

NASIS DATA ENTRY GUIDELINES

Legend, Mapunit, and Data Mapunit Objects

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The table that follows is a listing of data elements in the Legend, Mapunit, and Data Mapunit objects that are required to be populated for major soil components in soil surveys in MLRA Region 6. Data elements in other NASIS objects, such as in Site, Pedon, and Project objects, are expected to be populated as appropriate and are not included in these guidelines.

The data elements designated as required were those elements viewed as necessary to generate map unit and taxonomic unit descriptions, standard soil interpretations, conservation planning models, and soil property tables for published soil surveys. These elements represent the minimum set of data needed to correlate a soil survey. It should be considered dynamic; it will change as interpretations are revised, or as new elements are added to NASIS.

This table represents a minimum dataset; in certain situations additional data may be needed to properly characterize a soil component. For example, if the location of components within a map unit is related to microrelief, then the table "Component Microrelief Surf Morph" should be populated for that map unit. Similarly, in areas where forestry is an important land use, the table "Component Trees to Manage" may need to be populated. Therefore, a legend populated with all the elements on the following list may not necessarily be "fully populated".

Generally the data elements listed are to be populated where applicable. Obviously an element such as "Crop Yields" is required only in cropland areas. "Subgroup" is not a required entry if a taxon is correlated only to the Great Group level. Guidance for the less obvious situations is given in the "Notes" column.

Where Low-RV-High blocks are available, all 3 values are required to be populated unless noted otherwise in the "Notes" column. For some elements only the RV is required.

For many update surveys, the level of data population for minor components will likely be the same as for major components. However, for many initial surveys begun years ago and now in the final stages, minor components are not expected to be populated as thoroughly as major components. Nevertheless, for minor components to be meaningful to soil survey users, some of the most significant soil properties must be identified. The minimum data for minor components is identified on a separate table below. Again, this is the minimum data; additional elements may be required for certain situations.

A minimum dataset for miscellaneous areas is also included below. Because of the diverse nature of these components, several additional elements could be populated for certain miscellaneous areas. For example 'Flooding Frequency' may be desired for Riverwash. No attempt was made here to specify all the entries that may be appropriate for the variety of miscellaneous areas. The brief list provided is considered the extreme minimum that is required for any miscellaneous area.

NASIS text fields are not designated as required entries. However, text fields should be populated when needed to explain some special situations. For example, it would be helpful to note that a map unit has been copied into a legend to join an adjacent survey. Data may also be needed in certain text fields to generate thorough and accurate map unit descriptions. The specific element to populate depends on which NASIS MUD report is used. For example, for the current MO6 MUD report, short narrative descriptions of miscellaneous land types can be entered in the Component Text table. Refer to the documentation for MO6 MUD and TUD reports for the specific text fields used.

Required NASIS Data Elements

Legend, Mapunit, and Data Mapunit Objects

Refer to NSSH and on-line NASIS help for basic population guidance.

Some elements are required only if applicable.

For data elements with Low, RV, and High values, all three are required entries unless otherwise noted below.

LEGEND OBJECT

<i>Table</i>	<i>Data Element</i>	<i>Notes</i>
Legend Mapunit Area Overlap	Mapunit Symbol	Required for each legend overlap
	Mapunit Acres	
Legend Mapunit	Mapunit Symbol	
	Mapunit Acres	
Legend Certification History	NASIS User Name	(Entered by MLRA SSL or SDQS)
	Certification Date	“
	Certification Kind	“
	Legend Certification Status	“
	Certification Text	“

MAPUNIT OBJECT

Mapunit	Mapunit Name	
	Mapunit Kind	
	Mapunit Status	
	Mapunit Linear Feature	When used in lieu of spot symbols
	Mapunit Point Feature	When used in lieu of spot symbols
	Farm Class	
Mapunit History	Date	New row whenever unit is created, changed, deleted; or status changes
	Author	
	Correlation Kind	
	Correlation Event	
	Historical Name	Name prior to the change being entered
	Status	
	Text	
Correlation	DMU Description	
	Representative DMU	
	Constituent Acres	Required to track additional symbols.

DATA MAPUNIT OBJECT – DMU AND COMPONENT TABLES

Data Mapunit	DMU Description	
	Order of Mapping	
Data Mapunit Certification History	NASIS User Name	(Entered by MLRA SSL or SDQS)
	Certification Date	“
	Certification Kind	“
	DMU Certification Status	“
	Certification Text	“
Data Mapunit Crop Yield	Crop Name	For yields on a mapunit basis.
	Units	
	Nirr Yield	
	Irr Yield	
Component	Comp %	Only RV required
	Component Name	Do NOT include phase name
	Local Phase	
	Taxon Kind	
	Major Component	
	Slope Gradient	Whole numbers unless <1%
	T	

Component (continued)	WEI	
	WEG	
	Hydric Condition	
	Hydric Rating	Only "yes" or "no"
	Drainage Class	
	Elevation	
	Aspect Counter Clockwise	
	Aspect Representative	Null RV is acceptable if all aspects
	Aspect Clockwise	
	Albedo Dry	
	MAAT	
	MAP	
	Frost Free Days	
	Nirr LCC	For all soils
	Nirr Subcl	For all soils
	Irr LCC	For soils that are irrigated
	Irr Subcl	For soils that are irrigated
	Cons Tree Shrub Group	
	Range Prod	
	Soil Slip Pot	
	Frost Action	
	Init Subsidence	For significant thickness of organic layers; else enter 0-0-0
	Total Subsidence	"
	Hydrologic Group	
	Corrosion Concrete	
	Corrosion Steel	
	Taxonomic Class	
	Order	
	Suborder	
	Great Group	
	Subgroup	
	Particle Size	
	Particle Size Mod	
	CEC Activity Cl	
	Reaction	
	Temp Class	
	Moist Subclass	Enter for all soils
	Temp Regime	Enter for all soils
	Keys to Taxonomy Edition Used	
Component Crop Yield	Crop Name	For separate yields each component of complex.
	Units	
	Nirr Crop Yield	
	Irr Crop Yield	
Component Diagnostic Features	Kind	
	Top Depth	RV required; L,H as applicable
	Bottom Depth	RV required; L,H as applicable
	Thickness	RV required; L,H as applicable
Component Ecological Site	Ecological Site ID	
	Ecological Site Name	
Component Existing Plants	Plant Symbol	
	Common Name	
	Understory Prod %	
	Range Prod %	

Component Forest Productivity	Plant Symbol	Enter all trees in plant community
	Common Name	
	Site Index Base	Required when SI entered
	Site Index	
	Productivity ft ³ /ac/yr	

Component Geomorphic Description	Feature Type	
	Feature Name	
	Feature Modifier	Optional
	Feature ID	
	Exists on Feature ID	For nesting landforms only, not for landforms on landscape
	Representative?	
Component Three Dimensional Surface Morphometry	Geomorphic Component	
	(Choose one if appropriate: Hills or Mtns or Terraces or Flats)	Leave as null if no category is applicable
Component Slope Shape Surface Morphometry	Slope Shape Across	
	Slope Shape Up/Down	
Component Two Dimensional Surface Morphometry	Hillslope Profile	Enter only if "Hills" populated for 3D.
Component Hydric Criteria	Hydric Criterion	
Component Month	Month	
	Flooding Frequency	
	Flooding Duration	Null is OK if frequency is "None"
	Ponding Frequency	
	Ponding Duration	Null is OK if frequency is "None"
	Ponding Depth	Null is OK if frequency is "None"
Component Soil Moisture	Top Depth	Required if saturated layer exists
	Bottom Depth	Required if saturated layer exists
	Moisture Status	Required for 'wet' layers; an overlying nonwet layer must also be entered.
Component Other Veg Class	Other Veg Type Class Name	
	Other Veg Class ID	
	Other Veg Class Name	
Component Parent Material Group	Group Name	Edit the excess wording freely
	RV?	
Component Parent Material	Vertical Order	Will determine "and" or "over"
	Textural Modifier	Optional
	General Modifier	Optional
	Kind	
	Origin	
Component Pedon	User Site ID	e.g. 10CO638001
	User Pedon ID	(generally same as Site ID)
	Representative?	Only one can be representative
Component Potential Windbreak	Height	
	Plant Symbol	
	Common Name	
Component Restrictions	Kind	
	Hardness	
	Top Depth	RV must match horizon top depth
	Bottom Depth	Only RV required
	Thickness	Only RV required
Component Surface Fragments	Cover %	
	Spacing	Optional
	Kind	Choose one representative lithology
	Size	
	Shape	
	Roundness	Optional
	Hardness	
Component Taxonomic Family Mineralogy	Vertical Order	
	Mineralogy	

Component Taxonomic Family Other Criteria	Family Other	
Component Taxonomic Moisture Class	Moisture Class	Enter for all soils
Component Trees To Manage	Plant Symbol	
	Common Name	

DMU OBJECT -- HORIZON TABLES

Horizon	Designation	
	Discontinuity	
	Master	
	Prime	
	Subdivision	
	Top Depth	Only RV required
	Bottom Depth	Only RV required
	Total Fragment Volume	
	Rock >10	
	Rock 3-10	
	# 4	
	# 10	
	# 40	
	# 200	
	Total Sand	
	vcos	Only RV required
	cos	Only RV required
	ms	Only RV required
	fs	Only RV required
	vfs	Only RV required
	Total Silt	Only RV required
	Total Clay	
	CaCO3 Clay	Must not be null – enter 0 for “none”
	Mica Kind	For micaceous mineralogy, or mixed and marginal to micaceous.
	Mica 0.02-0.25 mm	“
	Mica 0.25-2 mm	“
	Organic Matter	
	Rubbed Fiber %	For Histosols, Histic epipedons
	Unrubbed Fiber %	For Histosols, Histic epipedons
	Bulk Density 0.1 bar	For sandy soils only
	Bulk Density 0.33 bar	For non-sandy soils
	Bulk Density Oven Dry	
	Hydraulic Conductivity	Also for bedrock, cemented pans; not for surface organic (duff).
	Available Water Capacity	
	Water 0.1 bar	For sandy soils only
	Water 0.33 bar	
	Water 15 bar	
	Satiated H2O	
	LEP	
	LL	
	PI	
	AASHTO Group Index	
	Kw	
	Kf	
	CaCO3	Must not be null – enter 0 for “none”
	Gypsum	Must not be null – enter 0 for “none”
	SAR	Must not be null – enter 0 for “none”
	E C	Must not be null – enter 0 for “none”
	CEC-7	If pH > 5.5
	ECEC	If pH < 5.5
	pH H2O	
	pH CaCl2	Only for organic soils

Horizon (continued)	Oxalate Fe	For Andisols, Vitrandic subgroups
	Ext Acidity	
	Oxalate Al	For Andisols, Vitrandic subgroups
Horizon Texture Group	Tex Mod & Class	One per row unless stratified
	Stratified ?	
	Representative?	Only one as 'yes'
Horizon Texture	Texture	
	In Lieu	
Horizon Texture Modifier	Modifier	
Horizon AASHTO	AASHTO Class	
	Representative?	Only one as 'yes'
Horizon Designation Suffix	Suffix	
Horizon Fragments	Vol %	
	Kind	Choose one representative lithology
	Size	
	Shape	
	Roundness	Optional
	Hardness	
Horizon Structure Group	Structure	
	Representative?	Only one as 'yes'
Horizon Structure	Grade	
	Size	
	Type	
	Structure ID	
	Parts to Structure ID	
Horizon Unified	Unified	
	Representative?	Only one as 'yes'

MINIMUM DATASET FOR MINOR COMPONENTS

<i>Table</i>	<i>Element</i>
Component	Comp Percent
	Component Name
	Local Phase
	Taxon Kind
	Major Component
	Slope Gradient
	Hydric Condition
	Hydric Rating
	Drainage Class
Component Geomorphic Description	Geomorphic Feature Type
	Geomorphic Feature Name
	Geomorphic Feature Modifier
	Feature ID
	Exists on Feature ID
	RV?
Component Hydric Criteria	Hydric Criterion
Component Restriction	Restriction Kind
	Restriction Hardness
	Restriction Top Depth
	Restriction Bottom Depth
Component Month	Month
	Flooding Frequency
	Flooding Duration
	Ponding Frequency
Component Ecological Site	Ecological Site ID
	Ecological Site Name

MINIMUM DATASET FOR MISCELLANEOUS AREAS

<i>Table</i>	<i>Element</i>
Component	Comp Percent
	Component Name
	Taxon Kind
	Major Component
	Slope Gradient
Component Text	Name
	Text
Component Geomorphic Description	Geomorphic Feature Type
	Geomorphic Feature Name
	Geomorphic Feature Modifier
	Feature ID
	Exists on Feature ID
	RV?