

Ecological Data Exchange Specification (working title)

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Status: Draft - while the document is in draft, sections of the document may contain placeholders such as **TBA** and **TBD**.

1. Metadata

IRI	https://linked.data.gov.au/def/rlp/spec (TBC)
Title	Ecological Data Exchange Specification (working title)
Definition	This document lists the normative requirements for data aiming to conform to the TERN Ecosystem Surveillance Ecological Monitoring Protocols. It is to be used as the authoritative, human-readable list of individual requirements from which profile artefacts such as validators are derived from.
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License	Creative Commons Attribution 4.0 International (CC BY 4.0)
Further information	<p>This document is part of the Services Agreement for the provision of standardised ecological monitoring protocols and systems for data collection, storage and management.</p> <p>Procurement Number (PRN): 360 000 5101</p> <p>Commonwealth of Australia as represented by the Department of Agriculture, Water and the Environment ABN 34 190 894 983 (Department)</p> <p>The University of Queensland as represented by TERN ABN 63 942 912 684 (Service Provider)</p>
Alternate document formats	PDF

2. Preamble

2.1. Abstract

TERN Ecosystem Surveillance have developed 19 modules to standardise ecological monitoring protocols for data collection. The working title for the monitoring protocols is *TERN Ecosystem Surveillance Ecological Monitoring Protocols*.

TERN Data Services and Analytics is developing a standardised data exchange specification to support the exchange of data collected using TERN Ecosystem Surveillance Ecological Monitoring Protocols. The working title for the data exchange specification is *Ecological Data Exchange Specification*.

The Ecological Data Exchange Specification is a profile of the ecological data model known as the [TERN Ontology](#). Data that is conformant to the Ecological Data Exchange Specification is also conformant to the TERN Ontology.

2.2. Normative Status

This specification is normative for the exchange of data collected using TERN Ecosystem Surveillance Ecological Monitoring Protocols.

2.3. Standard Parts

This specification document is one of many resources that together form the Ecological Data Exchange Specification Profile.

Other parts of this standard include:

TBA.

2.4. Namespaces

Prefix	Namespace	Name	Description
reg:	http://purl.org/linked-data/registry#	Registry Ontology	Core ontology for Linked Data registry services. Based on ISO 19135 but heavily modified to suit Linked Data representations and applications.
sosa:	http://www.w3.org/ns/sosa/	SOSA	Sensor, Observation, Sample, and Actuator (SOSA) is a semantic data model to represent observations and samplings.
tern:	https://www.3id.org/tern/ontologies/tern/	TERN Ontology	A profile of SOSA and PROV with minor additions to represent ecological field survey data.
unit:	http://qudt.org/vocab/unit/	QUDT Units vocabulary	A vocabulary of <i>units of measure</i> defined using the QUDT semantic data model.

3. Requirements

3.1. Domain Model Conformance

Requirements define the rules and constraints which data must conform to in order to be valid.

A *status* is assigned to each requirement. The *status* code list used in this document is defined by

the [Registry ontology](#) and a subset of the status codes are redefined here:

- **submitted** - A proposed entry which is not yet approved for use for use. Corresponds to ISO 19135:(redraft) 'submitted'.
- **invalid** - An entry which has been invalidated due to serious flaws, distinct from retirement. Corresponds to ISO 19135(redraft) 'invalid'.
- **stable** - An entry that is seen as having a reasonable measure of stability, may be used to mark the full adoption of a previously 'experimental' entry.

3.1.1. Plot Description Module Conformance Class Requirements

Requirements that have been accepted and are **stable** are marked with a green check mark.

For example:

Property	Value
Status	stable ☑

3.1.1.1. Disturbance Observation

3.1.1.1.1. Feature type

Property	Value
Identifier	urn:shapes:plot-description:disturbance:feature-type
Label	Feature type
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a tern:featureType with the value vegetation disturbance .
Comment	TERN's ecologists have determined the feature type is <i>vegetation disturbance</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/disturbance/shapes.ttl
Examples	Valid: /shapes/plot-description/disturbance/valid.ttl Invalid: /shapes/plot-description/disturbance/invalid.ttl

3.1.1.1.2. Result value

Property	Value
Identifier	urn:shapes:plot-description:disturbance:result-value
Label	Result value

Property	Value
Definition	The value of <code>rdf:value</code> <i>MUST</i> exist in the Disturbance type codes controlled vocabulary.
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be a value in <code>sh:in</code> , which is the Disturbance type codes controlled vocabulary.
Status	submitted ○
Conformance Classes	TBA
Property	Value
Controlled list items	<p>The result value <i>MUST</i> be from the following list:</p> <p>Complete clearing; pasture; but never cultivated</p> <p>Complete clearing; pasture; cultivated at some stage</p> <p>Cultivated; rain fed</p> <p>Cultivation; irrigated; past or present</p> <p>Extensive clearing</p> <p>Highly disturbed; e.g. Mining; urban</p> <p>Limited clearing</p> <p>No effective disturbance</p> <p>No effective disturbance except HEAVY grazing by hoofed animals</p> <p>No effective disturbance except LIGHT grazing by hoofed animals</p> <p>No effective disturbance except MEDIUM grazing by hoofed animals</p> <p>Not Collected</p>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/disturbance/shapes.ttl</code>
Examples	<p>Valid: <code>/shapes/plot-description/disturbance/valid.ttl</code></p> <p>Invalid: <code>/shapes/plot-description/disturbance/invalid.ttl</code></p>

3.1.1.1.3. Simple result

Property	Value
Identifier	<code>urn:shapes:plot-description:disturbance:simple-result</code>

Property	Value
Label	Simple result
Definition	Instances of tern:Observation <i>MUST</i> have a sosa:hasSimpleResult where the value is the same as the rdf:value on the value node of sosa:hasResult .
Comment	Value of sosa:hasSimpleResult <i>MUST</i> be the same as the value in sosa:hasResult .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/disturbance/shapes.ttl
Examples	Valid: /shapes/plot-description/disturbance/valid.ttl Invalid: /shapes/plot-description/disturbance/invalid.ttl

3.1.1.1.4. Site visit

Property	Value
Identifier	urn:shapes:plot-description:disturbance:site-visit
Label	Site visit
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/disturbance/shapes.ttl
Examples	Valid: /shapes/plot-description/disturbance/valid.ttl Invalid: /shapes/plot-description/disturbance/invalid.ttl

3.1.1.1.5. Used procedure

Property	Value
Identifier	urn:shapes:plot-description:disturbance:used-procedure
Label	Used procedure
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a sosa:usedProcedure where the value is https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .

Property	Value
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/disturbance/shapes.ttl
Examples	Valid: /shapes/plot-description/disturbance/valid.ttl Invalid: /shapes/plot-description/disturbance/invalid.ttl

3.1.1.1.6. Value type

Property	Value
Identifier	urn:shapes:plot-description:disturbance:value-type
Label	Value type
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a sosa:hasResult where the value node is an instance of tern:IRI .
Comment	The value in sosa:hasResult <i>MUST</i> be a tern:IRI .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/disturbance/shapes.ttl
Examples	Valid: /shapes/plot-description/disturbance/valid.ttl Invalid: /shapes/plot-description/disturbance/invalid.ttl

3.1.1.1.7. Vocabulary

Property	Value
Identifier	urn:shapes:plot-description:disturbance:vocabulary
Label	Vocabulary
Definition	The value of tern:vocabulary <i>MUST</i> match the pattern f5a470e8-d29f-4ff6-b50d-529b0444dbe4\$.

Property	Value
Comment	IRI of tern:vocabulary in sosa:hasResult <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/f5a470e8-d29f-4ff6-b50d-529b0444dbe4 . https://linked.data.gov.au/def/test/dawe-cv/f5a470e8-d29f-4ff6-b50d-529b0444dbe4 is the IRI for "Disturbance type codes".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/disturbance/shapes.ttl
Examples	Valid: /shapes/plot-description/disturbance/valid.ttl Invalid: /shapes/plot-description/disturbance/invalid.ttl

3.1.1.2. Cover class Observation

3.1.1.2.1. Feature type

Property	Value
Identifier	urn:shapes:plot-description:cover-class:feature-type
Label	Feature type
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a tern:featureType with the value vegetation .
Comment	TERN's ecologists have determined the feature type is <i>vegetation</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/cover-class/shapes.ttl
Examples	Valid: /shapes/plot-description/cover-class/valid.ttl Invalid: /shapes/plot-description/cover-class/invalid.ttl

3.1.1.2.2. Result value

Property	Value
Identifier	urn:shapes:plot-description:cover-class:result-value
Label	Result value

Property	Value
Definition	The value of <code>rdf:value</code> <i>MUST</i> exist in the Cover class codes controlled vocabulary.
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be a value in <code>sh:in</code> , which is the Cover class codes controlled vocabulary.
Status	submitted ○
Conformance Classes	TBA
Property	Value
Controlled list items	The result value <i>MUST</i> be from the following list: c d d d d d
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/cover-class/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/cover-class/valid.ttl</code> Invalid: <code>/shapes/plot-description/cover-class/invalid.ttl</code>

3.1.1.2.3. Simple result

Property	Value
Identifier	<code>urn:shapes:plot-description:cover-class:simple-result</code>
Label	Simple result
Definition	Instances of <code>tern:Observation</code> <i>MUST</i> have a <code>sosa:hasSimpleResult</code> where the value is the same as the <code>rdf:value</code> on the value node of <code>sosa:hasResult</code> .
Comment	Value of <code>sosa:hasSimpleResult</code> <i>MUST</i> be the same as the value in <code>sosa:hasResult</code> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/cover-class/shapes.ttl</code>

Property	Value
Examples	Valid: /shapes/plot-description/cover-class/valid.ttl Invalid: /shapes/plot-description/cover-class/invalid.ttl

3.1.1.2.4. Site visit

Property	Value
Identifier	urn:shapes:plot-description:cover-class:site-visit
Label	Site visit
Definition	Instances of tern:Observation with sosa:observedProperty value <i>TBA</i> <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/cover-class/shapes.ttl
Examples	Valid: /shapes/plot-description/cover-class/valid.ttl Invalid: /shapes/plot-description/cover-class/invalid.ttl

3.1.1.2.5. Used procedure

Property	Value
Identifier	urn:shapes:plot-description:cover-class:used-procedure
Label	Used procedure
Definition	Instances of tern:Observation with sosa:observedProperty value <i>TBA</i> <i>MUST</i> have a sosa:usedProcedure where the value is https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/cover-class/shapes.ttl

Property	Value
Examples	Valid: /shapes/plot-description/cover-class/valid.ttl Invalid: /shapes/plot-description/cover-class/invalid.ttl

3.1.1.2.6. Value type

Property	Value
Identifier	urn:shapes:plot-description:cover-class:value-type
Label	Value type
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a sosa:hasResult where the value node is an instance of tern:IRI .
Comment	The value in sosa:hasResult <i>MUST</i> be a tern:IRI .
Status	submitted <input type="radio"/>
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/cover-class/shapes.ttl
Examples	Valid: /shapes/plot-description/cover-class/valid.ttl Invalid: /shapes/plot-description/cover-class/invalid.ttl

3.1.1.2.7. Vocabulary

Property	Value
Identifier	urn:shapes:plot-description:cover-class:vocabulary
Label	Vocabulary
Definition	The value of tern:vocabulary <i>MUST</i> match the pattern 6aaa330c-3d60-419b-a29b-a2dbc6d67928\$.
Comment	IRI of tern:vocabulary in sosa:hasResult <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/6aaa330c-3d60-419b-a29b-a2dbc6d67928 . https://linked.data.gov.au/def/test/dawe-cv/6aaa330c-3d60-419b-a29b-a2dbc6d67928 is the IRI for "Cover class codes".
Status	submitted <input type="radio"/>
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/cover-class/shapes.ttl

Property	Value
Examples	Valid: /shapes/plot-description/cover-class/valid.ttl Invalid: /shapes/plot-description/cover-class/invalid.ttl

3.1.1.3. Growth stage Observation

3.1.1.3.1. Feature type

Property	Value
Identifier	urn:shapes:plot-description:growth-stage:feature-type
Label	Feature type
Definition	Instances of tern:Observation with sosa:observedProperty value <i>TBA</i> <i>MUST</i> have a tern:featureType with the value <i>vegetation</i> .
Comment	TERN's ecologists have determined the feature type is <i>vegetation</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/growth-stage/shapes.ttl
Examples	Valid: /shapes/plot-description/growth-stage/valid.ttl Invalid: /shapes/plot-description/growth-stage/invalid.ttl

3.1.1.3.2. Result value

Property	Value
Identifier	urn:shapes:plot-description:growth-stage:result-value
Label	Result value
Definition	The value of rdf:value <i>MUST</i> exist in the Vegetation growth stage codes controlled vocabulary.
Comment	The value in sosa:hasResult <i>MUST</i> be a value in sh:in , which is the Vegetation growth stage codes controlled vocabulary.
Status	submitted ○
Conformance Classes	<i>TBA</i>
Property	Value

Property	Value
Controlled list items	<p>The result value MUST be from the following list:</p> <ul style="list-style-type: none"> ` Advanced Regeneration ` ` Early Regeneration ` ` Mature Age ` ` Mixed Age ` ` Senescent Age `
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/growth-stage/shapes.ttl
Examples	<p>Valid: /shapes/plot-description/growth-stage/valid.ttl</p> <p>Invalid: /shapes/plot-description/growth-stage/invalid.ttl</p>

3.1.1.3.3. Simple result

Property	Value
Identifier	urn:shapes:plot-description:growth-stage:simple-result
Label	Simple result
Definition	Instances of tern:Observation <i>MUST</i> have a sosa:hasSimpleResult where the value is the same as the rdf:value on the value node of sosa:hasResult .
Comment	Value of sosa:hasSimpleResult <i>MUST</i> be the same as the value in sosa:hasResult .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/growth-stage/shapes.ttl
Examples	<p>Valid: /shapes/plot-description/growth-stage/valid.ttl</p> <p>Invalid: /shapes/plot-description/growth-stage/invalid.ttl</p>

3.1.1.3.4. Site visit

Property	Value
Identifier	urn:shapes:plot-description:growth-stage:site-visit
Label	Site visit

Property	Value
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/growth-stage/shapes.ttl
Examples	Valid: /shapes/plot-description/growth-stage/valid.ttl Invalid: /shapes/plot-description/growth-stage/invalid.ttl

3.1.1.3.5. Used procedure

Property	Value
Identifier	urn:shapes:plot-description:growth-stage:used-procedure
Label	Used procedure
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a sosa:usedProcedure where the value is https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/growth-stage/shapes.ttl
Examples	Valid: /shapes/plot-description/growth-stage/valid.ttl Invalid: /shapes/plot-description/growth-stage/invalid.ttl

3.1.1.3.6. Value type

Property	Value
Identifier	urn:shapes:plot-description:growth-stage:value-type
Label	Value type

Property	Value
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value <i>TBA</i> <i>MUST</i> have a <code>sosa:hasResult</code> where the value node is an instance of <code>tern:IRI</code> .
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be a <code>tern:IRI</code> .
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/growth-stage/shapes.ttl
Examples	Valid: /shapes/plot-description/growth-stage/valid.ttl Invalid: /shapes/plot-description/growth-stage/invalid.ttl

3.1.1.3.7. Vocabulary

Property	Value
Identifier	<code>urn:shapes:plot-description:growth-stage:vocabulary</code>
Label	Vocabulary
Definition	The value of <code>tern:vocabulary</code> <i>MUST</i> match the pattern <code>89c02383-fb5e-4acd-b248-902a2d579170\$</code> .
Comment	IRI of <code>tern:vocabulary</code> in <code>sosa:hasResult</code> <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/89c02383-fb5e-4acd-b248-902a2d579170 . https://linked.data.gov.au/def/test/dawe-cv/89c02383-fb5e-4acd-b248-902a2d579170 is the IRI for "Vegetation growth stage codes".
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/growth-stage/shapes.ttl
Examples	Valid: /shapes/plot-description/growth-stage/valid.ttl Invalid: /shapes/plot-description/growth-stage/invalid.ttl

3.1.1.4. Landform pattern Observation

3.1.1.4.1. Feature type

Property	Value
Identifier	<code>urn:shapes:plot-description:landform-pattern:feature-type</code>

Property	Value
Label	Feature type
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value <i>TBA</i> <i>MUST</i> have a <code>tern:featureType</code> with the value <i>landform</i> .
Comment	TERN's ecologists have determined the feature type is <i>landform</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/landform-pattern/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/landform-pattern/valid.ttl</code> Invalid: <code>/shapes/plot-description/landform-pattern/invalid.ttl</code>


3.1.1.4.2. Result value

Property	Value
Identifier	<code>urn:shapes:plot-description:landform-pattern:result-value</code>
Label	Result value
Definition	The value of <code>rdf:value</code> <i>MUST</i> exist in the landform pattern codes controlled vocabulary.
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be a value in <code>sh:in</code> , which is the landform pattern codes controlled vocabulary.
Status	submitted ○
Conformance Classes	<i>TBA</i>
Property	Value


Property	Value
Controlled list items	<p>The result value MUST be from the following list:</p> <ul style="list-style-type: none"> Aluvial fan Aluvial plain Anastomotic plain Badlands Bar Plain Beach ridge plain Caldera Chenier plain Coral reef Covered plain Delta Dunefield Escarpment Floodplain Hills Karst Laclustrine plain Lava plain Longitudinal dunefield Low hills Made land Marine plain Meander plain

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/landform-pattern/shapes.ttl
Examples	Valid: /shapes/plot-description/landform-pattern/valid.ttl Invalid: /shapes/plot-description/landform-pattern/invalid.ttl

3.1.1.4.3. Simple result

Property	Value
Identifier	urn:shapes:plot-description:landform-pattern:simple-result
Label	Simple result
Definition	Instances of tern:Observation <i>MUST</i> have a sosa:hasSimpleResult where the value is the same as the rdf:value on the value node of sosa:hasResult .
Comment	Value of sosa:hasSimpleResult <i>MUST</i> be the same as the value in sosa:hasResult .
Status	submitted 
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/landform-pattern/shapes.ttl
Examples	Valid: /shapes/plot-description/landform-pattern/valid.ttl Invalid: /shapes/plot-description/landform-pattern/invalid.ttl

3.1.1.4.4. Site visit

Property	Value
Identifier	urn:shapes:plot-description:landform-pattern:site-visit
Label	Site visit
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted 
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/landform-pattern/shapes.ttl

Property	Value
Examples	Valid: /shapes/plot-description/landform-pattern/valid.ttl Invalid: /shapes/plot-description/landform-pattern/invalid.ttl

3.1.1.4.5. Used procedure

Property	Value
Identifier	urn:shapes:plot-description:landform-pattern:used-procedure
Label	Used procedure
Definition	Instances of tern:Observation with sosa:observedProperty value <i>TBA</i> <i>MUST</i> have a sosa:usedProcedure where the value is https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/landform-pattern/shapes.ttl
Examples	Valid: /shapes/plot-description/landform-pattern/valid.ttl Invalid: /shapes/plot-description/landform-pattern/invalid.ttl

3.1.1.4.6. Value type

Property	Value
Identifier	urn:shapes:plot-description:landform-pattern:value-type
Label	Value type
Definition	Instances of tern:Observation with sosa:observedProperty value <i>TBA</i> <i>MUST</i> have a sosa:hasResult where the value node is an instance of tern:IRI .
Comment	The value in sosa:hasResult <i>MUST</i> be a tern:IRI .
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/landform-pattern/shapes.ttl

Property	Value
Examples	Valid: /shapes/plot-description/landform-pattern/valid.ttl Invalid: /shapes/plot-description/landform-pattern/invalid.ttl

3.1.1.4.7. Vocabulary

Property	Value
Identifier	urn:shapes:plot-description:landform-pattern:vocabulary
Label	Vocabulary
Definition	The value of tern:vocabulary <i>MUST</i> match the pattern 19d91a7a-2733-4b84-9d2b-4bda4808c003\$.
Comment	IRI of tern:vocabulary in sosa:hasResult <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/19d91a7a-2733-4b84-9d2b-4bda4808c003 . https://linked.data.gov.au/def/test/dawe-cv/19d91a7a-2733-4b84-9d2b-4bda4808c003 is the IRI for "Plot slope codes".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/landform-pattern/shapes.ttl
Examples	Valid: /shapes/plot-description/landform-pattern/valid.ttl Invalid: /shapes/plot-description/landform-pattern/invalid.ttl


3.1.1.5. Surface strew size Observation

3.1.1.5.1. Feature type

Property	Value
Identifier	urn:shapes:plot-description:surface-strew-size:feature-type
Label	Feature type
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a tern:featureType with the value land surface .
Comment	TERN's ecologists have determined the feature type is <i>land surface</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted ○
Conformance Classes	TBA

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/surface-strew-size/shapes.ttl
Examples	Valid: /shapes/plot-description/surface-strew-size/valid.ttl Invalid: /shapes/plot-description/surface-strew-size/invalid.ttl

3.1.1.5.2. Result value

Property	Value
Identifier	urn:shapes:plot-description:surface-strew-size:result-value
Label	Result value
Definition	The value of rdf:value <i>MUST</i> exist in the Soil surface strew size codes controlled vocabulary.
Comment	The value in sosa:hasResult <i>MUST</i> be a value in sh:in , which is the Soil surface strew size codes controlled vocabulary.
Status	submitted 
Conformance Classes	TBA
Property	Value
Controlled list items	The result value <i>MUST</i> be from the following list: Boulder (250mm +) Cobble (51-250mm) Not Collected Pebble (5-50mm)
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/surface-strew-size/shapes.ttl
Examples	Valid: /shapes/plot-description/surface-strew-size/valid.ttl Invalid: /shapes/plot-description/surface-strew-size/invalid.ttl

3.1.1.5.3. Simple result

Property	Value
Identifier	urn:shapes:plot-description:surface-strew-size:simple-result
Label	Simple result

Property	Value
Definition	Instances of <code>tern:Observation</code> <i>MUST</i> have a <code>sosa:hasSimpleResult</code> where the value is the same as the <code>rdf:value</code> on the value node of <code>sosa:hasResult</code> .
Comment	Value of <code>sosa:hasSimpleResult</code> <i>MUST</i> be the same as the value in <code>sosa:hasResult</code> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/surface-strew-size/shapes.ttl
Examples	Valid: /shapes/plot-description/surface-strew-size/valid.ttl Invalid: /shapes/plot-description/surface-strew-size/invalid.ttl

3.1.1.5.4. Site visit

Property	Value
Identifier	<code>urn:shapes:plot-description:surface-strew-size:site-visit</code>
Label	Site visit
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value TBA <i>MUST</i> have a value for <code>tern:hasSiteVisit</code> .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/surface-strew-size/shapes.ttl
Examples	Valid: /shapes/plot-description/surface-strew-size/valid.ttl Invalid: /shapes/plot-description/surface-strew-size/invalid.ttl

3.1.1.5.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:plot-description:surface-strew-size:used-procedure</code>
Label	Used procedure
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value TBA <i>MUST</i> have a <code>sosa:usedProcedure</code> where the value is https://linked.data.gov.au/def/test/dawecv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .

Property	Value
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/surface-strew-size/shapes.ttl
Examples	Valid: /shapes/plot-description/surface-strew-size/valid.ttl Invalid: /shapes/plot-description/surface-strew-size/invalid.ttl

3.1.1.5.6. Value type

Property	Value
Identifier	urn:shapes:plot-description:surface-strew-size:value-type
Label	Value type
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a sosa:hasResult where the value node is an instance of tern:IRI .
Comment	The value in sosa:hasResult <i>MUST</i> be a tern:IRI .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/surface-strew-size/shapes.ttl
Examples	Valid: /shapes/plot-description/surface-strew-size/valid.ttl Invalid: /shapes/plot-description/surface-strew-size/invalid.ttl

3.1.1.5.7. Vocabulary

Property	Value
Identifier	urn:shapes:plot-description:surface-strew-size:vocabulary
Label	Vocabulary
Definition	The value of tern:vocabulary <i>MUST</i> match the pattern 3b25ce0f-9eb7-4d2d-97ce-143858cfd4d4\$.

Property	Value
Comment	IRI of tern:vocabulary in sosa:hasResult <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/3b25ce0f-9eb7-4d2d-97ce-143858cfd4d4 . https://linked.data.gov.au/def/test/dawe-cv/3b25ce0f-9eb7-4d2d-97ce-143858cfd4d4 is the IRI for "Soil surface strew size codes".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/surface-strew-size/shapes.ttl
Examples	Valid: /shapes/plot-description/surface-strew-size/valid.ttl Invalid: /shapes/plot-description/surface-strew-size/invalid.ttl

3.1.1.6. Landform element Observation

3.1.1.6.1. Feature type

Property	Value
Identifier	urn:shapes:plot-description:landform-element:feature-type
Label	Feature type
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a tern:featureType with the value landform .
Comment	TERN's ecologists have determined the feature type is <i>landform</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/landform-element/shapes.ttl
Examples	Valid: /shapes/plot-description/landform-element/valid.ttl Invalid: /shapes/plot-description/landform-element/invalid.ttl

3.1.1.6.2. Result value

Property	Value
Identifier	urn:shapes:plot-description:landform-element:result-value
Label	Result value

Property	Value
Definition	The value of <code>rdf:value</code> <i>MUST</i> exist in the landform element codes controlled vocabulary.
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be a value in <code>sh:in</code> , which is the landform element codes controlled vocabulary.
Status	submitted ○
Conformance Classes	TBA
Property	Value


Property	Value
Controlled list items	<p>The result value MUST be from the following list:</p> <ul style="list-style-type: none"> Alcove Backplain Bank (stream bank) Bar (stream bar) Barchan dune Beach Beach ridge Bench Berm Blow-out Breakaway Channel bench Cirque Clay plain Cliff Cliff-footslope Closed depression Collapse doline Cone (volcanic) Crater Cut face Cut-over surface Dam

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/landform-element/shapes.ttl
Examples	Valid: /shapes/plot-description/landform-element/valid.ttl Invalid: /shapes/plot-description/landform-element/invalid.ttl

3.1.1.6.3. Simple result

Property	Value
Identifier	urn:shapes:plot-description:landform-element:simple-result
Label	Simple result
Definition	Instances of tern:Observation <i>MUST</i> have a sosa:hasSimpleResult where the value is the same as the rdf:value on the value node of sosa:hasResult .
Comment	Value of sosa:hasSimpleResult <i>MUST</i> be the same as the value in sosa:hasResult .
Status	submitted 
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/landform-element/shapes.ttl
Examples	Valid: /shapes/plot-description/landform-element/valid.ttl Invalid: /shapes/plot-description/landform-element/invalid.ttl

3.1.1.6.4. Site visit

Property	Value
Identifier	urn:shapes:plot-description:landform-element:site-visit
Label	Site visit
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted 
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/landform-element/shapes.ttl

Property	Value
Examples	Valid: /shapes/plot-description/landform-element/valid.ttl Invalid: /shapes/plot-description/landform-element/invalid.ttl

3.1.1.6.5. Used procedure

Property	Value
Identifier	urn:shapes:plot-description:landform-element:used-procedure
Label	Used procedure
Definition	Instances of tern:Observation with sosa:observedProperty value <i>TBA</i> <i>MUST</i> have a sosa:usedProcedure where the value is https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/landform-element/shapes.ttl
Examples	Valid: /shapes/plot-description/landform-element/valid.ttl Invalid: /shapes/plot-description/landform-element/invalid.ttl

3.1.1.6.6. Value type

Property	Value
Identifier	urn:shapes:plot-description:landform-element:value-type
Label	Value type
Definition	Instances of tern:Observation with sosa:observedProperty value <i>TBA</i> <i>MUST</i> have a sosa:hasResult where the value node is an instance of tern:IRI .
Comment	The value in sosa:hasResult <i>MUST</i> be a tern:IRI .
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/landform-element/shapes.ttl

Property	Value
Examples	Valid: /shapes/plot-description/landform-element/valid.ttl Invalid: /shapes/plot-description/landform-element/invalid.ttl

3.1.1.6.7. Vocabulary

Property	Value
Identifier	urn:shapes:plot-description:landform-element:vocabulary
Label	Vocabulary
Definition	The value of tern:vocabulary <i>MUST</i> match the pattern c1a58967-cb12-4c2c-a7ca-9cee2589919c\$.
Comment	IRI of tern:vocabulary in sosa:hasResult <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/c1a58967-cb12-4c2c-a7ca-9cee2589919c . https://linked.data.gov.au/def/test/dawe-cv/c1a58967-cb12-4c2c-a7ca-9cee2589919c is the IRI for "Landform element codes".
Status	submitted <input type="radio"/>
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/landform-element/shapes.ttl
Examples	Valid: /shapes/plot-description/landform-element/valid.ttl Invalid: /shapes/plot-description/landform-element/invalid.ttl


3.1.1.7. Climatic condition Observation

3.1.1.7.1. Feature type


Property	Value
Identifier	urn:shapes:plot-description:climatic-condition:feature-type
Label	Feature type
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a tern:featureType with the value climate .
Comment	TERN's ecologists have determined the feature type is <i>climate</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted <input type="radio"/>
Conformance Classes	TBA

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/climatic-condition/shapes.ttl
Examples	Valid: /shapes/plot-description/climatic-condition/valid.ttl Invalid: /shapes/plot-description/climatic-condition/invalid.ttl

3.1.1.7.2. Result value

Property	Value
Identifier	urn:shapes:plot-description:climatic-condition:result-value
Label	Result value
Definition	The value of rdf:value <i>MUST</i> exist in the Climatic condition codes controlled vocabulary.
Comment	The value in sosa:hasResult <i>MUST</i> be a value in sh:in , which is the Climatic condition codes controlled vocabulary.
Status	submitted 
Conformance Classes	TBA
Property	Value
Controlled list items	The result value <i>MUST</i> be from the following list: Dry Wet
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/climatic-condition/shapes.ttl
Examples	Valid: /shapes/plot-description/climatic-condition/valid.ttl Invalid: /shapes/plot-description/climatic-condition/invalid.ttl

3.1.1.7.3. Simple result

Property	Value
Identifier	urn:shapes:plot-description:climatic-condition:simple-result
Label	Simple result
Definition	Instances of tern:Observation <i>MUST</i> have a sosa:hasSimpleResult where the value is the same as the rdf:value on the value node of sosa:hasResult .
Comment	Value of sosa:hasSimpleResult <i>MUST</i> be the same as the value in sosa:hasResult .
Status	submitted 

Property	Value
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/climatic-condition/shapes.ttl
Examples	Valid: /shapes/plot-description/climatic-condition/valid.ttl Invalid: /shapes/plot-description/climatic-condition/invalid.ttl

3.1.1.7.4. Site visit

Property	Value
Identifier	urn:shapes:plot-description:climatic-condition:site-visit
Label	Site visit
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/climatic-condition/shapes.ttl
Examples	Valid: /shapes/plot-description/climatic-condition/valid.ttl Invalid: /shapes/plot-description/climatic-condition/invalid.ttl

3.1.1.7.5. Used procedure

Property	Value
Identifier	urn:shapes:plot-description:climatic-condition:used-procedure
Label	Used procedure
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a sosa:usedProcedure where the value is https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 is the IRI for "Plot Description".
Status	submitted ○

Property	Value
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/climatic-condition/shapes.ttl
Examples	Valid: /shapes/plot-description/climatic-condition/valid.ttl Invalid: /shapes/plot-description/climatic-condition/invalid.ttl

3.1.1.7.6. Value type

Property	Value
Identifier	urn:shapes:plot-description:climatic-condition:value-type
Label	Value type
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a sosa:hasResult where the value node is an instance of tern:IRI .
Comment	The value in sosa:hasResult <i>MUST</i> be a tern:IRI .
Status	submitted <input type="radio"/>
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/climatic-condition/shapes.ttl
Examples	Valid: /shapes/plot-description/climatic-condition/valid.ttl Invalid: /shapes/plot-description/climatic-condition/invalid.ttl

3.1.1.7.7. Vocabulary

Property	Value
Identifier	urn:shapes:plot-description:climatic-condition:vocabulary
Label	Vocabulary
Definition	The value of tern:vocabulary <i>MUST</i> match the pattern 2ebfee89-92db-44b3-bb89-06dd92798ae6\$.
Comment	IRI of tern:vocabulary in sosa:hasResult <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/2ebfee89-92db-44b3-bb89-06dd92798ae6 . https://linked.data.gov.au/def/test/dawe-cv/2ebfee89-92db-44b3-bb89-06dd92798ae6 is the IRI for "Climatic condition codes".
Status	submitted <input type="radio"/>

Property	Value
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/climatic-condition/shapes.ttl
Examples	Valid: /shapes/plot-description/climatic-condition/valid.ttl Invalid: /shapes/plot-description/climatic-condition/invalid.ttl

3.1.1.8. Outcrop lithology Observation

3.1.1.8.1. Feature type

Property	Value
Identifier	urn:shapes:plot-description:outcrop-lithology:feature-type
Label	Feature type
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a tern:featureType with the value land surface .
Comment	TERN's ecologists have determined the feature type is <i>land surface</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/outcrop-lithology/shapes.ttl
Examples	Valid: /shapes/plot-description/outcrop-lithology/valid.ttl Invalid: /shapes/plot-description/outcrop-lithology/invalid.ttl

3.1.1.8.2. Result value


Property	Value
Identifier	urn:shapes:plot-description:outcrop-lithology:result-value
Label	Result value
Definition	The value of rdf:value <i>MUST</i> exist in the soil lithology codes controlled vocabulary.
Comment	The value in sosa:hasResult <i>MUST</i> be a value in sh:in , which is the soil lithology codes controlled vocabulary.
Status	submitted ○

Property	Value
Conformance Classes	TBA
Property	Value


Property	Value
Controlled list items	<p>The result value MUST be from the following list:</p> <ul style="list-style-type: none"> Adamellite Agglomerate Alcrete (bauxite) Amphibolite Andesite Anhydrite Aplite Arkose Ash (fine) Ash (sandy) Basalt Bombs (volcanic) Breccia Calcareenite Calcareous mudstone Calcareous sand Calcilutite Calcirudite Calcrete Charcoal Chert Clay Coal

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/outcrop-lithology/shapes.ttl
Examples	Valid: /shapes/plot-description/outcrop-lithology/valid.ttl Invalid: /shapes/plot-description/outcrop-lithology/invalid.ttl

3.1.1.8.3. Simple result

Property	Value
Identifier	urn:shapes:plot-description:outcrop-lithology:simple-result
Label	Simple result
Definition	Instances of tern:Observation <i>MUST</i> have a sosa:hasSimpleResult where the value is the same as the rdf:value on the value node of sosa:hasResult .
Comment	Value of sosa:hasSimpleResult <i>MUST</i> be the same as the value in sosa:hasResult .
Status	submitted 
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/outcrop-lithology/shapes.ttl
Examples	Valid: /shapes/plot-description/outcrop-lithology/valid.ttl Invalid: /shapes/plot-description/outcrop-lithology/invalid.ttl

3.1.1.8.4. Site visit

Property	Value
Identifier	urn:shapes:plot-description:outcrop-lithology:site-visit
Label	Site visit
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted 
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/outcrop-lithology/shapes.ttl

Property	Value
Examples	Valid: /shapes/plot-description/outcrop-lithology/valid.ttl Invalid: /shapes/plot-description/outcrop-lithology/invalid.ttl

3.1.1.8.5. Used procedure

Property	Value
Identifier	urn:shapes:plot-description:outcrop-lithology:used-procedure
Label	Used procedure
Definition	Instances of tern:Observation with sosa:observedProperty value <i>TBA</i> <i>MUST</i> have a sosa:usedProcedure where the value is https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/outcrop-lithology/shapes.ttl
Examples	Valid: /shapes/plot-description/outcrop-lithology/valid.ttl Invalid: /shapes/plot-description/outcrop-lithology/invalid.ttl

3.1.1.8.6. Value type

Property	Value
Identifier	urn:shapes:plot-description:outcrop-lithology:value-type
Label	Value type
Definition	Instances of tern:Observation with sosa:observedProperty value <i>TBA</i> <i>MUST</i> have a sosa:hasResult where the value node is an instance of tern:IRI .
Comment	The value in sosa:hasResult <i>MUST</i> be a tern:IRI .
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/outcrop-lithology/shapes.ttl

Property	Value
Examples	Valid: /shapes/plot-description/outcrop-lithology/valid.ttl Invalid: /shapes/plot-description/outcrop-lithology/invalid.ttl

3.1.1.8.7. Vocabulary

Property	Value
Identifier	urn:shapes:plot-description:outcrop-lithology:vocabulary
Label	Vocabulary
Definition	The value of tern:vocabulary <i>MUST</i> match the pattern 1d50eb79-685f-45ea-84b4-627154eddede\$.
Comment	IRI of tern:vocabulary in sosa:hasResult <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1d50eb79-685f-45ea-84b4-627154eddede . https://linked.data.gov.au/def/test/dawe-cv/1d50eb79-685f-45ea-84b4-627154eddede is the IRI for "Soil lithology codes".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/outcrop-lithology/shapes.ttl
Examples	Valid: /shapes/plot-description/outcrop-lithology/valid.ttl Invalid: /shapes/plot-description/outcrop-lithology/invalid.ttl


3.1.1.9. Fire history Observation

3.1.1.9.1. Feature type

Property	Value
Identifier	urn:shapes:plot-description:fire-history:feature-type
Label	Feature type
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a tern:featureType with the value vegetation disturbance .
Comment	TERN's ecologists have determined the feature type is <i>vegetation disturbance</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted ○
Conformance Classes	TBA

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/fire-history/shapes.ttl
Examples	Valid: /shapes/plot-description/fire-history/valid.ttl Invalid: /shapes/plot-description/fire-history/invalid.ttl

3.1.1.9.2. Result value

Property	Value
Identifier	urn:shapes:plot-description:fire-history:result-value
Label	Result value
Definition	The value of rdf:value <i>MUST</i> exist in the Fire history codes controlled vocabulary.
Comment	The value in sosa:hasResult <i>MUST</i> be a value in sh:in , which is the Fire history codes controlled vocabulary.
Status	submitted 
Conformance Classes	TBA
Property	Value
Controlled list items	The result value <i>MUST</i> be from the following list: Past burn Recently burnt Unburnt
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/fire-history/shapes.ttl
Examples	Valid: /shapes/plot-description/fire-history/valid.ttl Invalid: /shapes/plot-description/fire-history/invalid.ttl

3.1.1.9.3. Simple result

Property	Value
Identifier	urn:shapes:plot-description:fire-history:simple-result
Label	Simple result
Definition	Instances of tern:Observation <i>MUST</i> have a sosa:hasSimpleResult where the value is the same as the rdf:value on the value node of sosa:hasResult .
Comment	Value of sosa:hasSimpleResult <i>MUST</i> be the same as the value in sosa:hasResult .

Property	Value
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/fire-history/shapes.ttl
Examples	Valid: /shapes/plot-description/fire-history/valid.ttl Invalid: /shapes/plot-description/fire-history/invalid.ttl

3.1.1.9.4. Site visit

Property	Value
Identifier	urn:shapes:plot-description:fire-history:site-visit
Label	Site visit
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/fire-history/shapes.ttl
Examples	Valid: /shapes/plot-description/fire-history/valid.ttl Invalid: /shapes/plot-description/fire-history/invalid.ttl

3.1.1.9.5. Used procedure

Property	Value
Identifier	urn:shapes:plot-description:fire-history:used-procedure
Label	Used procedure
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a sosa:usedProcedure where the value is https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 is the IRI for "Plot Description".

Property	Value
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/fire-history/shapes.ttl
Examples	Valid: /shapes/plot-description/fire-history/valid.ttl Invalid: /shapes/plot-description/fire-history/invalid.ttl

3.1.1.9.6. Value type

Property	Value
Identifier	urn:shapes:plot-description:fire-history:value-type
Label	Value type
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a sosa:hasResult where the value node is an instance of tern:IRI .
Comment	The value in sosa:hasResult <i>MUST</i> be a tern:IRI .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/fire-history/shapes.ttl
Examples	Valid: /shapes/plot-description/fire-history/valid.ttl Invalid: /shapes/plot-description/fire-history/invalid.ttl

3.1.1.9.7. Vocabulary

Property	Value
Identifier	urn:shapes:plot-description:fire-history:vocabulary
Label	Vocabulary
Definition	The value of tern:vocabulary <i>MUST</i> match the pattern 6e9d2f51-ce64-4c67-8391-d14a8bf96b6b\$.
Comment	IRI of tern:vocabulary in sosa:hasResult <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/6e9d2f51-ce64-4c67-8391-d14a8bf96b6b . https://linked.data.gov.au/def/test/dawe-cv/6e9d2f51-ce64-4c67-8391-d14a8bf96b6b is the IRI for "Fire history codes".

Property	Value
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/fire-history/shapes.ttl
Examples	Valid: /shapes/plot-description/fire-history/valid.ttl Invalid: /shapes/plot-description/fire-history/invalid.ttl

3.1.1.10. Growth form Observation

3.1.1.10.1. Feature type

Property	Value
Identifier	urn:shapes:plot-description:growth-form:feature-type
Label	Feature type
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a tern:featureType with the value vegetation .
Comment	TERN's ecologists have determined the feature type is <i>vegetation</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/growth-form/shapes.ttl
Examples	Valid: /shapes/plot-description/growth-form/valid.ttl Invalid: /shapes/plot-description/growth-form/invalid.ttl

3.1.1.10.2. Result value

Property	Value
Identifier	urn:shapes:plot-description:growth-form:result-value
Label	Result value
Definition	The value of rdf:value <i>MUST</i> exist in the Vegetation growth form codes controlled vocabulary.
Comment	The value in sosa:hasResult <i>MUST</i> be a value in sh:in , which is the Vegetation growth form codes controlled vocabulary.
Status	submitted ○

Property	Value
Conformance Classes	TBA
Property	Value

Property	Value
Controlled list items	<p>The result value MUST be from the following list:</p> <p>Aquatic</p> <p>Bryophyte</p> <p>Chenopod</p> <p>Cycad</p> <p>Epiphyte</p> <p>Fern</p> <p>Forb</p> <p>Fungus</p> <p>Grass-tree</p> <p>Heath-shrub</p> <p>Hummock grass</p> <p>NC</p> <p>Rush</p> <p>Sedge</p> <p>Shrub</p> <p>Shrub Mallee</p> <p>Tree Mallee</p> <p>Tree-fern</p> <p>Tree/Palm</p> <p>Tussock grass</p> <p>Vine</p>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/growth-form/shapes.ttl

Property	Value
Examples	Valid: /shapes/plot-description/growth-form/valid.ttl Invalid: /shapes/plot-description/growth-form/invalid.ttl

3.1.1.10.3. Simple result

Property	Value
Identifier	urn:shapes:plot-description:growth-form:simple-result
Label	Simple result
Definition	Instances of tern:Observation <i>MUST</i> have a sosa:hasSimpleResult where the value is the same as the rdf:value on the value node of sosa:hasResult .
Comment	Value of sosa:hasSimpleResult <i>MUST</i> be the same as the value in sosa:hasResult .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/growth-form/shapes.ttl
Examples	Valid: /shapes/plot-description/growth-form/valid.ttl Invalid: /shapes/plot-description/growth-form/invalid.ttl

3.1.1.10.4. Site visit

Property	Value
Identifier	urn:shapes:plot-description:growth-form:site-visit
Label	Site visit
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/growth-form/shapes.ttl
Examples	Valid: /shapes/plot-description/growth-form/valid.ttl Invalid: /shapes/plot-description/growth-form/invalid.ttl

3.1.1.10.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:plot-description:growth-form:used-procedure</code>
Label	Used procedure
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value <i>TBA</i> <i>MUST</i> have a <code>sosa:usedProcedure</code> where the value is https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 is the IRI for "Plot Description".
Status	submitted <input type="radio"/>
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/growth-form/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/growth-form/valid.ttl</code> Invalid: <code>/shapes/plot-description/growth-form/invalid.ttl</code>

3.1.1.10.6. Value type

Property	Value
Identifier	<code>urn:shapes:plot-description:growth-form:value-type</code>
Label	Value type
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value <i>TBA</i> <i>MUST</i> have a <code>sosa:hasResult</code> where the value node is an instance of <code>tern:IRI</code> .
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be a <code>tern:IRI</code> .
Status	submitted <input type="radio"/>
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/growth-form/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/growth-form/valid.ttl</code> Invalid: <code>/shapes/plot-description/growth-form/invalid.ttl</code>

3.1.1.10.7. Vocabulary

Property	Value
Identifier	<code>urn:shapes:plot-description:growth-form:vocabulary</code>
Label	Vocabulary
Definition	The value of <code>tern:vocabulary</code> <i>MUST</i> match the pattern <code>d0fc07a7-3ec9-45ed-8850-885a32828d3c\$</code> .
Comment	IRI of <code>tern:vocabulary</code> in <code>sosa:hasResult</code> <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/d0fc07a7-3ec9-45ed-8850-885a32828d3c . https://linked.data.gov.au/def/test/dawe-cv/d0fc07a7-3ec9-45ed-8850-885a32828d3c is the IRI for "Vegetation growth form codes".
Status	submitted <input type="radio"/>
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/growth-form/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/growth-form/valid.ttl</code> Invalid: <code>/shapes/plot-description/growth-form/invalid.ttl</code>

3.1.1.11. Aspect Observation

3.1.1.11.1. Feature type

Property	Value
Identifier	<code>urn:shapes:plot-description:aspect:feature-type</code>
Label	Feature type
Definition	The value of <code>tern:featureType</code> <i>MUST</i> be <code>landform</code> .
Comment	TERN's ecologists have determined the feature type is <i>landform</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted <input type="radio"/>
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/aspect/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/aspect/valid.ttl</code> Invalid: <code>/shapes/plot-description/aspect/invalid.ttl</code>

3.1.1.11.2. Simple result

Property	Value
Identifier	urn:shapes:plot-description:aspect:simple-result
Label	Simple result
Definition	The observation's sosa:hasSimpleResult <i>MUST</i> have a value that is the same as the value in the value node of sosa:hasResult .
Comment	Value of sosa:hasSimpleResult <i>MUST</i> be the same as the value in sosa:hasResult .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/aspect/shapes.ttl
Examples	Valid: /shapes/plot-description/aspect/valid.ttl Invalid: /shapes/plot-description/aspect/invalid.ttl

3.1.1.11.3. Site visit

Property	Value
Identifier	urn:shapes:plot-description:aspect:site-visit
Label	Site visit
Definition	Observations <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/aspect/shapes.ttl
Examples	Valid: /shapes/plot-description/aspect/valid.ttl Invalid: /shapes/plot-description/aspect/invalid.ttl

3.1.1.11.4. Unit of measure

Property	Value
Identifier	urn:shapes:plot-description:aspect:unit-of-measure
Label	Unit of measure
Definition	The result <i>MUST</i> have unit:DEG as the value for tern:unit .

Property	Value
Comment	Result value's unit of measure <i>MUST</i> have the value unit:DEG .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/aspect/shapes.ttl
Examples	Valid: /shapes/plot-description/aspect/valid.ttl Invalid: /shapes/plot-description/aspect/invalid.ttl

3.1.1.11.5. Used procedure

Property	Value
Identifier	urn:shapes:plot-description:aspect:used-procedure
Label	Used procedure
Definition	The observation's sosa:usedProcedure <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/aspect/shapes.ttl
Examples	Valid: /shapes/plot-description/aspect/valid.ttl Invalid: /shapes/plot-description/aspect/invalid.ttl

3.1.1.11.6. Value range

Property	Value
Identifier	urn:shapes:plot-description:aspect:value-range
Label	Value range
Definition	The result <i>MUST</i> have a value between 0 exclusive and 360 inclusive.
Comment	Value <i>MUST</i> be between 0 exclusive and 360 inclusive.

Property	Value
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/aspect/shapes.ttl
Examples	Valid: /shapes/plot-description/aspect/valid.ttl Invalid: /shapes/plot-description/aspect/invalid.ttl

3.1.1.11.7. Value type

Property	Value
Identifier	urn:shapes:plot-description:aspect:value-type
Label	Value type
Definition	The result <i>MUST</i> be an instance of tern:Float .
Comment	The value of sosa:hasResult <i>MUST</i> be a tern:Float .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/aspect/shapes.ttl
Examples	Valid: /shapes/plot-description/aspect/valid.ttl Invalid: /shapes/plot-description/aspect/invalid.ttl


3.1.1.12. Slope type Observation

3.1.1.12.1. Feature type

Property	Value
Identifier	urn:shapes:plot-description:slope-type:feature-type
Label	Feature type
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a tern:featureType with the value landform .
Comment	TERN's ecologists have determined the feature type is <i>landform</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted ○
Conformance Classes	TBA

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/slope-type/shapes.ttl
Examples	Valid: /shapes/plot-description/slope-type/valid.ttl Invalid: /shapes/plot-description/slope-type/invalid.ttl

3.1.1.12.2. Result value

Property	Value
Identifier	urn:shapes:plot-description:slope-type:result-value
Label	Result value
Definition	The value of rdf:value <i>MUST</i> exist in the Plot slope codes controlled vocabulary.
Comment	The value in sosa:hasResult <i>MUST</i> be a value in sh:in , which is the Plot slope codes controlled vocabulary.
Status	submitted 
Conformance Classes	TBA
Property	Value
Controlled list items	The result value <i>MUST</i> be from the following list: Cliffed Gently inclined Level Moderately inclined Precipitous ` `Steep Very gently inclined Very steep
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/slope-type/shapes.ttl
Examples	Valid: /shapes/plot-description/slope-type/valid.ttl Invalid: /shapes/plot-description/slope-type/invalid.ttl

3.1.1.12.3. Simple result

Property	Value
Identifier	<code>urn:shapes:plot-description:slope-type:simple-result</code>
Label	Simple result
Definition	Instances of <code>tern:Observation</code> <i>MUST</i> have a <code>sosa:hasSimpleResult</code> where the value is the same as the <code>rdf:value</code> on the value node of <code>sosa:hasResult</code> .
Comment	Value of <code>sosa:hasSimpleResult</code> <i>MUST</i> be the same as the value in <code>sosa:hasResult</code> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/slope-type/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/slope-type/valid.ttl</code> Invalid: <code>/shapes/plot-description/slope-type/invalid.ttl</code>

3.1.1.12.4. Site visit

Property	Value
Identifier	<code>urn:shapes:plot-description:slope-type:site-visit</code>
Label	Site visit
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value TBA <i>MUST</i> have a value for <code>tern:hasSiteVisit</code> .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/slope-type/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/slope-type/valid.ttl</code> Invalid: <code>/shapes/plot-description/slope-type/invalid.ttl</code>

3.1.1.12.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:plot-description:slope-type:used-procedure</code>
Label	Used procedure

Property	Value
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value TBA <i>MUST</i> have a <code>sosa:usedProcedure</code> where the value is https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/slope-type/shapes.ttl
Examples	Valid: /shapes/plot-description/slope-type/valid.ttl Invalid: /shapes/plot-description/slope-type/invalid.ttl

3.1.1.12.6. Value type

Property	Value
Identifier	<code>urn:shapes:plot-description:slope-type:value-type</code>
Label	Value type
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value TBA <i>MUST</i> have a <code>sosa:hasResult</code> where the value node is an instance of <code>tern:IRI</code> .
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be a <code>tern:IRI</code> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/slope-type/shapes.ttl
Examples	Valid: /shapes/plot-description/slope-type/valid.ttl Invalid: /shapes/plot-description/slope-type/invalid.ttl

3.1.1.12.7. Vocabulary

Property	Value
Identifier	<code>urn:shapes:plot-description:slope-type:vocabulary</code>
Label	Vocabulary

Property	Value
Definition	The value of tern:vocabulary <i>MUST</i> match the pattern d893e669-c530-4bc3-a057-a5799ffcb5db\$.
Comment	IRI of tern:vocabulary in sosa:hasResult <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/d893e669-c530-4bc3-a057-a5799ffcb5db . https://linked.data.gov.au/def/test/dawe-cv/d893e669-c530-4bc3-a057-a5799ffcb5db is the IRI for "Plot slope codes".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/slope-type/shapes.ttl
Examples	Valid: /shapes/plot-description/slope-type/valid.ttl Invalid: /shapes/plot-description/slope-type/invalid.ttl

3.1.1.13. Surface strew lithology Observation

3.1.1.13.1. Feature type

Property	Value
Identifier	urn:shapes:plot-description:surface-strew-lithology:feature-type
Label	Feature type
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a tern:featureType with the value land surface .
Comment	TERN's ecologists have determined the feature type is <i>land surface</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/surface-strew-lithology/shapes.ttl
Examples	Valid: /shapes/plot-description/surface-strew-lithology/valid.ttl Invalid: /shapes/plot-description/surface-strew-lithology/invalid.ttl


3.1.1.13.2. Result value

Property	Value
Identifier	<code>urn:shapes:plot-description:surface-strew-lithology:result-value</code>
Label	Result value
Definition	The value of <code>rdf:value</code> <i>MUST</i> exist in the soil lithology codes controlled vocabulary.
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be a value in <code>sh:in</code> , which is the soil lithology codes controlled vocabulary.
Status	submitted ○
Conformance Classes	TBA
Property	Value


Property	Value
Controlled list items	<p>The result value MUST be from the following list:</p> <p>Adamellite</p> <p>Agglomerate</p> <p>Alcrete (bauxite)</p> <p>Amphibolite</p> <p>Andesite</p> <p>Anhydrite</p> <p>Aplite</p> <p>Arkose</p> <p>Ash (fine)</p> <p>Ash (sandy)</p> <p>Basalt</p> <p>Bombs (volcanic)</p> <p>Breccia</p> <p>Calcareenite</p> <p>Calcareous mudstone</p> <p>Calcareous sand</p> <p>Calcilutite</p> <p>Calcirudite</p> <p>Calcrete</p> <p>Charcoal</p> <p>Chert</p> <p>Clay</p> <p>Coal</p>

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/surface-strew-lithology/shapes.ttl
Examples	Valid: /shapes/plot-description/surface-strew-lithology/valid.ttl Invalid: /shapes/plot-description/surface-strew-lithology/invalid.ttl

3.1.1.13.3. Simple result

Property	Value
Identifier	urn:shapes:plot-description:surface-strew-lithology:simple-result
Label	Simple result
Definition	Instances of tern:Observation <i>MUST</i> have a sosa:hasSimpleResult where the value is the same as the rdf:value on the value node of sosa:hasResult .
Comment	Value of sosa:hasSimpleResult <i>MUST</i> be the same as the value in sosa:hasResult .
Status	submitted 
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/surface-strew-lithology/shapes.ttl
Examples	Valid: /shapes/plot-description/surface-strew-lithology/valid.ttl Invalid: /shapes/plot-description/surface-strew-lithology/invalid.ttl

3.1.1.13.4. Site visit

Property	Value
Identifier	urn:shapes:plot-description:surface-strew-lithology:site-visit
Label	Site visit
Definition	Instances of tern:Observation with sosa:observedProperty value TBA <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted 
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/surface-strew-lithology/shapes.ttl

Property	Value
Examples	Valid: /shapes/plot-description/surface-strew-lithology/valid.ttl Invalid: /shapes/plot-description/surface-strew-lithology/invalid.ttl

3.1.1.13.5. Used procedure

Property	Value
Identifier	urn:shapes:plot-description:surface-strew-lithology:used-procedure
Label	Used procedure
Definition	Instances of tern:Observation with sosa:observedProperty value <i>TBA</i> <i>MUST</i> have a sosa:usedProcedure where the value is https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/surface-strew-lithology/shapes.ttl
Examples	Valid: /shapes/plot-description/surface-strew-lithology/valid.ttl Invalid: /shapes/plot-description/surface-strew-lithology/invalid.ttl

3.1.1.13.6. Value type

Property	Value
Identifier	urn:shapes:plot-description:surface-strew-lithology:value-type
Label	Value type
Definition	Instances of tern:Observation with sosa:observedProperty value <i>TBA</i> <i>MUST</i> have a sosa:hasResult where the value node is an instance of tern:IRI .
Comment	The value in sosa:hasResult <i>MUST</i> be a tern:IRI .
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/surface-strew-lithology/shapes.ttl

Property	Value
Examples	Valid: /shapes/plot-description/surface-strew-lithology/valid.ttl Invalid: /shapes/plot-description/surface-strew-lithology/invalid.ttl

3.1.1.13.7. Vocabulary

Property	Value
Identifier	urn:shapes:plot-description:surface-strew-lithology:vocabulary
Label	Vocabulary
Definition	The value of tern:vocabulary <i>MUST</i> match the pattern 1d50eb79-685f-45ea-84b4-627154eddede\$.
Comment	IRI of tern:vocabulary in sosa:hasResult <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1d50eb79-685f-45ea-84b4-627154eddede . https://linked.data.gov.au/def/test/dawe-cv/1d50eb79-685f-45ea-84b4-627154eddede is the IRI for "Soil lithology codes".
Status	submitted <input type="radio"/>
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/surface-strew-lithology/shapes.ttl
Examples	Valid: /shapes/plot-description/surface-strew-lithology/valid.ttl Invalid: /shapes/plot-description/surface-strew-lithology/invalid.ttl

3.1.1.14. Slope Observation

3.1.1.14.1. Feature type

Property	Value
Identifier	urn:shapes:plot-description:slope:feature-type
Label	Feature type
Definition	The value of tern:featureType <i>MUST</i> be landform .
Comment	TERN's ecologists have determined the feature type is <i>landform</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted <input type="radio"/>
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols

Property	Value
Validators	/shapes/plot-description/slope/shapes.ttl
Examples	Valid: /shapes/plot-description/slope/valid.ttl Invalid: /shapes/plot-description/slope/invalid.ttl

3.1.1.14.2. Simple result

Property	Value
Identifier	urn:shapes:plot-description:slope:simple-result
Label	Simple result
Definition	The observation's sosa:hasSimpleResult <i>MUST</i> have a value that is the same as the value in the value node of sosa:hasResult .
Comment	Value of sosa:hasSimpleResult <i>MUST</i> be the same as the value in sosa:hasResult .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/slope/shapes.ttl
Examples	Valid: /shapes/plot-description/slope/valid.ttl Invalid: /shapes/plot-description/slope/invalid.ttl

3.1.1.14.3. Site visit

Property	Value
Identifier	urn:shapes:plot-description:slope:site-visit
Label	Site visit
Definition	Observations <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/slope/shapes.ttl
Examples	Valid: /shapes/plot-description/slope/valid.ttl Invalid: /shapes/plot-description/slope/invalid.ttl

3.1.1.14.4. Unit of measure

Property	Value
Identifier	<code>urn:shapes:plot-description:slope:unit-of-measure</code>
Label	Unit of measure
Definition	The result <i>MUST</i> have <code>unit:DEG</code> as the value for <code>tern:unit</code> .
Comment	Result value's unit of measure <i>MUST</i> have the value <code>unit:DEG</code> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/slope/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/slope/valid.ttl</code> Invalid: <code>/shapes/plot-description/slope/invalid.ttl</code>

3.1.1.14.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:plot-description:slope:used-procedure</code>
Label	Used procedure
Definition	The observation's <code>sosa:usedProcedure</code> <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/slope/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/slope/valid.ttl</code> Invalid: <code>/shapes/plot-description/slope/invalid.ttl</code>

3.1.1.14.6. Value range

Property	Value
Identifier	<code>urn:shapes:plot-description:slope:value-range</code>
Label	Value range
Definition	The result <i>MUST</i> have a value between 0 and 90 inclusively.
Comment	Value <i>MUST</i> be between 0 and 90 inclusive.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/slope/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/slope/valid.ttl</code> Invalid: <code>/shapes/plot-description/slope/invalid.ttl</code>

3.1.1.14.7. Value type

Property	Value
Identifier	<code>urn:shapes:plot-description:slope:value-type</code>
Label	Value type
Definition	The result <i>MUST</i> be an instance of <code>tern:Float</code> .
Comment	The value of <code>sosa:hasResult</code> <i>MUST</i> be a <code>tern:Float</code> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/slope/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/slope/valid.ttl</code> Invalid: <code>/shapes/plot-description/slope/invalid.ttl</code>

3.2. TERN Ontology Conformance

TBD.

4. Editors Notes

4.1. Working titles

Both this specification and the ecological field collection protocol do not have canonical names yet.

The below will be changed and updated once formal names are provided by DAWE.

- Ecological Data Exchange Specification (this document)
- TERN Ecosystem Surveillance Ecological Monitoring Protocols

4.2. Placeholders

4.2.1. Placeholder text

Placeholder values **TBA**, **TBD** and **TBC** must be replaced with actual values.

4.2.2. Placeholder IRIs

IRIs of controlled vocabularies are currently placeholders with the namespace <https://linked.data.gov.au/def/test/dawe-cv/>. These IRIs must be replaced once the authoritative IRI is known.