

Malama Bahia, Novato CA-
Tree Inventory and Evaluation -Appendix A

Malama Bahia- Tree Inventory and Evaluation

Health and Structural Rating Key: 3.0 = moderate or better condition
2.5 = marginal to moderate
2.0 = marginal condition
1.5 = poor to marginal condition
1.0 = poor condition

Tree #	Species	Trunk Diameter @ 24"	Trunk circumference at 24"	# of Trunks	Crown Height	Crown Diameter	Health Rating	Structural Rating	Comments/Observations	Suitability for Preservation (Based on Condition)	Tree Protection Zone (Radius) (From Face of Trunk)	Critical Root Zone (Radius) (From Face of Trunk)	Heritage Tree Status
1	blue oak (<i>Quercus douglasii</i>)	13	41	1	25'±	20'±	2.0	3.0	Single trunk tree with wide lower trunk. No significant structural defects observed. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	15'	4'	No
2	blue oak	7.5	24	1	18'±	10'±	2.0	2.0	Single trunk tree with moderate limb contortion. Significant lower and mid-trunk decay occurring. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	8'	3'	No
3	blue oak	8	25	1	20'±	10'±	2.0	3.0	Single trunk structure with no significant defects observed. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	8'	3'	No
4	blue oak	8.5	27	1	18'±	10'±	2.0	3.0	Single trunk tree with moderate limb contortion. No significant structural defects observed. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	10'	3'	No
5	blue oak	8.5; 9.5	27; 30	2	20'±	15'±	2.0	3.0	Two-trunk structure forming at grade. No significant structural defects observed. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	12'	4'	No
6	blue oak	9	28	1	15'±	10'±	2.0	3.0	Single trunk structure with low crown form. No significant structural defects observed. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	10'	3'	No

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7	blue oak	10.5	33	1	25'±	12'±	2.0	2.5	Single trunk structure with wound and canker present on west side of trunk. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	10'	3'	No
8	blue oak	9	28	1	25'±	12'±	2.0	3.0	Single trunk structure with no significant defects observed. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	10'	3'	No
9	blue oak	7.5	24	1	20'±	10'±	2.0	3.0	Single trunk structure with no significant defects observed. Vigor and foliage density are low with significant branch dieback occurring in upper crown. Drought impacted.	Moderate	8'	3'	No
10	blue oak	9; 11	28; 35	2	20'±	15'±	2.0	2.0	Low, two trunk structure. 9" trunk is dead. Significant scar on 11" trunk. Vigor and foliage density are low with significant branch dieback occurring in upper crown. Drought impacted.	Poor to Moderate	15'	4'	No
11	blue oak	10	31	1	25'±	15'±	2.0	3.0	Single trunk structure with no significant defects observed. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	10'	3'	No
12	blue oak	8.5	27	2	18'±	12'±	2.0	3.0	Single trunk structure with no significant defects observed. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	10'	3'	No
13	blue oak	6	19	1	18'±	8'±	2.0	1.5	Single trunk structure with significant canker mid trunk. One co-dominant secondary trunk is dead. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Poor to Moderate	8'	3'	No
14	blue oak	14	44	1	25'±	20'±	2.5	2.0	Single trunk structure with extensive lower trunk decay and mid-trunk canker. Moderately low vigor and foliage density.	Marginal	15'	4'	No

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15	blue oak	9	28	1	25'±	10'±	2.0	3.0	Single trunk and high-branched structure with no significant defects observed. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	10'	3'	No
16	blue oak	12.5	39	1	25'±	25'±	2.0	3.0	Closely spaced, multiple limb attachments form at 8'. Apparent significant upper crown dieback occurring. Vigor and foliage density is low.	Moderate	12'	4'	No
17	blue oak	7.5; 8	24; 28	2	30'±	15'±	2.0	2.5	Low, co-dominant trunk structure forming at grade. Narrow crown form. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	10'	3'	No
18	blue oak	8; 8	25; 25	2	25'±	15	2.0	2.5	Low, co-dominant trunk structure forming at grade. Cavity present in lower trunk. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	10'	3'	No
19	blue oak	10; 10.5	31; 33	2	25'±	30'±	2.0	2.5	Low, co-dominant trunk structure. No other defects observed. Vigor and foliage density are low with significant branch and twig dieback occurring. Drought impacted.	Moderate	15'	4'	No
20	blue oak	10.5	32.97	1	20'±	10'±	0.0	0.0	Tree is standing dead.				
21	blue oak	6	19	1	20'±	8'±	1.5	3.0	Single trunk and high branched structure. Top of trunk is dead. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Poor to Moderate	8'	3'	No
22	blue oak	9	28	1	30'±	15'±	2.0	3.0	Single trunk and high branched structure. No significant structural defects observed. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	10'	3'	No
23	coast live oak (<i>Quercus agrifolia</i>)	10	31	1	12'±	12'±	0.0	0.0	Tree is dead and partially collapsed.				
24	coast live oak	6.5	20	1	8'±	10'±	0.0	0.0	Tree is standing dead.				

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25	blue oak	7.5	24	1	15'±	15'±	2.0	2.5	Low crown structure. Apparent trunk cankers. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	8'	3'	No
26	blue oak	7.5	24	1	25'±	15	2.0	3.0	Single trunk and high branched structure. No significant structural defects observed. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	8'	3'	No
27	blue oak	7.5	24	1	25'±	10'±	1.5	3.0	Single trunk structure. Apparent upper crown dieback. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Poor to Moderate	8'	3'	No
28	blue oak	7	22	1	20'±	10'±	2.0	3.0	Single trunk and high branched structure. No significant structural defects observed. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	8'	3'	No
29	blue oak	11.5	36	1	30'±	15	2.0	3.0	Single trunk and high-branched structure. Possible trunk canker. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	12'	4'	No
30	blue oak	7.5	24	1	20'±	15'±	2.0	3.0	Low, co-dominant trunks forming at 5'. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	8'	3'	No
31	blue oak	12	38	1	22'±	15'±	1.5	1.5	Narrow, closely spaced, multiple limb attachments form at 7'. One upper trunk is dead. Significant lower trunk decay and trunk canker. Very low vigor.	Poor	12'	4'	No
32	blue oak	10.5; 10.5	33; 33	2	30'±	30'±	2.0	3.0	Low, co-dominant trunk structure with wide attachment. One decayed limb stub present. No significant structural defects observed. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	15'	4'	No

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33	coast live oak	6; 7; 8; 8	19; 22; 25; 25	4	20'±	20'±	2.0	2.0	Low, multiple trunk structure forming at grade. Asymmetrical crown extending downslope. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Poor to Moderate	15'	4'	No
34	blue oak	9.5; 11	30; 35	2	20'±	20'±	2.0	2.5	Low, co-dominant trunk structure forming at grade. Low crown form. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted. Bark beetle activity.	Moderate	15'	4'	No
35	blue oak	7; 12; 14; 15	22; 38; 44; 47	4	35'±	40'±	2.0	3.0	Low, multiple trunk structure with wide attachments. Wide, symmetrical crown form. No significant structural defects observed. Vigor is low with sporadic twig dieback occurring.	Moderate	20'	5'	Yes
36	blue oak	10.5; 12	33; 38	2	30'±	30'±	2.0	3.0	Co-dominant trunks form at grade with wide attachment. Symmetrical crown form. Probable lower trunk canker. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	15'	4'	No
37	blue oak	12	38	2 @ 30"	20'±	20'±	2.0	3.0	Low co-dominant trunk structure with wide attachment. No significant structural defects observed. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	12'	4'	No
38	blue oak	6.5; 10	20; 31	2	18'±	20'±	1.5	3.0	Low, two-trunk structure. No significant structural defects observed. Very low vigor. Tree is probably in decline.	Poor	12'	4'	No
39	blue oak	16	50	1	35'±	35'±	2.5	3.0	Mature tree with symmetrical crown form. No significant structural defects observed. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	18'	5'	No

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40	blue oak	7; 8; 10	22; 25; 31	3	25'±	25'±	2.0	2.5	Low, three-trunk structure. 7" trunk is dead. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	15'	4'	No
41	blue oak	12.5; 17.5	28; 30	2	30'±	30'±	2.5	3.0	Mature tree with low-two-trunk structure. Symmetrical crown form. No significant structural defects observed. Moderately low vigor and foliage density.	Moderate	20'	5'	Yes
42	blue oak	9; 9.5	28; 30	2	18'±	20'±	2.0	3.0	Low co-dominant trunk structure. No significant structural defects observed. Vigor and foliage density are low with branch and twig dieback occurring. Drought impacted.	Moderate	12'	4'	No
43	coast live oak	6	19	1	8'±	10'±	3.0	3.0	Small tree growing on cut slope. Low, dense structure. No significant structural defects. Vigor and foliage density are moderate.	Good	8'	3'	No
44	madrone (<i>Arbutus menziesii</i>)	7; 7.5; 8; 9	22; 24;	4	20'±	20'±	2.5	3.0	Low, multiple trunk structure. Symmetrical crown form. No significant structural defects observed. Vigor is variable with sporadic madrone canker (<i>Botryosphaeria spp</i>) infections occurring.	Moderate	18'	5'	No
45	madrone	3.5; 4; 4; 6;	11; 13; 13; 19	4	12'±	18'±	2.0	2.0	Low, multiple trunk structure. Originally 5 trunks, one trunk is broken. Vigor is low with significant madrone canker infections.	Poor to Moderate	12'	4'	No
46	coast live oak	6; 7.5; 7.5; 10	19; 24; 24; 31	4	18'±	20'±	3.0	2.0	Dense, multiple trunk structure with included trunk attachments. Symmetrical crown form. Vigor and foliage density are moderate.	Moderate	15'	4'	No
47	coast live oak	8	25	1	20'±	15'±	2.0	2.5	Young tree with asymmetrical form due to shading from tree #48. Vigor is low with significant twig dieback occurring.	Moderate	8'	3'	No
48	coast live oak	16	50	1	30'±	20'±	2.5	2.5	Semi-mature tree with co-dominant trunks forming at 8'. Reaction wood ridge present. Symmetrical crown form. Vigor and foliage density are moderately low.	Moderate	18'	5'	No

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49	coast live oak	4.5; 6	14; 19	2	15'±	20'±	2.5	2.0	Low, two trunk structure with 45° asymmetrical lean to northwest. Previously shaded by tree #50. Low taper. Moderately low vigor and foliage density.	Moderate	8'	3'	Yes
50	coast live oak	16.5	52	1	30'±	30'±	0.0	0.0	Tree is standing dead, likely due to SOD.				
51	bay laurel (<i>Umbellularia californica</i>)	10-18	31-57	6	40'±	40'±	3.0	2.0	Low, multiple trunk structure with areas of decay at base. Symmetrical crown form. Foliage is possibly SOD symptomatic. Vigor and foliage density are moderate.	Recommended for Removal			Yes
52	coast live oak	6	19	1	25'±	10'±	3.0	3.0	Young tree with narrow, vertical form. Growing adjacent to tree #53. No significant structural defects. Vigor and foliage density are moderate.	Moderate	8'	3'	No
53	coast live oak	8.5; 14.5	27; 46	2	25'±	25'±	3.0	3.0	Low, two-trunk structure with symmetrical crown form. No significant structural defects. Vigor and foliage density are moderate.	Moderate	18'	5'	No
54	coast live oak	6.5	20	1	15'±	10'±	3.0	3.0	Young tree with asymmetrical form due to shading from tree #51. No significant structural defects observed. Vigor and foliage density are moderate.	Moderate	8'	3'	No
55	Italian stone pine (<i>Pinus pinea</i>)	24	75	1	35'±	40'±	3.0	2.0	Semi-mature tree with closely spaced, multiple limb attachments forming at 8'. Symmetrical crown forms. Vigor and foliage density are moderate.	Recommended for Removal			Yes
56	coast live oak	11	35	1	20'±	25'±	2.5	2.0	Single trunk structure with asymmetrical and lean to north. Decay at base of trunk. Moderately low vigor and foliage density.	Moderate	12'	4'	No
57	coast live oak	6.5	20	1	25'±	8'±	2.0	2.5	Shade suppressed tree with high-branch structure (low live crown to height ratio). Vigor and foliage density are low.	Moderate	8'	3'	No
58	bay laurel	16	50	2@4.5'	40'±	35'±	2.5	3.0	Semi-mature tree with upright form. Two trunks form at 4.5'. No significant structural defects observed. Moderately low vigor and foliage density.	Recommended for Removal			No

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59	coast live oak	6	19	1	30'±	6'±	2.0	2.0	Shade suppressed tree with high-branch structure. Vigor and foliage density are low.	Poor to Moderate	8'	3'	No
60	coast live oak	6.5	20	1	30'±	10'±	2.0	2.0	Shade suppressed tree with high-branch structure. Vigor and foliage density are low.	Poor to Moderate	8'	3'	No
61	coast live oak	36	113	3@4'	45'-50'±	40'-45'±	3.0	2.5	Low, three-trunk structure with one trunk having a horizontal form. Included trunk attachments. Symmetrical crown form. Vigor and foliage density are moderate.	Moderate	30'	10'	Yes
62	coast live oak	6.5	20	1	15'±	20'±	2.5	2.0	Small tree with leaning, asymmetrical form extending to the west. Shaded. Moderately low vigor and foliage density.	Moderate	8'	3'	No
63	coast live oak	7.5	24	1	15'±	20'±	2.5	2.0	Small tree with leaning, asymmetrical form extending to the west. Shaded. Moderately low vigor and foliage density.	Moderate	8'	3'	No
64	coast live oak	7.5	24	1	25'±	20	2.5	2.0	Shaded, high-branched structure. Moderately low vigor and foliage density.	Moderate	8'	3'	No
65	coast live oak	16	50	2 @ 3'	35'±	30'±	2.5	3.0	Semi-mature tree with two trunks forming at 3'. Moderately asymmetrical crown to west. Vigor is variable with twig dieback occurring. Previously shaded by dead oak.	Moderate	18'	5'	No
66	coast live oak	10.5	33	1	35'±	20'±	2.5	3.0	Single trunk with high-branched structure. No significant structural defects. Moderately low vigor and foliage density. Growing adjacent to tree #65.	Moderate	12'	4'	No
67	coast live oak	18	57	1	35'±	40'±	2.0	2.5	Semi-mature tree with two trunks forming at 4.5'. Partially included attachment. Symmetrical crown form. Trunk bleeding occurring, probable SOD infection. Moderately low vigor and foliage density.	Moderate	18'	5'	No
68	coast live oak	7; 14; 16	22; 44; 50	3	35'±	35'±	2.5	3.0	Multiple trunk structure. 7" trunk is dead. High-branched structure. No significant structural defects. Moderately low vigor and foliage density.	Moderate	20'	5'	Yes

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69	coast live oak	4; 6; 6	13; 19; 19	3	12'±	15'±	2.5	2.0	Low three-trunk structure with included attachment. Moderately asymmetrical crown form due to shading. Moderately low vigor and foliage density.	Moderate	10'	3'	No
70	coast live oak	10.5; 12	33; 38	2	30'±	30'±	2.5	2.0	Co-dominant trunks form at 12'. Deep included attachment. Moderately asymmetrical crown due to shading. Moderately low vigor and foliage density.	Moderate	15'	4'	No
71	coast live oak	19	60	2@4.5'	30'±	30'±	2.5	2.0	Two trunks form at 4.5'. Included trunk attachment with pronounced reaction wood ridge present. Moderately low vigor and foliage density.	Moderate	20'	5'	No
72	coast live oak	6	19	1	25'±	8'±	2.0	2.5	Small tree, shade suppressed with high-branched structure. No significant structural defects. Vigor and foliage density are low.	Moderate	8'	3'	No
73	coast live oak	9	28	2 @ 3'	20'±	20'±	2.0	2.0	Low, two-trunk structure with included attachment. Severe poison oak growing over crown. Vigor and foliage density are low.	Poor to Moderate	10'	3'	No
74	bay laurel	4; 6; 6.5	13; 19; 20	3	25'±	20'±	2.5	2.0	Low, three-trunk structure with upright crown form. One trunk is stunted. Vigor and foliage density are low.	Recommended for Removal			No
75	madrone	15	47	4 @ 30"	15'±	20'±	2.5	3.0	Low structure with symmetrical form. Growing at top of grading cut. Vigor and foliage density are moderately low with limited madrone canker infection.	Good	15'	4'	No
76	coast live oak	10.5	33	2 @ 4'	15'±	20'±	3.0	3.0	Two-trunk structure forming at 4'. Symmetrical crown form with dense branching. Vigor and foliage density are moderate. Large manzanita growing at base.	Good	12'	4'	No
77	coast live oak	8; 12; 12; 14; 15	25; 38; 38; 44; 47	5	30'±	35'±	3.0	2.5	Dense, multiple trunk structure with included trunk attachments. Symmetrical crown form. Vigor and foliage density are moderate.	Good	30'	10'	Yes

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78	coast live oak	6; 8; 14	19; 25; 44	3	18'±	20'±	3.0	3.0	Dense, multiple trunk structure and symmetrical crown form. Vigor and foliage density are moderate.	Good	18'	5'	No