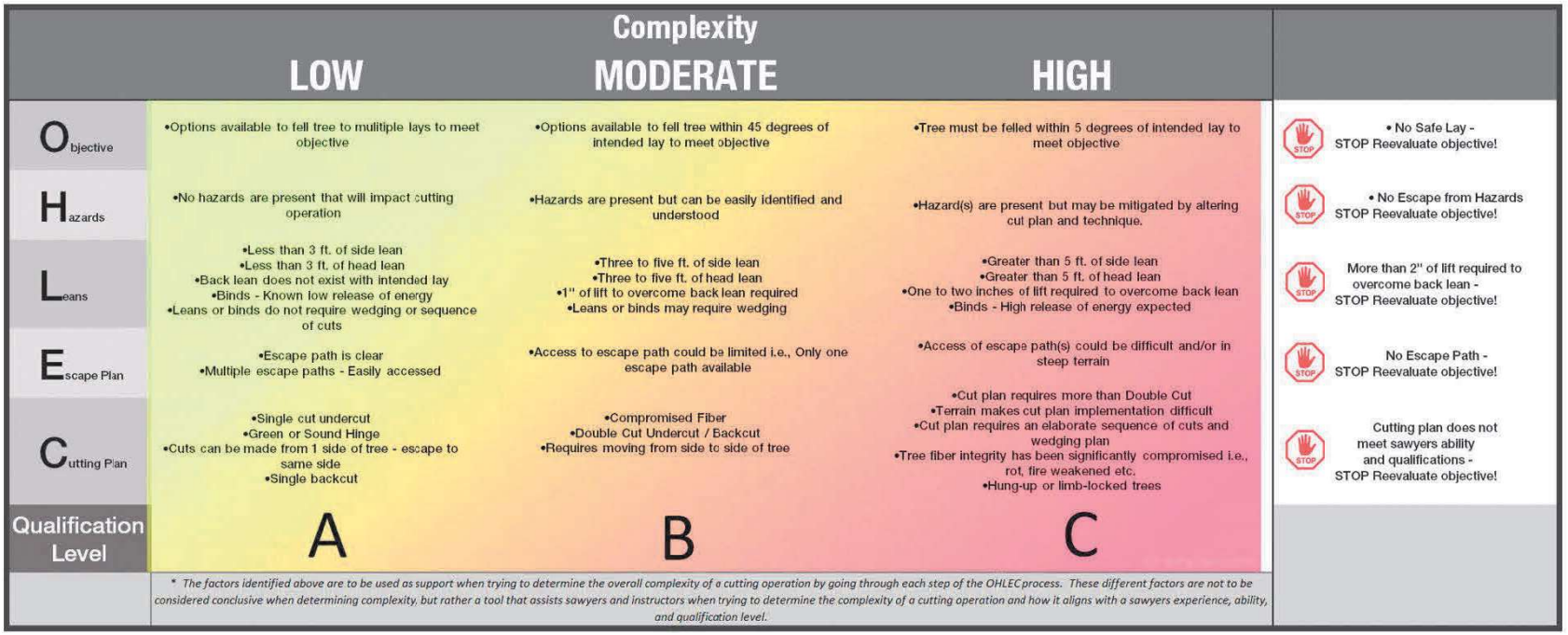
OHLEC Field Guide

Chainsaw Field Guide		Risk
Objective • How do I get home safely? • What needs to be done? • What is your desired lay? • What obstacles exist and are their values high?	Fall tree to multiple lays	Low
	Bucking on flat ground	Low
	Fall tree within 45 degrees of specific lay	Moderate
	Fall tree within 5 degrees of specific lay	High
	No safe lay	STOP Reevaluate
Hazards • Overhead hazards • Other Tree hazards in cutting area • Environmental Hazards • Cutting area hazards • Wood Hazards – rot, cracks, live, dead, fire weakened • Human factor Hazards • Hung-up or storm damaged	Static Hazards	Low
	Dynamic Hazards	High
	No Escape from Hazards	STOP Reevaluate
	<30% Fiber at Hinge	STOP Reevaluate
	Base won't support stem if cut	STOP Reevaluate
Leans (Falling) • Side to Side • Front or Back • Risk of barber chair?	**Side**	
	< 3 feet	Low
	3 ft. -5 ft.	Moderate
	>5 ft.	High
	Head	
	<3 ft.	Low
	>3 ft.	Moderate
	Back	
	1-2" lift to overcome	Moderate
	>2" lift to overcome	High
Binds (Bucking) • Top/Bottom • Side to side • End to end • Combinations	**Binds**	
	Known Low release of energy	Low
	Release of energy known but may require a series of cuts	Moderate
	High release of energy expected or unknown	High
Escape paths	**Angle**	
	Diagonal both clear	Low
	Only 1 escape path	Moderate
	Distance from Tree	
	15ft	Low
	10ft-15ft	Moderate
	Cover <10 ft	Moderate
	No Escape Path	STOP Reevaluate
Cutting Plan • Hinge design (80/10) • Undercut • Backcut • Sequence of cuts • Type of bucking cut • Slope steepness	**Undercut/Hinge**	
	Single cut undercut	Low
	Sound Fiber	Low
	Compromised Fiber	Moderate
	Double cut undercut	Moderate
	Sequence of cuts	
	All from 1 side, escape to same side	Low
	Requires moving from side to side of tree.	Moderate
	Backcut	
	Single backcut	Low
	Double cut backcut	Moderate
	>Double cut	High
	Cutting plan does not meet objective and needs to be changed	STOP Reevaluate
	Cutting plan does not meet sawyers ability and qualifications	STOP Reevaluate

OHLEC Field Guide

Crosscut and Ax Field Guide		Risk
Objective • How do I get home safely? • What needs to be done? • What is your desired lay? • What obstacles exist and are their values high?	Fall tree in any direction	Low
	Fall tree in specific lay	Moderate
	Bucking small trees, pieces can be easily lifted and moved.	Low
	Buck large bole with pre-plan of how to move piece	Moderate
	No safe lay	STOP Reevaluate
Hazards • Overhead hazards • Other Tree hazards in cutting area • Environmental Hazards • Cutting area hazards • Wood Hazards – rot, cracks, live, dead, fire weakened • Human Factor Hazards • Hung-up or storm damaged	0-2 Individual Hazards	Low
	3-5 Individual Hazards	Moderate
	>5 Individual Hazards	High
	No Escape from Hazards	STOP Reevaluate
	<30% Fiber at Hinge	STOP Reevaluate
	Base won't support stem if cut	STOP Reevaluate
Leans (Falling) • Side to Side • Front or Back • Risk of barber chair?	**Side**	
	< 3 feet	Low
	3 ft. -5 ft.	Moderate
	>5 ft.	High
	Head	
	<3 ft.	Low
	3ft-6ft	Moderate
	>6 ft.	High
	Back	
	<1" lift to overcome	Moderate
	>1" lift to overcome	High
Binds (Bucking) • Top/Bottom • Side to side • End to end • Combinations	Back lean on tree <12" DBH	High
	Binds	
	Known low release of energy	Low
	Release of energy known but may require a series of cuts	Moderate
	High release of energy expected or unknown	High
Escape paths	**Angle**	
	45 degree both clear	Low
	Only 1 escape path	High
	Distance	
	15ft	Low
	10ft-15ft	Moderate
	No Escape Path	STOP Reevaluate
Cutting Plan • Hinge design (80/10) • Undercut • Backcut • Type and sequence of cuts • Wedging Plan • Chopping	**Undercut/Hinge**	
	Conventional undercut	Low
	Sound Fiber	Low
	Compromised fiber	Moderate
	Weak side vertical chopping	Moderate
	Undercut-other	High
	Backcut	
	Double sawyer	Low
	Single sawyer	Moderate
	Bucking	
	Double sawyer	Low
	Single sawyer - underbucking	Moderate
	Cutting height above shoulders	High
	Wedging	
	Cutting plan does not meet objective	STOP Reevaluate
	Cutting plan nees to be changed	STOP Reevaluate

OHLEC Complexity



	Complexity LOW	MODERATE	HIGH	
Objective	•Options available to fell tree to mulitiple lays to meet objective	•Options available to fell tree within 45 degrees of intended lay to meet objective	•Tree must be felled within 5 degrees of intended lay to meet objective	• No Safe Lay - STOP Reevaluate objective!
Hazards	•No hazards are present that will impact cutting operation	•Hazards are present but can be easily identified and understood	•Hazard(s) are present but may be mitigated by altering cut plan and technique.	• No Escape from Hazards STOP Reevaluate objective!
Leans	•Less than 3 ft. of side lean •Less than 3 ft. of head lean •Back lean does not exist with intended lay •Binds - Known low release of energy •Leans or binds do not require wedging or sequence of cuts	•Three to five ft. of side lean •Three to five ft. of head lean •1" of lift to overcome back lean required •Leans or binds may require wedging	•Greater than 5 ft. of side lean •Greater than 5 ft. of head lean •One to two inches of lift required to overcome back lean •Binds - High release of energy expected	More than 2" of lift required to overcome back lean - STOP Reevaluate objective!
Escape Plan	•Escape path is clear •Multiple escape paths - Easily accessed	•Access to escape path could be limited i.e., Only one escape path available	•Access of escape path(s) could be difficult and/or in steep terrain	No Escape Path - STOP Reevaluate objective!
Cutting Plan	•Single cut undercut •Green or Sound Hinge •Cuts can be made from 1 side of tree - escape to same side •Single backcut	•Compromised Fiber •Double Cut Undercut / Backcut •Requires moving from side to side of tree	•Cut plan requires more than Double Cut •Terrain makes cut plan implementation difficult •Cut plan requires an elaborate sequence of cuts and wedging plan •Tree fiber integrity has been significantly compromised i.e., rot, fire weakened etc. •Hung-up or limb-locked trees	Cutting plan does not meet sawyers ability and qualifications - STOP Reevaluate objective!
Qualification Level	A	B	C	

* *The factors identified above are to be used as support when trying to determine the overall complexity of a cutting operation by going through each step of the OHLEC process. These different factors are not to be considered conclusive when determining complexity, but rather a tool that assists sawyers and instructors when trying to determine the complexity of a cutting operation and how it aligns with a sawyers experience, ability, and qualification level.*