Forestry

Draft

Norwegian Mapping Authority
gerd.mardal@statkart.no

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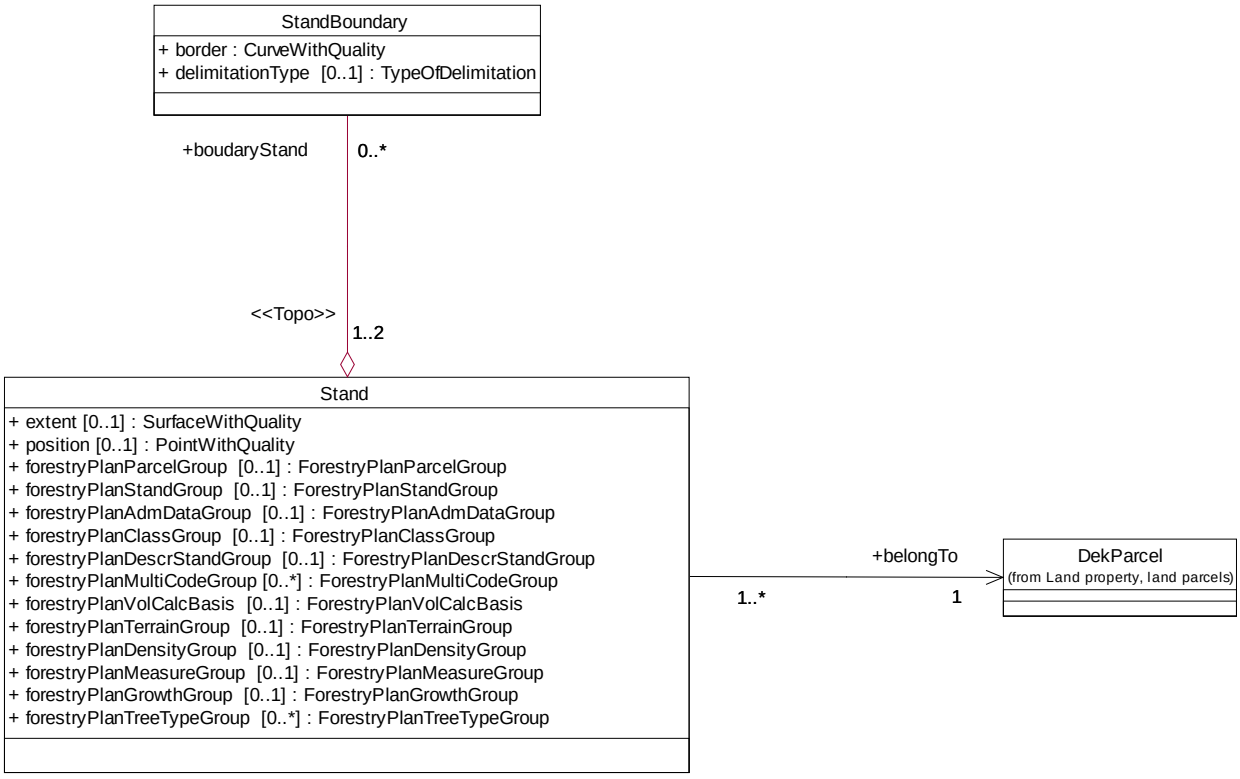
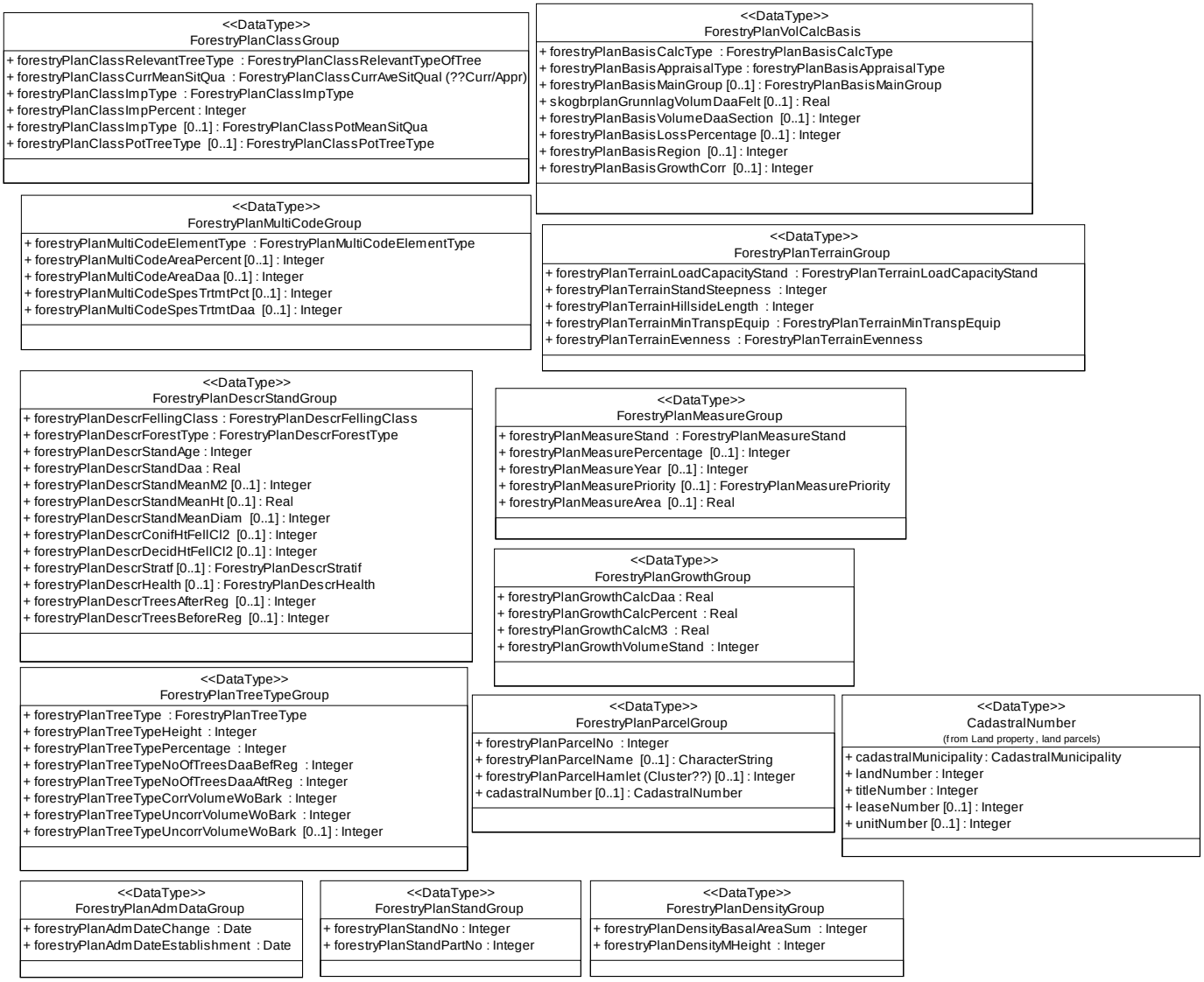
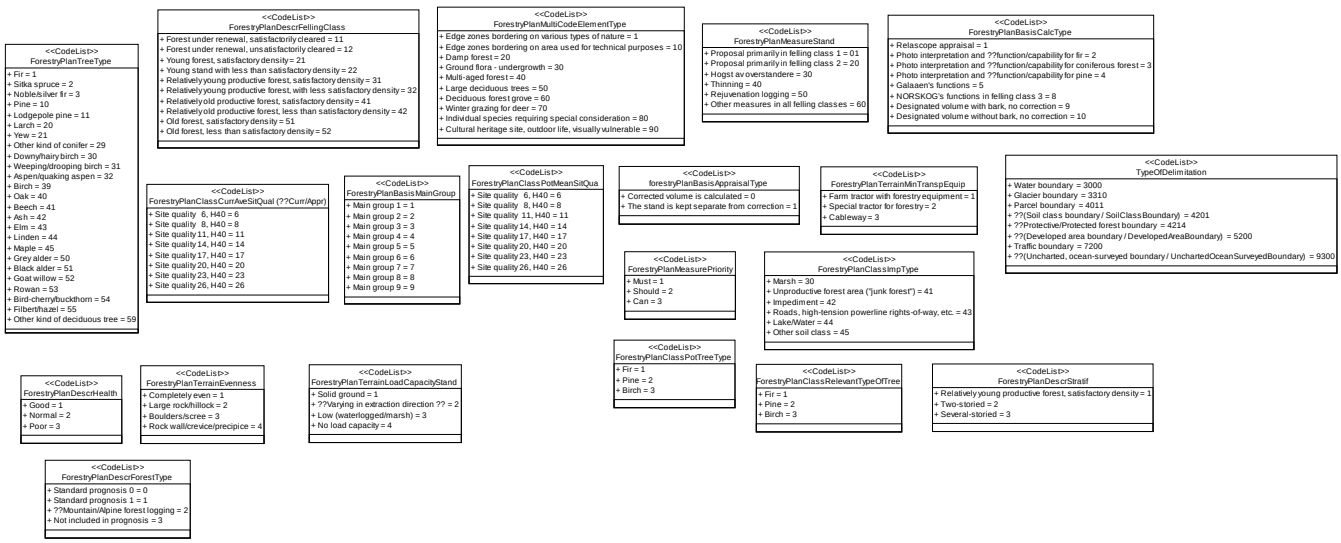
1.1 Application schema



Datatypes


<<DataType>>
ForestryPlanClassGroup
+ forestryPlanClassRelevantTreeType : ForestryPlanClassRelevantTypeOfTree
+ forestryPlanClassCurrMeanSitQua : ForestryPlanClassCurrAveSitQual (??Curr/Appr)
+ forestryPlanClassImpType : ForestryPlanClassImpType
+ forestryPlanClassImpPercent : Integer
+ forestryPlanClassImpType [0..1] : ForestryPlanClassPotMeanSitQua
+ forestryPlanClassPotTreeType [0..1] : ForestryPlanClassPotTreeType
<<DataType>>
ForestryPlanVolCalcBasis
+ forestryPlanBasisCalcType : ForestryPlanBasisCalcType
+ forestryPlanBasisAppraisalType : forestryPlanBasisAppraisalType
+ forestryPlanBasisMainGroup [0..1] : ForestryPlanBasisMainGroup
+ skogbrplanGrunnlagVolumDaaFelt [0..1] : Real
+ forestryPlanBasisVolumeDaaSection [0..1] : Integer
+ forestryPlanBasisLossPercentage [0..1] : Integer
+ forestryPlanBasisRegion [0..1] : Integer
+ forestryPlanBasisGrowthCorr [0..1] : Integer
<<DataType>>
ForestryPlanMultiCodeGroup
+ forestryPlanMultiCodeElementType : ForestryPlanMultiCodeElementType
+ forestryPlanMultiCodeAreaPercent [0..1] : Integer
+ forestryPlanMultiCodeAreaDaa [0..1] : Integer
+ forestryPlanMultiCodeSpesTrtmtPct [0..1] : Integer
+ forestryPlanMultiCodeSpesTrtmtDaa [0..1] : Integer
<<DataType>>
ForestryPlanTerrainGroup
+ forestryPlanTerrainLoadCapacityStand : ForestryPlanTerrainLoadCapacityStand
+ forestryPlanTerrainStandSteepness : Integer
+ forestryPlanTerrainHillsideLength : Integer
+ forestryPlanTerrainMinTranspEquip : ForestryPlanTerrainMinTranspEquip
+ forestryPlanTerrainEvenness : ForestryPlanTerrainEvenness
<<DataType>>
ForestryPlanDescrStandGroup
+ forestryPlanDescrFellingClass : ForestryPlanDescrFellingClass
+ forestryPlanDescrForestType : ForestryPlanDescrForestType
+ forestryPlanDescrStandAge : Integer
+ forestryPlanDescrStandDaa : Real
+ forestryPlanDescrStandMeanM2 [0..1] : Integer
+ forestryPlanDescrStandMeanHt [0..1] : Real
+ forestryPlanDescrStandMeanDiam [0..1] : Integer
+ forestryPlanDescrConifHtFellCl2 [0..1] : Integer
+ forestryPlanDescrDecidHtFellCl2 [0..1] : Integer
+ forestryPlanDescrStratf [0..1] : ForestryPlanDescrStratif
+ forestryPlanDescrHealth [0..1] : ForestryPlanDescrHealth
+ forestryPlanDescrTreesAfterReg [0..1] : Integer
+ forestryPlanDescrTreesBeforeReg [0..1] : Integer
<<DataType>>
ForestryPlanMeasureGroup
+ forestryPlanMeasureStand : ForestryPlanMeasureStand
+ forestryPlanMeasurePercentage [0..1] : Integer
+ forestryPlanMeasureYear [0..1] : Integer
+ forestryPlanMeasurePriority [0..1] : ForestryPlanMeasurePriority
+ forestryPlanMeasureArea [0..1] : Real
<<DataType>>
ForestryPlanGrowthGroup
+ forestryPlanGrowthCalcDaa : Real
+ forestryPlanGrowthCalcPercent : Real
+ forestryPlanGrowthCalcM3 : Real
+ forestryPlanGrowthVolumeStand : Integer
<<DataType>>
ForestryPlanTreeTypeGroup
+ forestryPlanTreeType : ForestryPlanTreeType
+ forestryPlanTreeTypeHeight : Integer
+ forestryPlanTreeTypePercentage : Integer
+ forestryPlanTreeTypeNoOfTreesDaaBefReg : Integer
+ forestryPlanTreeTypeNoOfTreesDaaAftReg : Integer
+ forestryPlanTreeTypeCorrVolumeWoBark : Integer
+ forestryPlanTreeTypeUncorrVolumeWoBark : Integer
+ forestryPlanTreeTypeUncorrVolumeWoBark [0..1] : Integer
<<DataType>>
ForestryPlanParcelGroup
+ forestryPlanParcelNo : Integer
+ forestryPlanParcelName [0..1] : CharacterString
+ forestryPlanParcelHamlet (Cluster??) [0..1] : Integer
+ cadastralNumber [0..1] : CadastralNumber
<<DataType>>
CadastralNumber
(from Land property, land parcels)
+ cadastralMunicipality : CadastralMunicipality
+ landNumber : Integer
+ titleNumber : Integer
+ leaseNumber [0..1] : Integer
+ unitNumber [0..1] : Integer
<<DataType>>
ForestryPlanAdmDataGroup
+ forestryPlanAdmDateChange : Date
+ forestryPlanAdmDateEstablishment : Date
<<DataType>>
ForestryPlanStandGroup
+ forestryPlanStandNo : Integer
+ forestryPlanStandPartNo : Integer
<<DataType>>
ForestryPlanDensityGroup
+ forestryPlanDensityBasalAreaSum : Integer
+ forestryPlanDensityMHeight : Integer

Codelists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ForestryPlanTreeType
+ Fir = 1
+ Sitka spruce = 2
+ Noble/silver fir = 3
+ Pine = 10
+ Lodgepole pine = 11
+ Larch = 20
+ Yew = 21
+ Other kind of conifer = 29
+ Downy/hairy birch = 30
+ Weeping/drooping birch = 31
+ Aspen/quaking aspen = 32
+ Birch = 39
+ Oak = 40
+ Beech = 41
+ Ash = 42
+ Elm = 43
+ Linden = 44
+ Maple = 45
+ Grey alder = 50
+ Black alder = 51
+ Goat willow = 52
+ Rowan = 53
+ Bird-cherry/buckthorn = 54
+ Filbert/hazel = 55
+ Other kind of deciduous tree = 59
<<CodeList>>
ForestryPlanDescrFellingClass
+ Forest under renewal, satisfactorily cleared = 11
+ Forest under renewal, unsatisfactorily cleared = 12
+ Young forest, satisfactory density = 21
+ Young stand with less than satisfactory density = 22
+ Relatively young productive forest, satisfactory density = 31
+ Relatively young productive forest, with less satisfactory density = 32
+ Relatively old productive forest, satisfactory density = 41
+ Relatively old productive forest, less than satisfactory density = 42
+ Old forest, satisfactory density = 51
+ Old forest, less than satisfactory density = 52
<<CodeList>>
ForestryPlanMultiCodeElementType
+ Edge zones bordering on various types of nature = 1
+ Edge zones bordering on area used for technical purposes = 10
+ Damp forest = 20
+ Ground flora - undergrowth = 30
+ Multi-aged forest = 40
+ Large deciduous trees = 50
+ Deciduous forest grove = 60
+ Winter grazing for deer = 70
+ Individual species requiring special consideration = 80
+ Cultural heritage site, outdoor life, visually vulnerable = 90
<<CodeList>>
ForestryPlanMeasureStand
+ Proposal primarily in felling class 1 = 01
+ Proposal primarily in felling class 2 = 20
+ Hogst av overstandere = 30
+ Thinning = 40
+ Rejuvenation logging = 50
+ Other measures in all felling classes = 60
<<CodeList>>
ForestryPlanBasisCalcType
+ Relascope appraisal = 1
+ Photo interpretation and ??function/capability for fir = 2
+ Photo interpretation and ??function/capability for coniferous forest = 3
+ Photo interpretation and ??function/capability for pine = 4
+ Galaaen's functions = 5
+ NORSKOG's functions in felling class 3 = 8
+ Designated volume with bark, no correction = 9
+ Designated volume without bark, no correction = 10
<<CodeList>>
ForestryPlanClassCurrAveSiIQual (??Curr/Appr)
+ Site quality 6, H40 = 6
+ Site quality 8, H40 = 8
+ Site quality 11, H40 = 11
+ Site quality 14, H40 = 14
+ Site quality 17, H40 = 17
+ Site quality 20, H40 = 20
+ Site quality 23, H40 = 23
+ Site quality 26, H40 = 26
<<CodeList>>
ForestryPlanBasisMainGroup
+ Main group 1 = 1
+ Main group 2 = 2
+ Main group 3 = 3
+ Main group 4 = 4
+ Main group 5 = 5
+ Main group 6 = 6
+ Main group 7 = 7
+ Main group 8 = 8
+ Main group 9 = 9
<<CodeList>>
ForestryPlanClassPotMeanSiIQua
+ Site quality 6, H40 = 6
+ Site quality 8, H40 = 8
+ Site quality 11, H40 = 11
+ Site quality 14, H40 = 14
+ Site quality 17, H40 = 17
+ Site quality 20, H40 = 20
+ Site quality 23, H40 = 23
+ Site quality 26, H40 = 26
<<CodeList>>
forestryPlanBasisApprasialType
+ Corrected volume is calculated = 0
+ The stand is kept separate from correction = 1
<<CodeList>>
ForestryPlanTerrainMinTranspEquip
+ Farm tractor with forestry equipment = 1
+ Special tractor for forestry = 2
+ Cableway = 3
<<CodeList>>
TypeOfDelimitation
+ Water boundary = 3000
+ Glacier boundary = 3310
+ Parcel boundary = 4011
+ ??(Soil class boundary / SoilClassBoundary) = 4201
+ ??Protective/Protected forest boundary = 4214
+ ??(Developed area boundary / DevelopedAreaBoundary) = 5200
+ Traffic boundary = 7200
+ ??(Uncharted, ocean-surveyed boundary / UnchartedOceanSurveyedBoundary) = 9300
<<CodeList>>
ForestryPlanMeasurePriority
+ Must = 1
+ Should = 2
+ Can = 3
<<CodeList>>
ForestryPlanClassImpType
+ Marsh = 30
+ Unproductive forest area ("junk forest") = 41
+ Impediment = 42
+ Roads, high-tension powerline rights-of-way, etc. = 43
+ Lake/Water = 44
+ Other soil class = 45
<<CodeList>>
ForestryPlanClassPotTreeType
+ Fir = 1
+ Pine = 2
+ Birch = 3
<<CodeList>>
ForestryPlanClassRelevantTypeOfTree
+ Fir = 1
+ Pine = 2
+ Birch = 3
<<CodeList>>
ForestryPlanDescrStratif
+ Relatively young productive forest, satisfactory density = 1
+ Two-storied = 2
+ Several-storied = 3
<<CodeList>>
ForestryPlanDescrHealth
+ Good = 1
+ Normal = 2
+ Poor = 3
<<CodeList>>
ForestryPlanTerrainEvenness
+ Completely even = 1
+ Large rock/hillock = 2
+ Boulders/scree = 3
+ Rock wall/crevice/precipice = 4
<<CodeList>>
ForestryPlanTerrainLoadCapacityStand
+ Solid ground = 1
+ ??varying in extraction direction ?? = 2
+ Low (waterlogged/marsh) = 3
+ No load capacity = 4
<<CodeList>>
ForestryPlanDescrForestType
+ Standard prognosis 0 = 0
+ Standard prognosis 1 = 1
+ ??Mountain/Alpine forest logging = 2
+ Not included in prognosis = 3

1.2 Description

1.1.1 Stand

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
1	Class Stand	delimited forest area with relatively uniform felling class, distribution of trees and site quality (productivity class). In practice, felling class is the criterion which has the greatest significance for categorization				
1.1	extent	area over which an object extends	0	1	SurfaceWithQuality	
1.2	position	location where the object exists	0	1	PointWithQuality	
1.3	forestryPlanParcelGroup	unique description of a parcel group within a designated municipality	0	1	ForestryPlanParcelGroup	
1.4	forestryPlanStandGroup	unique serial numbering of stand within a property parcel	0	1	ForestryPlanStandGroup	
1.5	forestryPlanAdmDataGroup	time of establishment and changes to data	0	1	ForestryPlanAdmDataGroup	
1.6	forestryPlanClassGroup	describes the production conditions in a stand	0	1	ForestryPlanClassGroup	
1.7	forestryPlanDescrStandGroup	descriptive stand parameters	0	1	ForestryPlanDescrStandGroup	
1.8	forestryPlanMultiCodeGroup	general codes for multi-use element	0	N	ForestryPlanMultiCodeGroup	
1.9	forestryPlanVolCalcBasis	a set of variables for calculating volume, wastage and growth	0	1	ForestryPlanVolCalcBasis	
1.10	forestryPlanTerrainGroup	a set of variables which describes technical operational conditions in the stand, along the logging road and in the immediate vicinity of the stand	0	1	ForestryPlanTerrainGroup	
1.11	forestryPlanDensityGroup	stand appraisals wherein total basal area, crown coverage percentage and mean height are registered as a basis for calculation of volume	0	1	ForestryPlanDensityGroup	
1.12	forestryPlanMeasureGroup	describes measures or treatment types, when the measure should be implemented and priority	0	1	ForestryPlanMeasureGroup	

		(importance)				
1.13	forestryPlanGrowthGroup	calculated volume and growth	0	1	ForestryPlanGrowthGroup	
1.14	forestryPlanTreeTypeGroup	description of tree type with associated volume and tree heights	0	N	ForestryPlanTreeTypeGroup	
1.15	Role boudaryStand		0	N	StandBoundary	Aggregration
1.16	Role belongTo		1	1	DekParcel	

1.1.2 StandBoundary

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
2	Class StandBoundary	delimits the individual stand units				
2.1	border	course following the transition between different real world phenomena	1	1	CurveWithQuality	
2.2	delimitationType	type of delimitation	0	1	TypeOfDelimitation	
2.3	Role (unnamed) Stand		1	2	Stand	

1.1.3 <<DataType>> ForestryPlanAdmDataGroup

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
3	Datatype ForestryPlanAdmDataGroup	time of establishment and changes to data				
3.1	forestryPlanAdmDateChange	date of latest change Note: Established when the content fo the stand is changed	1	1	Date	
3.2	forestryPlanAdmDateEstablishment	date of initial registration	1	1	Date	

1.1.4 <<DataType>> ForestryPlanDescrStandGroup

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
4	Datatype ForestryPlanDescrStandGroup	descriptive stand parameters				
4.1	forestryPlanDescrFellingClass	felling class	1	1	ForestryPlanDescrFellingClass	
4.2	forestryPlanDescrForestType	forest typeNote: Indicates whether the stand is to be included in prognosis	1	1	ForestryPlanDescrForestType	

		calculations, alternatively which prognosis model is to be used				
4.3	forestryPlanDescrStandAge	average age for the stand	1	1	Integer	
4.4	forestryPlanDescrStandDaa	total area of the stand in decares (10 daa = 1 hectare)	1	1	Real	
4.5	forestryPlanDescrStandMeanM2	estimated mean basal area	0	1	Integer	
4.6	forestryPlanDescrStandMeanHt	estimated mean height in metres	0	1	Real	
4.7	forestryPlanDescrStandMeanDiam	estimated mean diameter in the stand Note: Stated in millimetres	0	1	Integer	
4.8	forestryPlanDescrConifHtFellCl2	height of coniferous forest in felling class 2 Note: Stated in metres	0	1	Integer	
4.9	forestryPlanDescrDecidHtFellCl2	height of deciduous forest in felling class 2 Note: Stated in metres	0	1	Integer	
4.10	forestryPlanDescrStratf	stratification	0	1	ForestryPlanDescrStratif	
4.11	forestryPlanDescrHealth	health	0	1	ForestryPlanDescrHealth	
4.12	forestryPlanDescrTreesAfterReg	number of trees after regulating Note: The number of trees in the stand after an envisioned/hypothetical regulation. Stated in decares	0	1	Integer	
4.13	forestryPlanDescrTreesBeforeReg	number of trees before regulating Note: The total number of trees in the stand before regulation. Stated in decares	0	1	Integer	

1.1.5 <<DataType>> ForestryPlanStandGroup

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
5	Datatype ForestryPlanStandGroup	unique serial numbering of stand within a property parcel				
5.1	forestryPlanStandNo	stand number	1	1	Integer	
5.2	forestryPlanStandPartNo	stand ??part/partial number Note: Number which can be assigned to the stand when dividing	1	1	Integer	

1.1.6 <<DataType>> ForestryPlanMultiCodeGroup

No	Name/	Description	Obligation/	Maximum	Type	Constraint

	Role name		Condition	Occurrence		
6	Datatype ForestryPlanMultiCodeGroup	general codes for multi-use element				
6.1	forestryPlanMultiCodeElementType	multiply coded element type	1	1	ForestryPlanMultiCodeElementType	
6.2	forestryPlanMultiCodeAreaPercent	area share for the multiple use element as a percentage of the total area of the stand	0	1	Integer	
6.3	forestryPlanMultiCodeAreaDaa	area for the multiple use element	0	1	Integer	
6.4	forestryPlanMultiCodeSpesTrtmtPct	deduction share Note: Area which must receive special treatment in prognosis program. Stated in decares	0	1	Integer	
6.5	forestryPlanMultiCodeSpesTrtmtDaa	deduction area Note: Area which must receive special treatment in prognosis program	0	1	Integer	

1.1.7 <<DataType>> ForestryPlanVolCalcBasis

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
7	Datatype ForestryPlanVolCalcBasis	a set of variables for calculating volume, wastage and growth				
7.1	forestryPlanBasisCalcType	calculation type Note: ??(Directs calculations to / Governs calculations toward) volume functions which are related to the appraisal method. Usage is defined in the appraisal instructions.	1	1	ForestryPlanBasisCalcType	
7.2	forestryPlanBasisAppraisalType	appraisal type governs calculations with respect to corrected and uncorrected appraised value	1	1	forestryPlanBasisAppraisalType	
7.3	forestryPlanBasisMainGroup	main group Note: Criterion for grouping ??test/trial trees	0	1	ForestryPlanBasisMainGroup	
7.4	skogbrplanGrunnlagVolumDaaFelt	volum pr. dekar angitt i felt Merknad: Angitt i kubikkmeter	0	1	Real	
7.5	forestryPlanBasisVolumeDaaSection	volume per decare stated by section Note: Stated in cubic metres	0	1	Integer	
7.6	forestryPlanBasisLossPercentage	loss percentage can be used to estimate a sales quantity	0	1	Integer	

7.7	forestryPlanBasisRegion	region shall govern the stand with respect to relevant calculation functions according to location	0	1	Integer	
7.8	forestryPlanBasisGrowthCorr	growth correction Note: Percentage for adjustment of the growth calculations	0	1	Integer	

1.1.8 <<DataType>> ForestryPlanClassGroup

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
8	Datatype ForestryPlanClassGroup	describes the production conditions in a stand				
8.1	forestryPlanClassRelevantTreeType	relevant type of tree in the stand	1	1	ForestryPlanClassRelevantTypeOfTree	
8.2	forestryPlanClassCurrMeanSitQua	current average site quality for the stand, measured or estimated for the type of tree which is relevant for site quality assessment Note: Site quality assessment according to the H40 system	1	1	ForestryPlanClassCurrAveSitQual (??Curr/Appr)	
8.3	forestryPlanClassImpType	impediment type for stated impediment share	1	1	ForestryPlanClassImpType	
8.4	forestryPlanClassImpPercent	impediment share in whole percentage points Note: Impediment patches of land stated as a percentage of the total area of the stand. At 100% the impediment type must be stated	1	1	Integer	
8.5	forestryPlanClassImpType	impediment type for stated impediment share	0	1	ForestryPlanClassPotMeanSitQua	
8.6	forestryPlanClassPotTreeType	potential type of tree for site quality assessment	0	1	ForestryPlanClassPotTreeType	

1.1.9 <<DataType>> ForestryPlanParcelGroup

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
9	Datatype ForestryPlanParcelGroup	unique description of a parcel group within a designated municipality				
9.1	forestryPlanParcelNo	parcel number, unique within the cadastre	1	1	Integer	

		number				
9.2	forestryPlanParcelName	parcel name	0	1	CharacterString	
9.3	forestryPlanParcelHamlet(Cluster ??)	unofficial division of municipalities into ??hamlets/clusters Note: Used to aggregate data into ??fixed/regular divisions in the municipality	0	1	Integer	
9.4	cadastralNumber	the official term for each individual cadastral unit	0	1	CadastralNumber	

1.1.10 <<DataType>> ForestryPlanTerrainGroup

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
10	Datatype ForestryPlanTerrainGroup	a set of variables which describes technical operational conditions in the stand, along the logging road and in the immediate vicinity of the stand				
10.1	forestryPlanTerrainLoadCapacityStand	load capacity for medium-sized agricultural tractor with chains Note: The assessment is made in the stand and on bare ground	1	1	ForestryPlanTerrainLoadCapacityStand	
10.2	forestryPlanTerrainStandSteepness	steepness Note: Stated in % gradient	1	1	Integer	
10.3	forestryPlanTerrainHillsideLength	hillside length Note: Stated in metres	1	1	Integer	
10.4	forestryPlanTerrainMinTranspEquip	minimum transportation equipment	1	1	ForestryPlanTerrainMinTranspEquip	
10.5	forestryPlanTerrainEvenness	evenness	1	1	ForestryPlanTerrainEvenness	

1.1.11 <<DataType>> ForestryPlanDensityGroup

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
11	Datatype ForestryPlanDensityGroup	stand appraisals wherein total basal area, crown coverage percentage and mean height are registered as a basis for calculation of volume				
11.1	forestryPlanDensityBasalAreaSum	basal area sum / crown coverage percentage in tenths	1	1	Integer	

11.2	forestryPlanDensityMHeight	mean height of basal area ?? Note: Stated in metres	1	1	Integer	

1.1.12 <<DataType>> ForestryPlanMeasureGroup

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
12	Datatype ForestryPlanMeasureGroup	describes measures or treatment types, when the measure should be implemented and priority (importance)				
12.1	forestryPlanMeasureStand	actions/ for	1	1	ForestryPlanMeasureStand	
12.2	forestryPlanMeasurePercentage	area share for the measure as a percentage of the total area	0	1	Integer	
12.3	forestryPlanMeasureYear	årstall for gjennomføring av tiltaket	0	1	Integer	
12.4	forestryPlanMeasurePriority	priority	0	1	ForestryPlanMeasurePriority	
12.5	forestryPlanMeasureArea	area of the measure Note: Stated in decares	0	1	Real	

1.1.13 <<DataType>> ForestryPlanGrowthGroup

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
13	Datatype ForestryPlanGrowthGroup	calculated volume and growth				
13.1	forestryPlanGrowthCalcDaa	??estimated/calculated growth per decare Note: Stated in cubic metres	1	1	Real	
13.2	forestryPlanGrowthCalcPercent	??estimated/calculated growth percentage	1	1	Real	
13.3	forestryPlanGrowthCalcM3	??estimated/calculated volume per decare Note: Stated in cubic metres	1	1	Real	
13.4	forestryPlanGrowthVolumeStand	total volume in the stand Note: Stated in cubic metres	1	1	Integer	

1.1.14 <<DataType>> ForestryPlanTreeTypeGroup

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
14	Datatype ForestryPlanTreeTypeGroup	description of tree type with associated volume and tree heights				
14.1	forestryPlanTreeType	type of tree	1	1	ForestryPlanTreeType	
14.2	forestryPlanTreeTypeHeight	height for the type of tree Note: Stated in metres	1	1	Integer	

14.3	forestryPlanTreeTypePercentage	volume share for the type of tree Note: Stated in %	1	1	Integer	
14.4	forestryPlanTreeTypeNoOfTreesDaaBefReg	the tree typeXzXs share of the number of trees per decare before regulation Note: Stated in %	1	1	Integer	
14.5	forestryPlanTreeTypeNoOfTreesDaaAftReg	the tree typeXzXs share of the number of trees per decare after regulation Note: Stated in %	1	1	Integer	
14.6	forestryPlanTreeTypeCorrVolumeWoBark	volume for the type of tree without bark, corrected Note: Stated in cubic metres	1	1	Integer	
14.7	forestryPlanTreeTypeUncorrVolumeWoBark	volume for the type of tree without bark, uncorrected Note: Stated in cubic metres	1	1	Integer	
14.8	forestryPlanTreeTypeUncorrVolumeWoBark	volume for the type of tree without bark, uncorrected Note: Stated in cubic metres	0	1	Integer	

1.1.15 Association <<Topo>> Stand -StandBoundary

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
15	Association Stand - StandBoundary					
15.1	Role boudaryStand		0	N	StandBoundary	Aggregation
15.2	Role (unnamed) Stand		1	2	Stand	

1.1.16 Association Stand -DekParcel

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
16	Association Stand - DekParcel					
16.1	Role belongTo		1	1	DekParcel	
16.2	Role (unnamed) Stand		1	N	Stand	

1.1.17 CodeLists

1.1.17.1 <<CodeList>> ForestryPlanDescrFellingClass

Nr	Code name	Definition/Description	Code
1	CodeList ForestryPlanDescrFellingClass	felling class	
1.1	Forest under renewal, satisfactorily cleared		11
1.2	Forest under renewal, unsatisfactorily cleared		12
1.3	Young forest, satisfactory density		21
1.4	Young stand with less than satisfactory density		22
1.5	Relatively young productive forest, satisfactory density		31
1.6	Relatively young productive forest, with less satisfactory density		32
1.7	Relatively old productive forest, satisfactory density		41
1.8	Relatively old productive forest, less than satisfactory density		42
1.9	Old forest, satisfactory density		51
1.10	Old forest, less than satisfactory density		52

1.1.17.2 <<CodeList>> ForestryPlanDescrStratif

Nr	Code name	Definition/Description	Code
2	CodeList ForestryPlanDescrStratif	stratification	
2.1	Relatively young productive forest, satisfactory density		1
2.2	Two-storied		2
2.3	Several-storied		3

1.1.17.3 <<CodeList>> ForestryPlanDescrForestType

Nr	Code name	Definition/Description	Code
3	CodeList ForestryPlanDescrForestType	forest type Note: Indicates whether the stand is to be included in prognosis calculations, alternatively which prognosis model is to be used	
3.1	Standard prognosis 0		0
3.2	Standard prognosis 1		1
3.3	??Mountain/Alpine forest logging		2
3.4	Not included in prognosis		3

1.1.17.4 <<CodeList>> ForestryPlanDescrHealth

Nr	Code name	Definition/Description	Code
4	CodeList ForestryPlanDescrHealth	health	
4.1	Good		1
4.2	Normal		2
4.3	Poor		3

1.1.17.5 <<CodeList>> ForestryPlanMultiCodeElementType

Nr	Code name	Definition/Description	Code
5	CodeList ForestryPlanMultiCodeElementType	multiply coded element type Note: May be edge zones toward various types of natural surroundings	
5.1	Edge zones bordering on various types of nature	Kantsoner mot ulike naturtyper (myr, vann m.v.)	1
5.2	Edge zones bordering on area used for technical purposes	Edge zones bordering on area used for technical purposes (roads, paths, ski trails, etc.)	10
5.3	Damp forest	Edge zones bordering on various types of nature (marsh, lakes/watercourses, etc.)	20
5.4	Ground flora - undergrowth		30
5.5	Multi-aged forest		40
5.6	Large deciduous trees		50
5.7	Deciduous forest grove		60
5.8	Winter grazing for deer		70
5.9	Individual species requiring special consideration		80
5.10	Cultural heritage site, outdoor life,		90

	visually vulnerable		

1.1.17.6 <<CodeList>> ForestryPlanBasisCalcType

Nr	Code name	Definition/Description	Code
6	CodeList ForestryPlanBasisCalcType	calculation type Note: Directs calculations ??to/ toward volume functions which are related to the appraisal method. Usage is defined in the appraisal instructions.	
6.1	Relascope appraisal		1
6.2	Photo interpretation and ??function/capability for fir	Photo interpretation and use of Tomter's ??function for fir	2
6.3	Photo interpretation and ??function/capability for coniferous forest	Photo interpretation and use of Tomter's ??function for coniferous forest	3
6.4	Photo interpretation and ??function/capability for pine	Photo interpretation and use of Tomter's ??function for pine	4
6.5	Galaaen's functions		5
6.6	NORSKOG's functions in felling class 3		8
6.7	Designated volume with bark, no correction		9
6.8	Designated volume without bark, no correction		10

1.1.17.7 <<CodeList>> ForestryPlanBasisMainGroup

Nr	Code name	Definition/Description	Code
7	CodeList ForestryPlanBasisMainGroup	main group Note: Criterion for grouping ??test/trial trees	
7.1	Main group 1		1
7.2	Main group 2		2
7.3	Main group 3		3
7.4	Main group 4		4
7.5	Main group 5		5
7.6	Main group 6		6
7.7	Main group 7		7
7.8	Main group 8		8
7.9	Main group 9		9

1.1.17.8 <<CodeList>> forestryPlanBasisAppraisalType

Nr	Code name	Definition/Description	Code
8	CodeList forestryPlanBasisAppraisalType	appraisal type governs calculations with respect to corrected and uncorrected appraised value	
8.1	Corrected volume is calculated		0
8.2	The stand is kept separate from correction		1

1.1.17.9 <<CodeList>> ForestryPlanClassCurrAveSitQual (??Curr/Appr)

Nr	Code name	Definition/Description	Code
9	CodeList ForestryPlanClassCurrAveSitQual (??Curr/Appr)	relevant average site quality of the stand Note: Measured or ??estimated/ calculated for the appropriate type of tree for site quality assessment. Site quality assessment according to the H40 system	
9.1	Site quality 6, H40		6
9.2	Site quality 8, H40		8
9.3	Site quality 11, H40		11
9.4	Site quality 14, H40		14
9.5	Site quality 17, H40		17
9.6	Site quality 20, H40		20
9.7	Site quality 23, H40		23
9.8	Site quality 26, H40		26

1.1.17.10 <<CodeList>> ForestryPlanClassRelevantTypeOfTree

Nr	Code name	Definition/Description	Code
10	CodeList ForestryPlanClassRelevantTypeOfTree	relevant type of tree in the stand	
10.1	Fir		1
10.2	Pine		2
10.3	Birch		3

1.1.17.11 <<CodeList>> ForestryPlanClassImpType

Nr	Code name	Definition/Description	Code
11	CodeList	impediment type for stated impediment share	

	ForestryPlanClassImpType		
11.1	Marsh		30
11.2	Unproductive forest area ("junk forest")		41
11.3	Impediment		42
11.4	Roads, high-tension powerline rights-of-way, etc.		43
11.5	Lake/Water		44
11.6	Other soil class		45

1.1.17.12 <<CodeList>> ForestryPlanClassPotMeanSitQua

Nr	Code name	Definition/Description	Code
12	CodeList ForestryPlanClassPotMeanSitQua	potential average site quality for the stand, measured or estimated for the potential type of tree for site quality assessment	
12.1	Site quality 6, H40		6
12.2	Site quality 8, H40		8
12.3	Site quality 11, H40		11
12.4	Site quality 14, H40		14
12.5	Site quality 17, H40		17
12.6	Site quality 20, H40		20
12.7	Site quality 23, H40		23
12.8	Site quality 26, H40		26

1.1.17.13 <<CodeList>> ForestryPlanClassPotTreeType

Nr	Code name	Definition/Description	Code
13	CodeList ForestryPlanClassPotTreeType	potential type of tree for site quality assessment	
13.1	Fir		1
13.2	Pine		2
13.3	Birch		3

1.1.17.14 <<CodeList>> ForestryPlanTerrainLoadCapacityStand

Nr	Code name	Definition/Description	Code
14	CodeList ForestryPlanTerrainLoadCapacitySta	load capacity for medium-sized agricultural tractor with chains Note: The assessment is made in the stand and on bare ground	

	nd		
14.1	Solid ground		1
14.2	??Varying in extraction direction ??		2
14.3	Low (waterlogged/marsh)		3
14.4	No load capacity		4

1.1.17.15 <<CodeList>> ForestryPlanTerrainEvenness

Nr	Code name	Definition/Description	Code
15	CodeList ForestryPlanTerrainEvenness	evenness of the terrain	
15.1	Completely even		1
15.2	Large rock/hillock		2
15.3	Boulders/scree		3
15.4	Rock wall/crevice/precipice		4

1.1.17.16 <<CodeList>> ForestryPlanTerrainMinTranspEquip

Nr	Code name	Definition/Description	Code
16	CodeList ForestryPlanTerrainMinTranspEquip	minimum transportation equipment	
16.1	Farm tractor with forestry equipment		1
16.2	Special tractor for forestry		2
16.3	Cableway		3

1.1.17.17 <<CodeList>> ForestryPlanMeasureStand

Nr	Code name	Definition/Description	Code
17	CodeList ForestryPlanMeasureStand	measures/treatment proposals for the stand	
17.1	Proposal primarily in felling class 1		01
17.2	Proposal primarily in felling class 2		20
17.3	Hogst av overstandere		30
17.4	Thinning		40
17.5	Rejuvenation logging		50
17.6	Other measures in all felling classes		60

1.1.17.18 <<CodeList>> ForestryPlanMeasurePriority

Nr	Code name	Definition/Description	Code
18	CodeList ForestryPlanMeasurePriority	priority	
18.1	Must		1
18.2	Should		2
18.3	Can		3

1.1.17.19 <<CodeList>> ForestryPlanTreeType

Nr	Code name	Definition/Description	Code
19	CodeList ForestryPlanTreeType	type of tree	
19.1	Fir		1
19.2	Sitka spruce		2
19.3	Noble/silver fir		3
19.4	Pine		10
19.5	Lodgepole pine		11
19.6	Larch		20
19.7	Yew		21
19.8	Other kind of conifer		29
19.9	Downy/hairy birch		30
19.10	Weeping/drooping birch		31
19.11	Aspen/quaking aspen		32
19.12	Birch		39
19.13	Oak		40
19.14	Beech		41
19.15	Ash		42
19.16	Elm		43
19.17	Linden		44
19.18	Maple		45
19.19	Grey alder		50
19.20	Black alder		51
19.21	Goat willow		52
19.22	Rowan		53

19.23	Bird-cherry/buckthorn		54
19.24	Filbert/hazel		55
19.25	Other kind of deciduous tree		59

1.1.17.20 <<CodeList>> TypeOfDelimitation

Nr	Code name	Definition/Description	Code
20	CodeList TypeOfDelimitation		
20.1	Water boundary	FF-demarcation of a body of water	3000
20.2	Glacier boundary	FF-demarcation of a glacier	3310
20.3	Parcel boundary	FF-demarcation of another property	4011
20.4	??(Soil class boundary / SoilClassBoundary)	FF-demarcation between areas with different soil classes	4201
20.5	??Protective/Protected forest boundary		4214
20.6	??(Developed area boundary / DevelopedAreaBoundary)	FF-demarcation of a built-up area	5200
20.7	Traffic boundary	FF-demarcation of a traffic area	7200
20.8	??(Uncharted, ocean-surveyed boundary / UnchartedOceanSurveyedBoundary)	FF-demarcation of an uncharted area	9300