

Building Base Layers for Constructing **Alternative A** VDDT strata and timber suitability in the Blues Forest Plan Revision, 2-2011, B.Countryman

This paper summarizes the draft process for constructing a GIS layer to use in building initial vegetation conditions to import into the VDDT model. The initial conditions will also be used in the wildlife BBN and watershed ARCS modeling process. The VDDT model will be used to model the future landscape conditions that would be created by the alternative scenarios in the forest plan revision EIS. It also describes the VDDT strata process.

The following layers were used to build the existing condition for alternative A:

- Existing vegetation polygon (contains structure, density, species composition, potential vegetation, size class), see special instructions for Malheur veg layer
- Current forest plan management area
- LTA soils
- Updated inventory of roadless areas
- 2001 roadless inventory (RACER)
- Administrative forest boundaries
- Stream buffer (PACFISH/INFISH, RHCA)
- CWPP WUI
- HUC 6 and/or HUC5 layers
- Ownership

Timber Suitability: The first step in building the initial condition layer was to classify the above combined layers into a map dividing the land into timber suitability groups (which will help develop the VDDT strata). Some of those suitability classes can change between alternatives and others will stay the same. The first step in the 1982 timber suitability process, and the one that doesn't change, is called "step A". Using the part/step A data and constructing a new layer of just this information will allow us to use this layer as building block for each of the EIS alternatives. The timber suitability data is located within the following Access databases:

- Mal 2010 timbersuit part A and VDDT classes
- UMA 2010 timbersuit part A and VDDT classes
- WAW 2010 timbersuit part A and VDDT classes

The following codes are contained in the 82 rule suit field that was based on the NFMA basic requirements for timber suitability; this is called timber suitability "part A" (see basic timber suitability process paper for classification logic for "part A):

82 rule suit (part A)
part A unsuited non-conifer

82 rule suit (part A)
part A unsuited regen problem
part A unsuited soil regen
part A unsuited wilderness

Steps for developing a base VDDT/timber suitability layer for each alternative:

1. Start with each forest's existing vegetation polygon layer (include vddt class, PVG, slope, aspect, stand tag).
2. Overlay new timber suitability "part A" layer
3. Overlay the CURRENT management area map (alt A)
4. Overlay RHCA layer (use current PACFISH/INFISH definitions)
5. Overlay forest/ownership
6. Overlay Watershed/subwatersheds

Classification order for final timber suitability calls:

Step1. Update **wilderness** polygons to timber suitability code 1 (unsuited for timber production or harvest)

Step2. Update any polygon not already code for timber suitability, but coded in the suitability "part A" field as **non-forested**; code to timber suitability 1.

Step3. Any timber suitability null polygon with a non-null timber **suitability part A** call; code as timber suitability 2 (unsuited for timber production but suitable for timber harvest).

Step4. Update any null timber suit polygons, with a non-null value in the riparian management area column (**RHCA**) to timber suitability 2.

Step5. Update any null timber suit polygons, with a VDDT structural stage code equal to **old forest**, to suitability code "2".

Step6. Use the management area lookup table for each forest to classify any polygon with a null timber suitability code, and a **management area classification** as unsuited for timber production, to suitability code 2. See lookup tables at end of this document.

Step7. Any remaining null polygons are coded to "3", suitable for timber production.

For the Wallowa-Whitman include Baker City and LaGrande watersheds as suit code 2. Any RACER roadless areas within current management areas coded as suitable (3) will be tracked as conditionally suitable.

Classification of polygons into VDDT modeling strata

This may need to be expanded for alternative A to account for any “current forest plan” modeling considerations that are different than the other alternatives.

- **Wilderness.** (see management area cross-walk).
- **Roadless.** See following management area cross-walk. Also include research natural areas and proposed recommended wilderness.
- **Reserved.** (RHCA, old forest, special areas). Timber suitability class 2 (suited for timber harvest but not production).
- **Active forest.** Defined as timber suitability class 3 (suitable for timber production and harvest)

Others need to alternative A?

The following pre-stratification groups are also stored in the initial condition database for each record. This can be used, in combination with the actual management area, to create any new strata needed to model the alternative.

Pre-strata groups
admin
bald eagle
general forest
general wildlife
old forest
old growth
recreation
reserved
riparian
RNA
roadless
special
unknown
visual
wilderness
winter range

VDDT Strata Classification Order:

Step1: Wilderness management area (or PARWA) = VDDT Wilderness strata

Step2: Anything in MA crosswalk table in strata field coded as roadless = VDDT strata roadless

RNA= recode as strata roadless. Old forest management area = recode as strata roadless

Step3: Active strata from MA table but coded as RHCA (riparian) from timber suitability database = recode as reserved strata (as per pacfish/infish FP amendment).

Step4: Active strata from MA crosswalk table but coded as old forest from VDDT structure field = recode as reserved strata (as per the eastside screens).

Management area crosswalk tables (crosswalk to initial suitability as per the current forest plans)

Current FP management area code Malheur	mal_definition	VDDT strata initial call based on management area	Suitable for timber production call from current forest plans based on management area	HEI analysis group
11	Semi-Primitive Motorized Recreation Areas	roadless	no	
13	Old Growth (Dedicated and Replacements)		no	
14F	Visual Corridors (Foreground) 1999	active	yes	
14M	Visual Corridors (Middleground) 1999	active	yes	
17	Byram Gulch Municipal Supply Watershed	reserved	no	
18	Long Creek Municipal Supply Watershed	reserved	no	
1_2	General Forest, Rangeland	active	yes	Group 1
20	Wildlife Emphasis Area (Scheduled Timber Harvest)	active	yes	Group 3
21	Wildlife Emphasis Area (Non-Scheduled Timber Harvest)	reserved	no	Group 3
22	Wild and Scenic River Corridor	reserved	no	
3	Riparian Areas (Anadromous, Non-Anadromous)	reserved	no	
4A	Big-Game Winter Range Maintenance		no	Group 2
5	Bald Eagle Winter Roosts	reserved	no	
6	Wilderness Areas	wilderness	unavailable	

7	Scenic Area	reserved	no	
8	Special Interest Areas	reserved	no	
9	Research Natural Areas (only 1 real, others Proposed)	roadless	no	
RHCA	Riparian Habitat Conservation Area	reserved	no	
2	rangeland	active	yes	
10	semi-primitive non-motorized	roadless	no	
12	Developed Recreation Sites	reserved	no	
16	Minimum Level Management (Non-Forest and Low Productiv	reserved	no	
19	Administrative Sites	reserved	no	

OCHOC O MAS current MA	ochoco definitions	VDDT strata initial call based on management area	Suitable for timber production call from current forest plans based on management area	HEI analysis group
F10	SILVER CREEK ROADLESS AREA	roadless	no	
F12	EAGLE ROOSTING AREA	active	yes	
F13	DEVELOPED RECREATION	reserved	no	
F15	RHCA	reserved	no	
F20	WINTER RANGE	active	yes	
F21	GENERAL FOREST WINTER RANGE	active	yes	
F22	GENERAL FOREST	active	yes	
F26	VISUAL MANAGEMENT CORRIDOR	active	yes	
F28	FACILITIES	reserved	no	
F29	SILVER CREEK RECREATION RIVER CORRIDOR	active	yes	
F29	SILVER CREEK REC RIVER CORRIDOR	active	yes	
F5	RNA		no	
F6	OLD GROWTH		no	
F9	ROCK CREEK UNROADED HELICOPTER	roadless	yes	

UMA current MA	uma_definitions	VDDT strata initial call based on management area	Suitable for timber production call from current forest plans based on management area	HEI analysis group
A1	DISPERSED NON-MOTORIZED REC	roadless	no	
A10	WENAH-TUCANNON SPECIAL AREA		no	Group 2
A3	VIEWSHED 1	active	yes	
A4	VIEWSHED 2	active	yes	
A5	ROADED NATURAL		no	
A6	DEVELOPED RECREATION	reserved	no	
A7	WILD AND SCENIC RIVERS	reserved	no	
A8	SCENIC AREAS	reserved	no	
A9	SPECIAL INTEREST AREAS	reserved	no	
B1	WILDERNESS	wilderness	not_available	
B2	RNA IN WILDERNESS	wilderness	not_available	
B7	WILD AND SCENIC IN WILDERNESS	wilderness	not_available	
C1	DEDICATED OLD GROWTH		no	
C2	MANAGED OLD GROWTH	active	yes	
C3	BIG GAME WINTER RANGE	active	yes	Group 3
C4	WILDLIFE HABITAT	active	yes	Group 2
C5	RIPARIAN/WILDLIFE HABITAT	active	yes	
C7	SPECIAL FISH MANAGEMENT AREA	reserved	no	Group 4
C8	GRASS/TREE MOSAIC	reserved	no	Group 3
C9	SENSITIVE BIG GAME WINTER RANGE		no	
D2	RESEARCH NATURAL AREA	roadless	no	
E1	TIMBER/FORAGE	active	yes	Group 1
E2	TIMBER/BIG GAME	active	yes	Group 4
F2	MILL CREEK MUNICIPAL WATERSHED	reserved	no	
F3	HIGH RIDGE EVALUATION AREA	active	yes	
F4	WALL A WALLA RIVER WATERSHED	active	yes	Group 2
F6	WALL A WALLA RIVER WATERSHED, SCHEDULED HARVEST	active	yes	
A2	DISPERSED REC (OHV)	reserved	no	

F5	SPECIAL WATERSHED ENHANCEMENT	reserved	yes	
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MGT_C ODE	waw_definitions	VDDT strata initial call based on management area	Suitable for timber production call from current forest plans based on management area	HEI analysis group
1	TIMBER PRODUCTION	active	yes	Group 1
10	FORAGE PRODUCTION (HCNRA)	reserved	no	
11	DISPERSED REC/TIMBER PRODUCTION (HCNRA)	reserved	no	
12	RESEARCH NATURAL AREA	roadless	no	
12-7	RNA IN WILD AND SCENIC RIVER AREA	reserved	no	
12-8	RNA IN SNAKE RIVER CORRIDOR (HCNRA)	reserved	no	
13	HOMESTEAD FURTHER STUDY AREA	wilderness	no	
14	STARKEY EXPERIMENTAL FOREST AND RANGE	reserved	no	
15	OLD GROWTH		no	
15-7	OLD GROWTH IN WILD AND SCENIC		no	
16	ADMIN SITE	reserved	no	
17		active	yes	
18	ANADROMOUS FISH EMPHASIS	active	yes	Group 2
1W	TIMBER/BIG GAME WINTER WILDLIFE/TIMBER WINTER RANGE	active	yes	Group 2?
3	WILDLIFE/TIMBER SUMMER RANGE	active	yes	Group 2
3A	WILDLIFE/TIMBER SUMMER RANGE	active	yes	
4	WILDERNESS	wilderness	not_available	
4-12	RNA IN WILDERNESS	wilderness	not_available	
4-7	WILD AND SCENIC IN WILDERNESS	wilderness	not_available	
5	PHILLIPS LAKE AREA	active	yes	
6	BACKCOUNTRY	roadless	no	
7	WILD AND SCENIC RIVERS	reserved	no	
8	SNAKE RIVER CORRIDOR	reserved	no	

	(HCNRA)			
9	DISPERSED REC/NATIVE VEG (HCNRA)	reserved	no	

Table UMA-elk: Plan requirements and current condition for HEI and cover, both marginal and satisfactory by management area.

HEI Group	MA for Umatilla	Plan Requirements		
		HEI	Cover	
			Total	Satisfactory
1	MA 1	30	NA	
2	MA C4;F4;A10	60	30	15
3	MA C3-a; C8	70	30	10
4	MA C7; E2	45	30	10
	Forest			

Table WAW-elk: Plan requirements and current condition for HEI and cover, both marginal and satisfactory by management area.

HEI Group	WAW MA	Plan Requirements		
		HEI	Cover	
			Total	Satisfactory
1	MA E1	50	30	
2	MA 3-a; 18	74		
	Forest			

Table MAL-elk: Plan requirements and current condition for HEI and cover, both marginal and satisfactory by management area.

HEI Group	Malheur MA	Plan Requirements		
		HEI	Cover	
			Total	Satisfactory
1	MA 1	40*	20	12+
2	MA 4A	50**	25+	10+
3	MA 20A/B; 21	70	40	
	Forest			

VDDT management area strata crosswalk			
ID	Proposed action management area	VDDT strata	ma desc
1	1a	wilderness	wilderness
2	1b	wilderness	proposed recommended wilderness
3	1c	wilderness	wilderness study
4	2a	reserved	wild and scenic river
5	2b	roadless	RNA
6	2c	reserved	botanical area
7	2d	reserved	geologic area
8	2e	reserved	historic area
9	2f	reserved	scenic byway
10	2g	reserved	National trail
11	2h	reserved	Designated scenic area
12	2i	reserved	Experimental forest
13	2j	reserved	Municipal watershed
14	3a	roadless	non-motorized
15	3b	roadless	limited motorized
16	3c	corridor	wildlife corridor
17	4a	active	active
18	4b	reserved	riparian mgmt area
19	4c	reserved	old forest
20	4d	reserved	big game winter range
21	4e	reserved	wildlife/fish emphasis
22	4f	active	active
23	hcnra	hcnra	hcnra
24	5	reserved	administrative