

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/r1p/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.
Created	2022-03-14
Modified	2022-03-16
Creator	TERN
Publisher	Department of Agriculture, Water and the Environment
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://puhl.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.

Prefix	Namespace	Name	Description
tern:	https://w3id.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.

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

For example:

Property	Value
Status	stable ☑

3.1.1. Plot Description Module Conformance Class Requirements

Unresolved directive in requirements-sections-by-protocols/requirements-sections-plot-description.adoc - include::.../requirements-by-module/plot-description/disturbance/index.adoc[]

3.1.1.1. Cover class Observation

3.1.1.1.1. Feature type

Property	Value
Identifier	urn:shapes:plot-description:cover-class:feature-type

Property	Value
Label	Feature type
Definition	The value of <code>tern:featureType</code> <i>MUST</i> be link: <code>vegetation</code> .
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	<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>

3.1.1.1.2. Result value

Property	Value
Identifier	<code>urn:shapes:plot-description:cover-class:result-value</code>
Label	Result 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: <code>bc</code> <code>bi</code> <code>c</code> <code>d</code> <code>i</code> <code>r</code>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/cover-class/shapes.ttl</code>

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

3.1.1.1.3. Simple result

Property	Value
Identifier	<code>urn:shapes:plot-description:cover-class:simple-result</code>
Label	Simple result
Definition	The observation's <code>sosa:hasSimpleResult</code> <i>MUST</i> have a value that is the same as the value in 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>
Examples	Valid: <code>/shapes/plot-description/cover-class/valid.ttl</code> Invalid: <code>/shapes/plot-description/cover-class/invalid.ttl</code>

3.1.1.1.4. Site visit

Property	Value
Identifier	<code>urn:shapes:plot-description:cover-class:site-visit</code>
Label	Site visit
Definition	Observations <i>MUST</i> have a value for <code>tern:hasSiteVisit</code> .
Comment	Observations following the Plot Description 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/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>

3.1.1.1.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:plot-description:cover-class: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/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/nrm/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/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>

3.1.1.1.6. Value type

Property	Value
Identifier	<code>urn:shapes:plot-description:cover-class:value-type</code>
Label	Value type
Definition	The result <i>MUST</i> be an instance of <code>tern:IRI</code> .
Comment	The value of <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	<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>

3.1.1.1.7. Vocabulary

Property	Value
Identifier	<code>urn:shapes:plot-description:cover-class:vocabulary</code>

Property	Value
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/nrm/6aaa330c-3d60-419b-a29b-a2dbc6d67928 . https://linked.data.gov.au/def/nrm/6aaa330c-3d60-419b-a29b-a2dbc6d67928 is the IRI for "Cover class codes".
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

Unresolved directive in requirements-sections-by-protocols/requirements-sections-plot-description.adoc - include::../requirements-by-module/plot-description/most-dominant-species/index.adoc[]

3.1.1.2. Growth stage Observation

3.1.1.2.1. Feature type

Property	Value
Identifier	urn:shapes:plot-description:growth-stage:feature-type
Label	Feature type
Definition	The value of tern:featureType <i>MUST</i> be link: plant individual .
Comment	TERN's ecologists have determined the feature type is <i>plant individual</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-stage/shapes.ttl
Examples	Valid: /shapes/plot-description/growth-stage/valid.ttl Invalid: /shapes/plot-description/growth-stage/invalid.ttl

3.1.1.2.2. Result value

Property	Value
Identifier	<code>urn:shapes:plot-description:growth-stage:result-value</code>
Label	Result value
Definition	The value of <code>rdf:value</code> <i>MUST</i> exist in the Growth stages 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 Growth stages 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>Dead</p> <p>Mature</p> <p>Recruiting</p> <p>Resprouting</p> <p>Senescent</p>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/growth-stage/shapes.ttl</code>
Examples	<p>Valid: <code>/shapes/plot-description/growth-stage/valid.ttl</code></p> <p>Invalid: <code>/shapes/plot-description/growth-stage/invalid.ttl</code></p>

3.1.1.2.3. Simple result

Property	Value
Identifier	<code>urn:shapes:plot-description:growth-stage:simple-result</code>
Label	Simple result
Definition	The observation's <code>sosa:hasSimpleResult</code> <i>MUST</i> have a value that is the same as the value in 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

Property	Value
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

3.1.1.2.4. Site visit


Property	Value
Identifier	urn:shapes:plot-description:growth-stage:site-visit
Label	Site visit
Definition	Observations <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description 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

3.1.1.2.5. Used procedure


Property	Value
Identifier	urn:shapes:plot-description:growth-stage:used-procedure
Label	Used procedure
Definition	The observation's sosa:usedProcedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/nrm/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

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

3.1.1.2.6. Value type

Property	Value
Identifier	urn:shapes:plot-description:growth-stage:value-type
Label	Value type
Definition	The result <i>MUST</i> be an instance of tern:IRI .
Comment	The value of 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/growth-stage/shapes.ttl
Examples	Valid: /shapes/plot-description/growth-stage/valid.ttl Invalid: /shapes/plot-description/growth-stage/invalid.ttl


3.1.1.2.7. Vocabulary

Property	Value
Identifier	urn:shapes:plot-description:growth-stage:vocabulary
Label	Vocabulary
Definition	The value of tern:vocabulary <i>MUST</i> match the pattern 096e018a-fb8f-4ba1-9fdc-302164e57682\$.
Comment	IRI of tern:vocabulary in sosa:hasResult <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/096e018a-fb8f-4ba1-9fdc-302164e57682 . https://linked.data.gov.au/def/nrm/096e018a-fb8f-4ba1-9fdc-302164e57682 is the IRI for "Growth stages codes".
Status	submitted 
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/growth-stage/shapes.ttl


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

3.1.1.3. Landform pattern Observation

3.1.1.3.1. Feature type

Property	Value
Identifier	urn:shapes:plot-description:landform-pattern:feature-type
Label	Feature type
Definition	The value of tern:featureType <i>MUST</i> be link: 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-pattern/shapes.ttl
Examples	Valid: /shapes/plot-description/landform-pattern/valid.ttl Invalid: /shapes/plot-description/landform-pattern/invalid.ttl

3.1.1.3.2. Result value

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

3.1.1.3.3. Simple result

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

3.1.1.3.4. Site visit

Property	Value
Identifier	urn:shapes:plot-description:landform-pattern:site-visit
Label	Site visit
Definition	Observations <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description 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
Examples	Valid: /shapes/plot-description/landform-pattern/valid.ttl Invalid: /shapes/plot-description/landform-pattern/invalid.ttl

3.1.1.3.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:plot-description:landform-pattern: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/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/nrm/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/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>

3.1.1.3.6. Value type

Property	Value
Identifier	<code>urn:shapes:plot-description:landform-pattern:value-type</code>
Label	Value type
Definition	The result <i>MUST</i> be an instance of <code>tern:IRI</code> .
Comment	The value of <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	<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>

3.1.1.3.7. Vocabulary

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

Property	Value
Label	Vocabulary
Definition	The value of <code>tern:vocabulary</code> <i>MUST</i> match the pattern <code>19d91a7a-2733-4b84-9d2b-4bda4808c003\$</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/nrm/19d91a7a-2733-4b84-9d2b-4bda4808c003 . https://linked.data.gov.au/def/nrm/19d91a7a-2733-4b84-9d2b-4bda4808c003 is the IRI for "Landform pattern 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

3.1.1.4. Surface strew size Observation

3.1.1.4.1. Feature type

Property	Value
Identifier	<code>urn:shapes:plot-description:surface-strew-size:feature-type</code>
Label	Feature type
Definition	The value of <code>tern:featureType</code> <i>MUST</i> be link: <code>land surface</code> .
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-size/shapes.ttl
Examples	Valid: /shapes/plot-description/surface-strew-size/valid.ttl Invalid: /shapes/plot-description/surface-strew-size/invalid.ttl

3.1.1.4.2. Result value

Property	Value
Identifier	<code>urn:shapes:plot-description:surface-strew-size:result-value</code>

Property	Value
Label	Result value
Definition	The value of <code>rdf:value</code> <i>MUST</i> exist in the Soil surface strew size 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 surface strew size 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>Boulder (250mm +)</p> <p>Cobble (51-250mm)</p> <p>None apparent</p> <p>Not Collected</p> <p>Pebble (5-50mm)</p>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/surface-strew-size/shapes.ttl</code>
Examples	<p>Valid: <code>/shapes/plot-description/surface-strew-size/valid.ttl</code></p> <p>Invalid: <code>/shapes/plot-description/surface-strew-size/invalid.ttl</code></p>

3.1.1.4.3. Simple result

Property	Value
Identifier	<code>urn:shapes:plot-description:surface-strew-size:simple-result</code>
Label	Simple result
Definition	The observation's <code>sosa:hasSimpleResult</code> <i>MUST</i> have a value that is the same as the value in 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/surface-strew-size/shapes.ttl</code>

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

3.1.1.4.4. Site visit


Property	Value
Identifier	urn:shapes:plot-description:surface-strew-size:site-visit
Label	Site visit
Definition	Observations <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description 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

3.1.1.4.5. Used procedure


Property	Value
Identifier	urn:shapes:plot-description:surface-strew-size:used-procedure
Label	Used procedure
Definition	The observation's sosa:usedProcedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/nrm/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

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

3.1.1.4.6. Value type

Property	Value
Identifier	urn:shapes:plot-description:surface-strew-size:value-type
Label	Value type
Definition	The result <i>MUST</i> be an instance of tern:IRI .
Comment	The value of 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

3.1.1.4.7. 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\$.
Comment	IRI of tern:vocabulary in sosa:hasResult <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/3b25ce0f-9eb7-4d2d-97ce-143858cfd4d4 . https://linked.data.gov.au/def/nrm/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

Property	Value
Examples	Valid: <code>/shapes/plot-description/surface-strew-size/valid.ttl</code> Invalid: <code>/shapes/plot-description/surface-strew-size/invalid.ttl</code>
Unresolved directive in requirements-sections-by-protocols/requirements-sections-plot-description.adoc - include::../requirements-by-module/plot-description/cover-percentage/index.adoc[]	

3.1.1.5. Landform element Observation

3.1.1.5.1. Feature type

Property	Value
Identifier	<code>urn:shapes:plot-description:landform-element:feature-type</code>
Label	Feature type
Definition	The value of <code>tern:featureType</code> <i>MUST</i> be link: <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 ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/landform-element/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/landform-element/valid.ttl</code> Invalid: <code>/shapes/plot-description/landform-element/invalid.ttl</code>

3.1.1.5.2. Result value

Property	Value
Identifier	<code>urn:shapes:plot-description:landform-element:result-value</code>
Label	Result 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 Cliff Cliff-footslope Collapse doline Cone (volcanic) Crater Cut face Cut-over surface Dam Deflation basin Drainage depression

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

3.1.1.5.3. Simple result

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

3.1.1.5.4. Site visit

Property	Value
Identifier	urn:shapes:plot-description:landform-element:site-visit
Label	Site visit
Definition	Observations <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description 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
Examples	Valid: /shapes/plot-description/landform-element/valid.ttl Invalid: /shapes/plot-description/landform-element/invalid.ttl

3.1.1.5.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:plot-description:landform-element: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/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/nrm/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/landform-element/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/landform-element/valid.ttl</code> Invalid: <code>/shapes/plot-description/landform-element/invalid.ttl</code>

3.1.1.5.6. Value type

Property	Value
Identifier	<code>urn:shapes:plot-description:landform-element:value-type</code>
Label	Value type
Definition	The result <i>MUST</i> be an instance of <code>tern:IRI</code> .
Comment	The value of <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	<code>/shapes/plot-description/landform-element/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/landform-element/valid.ttl</code> Invalid: <code>/shapes/plot-description/landform-element/invalid.ttl</code>

3.1.1.5.7. Vocabulary

Property	Value
Identifier	<code>urn:shapes:plot-description:landform-element:vocabulary</code>

Property	Value
Label	Vocabulary
Definition	The value of <code>tern:vocabulary</code> <i>MUST</i> match the pattern <code>c1a58967-cb12-4c2c-a7ca-9cee2589919c\$</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/nrm/c1a58967-cb12-4c2c-a7ca-9cee2589919c . https://linked.data.gov.au/def/nrm/c1a58967-cb12-4c2c-a7ca-9cee2589919c is the IRI for "Landform element codes".
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. Climatic condition Observation

3.1.1.6.1. Feature type

Property	Value
Identifier	<code>urn:shapes:plot-description:climatic-condition:feature-type</code>
Label	Feature type
Definition	The value of <code>tern:featureType</code> <i>MUST</i> be link: <code>climate</code> .
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 ○
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

3.1.1.6.2. Result value

Property	Value
Identifier	<code>urn:shapes:plot-description:climatic-condition:result-value</code>

Property	Value
Label	Result value
Definition	The value of <code>rdf:value</code> <i>MUST</i> exist in the Climatic condition 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 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	<code>/shapes/plot-description/climatic-condition/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/climatic-condition/valid.ttl</code> Invalid: <code>/shapes/plot-description/climatic-condition/invalid.ttl</code>

3.1.1.6.3. Simple result

Property	Value
Identifier	<code>urn:shapes:plot-description:climatic-condition:simple-result</code>
Label	Simple result
Definition	The observation's <code>sosa:hasSimpleResult</code> <i>MUST</i> have a value that is the same as the value in 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/climatic-condition/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/climatic-condition/valid.ttl</code> Invalid: <code>/shapes/plot-description/climatic-condition/invalid.ttl</code>

3.1.1.6.4. Site visit

Property	Value
Identifier	<code>urn:shapes:plot-description:climatic-condition:site-visit</code>
Label	Site visit
Definition	Observations <i>MUST</i> have a value for <code>tern:hasSiteVisit</code> .
Comment	Observations following the Plot Description 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/climatic-condition/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/climatic-condition/valid.ttl</code> Invalid: <code>/shapes/plot-description/climatic-condition/invalid.ttl</code>

3.1.1.6.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:plot-description:climatic-condition: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/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/nrm/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/climatic-condition/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/climatic-condition/valid.ttl</code> Invalid: <code>/shapes/plot-description/climatic-condition/invalid.ttl</code>

3.1.1.6.6. Value type

Property	Value
Identifier	<code>urn:shapes:plot-description:climatic-condition:value-type</code>
Label	Value type

Property	Value
Definition	The result <i>MUST</i> be an instance of tern:IRI .
Comment	The value of 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/climatic-condition/shapes.ttl
Examples	Valid: /shapes/plot-description/climatic-condition/valid.ttl Invalid: /shapes/plot-description/climatic-condition/invalid.ttl

3.1.1.6.7. 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/nrm/2ebfee89-92db-44b3-bb89-06dd92798ae6 . https://linked.data.gov.au/def/nrm/2ebfee89-92db-44b3-bb89-06dd92798ae6 is the IRI for "Climatic condition codes".
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. Homogeneity measure Observation

3.1.1.7.1. Feature type

Property	Value
Identifier	urn:shapes:plot-description:homogeneity-measure:feature-type
Label	Feature type

Property	Value
Definition	The value of <code>tern:featureType</code> <i>MUST</i> be link: <code>vegetation</code> .
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/homogeneity-measure/shapes.ttl
Examples	Valid: /shapes/plot-description/homogeneity-measure/valid.ttl Invalid: /shapes/plot-description/homogeneity-measure/invalid.ttl

3.1.1.7.2. Simple result

Property	Value
Identifier	<code>urn:shapes:plot-description:homogeneity-measure:simple-result</code>
Label	Simple result
Definition	The observation's <code>sosa:hasSimpleResult</code> <i>MUST</i> have a value that is the same as the value in 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/homogeneity-measure/shapes.ttl
Examples	Valid: /shapes/plot-description/homogeneity-measure/valid.ttl Invalid: /shapes/plot-description/homogeneity-measure/invalid.ttl

3.1.1.7.3. Site visit

Property	Value
Identifier	<code>urn:shapes:plot-description:homogeneity-measure:site-visit</code>
Label	Site visit
Definition	Observations <i>MUST</i> have a value for <code>tern:hasSiteVisit</code> .
Comment	Observations following the Plot Description are made in the context of a site visit.
Status	submitted ○

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

3.1.1.7.4. Unit of measure

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

3.1.1.7.5. Used procedure

Property	Value
Identifier	urn:shapes:plot-description:homogeneity-measure:used-procedure
Label	Used procedure
Definition	The observation's sosa:usedProcedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	TBA

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

3.1.1.7.6. Value range

Property	Value
Identifier	urn:shapes:plot-description:homogeneity-measure:value-range
Label	Value range
Definition	The result <i>MUST</i> not be negative.
Comment	Value <i>MUST</i> not be negative.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/homogeneity-measure/shapes.ttl
Examples	Valid: /shapes/plot-description/homogeneity-measure/valid.ttl Invalid: /shapes/plot-description/homogeneity-measure/invalid.ttl

3.1.1.7.7. Value type

Property	Value
Identifier	urn:shapes:plot-description:homogeneity-measure: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/homogeneity-measure/shapes.ttl
Examples	Valid: /shapes/plot-description/homogeneity-measure/valid.ttl Invalid: /shapes/plot-description/homogeneity-measure/invalid.ttl

3.1.1.8. Height class Observation

3.1.1.8.1. Feature type

Property	Value
Identifier	<code>urn:shapes:plot-description:height-class:feature-type</code>
Label	Feature type
Definition	The value of <code>tern:featureType</code> <i>MUST</i> be link: 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	<code>/shapes/plot-description/height-class/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/height-class/valid.ttl</code> Invalid: <code>/shapes/plot-description/height-class/invalid.ttl</code>

3.1.1.8.2. Result value

Property	Value
Identifier	<code>urn:shapes:plot-description:height-class:result-value</code>
Label	Result value
Definition	The value of <code>rdf:value</code> <i>MUST</i> exist in the Vegetation height 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 Vegetation height class 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>1</p> <p>10</p> <p>11</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/height-class/shapes.ttl
Examples	<p>Valid: /shapes/plot-description/height-class/valid.ttl</p> <p>Invalid: /shapes/plot-description/height-class/invalid.ttl</p>

3.1.1.8.3. Simple result

Property	Value
Identifier	urn:shapes:plot-description:height-class:simple-result
Label	Simple result
Definition	The observation's <code>sosa:hasSimpleResult</code> <i>MUST</i> have a value that is the same as the value in 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/height-class/shapes.ttl

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

3.1.1.8.4. Site visit


Property	Value
Identifier	urn:shapes:plot-description:height-class:site-visit
Label	Site visit
Definition	Observations <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description 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/height-class/shapes.ttl
Examples	Valid: /shapes/plot-description/height-class/valid.ttl Invalid: /shapes/plot-description/height-class/invalid.ttl

3.1.1.8.5. Used procedure


Property	Value
Identifier	urn:shapes:plot-description:height-class:used-procedure
Label	Used procedure
Definition	The observation's sosa:usedProcedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/nrm/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/height-class/shapes.ttl

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

3.1.1.8.6. Value type

Property	Value
Identifier	urn:shapes:plot-description:height-class:value-type
Label	Value type
Definition	The result <i>MUST</i> be an instance of tern:IRI .
Comment	The value of 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/height-class/shapes.ttl
Examples	Valid: /shapes/plot-description/height-class/valid.ttl Invalid: /shapes/plot-description/height-class/invalid.ttl

3.1.1.8.7. Vocabulary

Property	Value
Identifier	urn:shapes:plot-description:height-class:vocabulary
Label	Vocabulary
Definition	The value of tern:vocabulary <i>MUST</i> match the pattern b1b05cd1-3b85-4639-a6af-799a34d88d43\$.
Comment	IRI of tern:vocabulary in sosa:hasResult <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/b1b05cd1-3b85-4639-a6af-799a34d88d43 . https://linked.data.gov.au/def/nrm/b1b05cd1-3b85-4639-a6af-799a34d88d43 is the IRI for "Vegetation height class codes".
Status	submitted 
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/height-class/shapes.ttl

Property	Value
Examples	Valid: /shapes/plot-description/height-class/valid.ttl Invalid: /shapes/plot-description/height-class/invalid.ttl
Unresolved directive in requirements-sections-by-protocols/requirements-sections-plot-description.adoc - include::../requirements-by-module/plot-description/outcrop-lithology/index.adoc[]	

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	The value of tern:featureType <i>MUST</i> be link: 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/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

Property	Value
Controlled list items	<p>The result value MUST be from the following list:</p> <p>Past burn</p> <p>Recently burnt</p> <p>Unburnt</p>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/fire-history/shapes.ttl
Examples	<p>Valid: /shapes/plot-description/fire-history/valid.ttl</p> <p>Invalid: /shapes/plot-description/fire-history/invalid.ttl</p>

3.1.1.9.3. Simple result

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

3.1.1.9.4. Site visit

Property	Value
Identifier	urn:shapes:plot-description:fire-history:site-visit
Label	Site visit
Definition	Observations <i>MUST</i> have a value for <i>tern:hasSiteVisit</i> .
Comment	Observations following the Plot Description are made in the context of a site visit.
Status	submitted ○

Property	Value
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	The observation's sosa:usedProcedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/nrm/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/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	The result <i>MUST</i> be an instance of tern:IRI .
Comment	The value of sosa:hasResult <i>MUST</i> be a tern:IRI .
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

3.1.1.9.7. 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/nrm/6e9d2f51-ce64-4c67-8391-d14a8bf96b6b . https://linked.data.gov.au/def/nrm/6e9d2f51-ce64-4c67-8391-d14a8bf96b6b is the IRI for "Fire history codes".
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. Structural formation Observation

3.1.1.10.1. Feature type

Property	Value
Identifier	urn:shapes:plot-description:structural-formation:feature-type
Label	Feature type
Definition	The value of tern:featureType <i>MUST</i> be link: 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

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

3.1.1.10.2. Result value

Property	Value
Identifier	urn:shapes:plot-description:structural-formation:result-value
Label	Result value
Definition	The value of rdf:value <i>MUST</i> exist in the Vegetation structural formation codes controlled vocabulary.
Comment	The value in sosa:hasResult <i>MUST</i> be a value in sh:in , which is the Vegetation structural formation 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>Bryophytes</p> <p>Bryophyteland</p> <p>Chenopod Shrubs</p> <p>Chenopod shrubland</p> <p>Closed bryophyteland</p> <p>Closed chenopod shrubland</p> <p>Closed fernland</p> <p>Closed forbland</p> <p>Closed forest</p> <p>Closed grassland</p> <p>Closed heathland</p> <p>Closed hummock grassland</p> <p>Closed mallee forest</p> <p>Closed mallee shrubland</p> <p>Closed rushland</p> <p>Closed samphire shrubland</p> <p>Closed sedgeland</p> <p>Closed shrubland</p> <p>Closed tussock grassland</p> <p>Fernland</p> <p>Ferns</p> <p>Forbland</p> <p>Forbs</p>

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

3.1.1.10.3. Simple result

Property	Value
Identifier	urn:shapes:plot-description:structural-formation: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/structural-formation/shapes.ttl
Examples	Valid: /shapes/plot-description/structural-formation/valid.ttl Invalid: /shapes/plot-description/structural-formation/invalid.ttl

3.1.1.10.4. Site visit

Property	Value
Identifier	urn:shapes:plot-description:structural-formation:site-visit
Label	Site visit
Definition	Observations <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description 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/structural-formation/shapes.ttl
Examples	Valid: /shapes/plot-description/structural-formation/valid.ttl Invalid: /shapes/plot-description/structural-formation/invalid.ttl

3.1.1.10.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:plot-description:structural-formation: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/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/nrm/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/structural-formation/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/structural-formation/valid.ttl</code> Invalid: <code>/shapes/plot-description/structural-formation/invalid.ttl</code>

3.1.1.10.6. Value type

Property	Value
Identifier	<code>urn:shapes:plot-description:structural-formation:value-type</code>
Label	Value type
Definition	The result <i>MUST</i> be an instance of <code>tern:IRI</code> .
Comment	The value of <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	<code>/shapes/plot-description/structural-formation/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/structural-formation/valid.ttl</code> Invalid: <code>/shapes/plot-description/structural-formation/invalid.ttl</code>

3.1.1.10.7. Vocabulary

Property	Value
Identifier	<code>urn:shapes:plot-description:structural-formation:vocabulary</code>

Property	Value
Label	Vocabulary
Definition	The value of <code>tern:vocabulary</code> <i>MUST</i> match the pattern <code>6e9baf51-566e-4a5d-93c4-a6e097dc364d\$</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/nrm/6e9baf51-566e-4a5d-93c4-a6e097dc364d . https://linked.data.gov.au/def/nrm/6e9baf51-566e-4a5d-93c4-a6e097dc364d is the IRI for "Vegetation structural formation codes".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/structural-formation/shapes.ttl
Examples	Valid: /shapes/plot-description/structural-formation/valid.ttl Invalid: /shapes/plot-description/structural-formation/invalid.ttl

3.1.1.11. Growth form Observation

3.1.1.11.1. Feature type

Property	Value
Identifier	<code>urn:shapes:plot-description:growth-form:feature-type</code>
Label	Feature type
Definition	The value of <code>tern:featureType</code> <i>MUST</i> be link: <code>plant individual</code> .
Comment	TERN's ecologists have determined the feature type is <i>plant individual</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

3.1.1.11.2. Result value

Property	Value
Identifier	<code>urn:shapes:plot-description:growth-form:result-value</code>

Property	Value
Label	Result value
Definition	The value of <code>rdf:value</code> <i>MUST</i> exist in the Growth form 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 Growth form 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>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>Lichen</p> <p>NC</p> <p>Other Grass</p> <p>Palm</p> <p>Rush</p> <p>Samphire Shrub</p> <p>Seagrass</p> <p>Sedge</p> <p>Shrub</p> <p>Shrub Mallee</p> <p>Tree</p> <p>Tree Mallee</p>

Property	Value
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

3.1.1.11.3. Simple result

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

3.1.1.11.4. Site visit

Property	Value
Identifier	urn:shapes:plot-description:growth-form:site-visit
Label	Site visit
Definition	Observations <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description 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

3.1.1.11.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:plot-description:growth-form: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/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/nrm/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/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>

3.1.1.11.6. Value type

Property	Value
Identifier	<code>urn:shapes:plot-description:growth-form:value-type</code>
Label	Value type
Definition	The result <i>MUST</i> be an instance of <code>tern:IRI</code> .
Comment	The value of <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	<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>

3.1.1.11.7. Vocabulary

Property	Value
Identifier	<code>urn:shapes:plot-description:growth-form:vocabulary</code>

Property	Value
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/nrm/d0fc07a7-3ec9-45ed-8850-885a32828d3c . https://linked.data.gov.au/def/nrm/d0fc07a7-3ec9-45ed-8850-885a32828d3c is the IRI for "Growth form codes".
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

3.1.1.12. Aspect Observation

3.1.1.12.1. 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 link: <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 ○
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

3.1.1.12.2. Simple result

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

Property	Value
Label	Simple result
Definition	The observation's <code>sosa:hasSimpleResult</code> <i>MUST</i> have a value that is the same as the value in 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/aspect/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/aspect/valid.ttl</code> Invalid: <code>/shapes/plot-description/aspect/invalid.ttl</code>

3.1.1.12.3. Site visit

Property	Value
Identifier	<code>urn:shapes:plot-description:aspect:site-visit</code>
Label	Site visit
Definition	Observations <i>MUST</i> have a value for <code>tern:hasSiteVisit</code> .
Comment	Observations following the Plot Description 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/aspect/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/aspect/valid.ttl</code> Invalid: <code>/shapes/plot-description/aspect/invalid.ttl</code>

3.1.1.12.4. Unit of measure

Property	Value
Identifier	<code>urn:shapes:plot-description:aspect: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 ○

Property	Value
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

3.1.1.12.5. 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/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/nrm/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

3.1.1.12.6. 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.
Status	submitted ○
Conformance Classes	TBA

Property	Value
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

3.1.1.12.7. 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

Unresolved directive in requirements-sections-by-protocols/requirements-sections-plot-description.adoc - include::../requirements-by-module/plot-description/second-most-dominant-species/index.adoc[]

Unresolved directive in requirements-sections-by-protocols/requirements-sections-plot-description.adoc - include::../requirements-by-module/plot-description/slope-type/index.adoc[]

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	The value of tern:featureType <i>MUST</i> be link: 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 ○

Property	Value
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	urn:shapes:plot-description:surface-strew-lithology:result-value
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> <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/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	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/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	Observations <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Plot Description 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
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	<code>urn:shapes:plot-description:surface-strew-lithology: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/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/nrm/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/surface-strew-lithology/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/surface-strew-lithology/valid.ttl</code> Invalid: <code>/shapes/plot-description/surface-strew-lithology/invalid.ttl</code>

3.1.1.13.6. Value type

Property	Value
Identifier	<code>urn:shapes:plot-description:surface-strew-lithology:value-type</code>
Label	Value type
Definition	The result <i>MUST</i> be an instance of <code>tern:IRI</code> .
Comment	The value of <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	<code>/shapes/plot-description/surface-strew-lithology/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/surface-strew-lithology/valid.ttl</code> Invalid: <code>/shapes/plot-description/surface-strew-lithology/invalid.ttl</code>

3.1.1.13.7. Vocabulary

Property	Value
Identifier	<code>urn:shapes:plot-description:surface-strew-lithology:vocabulary</code>

Property	Value
Label	Vocabulary
Definition	The value of <code>tern:vocabulary</code> <i>MUST</i> match the pattern <code>1d50eb79-685f-45ea-84b4-627154eddede\$</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/nrm/1d50eb79-685f-45ea-84b4-627154eddede . https://linked.data.gov.au/def/nrm/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/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	<code>urn:shapes:plot-description:slope:feature-type</code>
Label	Feature type
Definition	The value of <code>tern:featureType</code> <i>MUST</i> be link: <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 ○
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

3.1.1.14.2. Simple result

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

Property	Value
Label	Simple result
Definition	The observation's <code>sosa:hasSimpleResult</code> <i>MUST</i> have a value that is the same as the value in 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/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/slope/valid.ttl</code> Invalid: <code>/shapes/plot-description/slope/invalid.ttl</code>

3.1.1.14.3. Site visit

Property	Value
Identifier	<code>urn:shapes:plot-description:slope:site-visit</code>
Label	Site visit
Definition	Observations <i>MUST</i> have a value for <code>tern:hasSiteVisit</code> .
Comment	Observations following the Plot Description 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/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/slope/valid.ttl</code> Invalid: <code>/shapes/plot-description/slope/invalid.ttl</code>

3.1.1.14.4. 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 ○

Property	Value
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

3.1.1.14.5. Used procedure

Property	Value
Identifier	urn:shapes:plot-description:slope:used-procedure
Label	Used procedure
Definition	The observation's sosa:usedProcedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32 . https://linked.data.gov.au/def/nrm/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/shapes.ttl
Examples	Valid: /shapes/plot-description/slope/valid.ttl Invalid: /shapes/plot-description/slope/invalid.ttl

3.1.1.14.6. Value range

Property	Value
Identifier	urn:shapes:plot-description:slope:value-range
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

Property	Value
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

3.1.1.14.7. Value type

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

3.1.2. Cover Module

This module has two sub protocols - Full protocol and Lite protocol.

3.1.3. Cover - Full protocol Conformance Class Requirements


3.1.3.1. In canopy sky Observation

3.1.3.1.1. Datatype


Property	Value
Identifier	urn:shapes:cover-full:in-canopy-sky:datatype
Label	Datatype
Definition	The value of rdf:value <i>MUST</i> have the datatype xsd:boolean .
Comment	The value in sosa:hasResult <i>MUST</i> be xsd:boolean .
Status	submitted ○
Conformance Classes	TBA

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-full/in-canopy-sky/shapes.ttl
Examples	Valid: /shapes/cover/cover-full/in-canopy-sky/valid.ttl Invalid: /shapes/cover/cover-full/in-canopy-sky/invalid.ttl

3.1.3.1.2. Feature type

Property	Value
Identifier	urn:shapes:cover-full:in-canopy-sky:feature-type
Label	Feature type
Definition	The value of tern:featureType <i>MUST</i> be link: plant individual .
Comment	TERN's ecologists have determined the feature type is <i>plant individual</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/cover/cover-full/in-canopy-sky/shapes.ttl
Examples	Valid: /shapes/cover/cover-full/in-canopy-sky/valid.ttl Invalid: /shapes/cover/cover-full/in-canopy-sky/invalid.ttl

3.1.3.1.3. Simple result

Property	Value
Identifier	urn:shapes:cover-full:in-canopy-sky: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/cover/cover-full/in-canopy-sky/shapes.ttl

Property	Value
Examples	Valid: /shapes/cover/cover-full/in-canopy-sky/valid.ttl Invalid: /shapes/cover/cover-full/in-canopy-sky/invalid.ttl

3.1.3.1.4. Site visit

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

3.1.3.1.5. Used procedure

Property	Value
Identifier	urn:shapes:cover-full:in-canopy-sky:used-procedure
Label	Used procedure
Definition	The observation's sosa:usedProcedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/576f634e-2706-4f18-b561-0636d4c007d0 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/576f634e-2706-4f18-b561-0636d4c007d0 . https://linked.data.gov.au/def/nrm/576f634e-2706-4f18-b561-0636d4c007d0 is the IRI for "Cover - Full protocol".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-full/in-canopy-sky/shapes.ttl

Property	Value
Examples	Valid: /shapes/cover/cover-full/in-canopy-sky/valid.ttl Invalid: /shapes/cover/cover-full/in-canopy-sky/invalid.ttl

3.1.3.1.6. Value type


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

3.1.3.2. Substrate type Observation

3.1.3.2.1. Feature type

Property	Value
Identifier	urn:shapes:cover-full:substrate-type:feature-type
Label	Feature type
Definition	The value of tern:featureType <i>MUST</i> be link: land surface substrate .
Comment	TERN's ecologists have determined the feature type is <i>land surface substrate</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/cover/cover-full/substrate-type/shapes.ttl
Examples	Valid: /shapes/cover/cover-full/substrate-type/valid.ttl Invalid: /shapes/cover/cover-full/substrate-type/invalid.ttl

3.1.3.2.2. Result value

Property	Value
Identifier	<code>urn:shapes:cover-full:substrate-type:result-value</code>
Label	Result value
Definition	The value of <code>rdf:value</code> <i>MUST</i> exist in the Soil substrate 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 substrate 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> <ul style="list-style-type: none"> Bare Black ash Coarse Woody Debris Crypto Gravel Lichen on outcrop Lichen on rock Litter Not Collected Other Outcrop Rock Unknown Water White ash

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-full/substrate-type/shapes.ttl
Examples	Valid: /shapes/cover/cover-full/substrate-type/valid.ttl Invalid: /shapes/cover/cover-full/substrate-type/invalid.ttl

3.1.3.2.3. Simple result

Property	Value
Identifier	urn:shapes:cover-full:substrate-type: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/cover/cover-full/substrate-type/shapes.ttl
Examples	Valid: /shapes/cover/cover-full/substrate-type/valid.ttl Invalid: /shapes/cover/cover-full/substrate-type/invalid.ttl

3.1.3.2.4. Site visit

Property	Value
Identifier	urn:shapes:cover-full:substrate-type:site-visit
Label	Site visit
Definition	Observations <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Cover - Full protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-full/substrate-type/shapes.ttl

Property	Value
Examples	Valid: /shapes/cover/cover-full/substrate-type/valid.ttl Invalid: /shapes/cover/cover-full/substrate-type/invalid.ttl

3.1.3.2.5. Used procedure

Property	Value
Identifier	urn:shapes:cover-full:substrate-type:used-procedure
Label	Used procedure
Definition	The observation's sosa:usedProcedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/576f634e-2706-4f18-b561-0636d4c007d0 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/576f634e-2706-4f18-b561-0636d4c007d0 . https://linked.data.gov.au/def/nrm/576f634e-2706-4f18-b561-0636d4c007d0 is the IRI for "Cover - Full protocol".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-full/substrate-type/shapes.ttl
Examples	Valid: /shapes/cover/cover-full/substrate-type/valid.ttl Invalid: /shapes/cover/cover-full/substrate-type/invalid.ttl

3.1.3.2.6. Value type

Property	Value
Identifier	urn:shapes:cover-full:substrate-type:value-type
Label	Value type
Definition	The result <i>MUST</i> be an instance of tern:IRI .
Comment	The value of sosa:hasResult <i>MUST</i> be a tern:IRI .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-full/substrate-type/shapes.ttl

Property	Value
Examples	Valid: <code>/shapes/cover/cover-full/substrate-type/valid.ttl</code> Invalid: <code>/shapes/cover/cover-full/substrate-type/invalid.ttl</code>

3.1.3.2.7. Vocabulary

Property	Value
Identifier	<code>urn:shapes:cover-full:substrate-type:vocabulary</code>
Label	Vocabulary
Definition	The value of <code>tern:vocabulary</code> <i>MUST</i> match the pattern <code>b061d7db-a608-4062-96d4-b367d6d9a792\$</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/nrm/b061d7db-a608-4062-96d4-b367d6d9a792 . https://linked.data.gov.au/def/nrm/b061d7db-a608-4062-96d4-b367d6d9a792 is the IRI for "Soil substrate codes".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/cover/cover-full/substrate-type/shapes.ttl</code>
Examples	Valid: <code>/shapes/cover/cover-full/substrate-type/valid.ttl</code> Invalid: <code>/shapes/cover/cover-full/substrate-type/invalid.ttl</code>

3.1.3.3. Uppermost height Observation

3.1.3.3.1. Feature type

Property	Value
Identifier	<code>urn:shapes:cover-full:uppermost-height:feature-type</code>
Label	Feature type
Definition	The value of <code>tern:featureType</code> <i>MUST</i> be link: <code>plant occurrence</code> .
Comment	TERN's ecologists have determined the feature type is <i>plant occurrence</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/cover/cover-full/uppermost-height/shapes.ttl</code>

Property	Value
Examples	Valid: /shapes/cover/cover-full/uppermost-height/valid.ttl Invalid: /shapes/cover/cover-full/uppermost-height/invalid.ttl

3.1.3.3.2. Simple result

Property	Value
Identifier	urn:shapes:cover-full:uppermost-height: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/cover/cover-full/uppermost-height/shapes.ttl
Examples	Valid: /shapes/cover/cover-full/uppermost-height/valid.ttl Invalid: /shapes/cover/cover-full/uppermost-height/invalid.ttl

3.1.3.3.3. Site visit

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

3.1.3.3.4. Unit of measure

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

3.1.3.3.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:cover-full:uppermost-height: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/nrm/576f634e-2706-4f18-b561-0636d4c007d0 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/576f634e-2706-4f18-b561-0636d4c007d0 . https://linked.data.gov.au/def/nrm/576f634e-2706-4f18-b561-0636d4c007d0 is the IRI for "Cover - Full protocol".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/cover/cover-full/uppermost-height/shapes.ttl</code>
Examples	Valid: <code>/shapes/cover/cover-full/uppermost-height/valid.ttl</code> Invalid: <code>/shapes/cover/cover-full/uppermost-height/invalid.ttl</code>

3.1.3.3.6. Value range

Property	Value
Identifier	<code>urn:shapes:cover-full:uppermost-height:value-range</code>

Property	Value
Label	Value range
Definition	The result <i>MUST</i> at least be 1.5 m.
Comment	Value <i>MUST</i> be at least 1.5 m.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-full/uppermost-height/shapes.ttl
Examples	Valid: /shapes/cover/cover-full/uppermost-height/valid.ttl Invalid: /shapes/cover/cover-full/uppermost-height/invalid.ttl

3.1.3.3.7. Value type

Property	Value
Identifier	urn:shapes:cover-full:uppermost-height: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/cover/cover-full/uppermost-height/shapes.ttl
Examples	Valid: /shapes/cover/cover-full/uppermost-height/valid.ttl Invalid: /shapes/cover/cover-full/uppermost-height/invalid.ttl

3.1.3.4. Growth form Observation

3.1.3.4.1. Feature type

Property	Value
Identifier	urn:shapes:cover-full:growth-form:feature-type
Label	Feature type
Definition	The value of tern:featureType <i>MUST</i> be link: plant individual.
Comment	TERN's ecologists have determined the feature type is <i>plant individual</i> , defined by the Australian Soil and Land Survey Field Handbook .

Property	Value
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-full/growth-form/shapes.ttl
Examples	Valid: /shapes/cover/cover-full/growth-form/valid.ttl Invalid: /shapes/cover/cover-full/growth-form/invalid.ttl

3.1.3.4.2. Result value

Property	Value
Identifier	urn:shapes:cover-full:growth-form:result-value
Label	Result value
Definition	The value of rdf:value <i>MUST</i> exist in the Growth form codes controlled vocabulary.
Comment	The value in sosa:hasResult <i>MUST</i> be a value in sh:in , which is the Growth form 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"> Aquatic Bryophyte Chenopod Cycad Epiphyte Fern Forb Fungus Grass-tree Heath-shrub Hummock grass Lichen NC Other Grass Palm Rush Samphire Shrub Seagrass Sedge Shrub Shrub Mallee Tree Tree Mallee

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-full/growth-form/shapes.ttl
Examples	Valid: /shapes/cover/cover-full/growth-form/valid.ttl Invalid: /shapes/cover/cover-full/growth-form/invalid.ttl

3.1.3.4.3. Simple result

Property	Value
Identifier	urn:shapes:cover-full:growth-form: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/cover/cover-full/growth-form/shapes.ttl
Examples	Valid: /shapes/cover/cover-full/growth-form/valid.ttl Invalid: /shapes/cover/cover-full/growth-form/invalid.ttl

3.1.3.4.4. Site visit

Property	Value
Identifier	urn:shapes:cover-full:growth-form:site-visit
Label	Site visit
Definition	Observations <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Cover - Full protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-full/growth-form/shapes.ttl

Property	Value
Examples	Valid: /shapes/cover/cover-full/growth-form/valid.ttl Invalid: /shapes/cover/cover-full/growth-form/invalid.ttl

3.1.3.4.5. Used procedure

Property	Value
Identifier	urn:shapes:cover-full:growth-form:used-procedure
Label	Used procedure
Definition	The observation's sosa:usedProcedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/576f634e-2706-4f18-b561-0636d4c007d0 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/576f634e-2706-4f18-b561-0636d4c007d0 . https://linked.data.gov.au/def/nrm/576f634e-2706-4f18-b561-0636d4c007d0 is the IRI for "Cover - Full protocol".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-full/growth-form/shapes.ttl
Examples	Valid: /shapes/cover/cover-full/growth-form/valid.ttl Invalid: /shapes/cover/cover-full/growth-form/invalid.ttl

3.1.3.4.6. Value type

Property	Value
Identifier	urn:shapes:cover-full:growth-form:value-type
Label	Value type
Definition	The result <i>MUST</i> be an instance of tern:IRI .
Comment	The value of sosa:hasResult <i>MUST</i> be a tern:IRI .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-full/growth-form/shapes.ttl

Property	Value
Examples	Valid: <code>/shapes/cover/cover-full/growth-form/valid.ttl</code> Invalid: <code>/shapes/cover/cover-full/growth-form/invalid.ttl</code>

3.1.3.4.7. Vocabulary

Property	Value
Identifier	<code>urn:shapes:cover-full: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/nrm/d0fc07a7-3ec9-45ed-8850-885a32828d3c . https://linked.data.gov.au/def/nrm/d0fc07a7-3ec9-45ed-8850-885a32828d3c is the IRI for "Growth form codes".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/cover/cover-full/growth-form/shapes.ttl</code>
Examples	Valid: <code>/shapes/cover/cover-full/growth-form/valid.ttl</code> Invalid: <code>/shapes/cover/cover-full/growth-form/invalid.ttl</code>

3.1.3.5. Field species name Observation

3.1.3.5.1. Datatype

Property	Value
Identifier	<code>urn:shapes:cover-full:field-species-name:datatype</code>
Label	Datatype
Definition	The value of <code>rdf:value</code> <i>MUST</i> have the datatype <code>xsd:string</code> .
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be <code>xsd:string</code> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/cover/cover-full/field-species-name/shapes.ttl</code>

Property	Value
Examples	Valid: <code>/shapes/cover/cover-full/field-species-name/valid.ttl</code> Invalid: <code>/shapes/cover/cover-full/field-species-name/invalid.ttl</code>

3.1.3.5.2. Feature type

Property	Value
Identifier	<code>urn:shapes:cover-full:field-species-name:feature-type</code>
Label	Feature type
Definition	The value of <code>tern:featureType</code> <i>MUST</i> be link: <code>plant occurrence</code> .
Comment	TERN's ecologists have determined the feature type is <i>plant occurrence</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/cover/cover-full/field-species-name/shapes.ttl</code>
Examples	Valid: <code>/shapes/cover/cover-full/field-species-name/valid.ttl</code> Invalid: <code>/shapes/cover/cover-full/field-species-name/invalid.ttl</code>

3.1.3.5.3. Simple result

Property	Value
Identifier	<code>urn:shapes:cover-full:field-species-name:simple-result</code>
Label	Simple result
Definition	The observation's <code>sosa:hasSimpleResult</code> <i>MUST</i> have a value that is the same as the value in 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/cover/cover-full/field-species-name/shapes.ttl</code>
Examples	Valid: <code>/shapes/cover/cover-full/field-species-name/valid.ttl</code> Invalid: <code>/shapes/cover/cover-full/field-species-name/invalid.ttl</code>

3.1.3.5.4. Site visit

Property	Value
Identifier	<code>urn:shapes:cover-full:field-species-name:site-visit</code>
Label	Site visit
Definition	Observations <i>MUST</i> have a value for <code>tern:hasSiteVisit</code> .
Comment	Observations following the Cover - Full 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/cover/cover-full/field-species-name/shapes.ttl</code>
Examples	Valid: <code>/shapes/cover/cover-full/field-species-name/valid.ttl</code> Invalid: <code>/shapes/cover/cover-full/field-species-name/invalid.ttl</code>

3.1.3.5.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:cover-full:field-species-name: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/nrm/576f634e-2706-4f18-b561-0636d4c007d0 .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/576f634e-2706-4f18-b561-0636d4c007d0 . https://linked.data.gov.au/def/nrm/576f634e-2706-4f18-b561-0636d4c007d0 is the IRI for "Cover - Full protocol".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/cover/cover-full/field-species-name/shapes.ttl</code>
Examples	Valid: <code>/shapes/cover/cover-full/field-species-name/valid.ttl</code> Invalid: <code>/shapes/cover/cover-full/field-species-name/invalid.ttl</code>

3.1.3.5.6. Value type

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

3.1.4. Cover - Lite protocol Conformance Class Requirements

3.1.4.1. In canopy sky Observation

3.1.4.1.1. Datatype

Property	Value
Identifier	<code>urn:shapes:cover-lite:in-canopy-sky:datatype</code>
Label	Datatype
Definition	The value of <code>rdf:value</code> <i>MUST</i> have the datatype <code>xsd:boolean</code> .
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be <code>xsd:boolean</code> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/cover/cover-lite/in-canopy-sky/shapes.ttl</code>
Examples	Valid: <code>/shapes/cover/cover-lite/in-canopy-sky/valid.ttl</code> Invalid: <code>/shapes/cover/cover-lite/in-canopy-sky/invalid.ttl</code>

3.1.4.1.2. Feature type

Property	Value
Identifier	<code>urn:shapes:cover-lite:in-canopy-sky:feature-type</code>
Label	Feature type

Property	Value
Definition	The value of tern:featureType <i>MUST</i> be link: plant individual .
Comment	TERN's ecologists have determined the feature type is <i>plant individual</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/cover/cover-lite/in-canopy-sky/shapes.ttl
Examples	Valid: /shapes/cover/cover-lite/in-canopy-sky/valid.ttl Invalid: /shapes/cover/cover-lite/in-canopy-sky/invalid.ttl

3.1.4.1.3. Simple result

Property	Value
Identifier	urn:shapes:cover-lite:in-canopy-sky: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/cover/cover-lite/in-canopy-sky/shapes.ttl
Examples	Valid: /shapes/cover/cover-lite/in-canopy-sky/valid.ttl Invalid: /shapes/cover/cover-lite/in-canopy-sky/invalid.ttl

3.1.4.1.4. Site visit

Property	Value
Identifier	urn:shapes:cover-lite:in-canopy-sky:site-visit
Label	Site visit
Definition	Observations <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Cover - Lite protocol are made in the context of a site visit.
Status	submitted ○

Property	Value
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-lite/in-canopy-sky/shapes.ttl
Examples	Valid: /shapes/cover/cover-lite/in-canopy-sky/valid.ttl Invalid: /shapes/cover/cover-lite/in-canopy-sky/invalid.ttl

3.1.4.1.5. Used procedure

Property	Value
Identifier	urn:shapes:cover-lite:in-canopy-sky:used-procedure
Label	Used procedure
Definition	The observation's sosa:usedProcedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/aa1525f9-c3f2-4f7d-98cc-6a7d3aec9d8a .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/aa1525f9-c3f2-4f7d-98cc-6a7d3aec9d8a . https://linked.data.gov.au/def/nrm/aa1525f9-c3f2-4f7d-98cc-6a7d3aec9d8a is the IRI for "Cover - Lite protocol".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-lite/in-canopy-sky/shapes.ttl
Examples	Valid: /shapes/cover/cover-lite/in-canopy-sky/valid.ttl Invalid: /shapes/cover/cover-lite/in-canopy-sky/invalid.ttl


3.1.4.1.6. Value type

Property	Value
Identifier	urn:shapes:cover-lite:in-canopy-sky:value-type
Label	Value type
Definition	The result <i>MUST</i> be an instance of tern:Boolean .
Comment	The value of sosa:hasResult <i>MUST</i> be a tern:Boolean .
Status	submitted ○
Conformance Classes	TBA


Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-lite/in-canopy-sky/shapes.ttl
Examples	Valid: /shapes/cover/cover-lite/in-canopy-sky/valid.ttl Invalid: /shapes/cover/cover-lite/in-canopy-sky/invalid.ttl

3.1.4.2. Substrate type Observation

3.1.4.2.1. Feature type

Property	Value
Identifier	urn:shapes:cover-lite:substrate-type:feature-type
Label	Feature type
Definition	The value of tern:featureType <i>MUST</i> be link: land surface substrate .
Comment	TERN's ecologists have determined the feature type is <i>land surface substrate</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/cover/cover-lite/substrate-type/shapes.ttl
Examples	Valid: /shapes/cover/cover-lite/substrate-type/valid.ttl Invalid: /shapes/cover/cover-lite/substrate-type/invalid.ttl

3.1.4.2.2. Result value

Property	Value
Identifier	urn:shapes:cover-lite:substrate-type:result-value
Label	Result value
Definition	The value of rdf:value <i>MUST</i> exist in the Soil substrate codes controlled vocabulary.
Comment	The value in sosa:hasResult <i>MUST</i> be a value in sh:in , which is the Soil substrate 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"> Bare Black ash Coarse Woody Debris Crypto Gravel Lichen on outcrop Lichen on rock Litter Not Collected Other Outcrop Rock Unknown Water White ash
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-lite/substrate-type/shapes.ttl
Examples	<p>Valid: /shapes/cover/cover-lite/substrate-type/valid.ttl</p> <p>Invalid: /shapes/cover/cover-lite/substrate-type/invalid.ttl</p>

3.1.4.2.3. Simple result

Property	Value
Identifier	urn:shapes:cover-lite:substrate-type: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 .

Property	Value
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/cover/cover-lite/substrate-type/shapes.ttl
Examples	Valid: /shapes/cover/cover-lite/substrate-type/valid.ttl Invalid: /shapes/cover/cover-lite/substrate-type/invalid.ttl

3.1.4.2.4. Site visit

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

3.1.4.2.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:cover-lite:substrate-type: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/nrm/aa1525f9-c3f2-4f7d-98cc-6a7d3aec9d8a .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/aa1525f9-c3f2-4f7d-98cc-6a7d3aec9d8a . https://linked.data.gov.au/def/nrm/aa1525f9-c3f2-4f7d-98cc-6a7d3aec9d8a is the IRI for "Cover - Lite protocol".

Property	Value
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-lite/substrate-type/shapes.ttl
Examples	Valid: /shapes/cover/cover-lite/substrate-type/valid.ttl Invalid: /shapes/cover/cover-lite/substrate-type/invalid.ttl

3.1.4.2.6. Value type

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

3.1.4.2.7. Vocabulary

Property	Value
Identifier	urn:shapes:cover-lite:substrate-type:vocabulary
Label	Vocabulary
Definition	The value of tern:vocabulary <i>MUST</i> match the pattern b061d7db-a608-4062-96d4-b367d6d9a792\$.
Comment	IRI of tern:vocabulary in sosa:hasResult <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/b061d7db-a608-4062-96d4-b367d6d9a792 . https://linked.data.gov.au/def/nrm/b061d7db-a608-4062-96d4-b367d6d9a792 is the IRI for "Soil substrate codes".
Status	submitted ○

Property	Value
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-lite/substrate-type/shapes.ttl
Examples	Valid: /shapes/cover/cover-lite/substrate-type/valid.ttl Invalid: /shapes/cover/cover-lite/substrate-type/invalid.ttl

3.1.4.3. Uppermost height Observation

3.1.4.3.1. Feature type

Property	Value
Identifier	urn:shapes:cover-lite:uppermost-height:feature-type
Label	Feature type
Definition	The value of tern:featureType <i>MUST</i> be link: plant occurrence .
Comment	TERN's ecologists have determined the feature type is <i>plant occurrence</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/cover/cover-lite/uppermost-height/shapes.ttl
Examples	Valid: /shapes/cover/cover-lite/uppermost-height/valid.ttl Invalid: /shapes/cover/cover-lite/uppermost-height/invalid.ttl

3.1.4.3.2. Simple result

Property	Value
Identifier	urn:shapes:cover-lite:uppermost-height: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

Property	Value
Validators	/shapes/cover/cover-lite/uppermost-height/shapes.ttl
Examples	Valid: /shapes/cover/cover-lite/uppermost-height/valid.ttl Invalid: /shapes/cover/cover-lite/uppermost-height/invalid.ttl

3.1.4.3.3. Site visit

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

3.1.4.3.4. Unit of measure

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

3.1.4.3.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:cover-lite:uppermost-height: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/nrm/aa1525f9-c3f2-4f7d-98cc-6a7d3aec9d8a .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/aa1525f9-c3f2-4f7d-98cc-6a7d3aec9d8a . https://linked.data.gov.au/def/nrm/aa1525f9-c3f2-4f7d-98cc-6a7d3aec9d8a is the IRI for "Cover - Lite protocol".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/cover/cover-lite/uppermost-height/shapes.ttl</code>
Examples	Valid: <code>/shapes/cover/cover-lite/uppermost-height/valid.ttl</code> Invalid: <code>/shapes/cover/cover-lite/uppermost-height/invalid.ttl</code>

3.1.4.3.6. Value range

Property	Value
Identifier	<code>urn:shapes:cover-lite:uppermost-height:value-range</code>
Label	Value range
Definition	The result <i>MUST</i> have a value be at least 1.5 m.
Comment	Value <i>MUST</i> be at least 1.5 m.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/cover/cover-lite/uppermost-height/shapes.ttl</code>
Examples	Valid: <code>/shapes/cover/cover-lite/uppermost-height/valid.ttl</code> Invalid: <code>/shapes/cover/cover-lite/uppermost-height/invalid.ttl</code>

3.1.4.3.7. Value type

Property	Value
Identifier	<code>urn:shapes:cover-lite:uppermost-height:value-type</code>

Property	Value
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/cover/cover-lite/uppermost-height/shapes.ttl
Examples	Valid: /shapes/cover/cover-lite/uppermost-height/valid.ttl Invalid: /shapes/cover/cover-lite/uppermost-height/invalid.ttl

3.1.4.4. Growth form Observation

3.1.4.4.1. Feature type

Property	Value
Identifier	urn:shapes:cover-lite:growth-form:feature-type
Label	Feature type
Definition	The value of tern:featureType <i>MUST</i> be link: plant individual .
Comment	TERN's ecologists have determined the feature type is <i>plant individual</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/cover/cover-lite/growth-form/shapes.ttl
Examples	Valid: /shapes/cover/cover-lite/growth-form/valid.ttl Invalid: /shapes/cover/cover-lite/growth-form/invalid.ttl

3.1.4.4.2. Result value

Property	Value
Identifier	urn:shapes:cover-lite:growth-form:result-value
Label	Result value
Definition	The value of rdf:value <i>MUST</i> exist in the Growth form codes controlled vocabulary.

Property	Value
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be a value in <code>sh:in</code> , which is the Growth form codes controlled vocabulary.
Status	submitted <input type="radio"/>
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"> Aquatic Bryophyte Chenopod Cycad Epiphyte Fern Forb Fungus Grass-tree Heath-shrub Hummock grass Lichen NC Other Grass Palm Rush Samphire Shrub Seagrass Sedge Shrub Shrub Mallee Tree Tree Mallee

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-lite/growth-form/shapes.ttl
Examples	Valid: /shapes/cover/cover-lite/growth-form/valid.ttl Invalid: /shapes/cover/cover-lite/growth-form/invalid.ttl

3.1.4.4.3. Simple result

Property	Value
Identifier	urn:shapes:cover-lite:growth-form: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/cover/cover-lite/growth-form/shapes.ttl
Examples	Valid: /shapes/cover/cover-lite/growth-form/valid.ttl Invalid: /shapes/cover/cover-lite/growth-form/invalid.ttl

3.1.4.4.4. Site visit

Property	Value
Identifier	urn:shapes:cover-lite:growth-form:site-visit
Label	Site visit
Definition	Observations <i>MUST</i> have a value for tern:hasSiteVisit .
Comment	Observations following the Cover - Lite protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-lite/growth-form/shapes.ttl

Property	Value
Examples	Valid: /shapes/cover/cover-lite/growth-form/valid.ttl Invalid: /shapes/cover/cover-lite/growth-form/invalid.ttl

3.1.4.4.5. Used procedure

Property	Value
Identifier	urn:shapes:cover-lite:growth-form:used-procedure
Label	Used procedure
Definition	The observation's sosa:usedProcedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/aa1525f9-c3f2-4f7d-98cc-6a7d3aec9d8a .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/aa1525f9-c3f2-4f7d-98cc-6a7d3aec9d8a . https://linked.data.gov.au/def/nrm/aa1525f9-c3f2-4f7d-98cc-6a7d3aec9d8a is the IRI for "Cover - Lite protocol".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-lite/growth-form/shapes.ttl
Examples	Valid: /shapes/cover/cover-lite/growth-form/valid.ttl Invalid: /shapes/cover/cover-lite/growth-form/invalid.ttl

3.1.4.4.6. Value type

Property	Value
Identifier	urn:shapes:cover-lite:growth-form:value-type
Label	Value type
Definition	The result <i>MUST</i> be an instance of tern:IRI .
Comment	The value of sosa:hasResult <i>MUST</i> be a tern:IRI .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/cover/cover-lite/growth-form/shapes.ttl

Property	Value
Examples	Valid: <code>/shapes/cover/cover-lite/growth-form/valid.ttl</code> Invalid: <code>/shapes/cover/cover-lite/growth-form/invalid.ttl</code>

3.1.4.4.7. Vocabulary

Property	Value
Identifier	<code>urn:shapes:cover-lite: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/nrm/d0fc07a7-3ec9-45ed-8850-885a32828d3c . https://linked.data.gov.au/def/nrm/d0fc07a7-3ec9-45ed-8850-885a32828d3c is the IRI for "Growth form codes".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/cover/cover-lite/growth-form/shapes.ttl</code>
Examples	Valid: <code>/shapes/cover/cover-lite/growth-form/valid.ttl</code> Invalid: <code>/shapes/cover/cover-lite/growth-form/invalid.ttl</code>

3.1.4.5. Field species name Observation

3.1.4.5.1. Datatype

Property	Value
Identifier	<code>urn:shapes:cover-lite:field-species-name:datatype</code>
Label	Datatype
Definition	The value of <code>rdf:value</code> <i>MUST</i> have the datatype <code>xsd:string</code> .
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be <code>xsd:string</code> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/cover/cover-lite/field-species-name/shapes.ttl</code>

Property	Value
Examples	Valid: <code>/shapes/cover/cover-lite/field-species-name/valid.ttl</code> Invalid: <code>/shapes/cover/cover-lite/field-species-name/invalid.ttl</code>

3.1.4.5.2. Feature type

Property	Value
Identifier	<code>urn:shapes:cover-lite:field-species-name:feature-type</code>
Label	Feature type
Definition	The value of <code>tern:featureType</code> <i>MUST</i> be link: <code>plant occurrence</code> .
Comment	TERN's ecologists have determined the feature type is <i>plant occurrence</i> , defined by the Australian Soil and Land Survey Field Handbook .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/cover/cover-lite/field-species-name/shapes.ttl</code>
Examples	Valid: <code>/shapes/cover/cover-lite/field-species-name/valid.ttl</code> Invalid: <code>/shapes/cover/cover-lite/field-species-name/invalid.ttl</code>

3.1.4.5.3. Simple result

Property	Value
Identifier	<code>urn:shapes:cover-lite:field-species-name:simple-result</code>
Label	Simple result
Definition	The observation's <code>sosa:hasSimpleResult</code> <i>MUST</i> have a value that is the same as the value in 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/cover/cover-lite/field-species-name/shapes.ttl</code>
Examples	Valid: <code>/shapes/cover/cover-lite/field-species-name/valid.ttl</code> Invalid: <code>/shapes/cover/cover-lite/field-species-name/invalid.ttl</code>

3.1.4.5.4. Site visit

Property	Value
Identifier	<code>urn:shapes:cover-lite:field-species-name:site-visit</code>
Label	Site visit
Definition	Observations <i>MUST</i> have a value for <code>tern:hasSiteVisit</code> .
Comment	Observations following the Cover - Lite 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/cover/cover-lite/field-species-name/shapes.ttl</code>
Examples	Valid: <code>/shapes/cover/cover-lite/field-species-name/valid.ttl</code> Invalid: <code>/shapes/cover/cover-lite/field-species-name/invalid.ttl</code>

3.1.4.5.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:cover-lite:field-species-name: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/nrm/aa1525f9-c3f2-4f7d-98cc-6a7d3aec9d8a .
Comment	IRI of procedure <i>MUST</i> have the value https://linked.data.gov.au/def/nrm/aa1525f9-c3f2-4f7d-98cc-6a7d3aec9d8a . https://linked.data.gov.au/def/nrm/aa1525f9-c3f2-4f7d-98cc-6a7d3aec9d8a is the IRI for "Cover - Lite protocol".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/cover/cover-lite/field-species-name/shapes.ttl</code>
Examples	Valid: <code>/shapes/cover/cover-lite/field-species-name/valid.ttl</code> Invalid: <code>/shapes/cover/cover-lite/field-species-name/invalid.ttl</code>

3.1.4.5.6. Value type

Property	Value
Identifier	<code>urn:shapes:cover-lite:field-species-name:value-type</code>
Label	Value type
Definition	The result <i>MUST</i> be an instance of <code>tern:Text</code> .
Comment	The value of <code>sosa:hasResult</code> <i>MUST</i> be a <code>tern:Text</code> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/cover/cover-lite/field-species-name/shapes.ttl</code>
Examples	Valid: <code>/shapes/cover/cover-lite/field-species-name/valid.ttl</code> Invalid: <code>/shapes/cover/cover-lite/field-species-name/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/nrm/>. These IRIs must be replaced once the authoritative IRI is known.