**S1-27**	**NA**	**S3-01**	**S3-02**	**S3-03**	**S3-04**	**S3-05**	**S4-01**	**S4-02**	**S4-03**
	HABITAT UNIT NUMBER	**HU02**	**HU02**	**HU01**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU02_W**	**HU01_W**	**HU01_W**	**HU01_W**	**HU01_W**	**HU01_W**	**HU02_D**	**HU02_D**	**HU02_D**
	SITE NUMBER	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**3**	**3**	**3**	**3**	**3**	**4**	**4**	**4**
	ENHANCEMENT REACH NAME	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 53. Adaptive Management Plan targeted checklist for the Farrow, Wallace enhancement reach, August 2017.

	Project Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Enhancement Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Colloquial Name	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW
	mmddyy	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S5-01	S5-02	S5-03	S5-04	S5-05	S6-01	S6-02	S6-03	S6-04	S6-05	S6-06	S6-07	S6-08	S6-09	S6-10	S6-11	S6-12	S6-13
	Feature Type Code	TER	FLP	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD
	Habitat Unit	HU03_D	HU03_D	HU03	HU03_D	HU03	HU04_D	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04
	Habitat Type	Dry	Dry	Flatwater	Dry	Flatwater	Dry	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	56%	0%	56%	0%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	26%	0%	26%	0%	31%	31%	31%	31%	31%	31%	31%	31%	31%	31%	31%	31%	31%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	0	0	15	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	45	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	32%	0%	32%	0%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	11%	0%	11%	0%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	9%	0%	9%	0%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%
	FEATURE NUMBER	**S5-01**	**S5-02**	**S5-03**	**S5-04**	**S5-05**	**S6-01**	**S6-02**	**S6-03**	**S6-04**	**S6-05**	**S6-06**	**S6-07**	**S6-08**	**S6-09**	**S6-10**	**S6-11**	**S6-12**	**S6-13**
	HABITAT UNIT NUMBER	**HU03_D**	**HU03_D**	**HU03**	**HU03_D**	**HU03**	**HU04_D**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**
	SITE NUMBER	**5**	**5**	**5**	**5**	**5**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**
	ENHANCEMENT REACH NAME	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**	**FW**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	4	0	4	0	4	4	4	4	4	4	4	4	4	4	4	4	4
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	2	0	2	0	3	3	3	3	3	3	3	3	3	3	3	3	3
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	3	0	3	0	4	4	4	4	4	4	4	4	4	4	4	4	4
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	1	0	1	0	3	3	3	3	3	3	3	3	3	3	3	3	3
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2

Table 53. Adaptive Management Plan targeted checklist for the Farrow, Wallace enhancement reach, August 2017.

	Project Reach	1
	Enhancement Reach	1
	Colloquial Name	FW
	mmddyy	81417
	Survey Type	PEF
	Project Site Number	6
	Project Site Type	SideChan
	Project Feature Number	S6-14
	Feature Type Code	LWD
	Habitat Unit	HU04_D
	Habitat Type	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NR
5a	Are problems with the **feature** visible?	NR
6a	Is the **feature** still in its original location?	NR
6b	Is the **feature** still in its original position?	NR
6d	Is the **feature** still in its original orientaton?	NR
8.	If an objective, did the **feature** create the targeted instream habitat type?	NR
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NR
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0
15.	Percent of **habitat unit** covered by shelter: %	0
17a	If an objective, did the **feature** increase instream shelter rating?	NR
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NR
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NR
25.	Did the **feature** achieve the targeted velocity?	NR
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%
	FEATURE NUMBER	**S6-14**
	HABITAT UNIT NUMBER	**HU04_D**
	SITE NUMBER	**6**
	ENHANCEMENT REACH NAME	**FW**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0

Table 54. Adaptive Management Plan full checklist for the Farrow, Wallace enhancement reach, August 2017.

	Project Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Enhancement Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Colloquial Name	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW
	mmddyy	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Project Site Type	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove
	Project Feature Number	S1-01	S1-02	S1-03	S1-04	S1-05	S1-06	S1-07	S1-08	S1-09	S1-10	S1-11	S1-12	S1-13	S1-14	S1-15	S1-16	S1-17	S1-18
	Feature Type Code	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD
	Habitat Unit	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02	HU02
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
1.	Length of targeted treatment (ft)	35	35	35	35	35	35	25	25	40	35	25	25	35	25	35	35	35	35
2.	Width of targeted treatment: (ft)	45	45	60	60	45	25	40	45	70	45	45	45	45	45	45	45	45	30
3.	Estimate area of the targeted **feature**: (ft^2)	1575	1575	2100	2100	1575	875	1000	1125	2800	1575	1125	1125	1575	1125	1575	1575	1575	1050
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	EXCL	EXCL	GOOD	EXCL	EXCL	EXCL	EXCL	GOOD	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	NON	NON	NON	CRF	NON	NON	NON	BBB	NON	NON	STR	NON	NON	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	OTH	OTH	OTH	OTH	RBK	LBK	LBK	RBK	OTH	LBK	RBK	RBK	LBK	LBK	RBK	LBK	MDC	LBK
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	PRP	PRP	PRP	PRP	MUL	PRP	PRP	MUL	MUL	PRP	MUL	MUL	PRP	MUL	MUL	MUL	PRP	MUL
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
11a	Maximum water depth in **habitat unit**: ft	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3243.5	3243.5	3243.5	3243.5	3243.5	3243.5	3243.5	3243.5	3243.5	3243.5
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6790.2	6790.2	6790.2	6790.2	6790.2	6790.2	6790.2	6790.2	6790.2	6790.2
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	1575	1575	2100	2100	1575	875	1000	1125	2800	1575	1125	1125	1575	1125	1575	1575	1575	1050
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	0	0	0	0	0	0	0	0	90	90	90	90	90	90	90	90	90	90
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	NON	NON	NON	NON	NON	NON	AVG	AVG	AVG	AVG	AVG	AVG	AVG	AVG	AVG	AVG
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	NON	NON	NON	NON	NON	NON	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	270	270	270	270	270	270	270	270	270	270
18a	Large woody debris count in **habitat unit**: D >1", L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1", L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	DEC	DEC	DEC	DEC	INC	NA	NA	NA	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
24.	Targeted velocity/range in the **habitat unit**. (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9261.0	9261.0	9261.0	9261.0	9261.0	9261.0	9261.0	9261.0	9261.0	9261.0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	SND	SND	SND	SND	SND	SND	SLC	SLC	SLC	SLC	SLC	SLC	SLC	SLC	SLC	SLC
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6790.2	6790.2	6790.2	6790.2	6790.2	6790.2	6790.2	6790.2	6790.2	6790.2
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3243.5	3243.5	3243.5	3243.5	3243.5	3243.5	3243.5	3243.5	3243.5	3243.5
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Table 54. Adaptive Management Plan full checklist for the Farrow, Wallace enhancement reach, August 2017.

	Project Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Enhancement Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Colloquial Name	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW
	mmddyy	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	1	1	1	1	1	1	1	1	1	2	3	3	3	3	3	4	4	4
	Project Site Type	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MC Alcove	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MC Bank FP	MC Bank FP	MC Bank FP
	Project Feature Number	S1-19	S1-20	S1-21	S1-22	S1-23	S1-24	S1-25	S1-26	S1-27	NA	S3-01	S3-02	S3-03	S3-04	S3-05	S4-01	S4-02	S4-03
	Feature Type Code	LWD	LWD	Boulder field	LWD	LWD	LWD	LWD	LWD	LWD	NA	BC	BC	BC	BC	BC	LWD	LWD	LWD
	Habitat Unit	HU02	HU02	HU01	HU01 D	HU01 D	HU01 D	HU01 D	HU01 D	HU01 D	HU02 W	HU01 W	HU01 W	HU01 W	HU01 W	HU01 W	HU02 D	HU02 D	HU02 D
	Habitat Type	Alcove	Alcove	Flatwater	Dry	Dry	Dry	Dry	Dry	Dry	Multiple	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Dry	Dry	Dry
1.	Length of targeted treatment (ft)	35	35	195	35	35	35	20	20	20		21	24	19	30	20	30	30	30
2.	Width of targeted treatment: (ft)	30	60	54	45	45	45	20	40	40		31	24	21	24	8	60	60	60
3.	Estimate area of the targeted **feature**: (ft²)	1050	2100	10530	1575	1575	1575	400	800	800	0	651	576	399	720	160	1800	1800	1800
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	NR	GOOD	GOOD	UNKN	UNKN	UNKN	UNKN	NA	NR	NR	NR	NR	NR	NR	NR	NR
5a	Are problems with the **feature** visible?	NO	NO	NR	NO	NO	NO	NO	NO	NO	NA	NR	NR	NR	NR	NR	NR	NR	NR
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	NON	NR	NON	NON	NON	NON	NON	NON	NA	NR	NR	NR	NR	NR	NR	NR	NR
6a	Is the **feature** still in its original location?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
6b	Is the **feature** still in its original position?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
6c	If yes: LBK, MDC, RBK, SPN, OTH	RBK	LBK	NR	LBK	LBK	OTH	OTH	OTH	OTH	NA	NR	NR	NR	NR	NR	NR	NR	NR
6d	Is the **feature** still in its original orientaton?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	MUL	MUL	NR	MUL	MUL	MUL	MUL	MUL	MUL	NA	NR	NR	NR	NR	NR	NR	NR	NR
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	ALC	ALC	FLT	DRY	DRY	DRY	DRY	DRY	DRY	MUL	FLT	FLT	FLT	FLT	FLT	DRY	DRY	DRY
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NR	NO	NO	NO	NO	NO	NO	NA	NR	NR	NR	NR	NR	NR	NR	NR
10.	Mean water depth in **habitat unit**: ft	2.0	2.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11a	Maximum water depth in **habitat unit**: ft	5.5	5.5	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	3546.7	3546.7	3908.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	3243.5	3243.5	3939.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	6790.2	6790.2	7847.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	38%	38%	42%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	35%	35%	42%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	73%	73%	84%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft²	1050	2100	10530	1575	1575	1575	400	800	800		651	576	399	720	160	1800	1800	1800
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	NO	NR	NO	NO	NO	NO	NO	NO	NA	NR	NR	NR	NR	NR	NR	NR	NR
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	90	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	AVG	AVG	NR	NON	NON	NON	NON	NON	NON	NR	NON	NON	NON	NON	NON	NON	NON	NON
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	LWD	LWD	NR	NON	NON	NON	NON	NON	NON	NR	NON	NON	NON	NON	NON	NON	NON	NON
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	270	270	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NR	NO	NO	NO	NO	NO	NO	NA	NR	NR	NR	NR	NR	NR	NR	NR
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	NR	STB	STB	STB	STB	STB	STB	NA	NR	NR	NR	NR	NR	NR	NR	NR
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB		STB	STB	STB	STB	STB	STB	NA								
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG		AGG	AGG	AGG	AGG	AGG	AGG	NA								
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	NO	NR	NO	NO	NO	NO	NO	NO	NA	NR	NR	NR	NR	NR	NR	NR	NR
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	DEC	DEC	NR	DEC	DEC	NA	NA	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.4	0.4	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft²)	9261.0	9261.0	3993.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	100%	100%	43%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NO	NO	NR	NO	NO	NO	NO	NO	NO	NA	NR	NR	NR	NR	NR	NR	NR	NR
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	NR	GRV	GRV	GRV	GRV	GRV	GRV	NR	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SLC	SLC	NR	SND	SND	SND	SND	SND	SND	NR	SND	SND	SND	SND	SND	SND	SND	SND
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	NR	YES	YES	YES	YES	YES	YES	NA	NR	NR	NR	NR	NR	NR	NR	NR
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	6790.2	6790.2	2611.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	3546.7	3546.7	2007.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	3243.5	3243.5	603.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	73%	73%	28%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	38%	38%	21%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	35%	35%	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NR	NON	NON	NON	NON	NON	NON	NA	NR	NR	NR	NR	NR	NR	NR	NR
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NR	NO	NO	NO	NO	NO	NO	NA	NR	NR	NR	NR	NR	NR	NR	NR

Table 54. Adaptive Management Plan full checklist for the Farrow, Wallace enhancement reach, August 2017.

	Project Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Enhancement Reach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Colloquial Name	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW
	mmddyy	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417	81417
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S5-01	S5-02	S5-03	S5-04	S5-05	S6-01	S6-02	S6-03	S6-04	S6-05	S6-06	S6-07	S6-08	S6-09	S6-10	S6-11	S6-12	S6-13
	Feature Type Code	TER	FLP	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD
	Habitat Unit	HU03_D	HU03_D	HU03	HU03_D	HU03	HU04_D	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04
	Habitat Type	Dry	Dry	Flatwater	Dry	Flatwater	Dry	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove	Alcove
1.	Length of targeted treatment (ft)	350	180	87	37	36	35	35	20	20	20	20	35	50	25	25	50	25	25
2.	Width of targeted treatment: (ft)			62	25	24	40	25	25	25	25	25	45	15	40	40	15	40	40
3.	Estimate area of the targeted **feature**: (ft^2)			5394	925	864	1400	875	500	500	500	500	1575	750	1000	1000	750	1000	1000
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	NON	NON	NON	NON	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6c	If yes: LBK, MDC, RBK, SPN, OTH	LBK	LBK	LBK	LBK	LBK	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	MUL	MUL	MUL	MUL	MUL	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	DRY	DRY	FLT	DRY	FLT	DRY	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC	ALC
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
10.	Mean water depth in **habitat unit**: ft	0.0	0.0	1.8	0.0	1.8	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
11a	Maximum water depth in **habitat unit**: ft	0.0	0.0	5.5	0.0	5.5	0.0	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	0.0	0.0	4340.1	0.0	4340.1	0.0	5227.8	5227.8	5227.8	5227.8	5227.8	5227.8	5227.8	5227.8	5227.8	5227.8	5227.8	5227.8
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	0.0	0.0	2034.7	0.0	2034.7	0.0	3824.0	3824.0	3824.0	3824.0	3824.0	3824.0	3824.0	3824.0	3824.0	3824.0	3824.0	3824.0
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	0.0	0.0	6374.8	0.0	6374.8	0.0	9051.8	9051.8	9051.8	9051.8	9051.8	9051.8	9051.8	9051.8	9051.8	9051.8	9051.8	9051.8
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	56%	0%	56%	0%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	26%	0%	26%	0%	31%	31%	31%	31%	31%	31%	31%	31%	31%	31%	31%	31%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	0%	0%	82%	0%	82%	0%	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:			5394	925	864	1400	875	500	500	500	500	1575	750	1000	1000	750	1000	1000
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	0	0	15	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	LWD	NON	LWD	NON	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	RTW	NON	RTW	NON	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	45	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	DEC	DEC	DEC	DEC	DEC	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.0	0.0	3.6	0.0	3.6	0.0	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	0.0	1.3	0.0	1.3	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
27.	Area of **habitat unit** within targeted velocity: (ft^2)	0.0	0.0	2522.8	0.0	2522.8	0.0	11116.5	11116.5	11116.5	11116.5	11116.5	11116.5	11116.5	11116.5	11116.5	11116.5	11116.5	11116.5
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	32%	0%	32%	0%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	GRV	GRV	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	SND	SND	SND	SND	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0.0	0.0	1552.9	0.0	1552.9	0.0	7868.9	7868.9	7868.9	7868.9	7868.9	7868.9	7868.9	7868.9	7868.9	7868.9	7868.9	7868.9
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0.0	0.0	846.5	0.0	846.5	0.0	4692.6	4692.6	4692.6	4692.6	4692.6	4692.6	4692.6	4692.6	4692.6	4692.6	4692.6	4692.6
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0.0	0.0	706.4	0.0	706.4	0.0	3176.3	3176.3	3176.3	3176.3	3176.3	3176.3	3176.3	3176.3	3176.3	3176.3	3176.3	3176.3
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0%	0%	20%	0%	20%	0%	63%	63%	63%	63%	63%	63%	63%	63%	63%	63%	63%	63%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	11%	0%	11%	0%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	9%	0%	9%	0%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NON	NON	NON	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Table 54. Adaptive Management Plan full checklist for the Farrow, Wallace enhancement reach, August 2017.

	Project Reach	1	1
	Enhancement Reach	1	1
	Colloquial Name	FW	FW
	mmddyy	81417	81417
	Survey Type	PEF	PEF
	Project Site Number	6	7
	Project Site Type	SideChan	MainChan
	Project Feature Number	S6-14	S7-01
	Feature Type Code	LWD	onstructed Rif
	Habitat Unit	HU04_D	HU05
	Habitat Type	Dry	Riffle
1.	Length of targeted treatment (ft)	35	100
2.	Width of targeted treatment: (ft)	45	55
3.	Estimate area of the targeted **feature**: (ft^2)	1575	5500
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NR	GOOD
5a	Are problems with the **feature** visible?	NR	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NR	NON
6a	Is the **feature** still in its original location?	NR	YES
6b	Is the **feature** still in its original position?	NR	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	NR	SPN
6d	Is the **feature** still in its original orientaton?	NR	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	NR	OTH
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	DRY	RIF
8.	If an objective, did the **feature** create the targeted instream habitat type?	NR	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NR	NO
10.	Mean water depth in **habitat unit**: ft	0.0	1.3
11a	Maximum water depth in **habitat unit**: ft	0.0	5.3
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	0.0	4895.6
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	0.0	1090.7
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	0.0	5986.2
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	75%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	17%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	0%	91%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NR	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	1575	5500
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NR	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0
15.	Percent of **habitat unit** covered by shelter: %	0	0
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NR
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NR
17a	If an objective, did the **feature** increase instream shelter rating?	NR	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NR	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NR	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NR	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NR	
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NR	
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NR	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NR	DEC
24.	Targeted velocity/range in the **habitat unit**. (ft/sec)	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NR	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.0	5.1
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	1.5
27.	Area of **habitat unit** within targeted velocity: (ft^2)	0.0	876.3
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	13%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NR	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	NR
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	NR
31.	If an objective, did the **feature** achieve the targeted substrate composition?	NR	YES
32.	% Canopy Measurement:	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR
34.	Temperature Profile: YES /NO	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0.0	505.4
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0.0	254.3
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0.0	251.1
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0%	8%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	4%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	4%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NR	NON
38.	Are additional restoration treatments recommended at this **site**?	NR	NO

Geyser Peak Post-effective Flow, July 2017

Depth and Velocity

Table 55. Areas and percentages of: wetted area, optimal depth and velocity, and optimal hydraulic habitat within the Geyser Peak enhancement reach, July 2017.

Geyser Peak Post-effective flow July 2017	Wetted area (ft^2)	Optimal depth (ft^2)			Optimal velocity (ft^2)	Optimal habitat (ft^2)		
		0.5 – 2.0 ft	2.0 – 4.0 ft	Total	< 0.5 ft/s	0.5 – 2.0 ft < 0.5 ft/s	2.0 – 4.0 ft < 0.5 ft/s	Total
Main channel area	43,334	30,162	6,799	36,961	10,478	4,910	1,207	6,117
Side channel area	0	0	0	0	0	0	0	0
Total area	**43,334**	**30,162**	**6,799**	**36,961**	**10,478**	**4,910**	**1,207**	**6,117**
Main channel % of wetted area	100%	70%	16%	85%	24%	11%	3%	14%
Side channel % of wetted area	0%	0%	0%	0%	0%	0%	0%	0%
Total % of wetted area	**100%**	**70%**	**16%**	**85%**	**24%**	**11%**	**3%**	**14%**

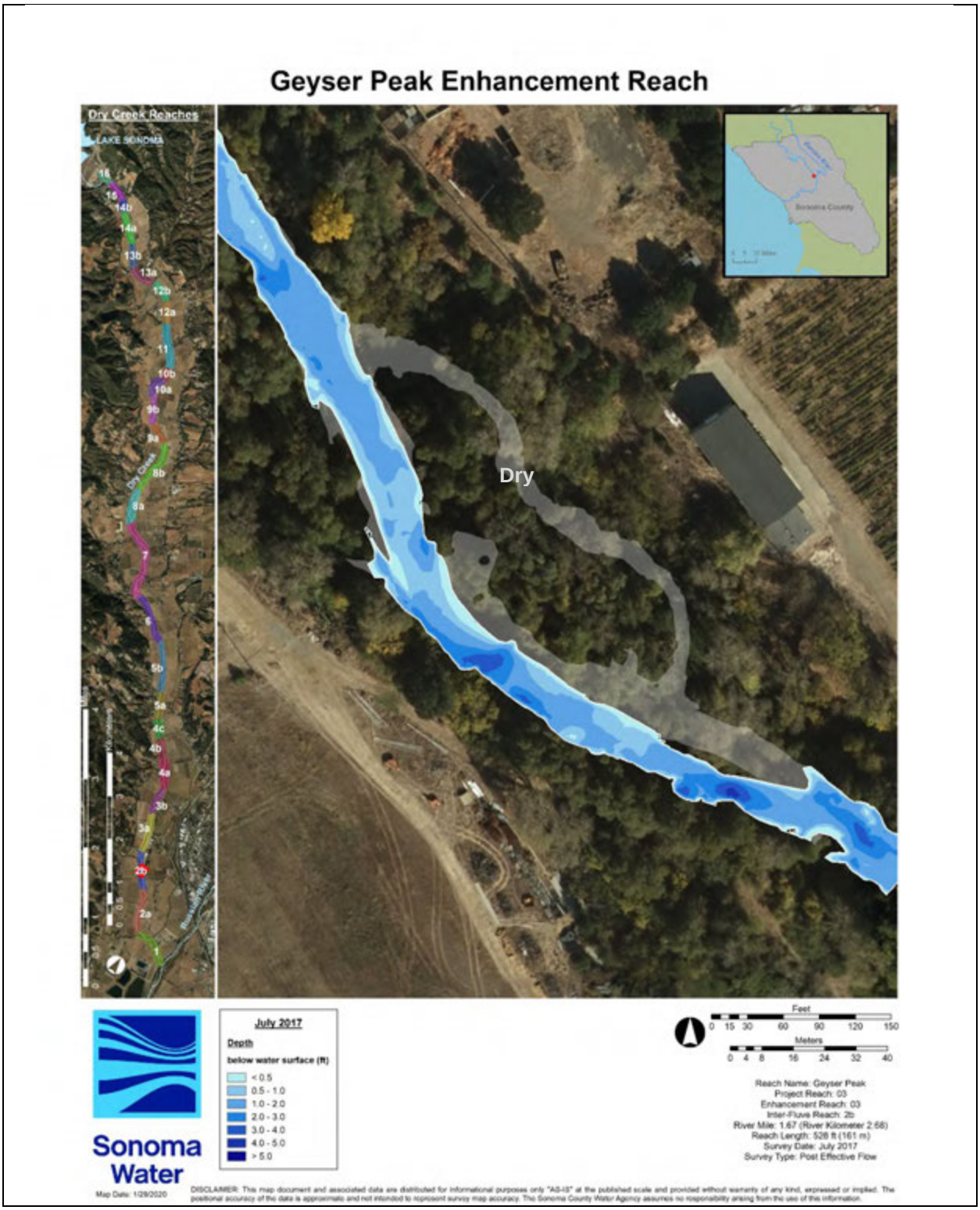


Figure 91. Measured water depth within the Geyser Peak enhancement reach, July 2017.

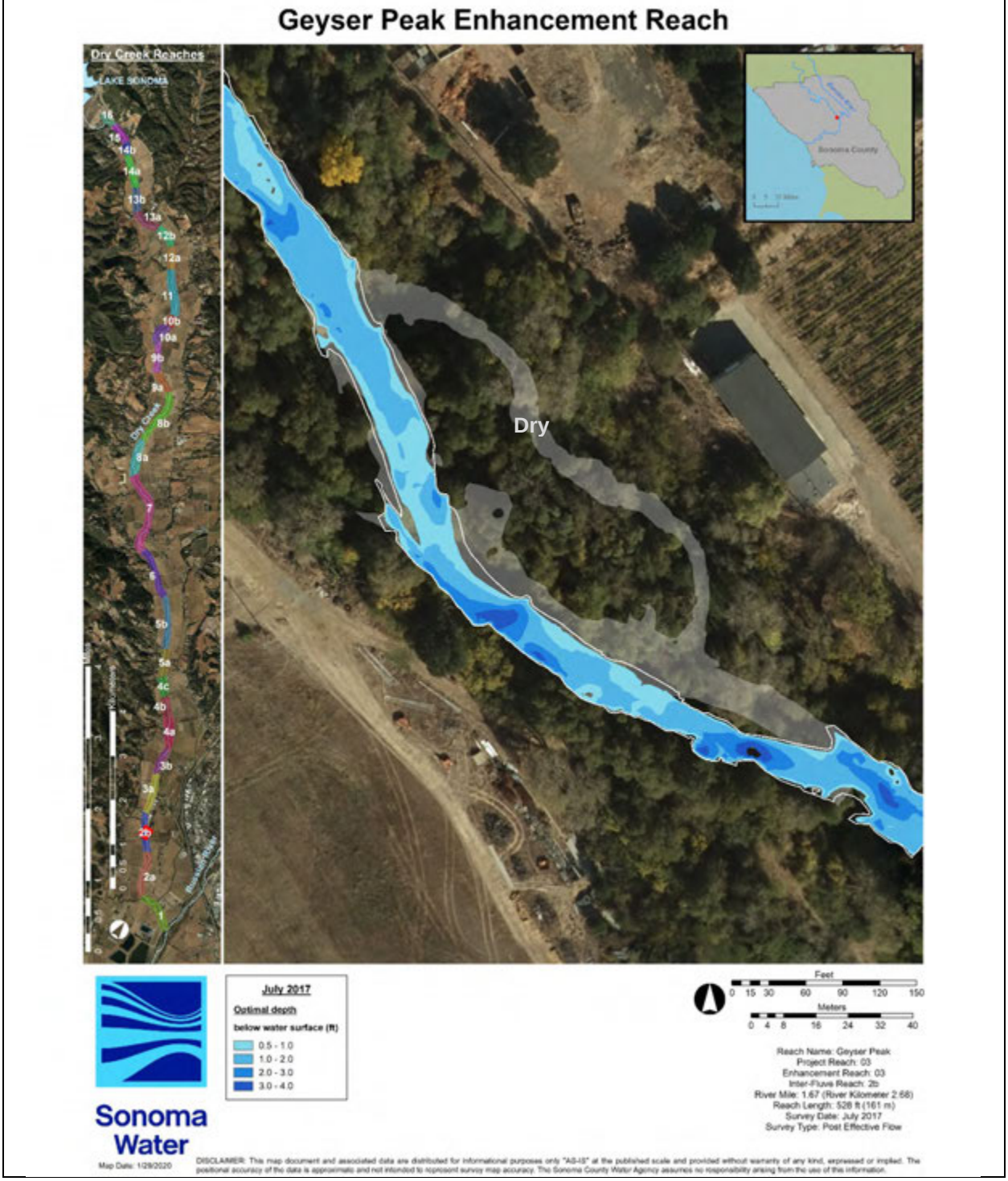


Figure 92. Optimal water depth for fry (0.5-2.0 ft) and parr (2.0-4.0 ft) within the Geyser Peak enhancement reach, July 2017.

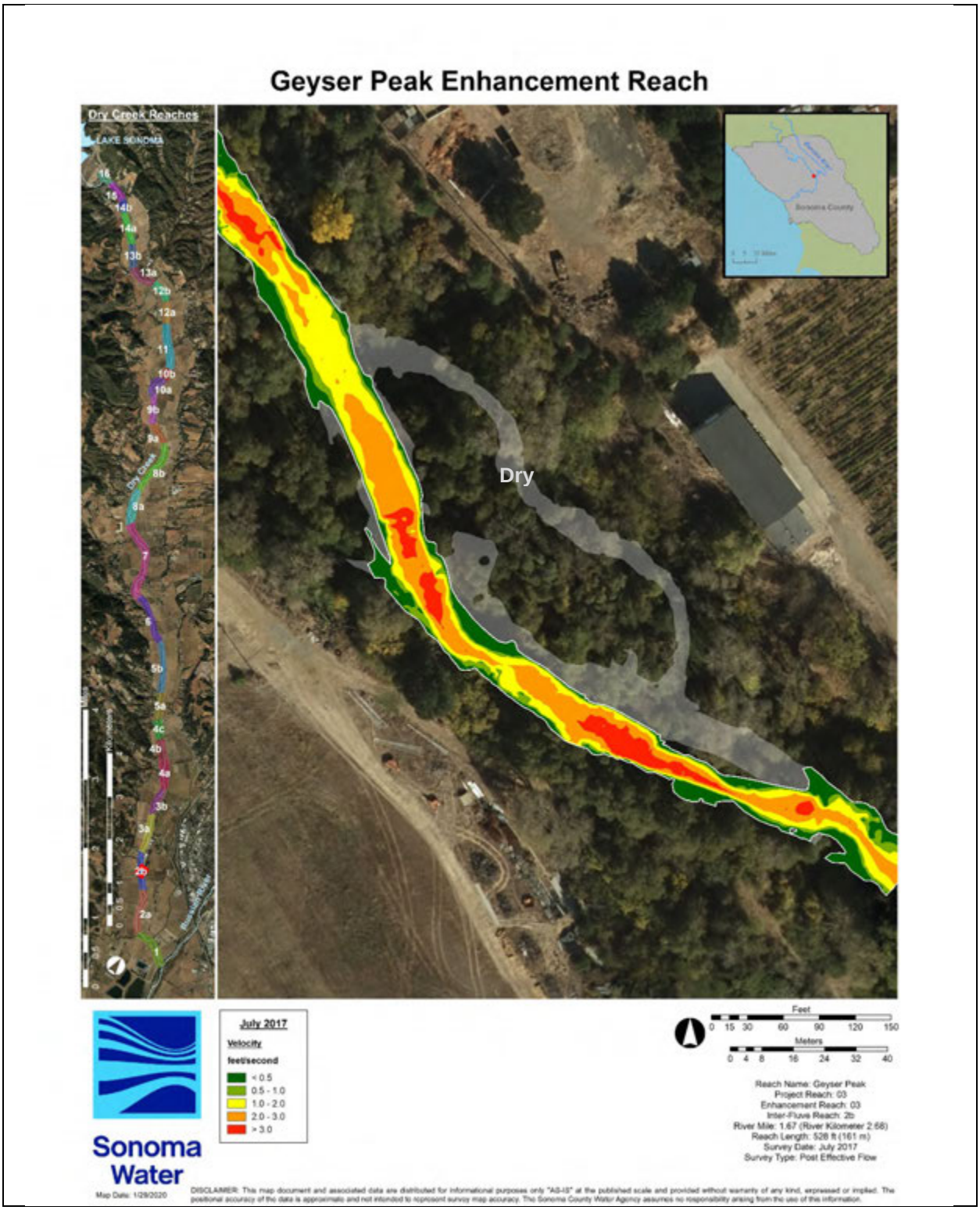


Figure 93. Measured water velocity within the Geyser Peak enhancement reach, July 2017.

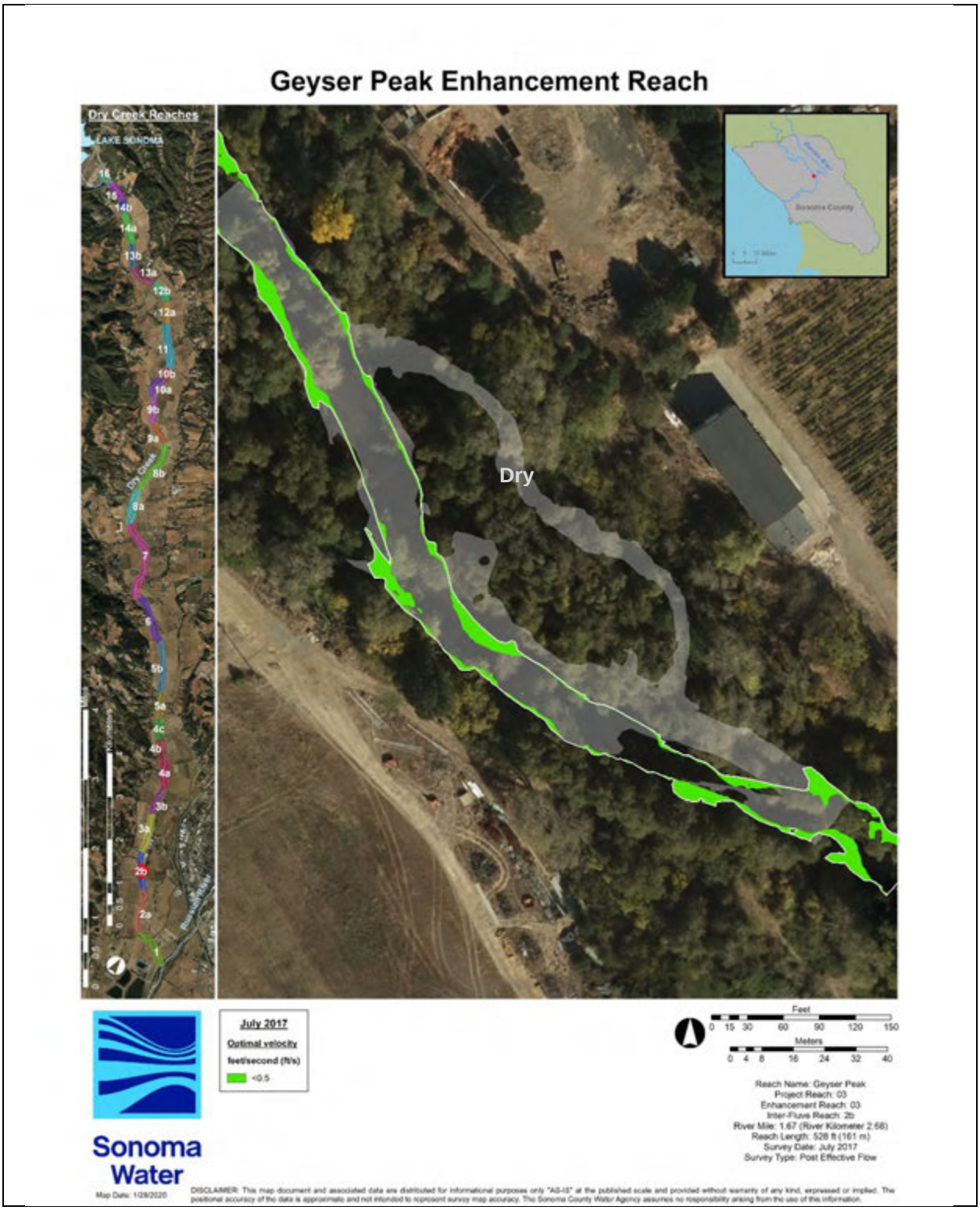


Figure 94. Optimal water velocity for fry and parr (< 0.5 ft/s) within the Geyser Peak enhancement reach, July 2017.

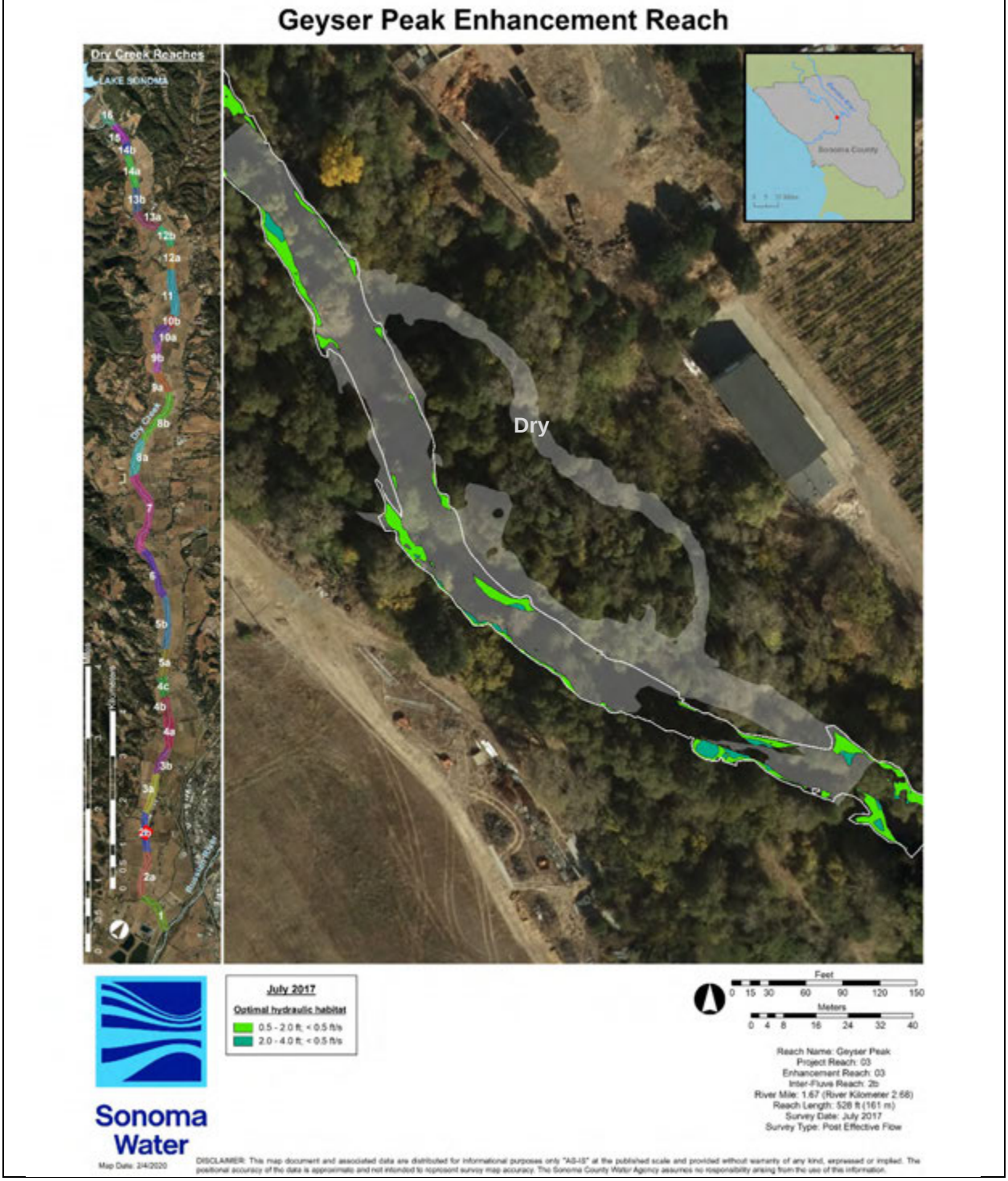


Figure 95. Optimal hydraulic habitat for fry (<0.5 ft/s, 0.5-2.0 ft) and parr (<0.5 ft/s, 2.0-4.0 ft) within the Geyser Peak enhancement reach, July 2017.

Habitat Types and Shelter Values

Table 56. Habitat, types, shelter value, percent cover, and shelter score for habitat units within the Geyser Peak enhancement reach, July 2017.

Post-effective flow (July 2017)				
Habitat Unit #	**Habitat Type**	**Shelter Value**	**Percent Cover**	**Shelter Score**
HU01	Flatwater	3	35	105
HU02	Pool	3	20	60
HU03	Riffle	1	10	10
HU04	Pool	3	30	90
HU05	Riffle	2	25	50
HU06	Flatwater	3	30	90
HU07	Pool	3	15	45
HU08	Riffle	1	10	10
HU09	Pool	3	35	105

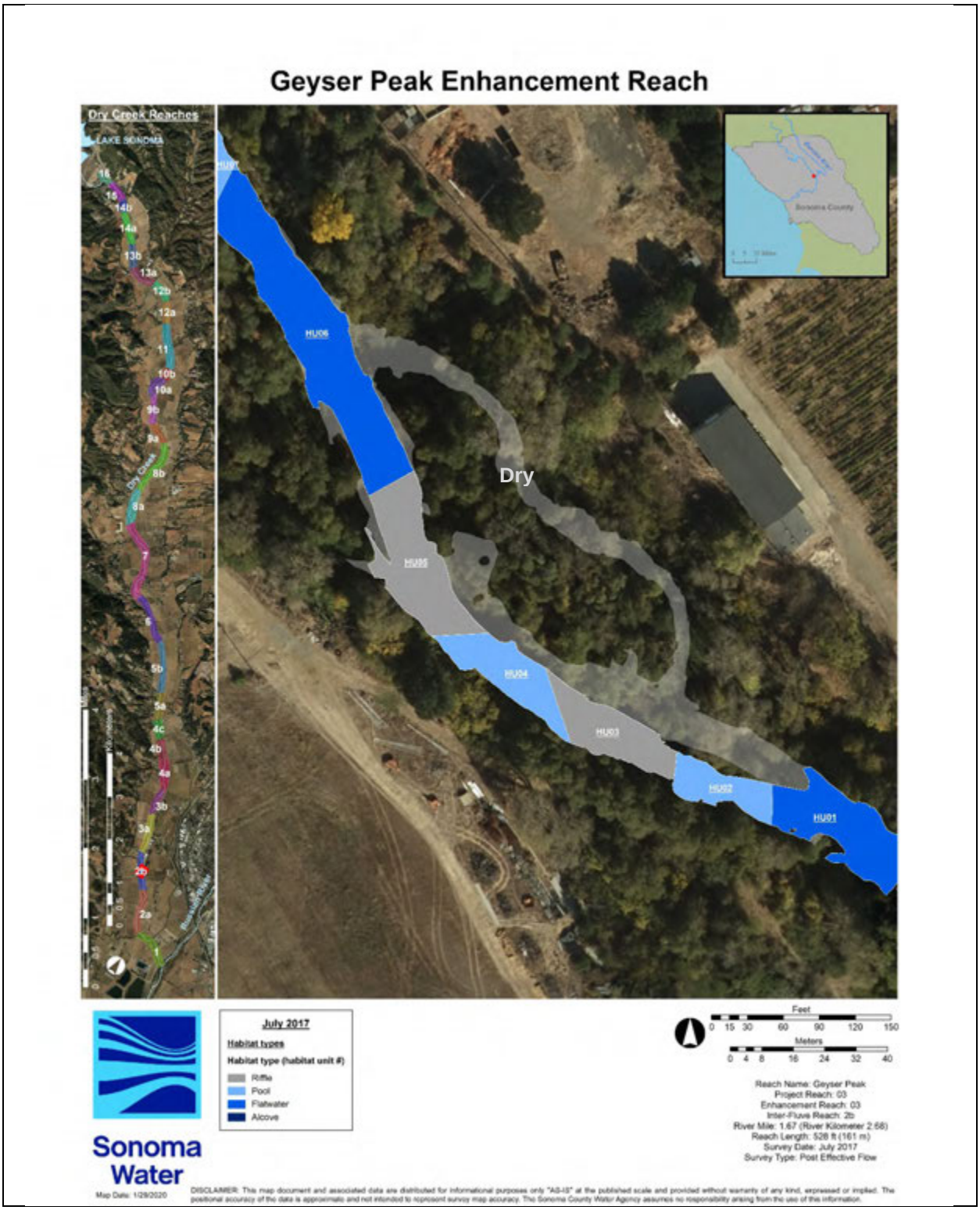


Figure 96. Habitat unit number and type within the Geyser Peak enhancement reach, July 2017.

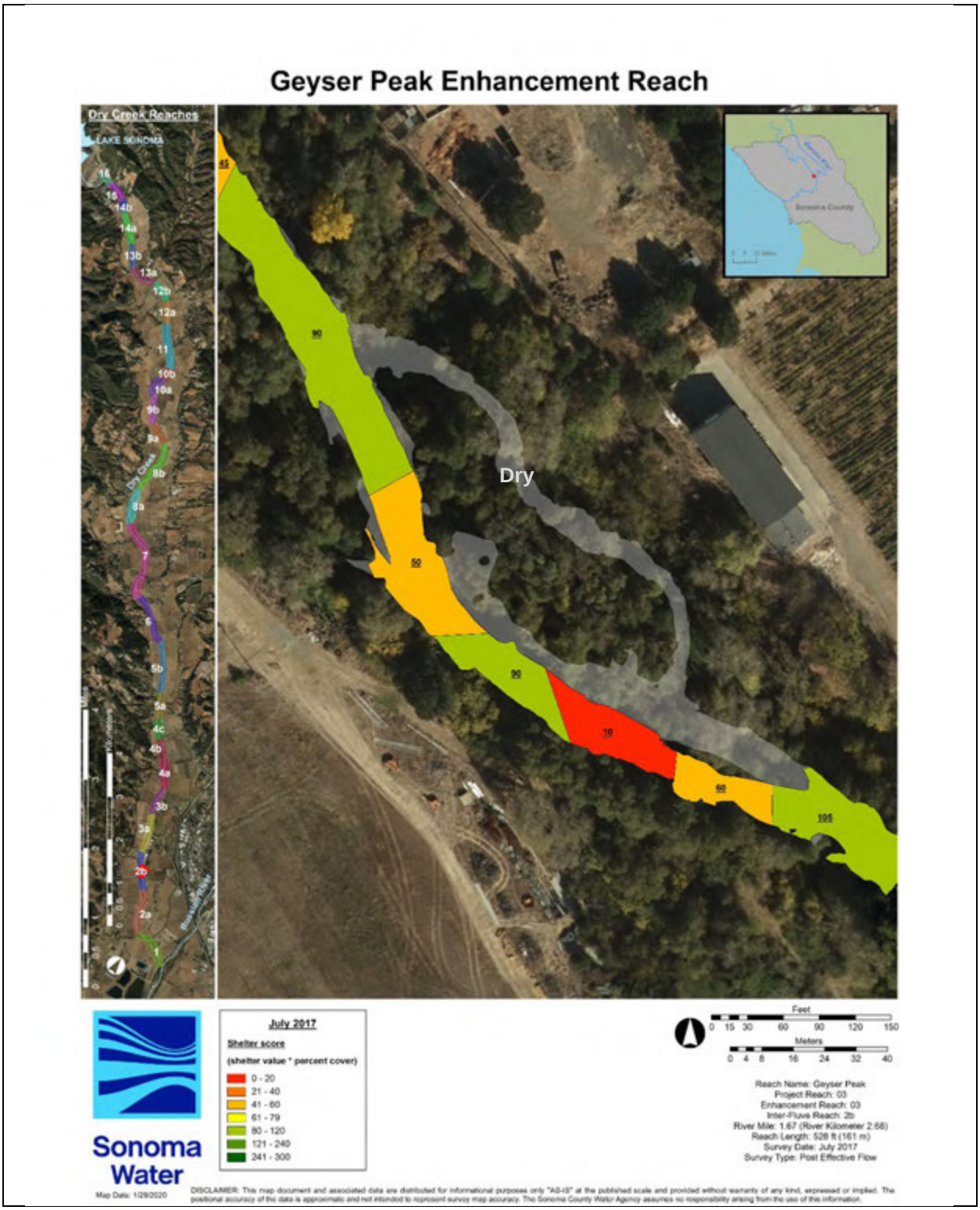


Figure 97. Habitat unit shelter scores within the Geyser Peak enhancement reach, July 2017

Feature, Habitat Unit, Site, and Reach Ratings

Table 57. Post-effective flow feature ratings for the Geyser Peak enhancement reach, July 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S1-05	S1-07	S1-08	S1-10	S1-11	S1-12	S2-01	S2-02	S2-03	S2-04.1	S2-04.2	S2-04.3	S2-05	S2-06	S2-07.1	S2-07.2	S2-08	S2-09.1
	Feature Type Code	LWS	LW	HW2	HW1	LW	LWS	R	HW2	HW1	PW	PW	PW	HW1	R	HW2	HW1	HW2	HW2
	Habitat Unit	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	FAIL	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	FAIL	UNKN	UNKN	UNKN	UNKN
5a	Are problems with the **feature** visible?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6a	Is the **feature** still in its original location?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6b	Is the **feature** still in its original position?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6d	Is the **feature** still in its original orientation?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
25.	Did the **feature** achieve the targeted velocity?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
	PROJECT FEATURE NUMBER	**S1-05**	**S1-07**	**S1-08**	**S1-10**	**S1-11**	**S1-12**	**S2-01**	**S2-02**	**S2-03**	**S2-04.1**	**S2-04.2**	**S2-04.3**	**S2-05**	**S2-06**	**S2-07.1**	**S2-07.2**	**S2-08**	**S2-09.1**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PROJECT FEATURE NUMBER	**S1-05**	**S1-07**	**S1-08**	**S1-10**	**S1-11**	**S1-12**	**S2-01**	**S2-02**	**S2-03**	**S2-04.1**	**S2-04.2**	**S2-04.3**	**S2-05**	**S2-06**	**S2-07.1**	**S2-07.2**	**S2-08**	**S2-09.1**
FEATURE RATING	Feature quantitative rating out of 15	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail

Table 57. Post-effective flow feature ratings for the Geyser Peak enhancement reach, July 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S2-09.2	S2-10	S2-11	S2-12.1	S2-12.2	S2-12.3	S2-13.1	S2-13.2	S2-14	S2-15	S2-16.1	S2-16.2	S2-17	S2-18.1	S2-18.2	S2-18.3	S2-19	S2-20
	Feature Type Code	HW1	HW1	HW1	PW	PW	PW	HW1	HW1	R	HW2	HW2	HW1	LW	PW	PW	PW	HW1	ALJ
	Habitat Unit	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	FAIL	UNKN	UNKN	UNKN	UNKN	GOOD	GOOD	GOOD	UNKN	FAIR
5a	Are problems with the **feature** visible?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6a	Is the **feature** still in its original location?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES
6b	Is the **feature** still in its original position?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES
6d	Is the **feature** still in its original orientation?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
25.	Did the **feature** achieve the targeted velocity?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
	PROJECT FEATURE NUMBER	**S2-09.2**	**S2-10**	**S2-11**	**S2-12.1**	**S2-12.2**	**S2-12.3**	**S2-13.1**	**S2-13.2**	**S2-14**	**S2-15**	**S2-16.1**	**S2-16.2**	**S2-17**	**S2-18.1**	**S2-18.2**	**S2-18.3**	**S2-19**	**S2-20**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	0	0	0	0	0	0	1	0	0	0	0	4	4	4	0	3
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PROJECT FEATURE NUMBER	**S2-09.2**	**S2-10**	**S2-11**	**S2-12.1**	**S2-12.2**	**S2-12.3**	**S2-13.1**	**S2-13.2**	**S2-14**	**S2-15**	**S2-16.1**	**S2-16.2**	**S2-17**	**S2-18.1**	**S2-18.2**	**S2-18.3**	**S2-19**	**S2-20**
FEATURE RATING	Feature quantitative rating out of 15	0	0	0	0	0	0	0	0	1	0	0	0	0	7	7	7	0	6
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fair	Fair	Fair	Fail	Fair

Table 57. Post-effective flow feature ratings for the Geyser Peak enhancement reach, July 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S2-09.2	S2-10	S2-11	S2-12.1	S2-12.2	S2-12.3	S2-13.1	S2-13.2	S2-14	S2-15	S2-16.1	S2-16.2	S2-17	S2-18.1	S2-18.2	S2-18.3	S2-19	S2-20
	Feature Type Code	HW1	HW1	HW1	PW	PW	PW	HW1	HW1	R	HW2	HW2	HW1	LW	PW	PW	PW	HW1	ALJ
	Habitat Unit	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	FAIL	UNKN	UNKN	UNKN	UNKN	GOOD	GOOD	GOOD	UNKN	FAIR
5a	Are problems with the **feature** visible?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6a	Is the **feature** still in its original location?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES
6b	Is the **feature** still in its original position?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES
6d	Is the **feature** still in its original orientation?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
25.	Did the **feature** achieve the targeted velocity?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
	PROJECT FEATURE NUMBER	**S2-09.2**	**S2-10**	**S2-11**	**S2-12.1**	**S2-12.2**	**S2-12.3**	**S2-13.1**	**S2-13.2**	**S2-14**	**S2-15**	**S2-16.1**	**S2-16.2**	**S2-17**	**S2-18.1**	**S2-18.2**	**S2-18.3**	**S2-19**	**S2-20**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	0	0	0	0	0	0	1	0	0	0	0	4	4	4	0	3
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PROJECT FEATURE NUMBER	**S2-09.2**	**S2-10**	**S2-11**	**S2-12.1**	**S2-12.2**	**S2-12.3**	**S2-13.1**	**S2-13.2**	**S2-14**	**S2-15**	**S2-16.1**	**S2-16.2**	**S2-17**	**S2-18.1**	**S2-18.2**	**S2-18.3**	**S2-19**	**S2-20**
FEATURE RATING	Feature quantitative rating out of 15	0	0	0	0	0	0	0	0	1	0	0	0	0	7	7	7	0	6
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fail	Fair	Fair	Fair	Fail	Fair

Table 57. Post-effective flow feature ratings for the Geyser Peak enhancement reach, July 2017.

	Project Reach	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP
	mmddyy	72517	72517	72517	72517	72517	72517	72517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	PROJECT SITE NUMBER	2	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S2-21.1	S2-21.2	S2-21.3	S2-21.4	S2-22.1	S2-22.2	S2-23
	Feature Type Code	HW1	HW2	HW1	HW1	HW1	HW1	TT
	Habitat Unit	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN
5a	Are problems with the **feature** visible?	YES	YES	YES	YES	YES	YES	YES
6a	Is the **feature** still in its original location?	NO	NO	NO	NO	NO	NO	NO
6b	Is the **feature** still in its original position?	NO	NO	NO	NO	NO	NO	NO
6d	Is the **feature** still in its original orientation?	NO	NO	NO	NO	NO	NO	NO
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	NO	NO	NO	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	YES	YES	YES	YES	YES	YES	YES
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	NO	NO	NO	NO	NO
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NO	NO	NO	NO	NO	NO	NO
25.	Did the **feature** achieve the targeted velocity?	NO	NO	NO	NO	NO	NO	NO
	PROJECT FEATURE NUMBER	**S2-21.1**	**S2-21.2**	**S2-21.3**	**S2-21.4**	**S2-22.1**	**S2-22.2**	**S2-23**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	0	0	0	0	0
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0
	PROJECT FEATURE NUMBER	**S2-21.1**	**S2-21.2**	**S2-21.3**	**S2-21.4**	**S2-22.1**	**S2-22.2**	**S2-23**
FEATURE RATING	Feature quantitative rating out of 15	0	0	0	0	0	0	0
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Fail	Fail	Fail	Fail	Fail	Fail	Fail

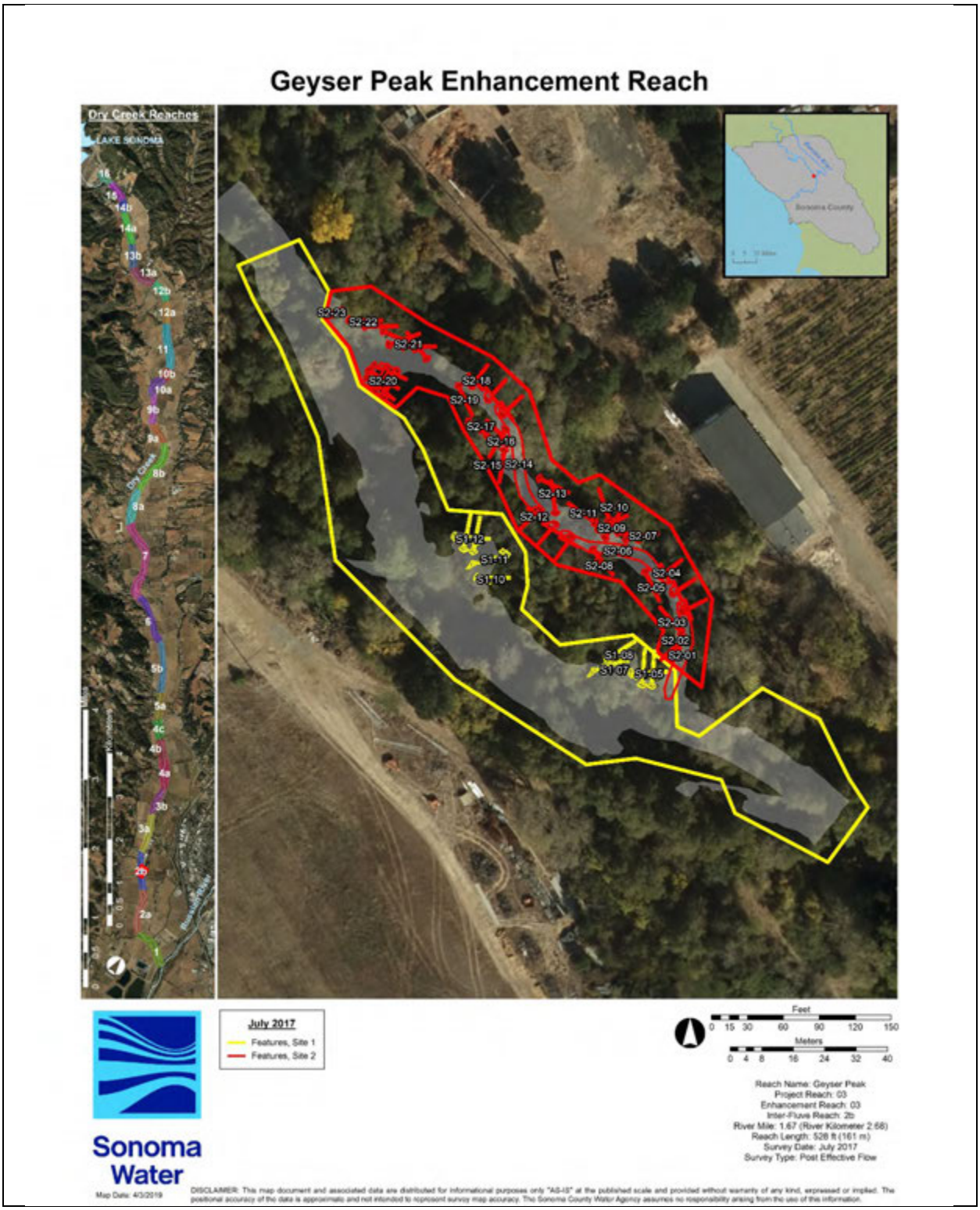


Figure 98. Enhancement sites and features within the Geyser Peak enhancement reach, July 2017.

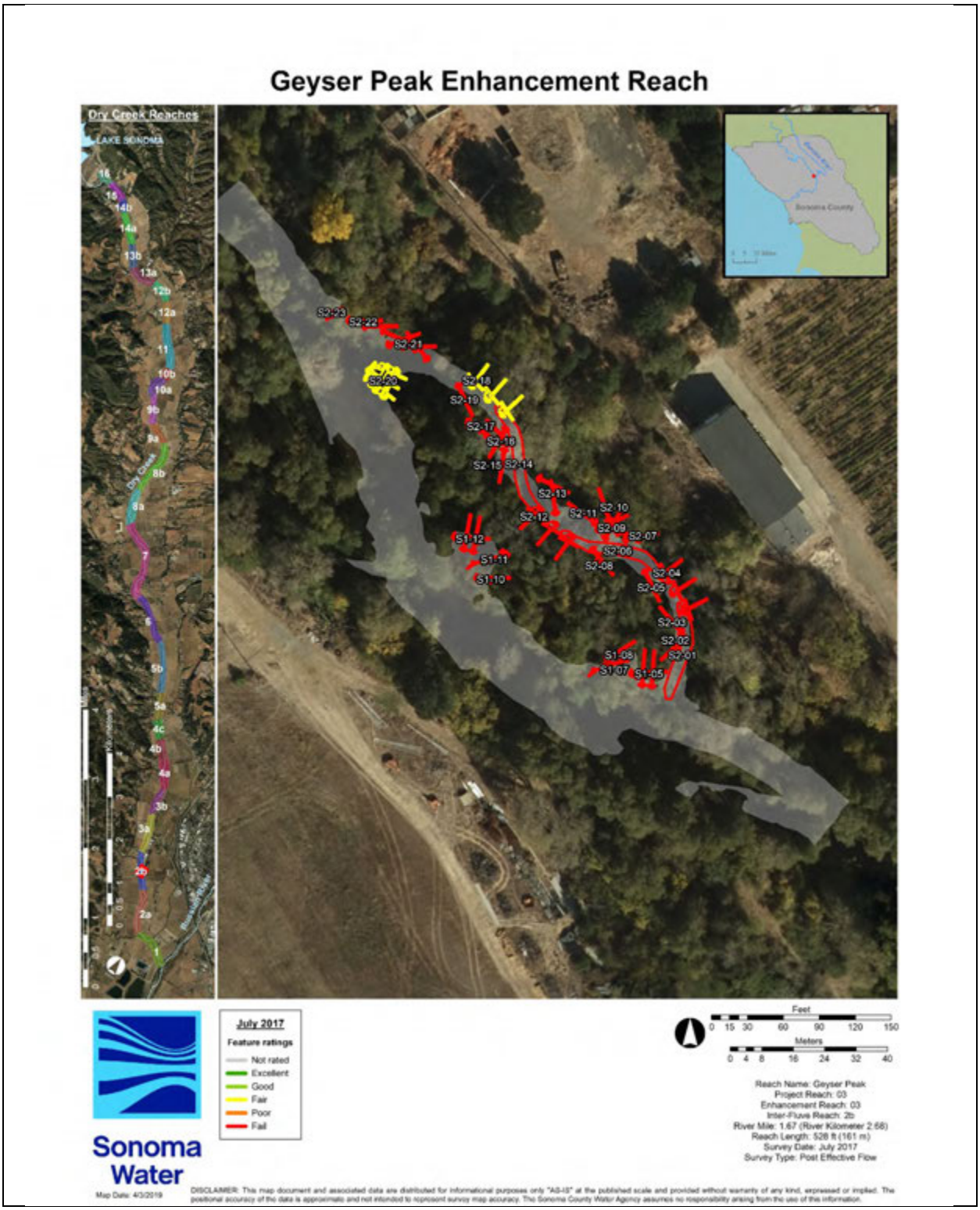


Figure 99. Feature ratings for the Geyser Peak enhancement reach, July 2017.

Table 58. Post-effective flow habitat unit ratings for the Geyser Peak enhancement reach, July 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU09**	**HU01_D**	**HU02_D**
	Habitat Type	Flatwater	Pool	Riffle	Pool	Riffle	Flatwater	Pool	Riffle	Pool	Dry	Dry
	PROJECT SITE NUMBER	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**2**
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	SideChan
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	65%	41%	85%	53%	75%	83%	47%	59%	67%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	24%	49%	0%	41%	4%	6%	32%	0%	18%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	1	3	2	3	3	1	3	0	0
15.	Percent of **habitat unit** covered by shelter: %	35	20	10	30	25	30	15	10	35	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	105	60	10	90	50	90	45	10	105	0	0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	33%	39%	7%	21%	23%	17%	55%	27%	20%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	19%	16%	2%	13%	11%	8%	29%	1%	7%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	4%	15%	0%	4%	0%	1%	4%	0%	4%	0%	0%
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU09**	**HU01_D**	**HU02_D**
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	4	4	4	4	4	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	4	0	4	0	0	3	0	1	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	3	5	4	5	5	3	5	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	2	2	1	2	2	2	1	1	2	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	4	2	0	3	1	3	1	0	4	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	3	0	2	2	1	4	2	2	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	0	1	1	0	2	0	0	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	1	0	0	0	0	0	0	0	0	0
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU09**	**HU01_D**	**HU02_D**
HABITAT UNIT RATING	Habitat unit quantitative rating (out of 35)	21	22	8	21	14	15	20	10	18	0	0
	Habitat unit qualitative rating: Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7)	Good	Good	Poor	Good	Fair	Fair	Fair	Poor	Fair	Fail	Fail

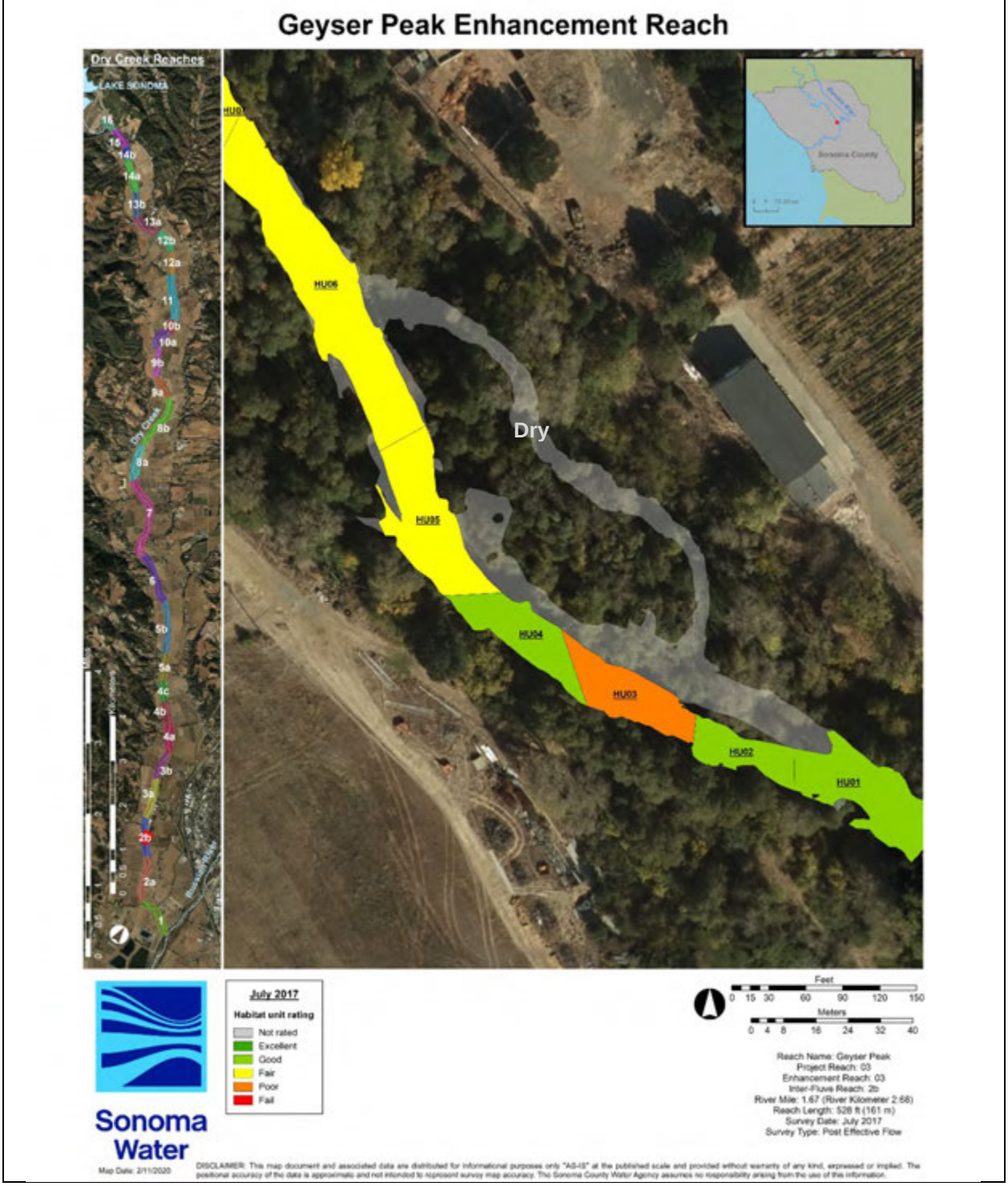


Figure 100. Post-effective flow habitat unit rating for the Geyser Peak enhancement reach, July 2017.

Table 59. Post effective flow average feature, habitat unit, site, and reach ratings for the Geyser Peak enhancement reach, July 2017.

	Project Reach	3	3
	Enhancement Reach	3	3
	ENHANCEMENT REACH NAME	GP	GP
	mmddyy	101616	101616
	Survey Type	POS	POS
	PROJECT SITE NUMBER	1	2
	Project Site Type	MainChan	SideChan
	PROJECT SITE NUMBER	1	2
SITE AVERAGE FEATURE RATING	Site average feature quantitative rating (out of 15; bold indicates excluded from site rating)	14	14
	Site average feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3), Not rated (not used to rate site)	Excellent	Excellent
	PROJECT SITE NUMBER	1	2
SITE AVERAGE HABITAT UNIT RATING	Site average habitat unit quantitative rating (out of 35; bold indicates excluded from site rating)	25	20
	Site average qualitative rating Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7), Not rated (not used to rate site)	Good	Fair
	PROJECT SITE NUMBER	1	2
SITE RATING	Site quantitative rating (sum of site average feature and habitat unit ratings) (out of 50; bold indicates rating excludes feature or habitat unit rating and scoring out of 15 or 35)	39	34
	Site qualitative rating: Excellent (>=40), Good (>=30), Fair(>=20), Poor (>=10), Fail (<10)	Good	Good
	ENHANCEMENT REACH NAME	GP	
ENHANCEMENT REACH RATING	Enhancement reach quantitative rating (average of site ratings) (out of 50)	36	
	Enhancement reach qualitative rating: Excellent (>=40), Good (>=30), Fair(>=20), Poor (>=10), Fail (<10)	Good	

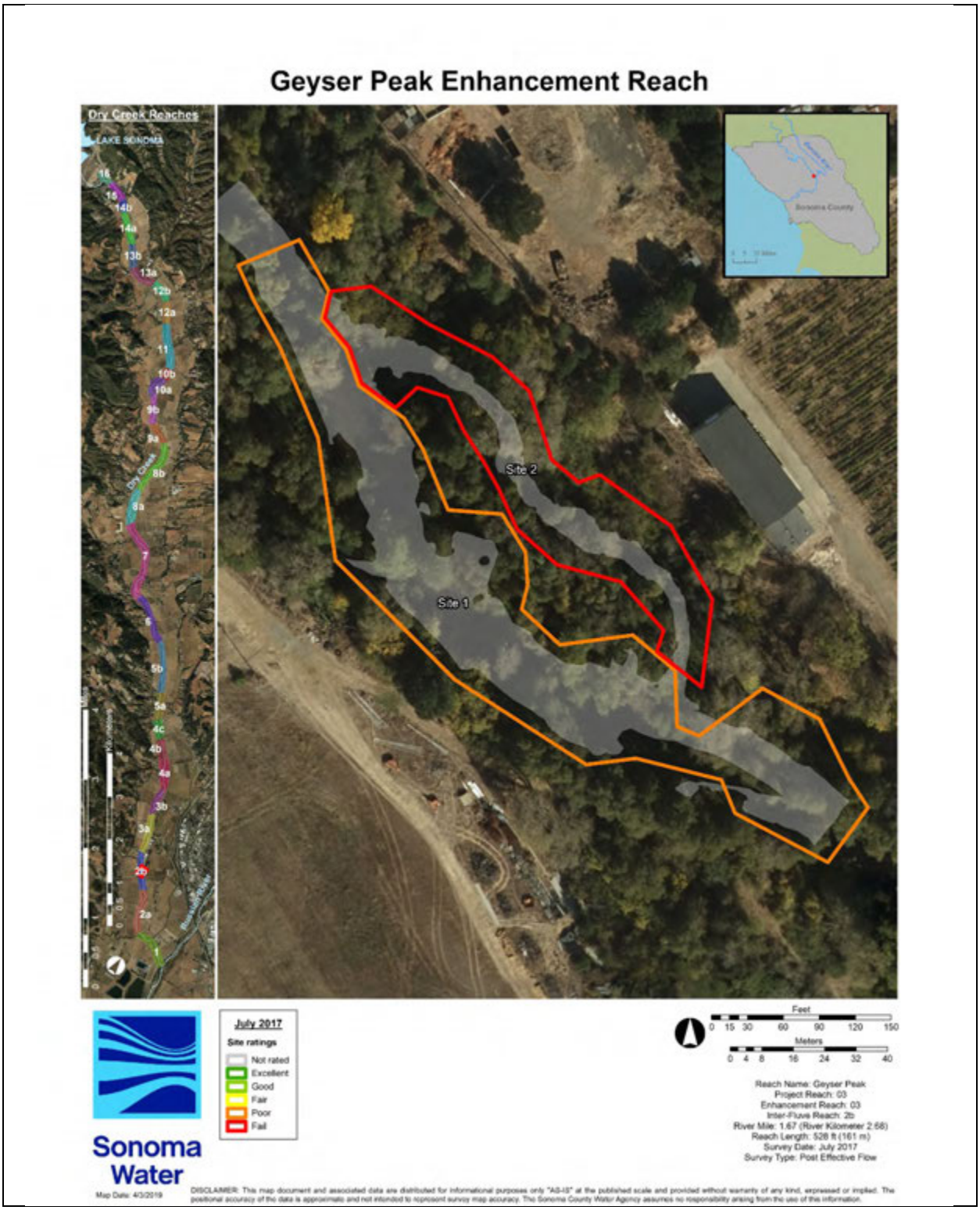


Figure 101. Post-effective flow site ratings for the Geyser Peak enhancement reach, July 2017.

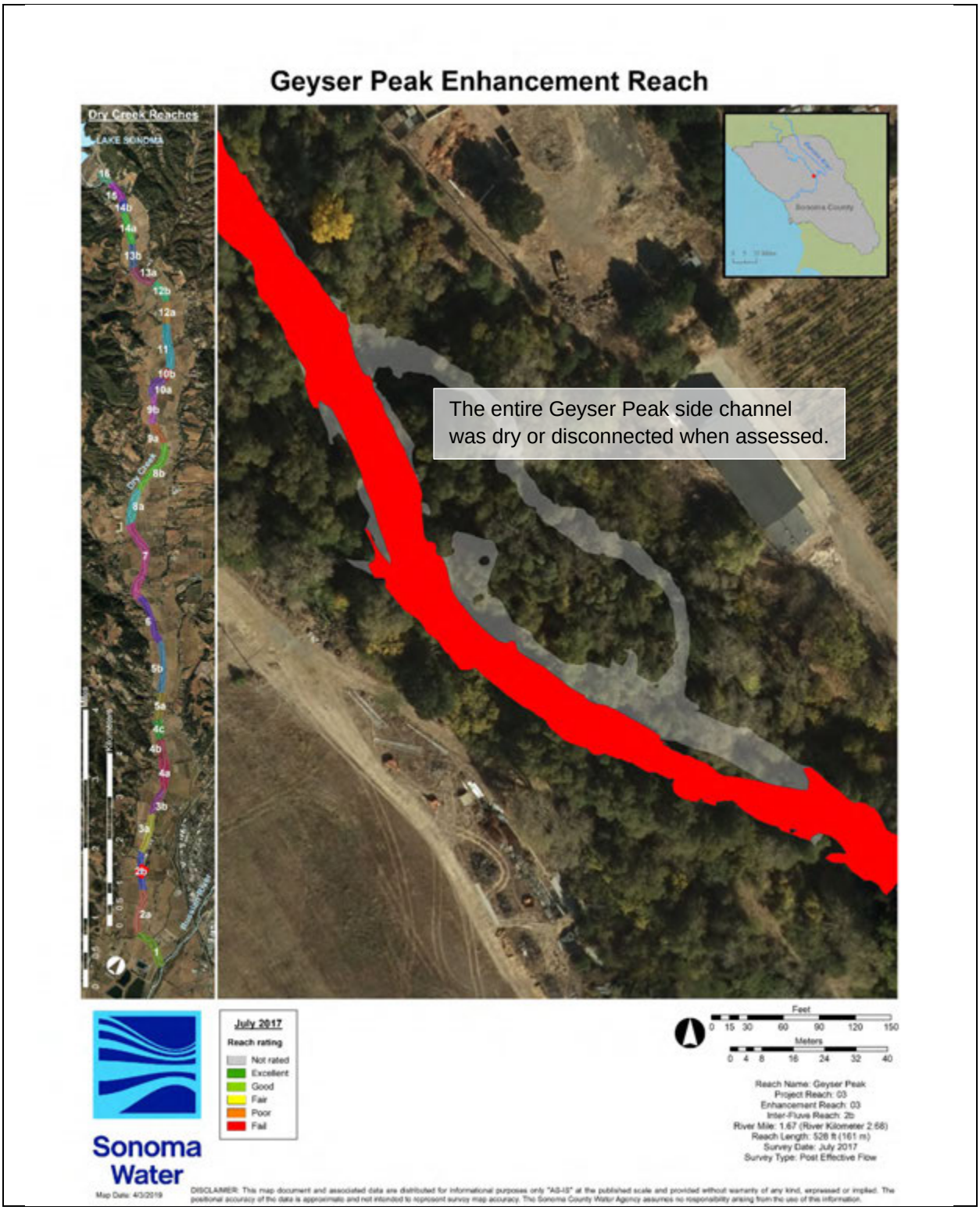


Figure 102. Post-effective flow reach rating for the Geyser Peak enhancement reach, July 2017.

Feature and Habitat Unit Checklists

Table 60. Adaptive Management Plan targeted checklist for the Geyser Peak enhancement reach, July 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan
	Project Feature Number	NA	NA	NA	NA	NA	NA	NA	NA	NA	S1-05	S1-07	S1-08	S1-10	S1-11	S1-12	S2-01	S2-02	S2-03
	Feature Type Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	LWS	LW	HW2	HW1	LW	LWS	R	HW2	HW1
	Habitat Unit	HU01	HU02	HU03	HU04	HU05	HU06	HU07	HU08	HU09	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU02_D	HU02_D	HU02_D
	Habitat Type	Flatwater	Pool	Riffle	Pool	Riffle	Flatwater	Pool	Riffle	Pool	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	NA	NA	NA	NA	NA	NA	NA	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	FAIL	UNKN	UNKN
5a	Are problems with the **feature** visible?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
6a	Is the **feature** still in its original location?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
6b	Is the **feature** still in its original position?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
6d	Is the **feature** still in its original orientaton?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	65%	41%	85%	53%	75%	83%	47%	59%	67%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	24%	49%	0%	41%	4%	6%	32%	0%	18%	0%	0%	0%	0%	0%	0%	0%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	1	3	2	3	3	1	3	0	0	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	35	20	10	30	25	30	15	10	35	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	105	60	10	90	50	90	45	10	105	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
25.	Did the **feature** achieve the targeted velocity?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	33%	39%	7%	21%	23%	17%	55%	27%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	19%	16%	2%	13%	11%	8%	29%	1%	7%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	4%	15%	0%	4%	0%	1%	4%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	FEATURE NUMBER	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**S1-05**	**S1-07**	**S1-08**	**S1-10**	**S1-11**	**S1-12**	**S2-01**	**S2-02**	**S2-03**
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU09**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU02_D**	**HU02_D**	**HU02_D**
	SITE NUMBER	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**2**	**2**
	ENHANCEMENT REACH NAME	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	4	0	4	0	0	3	0	1	0	0	0	0	0	0	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	3	5	4	5	5	3	5	0	0	0	0	0	0	0	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	2	2	1	2	2	2	1	1	2	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	4	2	0	3	1	3	1	0	4	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	3	0	2	2	1	4	2	2	0	0	0	0	0	0	0	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 60. Adaptive Management Plan targeted checklist for the Geyser Peak enhancement reach, July 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S2-04.1	S2-04.2	S2-04.3	S2-05	S2-06	S2-07.1	S2-07.2	S2-08	S2-09.1	S2-09.2	S2-10	S2-11	S2-12.1	S2-12.2	S2-12.3	S2-13.1	S2-13.2	S2-14	
	Feature Type Code	PW	PW	PW	HW1	R	HW2	HW1	HW2	HW2	HW1	HW1	HW1	PW	PW	PW	HW1	HW1	R	
	Habitat Unit	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
4	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	UNKN	UNKN	UNKN	UNKN	FAIL	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	FAIL
5a	Are problems with the **feature** visible?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6a	Is the **feature** still in its original location?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6b	Is the **feature** still in its original position?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6d	Is the **feature** still in its original orientation?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
8	If an objective, did the **feature** create the targeted instream habitat type?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
9	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
14	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Percent of **habitat unit** covered by shelter: %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
25	Did the **feature** achieve the targeted velocity?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
28	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	FEATURE NUMBER	**S2-04.1**	**S2-04.2**	**S2-04.3**	**S2-05**	**S2-06**	**S2-07.1**	**S2-07.2**	**S2-08**	**S2-09.1**	**S2-09.2**	**S2-10**	**S2-11**	**S2-12.1**	**S2-12.2**	**S2-12.3**	**S2-13.1**	**S2-13.2**	**S2-14**	
	HABITAT UNIT NUMBER	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	
	SITE NUMBER	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	
	ENHANCEMENT REACH NAME	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	
4	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6d	Is the **feature** still in its original orientation? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 60. Adaptive Management Plan targeted checklist for the Geyser Peak enhancement reach, July 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S2-15	S2-16.1	S2-16.2	S2-17	S2-18.1	S2-18.2	S2-18.3	S2-19	S2-20	S2-21.1	S2-21.2	S2-21.3	S2-21.4	S2-22.1	S2-22.2	S2-23	
	Feature Type Code	HW2	HW2	HW1	LW	PW	PW	PW	HW1	ALJ	HW1	HW2	HW1	HW1	HW1	HW1	TT	
	Habitat Unit	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	UNKN	UNKN	UNKN	UNKN	GOOD	GOOD	GOOD	UNKN	FAIR	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	
5a	Are problems with the **feature** visible?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
6a	Is the **feature** still in its original location?	NO	NO	NO	NO	YES	YES	YES	NO	YES	NO	NO	NO	NO	NO	NO	NO	
6b	Is the **feature** still in its original position?	NO	NO	NO	NO	YES	YES	YES	NO	YES	NO	NO	NO	NO	NO	NO	NO	
6d	Is the **feature** still in its original orientaton?	NO	NO	NO	NO	YES	YES	YES	NO	YES	NO	NO	NO	NO	NO	NO	NO	
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15.	Percent of **habitat unit** covered by shelter: %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
25.	Did the **feature** achieve the targeted velocity?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	FEATURE NUMBER	**S2-15**	**S2-16.1**	**S2-16.2**	**S2-17**	**S2-18.1**	**S2-18.2**	**S2-18.3**	**S2-19**	**S2-20**	**S2-21.1**	**S2-21.2**	**S2-21.3**	**S2-21.4**	**S2-22.1**	**S2-22.2**	**S2-23**	
	HABITAT UNIT NUMBER	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	**HU02_D**	
	SITE NUMBER	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	
	ENHANCEMENT REACH NAME	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	0	0	4	4	4	0	3	0	0	0	0	0	0	0	
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Table 61. Adaptive Management Plan full checklist for the Geyser Peak enhancement reach, July 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan
	Project Feature Number	NA	NA	NA	NA	NA	NA	NA	NA	NA	S1-05	S1-07	S1-08	S1-10	S1-11	S1-12	S2-01	S2-02	S2-03
	Feature Type Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	LWS	LW	HW2	HW1	LW	LWS	R	HW2	HW1
	Habitat Unit	HU01	HU02	HU03	HU04	HU05	HU06	HU07	HU08	HU09	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU02_D	HU02_D	HU02_D
	Habitat Type	Flatwater	Pool	Riffle	Pool	Riffle	Flatwater	Pool	Riffle	Pool	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
1.	Length of targeted treatment (ft)										15	16	10	15	14	23		8	10
2.	Width of targeted treatment: (ft)										25	35	20	20	40	30		10	5
3.	Estimate area of the targeted **feature**: (ft²)										375	560	200	300	560	690		80	50
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	NA	NA	NA	NA	NA	NA	NA	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	FAIL	UNKN	UNKN
5a	Are problems with the **feature** visible?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NA	NA	NA	NA	NA	NA	NA	NA	NA	BBB	BBB	BBB	BBB	BBB	BBB	STR	BBB	BBB
6a	Is the **feature** still in its original location?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
6b	Is the **feature** still in its original position?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
6c	If yes: LBK, MDC, RBK, SPN, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
6d	Is the **feature** still in its original orientaton?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	FLT	POO	RIF	POO	RIF	FLT	POO	RIF	POO	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
10.	Mean water depth in **habitat unit**: ft	1.5	2.0	0.9	1.8	0.9	1.2	1.4	0.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11a	Maximum water depth in **habitat unit**: ft	3.7	4.5	2.0	3.9	2.9	3.3	3.4	2.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	3727.6	1010.8	3245.6	1909.7	4563.8	10240.0	1445.1	1079.0	2940.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	1392.4	1203.5	0.0	1494.8	233.2	715.5	975.6	0.1	783.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	5119.9	2214.3	3245.6	3404.4	4797.0	10955.5	2420.8	1079.1	3724.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	65%	41%	85%	53%	75%	83%	47%	59%	67%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	24%	49%	0%	41%	4%	6%	32%	0%	18%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	89%	89%	85%	94%	79%	89%	79%	59%	85%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft²:										350	250	120	140	350	450		80	50
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	1	3	2	3	3	1	3	0	0	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	35	20	10	30	25	30	15	10	35	0	0	0	0	0	0	0	0	0
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	TVG	TVG	TVG	TVG	TVG	TVG	TVG	TVG	TVG	NON	NON	NON	NON	NON	NON	NON	NON	NON
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	LWD	UCB	SWD	SWD	UCB	SWD	SWD	NON	SWD	NON	NON	NON	NON	NON	NON	NON	NON	NON
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	105	60	10	90	50	90	45	10	105	0	0	0	0	0	0	0	0	0
18a	Large woody debris count in **habitat unit**: D >1", L 6-20'	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1", L >20'	5	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	INT	NON	NON	UNK	NON	UNK	UNK	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA							AGG	AGG	AGG
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA							AGG	AGG	AGG
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NA	NA	NA	NA	NA	NO	NO	NO
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	3.6	4.1	4.5	3.1	3.6	3.7	4.7	4.6	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26c	Measured mean velocity (ft/sec) in **habitat unit**	1.2	1.3	2.4	1.4	1.8	1.6	1.1	2.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft²)	1920.7	957.1	274.9	770.3	1399.5	2105.2	1681.9	490.4	878.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	33%	39%	7%	21%	23%	17%	55%	27%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	COB	SND	COB	SND	SND	COB	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND
31.	If an objective, did the **feature** achieve the targeted substrate composition?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	1347.5	765.9	59.6	603.1	714.5	1142.0	1024.7	12.8	446.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	1110.6	397.9	59.6	466.7	685.4	975.7	907.8	12.8	293.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	237.0	368.0	0.0	136.4	29.2	166.3	116.9	0.0	153.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	23%	31%	2%	17%	12%	9%	33%	1%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	19%	16%	2%	13%	11%	8%	29%	1%	7%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	4%	15%	0%	4%	0%	1%	4%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NA	NA	NA	NA	NA	NA	NA	NA	NA	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT
38.	Are additional restoration treatments recommended at this **site**?	NA	NA	NA	NA	NA	NA	NA	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES

Table 61. Adaptive Management Plan full checklist for the Geyser Peak enhancement reach, July 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S2-04.1	S2-04.2	S2-04.3	S2-05	S2-06	S2-07.1	S2-07.2	S2-08	S2-09.1	S2-09.2	S2-10	S2-11	S2-12.1	S2-12.2	S2-12.3	S2-13.1	S2-13.2	S2-14
	Feature Type Code	PW	PW	PW	HW1	R	HW2	HW1	HW2	HW2	HW1	HW1	HW1	PW	PW	PW	HW1	HW1	R
	Habitat Unit	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
1.	Length of targeted treatment (ft)	20	20	20	11		8	7	10	6	6	10	7	8	8	8	11	11	
2.	Width of targeted treatment: (ft)	5	5	5	8		15	10	8	11	10	10	9	9	9	9	9	9	
3.	Estimate area of the targeted **feature**: (ft^2)	100	100	100	88		120	70	80	66	60	100	63	72	72	72	99	99	
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	UNKN	UNKN	UNKN	UNKN	FAIL	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	FAIL
5a	Are problems with the **feature** visible?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	BBB	BBB	BBB	BBB	STR	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	STR
6a	Is the **feature** still in its original location?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6b	Is the **feature** still in its original position?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6c	If yes: LBK, MDC, RBK, SPN, OTH	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
6d	Is the **feature** still in its original orientaton?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
10.	Mean water depth in **habitat unit**: ft	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11a	Maximum water depth in **habitat unit**: ft	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	100	100	100	88		120	70	80	66	60	100	63	72	72	72	99	99	
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT
38.	Are additional restoration treatments recommended at this **site**?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Table 61. Adaptive Management Plan full checklist for the Geyser Peak enhancement reach, July 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517	72517
	Survey Type	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF	PEF
	Project Site Number	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S2-15	S2-16.1	S2-16.2	S2-17	S2-18.1	S2-18.2	S2-18.3	S2-19	S2-20	S2-21.1	S2-21.2	S2-21.3	S2-21.4	S2-22.1	S2-22.2	S2-23
	Feature Type Code	HW2	HW2	HW1	LW	PW	PW	PW	HW1	ALJ	HW1	HW2	HW1	HW1	HW1	HW1	TT
	Habitat Unit	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D	HU02_D
	Habitat Type	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
1.	Length of targeted treatment (ft)	12	5	7	28	20	20	20	8	25	8	10	8	8	6	12	15
2.	Width of targeted treatment: (ft)	6	5	5	15	8	8	8	8	21	6	7	15	8	7	10	30
3.	Estimate area of the targeted **feature**: (ft^2)	72	25	35	420	160	160	160	64	525	48	70	120	64	42	120	450
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	UNKN	UNKN	UNKN	UNKN	GOOD	GOOD	GOOD	UNKN	FAIR	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN
5a	Are problems with the **feature** visible?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	STR	BBB	BBB	BBB	BBB	BBB	BBB	BBB
6a	Is the **feature** still in its original location?	NO	NO	NO	NO	YES	YES	YES	NO	YES	NO	NO	NO	NO	NO	NO	NO
6b	Is the **feature** still in its original position?	NO	NO	NO	NO	YES	YES	YES	NO	YES	NO	NO	NO	NO	NO	NO	NO
6c	If yes: LBK, MDC, RBK, SPN, OTH	UNK	UNK	UNK	UNK	OTH	OTH	OTH	UNK	LBK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
6d	Is the **feature** still in its original orientaton?	NO	NO	NO	NO	YES	YES	YES	NO	YES	NO	NO	NO	NO	NO	NO	NO
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	UNK	UNK	UNK	UNK	NA	NA	NA	UNK	MUL	UNK	UNK	UNK	UNK	UNK	UNK	UNK
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
10.	Mean water depth in **habitat unit**: ft	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11a	Maximum water depth in **habitat unit**: ft	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	72	25	35	420	160	160	160	64	525	48	70	120	64	42	120	450
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18a	Large woody debris count in **habitat unit**: D >1", L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1", L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG	AGG
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT
38.	Are additional restoration treatments recommended at this **site**?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Post-repair 2017

Truett Hurst Post-repair, October 2017

Depth and Velocity

Table 62. Areas and percentages of: wetted area, optimal depth and velocity, and optimal hydraulic habitat within the Truett Hurst enhancement reach, October 2017.

Truett Hurst Post-repair October 2017	Wetted area (ft^2)	Optimal depth (ft^2)			Optimal velocity (ft^2)	Optimal habitat (ft^2)		
		0.5 – 2.0 ft	2.0 – 4.0 ft	Total	< 0.5 ft/s	0.5 – 2.0 ft < 0.5 ft/s	2.0 – 4.0 ft < 0.5 ft/s	Total
Main channel area	8,820	5,805	1,943	7,748	1,937	995	83	1,078
Side channel alcove area	4,516	1,884	1,784	3,668	4,509	1,883	1,778	3,661
Side channel area	27,095	11,112	11,775	22,886	9,281	4,860	1,890	6,750
Total area	**40,431**	**18,801**	**15,502**	**34,303**	**15,727**	**7,738**	**3,751**	**11,489**
Main channel % of wetted area	22%	66%	22%	88%	22%	11%	1%	12%
Side channel % of area	11%	41%	43%	84%	34%	18%	7%	25%
Side channel alcove % of wetted area	67%	42%	40%	81%	100%	42%	39%	81%
Total % of wetted area	**100%**	**47%**	**38%**	**85%**	**39%**	**19%**	**9%**	**28%**

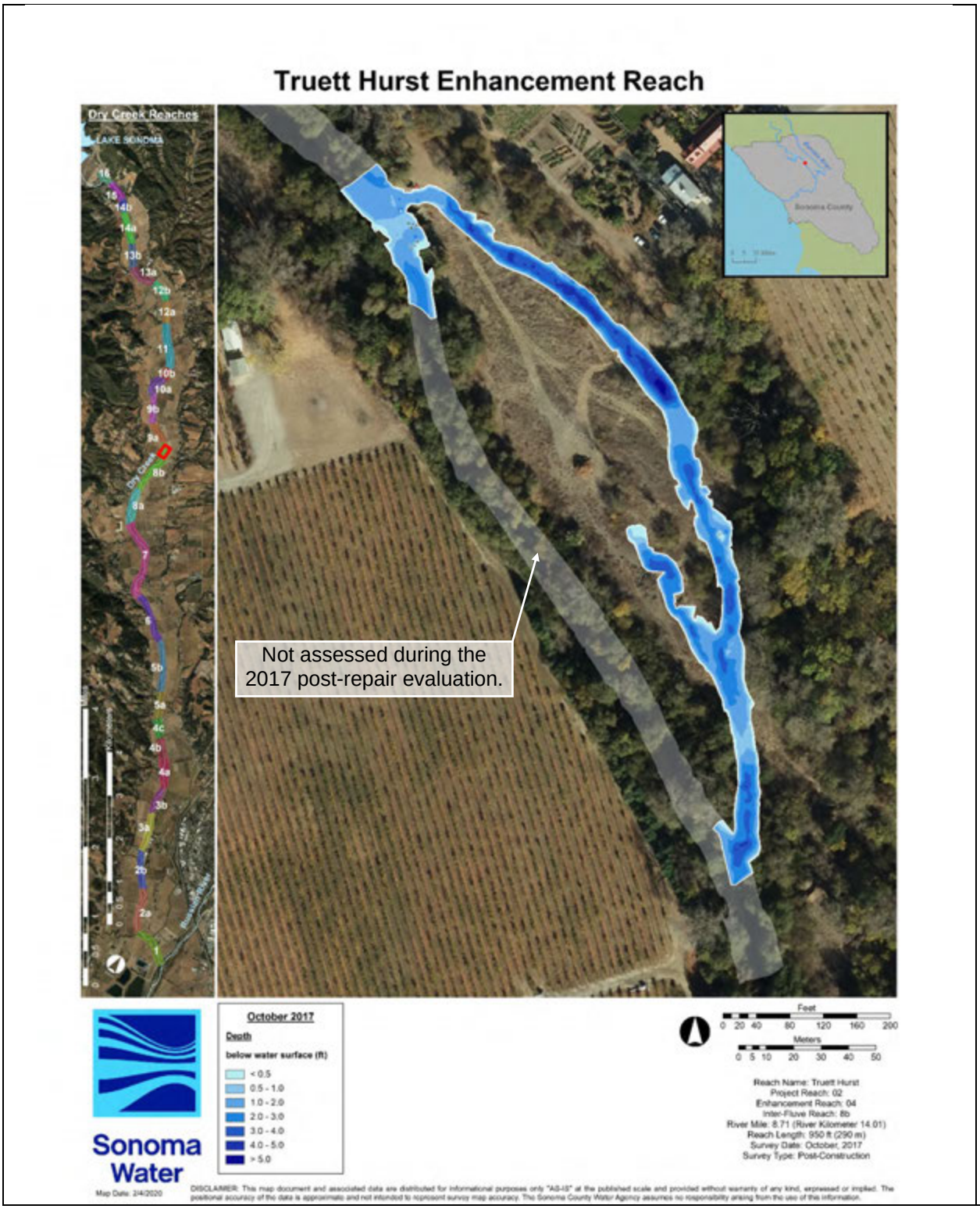


Figure 103. Measured water depth within the Truett Hurst enhancement reach, October 2017.

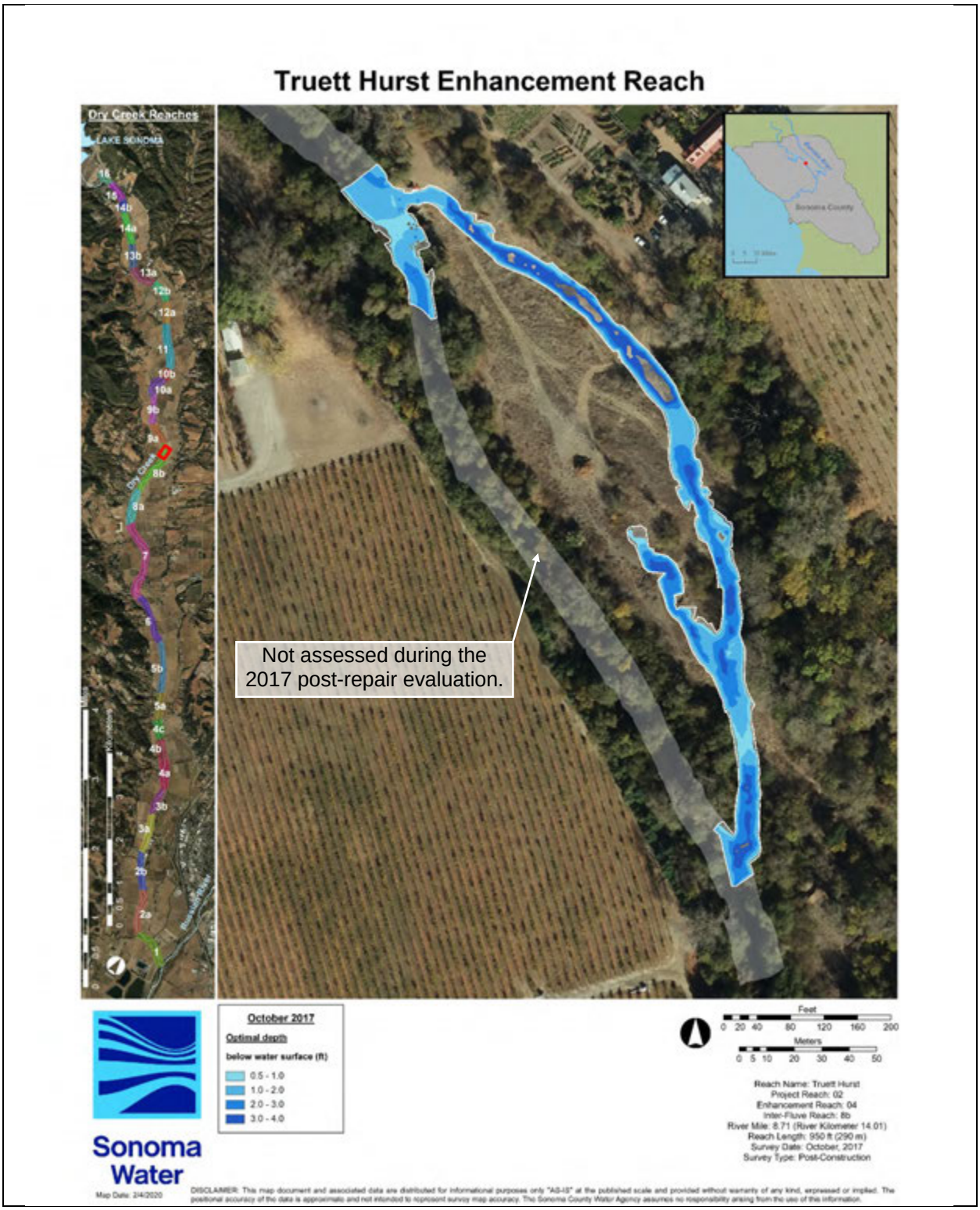


Figure 104. Optimal water depth for fry (0.5-2.0 ft) and parr (2.0-4.0 ft) within the Truett Hurst enhancement reach, October 2017.

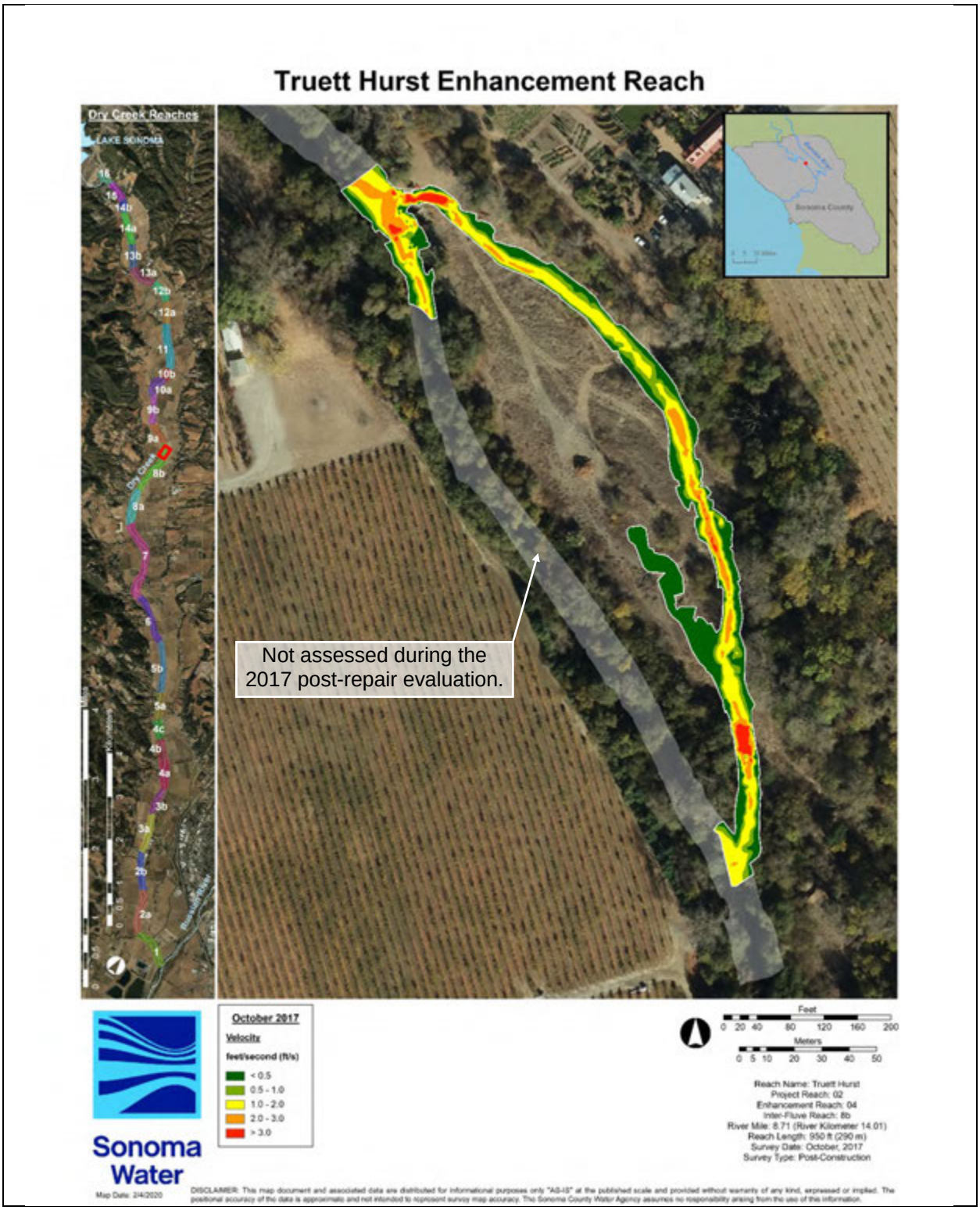


Figure 105. Measured water velocity within the Truett Hurst enhancement reach, October 2017.

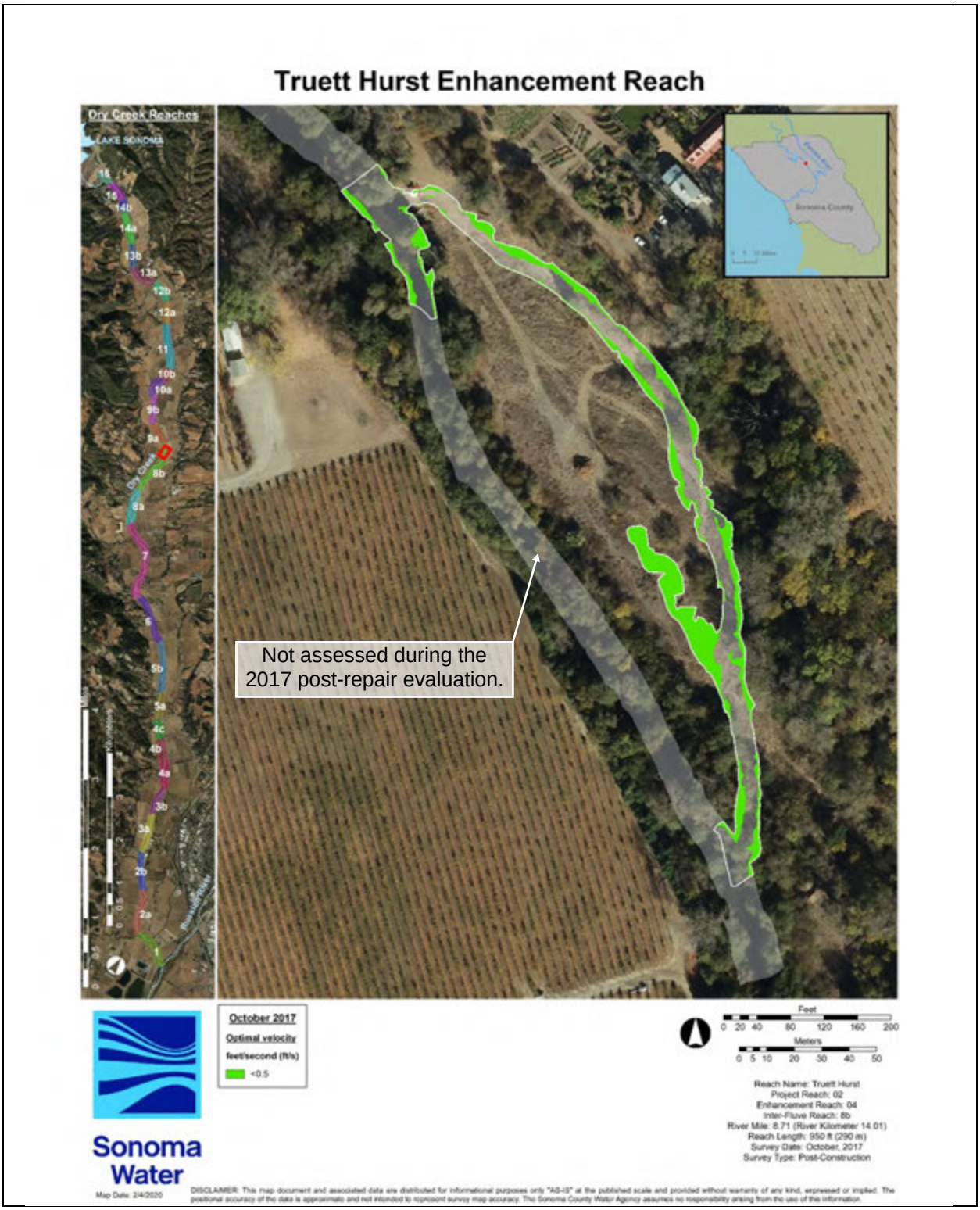


Figure 106. Optimal water velocity for fry and parr (< 0.5 ft/s) within the Truett Hurst enhancement reach, October 2017.

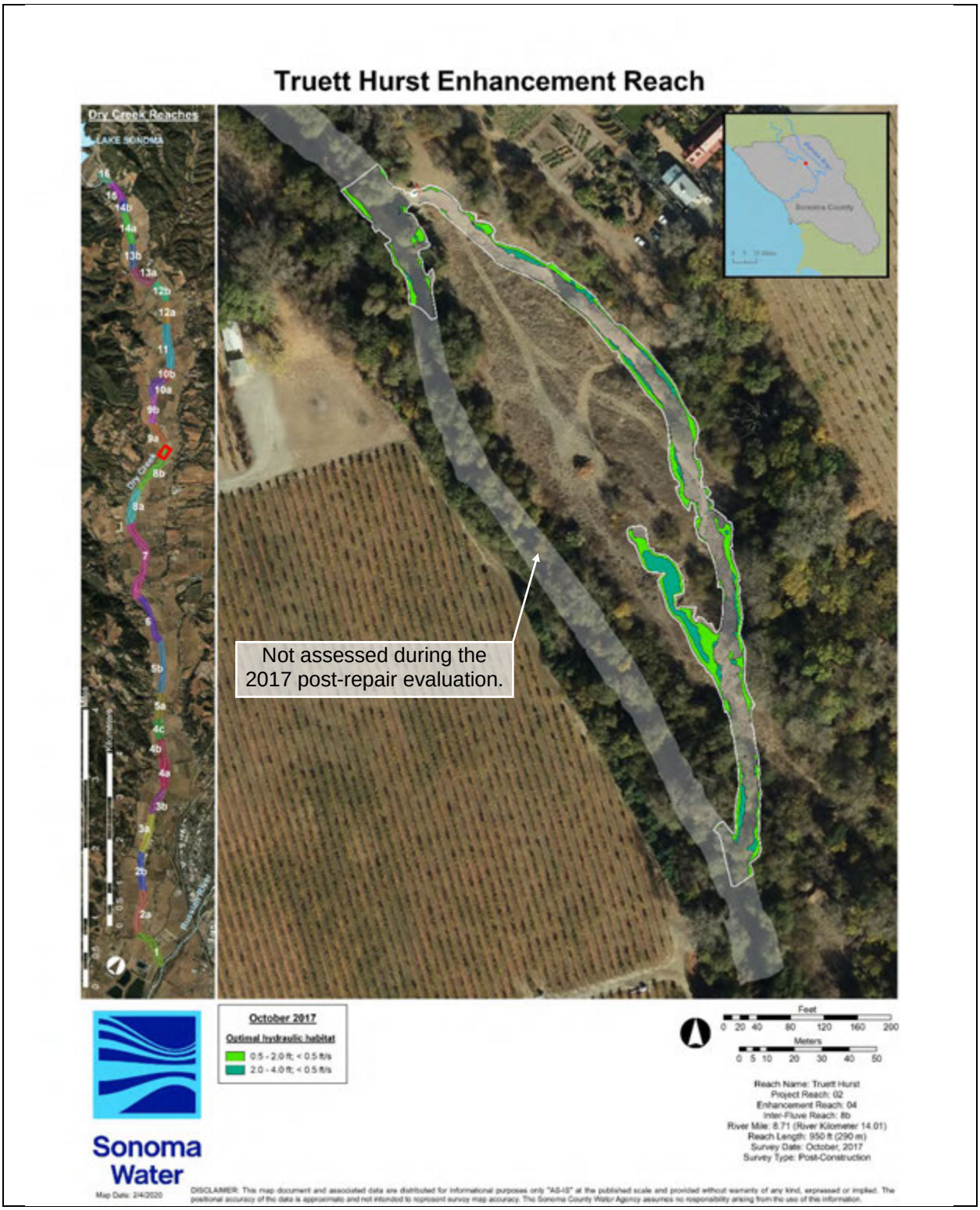


Figure 107. Optimal hydraulic habitat for fry (<0.5 f/s, 0.5-2.0 ft) and parr (<0.5 f/s, 2.0-4.0 ft) within the Truett Hurst enhancement reach, October 2017.

Habitat Types and Shelter Values

Table 63. Habitat, types, shelter value, percent cover, and shelter score for habitat units within the Truett Hurst enhancement reach, October 2017.

Post-repair (October 2017)				
Habitat Unit #	**Habitat Type**	**Shelter Value**	**Percent Cover**	**Shelter Score**
HU01	Pool	0	0	0
HU02	Pool	3	20	60
HU03	Riffle	2	35	70
HU04	Pool	3	40	120
HU05	Alcove	3	25	75
HU06	Flatwater	3	10	30
HU07	Pool	3	25	75
HU08	Riffle	3	15	45
HU09	Flatwater	0	0	0

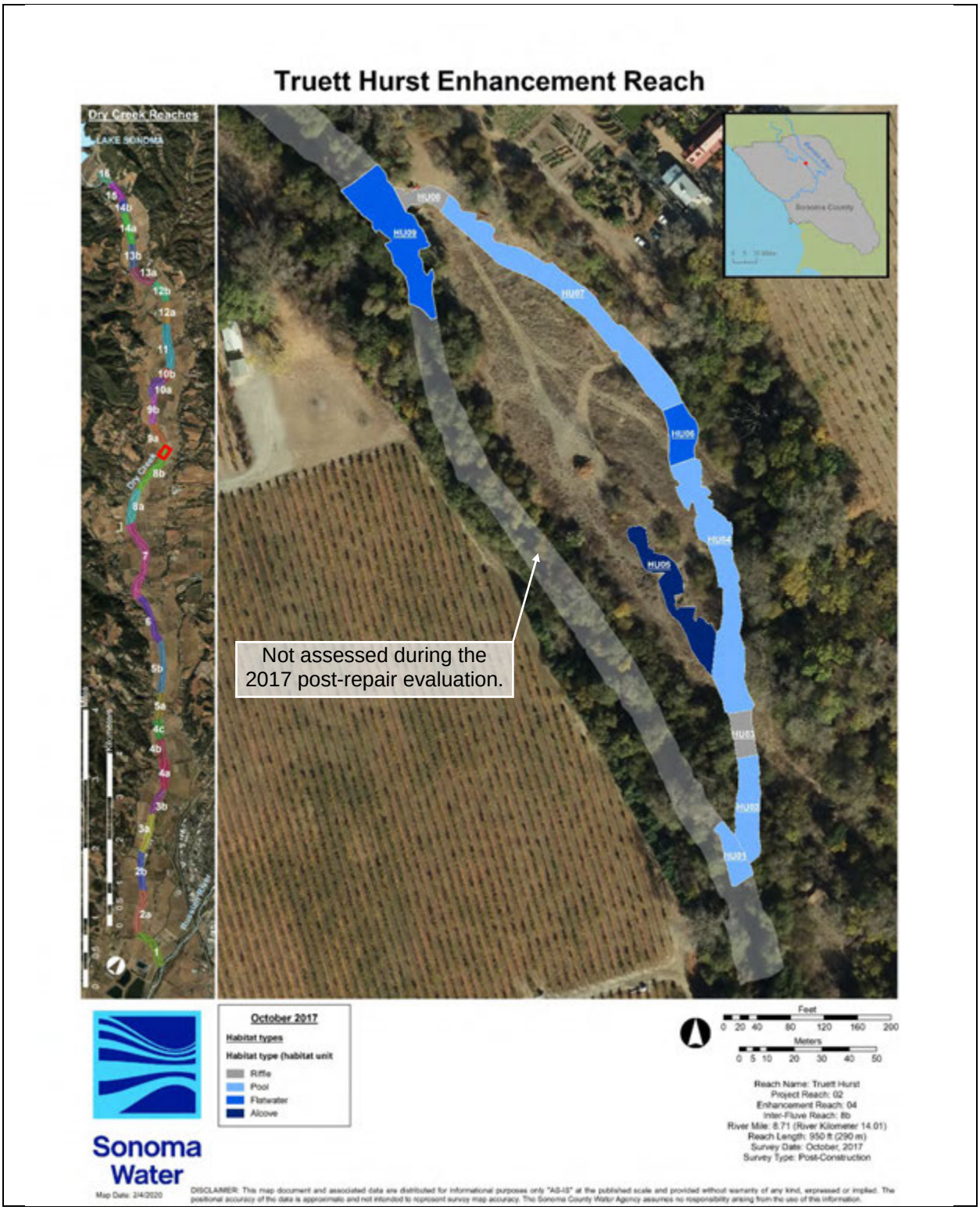


Figure 108. Habitat unit number and type within the Truett Hurst enhancement reach, October 2017.

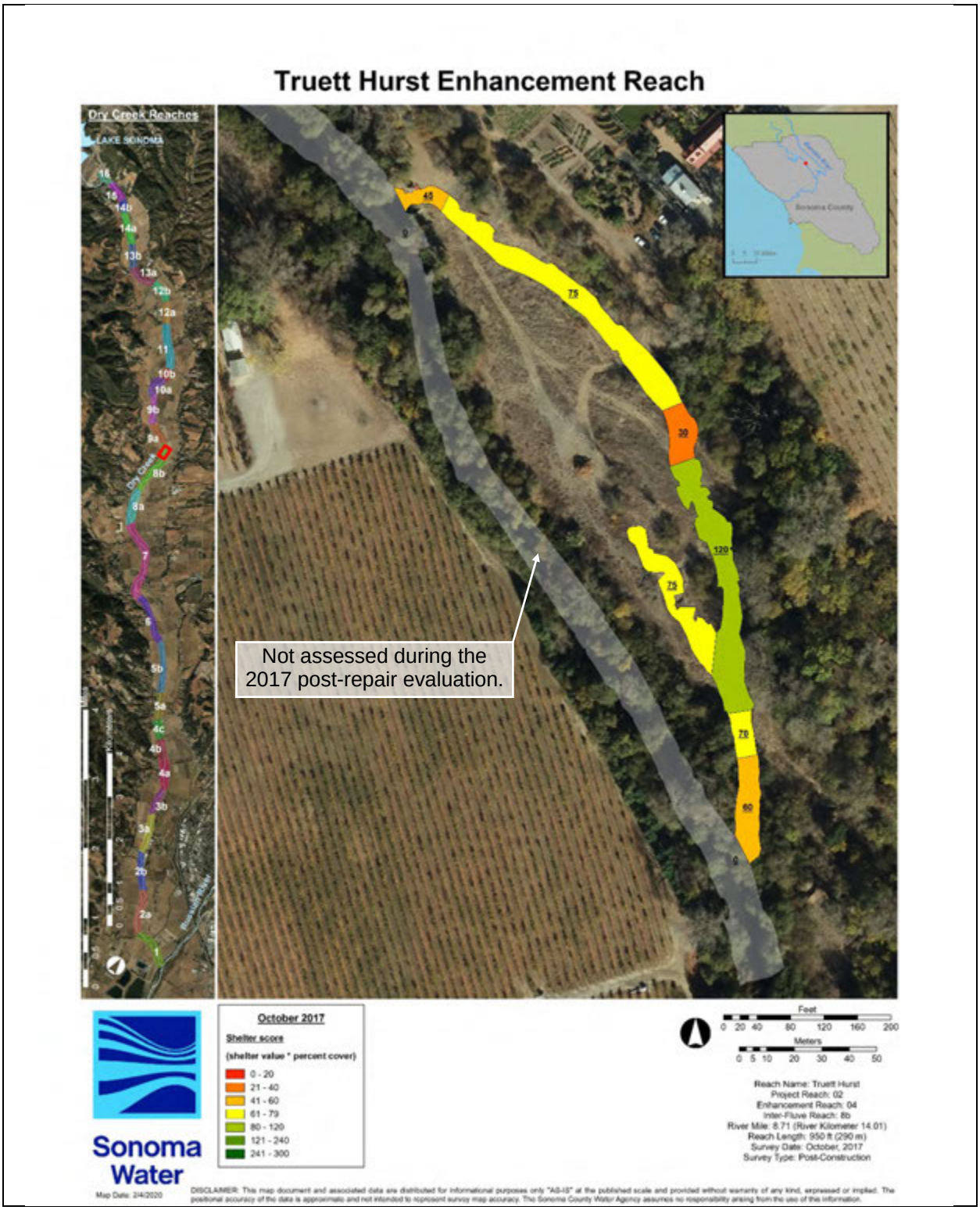


Figure 109. Habitat unit shelter scores within the Truett Hurst enhancement reach, October 2017. Post-repair shelter data was only collected for side channel habitat units.

Feature, Habitat Unit, Site, and Reach Ratings

Table 64. Post-repair feature ratings for the Truett Hurst enhancement reach October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	NA	NA	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S2-07	S2-08	S2-09	S2-10	S2-11	S2-12	S2-13	S2-14	S2-15	S2-16
	Feature Type Code	NA	NA	BCW	HW	HW	SCW	R	HW	HW	SCW	SCW	HW	HW	HW	SCW	SCW	SCW	HW
	Habitat Unit	HU09	HU01	HU02	HU02	HU02	HU02	HU03	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04
	Habitat Type	Flatwater	Pool	Pool	Pool	Pool	Pool	Riffle	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	PROJECT FEATURE NUMBER	**NA**	**NA**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**	**S2-10**	**S2-11**	**S2-12**	**S2-13**	**S2-14**	**S2-15**	**S2-16**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	PROJECT FEATURE NUMBER	**NA**	**NA**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**	**S2-10**	**S2-11**	**S2-12**	**S2-13**	**S2-14**	**S2-15**	**S2-16**
FEATURE RATING	Feature quantitative rating out of 15	0	0	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Not rated	Not rated	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

Table 64. Post-repair feature ratings for the Truett Hurst enhancement reach October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25	S2-26	S2-27	S2-28	S2-29	S2-30	S2-31	S2-32	S2-33	S2-34
	Feature Type Code	HW	HW	R	HW	HW	FW	SCW	SCW	HW	R	HW	HW	HW	HW	FW	HW	FW	SCW
	Habitat Unit	HU04	HU04	HU06	HU06	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU07	HU07	HU01_D	HU07	HU07	HU07	HU07
	Habitat Type	Pool	Pool	Flatwater	Flatwater	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Pool	Pool	Dry	Pool	Pool	Pool	Pool
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	GOOD	GOOD	UNKN	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	UNK	UNK	YES	YES	UNK	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	UNK	UNK	YES	YES	UNK	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	UNK	UNK	YES	YES	UNK	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	YES	YES	YES	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	YES	YES	YES	YES
	PROJECT FEATURE NUMBER	**S2-17**	**S2-18**	**S2-19**	**S2-20**	**S2-21**	**S2-22**	**S2-23**	**S2-24**	**S2-25**	**S2-26**	**S2-27**	**S2-28**	**S2-29**	**S2-30**	**S2-31**	**S2-32**	**S2-33**	**S2-34**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	4	4	4	0	0	0	0	0	0	0	4	4	0	4	4	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
	PROJECT FEATURE NUMBER	**S2-17**	**S2-18**	**S2-19**	**S2-20**	**S2-21**	**S2-22**	**S2-23**	**S2-24**	**S2-25**	**S2-26**	**S2-27**	**S2-28**	**S2-29**	**S2-30**	**S2-31**	**S2-32**	**S2-33**	**S2-34**
FEATURE RATING	Feature quantitative rating out of 15	13	13	13	13	0	0	0	0	0	0	0	13	13	0	13	13	13	13
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Excellent	Excellent	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Excellent	Excellent	Not rated	Excellent	Excellent	Excellent	Excellent

Table 64. Post-repair feature ratings for the Truett Hurst enhancement reach October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove
	PROJECT FEATURE NUMBER	S2-35	S2-36	S2-37A	S2-37B	S2-37C	S2-38	S3-01	S3-02	S3-03	S3-04	S3-05	S3-06	S3-07	S3-08	S4-01	S4-02	S4-03	S4-04
	Feature Type Code	SCW	SCW	ISW	ISW	ISW	R	BCW	HW	BCW	HW	BCW	HW	FW	P	BCW	HW	HW	HW
	Habitat Unit	HU07	HU07	HU07	HU07	HU07	HU08	HU05	HU05	HU05	HU05	HU05	HU02_D	HU02_D	HU02_D	HU07_2	HU03_D	HU03_D	HU07_2
	Habitat Type	Pool	Pool	Pool	Pool	Pool	Riffle	Alcove	Alcove	Alcove	Alcove	Alcove	Dry	Dry	Dry	Pool	Dry	Dry	Pool
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	UNKN	UNKN	UNKN	GOOD	UNKN	UNKN	GOOD
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES	YES	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	YES	UNK	UNK	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	YES	UNK	UNK	YES
6d	Is the **feature** still in its original orientation?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	YES	UNK	UNK	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	NO	NO	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES	YES	NO
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	NO	NO	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	NO	NO	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	NO	NO	NO
	PROJECT FEATURE NUMBER	**S2-35**	**S2-36**	**S2-37A**	**S2-37B**	**S2-37C**	**S2-38**	**S3-01**	**S3-02**	**S3-03**	**S3-04**	**S3-05**	**S3-06**	**S3-07**	**S3-08**	**S4-01**	**S4-02**	**S4-03**	**S4-04**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	4	4	4	4	4	4	4	4	4	4	0	0	0	4	0	0	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	0
	PROJECT FEATURE NUMBER	**S2-35**	**S2-36**	**S2-37A**	**S2-37B**	**S2-37C**	**S2-38**	**S3-01**	**S3-02**	**S3-03**	**S3-04**	**S3-05**	**S3-06**	**S3-07**	**S3-08**	**S4-01**	**S4-02**	**S4-03**	**S4-04**
FEATURE RATING	Feature quantitative rating out of 15	13	13	13	13	13	13	13	13	13	13	13	0	0	0	13	0	0	12
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Not rated	Not rated	Not rated	Excellent	Not rated	Not rated	Excellent

Table 64. Post-repair feature ratings for the Truett Hurst enhancement reach October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Project Site Type	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP
	PROJECT FEATURE NUMBER	S4-05	S4-06	S4-07	S4-08	NA	S5-01	S5-02	S5-03	S5-04	S5-05	S5-06	S5-07	S5-08	S5-09	S5-10	S5-11	S5-12	S5-13
	Feature Type Code	HW	HW	HW	FW	NA	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW
	Habitat Unit	HU03_D	HU07_2	HU03_D	HU07_2	HU06_2	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D
	Habitat Type	Dry	Pool	Dry	Pool	Flatwater	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	UNKN	GOOD	UNKN	GOOD	NA	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	YES	NO	YES	NO	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	UNK	YES	UNK	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	UNK	YES	UNK	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	UNK	YES	UNK	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	YES	NO	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	YES	NO	YES	NO	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	NO	YES	NO	YES	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NO	YES	NO	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	NO	YES	NO	YES	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
	PROJECT FEATURE NUMBER	**S4-05**	**S4-06**	**S4-07**	**S4-08**	**NA**	**S5-01**	**S5-02**	**S5-03**	**S5-04**	**S5-05**	**S5-06**	**S5-07**	**S5-08**	**S5-09**	**S5-10**	**S5-11**	**S5-12**	**S5-13**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	4	0	4	0	5	5	5	5	5	5	5	5	5	5	5	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PROJECT FEATURE NUMBER	**S4-05**	**S4-06**	**S4-07**	**S4-08**	**NA**	**S5-01**	**S5-02**	**S5-03**	**S5-04**	**S5-05**	**S5-06**	**S5-07**	**S5-08**	**S5-09**	**S5-10**	**S5-11**	**S5-12**	**S5-13**
FEATURE RATING	Feature quantitative rating out of 15	0	13	0	13	0	12	12	12	12	12	12	12	12	12	12	12	12	12
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Not rated	Excellent	Not rated	Excellent	Not rated	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

Table 64. Post-repair feature ratings for the Truett Hurst enhancement reach October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	5	5	5	5	5	5	5	5	5	5	5	5
	Project Site Type	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP
	PROJECT FEATURE NUMBER	S5-14	S5-15	S5-16	S5-17	S5-18	S5-19	S5-20	S5-21	S5-22	S5-23	S5-24	S5-25
	Feature Type Code	FW	FW	FW	mental Large	ank Treatme	Willow Baffle	Willow Baffle	Willow Baffl	Willow Baffl	Willow Baffl	Willow Baffl	Willow Baffl
	Habitat Unit	HU04_D	HU04_D	HU04_D	HU08_2	HU07_3	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D
	Habitat Type	Dry	Dry	Dry	Riffle	Pool	Dry	Dry	Dry	Dry	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL	NA	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NA	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO
	PROJECT FEATURE NUMBER	**S5-14**	**S5-15**	**S5-16**	**S5-17**	**S5-18**	**S5-19**	**S5-20**	**S5-21**	**S5-22**	**S5-23**	**S5-24**	**S5-25**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5	5	5	0	5	5	5	5	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	0	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	0	1	0	0	0	0	0	0	0
	PROJECT FEATURE NUMBER	**S5-14**	**S5-15**	**S5-16**	**S5-17**	**S5-18**	**S5-19**	**S5-20**	**S5-21**	**S5-22**	**S5-23**	**S5-24**	**S5-25**
FEATURE RATING	Feature quantitative rating out of 15	12	12	12	12	13	2	12	12	12	12	12	12
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Excellent	Excellent	Excellent	Fail	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

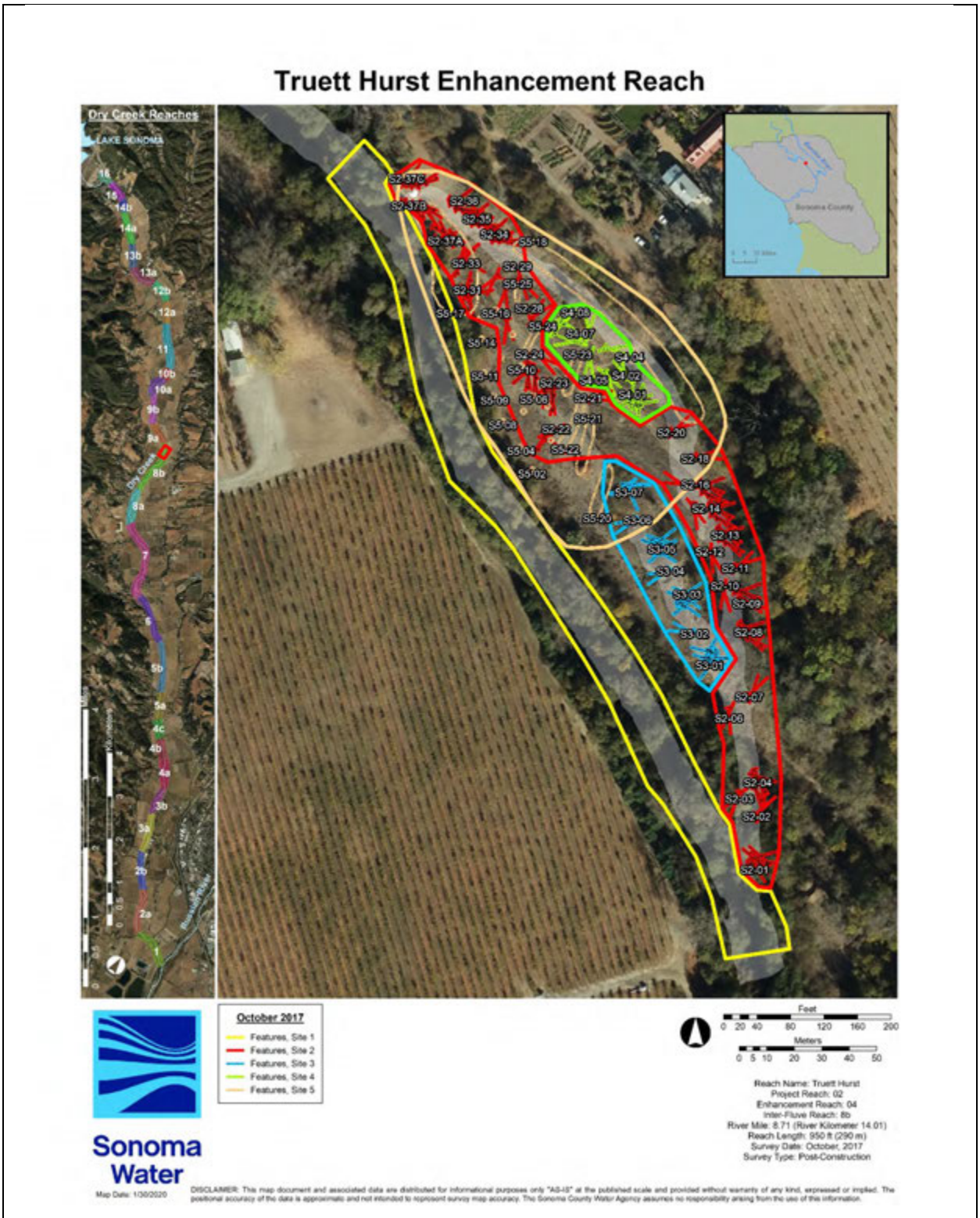


Figure 110. Enhancement sites and features within the Truett Hurst enhancement reach, October 2017.

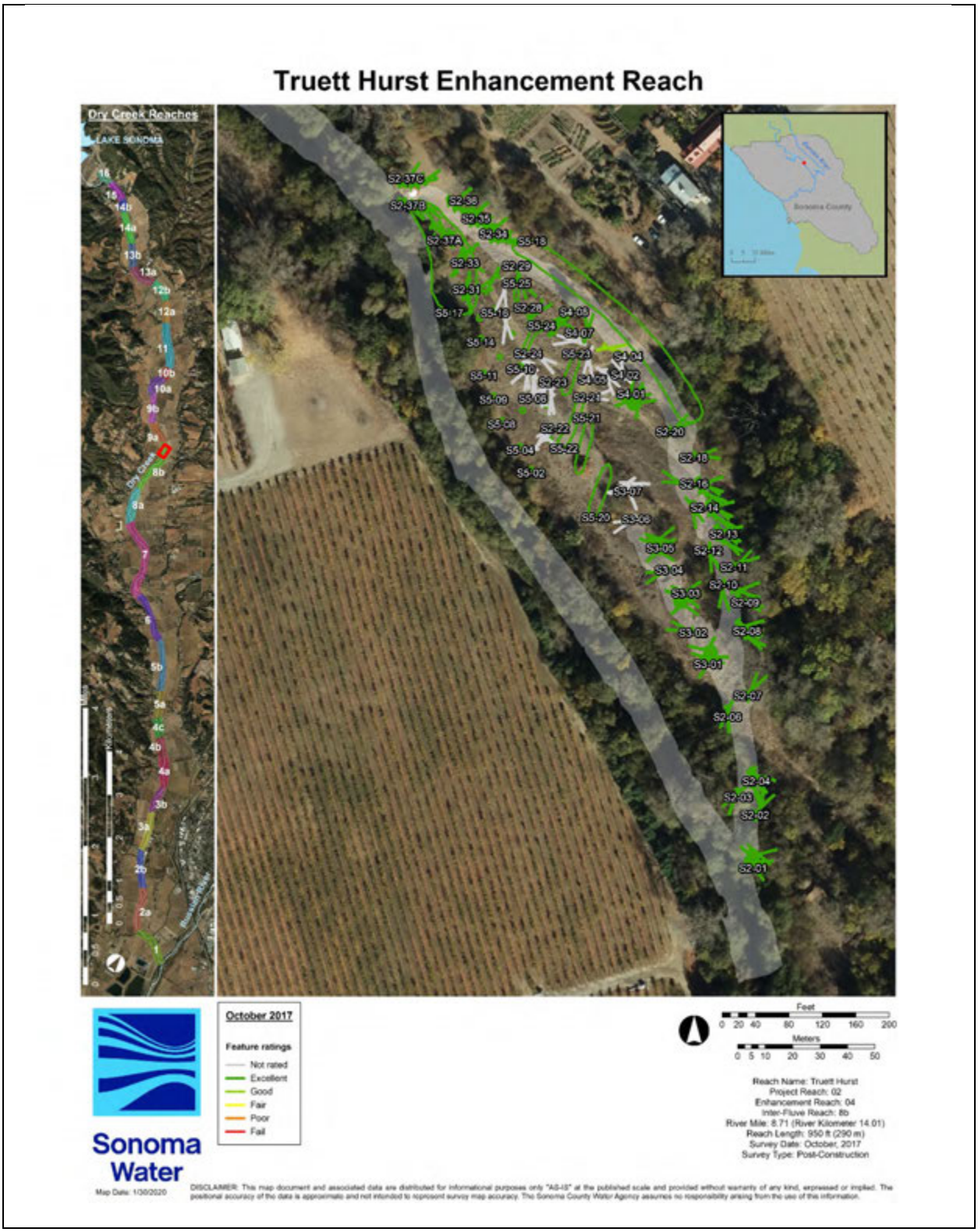


Figure 111. Feature ratings for the Truett Hurst enhancement reach, October 2017.

Table 65. Post-repair habitat unit ratings for the Truett Hurst enhancement reach October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU06_2**	**HU07**	**HU08**	**HU08_2**	**HU09**	**HU01_D**	**HU02_D**	**HU03_D**	**HU04_D**	**HU07_2**	**HU07_3**
	Habitat Type	Pool	Pool	Riffle	Pool	Alcove	Flatwater	Flatwater	Pool	Riffle	Riffle	Flatwater	Dry	Dry	Dry	Dry	Pool	Pool
	PROJECT SITE NUMBER	**1**	**2**	**2**	**2**	**3**	**2**	**5**	**2**	**2**	**5**	**1**	**2**	**3**	**4**	**5**	**4**	**5**
	Project Site Type	MainChan	SideChan	SideChan	SideChan	SC Alcove	SideChan	SC Bank FP	SideChan	SideChan	SC Bank FP	MainChan	SideChan	SC Alcove	SC Alcove	SC Bank FP	SC Alcove	SC Bank FP
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	44%	31%	82%	44%	42%	70%	19%	24%	84%	84%	71%	0%	0%	0%	0%	24%	24%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	49%	59%	0%	46%	40%	19%	0%	52%	1%	1%	16%	0%	0%	0%	0%	52%	52%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	3	2	3	3	3	3	3	3	3	0	0	0	0	0	3	3
15.	Percent of **habitat unit** covered by shelter: %	0	20	35	40	25	10	10	25	15	15	0	0	0	0	0	25	25
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	60	70	120	75	30	30	75	45	45	0	0	0	0	0	75	75
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	12%	42%	9%	37%	100%	30%	30%	36%	19%	19%	24%	0%	0%	0%	0%	36%	36%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	5%	20%	2%	22%	42%	17%	17%	17%	8%	8%	13%	0%	0%	0%	0%	17%	17%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	1%	14%	0%	4%	39%	2%	2%	10%	0%	0%	1%	0%	0%	0%	0%	10%	10%
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU06_2**	**HU07**	**HU08**	**HU08_2**	**HU09**	**HU01_D**	**HU02_D**	**HU03_D**	**HU04_D**	**HU07_2**	**HU07_3**
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	3	4	4	4	4	1	2	4	4	4	0	0	0	0	2	2
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	0	4	3	1	0	4	0	0	1	0	0	0	0	4	4
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	5	4	5	5	5	5	5	5	5	0	0	0	0	0	5	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	2	2	3	2	1	1	2	1	1	0	0	0	0	0	2	2
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	2	2	4	2	0	0	2	1	1	0	0	0	0	0	2	2
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	4	0	3	4	2	2	3	1	1	2	0	0	0	0	3	3
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	1	0	2	4	1	1	1	0	0	1	0	0	0	0	1	1
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	1	0	0	3	0	0	1	0	0	0	0	0	0	0	1	1
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU06_2**	**HU07**	**HU08**	**HU08_2**	**HU09**	**HU01_D**	**HU02_D**	**HU03_D**	**HU04_D**	**HU07_2**	**HU07_3**
HABITAT UNIT RATING	Habitat unit quantitative rating (out of 35)	9	22	12	25	27	14	10	20	12	12	8	0	0	0	0	20	20
	Habitat unit qualitative rating: Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7)	Poor	Good	Poor	Good	Good	Fair	Poor	Fair	Poor	Poor	Poor	Not rated	Not rated	Not rated	Not rated	Fair	Fair

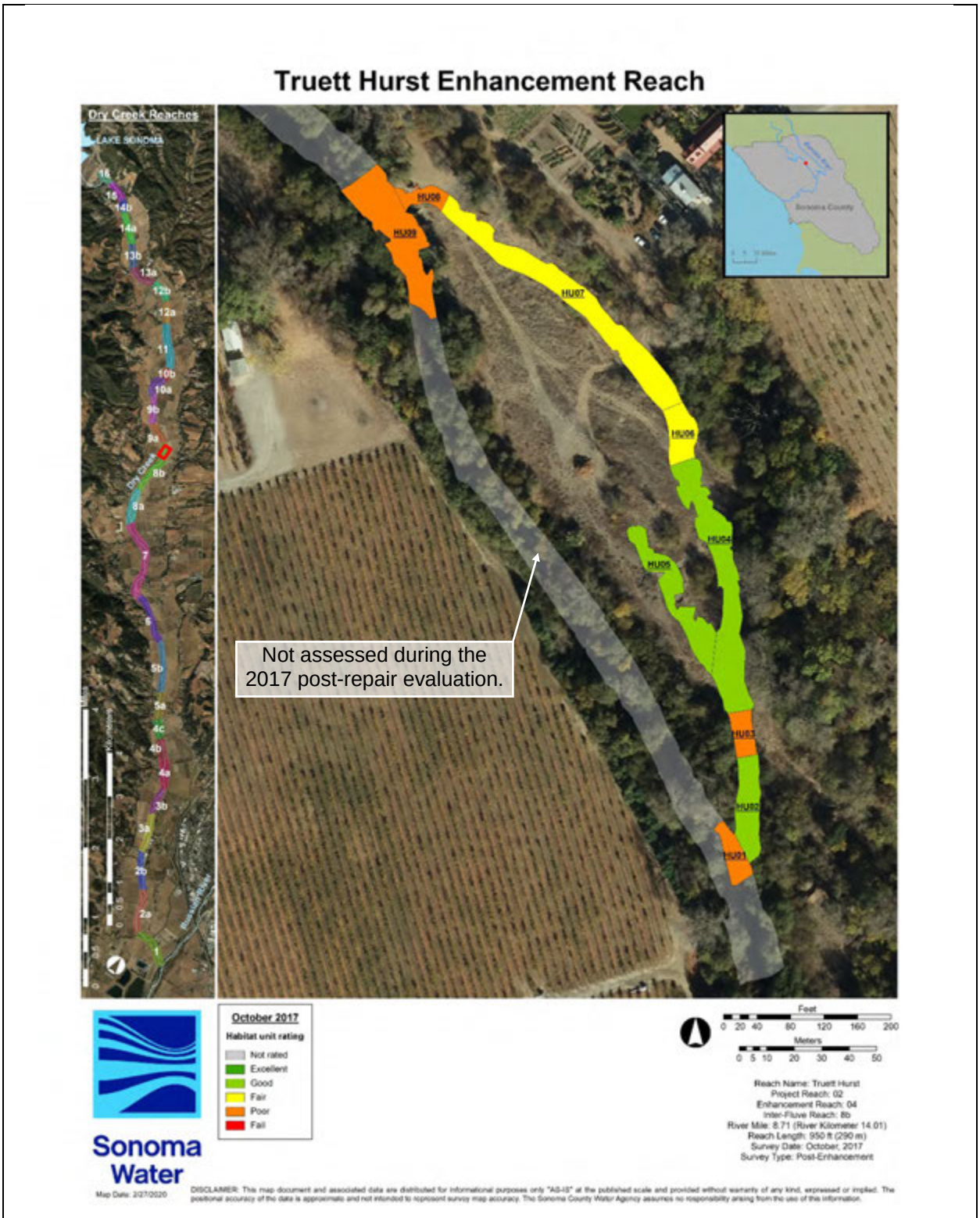


Figure 112. Habitat unit ratings for the Truett Hurst enhancement reach, October 2017.

Table 66. Post-repair average feature, average habitat unit, site, and reach ratings for the Truett Hurst enhancement reach, October 2017. *Reach rating does not include Site 1, which was not fully assessed.

	Project Reach	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4
	ENHANCEMENT REACH NAME	**TH**	**TH**	**TH**	**TH**	**TH**
	mmddyy	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	**1**	**2**	**3**	**4**	**5**
	Project Site Type	MainChan	SideChan	SC Alcove	SC Alcove	SC Bank FP
	PROJECT SITE NUMBER	**1**	**2**	**3**	**4**	**5**
SITE AVERAGE FEATURE RATING	Site average feature quantitative rating (out of 15; bold indicates excluded from site rating)	0	13	13	10	12
	Site average feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3), Not rated (not used to rate site)	Not rated	Excellent	Excellent	Good	Excellent
	PROJECT SITE NUMBER	**1**	**2**	**3**	**4**	**5**
SITE AVERAGE HABITAT UNIT RATING	Site average habitat unit quantitative rating (out of 35; bold indicates excluded from site rating)	9	18	27	20	11
	Site average qualitative rating Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7), Not rated (not used to rate site)	Poor	Fair	Good	Fair	Poor
	PROJECT SITE NUMBER	**1**	**2**	**3**	**4**	**5**
SITE RATING	Site quantitative rating (sum of site average feature and habitat unit ratings) (out of 50; bold indicates rating excludes feature or habitat unit rating and scoring out of 15 or 35)	9	31	40	30	23
	Site qualitative rating: Excellent (>=40), Good (>=30), Fair(>=20), Poor (>=10), Fail (<10)	Not rated	Good	Excellent	Good	Fair
	ENHANCEMENT REACH NAME			**TH**		
ENHANCEMENT REACH RATING	Enhancement reach quantitative rating (average of site ratings) (out of 50)			31		
	Enhancement reach qualitative rating: Excellent (>=40), Good (>=30), Fair(>=20), Poor (>=10), Fail (<10)			Good		

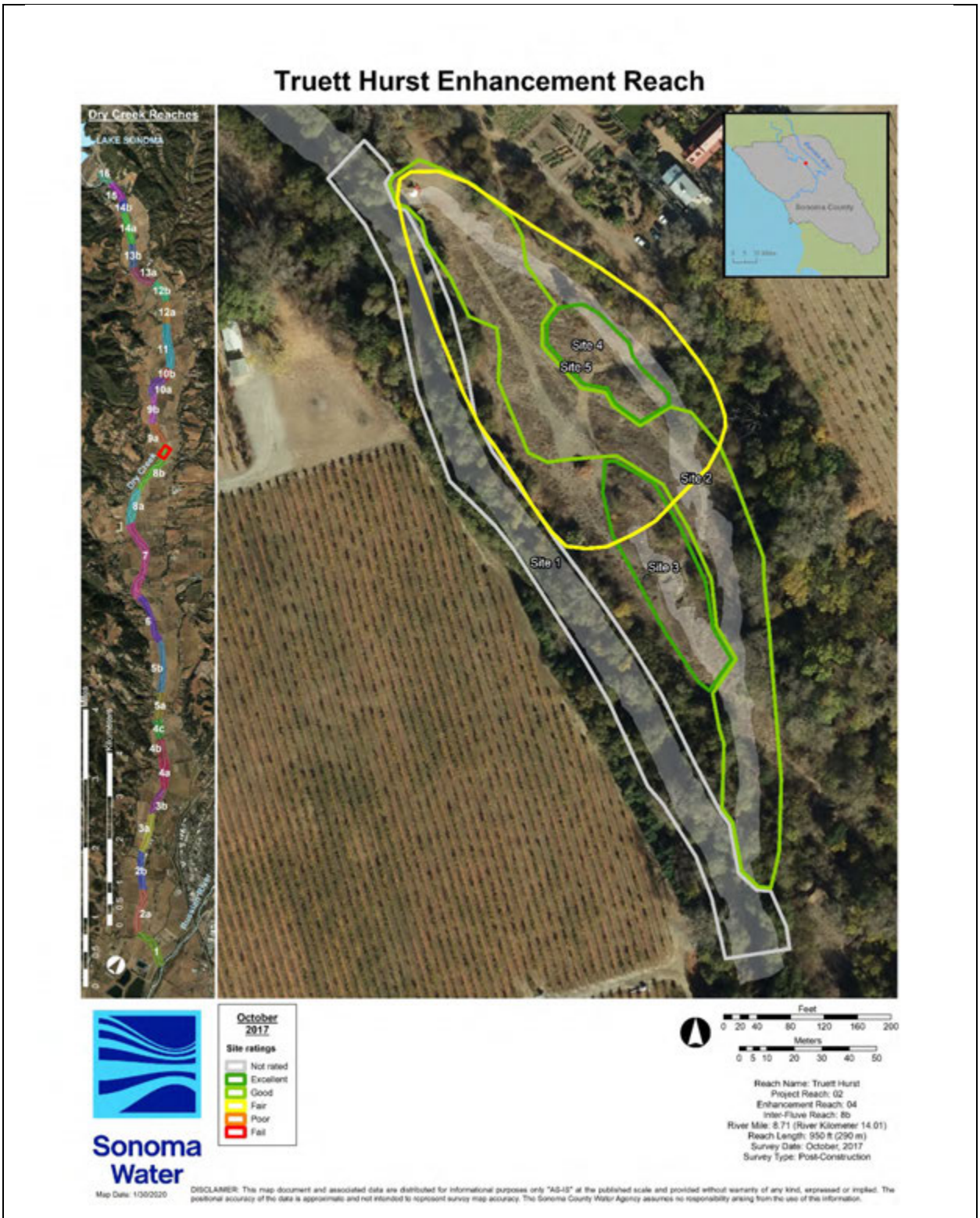


Figure 113. Post-repair site ratings for the Truett Hurst enhancement reach, October 2017.

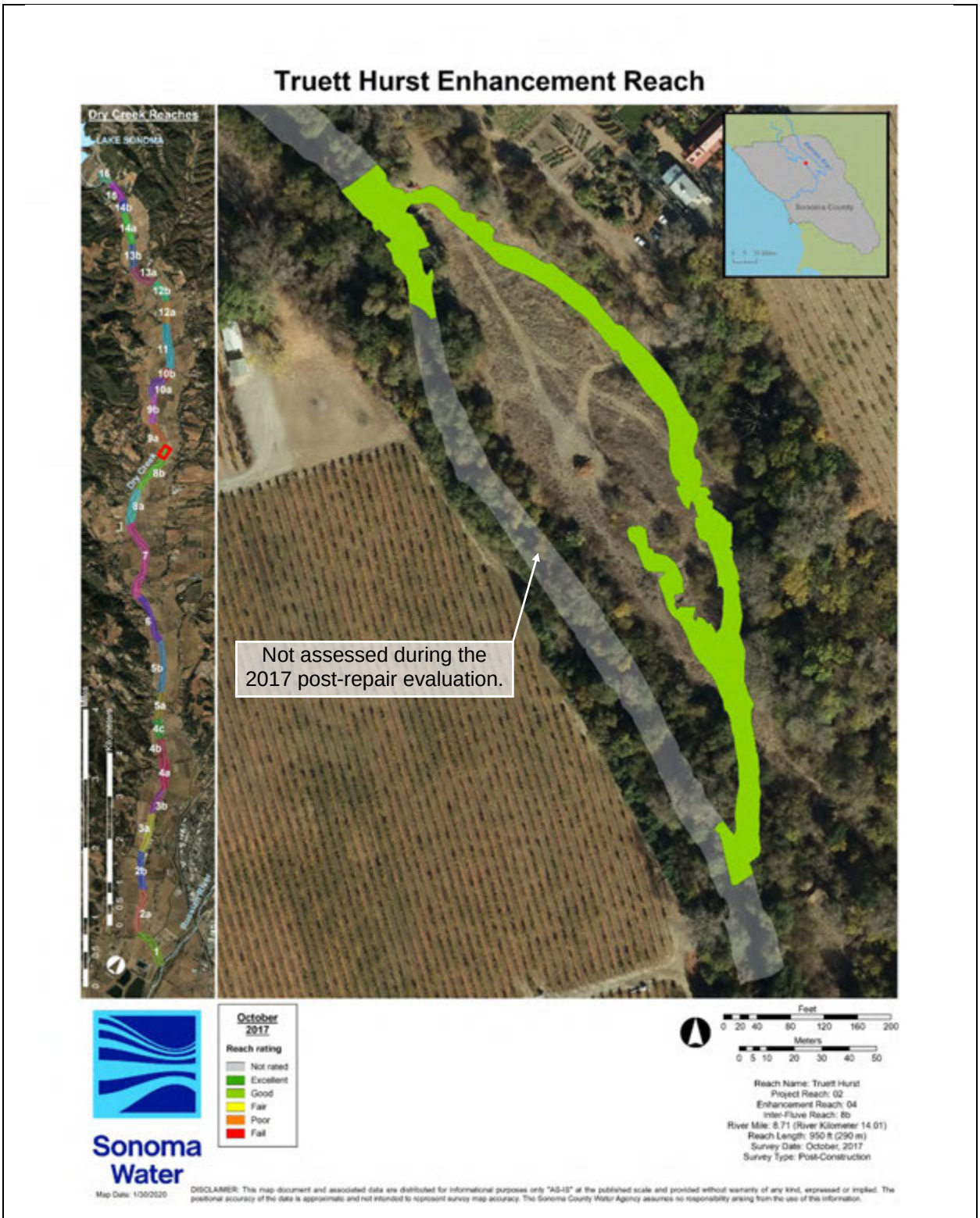


Figure 114. Post-repair reach rating for the Truett Hurst enhancement reach, October 2017.

Feature and Habitat Unit Checklists

Table 67. Adaptive Management Plan targeted checklist for the Truett Hurst enhancement reach, October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	NA	NA	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S2-07	S2-08	S2-09	S2-10	S2-11	S2-12	S2-13	S2-14	S2-15	S2-16	
	Feature Type Code	NA	NA	BCW	HW	HW	SCW	R	HW	HW	SCW	SCW	HW	HW	HW	SCW	SCW	SCW	HW	
	Habitat Unit	HU01	HU09	HU02	HU02	HU02	HU02	HU03	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	
	Habitat Type	Pool	Flatwater	Pool	Pool	Pool	Pool	Riffle	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	
5a	Are problems with the **feature** visible?	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
6a	Is the **feature** still in its original location?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
6b	Is the **feature** still in its original position?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
6d	Is the **feature** still in its original orientation?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	44%	71%	31%	31%	31%	31%	82%	44%	44%	44%	44%	44%	44%	44%	44%	44%	44%	44%	
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	49%	16%	59%	59%	59%	59%	0%	46%	46%	46%	46%	46%	46%	46%	46%	46%	46%	46%	
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	
15.	Percent of **habitat unit** covered by shelter: %	0	0	20	20	20	20	35	40	40	40	40	40	40	40	40	40	40	40	
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	60	60	60	60	70	120	120	120	120	120	120	120	120	120	120	120	
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
25.	Did the **feature** achieve the targeted velocity?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	12%	24%	42%	42%	42%	42%	9%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%	
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	5%	13%	20%	20%	20%	20%	2%	22%	22%	22%	22%	22%	22%	22%	22%	22%	22%	22%	
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	1%	1%	14%	14%	14%	14%	0%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	
	FEATURE NUMBER	**NA**	**NA**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**	**S2-10**	**S2-11**	**S2-12**	**S2-13**	**S2-14**	**S2-15**	**S2-16**	
	HABITAT UNIT NUMBER	**HU01**	**HU09**	**HU02**	**HU02**	**HU02**	**HU02**	**HU03**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	**HU04**	
	SITE NUMBER	**1**	**1**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	
	ENHANCEMENT REACH NAME	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
6d	Is the **feature** still in its original orientation? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	1	4	4	4	4	0	4	4	4	4	4	4	4	4	4	4	4	
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	0	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	5	
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	0	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	2	2	2	2	2	4	4	4	4	4	4	4	4	4	4	4	
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	2	4	4	4	4	0	3	3	3	3	3	3	3	3	3	3	3	
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	1	1	1	1	1	0	2	2	2	2	2	2	2	2	2	2	2	
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	

Table 67. Adaptive Management Plan targeted checklist for the Truett Hurst enhancement reach, October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25	S2-26	S2-27	S2-28	S2-29	S2-30	S2-31	S2-32	S2-33	S2-34
	Feature Type Code	HW	HW	R	HW	HW	FW	SCW	SCW	HW	R	HW	HW	HW	HW	FW	HW	FW	SCW
	Habitat Unit	HU04	HU04	HU06	HU06	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU07	HU07	HU01_D	HU07	HU07	HU07	HU07
	Habitat Type	Pool	Pool	Flatwater	Flatwater	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Pool	Pool	Dry	Pool	Pool	Pool	Pool
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	GOOD	GOOD	UNKN	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	UNK	UNK	YES	YES	UNK	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	UNK	UNK	YES	YES	UNK	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	UNK	UNK	YES	YES	UNK	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	44%	44%	70%	70%	0%	0%	0%	0%	0%	0%	0%	24%	24%	0%	24%	24%	24%	24%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	46%	46%	19%	19%	0%	0%	0%	0%	0%	0%	0%	52%	52%	0%	52%	52%	52%	52%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	0	0	0	0	0	0	0	3	3	0	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	40	40	10	10	0	0	0	0	0	0	0	25	25	0	25	25	25	25
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	120	120	30	30	0	0	0	0	0	0	0	75	75	0	75	75	75	75
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	YES	YES	YES	YES
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	37%	37%	30%	30%	0%	0%	0%	0%	0%	0%	0%	36%	36%	0%	36%	36%	36%	36%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	22%	22%	17%	17%	0%	0%	0%	0%	0%	0%	0%	17%	17%	0%	17%	17%	17%	17%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	4%	4%	2%	2%	0%	0%	0%	0%	0%	0%	0%	10%	10%	0%	10%	10%	10%	10%
	FEATURE NUMBER	**S2-17**	**S2-18**	**S2-19**	**S2-20**	**S2-21**	**S2-22**	**S2-23**	**S2-24**	**S2-25**	**S2-26**	**S2-27**	**S2-28**	**S2-29**	**S2-30**	**S2-31**	**S2-32**	**S2-33**	**S2-34**
	HABITAT UNIT NUMBER	**HU04**	**HU04**	**HU06**	**HU06**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU07**	**HU07**	**HU01_D**	**HU07**	**HU07**	**HU07**	**HU07**
	SITE NUMBER	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**
	ENHANCEMENT REACH NAME	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	4	4	4	0	0	0	0	0	0	0	4	4	0	4	4	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
6d	Is the **feature** still in its original orientation? (YES = 1 pt, NO = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	0	0	0	0	0	0	0	2	2	0	2	2	2	2
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	1	1	0	0	0	0	0	0	0	4	4	0	4	4	4	4
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	5	5	0	0	0	0	0	0	0	5	5	0	5	5	5	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	3	3	1	1	0	0	0	0	0	0	0	2	2	0	2	2	2	2
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	4	4	0	0	0	0	0	0	0	0	0	2	2	0	2	2	2	2
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	3	2	2	0	0	0	0	0	0	0	3	3	0	3	3	3	3
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	2	1	1	0	0	0	0	0	0	0	1	1	0	1	1	1	1
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	1

Table 67. Adaptive Management Plan targeted checklist for the Truett Hurst enhancement reach, October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove
	Project Feature Number	S2-35	S2-36	S2-37A	S2-37B	S2-37C	S2-38	S3-01	S3-02	S3-03	S3-04	S3-05	S3-06	S3-07	S3-08	S4-01	S4-02	S4-03	S4-04
	Feature Type Code	SCW	SCW	ISW	ISW	ISW	R	BCW	HW	BCW	HW	BCW	HW	FW	P	BCW	HW	HW	HW
	Habitat Unit	HU07	HU07	HU07	HU07	HU07	HU08	HU05	HU05	HU05	HU05	HU05	HU02_D	HU02_D	HU02_D	HU07_2	HU03_D	HU03_D	HU07_2
	Habitat Type	Pool	Pool	Pool	Pool	Pool	Riffle	Alcove	Alcove	Alcove	Alcove	Alcove	Dry	Dry	Dry	Pool	Dry	Dry	Pool
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	UNKN	UNKN	UNKN	GOOD	UNKN	UNKN	GOOD
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES	YES	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	YES	UNK	UNK	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	YES	UNK	UNK	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	YES	UNK	UNK	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	NO	NO	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES	YES	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	24%	24%	24%	24%	24%	84%	42%	42%	42%	42%	42%	0%	0%	0%	24%	0%	0%	24%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	52%	52%	52%	52%	52%	1%	40%	40%	40%	40%	40%	0%	0%	0%	52%	0%	0%	52%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	3	0	0	3
15.	Percent of **habitat unit** covered by shelter: %	25	25	25	25	25	15	25	25	25	25	25	0	0	0	25	0	0	25
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	NO	NO	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	75	75	75	75	75	45	75	75	75	75	75	0	0	0	75	0	0	75
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	NO	NO	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	NO	NO	NO
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	36%	36%	36%	36%	36%	19%	100%	100%	100%	100%	100%	0%	0%	0%	36%	0%	0%	36%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	17%	17%	17%	17%	17%	8%	42%	42%	42%	42%	42%	0%	0%	0%	17%	0%	0%	17%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	10%	10%	10%	10%	10%	0%	39%	39%	39%	39%	39%	0%	0%	0%	10%	0%	0%	10%
	FEATURE NUMBER	**S2-35**	**S2-36**	**S2-37A**	**S2-37B**	**S2-37C**	**S2-38**	**S3-01**	**S3-02**	**S3-03**	**S3-04**	**S3-05**	**S3-06**	**S3-07**	**S3-08**	**S4-01**	**S4-02**	**S4-03**	**S4-04**
	HABITAT UNIT NUMBER	**HU07**	**HU07**	**HU07**	**HU07**	**HU07**	**HU08**	**HU05**	**HU05**	**HU05**	**HU05**	**HU05**	**HU02_D**	**HU02_D**	**HU02_D**	**HU07_2**	**HU03_D**	**HU03_D**	**HU07_2**
	SITE NUMBER	**2**	**2**	**2**	**2**	**2**	**2**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**4**	**4**	**4**	**4**
	ENHANCEMENT REACH NAME	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	4	4	4	4	4	4	4	4	4	4	0	0	0	4	0	0	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	2	2	2	2	4	4	4	4	4	4	0	0	0	2	0	0	2
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	4	0	3	3	3	3	3	0	0	0	4	0	0	4
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	5	5	5	5	5	5	5	5	5	0	0	0	5	0	0	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	2	2	2	2	2	1	2	2	2	2	2	0	0	0	2	0	0	2
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	2	2	2	2	2	1	2	2	2	2	2	0	0	0	2	0	0	2
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	3	3	3	3	1	4	4	4	4	4	0	0	0	3	0	0	3
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	1	1	1	0	4	4	4	4	4	0	0	0	1	0	0	1
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	1	1	1	0	3	3	3	3	3	0	0	0	1	0	0	1

Table 67. Adaptive Management Plan targeted checklist for the Truett Hurst enhancement reach, October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Project Site Type	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP
	Project Feature Number	S4-05	S4-06	S4-07	S4-08	NA	S5-01	S5-02	S5-03	S5-04	S5-05	S5-06	S5-07	S5-08	S5-09	S5-10	S5-11	S5-12	S5-13
	Feature Type Code	HW	HW	HW	FW	NA	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW
	Habitat Unit	HU03_D	HU07_2	HU03_D	HU07_2	HU06_2	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D
	Habitat Type	Dry	Pool	Dry	Pool	Flatwater	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	UNKN	GOOD	UNKN	GOOD	NA	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	YES	NO	YES	NO	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	UNK	YES	UNK	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	UNK	YES	UNK	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	UNK	YES	UNK	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	YES	NO	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	YES	NO	YES	NO	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	24%	0%	24%	19%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	52%	0%	52%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	3	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	0	25	0	25	10	0	0	0	0	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating?	NO	YES	NO	YES	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	75	0	75	30	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NO	YES	NO	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	NO	YES	NO	YES	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	36%	0%	36%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	17%	0%	17%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	10%	0%	10%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	FEATURE NUMBER	**S4-05**	**S4-06**	**S4-07**	**S4-08**	**NA**	**S5-01**	**S5-02**	**S5-03**	**S5-04**	**S5-05**	**S5-06**	**S5-07**	**S5-08**	**S5-09**	**S5-10**	**S5-11**	**S5-12**	**S5-13**
	HABITAT UNIT NUMBER	**HU03_D**	**HU07_2**	**HU03_D**	**HU07_2**	**HU06_2**	**HU04_D**	**HU04_D**	**HU04_D**	**HU04_D**	**HU04_D**	**HU04_D**	**HU04_D**	**HU04_D**	**HU04_D**	**HU04_D**	**HU04_D**	**HU04_D**	**HU04_D**
	SITE NUMBER	**4**	**4**	**4**	**4**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
	ENHANCEMENT REACH NAME	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	4	0	4	0	5	5	5	5	5	5	5	5	5	5	5	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	2	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	5	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	2	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	3	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 67. Adaptive Management Plan targeted checklist for the Truett Hurst enhancement reach, October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	5	5	5	5	5	5	5	5	5	5	5	5
	Project Site Type	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP
	Project Feature Number	S5-14	S5-15	S5-16	S5-17	S5-18	S5-19	S5-20	S5-21	S5-22	S5-23	S5-24	S5-25
	Feature Type Code	FW	FW	FW	mental Large	ank Treatme	Willow Baffle	Willow Baffle	Willow Baffle	Willow Baffle	Willow Baffle	Willow Baffle	Willow Baffle
	Habitat Unit	HU04_D	HU04_D	HU04_D	HU08_2	HU07_3	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D
	Habitat Type	Dry	Dry	Dry	Riffle	Pool	Dry	Dry	Dry	Dry	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL	NA	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NA	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	0%	84%	24%	0%	0%	0%	0%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	0%	1%	52%	0%	0%	0%	0%	0%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	0	3	3	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	0	0	0	15	25	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	45	75	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	0%	19%	36%	0%	0%	0%	0%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	0%	8%	17%	0%	0%	0%	0%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%
	FEATURE NUMBER	**S5-14**	**S5-15**	**S5-16**	**S5-17**	**S5-18**	**S5-19**	**S5-20**	**S5-21**	**S5-22**	**S5-23**	**S5-24**	**S5-25**
	HABITAT UNIT NUMBER	**HU04_D**	**HU04_D**	**HU04_D**	**HU08_2**	**HU07_3**	**HU04_D**	**HU04_D**	**HU04_D**	**HU04_D**	**HU04_D**	**HU04_D**	**HU04_D**
	SITE NUMBER	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
	ENHANCEMENT REACH NAME	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**	**TH**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	5	5	5	5	5	0	5	5	5	5	5	5
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	0	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	0	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	4	2	0	0	0	0	0	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	4	0	0	0	0	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	0	0	5	5	0	0	0	0	0	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	0	0	1	2	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	1	2	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	0	0	0	1	0	0	0	0	0	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	1	3	0	0	0	0	0	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	1	0	0	0	0	0	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	1	0	0	0	0	0	0	0

Table 68. Adaptive Management Plan full checklist for the Truett Hurst enhancement reach, October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	NA	NA	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S2-07	S2-08	S2-09	S2-10	S2-11	S2-12	S2-13	S2-14	S2-15	S2-16
	Feature Type Code	NA	NA	BCW	HW	HW	SCW	R	HW	HW	SCW	SCW	HW	HW	HW	SCW	SCW	SCW	HW
	Habitat Unit	HU01	HU09	HU02	HU02	HU02	HU02	HU03	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04	HU04
	Habitat Type	Pool	Flatwater	Pool	Pool	Pool	Pool	Riffle	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool
1.	Length of targeted treatment (ft)			35	30	32	40	40	36	35	45	46	37	20	40	35	31	26	36
2.	Width of targeted treatment: (ft)			31	29	29	30	31	18	18	31	27	15	23	18	32	31	35	21
3.	Estimate area of the targeted **feature**: (ft^2)			1085	870	928	1200	1240	648	630	1395	1242	555	460	720	1120	961	910	756
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	NA	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NA	NA	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	NA	NA	LBK	LBK	RBK	LBK	SPN	RBK	LBK	LBK	LBK	RBK	LBK	RBK	LBK	LBK	LBK	RBK
6d	Is the **feature** still in its original orientaton?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	NA	NA	MUL	DNS	UPS	UPS	OTH	UPS	DNS	UPS	UPS	UPS	PRP	PRL	UPS	UPS	UPS	PRL
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	POO	FLT	POO	POO	POO	POO	RIF	POO	POO	POO	POO	POO	POO	POO	POO	POO	POO	POO
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	2.1	1.3	2.1	2.1	2.1	2.1	0.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
11a	Maximum water depth in **habitat unit**: ft	4.1	3.2	4.4	4.4	4.4	4.4	2.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	709.8	5095.2	1009.3	1009.3	1009.3	1009.3	1137.7	4091.8	4091.8	4091.8	4091.8	4091.8	4091.8	4091.8	4091.8	4091.8	4091.8	4091.8
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	786.4	1157.1	1911.8	1911.8	1911.8	1911.8	1.2	4323.4	4323.4	4323.4	4323.4	4323.4	4323.4	4323.4	4323.4	4323.4	4323.4	4323.4
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	1496.1	6252.3	2921.0	2921.0	2921.0	2921.0	1138.9	8415.1	8415.1	8415.1	8415.1	8415.1	8415.1	8415.1	8415.1	8415.1	8415.1	8415.1
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	44%	71%	31%	31%	31%	31%	82%	44%	44%	44%	44%	44%	44%	44%	44%	44%	44%	44%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	49%	16%	59%	59%	59%	59%	0%	46%	46%	46%	46%	46%	46%	46%	46%	46%	46%	46%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	93%	87%	91%	91%	91%	91%	82%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:			500	240	140	590	1180	170	140	420	350	125	145	300	370	350	400	365
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	0	0	20	20	20	20	35	40	40	40	40	40	40	40	40	40	40	40
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	RTW	NR	RTW	RTW	RTW	RTW	VEG	VEG	VEG	VEG	VEG	VEG	VEG	VEG	VEG	VEG	VEG	VEG
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	LWD	NR	LWD	LWD	LWD	LWD	LWD	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW
17a	If an objective, did the **feature** increase instream shelter rating?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	60	60	60	60	70	120	120	120	120	120	120	120	120	120	120	120
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NR	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NR	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	NA	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NA	NA	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
24.	Targeted velocity/range in the **habitat unit**. (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	2.2	4.1	3.6	3.6	3.6	3.6	4.5	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
26c	Measured mean velocity (ft/sec) in **habitat unit**	1.2	1.3	0.9	0.9	0.9	0.9	2.4	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	200.6	1736.0	1348.3	1348.3	1348.3	1348.3	123.8	3435.2	3435.2	3435.2	3435.2	3435.2	3435.2	3435.2	3435.2	3435.2	3435.2	3435.2
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	12%	24%	42%	42%	42%	42%	9%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	NR	GRV	GRV	GRV	GRV	COB	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	NR	SND	SND	SND	SND	GRV	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND
31.	If an objective, did the **feature** achieve the targeted substrate composition?	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	100.9	977.3	1083.5	1083.5	1083.5	1083.5	26.1	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8	2492.8
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	84.5	910.4	635.8	635.8	635.8	635.8	26.1	2070.6	2070.6	2070.6	2070.6	2070.6	2070.6	2070.6	2070.6	2070.6	2070.6	2070.6
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	16.3	66.9	447.7	447.7	447.7	447.7	0.0	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2	422.2
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	6%	14%	34%	34%	34%	34%	2%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	5%	13%	20%	20%	20%	20%	2%	22%	22%	22%	22%	22%	22%	22%	22%	22%	22%	22%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	1%	1%	14%	14%	14%	14%	0%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NA	NA	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Table 68. Adaptive Management Plan full checklist for the Truett Hurst enhancement reach, October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S2-17	S2-18	S2-19	S2-20	S2-21	S2-22	S2-23	S2-24	S2-25	S2-26	S2-27	S2-28	S2-29	S2-30	S2-31	S2-32	S2-33	S2-34
	Feature Type Code	HW	HW	R	HW	HW	FW	SCW	SCW	HW	R	HW	HW	HW	HW	FW	HW	FW	SCW
	Habitat Unit	HU04	HU04	HU06	HU06	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU07	HU07	HU01_D	HU07	HU07	HU07	HU07
	Habitat Type	Pool	Pool	Flatwater	Flatwater	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Pool	Pool	Dry	Pool	Pool	Pool	Pool
1.	Length of targeted treatment (ft)	20	18	40	22		31						31	33		50	31	40	27
2.	Width of targeted treatment: (ft)	36	37	30	38		37						32	20		15	30	38	40
3.	Estimate area of the targeted **feature**: (ft²)	720	666	1200	836		1147						992	660		750	930	1520	1080
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	UNKN	GOOD	GOOD	UNKN	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	NON	NON	NON	BBB	BBB	BBB	BBB	BBB	BBB	BBB	NON	NON	BBB	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	UNK	UNK	YES	YES	UNK	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	UNK	UNK	YES	YES	UNK	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	RBK	LBK	SPN	LBK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	RBK	RBK	UNK	OTH	RBK	OTH	LBK
6d	Is the **feature** still in its original orientation?	YES	YES	YES	YES	UNK	UNK	UNK	UNK	UNK	UNK	UNK	YES	YES	UNK	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	DNS	PRP	OTH	PRP	UNK	UNK	UNK	UNK	UNK	UNK	UNK	PRP	UPS	UNK	OTH	PRP	OTH	UPS
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	POO	POO	FLT	FLT	DRY	DRY	DRY	DRY	DRY	DRY	DRY	POO	POO	DRY	POO	POO	POO	POO
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	1.8	1.8	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.7	0.0	2.7	2.7	2.7	2.7
11a	Maximum water depth in **habitat unit**: ft	4.1	4.1	2.7	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	5.9	0.0	5.9	5.9	5.9	5.9
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	4091.8	4091.8	1525.7	1525.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2376.9	2376.9	0.0	2376.9	2376.9	2376.9	2376.9
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	4323.4	4323.4	402.0	402.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5123.9	5123.9	0.0	5123.9	5123.9	5123.9	5123.9
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	8415.1	8415.1	1927.7	1927.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7500.8	7500.8	0.0	7500.8	7500.8	7500.8	7500.8
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	44%	44%	70%	70%	0%	0%	0%	0%	0%	0%	0%	24%	24%	0%	24%	24%	24%	24%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	46%	46%	19%	19%	0%	0%	0%	0%	0%	0%	0%	52%	52%	0%	52%	52%	52%	52%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	90%	90%	89%	89%	0%	0%	0%	0%	0%	0%	0%	77%	77%	0%	77%	77%	77%	77%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	YES	YES	YES	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft²	200	155	1040	130								0	50			30		330
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	NO	NO	NO	NA	NA	YES	YES	YES	YES	YES	NO	NO	YES	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	0	0	0	0	0	0	0	3	3	0	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	40	40	10	10	0	0	0	0	0	0	0	25	25	0	25	25	25	25
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	VEG	VEG	RTW	RTW	NON	NON	NON	NON	NON	NON	NON	RTW	RTW	NON	RTW	RTW	RTW	RTW
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	RTW	RTW	LWD	LWD	NON	NON	NON	NON	NON	NON	NON	LWD	LWD	NON	LWD	LWD	LWD	LWD
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	120	120	30	30	0	0	0	0	0	0	0	75	75	0	75	75	75	75
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	AGG	AGG	AGG	AGG	AGG	AGG	AGG	STB	STB	AGG	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	AGG	AGG	AGG	AGG	AGG	AGG	AGG	STB	STB	AGG	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	AGG	AGG	AGG	AGG	AGG	AGG	AGG	STB	STB	AGG	STB	STB	STB	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	DEC	DEC	DEC	DEC	NA	NA	NA	NA	NA	NA	NA	DEC	DEC	DEC	DEC	DEC	DEC	DEC
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES	NO	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	3.7	3.7	3.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.6	0.0	3.6	3.6	3.6	3.6
26c	Measured mean velocity (ft/sec) in **habitat unit**	1.0	1.0	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.0	0.8	0.8	0.8	0.8
27.	Area of **habitat unit** within targeted velocity: (ft²)	3435.2	3435.2	648.6	648.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3501.3	3501.3	0.0	3501.3	3501.3	3501.3	3501.3
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	37%	37%	30%	30%	0%	0%	0%	0%	0%	0%	0%	36%	36%	0%	36%	36%	36%	36%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	SND	SND	SND	SND	SND	SND	SND	GRV	GRV	SND	GRV	GRV	GRV	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	SND	SND	GRV	GRV	GRV	GRV	GRV	GRV	GRV	SND	SND	GRV	SND	SND	SND	SND
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	2492.8	2492.8	418.3	418.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2643.3	2643.3	0.0	2643.3	2643.3	2643.3	2643.3
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	2070.6	2070.6	378.4	378.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1663.2	1663.2	0.0	1663.2	1663.2	1663.2	1663.2
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	422.2	422.2	39.9	39.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	980.1	980.1	0.0	980.1	980.1	980.1	980.1
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	27%	27%	19%	19%	0%	0%	0%	0%	0%	0%	0%	27%	27%	0%	27%	27%	27%	27%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	22%	22%	17%	17%	0%	0%	0%	0%	0%	0%	0%	17%	17%	0%	17%	17%	17%	17%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	4%	4%	2%	2%	0%	0%	0%	0%	0%	0%	0%	10%	10%	0%	10%	10%	10%	10%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NON	NON	MNT	MNT	MNT	MNT	MNT	MNT	MNT	NON	NON	MNT	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NA	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Table 68. Adaptive Management Plan full checklist for the Truett Hurst enhancement reach, October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Alcove
	Project Feature Number	S2-35	S2-36	S2-37A	S2-37B	S2-37C	S2-38	S3-01	S3-02	S3-03	S3-04	S3-05	S3-06	S3-07	S3-08	S4-01	S4-02	S4-03	S4-04
	Feature Type Code	SCW	SCW	ISW	ISW	ISW	R	BCW	HW	BCW	HW	BCW	HW	FW	P	BCW	HW	HW	HW
	Habitat Unit	HU07	HU07	HU07	HU07	HU07	HU08	HU05	HU05	HU05	HU05	HU05	HU02_D	HU02_D	HU02_D	HU07_2	HU03_D	HU03_D	HU07_2
	Habitat Type	Pool	Pool	Pool	Pool	Pool	Riffle	Alcove	Alcove	Alcove	Alcove	Alcove	Dry	Dry	Dry	Pool	Dry	Dry	Pool
1.	Length of targeted treatment (ft)	28	27	26	22	25	40	30	18	27	20	33				38			15
2.	Width of targeted treatment: (ft)	40	40	39	45	45	20	28	33	31	32	30				38			35
3.	Estimate area of the targeted **feature**: (ft^2)	1120	1080	1014	990	1125	800	840	594	837	640	990				1444			525
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	UNKN	UNKN	UNKN	GOOD	UNKN	UNKN	GOOD
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES	YES	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	YES	UNK	UNK	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	YES	UNK	UNK	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	LBK	LBK	RBK	RBK	LBK	SPN	RBK	RBK	LBK	RBK	LBK	UNK	UNK	UNK	RBK	UNK	UNK	RBK
6d	Is the **feature** still in its original orientation?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	UNK	UNK	UNK	YES	UNK	UNK	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	UPS	UPS	MUL	UPS	UPS	OTH	MUL	DNS	MUL	PRP	MUL	UNK	UNK	UNK	PRP	UNK	UNK	PRP
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	POO	POO	POO	POO	POO	RIF	ALC	ALC	ALC	ALC	ALC	DRY	DRY	DRY	POO	DRY	DRY	POO
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	NO	NO	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES	YES	NO
10.	Mean water depth in **habitat unit**: ft	2.7	2.7	2.7	2.7	2.7	1.2	1.7	1.7	1.7	1.7	1.7	0.0	0.0	0.0	2.7	0.0	0.0	2.7
11a	Maximum water depth in **habitat unit**: ft	5.9	5.9	5.9	5.9	5.9	2.2	4.0	4.0	4.0	4.0	4.0	0.0	0.0	0.0	5.9	0.0	0.0	5.9
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	2376.9	2376.9	2376.9	2376.9	2376.9	970.4	1884.0	1884.0	1884.0	1884.0	1884.0	0.0	0.0	0.0	2376.9	0.0	0.0	2376.9
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	5123.9	5123.9	5123.9	5123.9	5123.9	12.4	1784.2	1784.2	1784.2	1784.2	1784.2	0.0	0.0	0.0	5123.9	0.0	0.0	5123.9
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	7500.8	7500.8	7500.8	7500.8	7500.8	982.9	3668.1	3668.1	3668.1	3668.1	3668.1	0.0	0.0	0.0	7500.8	0.0	0.0	7500.8
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	24%	24%	24%	24%	24%	84%	42%	42%	42%	42%	42%	0%	0%	0%	24%	0%	0%	24%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	52%	52%	52%	52%	52%	1%	40%	40%	40%	40%	40%	0%	0%	0%	52%	0%	0%	52%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	77%	77%	77%	77%	77%	85%	81%	81%	81%	81%	81%	0%	0%	0%	77%	0%	0%	77%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	NO	NO	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2	330	330		200	250	800	575	180	400	195	330				200			175
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES	YES	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	3	0	0	3
15.	Percent of **habitat unit** covered by shelter: %	25	25	25	25	25	15	25	25	25	25	25	0	0	0	25	0	0	25
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	RTW	RTW	RTW	RTW	RTW	RTW	LWD	LWD	LWD	LWD	LWD	NON	NON	NON	RTW	NON	NON	RTW
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	LWD	LWD	LWD	LWD	LWD	LWD	VEG	VEG	VEG	VEG	VEG	NON	NON	NON	LWD	NON	NON	LWD
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	NO	NO	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	75	75	75	75	75	45	75	75	75	75	75	0	0	0	75	0	0	75
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	NO	NO	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	AGG	AGG	AGG	STB	AGG	AGG	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	AGG	AGG	AGG	STB	AGG	AGG	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	AGG	AGG	AGG	STB	AGG	AGG	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES	YES	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	NA	NA	NA	DEC	NA	NA	DEC
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES	NO	NO	NO
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	3.6	3.6	3.6	3.6	3.6	5.2	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	3.6	0.0	0.0	3.6
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.8	0.8	0.8	0.8	0.8	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.8
27.	Area of **habitat unit** within targeted velocity: (ft^2)	3501.3	3501.3	3501.3	3501.3	3501.3	224.0	4508.8	4508.8	4508.8	4508.8	4508.8	0.0	0.0	0.0	3501.3	0.0	0.0	3501.3
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	36%	36%	36%	36%	36%	19%	100%	100%	100%	100%	100%	0%	0%	0%	36%	0%	0%	36%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES	YES	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	GRV	COB	GRV	GRV	GRV	GRV	GRV	SND	SND	SND	GRV	SND	SND	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	SND	SND	SND	GRV	SND	SND	SND	SND	SND	GRV	GRV	GRV	SND	GRV	GRV	SND
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	2643.3	2643.3	2643.3	2643.3	2643.3	86.4	3661.0	3661.0	3661.0	3661.0	3661.0	0.0	0.0	0.0	2643.3	0.0	0.0	2643.3
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	1663.2	1663.2	1663.2	1663.2	1663.2	86.4	1882.8	1882.8	1882.8	1882.8	1882.8	0.0	0.0	0.0	1663.2	0.0	0.0	1663.2
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	980.1	980.1	980.1	980.1	980.1	0.0	1778.2	1778.2	1778.2	1778.2	1778.2	0.0	0.0	0.0	980.1	0.0	0.0	980.1
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	27%	27%	27%	27%	27%	8%	81%	81%	81%	81%	81%	0%	0%	0%	27%	0%	0%	27%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	17%	17%	17%	17%	17%	8%	42%	42%	42%	42%	42%	0%	0%	0%	17%	0%	0%	17%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	10%	10%	10%	10%	10%	0%	39%	39%	39%	39%	39%	0%	0%	0%	10%	0%	0%	10%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	MNT	MNT	MNT	NON	MNT	MNT	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Table 68. Adaptive Management Plan full checklist for the Truett Hurst enhancement reach, October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH
	mmddyy	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Project Site Type	SC Alcove	SC Alcove	SC Alcove	SC Alcove	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP
	Project Feature Number	S4-05	S4-06	S4-07	S4-08	NA	S5-01	S5-02	S5-03	S5-04	S5-05	S5-06	S5-07	S5-08	S5-09	S5-10	S5-11	S5-12	S5-13
	Feature Type Code	HW	HW	HW	FW	NA	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW
	Habitat Unit	HU03_D	HU07_2	HU03_D	HU07_2	HU06_2	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D	HU04_D
	Habitat Type	Dry	Pool	Dry	Pool	Flatwater	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
1.	Length of targeted treatment (ft)		30		35		40	40	40	40	40	40	40	40	40	40	40	40	40
2.	Width of targeted treatment: (ft)		16		40		30	30	30	30	30	30	30	30	30	30	30	30	30
3.	Estimate area of the targeted **feature**: (ft^2)		480		1400		1200	1200	1200	1200	1200	1200	1200	1200					
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	UNKN	GOOD	UNKN	GOOD	NA	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	YES	NO	YES	NO	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	NON	BBB	NON	NA	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	UNK	YES	UNK	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	UNK	YES	UNK	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	UNK	RBK	UNK	SPN	NA	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH
6d	Is the **feature** still in its original orientaton?	UNK	YES	UNK	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	UNK	DNS	UNK	OTH	NA	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH	OTH
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	DRY	POO	DRY	POO	FLT	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
8.	If an objective, did the **feature** create the targeted instream habitat type?	NO	YES	NO	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	YES	NO	YES	NO	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	0.0	2.7	0.0	2.7	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11a	Maximum water depth in **habitat unit**: ft	0.0	5.9	0.0	5.9	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	0.0	2376.9	0.0	2376.9	406.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	0.0	5123.9	0.0	5123.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	0.0	7500.8	0.0	7500.8	406.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	24%	0%	24%	19%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	52%	0%	52%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	0%	77%	0%	77%	19%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NO	YES	NO	YES	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
12a	Targeted depth or range (ft) **in habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:		110																
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	YES	NO	YES	NO	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	3	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0
15.	Percent of **habitat unit** covered by sheller: %	0	25	0	25	10	0	0	0	0	0	0	0	0	0	0	0	0	0
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	RTW	NON	RTW	RTW	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	LWD	NON	LWD	LWD	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
17a	If an objective, did the **feature** increase instream shelter rating?	NO	YES	NO	YES	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	75	0	75	30	0	0	0	0	0	0	0	0	0	0	0	0	0
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NO	YES	NO	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	STB	AGG	STB	NA	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	STB	AGG	STB	NA	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	AGG	STB	AGG	STB	NA	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	YES	NO	YES	NO	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	N/A	DEC	NA	DEC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NO	YES	NO	YES	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.0	3.6	0.0	3.6	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	0.8	0.0	0.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	0.0	3501.3	0.0	3501.3	650.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	36%	0%	36%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
29.	Were there any unintended effects of **feature** on velocity If Y, comment	YES	NO	YES	NO	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	GRV	SND	GRV	GRV	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	SND	GRV	SND	SND	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0.0	2643.3	0.0	2643.3	419.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0.0	1663.2	0.0	1663.2	379.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0.0	980.1	0.0	980.1	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0%	27%	0%	27%	19%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	17%	0%	17%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	10%	0%	10%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	MNT	NON	MNT	NON	NA	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Table 68. Adaptive Management Plan full checklist for the Truett Hurst enhancement reach, October 2017.

	Project Reach	2	2	2	2	2
	Enhancement Reach	4	4	4	4	4
	Colloquial Name	TH	TH	TH	TH	TH
	mmddyy	103017	103017	103017	103017	103017
	Survey Type	POS	POS	POS	POS	POS
	Project Site Number	5	5	5	5	5
	Project Site Type	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP	SC Bank FP
	Project Feature Number	S5-14	S5-15	S5-16	S5-17	S5-18
	Feature Type Code	FW	FW	FW	mental Largbank Treatme	
	Habitat Unit	HU04_D	HU04_D	HU04_D	HU08_2	HU07_3
	Habitat Type	Dry	Dry	Dry	Riffle	Pool
1.	Length of targeted treatment (ft)	40	40	40	130	290
2.	Width of targeted treatment: (ft)	30	30	30	50	15
3.	Estimate area of the targeted **feature**: (ft^2)					
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	EXCL	EXCL	EXCL	EXCL	EXCL
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	OTH	OTH	OTH	RBK	LBK
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	OTH	OTH	OTH	OTH	PRP
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	DRY	DRY	DRY	RIF	POO
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	0.0	0.0	0.0	1.2	2.7
11a	Maximum water depth in **habitat unit**: ft	0.0	0.0	0.0	2.2	5.9
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	0.0	0.0	0.0	970.4	2376.9
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	0.0	0.0	0.0	12.4	5123.9
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	0.0	0.0	0.0	982.9	7500.8
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	0%	0%	84%	24%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	0%	0%	1%	52%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	0%	0%	0%	85%	77%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NO	NO	NO	NO	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:				230	2500
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	0	0	3	3
15.	Percent of **habitat unit** covered by shelter: %	0	0	0	15	25
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	NON	RTW	RTW
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	NON	LWD	LWD
17a	If an objective, did the **feature** increase instream shelter rating?	NO	NO	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	45	75
18a	Large woody debris count in **habitat unit**: D >1", L 6-20'	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1", L >20'	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NA	NA	NA	NA	DEC
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NO	NO	NO	NO	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.0	0.0	0.0	5.2	3.6
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	0.0	0.0	2.2	0.8
27.	Area of **habitat unit** within targeted velocity: (ft^2)	0.0	0.0	0.0	224.0	3501.3
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	0%	0%	19%	36%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	SND	SND	COB	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	SND
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0.0	0.0	0.0	86.4	2643.3
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0.0	0.0	0.0	86.4	1663.2
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0.0	0.0	0.0	0.0	980.1
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0%	0%	0%	8%	27%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	0%	0%	8%	17%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	0%	0%	10%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NO

Meyer Post-repair, October 2017

Depth and Velocity

Table 69. Areas and percentages of: wetted area, optimal depth and velocity, and optimal hydraulic habitat within the Meyer enhancement reach, October 2017.

Meyer Post-repair October 2017	Wetted area (ft^2)	Optimal depth (ft^2)			Optimal velocity (ft^2)	Optimal habitat (ft^2)		
		0.5 – 2.0 ft	2.0 – 4.0 ft	Total	< 0.5 ft/s	0.5 – 2.0 ft < 0.5 ft/s	2.0 – 4.0 ft < 0.5 ft/s	Total
Side channel area	11,340	2,767	4,522	7,289	9,821	2,335	3,874	6,209
Side channel % of wetted area	100%	24%	40%	64%	87%	21%	34%	55%

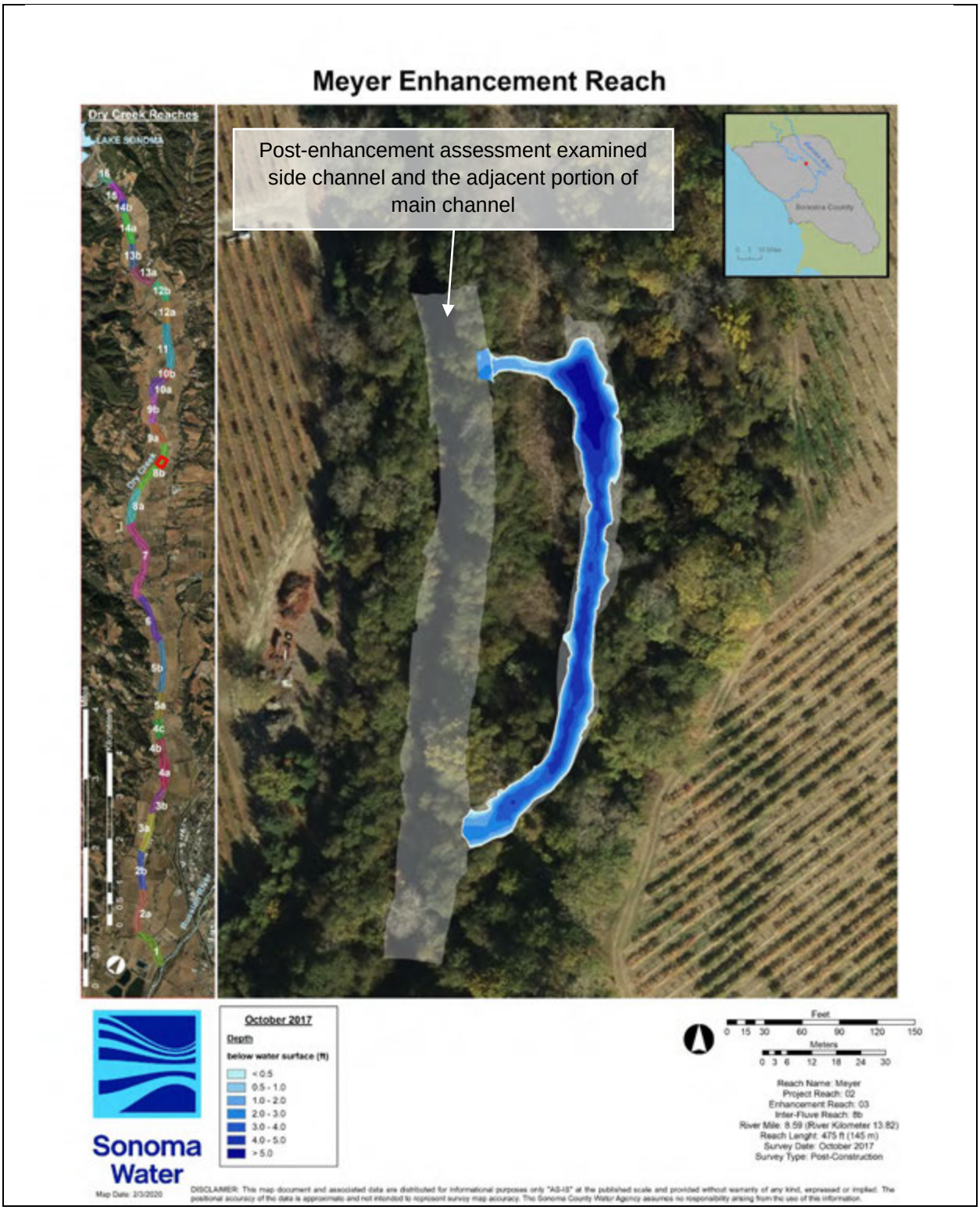


Figure 115. Measured water depth within the Meyer enhancement reach, October 2017.

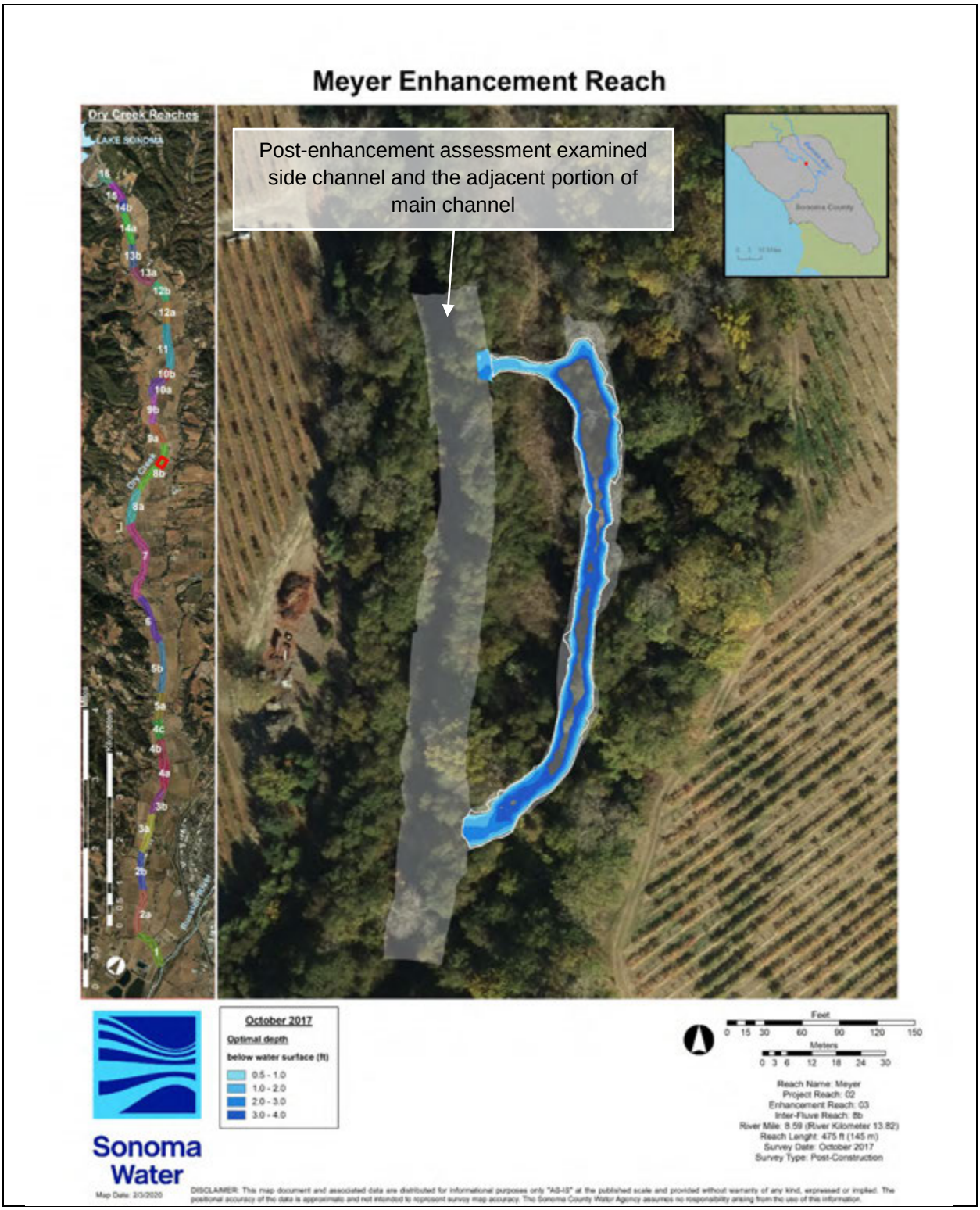


Figure 116. Optimal water depth for fry (0.5-2.0 ft) and parr (2.0-4.0 ft) within the Meyer enhancement reach, October 2017.

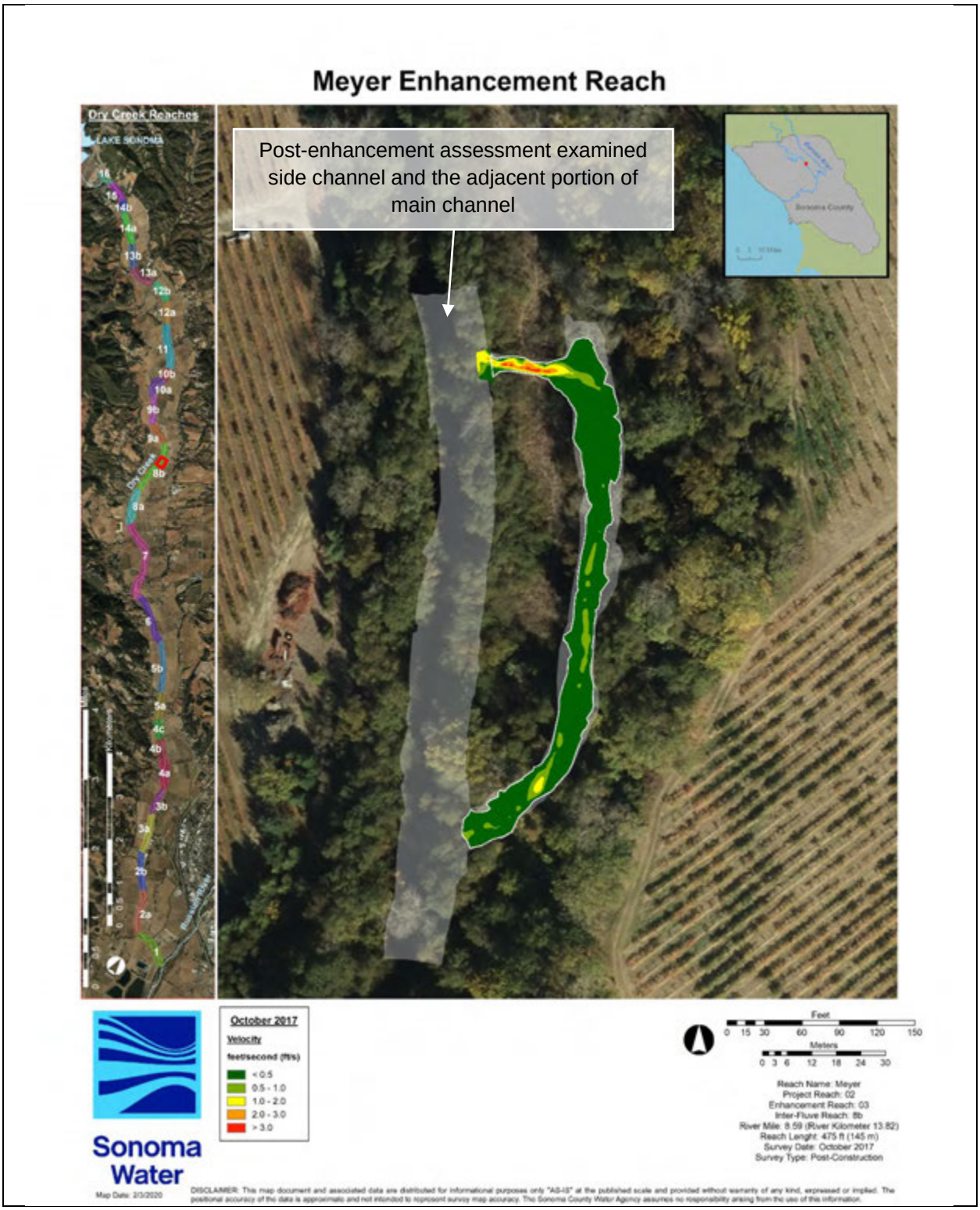


Figure 117. Measured water velocity within the Meyer enhancement reach, October 2017.

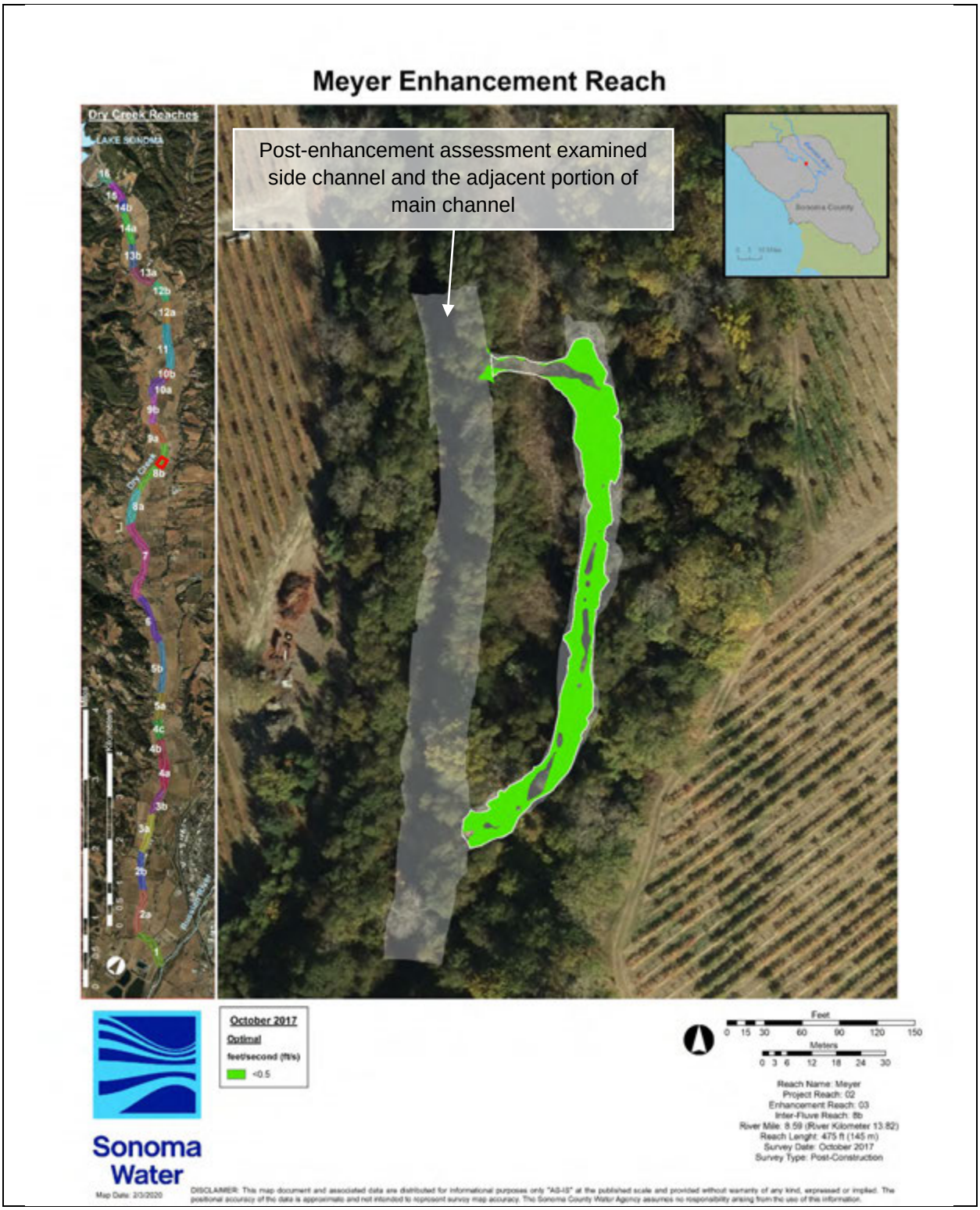


Figure 118. Optimal water velocity for fry and parr (< 0.5 ft/s) within the Meyer enhancement reach, October 2017.

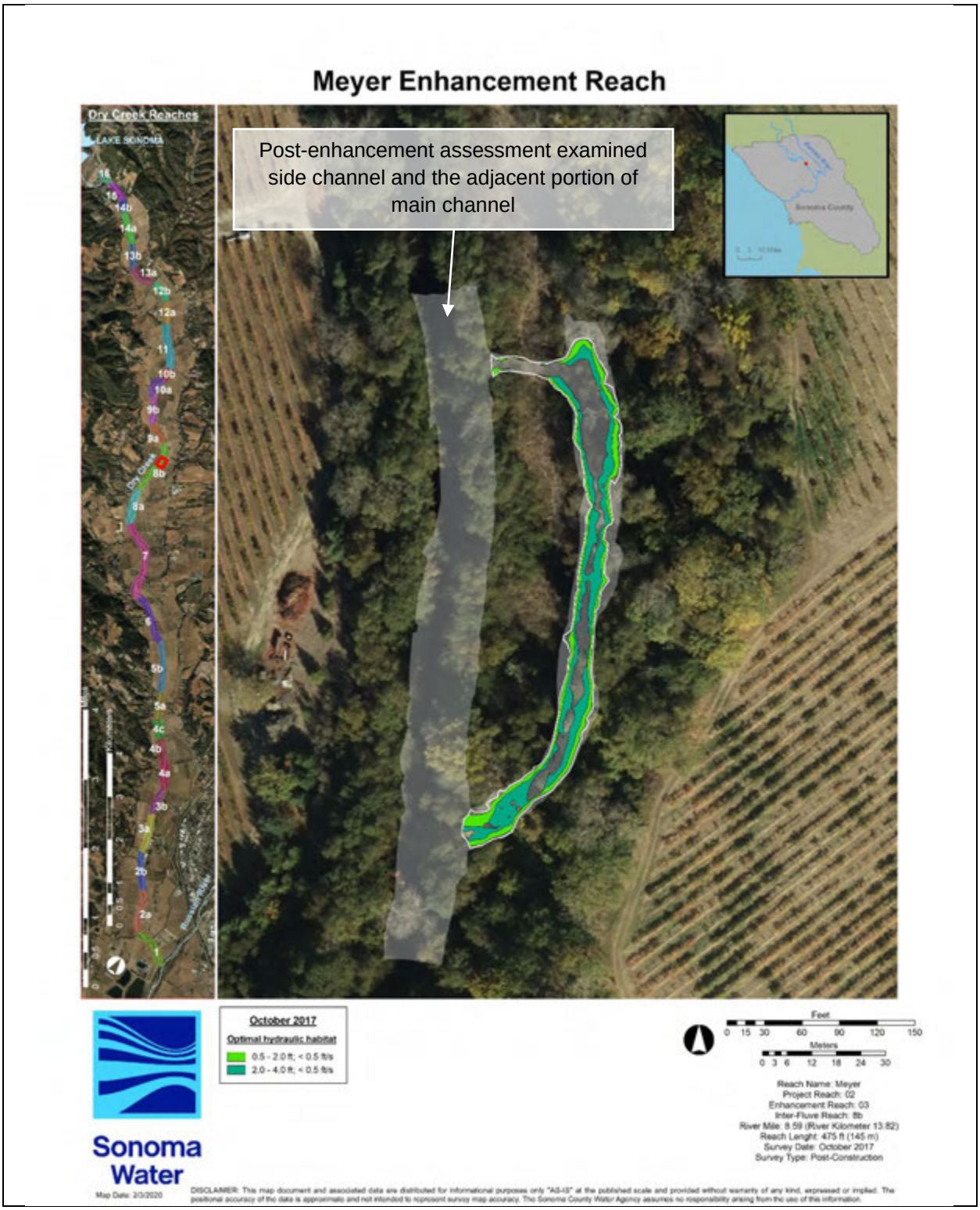


Figure 119. Optimal hydraulic habitat for fry (<0.5 ft/s, 0.5-2.0 ft) and parr (<0.5 ft/s, 2.0-4.0 ft) within the Meyer enhancement reach, October 2017.

Habitat Types and Shelter Values

Table 70. Habitat, types, shelter value, percent cover, and shelter score for habitat units within the Meyer enhancement reach, October 2017.

Post-repair (October 2017)				
Habitat Unit #	**Habitat Type**	**Shelter Value**	**Percent Cover**	**Shelter Score**
HU01	Pool	3	40	120
HU02	Riffle	3	60	180

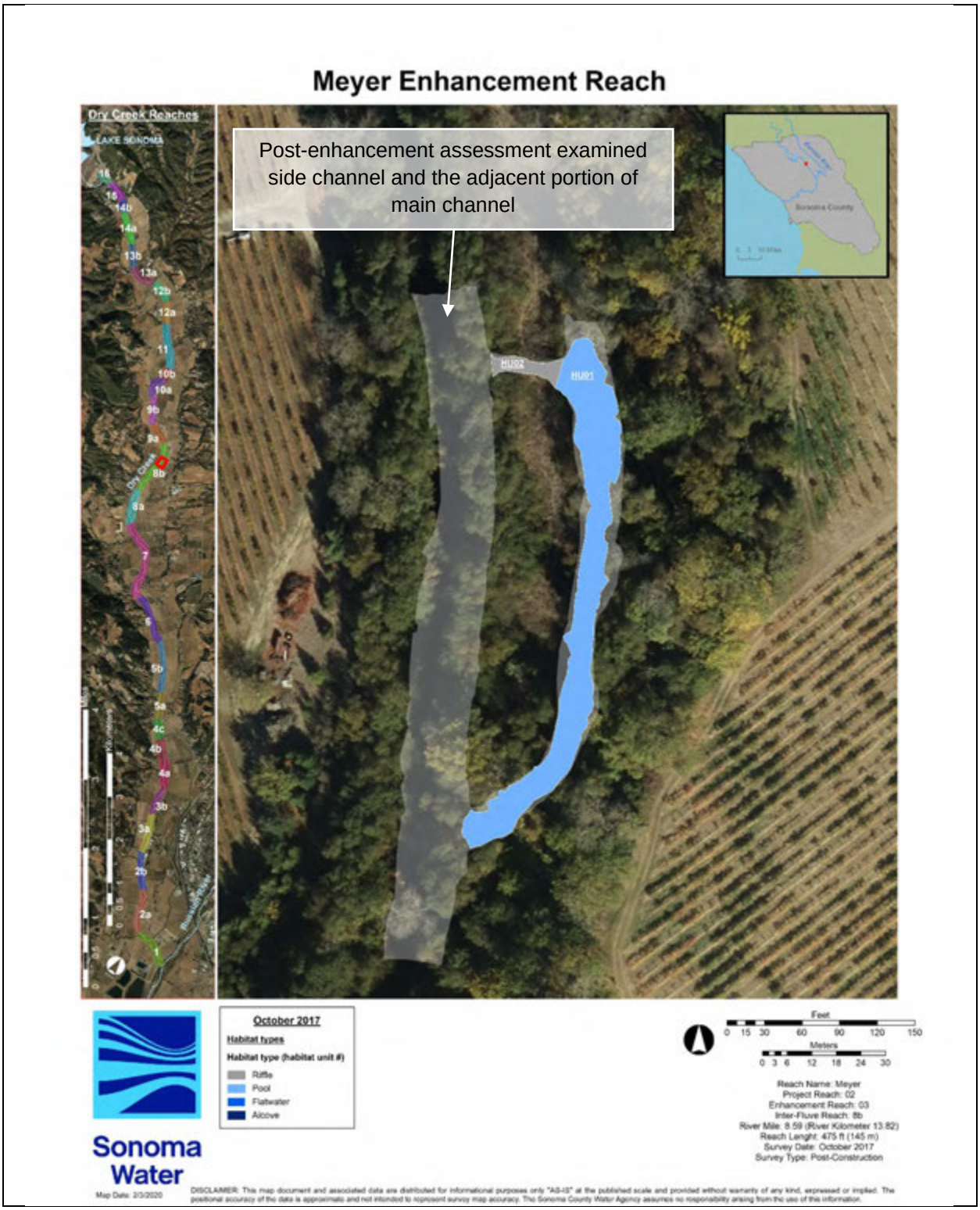


Figure 120. Habitat unit number and type within the Meyer enhancement reach, October 2017.

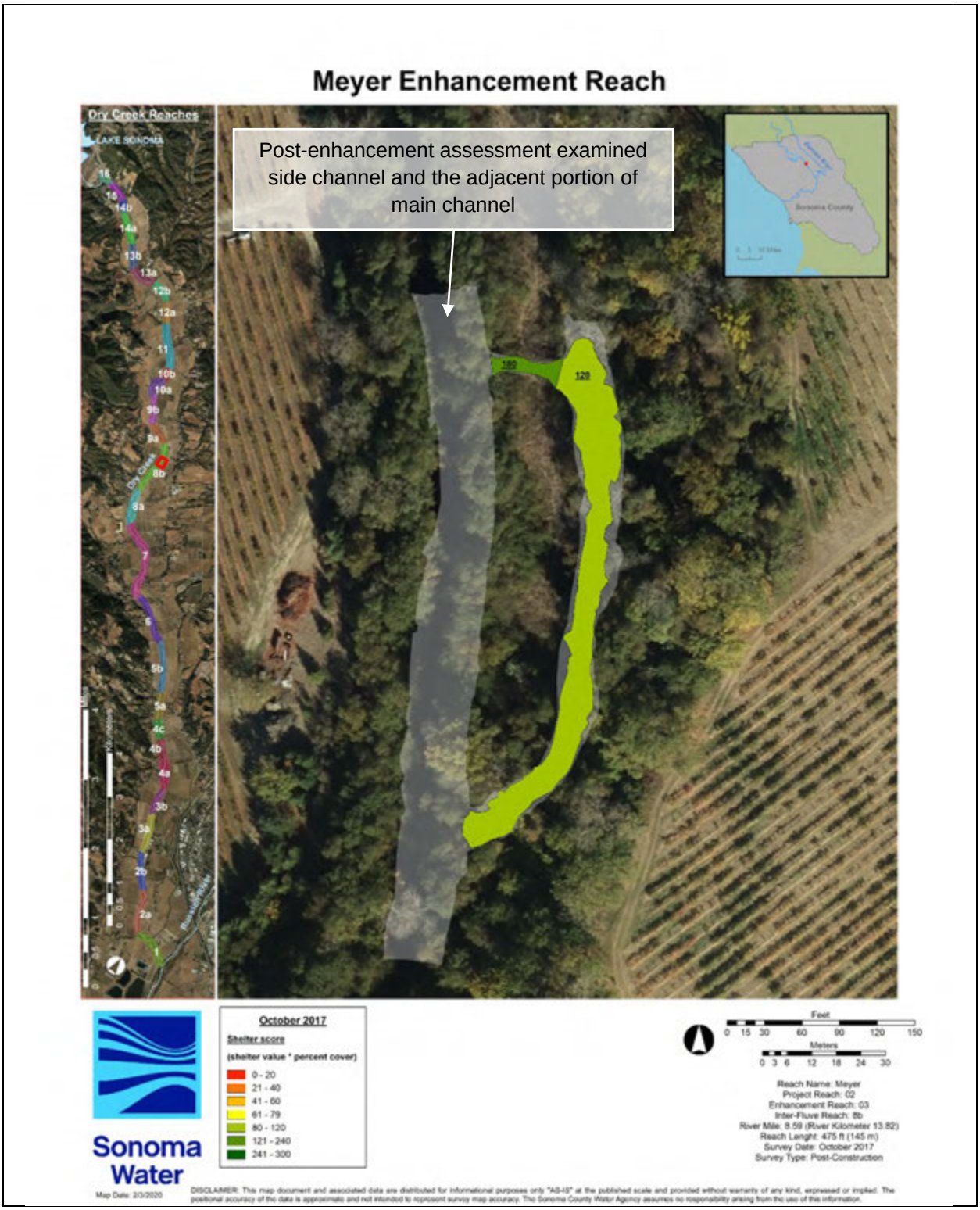


Figure 121. Habitat unit shelter scores within the Meyer enhancement reach, October 2017.

Feature, Habitat Unit, Site, and Reach Ratings

Table 71. Post-repair feature ratings for the Meyer enhancement reach, October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY
	mmddyy	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	NA	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S2-07	S2-08	S2-09	S2-10	S2-11	S2-12	S2-13	S2-14	S2-15	S2-16	S2-17
	Feature Type Code	NA	LJ	HW	BCW	HW	HW	HW	BCW	BCW	BCW	BCW	HW	HW	HW	HW	SCW	ALJ	BCW
	Habitat Unit	HU02_W	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU02	HU02	HU01
	Habitat Type	DRY	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Riffle	Riffle	Pool
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	PROJECT FEATURE NUMBER	**NA**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**	**S2-10**	**S2-11**	**S2-12**	**S2-13**	**S2-14**	**S2-15**	**S2-16**	**S2-17**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	PROJECT FEATURE NUMBER	**NA**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**	**S2-10**	**S2-11**	**S2-12**	**S2-13**	**S2-14**	**S2-15**	**S2-16**	**S2-17**
FEATURE RATING	Feature quantitative rating out of 15	0	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Not rated	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

Table 71. Post-repair feature ratings for the Meyer enhancement reach, October 2017.

	Project Reach	2	2	2	2	2	2
	Enhancement Reach	3	3	3	3	3	3
	Colloquial Name	MY	MY	MY	MY	MY	MY
	mmddyy	100717	100717	100717	100717	100717	100717
	Survey Type	POS	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	2	2	2	2	2	3
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S2-18	S2-19	S2-20	S2-21	S2-22	S3-01
	Feature Type Code	HW	HW	BCW	FW	FW	Jet Roughnes
	Habitat Unit	HU02	HU02	HU01	HU01_D	HU01_D	HU02_2
	Habitat Type	Riffle	Riffle	Pool	DRY	DRY	Riffle
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	NA	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	NO	NO	NO	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	NO	NO	NO	YES
	PROJECT FEATURE NUMBER	**S2-18**	**S2-19**	**S2-20**	**S2-21**	**S2-22**	**S3-01**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	4	4	4	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	0	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	0	0	0	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	0	0	0	1
	PROJECT FEATURE NUMBER	**S2-18**	**S2-19**	**S2-20**	**S2-21**	**S2-22**	**S3-01**
FEATURE RATING	Feature quantitative rating out of 15	13	13	10	11	11	13
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Good	Good	Good	Excellent

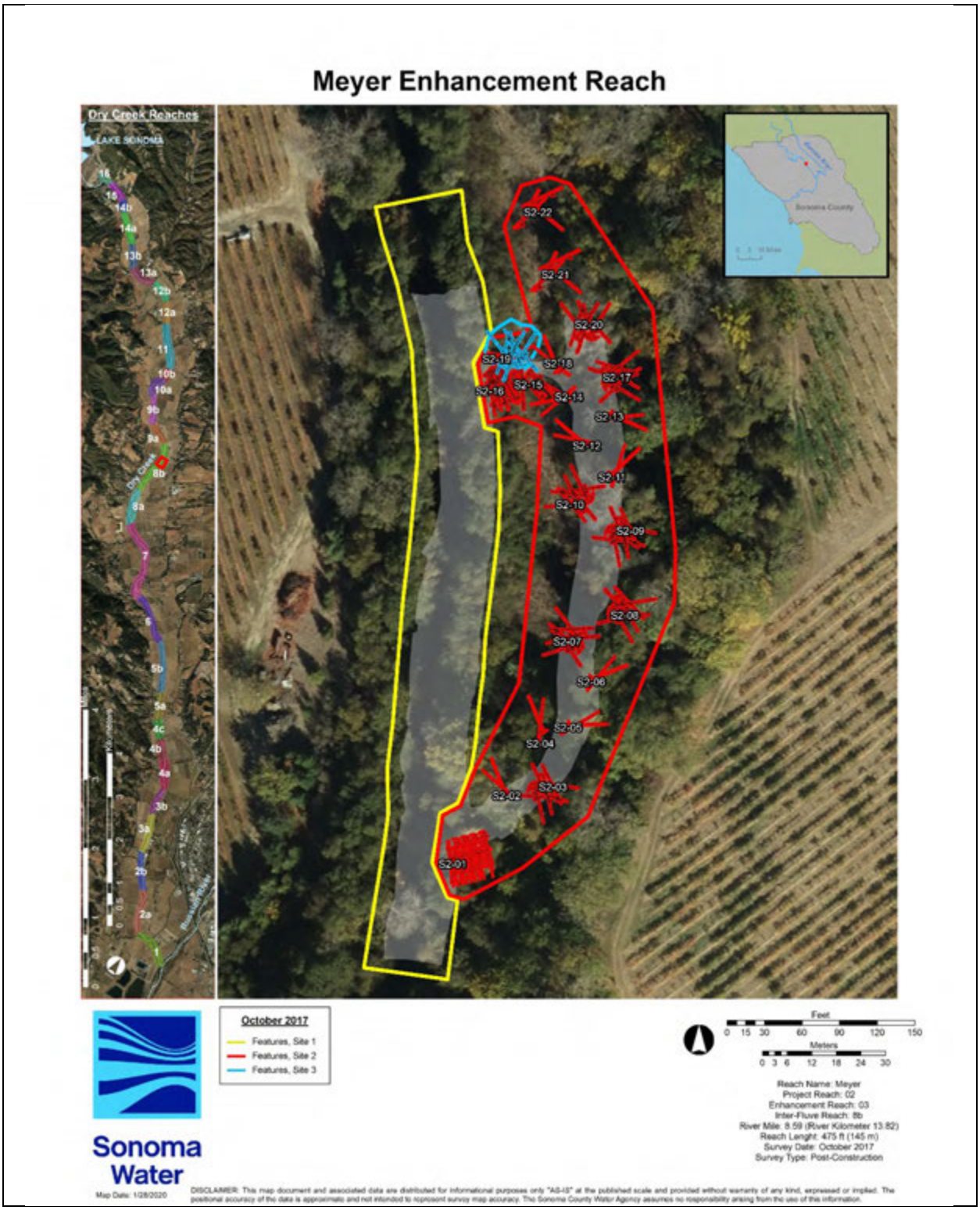


Figure 122. Post-repair enhancement sites and features within the Meyer enhancement reach, October 2017.

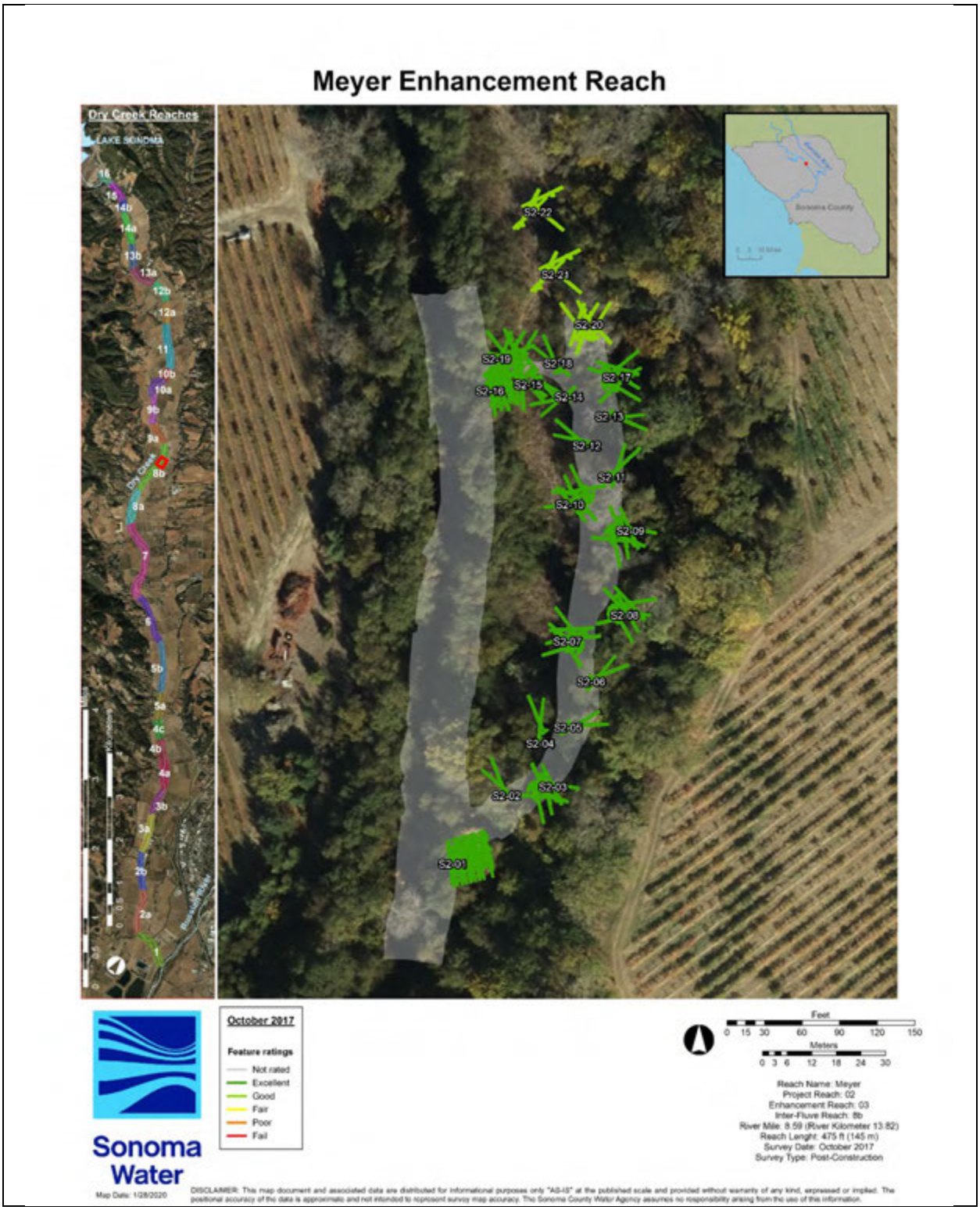


Figure 123. Feature ratings for the Meyer enhancement reach, October 2017.

Table 72. Post-repair habitat unit ratings for the Meyer enhancement reach, October 2017.

	Project Reach	2	2	2	2	2
	Enhancement Reach	3	3	3	3	3
	Colloquial Name	MY	MY	MY	MY	MY
	mmddyy	100717	100717	100717	100717	100717
	Survey Type	POS	POS	POS	POS	POS
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU02_2**	**HU01_D**	**HU02_W**
	Habitat Type	Pool	Riffle	Riffle	DRY	DRY
	PROJECT SITE NUMBER	**2**	**2**	**3**	**2**	**1**
	Project Site Type	SideChan	SideChan	SideChan	SideChan	MainChan
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	21%	69%	69%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	42%	11%	11%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	0	0
15.	Percent of **habitat unit** covered by shelter: %	40	60	60	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	120	180	180	0	0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	90%	27%	27%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	21%	10%	10%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	36%	3%	3%	0%	0%
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU02_2**	**HU01_D**	**HU02_W**
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	4	4	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	1	1	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	5	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	3	4	4	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	4	5	5	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	2	2	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	1	1	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	0	0	0	0
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU02_2**	**HU01_D**	**HU02_W**
HABITAT UNIT RATING	Habitat unit quantitative rating (out of 35)	27	22	22	0	0
	Habitat unit qualitative rating: Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7)	Good	Good	Good	Not rated	Not rated

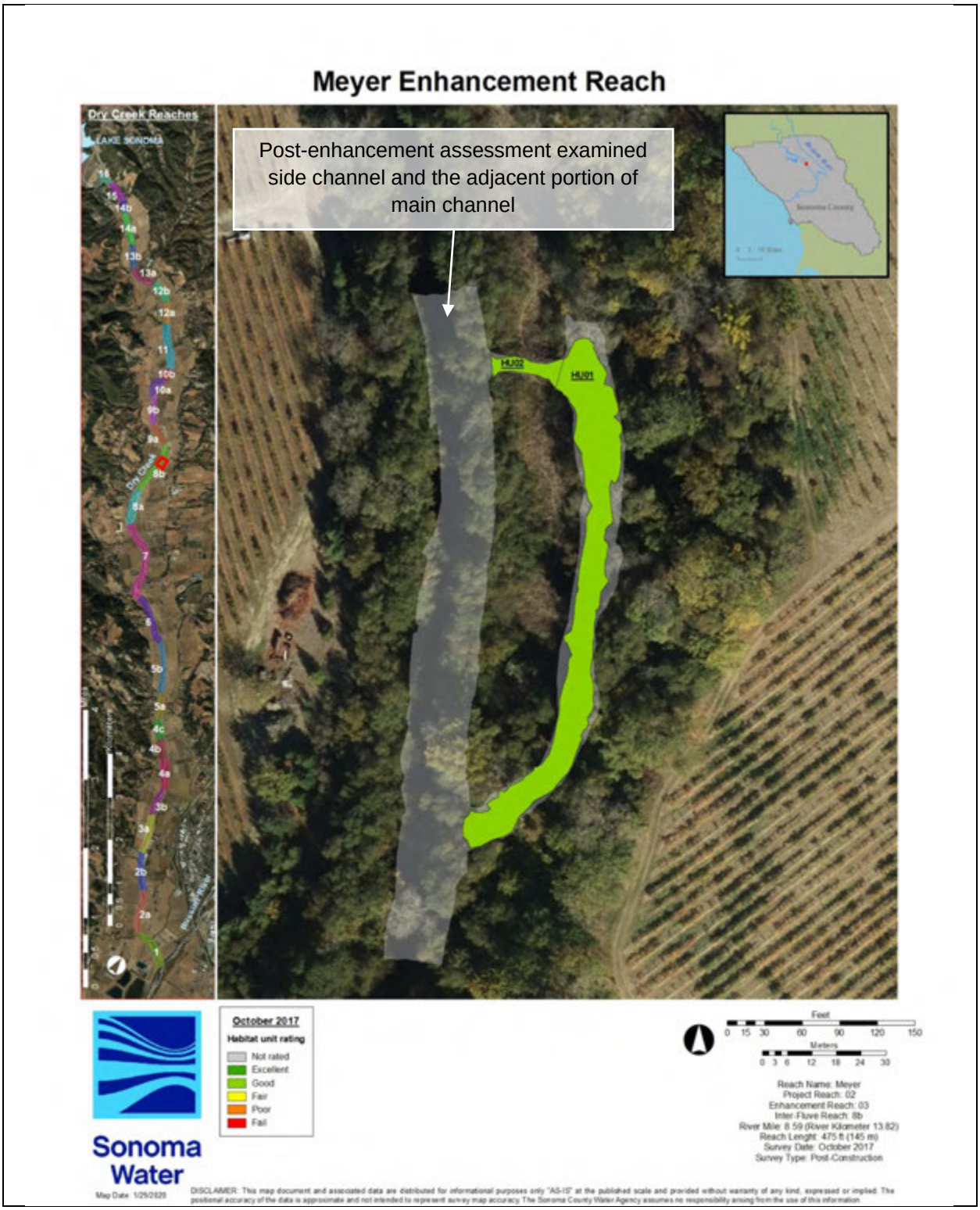


Figure 124. Habitat unit ratings for the Meyer enhancement reach, October 2017.

Table 73. Post-repair average feature, average habitat unit, site, and reach ratings for the Meyer enhancement reach, October 2017.

	Project Reach	2	2	2
	Enhancement Reach	3	3	3
	ENHANCEMENT REACH NAME	MY	MY	MY
	mmddyy	100717	100717	100717
	Survey Type	POS	POS	POS
	PROJECT SITE NUMBER	1	2	3
	Project Site Type	MainChan	SideChan	SideChan
	PROJECT SITE NUMBER	1	2	3
SITE AVERAGE FEATURE RATING	Site average feature quantitative rating (out of 15; bold indicates excluded from site rating)	0	13	13
	Site average feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3), Not rated (not used to rate site)	Not rated	Excellent	Excellent
	PROJECT SITE NUMBER	1	2	3
SITE AVERAGE HABITAT UNIT RATING	Site average habitat unit quantitative rating (out of 35; bold indicates excluded from site rating)	0	25	22
	Site average qualitative rating Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7), Not rated (not used to rate site)	Not rated	Good	Good
	PROJECT SITE NUMBER	1	2	3
SITE RATING	Site quantitative rating (sum of site average feature and habitat unit ratings) (out of 50; bold indicates rating excludes feature or habitat unit rating and scoring out of 15 or 35)	0	37	35
	Site qualitative rating: Excellent (>=40), Good (>=30), Fair(>=20), Poor (>=10), Fail (<10)	Not rated	Good	Good
	ENHANCEMENT REACH NAME	MY		
ENHANCEMENT REACH RATING	Enhancement reach quantitative rating (average of site ratings) (out of 50)	36		
	Enhancement reach qualitative rating: Excellent (>=40), Good (>=30), Fair(>=20), Poor (>=10), Fail (<10)	Good		

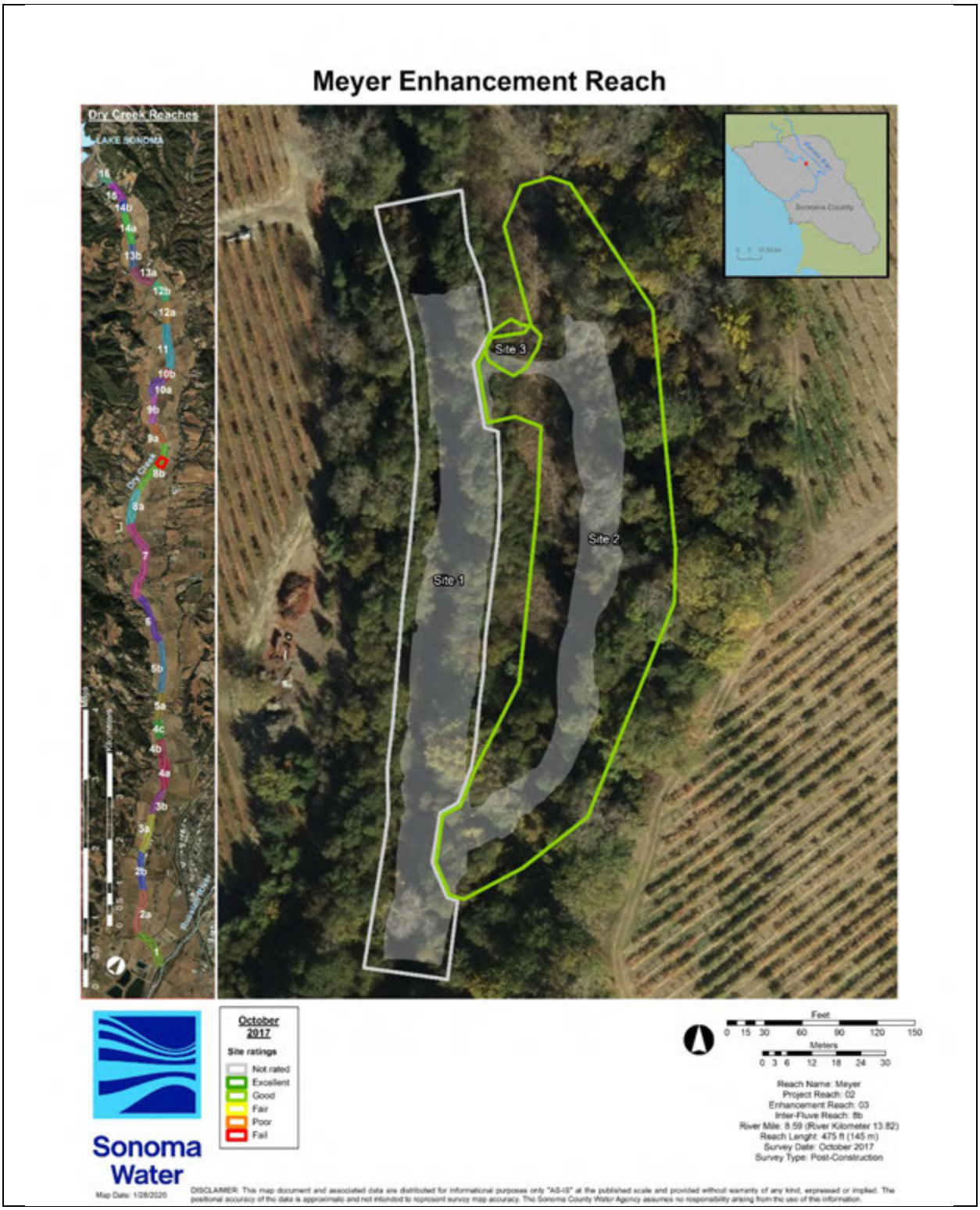


Figure 125. Post-repair site ratings within the Meyer enhancement reach, October 2017.

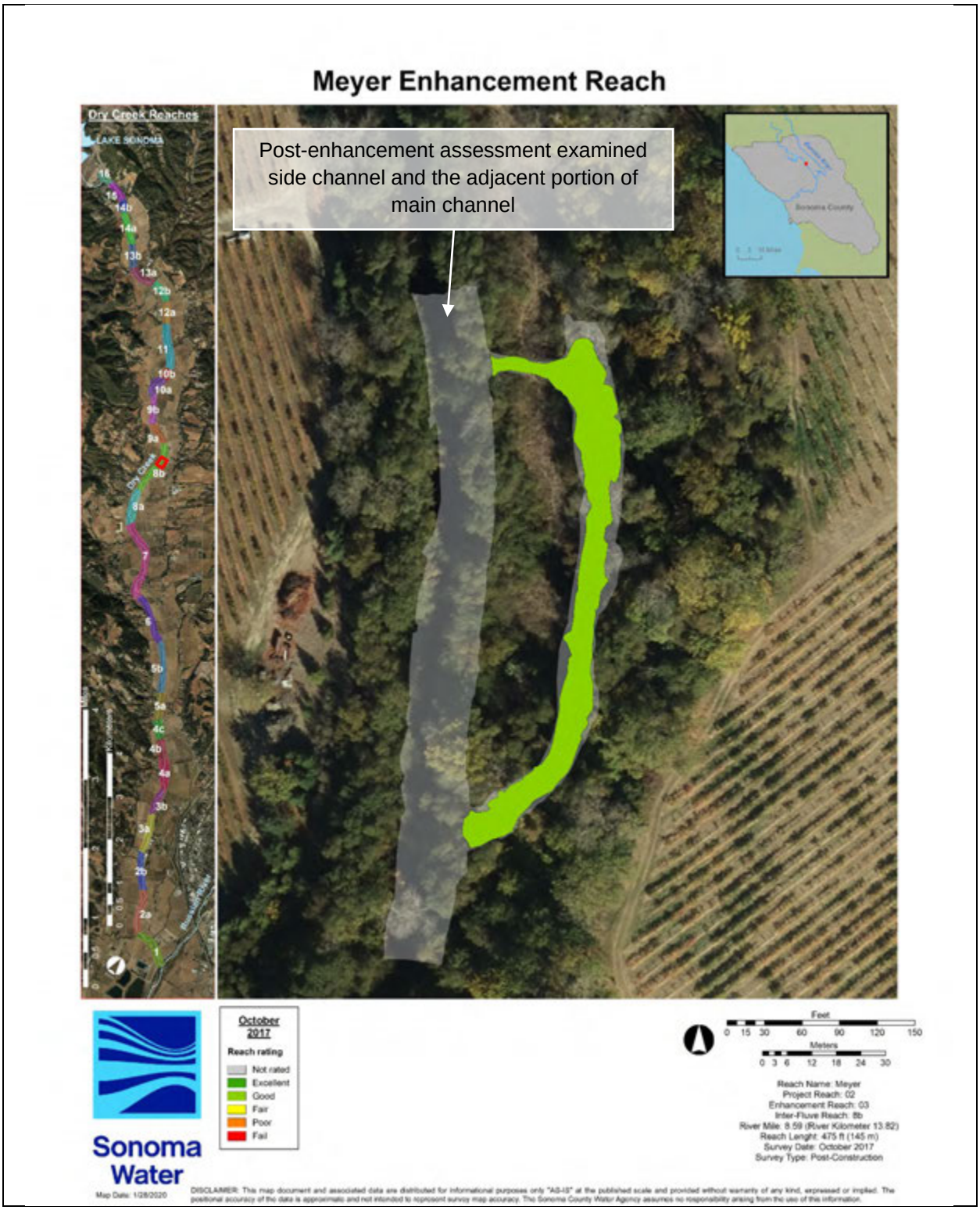


Figure 126. Post-repair reach rating for the Meyer enhancement reach, October 2017.

Feature and Habitat Unit Checklists

Table 74. Adaptive Management Plan targeted checklist (Sites 1, 2) for the Meyer enhancement reach, October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY
	mmddyy	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	NA	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S2-07	S2-08	S2-09	S2-10	S2-11	S2-12	S2-13	S2-14	S2-15	S2-16	S2-17
	Feature Type Code	NA	LJ	HW	BCW	HW	HW	HW	BCW	BCW	BCW	BCW	HW	HW	HW	HW	SCW	ALJ	BCW
	Habitat Unit	HU02_W	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU02	HU02	HU01
	Habitat Type	DRY	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Riffle	Riffle	Pool
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	69%	69%	21%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	11%	11%	42%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	0	40	40	40	40	40	40	40	40	40	40	40	40	40	40	60	60	40
17a	If an objective, did the **feature** increase instream shelter rating?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	120	120	120	120	120	120	120	120	120	120	120	120	120	120	180	180	120
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	27%	27%	90%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	10%	10%	21%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	3%	3%	36%
	FEATURE NUMBER	**NA**	**S2-01**	**S2-02**	**S2-03**	**S2-04**	**S2-05**	**S2-06**	**S2-07**	**S2-08**	**S2-09**	**S2-10**	**S2-11**	**S2-12**	**S2-13**	**S2-14**	**S2-15**	**S2-16**	**S2-17**
	HABITAT UNIT NUMBER	**HU02_W**	**HU01**	**HU01**	**HU01**	**HU01**	**HU01**	**HU01**	**HU01**	**HU01**	**HU01**	**HU01**	**HU01**	**HU01**	**HU01**	**HU01**	**HU02**	**HU02**	**HU01**
	SITE NUMBER	**1**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**
	ENHANCEMENT REACH NAME	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	4	2
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	1	1	4
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	0	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	3
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	4
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2	2	4
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	3

Table 74. Adaptive Management Plan targeted checklist (Sites 1, 2) for the Meyer enhancement reach, October 2017.

	Project Reach	2	2	2	2	2	2
	Enhancement Reach	3	3	3	3	3	3
	Colloquial Name	MY	MY	MY	MY	MY	MY
	mmddyy	100717	100717	100717	100717	100717	100717
	Survey Type	POS	POS	POS	POS	POS	POS
	Project Site Number	2	2	2	2	2	3
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S2-18	S2-19	S2-20	S2-21	S2-22	S3-01
	Feature Type Code	HW	HW	BCW	FW	FW	Jet Roughnes
	Habitat Unit	HU02	HU02	HU01	HU01_D	HU01_D	HU02_2
	Habitat Type	Riffle	Riffle	Pool	DRY	DRY	Riffle
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	NA	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NO	NO	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	69%	69%	21%	0%	0%	69%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	11%	11%	42%	0%	0%	11%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	0	0	3
15.	Percent of **habitat unit** covered by shelter: %	60	60	40	0	0	60
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	NO	NO	NO	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	180	180	120	0	0	180
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	NO	NO	NO	YES
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	27%	27%	90%	0%	0%	27%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	10%	10%	21%	0%	0%	10%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	3%	3%	36%	0%	0%	3%
	FEATURE NUMBER	**S2-18**	**S2-19**	**S2-20**	**S2-21**	**S2-22**	**S3-01**
	HABITAT UNIT NUMBER	**HU02**	**HU02**	**HU01**	**HU01_D**	**HU01_D**	**HU02_2**
	SITE NUMBER	**2**	**2**	**2**	**2**	**2**	**3**
	ENHANCEMENT REACH NAME	**MY**	**MY**	**MY**	**MY**	**MY**	**MY**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	4	4	4	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	0	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	2	0	0	4
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	4	0	0	1
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	5	0	0	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	4	4	3	0	0	4
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	0	0	0	1
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	5	5	4	0	0	5
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	0	0	0	1
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	2	4	0	0	2
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	2	0	0	1
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	3	0	0	0

Table 75. Adaptive Management Plan full checklist for the Meyer enhancement reach, October 2017.

	Project Reach	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY	MY
	mmddyy	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717	100717
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	NA	S2-01	S2-02	S2-03	S2-04	S2-05	S2-06	S2-07	S2-08	S2-09	S2-10	S2-11	S2-12	S2-13	S2-14	S2-15	S2-16	S2-17
	Feature Type Code	NA	LJ	HW	BCW	HW	HW	HW	BCW	BCW	BCW	BCW	HW	HW	HW	HW	SCW	ALJ	BCW
	Habitat Unit	HU02_W	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU01	HU02	HU02	HU01
	Habitat Type	DRY	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Pool	Riffle	Riffle	Pool
1.	Length of targeted treatment (ft)	0	30	40	30	34	20	30	28	30	30	30	30	30	15	33	20	33	28
2.	Width of targeted treatment: (ft)	0	35	20	33	20	31	35	30	33	32	35	26	28	35	30	30	30	31
3.	Estimate area of the targeted **feature**: (ft^2)	0	1050	800	990	680	620	1050	840	990	960	1050	780	840	525	990	600	990	868
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	NA	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NA	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	NA	LBK	RBK	LBK	RBK	LBK	LBK	RBK	LBK	LBK	RBK	LBK	RBK	LBK	RBK	RBK	RBK	LBK
6d	Is the **feature** still in its original orientaton?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	NA	MUL	DNS	PRP	DNS	PRP	DNS	PRP	PRP	PRP	PRP	DNS	DNS	PRP	PRP	UPS	UPS	PRP
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	DRY	POO	POO	POO	POO	POO	POO	POO	POO	POO	POO	POO	POO	POO	POO	RIF	RIF	POO
8.	If an objective, did the **feature** create the targeted instream habitat type?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	0.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	1.2	1.2	2.9
11a	Maximum water depth in **habitat unit**: ft	0.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	4.4	4.4	6.0
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	0.0	2285.1	2285.1	2285.1	2285.1	2285.1	2285.1	2285.1	2285.1	2285.1	2285.1	2285.1	2285.1	2285.1	2285.1	481.8	481.8	2285.1
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	0.0	4443.0	4443.0	4443.0	4443.0	4443.0	4443.0	4443.0	4443.0	4443.0	4443.0	4443.0	4443.0	4443.0	4443.0	79.1	79.1	4443.0
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	0.0	6728.1	6728.1	6728.1	6728.1	6728.1	6728.1	6728.1	6728.1	6728.1	6728.1	6728.1	6728.1	6728.1	6728.1	560.9	560.9	6728.1
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	0%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	69%	69%	21%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	0%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	42%	11%	11%	42%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	0%	63%	63%	63%	63%	63%	63%	63%	63%	63%	63%	63%	63%	63%	63%	81%	81%	63%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	NA	428	116	290	20	100	55	220	140	290	200	90	75	110	65	100	255	200
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	0	40	40	40	40	40	40	40	40	40	40	40	40	40	40	60	60	40
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW	RTW
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD	LWD
17a	If an objective, did the **feature** increase instream shelter rating?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	120	120	120	120	120	120	120	120	120	120	120	120	120	120	180	180	120
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	NA	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	NA	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	4.0	4.0	1.8
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.3	1.3	0.2
27.	Area of **habitat unit** within targeted velocity: (ft^2)	0.0	9631.9	9631.9	9631.9	9631.9	9631.9	9631.9	9631.9	9631.9	9631.9	9631.9	9631.9	9631.9	9631.9	9631.9	189.5	189.5	9631.9
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	0%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	27%	27%	90%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	NR	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	SND	GRV	GRV	SND
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	NR	SLC	SLC	SLC	SLC	SLC	SLC	SLC	SLC	SLC	SLC	SLC	SLC	SLC	SLC	COB	COB	SLC
31.	If an objective, did the **feature** achieve the targeted substrate composition?	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0.0	6115.0	6115.0	6115.0	6115.0	6115.0	6115.0	6115.0	6115.0	6115.0	6115.0	6115.0	6115.0	6115.0	6115.0	93.9	93.9	6115.0
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0.0	2264.7	2264.7	2264.7	2264.7	2264.7	2264.7	2264.7	2264.7	2264.7	2264.7	2264.7	2264.7	2264.7	2264.7	70.5	70.5	2264.7
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0.0	3850.3	3850.3	3850.3	3850.3	3850.3	3850.3	3850.3	3850.3	3850.3	3850.3	3850.3	3850.3	3850.3	3850.3	23.4	23.4	3850.3
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	0%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	14%	14%	57%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	0%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	10%	10%	21%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	36%	3%	3%	36%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NA	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NA	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Table 75. Adaptive Management Plan full checklist for the Meyer enhancement reach, October 2017.

	Project Reach	2	2	2	2	2	2
	Enhancement Reach	3	3	3	3	3	3
	Colloquial Name	MY	MY	MY	MY	MY	MY
	mmddyy	100717	100717	100717	100717	100717	100717
	Survey Type	POS	POS	POS	POS	POS	POS
	Project Site Number	2	2	2	2	2	3
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S2-18	S2-19	S2-20	S2-21	S2-22	S3-01
	Feature Type Code	HW	HW	BCW	FW	FW	Jet Roughnes
	Habitat Unit	HU02	HU02	HU01	HU01_D	HU01_D	HU02_2
	Habitat Type	Riffle	Riffle	Pool	DRY	DRY	Riffle
1.	Length of targeted treatment (ft)	36	13	35	38	38	40
2.	Width of targeted treatment: (ft)	18	37	32	40	40	55
3.	Estimate area of the targeted **feature**: (ft^2)	648	481	1120	1520	1520	2200
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	NON	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	LBK	LBK	LBK	OTH	OTH	LBK
6d	Is the **feature** still in its original orientaton?	YES	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	DNS	PRL	DNS	OTH	OTH	MUL
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	RIF	RIF	POO	DRY	DRY	RIF
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	NA	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	1.2	1.2	2.9	0.0	0.0	1.2
11a	Maximum water depth in **habitat unit**: ft	4.4	4.4	6.0	0.0	0.0	4.4
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	481.8	481.8	2285.1	0.0	0.0	481.8
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	79.1	79.1	4443.0	0.0	0.0	79.1
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	560.9	560.9	6728.1	0.0	0.0	560.9
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	69%	69%	21%	0%	0%	69%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	11%	11%	42%	0%	0%	11%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	81%	81%	63%	0%	0%	81%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	YES	NO	NO	NO	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	60	85	70			
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	0	0	3
15.	Percent of **habitat unit** covered by shelter: %	60	60	40	0	0	60
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	RTW	RTW	RTW	NON	NON	RTW
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	LWD	LWD	LWD	NON	NON	LWD
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	NO	NO	NO	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	180	180	120	0	0	180
18a	Large woody debris count in **habitat unit**: D >1", L 6-20'	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1", L >20'	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	DEC	DEC	NA	NA	NA	DEC
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	YES	NO	NO	NO	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	4.0	4.0	1.8	0.0	0.0	4.0
26c	Measured mean velocity (ft/sec) in **habitat unit**	1.3	1.3	0.2	0.0	0.0	1.3
27.	Area of **habitat unit** within targeted velocity: (ft^2)	189.5	189.5	9631.9	0.0	0.0	189.5
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	27%	27%	90%	0%	0%	27%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NO	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	SND	SND	SND	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	COB	COB	SLC	GRV	GRV	COB
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	93.9	93.9	6115.0	0.0	0.0	93.9
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	70.5	70.5	2264.7	0.0	0.0	70.5
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	23.4	23.4	3850.3	0.0	0.0	23.4
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	14%	14%	57%	0%	0%	14%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	10%	10%	21%	0%	0%	10%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	3%	3%	36%	0%	0%	3%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NO	NO

Geyser Peak Post-repair, October 2017

Depth and Velocity

Table 76. Areas and percentages of: wetted area, optimal depth and velocity, and optimal hydraulic habitat within the Geyser Peak enhancement reach, October 2017.

Geyser Peak Post-repair October 2017	Wetted area (ft^2)	Optimal depth (ft^2)			Optimal velocity (ft^2)	Optimal habitat (ft^2)		
		0.5 – 2.0 ft	2.0 – 4.0 ft	Total	< 0.5 ft/s	0.5 – 2.0 ft < 0.5 ft/s	2.0 – 4.0 ft < 0.5 ft/s	Total
Side channel area	8,721	4,835	2,655	7,490	2,360	1,140	132	1,273
Side channel % of wetted area	100%	55%	30%	86%	27%	13%	2%	15%



Figure 127. Measured water depth within the Geyser Peak enhancement reach, October 2017.



Figure 128. Optimal water depth for fry (0.5-2.0 ft) and parr (2.0-4.0 ft) within the Geyser Peak enhancement reach, October 2017.

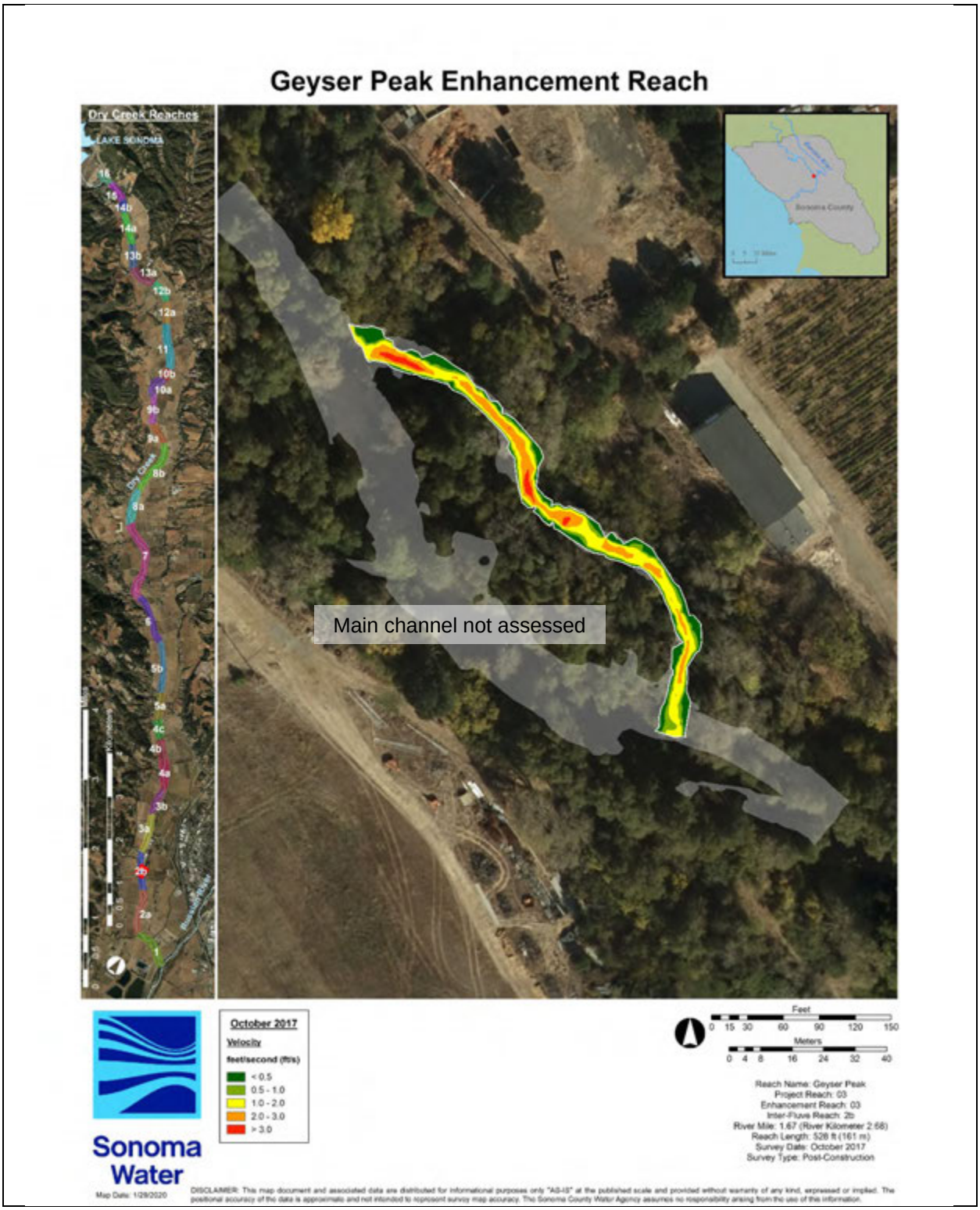


Figure 129. Measured water velocity within the Geyser Peak enhancement reach, October 2017.



Figure 130. Optimal water velocity for fry and parr (< 0.5 ft/s) within the Geyser Peak enhancement reach, October 2017.



Figure 131. Optimal hydraulic habitat for fry (<0.5 ft/s, 0.5-2.0 ft) and parr (<0.5 ft/s, 2.0-4.0 ft) within the Geyser Peak enhancement reach, October 2017.

Habitat Types and Shelter Values

Table 77. Habitat, types, shelter value, percent cover, and shelter score for habitat units within the Geyser Peak enhancement reach, October 2017.

Post-repair (October 2017)				
Habitat Unit #	**Habitat Type**	**Shelter Value**	**Percent Cover**	**Shelter Score**
HU01	Flatwater	2	0	0
HU02	Flatwater	3	15	45
HU03	Flatwater	3	10	30
HU04	Riffle	3	10	30
HU05	Pool	3	15	45
HU06	Riffle	2	20	40
HU07	Flatwater	3	15	45
HU08	Riffle	3	0	0



Figure 132. Habitat unit number and type within the Geyser Peak enhancement reach, October 2017.

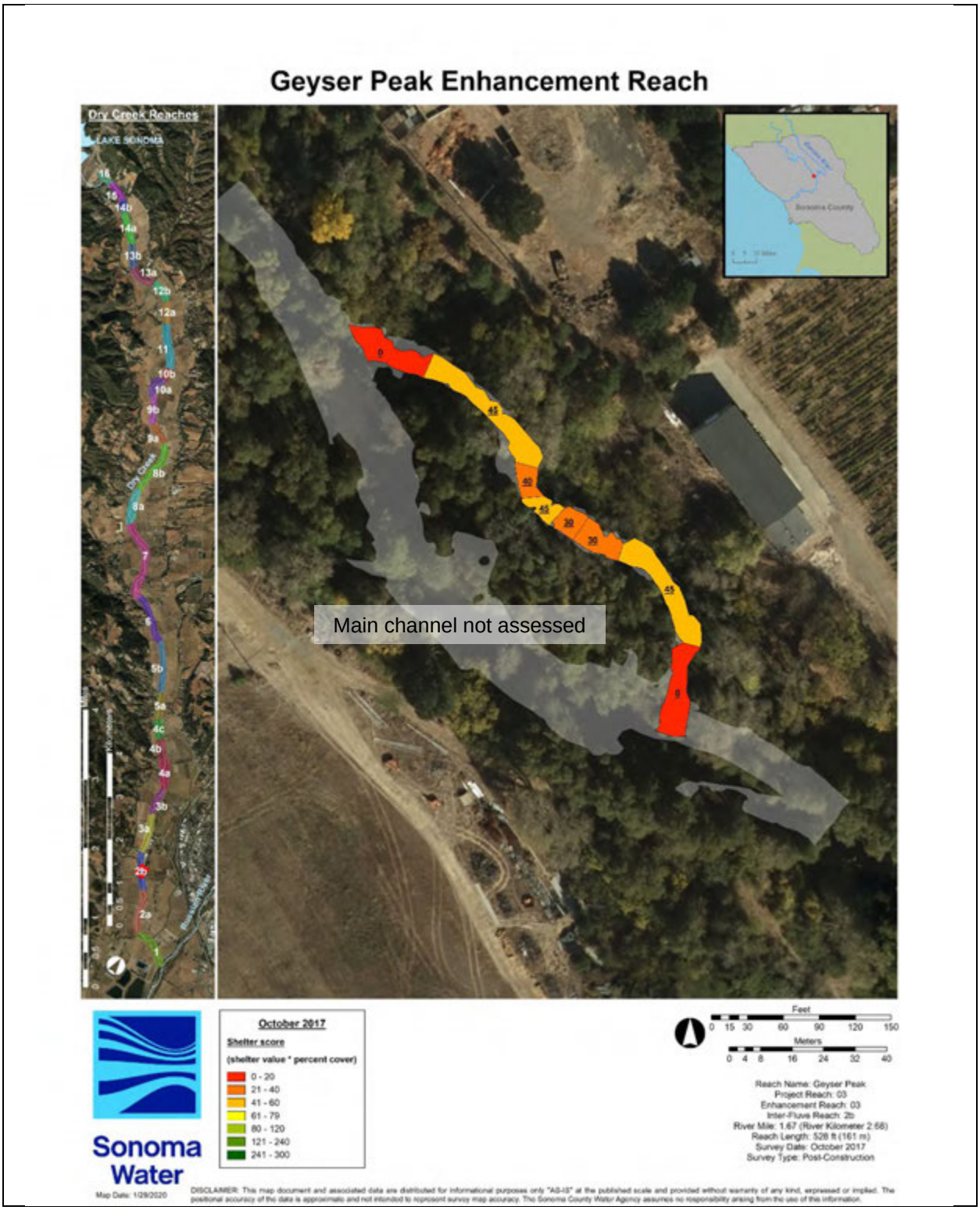


Figure 133. Habitat unit shelter scores within the Geyser Peak enhancement reach, October 2017.

Feature, Habitat Unit, Site, and Reach Ratings

Table 78. Post-repair feature ratings for the Geyser Peak enhancement reach, October 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S1-05	S1-07	S1-08	S1-10	S1-11	S1-12	S2-01	S2-02	S2-03	S2-04.1	S2-04.2	S2-04.3	S2-05	S2-06	S2-07.1	S2-07.2	S2-08	S2-09.1
	Feature Type Code	LWS	LW	HW2	HW1	LW	LWS	R	HW2	HW1	PW	PW	PW	HW1	R	HW2	HW1	HW2	HW2
	Habitat Unit	HU01_2	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01	HU01	HU02	HU02	HU02	HU02	HU02_D	HU03	HU02	HU02	HU03	HU03
	Habitat Type	Flatwater	Dry	Dry	Dry	Dry	Dry	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Dry	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	UNKN	UNKN	UNKN	UNKN	UNKN	FAIR	GOOD	GOOD	GOOD	GOOD	GOOD	UNKN	GOOD	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NO	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	YES	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES	YES	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES	YES
	PROJECT FEATURE NUMBER	**S1-05**	**S1-07**	**S1-08**	**S1-10**	**S1-11**	**S1-12**	**S2-01**	**S2-02**	**S2-03**	**S2-04.1**	**S2-04.2**	**S2-04.3**	**S2-05**	**S2-06**	**S2-07.1**	**S2-07.2**	**S2-08**	**S2-09.1**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	0	0	0	0	0	3	4	4	4	4	4	0	4	4	4	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1	1	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1
	PROJECT FEATURE NUMBER	**S1-05**	**S1-07**	**S1-08**	**S1-10**	**S1-11**	**S1-12**	**S2-01**	**S2-02**	**S2-03**	**S2-04.1**	**S2-04.2**	**S2-04.3**	**S2-05**	**S2-06**	**S2-07.1**	**S2-07.2**	**S2-08**	**S2-09.1**
FEATURE RATING	Feature quantitative rating out of 15	13	1	1	1	1	1	10	13	13	13	13	13	1	11	13	13	13	13
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Good	Excellent	Excellent	Excellent	Excellent	Excellent	Not Rated	Good	Excellent	Excellent	Excellent	Excellent

Table 78. Post-repair feature ratings for the Geyser Peak enhancement reach, October 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	PROJECT FEATURE NUMBER	S2-09.2	S2-10	S2-11	S2-12.1	S2-12.2	S2-12.3	S2-13.1	S2-13.2	S2-14	S2-15	S2-16.1	S2-16.2	S2-17	S2-18.1	S2-18.2	S2-18.3	S2-19	S2-20
	Feature Type Code	HW1	HW1	HW1	PW	PW	PW	HW1	HW1	R	HW2	HW2	HW1	LW	PW	PW	PW	HW1	ALJ
	Habitat Unit	HU03	HU02_D	HU03	HU04	HU04	HU05	HU05	HU06	HU06	HU07	HU07	HU07	HU02_D	HU07	HU07	HU07	HU07	HU08
	Habitat Type	Flatwater	Dry	Flatwater	Riffle	Riffle	Pool	Pool	Riffle	Riffle	Flatwater	Flatwater	Flatwater	Dry	Flatwater	Flatwater	Flatwater	Flatwater	Riffle
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	UNKN	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	UNKN	GOOD	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	NO	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	YES	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	NO	YES	YES	YES	YES	YES
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES	YES
	PROJECT FEATURE NUMBER	**S2-09.2**	**S2-10**	**S2-11**	**S2-12.1**	**S2-12.2**	**S2-12.3**	**S2-13.1**	**S2-13.2**	**S2-14**	**S2-15**	**S2-16.1**	**S2-16.2**	**S2-17**	**S2-18.1**	**S2-18.2**	**S2-18.3**	**S2-19**	**S2-20**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	0	4	4	4	4	4	4	4	4	4	4	0	4	4	4	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	0	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	0	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
	PROJECT FEATURE NUMBER	**S2-09.2**	**S2-10**	**S2-11**	**S2-12.1**	**S2-12.2**	**S2-12.3**	**S2-13.1**	**S2-13.2**	**S2-14**	**S2-15**	**S2-16.1**	**S2-16.2**	**S2-17**	**S2-18.1**	**S2-18.2**	**S2-18.3**	**S2-19**	**S2-20**
FEATURE RATING	Feature quantitative rating out of 15	13	1	13	13	13	13	13	13	11	13	13	13	1	13	13	13	13	13
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Not Rated	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Excellent	Excellent	Excellent	Not Rated	Excellent	Excellent	Excellent	Excellent	Excellent

Table 23 continued. Post-repair feature ratings for the Geyser Peak enhancement reach, October 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	PROJECT SITE NUMBER	2	2	2	2	2	2	2	3	4	4	4
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SC Bank FP	SC Bank FP	SC Bank FP
	PROJECT FEATURE NUMBER	S2-21.1	S2-21.2	S2-21.3	S2-21.4	S2-22.1	S2-22.2	S2-23	S3-01	S4-01	S4-02	S4-03
	Feature Type Code	HW1	HW2	HW1	HW1	HW1	HW1	TT	LW	FB	FB	FB
	Habitat Unit	HU08	HU08	HU08	HU08	HU08	HU08	HU02_D	HU01_3	HU03_D	HU03_D	HU03_D
	Habitat Type	Riffle	Riffle	Riffle	Riffle	Riffle	Riffle	Dry	Flatwater	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	UNKN	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES
	PROJECT FEATURE NUMBER	**S2-21.1**	**S2-21.2**	**S2-21.3**	**S2-21.4**	**S2-22.1**	**S2-22.2**	**S2-23**	**S3-01**	**S4-01**	**S4-02**	**S4-03**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	4	4	4	4	4	0	4	4	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	0	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	0	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	0	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	0	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	0	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	0	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	0	1	1	1	1
	PROJECT FEATURE NUMBER	**S2-21.1**	**S2-21.2**	**S2-21.3**	**S2-21.4**	**S2-22.1**	**S2-22.2**	**S2-23**	**S3-01**	**S4-01**	**S4-02**	**S4-03**
FEATURE RATING	Feature quantitative rating out of 15	13	13	13	13	13	13	1	12	12	12	12
	Feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3)	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Not Rated	Excellent	Excellent	Excellent	Excellent

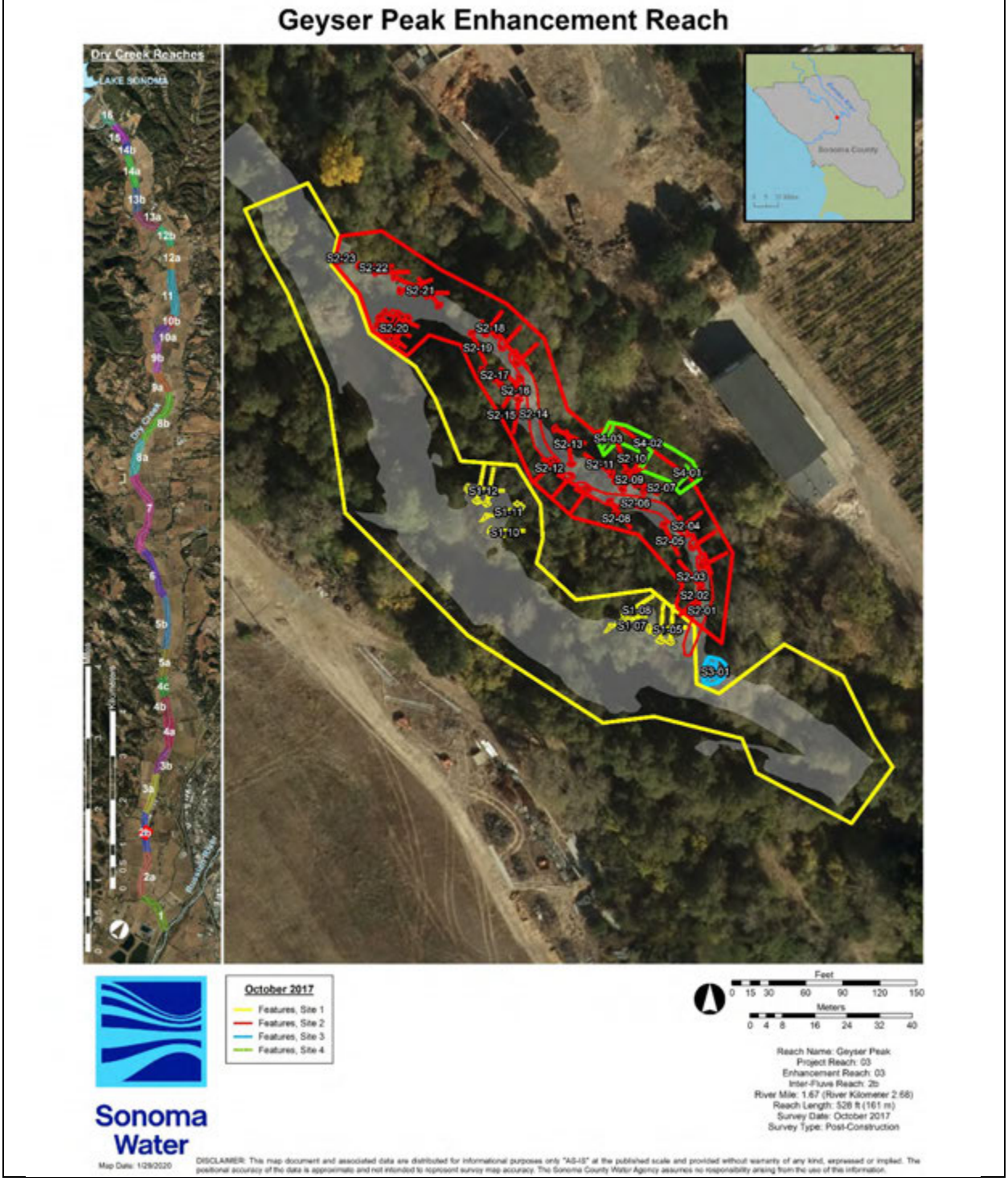


Figure 134. Enhancement sites and features within the Geyser Peak enhancement reach, October 2017.

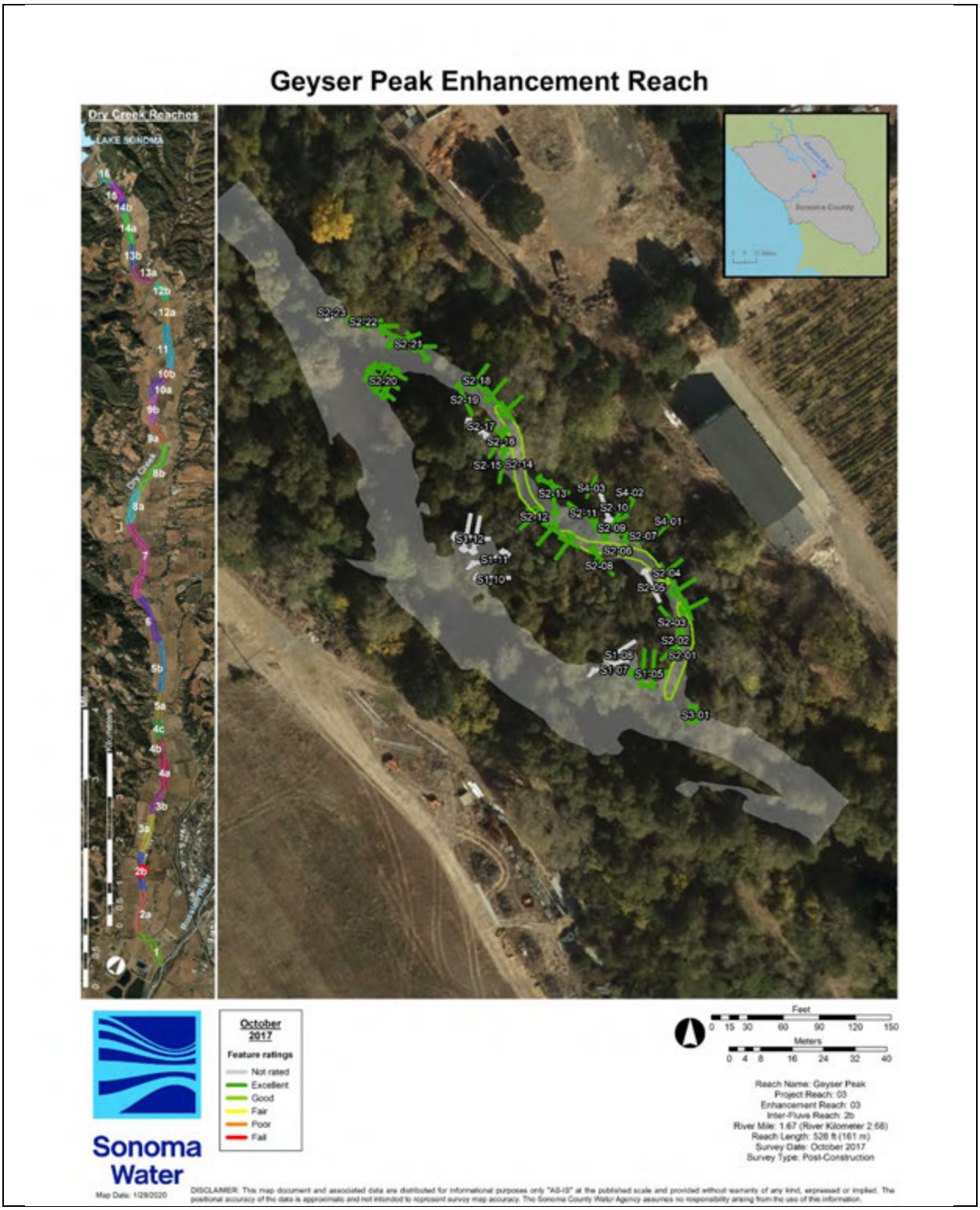


Figure 135. Feature ratings for the Geyser Peak enhancement reach, October 2017.

Table 79. Post-repair habitat unit ratings for the Geyser Peak enhancement reach, October 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU01_D**	**HU02_D**	**HU03_D**	**HU01_2**	**HU01_3**
	Habitat Type	Flatwater	Flatwater	Flatwater	Riffle	Pool	Riffle	Flatwater	Riffle	Dry	Dry	Dry	Flatwater	Flatwater
	PROJECT SITE NUMBER	2	2	2	2	2	2	2	2	1	2	4	1	3
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	MainChan	SideChan	SC Bank FP	MainChan	SideChan
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	39%	39%	46%	79%	54%	81%	60%	78%	0%	0%	0%	39%	39%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	48%	47%	40%	9%	29%	0%	27%	9%	0%	0%	0%	48%	48%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	2	3	3	3	3	2	3	3	0	0	0	2	2
15.	Percent of **habitat unit** covered by shelter: %	0	15	10	10	15	20	15	0	0	0	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	45	30	30	45	40	45	0	0	0	0	0	0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	34%	28%	28%	17%	27%	14%	25%	29%	0%	0%	0%	34%	34%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	18%	15%	13%	7%	11%	2%	11%	15%	0%	0%	0%	18%	18%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	2%	0%	0%	0%	0%	0%	2%	4%	0%	0%	0%	2%	2%
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU01_D**	**HU02_D**	**HU03_D**	**HU01_2**	**HU01_3**
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	3	4	4	4	4	4	4	0	0	0	3	3
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	3	0	2	0	2	0	0	0	0	4	4
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	4	5	5	5	5	4	5	5	0	0	0	4	4
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	1	1	1	1	2	1	0	0	0	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	1	0	0	1	1	1	0	0	0	0	0	0
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	2	2	1	2	1	2	2	0	0	0	3	3
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	1	0	1	0	1	1	0	0	0	1	1
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0
	HABITAT UNIT NUMBER	**HU01**	**HU02**	**HU03**	**HU04**	**HU05**	**HU06**	**HU07**	**HU08**	**HU01_D**	**HU02_D**	**HU03_D**	**HU01_2**	**HU01_3**
HABITAT UNIT RATING	Habitat unit quantitative rating (out of 35)	15	17	16	11	16	12	16	12	0	0	0	15	15
	Habitat unit qualitative rating: Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7)	Fair	Fair	Fair	Poor	Fair	Poor	Fair	Poor	Not Rated	Not Rated	Not Rated	Fair	Fair

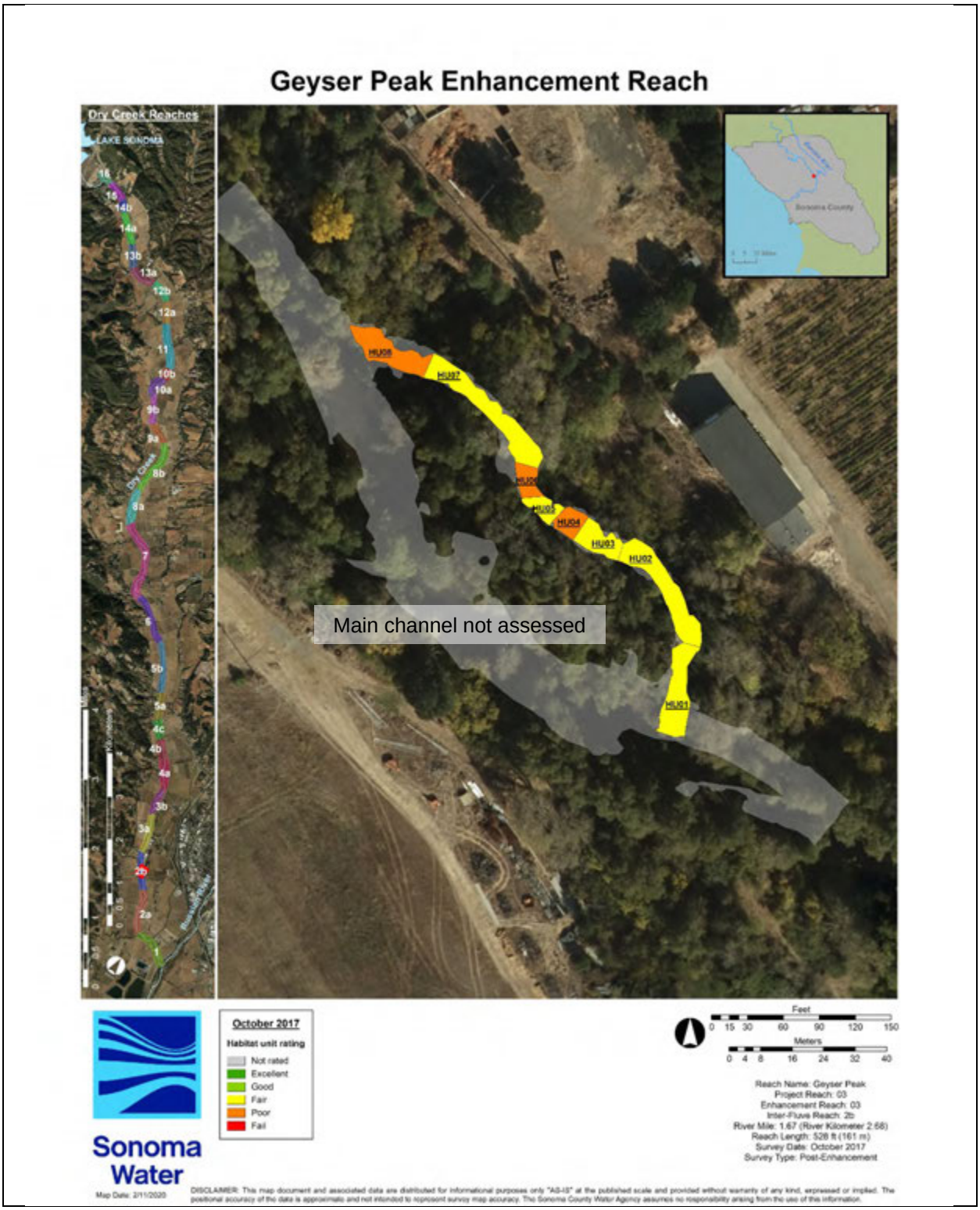


Figure 136. Post-repair habitat unit rating for the Geyser Peak enhancement reach, October 2017.

Table 80. Post-repair average feature, habitat unit, site, and reach ratings for the Geyser Peak enhancement reach, October 2017.

	Project Reach	3	3	3	3
	Enhancement Reach	3	3	3	3
	ENHANCEMENT REACH NAME	**GP**	**GP**	**GP**	**GP**
	mmddyy	102417	102417	102417	102417
	Survey Type	POS	POS	POS	POS
	PROJECT SITE NUMBER	**1**	**2**	**3**	**4**
	Project Site Type	MainChan	SideChan	SideChan	SC Bank FP
	PROJECT SITE NUMBER	**1**	**2**	**3**	**4**
SITE AVERAGE FEATURE RATING	Site average feature quantitative rating (out of 15; bold indicates excluded from site rating)	13	13	12	12
	Site average feature qualitative rating Excellent (>=12), Good (>=9), Fair(>=6), Poor (>=3), Fail (<3), Not rated (not used to rate site)	Excellent	Excellent	Excellent	Excellent
	PROJECT SITE NUMBER	1	2	3	4
SITE AVERAGE HABITAT UNIT RATING	Site average habitat unit quantitative rating (out of 35; bold indicates excluded from site rating)	15	13	15	**0**
	Site average qualitative rating Excellent (>=28), Good (>=21), Fair(>=14), Poor (>=7), Fail (<7), Not rated (not used to rate site)	Fair	Poor	Fair	Not Rated
	PROJECT SITE NUMBER	**1**	**2**	**3**	**4**
SITE RATING	Site quantitative rating (sum of site average feature and habitat unit ratings) (out of 50; bold indicates rating excludes feature or habitat unit rating and scoring out of 15 or 35)	28	26	27	**12**
	Site qualitative rating: Excellent (>=40, 12), Good (>=30, 9), Fair(>=20, 6), Poor (>=10, 3), Fail (<10, 3)	Fair	Fair	Fair	Excellent
	ENHANCEMENT REACH NAME	**GP**			
ENHANCEMENT REACH RATING	Enhancement reach quantitative rating (average of site ratings) (out of 41; bold indicates exclusion of at least one site average feature or habitat unit rating)	**23**			
	Enhancement reach qualitative rating: Excellent (>=33), Good (>=25), Fair(>=17), Poor (>=9), Fail (<9)	Fair			

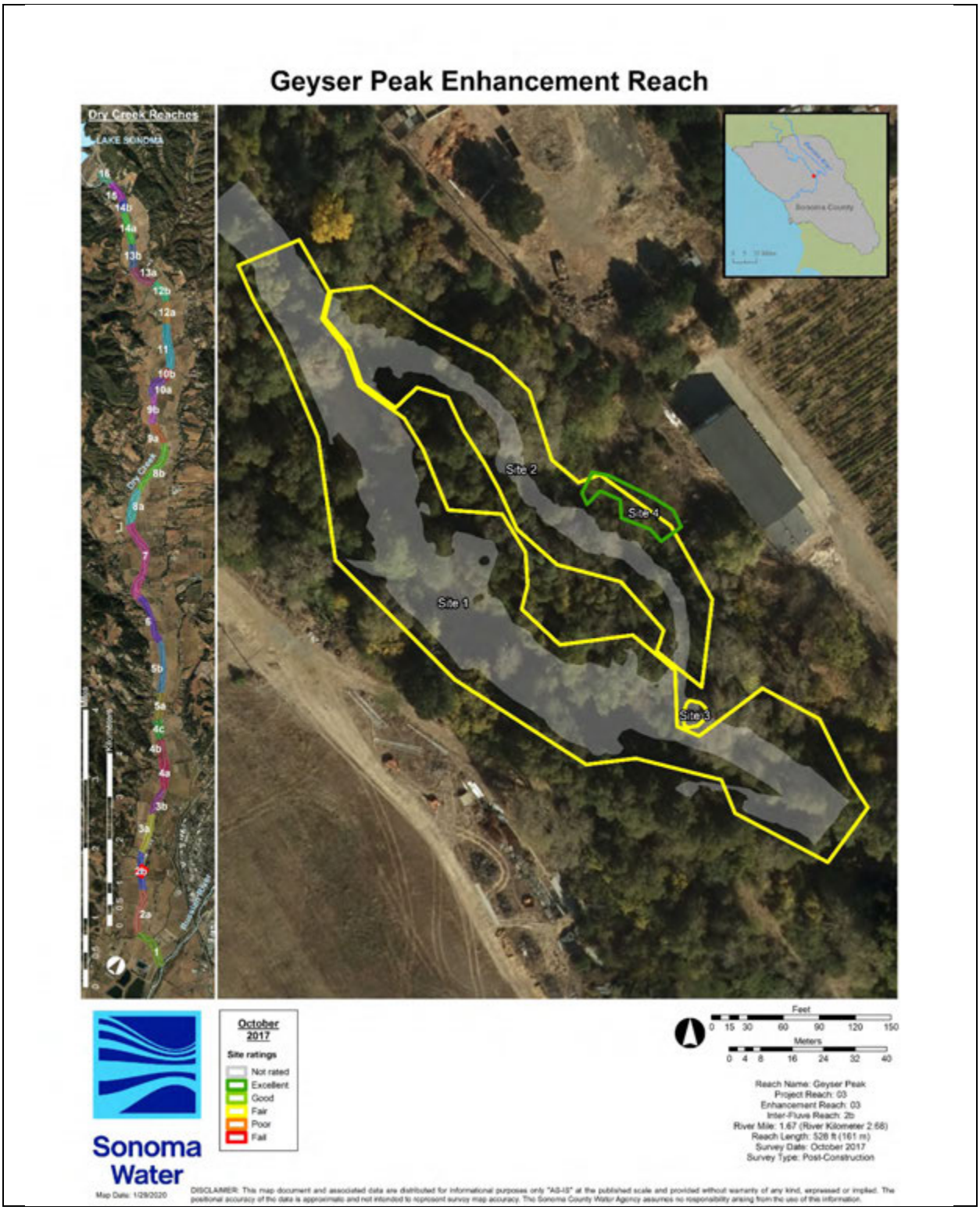


Figure 137. Post-repair site ratings for the Geyser Peak enhancement reach, October 2017.



Figure 138. Post-repair reach rating for the Geyser Peak enhancement reach, October 2017.

Feature and Habitat Unit Checklists

Table 81. Adaptive Management Plan targeted checklist for the Geyser Peak enhancement reach, October 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S1-05	S1-07	S1-08	S1-10	S1-11	S1-12	S2-01	S2-02	S2-03	S2-04.1	S2-04.2	S2-04.3	S2-05	S2-06	S2-07.1	S2-07.2	S2-08	S2-09.1
	Feature Type Code	LWS	LW	HW2	HW1	LW	LWS	R	HW2	HW1	PW	PW	PW	HW1	R	HW2	HW1	HW2	HW2
	Habitat Unit	HU01_2	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01	HU01	HU02	HU02	HU02	HU02	HU02_D	HU03	HU02	HU02	HU03	HU03
	Habitat Type	Flatwater	Dry	Dry	Dry	Dry	Dry	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Dry	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	UNKN	UNKN	UNKN	UNKN	UNKN	FAIR	GOOD	GOOD	GOOD	GOOD	GOOD	UNKN	GOOD	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NO	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientaton?	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	39%	0%	0%	0%	0%	0%	39%	39%	39%	39%	39%	39%	0%	46%	39%	39%	46%	46%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	48%	0%	0%	0%	0%	0%	48%	48%	47%	47%	47%	47%	0%	40%	47%	47%	40%	40%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	2	0	0	0	0	0	2	2	3	3	3	3	0	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	0	0	0	0	0	0	0	0	15	15	15	15	0	10	15	15	10	10
17a	If an objective, did the **feature** increase instream shelter rating?	YES	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	45	45	45	45	0	30	45	45	30	30
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES	YES
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	34%	0%	0%	0%	0%	0%	34%	34%	28%	28%	28%	28%	0%	28%	28%	28%	28%	28%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	18%	0%	0%	0%	0%	0%	18%	18%	15%	15%	15%	15%	0%	13%	15%	15%	13%	13%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	2%	0%	0%	0%	0%	0%	2%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	FEATURE NUMBER	**S1-05**	**S1-07**	**S1-08**	**S1-10**	**S1-11**	**S1-12**	**S2-01**	**S2-02**	**S2-03**	**S2-04.1**	**S2-04.2**	**S2-04.3**	**S2-05**	**S2-06**	**S2-07.1**	**S2-07.2**	**S2-08**	**S2-09.1**
	HABITAT UNIT NUMBER	**HU01_2**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01_D**	**HU01**	**HU01**	**HU02**	**HU02**	**HU02**	**HU02**	**HU02_D**	**HU03**	**HU02**	**HU02**	**HU03**	**HU03**
	SITE NUMBER	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**
	ENHANCEMENT REACH NAME	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	0	0	0	0	0	3	4	4	4	4	4	0	4	4	4	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1
6d	Is the **feature** still in its original orientaton? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
11e	% area of **hab unit** wthin 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	0	0	0	0	0	3	3	3	3	3	3	0	4	3	3	4	4
11f	% area of **hab unit** wthin 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	0	0	0	0	0	4	4	4	4	4	4	0	3	4	4	3	3
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	4	0	0	0	0	0	4	4	5	5	5	5	0	5	5	5	5	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1	1
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1	1	1
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	1	1	1	1	0	0	1	1	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1
28.	% area of **hab unit** wthin targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	0	0	0	0	0	3	3	2	2	2	2	0	2	2	2	2	2
36e	% area **hab unit** wtih < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	0	0	0	0	0	1	1	1	1	1	1	0	1	1	1	1	1
36f	% area **hab unit** wtih < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 81. Adaptive Management Plan targeted checklist for the Geyser Peak enhancement reach, October 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S2-09.2	S2-10	S2-11	S2-12.1	S2-12.2	S2-12.3	S2-13.1	S2-13.2	S2-14	S2-15	S2-16.1	S2-16.2	S2-17	S2-18.1	S2-18.2	S2-18.3	S2-19	S2-20
	Feature Type Code	HW1	HW1	HW1	PW	PW	PW	HW1	HW1	R	HW2	HW2	HW1	LW	PW	PW	PW	HW1	ALJ
	Habitat Unit	HU03	HU02_D	HU03	HU04	HU04	HU05	HU05	HU06	HU06	HU07	HU07	HU07	HU02_D	HU07	HU07	HU07	HU07	HU08
	Habitat Type	Flatwater	Dry	Flatwater	Riffle	Riffle	Pool	Pool	Riffle	Riffle	Flatwater	Flatwater	Flatwater	Dry	Flatwater	Flatwater	Flatwater	Flatwater	Riffle
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	UNKN	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	UNKN	GOOD	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	NO	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	46%	0%	46%	79%	79%	54%	54%	81%	81%	60%	60%	60%	0%	60%	60%	60%	60%	78%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	40%	0%	40%	9%	9%	29%	29%	0%	0%	27%	27%	27%	0%	27%	27%	27%	27%	9%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	0	3	3	3	3	3	2	2	3	3	3	0	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	10	0	10	10	10	15	15	20	20	15	15	15	0	15	15	15	15	0
17a	If an objective, did the **feature** increase instream shelter rating?	YES	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	NO	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	30	0	30	30	30	45	45	40	40	45	45	45	0	45	45	45	45	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES	YES
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	28%	0%	28%	17%	17%	27%	27%	14%	14%	25%	25%	25%	0%	25%	25%	25%	25%	29%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	13%	0%	13%	7%	7%	11%	11%	2%	2%	11%	11%	11%	0%	11%	11%	11%	11%	15%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	2%	2%	0%	2%	2%	2%	2%	4%
	FEATURE NUMBER	**S2-09.2**	**S2-10**	**S2-11**	**S2-12.1**	**S2-12.2**	**S2-12.3**	**S2-13.1**	**S2-13.2**	**S2-14**	**S2-15**	**S2-16.1**	**S2-16.2**	**S2-17**	**S2-18.1**	**S2-18.2**	**S2-18.3**	**S2-19**	**S2-20**
	HABITAT UNIT NUMBER	**HU03**	**HU02_D**	**HU03**	**HU04**	**HU04**	**HU05**	**HU05**	**HU06**	**HU06**	**HU07**	**HU07**	**HU07**	**HU02_D**	**HU07**	**HU07**	**HU07**	**HU07**	**HU08**
	SITE NUMBER	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**
	ENHANCEMENT REACH NAME	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	0	4	4	4	4	4	4	4	4	4	4	0	4	4	4	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
6d	Is the **feature** still in its original orientation? (YES = 1 pt, NO = 0 pt)	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	0	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	0	4	4	4	4	4	4	4	4	4	4	0	4	4	4	4	4
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	3	0	3	0	0	2	2	0	0	2	2	2	0	2	2	2	2	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	0	5	5	5	5	5	4	4	5	5	5	0	5	5	5	5	5
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	1	0	1	1	1	1	1	2	2	1	1	1	0	1	1	1	1	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	0	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1	1	1	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	0	2	1	1	2	2	1	1	2	2	2	0	2	2	2	2	2
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	0	1	0	0	1	1	0	0	1	1	1	0	1	1	1	1	1
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 81. Adaptive Management Plan targeted checklist for the Geyser Peak enhancement reach, October 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	2	2	2	2	2	2	2	3	4	4	4
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SC Bank FP	SC Bank FP	SC Bank FP
	Project Feature Number	S2-21.1	S2-21.2	S2-21.3	S2-21.4	S2-22.1	S2-22.2	S2-23	S3-01	S4-01	S4-02	S4-03
	Feature Type Code	HW1	HW2	HW1	HW1	HW1	HW1	TT	LW	FB	FB	FB
	Habitat Unit	HU08	HU08	HU08	HU08	HU08	HU08	HU02_D	HU01_3	HU03_D	HU03_D	HU03_D
	Habitat Type	Riffle	Riffle	Riffle	Riffle	Riffle	Riffle	Dry	Flatwater	Dry	Dry	Dry
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	UNKN	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES
6d	Is the **feature** still in its original orientation?	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	78%	78%	78%	78%	78%	78%	0%	39%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	9%	9%	9%	9%	9%	9%	0%	48%	0%	0%	0%
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	3	3	0	2	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	0	0	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	29%	29%	29%	29%	29%	29%	0%	34%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	15%	15%	15%	15%	15%	15%	0%	18%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	4%	4%	4%	4%	4%	4%	0%	2%	0%	0%	0%
	FEATURE NUMBER	**S2-21.1**	**S2-21.2**	**S2-21.3**	**S2-21.4**	**S2-22.1**	**S2-22.2**	**S2-23**	**S3-01**	**S4-01**	**S4-02**	**S4-03**
	HABITAT UNIT NUMBER	**HU08**	**HU08**	**HU08**	**HU08**	**HU08**	**HU08**	**HU02_D**	**HU01_3**	**HU03_D**	**HU03_D**	**HU03_D**
	SITE NUMBER	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**3**	**4**	**4**	**4**
	ENHANCEMENT REACH NAME	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**	**GP**
4.	Structural condition of **feature**: EXCL (5 pts), GOOD (4 pts), FAIR (3 pts), POOR (2 pts), FAIL (1 pt)	4	4	4	4	4	4	0	4	4	4	4
5a	Are problems with the **feature** visible? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	0	1	1	1	1
6a	Is the **feature** still in its original location? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	0	1	1	1	1
6b	Is the **feature** still in its original position? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	0	1	1	1	1
6d	Is the **feature** still in its original orientation? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	0	1	1	1	1
8.	If an objective, did the **feature** create the targeted instream habitat type? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	0	1	1	1	1
9.	Were there any unintended effects by the **feature** on the habitat type? (NO = 1 pt, YES = 0 pt)	1	1	1	1	1	1	0	1	1	1	1
11e	% area of **hab unit** within 0.5 -2.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	4	4	4	4	4	4	0	3	0	0	0
11f	% area of **hab unit** within 2.0 -4.0 ft depth (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	4	0	0	0
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3 (3 = 5 pts; 2 = 4 pts, 1 = 3 pts, 0 = 0 pts)	5	5	5	5	5	5	0	4	0	0	0
15.	% **hab unit** covered by shelter (≥80 = 5pts; ≥60 = 4 pts; ≥40 = 3 pts; ≥20 = 2 pts; ≥10 = 1 pt; <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
17a	If an objective, did the **feature** increase instream shelter rating? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	0	0	0	0	0
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**? (YES = 1 pt, NO = 0 pt)	0	0	0	0	0	0	0	0	0	0	0
21a	If an objective, did the **feature** lead to the targeted channel conditions? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	1	1	1	1	1
25.	Did the **feature** achieve the targeted velocity? (YES = 1 pt, NO = 0 pt)	1	1	1	1	1	1	0	1	1	1	1
28.	% area of **hab unit** within targeted velocity (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	2	2	2	2	2	2	0	3	0	0	0
36e	% area **hab unit** with < 0.5 f/s; 0.5 to 2 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	1	1	1	1	1	1	0	1	0	0	0
36f	% area **hab unit** with < 0.5 f/s; 2 to 4 ft (≥40 = 4 pts, ≥30 = 3 pts, ≥20 = 2 pts, ≥10 = 1 pt, <10 = 0 pt)	0	0	0	0	0	0	0	0	0	0	0

Table 82. Adaptive Management Plan full checklist for the Geyser Peak enhancement reach, October 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	MainChan	MainChan	MainChan	MainChan	MainChan	MainChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S1-05	S1-07	S1-08	S1-10	S1-11	S1-12	S2-01	S2-02	S2-03	S2-04.1	S2-04.2	S2-04.3	S2-05	S2-06	S2-07.1	S2-07.2	S2-08	S2-09.1
	Feature Type Code	LWS	LW	HW2	HW1	LW	LWS	R	HW2	HW1	PW	PW	PW	HW1	R	HW2	HW1	HW2	HW2
	Habitat Unit	HU01_2	HU01_D	HU01_D	HU01_D	HU01_D	HU01_D	HU01	HU01	HU02	HU02	HU02	HU02	HU02_D	HU03	HU02	HU02	HU03	HU03
	Habitat Type	Flatwater	Dry	Dry	Dry	Dry	Dry	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater	Dry	Flatwater	Flatwater	Flatwater	Flatwater	Flatwater
1.	Length of targeted treatment (ft)	15	NA	NA	NA	NA	NA	NA	8	10	20	20	20	NA	NA	8	7	10	6
2.	Width of targeted treatment: (ft)	10	NA	NA	NA	NA	NA	NA	10	5	5	5	5	NA	NA	15	10	8	11
3.	Estimate area of the targeted **feature**: (ft^2)	150							80	50	100	100	100			120	70	80	66
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	UNKN	UNKN	UNKN	UNKN	UNKN	FAIR	GOOD	GOOD	GOOD	GOOD	GOOD	UNKN	GOOD	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NO	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	BBB	BBB	BBB	BBB	BBB	NON	NON	NON	NON	NON	NON	BBB	NON	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	RBK	UNK	UNK	UNK	UNK	UNK	SPN	RBK	RBK	LBK	LBK	LBK	UNK	SPN	LBK	LBK	RBK	LBK
6d	Is the **feature** still in its original orientaton?	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	MUL	UNK	UNK	UNK	UNK	UNK	OTH	UPS	DNS	PRP	PRP	PRP	UNK	OTH	UPS	UPS	UPS	PRP
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	FLT	DRY	DRY	DRY	DRY	DRY	FLT	FLT	FLT	FLT	FLT	FLT	DRY	FLT	FLT	FLT	FLT	FLT
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	1.8	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8	1.8	0.0	1.6	1.8	1.8	1.6	1.6
11a	Maximum water depth in **habitat unit**: ft	3.7	0.0	0.0	0.0	0.0	0.0	3.7	3.7	4.0	4.0	4.0	4.0	0.0	2.9	4.0	4.0	2.9	2.9
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	559.1	0.0	0.0	0.0	0.0	0.0	559.1	559.1	696.1	696.1	696.1	696.1	0.0	354.2	696.1	696.1	354.2	354.2
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	687.3	0.0	0.0	0.0	0.0	0.0	687.3	687.3	831.0	831.0	831.0	831.0	0.0	304.4	831.0	831.0	304.4	304.4
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	1246.4	0.0	0.0	0.0	0.0	0.0	1246.4	1246.4	1527.1	1527.1	1527.1	1527.1	0.0	658.6	1527.1	1527.1	658.6	658.6
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	39%	0%	0%	0%	0%	0%	39%	39%	39%	39%	39%	39%	0%	46%	39%	39%	46%	46%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	48%	0%	0%	0%	0%	0%	48%	48%	47%	47%	47%	47%	0%	40%	47%	47%	40%	40%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	86%	0%	0%	0%	0%	0%	86%	86%	86%	86%	86%	86%	0%	85%	86%	86%	85%	85%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	55	0	0	0	0	0		40	30	40	40	40	0		55	25	35	30
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	2	0	0	0	0	0	2	2	3	3	3	3	0	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	0	0	0	0	0	0	0	0	15	15	15	15	0	10	15	15	10	10
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	RTW	NON	NON	NON	NON	NON	RTW	RTW	RTW	RTW	RTW	RTW	NON	RTW	RTW	RTW	RTW	RTW
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	UCB	NON	NON	NON	NON	NON	UCB	UCB	LWD	LWD	LWD	LWD	NON	SWD	LWD	LWD	SWD	SWD
17a	If an objective, did the **feature** increase instream shelter rating?	YES	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	45	45	45	45	0	30	45	45	30	30
18a	Large woody debris count in **habitat unit**: D >1', L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1', L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	OTH	OTH	OTH	OTH	OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH							STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH							STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	DEC	NA	NA	NA	NA	NA	INC	DEC	DEC	DEC	DEC	DEC	NO	INC	DEC	DEC	DEC	DEC
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	2.6	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.8	2.8	2.8	2.8	0.0	2.6	2.8	2.8	2.6	2.6
26c	Measured mean velocity (ft/sec) in **habitat unit**	0.9	0.0	0.0	0.0	0.0	0.0	0.9	0.9	1.1	1.1	1.1	1.1	0.0	1.0	1.1	1.1	1.0	1.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	483.3	0.0	0.0	0.0	0.0	0.0	483.3	483.3	504.3	504.3	504.3	504.3	0.0	214.9	504.3	504.3	214.9	214.9
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	34%	0%	0%	0%	0%	0%	34%	34%	28%	28%	28%	28%	0%	28%	28%	28%	28%	28%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NO	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	SND	SND	SND	SND	SND	GRV	GRV	GRV	GRV	GRV	GRV	SND	GRV	GRV	GRV	GRV	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	GRV	GRV	GRV	GRV	GRV	SND	SND	SND	SND	SND	SND	GRV	SND	SND	SND	SND	SND
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	293.4	0.0	0.0	0.0	0.0	0.0	293.4	293.4	264.1	264.1	264.1	264.1	0.0	103.8	264.1	264.1	103.8	103.8
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	264.6	0.0	0.0	0.0	0.0	0.0	264.6	264.6	260.8	260.8	260.8	260.8	0.0	103.8	260.8	260.8	103.8	103.8
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	28.8	0.0	0.0	0.0	0.0	0.0	28.8	28.8	3.3	3.3	3.3	3.3	0.0	0.0	3.3	3.3	0.0	0.0
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	20%	0%	0%	0%	0%	0%	20%	20%	15%	15%	15%	15%	0%	13%	15%	15%	13%	13%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	18%	0%	0%	0%	0%	0%	18%	18%	15%	15%	15%	15%	0%	13%	15%	15%	13%	13%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	2%	0%	0%	0%	0%	0%	2%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Table 82. Adaptive Management Plan full checklist for the Geyser Peak enhancement reach, October 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan
	Project Feature Number	S2-09.2	S2-10	S2-11	S2-12.1	S2-12.2	S2-12.3	S2-13.1	S2-13.2	S2-14	S2-15	S2-16.1	S2-16.2	S2-17	S2-18.1	S2-18.2	S2-18.3	S2-19	S2-20
	Feature Type Code	HW1	HW1	HW1	PW	PW	PW	HW1	HW1	R	HW2	HW2	HW1	LW	PW	PW	PW	HW1	ALJ
	Habitat Unit	HU03	HU02_D	HU03	HU04	HU04	HU05	HU05	HU06	HU06	HU07	HU07	HU07	HU02_D	HU07	HU07	HU07	HU07	HU08
	Habitat Type	Flatwater	Dry	Flatwater	Riffle	Riffle	Pool	Pool	Riffle	Riffle	Flatwater	Flatwater	Flatwater	Dry	Flatwater	Flatwater	Flatwater	Flatwater	Riffle
1.	Length of targeted treatment (ft)	6	NA	7	8	8	8	11	11	NA	12	5	7	NA	20	20	20	8	25
2.	Width of targeted treatment: (ft)	10	NA	9	9	9	9	9	9	NA	6	5	5	NA	8	8	8	8	21
3.	Estimate area of the targeted **feature**: (ft^2)	60		63	72	72	72	99	99		72	25	35		160	160	160	64	525
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	UNKN	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	UNKN	GOOD	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	BBB	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	BBB	NON	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	LBK	UNK	LBK	RBK	RBK	RBK	LBK	LBK	SPN	RBK	RBK	RBK	UNK	LBK	LBK	LBK	RBK	RBK
6d	Is the **feature** still in its original orientation?	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	PRP	UNK	DNS	PRP	PRP	PRP	DNS	UPS	OTH	UPS	DNS	PRP	UNK	PRP	PRP	PRP	UPS	UPS
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	FLT	DRY	FLT	RIF	RIF	POO	POO	RIF	RIF	FLT	FLT	FLT	DRY	FLT	FLT	FLT	FLT	RIF
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	NO	YES	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	1.6	0.0	1.6	1.1	1.1	1.4	1.4	1.0	1.0	1.5	1.5	1.5	0.0	1.5	1.5	1.5	1.5	1.2
11a	Maximum water depth in **habitat unit**: ft	2.9	0.0	2.9	2.7	2.7	3.1	3.1	1.8	1.8	2.8	2.8	2.8	0.0	2.8	2.8	2.8	2.8	3.7
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft^2)	354.2	0.0	354.2	379.9	379.9	237.9	237.9	378.6	378.6	1215.3	1215.3	1215.3	0.0	1215.3	1215.3	1215.3	1215.3	1013.8
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft^2)	304.4	0.0	304.4	41.4	41.4	126.6	126.6	0.0	0.0	550.6	550.6	550.6	0.0	550.6	550.6	550.6	550.6	113.8
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft^2)	658.6	0.0	658.6	421.3	421.3	364.4	364.4	378.6	378.6	1765.9	1765.9	1765.9	0.0	1765.9	1765.9	1765.9	1765.9	1127.6
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	46%	0%	46%	79%	79%	54%	54%	81%	81%	60%	60%	60%	0%	60%	60%	60%	60%	78%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	40%	0%	40%	9%	9%	29%	29%	0%	0%	27%	27%	27%	0%	27%	27%	27%	27%	9%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	85%	0%	85%	87%	87%	83%	83%	81%	81%	86%	86%	86%	0%	86%	86%	86%	86%	87%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	30	0	40	30	30	30	30	30		30	15	20	0	60	60	60	30	220
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	0	3	3	3	3	3	2	2	3	3	3	0	3	3	3	3	3
15.	Percent of **habitat unit** covered by shelter: %	10	0	10	10	10	15	15	20	20	15	15	15	0	15	15	15	15	0
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	RTW	NON	RTW	RTW	RTW	RTW	RTW	TVG	TVG	RTW	RTW	RTW	NON	RTW	RTW	RTW	RTW	RTW
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	SWD	NON	SWD	NON	NON	LWD	LWD	RTW	RTW	TVG	TVG	TVG	NON	TVG	TVG	TVG	TVG	NON
17a	If an objective, did the **feature** increase instream shelter rating?	YES	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	NO	YES	YES	YES	YES	YES
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	30	0	30	30	30	45	45	40	40	45	45	45	0	45	45	45	45	0
18a	Large woody debris count in **habitat unit**: D >1", L 6-20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1", L >20'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	DEC	NO	DEC	DEC	DEC	DEC	DEC	DEC	INC	DEC	DEC	DEC	NO	DEC	DEC	DEC	DEC	DEC
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	2.6	0.0	2.6	3.6	3.6	3.2	3.2	3.9	3.9	3.1	3.1	3.1	0.0	3.1	3.1	3.1	3.1	3.6
26c	Measured mean velocity (ft/sec) in **habitat unit**	1.0	0.0	1.0	1.7	1.7	1.3	1.3	2.0	2.0	1.3	1.3	1.3	0.0	1.3	1.3	1.3	1.3	1.5
27.	Area of **habitat unit** within targeted velocity: (ft^2)	214.9	0.0	214.9	82.1	82.1	116.7	116.7	63.4	63.4	516.0	516.0	516.0	0.0	516.0	516.0	516.0	516.0	379.4
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	28%	0%	28%	17%	17%	27%	27%	14%	14%	25%	25%	25%	0%	25%	25%	25%	25%	29%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	SND	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	GRV	SND	GRV	GRV	GRV	GRV	GRV
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	SND	GRV	SND	COB	COB	SND	SND	COB	COB	SND	SND	SND	GRV	SND	SND	SND	SND	COB
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	103.8	0.0	103.8	32.2	32.2	48.8	48.8	7.5	7.5	279.7	279.7	279.7	0.0	279.7	279.7	279.7	279.7	243.4
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	103.8	0.0	103.8	32.2	32.2	47.1	47.1	7.5	7.5	229.4	229.4	229.4	0.0	229.4	229.4	229.4	229.4	195.1
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0.0	0.0	0.0	0.0	0.0	1.7	1.7	0.0	0.0	50.4	50.4	50.4	0.0	50.4	50.4	50.4	50.4	48.4
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	13%	0%	13%	7%	7%	11%	11%	2%	2%	14%	14%	14%	0%	14%	14%	14%	14%	19%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	13%	0%	13%	7%	7%	11%	11%	2%	2%	11%	11%	11%	0%	11%	11%	11%	11%	15%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	2%	2%	0%	2%	2%	2%	2%	4%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Table 82. Adaptive Management Plan full checklist for the Geyser Peak enhancement reach, October 2017.

	Project Reach	3	3	3	3	3	3	3	3	3	3	3
	Enhancement Reach	3	3	3	3	3	3	3	3	3	3	3
	Colloquial Name	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP
	mmddyy	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417	102417
	Survey Type	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS
	Project Site Number	2	2	2	2	2	2	2	3	4	4	4
	Project Site Type	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SideChan	SC Bank FP	SC Bank FP	SC Bank FP
	Project Feature Number	S2-21.1	S2-21.2	S2-21.3	S2-21.4	S2-22.1	S2-22.2	S2-23	S3-01	S4-01	S4-02	S4-03
	Feature Type Code	HW1	HW2	HW1	HW1	HW1	HW1	TT	LW	FB	FB	FB
	Habitat Unit	HU08	HU08	HU08	HU08	HU08	HU08	HU02_D	HU01_3	HU03_D	HU03_D	HU03_D
	Habitat Type	Riffle	Riffle	Riffle	Riffle	Riffle	Riffle	Dry	Flatwater	Dry	Dry	Dry
1.	Length of targeted treatment (ft)	8	10	8	8	6	12	NA	12	13	13	13
2.	Width of targeted treatment: (ft)	6	7	15	8	7	10	NA	10	20	20	20
3.	Estimate area of the targeted **feature**: (ft^2)	48	70	120	64	42	120		120	260	260	260
4.	Structural condition of **feature**: EXCL, GOOD, FAIR, POOR, FAIL	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	UNKN	GOOD	GOOD	GOOD	GOOD
5a	Are problems with the **feature** visible?	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO
5b	Types: ANC, BBB, CRF, MAT, SHF, STR, SWA, UND, UNS, WSH, OTH, NON	NON	NON	NON	NON	NON	NON	BBB	NON	NON	NON	NON
6a	Is the **feature** still in its original location?	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES
6b	Is the **feature** still in its original position?	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES
6c	If yes: LBK, MDC, RBK, SPN, OTH	LBK	LBK	LBK	LBK	LBK	LBK	UNK	LBK	LBK	LBK	LBK
6d	Is the **feature** still in its original orientation?	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES
6e	If yes: DNS, MUL, PRL, PRP, UPS, OTH	DNS	UPS	UPS	UPS	UPS	UPS	UNK	UPS	PRP	PRP	PRP
7.	Current level II habitat type: FLT, POO, RIF, DRY, ALC, OTH	RIF	RIF	RIF	RIF	RIF	RIF	DRY	FLT	DRY	DRY	DRY
8.	If an objective, did the **feature** create the targeted instream habitat type?	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES
9.	Were there any unintended effects by the **feature** on the habitat type? If Y, comment.	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO
10.	Mean water depth in **habitat unit**: ft	1.2	1.2	1.2	1.2	1.2	1.2	0.0	1.8	0.0	0.0	0.0
11a	Maximum water depth in **habitat unit**: ft	3.7	3.7	3.7	3.7	3.7	3.7	0.0	3.7	0.0	0.0	0.0
11b	Area of **habitat unit** within 0.5 -2.0 ft depth: (ft2)	1013.8	1013.8	1013.8	1013.8	1013.8	1013.8	0.0	559.1	0.0	0.0	0.0
11c	Area of **habitat unit** within 2.0 -4.0 ft depth: (ft2)	113.8	113.8	113.8	113.8	113.8	113.8	0.0	687.3	0.0	0.0	0.0
11d	Area of **habitat unit** within 0.5-4.0 ft depth: (ft2)	1127.6	1127.6	1127.6	1127.6	1127.6	1127.6	0.0	1246.4	0.0	0.0	0.0
11e	% Area of **habitat unit** within 0.5 -2.0 ft depth	78%	78%	78%	78%	78%	78%	0%	39%	0%	0%	0%
11f	% Area of **habitat unit** within 2.0 -4.0 ft depth	9%	9%	9%	9%	9%	9%	0%	48%	0%	0%	0%
11g	% Area of **habitat** unit within 0.5-4.0 ft depth	87%	87%	87%	87%	87%	87%	0%	86%	0%	0%	0%
11h	If an objective, did the **feature** increase/decrease water depth in the treatment area?	YES	YES	YES	YES	YES	YES	NO	YES	NO	NO	NO
12a	Targeted depth or range (ft) in **habitat unit**	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0	0.5-4.0
12b	Estimate area of **feature** within targeted depth or range ft^2:	25	55	90	40	25	100	0	50	0	0	0
13.	Were there any unintended effects of the **feature** on the water depth? If Y, comment.	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO
14.	Instream shelter value in the **habitat unit**: 0, 1, 2, 3	3	3	3	3	3	3	0	2	0	0	0
15.	Percent of **habitat unit** covered by shelter: %	0	0	0	0	0	0	0	0	0	0	0
16a	1st dominant cover in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	RTW	RTW	RTW	RTW	RTW	RTW	NON	RTW	NON	NON	NON
16b	2nd dominant in **habitat unit**: BED, BOL, BUB, LWD, RTW, SWD, UCB, VEG, OTH	NON	NON	NON	NON	NON	NON	NON	UCB	NON	NON	NON
17a	If an objective, did the **feature** increase instream shelter rating?	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO
17b	a. Calculate the shelter rating for the **habitat unit**: 0-300	0	0	0	0	0	0	0	0	0	0	0
18a	Large woody debris count in **habitat unit**: D >1", L 6-20'	0	0	0	0	0	0	0	0	0	0	0
18b	Large woody debris count in **habitat unit**: D >1", L >20'	0	0	0	0	0	0	0	0	0	0	0
19a	If an objective, did the **feature** increase LWD count in the **habitat unit**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19b	LWD recruitment mechanisms in **habitat unit**: ANC, EXC, EXH, INT, RPR, UNA, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
20.	Current stream channel problems in the **habitat unit**: AGG, BRD, FLO, GRC, HDC, INC, NAR, SCU, STT, WID, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
21a	If an objective, did the **feature** lead to the targeted channel conditions?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
21b	Overall Offchannel Condition (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB	STB
21c	Outlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB		STB	STB	STB
21d	Inlet Conditions (**site**): AGG, FPD, GRC, INC, NAR, SIN, STB, TOG, WID, OTH	STB	STB	STB	STB	STB	STB	STB		STB	STB	STB
22.	Were there any unintended effects on the stream channel at the **feature**? If Y, comment.	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO
23.	If an objective, did the **feature** decrease/increase velocity in the treatment area?	DEC	DEC	DEC	DEC	DEC	DEC	NO	DEC	NA	NA	NA
24.	Targeted velocity/range in the **habitat unit**: (ft/sec)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25.	Did the **feature** achieve the targeted velocity?	YES	YES	YES	YES	YES	YES	NA	YES	YES	YES	YES
26a	Measured minimum velocity (ft/sec) in **habitat unit**	0	0	0	0	0	0	0	0	0	0	0
26b	Measured max velocity (ft/sec) in **habitat unit**	3.6	3.6	3.6	3.6	3.6	3.6	0.0	2.6	0.0	0.0	0.0
26c	Measured mean velocity (ft/sec) in **habitat unit**	1.5	1.5	1.5	1.5	1.5	1.5	0.0	0.9	0.0	0.0	0.0
27.	Area of **habitat unit** within targeted velocity: (ft^2)	379.4	379.4	379.4	379.4	379.4	379.4	0.0	483.3	0.0	0.0	0.0
28.	Percent of **habitat unit** within targeted velocity (see above): (%)	29%	29%	29%	29%	29%	29%	0%	34%	0%	0%	0%
29.	Were there any unintended effects of **feature** on velocity If Y, comment.	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO
30a	1st/2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	GRV	GRV	GRV	GRV	GRV	GRV	SND	SND	SND	SND	SND
30b	2nd dominant substrate in **habitat unit**: BED, BOL, COB, GRV, SND, SLC, OTH	COB	COB	COB	COB	COB	COB	GRV	GRV	GRV	GRV	GRV
31.	If an objective, did the **feature** achieve the targeted substrate composition?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
32.	% Canopy Measurement:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
33.	Photopoint data collected: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
34.	Temperature Profile: YES /NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
35.	Dissolved Oxygen Profile: YES/NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
36a	Total **habitat unit** area where targeted depth, velocity and shelter criteria overlap	243.4	243.4	243.4	243.4	243.4	243.4	0.0	293.4	0.0	0.0	0.0
36b	Total **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	195.1	195.1	195.1	195.1	195.1	195.1	0.0	264.6	0.0	0.0	0.0
36c	Total **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	48.4	48.4	48.4	48.4	48.4	48.4	0.0	28.8	0.0	0.0	0.0
36d	% **habitat unit** area where targeted depth, velocity and shelter criteria overlap	19%	19%	19%	19%	19%	19%	0%	20%	0%	0%	0%
36e	% **habitat unit** area where < 0.5 f/s; 0.5 to 2 ft and shelter criteria overlap	15%	15%	15%	15%	15%	15%	0%	18%	0%	0%	0%
36f	% **habitat unit** area where < 0.5 f/s; 2 to 4 ft and shelter criteria overlap	4%	4%	4%	4%	4%	4%	0%	2%	0%	0%	0%
37.	Does this **feature** need: DEC, ENH, MNT, REP, NON, OTH	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
38.	Are additional restoration treatments recommended at this **site**?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO