

Worksheet for Western Hemlock-Subalpine Fir (WHSF) Forest Type - Option 1 (60/30)

INNER ZONE									
Stream Length Surveyed = <input type="text" value="200"/> X				$\frac{25' \text{ (inner zone width)}}{43560 \text{ (sq. ft. per acre)}} = \text{ Acres}$					
DBH Class	WHSF RS/Tree values	Acres	RS value per tree	Trees Surveyed	RS per DBH Class	Cut Tree RS Value	Retained RS per DBH Class		
4-7.9	0.123	÷ 0.115 =	1.072	X 7	= 7.501	- cut 1 1.072	= 6.429		
8-11.9	0.267	÷ 0.115 =	2.326	X 4	= 9.304	- cut 1 2.326	= 6.978		
12-15.9	0.442	÷ 0.115 =	3.851	X 2	= 7.701	-	= 7.701		
16-19.9	0.644	÷ 0.115 =	5.611	X 2	= 11.221	-	= 11.221		
20-23.9	0.87	÷ 0.115 =	7.579	X 2	= 15.159	- cut 1 7.579	= 7.579		
24-27.9	1.117	÷ 0.115 =	9.731	X 1	= 9.731	-	= 9.731		
28 +	1.385	÷ 0.115 =	12.066	X 1	= 12.066	-	= 12.066		
Total RS * = <input type="text" value="72.68"/>					Retained RS** = <input type="text" value="61.71"/>				
(sum of RS/DBH Class)					(sum of Retained RS/DBH Class)				
* Total RS must be > 60 or no inner zone harvest may occur									
** Retained RS must be > or = 60 RS following harvest									
OUTER ZONE									
Stream Length Surveyed = <input type="text" value="200"/> X				$\frac{50' \text{ (outer zone width)}}{43560 \text{ (sq. ft. per acre)}} = \text{ Acres}$					
DBH Class	WHSF RS/Tree values	Acres	RS value per tree	Trees Surveyed	RS per DBH Class	Cut Tree RS Value	Retained RS per DBH Class		
4-7.9	0.123	÷ 0.230 =	0.536	X 7	= 3.751	- cut 2 1.072	= 2.679		
8-11.9	0.267	÷ 0.230 =	1.163	X 10	= 11.631	- cut 4 4.652	= 6.978		
12-15.9	0.442	÷ 0.230 =	1.925	X 9	= 17.328	- cut 4 7.7	= 9.627		
16-19.9	0.644	÷ 0.230 =	2.805	X 5	= 14.026	- cut 4 11.2	= 2.805		
20-23.9	0.87	÷ 0.230 =	3.790	X 3	= 11.369	- cut 2 7.579	= 3.790		
24-27.9	1.117	÷ 0.230 =	4.866	X 2	= 9.731	- cut 1 4.866	= 4.866		
28 +	1.385	÷ 0.230 =	6.033	X 1	= 6.033	- cut 1 6.033	= 0.000		
Total RS * = <input type="text" value="73.87"/>					Retained RS** = <input type="text" value="30.74"/>				
(sum of RS/DBH Class)					(sum of Retained RS/DBH Class)				
* Total RS must be > 30 or no outer zone harvest may occur									
** Retained RS must be > or = 30 RS following harvest									

INSTRUCTIONS:

- 1) Measure "Stream Length Surveyed" by measuring the length (in feet) of the stream that is adjacent to the Stream Protection Zone being considered for harvest. When harvesting both sides of a stream measure them separately.
- 2) Calculate "Acres" by multiplying the "Stream Length Surveyed" by the width of the zone being measured (25 or 50 feet) and dividing by 43,560 square feet per acre.
- 3) Input the "Acres" number into each of the lines in the table under the "Acres" category.
- 4) Divide the "WHSF RS/ac values" by the "Acres" in each row this will give you a "Relative Stocking value per tree" which you fill in under that category.
- 5) Count the number of live trees in each "Diameter Breast Height Class," and fill in the number on the table according to the DBH Class under the "Trees Surveyed" column.
- 6) In each row multiply "RS value per tree" X "Trees Surveyed" this gives you "RS per DBH Class," fill in those values under the column "RS per DBH Class."
- 7) Add the values in the "RS per DBH Class" column this will give you your "Total RS". NOTE: If this number is less than the minimum requirement for tree retention under the FPA rules you may not harvest any trees in that zone.
- 8) Using the "RS value per tree" numbers you may now calculate how many trees from each "DBH Class" may be harvested while ensuring that the "Retained RS" will be greater than or equal to the minimum RS required for that zone.

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INNER ZONE

$$\text{Stream Length Surveyed} = \boxed{} \times \frac{25' \text{ (inner zone width)}}{43560 \text{ (sq. ft. per acre)}} = \boxed{} \text{ Acres}$$

DBH Class	WHSF RS/Tree values	Acres	RS value per tree	Trees Surveyed	RS per DBH Class	Cut Tree RS Value	Retained RS per DBH Class
4-7.9	0.123	÷	=	X	=	-	=
8-11.9	0.267	÷	=	X	=	-	=
12-15.9	0.442	÷	=	X	=	-	=
16-19.9	0.644	÷	=	X	=	-	=
20-23.9	0.87	÷	=	X	=	-	=
24-27.9	1.117	÷	=	X	=	-	=
28 +	1.385	÷	=	X	=	-	=
Total RS * = <input style="width: 100px;" type="text"/>					Retained RS** = <input style="width: 100px;" type="text"/>		
(sum of RS/DBH Class)					(sum of Retained RS/DBH Class)		

* Total RS must be > 60 or no inner zone harvest may occur

** Retained RS must be > or = 60 RS following harvest

OUTER ZONE

$$\text{Stream Length Surveyed} = \boxed{} \times \frac{50' \text{ (outer zone width)}}{43560 \text{ (sq. ft. per acre)}} = \boxed{} \text{ Acres}$$

DBH Class	WHSF RS/Tree values	Acres	RS value per tree	Trees Surveyed	RS per DBH Class	Cut Tree RS Value	Retained RS per DBH Class
4-7.9	0.123	÷	=	X	=	-	=
8-11.9	0.267	÷	=	X	=	-	=
12-15.9	0.442	÷	=	X	=	-	=
16-19.9	0.644	÷	=	X	=	-	=
20-23.9	0.87	÷	=	X	=	-	=
24-27.9	1.117	÷	=	X	=	-	=
28 +	1.385	÷	=	X	=	-	=
Total RS * = <input style="width: 100px;" type="text"/>					Retained RS** = <input style="width: 100px;" type="text"/>		
(sum of RS/DBH Class)					(sum of Retained RS/DBH Class)		

* Total RS must be > 30 or no outer zone harvest may occur

** Retained RS must be > or = 30 RS following harvest

INSTRUCTIONS:

- 1) Measure "Stream Length Surveyed" by measuring the length (in feet) of the stream that is adjacent to the Stream Protection Zone being considered for harvest. When harvesting both sides of a stream measure them separately.
- 2) Calculate "Acres" by multiplying the "Stream Length Surveyed" by the width of the zone being measured (25 or 50 feet) and dividing by 43,560 square feet per acre.
- 3) Input the "Acres" number into each of the lines in the table under the "Acres" category.
- 4) Divide the "WHSF RS/ac values" by the "Acres" in each row this will give you a "Relative Stocking value per tree" which you fill in under that category.
- 5) Count the number of live trees in each "Diameter Breast Height Class", fill in the number on the table according to the DBH Class under the "Trees Surveyed" column.
- 6) In each row multiply "RS value per tree" X "Trees Surveyed" this gives you "RS per DBH Class", fill in those values under the column "RS per DBH Class".
- 7) Add the values in the "RS per DBH Class" column this will give you your "Total RS". NOTE: If this number is less than the minimum requirement for tree retention under the FPA rules you may not harvest any trees in that zone.
- 8) Using the "RS value per tree" numbers you may now calculate how many trees from each "DBH Class" may be harvested while ensuring that the "Retained RS" will be greater than or equal to the minimum RS required for that zone.

Worksheet for Western Hemlock-Subalpine Fir (WHSF) Forest Type - Option 2 (60/10)

INNER ZONE

$$\text{Stream Length Surveyed} = \boxed{} \times \frac{50' \text{ (inner zone width)}}{43560 \text{ (sq. ft. per acre)}} = \boxed{} \text{ Acres}$$

DBH Class	WHSF RS/Tree values	Acres	RS value per tree	Trees Surveyed	RS per DBH Class	Cut Tree RS Value	Retained RS per DBH Class
4-7.9	0.123	÷	=	X	=	-	=
8-11.9	0.267	÷	=	X	=	-	=
12-15.9	0.442	÷	=	X	=	-	=
16-19.9	0.644	÷	=	X	=	-	=
20-23.9	0.87	÷	=	X	=	-	=
24-27.9	1.117	÷	=	X	=	-	=
28 +	1.385	÷	=	X	=	-	=
Total RS * = <input style="width: 100px;" type="text"/>					Retained RS** = <input style="width: 100px;" type="text"/>		
(sum of RS/DBH Class)					(sum of Retained RS/DBH Class)		

* Total RS must be > 60 or no inner zone harvest may occur

** Retained RS must be > or = 60 RS following harvest

OUTER ZONE

$$\text{Stream Length Surveyed} = \boxed{} \times \frac{25' \text{ (outer zone width)}}{43560 \text{ (sq. ft. per acre)}} = \boxed{} \text{ Acres}$$

DBH Class	WHSF RS/Tree values	Acres	RS value per tree	Trees Surveyed	RS per DBH Class	Cut Tree RS Value	Retained RS per DBH Class
4-7.9	0.123	÷	=	X	=	-	=
8-11.9	0.267	÷	=	X	=	-	=
12-15.9	0.442	÷	=	X	=	-	=
16-19.9	0.644	÷	=	X	=	-	=
20-23.9	0.87	÷	=	X	=	-	=
24-27.9	1.117	÷	=	X	=	-	=
28 +	1.385	÷	=	X	=	-	=
Total RS * = <input style="width: 100px;" type="text"/>					Retained RS** = <input style="width: 100px;" type="text"/>		
(sum of RS/DBH Class)					(sum of Retained RS/DBH Class)		

* Total RS must be > 10 or no outer zone harvest may occur

** Retained RS must be > or = 10 RS following harvest

INSTRUCTIONS:

- 1) Measure "Stream Length Surveyed" by measuring the length (in feet) of the stream that is adjacent to the Stream Protection Zone being considered for harvest. When harvesting both sides of a stream measure them separately.
- 2) Calculate "Acres" by multiplying the "Stream Length Surveyed" by the width of the zone being measured (25 or 50 feet) and dividing by 43,560 square feet per acre.
- 3) Input the "Acres" number into each of the lines in the table under the "Acres" category.
- 4) Divide the "WHSF RS/ac values" by the "Acres" in each row this will give you a "Relative Stocking value per tree" which you fill in under that category.
- 5) Count the number of live trees in each "Diameter Breast Height Class", fill in the number on the table according to the DBH Class under the "Trees Surveyed" column.
- 6) In each row multiply "RS value per tree" X "Trees Surveyed" this gives you "RS per DBH Class", fill in those values under the column "RS per DBH Class".
- 7) Add the values in the "RS per DBH Class" column this will give you your "Total RS". NOTE: If this number is less than the minimum requirement for tree retention under the FPA rules you may not harvest any trees in that zone.
- 8) Using the "RS value per tree" numbers you may now calculate how many trees from each "DBH Class" may be harvested while ensuring that the "Retained RS" will be greater than or equal to the minimum RS required for that zone.