

Entity and Attribute Definitions Report

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Total Pages: 18
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Parameters

<i>Application:</i>	NVAF
<i>Entities:</i>	%
<i>ER Diagram:</i>	%
<i>Include Entity Notes?</i>	Y
<i>Include Attribute Descriptions?</i>	Y
<i>Include Attribute Notes?</i>	Y
<i>Include Attribute Values?</i>	Y
<i>Include Table of Contents?</i>	N
<i>Include Index of Entities?</i>	Y

Entity Name: VDHH ACTUAL TRLDR PATHOLOGY			Short Name:	VATP
Plural:	VDHH ACTUAL TRLDR PATHOLOGY			
Init. Volume:	Avg. Volume:	Max. Volume:	Annual Growth Rate:	

Description:

Details of a pathology associated with a tree leader.

Attributes:

<u>Name</u>	<u>Domain</u>	<u>Opt</u>	<u>Format</u>	<u>Length</u>
HT TO PATH IND START		N	NUMBER	6,2
<i>The height from the ground along the bole to the highest point at which the pathological indicator starts (metres).</i>				
<i>Allowable Values of Attribute</i>				
-5.00	thru 99.99			
VATP TYPE		N	VARCHAR2	4
<i>Type of pathology.</i>				
* PATH ID		N	NUMBER	2
<i>Pathology ID. No business meaning. Unique within a leader?</i>				
HT TO PATH IND END		N	NUMBER	6,2
<i>The height from the ground along the bole to the point at which the pathological indicator ends (metres).</i>				
WIDTH		N	NUMBER	5,1
<i>Width of the pathology (cm).</i>				
* = Attributes in primary unique identifier.				

Relationships:

Each Occurrence Of This Entity:

* MUST BE describe the pathology of one and only one VDHH TREE LEADERS

* = Relationships in primary unique identifier.

Unique Identifiers:

TLP1	Primary	Y
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MUST BE describe the pathology of one and only one VDHH TREE LEADERS

PATH ID

Notes:

From DVHand Tr_Path.dbf

Entity Name: VDHH EST TREE PATHOLOGY			Short Name:	VETP
Plural:	VDHH EST TREE PATHOLOGY			
Init. Volume:	Avg. Volume:	Max. Volume:	Annual Growth Rate:	

Description:

Details of a pathology associated with a tree.

Attributes:

<u>Name</u>	<u>Domain</u>	<u>Opt</u>	<u>Format</u>	<u>Length</u>
HT TO PATH IND START		N	NUMBER	6,2
The height from the ground along the bole to the highest point at which the pathological indicator starts (metres).				
TYPE		N	VARCHAR2	4
Type of pathology.				
* PATH ID		N	NUMBER	2
Pathology ID. No business meaning.				
HT TO PATH IND END		N	NUMBER	6,2
The height from the ground along the bole to the point at which the pathological indicator ends (metres).				
WIDTH		N	MONEY	5,1
Width of the pathology (cm).				
* = Attributes in primary unique identifier.				

Relationships:

Each Occurrence Of This Entity:

- * MUST BE describe the pathology of one and only one VDHH TREES
- * = Relationships in primary unique identifier.

Unique Identifiers:

STP	Primary	Y
MUST BE describe the pathology of one and only one VDHH TREES		
PATH ID		

Notes:

From DVHand Tr_Path.dbf

Entity Name: VDHH LAYER SPP COMPOSITION			<i>Short Name:</i>	VLSC
<i>Plural:</i> VDHH LAYER SPP COMPOSITION				
<i>Init. Volume:</i>	<i>Avg. Volume:</i>	<i>Max. Volume:</i>	<i>Annual Growth Rate:</i>	

Description:

Tree species composition of a given layer within a sample

Attributes:

<u>Name</u>	<u>Domain</u>	<u>Opt</u>	<u>Format</u>	<u>Length</u>
* TREE SPP		Y	VARCHAR2	3
<i>Tree species</i>				
TREE SPP PCT		Y	NUMBER	3
<i>Tree species percent composition</i>				
* = Attributes in primary unique identifier.				

Relationships:

Each Occurrence Of This Entity:

* MUST BE describe the species composition of one and only one VDHH LAYERS

* = Relationships in primary unique identifier.

Unique Identifiers:

LSC1	Primary	Y
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MUST BE describe the species composition of one and only one VDHH LAYERS

TREE SPP

Notes:

From SA_LAYER_SL_SPECIE1-7, SA_LAYER_SL_SPPCT1-7 and

SA_LAYER_SL_PREDOM1-7

Entity Name: VDHH LAYERS

Short Name:

VL

Plural: VDHH LAYERS

Init. Volume:

Avg. Volume:

Max. Volume:

Annual Growth Rate:

Description:

Stand composition information relating to the sample as a whole

Attributes:

<u>Name</u>	<u>Domain</u>	<u>Opt</u>	<u>Format</u>	<u>Length</u>
* LAYER ID		N	VARCHAR2	1
Layer number				
AIR CROWN CLOSURE PCT		Y	NUMBER	3
Crown Closure % as viewed from the aerial photo				
GROUND CROWN CLOSURE PCT		Y	NUMBER	3
Crown Closure % as viewed from the ground				
STAND STRUCTURE		Y	VARCHAR2	1
Stand structure				
RELATIVE DENSITY		Y	NUMBER	5
Relative density				

* = Attributes in primary unique identifier.

Relationships:Each Occurrence Of This Entity:

MAY BE be composed of one or more VDHH LAYER SPP COMPOSITION

* MUST BE describe the stand composition for one and only one VDHH SAMPLES

* = Relationships in primary unique identifier.

Unique Identifiers:

LYR1 Primary Y

MUST BE describe the stand composition for one and only one VDHH SAMPLES

LAYER ID

Notes:

From DVHost Sa_Layer.dbf

Entity Name: VDHH PLOTS			Short Name: VP	
Plural: VDHH PLOTS				
Init. Volume:	Avg. Volume:	Max. Volume:	Annual Growth Rate:	

Description:

Information associated with a plot within a sample

Attributes:

<u>Name</u>	<u>Domain</u>	<u>Opt</u>	<u>Format</u>	<u>Length</u>
* PLOT NO		N	NUMBER	2
<i>Plot number</i>				
* PLOT COUNT ID		N	VARCHAR2	1
<i>Count Plot ID. Must be A, B, or F(ull).</i>				
<i>Allowable Values of Attribute</i>				
A				
B				
F	Full			
ASPECT		N	NUMBER	3
<i>Plot aspect (degrees).</i>				
<i>Allowable Values of Attribute</i>				
0 thru 360				
SLOPE PCT		N	NUMBER	3
<i>Plot slope percent. Must be between 0 and 150. If Plot Apect is 0, Plot Slope must also be 0. If Plot Aspect >0, Plot Slope must also be > 0.</i>				
<i>Allowable Values of Attribute</i>				
0 thru 150				
SLOPE POSITION		N	VARCHAR2	1
<i>Plot slope position.</i>				
ELEVATION		N	NUMBER	4
<i>Plot elevation (metres). Must be 0 to 5000 metres.</i>				
<i>Allowable Values of Attribute</i>				
0 thru 5000				
SITE UNIT		Y	NUMBER	2
<i>Site unit.</i>				
* = Attributes in primary unique identifier.				

Relationships:

Each Occurrence Of This Entity:

- * MUST BE be contained within one and only one VDHH SAMPLES
- MAY BE contain one or more VDHH TREES
- * = Relationships in primary unique identifier.

Unique Identifiers:

PLT1	Primary	Y
<i>MUST BE be contained within one and only one VDHH SAMPLES</i>		
<i>PLOT NO</i>		
<i>PLOT COUNT ID</i>		

Notes:

From DVHand Plot.dbf

Entity Name: VDHH SAMPLES**Short Name:** VS**Plural:** VDHH SAMPLES**Init. Volume:** **Avg. Volume:** **Max. Volume:** **Annual Growth Rate:****Description:**

Information relevant to the Net Volume Adjustment Factor sample as a

whole

Attributes:

<u>Name</u>	<u>Domain</u>	<u>Opt</u> <u>Format</u>	<u>Length</u>
REGION		N NUMBER	2
<i>Forestry region. Must be 1 to 88.</i>			
<i>Allowable Values of Attribute</i>			
1	thru 88		
COMPARTMENT		N NUMBER	3
<i>Sample compartment number. Valid numbers are 1 to 206.</i>			
<i>Allowable Values of Attribute</i>			
1	thru 206		
COLLECTION PURPOSE		Y VARCHAR2	15
COMPARTMENT LETTER		Y VARCHAR2	1
<i>Sample letter. Valid codes are A to P.</i>			
<i>Allowable Values of Attribute</i>			
A	thru P		
INSTALLATION		Y NUMBER	3
<i>Installation. This attribute may be NULL which makes the REGION, COMPARTMENT, COMPARTMENT LETTER, INSTALLATION and SAMPLE NUMBER combination unsuitable for a primary key but okay for a unique key constraint. Therefore, the NVAF SAMPLES table must have a surrogate primary key.</i>			
SAMPLE NO		N NUMBER	3
<i>Sample number.</i>			
<i>Allowable Values of Attribute</i>			
1	thru 999		
SAMPLE TYPE		N VARCHAR2	1
<i>Sample type. Can be D(ecay), V(olume) or B(oth). If it is D or V then the tree types must be the same. If it is b, the tree types can be a mixture of D and V.</i>			
<i>Allowable Values of Attribute</i>			
D	Decay		
V	Volume		
B	Both volume and decay		
TSA		Y NUMBER	2
<i>Timber supply area.</i>			
SAMPLE DATE		N DATE	
<i>Date the sample was created. Must be greater than or equal to January 1, 1999.</i>			
UTM ZONE		N NUMBER	2
<i>Sample UTM zone.</i>			
UTM EASTING		N NUMBER	6
<i>Sample UTM co-ordinate - latitudinal.</i>			
UTM NORTHING		N NUMBER	7
<i>Sample UTM co-ordinate - longitudinal.</i>			
PROJECT NO		Y VARCHAR2	30
<i>Sample project number.</i>			

Entity Name: VDHH SAMPLES (cont'd)		Short Name:	VS
MAP NO	Y VARCHAR2	8	
<i>Sample map number. If entered, the first three characters should be 82, 92, 93, 94, 102, 103, 104 or 114. The fourth character should be A to P and characters 5 to 8 should not add up to zero.</i>			
POLYGON NO	N NUMBER	4	
<i>Sample polygon - forest cover.</i>			
FLIGHT NO	Y VARCHAR2	5	
<i>Flight number.</i>			
AIR PHOTO NO	N NUMBER	3	
<i>Aerial photograph number. Should be >= 1.</i>			
<i>Allowable Values of Attribute</i>			
1	thru 999		
BGC ZONE DATA SOURCE	Y VARCHAR2	1	
<i>Biogeoclimatic zone data source.</i>			
BGC ZONE	Y VARCHAR2	4	
<i>Biogeoclimatic zone.</i>			
BGC SUB ZONE	Y VARCHAR2	3	
<i>Biogeoclimatic sub plot zone.</i>			
BGC VARIANT	Y NUMBER	1	
<i>Biogeoclimatic variant.</i>			
<i>Allowable Values of Attribute</i>			
0	thru 10		
BGC PHASE	Y VARCHAR2	1	
<i>Biogeoclimatic phase.</i>			
BEC SITE ASSOC	Y NUMBER	2	
<i>BEC site association.</i>			
BEC SITE SUB ASSOC	Y NUMBER	1	
<i>BEC site sub-association.</i>			
BEC SITE SERIES	Y NUMBER	2	
<i>BEC site series.</i>			
BEC SITE TYPE	Y NUMBER	2	
<i>BEC site type.</i>			
BEC SITE PHASE	Y VARCHAR2	1	
<i>BEC site phase.</i>			
NOTES	Y VARCHAR2	100	
<i>Notes regarding the sample.</i>			
MEASMT CONTRACTOR	Y VARCHAR2	10	
<i>Sample measurement contractor.</i>			
MEASMT CREW MEMBER #1	Y VARCHAR2	25	
<i>Sample measurement crew member #1.</i>			
MEASMT CREW MEMBER #2	Y VARCHAR2	25	
<i>Sample measurement crew member #2.</i>			
MEASMT AGENCY	Y VARCHAR2	1	
<i>Sample measurement agency.</i>			
<i>Allowable Values of Attribute</i>			
C			
I			
F			
U			

Entity Name: VDHH SAMPLES (cont'd)			Short Name:	VS
MEASMT DATA OWNER	Y	VARCHAR2	10	
Sample measurement data owner.				
COAST INTERIOR	N	VARCHAR2	1	
C(oastal) or I(nterior) sample. Used for determining diameter for utilization top.				
Allowable Values of Attribute				
C		Coastal		
I		Interior		
* = Attributes in primary unique identifier.				

Relationships:

Each Occurrence Of This Entity:

MAY BE be composed of one or more VDHH LAYERS

MAY BE contain one or more VDHH PLOTS

* = Relationships in primary unique identifier.

Unique Identifiers:

SMP1	Primary	N
REGION		
COMPARTMENT		
SAMPLE NO		
COMPARTMENT LETTER		
INSTALLATION		

Notes:

From DVHand Sample.dbf

Entity Name: VDDH TREE LEADER DECAY

Short Name: VTLD

Plural: VDDH TREE LEADER DECAY

Init. Volume:

Avg. Volume:

Max. Volume:

Annual Growth Rate:

Description:

Description of a decay occurrence associated with a particular tree leader.

Attributes:

<u>Name</u>	<u>Domain</u>	<u>Opt</u>	<u>Format</u>	<u>Length</u>
* DECAY STAIN ID		N	NUMBER	2
<i>Decay/stain id number. An assigned number to identify a specific decay or stain occurrence in the tree leader. The number is unique for the tree although occurrences are specific to a leader. Thus a body of decay or stain that spans multiple leaders is recorded as multiple occurrences.</i>				
TYPE		N	VARCHAR2	1
<i>Decay or stain indicator. Must be D(ecay), S(tain) or V(oid).</i>				
<i>Allowable Values of Attribute</i>				
D	Decay			
S	Stain			
V	Void			
WOOD STRENGTH CD		N	VARCHAR2	1
<i>Wood strength code. A code for the wood strength characteristics associated with the decay occurrence.</i>				
DECAY TEXTURE CD		N	VARCHAR2	1
<i>Decay texture code. A code for the textural characteristics of the decay occurrence.</i>				
DECAY SHADE CD		N	VARCHAR2	1
<i>Decay shade code. A code for the patterning and/or shading of the decay or stain occurrence.</i>				
DECAY STAIN COLOUR CD		N	VARCHAR2	1
<i>Decay stain colour code. A code for the colour of the decay or stain occurrence.</i>				
DEVELOPMENT STAGE CD		N	VARCHAR2	1
<i>Development stage code. A code for the development stage of the decay or stain occurrence.</i>				
ENTRANCE CD		N	VARCHAR2	1
<i>Entrance code. A code for the entrance of the decay or stain occurrence.</i>				
PFS SHADE CD		N	VARCHAR2	1
<i>Pits, flecks and spots shade code. A code for the predominant shading and/or patterning of pits, flecks and spots associated with the decay occurrence.</i>				
PFS NUM CD		N	VARCHAR2	1
<i>Pits, flecks and spots number code. A code for the qualification of the number of pits, flecks and spots associated with the decay occurrence.</i>				
PFS SHAPE CD		N	VARCHAR2	1
<i>Pits, flecks and spots shape code. A code for the shape of pits, flecks and spots associated with the decay occurrence.</i>				
PFS COLOUR CD		N	VARCHAR2	1
<i>Pits, flecks and spots colour code. A code for the predominant colouration of the pits, flecks and spots associated with the decay occurrence.</i>				
PFS TYPE CD		N	VARCHAR2	1
<i>Pits, flecks and spots type code. A code for the categorization of pits, flecks and spots or combinations thereof associated with the decay occurrence.</i>				
MYCELIUM SHADE CD		N	VARCHAR2	1
<i>Mycelium shade code. A code for the predominant shading and/or patterning of the mycelium associated with the decay occurrence.</i>				
MYCELIUM COLOUR CD		N	VARCHAR2	1
<i>Mycelium colour code. A code for the predominant colouration of the mycelium associated with the decay occurrence.</i>				

Entity Name: VDHH TREE LEADER DECAY (cont'd)			Short Name:	VTLD
MYCELIUM TYPE CD	N	VARCHAR2	1	
Mycelium type code. A code for the physical description of the mycelium associated with the decay occurence.				
ORGANISM CD	N	VARCHAR2	6	
Decay or stain organism code. A code for the organism which caused the decay occurence.				
DECAY SHAPE CD	N	VARCHAR2	1	
Decay shape code. The shape of the cross-section of a body of decay.				
SEPARATE MIXED	N	VARCHAR2	1	
Whether the decay elements are separate or mixed.				
Allowable Values of Attribute				
S		Separate		
M		Mixed		
* = Attributes in primary unique identifier.				

Relationships:

Each Occurrence Of This Entity:

- * MUST BE describe the decay of one and only one VDHH TREE LEADERS
- MAY BE contain one or more VDHH TREE SEGMENT DECAY
- * = Relationships in primary unique identifier.

Unique Identifiers:

TLD1	Primary	Y
MUST BE describe the decay of one and only one VDHH TREE LEADERS		
DECAY STAIN ID		

Notes:

From DVHand Tl_Decay.dbf

Entity Name: VDDH TREE LEADERS

Short Name:

VTL

Plural: VDDH TREE LEADERS

Init. Volume:

Avg. Volume:

Max. Volume:

Annual Growth Rate:

Description:

Description of the primary leader and any secondary leader emanating

from the primary leader. The data in this entity focuses on the

leader as a whole and, for secondary leaders, the fork from which the

leader emerges.

Attributes:

<u>Name</u>	<u>Domain</u>	<u>Opt</u>	<u>Format</u>	<u>Length</u>
* TREE LEADER NO		N	NUMBER	1
<i>Tree leader number. Primary leader = 1, secondary leader = 2, etc.</i>				
HT FROM GROUND TO LEADER TOP		N	NUMBER	6,2
<i>The height from the ground of the top of this leader (metres). Must be < tree height.</i>				
HT TO FORK BOTTOM		Y	NUMBER	6,2
<i>Height above ground of bottom of fork from which this child leader emerges (metres). If the leader's utilization top height > 0, then this bottom fork height must be < the child leader's utilization top height. If the leader's utilization top height = 0, then the bottom fork height must be < the child leader height.</i>				
DOUBLE BARK THICKNESS		Y	NUMBER	4,1
<i>Double bark thickness at the bottom of the fork (cm). Must be between 0 and 99.9. If a previous section exists, and it's first double bark thickness is > 0, then this double bark thickness should be within + or - 50% of the previous section's first double bark thickness</i>				
HT TO FORK TOP		Y	NUMBER	6,2
<i>Height of top of fork from which this child leader emerges above ground (metres).</i>				
DIAM OVER BARK AT FORK BOTTOM		Y	NUMBER	5,1
<i>Diameter over bark at bottom of fork (cm). Must be between 0 and 999. Should be <= the previous lower section's top diameter with bark.</i>				
TOP FORK PARENT LEADER DOB		Y	NUMBER	5,1
<i>Top fork parent leader diameter outside bark (cm). Used only for volume assessment. Must be between 0 and 999. Should be < bottom fork diameter outside bark.</i>				
TOP FORK SECONDARY LEADER DOB		Y	NUMBER	5,1
<i>Top fork secondary leader diameter outside bark (cm). Used for volume assessment only. Must be between 0 and 999. Should be < parent leader top diameter outside bark.</i>				
TOP FORK PARENT LEADER DBT		Y	NUMBER	4,1
<i>Top fork parent leader double bark thickness (cm). Used only for volume assessment. Must be between 0 and 99.9. If a previous section exists, and it's first double bark thickness is > 0, then this double bark thickness should be within + or - 50% of the previous section's first double bark thickness.</i>				
TOP FORK SECONDARY LEADER DBT		Y	NUMBER	4,1
<i>Top fork secondary leader double bark thickness (cm). Used only for volume assessment. Must be between 0 and 99.9. If a previous section exists, and it's first double bark thickness is > 0, then this double bark thickness should be within + or - 50% of the previous section's first double bark thickness.</i>				
TOP FORK PARENT LEADER DIB#1		Y	NUMBER	5,1
<i>Top fork parent leader diameter inside bark #1. Used for decay assessment only.</i>				
TOP FORK PARENT LEADER DIB#2		Y	NUMBER	5,1
<i>Top fork parent leader diameter inside bark #2. Used for decay assessment only.</i>				
UTILIZATION HT		N	NUMBER	6,2
<i>Utilization height for this leader. Must be >= 0. Must be < leader height. Must be > top fork height.</i>				
PARENT VOLUME SECTION NO		Y	NUMBER	2,0

Entity Name:	VDHH TREE LEADERS (cont'd)	Short Name:	VTL
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Parent volume section number.

PARENT DECAY SECTION NO	Y	NUMBER	2,0
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Parent decay section number.

CHILD VOLUME WEDGE SECTION NO	Y	NUMBER	2,0
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Child volume wedge section number for this leader.

CHILD DECAY WEDGE SECTION NO	Y	NUMBER	2,0
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Child decay wedge section number for this leader.

PARENT LEADER NO	Y	NUMBER	2,0
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Parent leader number for this child leader.

* = Attributes in primary unique identifier.

Relationships:

Each Occurrence Of This Entity:

MAY BE be described pathologically by one or more VDHH ACTUAL TRLD R PATHOLOGY

MAY BE be decayed by one or more VDHH TREE LEADER DECAY

MUST BE be sectioned into one or more VDHH TREE SEGMENTS

* MUST BE be part of one and only one VDHH TREES

* = Relationships in primary unique identifier.

Unique Identifiers:

TL1	Primary	Y
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MUST BE be part of one and only one VDHH TREES

TREE LEADER NO

Notes:

From DVHand TrLeader.dbf

Entity Name: VDHH TREE SEGMENT DECAY**Short Name:** VTSD**Plural:** VDHH TREE SEGMENT DECAY**Init. Volume:****Avg. Volume:****Max. Volume:****Annual Growth Rate:****Description:**

Description of a decay instance which must be related to a parent decay occurrence.

Attributes:

<u>Name</u>	<u>Domain</u>	<u>Opt</u>	<u>Format</u>	<u>Length</u>
TREE TOP TO DECAY TOP HT		Y	NUMBER	6,2
<i>The distance from the top of a tree section to the top of the major body of decay within the tree section (m). Must be < the section length. If a decay instance width and/or breadth > 0, then this must be 0 (indicating that the decay instance extends to the top of the section).</i>				
CONTN FROM PREV SECTION		N	VARCHAR2	1
<i>Decay instance is a continuation from previous section's instance.</i>				
<i>Allowable Values of Attribute</i>				
Y	Yes			
N	No			
CONTD TO NEXT SECTION		N	VARCHAR2	1
<i>Decay instance is continued to the next section's instance.</i>				
<i>Allowable Values of Attribute</i>				
Y	Yes			
N	No			
TREE TOP TO DECAY BOTTOM HT		Y	NUMBER	6,2
<i>The distance from the top of a tree section to the bottom of the major body of decay within the tree section (m). Must be >= distance to top of decay. Must be <= section length.</i>				
DECAY LENGTH		N	NUMBER	6,2
<i>The length of the decay within the section (m). It may reach all the way to the top and/or the bottom of the section.</i>				
INNER WIDTH		N	NUMBER	5,1
<i>The distance across one dimension of the inner cross-section of a body of decay within the section (cm). The inner width is measured along a dimension perpendicular to the inner width. If > 0, must be <= inner breadth. If inner width or inner breadth > 0, decay top height must be 0. If decay not continued from previous section, inner breadth must be > 0.</i>				
<i>Allowable Values of Attribute</i>				
0.1	thru 9999.9			
INNER BREADTH		N	NUMBER	5,1
<i>The distance across one dimension of the inner cross-section of a body of decay within the section (cm). The inner breadth width is measured along a dimension perpendicular to the inner width. If > 0, must be <= inner width. If inner width or inner breadth > 0, decay top height must be 0. If decay not continued from previous section, inner width must be > 0.</i>				
<i>Allowable Values of Attribute</i>				
0.1	thru 9999.9			
DECAY PCT		N	NUMBER	3
<i>If decay in this section is mixed, this is the percentage that this part of the mixed decay contributes to the whole in this section.</i>				
OUTER WIDTH		Y	NUMBER	5,1
<i>The distance across one dimension of the outer most cross section of a body of decay within the section (cm). The outer width is measured along a dimension perpendicular to the outer breadth. If > 0, must be >= outer breadth. Outer width must be <= current section's first diameter inside bark. Outer width must be > inner width.</i>				
<i>Allowable Values of Attribute</i>				
0.1	thru 9999.9			
OUTER BREADTH		Y	NUMBER	5,1

Entity Name:	VDHH TREE SEGMENT DECAY (cont'd)	Short Name:	VTSD
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The distance across one dimension of the outer most cross section of a body of decay within the section (cm). The outer breadth is measured along a dimension perpendicular to the outer width. If > 0, must be >= outer width. Outer breadth must be <= current section's second diameter inside bark. Outer breadth must be > inner breadth.

Allowable Values of Attribute
0.1 thru 9999.9

** = Attributes in primary unique identifier.*

Relationships:

Each Occurrence Of This Entity:

- * MUST BE be associated with one and only one VDHH TREE LEADER DECAY
- * MUST BE describe the decay of one and only one VDHH TREE SEGMENTS
- * = Relationships in primary unique identifier.*

Unique Identifiers:

TSD1	Primary	Y
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MUST BE describe the decay of one and only one VDHH TREE SEGMENTS
MUST BE be associated with one and only one VDHH TREE LEADER DECAY

Notes:

From DVHand Ts_Decay.dbf

Entity Name: VDHH TREE SEGMENTS

Short Name:

VTS

Plural: VDHH TREE SEGMENTS

Init. Volume:

Avg. Volume:

Max. Volume:

Annual Growth Rate:

Description:

Description of an assessment of a section or segment of a tree

associated with a parent leader.

Attributes:

<u>Name</u>	<u>Domain</u>	<u>Opt</u>	<u>Format</u>	<u>Length</u>
* ASSESSMENT TYPE		N	VARCHAR2	1
<i>Character indicating D(ecay) or V(olume) assessment record. For trees on which both volume and decay assessments are made. The base segments (numbers 1 through 5) are identical for both volume and decay and are duplicated for each of these two assessments.</i>				
<i>Allowable Values of Attribute</i>				
D	Decay			
V	Volume			
SEGMENT TYPE		N	VARCHAR2	2
<i>Segment type. For sections 1 - 5, the type is B(ase). For sections 6 and above, the type is V(olume) or D(ecay).</i>				
<i>Allowable Values of Attribute</i>				
B	Base (for sections 1 to 5 only)			
V	Volume (for sections 6 and above only)			
D	Decay (for sections 6 and above only)			
* SEGMENT NO		N	NUMBER	3
<i>Segment or section number. Sections are internally numbered from the base of the stem up the main leader, thence along each secondary, etc. leader. The 5 base sections (1 - 5) are identical for both Volume and Decay. Section 1 is used for that part of the tree that occurs below the high side. Sections higher than 5 are internally numbered separately for Volume and Decay assessment purposes. The section on the parent leader where a fork occurs is considered a normal section. The section of a secondary leader that is below the secondary leader top fork height and joins the parent section is termed the wedge section.</i>				
TOP DIAM WITH BARK		Y	NUMBER	5,1
<i>The diameter at the top of the tree section including the bark (cm). Used only for volume assessment.</i>				
BARK THICKNESS SUM		Y	NUMBER	4,1
<i>The sum of the two bark thickness measurements taken at opposite sides of the tree at the top of the tree section (cm).</i>				
CUMULATIVE TREE LENGTH		N	NUMBER	6,2
<i>Cumulative tree length from bottom of lowest section on the leader to the top of this section (metres). Entered for decay assessment, calculated for volume assessment.</i>				
FIRST DIAMETER INSIDE BARK		Y	NUMBER	5,1
<i>First observed diameter inside bark at section top (cm).</i>				
SECTION LENGTH		N	NUMBER	5,2
<i>Section length (metres).</i>				
SECOND DIAMETER INSIDE BARK		Y	NUMBER	5,1
<i>Second observed diameter inside bark at section top (cm).</i>				
FORK PRESENT		N	VARCHAR2	1
<i>True if fork present in this section, otherwise false.</i>				
<i>Allowable Values of Attribute</i>				
Y	Yes			
N	No			
LAST SECTION		N	VARCHAR2	1
<i>True if this section is the last segment in the leader, else false.</i>				
<i>Allowable Values of Attribute</i>				

Entity Name:	VDHH TREE SEGMENTS (cont'd)	Short Name:	VTs
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Y	Yes
N	No

PARENT LEADER NO	Y	NUMBER	1,0
Parent leader number if this section is not in the primary leader. 0 if this section is in the primary leader.			
PARENT SECTION NO	Y	NUMBER	2,0
Parent section number if this section is not in the primary leader. 0 if this section is in the primary leader.			
FIRST LEADER SECTION WITHIN	N	NUMBER	2,0
The first section number on the leader to which this section belongs. Volume and decay sectioning being different.			
Volume section entries may well have different numbering to decay entries.			

* = Attributes in primary unique identifier.

Relationships:

Each Occurrence Of This Entity:

- * MUST BE be part of one and only one VDHH TREE LEADERS
- MAY BE be decayed by one or more VDHH TREE SEGMENT DECAY
- * = Relationships in primary unique identifier.

Unique Identifiers:

TS1	Primary	Y
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MUST BE be part of one and only one VDHH TREE LEADERS

ASSESSMENT TYPE

SEGMENT NO

Notes:

From DVHand Tr_Seg.dbf

Entity Name: VDHH TREES

Short Name:

VT

Plural: VDHH TREES

Init. Volume:

Avg. Volume:

Max. Volume:

Annual Growth Rate:

Description:

Information associated with a tree within a plot

Attributes:

<u>Name</u>	<u>Domain</u>	<u>Opt</u>	<u>Format</u>	<u>Length</u>
* TREE NO		N	NUMBER	4
<i>Tree number. No business meaning.</i>				
TREE TYPE		N	VARCHAR2	1
<i>Tree type must be V(olume), D(ecay) or B(oth).</i>				
<i>Allowable Values of Attribute</i>				
V	Volume			
D	Decay			
B	Both			
SPECIES		N	VARCHAR2	3
<i>Tree species.</i>				
DBH13		N	NUMBER	5,1
<i>Diameter of tree measured at breast height which is 1.3 metres above the germination point. Measured in centimetres.</i>				
<i>Allowable Values of Attribute</i>				
0.1	thru 9999.9			
STUMP AGE		Y	NUMBER	4
<i>Observed stump age in years. Must be between 10 and 1500.</i>				
<i>Allowable Values of Attribute</i>				
10	thru 1500			
HEIGHT		N	NUMBER	4,1
<i>Measured tree height in metres. Must be between 3 and 100 metres. Must be greater than height to base of live crown, utilization top and break height. Crown should start in lowest third of tree.</i>				
<i>Allowable Values of Attribute</i>				
3	thru 100			
DBH ASSESSMENT TYPE		N	VARCHAR2	1
<i>Diameter at breast height assessment type. Must be A(ctual) or E(stimated).</i>				
<i>Allowable Values of Attribute</i>				
A	Actual			
E	Estimated			
HT TO LIVE CROWN BASE		N	NUMBER	6,2
<i>Height to base of live crown measured in metres. Must be between 0.1 and 999.99.</i>				
<i>Allowable Values of Attribute</i>				
0.1	thru 999.99			
HT TO BREAK		Y	NUMBER	6,2
<i>Height to break (metres). 0 if no break. If > 0, should be > live crown height. If 0, diameter at break is 0.</i>				
DIAM INSIDE BARK AT BREAK		Y	NUMBER	5,1
<i>Diameter inside bark at break (cm). 0 if no break. Must be <= DBH.</i>				
UTILIZATION TOP DIAM		Y	NUMBER	2
<i>Utilization top diameter (cm). Set up as 15 cm for coastal samples with a breast height age >= 121. Otherwise, 10 cm.</i>				
<i>Allowable Values of Attribute</i>				
10				

Entity Name: VDHH TREES (cont'd)		Short Name:	VT
15			
NOTES	Y VARCHAR2	100	
<i>Tree comments.</i>			
STUMP HT	N NUMBER	5,2	
<i>Stump height (metres). Must be between 0 and 10.00.</i>			
<i>Allowable Values of Attribute</i>			
0.00	thru	10.00	
MISSING WOOD RADIUS	Y NUMBER	5,1	
<i>Radius of missing (decayed) wood (cm). Must be ≥ 0. Missing radius must be $\leq 0.90 * \text{stump DIB}$.</i>			
SOUND WOOD ANNULAR RADIUS	N NUMBER	5,1	
<i>Annular radius of sound wood (cm). The sum of the radius of missing wood and the annular radius of sound wood must be $\geq \text{DIB} * 0.25$ and $\leq \text{DIB} * 0.75$.</i>			
AGE CORRECTION	N NUMBER	4	
<i>Age correction (years). Age correction plus stump age must be between 10 and 1500.</i>			
TOTAL AGE AT BH	N NUMBER	4,0	
<i>Tree total age at breast height (after correction) (years).</i>			
NUM VOL SEGMT IN MAIN LDR	N NUMBER	2	
<i>Number of volume sections assigned to the main leader. If tree height $\geq 26.3\text{m}$ then 20 else 10.</i>			
<i>Allowable Values of Attribute</i>			
10			
20			
EST STUMP DIAM INSIDE BARK	N NUMBER	5,1	
<i>Estimated stump DIB (cm). Use top DIB of segment below stump height.</i>			
COUNTED STUMP AGE	N NUMBER	4,0	
<i>Counted stump age (years) excluding missing wood. Should be between 10 and 1500.</i>			
<i>* = Attributes in primary unique identifier.</i>			

Relationships:

Each Occurrence Of This Entity:

MAY BE be described pathologically by one or more VDHH EST TREE PATHOLOGY

* MUST BE be contained within one and only one VDHH PLOTS

MUST BE be comprised of one or more VDHH TREE LEADERS

* = Relationships in primary unique identifier.

Unique Identifiers:

TR1 Primary Y

MUST BE be contained within one and only one VDHH PLOTS

TREE NO

Notes:

From DVHand Tree.dbf

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