



Basic Tree Risk Assessment Form

Client Dennis & Debbie Engelhard Date 8/15/24 Time 2:00PM
 Address/Tree location 4824 San Antonio Ct. NE Salem, OR 97305 Tree no. 1 Sheet 1 of 2
 Tree species Giant Sequoia (Sequoia sempervirens) dbh 60" Height 90' Crown spread dia. 25'
 Assessor(s) William L. Fargo Tools used DBH Tape Time frame 10 years

Target Assessment

Target number	Target description	Target protection	Target zone			Occupancy rate 1 - rare 2 - occasional 3 - frequent 4 - constant	Practical to move target?	Restriction practical?
			Target within drip line	Target within 1 x Ht.	Target within 1.5 x Ht.			
1	House	None	X			4	No	No
2	Occupants	None	X			3	No	No
3								
4								

Site Factors

History of failures Lightning strike ~ 2014 Ice Storm ~ 2021 Trunk and branch failures Topography Flat ☐ Slope ☒ 5 % Aspect W
 Site changes None ☐ Grade change ☒ Site clearing ☒ Changed soil hydrology ☒ Root cuts ☒ Describe See attached report
 Soil conditions Limited volume ☒ Saturated ☒ Shallow ☒ Compacted ☒ Pavement over roots ☐ % Describe See attached report
 Prevailing wind direction WSW Common weather Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☐ Normal ☒ High ☐ Foliage None (seasonal) ☐ None (dead) ☐ Normal 90 % Chlorotic % Necrotic 10 %
 Pests/Biotic Boring insects Abiotic Lightning damage
 Species failure profile Branches ☐ Trunk ☐ Roots ☒ Describe Shallow, intertwining roots

Load Factors

Wind exposure Protected ☐ Partial ☒ Full ☐ Wind funneling ☐ Relative crown size Small ☒ Medium ☐ Large ☐
 Crown density Sparse ☐ Normal ☒ Dense ☐ Interior branches Few ☒ Normal ☐ Dense ☐ Vines/Mistletoe/Moss ☐
 Recent or expected change in load factors Degrading root zone and trunk

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☒ LCR 100 %
 Dead twigs/branches ☒ 10 % overall Max. dia. 2"
 Broken/Hangers Number _____ Max. dia. _____
 Over-extended branches ☐
 Pruning history
 Crown cleaned ☒ Thinned ☐ Raised ☒
 Reduced ☐ Topped ☐ Lion-tailed ☐
 Flush cuts ☐ Other _____
 Cracks ☐ Lightning damage ☒
 Codominant ☐ Included bark ☐
 Weak attachments ☐ Cavity/Nest hole % circ.
 Previous branch failures ☐ Similar branches present ☐
 Dead/Missing bark ☒ Cankers/Galls/Burls ☐ Sapwood damage/decay ☒
 Conks ☐ Heartwood decay ☐
 Response growth _____

Condition(s) of concern _____

Crown weight compounds tree lean

Part Size _____ Fall Distance _____

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☒

Likelihood of failure Improbable ☐ Possible ☒ Probable ☐ Imminent ☐

Part Size _____ Fall Distance _____

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☒

Likelihood of failure Improbable ☐ Possible ☒ Probable ☐ Imminent ☐

— Trunk —

Dead/Missing bark ☒ Abnormal bark texture/color ☒
 Codominant stems ☐ Included bark ☐ Cracks ☒
 Sapwood damage/decay ☒ Cankers/Galls/Burls ☐ Sap ooze ☐
 Lightning damage ☒ Heartwood decay ☐ Conks/Mushrooms ☐
 Cavity/Nest hole % circ. Depth Poor taper ☐
 Lean 10 ° Corrected? _____
 Response growth _____
 Condition(s) of concern See attached report

Part Size _____ Fall Distance _____

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☒

Likelihood of failure Improbable ☐ Possible ☐ Probable ☒ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth Stem girdling ☐
 Dead ☐ Decay ☐ Conks/Mushrooms ☐
 Ooze ☐ Cavity ☐ % circ.
 Cracks ☐ Cut/Damaged roots ☒ Distance from trunk
 Root plate lifting ☒ Soil weakness ☒
 Response growth _____
 Condition(s) of concern See attached report

Part Size _____ Fall Distance _____

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☒

Likelihood of failure Improbable ☐ Possible ☐ Probable ☒ Imminent ☐

Risk Categorization

Target <i>(Target number or description)</i>	Tree part	Condition(s) of concern	Likelihood												Consequences				Risk rating <i>(from Matrix 2)</i>
			Failure				Impact				Failure & Impact <i>(from Matrix 1)</i>								
			Improbable	Possible	Probable	Imminent	Very low	Low	Medium	High	Unlikely	Somewhat	Likely	Very likely	Negligible	Minor	Significant	Severe	
House	Trunk and canopy	Lean compounded by an imbalanced crown. Deteriorated and declining root stability.			x				x			x					x	High	
Occupants	Trunk and canopy	Lean compounded by an imbalanced crown. Deteriorated and declining root stability.			x			x			x						x	Mod	

Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impact			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

Notes, explanations, descriptions

See attached report

Mitigation options

- _____ Residual risk _____
- _____ Residual risk _____
- _____ Residual risk _____
- _____ Residual risk _____

Overall tree risk rating Low ☐ Moderate ☐ High ☒ Extreme ☐

Overall residual risk None ☐ Low ☐ Moderate ☐ High ☐ Extreme ☐ Recommended inspection interval _____

Data ☒ Final ☐ Preliminary Advanced assessment needed ☒ No ☐ Yes-Type/Reason _____

Inspection limitations ☒ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____



Basic Tree Risk Assessment Form

Client Dennis & Debbie Engelhard Date 8/15/24 Time 2:00PM
 Address/Tree location 4824 San Antonio Ct. NE Salem, OR 97305 Tree no. 2 Sheet 1 of 2
 Tree species Giant Sequoia (Sequoia sempervirens) dbh 59" Height 90' Crown spread dia. 20'
 Assessor(s) William L. Fargo Tools used DBH Tape Time frame 10 years

Target Assessment

Target number	Target description	Target protection	Target zone			Occupancy rate 1 – rare 2 – occasional 3 – frequent 4 – constant	Practical to move target?	Restriction practical?
			Target within drip line	Target within 1 x Ht.	Target within 1.5 x Ht.			
1	Neighbor's house, greenhouse and sheds	None		X		4	No	No
2	Property owners	None	X			3	No	No
3								
4								

Site Factors

History of failures Lightning strike ~ 2014 Ice Storm ~ 2021 Trunk and branch failures Topography Flat ☐ Slope ☒ 5 % Aspect W
 Site changes None ☐ Grade change ☒ Site clearing ☒ Changed soil hydrology ☒ Root cuts ☒ Describe See attached report
 Soil conditions Limited volume ☒ Saturated ☒ Shallow ☒ Compacted ☒ Pavement over roots ☐ % Describe See attached report
 Prevailing wind direction WSW Common weather Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☒ Normal ☐ High ☐ Foliage None (seasonal) ☐ None (dead) ☐ Normal 8 % Chlorotic 10 % Necrotic 10 %
 Pests/Biotic Boring insects Abiotic Lightning damage
 Species failure profile Branches ☐ Trunk ☐ Roots ☒ Describe Shallow, intertwining roots

Load Factors

Wind exposure Protected ☐ Partial ☒ Full ☐ Wind funneling ☐ Relative crown size Small ☒ Medium ☐ Large ☐
 Crown density Sparse ☒ Normal ☐ Dense ☐ Interior branches Few ☒ Normal ☐ Dense ☐ Vines/Mistletoe/Moss ☐
 Recent or expected change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☒ LCR 100 %
 Dead twigs/branches ☒ 10 % overall Max. dia. 2"
 Broken/Hangers Number _____ Max. dia. _____
 Over-extended branches ☐
 Pruning history
 Crown cleaned ☒ Thinned ☐ Raised ☒
 Reduced ☐ Topped ☐ Lion-tailed ☐
 Flush cuts ☐ Other _____
 Cracks ☐ Lightning damage ☐
 Codominant ☐ Included bark ☐
 Weak attachments ☐ Cavity/Nest hole _____ % circ.
 Previous branch failures ☐ Similar branches present ☐
 Dead/Missing bark ☒ Cankers/Galls/Burls ☐ Sapwood damage/decay ☒
 Conks ☐ Heartwood decay ☐
 Response growth _____

Condition(s) of concern _____

Part Size _____ Fall Distance _____
 Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☒
 Likelihood of failure Improbable ☐ Possible ☒ Probable ☐ Imminent ☐

Part Size _____ Fall Distance _____
 Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☒
 Likelihood of failure Improbable ☐ Possible ☒ Probable ☐ Imminent ☐

— Trunk —

Dead/Missing bark ☒ Abnormal bark texture/color ☒
 Codominant stems ☐ Included bark ☐ Cracks ☒
 Sapwood damage/decay ☒ Cankers/Galls/Burls ☐ Sap ooze ☐
 Lightning damage ☒ Heartwood decay ☒ Conks/Mushrooms ☐
 Cavity/Nest hole _____ % circ. Depth _____ Poor taper ☐
 Lean _____ ° Corrected? _____

Response growth _____
 Condition(s) of concern See attached report
 Part Size _____ Fall Distance _____

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☒
 Likelihood of failure Improbable ☐ Possible ☐ Probable ☒ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth _____ Stem girdling ☐
 Dead ☐ Decay ☐ Conks/Mushrooms ☐
 Ooze ☐ Cavity ☐ _____ % circ.
 Cracks ☐ Cut/Damaged roots ☒ Distance from trunk _____
 Root plate lifting ☒ Soil weakness ☒

Response growth _____
 Condition(s) of concern See attached report

Part Size _____ Fall Distance _____

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☒
 Likelihood of failure Improbable ☐ Possible ☐ Probable ☒ Imminent ☐

Risk Categorization

Target <i>(Target number or description)</i>	Tree part	Condition(s) of concern	Likelihood												Consequences				Risk rating <i>(from Matrix 2)</i>
			Failure				Impact				Failure & Impact <i>(from Matrix 1)</i>								
			Improbable	Possible	Probable	Imminent	Very low	Low	Medium	High	Unlikely	Somewhat	Likely	Very likely	Negligible	Minor	Significant	Severe	
Neighbor's house,	Trunk and canopy	Lean compounded by an imbalanced crown. Deteriorated and declining root stability.			x				x			x					x	High	
greenhouse and																			
sheds																			
Property owners	Trunk and canopy	Lean compounded by an imbalanced crown. Deteriorated and declining root stability.		x				x			x						x	Mod	

Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impact			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

Notes, explanations, descriptions

See attached report

Mitigation options

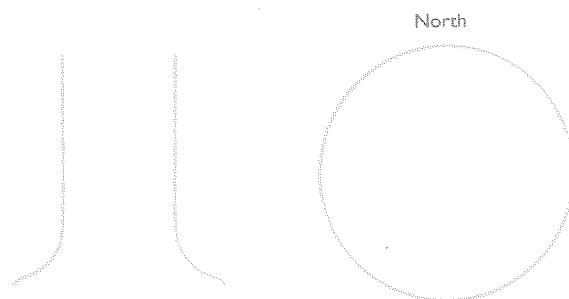
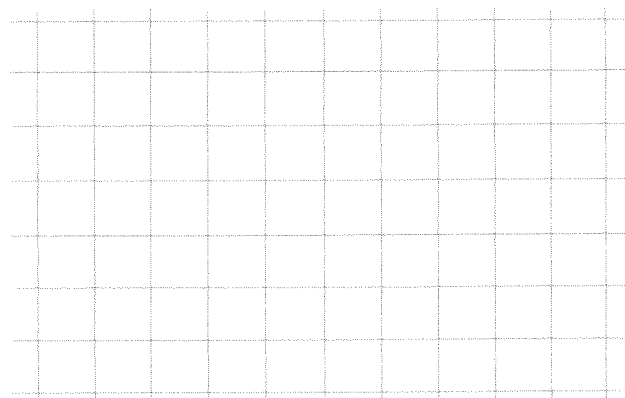
- _____ Residual risk _____
- _____ Residual risk _____
- _____ Residual risk _____
- _____ Residual risk _____

Overall tree risk rating Low ☐ Moderate ☐ High ☒ Extreme ☐

Overall residual risk None ☐ Low ☐ Moderate ☐ High ☐ Extreme ☐ Recommended inspection interval _____

Data ☒ Final ☐ Preliminary Advanced assessment needed ☒ No ☐ Yes-Type/Reason _____

Inspection limitations ☒ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____





Basic Tree Risk Assessment Form

Client Dennis & Debbie Engelhard Date 8/15/24 Time 2:00PM
 Address/Tree location 4824 San Antonio Ct. NE Salem, OR 97305 Tree no. 3 Sheet 1 of 2
 Tree species Giant Sequoia (Sequoia sempervirens) dbh 39" Height 90' Crown spread dia. 25'
 Assessor(s) William L. Fargo Tools used DBH Tape Time frame 10 years

Target Assessment

Target number	Target description	Target protection	Target zone			Occupancy rate 1 - rare 2 - occasional 3 - frequent 4 - constant	Practical to move target?	Restriction practical?
			Target within drip line	Target within 1 x Ht.	Target within 1.5 x Ht.			
1	Neighbor's house	None	X			4	No	No
2	Neighbors	None	X			3	No	No
3								
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Site Factors

History of failures Lightning strike ~ 2014 Ice Storm ~ 2021 Trunk and branch failures Topography Flat ☐ Slope ☒ 5 % Aspect W
 Site changes None ☐ Grade change ☒ Site clearing ☒ Changed soil hydrology ☒ Root cuts ☒ Describe See attached report
 Soil conditions Limited volume ☒ Saturated ☒ Shallow ☒ Compacted ☒ Pavement over roots ☐ % Describe See attached report
 Prevailing wind direction WSW Common weather Strong winds ☐ Ice ☐ Snow ☐ Heavy rain ☐ Describe _____

Tree Health and Species Profile

Vigor Low ☒ Normal ☐ High ☐ Foliage None (seasonal) ☐ None (dead) ☐ Normal 80 % Chlorotic 5 % Necrotic 15 %
 Pests/Biotic Boring insects Abiotic Lightning damage
 Species failure profile Branches ☐ Trunk ☐ Roots ☒ Describe Shallow, intertwining roots

Load Factors

Wind exposure Protected ☐ Partial ☒ Full ☐ Wind funneling ☐ Relative crown size Small ☒ Medium ☐ Large ☐
 Crown density Sparse ☐ Normal ☒ Dense ☐ Interior branches Few ☒ Normal ☐ Dense ☐ Vines/Mistletoe/Moss ☐
 Recent or expected change in load factors See attached report

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown ☒ LCR 100 %
 Dead twigs/branches ☒ 10 % overall Max. dia. 2"
 Broken/Hangers Number _____ Max. dia. _____
 Over-extended branches ☐
 Pruning history
 Crown cleaned ☒ Thinned ☐ Raised ☒
 Reduced ☐ Topped ☐ Lion-tailed ☐
 Flush cuts ☐ Other _____
 Cracks ☐ Lightning damage ☒
 Codominant ☐ Included bark ☐
 Weak attachments ☐ Cavity/Nest hole _____ % circ.
 Previous branch failures ☐ Similar branches present ☐
 Dead/Missing bark ☒ Cankers/Galls/Burls ☐ Sapwood damage/decay ☐
 Conks ☐ Heartwood decay ☐
 Response growth _____

Condition(s) of concern _____

Crown weight compounds tree lean

Part Size _____ Fall Distance _____

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☒

Likelihood of failure Improbable ☐ Possible ☒ Probable ☐ Imminent ☐

Part Size _____ Fall Distance _____

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☒

Likelihood of failure Improbable ☐ Possible ☒ Probable ☐ Imminent ☐

— Trunk —

Dead/Missing bark ☒ Abnormal bark texture/color ☒
 Codominant stems ☐ Included bark ☐ Cracks ☒
 Sapwood damage/decay ☒ Cankers/Galls/Burls ☐ Sap ooze ☐
 Lightning damage ☒ Heartwood decay ☐ Conks/Mushrooms ☐
 Cavity/Nest hole _____ % circ. Depth _____ Poor taper ☐
 Lean 10 ° Corrected? _____

Response growth _____

Condition(s) of concern See attached report

Part Size _____ Fall Distance _____

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☒

Likelihood of failure Improbable ☐ Possible ☐ Probable ☒ Imminent ☐

— Roots and Root Collar —

Collar buried/Not visible ☐ Depth _____ Stem girdling ☐
 Dead ☐ Decay ☐ Conks/Mushrooms ☐
 Ooze ☐ Cavity ☐ _____ % circ.
 Cracks ☐ Cut/Damaged roots ☒ Distance from trunk _____
 Root plate lifting ☒ Soil weakness ☒

Response growth _____

Condition(s) of concern See attached report

Part Size _____ Fall Distance _____

Load on defect N/A ☐ Minor ☐ Moderate ☐ Significant ☒

Likelihood of failure Improbable ☐ Possible ☐ Probable ☒ Imminent ☐

Risk Categorization

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Neighbor's house,	Trunk and canopy	Lean compounded by an imbalanced crown. Deteriorated and declining root stability.			x				x			x					x	High	
Neighbors	Trunk and canopy	Lean compounded by an imbalanced crown. Deteriorated and declining root stability.			x			x				x					x	Mod	

Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impact			
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Imminent	Unlikely	Somewhat likely	Likely	Very likely
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Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

Notes, explanations, descriptions

See attached report

Mitigation options

- _____ Residual risk _____
- _____ Residual risk _____
- _____ Residual risk _____
- _____ Residual risk _____

Overall tree risk rating Low ☐ Moderate ☐ High ☒ Extreme ☐

Overall residual risk None ☐ Low ☐ Moderate ☐ High ☐ Extreme ☐ Recommended inspection interval _____

Data ☒ Final ☐ Preliminary Advanced assessment needed ☒ No ☐ Yes-Type/Reason _____

Inspection limitations ☒ None ☐ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe _____

