Association for Sustainable Forestry

Silviculture Assessments Procedures Manual

Pre-Assessments, Post Assessments and GPS Submissions

Silviculture Contractors, Foresters and Forest Technicians have the responsibility to conduct pre- and post-assessments on silviculture sites that are submitted to the Association for Sustainable Forestry (ASF) for funding. These assessments will be conducted in accordance with the procedures outlined in this document. These procedures have been developed with the objective of providing a system for determining whether silviculture sites will meet or have met ASF standards. GPS shape file of sites must accompany the claim.

Updated:
4/30/2015

Pre-Assessments

Pre-Assessments are done to determine if the proposed treatment area qualifies for silviculture funding under ASF criteria, to set a baseline for stand improvement and to determine the rate in Cat 4&5. Assessment sheets can be found on website (www.asforestry.com). The sampling intensity is as follows:

Sampling Intensity (Non-FEC)

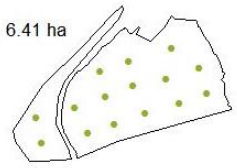
Treatment Area (ha)	# Plots
19.1+	1 /ha
9.1-19.0	20
4.1-9.0	15
0.1-4.0	10

Sampling Intensity (FEC) – Cat 6 & 7c

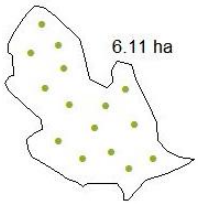
Treatment Area (ha)	# Plots
6.1+	1 / 2ha
0.1-6.0	3

*Must be PTA certified

Plots should be evenly distributed throughout the site. This may be done in a grid or random pattern. A GPS waypoint at each plot should be taken and saved for reference.



Untreated areas left to satisfy the wildlife Habitat and Watercourse Protection Regulations are not to be sampled in assessments. This area may entail up to 5% of the treated block area (for blocks greater than 3ha). Untreated areas over 5% of total area will have to be excluded from the claimed area.



Plot size and type vary by treatment. The density plot measures the number of trees per hectare, the stocking plot measures how much of the site is covered with trees at 8ft spacing, and the prism plot is a 2-dimension measurement of volume. FEC also includes assessing soil characteristics and the health and vigor of the crop trees. Heights, age, tree species and diameter are also collected.

Plot Sizes/ Types		Pre-Assessments			
Category	**Treatment**	**Density plot**	**Stocking Plot**	**FEC***	**Prism plot**
1	Fill Planting	1.78m (1/1000th)	1.36m (1/1736th)		
3	Manual Weeding	1.78m (1/1000th)	1.36m (1/1736th)		
4,5	PCT	1.78m (1/1000th)	1.36m (1/1736th)		
6	Commercial Thinning			YES	2.0 BAF
7a	Crop Tree Release	5.0m (1/125th)			2.0 BAF
7b	Crop Tree Pruning	5.0m (1/125th)			
7c	Selection Management		1.36m (1/1736th)	YES	2.0 BAF

ASSOCIATION FOR SUSTAINABLE FORESTRY
PO Box 696, Truro, N.S. B2N 5E5
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www.asforestry.com

Post-Assessments

Post-Assessments are done to determine if the proposed treatment area qualifies for silviculture funding under ASF criteria, to determine if stand improvement occurred. Assessment sheets can be found on website (www.asforestry.com). The sampling intensity is as follows:

Sampling Intensity (Non-FEC)

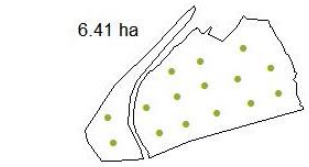
Treatment Area (ha)	# Plots
19.1+	1 /ha
9.1-19.0	20
4.1-9.0	15
0.1-4.0	10

Sampling Intensity (FEC) – Cat 6 & 7c

Treatment Area (ha)	# Plots
6.1+	1 / 2ha
0.1-6.0	3

*Must be PTA certified

Plots should be evenly distributed throughout the site, not in the exact location of the pre-assessment plot. This may be done in a grid or random pattern. A GPS waypoint at each plot should be taken and saved for reference.



Untreated areas left to satisfy the wildlife Habitat and Watercourse Protection Regulations are not to be sampled in assessments. This area may entail up to 5% of the treated block area (for blocks greater than 3ha). Areas over 5% will have to be excluded from the treated area.

Plot size and type vary by treatment. The main difference between the pre and post is the increased plots size for Cat 1, 3, 4 & 5.

Plot Sizes/ Types		Post-Assessment			
Category	**Treatment**	**Density plot**	**Stocking Plot**	**FEC***	**Prism plot**
1	Fill Planting	3.99m (1/200th)	1.36m (1/1736th)		
3	Manual Weeding	3.99m (1/200th)	1.36m (1/1736th)		
4,5	PCT	3.99m (1/200th)	1.36m (1/1736th)		
6	Commercial Thinning			YES	2.0 BAF
7a	Crop Tree Release	5.0m (1/125th)			2.0 BAF
7b	Crop Tree Pruning	5.0m (1/125th)			
7c	Selection Management		1.36m (1/1736th)	YES	2.0 BAF

* FEC Data is to be submitted digitally, paper sheets are for those without data recorders for sampling and completed data must be entered into PTA Program

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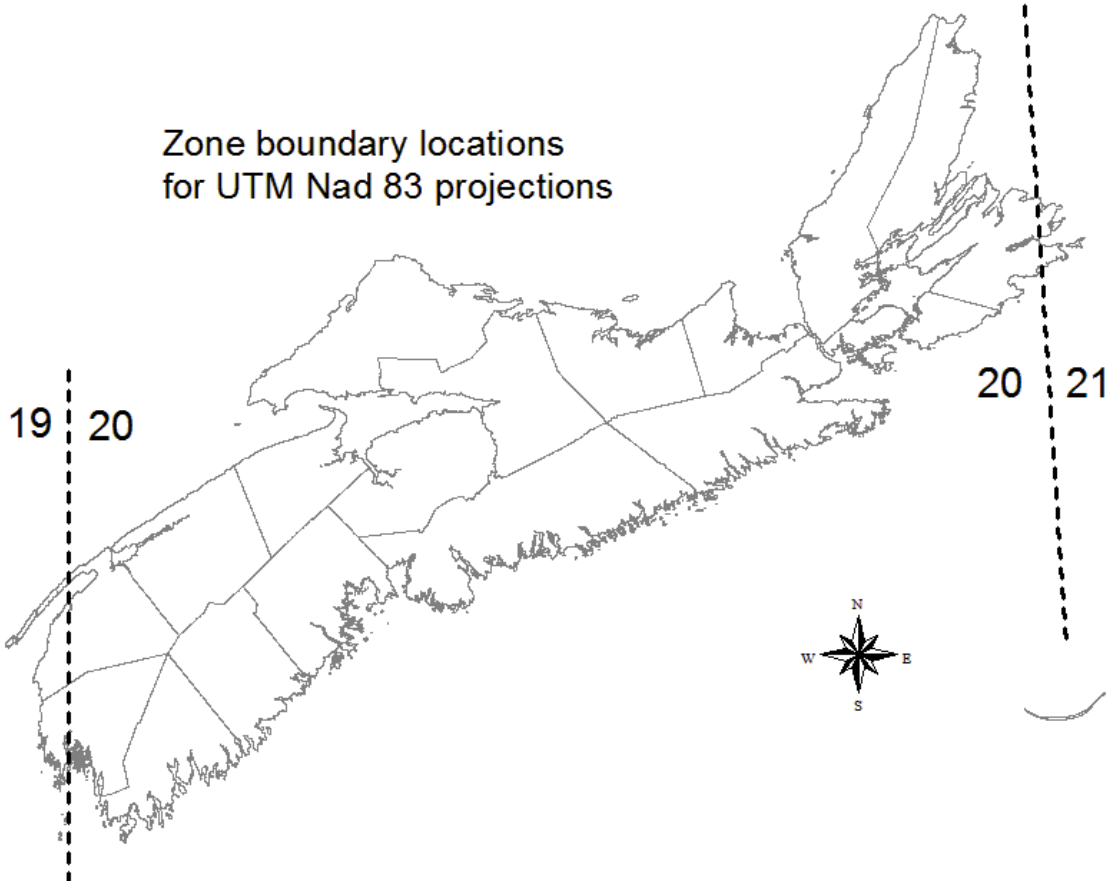
GPS Submissions

Each treatment area must be measured using a GPS on the ground. The GPS file is to be submitted digitally in a GPS shape file format.
Name shape file: landowner name_treatment_area (5.25ha) [**BROWN_pct_5_25ha.shp**]

Map Projections

GPS shape files must be submitted in UTM NAD 83 coordinate system. The figure below illustrates zone boundary locations for UTM projections. Take care that you data is in the right zone or the location will not be mapped properly.



Shape file format defines geometry and attributes of geographically referenced features, in three or as many as five files with specific file extensions that should be stored in the same folder.
.shp – the file that stores the geometry
.shx – the file that stores the index of the feature geometry
.dbf – the dBASE file that stores the attribute information of feature

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Attributes from Post-Assessment that need to be provided to ASF in shape file

ITEM NAME	Example	Description	Required for these Categories
County Code (COUNTY)	PI	2 letter County code	All
Treatment Year (TRTYR)	2014	Year the site was treated	All
Treatment Area (TRTAREA)	1.25	GIS treatment Area	All
Ownership Code (OWNTYP)	SP	SP = Small private	All
Property Owners Name (LANDOWN)	John Brown	Landowner name	All
Graphic Data Source (SOURCE)	2	2 = Measured with GPS	All
Person who prepared update (UPDATEBY)	George Smith CFT	Person who collected data	All
Treatment Code (TRTCDE)	508	GIS Treatment Codes (see below)	All
Stand Species Composition Percentages (SPECIES)	RS07WB01WP01 RM01	Species percentages 07=70% must add up to 100% (10) max 4 species	All
Stocking of Crop Trees (STOCKING)	99	Stocking % *(based on 8x8 spacing)*	Cat 1-5 & 7c
Height of Crop Trees (HEIGHT)	3	Height in meters	All
Age of Crop Trees (AGE)	15	Age in years	4, 5 & 6
Basal Area (BA)		Post-treatment basal area (m^2 /ha)	6, 7a, & 7c
Density of Trees per ha (DENSITY)	2133	#/ha post-treatment	1b, 3, 4, &5
Released Crop Trees (RELEASED)	0	Number released trees in polygon	7a
Density of Pruned Trees (PRUNED)	0	Number of pruned trees /ha	7b
2nd Story Species Composition Percentages (SS_SP)		2nd Story Species percentages 07=70% must add up to 100% (10) max 4 species	1b
2nd Story Basal Area (SS_BA)		2nd Story basal area (m^2 /ha)	1b
2nd Story Height (SS_HT)		2nd Story Height (m)	1b

GIS Treatment Codes

1(a)	Fill Plant <500	0308 (SW)	0307 (HW)
1(b)	Fill Plant ≥500	0228 (SW)	0227 (HW)
2	Planation	0220 (SW)	
3	Manual Weeding Planation	0490 (SW)	
	Manual Weeding Natural	0450 (SW)	
4	PCT Plantation	0509 (SW)	
5	PCT Natural	0508 (SW)	0507 (HW)
6	Commercial Thinning	0808 (SW)	0807 (HW)
7(a)	Crop Tree Release	0608 (SW)	0607 (HW)
7(b)	Crop Tree Pruning	0908 (SW)	0907 (HW)
7(c)	Selection Management	1908 (SW)	1907 (HW)

Species Codes

RM - Red Maple	BS - Black Spruce
SM - Sugar Maple	RS - Red Spruce
WB- White Birch	WS - White Spruce
YB - Yellow Birch	NS - Norway Spruce
AS- White Ash	WP - Eastern White Pine
IW - Ironwood	RP- Red Pine
RO - Red Oak	JP - Jack Pine
BP - Balsam Poplar	SP - Scots Pine
BE - Beech	BF - Balsam Fir
WE- White Elm	TL - Tamarack/Larch
BC - Black Cherry	EH - Eastern Hemlock
TA- Trembling & Largetoothed Aspen	EC -Eastern Cedar
	WL - Hybrid Larch
	JL - Japanese Larch

County Codes								
AP	Annapolis	**CO**	Colchester	**HX**	Halifax	**LU**	Lunenburg	**SH**	Shelburne
AT	Antigonish	**CU**	Cumberland	**HN**	Hants	**PI**	Pictou	**VI**	Victoria
CB	Cape Breton	**DI**	Digby	**IN**	Inverness	**QU**	Queens	**YA**	Yarmouth
		GU	Guysborough	**KI**	Kings	**RI**	Richmond		

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