Training and Evaluation Standards for USFS Saw Program:

<u>Chainsaw</u>

This document has been drafted to set provisional standards and expectations for conducting sawyer classroom trainings and field evaluations and to outline the requisite skill set for each certification level within the USDA Forest Service Saw Program. It serves as a reference for sawyers, sawyer evaluators, and certifying officials, and is intended to be implemented as a national standard.

The certification process begins with an individual completing a nationally recognized sawyer training curriculum, followed by documentation of a field evaluation, and concludes with the signing of a sawyer's saw card for certification.

Per USFS Saw Policy 2358

Nationally Recognized Sawyer Training Course (NRSTC). An approved training course that satisfies formal sawyer instruction requirements.

Evaluation. A determination by a sawyer evaluator that indicates whether a sawyer is proficient in the safe use of a saw in the field and that is documented using the Sawyer Training and Field Proficiency Evaluation form (FSM 2358.3, ex. 03 and 04).

Certification. Confirmation a sawyer meets applicable training and field proficiency requirements and can competently saw at the identified skill level by a certifying official based on the requisite sawyer evaluator recommendation.

<u>Expectations and Guidance - sawyer training</u>

1. All sawyers must complete a Nationally Recognized Saw Training Course (NRSTC). Training courses should include both classroom and field instruction.

   <u>Initial Certification</u> – should consist of 4-8 hours of classroom training utilizing approved NRSTC, with minimal divergence in instruction and delivery. This is followed by a minimum 1-day hands-on proficiency-building field sessions covering brushing, limbing, and bucking, as well as one day of training for felling if felling is part of the course. The total training time is 2-3 days, depending on the certification level being sought.

   <u>Dual Certification</u> - for chain/crosscut saws: All requirements listed above must be met for each tool; there should be no condensing of the two different curriculum delivery or field day timeframes.

2.   Sawyer instructors must be certified at the C or B level (B-Sawyers may only instruct with a letter of designation from a Unit Saw Program Coordinator).

3.   Qualified instructors may instruct sawyers regardless of agency or organization.

4.   Sawyer instructors may only instruct within the limits of their certification level (for example, a bucking only C Sawyer can only instruct for bucking).

Expectations and Guidance – Sawyer Evaluation

Providing a high-quality and safe learning environment is essential to the development of a sawyer. As such, the student-to-instructor ratio during field training and evaluations must not exceed 1 instructor for every 4 students. Ensuring that this standard is met is of the utmost importance when considering the resources needed to fairly evaluate the standards outlined in this document.

Sawyer Qualification: *A-Sawyer (Basic)*

Responsibilities and Limitations: (2358.06e – Exhibit 01)

A-Sawyer Chainsaw Bucking Only "*May buck, limb and brush in the least complex situations under the immediate supervision of a B or C-Sawyer bucking only. May not fall trees.*"

A-Sawyer Chainsaw Felling and Bucking "*May fall, buck, limb and brush in the least complex situations under the immediate supervision of a B or C-Sawyer felling and bucking.*"

Narrative: An A-Sawyer is an apprentice sawyer, who has completed a NRSTC and passed a field evaluation where they demonstrated an understanding of a saw function and an ability to safely operate a chainsaw in low-complexity environment. Per policy, an A-Sawyer needs to be supervised by a B or C-certified sawyer. Most participants who complete a NRSTC with no prior knowledge or experience of saw operations are able to complete the courses as a qualified A-Sawyer (bucking and/or bucking and felling).

Evaluation: An apprentice sawyer should be given sufficient time and opportunity to use a chainsaw to conduct various saw operations, with a minimum of 1-2 fuel tank cycles to perform a wide range of low complexity saw operations. The following tasks should be accomplished with minimal difficulty, and with an expectation of one-on-one mentoring assistance from a qualified instructor.

General Knowledge and Skills:

1. <u>Preparedness</u> –
   - Able to identify and uses required PPE
2. <u>Communication</u> –
   - Able to verbalize and perform a chainsaw safety check
   - Able to perform a rudimentary procedural size up (OHLEC)
3. <u>Saw Operation</u> –
   - Ability to start a gas-powered chainsaw utilizing one of 3 acceptable starting techniques.
   - Demonstrates proper use of chain brake when operating a chainsaw
   - Maintains proper thumb wrap on top handle
   - Kickback arc avoidance
   - Demonstrates cutting area control
4. <u>Proficiency</u> –
   - Individuals may need regular prompts throughout the training/evaluation process to reinforce knowledge (e.g., safety check, size up).
   - Must demonstrate ability to safely handle a chainsaw in a manner that will prevent injury to themself or others.
5. <u>Ability to Learn</u> –
   - Maintains a positive attitude, receptive to feedback, and demonstrates a willingness to learn.
6. <u>Care and Maintenance</u> –
   - Comes equipped with a chain maintenance equipment and able to perform rudimentary field sharpening.
   - Can remove and replace a bar, chain, sparkplug, and air filter.

Evaluation Tasks and Techniques:

A-Bucking Skills: During this time the student practices chainsaw operations with substantial coaching, demonstrates OHLEC, begins to understand compression and tension, makes appropriate escape plans and can demonstrate *3 low complexity* bucking scenarios with some coaching. By the end of the course, it is expected that the following tasks have been demonstrated:

1. Use of wedge and ax as needed
2. Offside cutting
3. Pie cut

4. Boring cut
5. Straight, compound cuts, and offset cuts used
6. Spring pole release when possible
7. Brushing/limbing – Low cut brush and flush cut limbs

A-Falling Skills: At the end of the class an A-Sawyer should have learned and demonstrated the following tasks:

1. Articulates OHLEC in a felling operation and determine complexity of a tree.
2. Successfully fell at least one low complexity tree.
3. Identifies good and bad side and finishes cuts appropriately
4. Demonstrates ability to perform the 3 cuts necessary to fell a tree.
5. Familiar with wedging
6. Appropriate use of gunning sites
7. Appropriate body positioning, ergonomics and use of dogs (bumper spikes)
8. Appropriate warning shouts to maintain cutting out area control
9. Hinge left is intact and follows the 80+ 10- hinge guidelines.

A-Falling skills often begin at a stump station where they can practice undercuts and backcuts with no overhead hazards. Once a hinge can be successfully isolated then the student can move to a low complexity tree(s).

Sawyer Qualification: *B-Sawyer (Intermediate)*

Responsibilities and Limitations: (2358.06e – Exhibit 01)

B-Sawyer Chainsaw Bucking Only, *"May independently buck and limb material in moderately complex situations. May not fall. May buck at the C level, but only under the immediate supervision of a C-Sawyer. Can supervise A-Sawyers when they are bucking but not when felling."*

B-Sawyer Chainsaw Bucking and Felling *"May independently fell, buck and limb material in moderately complex situations. May fall and buck at the C level, but only under the immediate supervision of a C-Sawyer felling and bucking. Can supervise A-Sawyers when they are felling or bucking."*

Narrative: The qualification, B-Sawyer is expected to be experienced enough to operate a saw with no supervision and be capable of supervising A-Sawyers. This supervision is to

help A-Sawyers continue to learn as well as point out any safety issues or necessary improvements of an A-Sawyer.

B-Sawyers are expected to work unsupervised with a saw in various and often dynamic environments. The B-Sawyer should be able to execute strong judgment regarding "walk-away" or "no-go" situations and have firm control of their ego and attitude as well as understand their personal limitations.

Evaluation: To achieve a B-Sawyer Chainsaw Bucking and Felling, demonstration of the following tasks with limited coaching is expected.

General knowledge and skills: Handling skills including a degree of proficiency of all "A-sawyer" fundamental skills plus:

1. <u>Preparedness</u> –
   - Shows up ready with proper saw equipment and PPE meeting all necessary standards in good repair
2. <u>Communication</u> –
   - Develops communication plan for working with swampers to improve safety and efficiencies.
3. <u>Procedural Size-up</u> –
   - Timeliness and precision executing OHLEC and cut plans – clearly knows what they're doing.
4. <u>Proficiency</u> –
   - Intentional and deliberate movements for all cuts – good control of tip/bar
   - Ability to correct cuts that don't line up on the first try with limited time and effort.
   - Correct use of dogs and gunning sites.
5. <u>Instruction</u> –
   - Ability to teach and verbalize to the instructor their thought process as well as techniques and theory.
6. <u>Care and Maintenance</u> –
   - Rarely puts the saw bar into the dirt
   - Able to field sharpen saw chain
   - Proper saw sheath and use

Evaluation Tasks and Techniques:

B-Bucking Skills: Proficiency at all A-Bucking tasks, plus can demonstrate *moderately complex* bucking scenarios in an evaluation that could include:

1. Demonstrates ability to safely mitigate top bound logs. (Pie cut and a hinge, wedges....)
2. Uses wedges as necessary or makes cuts so wedges are not necessary
3. Uses compound cuts, stringers, levers, and other methods to facilitate log rollout
4. Cutting large trees if saw site provides opportunity (offside bucking first)
5. Appropriately dealing with moderately complex compression and reads binds correctly.
6. Demonstrates the knowledge of where to safely start and finish the bucking operation. (Bucking through elevated logs)
7. Demonstrated ability to mitigate a hung-up tree.

B-Falling Skills: Proficiency in all A-Falling and B-Bucking tasks, plus can demonstrate *moderately complex* felling scenarios that could include:

1. Felling a tree in a direction that is different than its natural lean.
2. Falls dead/frozen trees with brittle fibers
3. Identifies defects in trees and mitigates as needed
4. Demonstrates 2 different undercuts
5. Demonstrates at least 2 different backcuts (conventional, boring, ¼ backcut, double)
6. Demonstrates correct use of wedges on a vertical or back leaning tree
7. Hinges left are intact and follow the 80+ 10- guideline, adequate stumpshot
8. Cuts are level

Sawyer Qualification: *C-Sawyer (Advanced)*

Responsibilities and Limitations: (2358.06e – Exhibit 01)

C-Sawyer Chainsaw Bucking Only "*May independently buck and limb material in complex situations Can supervise A and B Sawyers when they are bucking. May independently conduct formal instruction for all sawyers bucking only. May conduct formal field evaluations of A and B sawyers bucking only.*"

C-Sawyer Chainsaw Felling and Bucking "*May independently limb, buck and fall material in complex situations. Can supervise A and B Sawyers when they are felling or bucking. May*

independently conduct formal instruction for all Sawyers. May conduct formal field evaluations of for all Sawyers."

Narrative: C-Sawyers are advanced sawyers who have demonstrated the ability to safely perform highly complex saw operations. C-Sawyers are role models for the saw program and are expected to have a working knowledge of saw policy, demonstrate positive mentorship, and regularly assist with classroom instruction and field evaluations of other sawyers.

Evaluation: C-Sawyer *needs to be evaluated in person by 2 C-Sawyers, one of which must be qualified at the C-Evaluator level. The second can either be a C-Sawyer, or an approved training consultant*. This is to ensure that the sawyer has the requisite skillset needed to operate a saw in a highly complex environment with no support or direction from other sawyers.

> **General knowledge and skills:** Handling skills including a high degree of proficiency of all "A and B sawyer" fundamental skills plus:

1. Preparedness –
   - Comprehensive knowledge of saw program policy, curriculum, and standard practices.
   - Properly identifies any tree defects, understands the impacts on the saw operations, and develops mitigations.
2. Communication –
   - Determine the appropriate undercut (conventional, Humboldt, open-faced) and able to describe pros/cons of the selected undercut.
   - Demonstrates the appropriate backcut (conventional, boring, quarter back cut, etc.) and able to describe pros/cons for the selected backcut.
   - The ability to articulate and, when needed, demonstrate a comprehensive wedge plan.
   - Understands when to utilize left-handed cutting techniques and able to pound wedges ambidextrously.
3. Saw Operations –
   - Fluid movements, executed effectively, resulting in reduced exposure times.
4. Proficiency –
   - Geometry of cuts line up well, with minimum cleanup.
   - Fluid movements executed effectively are performed with proficiency, and limited exposure.

5. Instruction –
   - Able to provide immediate critique of oneself and readily respond through adaptations made to improve outcomes.

Evaluation Tasks and Techniques:

C-Bucking Skills: Proficiency of all A and B-Bucking tasks, plus can demonstrate at least 3 *complex* bucking scenarios that may include:

1. Trees under substantial tension, compression, and torsion (multiple bind situation) – high release of energy expected
2. Very large trees (length or diameter)
3. Removing or repositioning a hung-up tree
4. Bucked logs that are difficult to move. Here preplanning is important, e.g. runners, levers, or ropes needed to get bucked log into objective
5. Bucking trees on a steep slope
6. Individual blowdown, wind-shook, or shattered trees
7. Cutting through a jackstraw or avalanche debris, or elevated pile (will count as 1 highly complex situation with many trees)
8. Elevated trees (on other trees or suspended by large limbs)
9. Trees that have no good side (due to slope, bind, footing, etc.)

C-Falling Skills: Proficiency in all A and B-Falling tasks, and as an advanced sawyer possess the ability to manage high complexity cutting operations. During evaluation the C-Sawyer will need to demonstrate proficiency while felling at least three h*igh complexity* trees as well as a minimum of one complex bucking operation. Some examples of high complexity saw operations may include:

1. Large diameter trees, double/triple cut
2. Significant side, back, or forward lean.
3. Small diameter trees off lean, using nontraditional cut plans
4. Trees which require a comprehensive wedging plan
5. Compromised trees
6. Hung-up trees
7. Limb-locked trees
8. Trees on steep slopes
9. Trees that threaten infrastructure and require precision
10. Trees that are actively burning
11. Saw operations with compromised footing that may require the use of a springboard, scaffolding, cutting steps in root swell, or other techniques.

Sawyer Qualification: *C-Sawyer Evaluator (Expert)*

Responsibilities and Limitations: (2358.06e – Exhibit 01)

C-Sawyer Evaluator *"C-Sawyer Evaluators conduct Sawyer trainings and evaluations for their unit or other units as needed. Conduct Sawyer training and evaluations in a consistent, fair and unbiased manner."*

Evaluation: "*To become a **C-Sawyer Evaluator** a candidate must participate in a C-Sawyer evaluation as an evaluator. They need to be evaluated by two current C-Sawyer Evaluators, one of which needs to be the Regional Saw Program Manager or be a current C-Sawyer Evaluator designated by the Regional Saw Program Manager to represent them."*

Narrative: C-Sawyer Evaluator is an expert sawyer as well as someone who has a comprehensive knowledge of USFS Saw Policy, training curriculums, using the sawyer database, and successfully preparing all the necessary documents and steps to conduct field training, (communications, medical plan, JHA's and RA's, etc.) and obtaining approval for cut sites. Initial C-Evaluators typically host or co-host an advanced saw training and evaluations. This is where two other C-Sawyer Evaluators can mentor the prospective C-Sawyer Evaluator and provide feedback.

C-Sawyer Evaluators are leaders in the saw community and are expected to model the following core values and principles:

Duty
- Technical proficiency as an operator and a leader
- Make sound and timely decisions
- Clear communication to ensure tasks are understood, supervised, accomplished safely
- Develop and mentor sawyers, instructors, and evaluators for the future of the saw program

Respect
- Know your fellow sawyer's skills, abilities, and mindset while looking out for their well-being
- Keep other sawyers informed
- Build and foster the saw community
- Ensure other sawyers operate in accordance with their capabilities

Integrity
- Know yourself, your skillset, and seek improvement
- Model leadership and accept responsibility for your actions
- Set the example by demonstrating maturity, honesty and humility
- Giving and being open to constructive feedback

Reevaluation: 2358.06c

Sawyer reevaluation is required every 3 years. If the sawyer desires to remain at the same certification level the evaluator(s) may diverge from the standards listed above and evaluate on a single saw operation (bucking or felling) depending on certification level.

Per USFS Saw policy: Minimum requirements for sawyer training and field proficiency reevaluation at all levels include:

1. A knowledge refresher that includes a discussion or demonstrations covering current saw directives, training and evaluation practices, general saw safety, and cutting techniques.

2. A skill refresher, including a field proficiency evaluation, for the sawyer's certification level being sought. Opportunities for proficiency should be encouraged prior to being evaluated.