**Threats of future climate change and land use to vulnerable tree species native to Southern California**

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**APPENDIX 1**

**Table S1** Current and projected change in protected climatically suitable habitat. Area of protected habitat (current area in km2) and the percentage of existing climatically suitable habitat protected (% current range) are summarized by agency level. Losses, gains, and net changes are relative to existing (unconverted) protected habitat for each species.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Agency* | *Current area (km2)* | *Current range (%)* | *2080s Warmer–wetter* | *2080s Warmer–drier* |
| *Loss (%)* | *Gain (%)* | *Net change (%)* | *Loss (%)* | *Gain (%)* | *Net change (%)* |
| *Juglans californica* |  |  |  |   |   |   |   |   |
| City | 444 | 3 | 81 | 28 | –53 | 67 | 45 | –22 |
| County | 335 | 2 | 54 | 127 | 73 | 65 | 117 | 52 |
| Federal | 3782 | 25 | 55 | 350 | 295 | 32 | 267 | 235 |
| Non profit | 141 | 1 | 52 | 347 | 294 | 80 | 272 | 191 |
| Private | 2 | < 1 | 73 | 14 | –59 | 100 | 97 | –3 |
| Special district | 362 | 2 | 60 | 109 | 49 | 36 | 126 | 90 |
| State | 770 | 5 | 77 | 141 | 63 | 69 | 179 | 110 |
| **Total** | **5837** | **39** | **60** | **270** | **210** | **43** | **221** | **178** |
| *Quercus engelmannii* |  |  |  |  |  |  |  |  |
| City | 321 | 4 | 96 | 7 | –89 | 79 | 25 | –54 |
| County | 301 | 4 | 92 | 20 | –72 | 80 | 40 | –40 |
| Federal | 1858 | 24 | 51 | 100 | 49 | 39 | 168 | 129 |
| Non profit | 96 | 1 | 91 | 8 | –82 | 76 | 56 | –20 |
| Private | 1 | <1  | 100 | 132 | 32 | 98 | 202 | 103 |
| Special district | 234 | 3 | 84 | 91 | 8 | 90 | 124 | 34 |
| State | 326 | 4 | 88 | 59 | –29 | 73 | 89 | 16 |
| **Total** | **3137** | **40** | **67** | **75** | **8** | **56** | **126** | **71** |