Table of Contents

Vegetation Plots Database Model 2000

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Project

Vegetation Plots Database Model 2000

COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION
project_id	N	NUMBER	P	n/a	**G**	Database assigned value for a given project.
projectName	N	VARCHAR2		n/a	**R**	Project name as defined by the PI.
purpose	Y	VARCHAR2		n/a	Not sure what would show up here. Do we want a pick list so as to force convergence to some consistent set of terms?	Purpose for doing the project.
plotChoiceType	Y	VARCHAR2		n/a		Reason for choosing the type of plot sampling method used in the project.
samplingMethod	N	VARCHAR2		n/a	**R** Each method will have its own metadata record with more descriptive detail about sampling method, especially if it is not a standard method. This will include dimensions, number and arrangement of subplots (quadrats, microplots, etc.) in stand, etc. Each combination of method and cover scale will have its own (external) application to convert	For vegetation plots only. Method used for description of ground and shrub layer. This will be a pick list with standard plot description methods, such as Daubenmire, modified Daubenmire, Zürich-Montpellier, North Carolina Vegetation Survey and TNC (I am not sure whether TNC should be listed separately or should be considered a ZM sampling approach using a different cover scale). Other methods can be added to pick list as needed.

					cover data to the database standard.
coverScale	N	NUMBER	n/a	**R** A note should be attached to this field describing the cover classes if a non-standard cover scale or a modification of a standard scale is used. Alternatively, a separate field could be used to describe the cover scale, and the system could fill in this information automatically for the scales in the picklist.	Scale used to estimate species cover. This does not follow necessarily from the sampling method in the previous field. For instance, the ZM method can use the standard Braun-Blanquet scale, the Barkman et al. cover scale, or some other modified BB scale. Similarly, the modified Daubenmire method can use the Franklin et al. or the Pfister-Arnold cover scale. The pick list will include the following categories: several frequently used standard cover scales, and a choice of "absolute cover and "non-standard cover scale.

Child tables: Project serves as the parent of the following tables:

plotMaster, projectContributor

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projectContributor

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COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION
projectContributor_id	N	NUMBER	P	n/a	**G**	Database assigned value for a party contributing to a project.
project_id	N	NUMBER	F	project	**G**	Database assigned value for a given project – this is a link to the project entity.
party_id	N	NUMBER	F	party	**G**	Database assigned value for a given party this is a link to the party entity.
roleCode	N	VARCHAR2		n/a	**R**	The role that a specific party (party_id) had in the project (project_id) - this can include such roles as PI, contact, author, etc. This will be linked to an entity named: roleCode.

Child tables: projectContributor serves as the parent of the following tables:

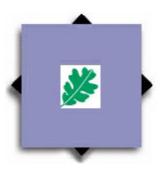party

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party

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COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION
party_id	N	NUMBER	P	n/a	**G** Party can be either a person or an organization.	Database assigned value that is unique to each party contributing in the collection of plots.
salutation	Y	VARCHAR2		n/a		Salutation preceding one's given name
givenName	N	VARCHAR2		n/a	**R**	One's first name.
surName	N	VARCHAR2		n/a	**R**	Name shared in common to identify the members of a family, as distinguished from each member's given name.
organizationName	N	VARCHAR2		n/a	**R**	Name of an organization.
positionName	Y	VARCHAR2		n/a		Name of one's position.
hoursOf Service	Y	VARCHAR2		n/a		Hours in which can contact the party.
contactInstructions	Y	VARCHAR2		n/a		Instructions for contacting a party.

Child tables: party serves as the parent of the following tables:

onlineResource, telephone, email, address

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onlineResource

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COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION
party_id	N	NUMBER	F	party	G	Database assigned value that is unique to each party contributing in the collection of plots.
linkage	N	VARCHAR2		n/a		Location (address) for on-line access using a Uniform Resource Locator address or similar addressing scheme such as: http://www.nceas.ucsb.edu.
protocol	Y	VARCHAR2		n/a		Connection protocol to be used.
name	N	VARCHAR2		n/a		Name of the resource.
applicationProfile	Y	VARCHAR2		n/a		Name of the application profile that can be used with the resource.
description	N	VARCHAR2		n/a		Description of what the resource is/does.
functionCode	N	VARCHAR2		n/a		Function performed by the resource.

Child tables: onlineResource serves as the parent of the following tables:

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telephone

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COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION
party_id	N	NUMBER	F	party	G	Database assigned value that is unique to each party contributing in the collection of plots.
voicePhone	N	VARCHAR2		n/a		Telephone number by which individuals can speak to party (organization or individual).
voicePhoneExt	Y	VARCHAR2		n/a		Extension for the above telephone number.
facsimilePhone	Y	VARCHAR2		n/a		Telephone number of a facsimile machine for the party (organization or individual).
otherPhone	Y	VARCHAR2		n/a		Telephone number by which individuals can speak to party (organization or individual).
otherPhoneType	Y	VARCHAR2		n/a		Type of 'otherPhone'.

Child tables: telephone serves as the parent of the following tables:

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email

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COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION
party_id	N	NUMBER	F	party	**G**	Database assigned value that is unique to each party contributing in the collection of plots.
electronicMailAddress	N	VARCHAR2		n/a		Address of the electronic mailbox of the party (organization or individual).

Child tables: email serves as the parent of the following tables:

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address

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COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION
address_id	N	NUMBER	P	n/a	**G**	Database assigned value unique to each address for a given party (note that a single party may have numerous addresses but that only one may be 'current').
plotContributor_id	Y	NUMBER	F	plotContributor	**G**	Database assigned value for a party contributing to the collection of a given plot.
projectContributor_id	Y	NUMBER	F	projectContributor	**G**	Database assigned value for a party contributing to a project.
party_id	N	NUMBER	F	party	**G**	Database assigned value that is unique to each contributing party.
deliveryPoint	N	VARCHAR2		n/a	**R**	Address line for the location (Street name, box number, suite).
city	N	VARCHAR2		n/a	**R**	City of the location.
administrativeArea	N	VARCHAR2		n/a	**R**	State, province of the location.
postalCode	N	NUMBER		n/a	**R**	Zip code.
country	N	VARCHAR2		n/a	**R**	Country of the physical address.
currentFlag	N	NUMBER		n/a	**R** this is a boolean flag (1 or 0)	Is this the 'current address' of the party referenced by the party_id.

Child tables: address serves as the parent of the following tables:

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plotMaster

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COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION

plot_id	N	NUMBER	P	n/a	**G**	Database assigned value that is unique to each plot.
project_id	N	NUMBER	F	project	**G**	Database assigned value for a given project.
authorPlotCode	N	VARCHAR2		n/a	**R** In case of plot records taken from the literature, this field will link the plot record with a citation in a child entity.	Author's Plot No - original plot number.
previousPlotRecord	Y	NUMBER		n/a	This may become an individual entity to store name/date information about re-measurements and editions of original plots.	If this plot record represents a re-measurement of a (permanent) plot, this will store the plot_id of the original plot.
date	N	DATE		n/a	**R** Allow field to contain only a year.	DD-MMM-YY
dateAccuracy	N	NUMBER		n/a	Provide a pick list allowing the user to choose accuracy to a: day, month, year, or approximate year.	Date accuracy to a day.
landOwner	Y	VARCHAR2		n/a	Use following pick list: USFS, USPS, USBLM, TNC, State, Private owner, Private industrial, Local Land Trust, Unknown. Do we need others? Ownership confidentiality might need to become a separate field here.	Owner of the land on which the plot is located.
effortLevel	N	VARCHAR2		n/a	Use pick list; 1) Very thorough 2) Average effort 3) Hurried description; some less common species may have been missed.	Effort spent describing the plot.
					Use pick list 1) extensive, >10x plot 2) small, 3-10 x plot	

standSize	N	NUMBER	n/a	3) very small, 1-3x plot). If possible, attach a note to the field, containing information on adjacent vegetation and position of plot within the stand.	Extent of plant community in relation to plant size.
treePlotSize	N	NUMBER	n/a	This field should have a pick list that includes: (1) same as plot for field stratum, (2) 0.1 acre, (3) several other commonly used plot sizes (Please provide input). (4) Plotless method used. Other common sizes include 100m2, 375 m2, 400m2, 1000m2, 0.25 acre, 1 acre.	The tree stratum is often sampled with larger plots than the herb and shrub strata, and attributes like dbh, density and frequency are commonly measured. Only tree cover is a required parameter, but it is useful to have the other data available since they provide a more complete description of the tree layer. This field will contain size in m2.
treeSampleMethod	N	VARCHAR2	n/a	A pick list could be: 1) only percent cover estimated 2) Point Quarter method 3) Random Pairs method 4) Bitterlich method 5) Other	Sampling method used to describe tree cover.
plotType	N	VARCHAR2	n/a	Database will determine this based on the number of fields in which data are entered. If the database determines the plot to be 'ancillary' the person entering the data will be warned.	Type of plot (vegetation/ancillary).
phenologicalAspect	N	VARCHAR2	n/a	This information cannot be obtained easily from the date because of altitudinal and geographic differences and annual variations. This is particularly important in spring or at the start of the wet season. Use ecological seasons of McNab	Indicator of vegetation development at time of description.

				(1958. Ecol. Monogr. 288: 21-54) or a simplified version, i.e., early spring (before unfolding of tree foliage), spring foliage fully expanded), etc.	
plotOriginLat	N	NUMBER	n/a	**R** I suggest we use Lat./Long. rather than the UTM grid reference, because the latter cannot be used in polar regions. Our input tools will need converters between UTM and Lat/Long.	Latitude of plot origin.
plotOriginLong	N	NUMBER	n/a	**R** See notes above.	Longitude of plot origin.
plotShape	N	VARCHAR2	n/a	**R** This will be used to calculate the Lat/Long points stored within the attribute dsgpolyo.	Shape of the plot area
plotSize	N	NUMBER	n/a	**R** If plot size is an aggregate of noncontiguous plots, we need to flag this in someway or we will get inflated estimates of species density.	Area over which all species were identified and their cover was estimated in meters-squared.
dsgpolyo	Y	VARCHAR2	n/a	**RG** To calculate this information from a rectangle, will need to know an azimuth, perhaps for the first side. We do need to allow users to submit a series of points for cases of irregular plots. This might be simpler if we	This is the attribute that will store the coordinates of the polygon surrounding the plot area. I plan on calculating these points in the application used to load the data to the database. In the case of a rectangle five points will be stored, where the first and last point will be in the same location. This lateral coincidence in points represents a closing

				used coordinates relative to the 'origin' point. Values of a few 10s of meters are easier to think about than values in raw Lat/Long.	polygon. If, in the case of a traverse, the first and last coordinates are not in the same location the plot is understood to be an open polygon.
horizPocAcc	N	NUMBER	n/a	1 = GPS within 10-20 m 2 = GPS within 25 50 m 3 = Determined by map; within 200 m 4 = Weak guess from map; within 1 km 5 = General locality; within 10 km 6 = Region only; within 100 km 7=user entered numeric value	Estimated horizontal location accuracy in meters.
altValue	N	NUMBER	n/a	**R**	Altitude in meters.
vertPosAcc	N	NUMBER	n/a	1 = within 10 m 2 = within 50 m 3 = within 200 m 4 = user entered numeric value	Estimated accuracy of the altitude measurement in meters.
town	N	VARCHAR2	n/a	**R**	Location: town.
county	N	VARCHAR2	n/a	**R**	Location: county.
state	N	VARCHAR2	n/a	**R**	Location: state.
country	N	VARCHAR2	n/a	**R**	Location: country.
slopeAspect	N	NUMBER	n/a	Allow user to enter general values like: NE which would be translated via the interface to 045 degrees, or allow user to enter exact coordinates.	Azimuth of slope gradient (0-360 degrees)..
slopeGradient	N	NUMBER	n/a	Provide user with categories to choose from such as: Flat; slope <1% (<0deg 34') Gentle; slope 1-10% (0deg 34'-5deg 43') Moderately sloping; slope 10-25% (5deg 43'-13deg 59') Steep; slope 25-50% (13deg 59'-26deg 34') Very steep; slope 50-100% (26deg 34'-45deg 0') Cliff; slope > 100% (> 45 deg)	Inclination of slope in degrees.

				Also allow user to enter numeric value.	
slopeShape	Y	VARCHAR2	n/a	Categories may include: concave, convex, regular	Shape of the slope.
slopePosition	Y	VARCHAR2	n/a	Categories may include: Summit, shoulder, upper slope, middle slope, lower slope, toeslope, no slope	Position of the plot on slope.
locConfidetiality	N	VARCHAR2	n/a	Suggested categories: 0 = normal; 1 = location within x, where x is the distance used for CFI data; 2 = complete confidentiality.	Indicator of location confidentiality.
specConfidentiaility	N	VARCHAR2	n/a	This might be a management field. Or it could be based on a state-specific list of sensitive species. We have to allow this flag to be changed as our understanding of what is sensitive evolves.	Indicator of species confidentiality.
hydrologicRegime	N	VARCHAR2	n/a	Non-Tidal 1) Permanently flooded 2) Intermittently exposed 3) Semi-permanently flooded 4) Seasonally flooded 5) Saturated 6) Temporarily flooded 7) Intermittently flooded 8) Artificially flooded 9) Unknown Tidal 1) Subtidal 2) Irregularly exposed 1) Regularly exposed 2) Irregularly flooded 3) Unknown	FGDC hydrologic regime (follows Cowardin et al. 1979.)
soilMoisture	N	VARCHAR2	n/a		Soil moisture (Hills' 10 step).
soilDrainage	N	VARCHAR2	n/a	Note that this is different from moisture regime. A well-drained soil can be permanently moist or	USDA soil drainage classes.

				wet, e.g., folists in forests below the alpine zone in humid climates.	
geoSurf	N	VARCHAR2	n/a	e.g., outwash sand, glacial till, etc.:	Surface geology type.
geoBedRx	N	VARCHAR2	n/a	e.g., serpentine, limestone, dolomite, sand stone, etc.	Bedrock geology type.
otherConditions	Y	VARCHAR2	n/a	Expand this to contain multiple fields	User defined field.

Child tables: Project serves as the parent of the following tables:

speciesTaxon, communityType, plotContributor, citation, graphic, uniformity

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speciesTaxon

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COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION
taxon_id	N	NUMBER	P	n/a	**G** Will be invisible to the user, it is used to link to other entities and should not be confused with either the originalTaxonName or currentTaxonUnit.	Database assigned value for a given species or taxon within a plot.
plot_id	N	NUMBER	F	plotMaster	**G**	Database assigned value that is unique to each plot this is how the species name is related to a given plot.
originalTaxonName	N	VARCHAR2		n/a	**R**	Original name of species as collected by author.
authority	N	VARCHAR2		n/a	**R** The authority coupled with the original taxon name from that authority is all that is needed to define a taxon. This is like Berendsohn's potential species concept. Both the originalTaxonName and the authority might best viewed as foreign keys to tables in the plants database.	Authority for the species name.
currentTaxonUnit	N	VARCHAR2		n/a	**G** Species will be variously interpreted in the long-term life of a plot record. We need to record these evolving understandings, which I imagine doing with start and stop dates. This will allow the user to filter for the records with active dates.	Similar to 'originalTaxonName' but names adjusted for changes in nomenclature and our taxonomic understanding of the species.
cumStrataCoverage	N	NUMBER		n/a	This is NOT a summation of cover in each stratum, but rather total coverage in the plot.	Percent coverage of a species in all strata combined.

Child tables: speciesTaxon serves as the parent of the following tables:

strataComposition

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strataComposition

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COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION
taxon_id	N	NUMBER	F	speciesTaxon	**G**	Database assigned value for a given species or taxon within a plot.
origTaxonName	N	VARCHAR2		n/a	**R**	Original name of species as collected by author.
stratumType	N	VARCHAR2		n/a	**R** Suggested strata include: moss herb shrub sub canopy tree tree	Name of the stratum in which the species occurs. Because a single species may occur in more than one stratum this attribute has a many to one relationship with a single species.
percentCoverage	N	NUMBER		n/a	**R**	Percent coverage of a given species within the given stratum.

Child tables: strataComposition serves as the parent of the following tables:

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communityType

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COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION
plot_id	N	NUMBER	F	plotMaster	**G**	Database assigned value that is unique to each plot this is how the community type is related to a given plot.
class_association	Y	VARCHAR2		n/a	Foreign key to HDMS?	Name or code of association to which this plot is thought to belong.
classification_quality	Y	VARCHAR2		n/a	This is author driven -use a pick list.	With what degree of confidence could the plot record be assigned to a recognized association?
startDate	Y	DATE		n/a		This is the date that a community type was first applied to a given plot.
stopDate	Y	DATE		n/a		This is the date that the community type was recognized not to fit the plot.

Child tables: communityType serves as the parent of the following tables:

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plotContributor

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COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION
plotContributor_id	N	NUMBER	P	n/a	G	Database assigned value for a party contributing to a plot.
plot_id	N	NUMBER	F	plotMaster	G	Database assigned value for a given plot this is a link to the plotMaster entity.
party_id	N	NUMBER	F	party	G	Database assigned value for a given party this is a link to the party entity.
roleCode	N	VARCHAR2		n/a	R	The role that a specific party (party_id) had in the plot (plot_id) - this can include such roles as PI, contact, author, etc. This will be linked to an entity named: roleCode.

Child tables: plotContributor serves as the parent of the following tables:

party

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citation

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COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION
citation_id	N	NUMBER	P	n/a	G	Database assigned value that will be unique for each citation.
plot_id	N	NUMBER	F	plotMaster	G	Database assigned value that is unique to each plot this is how citations are linked to plots.
title	N	VARCHAR2		n/a	R	Name by which the cited resource is known.
alternateTitle	Y	VARCHAR2		n/a		Short name or other language name by which the cited information is known. Example: "Digital Chart of the World or DCW.
date	N	VARCHAR2		n/a	R	Reference date for the cited resource.
edition	N	NUMBER		n/a		Version of the cited resource.
editionDate	N	DATE		n/a		Date of the edition.
citedResponsibleParty	N	VARCHAR2	F	n/a	This is temporary	Name and position information for an individual or organization that is responsible for the resource.
seriesName	N	VARCHAR2		n/a		
issueIdentification	N	VARCHAR2		n/a		Information identifying the issue of the series.
otherCitationDetails	Y	VARCHAR2		n/a		Other information required to complete the citation, like a URL.
page	N	VARCHAR2		n/a		Details on which page of the periodical the article was published.
ISBN	Y	VARCHAR2		n/a		International Standard Book Number.
ISSN	Y	VARCHAR2		n/a		International Standard Serial Number.

Child tables: citation serves as the parent of the following tables:

citationContributor

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citationContributor

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COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION
citationContributor_id	N	NUMBER	P	n/a	G	Database assigned value.
citation_id	N	NUMBER	F	citation	G	Database assigned value for a given citation this is a link to the citation entity.
party_id	N	NUMBER	F	party	G	Database assigned value for a given party this is a link to the party entity.
roleCode	N	VARCHAR2		n/a		This is the role that the individual had in the given citation.

Child tables: citationContributor serves as the parent of the following tables:

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graphic

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COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION
graphic_id	N	NUMBER	P	n/a	G	Database assigned value for a given graphical file
plot_id	N	NUMBER	F	plotMaster	G	Database assigned value that is unique to each plot this is how the graphic is related to a given plot.
browsen	N	VARCHAR2		n/a	R	The name of the graphical file
browsed	N	VARCHAR2		n/a		The description of the graphical file
browset	N	VARCHAR2		n/a	R	The type of graphical file (including but not limited to: tiff, gif, jpeg, rgb, cgm)

Child tables: graphic serves as the parent of the following tables:

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uniformity

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COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION
uniformity_id	N	NUMBER	P	n/a	**G**	The system-assigned unique identifier indicating whether a plot is uniform.
plot_id	N	NUMBER	F	plotMaster	**G**	The system-assigned unique identifier for an individual plant species observed within the plot area.
uniformType	N	NUMBER		n/a	**R** Boolean value (1 or 0)	Uniform or non-uniform plot (if non-uniform then link to the non-uniformElements table for descriptions).

Child tables: uniformity serves as the parent of the following tables:

nonUniformElements

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nonUniformElements

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COLUMN NAME	NULLS	DATA TYPE	K	REFERENCES	NOTES	DEFINITION
uniformity_id	N	NUMBER	F	uniformity	**G**	The system-assigned unique identifier indicating whether a plot is uniform.
elementType	N	VARCHAR2		n/a	**R**	Exogenous element or endogenous element
elementName	N	VARCHAR2		n/a	**R** hummock, hollow, exposed bedrock, very shallow soils etc.	Name of element.
elementCover	N	VARCHAR2		n/a	**R**	Percent coverage of particular element.

Child tables: nonUniformElements serves as the parent of the following tables:

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Below are attributes that will most certainly be included in the database but have not yet been positioned in the model

Topography

Length of slope Needed to put slope position and shape into perspective. Pick list.

Soil Moisture/Soil Drainage

Water Table Depth Water table depth in cm at time of description. This is often less useful than moisture regime because of seasonal fluctuations. However, it should be recorded because it can provide a check on the moisture regime estimate, is important in some habitats, and is valuable for comparing the wetness of plots described in the same area within the same day or so. **Database prompt to include a note** on estimated water level fluctuation, if known.

Soil Conditions

Soil Series Soil series, use USDA-SCS classification. Either soil series, soil subgroup information, or a good soil description is essential. If available enter soil series. The database can then generate the appropriate soil subgroup and soil family.

Soil Subgroup Soil subgroup of the USDA-SCS soil taxonomy. Subgroup name together with soil texture or soil family gives an excellent characterization of the soil, and can be easily determined in areas where soil series have not been mapped. Provide subgroup name if soil cannot be placed into a soil series.

Soil family Use pick list based on USDA-SCS. Only needed if soil series is unknown.

Soil Texture Texture of the upper 50 cm of the mineral soil using USDA textural classes; **Pick List**.

Soil Depth Depth to bedrock in meters. **Pick List** of 3-4 depth categories

<u>Org. Horizon Depth</u> Depth of humus layer of mineral soils in cm.

<u>Humus Type</u> **Pick List** (mull, moder, mor, etc.).

<u>Stoniness</u> **Pick List** based on USDA

<u>Rockiness</u> **Pick List** based on USDA

<u>Soil Water Type</u> **Pick List**; e.g., stagnant perched, telluric perched, ground water.

Soil description I am not sure how we want to handle this. Perhaps pick list (available, attached, not made) and **database prompt to attach a note** on soil conditions if above fields were not entered.

<u>Other conditions</u> (Deviations from regional climate, erosion and sedimentation)

<u>Wind Exposure</u> A simple pick list like:

1. very exposed; e.g., high peak well above surroundings, summit of foredune.
2. Exposed; e.g., open coastal locality, top of hill.
3. Normal, e.g., no unusual exposure to wind, most slopes and valleys in inland localities
4. Sheltered, e.g., protected valley
5. Unknown
6. Different; **attach a note** describing conditions

<u>Night Temperature</u> An evaluation of night temperatures as compared to a flat, well-drained site. Base this on topographic site, i.e., do not consider effect of present vegetation. Use simple pick list like:

1. Cold; Frost pocket, dry valley without air drainage.
2. Normal
3. Warm; Upper and middle slopes with good cold air drainage, exposed summits, extensive swampy habitats
4. Unknown

   Day Temperature As above for day time temperatures, but less important to include this. Pick list:

5. Warm; Slopes with southern exposure, sheltered flats with dry soils
6. Normal
7. Cool; Narrow ravines, steep slopes with northern exposure.

   <u>Wind erosion/sedim.</u> A simple pick list (no erosion, active wind erosion, active sedimentation) is probably adequate.

   <u>Water erosion/sedim.</u> A simple pick list (no erosion, active water erosion, active sedimentation) is probably adequate.

<u>Disturbance History</u>

<u>Origin Vegetation</u> **Pick List**. Origin of the present vegetation, e.g. fire, logging, abandoned cropland. Also include a category "unknown".

<u>Present Landuse</u> **Pick List**. Present use, such as pasture, cropland, hay field, forestry, not used, etc. Also include a category "unknown". **Database prompt to attach a note** on management or disturbance of stand with information like burning frequency, grazing pressure, type of crop, etc.

<u>Former Landuse</u> **Pick List**. Wild land (never used), cropland, pasture, old dwelling site, gravel pit, unknown, etc.

Simple soil chemistry and texture data, including pH, organic content, pH, CEC, etc.