

# Supplementary: Tree Species Selection in the Face of Drought Risk—Uncertainty in Forest Planning

Matthias Albert <sup>\*</sup>, Ralf-Volker Nagel, Robert S. Nuske, Johannes Sutmöller and Hermann Spellmann

**Table S1.** Assignment of stand types in regard to soil nutrient and site water budget matrix under business-as-usual management in Uelzen.

	peat LCFV < 60 cm	peat* LCFV 60 - 300	stagnic or wet LCFV < 50	wet LCFV 50- 70	very slight stagnic / wet-dry	bottom moist LCFV 71- 120	slight stagnic / wet-dry	bottom fresh LCFV 121-250	stagnic / wet-dry	very fresh AWC < 180	fresh AWC 131-180	moderate fresh AWC 101-130	moderate dry AWC 70- 100	dry AWC < 70
eutrophic [6;5+;5]:	BLHV EA	BLHV EA O-BLHV	O-BLHV BLHV	BLHV O-BLHV	na	BLHV O-BLHV EB- BLHV	O-BLHV EB- BLHV	EB- BLHV BLHV O-BLHV	EB- BLHV BLHV	EB- BLHV BLHV	EB- BLHV BLHV	EB- BLHV BLHV	na	na
eutrophic- mesotrophic [5;-4+]	EA	O-HB O-BLHV EA	O-BLHV EA	O-BLHV EA	O-HB	O-HB O-BLHV EB-SM	O-HB O-BLHV EB-SM	EB-SM	EB-SM	EB-SM	EB-SM	EB-SM	na	na
mesotrophic- eutropic [4;4-]	EA	O-HB O-Bi EA	O-HB	O-HB	O-HB	O-EB O-HB	O-HB O-EB	O-HB O-EB EB-DF EB-EL	O-EB EB-DF EB-NS EB-EL	EB-EL EB-NS	O-EB EB-DF EB-EL EB-NS	O-EB EB-DF EB-EL EB-O	O-EB EB-O	O-EB EB-O
mesotrophic [3+]	EA	O-Bi EA O-HB	O-Bi O-HB EA	O-Bi O-HB EA	O-Bi	O-EB O-HB	O-HB O-EB	EB-DF EB-EL EB-NS	EB-DF EB-EL EB-NS	EB-EL EB-DF EB-NS	EB-EL EB-DF EB-EL EB-NS	EB-DF EB-EL EB-NS	DF-EB SP-Bi	DF-EB SP-Bi
mesotrophic oligotrophic [3]	BLLRA	BLLRA O-Bi O-EB	O-Bi	O-Bi	O-Bi	SP-DF EL-EB DF-EB	O-EB SP-EB	DF-EB O-EB SP-DF	DF-EB SP-DF EL-EB NS-EB	NS-EB	DF-EB NS-EB EL-EB SP-DF	DF-EB DF-EB O-EB	SP-Bi SP-DF DF-EB	na
oligotrophic [3-/2+]	BLLRA	BLLRA O-Bi	BLLRA SP-Bi	BLLRA SP-Bi	O-Bi	SP-DF DF-EB	BLLRA SP-Bi	DF-EB SP-DF	DF-EB SP-DF	DF-EB SP-DF DF-NS NS-EB	DF-EB SP-DF	SP-DF DF-EB SP-Bi	SP-Bi SP-DF SP	na

dystrophic [2;2;-1]	BLLRA	BLLRA SP-Bi	BLLRA SP-Bi	BLLRA SP-Bi	BLLRA	SP-Bi SP	na	SP-Bi SP	na	na	na	SP-Bi SP	SP	O-SP SP-O SP SP-Bi Bi-SP
------------------------	-------	----------------	----------------	----------------	-------	-------------	----	-------------	----	----	----	-------------	----	--------------------------------------

Abbreviations throughout the supplement: Bi=birch; BLHV=broadleaves of high value; BLLRA=broadleaves of low rotation age; DF=Douglas-fir; EA=European alder; EB=European beech; EL=European larch; GF=Grand fir; HB=hornbeam; O=oak; SM=Sycamore maple; SP=Scots pine; na=not available; LCFV: upper limit of the capillary fringe in vegetation period, [cm below ground level]; AWC: available water capacity in main rooting zone [mm]; \*: based on the available data all inventory peat sites were classified in this category; \*\*the numbers refer to the classification system by the State Forest Agency of Lower Saxony

**Table S2.** Assignment of stand types in regard to soil nutrient and site water budget matrix under climate protection management in Uelzen.

Soil nutrient classes**	Site water budget classes														
	peat LCFV < 60 cm	peat* LCFV 60 - 300	stagnic or wet LCFV < 50	wet LCFV 50- 70	very slight stagnic / wet-dry	bottom moist LCFV 71- 120	slight stagnic / wet-dry	bottom fresh LCFV 121-250	stagnic / wet-dry	very fresh AWC < 180	fresh AWC 131-180	moderate fresh AWC 101-130	moderate dry AWC 70- 100	dry AWC < 70	
eutrophic [6;5+;5]:	BLHV EA	BLHV EA O-BLHV	O-BLHV BLHV	BLHV O-BLHV	na	BLHV O-BLHV EB- BLHV	O-BLHV EB- BLHV EB- BLHV	EB- BLHV BLHV O-BLHV	EB- BLHV BLHV O-BLHV	EB- BLHV BLHV	EB- BLHV BLHV	EB- BLHV BLHV	na	na	
eutrophic- mesotrophic [5-;4+]	EA	O-HB O-BLHV EA	O-BLHV	O-BLHV EA	O-HB	O-HB O-BLHV EB-SM	O-HB O-BLHV EB-SM	EB-SM	EB-SM	EB-SM	EB-SM	EB-SM	na	na	
mesotrophic- eutropic [4;4-]	BLLRA	BLLRA	BLLRA	BLLRA	O-HB	NS-EB DF-EB EL-EB	NS-EB	NS-EB DF-DF DF-EB EL-EB	GF-DF DF-EB NS-EB EL-EB	GF-DF DF-EB NS-EB DF-EB	GF-DF DF-EB EL-EB NS-EB	GF-DF DF-EB EL-EB NS-EB	DF-EB	na	
mesotrophic [3+]	BLLRA	BLLRA	SP-Bi	SP-Bi	SP-Bi	NS-EB DF-EB EL-EB	NS-EB	DF-EB EL-EB NS-EB GF-DF	DF-EB EL-EB NS-EB GF-DF	GF-DF EL-EB DF-EB NS-EB	GF-DF DF-EB EL-EB NS-EB	GF-DF DF-EB SP-Bi	GF-DF	GF-DF	
mesotrophic oligotrophic	SP-Bi	SP-NS	SP-Bi	SP-Bi	SP-Bi	DF-EB SP-DF	SP-EB	GF-DF DF-EB	GF-DF DF-EB	GF-DF NS-EB	GF-DF DF-EB	GF-DF SP-DF	GF-DF SP-Bi	SP	SP-O

[3]					EL-EB		SP-DF	SP-DF EL-EB NS-EB	EL-EB DF-EB	NS-EB EL-EB SP-DF	DF-EB	SP-DF DF-EB	SP-Bi
oligotrophic [3-/2+]	SP-Bi	SP-Bi	SP-Bi	SP-Bi	SP-DF DF-EB	SP-Bi	GF-DF DF-EB SP-DF	GF-DF DF-EB SP-DF	GF-DF	GF-DF SP-DF DF-EB	GF-DF SP-DF DF-EB	SP-Bi	SP-O SP SP-Bi
dystrophic [2;2;-1]	SP-Bi	SP-Bi	SP-Bi	SP-Bi	SP-Bi SP	na	SP SP-Bi	na	na	na	SP SP-Bi	SP	SP SP-O SP-Bi

**Table S3.** Assignment of stand types in regard to soil nutrient and site water budget matrix under biodiversity management in Uelzen (for abbreviations of the stand types cf. Table 4).

Soil nutrient classes**	Site water budget classes													
	peat LCFV < 60 cm	peat* LCFV 60 - 300	stagnic or wet LCFV < 50	wet LCFV 50- 70	very slight stagnic / wet-dry	bottom moist LCFV 71- 120	slight stagnic / wet-dry	bottom fresh LCFV 121-250	stagnic / wet-dry	very fresh AWC < 180	fresh AWC 131-180	moderate fresh AWC 101-130	moderate dry AWC 70- 100	dry AWC < 70
eutrophic [6;5+;5]:	EA	EA	EA	EA	BLHV O-BLHV	BLHV O-BLHV	BLHV EB- BLHV EB-SM	BLHV EB- BLHV EB-SM	BLHV	EB-SM	EB-SM	BLHV	na	na
eutrophic- mesotrophic [5-;4+]	EA	EA	EA	EA	O-BLHV	O-BLHV	BLHV EB- BLHV EB-SM	BLHV EB- BLHV EB-SM	BLHV	EB-SM	EB-SM	BLHV	na	na
mesotrophic- eutropic [4;4-]	EA	EA	EA	EA	O-HB	O-HB	EB-O	EB-O	EB-SP EB-EL EB-GF- NS EB-NS EB-DF	EB-SP EB-EL EB-GF- NS EB-NS EB-DF	EB-SP EB-EL EB-GF- NS EB-NS EB-DF	EB-SP EB-EL EB-GF- NS EB-NS EB-DF	O-EB SP-EB	O-EB SP-EB
mesotrophic [3+]	EA	EA	EA	EA	O-HB	O-HB	EB-O	EB-O	EB-SP EB-EL	EB-SP EB-EL	EB-SP EB-EL	EB-SP EB-EL	O-EB SP-EB	O-EB SP-EB

									EB-GF-NS EB-NS EB-DF	EB-GF-NS EB-NS EB-DF	EB-GF-NS EB-NS EB-DF	EB-GF-NS EB-NS EB-DF			
mesotrophic oligotrophic [3]	SP-Bi	SP-Bi	SP-Bi	SP-Bi	O-Bi	O-Bi	SP-EB EL-EB SP-DF DF-EB	SP-EB EL-EB SP-DF DF-EB	SP-EB EL-EB SP-DF DF-EB	SP-EB EL-EB SP-DF DF-EB	SP-EB EL-EB SP-DF DF-EB	O-EB SP-EB	O-Bi SP-EB		
oligotrophic [3-/2+]	SP-Bi	SP-Bi	SP-Bi	SP-Bi	O-Bi SP-Bi	O-Bi SP-Bi	O-Bi SP-Bi	O-EB SP-EB	O-EB SP-EB	O-EB SP-EB	O-EB SP-EB	O-SP SP-Bi	O-SP SP-Bi		
dystrophic [2;2;-1]	SP-Bi	SP-Bi	SP-Bi	SP-Bi	BLLRA	BLLRA	SP-O SP-EB	SP-O SP-EB	SP-O SP-EB	SP-O SP-EB	SP	SP	SP		

**Table S4.** Assignment of stand types in regard to soil nutrient and site water budget matrix under business-as-usual management in Fläming (for abbreviations of the stand types cf. Table 4).

Soil nutrient classes**	Site water budget classes													
	peat LCFV < 60 cm	peat* LCFV 60 - 300	stagnic or wet LCFV < 50	wet LCFV 50- 70	very slight stagnic / wet-dry	bottom moist LCFV 71- 120	slight stagnic / wet-dry	bottom fresh LCFV 121-250	stagnic / wet-dry	very fresh AWC < 180	fresh AWC 131-180	moderate fresh AWC 101-130	moderate dry AWC 70- 100	dry AWC < 70
eutrophic [6;5+;5]:	BLHV EA	BLHV EA O-BLHV	O-BLHV BLHV	BLHV O-BLHV	na	BLHV O-BLHV EB- BLHV	O-BLHV BLHV EB- BLHV	O-BLHV BLHV O-EB EB- BLHV EB-SM	O-BLHV O-HB BLHV O-EB EB- BLHV EB-SM	O-BLHV O-HB BLHV O-EB EB- BLHV EB-SM	O-BLHV O-HB BLHV O-EB EB- BLHV EB-SM	O-EB O-BLHV BLHV	O-EB SP-EB BLHV	O-EB SP-EB BLHV
eutrophic- mesotrophic [5-;4+]	EA	O-HB O-BLHV EA	O-BLHV EA	O-BLHV EA	O-HB	O-HB O-BLHV EB-SM	O-HB O-EB O-BLHV EB-SM	O-HB O-EB O-BLHV EB-SM EB- BLHV	O-HB O-EB O-BLHV EB-SM EB- BLHV	O-HB O-EB O-BLHV EB-SM EB- BLHV	O-HB O-EB O-BLHV EB-SM EB- BLHV	O-EB EB-EL	SP-EB SP-O SP-Bi	SP-EB SP-O SP-Bi
mesotrophic- eutropic [4;4-]	EA	O-HB O-Bi EA	O-HB	O-HB	O-HB	O-EB O-HB	O-EB O-HB	DF-EB SP-EB EL-EB O-EB EB-DF	DF-EB SP-EB EL-EB O-EB EB-DF	DF-EB SP-EB EL-EB O-EB EB-DF	DF-EB SP-EB EL-EB O-EB EB-DF	DF-EB DF-SP SP SP-O SP-EB	SP SP-O SP-Bi	SP SP-O SP-Bi

								EB-EL GF-DF DF-SP	EB-EL GF-DF DF-SP	EB-EL GF-DF DF-SP	EB-EL GF-DF DF-SP	SP-Bi O-EB		
mesotrophic [3+]	EA	O-HB O-Bi EA	O-HB	O-HB	O-HB	O-EB O-HB	O-EB O-HB	DF-EB SP-EB EL-EB O-EB EB-DF EB-EL GF-DF DF-SP	DF-EB SP-EB EL-EB O-EB EB-DF EB-EL GF-DF DF-SP	DF-EB SP-EB EL-EB O-EB EB-DF EB-EL GF-DF DF-SP	DF-EB SP-EB EL-EB O-EB EB-DF EB-EL GF-DF DF-SP	SP SP-O SP-Bi	SP SP-O SP-Bi	
mesotrophic oligotrophic [3]	BLLRA	BLLRA O-Bi O-EB	O-Bi	O-Bi	O-Bi	SP-EB EL-EB DF-EB	O-EB	DF-EB SP-EB EL-EB O-EB	DF-EB SP-EB EL-EB O-EB	DF-EB SP-EB EL-EB O-EB	DF-EB SP-EB SP-O SP-EB SP-Bi SP-DF	SP SP-O SP-Bi	SP SP-O SP-Bi	
oligotrophic [3-/2+]	BLLRA	BLLRA O-Bi	BLLRA SP-Bi	BLLRA SP-Bi	O-Bi	SP-EB DF-EB	BLLRA SP-Bi	SP-O SP-Bi O-Bi SP-DF	SP-O SP-Bi O-Bi SP-DF	SP-O SP-Bi O-Bi SP-DF	SP SP-O SP-Bi O-Bi	SP SP-O SP-Bi O-Bi	SP SP-O SP-Bi O-Bi	
dystrophic [2;2;-1]	BLLRA	BLLRA SP-Bi	BLLRA SP-Bi	BLLRA SP-Bi	BLLRA	SP-Bi SP-EB SP	na	SP SP-O SP-Bi	SP SP-O SP-Bi	SP SP-O SP-Bi	SP SP-O SP-Bi	SP SP-O SP-Bi	SP SP-O SP-Bi	

**Table S5.** Assignment of stand types in regard to soil nutrient and site water budget matrix under climate protection management in Fläming (for abbreviations of the stand types cf. Table 4).

Soil nutrient classes**	Site water budget classes														
	peat LCFV < 60 cm	peat* LCFV 60 - 300	stagnic or wet LCFV < 50	wet LCFV 50- 70	very slight stagnic / wet-dry	bottom moist LCFV 71- 120	slight stagnic / wet-dry	bottom fresh LCFV 121-250	stagnic / wet-dry	very fresh AWC < 180	fresh AWC 131-180	moderate fresh AWC 101-130	moderate dry AWC 70- 100	dry AWC < 70	
eutrophic [6;5+;5]:	BLHV EA	BLHV EA O-BLHV	O-BLHV BLHV	BLHV O-BLHV	na	BLHV O-BLHV EB- BLHV	O-BLHV BLHV EB- BLHV	O-BLHV O-HB BLHV O-EB EB- BLHV EB-SM	O-BLHV O-HB BLHV O-EB EB- BLHV EB-SM	O-BLHV O-HB BLHV O-EB EB- BLHV EB-SM	O-BLHV O-HB BLHV O-EB EB- BLHV EB-SM	O-BLHV O-BLHV BLHV	O-EB SP-EB BLHV	O-EB SP-EB BLHV	

eutrophic-mesotrophic [5;-4+]	EA	O-HB O-BLHV EA	O-BLHV EA	O-BLHV EA	O-HB	O-HB O-BLHV EB-SM	O-HB O-BLHV EB-SM	O-HB O-EB O-BLHV EB-SM EB-BLV	O-HB O-EB O-BLHV EB-SM EB-BLV	O-HB O-EB O-BLHV EB-SM EB-BLV	O-HB O-EB O-BLHV EB-SM EB-BLV	O-EB O-EB EB-EL	SP-EB SP-O SP-Bi	SP-EB SP-O SP-Bi
mesotrophic-eutropic [4;4-]	BLLRA	BLLRA	BLLRA	BLLRA	O-HB	NS-EB SP-EB DF-EB EL-EB	NS-EB	DF-EB SP-EB EL-EB GF-DF DF-SP	DF-EB SP-EB EL-EB GF-DF DF-SP	DF-EB SP-EB EL-EB GF-DF DF-SP	DF-EB SP-EB EL-EB GF-DF DF-SP	SP SP-O SP-Bi	SP SP-O SP-Bi	
mesotrophic [3+]	BLLRA	BLLRA	BLLRA	BLLRA	O-HB	NS-EB SP-EB DF-EB EL-EB	NS-EB	DF-EB SP-EB EL-EB GF-DF DF-SP	DF-EB SP-EB EL-EB GF-DF DF-SP	DF-EB SP-EB EL-EB GF-DF DF-SP	DF-EB SP-EB EL-EB GF-DF DF-SP	SP SP-O SP-Bi	SP SP-O SP-Bi	
mesotrophic oligotrophic [3]	SP-Bi	SP-NS	SP-Bi	SP-Bi	SP-Bi	SP-EB EL-EB DF-EB	NS-EB	DF-EB SP-EB EL-EB	DF-EB SP-EB EL-EB	DF-EB SP-EB EL-EB	DF-EB SP-EB EL-EB	SP SP-O SP-Bi	SP SP-O SP-Bi	
oligotrophic [3-/2+]	SP-Bi	SP-Bi SP SP-NS	SP-Bi	SP-Bi	SP-Bi	SP-EB DF-EB	SP-Bi	SP-O SP-Bi SP-DF	SP-O SP-Bi SP-DF	SP-O SP-Bi SP-DF	SP-O SP-Bi SP-DF	SP SP-O SP-Bi	SP SP-O SP-Bi	
dystrophic [2;2;-1]	SP-Bi	SP-Bi	SP-Bi	SP-Bi	SP-Bi	SP-Bi SP-EB SP	na	SP SP-O SP-Bi	SP SP-O SP-Bi	SP SP-O SP-Bi	SP SP-O SP-Bi	SP SP-O SP-Bi	SP SP-O SP-Bi	

**Table S6.** Assignment of stand types in regard to soil nutrient and site water budget matrix under biodiversity management in Fläming (for abbreviations of the stand types cf. Table 4).

	peat LCFV < 60 cm	peat* LCFV 60 - 300	stagnic or wet LCFV < 50	wet LCFV 50- 70	very slight stagnic / wet-dry	bottom moist LCFV 71- 120	slight stagnic / wet-dry	bottom fresh LCFV 121-250	stagnic / wet-dry	very fresh AWC < 180	fresh AWC 131-180	moderate fresh AWC 101-130	moderate dry AWC 70- 100	dry AWC < 70	
Soil nutrient classes**	eutrophic [6;5+;5]:	EA	EA	EA	EA	BLHV O-BLHV	BLHV O-BLHV	BLHV EB- BLHV EB-SM	BLHV	EB-SM	EB-SM	BLHV	na	na	
	eutrophic- mesotrophic [5;-4+]	EA	EA	EA	EA	O-BLHV	O-BLHV	BLHV EB- BLHV EB-SM	BLHV	EB-SM	EB-SM	BLHV	na	na	
	mesotrophic- eutropic [4;4-]	EA	EA	EA	EA	O-HB	O-HB	EB-O	EB-O	EB-NS EB-DF EB-SP EB-EL EB-GF- NS	EB-NS EB-DF EB-SP EB-EL EB-GF- NS	EB-NS EB-DF EB-SP EB-EL EB-GF- NS	DF-EB SP-EB	DF-EB SP-EB	
	mesotrophic [3+]	EA	EA	EA	EA	O-HB	O-HB	EB-O	EB-O	EB-NS EB-DF EB-SP EB-EL EB-GF- NS	EB-NS EB-DF EB-SP EB-EL EB-GF- NS	EB-NS EB-DF EB-SP EB-EL EB-GF- NS	DF-EB SP-EB	DF-EB SP-EB	
	mesotrophic oligotrophic [3]	SP-Bi	SP-Bi	SP-Bi	SP-Bi	O-Bi	O-Bi	NS-EB DF-EB SP-EB EL-EB	NS-EB DF-EB SP-EB EL-EB	NS-EB DF-EB SP-EB EL-EB	NS-EB DF-EB SP-EB EL-EB	NS-EB DF-EB SP-EB EL-EB	DF-EB SP-EB	DF-EB SP-EB	
	oligotrophic [3/-2+]	SP-Bi	SP-Bi	SP-Bi	SP-Bi	SP-Bi O-Bi	SP-Bi O-Bi	SP-Bi O-Bi	DF-EB SP-EB	DF-EB SP-EB	DF-EB SP-EB	DF-EB SP-EB	DF-EB SP-EB	O-SP SP-Bi	O-SP SP-Bi
	dystrophic [2;2;-1]	SP-Bi	SP-Bi	SP-Bi	SP-Bi	BLLRA	BLLRA	DF-EB SP-EB	DF-EB SP-EB	DF-EB SP-EB	DF-EB SP-EB	DF-EB SP-EB	SP	SP	SP

**Table S7.** Selection probabilities for random draw of stand types.

Number of suggested stand types	Selection probability
2	65,35
3	45,35,20
4	40,30,20,10
5	35,25,20,15,5
6	35,25,15,10,10,5
7	30,20,15,10,10,10,5
8	30,20,15,10,10,5,5,5

**Table S8.** Assignment of other species (limited to species relevant in the two study regions) to species groups according to drought vulnerability (leading species in group in italics).

spruce group	beech group	oak/Douglas-fir group	pine group
<i>Picea abies</i>	<i>Fagus sylvatica</i>	<i>Quercus petraea/robur</i>	<i>Pinus silvestris</i>
	Acer pseudoplatanus	<i>Pseudotsuga menziesii</i>	Betula pendula
		Abies grandis	
		Larix decidua	
		Carpinus betulus	
		Acer platanoides	
		Fraxinus excelsior	

**Table S9.** Assignment of stand types in Uelzen according to the silvicultural management strategy under constant site conditions (1. stage) and applying drought restrictions (2. stage). Under stage 1 only the stand types recommended in regard to the specific management strategy are listed. Stand types under stage 1 in italics indicate last planning options.

business-as-usual		climate protection		biodiversity	
1. stage	2. stage	1. stage	2. stage	1. stage	2. stage
O-EB	1. O-HB 2. SP-O	O-EB	SP-O	O-EB	1. O-HB 2. SP-O
O-HB	1. O-SP 2. SP-O	O-HB	SP-O	O-HB	1. O-SP 2. SP-O
O-BLHV	1. O-HB 2. SP-O	O-BLHV	1. O-HB 2. SP-O	O-BLHV	1. O-HB 2. SP-O
O-Bi	SP-Bi	O-Bi	SP-Bi	O-Bi	SP-Bi
O-SP	SP-O	O-SP	SP-O	O-SP	SP-O
EB	1. O-EB/SP-EB	EB	1. SP-EB		

EB-O	2. SP-O 1. O-EB 2. SP-O		2. SP-O	EB-O	1. O-EB 2. O-HB 3. Bi-SP/SP-O
EB-BLV	1. O-EB/SP-EB 2. SP-O	EB-BLV	1. O-EB/SP-EB 2. SP-O	EB-BLV	1. O-EB 2. O-HB 3. Bi-SP/SP-O
EB-NS	1. EB 2. O-EB 3. SP-O			EB-NS	1. EB 2. O-EB 3. Bi-SP/SP-O
EB-DF	1. DF-EB 2. SP-DF 3. SP-O			EB-DF	1. O-EB 2. O-HB 3. SP-O
				EB-SP	1. O-EB/SP-EB 2. SP-O
EB-EL	1. EL-EB 2. SP-O			EB-EL	1. O-EB/SP-EB 2. Bi-SP/SP-O
EB-GF-NS	1. DF-EB 2. SP-O			EB-GF-NS	1. O-EB/SP-EB 2. Bi-SP/SP-O
BLHV	1. SP-EB 2. SP-O			BLHV	Bi-SP
BLLRA <i>Bi-SP</i>	Bi-SP	BLLRA	Bi-SP	BLLRA	Bi-SP
NS-EB	1. DF-EB/SP-EB 2. SP-DF 3. SP-O	NS-EB	1. DF-EB 2. DF-SP 3. SP-DF 4. SP GF-DF	NS-EB	1. O-EB/SP-EB 2. SP-O
DF-EB	1. DF-SP 2. SP-DF 3. SP-O	DF-EB	1. DF-SP 2. SP-DF 3. SP	DF-EB	1. O-EB/SP-EB 2. SP-O
DF-NS	1. DF-SP 2. SP-DF 3. SP-O				
<i>SP-Bi</i>		<i>SP-Bi</i>		<i>SP-Bi</i>	<i>SP-Bi/SP-O</i>
SP-DF	SP	SP-DF EL-EB	SP	EL-EB	SP-O

**Table S10.** Assignment of stand types in Fläming according to the silvicultural management strategy under constant site conditions (1. stage) and applying drought restrictions (2. stage). Under stage 1 only the stand types recommended in regard to the specific management strategy are listed. Stand types under stage 1 in italics indicate last planning options.

business-as-usual		climate protection		biodiversity	
1. stage	2. stage	1. stage	2. stage	1. stage	2. stage
O-EB	1. O-HB	O-EB	SP-O	O-EB	1. O-HB 2. SP-O
	2. SP-O				2. SP-O
O-HB	1. O-SP	O-HB	SP-O	O-HB	1. O-SP 2. SP-O
	2. SP-O				
O-BLHV	1. O-HB	O-BLHV	1. O-HB	O-BLHV	1. O-HB 2. SP-O
	2. SP-O		2. SP-O		2. SP-O
O-Bi	SP-Bi	O-Bi	SP-Bi	O-Bi	SP-Bi
O-SP	SP-O	O-SP	SP-O	O-SP	SP-O
				EB-O	1. O-EB 2. O-HB 3. Bi-SP/SP-O
EB-BLV		EB-BM	1. O-EB/SP-EB 2. SP-O	EB-BM	1. O-EB 2. O-HB 3. Bi-SP/SP-O
	1. BLHV	EB-BLV	1. BLHV	EB-BLV	1. BLHV 2. Bi-SP/SP-O
	2. SP-O		2. SP-O		
EB-NS	1. EB			EB-NS	1. EB
	2. O-EB				2. O-EB
	3. SP-O				3. Bi-SP/SP-O
EB-DF	1. DF-EB			EB-DF	1. O-EB
	2. SP-DF				2. O-HB
	3. SP-O				3. SP-O
EB-EL				EB-SP	1. O-EB/SP-EB 2. SP-O
	1. EL-EB				1. O-EB/SP-EB
	2. SP-O				2. Bi-SP/SP-O
EB-GF-NS	1. DF-EB			EB-GF-NS	1. O-EB/SP-EB
	2. SP-O				2. Bi-SP/SP-O
BLHV	1. SP-EB	BLHV	SP-O	BLHV	Bi-SP
	2. SP-O				
BLLRA	Bi-SP	BLLRA	Bi-SP	BLLRA	Bi-SP
		NS-EB	1. DF-EB 2. DF-SP 3. SP-DF	NS-EB	1. O-EB/SP-EB 2. SP-O

			4. SP		
GF-DF	1. SP-DF 2. SP-O	GF-DF	1. SP-DF 2. SP		
DF-EB	1. DF-SP 2. SP-DF 3. SP-O	DF-EB	1. DF-SP 2. SP-DF 3. SP	DF-EB	1. O-EB/SP-EB 2. SP-O
DF-NS	1. DF-SP 2. SP-DF 3. SP-O				
DF-SP	1. SP-DF 2. SP-O	DF-SP	1. SP-DF 2. SP		
<i>SP</i>		<i>SP</i>		<i>SP</i>	
<i>SP-O</i>		<i>SP-O</i>			
SP-EB	SP-O	SP-EB	SP	SP-EB	SP-Bi/SP-O
<i>SP-Bi</i>		<i>SP-Bi</i>		<i>SP-Bi</i>	
SP-DF	SP	SP-DF	SP		
EL-EB	1. SP-EB 2. SP-O	EL-EB	SP	EL-EB	SP-O