# TRINITY RIVER RESTORATION PROGRAM LOGIC MODEL RESULTS

September 5, 2014

## SUMMARY

A Logic Model was developed in consultation with stakeholders to the Trinity River Restoration Program to identify the most suitable locations for restoration actions. Metrics of habitat quality, connectivity to spawning areas, and river complexity were derived from two-dimensional modeling, statistical techniques, and empirical observations. Panels were ranked based on these metrics, scored with a weighting scheme, and summarized by a cluster analysis and Environmental Sight Limits (ESLs). Top candidates for restoration actions were identified in the clusters containing three or more panels as (1) Three panels beginning in Dutch Creek; (2) Nineteen panels beginning Below Lorenz (the canyon); (3) Seven panels beginning in Chapman Ranch; (4) Seven panels beginning in Pear Tree Gulch; and (5) Five panels beginning in Indian Creek (Vitzthum Gulch). Summaries by ESL were relatively consistent with these results, with a few exceptions resulting from use of arbitrary boundaries that cross panels of varying quality.

## APPROACH

Five metrics were chosen to represent habitat quality, connectivity, and river complexity. Habitat quality was defined by weighted usable average (WUA) at 300 cfs and 1,500 cfs to capture variation at lower flows. Connectivity was defined by the total number of redds observed within each panel and three upstream panels (i.e., a running total of four panels). Complexity was defined by the standard deviation in bed elevation and standard deviation of stream power at 8,500 cfs. Each panel was ranked relative to the remaining panels (1 to 319) for all five metrics, with ascending ranks for habitat quality and complexity and descending ranks for connectivity (redds). Thus, panels with low WUA values, low variation in complexity, and proximity to a large number of redds would receive lower rankings across the five metrics. Low ranks therefore represent the greatest desirability for restoration actions.

Panels were scored by summing the total ranks across the five metrics, with each metric weighted according to values shown in Table 1. Ranks of all five metrics were multiplied by their respective weighting and summed by panel. For example, habitat rank at 300 cfs with

median accretion has a weighting of 1.50 (33.3% influence), whereas standard deviation of bed elevation has a weighting of 0.50 (11.1% influence). Each increase in habitat rank and standard deviation of bed elevation rank therefore represents a corresponding increase of 1.50 and 0.50 in the total score, respectively. Scores were then scaled relative to the least desirable candidate for a restoration action (Panel 57 in Lowden Ranch). Score for each panel therefore represents existing habitat quality with influence of connectivity to spawning and measures of river complexity.

**Table 1.** Weighting of metrics used in the Logic Model in panel scoring.

| Metric | Weight | Relative influence |
|---|---|---|
| Habitat (300 cfs TA 0.50) rank | 1.50 | 0.333 |
| Habitat (1500 cfs) rank | 1.00 | 0.222 |
| Total redds (2011-2013) rank | 1.00 | 0.222 |
| SD of bed elevation (m) rank | 0.50 | 0.111 |
| SD of unit stream power (8,500 cfs) rank | 0.50 | 0.111 |

Scores across multiple panels were analyzed to identify segments of the river most suitable for restoration action. A cluster analysis was first used to identify regions of similar scores that were spatially grouped. This provided a mechanism to evaluate areas desirable for restoration irrespective of arbitrary boundaries. Secondly, mean scores were provided across ESLs to provide context in how scores show across regions used in past evaluations.

Feasibility metrics, including percent public ownership, road length, bedrock area, topography, and geomorphic potential (the first principal component of velocity, average bed shear stress, average first derivative of shear stress, and stream power at 6,000 cfs) were calculated by both clusters and ESLs. These metrics are intended to provide additional detail for consideration in selecting restoration sites.

## RESULTS

A total of 150 spatially-related clusters of similar scores were identified. The top ten clusters of ascending desirability for restoration are shown in Table 2, including all clusters (top) and clusters including a minimum of three panels (bottom). Mean feasibility metrics for the identified clusters are shown in Table 3 for consideration. Likewise, mean scores and feasibility metrics grouped by all 56 ESLs are shown in Table 4.

**Table 2.** Top ten panel clusters ranked by ascending desirability for restoration.

| All cluster sizes | | | |
|---|---|---|---|
| Cluster ID | Number of panels | Mean Score | Associated upstream ESL |
| 96 | 3 | 28.7% | Dutch Creek |
| 68 | 1 | 31.0% | Douglas City |
| 108 | 1 | 33.0% | Sheridan Creek |
| 84 | 2 | 34.5% | Lorenz Gulch |
| 92 | 19 | 35.2% | Below Lorenz (the canyon) |
| 104 | 7 | 35.6% | Chapman Ranch |
| 39 | 1 | 36.0% | China Gulch |
| 150 | 7 | 38.6% | Pear Tree Gulch |
| 50 | 2 | 39.5% | Below Steel Bridge |
| 128 | 1 | 40.0% | Hocker Flat |
| **Clusters including at least three panels** | | | |
| Cluster ID | Number of panels | Mean Score | Associated upstream ESL |
| 96 | 3 | 28.7% | Dutch Creek |
| 92 | 19 | 35.2% | Below Lorenz (the canyon) |
| 104 | 7 | 35.6% | Chapman Ranch |
| 150 | 7 | 38.6% | Pear Tree Gulch |
| 60 | 5 | 40.2% | Indian Creek (Vitzthum Gulch) |
| 102 | 4 | 40.5% | Soldier Creek |
| 114 | 3 | 41.3% | Oregon Gulch |
| 94 | 6 | 42.7% | Dutch Creek |
| 118 | 7 | 45.4% | Sky Ranch |
| 31 | 4 | 46.8% | Tom Lang Gulch |

**Table 3.** Mean feasibility metrics associated with clusters identified in Table 1.

| Cluster ID | Associated upstream ESL | Percent public ownership | Road length (ft) | Bedrock area ($ft^3$) | Topography ($ft^3 \times 10^6$) | Geomorphic potential (PCA) |
|---|---|---|---|---|---|---|
| 96 | Dutch Creek | 52% | 3,719 | - | 4.6 | -0.38 |
| 68 | Douglas City | 41% | 4,462 | - | 1.0 | -3.20 |
| 108 | Sheridan Creek | 49% | 425 | - | 9.1 | -0.60 |
| 84 | Lorenz Gulch | 100% | 3,015 | - | 8.7 | -0.71 |
| 92 | Below Lorenz (the canyon) | 52% | 2,871 | 1,332 | 15.8 | 1.30 |
| 104 | Chapman Ranch | 68% | 2,335 | - | 5.8 | -0.52 |
| 39 | China Gulch | 16% | 2,471 | - | 19.1 | 0.21 |
| 150 | Pear Tree Gulch | 100% | 2,008 | 225 | 12.8 | -0.26 |
| 50 | Below Steel Bridge | 35% | 4,265 | - | 8.0 | -0.21 |
| 128 | Hocker Flat | 50% | 3,163 | - | 5.0 | -0.46 |
| 60 | Indian Creek (Vitzthum Gulch) | 89% | 1,746 | - | 7.9 | -1.59 |
| 102 | Soldier Creek | 93% | 1,052 | - | 13.3 | 0.18 |
| 78 | Middle Steiner Flat | 100% | 2,521 | 376 | 11.3 | 1.61 |
| 114 | Oregon Gulch | 54% | 2,232 | - | 3.8 | -1.43 |
| 6 | Cableway | 35% | 5,488 | - | 3.2 | -1.01 |
| 36 | Poker Bar | 2% | 6,474 | - | 9.5 | -0.97 |
| 94 | Dutch Creek | 77% | - | 11 | 6.3 | -0.63 |
| 14 | Upper Rush Creek | 1% | 5,947 | - | 3.6 | -1.88 |
| 140 | Valdor Gulch | 0% | 9,246 | - | 6.8 | 0.61 |
| 20 | Dark Gulch | 17% | 2,728 | - | 6.6 | -2.46 |
| 118 | Sky Ranch | 56% | 4,864 | 153 | 6.3 | 0.71 |
| 45 | Below Limekiln Gulch | 100% | 1,812 | - | 7.1 | 0.50 |
| 97 | Evans Bar | 63% | 3,785 | 262 | 3.0 | -1.50 |
| 120 | Lower Junction City | 4% | 5,009 | - | 9.3 | 0.41 |
| 31 | Tom Lang Gulch | 6% | 5,326 | - | 14.5 | -0.70 |

**Table 4.** Trinity River ESL segments ranked by ascending desirability for restoration (mean panel ranking for the five Logic Model metrics along with mean feasibility metrics shown for evaluation).

| ESL Name | Habitat (300 cfs TA 0.50) | Habitat (1500 cfs) | Total redds (2011-2013) | SD of bed elevation (m) | SD of unit stream power (8,500 cfs) | Percent public ownership | Road length (feet) | Bedrock area | Topography (cubic feet × 106) | Geomorphic potential |
|---|---|---|---|---|---|---|---|---|---|---|
| Chapman Ranch | 85 | 77 | 154 | 69 | 125 | 71% | 2,570 | | 4.52 | -0.46 |
| Below Pear Tree | 107 | 63 | 215 | 135 | 10 | 100% | 2,795 | | 13.59 | -1.32 |
| Below Lorenz (the canyon) | 70 | 59 | 121 | 241 | 217 | 58% | 2,675 | 1,084 | 15.74 | 1.96 |
| Dutch Creek | 103 | 135 | 97 | 149 | 124 | 72% | 723 | 181 | 7.57 | -0.38 |
| Pear Tree Gulch | 86 | 64 | 173 | 215 | 108 | 100% | 1,354 | 166 | 11.95 | 0.29 |
| Deep Gulch | 149 | 143 | 47 | 140 | 89 | 41% | 2,066 | | 10.26 | -0.56 |
| Soldier Creek | 115 | 88 | 150 | 171 | 121 | 87% | 1,151 | | 12.39 | 0.05 |
| Evans Bar | 136 | 156 | 121 | 87 | 106 | 77% | 3,485 | 257 | 4.68 | -0.68 |
| Lower Steiner Flat (not built) | 106 | 85 | 165 | 157 | 184 | 100% | 1,683 | 327 | 8.38 | 1.00 |
| Trinity House Gulch | 83 | 131 | 187 | 92 | 179 | 69% | 1,859 | | 6.33 | 0.23 |
| Lorenz Gulch | 82 | 76 | 234 | 202 | 155 | 80% | 2,683 | 17 | 6.20 | 0.46 |
| Indian Creek (Vitzthum Gulch) | 111 | 115 | 182 | 196 | 103 | 64% | 2,201 | | 7.87 | -1.54 |
| Sky Ranch | 134 | 132 | 97 | 168 | 211 | 55% | 4,464 | 45 | 6.34 | 0.83 |
| Below Steel Bridge | 72 | 128 | 202 | 169 | 200 | 38% | 3,481 | | 9.11 | -0.05 |
| Tom Lang Gulch | 124 | 104 | 176 | 138 | 188 | 14% | 4,426 | | 14.59 | -0.44 |
| Cableway | 163 | 268 | 10 | 160 | 94 | 44% | 5,015 | 6 | 6.99 | -1.22 |
| Upper Junction City | 160 | 149 | 87 | 210 | 147 | 38% | 5,760 | 208 | 5.43 | 0.66 |
| Oregon Gulch | 179 | 177 | 105 | 96 | 114 | 60% | 3,182 | | 3.80 | -0.45 |
| Middle Steiner Flat | 105 | 96 | 203 | 205 | 236 | 100% | 2,048 | 471 | 11.50 | 1.56 |
| Sheridan Creek | 210 | 193 | 90 | 105 | 56 | 73% | 2,401 | | 7.91 | -1.27 |
| Below Tom Lang Gulch | 267 | 197 | 47 | 67 | 21 | 29% | 7,396 | | 14.46 | -1.84 |
| Below Evans Bar | 214 | 211 | 65 | 133 | 84 | 83% | 3,300 | | 10.39 | 0.54 |
| Elkhorn | 107 | 92 | 309 | 138 | 152 | 44% | 2,402 | 374 | 12.83 | 0.61 |
| China Gulch | 124 | 133 | 181 | 196 | 267 | 53% | 2,213 | | 12.49 | 0.12 |
| Lower Steiner Flat (built) | 178 | 121 | 171 | 156 | 194 | 100% | 2,413 | 1,294 | 10.36 | 1.30 |
| Lower Junction City | 152 | 127 | 193 | 149 | 236 | 6% | 4,575 | | 8.99 | 0.85 |
| Hatchery | 218 | 215 | 19 | 105 | 267 | 100% | 113,816 | | 4.55 | 0.35 |
| Upper Conner Ck | 88 | 86 | 304 | 214 | 232 | 61% | 2,309 | 326 | 7.06 | 1.00 |

| ESL Name | Habitat (300 cfs TA 0.50) | Habitat (1500 cfs) | Total redds (2011-2013) | SD of bed elevation (m) | SD of unit stream power (8,500 cfs) | Percent public ownership | Road length (feet) | Bedrock area | Topography (cubic feet × 106) | Geomorphic potential |
|---|---|---|---|---|---|---|---|---|---|---|
| Hoadly Gulch | 228 | 221 | 15 | 185 | 156 | 44% | 6,122 | | 4.31 | -0.78 |
| Below Limekiln Gulch | 171 | 183 | 155 | 174 | 140 | 100% | 1,632 | | 10.42 | -0.11 |
| Douglas City | 164 | 115 | 257 | 81 | 212 | 58% | 5,734 | | 3.40 | -1.03 |
| Valdor Gulch | 157 | 152 | 227 | 155 | 156 | 9% | 4,096 | | 7.16 | 0.38 |
| Upper Steiner Flat | 196 | 141 | 161 | 177 | 190 | 100% | 2,604 | 271 | 10.71 | 1.29 |
| Dark Gulch | 167 | 212 | 184 | 159 | 142 | 23% | 3,005 | | 7.76 | -1.43 |
| Hocker Flat | 169 | 169 | 268 | 101 | 152 | 20% | 3,284 | 773 | 5.93 | -0.29 |
| Lower Rush Creek | 206 | 243 | 88 | 119 | 240 | 52% | 2,830 | | 3.63 | -0.69 |
| Sawmill | 251 | 260 | 30 | 159 | 152 | 73% | 2,652 | 180 | 5.65 | -0.93 |
| McIntyre Gulch | 179 | 202 | 222 | 130 | 133 | 42% | 1,992 | | 9.33 | -0.70 |
| Poker Bar | 213 | 180 | 150 | 211 | 142 | 21% | 5,850 | 288 | 9.60 | -0.04 |
| Limekiln Gulch | 210 | 234 | 169 | 122 | 111 | 100% | 1,269 | | 11.76 | -0.20 |
| Upper Rush Creek | 266 | 261 | 50 | 125 | 128 | 13% | 5,287 | | 3.52 | -2.09 |
| Conner Ck | 148 | 140 | 293 | 124 | 242 | 19% | 3,060 | 571 | 6.62 | 0.86 |
| Reading Creek | 145 | 158 | 256 | 190 | 224 | 66% | 3,061 | 461 | 8.73 | 1.07 |
| Steel Bridge Road Day Use | 224 | 211 | 122 | 208 | 144 | 93% | 2,145 | 498 | 11.15 | 0.12 |
| Lowden Ranch | 196 | 226 | 171 | 186 | 163 | 75% | 7,320 | | 6.92 | -1.51 |
| Wheel Gulch | 238 | 214 | 172 | 158 | 98 | 14% | 3,390 | | 6.01 | -0.47 |
| Sven Olbertson | 254 | 281 | 4 | 222 | 199 | 99% | 3,140 | 371 | 5.02 | 2.73 |
| Below Sven Olbertson | 219 | 233 | 12 | 282 | 318 | 100% | 3,773 | 160 | 8.00 | 6.84 |
| Indian Creek (Upper Douglas City) | 274 | 211 | 196 | 41 | 69 | 99% | 2,305 | | 6.13 | -1.21 |
| Below China Gulch | 247 | 290 | 109 | 103 | 116 | 100% | 931 | | 15.10 | 0.08 |
| Below Dark Gulch (Bucktail Hole) | 146 | 185 | 180 | 313 | 296 | 72% | 8,304 | 108 | 6.30 | 2.03 |
| Deadwood Creek | 253 | 279 | 13 | 196 | 247 | 82% | 3,527 | 18 | 11.06 | 2.17 |
| Indian Creek | 223 | 206 | 200 | 160 | 143 | 67% | 3,369 | 553 | 9.80 | -0.50 |
| Below Conner Ck | 247 | 217 | 284 | 77 | 144 | 36% | 4,343 | | 12.85 | -0.49 |
| Below Lower Junction City (Canyon Cr Delta) | 313 | 182 | 301 | 16 | 175 | 18% | 6,641 | | 3.98 | -0.04 |
| Below Valdor Gulch | 199 | 236 | 295 | 279 | 230 | 4% | 1,545 | | 3.70 | 1.47 |

# APPENDIX A – DEFINITIONS

| | |
|---|---|
| Bedrock area | Amount of bedrock (cubic feet) in each panel as noted in the SAB data frame. |
| Cluster ID | Grouping of panels identified by cluster analysis. |
| ESL Name | Environmental study limits used by the Trinity River Restoration Program. |
| Geomorphic potential (first principal component) | Values calculated by PCA analysis using velocity, average bed shear stress, average first derivative of shear stress, and stream power at 6,000 cfs. |
| Habitat (1500 cfs) | WUA for each panel based on modeled output at 1,500 cfs. |
| Habitat (300 cfs TA 0.50) | WUA for each panel based on modeled output at 300 cfs with median accretion values. |
| Panel ID | 200-meter segment identified in 2D modeling efforts. |
| Percent public ownership | Total area publically-owned divided by the total area within each panel. |
| Road length (feet) | Total length of all roads within each panel. |
| SD of bed elevation (m) | Standard deviation of bed elevation within each panel. |
| SD of unit stream power (8,500 cfs) | Standard deviation of unit stream power at 8,500 cfs within each panel. |
| Topography (cubic feet × $10^6$) | Total topography above the river level at 300 cfs. |
| Total redds (2011-2013) | Total redds enumerated in each panel in addition to the total number of redds in each of the three nearest upstream panels. |

# APPENDIX B – VALUES USED FOR LOGIC MODEL BY PANEL

| Panel ID | Habitat (300 cfs TA 0.50) | Habitat (1500 cfs) | Total redds (2011-2013) | Moving total of redds (4 panels) | SD of bed elevation (m) | SD of unit stream power (8,500 cfs) | Percent public ownership | Road length (feet) | Bedrock area | Topography (cubic feet × $10^6$) | Geomorphic potential (first principal component) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 14,913.9 | 17,013.3 | 154 | 154 | 6.55 | 91.92 | 100% | 548,932 | - | 2.47 | 0.84 |
| 1 | 20,592.5 | 18,769.9 | 394 | 548 | 1.28 | 88.17 | 100% | 5,374 | - | 5.58 | 0.39 |
| 2 | 23,552.9 | 23,203.3 | 2,384 | 2,932 | 1.36 | 57.09 | 100% | 5,541 | - | 5.63 | 0.57 |
| 3 | 24,859.5 | 25,732.4 | 525 | 3,457 | 1.14 | 57.29 | 100% | 4,947 | - | 3.54 | -0.60 |
| 4 | 32,845.6 | 40,643.3 | 476 | 3,779 | 1.30 | 52.04 | 100% | 4,284 | - | 5.52 | 0.53 |
| 5 | 25,885.9 | 40,992.1 | 420 | 3,805 | 2.25 | 33.36 | 98% | 5,500 | - | 3.93 | -0.54 |
| 6 | 22,857.6 | 22,595.6 | 321 | 1,742 | 2.47 | 49.81 | 100% | 1,816 | - | 6.23 | 1.15 |
| 7 | 24,134.0 | 38,102.5 | 250 | 1,467 | 2.13 | 79.11 | 100% | 2,103 | 371 | 4.90 | 7.59 |
| 8 | 33,734.4 | 35,623.8 | 87 | 1,078 | 2.71 | 133.09 | 100% | 3,021 | 160 | 7.37 | 5.71 |
| 9 | 17,327.1 | 19,082.5 | 114 | 772 | 3.34 | 111.74 | 100% | 4,525 | - | 8.63 | 7.96 |
| 10 | 30,595.0 | 37,741.3 | 401 | 852 | 1.57 | 68.08 | 95% | 4,364 | - | 4.01 | 3.01 |
| 11 | 21,092.8 | 25,865.7 | 270 | 872 | 3.07 | 49.66 | 69% | 2,690 | 18 | 18.11 | 1.32 |
| 12 | 22,138.2 | 27,120.5 | 80 | 865 | 2.16 | 32.75 | 69% | 3,752 | 6 | 15.81 | -1.57 |
| 13 | 27,055.4 | 46,012.1 | 446 | 1,197 | 1.61 | 35.44 | 36% | 5,331 | - | 5.66 | -1.27 |
| 14 | 10,001.7 | 36,034.3 | 342 | 1,138 | 2.11 | 31.70 | 30% | 7,561 | | 3.63 | -0.74 |
| 15 | 17,375.9 | 21,001.2 | 75 | 943 | 1.64 | 39.46 | 39% | 3,414 | | 2.86 | -1.28 |
| 16 | 28,301.2 | 28,537.6 | 179 | 1,042 | 1.11 | 52.57 | 42% | 7,663 | | 3.68 | 0.02 |
| 17 | 17,050.6 | 23,299.8 | 110 | 706 | 2.43 | 44.51 | 39% | 5,464 | - | 4.76 | 0.05 |
| 18 | 25,997.8 | 18,774.1 | 22 | 386 | 3.21 | 32.39 | 52% | 5,239 | - | 4.49 | -2.42 |
| 19 | 42,483.6 | 30,342.0 | 190 | 501 | 1.65 | 30.93 | 53% | 4,002 | | 2.68 | -1.43 |
| 20 | 30,863.8 | 40,646.9 | 73 | 395 | 1.05 | 51.61 | 94% | 1,390 | | 3.13 | 0.25 |
| 21 | 14,980.6 | 19,387.4 | 27 | 312 | 2.41 | 55.07 | 92% | 3,297 | - | 9.01 | -0.78 |
| 22 | 16,577.1 | 22,405.7 | 25 | 315 | 2.69 | 24.34 | 68% | 2,856 | - | 13.68 | -0.84 |
| 23 | 51,489.3 | 60,672.5 | 88 | 213 | 1.66 | 67.35 | 100% | 1,881 | - | 4.78 | 1.03 |
| 24 | 58,106.6 | 58,713.3 | 92 | 232 | 1.28 | 42.97 | 100% | 792 | - | 2.77 | -1.80 |
| 25 | 26,070.9 | 31,257.6 | 39 | 244 | 2.38 | 42.58 | 61% | 2,601 | 75 | 4.63 | -1.88 |
| 26 | 29,212.7 | 20,673.5 | 51 | 270 | 2.19 | 32.68 | 15% | 4,393 | 284 | 4.48 | -1.95 |
| 27 | 36,668.6 | 32,097.1 | 96 | 278 | 1.13 | 15.39 | 1% | 3,542 | | 4.53 | -2.79 |
| 28 | 23,763.2 | 27,349.7 | 78 | 264 | 1.42 | 57.27 | 0% | 5,464 | | 2.79 | -0.96 |
| 29 | 19,107.5 | 14,752.1 | 55 | 280 | 1.46 | 48.64 | 1% | 5,947 | | 3.55 | -1.88 |
| 30 | 18,725.9 | 34,467.9 | 73 | 302 | 1.55 | 37.25 | 3% | 7,841 | | 3.20 | -1.28 |
| 31 | 32,667.1 | 33,257.9 | 29 | 235 | 2.46 | 40.81 | 43% | 5,575 | | 3.36 | -2.41 |
| 32 | 34,213.0 | 30,184.0 | 25 | 182 | 2.18 | 14.13 | 56% | 3,398 | | 3.55 | -3.58 |
| 33 | 43,469.4 | 46,484.8 | 18 | 145 | 2.28 | 10.28 | 0% | 4,927 | - | 4.52 | -3.35 |
| 34 | 32,998.5 | 29,443.4 | 50 | 122 | 1.25 | 93.01 | 1% | 5,604 | | 2.62 | -0.45 |
| 35 | 20,215.8 | 32,462.1 | 54 | 147 | 1.38 | 49.03 | 61% | 2,874 | - | 0.95 | -1.74 |
| 36 | 25,019.8 | 31,466.4 | 2 | 124 | 1.60 | 90.46 | 84% | 1,644 | - | 2.69 | 0.94 |
| 37 | 25,278.7 | 31,758.5 | 50 | 156 | 1.35 | 36.73 | 84% | 3,377 | - | 3.58 | -1.77 |
| 38 | 27,141.8 | 36,330.3 | 60 | 166 | 2.39 | 72.90 | 75% | 1,804 | - | 1.92 | 0.51 |
| 39 | 15,564.2 | 18,169.5 | 12 | 124 | 1.54 | 56.32 | 9% | 3,020 | - | 7.98 | -0.87 |
| 40 | 16,929.2 | 18,311.6 | 4 | 126 | 1.67 | 65.73 | 0% | 4,260 | - | 4.68 | -1.18 |

| Panel ID | Habitat (300 cfs TA 0.50) | Habitat (1500 cfs) | Total redds (2011-2013) | Moving total of redds (4 panels) | SD of bed elevation (m) | SD of unit stream power (8,500 cfs) | Percent public ownership | Road length (feet) | Bedrock area | Topography (cubic feet × $10^6$) | Geomorphic potential (first principal component) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 41 | 32,778.0 | 37,900.4 | 26 | 102 | 1.40 | 46.44 | 0% | 862 | | 2.43 | -0.92 |
| 42 | 23,524.5 | 48,334.1 | 12 | 54 | 1.50 | 32.32 | 0% | 1,078 | - | 2.82 | -1.32 |
| 43 | 15,567.2 | 65,913.9 | 44 | 86 | 1.34 | 71.12 | 0% | 4,180 | - | 3.79 | 0.20 |
| 44 | 29,590.7 | 36,540.4 | 17 | 99 | 2.00 | 17.95 | 0% | 1,244 | - | 4.05 | -1.80 |
| 45 | 23,409.7 | 15,980.6 | 6 | 79 | 2.83 | 38.01 | 13% | 4,095 | - | 12.77 | -1.88 |
| 46 | 28,274.8 | 36,438.7 | 84 | 151 | 1.04 | 28.74 | 34% | 836 | - | 5.41 | -0.83 |
| 47 | 20,216.7 | 27,124.3 | 23 | 130 | 2.04 | 32.49 | 12% | 39 | - | 12.82 | -1.52 |
| 48 | 13,900.7 | 24,765.1 | 5 | 118 | 1.34 | 52.59 | 18% | 3,950 | - | 3.27 | -2.20 |
| 49 | 12,978.6 | 19,022.0 | 3 | 115 | 1.68 | 31.54 | 16% | 1,506 | - | 9.90 | -2.72 |
| 50 | 16,152.5 | 16,013.2 | 8 | 39 | 2.53 | 36.31 | 35% | 3,771 | - | 11.76 | -1.95 |
| 51 | 14,546.0 | 9,360.8 | 14 | 30 | 3.18 | 50.92 | 72% | 1,004 | - | 21.33 | 0.15 |
| 52 | 17,740.5 | 17,423.6 | 28 | 53 | 2.41 | 45.66 | 37% | 6,219 | - | 7.18 | -2.14 |
| 53 | 15,309.2 | 20,060.3 | 39 | 89 | 2.12 | 61.58 | 57% | 10,282 | | 3.41 | -1.62 |
| 54 | 18,220.6 | 20,418.4 | 7 | 88 | 3.88 | 72.21 | 72% | 8,304 | 108 | 6.30 | 2.03 |
| 55 | 12,390.7 | 13,032.0 | 1 | 75 | 2.26 | 55.55 | 45% | 7,957 | | 4.06 | -1.28 |
| 56 | 15,386.0 | 21,788.8 | 13 | 60 | 1.82 | 49.75 | 23% | 7,049 | - | 4.61 | -2.34 |
| 57 | 39,593.5 | 56,479.0 | 10 | 31 | 2.22 | 15.73 | 94% | 2,690 | - | 11.63 | -3.51 |
| 58 | 17,622.4 | 20,773.6 | 30 | 54 | 1.69 | 52.29 | 100% | 3,429 | - | 13.25 | -0.79 |
| 59 | 26,212.4 | 25,075.1 | 75 | 128 | 1.44 | 29.40 | 100% | 4,313 | - | 8.71 | -2.69 |
| 60 | 24,742.3 | 28,210.3 | 25 | 140 | 3.50 | 35.24 | 100% | 6,479 | - | 2.71 | -1.87 |
| 61 | 19,808.6 | 22,128.3 | 13 | 143 | 3.67 | 70.49 | 96% | 19,572 | - | 2.66 | 0.45 |
| 62 | 24,480.1 | 35,824.1 | 29 | 142 | 1.37 | 47.98 | 43% | 7,069 | - | 7.75 | -0.05 |
| 63 | 14,999.5 | 17,776.4 | 12 | 79 | 1.95 | 28.59 | 22% | 3,228 | - | 5.46 | -1.44 |
| 64 | 12,684.1 | 15,373.8 | 36 | 90 | 1.23 | 65.54 | 85% | 490 | - | 5.31 | 0.57 |
| 65 | 16,757.3 | 18,422.6 | 9 | 86 | 1.30 | 52.69 | 100% | | - | 8.23 | 1.55 |
| 66 | 10,486.9 | 8,452.2 | 9 | 66 | 2.94 | 61.78 | 71% | 1234 | - | 24.80 | 0.57 |
| 67 | 18,956.4 | 15,936.7 | 9 | 63 | 1.95 | 47.48 | 3% | 2655 | - | 13.44 | -0.21 |
| 68 | 19,677.7 | 22,943.5 | 42 | 69 | 0.90 | 55.55 | 0% | 5794 | - | 6.11 | -0.65 |
| 69 | 14,905.2 | 15,227.6 | 5 | 65 | 1.62 | 60.58 | 0% | 3319 | - | 14.77 | 0.41 |
| 70 | 19,093.4 | 17,103.0 | 54 | 110 | 1.06 | 30.47 | 5% | 7759 | - | 12.47 | -1.21 |
| 71 | 14,326.6 | 15,735.0 | 48 | 149 | 1.82 | 52.77 | 14% | 4108 | - | 15.06 | -0.07 |
| 72 | 19,786.4 | 14,431.3 | 34 | 141 | 2.18 | 33.24 | 4% | 6116 | - | 15.50 | -1.94 |
| 73 | 25,246.1 | 21,179.0 | 51 | 187 | 1.36 | 24.14 | 29% | 7396 | - | 14.46 | -1.84 |
| 74 | 26,132.2 | 26,839.0 | 8 | 141 | 2.12 | 26.48 | 33% | 4866 | - | 9.82 | -1.86 |
| 75 | 30,526.2 | 32,574.0 | 46 | 139 | 2.45 | 18.23 | 35% | 3648 | - | 11.24 | -1.78 |
| 76 | 22,713.9 | 23,539.8 | 33 | 138 | 4.93 | 45.68 | 4% | 9335 | - | 8.15 | 0.10 |
| 77 | 19,298.9 | 16,624.2 | 47 | 134 | 5.66 | 28.13 | 50% | 4113 | 346 | 8.84 | -1.51 |
| 78 | 20,817.8 | 24,229.4 | 14 | 140 | 3.19 | 29.31 | 5% | 8243 | 230 | 6.91 | -1.70 |
| 79 | 16,344.0 | 14,055.0 | 22 | 116 | 1.25 | 54.53 | 2% | 6474 | - | 9.48 | -0.97 |
| 80 | 16,895.6 | 15,256.8 | 22 | 105 | 1.68 | 70.79 | 14% | 3559 | - | 15.87 | 2.48 |
| 81 | 16,767.6 | 14,923.4 | 13 | 71 | 1.36 | 91.39 | 45% | 4101 | - | 12.31 | 2.85 |
| 82 | 19,223.6 | 12,032.8 | 3 | 60 | 2.64 | 120.46 | 33% | 6194 | - | 10.56 | 4.77 |
| 83 | 32,598.7 | 23,744.2 | 13 | 51 | 3.47 | 20.56 | 3% | 7847 | | 5.94 | -2.74 |

| Panel ID | Habitat (300 cfs TA 0.50) | Habitat (1500 cfs) | Total redds (2011-2013) | Moving total of redds (4 panels) | SD of bed elevation (m) | SD of unit stream power (8,500 cfs) | Percent public ownership | Road length (feet) | Bedrock area | Topography (cubic feet × $10^6$) | Geomorphic potential (first principal component) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | 34,031.0 | 43,263.8 | 56 | 85 | 1.71 | 35.24 | 1% | 5972 | - | 6.53 | -0.09 |
| 85 | 21,696.4 | 21,612.5 | 17 | 89 | 2.21 | 61.86 | 12% | 4223 | - | 10.37 | 0.44 |
| 86 | 9,990.4 | 11,527.9 | 2 | 88 | 1.69 | 54.25 | 16% | 2471 | - | 19.11 | 0.21 |
| 87 | 14,997.9 | 16,157.5 | 14 | 89 | 2.08 | 62.90 | 55% | 2960 | - | 10.96 | 0.79 |
| 88 | 17,196.3 | 17,271.9 | 60 | 93 | 1.99 | 64.85 | 88% | 74 | - | 8.33 | 0.82 |
| 89 | 19,117.4 | 20,091.2 | 2 | 78 | 2.58 | 72.93 | 96% | 1338 | - | 13.67 | -1.67 |
| 90 | 22,609.0 | 32,830.2 | 36 | 112 | 1.74 | 43.94 | 100% | | - | 12.81 | 0.83 |
| 91 | 29,625.2 | 34,800.2 | 49 | 147 | 1.58 | 31.43 | 100% | | - | 16.88 | -0.11 |
| 92 | 21,580.4 | 31,411.1 | 26 | 113 | 1.28 | 37.87 | 100% | 931 | - | 15.61 | -0.49 |
| 93 | 20,615.1 | 22,274.3 | 26 | 137 | 2.19 | 28.83 | 100% | 1459 | - | 11.84 | -1.41 |
| 94 | 26,453.6 | 29,962.3 | 27 | 128 | 1.39 | 30.82 | 100% | 1383 | - | 10.03 | -1.32 |
| 95 | 30,096.0 | 34,608.5 | 28 | 107 | 0.91 | 41.96 | 100% | 1334 | - | 5.35 | 0.20 |
| 96 | 20,745.1 | 23,200.1 | 31 | 112 | 1.64 | 29.32 | 100% | 1281 | - | 10.06 | 0.75 |
| 97 | 15,523.1 | 20,746.5 | 6 | 92 | 1.62 | 42.14 | 100% | 1385 | - | 10.32 | -0.91 |
| 98 | 35,209.6 | 33,829.0 | 14 | 79 | 0.88 | 34.53 | 100% | 1347 | - | 8.30 | -0.92 |
| 99 | 19,807.2 | 23,722.5 | 8 | 59 | 2.24 | 48.64 | 100% | 787 | - | 19.00 | 1.67 |
| 100 | 15,911.5 | 17,202.9 | 26 | 54 | 2.31 | 41.41 | 100% | 1172 | - | 19.16 | 0.31 |
| 101 | 18,752.7 | 19,606.2 | 5 | 53 | 2.00 | 49.07 | 100% | 1584 | - | 15.87 | -0.47 |
| 102 | 23,018.9 | 25,036.5 | 26 | 65 | 3.06 | 35.23 | 100% | 1320 | - | 11.63 | -0.94 |
| 103 | 20,136.6 | 21,362.2 | 104 | 161 | 1.17 | 31.76 | 100% | 1099 | - | 5.37 | 0.69 |
| 104 | 15,292.9 | 16,444.8 | 45 | 180 | 2.03 | 48.55 | 100% | 2525 | - | 8.82 | 0.30 |
| 105 | 21,638.6 | 23,287.6 | 15 | 190 | 2.09 | 38.64 | 100% | 3262 | - | 8.53 | -0.57 |
| 106 | 22,179.5 | 20,601.0 | 3 | 167 | 3.75 | 38.67 | 100% | 3367 | 498 | 9.11 | -0.43 |
| 107 | 33,033.3 | 33,386.1 | 13 | 76 | 1.91 | 35.63 | 84% | 1238 | - | 11.55 | 0.42 |
| 108 | 24,657.0 | 22,105.7 | 75 | 106 | 1.35 | 32.91 | 88% | 1063 | - | 11.83 | -0.52 |
| 109 | 16,148.4 | 17,340.5 | 12 | 103 | 3.48 | 67.25 | 91% | 1795 | - | 14.74 | 1.69 |
| 110 | 16,595.1 | 24,447.0 | 8 | 108 | 3.73 | 62.58 | 73% | 2466 | - | 14.12 | 0.73 |
| 111 | 8,693.2 | 13,668.8 | 5 | 100 | 1.91 | 43.57 | 55% | 4505 | - | 10.59 | 0.06 |
| 112 | 11,324.0 | 12,449.7 | 20 | 45 | 1.90 | 44.97 | 15% | 4024 | - | 5.33 | -0.47 |
| 113 | 17,527.6 | 18,292.6 | 31 | 64 | 1.13 | 47.37 | 7% | 2929 | - | 6.40 | -0.52 |
| 114 | 15,015.3 | 13,686.0 | 17 | 73 | 1.61 | 63.51 | 6% | 1498 | - | 13.50 | 0.93 |
| 115 | 24,357.9 | 26,374.0 | 12 | 80 | 1.61 | 38.19 | 22% | 3288 | - | 10.83 | -1.05 |
| 116 | 21,850.9 | 25,188.2 | 11 | 71 | 1.12 | 33.28 | 25% | 1402 | - | 9.20 | -0.59 |
| 117 | 19,795.0 | 20,797.4 | 27 | 67 | 1.16 | 41.06 | 16% | 1900 | - | 8.69 | -0.60 |
| 118 | 15,144.9 | 17,800.7 | 3 | 53 | 1.44 | 44.65 | 83% | 1384 | - | 7.55 | -1.21 |
| 119 | 21,561.3 | 23,979.6 | 38 | 79 | 3.23 | 37.28 | 87% | 1360 | - | 7.78 | -1.96 |
| 120 | 20,589.4 | 29,048.9 | 11 | 79 | 2.48 | 22.38 | 56% | 3110 | - | 7.75 | -0.39 |
| 121 | 17,969.1 | 26,583.9 | 29 | 81 | 2.44 | 26.42 | 23% | 4171 | - | 7.50 | -0.51 |
| 122 | 15,761.6 | 17,375.8 | 9 | 87 | 1.86 | 43.37 | 1% | 1996 | - | 12.77 | -0.66 |
| 123 | 16,301.2 | 15,286.6 | 7 | 56 | 2.66 | 32.68 | 9% | 4484 | - | 11.31 | -1.64 |
| 124 | 18,100.3 | 14,798.5 | 54 | 99 | 2.22 | 28.84 | 83% | 2927 | - | 7.18 | -2.40 |
| 125 | 14,705.6 | 10,627.9 | 27 | 97 | 1.96 | 35.62 | 66% | 1593 | - | 7.41 | -1.64 |
| 126 | 12,612.4 | 9,913.2 | 4 | 92 | 1.99 | 56.19 | 94% | 1417 | - | 7.20 | -0.88 |

| Panel ID | Habitat (300 cfs TA 0.50) | Habitat (1500 cfs) | Total redds (2011-2013) | Moving total of redds (4 panels) | SD of bed elevation (m) | SD of unit stream power (8,500 cfs) | Percent public ownership | Road length (feet) | Bedrock area | Topography (cubic feet × $10^6$) | Geomorphic potential (first principal component) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 127 | 8,844.7 | 7,154.0 | 8 | 93 | 2.51 | 40.86 | 100% | 1415 | - | 7.23 | -1.40 |
| 128 | 13,470.8 | 11,452.0 | 19 | 58 | 1.89 | 37.54 | 100% | 1379 | - | 10.38 | -1.61 |
| 129 | 26,813.3 | 32,298.4 | 76 | 107 | 1.87 | 36.00 | 95% | 2053 | - | 3.62 | -1.65 |
| 130 | 18,609.7 | 21,451.0 | 4 | 107 | 1.70 | 19.54 | 70% | 577 | - | 4.13 | -3.02 |
| 131 | 20,872.8 | 22,589.4 | 8 | 107 | 2.28 | 22.26 | 47% | 572 | - | 2.49 | -3.54 |
| 132 | 23,129.3 | 22,095.3 | 45 | 133 | 2.40 | 14.43 | 39% | 4593 | - | 7.65 | -3.52 |
| 133 | 23,714.5 | 11,981.6 | 6 | 63 | 3.26 | 82.25 | 90% | 3608 | 553 | 12.50 | -0.33 |
| 134 | 26,384.1 | 23,877.2 | 45 | 104 | 1.77 | 53.68 | 89% | 2792 | - | 8.80 | 2.79 |
| 135 | 21,523.7 | 18,520.3 | 7 | 103 | 2.49 | 64.40 | 93% | 1229 | - | 13.85 | 1.24 |
| 136 | 24,260.9 | 22,171.6 | 22 | 80 | 1.71 | 52.24 | 87% | 1305 | - | 11.74 | -0.14 |
| 137 | 15,970.2 | 26,386.7 | 11 | 85 | 1.81 | 35.55 | 78% | 4205 | - | 11.07 | -0.49 |
| 138 | 19,353.3 | 31,681.2 | 22 | 62 | 1.32 | 29.12 | 54% | 5213 | - | 7.79 | -0.81 |
| 139 | 19,413.8 | 18,155.3 | 3 | 58 | 1.62 | 47.79 | 24% | 6218 | - | 5.97 | -0.33 |
| 140 | 28,626.0 | 28,260.9 | 17 | 53 | 1.18 | 29.90 | 66% | 4626 | - | 13.42 | -0.88 |
| 141 | 24,265.0 | 22,524.5 | 17 | 59 | 1.53 | 40.90 | 70% | 2696 | - | 12.49 | 0.51 |
| 142 | 25,179.6 | 22,582.7 | 32 | 69 | 1.51 | 25.59 | 97% | 3059 | - | 6.01 | -0.82 |
| 143 | 25,258.9 | 23,312.7 | 16 | 82 | 1.03 | 22.62 | 100% | 2523 | - | 4.95 | -1.85 |
| 144 | 23,660.8 | 22,387.7 | 28 | 93 | 0.96 | 31.08 | 100% | 1559 | | 7.23 | -1.16 |
| 145 | 42,483.2 | 19,580.4 | 7 | 83 | 1.27 | 45.00 | 100% | 2080 | - | 6.34 | -0.99 |
| 146 | 36,125.9 | 23,494.0 | 12 | 63 | 1.19 | 62.74 | 96% | 6891 | - | 6.90 | 1.00 |
| 147 | 17,726.7 | 14,561.4 | 21 | 68 | 1.53 | 69.95 | 48% | 4455 | - | 2.61 | -2.23 |
| 148 | 10,572.2 | 7,967.5 | 2 | 42 | 1.56 | 15.49 | 41% | 4462 | - | 0.95 | -3.20 |
| 149 | 19,524.6 | 18,133.4 | 17 | 52 | 1.46 | 69.46 | 46% | 7129 | - | 3.12 | 0.33 |
| 150 | 18,045.6 | 34,362.3 | 4 | 44 | 1.91 | 61.31 | 34% | 6297 | - | 5.98 | 2.59 |
| 151 | 9,805.3 | 11,690.8 | 23 | 46 | 2.19 | 56.88 | 42% | 3877 | - | 21.58 | 1.14 |
| 152 | 18,498.8 | 19,245.5 | 22 | 66 | 1.58 | 42.51 | 1% | 4400 | - | 15.01 | -0.50 |
| 153 | 16,875.1 | 18,807.5 | 22 | 71 | 1.64 | 42.10 | 33% | 6146 | | 3.62 | 0.24 |
| 154 | 19,053.9 | 18,553.8 | 3 | 70 | 2.35 | 63.34 | 82% | 596 | - | 3.77 | 1.28 |
| 155 | 23,345.7 | 26,051.4 | 18 | 65 | 1.59 | 61.56 | 72% | 2364 | - | 10.39 | 2.12 |
| 156 | 19,033.1 | 14,961.7 | 23 | 66 | 2.73 | 78.81 | 79% | 1825 | - | 12.41 | 3.20 |
| 157 | 21,710.6 | 19,322.3 | 11 | 55 | 1.94 | 52.12 | 80% | 2580 | - | 7.83 | 0.92 |
| 158 | 23,078.7 | 21,600.2 | 5 | 57 | 1.78 | 54.87 | 100% | 3136 | 79 | 2.29 | -0.25 |
| 159 | 13,527.8 | 16,737.8 | 6 | 45 | 2.82 | 49.50 | 100% | 1236 | 802 | 7.66 | 1.11 |
| 160 | 14,199.2 | 14,165.7 | 6 | 28 | 2.63 | 40.10 | 100% | 1214 | 502 | 5.48 | -0.10 |
| 161 | 22,526.2 | 19,235.7 | 66 | 83 | 1.13 | 39.93 | 100% | 1791 | - | 11.34 | 0.42 |
| 162 | 19,476.0 | 17,960.2 | 13 | 91 | 3.63 | 58.19 | 100% | 2511 | 304 | 11.96 | 2.08 |
| 163 | 19,093.8 | 16,434.7 | 34 | 119 | 2.11 | 45.17 | 100% | 3511 | 237 | 8.83 | 1.38 |
| 164 | 11,045.0 | 11,761.0 | 13 | 126 | 1.87 | 58.65 | 100% | 2917 | 592 | 7.43 | 1.28 |
| 165 | 14,753.5 | 11,858.7 | 19 | 79 | 1.90 | 66.31 | 100% | 2124 | 159 | 15.14 | 1.94 |
| 166 | 18,596.0 | 16,810.2 | 6 | 72 | 2.63 | 63.24 | 100% | 1705 | 204 | 14.96 | 2.60 |
| 167 | 18,801.2 | 20,050.3 | 12 | 50 | 2.33 | 39.76 | 100% | 1446 | 930 | 8.47 | 0.40 |
| 168 | 19,781.4 | 16,413.0 | 43 | 80 | 1.57 | 43.40 | 100% | 1387 | 850 | 9.95 | 0.73 |
| 169 | 11,355.6 | 10,997.1 | 14 | 75 | 1.98 | 38.42 | 100% | 1895 | 0 | 5.61 | 0.48 |

| Panel ID | Habitat (300 cfs TA 0.50) | Habitat (1500 cfs) | Total redds (2011-2013) | Moving total of redds (4 panels) | SD of bed elevation (m) | SD of unit stream power (8,500 cfs) | Percent public ownership | Road length (feet) | Bedrock area | Topography (cubic feet × $10^6$) | Geomorphic potential (first principal component) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 170 | 15,244.2 | 13,965.1 | 39 | 108 | 1.91 | 63.12 | 100% | 1701 | - | 5.81 | 2.73 |
| 171 | 16,224.6 | 15,530.4 | 27 | 123 | 1.83 | 47.27 | 100% | 2211 | - | 10.79 | 0.38 |
| 172 | 16,301.6 | 16,401.6 | 17 | 97 | 1.89 | 43.43 | 100% | 1219 | 131 | 9.76 | 0.68 |
| 173 | 18,154.1 | 16,737.1 | 26 | 109 | 1.78 | 52.46 | 100% | 2366 | 2,377 | 10.52 | 0.73 |
| 174 | 19,099.5 | 14,090.5 | 33 | 103 | 1.55 | 46.96 | 100% | 2250 | - | 9.09 | 1.28 |
| 175 | 19,166.0 | 14,959.9 | 3 | 79 | 1.40 | 54.55 | 100% | 1663 | 193 | 11.13 | 2.70 |
| 176 | 21,300.2 | 21,619.2 | 22 | 84 | 3.32 | 38.95 | 100% | 3374 | 1,312 | 10.70 | 0.49 |
| 177 | 7,916.0 | 8,853.9 | 2 | 60 | 2.90 | 29.62 | 100% | 2773 | - | 10.62 | -0.22 |
| 178 | 11,118.1 | 9,424.2 | 51 | 78 | 1.79 | 36.96 | 100% | 3256 | - | 6.85 | -1.20 |
| 179 | 18,402.1 | 17,770.2 | 14 | 89 | 1.39 | 43.39 | 100% | 2717 | - | 4.55 | 0.06 |
| 180 | 16,040.3 | 15,483.0 | 7 | 74 | 1.61 | 34.69 | 100% | 1321 | - | 3.97 | -0.24 |
| 181 | 14,942.4 | 13,370.0 | 9 | 81 | 2.21 | 57.55 | 58% | 5067 | | 4.72 | 1.75 |
| 182 | 10,548.5 | 9,797.2 | 5 | 35 | 2.80 | 65.22 | 42% | 3638 | - | 4.93 | 3.08 |
| 183 | 19,850.7 | 21,233.9 | 12 | 33 | 3.48 | 41.42 | 63% | 10 | 17 | 7.74 | 0.00 |
| 184 | 19,465.3 | 17,185.3 | 37 | 63 | 2.22 | 41.81 | 50% | 1855 | - | 13.46 | 0.91 |
| 185 | 19,793.2 | 16,820.1 | 34 | 88 | 2.49 | 49.83 | 73% | 4339 | 7 | 8.34 | 1.41 |
| 186 | 16,662.9 | 15,307.0 | 17 | 100 | 2.42 | 92.42 | 100% | 2301 | 56 | 7.11 | 4.49 |
| 187 | 19,375.4 | 25,969.1 | 1 | 89 | 2.43 | 105.57 | 100% | 2221 | 102 | 7.64 | 6.94 |
| 188 | 12,983.6 | 11,129.5 | 23 | 75 | 2.36 | 63.57 | 100% | 2122 | 24 | 16.28 | 2.64 |
| 189 | 15,862.6 | 14,470.4 | 25 | 66 | 2.21 | 55.42 | 65% | 1455 | 69 | 22.30 | 1.36 |
| 190 | 11,596.8 | 12,413.8 | 38 | 87 | 1.50 | 66.30 | 8% | 2429 | - | 15.75 | 2.14 |
| 191 | 14,514.3 | 10,086.5 | 14 | 100 | 2.37 | 77.40 | 1% | 2073 | - | 9.08 | 1.79 |
| 192 | 12,382.9 | 11,453.4 | 50 | 127 | 5.72 | 97.53 | 0% | 2054 | 159 | 16.48 | 4.42 |
| 193 | 12,109.6 | 14,007.0 | 36 | 138 | 3.88 | 98.03 | 0% | 1832 | 1,995 | 15.86 | 4.24 |
| 194 | 10,857.2 | 9,998.2 | 50 | 150 | 2.49 | 81.34 | 0% | 3514 | 4,352 | 14.96 | 2.61 |
| 195 | 11,593.1 | 8,477.1 | 9 | 145 | 3.51 | 66.15 | 0% | 5524 | 2,991 | 13.70 | 2.05 |
| 196 | 9,173.3 | 9,881.7 | 31 | 126 | 3.75 | 48.89 | 0% | 3724 | 3,086 | 12.61 | 1.17 |
| 197 | 9,436.6 | 10,456.0 | 16 | 106 | 3.18 | 50.91 | 5% | 3568 | 244 | 19.03 | 1.65 |
| 198 | 12,335.7 | 10,819.8 | 49 | 105 | 3.11 | 44.43 | 87% | 1120 | 510 | 19.20 | 0.78 |
| 199 | 12,464.8 | 11,422.7 | 6 | 102 | 3.53 | 37.48 | 100% | | 2,345 | 21.96 | 0.32 |
| 200 | 14,360.8 | 13,663.6 | 113 | 184 | 2.23 | 38.12 | 100% | | 224 | 20.53 | 0.80 |
| 201 | 14,946.2 | 14,602.1 | 76 | 244 | 3.05 | 38.03 | 100% | | 14 | 22.50 | 0.93 |
| 202 | 11,316.9 | 9,658.2 | 92 | 287 | 3.71 | 53.09 | 100% | | 3,254 | 19.19 | 2.07 |
| 203 | 12,688.4 | 10,136.9 | 72 | 353 | 2.02 | 45.96 | 100% | | 36 | 17.16 | 0.12 |
| 204 | 12,425.0 | 9,513.5 | 23 | 263 | 1.98 | 31.48 | 100% | | 51 | 17.94 | 0.40 |
| 205 | 15,802.4 | 13,630.1 | 60 | 247 | 1.25 | 31.68 | 86% | | - | 15.28 | -0.20 |
| 206 | 15,698.2 | 16,927.1 | 28 | 183 | 2.59 | 37.53 | 72% | | 452 | 8.55 | -0.78 |
| 207 | 13,947.9 | 18,231.5 | 59 | 170 | 3.54 | 32.31 | 69% | | 264 | 10.19 | -0.40 |
| 208 | 10,048.2 | 8,988.1 | 32 | 179 | 1.63 | 53.60 | 60% | | - | 10.28 | 0.59 |
| 209 | 21,189.2 | 20,504.4 | 20 | 139 | 2.54 | 36.12 | 95% | | 225 | 9.64 | -0.80 |
| 210 | 14,641.2 | 16,310.4 | 20 | 131 | 1.63 | 48.86 | 93% | | - | 9.90 | 0.18 |
| 211 | 10,648.7 | 15,233.3 | 18 | 90 | 1.66 | 36.01 | 73% | | 8 | 6.08 | -1.17 |
| 212 | 11,282.2 | 14,770.9 | 22 | 80 | 1.86 | 31.41 | 79% | | - | 4.83 | -1.98 |

| Panel ID | Habitat (300 cfs TA 0.50) | Habitat (1500 cfs) | Total redds (2011-2013) | Moving total of redds (4 panels) | SD of bed elevation (m) | SD of unit stream power (8,500 cfs) | Percent public ownership | Road length (feet) | Bedrock area | Topography (cubic feet × $10^6$) | Geomorphic potential (first principal component) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 213 | 16,029.0 | 18,390.1 | 3 | 63 | 1.08 | 22.79 | 80% | | - | 4.69 | -1.52 |
| 214 | 20,407.8 | 21,093.1 | 132 | 175 | 1.09 | 32.91 | 81% | | - | 3.95 | -0.35 |
| 215 | 14,620.0 | 15,752.1 | 12 | 169 | 2.38 | 71.05 | 54% | | 14 | 8.32 | 1.08 |
| 216 | 24,487.1 | 24,060.9 | 79 | 226 | 1.25 | 48.47 | 58% | 111 | 125 | 7.20 | 0.82 |
| 217 | 15,504.0 | 19,949.4 | 21 | 244 | 1.56 | 23.53 | 55% | 1334 | - | 7.24 | -0.21 |
| 218 | 6,113.6 | 10,235.8 | 2 | 114 | 1.72 | 45.51 | 54% | 4659 | - | 3.73 | 0.12 |
| 219 | 8,989.4 | 15,424.2 | 33 | 135 | 1.55 | 32.20 | 47% | 5163 | - | 2.85 | -1.04 |
| 220 | 13,717.8 | 19,679.9 | 20 | 76 | 1.36 | 34.74 | 63% | 3785 | 262 | 2.97 | -1.50 |
| 221 | 29,257.2 | 29,333.8 | 57 | 112 | 0.78 | 36.29 | 100% | 1535 | 252 | 5.80 | -0.53 |
| 222 | 22,492.5 | 19,971.2 | 31 | 141 | 2.16 | 42.41 | 100% | 1925 | - | 5.43 | -0.58 |
| 223 | 22,530.9 | 20,347.3 | 34 | 142 | 0.77 | 26.69 | 99% | 3840 | - | 7.28 | -0.55 |
| 224 | 21,240.3 | 21,827.2 | 37 | 159 | 1.66 | 33.30 | 83% | 3300 | - | 10.39 | 0.54 |
| 225 | 18,585.4 | 17,695.0 | 30 | 132 | 1.90 | 29.90 | 99% | 1081 | - | 7.59 | -0.78 |
| 226 | 13,946.4 | 12,110.0 | 6 | 107 | 1.94 | 55.27 | 100% | 957 | - | 13.00 | 1.71 |
| 227 | 15,205.2 | 14,502.8 | 52 | 125 | 1.33 | 41.56 | 100% | 1262 | - | 14.98 | 0.06 |
| 228 | 13,112.3 | 9,672.3 | 4 | 92 | 2.32 | 35.51 | 73% | 909 | - | 17.80 | -0.29 |
| 229 | 21,310.7 | 18,958.9 | 7 | 69 | 2.29 | 31.97 | 63% | 1547 | - | 8.56 | -0.46 |
| 230 | 16,309.2 | 13,949.7 | 22 | 85 | 1.44 | 39.45 | 29% | 3963 | - | 4.77 | -0.28 |
| 231 | 14,492.5 | 13,044.3 | 15 | 48 | 1.07 | 41.25 | 55% | 4946 | - | 4.16 | -0.27 |
| 232 | 14,273.6 | 14,688.1 | 7 | 51 | 1.36 | 51.24 | 64% | 5239 | - | 4.02 | 0.77 |
| 233 | 15,073.8 | 14,164.3 | 104 | 148 | 1.45 | 34.77 | 97% | 453 | - | 4.35 | -0.46 |
| 234 | 11,721.8 | 12,393.6 | 25 | 151 | 1.65 | 38.91 | 94% | 301 | - | 3.95 | -0.74 |
| 235 | 18,141.7 | 17,559.6 | 67 | 203 | 1.10 | 26.21 | 86% | 515 | - | 5.86 | -1.76 |
| 236 | 11,019.4 | 10,009.6 | 70 | 266 | 2.03 | 32.32 | 49% | 925 | - | 13.41 | -0.89 |
| 237 | 18,926.4 | 18,488.6 | 7 | 169 | 1.91 | 41.46 | 68% | 3490 | - | 7.33 | 0.13 |
| 238 | 24,569.0 | 25,501.9 | 36 | 180 | 1.28 | 29.32 | 6% | 1783 | - | 10.04 | -0.93 |
| 239 | 19,056.0 | 18,194.1 | 31 | 144 | 2.46 | 37.40 | 0% | | - | 18.69 | -0.12 |
| 240 | 12,226.4 | 10,145.2 | 3 | 77 | 1.74 | 30.26 | 49% | 425 | - | 9.09 | -0.60 |
| 241 | 22,931.6 | 20,655.5 | 39 | 109 | 0.99 | 25.67 | 87% | 410 | - | 11.21 | -1.49 |
| 242 | 20,895.2 | 21,455.7 | 47 | 120 | 0.94 | 24.10 | 90% | 2898 | - | 5.15 | -1.62 |
| 243 | 25,430.4 | 26,582.3 | 135 | 224 | 1.05 | 26.47 | 100% | 1399 | - | 3.14 | -2.01 |
| 244 | 23,030.3 | 23,627.7 | 84 | 305 | 1.22 | 24.47 | 98% | 4153 | - | 3.55 | -1.63 |
| 245 | 35,045.8 | 34,477.3 | 106 | 372 | 2.68 | 38.77 | 89% | 5123 | - | 4.51 | -1.41 |
| 246 | 21,126.3 | 21,591.8 | 31 | 356 | 0.94 | 32.94 | 78% | 1590 | - | 4.30 | -1.10 |
| 247 | 18,976.7 | 18,383.3 | 17 | 238 | 1.22 | 26.82 | 60% | 2746 | - | 4.32 | -1.66 |
| 248 | 16,332.3 | 17,230.6 | 12 | 166 | 1.34 | 27.70 | 23% | 2360 | - | 2.92 | -1.52 |
| 249 | 29,965.7 | 31,403.2 | 27 | 87 | 2.25 | 39.92 | 56% | 5340 | - | 2.57 | -0.01 |
| 250 | 16,254.4 | 16,685.2 | 19 | 75 | 1.77 | 67.66 | 82% | 3872 | - | 4.90 | 2.03 |
| 251 | 21,165.6 | 19,028.5 | 80 | 138 | 1.67 | 45.87 | 66% | 3607 | - | 5.36 | 0.23 |
| 252 | 12,812.6 | 10,879.3 | 9 | 135 | 1.25 | 58.35 | 67% | 4754 | - | 6.57 | 1.31 |
| 253 | 17,082.1 | 15,275.9 | 15 | 123 | 2.78 | 53.66 | 46% | 5319 | 45 | 6.88 | 0.94 |
| 254 | 17,164.5 | 20,622.9 | 46 | 150 | 1.63 | 64.91 | 60% | 6547 | - | 6.17 | 1.65 |
| 255 | 18,326.9 | 20,119.3 | 56 | 126 | 2.59 | 37.88 | 36% | 2095 | - | 6.72 | 0.00 |

| Panel ID | Habitat (300 cfs TA 0.50) | Habitat (1500 cfs) | Total redds (2011-2013) | Moving total of redds (4 panels) | SD of bed elevation (m) | SD of unit stream power (8,500 cfs) | Percent public ownership | Road length (feet) | Bedrock area | Topography (cubic feet × $10^9$) | Geomorphic potential (first principal component) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 256 | 20,477.1 | 20,740.6 | 51 | 168 | 1.21 | 40.13 | 66% | 4077 | 245 | 7.74 | 0.48 |
| 257 | 10,665.8 | 8,895.2 | 7 | 160 | 3.45 | 50.22 | 74% | 4945 | 170 | 4.93 | 1.00 |
| 258 | 13,234.2 | 12,178.5 | 4 | 118 | 2.46 | 35.11 | 40% | 6311 | - | 5.38 | -0.40 |
| 259 | 31,470.4 | 31,755.2 | 99 | 161 | 2.77 | 31.08 | 6% | 6851 | - | 3.97 | -0.10 |
| 260 | 22,166.9 | 22,114.3 | 1 | 111 | 2.14 | 54.13 | 6% | 6615 | - | 5.13 | 2.33 |
| 261 | 18,658.5 | 16,853.2 | 7 | 111 | 1.06 | 46.32 | 2% | 6115 | - | 9.50 | 0.23 |
| 262 | 12,697.9 | 10,198.2 | - | 107 | 3.79 | 54.59 | 6% | 3903 | - | 9.17 | 0.59 |
| 263 | 23,570.4 | 23,477.7 | 9 | 17 | 1.60 | 69.12 | 9% | 3708 | - | 8.30 | 1.72 |
| 264 | 39,058.3 | 20,232.3 | 10 | 26 | 1.04 | 44.73 | 18% | 6641 | | 3.98 | -0.04 |
| 265 | 22,474.7 | 21,654.4 | 4 | 23 | 2.02 | 55.50 | 21% | 3261 | 439 | 10.36 | 1.31 |
| 266 | 18,268.9 | 18,420.5 | 2 | 25 | 1.46 | 71.09 | 34% | 2405 | 1,474 | 1.89 | -1.13 |
| 267 | 15,070.3 | 14,137.6 | - | 16 | 2.76 | 35.57 | 38% | 3153 | 1,083 | 7.37 | -0.41 |
| 268 | 29,950.6 | 28,491.6 | 34 | 40 | 0.91 | 34.67 | 28% | 5371 | 95 | 8.60 | -0.13 |
| 269 | 25,858.6 | 26,966.6 | 9 | 45 | 1.14 | 35.62 | 2% | 4034 | - | 4.13 | -0.48 |
| 270 | 18,442.1 | 18,477.9 | 12 | 55 | 1.55 | 31.28 | 0% | 4652 | - | 2.69 | -1.01 |
| 271 | 17,530.6 | 20,195.1 | 35 | 90 | 1.17 | 44.11 | 0% | 1341 | - | 6.90 | -0.88 |
| 272 | 18,567.2 | 19,220.4 | 9 | 65 | 1.70 | 49.03 | 6% | 2178 | - | 6.38 | 0.58 |
| 273 | 13,725.7 | 12,785.0 | - | 56 | 1.25 | 36.76 | 50% | 3163 | - | 5.03 | -0.46 |
| 274 | 15,549.0 | 14,811.6 | - | 44 | 2.80 | 75.66 | 11% | 1101 | | 4.75 | 1.21 |
| 275 | 10,560.6 | 10,325.4 | - | 9 | 2.57 | 73.36 | 29% | 4272 | | 6.37 | 2.56 |
| 276 | 10,160.6 | 10,069.5 | 8 | 8 | 2.59 | 38.94 | 96% | 2566 | - | 5.02 | 1.04 |
| 277 | 10,791.1 | 10,584.7 | 1 | 9 | 2.75 | 69.41 | 93% | 1726 | 345 | 8.98 | 0.99 |
| 278 | 28,776.8 | 27,471.0 | 24 | 33 | 0.99 | 39.96 | 76% | 1882 | 306 | 10.16 | -0.78 |
| 279 | 20,942.0 | 21,494.6 | 3 | 36 | 1.27 | 49.25 | 29% | 2141 | - | 4.65 | -0.02 |
| 280 | 14,461.0 | 13,600.4 | 3 | 31 | 1.53 | 58.66 | 5% | 2542 | | 5.57 | 0.94 |
| 281 | 21,747.0 | 21,816.2 | 22 | 52 | 1.27 | 60.09 | 0% | 3997 | - | 5.70 | -0.71 |
| 282 | 16,625.6 | 15,665.9 | - | 28 | 2.66 | 65.55 | 14% | | 571 | 12.89 | 1.62 |
| 283 | 22,460.0 | 22,192.3 | 3 | 28 | 1.46 | 40.37 | 39% | 2188 | - | 2.89 | 0.75 |
| 284 | 12,421.2 | 12,068.3 | - | 25 | 2.06 | 91.30 | 28% | 4432 | - | 8.00 | 2.58 |
| 285 | 22,687.5 | 21,815.6 | 4 | 7 | 1.74 | 42.57 | 42% | 3503 | - | 17.63 | -0.09 |
| 286 | 24,573.7 | 22,639.5 | 54 | 61 | 0.90 | 38.40 | 29% | 5183 | - | 8.06 | -0.88 |
| 287 | 18,744.5 | 16,027.2 | 18 | 76 | 1.42 | 39.12 | 36% | 2927 | - | 12.86 | -0.51 |
| 288 | 33,422.7 | 31,791.1 | 31 | 107 | 2.20 | 34.87 | 24% | 3038 | - | 5.01 | -0.82 |
| 289 | 32,147.5 | 30,083.7 | 37 | 140 | 3.54 | 48.05 | 8% | 2110 | - | 4.21 | 0.51 |
| 290 | 20,136.1 | 17,308.3 | - | 86 | 1.22 | 22.81 | 2% | 4340 | - | 4.26 | -1.51 |
| 291 | 22,643.5 | 27,477.6 | 2 | 70 | 1.82 | 30.33 | 0% | 4537 | - | 3.70 | -0.01 |
| 292 | 3,393.6 | 4,965.3 | - | 39 | 2.35 | 54.11 | 0% | 9246 | - | 6.82 | 0.61 |
| 293 | 17,976.9 | 20,331.7 | 4 | 6 | 1.43 | 42.16 | 7% | 6433 | | 5.27 | -0.24 |
| 294 | 25,432.7 | 27,507.4 | 28 | 34 | 1.21 | 25.18 | 1% | 5204 | | 4.26 | -0.45 |
| 295 | 24,928.2 | 24,529.7 | 5 | 37 | 1.58 | 31.93 | 3% | 4860 | | 3.78 | -0.62 |
| 296 | 18,473.4 | 16,613.2 | - | 37 | 1.62 | 32.95 | 0% | 3812 | | 3.77 | -0.33 |
| 297 | 23,867.0 | 24,974.4 | 28 | 61 | 1.03 | 39.39 | 6% | 2322 | - | 2.74 | -0.45 |
| 298 | 18,329.6 | 17,846.9 | 72 | 105 | 3.00 | 39.36 | 38% | 2998 | - | 9.74 | 0.51 |

| Panel ID | Habitat (300 cfs TA 0.50) | Habitat (1500 cfs) | Total redds (2011-2013) | Moving total of redds (4 panels) | SD of bed elevation (m) | SD of unit stream power (8,500 cfs) | Percent public ownership | Road length (feet) | Bedrock area | Topography (cubic feet × $10^6$) | Geomorphic potential (first principal component) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 299 | 18,315.3 | 18,063.7 | 18 | 118 | 1.57 | 65.35 | 0% | 1997 | - | 11.35 | 1.44 |
| 300 | 15,460.4 | 15,228.6 | 1 | 119 | 3.24 | 58.65 | 30% | 1687 | - | 18.38 | 0.95 |
| 301 | 15,527.9 | 15,245.7 | 1 | 92 | 2.79 | 47.46 | 2% | 2405 | - | 5.52 | 2.33 |
| 302 | 20,372.9 | 23,686.1 | 11 | 31 | 2.83 | 53.84 | 4% | 1545 | - | 3.70 | 1.47 |
| 303 | 25,120.3 | 26,393.4 | 3 | 16 | 2.01 | 45.42 | 0% | 3198 | 727 | 7.51 | 0.73 |
| 304 | 12,621.6 | 12,023.2 | 2 | 17 | 1.95 | 84.75 | 3% | 1585 | - | 16.59 | 2.49 |
| 305 | 17,560.4 | 16,562.8 | 3 | 19 | 1.52 | 53.94 | 24% | 2029 | - | 13.45 | 0.85 |
| 306 | 11,662.4 | 9,693.8 | 8 | 16 | 2.22 | 50.72 | 57% | 2275 | - | 14.53 | 1.46 |
| 307 | 12,887.9 | 13,584.4 | 4 | 17 | 1.31 | 30.56 | 56% | 4440 | - | 8.05 | -0.51 |
| 308 | 16,526.9 | 15,372.3 | - | 15 | 1.81 | 27.80 | 67% | 1887 | 21 | 13.40 | -0.67 |
| 309 | 15,736.4 | 12,881.3 | 1 | 13 | 1.41 | 30.30 | 100% | 1399 | - | 16.25 | -0.08 |
| 310 | 18,989.6 | 17,307.6 | 26 | 31 | 1.42 | 37.69 | 100% | 1103 | 49 | 10.52 | 0.80 |
| 311 | 20,220.0 | 16,905.0 | 46 | 73 | 1.51 | 25.57 | 100% | 1353 | - | 12.55 | -1.16 |
| 312 | 15,381.8 | 13,649.7 | 67 | 140 | 3.99 | 37.96 | 100% | 1464 | 79 | 12.34 | -0.74 |
| 313 | 9,985.4 | 9,502.3 | 1 | 140 | 2.58 | 37.99 | 100% | 1334 | 370 | 11.06 | 2.03 |
| 314 | 9,992.5 | 8,384.2 | - | 114 | 2.59 | 47.25 | 100% | 1410 | - | 8.78 | 0.19 |
| 315 | 11,723.4 | 12,352.5 | 7 | 75 | 3.01 | 32.62 | 100% | 1460 | - | 16.45 | 0.64 |
| 316 | 10,349.7 | 8,360.5 | 3 | 11 | 1.85 | 19.39 | 100% | 1358 | - | 16.64 | -1.44 |
| 317 | 19,117.1 | 16,626.0 | 83 | 93 | 1.68 | 17.52 | 100% | 2583 | - | 16.79 | -1.39 |
| 318 | 17,159.8 | 13,959.1 | - | 93 | 1.57 | 20.14 | 100% | 4445 | - | 7.34 | -1.14 |

# APPENDIX C – RANKS USED FOR LOGIC MODEL BY PANEL

| Panel ID | ESL Name | Habitat (300 cfs TA 0.50) rank | Habitat (1500 cfs) rank | Total redds (2011-2013) rank | SD of bed elevation (m) rank | SD of unit stream power (8,500 cfs) rank | Score | Score | Cluster ID |
|---|---|---|---|---|---|---|---|---|---|
| 0 | Hatchery | 76 | 126 | 67 | 319 | 311 | 622 | 52% | 1 |
| 1 | Hatchery | 203 | 160 | 19 | 52 | 307 | 663 | 56% | 1 |
| 2 | Hatchery | 246 | 228 | 4 | 66 | 248 | 758 | 64% | 2 |
| 3 | Hatchery | 262 | 251 | 3 | 30 | 250 | 787 | 66% | 2 |
| 4 | Hatchery | 302 | 309 | 2 | 56 | 217 | 901 | 76% | 3 |
| 5 | Sven Olbertson | 273 | 311 | 1 | 219 | 85 | 874 | 73% | 3 |
| 6 | Sven Olbertson | 237 | 224 | 5 | 246 | 209 | 812 | 68% | 3 |
| 7 | Sven Olbertson | 252 | 308 | 6 | 200 | 303 | 944 | 79% | 3 |
| 8 | Below Sven Olbertson | 306 | 300 | 9 | 268 | 319 | 1062 | 89% | 3 |
| 9 | Below Sven Olbertson | 132 | 166 | 15 | 296 | 317 | 686 | 58% | 4 |
| 10 | Deadwood Creek | 295 | 306 | 14 | 105 | 286 | 958 | 81% | 5 |
| 11 | Deadwood Creek | 210 | 252 | 12 | 286 | 207 | 826 | 69% | 5 |
| 12 | Cableway | 225 | 262 | 13 | 202 | 77 | 752 | 63% | 5 |
| 13 | Cableway | 281 | 313 | 7 | 115 | 96 | 847 | 71% | 5 |
| 14 | Cableway | 13 | 302 | 8 | 196 | 64 | 460 | 39% | 6 |
| 15 | Cableway | 133 | 195 | 11 | 126 | 138 | 538 | 45% | 6 |
| 16 | Hoadly Gulch | 284 | 271 | 10 | 25 | 222 | 831 | 70% | 7 |
| 17 | Hoadly Gulch | 127 | 230 | 16 | 239 | 173 | 643 | 54% | 8 |
| 18 | Hoadly Gulch | 274 | 161 | 20 | 291 | 72 | 774 | 65% | 9 |
| 19 | Sawmill | 316 | 278 | 17 | 129 | 55 | 861 | 72% | 10 |
| 20 | Sawmill | 296 | 310 | 18 | 17 | 216 | 889 | 75% | 10 |
| 21 | Sawmill | 79 | 171 | 25 | 236 | 239 | 552 | 46% | 11 |
| 22 | Sawmill | 118 | 220 | 24 | 267 | 22 | 566 | 48% | 11 |
| 23 | Sawmill | 318 | 318 | 44 | 131 | 284 | 1047 | 88% | 12 |
| 24 | Sawmill | 319 | 317 | 41 | 53 | 164 | 945 | 79% | 12 |
| 25 | Sawmill | 275 | 279 | 36 | 232 | 163 | 925 | 78% | 12 |
| 26 | Sawmill | 287 | 190 | 31 | 206 | 75 | 792 | 67% | 13 |
| 27 | Upper Rush Creek | 312 | 287 | 30 | 27 | 4 | 801 | 67% | 13 |
| 28 | Upper Rush Creek | 250 | 264 | 33 | 78 | 249 | 836 | 70% | 13 |
| 29 | Upper Rush Creek | 174 | 81 | 29 | 86 | 198 | 513 | 43% | 14 |
| 30 | Upper Rush Creek | 160 | 296 | 27 | 99 | 111 | 668 | 56% | 15 |
| 31 | Upper Rush Creek | 300 | 292 | 40 | 243 | 146 | 977 | 82% | 16 |
| 32 | Upper Rush Creek | 308 | 277 | 50 | 204 | 2 | 892 | 75% | 16 |
| 33 | Upper Rush Creek | 317 | 314 | 76 | 222 | 1 | 977 | 82% | 16 |
| 34 | Upper Rush Creek | 303 | 274 | 115 | 43 | 313 | 1022 | 86% | 16 |
| 35 | Lower Rush Creek | 196 | 289 | 74 | 72 | 202 | 794 | 67% | 16 |
| 36 | Lower Rush Creek | 264 | 282 | 111 | 113 | 308 | 1000 | 84% | 16 |
| 37 | Lower Rush Creek | 269 | 285 | 66 | 64 | 108 | 841 | 71% | 16 |
| 38 | Lower Rush Creek | 282 | 303 | 60 | 234 | 297 | 1052 | 88% | 16 |
| 39 | Lower Rush Creek | 97 | 147 | 112 | 98 | 246 | 577 | 48% | 17 |
| 40 | Lower Rush Creek | 126 | 151 | 106 | 134 | 279 | 653 | 55% | 17 |

| Panel ID | ESL Name | Habitat (300 cfs TA 0.50) rank | Habitat (1500 cfs) rank | Total redds (2011-2013) rank | SD of bed elevation (m) rank | SD of unit stream power (8,500 cfs) rank | Score | Score | Cluster ID |
|---|---|---|---|---|---|---|---|---|---|
| 41 | Dark Gulch | 301 | 307 | 153 | 75 | 186 | 1042 | 88% | 18 |
| 42 | Dark Gulch | 245 | 315 | 263 | 90 | 70 | 1026 | 86% | 18 |
| 43 | Dark Gulch | 98 | 319 | 186 | 61 | 295 | 830 | 70% | 18 |
| 44 | Dark Gulch | 289 | 305 | 158 | 185 | 8 | 993 | 83% | 18 |
| 45 | Dark Gulch | 244 | 105 | 202 | 278 | 122 | 873 | 73% | 18 |
| 46 | Dark Gulch | 283 | 304 | 68 | 15 | 38 | 823 | 69% | 19 |
| 47 | Dark Gulch | 197 | 263 | 102 | 192 | 73 | 793 | 67% | 19 |
| 48 | Dark Gulch | 60 | 245 | 119 | 62 | 223 | 597 | 50% | 20 |
| 49 | Dark Gulch | 52 | 164 | 123 | 136 | 62 | 464 | 39% | 20 |
| 50 | Dark Gulch | 109 | 106 | 284 | 252 | 107 | 733 | 62% | 21 |
| 51 | Dark Gulch | 70 | 11 | 297 | 288 | 214 | 664 | 56% | 22 |
| 52 | Dark Gulch | 139 | 136 | 266 | 237 | 181 | 820 | 69% | 23 |
| 53 | Dark Gulch | 89 | 178 | 175 | 198 | 261 | 716 | 60% | 24 |
| 54 | Below Dark Gulch (Bucktail Hole) | 146 | 185 | 180 | 313 | 296 | 889 | 75% | 25 |
| 55 | Lowden Ranch | 41 | 56 | 215 | 221 | 243 | 565 | 47% | 26 |
| 56 | Lowden Ranch | 91 | 208 | 251 | 156 | 208 | 778 | 65% | 27 |
| 57 | Lowden Ranch | 314 | 316 | 293 | 213 | 6 | 1190 | 100% | 28 |
| 58 | Lowden Ranch | 137 | 193 | 264 | 139 | 220 | 842 | 71% | 28 |
| 59 | Lowden Ranch | 277 | 248 | 103 | 82 | 45 | 830 | 70% | 28 |
| 60 | Lowden Ranch | 261 | 268 | 85 | 301 | 94 | 942 | 79% | 28 |
| 61 | Lowden Ranch | 192 | 215 | 79 | 307 | 291 | 881 | 74% | 28 |
| 62 | Lowden Ranch | 256 | 301 | 80 | 71 | 194 | 898 | 75% | 28 |
| 63 | Trinity House Gulch | 81 | 140 | 203 | 177 | 37 | 572 | 48% | 29 |
| 64 | Trinity House Gulch | 47 | 97 | 172 | 42 | 277 | 499 | 42% | 29 |
| 65 | Trinity House Gulch | 122 | 155 | 187 | 57 | 224 | 666 | 56% | 29 |
| 66 | Tom Lang Gulch | 17 | 6 | 234 | 281 | 262 | 537 | 45% | 29 |
| 67 | Tom Lang Gulch | 165 | 104 | 243 | 178 | 192 | 780 | 66% | 30 |
| 68 | Tom Lang Gulch | 186 | 226 | 229 | 4 | 244 | 858 | 72% | 30 |
| 69 | Tom Lang Gulch | 75 | 88 | 238 | 119 | 258 | 627 | 53% | 31 |
| 70 | Tom Lang Gulch | 171 | 127 | 132 | 19 | 52 | 551 | 46% | 31 |
| 71 | Tom Lang Gulch | 65 | 102 | 72 | 157 | 225 | 463 | 39% | 31 |
| 72 | Tom Lang Gulch | 188 | 75 | 82 | 205 | 82 | 583 | 49% | 31 |
| 73 | Below Tom Lang Gulch | 267 | 197 | 47 | 67 | 21 | 689 | 58% | 32 |
| 74 | Poker Bar | 276 | 260 | 83 | 199 | 31 | 872 | 73% | 33 |
| 75 | Poker Bar | 294 | 290 | 90 | 242 | 9 | 947 | 80% | 33 |
| 76 | Poker Bar | 236 | 234 | 92 | 316 | 182 | 929 | 78% | 33 |
| 77 | Poker Bar | 179 | 116 | 98 | 317 | 36 | 659 | 55% | 34 |
| 78 | Poker Bar | 206 | 242 | 86 | 290 | 42 | 803 | 68% | 35 |
| 79 | Poker Bar | 116 | 70 | 122 | 44 | 235 | 506 | 42% | 36 |
| 80 | Poker Bar | 125 | 92 | 146 | 137 | 292 | 640 | 54% | 37 |
| 81 | Poker Bar | 123 | 85 | 224 | 68 | 310 | 683 | 57% | 37 |
| 82 | Poker Bar | 178 | 46 | 252 | 263 | 318 | 856 | 72% | 37 |
| 83 | Poker Bar | 299 | 238 | 272 | 298 | 13 | 1114 | 94% | 38 |

| Panel ID | ESL Name | Habitat (300 cfs TA 0.50) rank | Habitat (1500 cfs) rank | Total redds (2011-2013) rank | SD of bed elevation (m) rank | SD of unit stream power (8,500 cfs) rank | Score | Score | Cluster ID |
|---|---|---|---|---|---|---|---|---|---|
| 84 | Poker Bar | 307 | 312 | 189 | 143 | 95 | 1081 | 91% | 38 |
| 85 | China Gulch | 221 | 205 | 176 | 210 | 263 | 949 | 80% | 38 |
| 86 | China Gulch | 11 | 40 | 181 | 140 | 234 | 425 | 36% | 39 |
| 87 | China Gulch | 80 | 108 | 177 | 194 | 266 | 635 | 53% | 40 |
| 88 | China Gulch | 131 | 131 | 162 | 183 | 273 | 718 | 60% | 40 |
| 89 | China Gulch | 176 | 179 | 209 | 255 | 298 | 929 | 78% | 41 |
| 90 | Below China Gulch | 233 | 291 | 127 | 146 | 170 | 926 | 78% | 41 |
| 91 | Below China Gulch | 290 | 299 | 75 | 109 | 60 | 894 | 75% | 41 |
| 92 | Below China Gulch | 219 | 281 | 126 | 54 | 118 | 822 | 69% | 41 |
| 93 | Limekiln Gulch | 204 | 218 | 95 | 207 | 39 | 742 | 62% | 41 |
| 94 | Limekiln Gulch | 279 | 275 | 104 | 73 | 54 | 861 | 72% | 41 |
| 95 | Limekiln Gulch | 293 | 298 | 137 | 6 | 156 | 956 | 80% | 41 |
| 96 | Limekiln Gulch | 205 | 227 | 128 | 127 | 43 | 748 | 63% | 42 |
| 97 | Limekiln Gulch | 94 | 192 | 167 | 120 | 158 | 639 | 54% | 43 |
| 98 | Limekiln Gulch | 310 | 294 | 204 | 3 | 86 | 1008 | 85% | 44 |
| 99 | Limekiln Gulch | 191 | 237 | 254 | 218 | 199 | 986 | 83% | 44 |
| 100 | Limekiln Gulch | 104 | 129 | 265 | 225 | 151 | 738 | 62% | 44 |
| 101 | Below Limekiln Gulch | 162 | 173 | 267 | 186 | 204 | 878 | 74% | 44 |
| 102 | Below Limekiln Gulch | 239 | 247 | 239 | 285 | 93 | 1034 | 87% | 44 |
| 103 | Below Limekiln Gulch | 195 | 199 | 62 | 33 | 65 | 603 | 51% | 45 |
| 104 | Below Limekiln Gulch | 88 | 113 | 51 | 190 | 197 | 490 | 41% | 45 |
| 105 | Steel Bridge Road Day Use | 220 | 229 | 46 | 195 | 128 | 767 | 64% | 46 |
| 106 | Steel Bridge Road Day Use | 227 | 187 | 59 | 310 | 129 | 806 | 68% | 46 |
| 107 | Steel Bridge Road Day Use | 304 | 293 | 212 | 170 | 102 | 1097 | 92% | 47 |
| 108 | Steel Bridge Road Day Use | 260 | 213 | 144 | 65 | 78 | 819 | 69% | 48 |
| 109 | Steel Bridge Road Day Use | 108 | 134 | 150 | 299 | 283 | 737 | 62% | 48 |
| 110 | Below Steel Bridge | 119 | 243 | 135 | 309 | 264 | 843 | 71% | 49 |
| 111 | Below Steel Bridge | 4 | 64 | 155 | 171 | 169 | 395 | 33% | 50 |
| 112 | Below Steel Bridge | 30 | 53 | 277 | 167 | 176 | 547 | 46% | 50 |
| 113 | Below Steel Bridge | 134 | 150 | 242 | 28 | 190 | 702 | 59% | 51 |
| 114 | McIntyre Gulch | 82 | 65 | 221 | 116 | 270 | 602 | 51% | 52 |
| 115 | McIntyre Gulch | 255 | 255 | 198 | 117 | 125 | 957 | 80% | 53 |
| 116 | McIntyre Gulch | 224 | 249 | 225 | 26 | 83 | 865 | 73% | 53 |
| 117 | McIntyre Gulch | 190 | 194 | 233 | 32 | 149 | 803 | 67% | 54 |
| 118 | McIntyre Gulch | 85 | 141 | 268 | 83 | 174 | 665 | 56% | 55 |
| 119 | McIntyre Gulch | 218 | 240 | 205 | 292 | 112 | 974 | 82% | 56 |
| 120 | McIntyre Gulch | 202 | 272 | 206 | 247 | 15 | 912 | 77% | 56 |
| 121 | Indian Creek (Vitzthum Gulch) | 140 | 259 | 196 | 241 | 29 | 800 | 67% | 57 |
| 122 | Indian Creek (Vitzthum Gulch) | 101 | 135 | 183 | 161 | 165 | 633 | 53% | 58 |
| 123 | Indian Creek (Vitzthum Gulch) | 112 | 94 | 259 | 264 | 76 | 691 | 58% | 59 |
| 124 | Indian Creek (Vitzthum Gulch) | 143 | 83 | 159 | 214 | 40 | 584 | 49% | 60 |
| 125 | Indian Creek (Vitzthum Gulch) | 73 | 32 | 160 | 180 | 100 | 442 | 37% | 60 |
| 126 | Indian Creek (Vitzthum Gulch) | 45 | 20 | 168 | 184 | 245 | 470 | 40% | 60 |

| Panel ID | ESL Name | Habitat (300 cfs TA 0.50) rank | Habitat (1500 cfs) rank | Total redds (2011-2013) rank | SD of bed elevation (m) rank | SD of unit stream power (8,500 cfs) rank | Score | Score | Cluster ID |
|---|---|---|---|---|---|---|---|---|---|
| 127 | Indian Creek (Vitzthum Gulch) | 5 | 2 | 163 | 251 | 147 | 372 | 31% | 60 |
| 128 | Indian Creek (Vitzthum Gulch) | 56 | 38 | 256 | 165 | 116 | 519 | 44% | 60 |
| 129 | Indian Creek (Vitzthum Gulch) | 280 | 288 | 138 | 163 | 103 | 979 | 82% | 61 |
| 130 | Indian Creek (Vitzthum Gulch) | 158 | 200 | 139 | 141 | 11 | 652 | 55% | 62 |
| 131 | Indian Creek | 207 | 223 | 140 | 223 | 14 | 792 | 67% | 63 |
| 132 | Indian Creek | 242 | 212 | 99 | 235 | 3 | 793 | 67% | 63 |
| 133 | Indian Creek | 249 | 44 | 244 | 294 | 305 | 961 | 81% | 64 |
| 134 | Indian Creek | 278 | 239 | 149 | 149 | 229 | 994 | 84% | 64 |
| 135 | Indian Creek | 217 | 158 | 151 | 248 | 272 | 895 | 75% | 64 |
| 136 | Indian Creek | 253 | 216 | 199 | 144 | 219 | 976 | 82% | 64 |
| 137 | Indian Creek | 105 | 256 | 190 | 154 | 98 | 730 | 61% | 64 |
| 138 | Indian Creek | 180 | 283 | 248 | 59 | 41 | 851 | 72% | 64 |
| 139 | Indian Creek | 182 | 146 | 257 | 121 | 193 | 833 | 70% | 64 |
| 140 | Indian Creek | 285 | 269 | 269 | 35 | 47 | 1007 | 85% | 64 |
| 141 | Indian Creek | 254 | 221 | 255 | 95 | 148 | 979 | 82% | 64 |
| 142 | Indian Creek (Upper Douglas City) | 266 | 222 | 230 | 92 | 26 | 910 | 77% | 64 |
| 143 | Indian Creek (Upper Douglas City) | 268 | 231 | 195 | 13 | 16 | 843 | 71% | 64 |
| 144 | Indian Creek (Upper Douglas City) | 248 | 219 | 164 | 10 | 56 | 788 | 66% | 65 |
| 145 | Indian Creek (Upper Douglas City) | 315 | 172 | 193 | 49 | 177 | 951 | 80% | 66 |
| 146 | Douglas City | 311 | 233 | 245 | 36 | 265 | 1095 | 92% | 66 |
| 147 | Douglas City | 138 | 78 | 232 | 96 | 290 | 710 | 60% | 67 |
| 148 | Douglas City | 20 | 3 | 282 | 103 | 5 | 369 | 31% | 68 |
| 149 | Douglas City | 185 | 145 | 270 | 87 | 289 | 881 | 74% | 69 |
| 150 | Reading Creek | 142 | 295 | 280 | 172 | 259 | 1004 | 84% | 69 |
| 151 | Reading Creek | 9 | 41 | 276 | 208 | 247 | 558 | 47% | 70 |
| 152 | Reading Creek | 154 | 169 | 235 | 110 | 161 | 771 | 65% | 71 |
| 153 | Reading Creek | 124 | 162 | 226 | 128 | 157 | 717 | 60% | 72 |
| 154 | Reading Creek | 169 | 159 | 227 | 228 | 269 | 888 | 75% | 73 |
| 155 | Reading Creek | 243 | 254 | 240 | 112 | 260 | 1045 | 88% | 73 |
| 156 | Reading Creek | 168 | 87 | 236 | 269 | 302 | 861 | 72% | 73 |
| 157 | Reading Creek | 222 | 170 | 261 | 175 | 218 | 961 | 81% | 73 |
| 158 | Reading Creek | 241 | 204 | 258 | 151 | 238 | 1018 | 86% | 73 |
| 159 | Reading Creek | 57 | 120 | 278 | 277 | 206 | 725 | 61% | 74 |
| 160 | Reading Creek | 63 | 74 | 298 | 261 | 143 | 669 | 56% | 75 |
| 161 | Upper Steiner Flat | 231 | 168 | 194 | 29 | 141 | 794 | 67% | 76 |
| 162 | Upper Steiner Flat | 184 | 143 | 171 | 306 | 252 | 869 | 73% | 76 |
| 163 | Upper Steiner Flat | 172 | 112 | 117 | 197 | 178 | 675 | 57% | 77 |
| 164 | Middle Steiner Flat | 26 | 42 | 107 | 164 | 254 | 397 | 33% | 78 |
| 165 | Middle Steiner Flat | 74 | 43 | 207 | 168 | 282 | 586 | 49% | 78 |
| 166 | Middle Steiner Flat | 157 | 121 | 223 | 262 | 268 | 845 | 71% | 79 |
| 167 | Middle Steiner Flat | 163 | 177 | 274 | 227 | 139 | 879 | 74% | 79 |
| 168 | Lower Steiner Flat (not built) | 187 | 111 | 200 | 106 | 167 | 728 | 61% | 80 |
| 169 | Lower Steiner Flat (not built) | 31 | 35 | 216 | 181 | 127 | 452 | 38% | 81 |

| Panel ID | ESL Name | Habitat (300 cfs TA 0.50) rank | Habitat (1500 cfs) rank | Total redds (2011-2013) rank | SD of bed elevation (m) rank | SD of unit stream power (8,500 cfs) rank | Score | Score | Cluster ID |
|---|---|---|---|---|---|---|---|---|---|
| 170 | Lower Steiner Flat (not built) | 87 | 68 | 136 | 173 | 267 | 555 | 47% | 81 |
| 171 | Lower Steiner Flat (not built) | 110 | 100 | 113 | 159 | 189 | 552 | 46% | 81 |
| 172 | Lower Steiner Flat (not built) | 113 | 110 | 161 | 166 | 168 | 608 | 51% | 81 |
| 173 | Lower Steiner Flat (built) | 145 | 119 | 133 | 152 | 221 | 656 | 55% | 81 |
| 174 | Lower Steiner Flat (built) | 173 | 71 | 152 | 100 | 187 | 626 | 53% | 81 |
| 175 | Lower Steiner Flat (built) | 177 | 86 | 208 | 76 | 236 | 716 | 60% | 82 |
| 176 | Lower Steiner Flat (built) | 215 | 206 | 192 | 295 | 133 | 935 | 79% | 83 |
| 177 | Lorenz Gulch | 3 | 8 | 253 | 280 | 46 | 429 | 36% | 84 |
| 178 | Lorenz Gulch | 27 | 12 | 210 | 153 | 110 | 394 | 33% | 84 |
| 179 | Lorenz Gulch | 151 | 139 | 178 | 74 | 166 | 664 | 56% | 85 |
| 180 | Lorenz Gulch | 107 | 99 | 220 | 118 | 88 | 583 | 49% | 86 |
| 181 | Lorenz Gulch | 77 | 58 | 197 | 211 | 251 | 602 | 51% | 86 |
| 182 | Lorenz Gulch | 18 | 18 | 289 | 275 | 275 | 609 | 51% | 86 |
| 183 | Lorenz Gulch | 193 | 198 | 291 | 300 | 152 | 1005 | 84% | 87 |
| 184 | Below Lorenz (the canyon) | 183 | 128 | 246 | 215 | 155 | 834 | 70% | 87 |
| 185 | Below Lorenz (the canyon) | 189 | 122 | 182 | 249 | 210 | 817 | 69% | 87 |
| 186 | Below Lorenz (the canyon) | 121 | 95 | 156 | 238 | 312 | 708 | 59% | 88 |
| 187 | Below Lorenz (the canyon) | 181 | 253 | 179 | 240 | 316 | 982 | 83% | 89 |
| 188 | Below Lorenz (the canyon) | 53 | 36 | 217 | 230 | 271 | 583 | 49% | 90 |
| 189 | Below Lorenz (the canyon) | 103 | 76 | 237 | 212 | 241 | 694 | 58% | 91 |
| 190 | Below Lorenz (the canyon) | 33 | 52 | 184 | 91 | 281 | 472 | 40% | 92 |
| 191 | Below Lorenz (the canyon) | 69 | 24 | 157 | 231 | 301 | 551 | 46% | 92 |
| 192 | Below Lorenz (the canyon) | 40 | 39 | 105 | 318 | 314 | 520 | 44% | 92 |
| 193 | Below Lorenz (the canyon) | 37 | 69 | 93 | 314 | 315 | 532 | 45% | 92 |
| 194 | Below Lorenz (the canyon) | 24 | 21 | 70 | 250 | 304 | 404 | 34% | 92 |
| 195 | Below Lorenz (the canyon) | 32 | 7 | 77 | 302 | 280 | 423 | 36% | 92 |
| 196 | Below Lorenz (the canyon) | 7 | 19 | 108 | 311 | 201 | 394 | 33% | 92 |
| 197 | Below Lorenz (the canyon) | 8 | 30 | 145 | 289 | 213 | 438 | 37% | 92 |
| 198 | Below Lorenz (the canyon) | 39 | 33 | 147 | 287 | 172 | 468 | 39% | 92 |
| 199 | Below Lorenz (the canyon) | 44 | 37 | 154 | 303 | 114 | 466 | 39% | 92 |
| 200 | Below Lorenz (the canyon) | 66 | 63 | 48 | 217 | 124 | 381 | 32% | 92 |
| 201 | Below Lorenz (the canyon) | 78 | 79 | 37 | 284 | 123 | 437 | 37% | 92 |
| 202 | Below Lorenz (the canyon) | 29 | 15 | 28 | 308 | 226 | 354 | 30% | 92 |
| 203 | Below Lorenz (the canyon) | 48 | 25 | 23 | 188 | 184 | 306 | 26% | 92 |
| 204 | Below Lorenz (the canyon) | 43 | 14 | 34 | 182 | 61 | 234 | 20% | 92 |
| 205 | Below Lorenz (the canyon) | 102 | 61 | 35 | 45 | 63 | 303 | 25% | 92 |
| 206 | Dutch Creek | 99 | 125 | 49 | 257 | 115 | 509 | 43% | 92 |
| 207 | Dutch Creek | 62 | 149 | 55 | 304 | 69 | 484 | 41% | 92 |
| 208 | Dutch Creek | 14 | 10 | 53 | 123 | 227 | 259 | 22% | 92 |
| 209 | Dutch Creek | 213 | 186 | 91 | 253 | 105 | 776 | 65% | 93 |
| 210 | Dutch Creek | 72 | 109 | 101 | 124 | 200 | 480 | 40% | 94 |
| 211 | Dutch Creek | 21 | 90 | 173 | 132 | 104 | 413 | 35% | 94 |
| 212 | Dutch Creek | 28 | 82 | 201 | 162 | 59 | 436 | 37% | 94 |

| Panel ID | ESL Name | Habitat (300 cfs TA 0.50) rank | Habitat (1500 cfs) rank | Total redds (2011-2013) rank | SD of bed elevation (m) rank | SD of unit stream power (8,500 cfs) rank | Score | Score | Cluster ID |
|---|---|---|---|---|---|---|---|---|---|
| 213 | Dutch Creek | 106 | 153 | 247 | 22 | 17 | 579 | 49% | 94 |
| 214 | Dutch Creek | 200 | 196 | 54 | 23 | 79 | 601 | 51% | 94 |
| 215 | Dutch Creek | 71 | 103 | 56 | 233 | 293 | 529 | 44% | 94 |
| 216 | Dutch Creek | 257 | 241 | 42 | 46 | 196 | 790 | 66% | 95 |
| 217 | Dutch Creek | 93 | 175 | 38 | 104 | 19 | 414 | 35% | 96 |
| 218 | Evans Bar | 2 | 28 | 124 | 145 | 180 | 318 | 27% | 96 |
| 219 | Evans Bar | 6 | 98 | 96 | 101 | 68 | 288 | 24% | 96 |
| 220 | Evans Bar | 58 | 174 | 213 | 69 | 89 | 553 | 46% | 97 |
| 221 | Evans Bar | 288 | 273 | 129 | 2 | 106 | 888 | 75% | 98 |
| 222 | Evans Bar | 230 | 176 | 84 | 203 | 160 | 787 | 66% | 99 |
| 223 | Evans Bar | 232 | 184 | 81 | 1 | 32 | 630 | 53% | 100 |
| 224 | Below Evans Bar | 214 | 211 | 65 | 133 | 84 | 706 | 59% | 101 |
| 225 | Soldier Creek | 156 | 138 | 100 | 169 | 48 | 581 | 49% | 102 |
| 226 | Soldier Creek | 61 | 48 | 141 | 176 | 240 | 489 | 41% | 102 |
| 227 | Soldier Creek | 86 | 77 | 110 | 60 | 154 | 423 | 36% | 102 |
| 228 | Soldier Creek | 54 | 16 | 169 | 226 | 97 | 428 | 36% | 102 |
| 229 | Soldier Creek | 216 | 163 | 231 | 224 | 67 | 864 | 73% | 103 |
| 230 | Chapman Ranch | 114 | 66 | 191 | 84 | 137 | 539 | 45% | 104 |
| 231 | Chapman Ranch | 68 | 57 | 275 | 21 | 150 | 520 | 44% | 104 |
| 232 | Chapman Ranch | 64 | 80 | 273 | 70 | 215 | 592 | 50% | 104 |
| 233 | Chapman Ranch | 84 | 73 | 73 | 85 | 90 | 360 | 30% | 104 |
| 234 | Chapman Ranch | 35 | 51 | 69 | 130 | 131 | 303 | 25% | 104 |
| 235 | Chapman Ranch | 144 | 137 | 45 | 24 | 28 | 424 | 36% | 104 |
| 236 | Deep Gulch | 25 | 22 | 32 | 191 | 71 | 223 | 19% | 104 |
| 237 | Deep Gulch | 164 | 157 | 57 | 174 | 153 | 624 | 52% | 105 |
| 238 | Deep Gulch | 258 | 250 | 52 | 55 | 44 | 739 | 62% | 106 |
| 239 | Sheridan Creek | 170 | 148 | 78 | 244 | 113 | 660 | 55% | 107 |
| 240 | Sheridan Creek | 38 | 26 | 211 | 147 | 49 | 392 | 33% | 108 |
| 241 | Sheridan Creek | 238 | 189 | 134 | 11 | 27 | 699 | 59% | 109 |
| 242 | Sheridan Creek | 208 | 201 | 116 | 8 | 20 | 643 | 54% | 110 |
| 243 | Sheridan Creek | 270 | 258 | 43 | 18 | 30 | 730 | 61% | 111 |
| 244 | Sheridan Creek | 240 | 235 | 26 | 39 | 23 | 652 | 55% | 112 |
| 245 | Sheridan Creek | 309 | 297 | 21 | 266 | 130 | 980 | 82% | 113 |
| 246 | Oregon Gulch | 211 | 203 | 22 | 9 | 80 | 586 | 49% | 114 |
| 247 | Oregon Gulch | 166 | 152 | 39 | 40 | 33 | 477 | 40% | 114 |
| 248 | Oregon Gulch | 115 | 130 | 61 | 63 | 34 | 412 | 35% | 114 |
| 249 | Oregon Gulch | 292 | 280 | 185 | 220 | 140 | 1083 | 91% | 115 |
| 250 | Oregon Gulch | 111 | 118 | 218 | 150 | 285 | 720 | 61% | 116 |
| 251 | Sky Ranch | 212 | 165 | 94 | 135 | 183 | 736 | 62% | 117 |
| 252 | Sky Ranch | 50 | 34 | 97 | 47 | 253 | 356 | 30% | 118 |
| 253 | Sky Ranch | 128 | 93 | 114 | 273 | 228 | 650 | 55% | 118 |
| 254 | Sky Ranch | 130 | 188 | 71 | 125 | 274 | 654 | 55% | 118 |
| 255 | Sky Ranch | 149 | 180 | 109 | 258 | 119 | 701 | 59% | 118 |

| Panel ID | ESL Name | Habitat (300 cfs TA 0.50) rank | Habitat (1500 cfs) rank | Total redds (2011-2013) rank | SD of bed elevation (m) rank | SD of unit stream power (8,500 cfs) rank | Score | Score | Cluster ID |
|---|---|---|---|---|---|---|---|---|---|
| 256 | Upper Junction City | 201 | 191 | 58 | 37 | 144 | 641 | 54% | 118 |
| 257 | Upper Junction City | 22 | 9 | 64 | 297 | 211 | 360 | 30% | 118 |
| 258 | Upper Junction City | 55 | 49 | 120 | 245 | 92 | 420 | 35% | 118 |
| 259 | Upper Junction City | 297 | 284 | 63 | 272 | 57 | 957 | 80% | 119 |
| 260 | Upper Junction City | 226 | 214 | 130 | 201 | 233 | 900 | 76% | 119 |
| 261 | Lower Junction City | 159 | 123 | 131 | 20 | 185 | 595 | 50% | 120 |
| 262 | Lower Junction City | 49 | 27 | 142 | 312 | 237 | 517 | 43% | 120 |
| 263 | Lower Junction City | 247 | 232 | 306 | 114 | 287 | 1109 | 93% | 121 |
| 264 | Below Lower Junction City (Canyon Creek Delta) | 313 | 182 | 301 | 16 | 175 | 1048 | 88% | 121 |
| 265 | Hocker Flat | 229 | 207 | 304 | 189 | 242 | 1070 | 90% | 121 |
| 266 | Hocker Flat | 147 | 154 | 302 | 88 | 294 | 868 | 73% | 122 |
| 267 | Hocker Flat | 83 | 72 | 309 | 271 | 99 | 691 | 58% | 123 |
| 268 | Hocker Flat | 291 | 270 | 283 | 7 | 87 | 1037 | 87% | 124 |
| 269 | Hocker Flat | 272 | 261 | 279 | 31 | 101 | 1014 | 85% | 124 |
| 270 | Hocker Flat | 152 | 156 | 262 | 102 | 58 | 726 | 61% | 125 |
| 271 | Hocker Flat | 135 | 181 | 174 | 34 | 171 | 660 | 55% | 126 |
| 272 | Hocker Flat | 155 | 167 | 241 | 142 | 203 | 813 | 68% | 127 |
| 273 | Hocker Flat | 59 | 54 | 260 | 48 | 109 | 481 | 40% | 128 |
| 274 | Upper Conner Ck | 96 | 84 | 281 | 276 | 300 | 797 | 67% | 129 |
| 275 | Upper Conner Ck | 19 | 29 | 315 | 254 | 299 | 649 | 55% | 130 |
| 276 | Upper Conner Ck | 15 | 23 | 317 | 259 | 132 | 558 | 47% | 130 |
| 277 | Upper Conner Ck | 23 | 31 | 316 | 270 | 288 | 661 | 56% | 130 |
| 278 | Upper Conner Ck | 286 | 265 | 292 | 12 | 142 | 1063 | 89% | 131 |
| 279 | Conner Ck | 209 | 202 | 288 | 50 | 205 | 931 | 78% | 131 |
| 280 | Conner Ck | 67 | 60 | 294 | 97 | 256 | 631 | 53% | 132 |
| 281 | Conner Ck | 223 | 210 | 271 | 51 | 257 | 970 | 82% | 133 |
| 282 | Conner Ck | 120 | 101 | 299 | 265 | 278 | 852 | 72% | 133 |
| 283 | Conner Ck | 228 | 217 | 300 | 89 | 145 | 976 | 82% | 133 |
| 284 | Conner Ck | 42 | 47 | 303 | 193 | 309 | 664 | 56% | 134 |
| 285 | Below Conner Ck | 235 | 209 | 318 | 148 | 162 | 1035 | 87% | 135 |
| 286 | Below Conner Ck | 259 | 225 | 249 | 5 | 126 | 928 | 78% | 135 |
| 287 | Wheel Gulch | 161 | 107 | 214 | 79 | 134 | 669 | 56% | 136 |
| 288 | Wheel Gulch | 305 | 286 | 143 | 209 | 91 | 1037 | 87% | 137 |
| 289 | Wheel Gulch | 298 | 276 | 87 | 305 | 195 | 1060 | 89% | 137 |
| 290 | Wheel Gulch | 194 | 133 | 188 | 41 | 18 | 642 | 54% | 138 |
| 291 | Wheel Gulch | 234 | 266 | 228 | 158 | 51 | 950 | 80% | 139 |
| 292 | Valdor Gulch | 1 | 1 | 285 | 229 | 232 | 518 | 44% | 140 |
| 293 | Valdor Gulch | 141 | 183 | 319 | 81 | 159 | 834 | 70% | 141 |
| 294 | Valdor Gulch | 271 | 267 | 290 | 38 | 24 | 995 | 84% | 141 |
| 295 | Valdor Gulch | 263 | 244 | 286 | 111 | 66 | 1013 | 85% | 141 |
| 296 | Valdor Gulch | 153 | 115 | 287 | 122 | 81 | 733 | 62% | 141 |
| 297 | Valdor Gulch | 251 | 246 | 250 | 14 | 136 | 948 | 80% | 141 |
| 298 | Valdor Gulch | 150 | 142 | 148 | 282 | 135 | 724 | 61% | 142 |

| Panel ID | ESL Name | Habitat (300 cfs TA 0.50) rank | Habitat (1500 cfs) rank | Total redds (2011-2013) rank | SD of bed elevation (m) rank | SD of unit stream power (8,500 cfs) rank | Score | Score | Cluster ID |
|---|---|---|---|---|---|---|---|---|---|
| 299 | Valdor Gulch | 148 | 144 | 121 | 107 | 276 | 679 | 57% | 143 |
| 300 | Valdor Gulch | 92 | 89 | 118 | 293 | 255 | 619 | 52% | 143 |
| 301 | Valdor Gulch | 95 | 91 | 170 | 274 | 191 | 636 | 53% | 143 |
| 302 | Below Valdor Gulch | 199 | 236 | 295 | 279 | 230 | 1084 | 91% | 144 |
| 303 | Elkhorn | 265 | 257 | 310 | 187 | 179 | 1148 | 96% | 144 |
| 304 | Elkhorn | 46 | 45 | 307 | 179 | 306 | 664 | 56% | 145 |
| 305 | Elkhorn | 136 | 114 | 305 | 94 | 231 | 786 | 66% | 146 |
| 306 | Elkhorn | 34 | 17 | 311 | 216 | 212 | 593 | 50% | 147 |
| 307 | Elkhorn | 51 | 59 | 308 | 58 | 53 | 499 | 42% | 147 |
| 308 | Elkhorn | 117 | 96 | 312 | 155 | 35 | 679 | 57% | 147 |
| 309 | Elkhorn | 100 | 55 | 313 | 77 | 50 | 582 | 49% | 147 |
| 310 | Pear Tree Gulch | 167 | 132 | 296 | 80 | 117 | 777 | 65% | 148 |
| 311 | Pear Tree Gulch | 198 | 124 | 222 | 93 | 25 | 702 | 59% | 149 |
| 312 | Pear Tree Gulch | 90 | 62 | 88 | 315 | 120 | 503 | 42% | 150 |
| 313 | Pear Tree Gulch | 10 | 13 | 89 | 256 | 121 | 306 | 26% | 150 |
| 314 | Pear Tree Gulch | 12 | 5 | 125 | 260 | 188 | 372 | 31% | 150 |
| 315 | Pear Tree Gulch | 36 | 50 | 219 | 283 | 74 | 502 | 42% | 150 |
| 316 | Below Pear Tree | 16 | 4 | 314 | 160 | 10 | 427 | 36% | 150 |
| 317 | Below Pear Tree | 175 | 117 | 165 | 138 | 7 | 617 | 52% | 150 |
| 318 | Below Pear Tree | 129 | 67 | 166 | 108 | 12 | 487 | 41% | 150 |

# APPENDIX D – CLUSTER ANALYSIS RESULTS

| Cluster ID | First panel | Number of panels | Mean score | Reference | Mean percent public ownership | Mean road length (feet) | Mean bedrock area | Mean Topography (cubic feet × $10^6$) | Mean geomorphic potential |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | 2 | 54.0% | Hatchery | 100% | 277,153 | - | 4.0 | 0.62 |
| 2 | 2 | 2 | 65.0% | Hatchery | 100% | 5,244 | - | 4.6 | -0.02 |
| 3 | 4 | 5 | 77.0% | Hatchery | 100% | 3,345 | 266 | 5.6 | 2.89 |
| 4 | 9 | 1 | 58.0% | Below Sven Olbertson | 100% | 4,525 | - | 8.6 | 7.96 |
| 5 | 10 | 4 | 71.0% | Deadwood Creek | 67% | 4,034 | 12 | 10.9 | 0.37 |
| 6 | 14 | 2 | 42.0% | Cableway | 35% | 5,488 | - | 3.2 | -1.01 |
| 7 | 16 | 1 | 70.0% | Hoadly Gulch | 42% | 7,663 | - | 3.7 | 0.02 |
| 8 | 17 | 1 | 54.0% | Hoadly Gulch | 39% | 5,464 | - | 4.8 | 0.05 |
| 9 | 18 | 1 | 65.0% | Hoadly Gulch | 52% | 5,239 | - | 4.5 | -2.42 |
| 10 | 19 | 2 | 73.5% | Sawmill | 74% | 2,696 | - | 2.9 | -0.59 |
| 11 | 21 | 2 | 47.0% | Sawmill | 80% | 3,077 | - | 11.3 | -0.81 |
| 12 | 23 | 3 | 81.7% | Sawmill | 87% | 1,758 | 75 | 4.1 | -0.88 |
| 13 | 26 | 3 | 68.0% | Sawmill | 5% | 4,466 | 284 | 3.9 | -1.90 |
| 14 | 29 | 1 | 43.0% | Upper Rush Creek | 1% | 5,947 | - | 3.6 | -1.88 |
| 15 | 30 | 1 | 56.0% | Upper Rush Creek | 3% | 7,841 | - | 3.2 | -1.28 |
| 16 | 31 | 8 | 79.4% | Upper Rush Creek | 51% | 3,650 | - | 2.9 | -1.48 |
| 17 | 39 | 2 | 51.5% | Lower Rush Creek | 5% | 3,640 | - | 6.3 | -1.03 |
| 18 | 41 | 5 | 80.0% | Dark Gulch | 3% | 2,292 | - | 5.2 | -1.14 |
| 19 | 46 | 2 | 68.0% | Dark Gulch | 23% | 438 | - | 9.1 | -1.18 |
| 20 | 48 | 2 | 44.5% | Dark Gulch | 17% | 2,728 | - | 6.6 | -2.46 |
| 21 | 50 | 1 | 62.0% | Dark Gulch | 35% | 3,771 | - | 11.8 | -1.95 |
| 22 | 51 | 1 | 56.0% | Dark Gulch | 72% | 1,004 | - | 21.3 | 0.15 |
| 23 | 52 | 1 | 69.0% | Dark Gulch | 37% | 6,219 | - | 7.2 | -2.14 |
| 24 | 53 | 1 | 60.0% | Dark Gulch | 57% | 10,282 | - | 3.4 | -1.62 |
| 25 | 54 | 1 | 75.0% | Below Dark Gulch (Bucktail Hole) | 72% | 8,304 | 108 | 6.3 | 2.03 |
| 26 | 55 | 1 | 47.0% | Lowden Ranch | 45% | 7,957 | - | 4.1 | -1.28 |
| 27 | 56 | 1 | 65.0% | Lowden Ranch | 23% | 7,049 | - | 4.6 | -2.34 |
| 28 | 57 | 6 | 78.2% | Lowden Ranch | 89% | 7,259 | - | 7.8 | -1.41 |
| 29 | 63 | 4 | 47.8% | Trinity House Gulch | 70% | 1,651 | - | 11.0 | 0.31 |
| 30 | 67 | 2 | 69.0% | Tom Lang Gulch | 2% | 4,225 | - | 9.8 | -0.43 |
| 31 | 69 | 4 | 46.8% | Tom Lang Gulch | 6% | 5,326 | - | 14.5 | -0.70 |
| 32 | 73 | 1 | 58.0% | Below Tom Lang Gulch | 29% | 7,396 | - | 14.5 | -1.84 |
| 33 | 74 | 3 | 77.0% | Poker Bar | 24% | 5,950 | - | 9.7 | -1.18 |
| 34 | 77 | 1 | 55.0% | Poker Bar | 50% | 4,113 | 346 | 8.8 | -1.51 |
| 35 | 78 | 1 | 68.0% | Poker Bar | 5% | 8,243 | 230 | 6.9 | -1.70 |
| 36 | 79 | 1 | 42.0% | Poker Bar | 2% | 6,474 | - | 9.5 | -0.97 |
| 37 | 80 | 3 | 61.0% | Poker Bar | 31% | 4,618 | - | 12.9 | 3.37 |
| 38 | 83 | 3 | 88.3% | Poker Bar | 5% | 6,014 | - | 7.6 | -0.80 |
| 39 | 86 | 1 | 36.0% | China Gulch | 16% | 2,471 | - | 19.1 | 0.21 |
| 40 | 87 | 2 | 56.5% | China Gulch | 72% | 1,517 | - | 9.6 | 0.81 |
| 41 | 89 | 7 | 73.4% | China Gulch | 99% | 1,289 | - | 12.3 | -0.57 |
| 42 | 96 | 1 | 63.0% | Limekiln Gulch | 100% | 1,281 | - | 10.1 | 0.75 |

| Cluster ID | First panel | Number of panels | Mean score | Reference | Mean percent public ownership | Mean road length (feet) | Mean bedrock area | Mean Topography (cubic feet × $10^6$) | Mean geomorphic potential |
|---|---|---|---|---|---|---|---|---|---|
| 43 | 97 | 1 | 54.0% | Limekiln Gulch | 100% | 1,385 | - | 10.3 | -0.91 |
| 44 | 98 | 5 | 78.2% | Limekiln Gulch | 100% | 1,242 | - | 14.8 | -0.07 |
| 45 | 103 | 2 | 46.0% | Below Limekiln Gulch | 100% | 1,812 | - | 7.1 | 0.50 |
| 46 | 105 | 2 | 66.0% | Steel Bridge Road Day Use | 100% | 3,315 | 498 | 8.8 | -0.50 |
| 47 | 107 | 1 | 92.0% | Steel Bridge Road Day Use | 84% | 1,238 | - | 11.6 | 0.42 |
| 48 | 108 | 2 | 65.5% | Steel Bridge Road Day Use | 90% | 1,429 | - | 13.3 | 0.59 |
| 49 | 110 | 1 | 71.0% | Below Steel Bridge | 73% | 2,466 | - | 14.1 | 0.73 |
| 50 | 111 | 2 | 39.5% | Below Steel Bridge | 35% | 4,265 | - | 8.0 | -0.21 |
| 51 | 113 | 1 | 59.0% | Below Steel Bridge | 7% | 2,929 | - | 6.4 | -0.52 |
| 52 | 114 | 1 | 51.0% | McIntyre Gulch | 6% | 1,498 | - | 13.5 | 0.93 |
| 53 | 115 | 2 | 76.5% | McIntyre Gulch | 24% | 2,345 | - | 10.0 | -0.82 |
| 54 | 117 | 1 | 67.0% | McIntyre Gulch | 16% | 1,900 | - | 8.7 | -0.60 |
| 55 | 118 | 1 | 56.0% | McIntyre Gulch | 83% | 1,384 | - | 7.6 | -1.21 |
| 56 | 119 | 2 | 79.5% | McIntyre Gulch | 72% | 2,235 | - | 7.8 | -1.18 |
| 57 | 121 | 1 | 67.0% | Indian Creek (Vitzthum Gulch) | 23% | 4,171 | - | 7.5 | -0.51 |
| 58 | 122 | 1 | 53.0% | Indian Creek (Vitzthum Gulch) | 1% | 1,996 | - | 12.8 | -0.66 |
| 59 | 123 | 1 | 58.0% | Indian Creek (Vitzthum Gulch) | 9% | 4,484 | - | 11.3 | -1.64 |
| 60 | 124 | 5 | 40.2% | Indian Creek (Vitzthum Gulch) | 89% | 1,746 | - | 7.9 | -1.59 |
| 61 | 129 | 1 | 82.0% | Indian Creek (Vitzthum Gulch) | 95% | 2,053 | - | 3.6 | -1.65 |
| 62 | 130 | 1 | 55.0% | Indian Creek (Vitzthum Gulch) | 70% | 577 | - | 4.1 | -3.02 |
| 63 | 131 | 2 | 67.0% | Indian Creek | 43% | 2,583 | - | 5.1 | -3.53 |
| 64 | 133 | 11 | 76.4% | Indian Creek | 77% | 3,407 | 553 | 9.9 | -0.10 |
| 65 | 144 | 1 | 66.0% | Indian Creek (Upper Douglas) | 100% | 1,559 | - | 7.2 | -1.16 |
| 66 | 145 | 2 | 86.0% | Indian Creek (Upper Douglas) | 98% | 4,486 | - | 6.6 | 0.01 |
| 67 | 147 | 1 | 60.0% | Douglas City | 48% | 4,455 | - | 2.6 | -2.23 |
| 68 | 148 | 1 | 31.0% | Douglas City | 41% | 4,462 | - | 1.0 | -3.20 |
| 69 | 149 | 2 | 79.0% | Douglas City | 40% | 6,713 | - | 4.6 | 1.46 |
| 70 | 151 | 1 | 47.0% | Reading Creek | 42% | 3,877 | - | 21.6 | 1.14 |
| 71 | 152 | 1 | 65.0% | Reading Creek | 1% | 4,400 | - | 15.0 | -0.50 |
| 72 | 153 | 1 | 60.0% | Reading Creek | 33% | 6,146 | - | 3.6 | 0.24 |
| 73 | 154 | 5 | 80.4% | Reading Creek | 83% | 2,100 | 79 | 7.3 | 1.45 |
| 74 | 159 | 1 | 61.0% | Reading Creek | 100% | 1,236 | 802 | 7.7 | 1.11 |
| 75 | 160 | 1 | 56.0% | Reading Creek | 100% | 1,214 | 502 | 5.5 | -0.10 |
| 76 | 161 | 2 | 70.0% | Upper Steiner Flat | 100% | 2,151 | 304 | 11.7 | 1.25 |
| 77 | 163 | 1 | 57.0% | Upper Steiner Flat | 100% | 3,511 | 237 | 8.8 | 1.38 |
| 78 | 164 | 2 | 41.0% | Middle Steiner Flat | 100% | 2,521 | 376 | 11.3 | 1.61 |
| 79 | 166 | 2 | 72.5% | Middle Steiner Flat | 100% | 1,576 | 567 | 11.7 | 1.50 |
| 80 | 168 | 1 | 61.0% | Lower Steiner Flat (not built) | 100% | 1,387 | 850 | 10.0 | 0.73 |
| 81 | 169 | 6 | 48.3% | Lower Steiner Flat (not built) | 100% | 1,940 | 836 | 8.6 | 1.05 |
| 82 | 175 | 1 | 60.0% | Lower Steiner Flat (built) | 100% | 1,663 | 193 | 11.1 | 2.70 |
| 83 | 176 | 1 | 79.0% | Lower Steiner Flat (built) | 100% | 3,374 | 1,312 | 10.7 | 0.49 |
| 84 | 177 | 2 | 34.5% | Lorenz Gulch | 100% | 3,015 | - | 8.7 | -0.71 |
| 85 | 179 | 1 | 56.0% | Lorenz Gulch | 100% | 2,717 | - | 4.6 | 0.06 |
| 86 | 180 | 3 | 50.3% | Lorenz Gulch | 67% | 3,342 | - | 4.5 | 1.53 |

| Cluster ID | First panel | Number of panels | Mean score | Reference | Mean percent public ownership | Mean road length (feet) | Mean bedrock area | Mean Topography (cubic feet × $10^6$) | Mean geomorphic potential |
|---|---|---|---|---|---|---|---|---|---|
| 87 | 183 | 3 | 74.3% | Lorenz Gulch | 62% | 2,068 | 12 | 9.8 | 0.77 |
| 88 | 186 | 1 | 59.0% | Below Lorenz (the canyon) | 100% | 2,301 | 56 | 7.1 | 4.49 |
| 89 | 187 | 1 | 83.0% | Below Lorenz (the canyon) | 100% | 2,221 | 102 | 7.6 | 6.94 |
| 90 | 188 | 1 | 49.0% | Below Lorenz (the canyon) | 100% | 2,122 | 24 | 16.3 | 2.64 |
| 91 | 189 | 1 | 58.0% | Below Lorenz (the canyon) | 65% | 1,455 | 69 | 22.3 | 1.36 |
| 92 | 190 | 19 | 35.2% | Below Lorenz (the canyon) | 52% | 2,871 | 1,332 | 15.8 | 1.30 |
| 93 | 209 | 1 | 65.0% | Dutch Creek | 95% | - | 225 | 9.6 | -0.80 |
| 94 | 210 | 6 | 42.7% | Dutch Creek | 77% | - | 11 | 6.3 | -0.63 |
| 95 | 216 | 1 | 66.0% | Dutch Creek | 58% | 111 | 125 | 7.2 | 0.82 |
| 96 | 217 | 3 | 28.7% | Dutch Creek | 52% | 3,719 | - | 4.6 | -0.38 |
| 97 | 220 | 1 | 46.0% | Evans Bar | 63% | 3,785 | 262 | 3.0 | -1.50 |
| 98 | 221 | 1 | 75.0% | Evans Bar | 100% | 1,535 | 252 | 5.8 | -0.53 |
| 99 | 222 | 1 | 66.0% | Evans Bar | 100% | 1,925 | - | 5.4 | -0.58 |
| 100 | 223 | 1 | 53.0% | Evans Bar | 99% | 3,840 | - | 7.3 | -0.55 |
| 101 | 224 | 1 | 59.0% | Below Evans Bar | 83% | 3,300 | - | 10.4 | 0.54 |
| 102 | 225 | 4 | 40.5% | Soldier Creek | 93% | 1,052 | - | 13.3 | 0.18 |
| 103 | 229 | 1 | 73.0% | Soldier Creek | 63% | 1,547 | - | 8.6 | -0.46 |
| 104 | 230 | 7 | 35.6% | Chapman Ranch | 68% | 2,335 | - | 5.8 | -0.52 |
| 105 | 237 | 1 | 52.0% | Deep Gulch | 68% | 3,490 | - | 7.3 | 0.13 |
| 106 | 238 | 1 | 62.0% | Deep Gulch | 6% | 1,783 | - | 10.0 | -0.93 |
| 107 | 239 | 1 | 55.0% | Sheridan Creek | 0% | - | - | 18.7 | -0.12 |
| 108 | 240 | 1 | 33.0% | Sheridan Creek | 49% | 425 | - | 9.1 | -0.60 |
| 109 | 241 | 1 | 59.0% | Sheridan Creek | 87% | 410 | - | 11.2 | -1.49 |
| 110 | 242 | 1 | 54.0% | Sheridan Creek | 90% | 2,898 | - | 5.2 | -1.62 |
| 111 | 243 | 1 | 61.0% | Sheridan Creek | 100% | 1,399 | - | 3.1 | -2.01 |
| 112 | 244 | 1 | 55.0% | Sheridan Creek | 98% | 4,153 | - | 3.6 | -1.63 |
| 113 | 245 | 1 | 82.0% | Sheridan Creek | 89% | 5,123 | - | 4.5 | -1.41 |
| 114 | 246 | 3 | 41.3% | Oregon Gulch | 54% | 2,232 | - | 3.8 | -1.43 |
| 115 | 249 | 1 | 91.0% | Oregon Gulch | 56% | 5,340 | - | 2.6 | -0.01 |
| 116 | 250 | 1 | 61.0% | Oregon Gulch | 82% | 3,872 | - | 4.9 | 2.03 |
| 117 | 251 | 1 | 62.0% | Sky Ranch | 66% | 3,607 | - | 5.4 | 0.23 |
| 118 | 252 | 7 | 45.4% | Sky Ranch | 56% | 4,864 | 153 | 6.3 | 0.71 |
| 119 | 259 | 2 | 78.0% | Upper Junction City | 6% | 6,733 | - | 4.6 | 1.12 |
| 120 | 261 | 2 | 46.5% | Lower Junction City | 4% | 5,009 | - | 9.3 | 0.41 |
| 121 | 263 | 3 | 90.3% | Lower Junction City | 16% | 4,537 | 439 | 7.5 | 1.00 |
| 122 | 266 | 1 | 73.0% | Hocker Flat | 34% | 2,405 | 1,474 | 1.9 | -1.13 |
| 123 | 267 | 1 | 58.0% | Hocker Flat | 38% | 3,153 | 1,083 | 7.4 | -0.41 |
| 124 | 268 | 2 | 86.0% | Hocker Flat | 15% | 4,703 | 95 | 6.4 | -0.31 |
| 125 | 270 | 1 | 61.0% | Hocker Flat | 0% | 4,652 | - | 2.7 | -1.01 |
| 126 | 271 | 1 | 55.0% | Hocker Flat | 0% | 1,341 | - | 6.9 | -0.88 |
| 127 | 272 | 1 | 68.0% | Hocker Flat | 6% | 2,178 | - | 6.4 | 0.58 |
| 128 | 273 | 1 | 40.0% | Hocker Flat | 50% | 3,163 | - | 5.0 | -0.46 |
| 129 | 274 | 1 | 67.0% | Upper Conner Ck | 11% | 1,101 | - | 4.8 | 1.21 |
| 130 | 275 | 3 | 52.7% | Upper Conner Ck | 73% | 2,855 | 345 | 6.8 | 1.53 |

| Cluster ID | First panel | Number of panels | Mean score | Reference | Mean percent public ownership | Mean road length (feet) | Mean bedrock area | Mean Topography (cubic feet × $10^6$) | Mean geomorphic potential |
|---|---|---|---|---|---|---|---|---|---|
| 131 | 278 | 2 | 83.5% | Upper Conner Ck | 53% | 2,012 | 306 | 7.4 | -0.40 |
| 132 | 280 | 1 | 53.0% | Conner Ck | 5% | 2,542 | - | 5.6 | 0.94 |
| 133 | 281 | 3 | 78.7% | Conner Ck | 18% | 3,093 | 571 | 7.2 | 0.55 |
| 134 | 284 | 1 | 56.0% | Conner Ck | 28% | 4,432 | - | 8.0 | 2.58 |
| 135 | 285 | 2 | 82.5% | Below Conner Ck | 36% | 4,343 | - | 12.8 | -0.49 |
| 136 | 287 | 1 | 56.0% | Wheel Gulch | 36% | 2,927 | - | 12.9 | -0.51 |
| 137 | 288 | 2 | 88.0% | Wheel Gulch | 16% | 2,574 | - | 4.6 | -0.16 |
| 138 | 290 | 1 | 54.0% | Wheel Gulch | 2% | 4,340 | - | 4.3 | -1.51 |
| 139 | 291 | 1 | 80.0% | Wheel Gulch | 0% | 4,537 | - | 3.7 | -0.01 |
| 140 | 292 | 1 | 44.0% | Valdor Gulch | 0% | 9,246 | - | 6.8 | 0.61 |
| 141 | 293 | 5 | 76.2% | Valdor Gulch | 3% | 4,526 | - | 4.0 | -0.42 |
| 142 | 298 | 1 | 61.0% | Valdor Gulch | 38% | 2,998 | - | 9.7 | 0.51 |
| 143 | 299 | 3 | 54.0% | Valdor Gulch | 11% | 2,030 | - | 11.8 | 1.57 |
| 144 | 302 | 2 | 93.5% | Below Valdor Gulch | 2% | 2,372 | 727 | 5.6 | 1.10 |
| 145 | 304 | 1 | 56.0% | Elkhorn | 3% | 1,585 | - | 16.6 | 2.49 |
| 146 | 305 | 1 | 66.0% | Elkhorn | 24% | 2,029 | - | 13.5 | 0.85 |
| 147 | 306 | 4 | 49.5% | Elkhorn | 70% | 2,500 | 21 | 13.1 | 0.05 |
| 148 | 310 | 1 | 65.0% | Pear Tree Gulch | 100% | 1,103 | 49 | 10.5 | 0.80 |
| 149 | 311 | 1 | 59.0% | Pear Tree Gulch | 100% | 1,353 | - | 12.6 | -1.16 |
| 150 | 312 | 7 | 38.6% | Pear Tree Gulch | 100% | 2,008 | 225 | 12.8 | -0.26 |